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, August 3, 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 McAlister's across from UNCW, at 5:15pm!

CAPE FEAR SKIES
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CAPE FEAR ASTRONOMICAL SOCIETY
WILMINGTON, NORTH CAROLINA

Cape Fear Astronomical Society

July Meeting Minutes provided by Ben Steeman

The regular meeting of the Cape Fear Astronomical Society convened at 7:05 p.m. Sunday, July 13, 2008 at the Wilmington Unitarian-Universalist Fellowship, President Ronnie Hawes presiding. Sixteen members attended. A guest, Bob Ringhof of Wrightsville Beach, paid his dues and joined.

Treasurer Ben Steelman reported that the finances were sound, with the Astronomical League dues paid and a growing balance in the checking account.

Jay Guetta, who was absent, sent a request that the club choose a color for the new official T-shirts. A motion by Bob Fetterman to pick white was approved unanimously.

President Ronnie reported on a recent successful school program at Murray Middle School in the south end of New Hanover County. Several members discussed the possibility of a viewing session at the Moore's Creek National Battlefield in Pender County, which offers a wide, open field, good parking, restroom facilities and seeing conditions equivalent to the Yamacraw site. President Ronnie promised to check with the park rangers about this.

Tom Jacobs reported on his trip to the recent Green Bank Star Party in West Virginia, attended by 150-200 people at the Green Bank radio observatory. Although good viewing was largely limited to one night, the program was a big success due to the excellence of the speakers (many of them astronomers working at the site) and the chance to use the 40-foot radio dish for amateur observing. Tom also sat in on the meeting of the Society of Amateur Radio Astronomers, which preceded the star party. His remarks generated a long discussion of the Areceibo radio observatory in Puerto Rico and its problematic future, as well as developments in the technology of radio observing.

During the break, and at downtimes, members signed a get-well card for Rich Williams, who was hospitalized at Duke University Medical Center.

For the program, Ben Steelman and Mitch Odess presented a "travelog" of Cygnus as a summer constellation. Mitch's digital slide show on Cygnus' deep sky objects was especially appreciated.

The meeting adjourned shortly before 9 p.m.

News Cluster

► The next meeting of the Cape Fear Astronomical Society is Aug 3 starting at 7:00 pm. The meeting will be held at the Unitarian Universalist Fellowship of Wilmington (UUFW for short).

►Late breaking news: as of July 23rd the club shirts are in. Jonathan to pick up Monday July 28th.

Event Calendar for August 2008

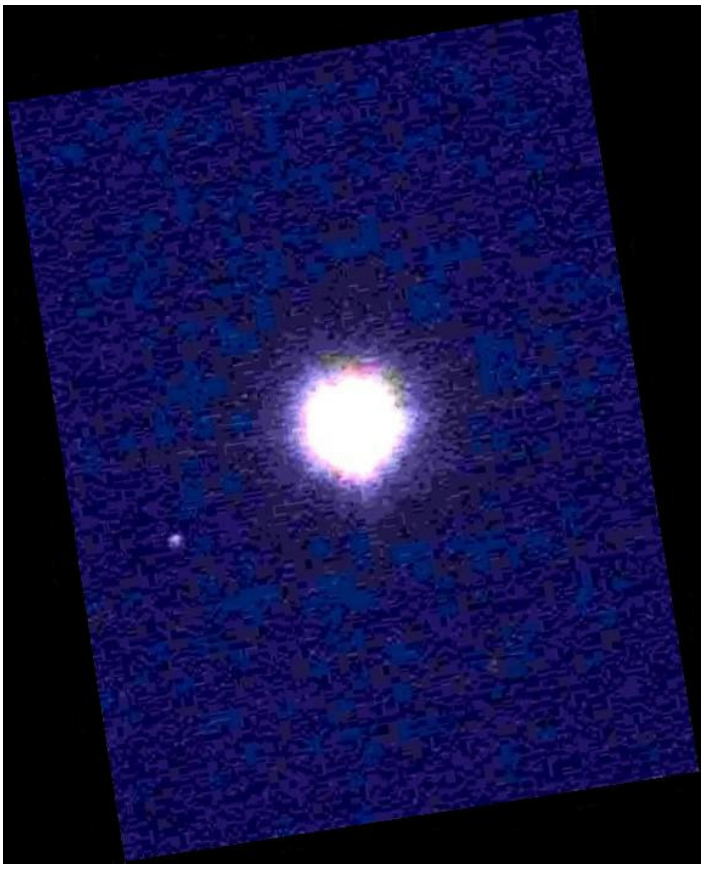
Aug 1	New Moon, 6:13 am
	Solar eclipse in Asia, 2.5 minutes of totality
Aug 2	Moon passes 2° south of Venus, 11 am
Aug 1/2	**CFAS Group Viewing Sessions**
Aug 3	Moon passes 4° south of Saturn, 10 am
Aug 3	**CFAS August Meeting 7:00 pm**
Aug 4	Moon passes 4° south of Mars, 8 am
Aug 8	First Quarter Moon, 4:20 pm
Aug 9	Jupiter reaches opposition, 4 am
Aug 10	Mercury passes 1.1° north of Regulus, 1 am
	Moon at apogee, 4:18 pm, 251,380 miles
Aug 12	Perseid Meteor shower peaks
Aug 13	Moon passes 3° south of Jupiter, 10 am
Aug 16	Full Moon, 5:16 pm, partial lunar eclipse
Aug 18	Moon passes 4° north of Uranus, 10 pm
Aug 23	Last Quarter Moon, 2:42 am
	Mercury passes 1.2° south of Venus, 1 am
Aug 25	Moon at perigee, 11:59 pm, 229,097 miles
Aug 29/30	**CFAS Group Viewing Sessions**
Aug 30	New Moon, 3:58 pm

All times are EDT unless otherwise noted

Solar System in August 2008						
Planet	Nov	Elong.	Mag.	Dia.	Illum.	Dist.
Sun	1st	----	-26.8	31'31"	----	1.015
	31st	----	-26.8	31'41"	----	1.009
Mercury	1st	3º Ev	-1.9	5.0"	99%	1.347
	11th	12º Ev	-0.8	5.1"	92%	1.318
	21st	20º Ev	-0.3	5.5"	82%	1.223
	31st	25º Ev	0.0	6.0"	71%	1.116
Venus	1st	15º Ev	-3.9	10.1"	97%	1.722
	11th	17º Ev	-3.8	10.3"	95%	1.706
	21st	20º Ev	-3.8	10.5"	94%	1.684
	31st	23º Ev	-3.8	10.8"	92%	1.658
Mars	1st	39º Ev	+1.7	4.1"	96%	2.288
	16th	34º Ev	+1.7	4.0"	97%	2.355
	31st	29º Ev	+1.7	3.9"	98%	2.409
Jupiter	1st	156º Ev	-2.7	46.6"	100%	4.222
	31st	125º Ev	-2.7	43.6"	99%	4.517
Saturn	1st	29º Ev	+0.8	16.3"	100%	10.202
	31st	4º Ev	+0.8	16.1"	100%	10.339
Uranus	16th	152º Mo	+5.7	3.7"	100%	19.200
Neptune	16th	179º Ev	+7.8	2.4"	100%	29.025
Pluto	16th	125º Ev	+13.9	0.1"	100%	30.917

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

Photo Gallery



Deneb and companion taken by Thad Coin using a Celestron C11 with web cam at prime focus. North is up, West is right. The field dimensions are approximately 200x260 arc seconds. Good work!

Nasa's Phoenix Mars Lander Prepares for Next Sample Analysis

July 23, 2008 (www.jpl.nasa.gov)

TUCSON, Ariz. -- The latest activities of NASA's Phoenix Mars Lander have moved the mission closer to analyzing a sample of material, possibly icy soil, from a hard layer at the bottom of a shallow trench beside the lander.

Overnight Tuesday to Wednesday, during Phoenix's 57th Martian day, or sol, since landing, Phoenix used its robotic arm to scrape the top of the hard layer in the trench informally named "Snow White."

The Phoenix team prepared commands to send to the spacecraft Wednesday telling it to take color stereo images minutes after each of five more rounds of scraping during Sol 58.

"We are monitoring changes between the scrapes," said Doug Ming of NASA Johnson Space Center, Houston, the team's science lead for Sol 58 plans. "It appears that there is fairly rapid sublimation of some of the ice after scraping exposes fresh material, leaving a thin layer of soil particles that had been mixed with the ice. There's a color change from darker to bluer to redder. We want to characterize that on Sol 58 to know what to expect when we scrape just before collecting the next sample."

Within a few sols, the team plans to collect a sample from the hard layer of Snow White for delivery to one of the eight ovens of Phoenix's Thermal and Evolved-Gas Analyzer (TEGA). Doors to the oven have been opened to receive the sample.

The TEGA completed one checkout during Sol 57. Another preparation step by the instrument, a heater characterization, is planned for Sol 58, to verify that pressure sensors can be warmed enough to operate properly early in the Mars morning.

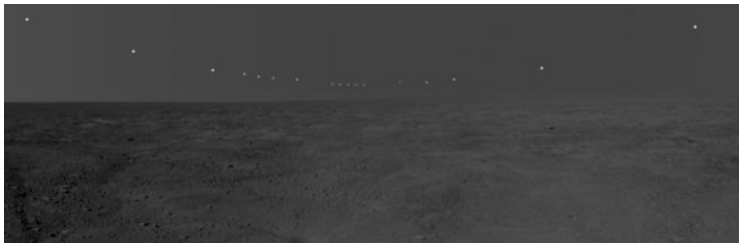
"For the next sample, we will be operating the instrument earlier in the morning than we have before," said William Boynton of the University of Arizona, lead scientist for TEGA. "It will be almost the coldest part of the day, because we want to collect the sample cold and deliver it cold."

On the day when Phoenix will deliver the next sample to TEGA, the team plans to have lander activities begin about three hours earlier than the usual start time of about 9 a.m. local solar time.

One set of imaging commands developed for use on Sol 58 or soon afterwards will check a northwestern portion of the horizon repeatedly during early afternoon to see whether any dust devils can be seen. This will be the first systematic check by Phoenix for dust devils. Similar imaging sequences have observed dust devils near NASA's Mars Rover Spirit, south of Mars' equator.

Students from Boulder Creek High School, Anthem, Ariz., worked with Phoenix team members to plan the first monitoring for dust devils by the lander's Surface Stereo Imager. They and students from SciTech High School, San Diego, are interns at the Phoenix mission's Science Operations Center in Tucson this week, part of a series of internship visits from 12 schools this summer by schools in Arizona, Arkansas, California, Iowa, Massachusetts, New Hampshire, Pennsylvania and Texas.

The Phoenix mission is led by Peter Smith of the University of Arizona with project management at JPL and development partnership at Lockheed Martin, Denver. International contributions come from the Canadian Space Agency; the University of Neuchatel; the universities of Copenhagen and Aarhus, Denmark; Max Planck Institute, Germany; and the Finnish Meteorological Institute. For more about Phoenix, visit: http://www.nasa.gov/phoenix and http://phoenix.lpl.arizona.edu.



Midnight Sun on Mars 2008-07-23

Image credit: NASA/JPL-Caltech/University of Arizona/Texas A&M University

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

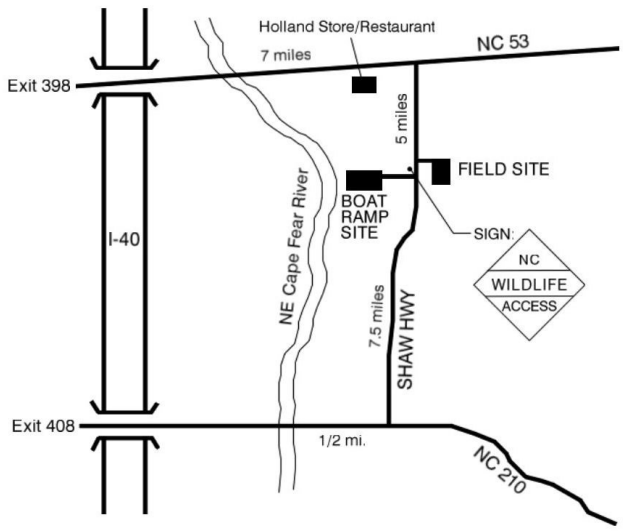
Group Viewing Sessions 5194

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, August 1	Saturday, August 2
Friday, August 29	Saturday, August 30

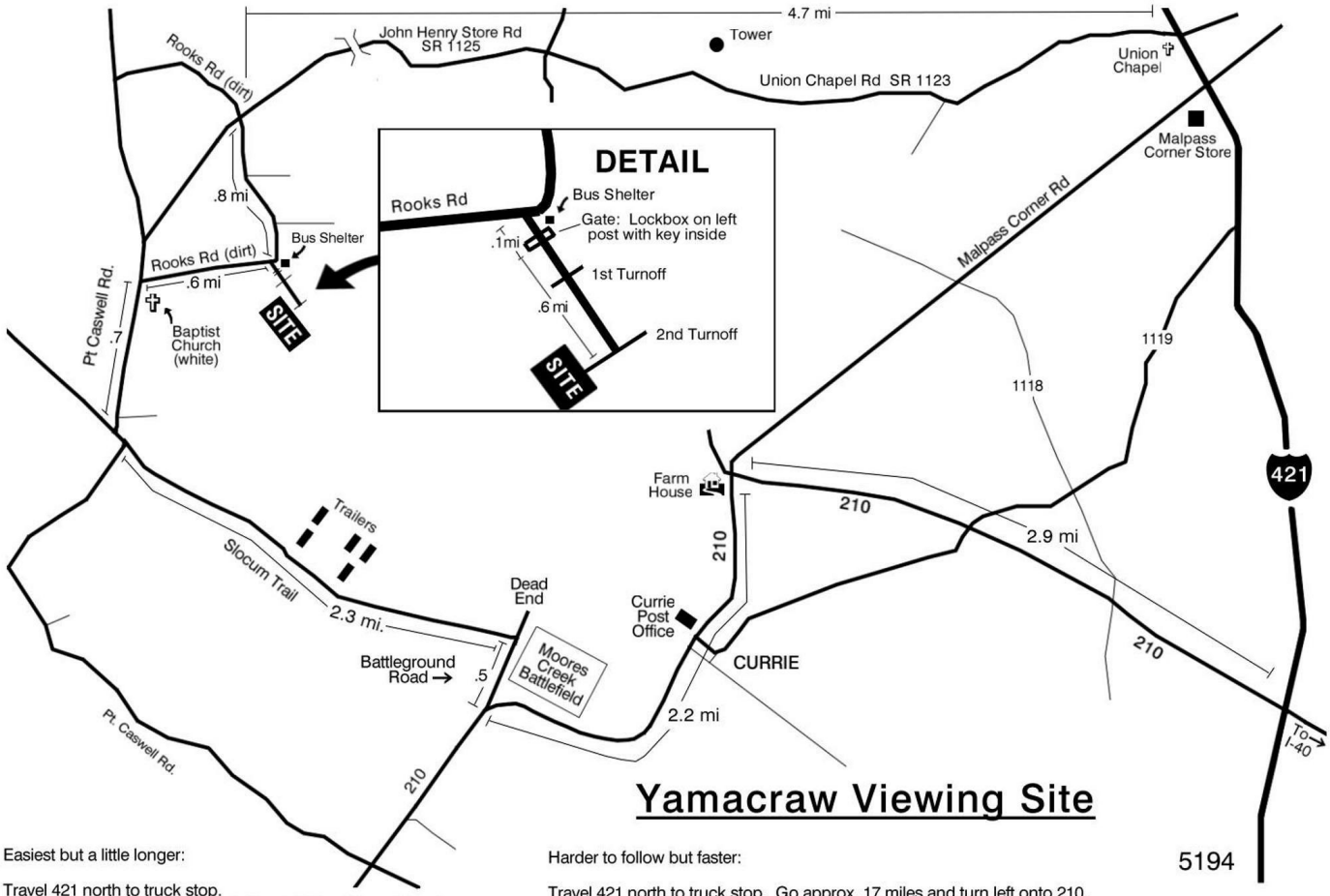
Please be cautious of unusual wildlife behavior while observing. A golf club or stick could be useful to keep nearby.

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.