

A NEW YEAR'S MESSAGE FROM THE PRESIDENT OF HAC: Thanks for making 2005 another banner year for our great club whose total membership has surpassed 100! We are moving forward into 2006 with more events and programs to help new members learn the hobby, challenge the veterans, and promote amateur astronomy in Cochise County. Be sure to get that MEMBERSHIP RENEWAL mailed in or bring it to the upcoming meeting with your checkbook! I personally will be very disappointed if <u>YOU</u> do not renew in 2006 as that means I failed to meet your expectations of our astronomy club. If this is the case, don't let me get away with it! Contact me and let's talk! On the other hand, A LOT of planning and work goes into each and every meeting and star party, yet there are ablebodied members we rarely or never see at meetings or at any club activity. For you folks, get off your butts and JOIN IN! To All, I wish you a healthy and prosperous 2006 & Glorious Observing Nights All Year Long.—Doug Snyder. ON BEHALF OF ALL HAC MEMBERS, I WANT TO EXTEND A SPECIAL THANK YOU AND HAPPY NEW YEAR TO SAM SWEISS OF 'SCOPE CITY' (www.scopecity.com) AND JIM BURR OF 'JMI' (www.jimsmobile.com) FOR THEIR CONTINUING SUPPORT OF THE ASTRONOMICAL COMMUNITY AND FOR PROVIDING HAC WITH SUCH A GENEROUS DEAL ON THE PURCHASE OF A JMI CARRYING CASE FOR THE CLUB'S 10" LX200 GPS LOANER TELESCOPE. TAKE A LOOK AT ALL THEY OFFER ON THEIR WEBSITES!

A New View of the Andromeda Galaxy

By Dr. Tony Phillips and Patrick L. Barry (Newsletter article provided by NASA Space Place)

This is a good time of year to see the Andromeda galaxy. When the sun sets and the sky fades to black, Andromeda materializes high overhead near Zenith. You can find it with your unaided eye. At first glance, it looks like a very dim, fuzzy comet, wider than the full moon. Upon closer inspection through a backyard telescope—wow! It's a beautiful spiral galaxy.

At a distance of "only" 2.5 million light-years, Andromeda is the nearest big galaxy to the Milky Way, and astronomers know it better than any other. The swirling shape of Andromeda is utterly familiar. Not anymore. A space telescope named GALEX has captured a new and different view of Andromeda. According to GALEX, Andromeda is not a spiral but a ring. (See reversed UV image of M31 on back page). Visit GALEX web site: www.galex.caltech.edu .

GALEX is the "Galaxy Evolution Explorer," an ultraviolet telescope launched by NASA in 2003. Its mission is to learn how galaxies are born and how they change with age. GALEX's ability to see ultraviolet (UV) light is crucial; UV radiation comes from newborn stars, so UV images of galaxies reveal star birth—the central process of galaxy evolution.

GALEX's sensitivity to UV is why Andromeda looks different. To the human eye (or to an ordinary visible-light telescope), Andromeda remains its usual self: a vast whirlpool of stars, all ages and all sizes. To GALEX, Andromeda is defined by its youngest, hottest stars. They are concentrated in the galaxy's core and scattered around a vast ring some 150,000 light years in diameter. It's utterly *un*familiar. "Looking at familiar galaxies with a new wavelength, UV, allows us to get a better understanding of the processes affecting their evolution," says Samuel Boissier, a member of the GALEX team at the Observatories of the Carnegie Institution of Washington.

Beyond Andromeda lies a whole universe of galaxies—spirals, ellipticals and irregulars, giants and dwarfs, each with its own surprising patterns of star formation. To discover those patterns, GALEX has imaged hundreds of nearby galaxies. Only a few, such as Andromeda, have been analyzed in complete detail. "We still have a lot of work to do," says Boissier, enthusiastically. (*Continued on back page, along with photo*)



Star Party Corner—Keith Mullen, Star Party Coordinator (520)366-0049; repogazer@outb.com

If you missed the New Years Star Party at RGO, you missed a good one. Rich Swanson, Doug Snyder, Gary Myers and Glen Sanner helped the 6 members with learning how to operate their scopes; Thanks Guys. Of 33 who attended 8 were guests and two of them will be our next new members. It was nice to see a yard full of different size scopes for a change. This years Members Star Parties promises to be "more party-less tardy" than in the past, so try to get out to as many as you can.... We Really Want To See You At These HAC Events! And that goes for HAC Officers and Board Members too! January's Star Party Schedule:

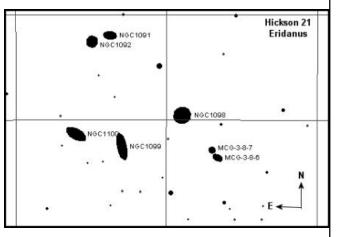
Friday, January 20th: Public Star Party at Dave Healy's JBO; Please attend to assist Dave and have fun; telescopes welcome!

Saturday, January 28th: Members Monthly Star Party will be hosted by Glen and Deanna Sanner at their Discovery Observatory West (DOW); they will provide snacks and refreshments along with Glen's superbly equipped Observatory, this is one you won't want to miss, so grab your scope and get over there..... or just come on over!

Saturday, Jan. 14th: <u>Full Moon Telescope Workshop</u> at Gary Myers Desert Coyote Observatory (DCO) 4:00 pm until finished... What is it? It's a question & answer period and this month Gary will be conducting a Collimation class. Check HAC Web Page for directions. We are hoping to have a number of these Full Moon Telescopes Workshops during the year, so stay tuned!

Travels on the Celestial Sphere by Glen Sanner

John Cassella and myself observed a nice group of galaxies the other night (12-20-05). This collection of galaxies is Hickson compact group 21 in the constellation Eridanus, at RA 02 45.4 and DEC -17.7. the River, Some of the members of this group can be seen with moderately sized scopes in the 10 to 12 NGC 1099 is the most obvious at inch range. magnitude 14.1, then NGC 1100 comes in at mag. 14.0 with NGC 1098 somewhat more difficult at 14.3. These galaxies form a half circle south and southeast of a bright star of 10th mag. NGC 1100 is about 100 East of this star. NGC 1099 is 60 SSE of the bright star and NGC1098 is 40East of the star.



Opposite this half circle of galaxies is a close galaxy pair. These two galaxies are NGC 1092 at 15,5 mag and just SW of this galaxy is NGC 1091 at 15.3 mag. All of these galaxies form somewhat of a complete circle with a diameter of perhaps 100 to 110. A very nice group of galaxies easily seen this time of year and a large light bucket is not needed.

Huachuca Astronomy Club ANDROMEDA VIEW (Con't) P.O. Box 922 Sierra Vista, AZ 85636 GALEX has photographed an even http://c3po.cochise.edu/astro greater number of distant galaxieshac@palominas.com "some as far away as 10 billion light-Yearly Membership: Individual: \$25; Family: years," Boissier adds-to measure how \$35; Military: \$20; student: \$10 (with conditions) the rate of new star formation has President: Doug Snyder (520) 366-5788 changed over the universe's long his-(starhaven@palominas.com) Vice President: Wayne Johnson tory. Contained in those terabytes of Treasurer: Tim Doyle data is our universe's "life story." Un-Secretary: Jeanne Herbert raveling it will keep scientists busy for Star Party Coordinator: Keith Mullen 366-0049 years to come. The GALEX Telescope: Public Events Coordinator: Jeanne Herbert f/6.0 Richey-Chrétien design, 19.7 (jeanne hrbrt@yahoo.com) inches diameter primary mirror, 8.8 The Andromeda Galaxy JOIN & USE OUR HAC-LIST GROUP!!!!!!!! inches diameter secondary mirror. as imaged in UV light.

This issue of NightFall can also be found on-line at http://c3po.cochise.edu/astro. Click on the 'Newsletter' link. There is much more information about astronomy and our HAC activities on our club web site. *To join the HAC-LIST, send an email to *haclist-subscribe@yahoogroups.com*.