



January, 2000

At the January 7 meeting...

Bill Leach

HAS Member

***Powers of Ten, The Temporal and
Spacial Nature of the Universe***

Houston Astronomical Society

GuideStar

Starline - 281-568-9340

Houston Astronomical Society presents *Starline* -- a recorded message of Society events and astronomical happenings. This service is updated regularly, so call often to keep up-to-date on Society functions, new comets and more.

H.A.S. Web Page: <http://spacsun.rice.edu/~has>

Schedule Changes & Up-To-Date Information

See the GuideStar's Monthly Calendar of Events to confirm dates and times of all events for the month, and call Starline for any last minute changes.

Observatory Site Telephone: 409-732-8967

★★★★★ *The Houston Astronomical Society* ★★★★★

The Houston Astronomical Society is a non-profit corporation organized under section 501 (C) 3 of the Internal Revenue Code. The Society was formed for education and scientific purposes. All contributions and gifts are deductible for federal income tax purposes. General membership meetings are open to the public and attendance is encouraged.

★★★★★★★★★ Officers ★★★★★★★★★

President: Don Pearce H: 713-432-0734	Secretary: Bill Leach H: 713-863-8335
Vice Pres: Barbara Wilson H: 281-933-1289	Treasurer: Gene Horr H: 281-894-4566

★★★★★★★★★ Additional Board Members ★★★★★★★★★

Bill Flanagan 713-699-8819	Liaison responsibility
Howard Leverenz 713-957-8667	
Jay Levy 281-992-2708	Field Trip and Observing, Program
Debbie Moran 713-666-9428	
Warren Wundt 713-697-2960	
Mike Dye 281-498-1703	Observatory Director

★★★★★★★★★ Committee Chairpersons ★★★★★★★★★

Audit Gary Hlivko 713-864-2541	Program Margaret Nunez 713-529-2549
Education Richard Nugent 713-910-5945	Publicity Mark Egan 281-265-1497
Field Tr./Obsg. Kenneth Drake 281-367-1592	Telescope Darin Palmer 713-223-3123
Novice John Garza, III 409-441-1476	Welcoming Bill Leach 713-863-8335
Observatory Michael Dye 281-498-1703	

★★★★★★★★★ Ad-Hoc Committee Chairpersons ★★★★★★★★★

Historian Leland Dolan 713-529-0403	Publ. Star Party Marg Nunez 713-529-2549
Librarian Peggy Gilchrist 281-558-1190	Rice U. Coord. Matt Delevoryas 713-795-0808
Logo Mds Sales Judy Dye 281-498-1703	Schedule Obs'v'ty Steve Goldberg 713-721-5077
Long Range Plan Don Pearce 713-432-0734	Texas Star Pty Steve Goldberg 713-721-5077
Parliamentarian Kirk Kendrick 281-391-3834	

★★★★★★ Special Interest Groups & Help Committees ★★★★★★★

These are now listed on the inside of GuideStar (not every month). See the Table of Contents

★★★★★★★★★ Advisors ★★★★★★★★★

Dr. Reginald DuFour, Rice Univ.	Dr. Lawrence Pinsky, U. of H.
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★★★★★★★★★ Dues and Membership Information ★★★★★★★★★

Annual Dues: Regular \$33.00	Student \$5.00
Associate \$5.00	Honorary None
Sustaining . \$50.00	

All members have the right to participate in Society functions and to use the Observatory Site. Regular and Student Members receive a subscription to *The Reflector*. Regular, Student, and Honorary Members receive *The GuideStar*. Associate Members, immediate family members of a Regular Member, have all membership rights, but do not receive publications. Sustaining members have the same rights as regular members with the additional dues treated as a donation to the Society. *Sky & Telescope* mag \$29.95/year, *Astronomy* mag \$29/year -- see club treasurer.

Membership Application: Send funds to address shown on outside cover of *Guidestar*. Attention - Treasurer, along with the following information: Name, Address, Phone Number, Special Interests in Astronomy, Do you own a Telescope? (If so, what kind?), and where you first heard of H.A.S.

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Call the Starline, 281-568-9340 for updates and changes

Welcome to New Members!

The H.A.S. welcomes the following new members:

Bob Baker, James Len Casady, Rusty Fletcher, Thomas Fossier, Terry Glaser, Ruth Marcom, Robert Marcom, Charles Oberholtzer, Rodney Rocha, Sheri Slaten, Richard B Wilbourn

Special Interest Group Listing

Any member who wants specific information on a SIG listed below may call the listed individual. Also, see the "Ad Hoc Committee Chairpersons" on the inside front cover and the "Special Help Volunteers" listing (not in every issue).

Advanced	Bill Flanagan	713-699-8819
Comets	Kenneth Drake	281-367-1592
Lunar & Planetary	John Blubaugh	713-921-4275
Occultations & Grazes ...	Wayne Hutchison	713-827-0828
Advanced	Bill Leach	713-863-8459

Observations... of the editor

By Bill Pellerin, GuideStar Editor

I observe that going into 2000 the Houston Astronomical Society is a vibrant and growing organization. As we install our new officers board members, and committee leaders I note the willingness of our members to contribute to the well being of the organization.

The membership owes a debt of gratitude to those who served the organization last year. So... to all of you who helped, thanks! You've helped make the organization grow and get better. For those of you who haven't yet volunteered, plenty of opportunities remain available. Don Pearce is our president for another term in 2000. Call Don and ask what you can do to help!

We'll be having a well-timed lunar eclipse on the night of January 20th. It'll be easily visible from Houston (clouds notwithstanding), so make plans to see it. Better than that.. make plans to involve your neighbors in the observation. Plan a yard party in your front yard. Set up a small telescope and bring a model of the earth-sun-moon system (a flashlight, a basketball, a tennis ball, and a golf ball, for example) to explain why we're having a lunar eclipse. Folks really are interested in learning about this stuff... if we'll all just take the time.

I got my Astronomical League Double Star certificate (#100) at the last H.A.S. meeting. The A.L. has some *fine* observing programs available. Try one for yourself! I enjoyed the double star list very much. Most of the observations were made with a 2.7" refractor on an alt-az mount. Close doubles with high differences in magnitude required a bigger instrument and high magnification for similar-magnitude close doubles made me wish for a mount that would track the sky. Near the end of the work, I did get a German Equatorial mount for the telescope... it was a great help, but wasn't absolutely needed for most of the observations.

Continued on page 7...

Houston Astronomical Society

***Meeting Notice
For Friday, January 7, 2000***

Bill Leach

on

Powers of Ten, The Temporal and Spacial Nature of the Universe

Bill was born in Laredo, Texas and originally learned astronomy in the Boy Scouts. He did graduate work at the University of Houston in Biophysics, specifically on the origin of life. He is currently a Professor of Physics, Kingwood College, President of the North Houston Astronomy Club, and Secretary of the Houston Astronomical Society

Schedule of meeting activities:

Novice meeting: 7:00 p.m.

The new Novice committee leader is John Garza, III. Come see what he has in mind for the Y2K edition of the Novice group!

Site orientation meeting: 7:00 p.m.

General meeting: 8:00 p.m.

See the inside back cover for more information.

January Calendar:



<i>Date</i>	<i>Time</i>	<i>Event</i>
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January

2	11:00 p.m.	Earth at perihelion (closest to sun)
3-4	late	Quadrantid meteor. ZHR = 90. Radiant is in northern Bootes
6	12:14 p.m.	New Moon
7		HAS Club Meeting
	7:00 p.m.	Novice Presentation Site Orientation
	8:00 p.m.	General meeting
14	7:34 a.m.	First Quarter Moon
	9:00 a.m.	Jupiter 4 degrees north of the moon
15		GuideStar deadline
	11:00 a.m.	Saturn 3 degrees north of the moon
20	9:01 p.m.	Lunar eclipse -- Moon enters umbra
	10:05 p.m.	Lunar eclipse -- totality begins
	10:40 p.m.	Full Moon -- Lunar Eclipse visible from Houston
		Totality
	11:22 p.m.	Lunar eclipse -- Moon leaves umbra
28	1:57 a.m.	Last Quarter Moon

Send calendar events to JBlubaugh@aol.com

or call 713-921-4275.

Observations... from page 4

Tonight (December 19) is supposed to be clear, but the moon is waxing gibbous and doesn't set until after 2:00 a.m. There's still plenty to see! If you do your observations in another part of the sky the effect of the moon is somewhat diminished, and some objects are bright enough (some of the double stars, for example) that the moonlight isn't a problem. Don't forget that the A.L. has a lunar observing list. If you haven't been a lunar observer before now, why not give it a try. It's easy to find the moon, and you can see an amazing amount of detail!

I'm reading *Galileo's Daughter* by Dava Sobel. This book has had excellent reviews, and I'm finding it quite enjoyable. None of the letters from Galileo to his daughter exist, but some of the letters from Galileo's daughter to him do exist. The author uses this information as the basis on which to build a biography of one of the more fascinating individuals in astronomical history.

If you haven't purchased a copy of the *Observer's Handbook 2000* from our Logo Sales (Judy Dye), you need to get your copy at the January meeting. Some of the shipment to Judy was lost in transit, so she only has a limited number of copies available. At \$14 per copy, the book is a bargain. It's crammed with observing information for 2000 including monthly celestial events, and several observing lists. This is a must have for 2000.

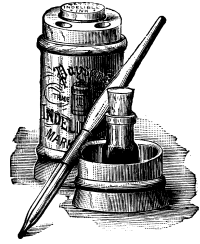
Another great Y2K observing guide (not available through the H.A.S. is Guy Ottewell's *Astronomical Calendar 2000* from the Furman University in Greenville, S.C. This book is lavishly illustrated with charts that explain various celestial events and is an outstanding guide for your 2000 observing activities. Very highly recommended.

So.... Happy New Year to all (whether you believe that 2000 starts the new millennium or not). I hope your observing opportunities in the coming year are even better than they've been in 1999.

..Bill

B&Ps from the IAUCs

by Matt Delevoryas



IAU Circular 7323 announced the binocular discovery of the first decently bright nova in recent memory. This nova was discovered on December 1st in Aquila, which ought to have made it Nova Aquilae 1999, except that there already was a Nova Aquilae 1999. As one of those numerical coincidences of life, the earlier nova was reported exactly 100 IAU Circulars earlier, in IAUC 7223. As is standard policy in recent years, the astronomical community wasted no time granting the permanent variable star designation to Nova Aquilae 1999 No. 2, so even early records would bear the name under which all future observations would be made; it is now V1494 Aquilae (the earlier Nova Aquilae was V1493 Aql). Discovered, at magnitude 6, it in days it was magnitude 4, with some reports in the 3s. Thereafter, IAUC 7330 reported it to have faded to magnitude 6.0 on the 10th. Other sources report it to be 6.5 at mid-December. It will be well within amateur reach for quite a while. The nova is at coordinates $19^{\text{h}} 23^{\text{m}} 05.4^{\text{s}} +4^{\circ} 57' 20''$. Finder charts with comparison magnitudes are available from the American Association of Variable Star Observers, via the Web, in the directory listing at <http://www.aavso.org/alert264.stm> and <ftp://ftp.aavso.org/alerts/alert264/>. Those without Web access can get copies through this author (contact information on the inside cover of *GuideStar*).

Speaking of variable stars, last month's article (see there for additional details, charts, and references) mentioned the well-known variable star R Coronae Borealis, which IAU Circular 7236 reported that it began fading at the beginning of August. Although the Circulars themselves have had no further mention of the star, other sources report it brightening to 8.0 by the start of December, but as of mid-December, it hadn't made it any brighter than that. Based on past experiences, it may very well smoothly brighten to its normal 6 by mid-February, and level off for a very long time, but it could also drop again by one to five magnitudes! Predicting the formation of soot in the atmosphere of this star is not a science, and even a practitioner of black arts would be challenged.

Continued...

B&Ps from the IAUCS... from previous page

And, while on the topic of variable stars, the 1999 Circulars have had a bumper crop of supernovae. IAUC 7330, issued December 11th (yes, there's time for more before we're through counting) announced Supernova 1999gj. For those of you who haven't been paying attention to supernovae in recent years, this designation may be puzzling. Don't supernovae have a single capital letter, not two lower-case letters? Yes. Except that after SN 1999Z, there aren't any more letters — SN 1999aa comes next, and over a hundred after that, SN 1999gj. More supernovae are reported every year. The bad news is that more are reported because more supernova searches are looking at more distant galaxies. We're getting no more bright ones than before. (The last sort of bright one was SN 1999em, which was in the 13s for a while, covered by Starline, but not around long enough to get mentioned in print.)

HAS Logo Sales

by Judy Ann Dye

If you are interested in any of the following items and would like to place an order, please contact me (Judy Dye) at 281-498-1703, or send a check for the items requested to 12352 Newbrook, Houston Texas, 77072-3910. Below is the current list of logo items for sale:

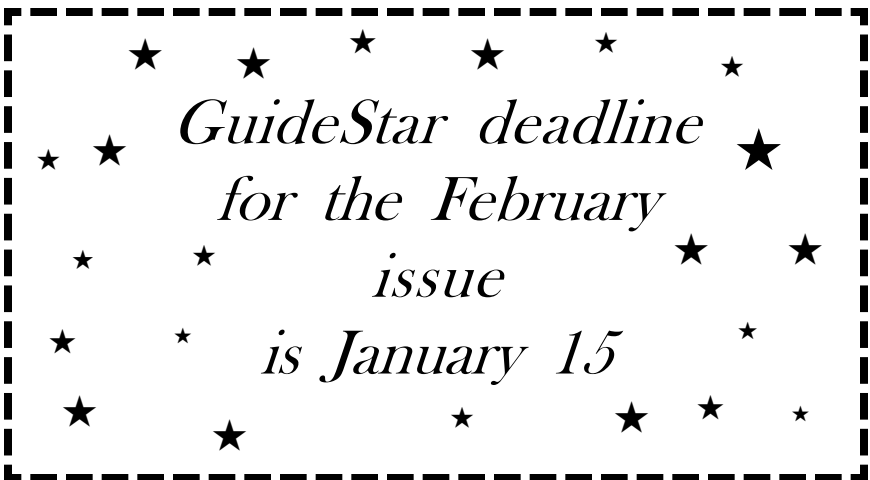
Grey Hooded Sweatshirt (M to XL)	\$25.00
22 Ounce Thermal Cup	\$5.00
Observe Messier	\$4.00
Observe Comets	\$7.00
2000 Observer's Handbooks (NEW!)	\$ 14.00

Election Notice

On December 16th, the Board of Directors noted that an error had been made (determination of eligibility) in the election of a chairman for 2000 for the Telescope Committee, and there is actually no elected chairman yet. This shall serve as notice that the Society shall hold an election for the chairman of the Telescope Committee at the February 4th meeting. The winner of the election shall serve from February 4th until December 31st. Any member with no lapse in membership since February 4th, 1999, is eligible to run. For any further information, contact any Officer of the Society. (See the inside cover for telephone numbers.)

Membership Notice

Due to scheduling conflicts, it has been suggested that the May 5th, and Sept. 1st general meeting dates in 2000 be changed to May 12th and Sept. 8th respectively. There will be a vote to change these two general meeting dates at the January General meeting.



Observatory Corner



By Michael B. Dye Observatory Chairman



I have some good news from Randalls. The membership managed to spend \$9,414.43 this last quarter ending 30 September 1999. The previous quarter ending 30 June 1999, we spent \$4,460.36 at Randalls. This is an increase of \$ 4,681.07 over last quarter. Anyway we received a computer generated form letter from Randalls (dated 4 October 1999), in which we were informed that we will be receiving a check for \$94.14 within two weeks.

Per a previous agreement with the Board of Directors and the Observatory Chairman the money is split equally between the H.A.S. Treasury and the Observatory Treasury. My congratulations to all those who spent their hard earned money at Randalls and listed the Houston Astronomical Society as their charity of choice.

If you have a Randalls card, and have not done so, please have it coded for the Houston Astronomical Society. Our number is #6618. The Society gets 1 percent of the gross sales that members spend at Randalls. Randalls totals up the amount spent each quarter and will send us a check if the amount goes over \$2,500.00, otherwise the total roles over to the next quarter or zeros out at the end of the calendar year. So please link your Randalls card to the Houston Astronomical Society so that the society can benefit from this Randalls program. Our number is #6618. This is very easy to do, just go to the Courtesy Booth and tell the person there what you what to do.

This year the Observatory Committee is implementing a new policy concerning RV storage at the Observatory site. Due to the fact that we have very little space to store RV's at the site and the proliferation of members leaving their RV's at the Observatory Site, the Observatory Chairman has decided that we need to charge a fee for this activity. The fee is \$10.00 a month or \$100.00 per year. The year will start on 1 January and run to 31 December. We will prorate the yearly fee depending on when the payment is made. Further information will be available after the annual Observatory Committee meeting.

Continued...

Observatory Corner... from previous page

The Observatory Committee will be changing the combination to the Observatory Site on or about 1 April 2000, which seems to be an appropriate date. We will use the same system that we have been using in the past. I will hand out Combo Changes to members at the General Meeting in February and March to save postage and mail the ones that were not picked up at the General Meetings.

This year I will be also holding another Fund Raising drive. The items we will be raising money for will be discussed at the annual Observatory Committee meeting. One of the items I would like to get would be an SBIG CCD camera for the C-14 or the F-7 telescopes in the Observatory.

The Annual Observatory Meeting for the year 2000 will be sometime in January. I am still working out the date. It will be one of the weekends in January. I need to contact all the members of the Committee and see when we can get the most attendance. I will announce the meeting date at the January General Meeting. The location will be the Observatory Site.

And now a word about Logo Sales. We ordered 55 copies of the 2000 *Observers Guide* for this year. We got two boxes of books, one indicated it contained 15 books and the other contained 40, and took them to the General Meeting. When we opened the boxes at the meeting, one of the boxes that was supposed to contain 40 books, contained only 15. It was short 25 books. It appears that the box came open during transit and was taped back together by someone unknown, most likely at the Post Office. The books were probably lost then. We are trying to get the other 25 shipped to us.

For the last few months, I have been inserting a paragraph requesting membership feed back concerning installing computers in the Observatory. I have received a response. This gives me hope that members are actually reading my articles. If you have any ideas about the Observatory Site, including providing some sort of computers for controlling the Observatory Telescopes and perhaps for CCD processing. Please contact me at mbdye@aol.com or 281-498-1703.

***Please fill out the appropriate log form when you use the site.
Remember we use these forms as attendance records.***

The Pieces of...

Comet 141P/Machholz 2

By Matt Delevoryas

Following are ephemerides for the pieces of Comet 141P/Machholz 2 (picking up where last month left off), brought to you by the folks at Starline, with information provided by the IAU Circulars Committee. In 1994, periodic comet 141P/Machholz 2 was found to consist of several different fragments (see the article “The Pieces of Comet P/Machholz 2 (1994o)” in your November 1994 *GuideStar*— you do have it handy, don’t you?). During the ephemerides, the comet is in Aquarius, moving into Cetus the night of the 8th, and Eridanus the 23rd, changing from a southwesterly evening object to transiting early in the night. The elements are from MPC 35815 and 36213 respectively, and the magnitude follows MPC 35815 and IAU Circular 7299 respectively. The A component was seen in November and early December three to four magnitudes fainter than the predictions. The D component magnitude predictions are quite uncertain, and as December began most observations have been 2.5 to 4.0 magnitudes. Call Starline for latest information on their magnitudes. For elements, contact the Committee. For additional ephemerides, please contact Kenneth Drake, the Chairman of the HAS Comet SIG. The columns C-E and C-S give the comet-Earth and comet-Sun distances in a.u., and each line is for 0^h UTC.

Component A

Date	Julian	J2000.0			B1950.0			Mag	C-E	C-S
		RA	Dec		RA	Dec				
mmm dd	Date	h m	deg mi		h m	deg mi				
Jan 2	2451545.5	22 53.4	-14 07		22 50.7	-14 23		7.8	0.38	0.85
Jan 3	2451546.5	23 02.5	-14 16		22 59.9	-14 32		7.8	0.37	0.86
Jan 4	2451547.5	23 11.9	-14 23		23 09.3	-14 40		7.9	0.36	0.87
Jan 5	2451548.5	23 21.7	-14 30		23 19.1	-14 47		8.0	0.35	0.87
Jan 6	2451549.5	23 31.7	-14 36		23 29.1	-14 53		8.1	0.35	0.88
Jan 7	2451550.5	23 42.1	-14 41		23 39.5	-14 58		8.2	0.34	0.89
Jan 8	2451551.5	23 52.7	-14 44		23 50.2	-15 01		8.3	0.34	0.90
Jan 9	2451552.5	0 03.6	-14 46		0 01.1	-15 03		8.4	0.33	0.91
Jan 10	2451553.5	0 14.7	-14 46		0 12.2	-15 03		8.5	0.33	0.92
Jan 11	2451554.5	0 26.1	-14 45		0 23.5	-15 01		8.6	0.33	0.93
Jan 12	2451555.5	0 37.5	-14 41		0 35.0	-14 58		8.7	0.32	0.94

Continued...

The Pieces of Comet Machholz... from previous page

Jan 13	2451556.5	0	49.2	-14	36	0	46.7	-14	52	8.8	0.32	0.95
Jan 14	2451557.5	1	00.9	-14	28	0	58.4	-14	44	8.9	0.32	0.96
Jan 15	2451558.5	1	12.6	-14	18	1	10.1	-14	34	9.1	0.32	0.97
Jan 16	2451559.5	1	24.3	-14	06	1	21.9	-14	21	9.2	0.32	0.98
Jan 17	2451560.5	1	36.0	-13	52	1	33.6	-14	07	9.4	0.32	0.99
Jan 18	2451561.5	1	47.6	-13	36	1	45.1	-13	51	9.5	0.32	1.00
Jan 19	2451562.5	1	59.0	-13	18	1	56.6	-13	32	9.6	0.32	1.01
Jan 20	2451563.5	2	10.3	-12	58	2	07.8	-13	13	9.8	0.33	1.02
Jan 21	2451564.5	2	21.3	-12	37	2	18.9	-12	51	10.0	0.33	1.03
Jan 22	2451565.5	2	32.0	-12	15	2	29.6	-12	28	10.1	0.33	1.04
Jan 23	2451566.5	2	42.5	-11	52	2	40.1	-12	04	10.3	0.34	1.05
Jan 24	2451567.5	2	52.7	-11	27	2	50.3	-11	40	10.4	0.34	1.06
Jan 25	2451568.5	3	02.6	-11	02	3	00.2	-11	14	10.6	0.35	1.07
Jan 26	2451569.5	3	12.1	-10	37	3	09.7	-10	48	10.8	0.36	1.08
Jan 27	2451570.5	3	21.4	-10	11	3	19.0	-10	22	10.9	0.36	1.09
Jan 28	2451571.5	3	30.3	-09	45	3	27.8	-09	55	11.1	0.37	1.10
Jan 29	2451572.5	3	38.8	-09	19	3	36.4	-09	29	11.3	0.38	1.11
Jan 30	2451573.5	3	47.0	-08	53	3	44.6	-09	02	11.5	0.39	1.13
Jan 31	2451574.5	3	55.0	-08	27	3	52.5	-08	36	11.6	0.39	1.14
Feb 1	2451575.5	4	02.6	-08	01	4	00.1	-08	10	11.8	0.40	1.15
Feb 2	2451576.5	4	09.9	-07	36	4	07.4	-07	44	12.0	0.41	1.16
Feb 3	2451577.5	4	16.9	-07	11	4	14.4	-07	19	12.2	0.42	1.17
Feb 4	2451578.5	4	23.6	-06	47	4	21.1	-06	54	12.3	0.43	1.18
Feb 5	2451579.5	4	30.1	-06	23	4	27.6	-06	30	12.5	0.44	1.19
Feb 6	2451580.5	4	36.3	-06	00	4	33.8	-06	06	12.7	0.45	1.20

Component D

Date	Julian	J2000.0				B1950.0				Mag	C-E	C-S
		RA	Dec	RA	Dec							
mmm dd	Date	h m	deg mi	h m	deg mi	h m	deg mi	Mag	C-E	C-S		
Jan 2	2451545.5	22	50.7	-13	31	22	48.0	-13	47	8.3	0.39	0.84
Jan 3	2451546.5	22	59.5	-13	38	22	56.9	-13	54	8.3	0.38	0.85
Jan 4	2451547.5	23	08.7	-13	44	23	06.0	-14	00	8.4	0.38	0.86
Jan 5	2451548.5	23	18.1	-13	49	23	15.5	-14	06	8.5	0.37	0.87
Jan 6	2451549.5	23	27.8	-13	54	23	25.2	-14	11	8.6	0.36	0.88
Jan 7	2451550.5	23	37.8	-13	58	23	35.2	-14	15	8.7	0.36	0.89
Jan 8	2451551.5	23	48.0	-14	00	23	45.4	-14	17	8.8	0.35	0.89
Jan 9	2451552.5	23	58.5	-14	02	23	56.0	-14	18	8.9	0.35	0.90
Jan 10	2451553.5	0	09.3	-14	01	0	06.7	-14	18	9.0	0.34	0.91
Jan 11	2451554.5	0	20.2	-14	00	0	17.7	-14	16	9.1	0.34	0.92
Jan 12	2451555.5	0	31.3	-13	56	0	28.8	-14	13	9.2	0.34	0.93
Jan 13	2451556.5	0	42.6	-13	51	0	40.1	-14	07	9.3	0.33	0.94
Jan 14	2451557.5	0	54.0	-13	43	0	51.5	-14	00	9.4	0.33	0.95
Jan 15	2451558.5	1	05.4	-13	34	1	02.9	-13	50	9.6	0.33	0.96
Jan 16	2451559.5	1	16.8	-13	23	1	14.4	-13	39	9.7	0.33	0.97

Continued...

Volunteers Needed

Marg Nunez has set up a star party at Askew Elementary for January 10 at 6:30PM, rain date the 12th. 1st-4th graders. The moon phase will be a crescent, plus Jupiter and Saturn high and visible. The school is located near Wilcrest/Westheimer. She will send details later this month on the list server and will pass out a sign up sheet at the January meeting.

These school star parties are for the students (and interested parents and faculty). You can either set up one of your telescopes or assist with the telescopes Marg brings. Call Marg at 713-529-2549 if you can volunteer for this event.

The Pieces of Comet Machholz... from previous page

Jan 17	2451560.5	1	28.2	-13	10	1	25.8	-13	26	9.8	0.33	0.98
Jan 18	2451561.5	1	39.6	-12	55	1	37.1	-13	10	10.0	0.33	0.99
Jan 19	2451562.5	1	50.8	-12	39	1	48.4	-12	54	10.1	0.33	1.00
Jan 20	2451563.5	2	01.9	-12	21	1	59.5	-12	35	10.3	0.33	1.01
Jan 21	2451564.5	2	12.9	-12	01	2	10.4	-12	15	10.4	0.34	1.02
Jan 22	2451565.5	2	23.6	-11	40	2	21.1	-11	54	10.6	0.34	1.03
Jan 23	2451566.5	2	34.0	-11	18	2	31.6	-11	32	10.7	0.35	1.04
Jan 24	2451567.5	2	44.2	-10	56	2	41.8	-11	08	10.9	0.35	1.05
Jan 25	2451568.5	2	54.1	-10	32	2	51.7	-10	44	11.1	0.36	1.06
Jan 26	2451569.5	3	03.7	-10	08	3	01.3	-10	20	11.2	0.36	1.07
Jan 27	2451570.5	3	13.0	-09	43	3	10.6	-09	55	11.4	0.37	1.09
Jan 28	2451571.5	3	22.0	-09	19	3	19.6	-09	29	11.6	0.37	1.10
Jan 29	2451572.5	3	30.7	-08	54	3	28.3	-09	04	11.7	0.38	1.11
Jan 30	2451573.5	3	39.1	-08	29	3	36.7	-08	38	11.9	0.39	1.12
Jan 31	2451574.5	3	47.2	-08	04	3	44.7	-08	13	12.1	0.40	1.13
Feb 1	2451575.5	3	54.9	-07	39	3	52.5	-07	48	12.3	0.41	1.14
Feb 2	2451576.5	4	02.4	-07	15	4	00.0	-07	23	12.4	0.42	1.15
Feb 3	2451577.5	4	09.6	-06	51	4	07.1	-06	59	12.6	0.43	1.16
Feb 4	2451578.5	4	16.5	-06	27	4	14.0	-06	34	12.8	0.44	1.17
Feb 5	2451579.5	4	23.1	-06	04	4	20.7	-06	11	13.0	0.45	1.18
Feb 6	2451580.5	4	29.5	-05	41	4	27.1	-05	48	13.1	0.46	1.20

Other Meetings...

Brazosport Astronomy Society meets at 7:00 p.m. on the 2nd Thursday of each month in the Planetarium of the fine Arts Center at Brazosport College. Call Steve Lamb for program details (409) 297-3984

Fort Bend Astronomy Club meets the third Friday of the month at 8:00 p.m. at the First Colony conference Center. Novice meeting begins at 7:00, regular meeting begins at 8:00. Web site: <http://rampages.onramp.net/~binder/>

Johnson Space Center Astronomical Society meets in the the Lunar and Planetary Institute on the 2nd Friday of each month. Web site: <http://www.ghgcorp.com/cbr/jscas.html>

North Houston Astronomy Club (formerly Northside Astronomical Society) meets at 7:30 p.m. on the 4th Friday of each month in the Teaching Theatre of the Student Center at Kingwood College. Call 281-312-1650 or E-mail bill.leach@nhmccd.edu.

HAS Web Page

The Houston Astronomical Society Web page has information on the society, its resources, and meeting information.

The address is: <http://spacsun.rice.edu/~has>

Want your astronomy work and name on the Internet for the whole world to see? Have some neat equipment? Pictures in film, CCD, hand drawings or video format are all welcome on the page. Do you have an idea to improve the page? I'm listening. Send me Email at goldberg@sccsi.com. (You can click on my name on the HAS home page). Or, you can call me, Steve Goldberg (WebMaster), at 713-721-5077.

Observatory Duty Roster

by Michael B. Dye, *Observatory Chairman*

This is the duty list for January, February and March. Some names were moved from one month to another to accommodate some conflicts. If you are listed in this roster, please be sure to contact your supervisor for any information that you may need and the date and time to be at the site. You may change from site duty to open house or from open house to site duty by pre-arrangement with the Site Supervisor for that month. Changes between months require Observatory Chairman coordination.

January Supervisor Kirk Kendrick 281-391-3834
Don C. Pearce Site
Michael D. Peters Site
Sim Picheloup Members Observatory Night 01-29-00
Leonard W. Raif Site
Glenn L. Ray Members Observatory Night 01-29-00
Mike Reynolds Site
Henry Schneider Site
Steve Simpson Members Observatory Night 01-29-00

February Supervisor Robert Rogers 281-997-9682
Larry C. Wadle Site
Mark R. Watson Site
Barbara Wilson Members Observatory Night 02-26-00
Buster Wilson Members Observatory Night 02-26-00
Warren Wundt Members Observatory Night 02-26-00
W. Charles Barnes Site
Don Bates Site
John Blubaugh Site

March Supervisor Robert Rogers 281-997-9682
John Chauvin Site
Art Ciampi Members Observatory Night 03-25-00
Mickey Davis Site
Kenneth Drake Site
Mark Egan Members Observatory Night 03-25-00
Jean-Marc Follini Site
Fred Garcia Members Observatory Night 03-25-00
John Garza III Site

Please remember that Site work can be done anytime and does not have to be done just before Members Observatory Night. Contact your Site Supervisor for details. Names are selected for Site Duty using the current Alphabetical listing for Observatory Key Holders. If any member knows of a conflict please call me before your name is listed.

Passing The Fun Around...

By Clayton Jeeter, *former Telescope Loaner Chairperson*

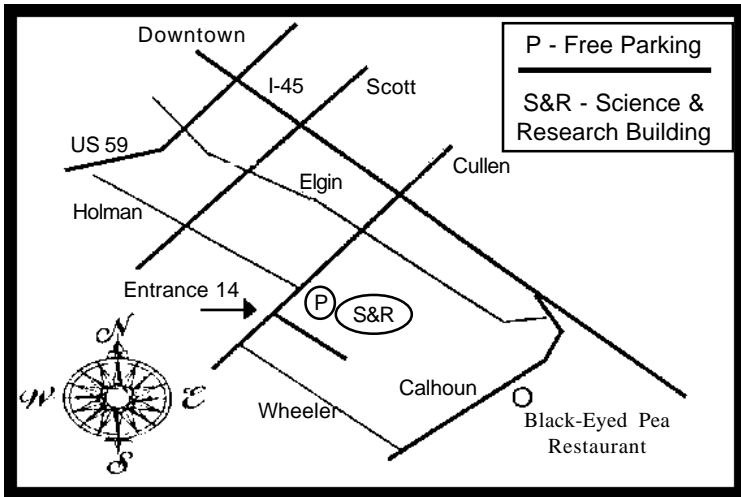
I have to admit, the last two years working as Telescope Loaner Chairperson was so much fun! It was very rewarding, educational and even a challenge to me.

I met the nicest folks while serving as chairperson. I became great friends with novices, charter members, teenagers, amateurs from different societies, astrophotographers, telescope makers and even a die hard “couch potato” observer. I had so much fun serving all of you guys and learned so very much.

One evening this past October, I started thinking about what I had heard our president, Don Pearce (and past presidents) preach to all of us....to step forward and serve our society. I decided after several days of pondering those thoughts to step aside and let another member have a kick at the telescope program. I asked around and Darin Palmer expressed the desire that he might like the idea as to serve.....and Darin did just that. Darin is an avid deep sky observer and thanks to the use of our loaner Celestron C-11, he has become quite good at astrophotography. He takes great photos of elusive objects in the night sky.

Darin will now serve our society and truly have a great time as I have had since January 1998. Why? Because of the love of astronomy. Good luck Darin and thanks to all of our wonderful members who helped me along the way. It sure was fun.

*cloudless nights.... always, **Clayton***



General Membership Meeting

The Houston Astronomical Society holds its regular monthly General Membership Meeting on the first Friday of each month, unless rescheduled due to a holiday. Meetings are in Room 117 of the Science and Research Building at the University of Houston. A Novice Presentation begins at 7:00 p.m.. The short business meeting and featured speaker are scheduled at 8:00 p.m. Also typically included are Committee Reports, Special Interest Group Reports, current activity announcements, hardware reviews, an astrophotography slide show by members and other items of interest.

Board of Directors Meeting

The Board of Directors Meeting is held on dates scheduled by the board at 7:00 p.m. in Room 106 of the Space Science Building at Rice University. Call StarLine for Board Meeting information. Information provided to GuideStar will be published. The meetings are open to all members of the Society in good standing. Attendance is encouraged.

GuideStar Information

The H.A.S. *GuideStar* is published monthly by the Houston Astronomical Society. All opinions expressed herein are those of the contributor and not necessarily of Houston Astronomical Society. The monthly Meeting Notice is included herein. *GuideStar* is sent via bulk rate mail to Regular, Student, and Honorary Members of H.A.S., selected individuals and recent visitors to the General Membership Meeting. Contributions to *GuideStar* by members are encouraged. Electronic submission is helpful. Submit the article in ASCII text, MS-Word (preferred), or WordPerfect format on an IBM format floppy or via AOL (BILLP10566). Mail copy to the address shown on the outside cover or to the editor at 256 East 5th Street, Houston, TX 77007. Copy must be received by the second Friday of the month for inclusion in the issue to be mailed near the end of the same month. Or, bring copy to the General Membership Meeting and give it to the Editor, or phone to make special arrangements.

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