



Comet Tails

April 2005

Our Messier Marathon was a great success!!

What a great weekend we all had. I hope more join us next year and we really fill the place with scopes!

FROM THE PRESIDENT'S UNIVERSE
David Brown

Hello to all.

In the news:

- ★ The Bush Administration's 2006 fiscal budget includes no money to service the Hubble Space Telescope. I have many comments, but will not share them all here!
- ★ Deep Impact is schedule to be hit by Comet 9P/Tempel1 on July 4th at a speed of 22,800 MPH. The team is hoping for a crater to be formed that is as large as the coliseum!
- ★ In about a month the Eta Aquarid Meteor Shower begins, remnants from Halley's Comet. Comet Machholz is still visible at about Mag 9.
- ★ Upcoming launches include Cloudsat/Calipso. Cloudsat will measure the vertical structures of clouds and it's properties. TWINS-A will generate 3-D images of Earths magnetosphere.
- ★ April 25, 1990 the HST was launched. The world of deep-space imaging and the science we have gained from it has never been the same.

Clear Skies, David

EDITOR'S STUFF

Patty Mayer

I have to apologize to all of you for getting this out so late and for not being on top of the eclipse! What a great opportunity I missed to share that with more people! But no matter, all dismal and dark tunnels come to an end and so I am back in the sunlight and feeling much better now! :)

Ox-Bow - Please remember that Ox-Bow is hosting Earth Day this year on April 16, 2005. Treasure Coast Astronomical Society will have a table set up and you are invited to join us! If

you have a solar filter, great, bring it, if you don't, just come, talk with people about your telescope and the club and enjoy the day! We will set up between 9:00 and 9:30. The day runs 10:00 am until 3:00pm

Star Calender I found this web site on Space.com and it has a great star calender for the month. http://www.space.com/media/pdf/adastra_calendar_spring2005.pdf

“Billions and billions” Carl Sagan popularized this phrase. Ever wonder what a **billion** is?

A billion is a difficult number to comprehend, but one advertising agency did a good job of putting that figure into perspective in one of its press releases.

* A billion seconds ago it was 1959.

* A billion minutes ago Jesus was alive.

* A billion hours ago our ancestors were living in the Stone Age.

* A billion days ago modern humans wouldn't be walking the earth for another two million years...

My added Web link [LPOD - 2005-04-11 - Lunar Photo of the Day](#)

Check out the Lunar Picture of the Dy for today, April 11, 2005, which is hosted by Chuck Wood. Mr. Wood does work with NASA, teaches and he is best known for his knowledge of the geology of the moon. He has many published works, including *The Modern Moon, a Personal View*, and each month he writes an article for Sky and Telescope about viewing the moon. I think John was excited about having his photo chosen by Mr. Wood to appear today, and so he should be. Way to go John!

WEB LINK HIGHLIGHT John Biondo

"Planetary Science Research Discoveries (PSRD) is an educational site sharing the latest research on meteorites, planets, and other solar system bodies being made by NASA-sponsored scientists. The web site is supported by the Cosmo chemistry Program of NASA's Science Mission Directorate and by Hawaii Space Grant Consortium and is a vital link for planetary and space sciences, and for learning how science works. Many links are provided to centralize the many websites dedicated to Astronomy."
<http://www.psrhawaii.edu/index.html>



ASTRONOMY MINUTES

Sue Prill, Secretary

Astronomy Meeting minutes March 29, 2005 21 members and 9 guests
Meeting began at 7:37 pm

Treasurers Report: \$2098.45 in account of which \$398.92 is earmarked for scholarship, \$793.00 for outreach.

President's Report: Please see newsletter

Committees: Nothing to report

Old Business: nothing

New Business:

The Board Members are creating the clubs By-laws and will discuss them and bring them for to a vote at a meeting in the future. Please let us have any input.

On 4/16 Oxbow is having Earth Day and needs volunteers to bring their scopes (with solar filters) from 10-3.

Jay would like to set up an event with the Adult Education for an Astro Night.

Astronomy Day/BBQ at Jonathon Dickinson State Park with the West Palm Beach Club – 4/24 during the day and night... Please contact David Brown for more info.

Misc:

Recapping our 1st Annual Messier Marathon camping trip at Kissimmee Prairie State Park. 22 club members attended along with 2 guests (and others staying in the primitive area) David Brown, Patty Mayer and Sue Prill did the marathon and Sue found 56 items and David and Patty found 62. Not bad as it was very cold.

Meeting:

David Holko/Allen Como and John Biondo did a Power Point presentation of images from the camping trip (Astrophotography)

Adjourned. @ 8:47 pm

HALLSTROM PLANETARIUM

Jon U. Bell, Planetarium Director

The 2004-2005 Season is here! Jon hosts a new show each month on Friday, 7:00 and 8:00 p.m. and on Saturday, 2:00 and 3:00 p.m. TCAS members, please try to come out on Friday nights so you can share a view through your telescope with the public.

You can listen to Jon U. Bell every Monday through Friday on "Skywatch" on WQCS 88.9 FM radio at 7:20 a.m. and 1:00 p.m. for daily sky updates.

www.ircc.edu/atircc/commout/planetarium/planet.html

WEB PAGES

Member pages

TCAS www.treasurecoastastronomy.org
Dave Holko www.atkmotors.com/defaultx.htm

Other Interesting Pages

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
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>
Lunar Picture of the Day www.LPOD.org

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Utterly Alien

by Dr. Tony Phillips

There's a planet in our solar system so cold that in winter its nitrogen atmosphere freezes and falls to the ground. The empty sky becomes perfectly clear, jet-black even at noontime. You can see thousands of stars. Not one twinkles.

The brightest star in the sky is the Sun, so distant and tiny you could eclipse it with the head of a pin. There's a moon, too, so *big* you couldn't blot it out with your entire hand. Together, moonlight and sunshine cast a twilight glow across the icy landscape revealing . . . what? twisted spires, craggy mountains, frozen volcanoes?

No one knows, because no one has ever been to Pluto.

"Pluto is an alien world," says Alan Stern of the Southwest Research Institute in Colorado. "It's the only planet never visited or photographed by NASA space probes."

That's about to change. A robot-ship called New Horizons is scheduled to blast off for Pluto in January 2006. It's a long journey: More than 6 billion kilometers (about 3.7 billion miles). New Horizons won't arrive until 2015.

"I hope we get there before the atmosphere collapses," says Stern, the mission's principal investigator. Winter is coming, and while it's warm enough now for Pluto's air to float, it won't be for long. Imagine seeing a planet's atmosphere collapse. New Horizons might!

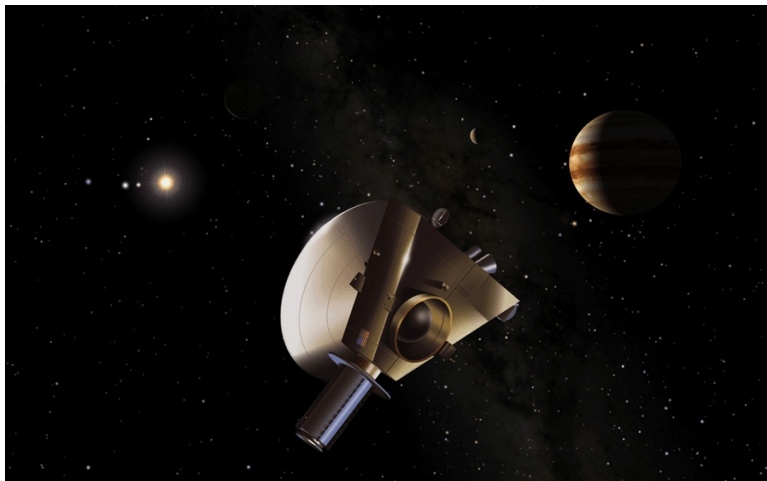
"This is a flyby mission," notes Stern. "Slowing the spacecraft down to *orbit* Pluto would burn more fuel than we can carry." New Horizons will glide past the planet furiously snapping pictures. "Our best images will resolve features the size of a house," Stern says.

The cameras will also target Pluto's moon, Charon. Charon is more than half the size of Pluto, and the two circle one another only 19,200 kilometers (12,000 miles) apart. (For comparison, the Moon is 382,400 kilometers [239,000 miles] from Earth.) No wonder some astronomers call the pair a "double planet."

Researchers believe that Pluto and Charon were created billions of years ago by some terrific impact, which split a bigger planet into two smaller ones. This idea is supported by the fact that Pluto and Charon spin on their sides like sibling worlds knocked askew.

Yet there are some curious differences: Pluto is bright; Charon is darker. Pluto is covered with frozen nitrogen; Charon by frozen water. Pluto has an atmosphere; Charon might not. "These are things we plan to investigate," says Stern.

Two worlds. So alike, yet so different. So utterly alien. Stay tuned for New Horizons. Find out more about the New Horizons mission at pluto.jhuapl.edu/. Kids can learn amazing facts about Pluto at spaceplace.nasa.gov/en/kids/pluto.



New Horizons spacecraft will get a gravity assist from Jupiter on its long journey to Pluto-Charon. Credit: Southwest Research Institute (Dan Durda)/Johns Hopkins University Applied Physics Laboratory (Ken Moscati).