



MINUTES

Minutes of the meeting of Tuesday, Dec. 6:

The TCAC executive board met prior to the regular meeting. Some programs for coming meetings were discussed. Jan. 3 the Nova movie "The Planets" will be shown. Feb. 7 Bruce Lundegaard will show photographs taken during this fall's solar eclipse off Peru. March 7 Donald E. Osterbrock, director of Lick Observatory, will address the club concerning astronomical research at Lick.

Treasurer John Cooner discussed having all club members send him the mailing labels from the cover of their "Sky & Telescopes."

It was announced that "Sky & Telescope" is going to charge \$8 rather than \$6 per member; dues may have to rise as a result of the increase.

At the general meeting, which was held in the planetarium of the Minneapolis Public Library, TCAC members were shown both a slide show and a planetarium show. The slides were taken at Big Bear Solar Observatory or furnished by Astrophoto Lab, Germany. The latter were of deep-sky objects and nearby galactic clusters.

The planetarium's Christmas show was presented for the membership.

Slides of the retrograde motion of Mars were also shown.

It was announced at the meeting that the dome on the St. Paul planetarium will be installed Jan. 9.

Some 60 persons attended the meeting, of whom 30 signed the roster.

Event of the Month

Mars Reaches Opposition on January 21

by Bill Larson

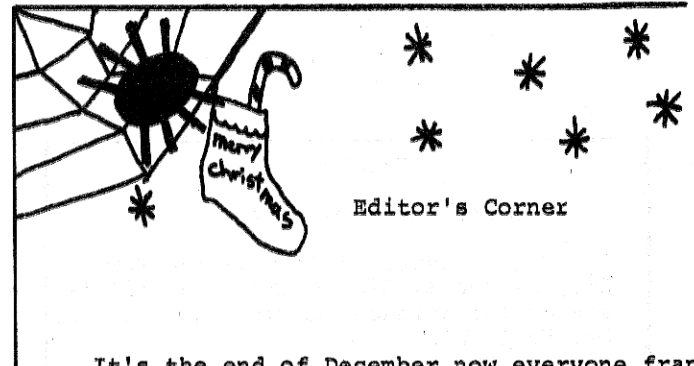
Shining at magnitude -1.1 Mars will reach opposition late next month when it will be 98 million kilometers away and 15 seconds of arc in diameter. Although it will be considerably farther away than it was at the favorable opposition of 1971 (when it approached to within 56 million kilometers) it will be still farther away at its next opposition (in 1980) and only slightly closer at opposition in 1982. Thus if you miss Mars this month you will not have a

better view of it until 1984.

Because the north pole of Mars is tipped toward the Earth, the north polar cap should be the most prominent feature in your telescope. The dark areas most easily seen are a triangular area - Syrtis Major - and a fist-shaped area with two fingers - Meridiani Sinus. Both are near the equator. However even the most prominent features may require a little practice to pick out. To ensure a sharp focus, focus on a nearby star.

To see the most detail pick a windless night and wait till Mars is at least 20° above the horizon. Since Mars will be near the northern-most point on the ecliptic and north of the ecliptic, it will be well placed for observation at this opposition. In fact when it transits at midnight it will be about 70° above the horizon. Because of Mars' small angular diameter, use as high a power as the atmosphere and your telescope will bear - about 300x.

If January's icy blasts are too much for you, you may wish to wait until warmer weather; but remember that Mars shrinks below the limit for useful observations - about 10 seconds of arc - in mid-March.



It's the end of December now, everyone frantically getting last minute Christmas presents and a good case of indigestion. Everyone is in the Christmas spirit, being kind to all. Of course this spirit will be ruined by Monday because of people using sprits themselves on Christmas and being mad because of the hangover.

The New Year is also rolling into our scene. Of course with the New Year comes resolutions. This resolution, which is supposed to last all year, will be forgotten by January 2. I thought it might be interesting to look at a couple of resolutions for astronomers.

(Minnesotan)

I will observe once a week as long as it is at least 70 degrees outside and that we have perfect sky.

(New York City)
This year I will attempt to find the moon,
not the ball on top of the Allied Chemical
Building.

(Los Anglos)
My resolution this year is to find the sky,
which rumor has it, lies in the direction of up.

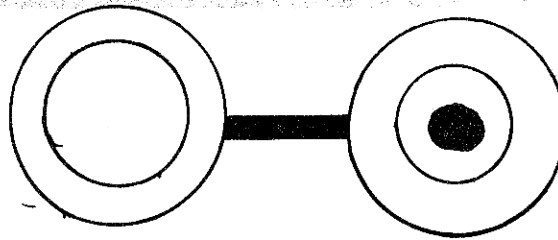
Well that's it for this month's Editor's
Corner. I know that it is not much, but I had to
fill up space. I NEED ARTICLES!! I need stories
about your adventures as an amatur astronomer.
For example you can tell about the time when you
thought you saw an UFO through your telescope,
but found out that it was just a firefly. Please
send all articles typed 48 charactors wide to
John Mlinar, 11311 50th st. no., Lake Elmo, 55042

Good bye for now, and may the mistltoe be
above your head and your wife or girl friend
with you. Marry Kiss-mas!

LOCAL NOTES

The next meeting of the TCAC will be
January 3 at the science museum. The film "The
Planets" will be shown.

IT'S NOT TWO WHEELS AND AN AXLE....



WHAT IS IT??

THIS IS A NEW FEATURE TO BE PUBLISHED WHEN THE
EDITOR FEELS LIKE IT. PLEASE SEND IN YOUR ANSWERS.
THE WINNER WILL WIN 50¢. THE ANSWER AND THE
WINNER WILL BE IN THE NEXT ISSUE OF THE GEMINI

GEMINI

Editor----John Mlinar

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