

S.C.R.A.P.S.

Society's ChRONological Astronomical PaperS



From the Chair By Bob Arr

Part of our observing club effort has stumbled on the details of log preparation. With the best of intentions, we charged into finding these observing targets, and shortchanged the paperwork that documented our efforts.

I asked our most experienced observer, John Sparks, to provide some general guidance, and he did. In the specific case of the Messier Club, I asked the AL's Messier Club Chairman, Scott Kranz, to do the same, noting important discrepancies between his webpage's Rule 1 and AL's Astronote #3 dealing with logs in general.

Sparky responded first, and his advice is in this newsletter. Scott also replied, and his advice is also included, although it only addresses Messier Club.

Hopefully, this will be enough to get our observers on the right track with their logs. I would encourage all of the observers to compare and critique their descriptions, until they feel confident that their verbal or artistic efforts do what Scott says: "From your explanation, I should be able to go over to my telescope and identify the object by your description."

Annual Picnic

The annual picnic will be held Saturday September 14 starting at 6 PM at the Tamke-Allan Observatory (TAO). The observatory is near Rockwood, Tennessee and is operated by Roane State Community College. We will be grilling the usual summer fair. If you intend to bring a dish to the picnic, please call Janice (or Lee) Erickson at 805-2436 or 805-2437 and let them know. Janice is coordinating. If you're not into cooking, a simple cash donation would be appreciated (which can be made at the picnic). Weather permitting, we have a star party after the picnic at the observatory.

Finding the Observatory

The Tamke-Allan Observatory can be found just off Caney Creek Road, in rural Roane County, Tennessee. With reference to the map below, the observatory can be approached from two directions. Those traveling west on I-40, turn off at the Midtown exit, go west on Highway 70 (Kingston Pike) roughly 2 ½ miles, to Caney Creek Road which is sandwiched between Caney Ford Baptist church and the Roane County Park. Turn left, continue on Caney Creek Road, turn right over the bridge (Watts Bar Lake), and some 2 miles south. Continue straight ahead (on the black top at the curve). Just 200 feet south of the intersection of Caney Creek Road and Joiner Hollow Road, you will see a large sign indicating the road to the observatory. Follow that gravel road to the classroom and observatory at the top of the field.

For those approaching the observatory from the west on I-40, use the Harriman exit (347) and turn toward the town of Rockwood (west) on State Route 27. Follow State Route 27 to State Route 382 (Roane State's main campus is one mile south). Turn left (south) on State Route 382, pass the main campus, and travel to the end of the road-this is State Route 70. Turn left on State Route 70 and travel 1 ½ miles east. Caney Creek Road is between the Roane County park (on your right) and Caney Ford Baptist Church. Turn right on Caney Creek Road and follow the above directions to the observatory.

SRO at Look Rock Star Party

August 10 saw one of the largest Star Parties in recent SMAS times. Look Rock skies were hazy, but that didn't stop members, families and friends, and a large number of the general public from awaiting the Perseid meteor showers. The parking lot was completely jammed with vehicles. The sidewalk was shoulder-to-shoulder with telescopes and binocular chairs.

Present were Tom and Lisa Rimmell and friend Donnie Anderson, visitor Mike McCulloch, Peter Bush, Wayne Thompson, Terry and Leigh Ann Kiraly, their daughters Megan and Emily and friend Eric, John Arehart, Bob Griffiths, Charles Ferguson, Steve Rothschild, Bill Burgess, Mike Littleton and Scott Byers, Ron Dinkins and family, Angela Quick and Eric Iverson, Ed Gorney and Bob Arr. From Florida, another visitor named John with his family and dob anchored the east end of the line up. Though it was dark, we counted over 50 persons, including the general public.

The list is incomplete, and we apologize to whomever we missed, but in truth it took so long to take attendance that the population shifted while it was being taken. Only a few meteors appeared, but it was a grand party anyway.

Messier Log Descriptions By Scott Kranz, AL Messier Club Chairman

How to write logs for Astronomy League Certificates

Study the object. What is its shape? Is it round, oval, square, jagged, etc.? Estimate how large it appears. Do you need to use averted vision to see it? Try a filter; does it help? Are the edges of the object sharp and defined or does the object seem to just fade away? Does the object have a uniform glow across its entire surface or does it have bright and dark areas within it? Are there dark lanes running through the object? Does the the object (i.e. globulars and galaxies) have a large core or is it very stellar-like and sharp and what about the rest of the field of view? Are there other objects visible in the field? What are they? Are there any interesting field stars (ie. little asterisms or multi-colored doubles)?

Think about it this way. You are looking through your telescope and explaining to me what you see. From your explanation, I should be able to go over to my telescope and identify the object by your description.

Some description ideas: Is there an overall shape of the object or is it simply irregular? Can the object(s) be seen with direct vision, or is averted vision required? Is the outer edge of the object sharply defined or diffuse? Are the stars more concentrated in any one particular area? How many stars are in the object? Is any part of the object brighter or more concentrated? Is there any particular area where you notice an absence of stars in this cluster or object? Are there any voids or dark patches, or lanes in the object? Are there any bright filaments or streamers? Estimate the apparent size of the galaxy group, cluster, or object. In a galaxy cluster, do the galaxies form any particular pattern? Are they evenly or unevenly distributed? Are details such as a central bulge, nuclei, dust lanes, or spiral arms visible in any of the galaxies? Is the core stellar? Are any of the galaxies close enough to one another to appear superimposed? If so, are any signs of interaction visible? In a globular cluster, Is the core unusually bright, compact, or not distinguishable? Is the globular cluster highly or loosely concentrated? In open clusters, can the cluster be easily distinguished from the background stars? What is the color of this object? Any special suggestions for observing this object (i.e. filter, power, field of view, etc.)? Are there any other deep-sky objects in the same field of view? If so, what? **(Continued on page 3)**

Two examples (not part of the 110 Messiers):

NGC 4565: Edge-on galaxy, very bright, 3 deg SE of gamma COM. Disc is larger than field of view, well over 5 deg; major dust lane visible. Bulge is 1/10th dia. of disc. Disc oriented SE-NW. With UHC filter, disc extended over 10 deg. Best edge-on I ever saw.

M111: Very dim globular in CNV 5 deg W of Cor Caroli. Averted vision best. Spherical with slightly brighter area on east edge. Not bright in center. Close pair of bright stars just to west in same field oriented N-S.

And if words fail you, it's perfectly acceptable--sometime preferable— just to draw a picture! Be sure to label it, and indicate North and East. There have been entire logs accepted that had not one written description, but 100% drawings. The goal is just to be sure you saw the object and got familiar with it.

GUIDE TO GUIDE BY SHAWN GRANT

Display planetary features using the program Guide

The planetarium program Guide has a great ability to display all planets and some moons as photo-realistic displays. That means planets look like they do in real life and not just as orange blobs. This feature is not only a beautiful display, but it is very useful for education and to help you identify features you image or see in your telescope. Here is what you do. Zoom in on any planet, for example Venus. Click on the **Settings Menu**, then **Level** and select **15**. By default, Guide displays Venus as you would see it from earth or a spacecraft orbiting the planet. Venus is a shroud of clouds that are impenetrable except with radar which the spacecraft Magellan used to map Venus a few years ago. Also, you will see a shaded portion. Venus and Mercury have phases just like the Moon. The shaded portion is the unlit side of Venus. Right click on Venus and a dialog box pops up. Select the **Display Button** and then **Options Button**. There is a new dialog box that displays many options on the display of Venus. Make sure **Show Features** and **Label Features** are checked. Near the bottom you will see **Bitmap #1** and **Bitmap #2**. Bitmap #1 is the cloud shrouded Venus as we see it and bitmap #2 is the Magellan map. Select **Bitmap #2** and then click **Ok** and then **Ok** again. You will see a much different Venus. The display is very useful to satisfy your curiosity of what the surface of Venus is like and is great as a classroom visual aid. Use the "*" key to zoom in and more features are displayed and zoom out using the "/" key and less features will be displayed. You can modify the display of all planets and some moons using the same method as described. Some planets have multiple bitmaps while some just have one. You can even display a grid and vary the density of the features. For planets like Mars, this feature is very useful because you can see many of its features in your telescope. Guide will help you identify what features you saw and predict when you can see certain features. Zoom in on Jupiter and you can see when the Great Red Spot is facing the Earth. You can use this to predict when you can see the Great Red Spot. Go to planet to planet and play around with its display. Don't forget to explore Jupiter's four brightest moons.

TIRED OF SUMMER RERUNS?

Bored with TV? Leave the Tube and share your astronomical experience with the rest of SMAS and everyone on the Internet by writing an article for SCRAPs. Contact Mike Littleton at (865) 671-1022 or email littlem@ix.netcom.com.

Taking On the Universe

By John "Sparky" Sparks

Another viewpoint on Astronomy League Certificate observing

SMAS has good reason to take pride in the fact that participation in observing +awards has been very successful for years. In the 90's, our leading observers were Clint Bach, Mike Benson, Steve Balay, Shawn Grant and myself. These people were also the leaders in earning observing awards in SMAS. While many of these people are no longer SMAS members, the tradition continues with people like Ronald Dinkins and others trying out their hand at earning an A.L. observing certificate and/or pin. Some of us want to earn as many certificates as possible and that's great as long as our observations are done correctly.

With many new members comes new energy, but many of these people do not understand how to take notes. Trust me when I tell you that I get no pleasure in telling a fellow member, full of enthusiasm that his/her notes are not good enough. I have seen a member observe the Messier list twice and still not have very good notes. That member is not to blame when he/she had never been shown how to take proper notes. In fact, I had to observe many Messier objects twice myself because once I didn't know how to record observations properly. As ALCOR (Astronomical League Correspondent) of SMAS, I feel it would be best if I explained how notes should be taken. But before I address Notes, I want to say that you must be able to find your target. Have a good star chart! I highly recommend Will Tirion's "Sky Atlas 2000". You can find it in Sky and Telescope's catalog that goes with its subscription. If you have Internet access, try <http://skyandtelescope.com/> and either way, you will find this atlas and much, MUCH more.

Notes should include the following: Explanations of abbreviations but don't overdo abbreviations, as it will make for difficult reading. This is also a good place to include any overall comments you have. Name of the object being observed and recorded. Time of day the object was observed: include AM/PM or one can use military time. I keep my watch VERY accurate and recommend going to the OFFICIAL clock, the US Naval Observatory website at <http://www.time.gov/timezone>. Date the object was observed: (change the date when you pass midnight). Location of the observation: I abbreviate, (LR=Look Rock, H=Home, etc.). Be sure to include an explanation at the top of your notes if you do this. Zenith transparency: magnitude of dimmest star you can see at zenith. Seeing: how much scintillation exists. Rock steady is best (1), twinkling like a sparkler is worst (5).

Notes: While most certificates do not require sketching, most do require notes. One doesn't need to write a 100-word essay on the object. At the same time, one should include some detail and not just write, "Looks like crap!" Take your time with your observations and you will be amazed with what you see! This isn't a race, but your own personal research and you may be going back to your notes in the future as I have. Does that star cluster remind you of a pattern or an object? Have fun with it and you can even nickname clusters for yourself. I found a cluster that reminds me of Dolly Parton and another that reminds me of Gumby. Is there a pattern of stars near the object? How does that globular cluster compare to others? Does it have a special trait? Look at that "fuzzy blob" for a while. Can you detect spiral arms? Does it have a concentrated core? Is it elongated, spiral or oval? How much so? Tap on your telescope. Find the "sweet spot" on the eyepiece. Don't look at the object, but near it and you may see more. A good observer is like a wine taster in the way that he/she savors the moment and makes the best of that moment. If you are afraid your notes will not be good enough, sketch the object as well. I sketched a few of my lists and believe me, I am no artist. I will pass sketched observations without any notes at all because "A picture is worth a thousand words".

Most important, get observing information from the Astronomical League. You can get information by reading near the back of "The Reflector". (If you are a dues paying SMAS member, you should be getting this magazine in the mail. If you have been a member for more than 3 months and are not getting the Reflector, let me know and I will get it out to you.) An even better way to get observing information is going to the Astronomical League website (linked into the SMAS website via the logo) if you have Internet access. Just click on "Observing Clubs" to the left and find the club you are interested in.

AUGUST MEETING

by Lee and Janice Erickson

The SMAS Meeting was held on August 9, 2002 at the Discovery Center. There were 16 members in attendance and one guest who became a member, Gerald Calia.

Welcome Gerald!

Presentation:

Lee Erickson presented the month's program entitled, "Measuring Up, The Earth and Moon and from the Earth to the Sun and Planets". As the title suggests, the talk described how Man estimated the distances of the solar system.

Links for some of the material Lee used in the talk can be found on the Internet at *Peter Alway's Astronomy Notes*, <http://members.aol.com/satrnpres1/astronomy/unit1a.html> and *The Transit of Venus and the Quest for the Solar Parallax*, http://www.dsellers.demon.co.uk/venus/ven_ch1.htm

Charles Ferguson's Night Sky:

This month, we were introduced to the stars and constellations of the summer triangle: Cygnus the swan, Lyra the harp and Aquila the eagle.

Club Business:

Reminder, the date for the annual club picnic is Saturday September the 14th. The picnic will be held at the Roane State Community College Tamke-Allan Observatory. We will meet at 7:00 PM. There will be a gas grill again this year at the picnic to cook the usual summer fare. During the meeting, a food sign up sheet for the picnic was passed around. Members who want to bring a dish and did not use the signup sheet, please coordinate in advance with Janice Erickson at gemsandstones@earthlink.net or call here at (865) 977-1242. Members not wanting to bring a dish are asked to make a cash donation to offset food costs. To all members, please give Janice an advanced notice of how many will be attending so that we can get approximately the correct amount of food.

Bob Arr passed around an example of a SMAS member information card. It is like a business card to give to people interested in attending a club meeting or event. Bob will send any member requesting the WordPerfect template to make your own. Alternately, he will print some for the cost of materials. If you want the WordPerfect template, email a request to Bob Arr at bobarr@mindspring.com. The template is 11 MB and is available on a CDs.

Sparky presented Ron Dinkins with the Honorary Messier Certificate and pin. Ron now has 4 Astronomy League certificates and another in the works.

There was no report on the Telescopes for Kids Project

Announcements:

The Tennessee Star Party is scheduled for October 4-6 at Camp Nakanawa (just west of Crossville). Registration is now open and registration forms are available at www.bsasnashville.com and must be mailed with a check for the costs of the star party. The Peach State Star Party is scheduled for October 3-6 near Ocoee Tennessee.

Several members are currently receiving subscriptions to *Sky and Telescope* at the reduced club rate, but we currently do not have enough people interested in subscribing to *Astronomy* to meet the minimum requirements for club rates. If anyone is interested in subscribing to *Astronomy* magazine at a club rate, please contact Janice Erickson.



September 2002

Chair:
Bob Arr

Vice Chair:
Tom Rimmell

ALCOR:
John Sparks

Secretary:
Lee Erickson

Treasurer:
Janice Erickson

SCRAPS Editor:
Mike Littleton

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6 UTK New Moon	7
8	9	10	11	12	13 1st Qt. Moon	14 SMAS Pic- nic
15	16	17	18	19	20 UTK	21 Full Moon
22	23 Autumnal Equinox	24	25	26	27	28 StarFest 2002
29 StarFest Last Qt.	30					

SCHEDULE OF EVENTS

SMAS Website:
<http://www.smokymtnastro.org/>

Webmaster:
Mike Fleenor

- **9/6/02 and 9/12/02** Public observing from the roof of the Physics Building at UTK 2002 at the Bays Mountain Park in Kingsport, Tennessee
- **9/14/02** SMAS picnic and Star Party at the Tamke-Allan Observatory (See p. 1)
- **9/15/02** Jupiter rises at 2:48 AM; Saturn rises at 11:37 PM
- **9/28/02-9/29/02** StarFest