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, June 1, 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 Flaming Amy's Burrito Barn on Oleander, 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 Secretary Skip Hager

CFAS Minutes for May 4 2008

The meeting was called to order at 7:15 PM by Society President Ron Hawes at the Unitarian Universalist Fellowship Church. There were 15 members in attendance, and no visitors. A warm welcome was extended to our newest member, Pete Soderman.

Officer Reports

Ben Steelman provided the treasurer's report indicating the club was still solvent.

Old Business

Ron Hawes reminded the membership of the upcoming Telescope Clinic at the Cape Fear Museum as part of their ongoing Cape Fear Sky's program. The clinic will be held second floor of the museum adjacent to the planetarium. Set up will be around 1:00 PM with the programs at 1:30, 2:30 and 3:30 PM. A call for volunteers was made and several hands were raised indicating a willingness to help.

A final call for club shirts was made. Orders will continue to be taken until May, 15th and then the order will be placed. The club will cover the order but members are requested to reimburse the club at the June meeting.

Rich Williams reported that he was still having problems in getting the website updated but was working to resolve the problem.

New Business

We have had a request from Dixon middle School to assist their local club in an all night(?) viewing session this coming Friday, May 9th ,2008. rich Williams and Bob Fetterman indicated they could help out.

Ron Hawes has access to an Orion 8" DOB for sale. Contact him for details.

Viewing Reports

Tom Jacobs provided an overview of the 22nd Annual Southern Star Convention. There were approximately 100 attendees to this year's event. Viewing was good until moonrise at about 3:00 AM. A good mix of speakers with interesting discussion and presentations. An event well worth going to if you has the chance.

Thad Coin met up with the North's and company at the Yamacraw site on May 2nd for an evening of viewing. Good looks at M13, Saturn, and yes Omega Centauri.

The business meeting was adjourned in preparations made for the evenings presentation.

The presentation was given by Steve Clemmons, a retired engineer with North American. Steve spent a number of years at the Cape during the early years of the space program and was involved with the Apollo missions. He was present when the fire occurred in the Apollo capsule. His comments and video on the history and development of the ATLAS rocket, first as an ICBM and later as probably the most successful booster in the space program, was especially interesting. Many thanks to Steve for his time and stories. We look forward to having you back in the future.

Event Calendar for June 2008

June 1	**CFAS April Meeting 7:00 pm**
June 3	New Moon, 3:23 pm
	Moon at perigee, 9:21 pm, 221,985 miles
June 7	Moon passes 1.1° south of Mars, 10 pm
June 9	Moon passes 3° south of Saturn, 5 am
June 10	First Quarter Moon, 11:04 am
June 16	Moon at apogee, 3:33 pm, 252,419 miles
June 17	Moon passes 0.2° south of Antares, 1 am
June 18	Full Moon, 1:30 pm
June 20	Moon passes 2° south of Jupiter, 9 am
	Summer solstice, 7:59 pm
June 23	Moon passes 0.8° north of Neptune, 5 am
June 25	Moon passes 4° north of Uranus, noon
June 26	Last Quarter Moon, 8:10 am
	Boötid meteor shower peeks, 10:30 pm
June 27	Uranus is stationary, 4 am
June 27/28	**CFAS Group Viewing Sessions**
June 30	Mars passes 0.7° north of Regulus, midnight
July 2	New Moon, 10:19 pm
July 4	Earth at aphelion, 4 am
July 4/5	**CFAS Group Viewing Sessions**

All times are EDT unless otherwise noted

News Cluster

► The next meeting of the Cape Fear Astronomical Society is June 4 starting at 7:00 pm. The meeting will be held at the Unitarian Universalist Fellowship of Wilmington (UUFW for short). There is no speaker scheduled. The presentation after the meeting will be "Seconds from Disaster" an episode about the Challenger accident.

Planets in June 2008						
Planet	Nov	Elong.	Mag.	Dia.	Illum.	Dist.
Mercury	1st	10º Ev	+4.1	11.7”	4%	0.572
	11th	6º Mo	+5.2	12.1”	1%	0.557
	21st	17º Mo	+2.1	10.4”	14%	0.649
	30th	22º Mo	+0.6	8.4”	32%	0.803
Venus	1st	2º Mo	-4.0	9.6”	100%	1.734
	11th	1º Ev	-4.0	9.6”	100%	1.735
	21st	3º Ev	-3.9	9.6”	100%	1.731
	30th	6º Ev	-3.9	9.7”	99%	1.723
Mars	1st	61º Ev	+1.5	4.9”	92%	1.893
	16th	56º Ev	+1.6	4.7”	93%	2.008
	30th	50º Ev	+1.6	4.4”	94%	2.105
Jupiter	1st	139º Mo	-2.6	45.0”	100%	4.381
	30th	170º Mo	-2.7	47.2”	100%	4.177
Saturn	1st	82º Ev	+0.7	17.7”	100%	9.402
	30th	56º Ev	+0.8	16.9”	100%	9.847
Uranus	16th	93º Mo	+5.8	3.5”	100%	20.025
Neptune	16th	121º Mo	+7.9	2.3”	100%	29.502
Pluto	16th	172º Mo	+13.9	0.1”	100%	30.471

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

Strange Ring Found Circling Dead Star

May 28 2008 (www.jpl.nasa.gov/)

Pasadena, Calif. -- NASA's Spitzer Space Telescope has found a bizarre ring of material around the magnetic remains of a star that blasted to smithereens.

The stellar corpse, called SGR 1900+14, belongs to a class of objects known as magnetars. These are the cores of massive stars that blew up in supernova explosions, but unlike other dead stars, they slowly pulsate with X-rays and have tremendously strong magnetic fields.

"The universe is a big place and weird things can happen," said Stefanie Wachter of NASA's Spitzer Science Center at the California Institute of Technology, Pasadena, who found the ring serendipitously. "I was flipping through archived Spitzer data of the object, and that's when I noticed it was surrounded by a ring we'd never seen before." Wachter is lead author of a paper about the findings in this week's Nature. You can see the ring at http://www.nasa.gov/mission_pages/spitzer/multimedia/20080528.html .

Wachter and her colleagues think that the ring, which is unlike anything ever seen before, formed in 1998 when the magnetar erupted in a giant flare. They believe the crusty surface of the magnetar cracked, sending out a flare, or blast of energy, that excavated a nearby cloud of dust, leaving an outer, dusty ring. This ring is oblong, with dimensions of about seven by three light-years. It appears to be flat, or two-dimensional, but the scientists said they can't rule out the possibility of a three-dimensional shell.

"It's as if the magnetar became a huge flaming torch and obliterated the dust around it, creating a massive cavity," said Chryssa Kouveliotou, senior astrophysicist at NASA's Marshall Space Flight Center, Huntsville, Ala., and a co-author of the paper. "Then the stars nearby lit up a ring of fire around the dead star, marking it for eternity."

The discovery could help scientists figure out if a star's mass influences whether it becomes a magnetar when it dies. Though scientists know that stars above a certain mass will "go supernova," they do not know if mass plays a role in determining whether the star becomes a magnetar or a run-of-the-mill dead star. According to the science team, the ring demonstrates that SGR 1900+14 belongs to a nearby cluster of young, massive stars. By studying the masses of these nearby stars, the scientists might learn the approximate mass of the original star that exploded and became SGR 1900+14.

"The ring has to be lit up by something, otherwise Spitzer wouldn't have seen it," said Enrico Ramirez-Ruiz of the University of California, Santa Cruz. "The nearby massive stars are most likely what's heating the dust and lighting it up, and this means that the magnetar, which lies at the exact center of the ring, is associated with the massive star-forming region."

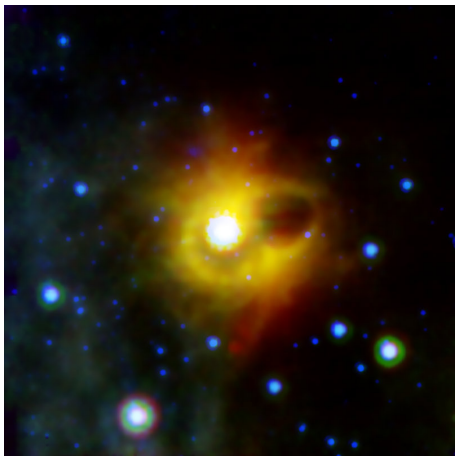
Rings and spheres are common in the universe. Young, hot stars blow bubbles in space, carving out dust into spherical shapes. When stars die in supernova explosions, their remains are blasted into space, forming short-lived beautiful orbs called supernova remnants. Rings can also form around exploded stars whose expanding shells of debris ram into pre-existing dust rings, causing the dust to glow, as is the case with the supernova remnant called 1987A.

But the ring around the magnetar SGR 1900+14 fits into none of these categories. For one thing, supernova remnants and the ring around 1987A cry out with X-rays and radio waves. The ring around SGR 1900+14 only glows at specific infrared wavelengths that Spitzer can see.

At first, the astronomers thought the ring must be what's called an infrared echo. These occur when an object sends out a blast wave that travels outward, heating up dust and causing it to glow with infrared light. But when they went back to observe SGR 1900+14 later, the ring didn't move outward as it should have if it were an infrared echo.

A closer analysis of the pictures later revealed that the ring is most likely a carved-out cavity in a dust cloud -- a phenomenon that must be somewhat rare in the universe since it had not been seen before. The scientists plan to look for more of these rings.

"This magnetar is still alive in many ways," said Ramirez-Ruiz. "It is interacting with its environment, making a big impact on the young star-forming region where it was born."



This image shows a ghostly ring extending seven light-years across around the corpse of a massive star. Image credit: NASA/JPL-Caltech

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

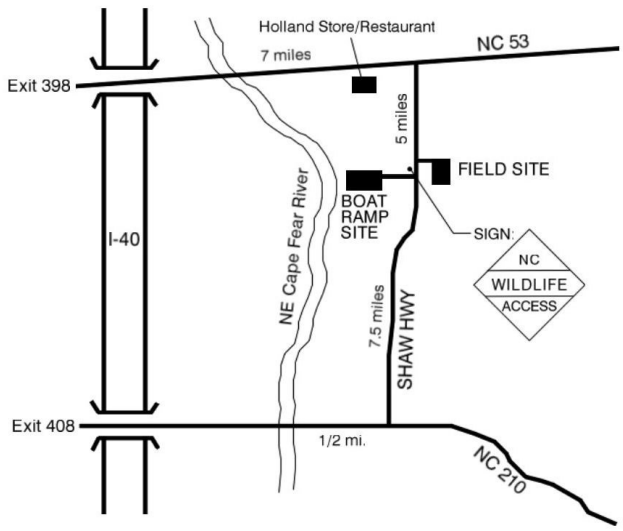
Call Ron Hawes at 762-1033 or check our email list to confirm a formal viewing session. Listed below are moonless nights so you can schedule a good viewing. All group viewing sessions will be at the Holly Shelter boat ramp site, unless otherwise specified. Time: Dusk until ?

Friday, June 27 Saturday, June 28

Friday, July 4 Saturday, July 5

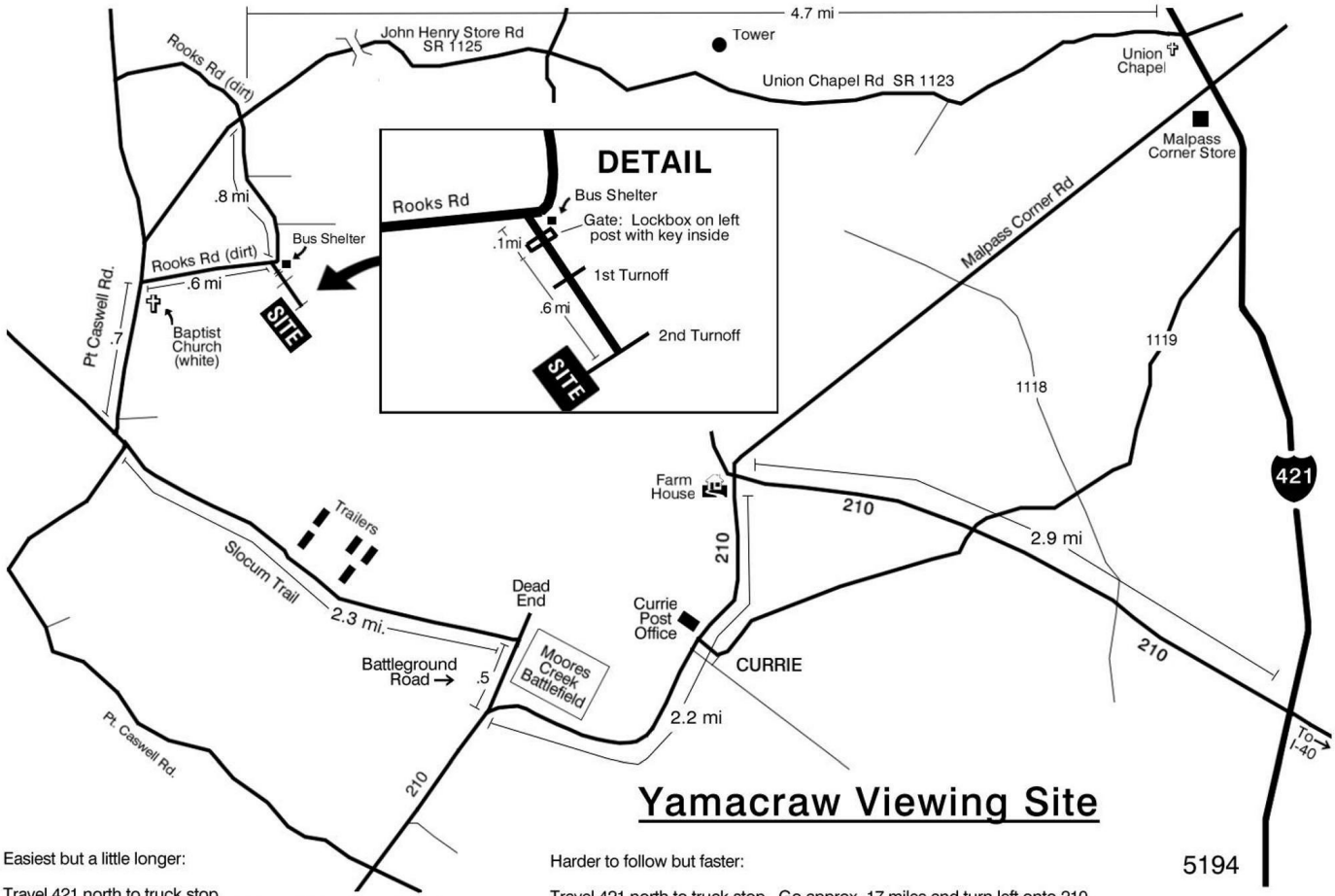
Please be cautious of unusual wildlife behavior while observing. A golf club or stick could be useful to keep nearby.

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.