

## FIRST LIGHT

Vol. 3, Nos. 1-2

Your lame excuse for an editor has finally gotten off her butt and put together a newsletter. This is actually two issues in one, to get us back on track with the timeline of semi-regular publication, and because thanks to all of you, we have quite a bit of material.

The big news, is of course, that we have moved the channel from Undernet to EspritNet. The move went VERY smoothly, largely due to the fact that most of you read the instructions on the website first. If any of you are still having problems, or have not yet been on the channel in its new location, consult the website for instructions on how to configure your IRC client. There are complete instructions for both mIRC and Pirc. If you are using another client, please consult the help files for that client on how to add another network. Also you should read the various help files on the EspritNet website, at <http://www.esprit.net>

So far, the channel has been running quite smoothly on the new network. Except for infrequent netsplits, and the occasional absence of the bot from the channel, lag is minimal and the servers accessible.

Some FAQs on the new network.

1) What commands to the bot are available to me?

Answer: none, unless you are an OP on the channel. This is no different from Undernet. As it was on Undernet, anyone who is not an OP caught messing with the bot can expect to be banned from the channel, if not by the channel OPs, by the sysops running the network.

2) The new network does not appear on my network list in my IRC client. What do I do?

Answer: You consult the instructions on the sciastro website if you are running Pirc, or mIRC. The instructions are VERY complete. If you are running another client, consult the help files for that client on adding a new network. Servers for EspritNet are listed on their website.

3) I am using the web access to the channel from the sciastro website. Why can't I see anything that is being put into the channel window?

Answer: You aren't seeing anything because you didn't follow the instructions completely. Due to a "bug" in the way the JAVA applet is written, you must re-size the chat window as soon as it comes up!! Once you do that, you will be able to chat as you normally would with an IRC client. We've made several attempts to fix this "bug", to no avail.

4) How do I add new servers once I am on the network?

Answer: The commands for this are on both the sciastro website and the EspritNet site. We strongly suggest that you read the information on both sites. If you are still having problems, you can join the #services channel on EspritNet and ask. Please remember that, while the #sciastro OPS can offer limited help on configuring IRC clients, that is not their job. If you are using Pirc and are having difficulties, occasionally Portia can assist you, but do not count on this. She isn't on the channel 24 hrs a day, 7 days a week.. :))))

ON MERIDIAN

LEO MAJOR - THE LION

BY MRNEBY

Leo is another of those constellations that seems to be a bottomless pit. Several of the Spring constellations are so full of galaxies that even after several good nights in Leo, Virgo, or Ursa Major, there are still plenty of objects to observe. The same is true of open clusters in Cassiopeia, Sagittarius or Puppis. But these constellations do contain lots of great objects and it is fun to keep looking. I noticed as I looked through my notes for Leo that lots of my observations are with Dave Fredericksen's 12.5" f/6 on several nights we went out together while I was waiting for Pierre to complete my 13". Thanks for sharing, David.

NGC 2903 is one of the best non-Messier galaxies. It is easy in my 10x50 binocs or a large finder scope. At 175X in the 12.5" f/6 this galaxy is bright and is mottled across the face with a much brighter core. There is a bright spot about 4 arc minutes from the core. It is at 9 hr 32.2 min and +21 30.

NGC 3041 is pretty faint, large, irregularly round, very gradually little brighter in the middle at 150X. This very mottled galaxy has an 11th mag star involved on the south side and two other 13th mag stars involved in the galaxy. Look for this galaxy at 9 hr 53.1 min and +16 41.

NGC 3379 (M 105) is bright, large, elongated and has a much brighter, almost stellar, core in the 12.5" f/6 at 120X. It has two companions, which are the next two objects. This nice object is at 10 hr 47.8 min and +12 35.

NGC 3384 is pretty faint, large, somewhat elongated and does not have a brighter middle in the 12.5". It is at 10 hr 48.3 min and +12 38.

NGC 3389 is pretty bright, large, has a brighter middle and is elongated in the same PA as M 105 in the 12.5" f/6 at 120X. It is at 10 hr 48.5 and +12 32.

NGC 3593 is pretty bright, pretty large, elongated and has a much brighter middle. What is bizarre about this galaxy is that at 200X in the 12.5", the core is elongated 2X1. I don't remember seeing an elongated nucleus in a galaxy before. Look for yourself at 11 hr 14.6 min and +12 49.

NGC 3666 Pretty faint, large, much elongated 2.5 X 1 in PA 90, bright middle at 150X. This is a nice edge-on galaxy at 11 hr 24.4 min and +11 21.

NGC 3681 has several companion galaxies, one of which is 3686. I see four galaxies in a 35' field at 100X in the 12.5". One is pretty bright, pretty large, round and has a much brighter core. I have assumed that is 3681 and centered the drawing on it. The other three in the field are faint, small and do not have a brighter core. See if you can pick out the whole bunch at 11 hr 26.5 and +16 52.

Abell 1367 is one of the galaxy clusters noted by George Abell's landmark work with the POSS. Many of these clusters are very faint and distant but some can be picked out with an amateur scope at a dark site. Turn your scope to 11 hr 44 min and +20 00, to see a dense batch of galaxies, small and faint, but thick.

In the 12.5" at 135X, with a 30' field, I can pick out one pretty faint galaxy with 4 very faint companions. They are so dim that turning on the red light to draw them makes them disappear for about 30 seconds until my night vision returns. There are 10 other galaxies within one degree of this field. These are some of the toughest objects I have ever managed to pick out in 10 years of observing. If you are looking for a challenge, Abell 1367 will provide one.

#### CRAWLING THE WEB

Many people have been asking about Mars Previewer. Version 2 is now available for download at <http://marspreviewer.cjb.net/> Although there have been several reports of "virus" alarms when using this program, they are false alarms. McAfee gives it a clean bill of health.

Mars Global Surveyor has been sending back some awesome images of Mars. One of the most interesting is at [http://www.msss.com/mars/global\\_surveyor/camera/images/3\\_11\\_99\\_happy/index.html](http://www.msss.com/mars/global_surveyor/camera/images/3_11_99_happy/index.html) Check the Mars Global Surveyor site for more recent images at <http://marsweb.jpl.nasa.gov/> You can also see images of Mars, sorted by day taken, at <http://nss.org/mars/images.html>

Some gorgeous pictures of the transit of Io across Jupiter appear at <http://opposite.stsci.edu/pubinfo/pr/1999/13/content/9913w.jpg>  
WOW!

For more information about Mars close approach this week and next, take a look at [http://science.nasa.gov/newhome/headlines/ast23apr99\\_1.htm](http://science.nasa.gov/newhome/headlines/ast23apr99_1.htm)

Here is a great site for determining your exact latitude and longitude in the US. <http://www.geocode.com/eagle.html-ssi> It figured my coordinates to five decimal places! Thanks to FireCapt for this one.

Here is a website for young people that Sealth sent us; <http://artyastro.com> This is an astronomy site full of animation, art, activities, games, and information designed for young people. There is everything from an orbiting model of our solar system to animated images of all nine planets. The site uses the Shockwave Flash 3 plug-in, which is included with the latest versions of Netscape and Internet Explorer browsers. The site is about a one-megabyte total download to view.

For you double star fanatics here is a great site: <http://www.chara.gsu.edu/DoubleStars/tanguay.html> This is the Double Star Library Newsletter. Great resource! Thanks to AstroCady for this one.

As many of you know, Sky & Telescope publishes a Weekly News Bulletin on Fridays of each week. If you wish to subscribe to this, send an e-mail to [skyline@corvus.com](mailto:skyline@corvus.com) with no subject and the word "subscribe" (without the quotes) in the body of the message on the first line.

For those of you who do not know about this, the Sky and Telescope website now has a page listing the GRS transit times. The page is at <http://www.skypub.com/sights/moonplanets/redspot.html>

#### BYTES AND PIECES

FlashCA and neptunium attended a conference this past weekend in Arizona that covered, among other things, astrophotometry done by amateurs, LINEAR and how it will effect the future of the number of comets found by amateurs, and work being done on the discovery of NEOs. neptunium gave a talk at the conference which was very well received. Perhaps in a future issue we can talk him into letting us publish a transcript of the talk (hint, hint!) and perhaps we can get Flash to write us a report on the conference..:)) There may have been other #sciastro-ites at this conference, but these are the only two that we know of.

qwerty has now gotten the #ATM channel up and running on EspritNet. He will be moving the ATM website from icstars to his own server. The new URL will be <http://wl.2534.telia.com/~u253400159/atm/> once it gets set up.

Birdd is building an observatory. Check out the pix here!

#### ON MERIDIAN - CANCER

BY MRNEBY

I have been using Position Angle to mark the angle of elongation of deep sky objects for several years. I find it useful to make certain that I am observing the same object seen by Herschel or other observers. It is also useful for objects which generally do not have an angle of elongation given in the data. For instance, gaseous nebulae and open clusters rarely have a value of PA given if they are elongated. So, the system works like this: mark North as 0 degrees and move clockwise through 360 degrees to provide a value for the PA of that object. Therefore, a galaxy which is elongated from NE to SW is at a PA of 45 degrees. If the angle is just a little South of East, then the PA will be approximately 100 degrees. If you use an equatorial mount, move the scope to the North and then to the East a little bit and the stars will enter the field of view from the direction you are moving the scope. So that as you move the tube to the North, stars appear on the North or 0 PA side and you move East, stars enter from the East or 90 degree PA side of the view. Now, let's use this system on some elongated galaxies in Cancer, the Crab.

NGC 2545 is faint, small, elongated 1.5 X 1 in PA 165 degrees and is brighter in the middle at 100X in my 13" scope. It is located at 8 hr 14.2 min and +21 21.

NGC 2562 shows up as pretty faint, pretty small, elongated 1.5 X 1 in PA 135 and has a bright middle at 165X. This little galaxy is at 8 hr 20.4 min and +21 08.

NGC 2565 is faint, small, elongated 2 X 1 in PA 0 and much brighter in the nucleus at 100X. Going to 220X will split a bizarre double nucleus in this galaxy, the two nuclei are about 12 th mag and

separated by 2 arc seconds. See if you can see the twin nucleus in this galaxy at 8 hr 19.8 min and +22 02.

NGC 2608 is pretty faint, pretty small, somewhat elongated (1.5 X 1) in PA 60 and much brighter in the middle at 100X. It is located at 8 hr 35.3 min +28 28.

NGC 2672 seems pretty bright, pretty large, elongated 2 X 1 in PA 45 and much brighter in the middle at 220X. There is a companion galaxy superimposed on the east side of NGC 2672, it is NGC 2673 and it is pretty faint, small and round. This interacting galaxy pair can be seen at 8 hr 49.4 min +19 04.

NGC 2749 is pretty bright, pretty small, much brighter in the middle, elongated 1.5 X 1 in PA 90. Two very faint companions in the field of view at 100X, both at small and round. See if you can spot them at 9 hr 05.4 min and +18 19.

NGC 2775 is bright, large, elongated 1.8 X 1 in PA 165 and much brighter in the middle at 220X. The arms of this galaxy are nicely mottled and the central core is elongated 2 X 1 in the same PA as the main body of the galaxy. See if you agree at 9 hr 10.3 min and +7 02.

Red stars

X CNC Medium Orange star in a fairly rich field.

PHOTO/IMAGE GALLERY

Our members continue to amaze with their intrepid efforts to get that perfect shot. Here are some of their latest results:

Here is neptunium's image of NGC2359. He used 6 30 second exposures with an AP-7, through a 45 cm Newtonian at f/5.4. The images are unfiltered and taken from Loomerah, NSW, Australia Copyright Gordon Garradd 1999. This image was taken in January.

Here is an image of M81 that Todd\_ did, using a 5.1" APO and an MX5c. It is a 16 minute composite image.

This is an image of Jupiter by Ermac.

This is Todd\_s image of M57. It was taken through a 9.25" SCT and was a composite of 4 images totaling 3.5 minutes. Todd used an MX5c with light unsharp mask, dark frames subtracted, and no flat field. (exposures were 1+1+ 45+ 45)

Here is a series of Mars images Ermac sent in. Ermac says he thinks the false color brings out the clouds well. Bright clouds are visible over Elysium and Cebrenia and Libya. More of his images are available on his website at <http://freespace.virgin.net/damian.peach/Planets.htm>

This is an image of Jupiter that Losmandy sent in. More of his work can be seen at <http://web.singnet.com.sg/~weilong/astro.html>

If anyone would like to send their photos/images for the newsletter, please e-mail them, along with equipment used, film, exposure time, etc, to

portia@sciastro.net Sorry - but Portia can no longer do these via DCC on the channel. It is too easy to forget which images belong to whom, and e-mail avoids these kinds of inaccuracies. Thanks!