

	<h1 style="margin: 0;">STAR FIELDS</h1>
<p>NEWSLETTER OF THE AMATEUR TELESCOPE MAKERS OF BOSTON</p>	
<p>Vol. 6, No. 5</p>	<p>May 1995</p>

Our May Meeting...

Thursday, May 11, 1995
Phillips Auditorium, Harvard-Smithsonian
Center for Astrophysics

IN MAY, our speaker will be Dr. James Moran, a professor of astronomy at Harvard University since 1989. Dr. Moran got his BS at Notre Dame in 1963, and his PhD at MIT in 1968. He was a member of the original team that developed the VLBI (receiving the Rumford prize of the American Academy of Science for his work). He has been at the CFA since 1970. He was the CFA Ass. Director of Radio and Geoastronomy division from 1987-1992. Finally, he is the vice-chairman of commission 40 (radio astronomy) of the international Astronomical Union.

Dr. Moran has spent considerable time studying masers in regions of star formation. He was part of the joint Japanese-American team that studied the Megamaser in NGC4258 and has been awarded the Rubin prize for the first measurement of a galactic rotation curve above 600 km/s. (implying a black hole?) He plans on discussing this work at the meeting.

Please join us at a pre-meeting dinner at the Clangshio Restaurant, 1712 Mass. Avenue, Cambridge. Please meet at the restaurant by 6:00 PM.

April Meeting Highlights...

VICE PRESIDENT Peter Bealo opened the April meeting in the absence of President, Mario Motta. The March meeting minutes were read by Secretary Steve Beckwith followed by Membership Secretary Mark Bruckner reporting the club's membership now stands at 253. John Reed gave the treasurer's report.

Paul Cicchetti reported the following work in progress at the clubhouse: Gary Walker and John Reed installed more cabinets in the kitchen area. He also said there are plans to change the light source of the Foucault tester in order to improve its operation. Steve Clougherty reported

that 180 feet of trenches were dug and conduit laid, and electrical outlets installed in the observing area. This wiring was done to code and is on a ground fault interrupt (GFI) circuit).

Bob Collera noted he and Mario Motta cut the pieces out for eight Dobsonian bases from three four by eight foot sheets of plywood. Later they were transported to the Lynn School where they worked with the children -in assembly line fashion- to assemble the bases (Bob and Mario) and paint them (the children). The pieces were cut in three hours while assembly and painting took ninety minutes. Bob also reported one six-inch, f/4. mirror was tested to 1/9th wave accuracy.

The club voted Gary Walker, Ken Launie and John Reed to the nominating committee. John Reed is the committee chairman.

Dr. Lawrence Marscall, the evenings speaker spoke on the growth of knowledge and the mechanisms of supernovae.

Donations for WSH...

ONE HUNDRED dollars is needed for a monument honoring the memory of noted amateur astronomer and friend Walter Scott Houston. The monument will incorporate a sundial and will be placed outside the Van Vleck Observatory at Wesleyan University in Middletown, CT. The university will match funds raised by the amateur astronomy community.

Any members interested in making a contribution, please contact John Reed.

Announcements...

THERE WILL be an executive board meeting at my home on May 14th at 6:00 pm. As next years club budget will be discussed, all executive board members are requested to come. If any member has issues that he/she would like discussed, please send me a notice of the issue to discuss.

- Mario Motta

PLAN ON observing Saturn throughout the summer and fall as it's "ring edge" show will not happen again for 14 years. You may get a glimpse of the underlit side of the rings as well at certain times.

FOR ALL galaxy enthusiasts: get the Carnegie Atlas of Galaxies! This is the atlas I have always wanted since I was a child. It is two volumes, 19x11 inches in size, and weighs 24 lbs! It is full of high quality photos of galaxies taken through the years at major observatories. I put an order in on day one, and have received them already, they are wonderful. The best part is they were produced at cost by the Carnegie Foundation. See the description in the May 1995 *Sky & Telescope*.

-Mario Motta

STARPARTY: Marblehead for the Coffin elementary School is set for May 2, 7:00 pm (Tuesday) with rain/cloud date of May 4th. Please, lets have as many volunteers as possible for the school is very excited by this event and plan on advertising to the town. Notify member Eric Reines (617-631-5898) or myself (617-334-3648) if you can make this event.
- Mario Motta

ATMoB MEMBER Sai Vallabha, who moved to Sunnysvale, CA. on a job search, was spotted at this years Starconn at Wesleyan University. Sai, an enthusiast for observing in the company of mosquitoes and sub-zero temperatures said he will be leaving California's sissy weather and moving back to the area soon. We look forward to his return.

PLEASE BRING Photos/images/slides to the May meeting and show them to the membership.

VOLUNTEERS ARE still needed to help with Astronomy Day '95 activities! The event will take place May 6th at the Boston Museum of Science. We need folks to man the display tables and to help out at the star party to be held that evening. Any H-alpha people interested in setting up during the day? The evening event usually draws a crowd, so the more scopes the better! Even if you don't own a 'scope, you can help by pointing out the various constellations, bright stars, and planets. If you plan to attend, please call me at (508) 879-3498.
- Rich Nugent

An Edge in Your Observing...

THIS MONTH, Saturn's rings disappear from our view in the first of three such events between this month and February 1996. On May 21st the rings take an edge-on alignment with earth. The other two occur edge on alignments occur August 11, 1995 and February 11, 1996. Several days prior to and following each alignment -the exact number of days being telescope dependent- the rings will disappear completely.

Preparations

First, be ready for early morning observing. The on coming dawn will shorten your observing time during May so be prepared to make the most of it. By mid-month, Saturn will be 23 degrees above the horizon prior to sunrise.

Second, follow the rings as they disappear. Begin your observing runs a few weeks before the 21st. then keep them up as often as possible.

The Rings

The rings will appear as a thin straight line fading out of sight as the month progresses. How long you will see the rings before they disappear depends on the aperture of the instrument you're using. You should also be able to observe the rings' shadow across the surface of Saturn.

Between May 21st and August 11th, the shadow (unilluminated) side of the rings will be facing us. members with larger telescopes may find this a unique time to observe the rings. Some of the block light from the sun will filter through the less dense rings (A&C) and appear as a broken line. This effect is normally asymmetrical and should be interesting to observe. Also, bright knots of light passing through thinner regions of individual rings may be seen. Take care not to confuse moons for this phenomena.

The Moons

Now is a good time to observe Saturn's satellites. The reduced glare of the rings makes the fainter moons more readily visible. The following excerpt is from "Introduction to Observing and Photographing the Solar System" by Dobbins, Parker and Capen: *Titan, the brightest is visible through large binoculars or any small telescope. Under excellent conditions 12 inches of aperture will show its minute disc. Rhea can be seen with a 3-inch refractor, as can Iapetus at its western elongation, when the brighter hemisphere of this strange satellite is presented. A 4-inch instrument will reveal Dione, Tethys and Enceladus. Tiny Hyperion, which circles Saturn between the orbits of Iapetus and Titan is a challenge for an 8-inch telescope, while Mimas requires 10 inches of aperture.*

The May 1995 issue of *Sky & Telescope* lists events and times of satellite events of interest.

The Planet

With the rings out of the picture, this is an excellent time to observe the planets zones, bands, white spots and ovals. In the past few years activity in Saturn's clouds has taken place in the form of two separate white spots appearing on the planet. Enhance your viewing with filters during your observations. The table below list suggested filter/feature combinations.

Feature	Filter Color	Wratten Number
Belts, Zones, Equatorial Band	Light Blue	80A or 82A
Polar Caps, Equatorial Zone	Orange or Light-Red	21 or 23A
Low Contrast Features	Light Green	57 or 11

The edge on alignment of the rings occurs every 13.7 and 15.5 years making for a predictable but rare (relative to our life time) event. So this year, put Saturn on your observing program and watch the show. - Steve Beckwith

Clubhouse News...

CLUBHOUSE PROJECTS are proceeding slowly but John Reed said "we're getting there". Repair of the porch is expected to happen in the June/July time frame.

A WORK party is scheduled for Saturday, May 13th from 10:00am until dark. We will try to wrap-up the outside programs at that time. Please contact Paul Cicchetti or John Reed if you can help. A second work session is scheduled for June 10th.

STAR PARTY volunteers are needed at the clubhouse on Friday, June 2nd and Saturday June 3rd for the Acton fourth graders. Twenty five students and their parents from two fourth grade classes will in attendance (one class per night). Rich Nugent (508-870-3498) is coordinating the event. Please contact him if you wish to lend a hand. Also, Paul Cicchetti is coordinating a small star party for the Westford tiger cubs (seven and eight-year-olds) at the clubhouse on May 20th. He will need some help as well.

CLUBHOUSE DUTY ROSTER

May 6:	Dave Aucoin	617-891-9650
	Greg Chase	508-957-9926
May 13:	Paul Cicchetti	508-433-9215
	John Reed	617-861-8031
May 20:	Phil Rounsville	617-527-1080
	Bob Heller	508-433-6536
May 27:	Memorial Day	CLOSED
June 3:	Fritz Ledford	603-386-7028
	Henry Hopkinson	603-432-2490

Corona Borealis...

THIS DELICATE constellation is found between the constellations Hercules and Bootes and is comprised of seven main stars forming an open sided circle. Six of the stars are 3rd magnitude or fainter while the seventh, Gemma (α Coronae), shines at second magnitude.

The Story

The name means "the crown" and according to legend, belongs to . It seems the king of Athens son, Theseus, was one of fourteen Athenians to be sacrificed to a Minotaur (half-man, half bull). The monster lived in a complex labyrinth on the island of Crete. Theseus decided this was not his idea of summer camp and planned to slay the Minotaur.

Ariadne the daughter of King Minos fell in love with Theseus upon his arrival to Crete. To save him from the minotaur, she gave him a sword and a spool of thread.

Theseus slayed the minotaur then escaped the labyrinth by following the thread he had unwound earlier when he entered the labyrinth. Theseus married Ariadne following his adventure. The marriage, however, didn't last. Theseus later ran out on his wife. The gods took pity on her and gave her the crown which they placed in the sky following her death.

Objects of Interest

ϵ Coronae is a challenging binary star with a 41 year period. Separation between the 5.7 mag. primary and 6.0 mag secondary is close to it's maximum of 1 arc second. The stars are of the same size, mass and luminosity of our sun.

Variable star observers should be familiar with R Coronae, an irregular variable star located inside the crown at coordinates $15^{\text{h}} 46.5^{\text{m}}, +28^{\text{d}} 19^{\text{s}}$. This variables light curve is completely unpredictable. Normally it will stay near its 6th magnitude maximum for several years then rapidly dim several magnitudes within a few weeks.

Another object of interest is T Coronae, the "Blaze Star". It is one of seven stars known to be recurrent novae. Located just outside of the crown near ϵ Coronae ($15^{\text{h}} 57.4^{\text{m}}, +26^{\text{d}} 04^{\text{s}}$), it now shines at tenth magnitude but in 1866 and 1946 it flared to magnitudes 2.0 and 3.0 respectively. On both occasions following maximum, the star dimmed rapidly to it's former 10th magnitude brightness then rose a few more magnitudes then fell back to tenth magnitude.

- Steve Beckwith

FOR SALE...

GIANT FULLY framed & matted 22" x 28" color photos of the Trifid, Pleides, Lagoon, etc. \$29.00 each. Huge lot of astronomy books \$6.00 each. (508)-670-2913.

- Rich Burven

Coming Events...

May 18 CFA MONTHLY OBSERVING NIGHTS. "Watching Starbirth in Cosmic Nurseries" by Charles Lada, CFA. 8:00PM, Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics. Call 617-495-7461 for additional information.

EXECUTIVE BOARD 1994-95

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1990-92 Marion Hochuli

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Paul Cicchetti 508-433-9215
OBSERVING: Richard Nugent 508-879-3498
HISTORIAN: Anna Hillier 617-861-8338

JUNE STAR FIELDS DEADLINE

May 27th is the deadline for items to be included in the June issue of *Star Fields*. Mail or phone your contributions to: Steve Beckwith, 195 Wilder Road, Bolton MA. 01740 508-779-5227
e-mail: Compuserver@71762,2513

How to Find Us...

MEETINGS: Held the second Thursday of each month (September to July) at 8:00PM in Phillips Auditorium, Harvard-Smithsonian Center for Astrophysics, 60 Garden St., Cambridge MA.

CLUBHOUSE: The Tom Britton Clubhouse is open every Saturday from mid-afternoon to late evening. It is the white farmhouse on the grounds of MIT's Haystack Observatory in Westford, MA. Take Rt. 3 North from Rt. 128 or Rt. 495 to exit 33 and proceed West on Rt. 40 for five miles. Turn right at the MIT Lincoln Lab, Haystack Observing at the Groton town line. Proceed to the farm house on the left side of the road. Since clubhouse attendance varies with the weather, it is wise to call in advance: 508-692-8708.

Amateur Telescope Makers of Boston

FIRST CLASS