

PRESIDENT'S REPORT

David Brown

Hello to all,

I hope this finds every one well and prepared for Hurricane season. It can't be as bad as the past couple of years, can it?

The planned shuttle launch for July is still on, lets hope it happens.

An interesting mission update is that of China. They are getting ready to launch a lunar probe next year.

On July 2nd, about 45 minutes after sunset look for Mercury, Saturn and Mars low in the west.

Has anyone seen the 2nd Red Spot now swirling on Jupiter? It follows the Great Red Spot by about one hour of Jupiter's rotation.

July 20th the Moon will occult The Pleiades early in the morning to the east.

Cassini has discovered a giant storm in Saturn's atmosphere.

Summer is here and it is a great time for you globular cluster fans. No less than 20 will appear in Sagittarius, Scorpius and Ophiuchus for your viewing pleasure. Break out your scopes and star charts and go glob hunting.

Clear Skies, David

The **Moon's Sea of Clouds** was struck by a meteoroid on May 2, 2006, with the power of about 4 tons of TNT. If you have not seen this short video, check it out! The meteoroid that struck was about 10 inches and created a crater that is 46 feet wide and 10 feet deep (14 meters wide by 3 meters deep).

Mr. Bill Cooke, the head of NASA's Meteoroid Environment Office in Huntsville, AL, said, "If a rock like that hit Earth, it would never reach the ground. "Earth's atmosphere protects us," Cooke explains. "A 10-inch meteoroid would disintegrate in mid-air, making a spectacular fireball in the sky but no crater." The Moon is different. Having no atmosphere, it is totally exposed to meteoroids. Even small ones can cause spectacular explosions, spraying debris far and wide.

<http://www.spaceweather3.com/swpod2006/14jun06/movie760.gif>

Barnes and Noble are offering their *Backyard Astronomy: Skywatching Basics* online course again and it is free. The new session begins July 10, 2006. I have taken this class a few times and get more from it each time. The class discussion can be enlightening and lively and Ken Hewitt-White is a wonderful instructor.

The following description, objective and course materials are taken from the web site:

<http://educate.barnesandnoble.com/educate/bn/home/catalog/overview.jsp?productId=19939&z=y&bnit=H&bnrefer=0-10000-19939-5000000&nhid=bn>

Description

When is the last time you gazed up at the sky on a clear night? Was that the Big Dipper standing on its handle? What was the bright planet low in the west? It's easy to get hooked on stargazing and fall in love with

the grandeur of deep space. You'd like to know more about star clusters, nebulous clouds of gas, and the distances to galaxies. You marvel at all those stars blazing in the Milky Way. Come to think of it, why is the sky dark at night? The question is not as simple as it seems.

This course will answer all these questions. Whether you live under the glare of city lights or in the countryside, this informal, activity-oriented course will guide you on a fascinating voyage of discovery through the constellations and beyond. All you need is your star chart, a keen eye, and a curious imagination. Buckle up and enjoy the ride; your impression of the cosmos will never be the same again.

Objectives

After successfully completing this course, you will be able to:

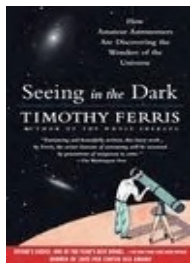
- Use and define basic celestial terminology.
- Understand sky motions and seasonal changes in the heavens.
- Read star charts and apply them to the current night sky.
- Identify the key constellations of each season.
- Recognize the onset of the northern lights and identify their features.
- Know the best way to observe meteor showers.
- Spot the main craters and mountains on the Moon.
- Track the five naked eye planets in the zodiac.
- Locate star clusters, gaseous nebulas, and galaxies with binoculars.
- Assess the essential factors in choosing a telescope.

Course Materials: Stars and Planets

EDITOR'S STUFF

Patty Mayer

REMEMBER QUEEN, the rock group? 'We are the Champions' 'Bohemian Rhapsody' and if you have been to a sporting event or seen one on television, you have heard the song 'We Will Rock You.' That song was written by Queen's guitarist, Brian May. In reading Timothy Ferris' book, "Seeing in the Dark", Mr. Ferris interviews Brian May and I discovered that one of my favorite groups are much more educated than I had realized. Brian May majored in astronomy and mathematics and earned his Ph.D.! Brian May, quoted from "Seeing in the Dark" pages 86 & 89 says, "First there's the 'Oooo!' -----the pure emotional enjoyment factor, in music and astronomy, just allowing the beauty of things to wash over you. After that you can get analytical, but if you don't first allow yourself to be overwhelmed, I think you've missed the best part of it."



"Seeing in the Dark" is a good book to read and you will appreciate more the dedication of and discoveries made by amateur astronomers over the years and around the world!

GIANT CRATER FOUND that is about the size of Ohio. It was discovered beneath a half mile of ice in the Wilkes Land region of Antarctica. Scientists think it may have been the impact that caused mass destruction, 250 million years ago.

The movie M*A*S*H was filmed in the summer of 1969 and was in the theaters in 1970. In the nighttime shots of the loud speakers, you will see the moon in the top right hand corner. The day prior to the filming of the loudspeakers, the crew of Apollo 11 landed on the moon.

2006 SEPA Conference (SouthEastern Planetarium Association) was held this year in Cocoa Beach. On Tuesday evening, Jon Bell hosted AstroParty and on Wednesday he hosted

the Constellation Shootout. I drove up on Tuesday and met some wonderful people. I had a great time awarding the "points" (Milky Way bars) to the contestants with the correct question. On Wednesday evening, David Brown drove up with me and we saw the Planetarium Directors and others in action when they played Jon's Constellation Shootout! David and I sat in the audience and together answered many of the questions and were thrilled when we had the right answer and the participants missed it! One thing I did come away with was that I will NEVER forget anything about the Summer Triangle!

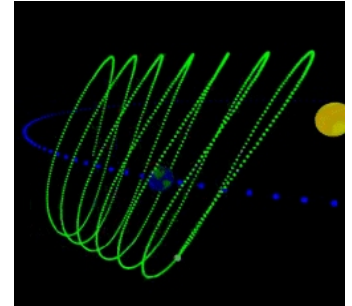
CHIEFLAND STAR PARTY Wednesday, November 15th through Wednesday, November 22nd. Registration forms can be found at <http://www.chiefland.org/2006Registration&Rules.pdf>

MEMBERSHIP
Charlotte Bilder

Membership dues are \$20.00 per fiscal year beginning Sept. 1. Your dues includes a membership to the Astronomical League, discounted subscriptions to Sky and Telescope (\$32.95) and Astronomy (\$34.00) magazines, and access to club resources. You will also receive a quarterly newsletter "The Reflector" from the Astronomical League and the month TCAS newsletter "Comet Tails". Dues and magazines subscriptions should be sent to Charlotte Bilder, Treasurer, 102 Cove View, Stuart, Florida 34994.

Earth's second moon? Did you know that a tiny asteroid looping around Earth for the past seven years is about to leave the neighborhood? I didn't even know it was there! You can read more about this "second moon" Asteroid 2003 YN107 at:

http://science.nasa.gov/headlines/y2006/09jun_moonlets.htm?list724802



WEB SITE REVIEW
John Biondo

SANFORD SOLAR CENTER is a project of the Solar Oscillations Investigation Team at Stanford, and is dedicated to sharing the joy and excitement of solar science exploration by providing hands-on web-based activities. They are dedicated to the education and views of our nearest star. <http://solar-center.stanford.edu>



ASTRONOMY MINUTES
By Sue Prill

May 30, 2006
Started 7:44 pm
Attendance: 22 members
7 guests

SECRETARY REPORT:
See newsletter :)

TREASURER'S REPORT:
Total of \$2017.43 in our bank of which 1) \$398.52 is in scholarship 2) \$697.30 is in outreach and 3)

\$921.61 is in the general fund.

We just paid for the State Corporation annual fee

Voted and Passed that we were going to continue with the Astronomical League and Charlotte will send the monies due.

We are considering not renewing with the Abrahms calenders as you can download star charts for free – REMEMBER THOUGH.. you cannot make copies

to sell. These are to be used for our club and to hand out for free at our events.

PRESIDENTS REPORT:

Be sure to NOTIFY ALLAN COMO if you go out to the Bluefield site other than the set days, as the county has to be notified!!

June speaker is John Biondo

July speaker is Larry Crary

COMMITTEES:

Scholarship – Please think of ways for our club to best use these funds in the future.

NEW BUSINESS:

ELECTIONS ARE IN JUNE (PLEASE ATTEND OUR MEETING). Please think of a position that you would like to run for. The club will accept nominations up until the time the actual election will

be held...PLEASE VOLUNTEER!!!! For: President, Vice-President, Treasurer, Secretary, Outreach, and Web Master.

Persiad Meteor Shower in August. The club will do an outreach activity for the public on August 12th somewhere in the Ft. Pierce area. Please keep that date open!!

OLD BUSINESS:

Last Planetarium show Friday June 2, 2006 until the fall.

OUR MEETING:

Bob Haskins should us the wonderful pictures of his eclipse trip to TURKEY and told us general information about the phenomenon of what an eclipse is and the different types. THANK YOU BOB!!

Adjourned @ 8:35 pm.

**HALLSTROM PLANETARIUM at
INDIAN RIVER COMMUNITY COLLEGE
Jon U. Bell, Planetarium Director**

The 2005/2006 season is over and Jon will not have new shows until the fall. Jon has a tentative schedule for the 2006/2007 season and it looks great! When the new season schedule does comes out **PLEASE** make plans to come to the college to help out with the public, they do so enjoy viewing before and after the shows.

Listen to "Skywatch," hosted by IRCC Planetarium Director Jon Bell, weekdays at 7:20 a.m. and 12:59 p.m. on WQCS Radio 88.9 FM, for one-minute sky updates!
www.ircc.edu/atircc/commout/planetarium/planet.html

Astronomy Day 2007 at this point will be held on March 3rd. We will have a full moon rising and it will be in the midst of an eclipse! How cool will that be for Astronomy Day?! Please put the date on your calender and plan to attend this Astronomy Day with a Lunar Eclipse theme!

FREE monthly star charts can be found on the internet at www.skymaps.com.



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



From Thunderstorms to Solar Storms...

by Patrick L. Barry

When severe weather occurs, there's a world of difference for people on the ground between a storm that's overhead and one that's several kilometers away. Yet current geostationary weather satellites can be as much as 3 km off in pinpointing the true locations of storms.

A new generation of weather satellites will boost this accuracy by 2 to 4 times. The first in this new installment of NOAA's Geostationary Operational Environmental Satellites series, called GOES-N, was launched May 24 by NASA and Boeing for NOAA (National Oceanic and Atmospheric Administration). (A new polar-orbiting weather satellite, NOAA-18, was launched May 2005.)

Along with better accuracy at pinpointing storms, GOES-N sports a raft of improvements that will enhance our ability to monitor the weather—both normal, atmospheric weather and “space weather.”

“Satellites eventually wear out or get low on fuel, so we've got to launch new weather satellites every few years if we want to keep up the continuous eye on weather that NOAA has maintained for more than 30 years now,” says Thomas Wrublewski, liaison officer for NOAA at NASA's Goddard Space Flight Center.

Currently, GOES-N is in a “parking” orbit at 90° west longitude over the equator. For the next 6 months it will remain there while NASA thoroughly tests all its systems. If all goes well, it will someday replace one of the two active GOES satellites—either the eastern satellite (75°W) or the western one (135°W), depending on the condition of those satellites at the time.

Unlike all previous GOES satellites, GOES-N carries star trackers aboard to precisely determine its orientation in space. Also for the first time, the storm-tracking instruments have been mounted to an “optical bench,” which is a very stable platform that resists thermal warping. These two improvements will let scientists say with 2 to 4 times greater accuracy exactly where storms are located.

Also, X-ray images of the Sun taken by GOES-N will be about twice as sharp as before. The new Solar X-ray Imager (SXI) will also automatically identify solar flares as they happen, instead of waiting for a scientist on the ground to analyze the images. Flares affect space weather, triggering geomagnetic storms that can damage communications satellites and even knock out city power grids. The improved imaging and detection of solar flares by GOES-N will allow for earlier warnings.

So for thunderstorms and solar storms alike, GOES-N will be an even sharper eye in the sky.

Find out more about GOES-N at goespoes.gsfc.nasa.gov/goes . Also, for young people, the SciJinks Weather Laboratory at scijinks.nasa.gov now includes a printable booklet titled "How Do You Make a Weather Satellite?" Just click on Technology.



Caption: New GOES-N satellite launches, carrying an imaging radiometer, an atmospheric sounder, and a collection of other space environment monitoring instruments.

WEB PAGES

Member pages

- TCAS_ www.treasurecoastastronomy.org
- Dave Holko_ www.atkmotors.com/defaultx.htm
- John Biondo www.skygazer.net

Other Interesting Pages

- Lunar Picture of the Day www.lopd.com
- Sky & Telescope Magazine www.skypub.com
- Astronomy Magazine www.astronomy.com
- Universe Today www.universetoday.com
- Space news junkie www.space.com
- Satellite tracking www.heavens-above.com
- Free monthly sky map www.Skymaps.com
- International Dark Sky Organization www.darksky.org
- Citizens for Responsible Lighting <http://www.crlaction.org>
- NASA www.NASA.gov
- Jet Propulsion Laboratory <http://www.jpl.nasa.gov/>
- Night Sky Network <http://nightsky.jpl.nasa.gov/index.cfm>
- Astronomy Web Guide <http://astronomywebguide.com/index.htm>

SUNDAY	MONDAY	TUESDAY	WEDNESDA	THURSDAY	FRIDAY	SATURDAY
<h1>July 2006</h1>						1
2	3 1 st Quarter Moon	4 Independence Day	5	6	7	8
9	10 Full Moon	11	12	13	14	15
16	17 Last Quarter Moon	18	19	20	21 Star Party?	22 Star Party
23 Venus to right of Crescent moon at dawn	24	25 TCAS Meeting Larry Crary New moon at 12:31 AM	26	27	28 Delta Aquarid Meteor Shower early AM about 20 per hr. Star Party?	29 Star Party
30	31					