Cape Fear Skies

The Official Newsletter of the
Cape Fear Astronomical Society
Wilmington, North Carolina

A Member Society of the Astronomical League

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www.capefearastro.org

CAPE FEAR ASTRONOMICAL SOCIETY
WILMINGTON, NORTH CAROLINA

This Month's Meeting –
Sunday, October 5, 2008

Unitarian Universalist Fellowship of Wilmington

4313Lake Avenue

The business meeting of
the Cape Fear Astronomical Society
will begin at 7:00 pm.
The general meeting will begin at 7:45 pm.

Gastronomy!

Please join us for dinner before the meeting at Old Chicago on Market Street, at 5:15pm!

CAPE FEAR SKIES
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CAPE FEAR ASTRONOMICAL SOCIETY
WILMINGTON, NORTH CAROLINA

Cape Fear Astronomical Society

Meeting Minutes provided by Susan for Skip Hager

CFAS Minutes for September 7, 2008

The meeting was called to order at 7:10 PM by the Society President Ron Hawes,held at the Unitarian Universalist Fellowship Church. There were approximately 18 members and 3 guests in attendance.

Officer Reports

Treasurer Ben Steelman reported that we paid $1020. for our custom tee-and-sweatshirt order, with $509 collected to date, and more expected tonight. The club's checking account balance is $1489.14.

Those planning on ordering "Sky and Telescope" magazine should get their money to Ben; the yearly cost is roughly $10-15 less than the list subscription price.

Old Business

Jonathan Guetta asked that for those who ordered tee or sweatshirts, they are now ready for pickup and need to be paid for. There are extra available purchase in large and extra-large for those who did not order or would like extras. There was a request for smaller sizes, which require a minimum of ten or more per order.

Ron will contact Tim Boyd, who had been away since Aug. 10th, to check about using the Moore's Creek Battleground site. Clint North, his neighbor, will also remind him.

New Business

Rich Williams regrets that he is no longer able to maintain the CFAS Website, and Neil Horne has volunteered to take over as Webmaster and incorporate any updated looks and additions to it. Susan will work with him on the transition in the future.

The "Star News" newspaper will be interviewing Ben Edwards, of Martin Marietta, who worked on NASA's Orion Space Probe/Crew Module. Ben will ask if he is interested in giving a program to the club.

Observing Reports

Neil and Thad went to the Yamacraw site two weekends ago, and reported beautiful viewing conditions. Neil reported it was much darker than our site at Holly Shelter.

Thad reported seeing a dozen meteors during the Perseid meteor shower throughout the night. He tried filming the minimum of Algol and is still working on the imaging.

Presentation

An excellent presentation on "Super Nova Remnants - Studying the Remains" was given by Letisha McLaughlin, our former Secretary and a grad student in astrophysics at NC State University. The discussion was based on the interpretation of data she is working on under her current advisor, and included the why, life cycle, formation types, data types, and data processing of super nova remnants

News Cluster

► The next meeting of the Cape Fear Astronomical Society is October 5 starting at 7:00 pm. The meeting will be held at the Unitarian Universalist Fellowship of Wilmington (UUFW for short).

►Tom Jacob will present “The Tunguska Event” commemorating the 100th anniversary of the powerful explosion over Russia.

►Mid Atlantic Star Party 2008 will be held near Robbins NC from October 27 – November 2. For more information and directions visit www.masp.org.

► Nominations for the 2008 CFAS officers begin in October. The officer positions are: President, Vice President, Associate Vice President, Treasurer, Secretary and Editor. If your interested or know someone who is by all means come to the October meeting and nominate.

Event Calendar for October 2008

Oct 1	Moon passes 5° south of Venus, 10 pm
Oct 3/4	**CFAS Group Viewing Sessions**
Oct 4	Moon passes 0.1° south of Antares, 7 am
Oct 5	Moon at apogee, 6;34 am, 251,482 miles
Oct 5	**CFAS October Meeting 7:00 pm**
Oct 7	First Quarter Moon, 5:04 am
	Moon passes 2° south of Jupiter, 3 am
Oct 10	Moon passes 0.9° north of Neptune, 6 am
Oct 14	Full Moon, 4:02 pm
Oct 17	Moon at perigee, 2:09 am, 226,069 miles
Oct 21	Orionid meteor shower peaks
	Last Quarter Moon, 7:55 am
Oct 22	Mercury’s best predawn viewing of 2008
Oct 24/25	**CFAS Group Viewing Sessions**
Oct 27/Nov 2	**Mid Atlantic Star Party, Robbins NC**
Oct 28	New Moon, 7:14 am
Oct 30	Mercury passes 4° north of Spica, 4 pm

All times are EDT unless otherwise noted

Please Welcome to CFAS:

Pete Soderman
&
Bob Ringhof

Solar System in October 2008						
	Oct	Elong.	Mag.	Dia.	Illum.	Dist.
Sun	1st	----	-26.8	31'57"	----	1.001
	31st	----	-26.8	32'13"	----	0.993
Mercury	1st	12º Ev	+2.5	10.0"	9%	0.683
	11th	8º Mo	+3.2	9.6"	5%	0.702
	21st	18º Mo	-0.5	7.2"	49%	0.939
	31st	15º Mo	-0.9	5.6"	83%	1.192
Venus	1st	30º Ev	-3.9	12.0"	86%	1.389
	11th	33º Ev	-3.9	12.5"	84%	1.333
	21st	35º Ev	-3.9	13.1"	81%	1.274
	31st	37º Ev	-4.0	13.8"	79%	1.212
Mars	1st	20º Ev	+1.6	3.8"	99%	2.481
	16th	15º Ev	+1.6	3.7"	99%	2.498
	31st	11º Ev	+1.5	3.7"	100%	2.503
Jupiter	1st	95º Ev	-2.3	39.7"	99%	4.960
	30th	69º Ev	-2.3	36.4"	99%	5.412
Saturn	1st	23º Mo	+1.0	16.2"	100%	10.254
	31st	49º Mo	+1.0	16.7"	100%	9.965
Uranus	16th	146º Ev	+5.7	3.7"	100%	19.260
Neptune	16th	119º Ev	+7.9	2.3"	100%	29.547
Pluto	16th	66º Ev	+14.0	0.1"	100%	31.930

Elong. – elongation from the Sun: morning (Mo) and evening (Ev)
Dist. – distance from Earth in astronomical units

NASA Orbiter Reveals Rock Fracture Plumbing on Mars (www.jpl.nasa.gov)
September 25, 2008

PASADENA, Calif. – NASA's Mars Reconnaissance Orbiter has revealed hundreds of small fractures exposed on the Martian surface that billions of years ago directed flows of water through underground Martian sandstone.

Researchers used images from the spacecraft's High Resolution Imaging Science Experiment, or HiRISE, camera. Images of layered rock deposits at equatorial Martian sites show the clusters of fractures to be a type called deformation bands, caused by stresses below the surface in granular or porous bedrock.

"Groundwater often flows along fractures such as these, and knowing that these are deformation bands helps us understand how the underground plumbing may have worked within these layered deposits," said Chris Okubo of the U.S. Geological Survey in Flagstaff, Ariz.

Visible effects of water on the color and texture of rock along the fractures provide evidence that groundwater flowed extensively along the fractures.

"These structures are important sites for future exploration and investigations into the geological history of water and water-related processes on Mars," Okubo and co-authors state in a report published online this month in the Geological Society of America Bulletin.

Deformation band clusters in Utah sandstones, as on Mars, are a few meters or yards wide and up to a few kilometers or miles long. They form from either compression or stretching of underground layers, and can be precursors to faults. The ones visible at the surface have become exposed as overlying layers erode away. Deformation bands and faults can strongly influence the movement of groundwater on Earth and appear to have been similarly important on Mars, according to this study.

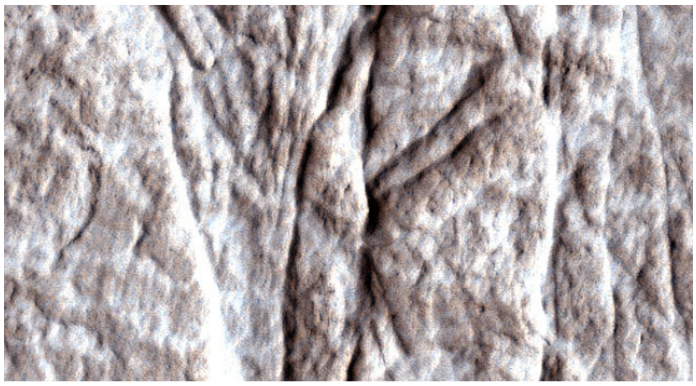
"This study provides a picture of not just surface water erosion, but true groundwater effects widely distributed over the planet," said Suzanne Smrekar, deputy project scientist for the Mars Reconnaissance Orbiter at NASA's Jet Propulsion Laboratory in Pasadena, Calif. "Groundwater movement has important implications for how the temperature and chemistry of the crust have changed over time, which in turn affects the potential for habitats for past life."

The recent study focuses on layered deposits in Mars' Capen crater, approximately 70 kilometers (43 miles) in diameter and 7 degrees north of the equator. This formerly unnamed crater became notable due to this discovery of deformation bands within it and was recently assigned a formal name. The crater was named for the late Charles Capen, who studied Mars and other objects as an astronomer at JPL's Table Mountain Observatory in Southern California and at Lowell Observatory, Flagstaff, Ariz.

The HiRISE camera is one of six science instruments on the orbiter. It can reveal smaller details on the surface than any previous camera to orbit Mars. The orbiter reached Mars in March 2006 and has returned more data than all other current and past missions to Mars combined.

The mission is managed by JPL for NASA's Science Mission Directorate. JPL is managed for NASA by the California Institute of Technology in Pasadena. Lockheed Martin Space Systems of Denver built the spacecraft. The University of Arizona operates the HiRISE camera, built by Ball Aerospace and Technology Corp. of Boulder, Colo.

Images of the deformation band clusters and additional information about the mission are on the Internet at: http://www.nasa.gov/mro .



Dense clusters of crack-like structures called deformation bands form the linear ridges prominent in this image from the High Resolution Imaging Science Experiment (HiRISE) camera on NASA's Mars Reconnaissance Orbiter. Image credit: NASA/JPL-Caltech/Univ. of Arizona

Meetings of the CFAS are held on the first Sunday of The month (if holiday weekend or special event, second Sunday) at

7:00pm – Unitarian Universalist Fellowship of Wilmington

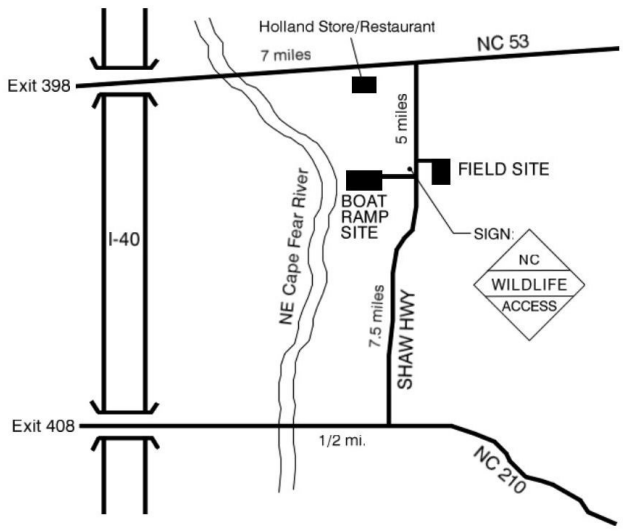
Group Viewing Sessions 5194

Call Ron Hawes at 762-1033 or check our email list to confirm a formal viewing session. Listed below are moonless nights so you can schedule a good viewing. All group viewing sessions will be at the Holly Shelter boat ramp site, unless otherwise specified. Time: Dusk until ?

Friday, October 3 Saturday, October 4
Friday, October 24 Saturday, October 25

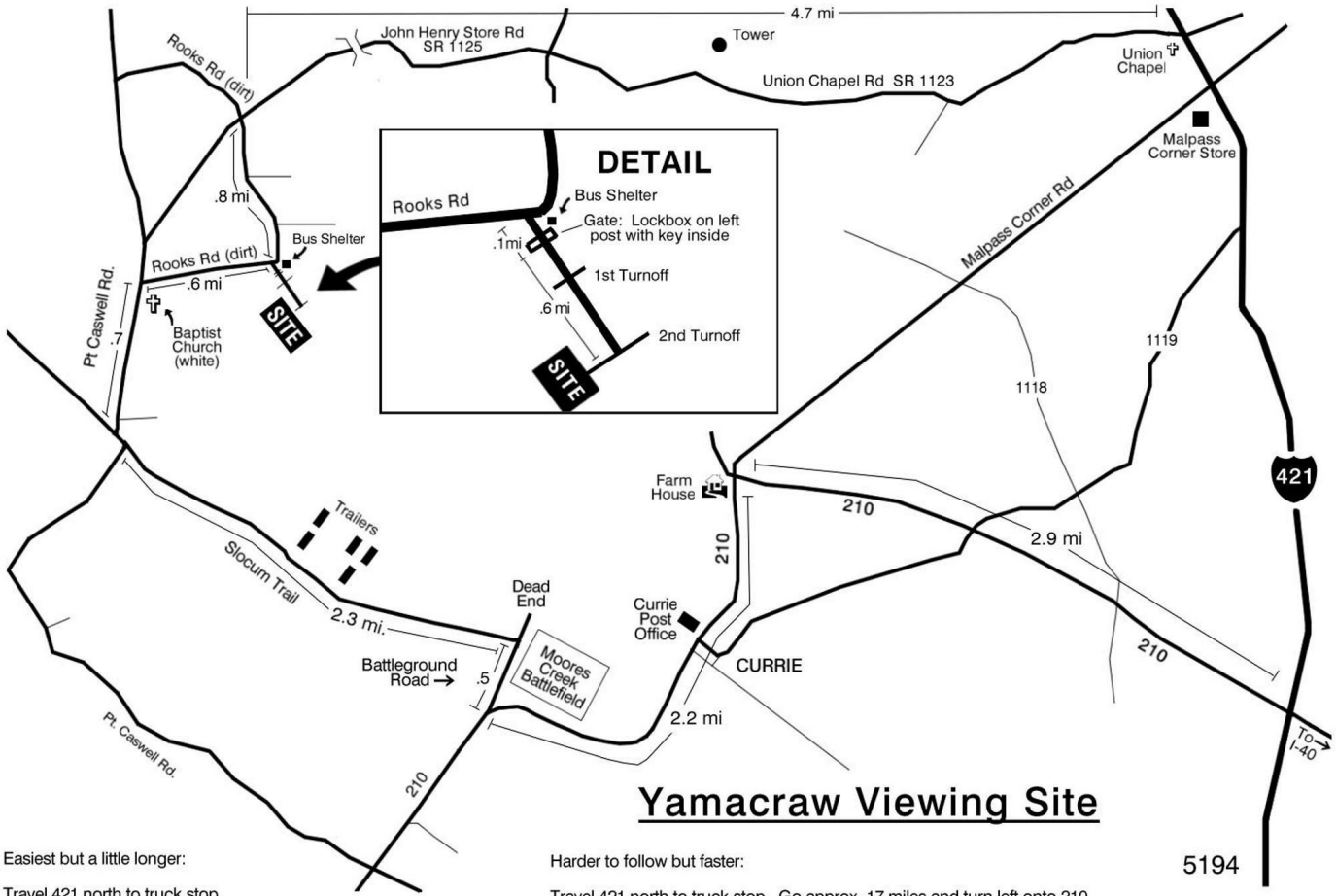
Please be cautious of unusual wildlife behavior while observing. A golf

Holly Shelter Viewing Sites



Field Site Gate Open:
September 1 - February 29 and April 7 - May 14.

Please have your Holly Shelter Permit with you at the site.



Yamacraw Viewing Site

5194

Easiest but a little longer:

Travel 421 north to truck stop.
Go approx. 20.5 miles and turn left onto Union Chapel Road.
Follow for 4.7 miles (becomes John Henry Store Road) and take left onto Rooks Road (dirt).
Follow Rooks Road .8 miles around curve, pass bus shelter and take left onto our site's road.
Travel .1 mile, unlock/relock gate, travel .6 miles, take 2nd right.

Harder to follow but faster:

Travel 421 north to truck stop. Go approx. 17 miles and turn left onto 210.
Follow 210 for 2.9 miles to intersection (stop sign and big white farm house), turn left onto 210 W.
Follow 210 W past Currie Post Office and Battlefield, turn right onto Battleground Rd.
Follow Battleground Rd .5 miles, take sharp left onto Slocum Rd, follow for 2.3 miles.
Take a right onto Pt. Caswell Rd, follow .7 miles past Church, take right onto Rooks Road (dirt).
Follow Rooks Rd .6 miles, turn right onto our site's road. (If you see the bus shelter, you've gone too far.)
Travel .1 miles, unlock/relock gate, travel .6 miles, take the 2nd road on the right to our site.