

# SAN JOSE AMATEUR ASTRONOMERS

## BULLETIN

March 1975

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**NOTE:** As you can see, your Bulletin is dittoed again this month. When the club treasurer receives the next donation, the Bulletin will again become super black and white (Xerox) with credits going to the donor. In addition, the contributor will be given a deed to a lot on Ganymede overlooking one of the most beautiful craters in the Solar System. Gerry Rattley made the first donation (\$30) and was deeded the entire asteroid, Ceres.

**RECENT ACTIVITIES:** On February 7, 1975 there was another good turnout at the general meeting to hear some of the members impart interesting astronomical information. Gerry Rattley continued his interesting series on deep-sky objects in the various constellations with Gemini and Monoceros. Soon Gerry hopes to ditto off tables concerned with the chief objects to be seen in each constellation. Tom Curtis continued the meeting with a presentation of the Messier objects, based on a paper he had prepared. His discussion was complete with slides and humor.

Some members were amazed that the Questar was able to record pictures of such resolution and beauty until Tom admitted that the slides were taken at Mt. Palomar through the permanent instrument there. Don Albers then did a pitch for the Astronomical Society of the Pacific, its advantages and privileges, and then spent several minutes attempting to convince us that he was not an agent of that organization. The remainder of the evening was spent informally, reminiscent of the meetings at the Community Bank. Incidentally, the Olinder auditorium where we meet is now divided off so that the gather is in a smaller, more intimate setting (and warmer, too, I might add).

The star party of February 15, 1975 was not well attended, probably due to the "wind-tunnel" effect noticed a month earlier and the expected mire after the recent rains. I am happy to report that neither the wind nor the mire proved to develop, much to the delight of the nine who came. There was a little breeze which came up after midnight, but this was no problem. It was cold, however, but it occasionally gets cold during the winter season and one has to accept certain things. When the low temperature finally got to the viewers, they piled into Jim Van Nuland's van. (I understand that Jim now needs new shocks for his frequently overloaded van.) Debbie Moore came through again with fruit and cookies. Apparently the most impressive sight during the evening was that of Saturn which was disturbed to a minimum by the effects of the atmosphere. "Glorious" and "fantastic" were among the adjectives reported to yours truly.

**COMING EVENTS:** March 7, 1975, 7:30 P.M. at Olinder Center: general meeting. Jim Vermilion will lecture on his 15" telescope. In addition it will be bring-your-own-slides night. Bring as many as you want but give your five or six best to Gerry. If he needs more, he will let you know. Gerry will also discuss the constellation Virgo.

March 15, 1975: Star party at Henry Coe State Park.

March 14, 1975, 8 P.M.: Board meeting at Jim Van Nuland's home. Jim will give instructions on how to find his place at the meeting. Remember, all members are invited to board meetings should they so desire.

**NEWS NOTE:** The Riverside Telescope Makers convention will NOT be held at Idylwild as previously announced. Instead it will be held at Bear Valley near Lake Arrowhead in the Angeles National Forest. For more details come to the meeting.

**TECHNICAL NOTES:** Have you every wondered how composite magnitudes (magnitudes of multiple stars, clusters, etc.) are calculated? Your editor stumbled across the following formula while playing with his Commodore calculator:

$$\frac{1}{2.512^{m_T}} = \frac{1}{2.512^{m_1}} + \frac{1}{2.512^{m_2}} \quad \text{where } m_T \text{ is the composite magnitude, } m_1 \text{ is the apparent magnitude of the first star and } m_2, \text{ the magnitude of the second star. The formula}$$

may be extended indefinitely for systems with many members.

**EXAMPLE:** WHAT IS THE COMBINED MAGNITUDE OF A BINARY IN WHICH BOTH COMPONENTS HAVE MAGNITUDES OF 2.0?

**SOLUTION:**

$$\frac{1}{2.512^{m_T}} = \frac{1}{2.512^{2.0}} + \frac{1}{2.512^{2.0}} = \frac{1}{6.310} + \frac{1}{6.310} = 0.3170$$

**TAKE RECIPROALS:**

$$2.512^{m_T} = 3.155 \rightarrow m_T = \frac{\log 3.155}{\log 2.512} = +1.25$$