



SkyWatch



'Serving Mobile's Amateur Astronomy Community'

March-April 1995 • Issue 2, Volume 4

A Martian Odyssey

Don't Miss Mars' 1995 Apparition!



Poke your head outside on any clear night this month, and you can't miss the premier sight (for planetary fanatics anyway) of 1995's late winter/early spring skies: Mars. Mars—the very name is evocative. Of Barsoom, and John Carter, and Stanley Weinbaum, and Percival Lowell. And, yes, of Mariner and Viking too. While the month of March sees Mars just past opposition and growing smaller as Earth speeds past the more distant Red Planet, its disk is still about 12" across, and reveals quite a bit of detail for the skilled observer.

When I first became an amateur astronomer (over 30 years ago, now) I naturally gravitated toward planetary observing. It was a very exciting time for planetary science, with

manned voyages to Mars and the outer planets seemingly just around the corner (how wrong we were, sadly). And the planet that fascinated me the most was Mars. Remember, back in the early/mid sixties, before Mariner and Viking, not much was really known about the 'Angry Red Planet'. Quite a few reputable scientists still felt that the greenish-looking areas on Mars



Viking Image of Olympus

(which, we now know, are merely areas swept clean of dust)

might represent vegetation. Even NASA was, in fact, using a Mars map which still showed *many of Lowell's infamous canals!* So, with great expectations, I turned my 4" f11 Newtonian to Mars. *What a disappointment!* All I saw was a tiny, shimmering orangish disk. Not a canal in sight!

A lot has changed over the last 30 years. Mars is now a reasonably well-known world (though it still hides plenty of secrets). And, in the intervening years, I learned how to observe Mars. During one recent apparition of the Red Planet, I took the same 4" f11 reflector which I had used as a boy, and turned it to the planet. *What a surprise!* There was a wealth of detail visible! How could I have missed all this 30 years ago? The reason was that I didn't know much about observing in general,

and observing Mars in particular. Knowing how to observe Mars is very important, since it is probably one of the most difficult objects on any amateur's observing list. Mars is very easy to find, of course, but when found, it is very stubborn about giving up any of its secrets. The following tips will, I think, maximize your chances for having some memorable encounters with this still-mysterious world.

► **Use a telescope appropriate to the task.** A good refractor of 4" or greater aperture is probably the preferred instrument for Mars. However, some stunning views are also available with reflectors; especially those with focal lengths greater than 46". In fact, I think that the larger aperture of most reflectors tends to make-up for any superiority in image sharpness held by refractors. I know that my 8" f7 Newtonian does an excellent job with the planet. I've also seen good images with SCTs.

► **Use enough magnification.** This is one time when you should push the ability of your telescope to use high magnification to the limit. Mars' disk is so small that with powers much less than 200X very little detail is discernable. Use all the power that your telescope/seeing conditions will allow. Most of the time, I find that about 200X is the most useful magnification with my 8".

► **Try using filters with your eyepieces.** Filters can serve a dual purpose: they

enhance particular details on the planet, and also cut down on some of the glare which is present when using a fairly large aperture scope (at opposition, Mars is bright—around Magnitude -1.0 or brighter). A #25 (Red) filter will enhance Mars' dark markings ('maria'). A #21 (Orange) is also good for bringing out the planet's dark areas, and may be more usable than a #25 on smaller scopes. An 80A (blue) will both brighten the polar caps and reveal faint clouds in Mars' atmosphere.

► **Observe Mars when seeing conditions are good.** If seeing (atmospheric steadiness) is not as good as it should be, it's usually useless to try to observe the planet. Conversely, though, don't be too quick to give up! Some of my best views of Mars have been on nights when I at first thought that it was hopeless to even try viewing the planet. Mars would be in my field shimmering as if I were viewing it from underwater, when it would suddenly sharpen into crystal clarity, revealing indescribable amounts of detail! Also, take care that you're not trying to observe the planet through local sources of atmospheric unsteadiness—e.g. over swimming pools or other bodies of water, rooftops, asphalt parking lots, etc.

► **Record your observations with eyepiece drawings.** I have found one of the most

rewarding aspects of Mars observing to be recording my views of the planet with sketches. Not only do I have records which I can return to year after year, but I am also able to 'build-up' an image of the planet over the course of an evening. Unlike Jupiter, Mars rotates slowly enough that it hasn't changed too much over one observing session. I can, therefore, add details to my sketch as I see them, leaving me with a much more detailed idea of the Red Planet's appearance than I would have through isolated looks through the eyepiece. Give it a try! Even if you

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'can't draw', I'm sure that you'll end-up with results which will please you now, and will really bring back fond memories ten years from now!

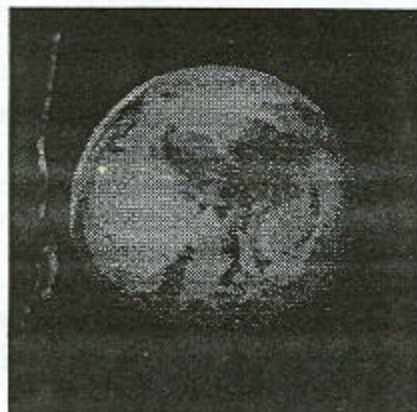
► **Practice makes perfect!**

Do you remember the first time you ever took a look at **Jupiter**? Probably you were unable to make out much more than a cream colored disk with a few faint bands. Now you regularly record loops, spots, and other detail that used to be completely invisible. Observe Mars at every opportunity and at every apparition, and you'll find that a similar situation maintains with this planet. You simply have to train your eye to discern the faint low-contrast details which are present on Mars' disk. Indeed, I find that at every apparition I have to 'retrain' my eye for Mars. At first I can make out very little (often no more than a polar cap), but as the apparition continues more and more wonders spring into view! The previous suggestions will all enhance your effectiveness as a Mars observer, but nothing will do as much as long hours of experience with the planet!

Surprisingly, I find that many amateurs seem less than willing to devote the time to Mars that they spend on Jupiter. Perhaps it's because Mars is truly observable only at its every-other-year oppositions. Or maybe it's because they've listened to too many horror stories from other observers about how difficult it is to view the planet.

And Mars *can* be infuriating. Just when you're on the verge of seeing **real** detail on its surface, the atmosphere shimmers, and Mars is 'gone'! But for me, it's worth any amount of travail to view this enigmatic planet. In real time, through my beloved telescope, I gaze upon the sands of Mars—sands which may be walked by our grandchildren.

—Rod



The Angry Red Planet

Astronomy Software Review

Megastar for Windows v1.1

E.L.B. Software
8910 Willow Meadow Dr.
Houston, TX 77031-1828
(713)541-9723

Program Requirements: 386 processor or better,
4mb RAM, VGA display, CD ROM drive
(double speed drive recommended), Windows 3.1.

Megastar is to other deep sky charting programs as *Uranometria 2000* is to *Norton's Star Atlas*. An exaggeration? Not at all. While some other packages come close to *Megastar's* level of

detail (notably *The Sky*), none that I've seen has *Megastar's* huge number of deep sky objects combined with an interface designed for the active deep sky observer (rather than the armchair astronomer).

While I had known about *Megastar* for some time, I really wasn't convinced that *any* program which required 54 megabytes of my hard disk was *really* good enough to even consider. In retrospect, *Megastar* really is that good, but I wound up waiting until the program became available on Windows CD ROM before finally deciding to try it (as of this writing, *Megastar* is still available on floppies for DOS).

After some deliberation (I was also considering buying Project Pluto's *Guide*), I ordered *Megastar* directly from its author, Emil L. Bonanno (hence E.L.B. Software), the only source for it at this time. After a reasonably short waiting period I received the package, which contains a program CD, a floppy (3.5") based installation program, and a 75 page spiral bound users' manual. While not as attractive as some commercial documentation, *Megastar's* manual is clear, concise, and well-written (with the exception of a few typos). Installation is quick and fully automated. When the installation program is finished, you have a new program group, 'Megastar', on your machine, and a double click on the attractive *Megastar* icon brings up the program after a very short wait for it to load (assuming that you, unlike me, remember to put the CD in your CD ROM drive!).

Megastar is a very 'deep' program, with many features which can be combined in very complex combinations, but a list of some of the program's major features/functions would include:

- Contains the *Hubble Guide*

Star Catalog (GSC). This database contains stars down to about the 15th magnitude--about 15 million stars (and the notorious 3.6 million 'nonstellar' objects).

- The entire NGC, IC, RC3 (*Third Reference Catalog of Bright Galaxies*), and PGC (*Catalogue of Principal Galaxies*) catalogs. Also, many selected objects from an assortment of 'professional' catalogs (e.g., the ARP, Abell, Basel, CED, CGCG, CZ, DO, PK, PAL, UGC and many other databases). In all, *Megastar* contains about 85,000 deep sky objects.
- Easy-to-use search function.
- Complete data on any object is always available (with one mouse click).
- Large comet and asteroid files (with the option of adding new objects).
- Ability to label all Non-stellar objects.
- Complete zoom and pan functions.
- Selectable object colors (though stars are in black and white rather than in colors denoting spectral types).
- Database functions which can generate (filtered) observing lists.
- Can project a circle representing eyepiece field of view on charts (the field sizes of your eyepieces can

be easily entered).

- Prints very high quality charts.
- Can save current view and parameters (which are automatically loaded the next time the program is run).

Quite an assortment of features. But the question with astronomy software is always how fast does it run (a few years of exposure to slooooo programs like *Stargaze* has made many of us almost obsessive about this point)? I'm pleased to report that *Megastar* runs very well, with minimal waiting periods for star plotting even when the program is run entirely from the CD ROM. While the program allows you to transfer GSC data to your hard drive (and includes a utility for this purpose), I really haven't felt the need yet. The way this program is usually used (to generate charts of fairly small areas of the sky), the speed of screen drawing is more than adequate. Even when the program is zoomed out to the maximum allowable extent, the waiting time for stars to be plotted is not too bad (and would be much faster, I'm sure, if the GSC were copied to the hard disk).

The above brings up a major difference between *Megastar* and just about every other astronomy program on the market: *Megastar* does not present wide-angle views of the sky. The maximum amount of sky which can be visible on the screen at any one time is 20 degrees. The purpose of this program is to generate extremely detailed finder charts of small areas--often your charts will be only the size of one eyepiece field. Because of this, you really have to use *Megastar* in conjunction with another program (or a more

old-fashioned printed star atlas). This is not really a handicap, though. Many users of the highly detailed *Uranometria 2000* (the 'Megastar' of printed star atlases) also use *Sky Atlas 2000* for wide angle views of the sky. Just think of *Megastar* as an even more detailed, computerized *Uranometria 2000*.

So *Megastar* the program works pretty well. But just how useful are the charts it generates? I decided to test the claim that *Megastar* makes 'finding challenge objects easy.' I had been having trouble (a lot of trouble) finding an obscure little star cluster in Cassiopeia, IC 166. Though I was using *Sky Atlas 2000* and a fairly detailed area chart I had generated with *Deep Space 3D v4*, I just couldn't find this little devil in my 12.5" Newtonian. I was ready admit that light pollution had eradicated this cluster when *Megastar* arrived. It didn't take me long to print-out a finder chart the size of my 25mm eyepiece's field which showed stars down to mag 13 and which was printed inverted (south up) to match the view in my scope. After a few minutes getting oriented at the scope I started searching. Within about 5 minutes I had found IC 166 (I hesitate to admit how long I had spent unsuccessfully searching for this unspectacular little open cluster with my other charts). The cluster was easily visible, but it was quite dim. I had probably had it in my field any number of times without realizing it was there. But *Megastar* had shown me exactly what the field should look like, making my search easy. I knew when I had the correct field in my eyepiece, and all I had to do then was look for the cluster (it required averted vision). It was almost too easy.

So what are *Megastar's* weak points? To be honest, I just haven't found any yet. The program 'as a program' operates flawlessly.

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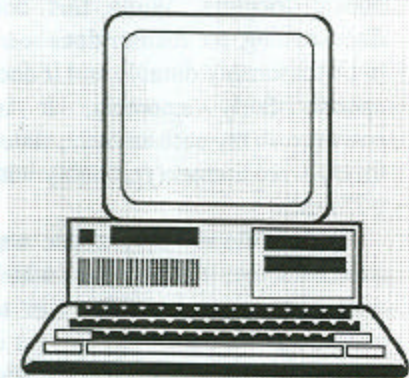
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So what are *Megastar*'s weak points? To be honest, I just haven't found any yet. The program 'as a program' operates flawlessly.

And the charts it generates are wonderful! The only small criticism that I have is that I wish there were a way to position object labels so that they don't overlap (as in *Deep Space 3D*). But this is a small quibble. If you're a fairly advanced deep sky observer with a scope of 10" or larger (though *Megastar* is still useful when used with smaller telescopes), *Megastar* may be just what you been wishing for.

Note: David Chandler's great program *Deep Space 3D* is coming-out on CD ROM! The author has announced that version 5 of *DS3D* will be distributed on a CD and will include the **Hubble Guide Star Catalog** in addition to all the other catalogs currently available for this fine program. How will *DS3D 5* stack-up against *Megastar*? I hope to find out soon! I have *DS3D 5* on order and will start testing it as soon as I receive it (probably in the next month or so).

—Rod Mollise



Telescope Review

Meade 12.5" Starfinder Dobsonian

\$765.00

Available from all Authorized Meade dealers.

OK! I'll admit it! I've finally been afflicted with that dread disease of amateur astronomers: Aperture Fever! After years and years of using a wide variety of telescopes, none of which was larger than 8", I decided that this was the year that I would finally go-in for something bigger. The first decision which I had to make, of course, was exactly what type of moderate/large sized 'scope I should invest in. Since I'm a purely visual deep sky observer with no interest in photography and only limited interest in planetary observing (most of the time), the obvious selection was a Dobsonian type 'scope. And how big should I go? I first considered a 16", but since I had decided on a traditional (non-truss-tube type) Dob, 16" definitely seemed to be on the large (heavy) side. This combination of factors essentially left me with only a few (easily available) choices: A 10" or 13" Coulter Odyssey, a 10" or 12" Meade Starfinder Dobsonian, or a 10" or 12" Orion (Pirate?) Dob scope.

I finally settled on the Meade 12.5" Starfinder for a number of reasons. First, since I felt that I could handle a scope as large as a 12 or 13" without much trouble, this size seemed the way to go (a 12.5" scope gathers over 30% more light than a 10"). Two factors caused me to eliminate the Coulter 13" scope from consideration (though I've been very pleased with my 8" f7 Odyssey). The main objection to a Coulter is the delivery time for the Odyssey I (upwards of a year). Also, the Orion and Meade scopes seemed (in the ads anyway) to be a bit fancier and better finished than the no-frills Coulters. My elimination of

the Orion 12" was also fairly easy. The Meade's mirror is low-expansion Pyrex while the Orion uses plate glass. While the thin plate-glass mirrors on the Coulter telescopes I've used seem to work well, Pyrex with its superior thermal coefficient is still, in my opinion, preferable. Also, the Meade 'scopes' secondary mirror supports are fully adjustable, while those on the Orion instruments are of a much simpler (cheaper) 'bend to adjust' variety. Finally, there had been some indications (over the Fidonet Observational Astronomy computer network) that Orion had been having some quality control problems with their Dobsonian 'scopes' (poor finishes; large, lead, heat retaining weights mounted behind the primary mirrors; poorly cast focusers; etc.). In fairness to Orion, I have heard that most of these problems have now been addressed in their latest production runs. Orion has, in my opinion, always been a very reputable company.

Having decided that I wanted a 12.5" Meade Starfinder of my very own, the next question was where to buy one. Since Astronomics of Norman, Oklahoma is an 'official' Meade distributor and has a good reputation, I decided to give them a call. The person I spoke with at Astronomics was both courteous and helpful. This salesman informed me that my new 'scope would be shipped directly from the Meade factory in California, and that I could expect a delay of about 8-12 weeks (probably not much more than that, anyway). He also clued me in to an 'unadvertised special'. For \$79.00, Meade was offering an accessory package which consisted of a 50mm finder, a bracket for the finder, and two additional eyepieces, a 12mm and a 9mm (the scope comes with a 25mm eyepiece). I had seen Meade advertising a similar offer in the

magazines, but only with a 30mm finder. The total bill, which included shipping and other charges (and the above-mentioned accessory package), came to about \$950.00. My salesperson also informed me that Astronomics would not charge the scope to my credit card until it was shipped. After placing my order, I settled in for a long wait. Having bought quite a number of telescopes over the years, I knew enough to take Astronomics' '8-12 weeks' with a grain of salt. As it turned out, I was wise to be suspicious of the promised 8-12 weeks, but at least Meade didn't miss the delivery date by too much. In about 4 months, the four boxes which held my new Dob were at my door.

Since none of the boxes was overly heavy (thankfully), I didn't have much trouble wrestling them into a clear area where I could begin assembly of the telescope. Unpacking revealed that one box contained the 'scope's primary mirror and cell, another the tube assembly (in which the secondary mirror was already installed), and that the final large box contained the (disassembled) Dobsonian mounting. The fourth container, it turned out, held the accessory package which consisted of the finder 'scope, its bracket, and the three included eyepieces.

Assembly of the Starfinder was straightforward and held only a couple of (minor) unpleasant surprises. Meade's instruction manual is well written, printed and illustrated, and would make assembly of the telescope relatively painless even for an inexperienced user. The installation procedure consisted of screwing together the mount, attaching the primary mirror and its cell to the tube, bolting on the focuser, and attaching the optional finder 'scope. All mounting holes were accurately positioned,

and assembly was easily completed in about an hour (which included unpacking).

I did run into two minor difficulties, both of which concerned the Dob's mounting. First, using all six of the included Teflon washers on the mount's pivot bolt (as instructed in the manual) led to a wobbly telescope. Removing one washer resulted in azimuth movement which was still smooth but much steadier. Also, while the manual cautions against using any kind of grease on the altitude bearings, someone at the factory had done so anyway. Far from making movement in altitude smoother, this grease caused a constant sticking. Removal of this errant grease with alcohol resulted in much better

*'After
assembly, I
spent a few
minutes
admiring my
new friend.'*

movement in altitude. Application of a little Pledge furniture polish to the bearings gave me the easy, buttery movement that I like to see in a Dob. Finally, while not a problem per se, the telescope's collimation was quite a bit off (contrary to the manual's assertion that collimation '...should not be necessary'). Meade's instructions for collimation, though, are clear and straightforward, and should be relatively painless even for a beginner. As it was, a few minutes

with an allen wrench (to adjust the mirror cell's three alignment bolts) and a collimation tool (an old 35mm film canister with a small hole drilled in it) yielded a reasonably good optical alignment.

After assembly, I spent a few minutes admiring my new friend. The Starfinder is nicely finished in white and is equipped with metal tube-end-rings and altitude bearings. The mount is undoubtedly particle board, but it is finished with nice a nice, white formica-type material which is both durable and attractive. The only real disappointment I experienced was with the telescope's rack and pinion focuser. Meade's Starfinder equatorial telescopes are blessed with very nice rack and pinion focusers. The focuser on my new Dob at first appeared to be the same type. Closer examination of the unit, however, revealed that this focuser was, unlike the units on the equatorial Starfinders, made of plastic! This is, no doubt, an attempt on Meade's part to contain costs and the equatorial 'scopes may, for all I know, now also feature plastic focusers. While this was disheartening, the focuser does seem to be reasonably durable and it does operate fairly smoothly. It is, however, in my case anyway, slated for early replacement (probably with a 2" unit).

While my new 'scope was quite attractive, it is the optics which matter, and I could hardly wait to give the 12" a good workout. As is usually the case when I get a new scope, however, a number a factors (not the least of which was the weather) conspired to keep me from pointing the Starfinder skyward for a couple of weeks. When I finally had an opportunity to head for the backyard with the 12", the first thing I noted was that even a supposedly portable 12" Dob is a heavy beast (at approximately 95 pounds total) to

lug around (especially when you store your 'scope in an upstairs bedroom!). When I finally wrestled the Starfinder into my tree-laden backyard, I discovered that about the only object of interest in my small unobstructed patch of sky to the east was the Moon. After waiting a few minutes (a very few—I was excited) for the mirror to stabilize (it was at least ten degrees warmer outside than inside the air-conditioned house), I pointed the Starfinder at the first quarter Moon. I was immediately rewarded with the tremendous wealth of detail that a scope of this size can reveal. While, as is to be expected in a fast f4.8 system, there was some obvious coma, it was not at all objectionable; especially considering the fact that I was using the relatively simple eyepieces which are included with the telescope. These oculars are all of Meade's 'Modified Achromat' design and are essentially inexpensive Kellner eyepieces. What surprised me was how well the 12" performed with these unsophisticated eyepieces. The only other object visible in the muggy, light-polluted sky was Altair. High-power views of Altair seemed to confirm that the telescope's primary mirror was of good quality (though the lousy seeing made making any conclusions difficult). After a few minutes of observing, I noticed that the addition of a 50mm finder, a long focal length eyepiece and a Telrad had made the Starfinder somewhat top-heavy. The addition of a counterweight (I purchased one of Orion's Dobsonian counterweight systems) cured this problem.

What's the bottom line on this telescope? I think it is both a very good performer and a good value. While the Odyssey 13.1" from Coulter would save you a bit of money, it was worth it to me to spend a little more for a much more

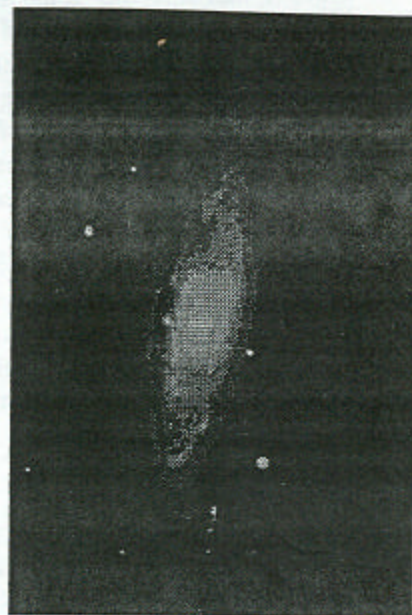
attractive, better-finished telescope. The only thing I really don't like about the 'scope is its weight. But this is to be expected of a 12" telescope of any design. The extra light gathering power, especially at my light-polluted site (I'm back in the Garden District) is a real boon. I will admit that I do still use my 8"f7 a lot, especially after a long day at the office when I don't fancy struggling with the 12". But for those special, rewarding views of deep sky objects (especially globulars!) the inexpensive 12" Starfinder really can't be beat.

—Rod Mollise

From City Lights to Deep Space

Galaxies in Leo

Some nights I start thinking that trying to do deep sky observing from the light-polluted city is *foolish*. I start dwelling on all the beautiful objects which have eluded me. Galaxies are (along with many faint nebulae) particularly difficult when your skies are as bad as mine often are. But when I'm about ready to give-up and pack my poor, photon-starved telescope away, I begin to remember some of my successes, which at times seem almost miraculous given my usually abysmal observing conditions.



M65

One Spring evening just a few years ago, I was hungry for the deep-sky—especially galaxies. The Winter Milky Way is indeed remarkable, being full of endless beautiful star clusters and nebulae. But there's something that really stimulates the imagination about peering out into the extragalactic void. Reaching out *millions* of light years, your faithful telescope presents you with marvels which are almost beyond human understanding.

A quick look outside revealed that conditions were only fair at best. But 'what the heck,' I thought. 'If I can't do any deep sky observing I'll take a quick look at ol' Jupiter.' After setting up my little 4" f11 Newtonian, I decided that I should go ahead and get my nightly challenge out of the way. I have developed a habit of adding objects which I think are 'impossible' to every observing list I make-up. I find that being forced to really search hard for an object does a lot to sharpen my observing skills. And, remarkably, many times I wind up seeing the very object

which I had felt was 'impossible'. Well, I was in the mood for galaxies. Since Leo was prominent in the east, I immediately thought of the M66 group of galaxies, M66, M65 and NGC 3628. It's a measure of how poor conditions were on that night that I used M66 for my challenge object—it's normally considered bright (for a galaxy). But then, my eastern sky was a washed-out sodium streetlight pink (and hazy as well). M66 might just be invisible.

M66 (NGC 3627/UGC 6328), 11hr20.2m x +12dgr59', MAG 8.9 GALAXY, HUBBLE CLASS Sb, SIZE 9.0'X4.2'.

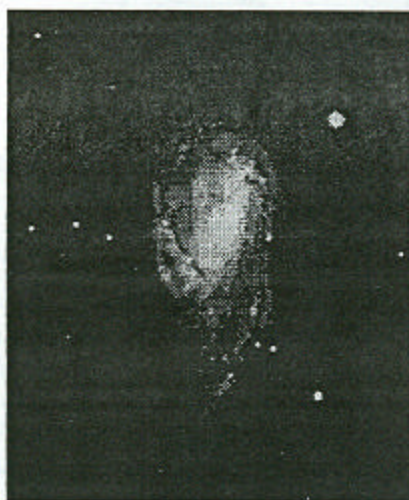
M65 (NGC 3623/UGC 6346), 11hr18.9m x +13dgr5', MAG 9.3 GALAXY, HUBBLE CLASS Sa/Sb, SIZE 9.5'X2.3'.

Finding M66 and M65 turned out to be remarkably simple. They are located in the general area of Leo's 'hindquarters,' the triangular pattern of stars which forms our celestial lion's rear end. M66 lies about 2 degrees 50' north of bright theta Leonis, one of the three stars in the triangle. Another guide to our galaxy is magnitude 5.3 73 Leonis (which should be easily visible in your finder even under the worst conditions). M66 is about 46' east of this star. Once you have M66 centered in your field, M65 is easy, since it is only 20' away (to the east). With a low-power (or wide field) eyepiece, both galaxies should be in the same field.

I was truly amazed that I was able to find M66 and M65 with such a minimum of fuss. I've often scoffed when I've read descriptions of galaxies which refer to them as 'bright.' After all, a galaxy is inherently a dim object. But for

these two to be visible under such horrendous conditions, I guess that they should really be called *bright*!

Well, these two galaxies were visible, but what exactly did they look like? Once I got over my shock at finding these two nocturnal creatures so easily, I gave them a good long look: *Lovely and awe-inspiring! A wonderful sight even in this aperture! M66 is the brighter with some hint of a core visible. M65 is dim but easily seen.* I further noted in that night's entry in my observing log that both galaxies are obviously elongated—i.e., they're much more than simply round blobs! If your conditions are fairly good, try for a third galaxy, NGC 3628. At magnitude 10.3 and 12' across, it is both larger and dimmer than our other two targets. This galaxy was completely invisible in my small scope, but you may quite possibly be able to find it easily if your skies are even a little better than mine. Search for this object 30' north of M66.



M66

What did I take away from this night with two galaxies in Leo? Other than the pure exhilaration of viewing these far-away night-dwellers (these galaxies lie about 30 million light years from Earth) with

my own eyes through my own beloved telescope, I started to understand that amateur astronomy is a skill. By trying hard on difficult objects, I had trained myself to be a good observer. Also, I think I learned to be slow to call a deep sky object 'impossible'. As bad as my sky looked, it would have been very easy to spend the night observing Jupiter. But I would have missed an unforgettable encounter with these two distant giants!

—Rod

Next Time: More galaxies!

Minutes from MAS Meetings

Following are the minutes from recent Mobile Astronomical Society Meetings as recorded by Club Secretary George Byron...

Minutes from July Meeting

Dave brought the meeting to order at 7:07 P.M. on July 6, 1994.

Dave and Leland discussed the comet fragments hitting Jupiter.

There was a discussion about repairing the observatory. It needs the wheels replaced. A work party was scheduled for Saturday, July 9, 1994.

A Jupiter impact watch was scheduled at E.S.C. Saturday, July 16th before 9:34 P.M.

Meeting was adjourned.

Minutes from August Meeting

Dave brought the meeting to order at 7:10 P.M. on August 3, 1994.

It was reported the spot on Jupiter was visible, since our Saturday night observation.

Dave asked if we are going to have a Perseus watch? YES at the E.S.C. on August 12th.

Dave said phone calls could be made for a darksite observation Saturday, August 6th.

Leland said he could get tee shirts printed with a club logo. We need a club logo designed. His Mother can do the printing.

The meeting was adjourned at 7:20 P.M.

Minutes from September Meeting

After Pat and Dave helped Elaine to collimate her new telescope, Dave brought the meeting to order at 7:40 P.M. on September 7, 1994.

Dave reported that Saturn was just coming into opposition, so he advised members to observe it now. In October, Mars will pass through the Beehive Asterism.

There was a discussion on a fall skywatch. It was decided to have it on Wednesday, November 9, 1994 at 6:00 P.M. Set-up telescopes at 5:30.

Meeting was adjourned at 7:55 P.M.

Minutes from October Meeting

Dave brought the meeting to order at 7:05 P.M. on October 5, 1994.

Dave encouraged members to go to the DSRSG in McComb, MS. The

Wednesday after McComb would be the fall skywatch at E.S.C.

Judy told members about the Winter Star Party in the Florida Keys.

The meeting was adjourned at 7:20 P.M.

Minutes from November Meeting

Dave brought the meeting to order at 7:00 P.M. on November 2, 1994.

Dave announced no newsletter for November - December. He also announced there would be an open house at the ESC Saturday, November 5, 1994 - same weekend as the DSRSG. Dave reminded members of a skywatch Wednesday, November 9, 1994 also at the ESC.

Lorley thanked whomever straightened out the checking account. No one spoke up.

Our annual club party will be January 4, 1995. George will set it up. It will be at Shoney's at Tillman's Corner at 7:00 P.M.

Members talked about the 'stupid' movie broadcast on channel five about the meteor hitting the Earth.

One of the members said he will be putting on a TV program and offered to put on a commercial for the Mobile Astronomical Society.

The meeting was adjourned at 7:25 P.M.

Minutes from December Meeting

Pat brought the meeting to order at 7:15 P.M.

Members remarked how well the skywatch at the ESC went in November.

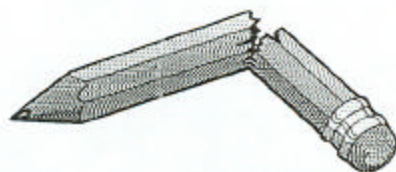
Judy told the members about her trip to Peru to see the total solar eclipse in November. Everybody was very interested!

Members discussed the recent DSRSG and its rain out.

Pat said a good objective of the club should be to find a new darksite.

The meeting was adjourned at 8:20 P.M.

-George



CONJUNCTIONS

**'News of Upcoming
Astronomy Meetings,
Conventions, Star-parties
and other Events of
Interest...'**

-1995 *Mid-South Regional Stargaze (April 26-30 1995)*. By all accounts, this was an excellent stargaze last year. This year looks like it may be just as good. Featured speakers include Jack Horkheimer (of 'Star-hustler' fame), and Dr. Geritt Verschurr. The stargaze takes place at French Camp Mississippi, north of Jackson. For details call James G. Gill (Rainwater Observatory) at (601) 547-6865/6970.

—*ESC Stargaze*. Week of 13 March. This is a **high visibility** project for both the club and for the ESC. Contact Diane Martin for further info concerning this **important** project.

—*Mobile Astronomical Society* **monthly meeting**. April 5 (7:00pm) at the club's usual meeting place at the Environmental Studies Center.

In times gone by...

DSRSG (Deep South Regional Stargaze) 1993

