

Saguaro Astronomy Club

Metro Phoenix, Arizona

SACNEWS

June, 1990 — Issue #161

Observing the Southern Sky's "Other" Showpieces by Tom Polakis

In only a couple of weeks, Chris and Dawn Schur, Rick Rotramel, Phil Dahl, and myself will be heading down under for two weeks in Queensland, Australia. For all of us but Phil, this is a repeat visit (two repeats for Chris). I've completed my observing lists for the 8" *f/4*. Objects include the obvious showpieces along with a deeper list of new ones I have not yet observed. In between these two lists is a list of "objects to revisit." Surprisingly, it is this set of objects that I look forward to viewing most.

The observing should begin after a few days of rest and relaxation near the Great Barrier Reef. As the moon wanes, we will see more and more of the Summer Milky Way until its center literally passes overhead like a huge edge-on spiral, horizon to horizon.

observing by night ... tourist by day

We would probably be looking at Messier 120 if old Charles' scope could have seen the Southern globular clusters alone! Passing over my page of notes on both Omega Centauri and 47 Tucanae bring us to NGC 6397 in Pavo. The 8" resolved hundreds of bright stars to the core as easily as our M13 or M5. Tucana is the classic example of an object which is neglected because of its proximity to a brighter one. NGC 362 sits less than 4 degrees from 47 Tuc but is a very resolvable globular in its own right. NGC 5286 is a beautifully placed globular cluster, only 5' away from a blazing orange variable M Centauri; very similar to G Scorpii and NGC 6441.

With the galaxy's center overhead, one would expect a great abundance of diffuse nebulae and one would not be disappointed! Beyond Eta Carinae and The Tarantula Nebula on any list should be NGC 3581 in Centaurus. Over a 20' region are at least six individual bright patches of nebulosity, the northernmost of these showing a crescent shape. NGC 5189 in Musca is a strange dumbbell shaped patch, again enhanced by the Oxygen III filter.

NGC 6164/5 in Norma is over 1 degree in size, with rays fanning out from a central bright region.

The blue vs./ green planetary nebula debate can arise again for NGC 3918 in Centaurus. My personal preference for the color of planetaries has always been blue. NGC 3918 is similar, to my eyes, to NGC 7662 in Andromeda, whose nickname, by the way is "The Blue Snowball!" IC 4406 in Lupus does get up 11 degrees from Arizona, but views with the 8" down under beat up my best views with the 13" at home, showing a bright, small disk with faint extensions East and West. This object is a bipolar nebula which photographs as a cylinder viewed from the side.

Dawn Schur was sweeping the sky with an 8" scope in '88 and came across what we called "Alberio of the Southern Sky." Similar to Alberio, Xi Velorum is a naked eye star which resolves into beautiful orange and blue components easily at low powers. Beta Crucis is a white primary star of 1st magnitude with a secondary whose color can only be described as copper.

Avoiding the obvious Jewel Box Cluster in Crux and the naked eye gems of Carina brings us to NGC 6067 in Norma. It is a spectacular open cluster of 60 stars of 10th magnitude against a jet-black background with many criss-crossing lanes. NGC 3766 in Centaurus reminded me of Auriga's M37, with over 50 stars of 9th magnitude or brighter condensed into a 10' diameter area.

In June, a wait until just before morning twilight brings a rewarding view of the nearby galaxies of Sculptor, 45 degrees up. But earlier in the evening, there is NGC 6744 in Pavo. Even the 8" hinted at the spiral structure in this face-on barred spiral. Hopefully, we will get a dark-sky view with a large scope this time out. And back to Centaurus again, we find NGC 4945, a time edge-on galaxy with a curious notch cut out of one end.

No mention has been made of a more detailed look at the Large Magellanic Cloud along with its Supernova and a unique view of Comet Austin overhead at "opposition." Again, it looks like we'll be burning the midnight oil, observing by night and being tourists by day. But then, its not really a relaxing vacation unless we half kill ourselves running around night and day, right?

Novice Meeting

With two previous successes in the past, the leaders of the past Novice meetings are going to try for yet another Novice meeting. There will be an introduction to astronomy that will cover what there is to observe up there. If you have questions, whether it is about observing, using your telescope, or just where to go to observe, this is the place to bring them. Remember, all the questions you have about observing others had to find the answers too. This will be an easy and relatively painless way of refreshing what isn't so familiar.

Novice Meeting Sunday, June 10 3:00 PM

The meeting will be on Sunday, June 10, at 3:00 PM at Steve Coe's house. From the corner of 50th Ave. and Peoria, go north two streets on 50th Ave. and turn right on to Saguaro Drive. Steve's house is mid-block, the address is **4919 W. Saguaro Drive**, on the south side of the street. Call Steve Coe at 939-3787 if you have trouble finding it. **Please bring a folding chair.** Please bring anything you'd like to show or ask questions about.

Comet Comments by Don Machholz

No comets have been discovered recently, this is certainly a slow year for new comets. Comet Cernis-Kiuchi-Nakamura (1990b) has dimmed in our evening sky, while Comet Skorichenko-George is now in our solar glare, it will emerge in the August morning sky. But Comet Austin and Periodic Comet Schwassmann-Wachmann 3 remain in our morning sky.

Periodic	Comet	Schwassmann-Wachmann 3 (1989d ₁)			
Date	RA-1950-Dec	RA-2000-Dec	Elong	Sky	Mag
05-24	23h58.4m -09°15'	00h01.0m -08°58'	66°	M	10.3
05-29	00h18.5m -08°42'	00h21.0m -08°25'	66°	M	10.5
06-03	00h36.5m -08°06'	00h39.0m -07°50'	67°	M	10.7
06-08	00h52.8m -07°29'	00h55.4m -07°13'	68°	M	11.0
06-13	01h07.6m -06°52'	01h10.2m -06°36'	69°	M	11.2
06-18	01h21.1m -06°16'	01h23.6m -06°00'	70°	M	11.5
06-23	01h33.4m -05°43'	01h35.9m -05°27'	72°	M	11.8
06-28	01h44.5m -05°13'	01h47.0m -04°58'	74°	M	12.1
07-03	01h54.6m -04°47'	01h57.1m -04°32'	76°	M	12.4

Comet Austin moves rapidly through opposition from the morning into the evening sky. It is dimmer than expected, and credit goes to veteran comet observer John Bortle for predicting the down-turn of Comet Austin's brightness. Additionally, a lack of a strong dust tail subtracts from the beauty of the comet. Nevertheless, the

comet still looks great through a telescope. You'll see a changing perspective over the next few weeks as it approaches to within 22 million miles of earth on May 24, as we cross the plane of the orbit on June 6, and as the comet passes opposition on June 7, when we will see a "Sun's-eye view."

Comet	Austin		(1989c ₁)		
Date	RA-1950-Dec	RA-2000-Dec	Elong	Sky	Mag
05-24	20h12.1m +06°35'	20h14.6m +06°45'	112°	M	5.3
05-27	19h22.9m -03°11'	19h25.5m -03°05'	130°	M	5.3
05-30	18h36.0m -12°10'	18h38.8m -12°08'	147°	M	5.8
06-02	17h54.8m -19°12'	17h57.7m -19°13'	161°	M	6.2
06-05	17h20.6m -24°12'	17h23.6m -24°15'	172°	M	6.6
06-08	16h53.1m -27°36'	16h56.2m -27°41'	175°	E	7.0
06-11	16h31.4m -29°55'	16h34.6m -30°01'	168°	E	7.5
06-14	16h14.4m -31°30'	16h17.6m -31°38'	162°	E	7.9
06-17	16h01.0m -32°37'	16h04.2m -32°46'	157°	E	8.2
06-20	15h50.5m -33°25'	15h53.7m -33°34'	152°	E	8.6
06-23	15h42.2m -34°01'	15h45.4m -34°10'	148°	E	8.9
06-26	15h35.7m -34°27'	15h38.9m -34°37'	144°	E	9.2
06-29	15h30.6m -34°48'	15h33.8m -34°58'	140°	E	9.5
07-02	15h26.8m -35°04'	15h29.9m -35°15'	137°	E	9.8
07-05	15h23.9m -35°18'	15h27.0m -35°28'	133°	E	10.0
07-08	15h21.8m -35°29'	15h24.9m -35°40'	130°	E	10.3

Bits and Pieces

1990 SAC Meetings

June 8
July 6
August 10
September 7
October 5
November 2
December 8

1990 SAC Star Parties

June 16
July 14
August 18
September 15
October 13
November 10
December 15

Minutes of the May Meeting

President Pieter Burggraaf brought the meeting to order at 7:30 PM. The first order of business were the upcoming events and announcements (see the attached calendar for June's events). Steve Coe announce the Novice's meeting at his house. A. J. Crayon then announced the May 17 Deep Sky Meeting. Harold Moore presented an update on getting an "Arizona Astronomy Center."

Rich Walker showed a gear modification to the tracking platform to reduce periodic error. Pete Manly mentioned plans for an Alaska eclipse expedition. Cathe Becker then presented the Treasurer's Report.

For Show-N-Tell, Rick Rotramel, Michael Jones, Ken Burgess and Chris Schur showed slides. After the break Dr. Neville Woolf from the University of Arizona was the main speaker. He spoke of planned telescopes for the future. Dr. Woolf also talked about Mt. Graham and will be involved in future hearings. —*Phil Dahl, SAC Secretary*

Guest Speaker for the June Meeting

We have finally arrived at a mutual date for a “Book Signing” and presentation by one of our favorite speakers, David Levy. David will be with us at the June meeting, Friday, June 16.

Be sure to keep in mind Rick Rotramel’s annual “Post Riverside” presentation. Also, anyone else wanting to give a presentation, please call or see Virginia Campbell before the start of the meeting. —*Virginia Campbell, SAC Vice President*

From the Editor’s Desk

First off, let me apologize for the lateness of the May issue. Everything conspired together during April and the beginning of May, making sure that I had little for things like this newsletter. It took me a week and half just to get the already printed newsletters mailed, it usually takes me about 3 hours. I did finally get them all mailed with the last group going out about three days before the meeting, this group was mainly those from out-of-state and out-of-country.

With the year almost half gone, I’d like to take some space and thank those of you who have sent contributions to the newsletter. Your help has made putting this newsletter nearly painless. I still have articles that I haven’t gotten to yet, but by no means stop sending items to me. An interesting side note, the June issue of Astronomy had more SAC contributors than our May newsletter. Good work guys, for that and previous issues.

For those of you interested in Lunar Occultations, be sure to keep the table that is included in this newsletter. It contains the rest of the occultations for the remainder of the year. Due space reasons, the contents of this table will not be repeated. Special thanks to Brian Vorndam for assembling the table.

Some people have expressed an interest in reaching me electronically. A couple of years ago I did run a BBS, but at this time the Hardware is elsewhere. You can send me electronic mail via BIX to “pdickson” or via the Internet to “Dickson@System-M.Phx.Bull.COM”. Unfortunately, for the context of this newsletter, if you need to know how to use these addresses then you most likely can’t use them. —*Paul Dickson*

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.

Remembering a Friend

by Steve Cole

After the shock of hearing about Maynard Clark’s death I realized that the legacy he leaves behind will not pass with him. I will remember his easy smile and helpful manner. Maynard was always ready to talk telescopes and offer a helping hand making parts or accessories. His machining skills helped several people in the club fashion parts that would be difficult without Maynard’s sure hand in his machine shop.

Maynard was always anxious to have the club come up for the annual Sedona Star Party. I will miss his quiet voice among the red rocks in Sedona as we discussed what to observe for the night.

I bought some glass filter material at Riverside a year ago and Maynard helped to cut the glass so that the light orange filters could be used in an eyepiece. When Mars comes near the Earth this year, A. J. Crayon and I will be using those glass filters thanks to Maynard Clark’s ability. Thanks Maynard.

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; assorted filters; 7mm, 15.5mm & 20mm eyepieces; 2X telenegetive; AC & DC power cords; Minolta T-ring; piggyback bracket; diagonal prism; observer’s chair. \$1495 Greg Kar, 993-9339.

Telescope—A C-8 telescope with eyepieces, motor drive, tripod, T adaptor, solar filter, off-axis guider, Barlow, Telrad, and much more. Sell as a package only. Call Ed Poe at 942-8500 for complete list and price.

Wanted—Any pieces you may have to an Edmund Scientific clock drive for the old 6” reflectors they made either working or not. Rick Cutter 247-5072.

Universal Time and Date of Total Lunar Occultations for Phoenix (33.5° Lat., 112.1° Long.)
 Corrected from Standard Station NM (1) and LA (2)

Mo/DY/YR	H1:M1:S1	H2:M2:S2	Mag	Star Info	PH	PA1	PA2	PS	ELG	MAL	MAZ	SAL	SAZ
06/07/90	4:13:41	4:12:17	3.0	ZC2287 (π Sco)	DD	143	162	95	171	24	148	-17	314
06/07/90	5:23:57	5:24:04	3.0	ZC2287 (π Sco)	RB	258	241	95	172	29	164	-27	328
08/14/90	7:06:23	NL:NL:NL	3.8	ZC0560 (27 Tau)	RD	191	NL	48	273	6	64	-42	352
08/18/90	11:16:28	NL:NL:NL	-2	Jupiter	DB	132	NL	14	334	6	68	-19	59
08/18/90	12:05:47	12:06:11	-2	Jupiter	RD	249	260	14	335	15	74	-10	67
08/28/90	3:52:43	3:53:31	3.0	ZC2287 (π Sco)	DD	102	95	50	91	19	220	-23	300
08/28/90	NL:NL:NL	5:13:21	3.0	ZC2287 (π Sco)	RB	NL	272	51	91	7	233	-36	317
09/10/90	NL:NL:NL	12:57:59	4.0	ZC0547 (20 Tau)	RD	205	205	61	249	74	NL	-2	82
09/10/90	NL:NL:NL	12:58:31	4.4	ZC0539 (19 Tau)	RD	238	238	61	249	74	NL	-2	82
11/04/90	3:25:42	03:24:44	3.0	ZC0552 (η Tau)	DB	41	25	88	201	27	77	-36	275
11/04/90	3:46:05	03:45:49	4.3	ZC0545 (23 Tau)	RD	266	281	88	201	31	79	-40	279
11/04/90	4:14:59	04:15:38	3.0	ZC0552 (η Tau)	RD	278	296	88	201	36	83	-46	284
11/04/90	4:57:40	04:57:59	3.8	ZC0560 (27 Tau)	RD	240	254	88	202	45	88	-55	293
12/03/90	8:29:03	NL:NL:NL	5.0	ZC0852 (125Tau)	RD	236	NL	88	202	82	194	-70	59
12/29/90	0:53:29	NL:NL:NL	3.8	ZC0537 (17 Tau)	DD	55	NL	81	145	40	85	-6	246
12/29/90	1:28:44	01:27:20	4.3	ZC0545 (23 Tau)	DD	116	97	81	146	47	89	-12	250
12/29/90	1:43:22	NL:NL:NL	4.0	ZC0541 (20 Tau)	DD	14	NL	81	146	50	91	-15	252
12/29/90	2:01:00	01:59:39	3.0	ZC0552 (η Tau)	DD	101	85	81	146	54	94	-19	254
12/29/90	3:06:01	03:06:10	3.0	ZC0552 (η Tau)	RB	220	234	82	147	67	106	-32	262
12/29/90	NL:NL:NL	02:54:35	3.8	ZC0560 (27 Tau)	RD	NL	135	82	147	64	103	-30	260

NOTES:

Subtract 7 hours for correct Mountain Standard Time and Day.

H1,M1,S1 = Hrs,Min,Sec (Std Sta NM)

H2,M2,S2 = Hrs,Min,Sec (Std Sta LA)

PH = Phenomenon, i.e. RD = (R)eappearance on (D)ark Limb

PA1 = Position Angle of star from north point of moon (90=East) (NM Std Sta)

PA2 = Position Angle of star from north point of moon (90=East) (LA Std Sta)

PS = Percent Sunlit

ELG = Elongation of moon from sun (180 = full; 270 = 3rd Qtr)

MAL = Moon Altitude in degrees (90 = directly overhead)

MAZ = Moon Azimuth (90 = East)

SAL;SAZ = Sun Altitude;Azimuth

NL = Not Listed at Standard Station

Compiled by Brian K. Vorndam