The Prairie Astronomer

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COMPUTERS AND AMATEUR ASTRONOMY

Now for the above $1000 comuters.The IBM micro came onto the scene with much hulabaloo. Primarily because of the name. There is nothing really fancy about it but it is a solid computer. The documentation is of the highest quality. Enough to make even the most diehard amateur realize most of his questions can be answered by reading it. The computer has very good color graphic capability. 16 colors are available in hi res with a graphic resolution of 320 x 200 dot in color and 640 x 200 in black and white. It has background and foreground colors that the programmer can use for very striking celestial graphics. It comes with a minimum 16K for memory with add on memory to bring it up to 256K. So you can see we are in a different breed of micro. With that kind of memory you can store years of observing sessions, hundreds of star charts and your mother-in-law all right in side the computer. It has the ability for telecommunications also. It also has a detached keyboard which is handy for those long nites of programming. Its nice to push back from the desk cross your legs and drop the keyboard in your lap. One of the complaints of the IBM when it first came out was a lack of software and add on accessories. But since there is very little software out there dealing with astronomy the amateur will do most of the programming of his applications himself. And in a very short time there has been dozens of companies that have jumped on the IBM wagon to produce accessories for it. But there are some points to look at very hard when looking at the IBM. The keyboard leaves much to be desired. It seems the design engineer felt he had to line up all the keys like the soldiers in the Light Brigade, all shoulder to shoulder. The keys of the numeric pad are right next to the standard keys. Also the editing keys are mixed in with the rest of the keys. The return or enter key is also mixed in there somewhere. It certainly would not seem too difficult to spread every thing out. Seperating the numeric pad by 1/2" from the rest of the keyboard as well as the editing keys would save much hassel during long late nite programming or data entry sessions. Also with only 5 slots or ports availible for expansion of which two have to be taken for the tv display and disk drive(assuming you will use a disk based system) it leaves you with 3 slots left for future accessories. So be sure and consider that. Overall the IBM is a strong computer with excellant documentation, color and striking graphics. A basic system starts at about $1750 but look to spend around $1900 to 3350 for a typical system.

Now in regards to the Apple it is well known that I own a fairly extensive Apple system and have for the last 4-5 years. So obviously your first thought is 'biased opinion coming up'. Maybe, after all I'm only human. The strongest point of the Apple is also its weakest point. The Apple is a highly

Ho Ho Ho Meeting....

The December meeting of the Prairie Astronomy Club will be held on the 28th day of December at 7:30 pm in the Hyde Observatory Auditorium.

Final discussion and voting on the new dues structure is planned. Please see the Presidents Message for details.

MERRY CHRISTMAS FROM PRAIRIE ASTRONOMY CLUB.

PRESIDENT'S MESSAGE...

After the last several weeks of traveling and moving into a new home I finally got a chance to at least go out in my back yard and observe (with my naked eye that is). As I saw Orion rise in the eastern sky it brought back memories. Orion was the first constellation I ever learned to spot with out a star finder when I was young. It also contains the first deep sky object I ever found with my telescope. I can remember the night I found it I was breathing so hard the lens and finder scope were clouding over. My heart was pounding so hard I could hardly keep my eye steady over the eyepiece. Oh well enough of this rambling on, the Christmas season usually does that to me.

Now to matters at hand. This next meeting we will have final brief discussion and then vote on our new dues and membership structure. For those of you who were not there here it is in a nutshell. With the increase in Sky and Telescope subscription it makes it necessary to raise dues to $19.00 per year. Our newsletter subscribers remain at the $6.00 rate.

This does present a situation where the younger members cannot afford the continuous increases in dues. Especially when it includes a magazine that at times has very few articles that pertain to their level of knowledge in amateur astronomy. Now the problem you might say could be solved by the statement that if the younger member can't afford the full membership which includes the subscription to Sky and Telescope then they should chose the newsletter membership which at $6.00 is considerably less expensive. But the problem is that a newsletter member only, gets no voting privilege even though he has paid no more or less to the club then the full member. ($6.00 of the full members dues goes to the club, the rest to Sky and Telescope for the subscription.) So since every one is paying the same amount of dues to the club itself, all should be given the same voting rights. With that in mind we have had the following motion made. To allow our membership status to include a junior membership class. These would include members 21 years or younger who want to be a full member with full voting rights for the $6.00 dues fee and be allowed to subscribe to the astronomy magazine of their choice. The status of the members over 21 would not change. They would retain full voting rights only with the full membership dues which include the subscription to Sky and Telescope.

With this arrangement it makes it more affordable for the younger person to join or remain and still have a voice in the club functions and a choice of which astronomy magazine he wishes if any. So if you have any strong feelings about this situation one way or another attend the meeting. Those that do will be the ones who determine the course of us all.

See you at the meeting.

Russ Genzmer

The Prairie Astronomer is published monthly by the Prairie Astronomy Club, and is free to all club members. Yearly subscription without club membership is $6.00. Regular membership, $16.00. Family membership is $18.00. Memberships include 1-year subscription to Sky & Telescope, the club newsletter, and 4 quarterly issues of The Reflector, Journal of the Astronomical league. Address correspondence and membership renewals to: Prairie Astronomy Club, Inc., P.O. Box 80553, Lincoln Ne. 68501. address all articles for inclusion in the newsletter to Russ Genzmer 5301 South 30th. Lincoln Ne. 68516. All articles must be received 10 working days before the meeting date.

Computers (Cont. from page 1)

modular computer. You can buy a stripped down model and expand and expand and expand and... But because of this modularity it suffers from a case of the 'unfriendlies'. It's not the easiest computer to get started on. It just sits there and unless you read the documentation and 'get into it' it offers very little help, you have to go after it. Now from a business standpoint that might cause some problems. But most amateurs like to do things themselves they don't like to be locked into a specfic format or system dictated by the manufacture. This is where the Apple shines. Apple relies on the hundreds of manufactures that develope countless accessories and interface devices that allow the amateur to configure the Apple in hundreds of different ways.

The Apple has 8 slots available in the back to allow you to plug in your accessories. The Apple power supply is regulated enough to allow all 8 slots to be occupied with no problems. Be aware that the more cards you plug into your computer the more heat it generates, which could cause problems. The Apple displays text in 40 column format but 80 column cards are available. Also a built in video or standard tv interface is there. It has 16 different colors available in low resolution graphics and 6 in hi res. The hi resolution graphics is 280 x 192 dot, which is good but as more micros enter the picture it is rapidly becoming 'average'. It comes in 3 basic sizes, 16K, 32K, and 48K. But now you can expand your apple all the way to 128K of memory. You can also use cassette tape for data storage which is a very good economical way of starting and then move up to disk drive. The Apple disk drive holds 128K of user storage space but companies outside Apple have disk drives for the Apple that approach 40 million bytes of storage. Telecommunciation devices are available also in a number of price ranges from $99 to $400. Also a number of Analog to Digital and Digital to Analog cards also add new dimensions to the Apple. Also there are thousands of programming aids out there to help those of you who wish to program the Apple to do most of your work. Some that may help the amateur are animation in graphics, mixed text and graphics generators that allow you to generate graphics and also write text onto the same screen. 3-d drawing coupled with animation gives striking celestial scenes. Basic price is around $1360 for a 16K tape based unit but look to spend around 1500 to 2300 for a typical system.

That takes care of this article. These haven't been the easiest to write because of the depth and scope of micro computers its difficult to decide what to write about and what not to. Needless to say there are hundreds of things I have left out for lack of space. But hopefully I've created some interest and thought in our club members to start asking questions and searching for answers. So that when the big push for computerization in amateur astronomy comes you'll be ready for it.

Observing Chairman's Report . .

Cold winter nights are sometimes the best for overall transparency, so this will be the time to go for the truely faint targets.

An easy starter is NGC 2403, a fairly large spiral galaxy in Camelopardalis. This galaxy is just visible in binoculars as a small patch of light about a degree west of the sixth magnitude star 51 Camelopardalis or about 5 degrees west and 5 degrees north of third magnitude Omicron Ursa Majoris. It resembles M33 in Triangulum, except it is somewhat smaller and has a bright nucleus.

In Auriga, those with small to moderate telescopes should try M36, a beautiful open star cluster three degrees east of 19 Aurigae. Three degrees east-southeast of M36 is the dense cluster M37. Its

Observers report (Cont. from page 3)

stars are not as bright as those of M36 but they are twice as numerous as M36. It looks like a small version of M11.

Many of you will look at m45 the fantastic Pleiages, and a few of you with telescopes larger than six inches may see the faint Merope Nebula extending south from Merope. Low power is a must here, and I would be interested to hear from those with moderate telescopes as to its visibility.

After you look at the Great Orion Nebula in the sword of Orion, you may try NGC 2337,2338,and 2339 just about two degrees east of epsilon Monocerotis. Actually, you may see NGC 2244, a rectangular group of stars, but use very low power and you may notice a haze of light encircling the group. This is the famous Rosette Nebula, and is seen best in the club 12 1/2 inch at about 60 power. It is rather large, so you should be prepared to do some sweeping if your field of view isn't at least one degree wide.

For one last cluster, try M50, a nice group of stars some four degrees south of the fifth magnitude star 19 Monocerotis. It shows stars even in smaller instruments and has a red star south of the center of the cluster.

David Knisely

TELESCOPE MAKING MAGAZINE IS IN

The latest issue of Telescope Making Magazine has arrived and can be picked up at the December meeting by those who are on the standing order.

Russ Genzmer, Ron Veys, Norm Frerichs, Dan Neville, John Lortz, Donn Baker, John Johnson

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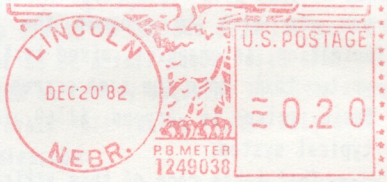

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