

UNA Planetarium Newsletter

Vol. 2. No. 6 June 12,
2009

One of my favorite musicians, John Mellencamp included on an album cover a quote from "Speck" Mellencamp the following quote "There is nothing as sad or glorious than generations changing hands". This is certainly true for the recently serviced Hubble Space Telescope. It is refurbished, but with some sadness, in about five years it will end its mission and be replaced with the James Webb Space telescope. The quest for knowledge will continue without it.

This month also marks the anniversary of the death of one of my great heroes, Maria Mitchell. She should be a household name in the US but somehow is not. Maria Mitchell was the first female professional astronomer in the United States and only the second woman to ever discover a comet. She benefited from the Quaker environment in her native Nantucket, which encouraged learning among girls. Her father introduced her to astronomy, and in October, 1847 discovered a comet which bears her name. This resulted in her winning a gold medal from King Frederick of Denmark. Maria Mitchell went on to become the first female member of the American Academy of Arts and Sciences (1848) and the American Association for the Advancement of Science (1850). She was the first female faculty member of Vassar College where she was its observatory director. She was famous for inviting students to observe through the telescopes in the evening and for motivating interest in science. She died June 28th, 1889.

Mel Blake.

UNA Planetarium and Observatory, is operated by the Dept. of Physics and Earth Science

Image of the Month



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The space shuttle Atlantis spent more than ten days in orbit for the fourth and final servicing mission to the Hubble Space Telescope. The mission was one of the most difficult ever attempted. Here the Hubble Space telescope sits anchored in the shuttle's cargo bay while astronauts prepare to do a space walk. The Hubble now has new gyroscopes to allow better points and a new camera that will allow the deepest images yet of the Universe. The Wide Field Planetary Camera 2 (WFPC2) was brought back to Earth and will reside in the Smithsonian. A new spectrograph, use dto break light up into its colors for analysis was also installed. The Hubble will be replaced with a new space telescope in about 5 years. The Hubble Space telescope will never again be touched by human hands. **Image courtesy NASA.**

Astro Quote: *"The world of learning is so broad, and the human soul is so limited in power! We reach forth and strain every nerve, but we seize only a bit of the curtain that hides the infinite from us."*
Maria Mitchell, first female astronomer in the U.S.

Observing Highlights

Saturn lies in the southwestern sky at sunset in Leo.

Jupiter moves into the evening sky, rising around 11:30PM early in the month to 10:30PM later in June.

Calendar for June, 2009

June 2nd. Planetarium Public Night

June 9th. Planetarium Public Night.

June 12th. Planetarium Public Night.

June 13th. Shuttle Endeavour Launch 7:17AM.

June. 16th. No Planetarium Public Night due to the Southeastern Planetarium Association meeting in Nashville.

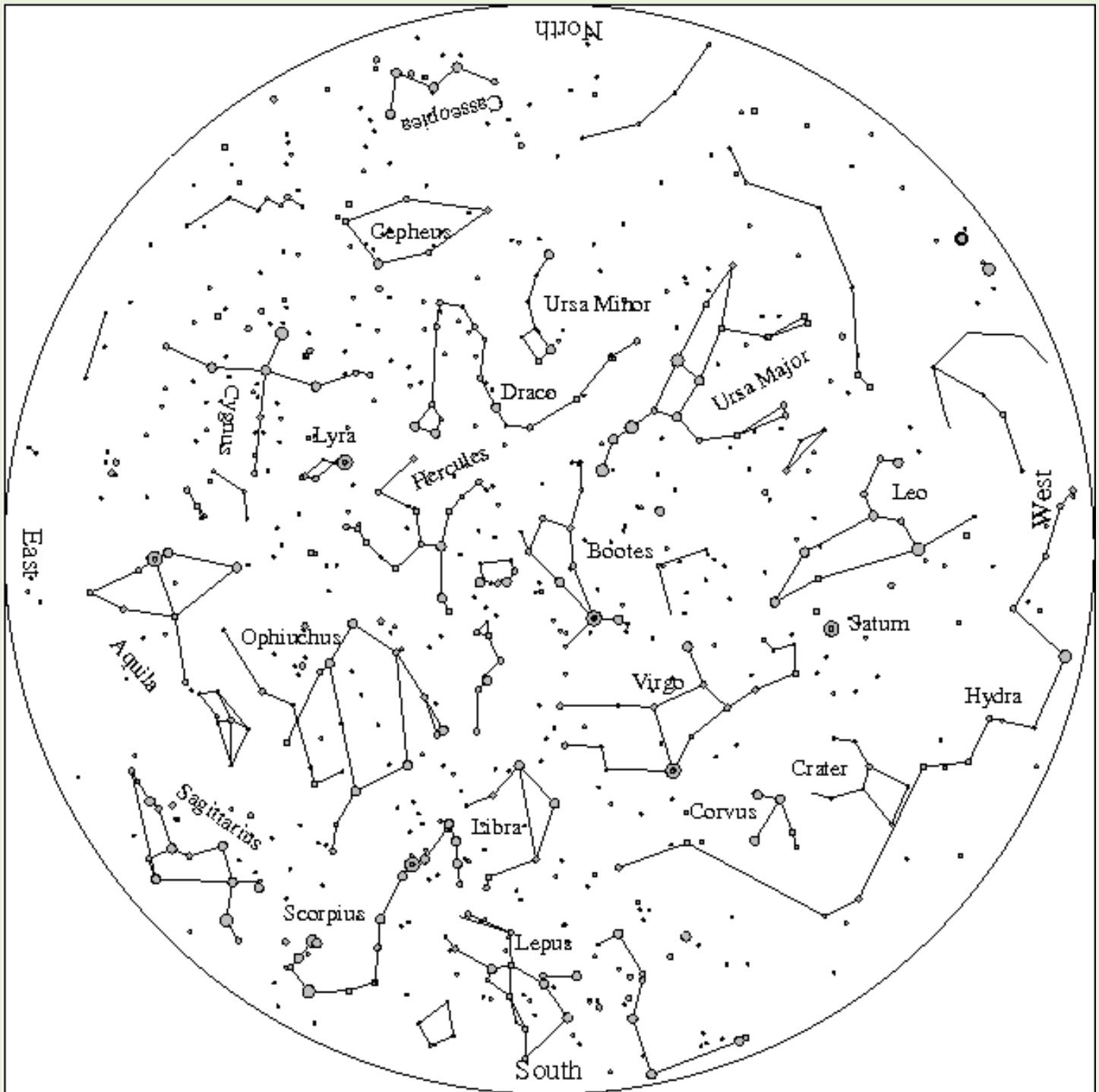
June 23rd. Planetarium Public Night

June. 26th. Planetarium Public Night

June 28th. 1889. Maria Mitchell dies.

June. 30th. Planetarium Public Night.
Tunguska Event 100 years ago.

The June 2009 Sky for North Alabama



How to use this Chart: The sky is shown for 10:00PM, June 15th for Florence, Alabama. It will appear this way one hour earlier for each week difference in time. The stars brightness's are represented by different sized dots. The faintest stars you can see are the small dots; the brightest ones are large dots. Hold the chart with the direction you are facing down. So if you are facing north, hold the chart with north down. The circle represents the horizon and the center of the chart the point directly over your head. So an object half-way between the center and edge of the chart is half-way up in the sky. This chart was prepared using the SkyNow software of R. M. Blake. This chart may be reproduced for non-commercial purposes with the following acknowledgement included: Courtesy UNA Planetarium and Observatory. <http://www.una.edu/planetarium/>.



UNA Projects and Initiatives

40th Anniversary of the Moon Landing

We are working with the Florence Library on a special event to mark the anniversary of the moon landing in July. July 20th marks the anniversary. On July 11th and 12 we will be doing interactive programs for families where children will make a balloon-power rocket car and a space movie will be presented. On July 12th afternoon programs will see the author Roger Reid perform a reading at the library followed by another interactive program and solar observing (weather permitting). The Shoals astronomy club and Dr. T. Pace of UNA are partnering with this effort. We will hold additional programs at the Children's Museum of the Shoals on July 19th.



Endeavour is going to the International Space Station. Here's when you can watch the ISS fly over Florence in June

Date	Magnitude	Start			Maximum Altitude			End		
		Time	Altitude	Direction	Time	Altitude	Direction	Time	Altitude	Direction
June 16	0.7	04:55:08	10	SE	04:55:56	11	SE	04:56:43	10	ESE
June 17	-1.4	05:17:47	10	SSW	05:20:34	43	SE	05:23:21	10	ENE
June 18	0.5	04:09:21	10	SSE	04:10:28	12	SE	04:11:35	10	ESE
June 19	-1.7	04:33:12	18	SSW	04:35:03	47	SE	04:37:52	10	ENE
June 20	0.5	03:25:37	12	ESE	03:25:37	12	ESE	03:26:15	10	E
June 20	-1.3	04:57:07	10	WSW	04:59:50	36	NW	05:02:33	10	NNE
June 21	-2.0	03:49:24	52	SE	03:49:24	52	SE	03:52:14	10	ENE
June 22	-1.2	04:13:06	25	W	04:14:08	34	NW	04:16:49	10	NNE
June 23	0.1	03:05:14	22	ENE	03:05:14	22	ENE	03:06:29	10	NE
June 23	0.4	04:37:39	10	WNW	04:39:05	13	NNW	04:40:29	10	N
June 24	-0.7	03:28:45	30	NNW	03:28:45	30	NNW	03:30:57	10	NNE
June 25	0.5	03:52:11	11	NW	03:53:11	12	NNW	03:54:29	10	N
June 26	0.8	02:44:04	17	NNE	02:44:04	17	NNE	02:44:57	10	NNE
June 27	0.7	03:07:21	12	NNW	03:07:21	12	NNW	03:08:20	10	N

Key: Directions are abbreviated. E.G. North-north-east = NNE and so on. The altitudes are given in degrees. Your fist held at arm's length is about 10 degrees. See the star chart for a description of magnitudes. Data from the website

<http://www.heavens-above.com/main.asp>

NASA Education Programs for Schools

ISS EarthKAM Summer 2009 Mission

Middle school educators are invited to join NASA for the International Space Station EarthKAM **Summer** 2009 Mission on **July 7 - 10, 2009**. Find out more about this exciting opportunity that allows students to take pictures of Earth from a digital camera on board the International Space Station.

ISS EarthKAM is a NASA-sponsored project that provides stunning, high-quality photographs of Earth taken from the space shuttle and International Space Station. Since 1996, ISS EarthKAM students have taken thousands of photographs of Earth by using the World Wide Web to direct a digital camera on select spaceflights and, currently, on the International Space Station.

For more information about the project and to register for the upcoming mission, visit the ISS EarthKAM home page:

www.EarthKAM.ucsd.edu <<http://www.EarthKAM.ucsd.edu>> .

If you have questions about the EarthKAM project, please e-mail ek-help@earthkam.ucsd.edu

Seeds Flow in Space for Science Projects in Schools

The Engineering Design Challenge: Lunar Plant Growth Chamber experience. Packets of space-flown seeds and packets of seeds not flown in space are now available as part of the Seeds in Space Kit. The kit includes the following items:

- Five packets of seeds. Each packet includes one envelope of space seeds and one envelope of Earth seeds.
- Liftoff to Learning: Plants in Space DVD.
- The Ozone Monitoring Garden Lithograph.
- The Engineering Design Challenge: Lunar Plant Growth Chamber Bookmark.

The Seeds in Space Kit may be obtained from the Central Operation of Resources for Educators, or CORE. Seeds are available as long as supplies last.

<http://corecatalog.nasa.gov/item.cfm?num=300.0-83B> <<http://corecatalog.nasa.gov/item.cfm?num=300.0-83B>>

