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## Minutes

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Minutes of the regular meeting of Tuesday, Dec. 7, 1976:

The meeting was called to order by our president, Pat Clements, at 7:30 p.m. in the Member's Lounge of the Science Museum. Coffee was available and, thanks to Mrs. John Cooner, we also had homemade cookies.

Herb Brika gave a very interesting presentation on Stonehenge. This illustrated lecture continued the subject started last meeting by Professor Ivan Policoff.

Scheduled observing sessions at the Metcalf Nature Center will be resumed in the spring. If you are interested in a special observing session, call Lauren Nelson, 644-1254, for arrangements.

The president has named the two-man nominations committee--Kevin Marks and William Larson. They will prepare a slate of nominees from whom we will elect a president, vice president, treasurer, secretary, and student advisor. The new officers will take office at the regular May meeting.

Our next meeting will be Tuesday, Jan. 4, 1977. NOTE CHANGE OF PLACE; we will meet in the auditorium of the Science Museum at 7 p.m. William Larson will be moderator of a discussion on warm clothing for winter observing and Professor Policoff will have a motion picture on stellar astronomy.

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## Notes

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The 3M Club Astronomical Society observes every clear Monday night at its Tartan Park facility. For more information or arrangements to observe call Roger Lange, 733-4928 (days) or 739-5142 (evenings). Visitors are always welcome.

Meteor showers for the month of January are listed below. The approximate date of maximum and the star nearest the radiant point are also listed.

|       |                    |
|-------|--------------------|
| 2-3   | 44 Bootis          |
| 5-6   | theta Ursa Majoris |
| 11-12 | xi Bootes          |
| 17-18 | chi Cygni          |
| 19-20 | zeta Draconis      |
| 22-23 | chi Librae         |
| 25-26 | iota Cancrri       |

All of these are minor showers except the Quadrantid shower, which peaks sharply at 1600 UT Jan. 3, or 1000 local time. You might see up to 25 meteors per hour the night of Jan. 2-3. The moon is two days from full. Hawaiian observers may see up to 100 Quadrantids per hours.

AMS reports a minor shower peaking at Jan. 15-16. No radiant is listed. The moon is three days from new. You might try this one.

For information on meteor observing or fireball report forms, call Carl Harstad at 827-5112.

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William Larson and Donald Tate were each awarded the Astronomical League's Messier Certificate for their diligence in having located and observed each of the Messier objects.

Congratulations!

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Richard Turgeon, 636-5910, has compiled a fine booklet, Index of Astronomy and Telescope Making, which he has available for sale. This is a valuable reference for any serious amateur.

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For information on star catalogs and atlases, observing tips and guides, Messier objects, and buying telescopes and accessories, you may contact Wm. Larson, 331-6124. Call Bill if you have ideas on how to keep warm while observing on winter nights.

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How many readers have taken advantage of the free offer from "The Shutterbug" in the October issue of Gemini? If you haven't to date, please do. Patronage of our advertisers will ensure their continued support of our publications.

The purchase of a club star atlas will be discussed at the January meeting.

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*Classified Ads*

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FOR SALE: 80mm f:15 refractor with four eyepieces and barlow lens. Made by Jason-Empire. Price \$150. Contact Mrs. Arlene Bragg, Four Courts, Apt. 101, 2932 Northway Dr., Brooklyn Center, MN 55430. Phone 560-0976.

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FOR SALE: 8-inch f:5.5 Newtonian reflector. Equatorial mount. Complete with eyepieces. No clock drive. Contact Howard J. McKenzie, 699-3546, for price and details.

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A reminder: Want ads for publication in Gemini may be placed at the following rates:  
members 50¢/line (approx. six words)  
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GEMINI

Editor----Andrew Fraser

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The TCAC strives to promote amateur astronomy through its publications, meetings, and public programs. Membership is open to anyone. Annual regular member dues are \$16 and student member dues are \$5, of which \$1.50 is allocated for a subscription to Gemini. Subscription to Gemini is available to non-members at \$2.50 per year. Inquiries may be directed to: TCAC, Science Museum of Minnesota, 30 E. 10th St., St. Paul, MN 55101.

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