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# *The FOCAL POINT*

Newsletter of the Atlanta Astronomy Club, Inc.  
Volume V, Number VI February 1993

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## **THE COSMIC YARDSTICK**

The next meeting of the Atlanta Astronomy Club will be held at 8:00 p.m., Friday, February 19th, 1993 in the Classroom of Fernbank Science Center.

Hal Crawford, Recording Secretary, will present his program, "The Cosmic Yardstick."

Does thinking about the sheer size of the universe (or just the solar system for that matter) leave you overwhelmed? The observable universe is so large that the mind cannot truly comprehend it. Hal will bring perspective to the size of the universe by using common objects for comparison. He will also stress the importance of exponential notation (easier to use than long strings of zeros!) for describing the universe and will present a short video, "Powers of Ten." The cosmos will seem much larger than you ever imagined!

## **SIDEWALK ASTRONOMY**

The Tucker Recreation Center is hosting weekly Sidewalk Astronomy sessions, weather permitting, every Tuesday from 8:00 to 9:00 p.m. These sessions are a great opportunity for members to meet for informal observing and introduce the general public to amateur astronomy.

The Recreation Center is located at 4898 Lavista Road, two miles east of Northlake Mall. For more information please call Jim Brant at 296-6334.

The weather has been better this month and turnout has been good. As always, bring your telescope!

## **AT THE EYEPIECE** by Bud Rosser

Boy Howdy! We are in an exciting time at the A.A.C. There's lots going on and there's lots that's about to go on. Rather than just reproduce a certified copy of the January Board of Directors meeting, let me hit some highlights.

First and foremost, after a most pleasing conversation with Eric Greene of the A.S.A., I am happy to announce a joint observing session at the Barber Observatory on April 17th (rain date is the following Saturday.) We will provide soft drinks and ice, and everyone who wishes to attend is asked to bring sandwiches or a "covered dish" for themselves/family and guests. I expect everyone should be present between 1900 and 1930 local time. There are future plans to hold such sessions with the Colonial Club (Macon) and the Roper Astronomers (Greenville, S.C.) also this year.

Secondly, Leonard Abbey is heading a committee to search for an alternate meeting site at Agnes Scott for our Club. While our hearts are always at the Bradley Observatory, its physical condition and lack of hi-tech equipment for programs prompts the consideration of looking for more luxurious digs...

Thirdly, the Board, listening to the membership, encourages active support of a "Sidewalk Astronomy" program to be headed by Jim Brant. This concept includes official Club endorsement of Jim's ongoing Tucker Recreation Center activities and translates into a request that all non-Club organizations that wish to have public observing activities be channeled to Jim, and receive full support from our membership.

A fourth item concerns the Board's authorization to expend some funds toward needed equipment for our telescopes. Suffice it to say, they were authorized, and Dave will fill you in at the next meeting.

Two final notes... I went to the Barber Observatory on January 23rd and met two guests, two new members and several regulars. It was wonderful! The 10-inch with its newly refurbished mirror is probably the best view of its class in the southeast. I also wish to thank new member Claude Bass for his tools and his help to FINALLY get my Meade MTS-SN8 to track like a quartz drive should...

The weather's on our side lately, so let's get out there and SKY UP.

**RANDOM NOTES**

by David Riddle

Meteor observing with a 20-inch reflector? Telescopic meteors are a surprisingly common sight. I see an average of one meteor per hour while using the 20-inch with a power of 160x with a true field of one half degree. Rich field telescopes at low power should catch 3 or 4 meteors per hour. While I was observing at the Texas Star Party last year, I saw two meteors cross the field of a 13.1-inch reflector almost instantaneously, creating an ephemeral lopsided 'X' pattern against the starry background.

Regardless of the instrument you use the faintest meteor you can see will be about one to two magnitudes brighter than the faintest star you can see. The unaided eye will see meteors down to a magnitude of 4 to 5; the 20-inch scope will allow you to see down to roughly thirteenth magnitude!

It has been suggested that there are no meteors fainter than 19th to 20th magnitude. The tiny particles that would produce these faint meteors are slowed by the tenuous outer regions of the earth's atmosphere and never reach the speeds necessary to vaporize. They simply free fall slowly to earth as meteoric dust.

The Astronomical League has announced plans to expand its popular Herschel Program from 400 objects to 2467 objects. If you have access to a 10-inch or larger telescope and would like to contribute to this 5-year program, contact me and I can provide information and an initial list of 250 objects to be observed.

Is there any interest in forming a deep sky observing or astrophotography group within our Club? If so, let's talk about getting them started. Perhaps our Club could sponsor an annual astrophotography contest. Photos are a good way to introduce the general public to the beauty of the night sky and could be used for Astronomy Day activities.

A personal observing project at the Villa Rica Observatory is the Perek-Kohoutek (P.K.) catalog. This list of planetary nebulae contains many faint but spectacular objects. The use of a large telescope and a Lumicon O-III filter is recommended. (The Club's Ultrablock filter works about as well as an O-III filter on some of

the P.K.s) In many cases there are no visual magnitude estimates on these objects. I would welcome any contributions from Club members who have observed these elusive planetaries. A useful 'data base' could be compiled for these seldom observed nebulae.

**TRIVIA**

The answers to last month's questions:

James Lovell, John Young and Eugene Cernan each made two flights to the Moon, although only Young and Cernan walked on the surface.

The constellations Musca, Scorpius and Cancer depict three classes (Insecta, Arachnida and Crustacea) of Arthropods.

The USS Saratoga was the first aircraft carrier to be propelled by nuclear energy, albeit in a nuclear test in the Pacific. It was pushed several hundred yards by the blast and sank a few hours later. The nuclear reactor of the USS Enterprise is safer and more practical but maybe not as spectacular!

February's question:

The 60-inch at Mount Wilson was the world's largest operational telescope when it was completed in 1908. What was the largest telescope ever built up to that time and what was the largest operational telescope before the 60-inch was completed?

**REPORT OF THE DARK SKIES COMMITTEE**

by Tom Buchanan, Chairman

Two pieces of legislation have been introduced into the Georgia Legislature to reduce light pollution. House Bill H. B. No 207 will prohibit the use of state funds to install or replace any permanent outdoor luminaire unless it is mounted and shielded to prevent emitting light above the horizontal plane into the sky. House Resolution H. R. No. 62 urges state agencies implementing roadway lighting projects to use available technologies and equipment to minimize light trespass, glare, and sky glow.

All members of the AAC (and nature lovers) are urged to contact a representative and senator and urge support of these pieces of legislation. State

that outdoor lights with inadequate shielding waste energy and interfere with observing the nighttime sky, which is part of the natural environment. Mention how your own observing is affected. Write soon! A short note now is better than a long letter later.

The counties where the AAC members reside are included in the following list from the *Atlanta Journal* issue of January 10, 1993.

To find out who your legislator is, look for your county. If more than one name and district is listed, look for the district number listed on your voter registration card or call your county elections office. In metro Atlanta, you can call:

FULTON .....730-7020  
 DEKALB .....371-2241

COBB..... 528-2300  
 GWINNETT..... 822-8787  
 CLAYTON..... 477-3372

For more information, call the House Information Office, 656-5082 or the Secretary of the Senate, 656-5040.

Mailing addresses:

Rep. John Doe  
 Georgia House of Representatives  
 State Capitol  
 Atlanta, GA 30334

Sen. John Doe  
 State Senate  
 State Capitol  
 Atlanta, GA 30334

**SENATE**

**House**

County	Name	District	Phone
Bartow	Nathan Dean	31	656-5121
	Richard Marable	52	656-5120
Carroll	Wayne Garner	30	656-5034
Cherokee	Chuck Clay	37	656-0032
	David Ralston	51	656-6559
Clayton	Sallie Newbill	56	656-0036
	Nadine Thomas	10	656-0078
	Pam Glanton	34	656-0094
Cobb	Terrell Starr	44	656-7586
	Johnny Isakson	21	656-5085
	Hugh Ragan	32	656-0037
DeKalb	Steve Thompson	33	656-0041
	Chuck Clay	37	656-0032
	Ralph Abernathy III	38	656-0056
	Joe Burton	5	656-0086
	Nadine Thomas	10	656-0078
Douglas	Jim Tysinger	41	656-5068
	Mary M. Oliver	42	656-5920
	John Parrish	43	656-0048
	Steve Henson	55	651-7738
	Wayne Garner	30	656-5034
Fayette	Pam Glanton	34	656-0094
	Arthur Edge	28	656-0033
Fulton	Pam Glanton	34	656-0094
	Arthur Langford Jr.	35	656-0049
	David Scott	36	656-0090
	Ralph Abernathy III	38	656-0056
	Ron Slotin	39	656-5039
	Mike Egan	40	656-6191
	Sallie Newbill	56	656-0036
	Joe Burton	5	656-0086
	Don Balfour	9	656-0095
	Jim Tysinger	41	656-5068
Clint Day	48	656-5109	
Habersham	Sallie Newbill	56	656-0036
	Guy Middleton	50	656-5110
Henry	Mike D. Crotts	17	656-0071
Newton	Mike D. Crotts	17	656-0071
	Harrill Dawkins	45	656-0065
Paulding	Nathan Dean	31	656-5121
Richmond	Charles Walker	22	656-0040
	Don Cheeks	23	656-0045
Rockdale	Mike D. Crotts	17	656-0071
	Harrill Dawkins	45	656-0065
Spalding	Arthur Edge	28	656-0033
	Steve Langford	29	656-5067
Upson	Ed Gochenour	27	656-0044

County	Name	District	Phone
Bartow	E.M. Childers	13	656-5141
	Walter J. Lewis	14	656-0188
	Bill Cummings	27	656-5143
Carroll	Charles Thomas	100	656-5125
	John Simpson	101	656-0188
	Garland Pinholster	15	656-0265
Cherokee	Steve Stangil	16	656-5058
	Melanie Harris	17	656-0265
	Frank Bailey	93	656-0305
Clayton	Bill Lee	94	656-5024
	Gail Buckner	95	656-0254
	Jimmy Benefield	96	656-6801
Cobb	Gail Johnson	97	656-0188
	Bill Atkins	29	656-0314
	Matt Towery	30	656-0314
DeKalb	Lynda Coker	31	656-0314
	John Hammond	32	656-0152
	Roy Barnes	33	656-0314
	Jack Vaughan	34	656-0177
	Tom Cauthorn	35	656-0314
	Earl Ehrhart	36	656-0314
	Mitch Kaye	37	656-0109
	Kem Shipp	38	656-0314
	Kip Klein	39	656-0265
	Steven Clark	40	656-0265
Douglas	Billy McKinney	51	656-0188
	Bart Ladd	59	656-0137
	Max Davis	60	656-0109
	Doug Teper	61	656-0325
	Tom Sherrill	62	656-0188
	Betty Jo Williams	63	656-0152
	Tom Lawrence	64	656-5058
	Michele Henson	65	656-0254
	June Hegstrom	66	656-0188
	Michael C. Polak	67	656-0202
Fulton	JoAnn McClinton	68	656-0126
	Barbara J. Mobley	69	656-6372
	Thurbert Baker	70	651-7737
	Vernon Jones	71	656-0220
	Mamie Randolph	72	656-0126
	Henrietta Turnquest	73	656-0126
	Barbara Bunn	74	656-0126
	Earl L. O'Neal	75	656-0298
	Bill Hembree	98	656-7859
	Dennis H. Chandler	99	656-0287
Fayette	L.A. Westmoreland	104	656-0177
	Dan Lakly	105	656-0177

Fulton	Mark Burkhalter	41	656-0213
	Tom Campbell	42	656-0152
	Dorothy Felton	43	656-0109
	Sharon Trense	44	656-0137
	Mitch Skandalakis	45	656-0213
	Kathy Ashe	46	656-0116
	Jim Martin	47	656-0277
	Grace Davis	48	657-9105
	Pamela A. Stanley	49	656-7859
	Lanett Stanley	50	656-5024
Gwinnett	Billy McKinney	51	656-0188
	Henrietta Canty	52	656-6372
	Bob Holmes	53	656-5115
	Tyrone Brooks	54	656-6372
	Dick Lane	55	656-5105
	Nan Orrock	56	651-7737
	Georganna Sinkfield	57	656-9210
	Sharon Teague	58	656-7859
	Tommy Stephenson	25	656-0220
	Scott Dix	76	656-0126
Habersham	Charles Bannister	77	656-0137
	Ronald Crews	78	656-0137
	Bill Goodwin	79	656-0137
	Brooks Coleman	80	656-0177
	Ralph Johnston	81	656-0325
	Vinson Wall	82	656-0177
	John Dickinson	83	656-0265
	Jere W. Johnson	84	656-0287
	Keith Breedlove	85	656-0137
	John O. Mobley Jr.	86	656-0202
Henry	Bill Dover	9	656-5146
	John Carlisle	107	656-0202
	Leland Maddox	108	656-7859
Newton	Larry Smith	109	656-0287
	Frank Stancil	91	656-0202
Paulding	Denny Dobbs	92	656-0325
	Tom Murphy	18	656-5020
Richmond	Charlie Watts	26	656-9198
	Robin Williams	114	656-0109
Rockdale	Jack Connell	115	656-5072
	Bettianne C. Hart	116	656-7859
	George Brown	117	656-7859
	Henry Howard	118	656-7859
	Mike Padgett	119	656-7856
Spalding	Barbara Bunn	74	656-0126
	Earl Lamar O'Neal	75	656-0298
Upson	John Yates	106	656-0126
	John Carlisle	107	656-0202
	Robert Crawford	129	656-0137

The *Focal Point* is published monthly by the Atlanta Astronomy Club, Inc. The AAC is a non-profit organization dedicated to the advancement of amateur astronomy.

Meetings are held on the third Friday of each month (the second Friday in December) at the Bradley Observatory of Agnes Scott College in Decatur, Georgia.

For up-to-date information on Club programs and activities please call the AAC's telephone hot-line at 621-2661.

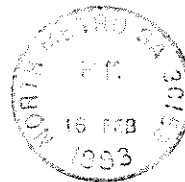
Membership: \$20 annually for families and \$10 for students. Membership includes a subscription to the Astronomical League's *Reflector* and use of the Club's observatory in Villa Rica, Georgia. An optional subscription to *Sky and Telescope* is available for \$20 per year and to *Astronomy Magazine* for \$16 per year.

Article submissions are strongly encouraged; please deliver to the editor for consideration. The submission deadline for the March 1993 issue of the *Focal Point* is March 9th. Permission is granted to duplicate and redistribute in a non-profit manner, in part or whole, provided credit is given to the authors, the Club and this publication.

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## *The FOCAL POINT*

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