



The American Astronomer

THE QUARTERLY NEWSLETTER OF
THE AMERICAN ASSOCIATION OF AMATEUR ASTRONOMERS

Volume 1, No. 2

March 1997



Comet Hale-Bopp on March 2, 1997, at 4:45 UTC. Optic: Schmidt-Camera 225-255-450. Taken by Joseph Muller, Irmtraut, Germany. Location 8 deg 3 min. East, 50 degrees 33 Minutes North. Download image HB030297.GIF from Stargate BBS.

Comet Hale Bopp

EPHEMERIDES — Epoch 2000.0

C/1995 O1 (Hale-Bopp)					
Date(00UT)	R.A.	Dec.	El	Sky	Mag
03-08	22h06.8m	+38°40'	46°	M	-0.6
03-13	22h45.8m	+41°58'	46°	M	-0.9
03-18	23h30.8m	+44°28'	46°	M	-1.0
03-23	00h20.2m	+45°46'	45°	E	-1.1
03-28	01h10.4m	+45°38'	44°	E	-1.2
04-02	01h57.5m	+44°11'	42°	E	-1.1
04-07	02h38.9m	+41°43'	41°	E	-1.0
04-12	03h13.8m	+38°38'	39°	E	-0.8
04-17	03h42.9m	+35°16'	37°	E	-0.6
04-22	04h07.0m	+31°53'	35°	E	-0.3
04-27	04h27.2m	+28°34'	33°	E	-0.1
05-02	04h44.2m	+25°23'	31°	E	-0.4
05-07	04h59.2m	+22°25'	29°	E	-0.1
05-12	05h12.4m	+19°38'	28°	E	0.1

ELEMENTS (Epoch 2000.0)	
Peri. Date:	1997 04 01.13453
Peri. Dist:	0.9141030 AU
Arg/Peri:	130.59083 deg.
Asc. Node:	282.47069 deg.
Inclination:	089.42936 deg.
Eccentricity:	0.9950969
Orb. Period:	~4700 years
Ref:	MPC 28052
Absol. Mag/"n":	-1.5/4.0

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COMET COMMENTS

By Don Machholz

Comet Hale-Bopp continues to put on a spectacular display. The inner coma shows fountains and hoods while both the gas and dust tails are prominent. By late March, the comet is well-placed in the evening sky and no longer visible in the morning sky. The evening viewing "season" for Comet Hale-Bopp begins with the partial lunar eclipse on March 23 (the moon will be in the evening sky before that date), and continues through the first week of May. Most comet watchers will have their last view of the comet as it slips southward in the western evening sky in early May.

Many astronomy clubs are taking the time to show the comet to the public. Astronomy Day (April 12) provides an opportunity to show the comet and the crescent moon in the west, and a bright planet Mars in the east.

A few more faint comets have been discovered recently.

Comet C/1996 R3 was found on plates taken last autumn; it will remain faint.

Comet C/1997 D1 (Mueller) was found by Jean Mueller as she worked on the Second Palomar Sky Survey. It will be closest to the sun late this year (at 2.24 AU) and may then be visible in amateurs' scopes.

Finally, the Spacewatch program on Kitt Peak picked up an object first believed to be an asteroid but now showing a coma. **Comet C/1997 BA6 (Spacewatch)** is presently 8.8 AU from the sun and won't reach perihelion (3.45 AU) until Dec. 1999, nearly three years away. The coma is showing a slight amount of activity, and it is possible that the comet will be visible in amateur instruments deep in the Southern Hemisphere in 1999.



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Issued quarterly in December, March, June and September by The American Association of Amateur Astronomers as a service to its members.

All members are encouraged to submit articles and photographs for publication. Send all materials for publication to the Editor at the address below.

The opinions expressed by contributors to the AMERICAN ASTRONOMER do not necessarily reflect the opinions of the AAAA or the Editor. Articles representing supporting or opposing views will be published promptly after receipt.

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A Member
Society of
The
Astronomical
League

Focus on Observing Programs



One of our members, Larry Stephens of Covington, Ga. tells me that the binocular programs that the Astronomical League offers are great, but what about us telescope observers? Well, Larry, have we got the programs for you.

The first and foremost telescope program on our list is the AL's Messier Club. This is the oldest club in the League, and like the Binocular Messier Club, is centered around the 110 Messier objects. If you observe any 70 of the Messier objects, you will receive a preliminary certificate, while observing all 110 gets you the honorary (or full) certificate. The book *Observe - A Guide to the Messier Objects* is a good guide and is available for \$4.50 from Astronomical League Sales, PO Box 572, West Burlington, IA 52655.

The next club is a real challenge, based on just the sheer volume of it. This club is the Herschel 400 Club. It entails observing 400 of William Herschel's 2600 object catalog. These 400 objects are designated specifically, as you are not allowed to pick any 400 out of the 2600 object catalog. The Herschel 400 Club is a great way to introduce yourself to the non-Messier objects. For a list and guide to these objects, the book *Observe - A Guide to the Herschel Objects* is available for \$6.00 from Astronomical League Sales.

The Astronomical League is currently working on an extension of the Herschel 400 Club, and will have available soon another list of 400 Herschel objects. Called the Herschel 400-800 Club, it will have a book published as a guide and list. The two Herschel clubs together can give you many years of deep sky observing pleasure.

The next club on our list is for those who own light buckets, and is for the veteran observer. Called the Arp Peculiar Galaxy Club, it's original intention was for CCD imaging, but has been opened for observers as well. The thing that makes this club so difficult is that

the objects are especially small and faint. Most are around one minute in diameter, with magnitudes down to 19. Luckily, only 100 are needed to get the certificate, and there are 100 objects in this list brighter than 13.5 magnitude. A flyer can be had from me (John Wagoner) for a SASE with \$.32 postage.

For those of you not into deep sky, we still have the A.L.'s Double Star Club, and the A.L.'s Lunar Club. The Double Star Club is a list of 100 specific double or multiple stars for small telescopes. The Lunar Club uses naked eye, binoculars, and the telescope. It is also 100 specific objects divided up among the three aforementioned methods of observing. Flyers for each of these clubs are also available from me for a SASE with \$.32 postage.

Soon, the Astronomical League will offer a new observing program for heavily light polluted areas. It will incorporate objects from all of the clubs listed above and will serve as an introduction to each one. The name of the club will be the Urban Club.

So, as you can see, we have something for everyone. If you are not just into observing, but are also heavy into astrophotography, any of the above mentioned clubs can be photographed instead of observed, if you are up to the challenge. If your specialty is binocular observing or telescope observing, it doesn't matter. Even if you like to specialize in a certain type of object, we have you covered. So let's get out there and observe. I hope to see the names of AAAA members on future certificates.

The AAAA's STARGATE BBS

214-578-7618
300, 1200, 2400 Baud
and up to 14,400 Baud

The next time you go out observing and want a list of really unusual objects to observe, try browsing through Stargate's Area Six - Astronomy Databases for a start. In there, you will find such diversity as the Abell Cluster of Galaxies, the Arp Catalog of Peculiar Galaxies, JPL's Asteroids II database, Lynd's Dark Nebula, Arp's Globular Clusters, Sharpless HII Regions, the Lynga Open Cluster Catalog, Van den Bergh's Reflection Nebula, Weedman's Seyfert Galaxies, Clark Caswell's 232 Supernova Remnants, and for you binocular lovers, Phil Harrington's binocular database.

Focus on the Membership

Meet AAAA Member

J.W. "Jerry" Van Wyngarden

This month I would like to introduce you to Jerry Van Wyngarden, of Ajo, Az. So where is Ajo, Az. you might ask? It is located in South Central Arizona, about as out in the middle of nowhere as you might want to get. The closest town east of Ajo is Sells, Az. (population 2,700) seventy-one miles away. Going south, there is nothing between Ajo and the Mexican border except Why, Az. The north is devoid of all life forms, including lights from farms and ranches, because of a huge U.S. Air Force aerial gunnery range, and going west, there is nothing all the way to the California border. So why would you want to live in Ajo, and what is there to do? Ah, the skies, the wonderful skies.

Jerry Van Wyngarden was a combat photographer in Viet Nam. When his old war wounds caught up to him, he decided to leave the cold climes of Colorado, and head south. He ended up retiring out in the middle of the desert in Ajo, Az. Trying to get away from being a couch potato, he wanted to take up a hobby. That's when he saw a copy of *Astronomy* magazine with its beautiful photography. He said to himself, "I used to be a photographer, I can do that". But staring at a guide star for hours at a time was not his cup of tea. That's when he became a dyed in the wool, hard-core observer.

Jerry says that Ajo has wonderful skies. Even with two street lights in his front yard, he can still make out the seven stars in the Little Dipper in his back yard. Five miles out of town and you have skies as good as Kitt Peak. It also helps that the town of Ajo is actively installing low pressure sodium lights.

Jerry presently observes with a pair of 10x50 Nikon binoculars, and an Edmund Astroscan 4 1/4 inch bowling ball telescope. Jerry loves his Astroscan because he says it is a great way to share your hobby with the public. Jerry is always giving public observing sessions to the townsfolk, and particularly enjoys teaching astronomy to the young people. Comet Hale-Bopp is a real treat right now, and the kids know more about it than the adults. From Ajo, the long ion tail and stubby dust tail are obvious.

So what does Jerry like to do on his own? Presently, he is working on his binocular and telescopic Messier certificates. He loves to just drive out into the desert, set up a lounge chair, and scan the summer Milky Way from Scorpius to Sagittarius. From Ajo, they get 340 clear nights a year and in the winter, there are only three nights that have frost, and never any dewing anytime. Is anyone out there envious yet? Jerry has no favorite category of object, but likes to observe M31, M42, the Double Cluster, and the Pleiades just because of their sheer beauty. When the moon is up, he enjoys studying the moon, along with Jupiter and the Galilean satellites. The only problem that he has ever had with observing from the desert is that the zodiacal light can sometimes be a real pain in the neck. At times, it will stretch as high as seventy degrees toward the zenith.

So the next time you are driving in central Arizona and you see someone scanning the skies in a lounge chair, stop by and say Hi to Jerry. He'll probably be right in the middle of dreaming about his next telescope, an eighteen inch Obsession.

President's Letter

What a wonderful decade for astronomy that we live in. Here we have been crying over the dearth of good comets for the last twenty years and now we have two in a row. Isn't life great?

There hasn't been a decade like this one since the 70's, when we had Comet West, and the Voyager exploration of Jupiter and Saturn. And this decade isn't even over yet. So far we have had a once in a millennium comet crash into Jupiter with Shoemaker-Levy 9, two easily accessible total solar eclipses in Mexico and Bolivia, a zero magnitude comet with a beautiful sixty degree ion tail in Comet Hyakutaki, and now a negative magnitude comet with a fifteen degree ion tail and an eight degree dust tail in Comet Hale-Bopp.

As you read this, Comet Hale-Bopp will be at its closest approach to the sun, and therefore, at its brightest, and should put on quite a show. Even from the most heavily light polluted cities, Comet Hale-Bopp is easily visible. Barry Beaman, the Astronomical League President, was here in Dallas for a business briefing, and newsletter editor Ed Flaspoeher and I spent an evening dining and talking with him about various items of League business. In the middle of our conversation, we decided to try to spot Comet Hale-Bopp from the hotel where Barry was staying. Now mind you, this hotel was right smack in the middle of a city of four million people, but there was the Hale-Bopp, hovering right above the lights of another nearby hotel.

If you haven't seen Comet Hale-Bopp, please take just a few minutes to go out after dark and look at it. It is easily picked out in the Northwest sky right above the horizon a little after 8:00PM. It is well worth the effort. You will be impressed. If you have seen the comet, then you will find that a one or two hour drive out into the country where the skies are darker will reward you with a vision that will last a lifetime.

There has been a lot of debate lately over which comet is better, Hale-Bopp or Hyakutaki. Actually, there is no comparison. Both comets have different personalities, and each is special in its own way. So please go out and observe Comet Hale-Bopp. You'll have something to tell your grandkids about. About the wonderful decade for astronomy.

Finally, in this issue you will notice that we have a new logo for the AAAA. We hope you are as proud of it as Ed and I are. If you have time, drop us a line and tell us what you think about it. Or anything else, for that matter. Until then, clear, dry skies and bloodshot eyes.

*John Wagoner, President
American Association
of Amateur Astronomers*

Sky and Telescope Magazine

Calling all AAAA members. Did you know that you can subscribe to Sky and Telescope magazine at a discount through the AAAA? A regular subscription to S&T is \$36.00 per year, but you can get it through the AAAA for only \$27.00 per year.

If you would like to start a subscription through the AAAA, or if you want to extend your present subscription at the reduced rates, then send a check for \$27.00 made payable to the AAAA to: AAAA, 3131 Custer Rd. Suite 175-175, Plano, Tx. 75075.

For us to send in everyone's subscription at the same time, we would appreciate it if you would respond to this promotion no later than April 30, 1997. Thank you.

Galaxy Trio in Leo

With the coming of warmer weather, the Realm of the Galaxies is now coming into view. Here we find some of the finest and most difficult objects in the sky: galaxies. Galaxies require special techniques such as averted vision and shaking the telescope tube to coax detail out of them. Patience and practice will reward the persistent observer with details unseen by more casual observers.

M-65 is on the bottom left. This galaxy is relatively large and bright, with a bright center and a stellar core. It is elongated in the north-south direction, and appears about 8'x2' in extent. It is in the same low power field of view as the next two objects.

M-66 is on the bottom right. Smaller than M-65, this galaxy is wider, about 6'x3', and brighter. It also has a bright core, and is extended in the southeastern direction. Averted vision at reveals some mottling and indications of spiral structure.

NGC-3628 is on the top. Large, 10'x2', and oriented northwest-southeast, this object is faint overall, but averted vision shows a spindle-like shape with hints of a dust lane on the southwest side. A very interesting galaxy.

*Article by Rick Raasch
Photo by Ed Flaspoebler*



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