

Saguaro Astronomy Club

Metro Phoenix, Arizona

SACNEWS

February, 1990 — Issue #157

Novice Meeting

We had an excellent turn out for the Novice's Meeting last October, so let's do it again. Dan Ward will give an introduction to astronomy that will concentrate on what types of objects there are to observe. A. J. Crayon will discuss how to stay warm while using the scope in the winter and Steve Coe will talk on telescope types. If you have questions on these or any other subject, bring them to the meeting.

Novice Meeting
Sunday, February 11
3:30 PM

The meeting will be on Sunday, Feb. 11, at 3:30 PM at Steve Coe's house. From the corner of 59th Ave. and Northern, go north on 59th Ave. and turn left at the first street, that will be Harmont. Turn left again immediately onto 59th Drive, it turns and becomes Loma Lane. The address is **5942 W. Loma Lane**, on the north side in the middle of the block. Call Steve Coe at 939-3787 if you have trouble finding it. **Please bring a folding chair.**

Call for Articles

I am looking for some articles for the coming year. If you have some idea about what you'd like to write about, let me know, any help in filling each newsletter is greatly appreciated. It's surprising how little it takes to fill a page.

For those of you who want to write something, but don't have any ideas, here is a list of that might spark your imagination: What five (or ten) good books should the amateur astronomer have; How to choose and observing site in Arizona; A list of good observing sites in Arizona and how to get there; Making a checklist of items for observing; Buying new/used equipment.

I'm pretty flexible about the format I receive items for the newsletter. I prefer to get items of 250 words or less in printed form. Longer items are requested to come on computer disk (either IBM or Mac), but printed form

is still acceptable. For those of you who have modems on their computers, arraignments can be made to transfer articles that way.

Give me a call if you are interested in writing articles from the above list or something else. My number is 841-7044. —*Paul Dickson, SACNEWS Editor*

Comet Comments by Don Machholz

Comet Helin-Roman-Alu (1989v), dimmer than expected, has faded in our northern sky. Comet Aarseth-Brewington has gone south. But three new comets have been found recently, with two more returning comets recovered. Periodic Comet Tuttle-Giacobini-Kresak remains in our morning sky, you might want to monitor it for outbursts.

| Comet | Tuttle-Giacobini-Kresak | | | (1989b ₁) | | | |
|-------|-------------------------|---------|-------------|-----------------------|-------|-----|------|
| Date | RA-1950-Dec | | RA-2000-Dec | | Elong | Sky | Mag |
| 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 |
| 02-13 | 17h28.8m | -14°59' | 17h31.7m | -14°01' | 61° | M | 11.1 |
| 02-18 | 17h50.5m | -14°55' | 17h53.3m | -14°56' | 61° | M | 11.2 |
| 02-23 | 18h11.1m | -14°45' | 18h14.0m | -14°44' | 61° | M | 11.3 |
| 02-28 | 18h30.8m | -14°27' | 18h33.7m | -14°25' | 61° | M | 11.5 |
| 03-05 | 18h49.5m | -14°05' | 18h52.3m | -14°01' | 62° | M | 11.8 |
| 03-10 | 19h07.2m | -13°38' | 19h10.0m | -13°33' | 63° | M | 12.1 |

The year 1989 saw 34 labeled comets, the most of any year. This included six finds by amateurs, five of them in the evening sky. Eleven new comets were found by professional astronomers — five by them by the Mt. Palomar team of Helin and Roman, plus three by the Shoemakers, who also work at Palomar. Fourteen returning comets were recovered — Jim Gibson of Palomar picked up ten of them. Three bright Sungrazing comets were found by the Solar Max Mission Satellite.

There will be a respectable number of comets visible in amateur-sized scopes during 1990. I expect to have ephemerides for two or three comets in every issue of *Comet Comments*. Perhaps the brightest and best will be Comet Austin.

Comet Austin (1989c₁): Rodney Austin of New Zealand discovered this, his third comet, on the morning of Dec. 7. The comet was technically in the evening sky, circumpolar at -62 degrees declination, and magnitude 11. He was using a Meade 8", $f/4$ reflector at 41X with a 1.7 degree field. Austin had searched for 49 hours over the last five years.

Since discovery the comet has moved northward, but from mid-northern latitudes it sets within an hour of evening astronomical twilight. The comet will be closest the Sun at 0.35 AU on April 9. After perihelion it will pop into our morning sky as bright as magnitude two. Over the following weeks, from late April through late May, the elongation increases while the brightness remains the same. This is due to a decreasing distance between the earth and the comet, with the comet only 20 million miles away in mid-May. In early June the comet crosses opposition and into our southern evening sky, where it will dim over the summer months.

Periodic Comet Schwassmann-Wachmann 3 (1989d₁): This comet was recovered by J. Luu, D. Jewitt and S. Ridgway of Mauna Kea, and Jim Gibson of Palomar in early December at magnitude 20. Comet "SW 3" has an orbital period of 5.35 years and will be closest the Sun at 0.94 AU on May 19. This is a very favorable appearance of the comet — it should attain magnitude 10 by mid-April.

Comet Skorichenko-George (1989e₁): Boris Skorichenko of the Soviet Union and Douglas George of Kanata (near Ottawa) Canada discovered this comet on Dec. 17. Skorichenko was using a 6-inch reflector. George was using a 16" reflector and had searched for 65 hours. The comet was magnitude 10.5 in the northern evening sky. It will be closest the Sun on April 14 at a distant 1.68 AU. Through April it will remain in our evening sky at magnitude 9–10. Elongation will decrease as it reaches perihelion on the far side of the Sun.

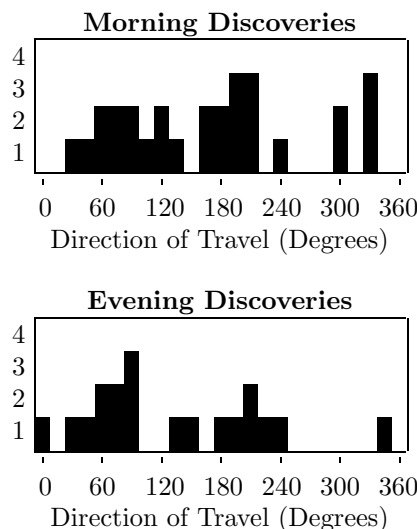
| Comet | Skorichenko-George (1989e ₁) | | |
|-------|--|------------------|---------------|
| Date | RA-1950-Dec | RA-2000-Dec | Elong Sky Mag |
| 01-29 | 21h30.6m +32°43' | 21h32.7m +32°56' | 52° E 9.3 |
| 02-03 | 21h45.8m +33°52' | 21h47.9m +34°06' | 52° E 9.2 |
| 02-08 | 22h01.9m +35°02' | 22h04.1m +35°16' | 51° E 9.1 |
| 02-13 | 22h18.9m +36°12' | 22h21.1m +36°27' | 51° E 9.0 |
| 02-18 | 22h36.8m +37°21' | 22h39.1m +37°36' | 50° E 8.9 |
| 02-23 | 22h55.7m +38°27' | 22h58.0m +38°43' | 49° E 8.9 |
| 02-28 | 23h15.5m +39°29' | 23h17.8m +38°46' | 49° E 8.8 |
| 03-05 | 23h36.1m +40°26' | 23h38.5m +40°42' | 48° E 8.7 |
| 03-10 | 23h57.4m +41°15' | 00h00.0m +41°32' | 47° E 8.7 |

Comet McKenzie-Russell (1989f₁): Patricia McKenzie and Ken Russel of Siding Spring Observatory in Australia discovered this comet on plates taken Dec. 21. It was the mag. 14 and moving 1.5 deg./day westward through Orion. The comet is now dimming as it pulls away from the sun.

Periodic Comet Van Biesbroeck (1989g₁): Jim Gibson of Palomar recovered this comet at magnitude 20 on Dec. 30. It may reach magnitude 15 when it arrives at perihelion in April 1991.

Seeking Comets by Don Machholz

In what direction, in relation to the stars, are comets travelling when found? Below I graph the directions in which comets visually found from 1975 and mid-1988 are moving at discovery. Northbound comets are 0 degrees, eastbound comets are 90 degrees, etc.



We find that comets are often moving southward or eastward when found. And as we saw last month, speed averages 1.3 degrees/day for morning comets and 0.8 degrees/day for evening comets. (For comments, you can reach Don Machholz at (408) 448-7077.)

Great Red Spot by Jim Van Nuland

With Jupiter past opposition, it is now high enough to begin observing without waiting for it to get high enough. You may find that the best seeing occurs during twilight, before the Earth starts radiating into the dark night sky.

Is your scope too small to show the Great Red Spot? Santa Cruz Astronomy Club member Tom Logan (Carmel, Ca.) observes with an 80mm refractor (Celestron Firstscope). His sketches and observing reports demonstrate that large scopes are not required to see the Spot, many details in the belts, and especially the Galilean satellites. He reports the Spot as fawn color, and that the North Equatorial Belt contains a number of darkenings of the sort I'd reported the last two months. This is a good opportunity to encourage observers to sketch what they see, not merely to provide a record, but also to train the

eye to pick out the small details! Be sure to the date, time, orientation, and what filters were used.

My most recent observation on Dec. 31 showed that the SEB is still absent; as before, the SEB region is very slightly darker than the South Tropical Zone adjacent to it.

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 |
| W | 1 | 31 | 920pm | M | 2 | 19 | 959pm |
| F | 2 | 2 | 311am | W | 2 | 21 | 1140pm |
| F | 2 | 2 | 1058pm | Th | 2 | 22 | 731pm |
| Sa | 2 | 3 | 653pm | Sa | 2 | 24 | 115am |
| M | 2 | 5 | 033am | Sa | 2 | 24 | 909pm |
| M | 2 | 5 | 825pm | M | 2 | 26 | 1051pm |
| W | 2 | 7 | 212am | Tu | 2 | 27 | 641pm |
| W | 2 | 7 | 1012pm | Th | 3 | 1 | 024am |
| Th | 2 | 8 | 558pm | Th | 3 | 1 | 815pm |
| F | 2 | 9 | 1143pm | Sa | 3 | 3 | 207am |
| Sa | 2 | 10 | 741pm | Sa | 3 | 3 | 957pm |
| M | 2 | 12 | 127am | M | 3 | 5 | 1141pm |
| M | 2 | 12 | 911pm | Tu | 3 | 6 | 726pm |
| W | 2 | 14 | 302am | Th | 3 | 8 | 117am |
| W | 2 | 14 | 1057pm | Th | 3 | 8 | 909pm |
| Th | 2 | 15 | 647pm | Sa | 3 | 10 | 1048pm |
| Sa | 2 | 17 | 028am | Su | 3 | 11 | 636pm |
| Sa | 2 | 17 | 824pm | Tu | 3 | 13 | 020am |
| M | 2 | 19 | 206am | Tu | 3 | 13 | 817pm |

Minutes of the January SAC General meeting

President Pete Burggraaf started the meeting by recognizing the outgoing officers with plaques. Pete then gave a summary of upcoming events (see the attached calendar). Cathe Becker then presented the treasurers report. Next on the agenda was the 1990 budget. After a lively discussion the budget was passed with one dis-sension.

The date for the Sedona star party was scheduled for May 19. A.J. Crayon followed with a short discussion on the Deep Sky subgroup's three observing lists. Steve Coe then passed out an erratta sheet for the database.

In the Show-N-Tell portion Pierre Schwar shared some video of Jupiter and Venus taken with his camcorder. Slides taken with the barndoor trackers were shown by Tom Polakis and Bob Bryant.

After the break the main speaker, Ken Zeigler of the Gila Astronomical Research Institute, gave an interesting talk about H.S.A.C. (High School Astronomical Consortium) and its programs for students and teachers. —*Phil Dahl, SAC Secretary*

1990 SAC Meetings

February 9
 March 9
 April 13
 May 11
 June 8
 July 6
 August 10
 September 7
 October 5
 November 2
 December 8

1990 SAC Star Parties

February 17
 March 17
 April 21
 Sedona May 19
 June 16
 July 14
 August 18
 September 15
 October 13
 November 10
 December 15

Directions to SAC Events

SAC General Meetings 7:30 PM at Grand Canyon University, Fleming Building, Room 103 — 1 mile west of Interstate 17 on Camelback Rd., north on 33rd Ave., second building on the right.

SAC Star Parties at Buckeye Hills Recreation Area — Interstate 10 west to Exit 112 (30 miles west of Interstate 17), then south for 10.5 miles, right at entrance to recreation area, one-half mile, on the right. No water and only pit toilets. Please arrive before sunset; allow one hour from central Phoenix.

SAC Deep Sky Subgroup Meeting at John & Tom McGrath's, 11239 N. 75th St., Scottsdale, 998-4661 — Scottsdale Rd. north, Cholla St. east to 75th St., southeast corner.

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 Model 2120, 10", *f*/10 Schmidt-Cassegrain; 3 years old; mint condition; 7 mm, 15.5mm & 20mm eyepieces; assorted filters; 2X tele-negative; AC & DC power cords; Minolta T-ring; piggyback bracket; diagonal prism; observer's chair. \$1,495. Call Greg Kar, 993-9339.