

Saguaro Astronomy Club

Metro Phoenix, Arizona

SACNEWS

January, 1990 — Issue #156

President's Column

Our star party, for members and their guests, is scheduled for January 20, 1990, at the Buckeye Hills Recreation Area site.

You'll want to be at the January meeting because we have a few important items of business. First we need to approve the budget for 1990.

Meeting January 12 Buckeye Star Party January 20

Then there is the matter of setting the date for the annual Sedona star party; there seems to be something conflicting with almost every good date, for example, National Astronomy Day, the Riverside conference and Monsoon season. I'll present the options at the January meeting and ask for your ideas.

Proposed 1990 SAC Budget	
Newsletter	\$1600
Insurance	\$450
Subgroups	\$100
Grants	\$300
Speakers	\$500
Christmas party	\$100
Equipment	\$100
Miscellaneous	\$250
Total	\$3400

Our January speaker is Ken Zeigler of the Gila Astronomical Research Institute (GARI). Ken will tell us how he has created an organization to put high school science teachers in direct contact with professional astronomers.

Ken will also show us some astronomy art

by artist J. Patrick Smith. You will have an opportunity to buy a raffle ticket for a painting of the Dumbbell Nebula, with the proceeds going to GARI. Don't miss the January meeting. —*Pieter Burggraaf, SAC President*

Great Red Spot by Jim Van Nuland

Jupiter remains large enough to pick out details even at low power, though I've needed 150X to find the Great Red Spot. With considerable more color than for many years, first-time observers are spotting it with little difficulty.

The dark lump in the Northern Equatorial Belt, mentioned last month, remains rather prominent, and seems to be catching up to the Great Red Spot. It bears watching, as it may fade any tie. The "missing" South Equatorial Belt may be returning: the SEB region is very slightly darker, and appears striated at moments of best seeing.

The Spot has suddenly reversed its motion in latitude, so the times given below are later compared to last month. The difference amounts to several minutes, so you will want to get to the telescope just a little early to catch the Spot.

At the predicted times, the Spot will be facing nearest the Earth, and so will appear on the central meridian of the apparent disk of the planet. The Spot moves its own length in about 40–50 minutes.

Good seeing and a power of about 200–300 are needed, Begin half an hour before the given time. Focus carefully, then scan the southeast quadrant of Jupiter. Watch carefully for those moments when the air is especially stable, and the Spot will show itself in all its glory.

To tell the author about your observations, write Jim Van Nuland, Calico Observatory, 3509

Calico Ave., San Jose, CA 95124 (408)371-1307.

Great Red Spot on Meridian MST

D	M	d	time	D	M	d	time
Su	12	31	850pm	Su	1	21	321am
Tu	1	2	233am	Su	1	21	1109am
Tu	1	2	1030pm	M	1	22	703pm
W	1	3	622pm	W	1	24	048am
Th	1	4	414am	W	1	24	836pm
F	1	5	006am	F	1	26	221am
F	1	5	759pm	F	1	26	1017pm
Su	1	7	146am	Sa	1	27	602pm
Su	1	7	934pm	Su	1	28	402am
Tu	1	9	321am	Su	1	28	1149pm
Tu	1	9	1118pm	M	1	29	742pm
W	1	10	702pm	W	1	31	136am
Th	1	11	458am	W	1	31	925pm
F	1	12	054am	F	2	2	305am
F	1	12	839pm	F	2	2	1056pm
Su	1	14	228am	Sa	2	3	647pm
Su	1	14	1024pm	M	2	5	036am
M	1	15	611pm	M	2	5	830pm
Tu	1	16	405am	W	2	7	221am
W	1	17	000am	W	2	7	1006pm
W	1	17	754pm	Th	2	8	559pm
F	1	19	134am	F	2	9	1143pm
F	1	19	934pm	Sa	2	10	742pm

Comet Comments

by Don Machholz

Comet Helin-Roman-Alu (1989v) is visible in our northern sky while a bright new comet has been discovered recently.

Periodic Comet Sanguin (1989z): B. Weller, R. Coker and K. Meech recovered this comet on Nov. 9. It was then magnitude 22. This comet has an orbital period of 12.5 years and will be closest the sun at 1.8 AU on Apr. 2. But it will then be on the far side of the sun and magnitude 18.

Comet Aarseth-Brewington (1989a1): Knut Aarseth of Volda, Norway and Howard Brewington of Newberry, South Carolina discovered this comet on Nov. 16 in the evening sky at magnitude 8.5. Brewington was using an 8" reflector at 27X on an altazimuth mount, piggybacked on a 16" reflector. He had searched for 230 hours over 14 months to find this, his first comet. This is the first comet discovery from South Carolina.

The comet is rapidly moving toward perihelion which will be Dec. 27 at 0.30 AU. It may attain magnitude 3 by then, but it will be too close

to the sun for observation. Following perihelion it will dim at small elongation, so our last chance to observe it is in mid-December.

Periodic Comet Tuttle-Giacobini-Kresak (1989b1): Jim Gibson used the 1.5-meter reflector at Mt. Palomar to recover this comet at magnitude 19. With a 5.46 year orbital period, it will be closest the sun (1.07 AU) on Feb. 8. This is a favorable appearance, and the comet may be magnitude 11 by next month. Occasionally it will outburst, becoming even brighter.

Comet Helin-Roman-Alu (1989v)

Date	RA-1950-Dec	RA-2000-Dec	E	Sky	Mag
12-25	18h57.9m +47°51'	18h59.2m +47°55'	72°	E	10.8
12-30	18h46.3m +49°31'	18h47.6m +49°34'	73°	E	10.9
01-04	18h34.2m +51°11'	18h35.4m +51°14'	74°	M	11.0
01-09	18h21.4m +52°54'	18h22.5m +54°56'	76°	M	11.1
01-14	18h07.3m +54°40'	18h08.3m +54°40'	79°	M	11.2
01-19	17h51.3m +56°30'	17h52.2m +56°29'	82°	M	11.4
01-24	17h32.8m +58°23'	17h33.6m +58°21'	85°	M	11.5
01-29	17h10.7m +60°17'	17h11.3m +60°14'	89°	M	11.6
02-03	16h43.8m +62°06'	16h44.4m +62°01'	94°	M	11.8
02-08	16h11.1m +63°41'	16h11.7m +63°34'	99°	M	12.0

Comet Aarseth-Brewington (1989a1)

Date	RA-1950-Dec	RA-2000-Dec	E	Sky	Mag
12-30	17h33.8m -36°02'	17h37.1m -36°04'	18°	M	2.8

Comet Tuttle-Giacobini-Kresak (1989b1)

Date	RA-1950-Dec	RA-2000-Dec	E	Sky	Mag
12-25	13h31.0m -06°57'	13h33.6m -07°12'	69°	M	13.0
12-30	13h53.9m -08°21'	13h56.5m -08°35'	68°	M	12.6
01-04	14h17.4m -09°40'	14h20.1m -09°54'	68°	M	12.2
01-09	14h41.5m -10°53'	14h44.2m -11°05'	67°	M	11.9
01-14	15h05.9m -11°57'	15h08.6m -12°09'	66°	M	11.6
01-19	15h30.5m -12°53'	15h33.3m -13°03'	65°	M	11.4
01-24	15h55.0m -13°39'	15h57.8m -13°47'	64°	M	11.2
01-29	16h19.3m -14°14'	16h22.1m -14°21'	63°	M	11.1
02-03	16h43.2m -14°39'	16h46.0m -14°44'	62°	M	11.0
02-08	17h06.3m -14°54'	17h09.2m -14°57'	62°	M	11.0

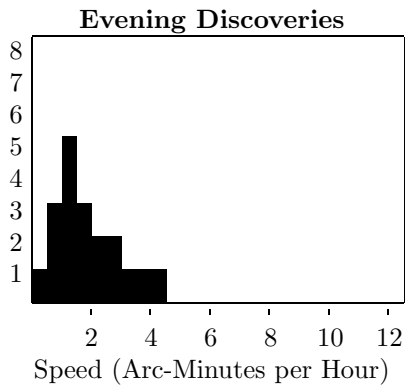
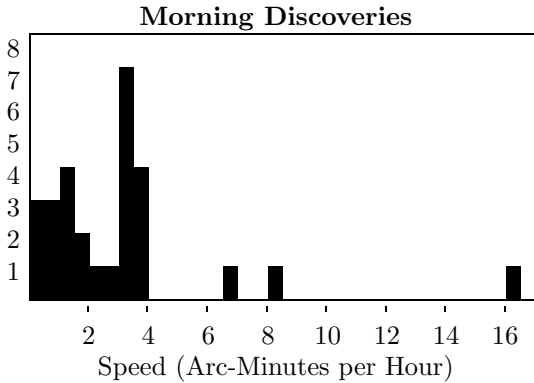
Seeking Comets

by Don Machholz

How rapidly do comets move against the background stars when they are discovered? This is important for visual comet hunters, as they often have to wait an hour or so to detect motion. Photographic comet hunters may be interested in knowing what focal length and exposure is needed

so that new comets appears as short streaks, and not just nebulous blobs.

Below I graph the speed of comets at discovery in reference to the fixed background stars. The 28 morning sky comets found by amateurs from 1975 through Jan. 1989 show an average speed of 3.3 (+/- 3.2) arcminutes per hour, which translates to 1.3 degrees per day. The evening comets averaged 2.1 (+/- 1.1) arcminutes per hour, or 0.8 degrees per day.



It is probably safe to say that for most comets motion can be visually detected in under an hour if an accurate drawing of the area is made. As for photographic image scale, a long focal length is generally needed for a half-hour exposure to show motion,

The comet with the greatest motion in this study is Comet Austin, 1984i. It was moving 6.5 degrees per day, when found in the morning sky, and was five weeks away from a close perihelion of 0.29 AU. A final factor contributing to its apparent speed was its close distance to Earth, only 0.26 AU. (For comments, you can reach Don Machholz at (408)448-7077.)

Editor's Note

For those of you who might not already be aware of it, I am now the new editor of *SACNEWS*. In the coming year I will attempt to maintain the high quality that Pete Burggraaf started while he was editor. But since I'm using a different equipment and software, there will be some differences. Send me a note if you really dislike something.

As you might have already noted, this issue is a little late. My best excuse for this is that I have had the software and documentation for less than a week before my shipping date goal. But I figure I'll get this in the mail by January 2. —Paul Dickson, Editor

Such-A-Deal

SUCH-A-DEAL is a place to advertise equipment, supplies, and services related to amateur astronomy. This is a free service for SAC members and friends. SAC is not responsible for the quality of advertised items or services.

Telescope — Meade 8" f/10 SC, used once. \$1000 or make an offer. Jim Sexton, 942-2231.

Telescope — Meade 8" f/6 tube assembly on dobsonian mount. Includes: dust covers, 25mm and 7mm eyepieces. Asking \$550 or best offer. Also Spectrum 9X 63mm Binoculars and tripod, \$150. Bob Swanson 443-0352.

Telescope — Meade 10" LX6 with all accessories and dew shield. Asking \$2200. Clinton Vannoy, 932-5191