SAN JOSE AMATEUR ASTRONOMERS

MAY 1975

BULLETIN

Bob Malm, EDITOR

RECENT ACTIVITIES: The general meeting of April 4, 1975 was, in a sense, a work meeting. The history of the labor on the 12 1/2 inch telescope belonging to the club was reviewed and then the question was put to the general membership, "What shall we do now?" After much discussion it was decided to proceed with the construction of the telescope with greatest haste. Instead of waiting for a secure, permanent site for an observatory to materialize, the club's telescope will be constructed as a portable, to be used at star parties and other functions. At such time when the club can construct an observatory, a more permanent mount can be built. Because of its ease of construction, with a minimum amount of alteration of the telescope tube, a Dobson-type mount was selected. Groups began to be organized which would work on various parts of the telescope system. It was estimated that the instrument should be ready for use some time this summer.

The star party of April 12, 1975 was a big success. President Mungall rescued the event from the 'jaws' of failure by moving the site from Coe to the club's location on Mt. Umunhum. Both Coe and Fremont were full of campers from Friday night on, complete with interferring headlights. A group of members did attend a Dobson star party at Fremont (see below). The Mt. Umunhum site proved its worth, however, by providing wind-free, low turbulance viewing. A breeze came up around 7 P.M., much to the observer's apprehension, but it was not bad and eventually disappeared altogether. Jim Van Nuland reported that his position on the summit left little to be desired. Among objects observed were galaxies in Leo and Virgo as well as some of the more 'standard' bodies. Your editor swears that he observed the Leo galaxies M-65 and M-66 in his finder (8 X 50), but some people had the audacity to doubt this feat. Debbie Moore again provided the group with cookies and fruit.

Notes on the Sidewalk Astronomers star party at Fremont Peak on April 11, 12, 1975 by Gerry Rattley: "Both nights were clear and there were plenty of people (over a hundred each night) for viewing with the 24-inch and numerous smaller 'scopes. Many clubs were present and had a good time. I saw the quasar 3C-273 (14th magnitude visually) for the first time with the 24-inch. Also I saw Pluto, using the Sky and Telescope finder chart in the February issue. The Trifid was about the most beautiful object viewed. Colors in it were magnificent. Also viewed were spiral arms in a few dozen galaxies, most noteworthy being M-81, M-51, M-101, M-61 and NGC 2903.....John Dobson entertained the public by giving an excellent slide show on Saturday evening.... I also saw the central star in the Ring Nebula (M-57) and the Owl Nebula was looking back at me with big dark eyes (central star also)." The National Geographic Magazine was there to do an article on amateur astronomy.

COMING EVENTS: May 2, 1975 at Olinder Center (7:30 P.M.): FRANK HOLDEN RETURNS!! Mr. Holden, who has given excellent talks in the past will give a lecture and slide show on observatories in the southern hemisphere, especially the new observatory in Chile which contains the "sister-telescope" to the 158-inch at Kitt Peak. Mr. Holden, astronomer stationed at Lick Observatory, just returned from South America.

May 13, 1975 (a Tuesday) at 7:00 P.M.: A special star-party at Samuel Ayer High School in Milpitas to be given in conjunction with a school function. Examine the following map.

(SEE PAGE TWO)

May 24, 1975 at the K-Mart on the West side (Highway 9): Public star party. We have arranged a special event for this one: a total eclipse of the moon.

June 6, 1975: General meeting. Joe Gilbert will give a talk based on his scientific paper, The Velocity of Light--A Constant?

NEWS NOTES: Norman Wild has become the latest donor to the dwindling club treasury and will be deeded the Saturnian satellite, Titan. Norm requested such a site because of its central viewing location in the Solar System. Now if we can just do something about Titan's thick atmosphere.

NEWS NOTES (Continued): Debbie Moore has earned a special award for her moral lifting refreshments at star parties: the entire Milky-way galaxy!! Incidentally, your editor actually intends on providing the various donors with ~~plywood~~ paper, but is delayed for technical reasons, in doing this. DEEDS PRINTED ON

BELATED WANT AD: Michael S. Porovich 2509 Parsons Ave. Merced, Ca. 95340 is looking for a used 4, 5 or 6 inch reflecting telescope in the price bracket up to $100.

NoN-BELATED WANT AD: I have two Schmidt corrector-plate blanks (5"). I can make them into completed correctors for any Schmidt 'scope (camera) f/2 to f/5. If interested call Dave Erickson, 255-1539.

NEW MEMBERS:	Ron Gobbin	22685 Summit Rd.	Los Gatos, Ca. 95030	353-3349
	Bill Gimple	1486 Medallion Dr.	San Jose, Ca.95120	268-7967
	Lee Weichert	324 Crest Drive	San Jose, Ca. 95127	258-6313

TECHNICAL NOTES:
Want to know an easy way to determine the appoximate diameter of a star? Since the energy output of a star is proportional to the radius of a star squared, the visible portion of that output, the luminosity, is approximately proportional to the radius squared. This leads to the formula $D = (5750/T)^2 \times \sqrt{L}$ in which 5750° K. is the absolute temperature of the sun's surface, T is the absolute temperature of the star's surface and L is the luminosity of the star as determined from the absolute magnitude of that star.

Example: Find the approximate diameter of Sirius. From the fact that sirius is a spectral type A1 star its temperature is about 10,000° K. Its absolute magnitude of +1.5 gives a luminosity of about 20 times that of the sun.

By substituting the above values into the formula we obtain

$$D = (5750/10,000)^2 \times \sqrt{20}$$

$$= (0.3310) \times 4.47 = 1.5$$

Thus, the diameter of Sirius is about 1.5 times that of the sun or 1,300,000 miles. This value is in good agreement with the interferometer method of stellar diameter determination.