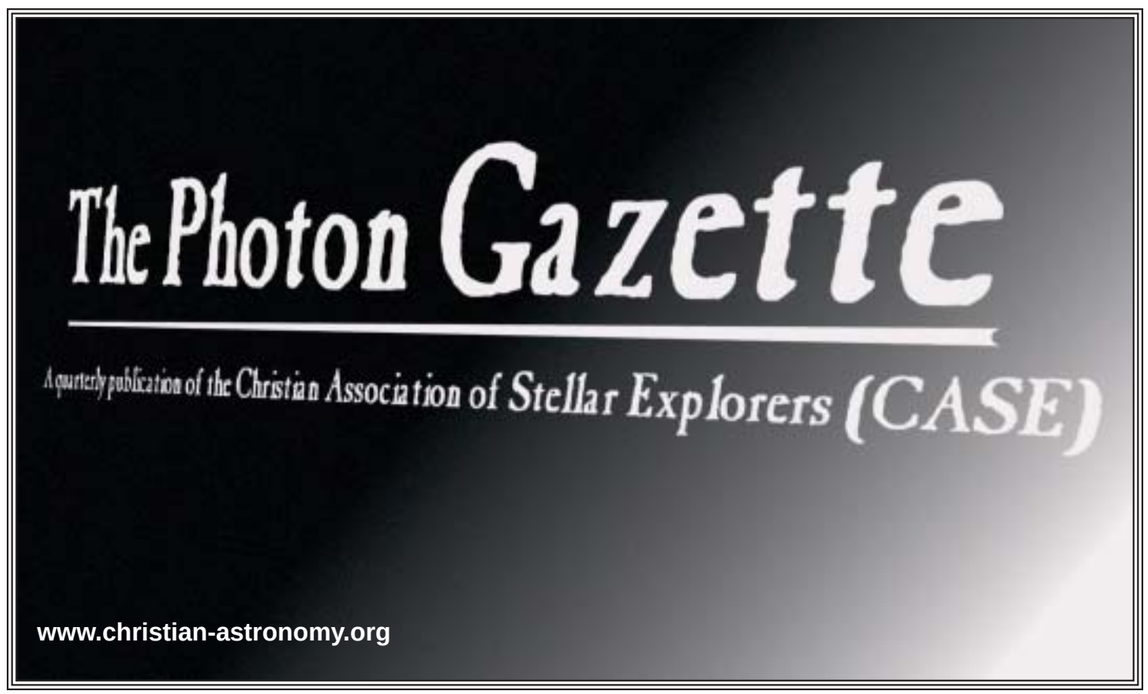
The Christian Association of Stellar Explorers
1005 Hunter Ridge
Siloam Springs, AR 72761
www.christian-astronomy.org



The Photon Gazette

A quarterly publication of the Christian Association of Stellar Explorers (CASE)

Volume 1, Issue 3
(January •[a] February • March 2001)

Welcome from the President

Here we grow again! CASE is proud to announce that we have acquired a new member from Connecticut in Steven D'Annolfo. Steven is our second member who does not live in the state of Arkansas, along with Bill Leiser, Jr. We are happy that these people have agreed to join us and to support the mission of CASE. This looks to be an exciting year for CASE. Our website is now over 1,500 hits on the main page, and website traffic is up each day over that day for the previous month. We have also had quite a few inquiries about CASE and CASE membership from all over the world. We have some potential new members both in Arkansas and more importantly in our 2 county region and in other parts of the United States. I am looking forward to hearing from these people in the future and possibly adding them to our CASE membership ranks.

Upcoming Events

I am eagerly anticipating having a great second year for CASE. CASE will be sponsoring an astronomy day here in Northwest Arkansas to celebrate National Astronomy Day. The date and place have not yet been finalized. Keep tuned to this newsletter and the website for more information on this exciting chance to share the heavens from a Christian perspective with others in our community.

I am also proud to announce that CASE will be sponsoring a rather un-conventional Messier Marathon party in March! I would like this to be an opportunity for those with and without scopes to be able to see all 110 Messier Objects in a single night! We will get very little (if any) sleep while we search out these 110 treasures of the night sky. There will be five large aperture scopes (10" to 16") set up. Each scope operator will be given a share of the total objects, and the time that they will appear on the horizon for best viewing. This way, as each person in attendance, whether skilled amateur or rank novice, will be able to see each object by moving from scope to scope as the new objects are centered in the eyepiece. I hope that this event will be successful and an on-going event. Watch the website for the exact date.

Volunteers are needed for any and all CASE events where we interact with the public. Remember, CASE will only grow through the hard work of our membership.

Website and Newsletter Content Needed

Our website and newsletter is always looking for items from our membership. Whether you have an astronomy related photo, drawing, iluustration or an article or musing, please send this to me so that I can get it out for others to see!

Remember to keep looking up! God Bless and Clear Skies!

Patrick Carr
President/Editor

Memberships Coming Due This Quarter

Membership in CASE is based on a calendar year. The following members listed will be responsible for renewing their memberships on or before the date listed beside their name.

Patrick Carr Family (1/31/2001)
Mike Peterson (1/31/2001)
Jon Peterson (1/31/2001)
David Cater (1/31/2001)

How to Make a Star Map a Friend Instead of an Enemy

Dr. David Cater, member

You know how it is. Your are on vacation and you are lost. You don't like being lost and you don't like to admit it, even when you know it. If you are traveling with your spouse, you don't like to admit it either, and that goes for either sex. Finally, you pull over to a rest stop and dig out that tattered road map, you know, the one the gas station attendants must have sat in the shade with and figured out how to fold it so that it could never be re-folded. Yes--that one! You open it up in the driver's seat and suddenly realize that you really need a pool table to roll it out properly. You discover there are no pool tables on your side of the car...

These are typical embarrasments we have all struggled with in just trying to navigate the American highway system. The problems are even more difficult when you are an amateur astronomer and you want to find your way around the sky.

Of course, the first problem is that it is dark! Trying to find anything in the dark generally exceeds the design parameters of the human brain, but you have taken up this amateur astronomy thing and you are going to make it work no matter what. Well, as one veteran amateur to another, here are some clues to finding your way around the sky.

1. Finding your way around the sky is always better when you are trying to do it with somebody who already knows more than you do about it! [See-that was pretty obvious--you had already thought of that one!]

2. Finding your way around the sky is enhanced by using a star map. But...having had memorably unpleasant experiences with road maps, you imagine that using a star map will be difficult. Well...it can be, but let me make it easier than you might think. Select a star map consistent with your level of ability as an amateur astronomer. If you are a beginner, get a beginning star map. The big diffefence between beginning and advanced star maps is that the beginning ones have many fewer stars on them than the advanced ones! This helps! To start, get a subscription to Astronomy Magazine or Sky and Telescope. Each month, they publish a beginners star map for that month. It even helps to get a child's astronomy map in a book sold at an environment store and start there. Don't be embarrassed. The greatest astronomers who ever lived had to start with very basic maps.

3. As in keeping with item #1, take that beginning star map and take it to a star party sponsored by your local astronomy club. There is someone there who can show you how the constellations in the sky at a given time correspond to those black dots on the white pages of your star map. Bring along a red flashlight so you can see the map in the dark. Even very advanced amateurs can't read their maps in the dark--no one can. It is a minor thrill to find a constellation, say Orion, in the sky as pointed out by a friendly amateur, and then find a corresponding pattern on a paper map that fits what is in the sky. Voila! You are getting closer to being a star-map user.

4. Position the star map so that the position of the constellation as seen in the map corresponds to the position of the actual constellation as seen in the sky! Again, if it is Orion your are looking for, find Orion with someone's help and then hold the map up next to the actual constellation so that both are oriented to one another. This is one of the most important clues I can give you, one that has served me repeatedly well over the years.

5. Assuming that you have arranged the map so that, positionally, it resembles how the actual constellation is positioned in the real sky, you are at a great advantage when it comes to finding specific objects within or near a constellation. Now...let's talk about star-hopping and star-counting...

6. Star-hopping is just like it sounds. Sometimes, when you want to find a particular object, there will be a little trail of stars on the map, which, if you could find that same little trail in the actual sky, would lead you to the object you want to see. The trick is to find that little trail in the sky. Here, a pair of 7X50 binoculars is without peer. Try to find that little trail of stars in the sky and follow it to the place where the object is supposed to be. Assuming you have some sort of finder scope in your telescope, follow the little trail of stars to the object and then look in the eyepiece. Probably you will not have found your object the first time. You will need to cruise back and forth, up and down, until you find what you are looking for. It will take time, but think what fun you are having, what with freezing your tail off and imagining how warm and happy your spouse is at home, sleeping and dreaming in bliss! When you find little star trails to your target on a star map, it helps to count the actual number of stars to your goal, and count them off as you go. Let's see now--six little stars up from that bright one and two little stars over from that impossibly dim one and...

7. It helps to make yourself some "star calipers". You could use some actual calipers from your garage workshop, but it is best if they are painted white, and usually you don't want to do this with actual storebought calipers unless you dedicate them to that purpose. A ruler and your thumb work about as well. Let us say that you get a ruler and you hold it at arm's length. [Always use arm's length--this will standardize your measurements.] You can then make estimates on the sky by sliding your thumb up and down the ruler. For example, let us say that you want to find M42, a very bright emission nebula in the belt of Orion. You notice, eyeballing you star map, that M42 is just about the length of Orion's belt "down" from Orion's belt. Measure the width of the three belt stars in the belt on the actual sky, and hold your thumb on the estimated width. Measure "down" from the belt the length you have determined with your thumb. You now have a good place to start cruising back and forth, up and down, until you find this interesting object. Good luck.

I hope these tips will help. You may not believe it, but the more you get out and naked-eye observe, star map in hand, the more you can really start finding things with your telescope. Amateur astronomy has a learning curve to it just as does any other activity and it has many rewards on the way, even before you master using a star map! I wish you well.

Upcoming Meeting Dates

January:
January 19 - 7:00 p.m. (Lunar Party)
January 5 - 7:00 p.m. (Star Party)

February:
February 2 - 7:00 p.m. (Lunar Party)
February 16 - 7:00 p.m. (Star Party)

March:
March 2 - 7:00 p.m. (Lunar Party)
March 30 - 7:00 p.m. (Star Party)

The monthly meeting for last quarter was not held due to scheduling conflicts. The regularly scheduled quarterly meeting will be held before one of our regularly scheduled observing parties. There will be a door prize drawing for an observing book for all paid members in attendance. Check the website for exact locations and times.

The Gallery . . .

This area is reserved for photographs, drawings and musings from our membership. If you have an interesting thought, please be sure to e-mail it to thecarrs@tcac.net or by mail to the CASE office. If you have photographs or slides of interesting objects in astronomy, please get them to the CASE office for inclusion in our quarterly publication.

Total Lunar Eclipse taken in California by Michael Cater

The Rosette Nebula taken by Michael Cater

Partial Solar Eclipse taken by Patrick Carr while on Christmas Day Vacation in Atlanta, Georgia

Welcome New Members

The following people have paid their membership dues for the current year.

Steven D'Annolfo of Darien, CT

All dues paid will be good for 1 year from the date of payment.

What's Up This Quarter?

Mike Peterson, Treasurer

The Winter Sky

In late January, Venus is very bright in the western sky. Higher up and nearly overhead is the Andromeda Galaxy. Not far off is the Double Cluster. On the other side of Perseus from the Double Cluster is Saturn, Jupiter, and The Pleiades. Trailing just a little behind the others, in their journey across the sky, is M1 the Crab Nebula and the constellation Gemini. Just below the feet of Gemini is th4 constellation Orion with the nebuli M42 and 43. Not far away is the Christmas Tree Nebula. Beginning to rise in the east is Leo. If you are up late enough, you can find the Realm of the Galaxies coming up behind Leo. In the north is the galaxies M81 & 82. In the south you can find Canis Major.

During the latter part of February, when light from the Moon is not interfering, one can see Leo and the Realm of the Galaxies coming up earlier in the evening. In the North M51 & 101 are beginning to rise above the horizon. Bootes and Virgo are also coming up. In the West, the Andromeda Galaxy, and the Double Cluster are going down and are approaching the western horizon. Venus is still shinning bright in the West.

In late March, during the dark of the Moon, in the west, Venus has gone down, and Andromeda is getting close to the horizon. Jupiter and Saturn are moving into the western sky, as is The Pleiades. In the north, M51 & 101 are getting higher, and easier to find. In the east, Leo, and Virgo are getting higher. If you stay up late enough, you can see Bootes, Corvus (and M104 the Sombrero Galaxy) and still later, Hercules (and its globular clusters).

Treasurer's Report

Income (YTD Decemebr 31, 2000)	
Membership Dues:	$160.00
Club Scope Donation:	210.00
Misc. Donation:	20.00
Total:	$390.00

Expenses (YTD December 31, 2000)	
Astronomical League Dues:	$ 34.00
Club Scope Purchase:	210.00
Website Registration:	70.00
Postage:	3.20
Total:	$317.20
Total Cash Reserves:	$ 72.80

Current CASE Membership

(Current dues up to date)

Patrick*, Adriane and Rachael Carr (F) - 3
David Cater* (I) - 1
Brian*, Jane Greuel and Family (F) - 4
Ken Knight* (I) - 1
Mike Peterson (I) - 1
Jon Peterson (S) - 1
Stephen*, Elaine and Pete Sbanotto (F) - 3
William D. Leiser, Jr. (I) - 1
Steven D'Annolfo (I) - 1

Total Paid Membership - 16

* = Mailing name on all newsletters.
F = Family Membership I = Individual Membership
S = Student Membership