

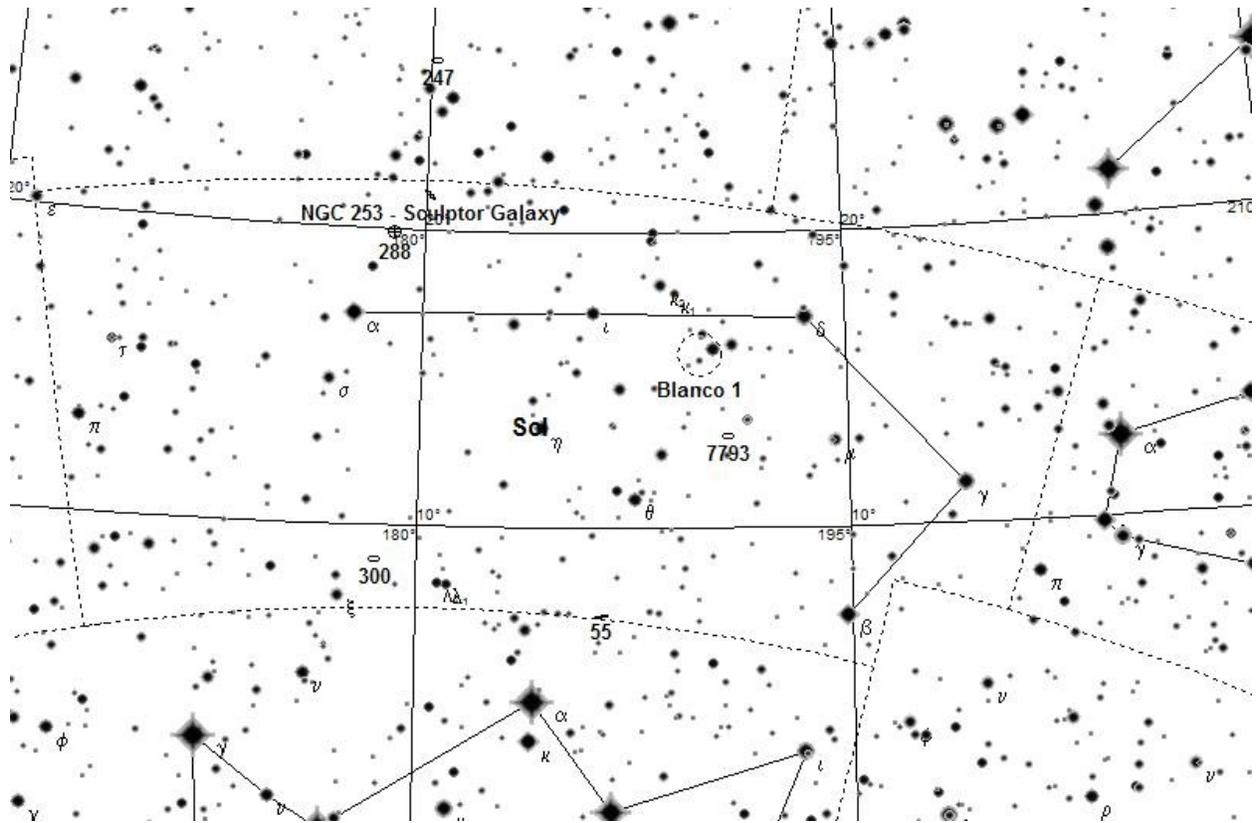
Small Wonders: Quick Peeks - Sculptor

Tom Trusock 1/09



This small, faint constellation is located low in the southern sky for mid latitude northern observers. Contrary to most of the constellations I've talked about in this column over the years, this one's a fairly recent invention. The constellation was originally called Apparatus Sculptoris, and was placed in the night sky by French astronomer Nicolas Louis de Lacaille noted for his (posthumously published in 1793) southern stellar catalog which, aside from Sculptor, introduced 13 other modern southern constellations.

While there are no stars brighter than 3rd magnitude in Sculptor, it's one claim to fame is that the south galactic pole is located here. Being well off the Milky Way, Sculptor is rich in galaxies and galaxy groups, but there are at least two "local" targets of interest in this constellation as well.



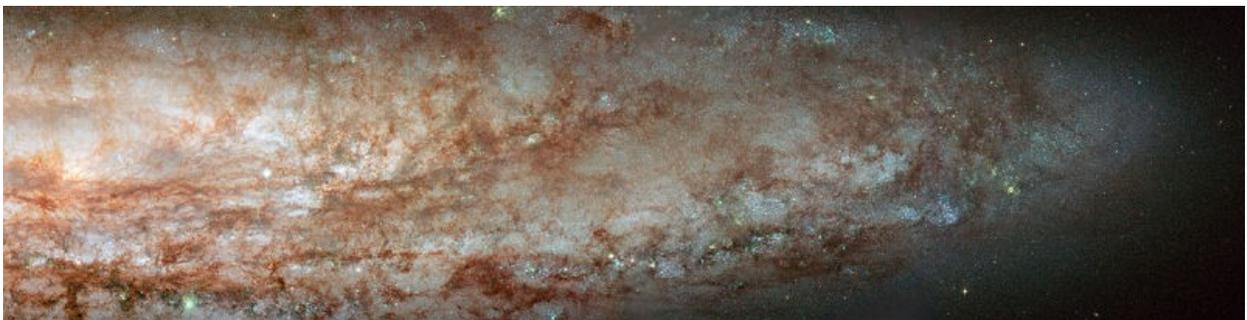
Sculptor Finder Chart

Probably the best known deep sky object in Sculptor is NGC 253 – the Silver Coin Galaxy. Before I go any further, I'd like to thank the host of readers who contributed some spectacular images of 253, unfortunately, there were far more wonderful images than I was able to use.



NGC 253 - Contributed by Hunter Wilson

NGC 253, although it appears in William Herschel's catalog, was actually discovered on September 23, 1783 by his sister Caroline Herschel. Last month - in [Quick Peeks: Cetus](#) - I talked a bit about the Sculptor group of galaxies. NGC 253, 7793, 300 and 55, the bright galactic targets this month, are all members of the Sculptor group, with NGC 253 being arguably the best for visual observation.



NGC 253 - Hubble

This closeup view from Hubble reveals a wealth of detail and among other things shows that the spiral

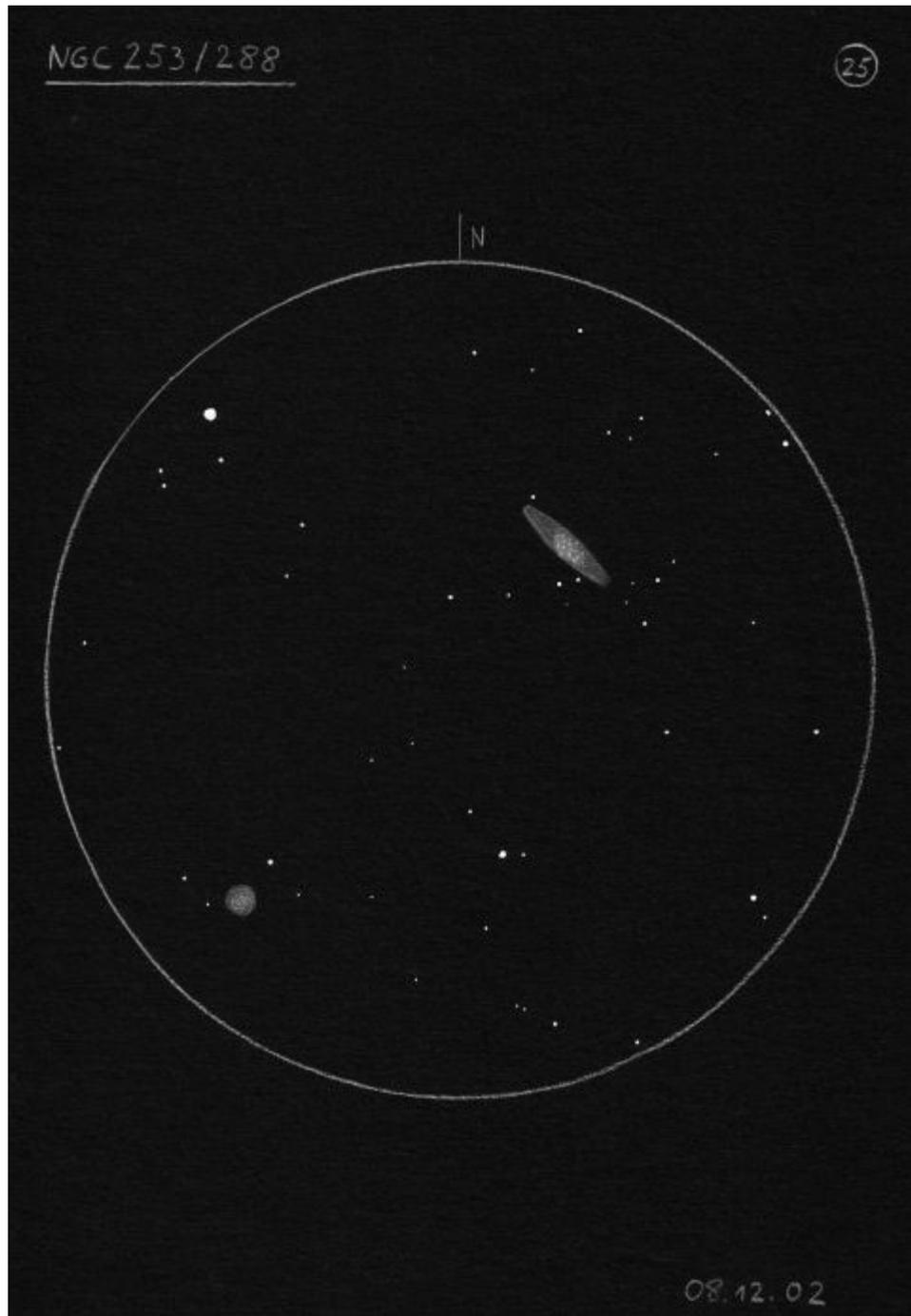
galaxy 253 is apparently undergoing a burst of star formation as it's obviously awash with the light of young, blue stars.

Dave Mitsky contributed the following related observation:

In July of 2004, my friend Tony Donnangelo and I logged a great many Southern Hemisphere deep-sky objects from the shores of Lake Titicaca in the Bolivian Altiplano with the aid of a 22" f/4.1 Starmaster Dob. For the most part, we employed a 12mm Nagler Type 4 (191x), while viewing galaxies from an altitude of almost 13,000 feet. The ninth magnitude NGC 7793 was irregularly shaped and had a bright core. Large, bright, and nearly edge-on, eighth magnitude NGC 55 was a beautiful sight, replete with many lanes and knots. Somewhat similar to M33, the nearly face-on eighth magnitude NGC 300 was not nearly as impressive. It was rather faint and diffuse. NGC 253, known commonly as the Silver Coin or Silver Dollar Galaxy and the lynchpin of the Sculptor Galaxy Group, was even more spectacular than usual and displayed ample mottling.

Although low in the sky from my northern location, it's still a spectacular target that reveals a wealth of structure to a large scope. My favorite view of this galaxy came early one fall morning, on a very cold observing field, through an 18" Starmaster. We had to sit on the ground to look through the scope, but the galaxy just hung there - the sheer size of it swamping my eyes with detail in abundance.

NGC 253 lies about 13 million light years from earth.



NGC 253 and NGC 288 - Contributed by Uwe Glahn

If you've got a wide field instrument capable of giving you a true field of around 2.5 degrees, you should be able to catch a very nice pairing of the globular cluster NGC 288 and NGC 253. This is an excellent grouping for large binoculars.



NGC 288 - Contributed by Joe Gafford

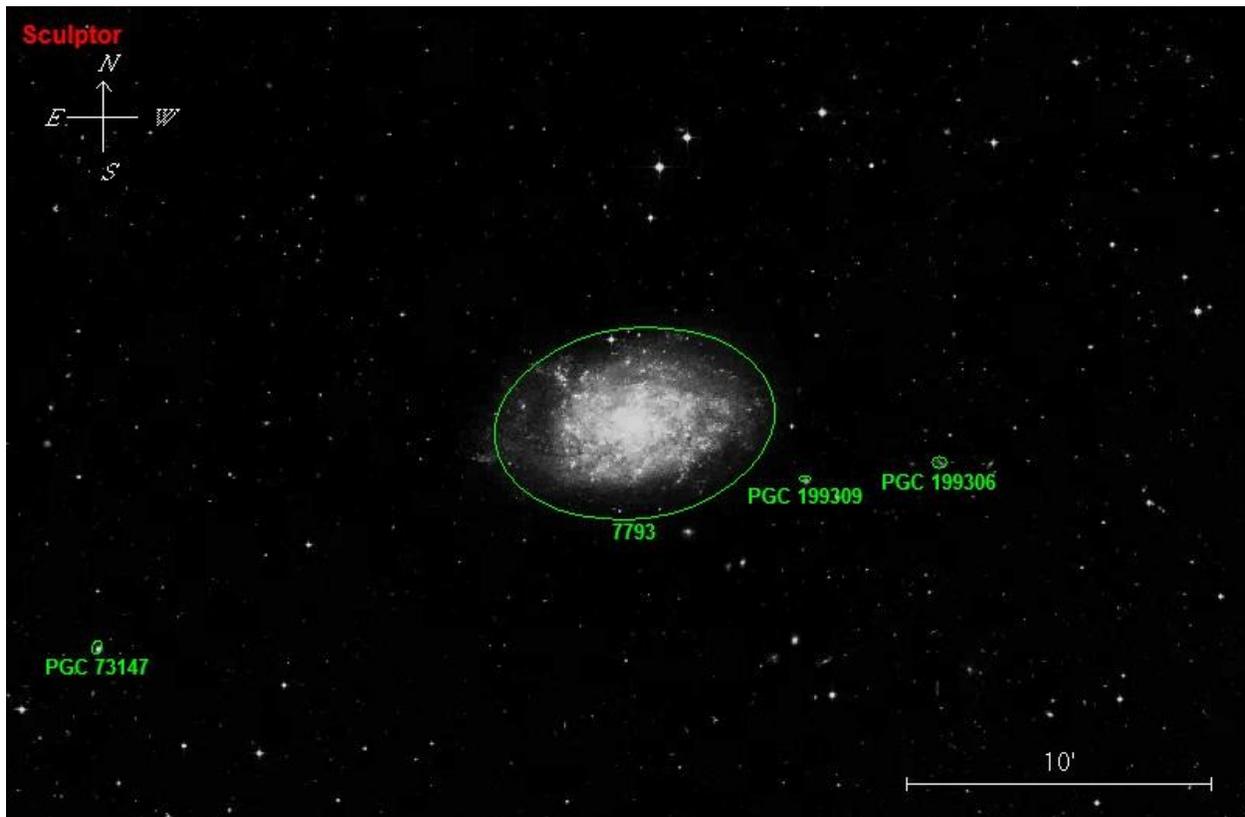
Joe Gafford took this excellent image of NGC288 with a somewhat atypical astrograph: an 18" f4.5 newtonian.

Dave Mitsky contributes this

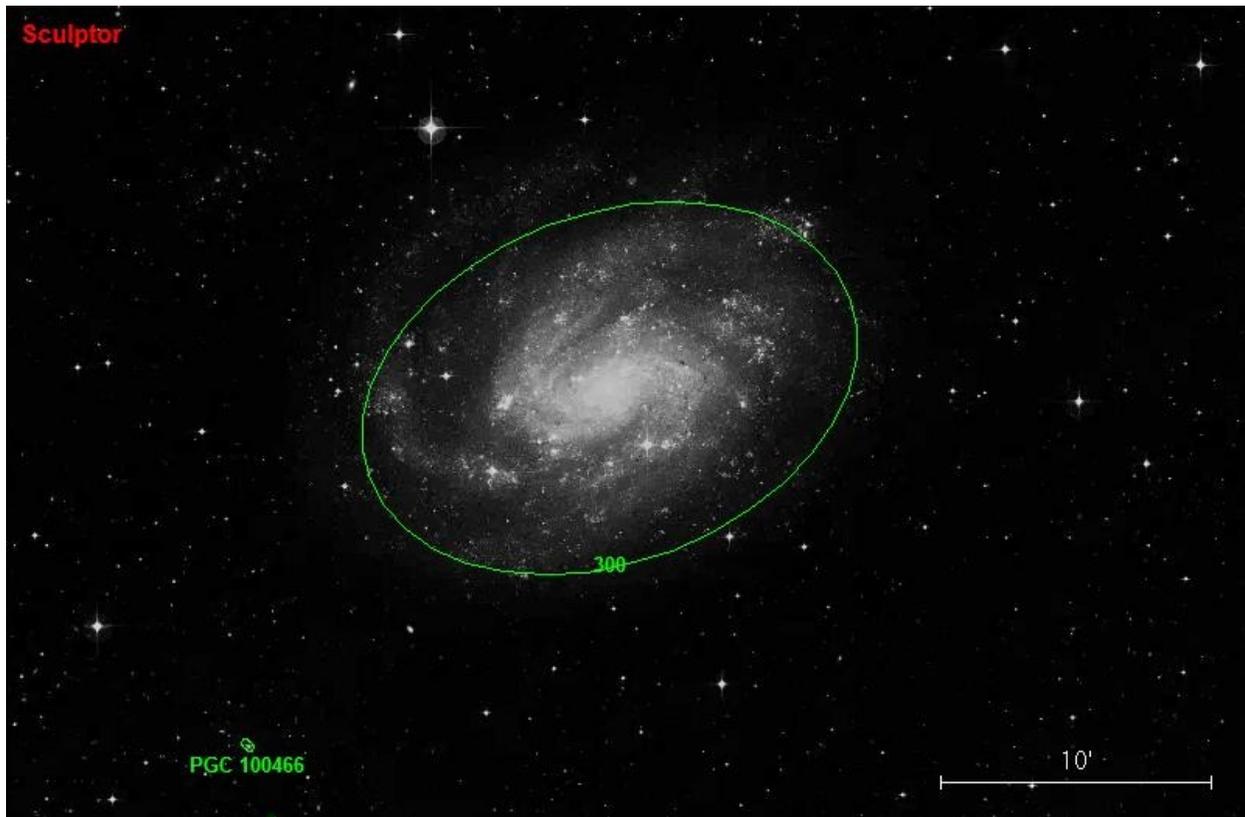
I spent a number of nights in the fall of 2005 at New Mexico Skies in the Sacramento Mountains of New Mexico. From an altitude of 7,300 feet and under nearly pristine skies, Tony and I, along with a friend, observed hundreds of DSOs using a 30" f/5 Tectron Dob at various magnifications. Among them were many galaxies in Sculptor, including NGC 7513, NGC 24, NGC 55, NGC 131, NGC 134, NGC 148, NGC 150, NGC 253, NGC 254, NGC 289, NGC 300, NGC 439, NGC 491, and NGC 613, as well as the irregularly shaped and loosely concentrated globular cluster NGC 288, which is less than two degrees to the southeast of NGC 253. NGC 288's core was resolved fairly well and a number of outlying stars were visible.

In my 12.1" f4 dob I find 288 to be quite well resolved across the face with a 7mm eyepiece, with perhaps a hint of asymmetry or elongation. What's the smallest optic you can use and still get a fair

amount of resolution?



Now we'll stop off at NGC 7793. In a moderate sized scope, I find this target a fairly easy catch. It's fairly large overall (perhaps 5'x4'), but like most face on galaxies, it has an abysmally low surface brightness. If you're a binocular or small scope observer you might want to take a look at the sparse open cluster Blanco 1 located nearby. Although it's not rich by any means, this is a fairly star poor area of sky, and by contrast, I find the cluster stands out fairly well.

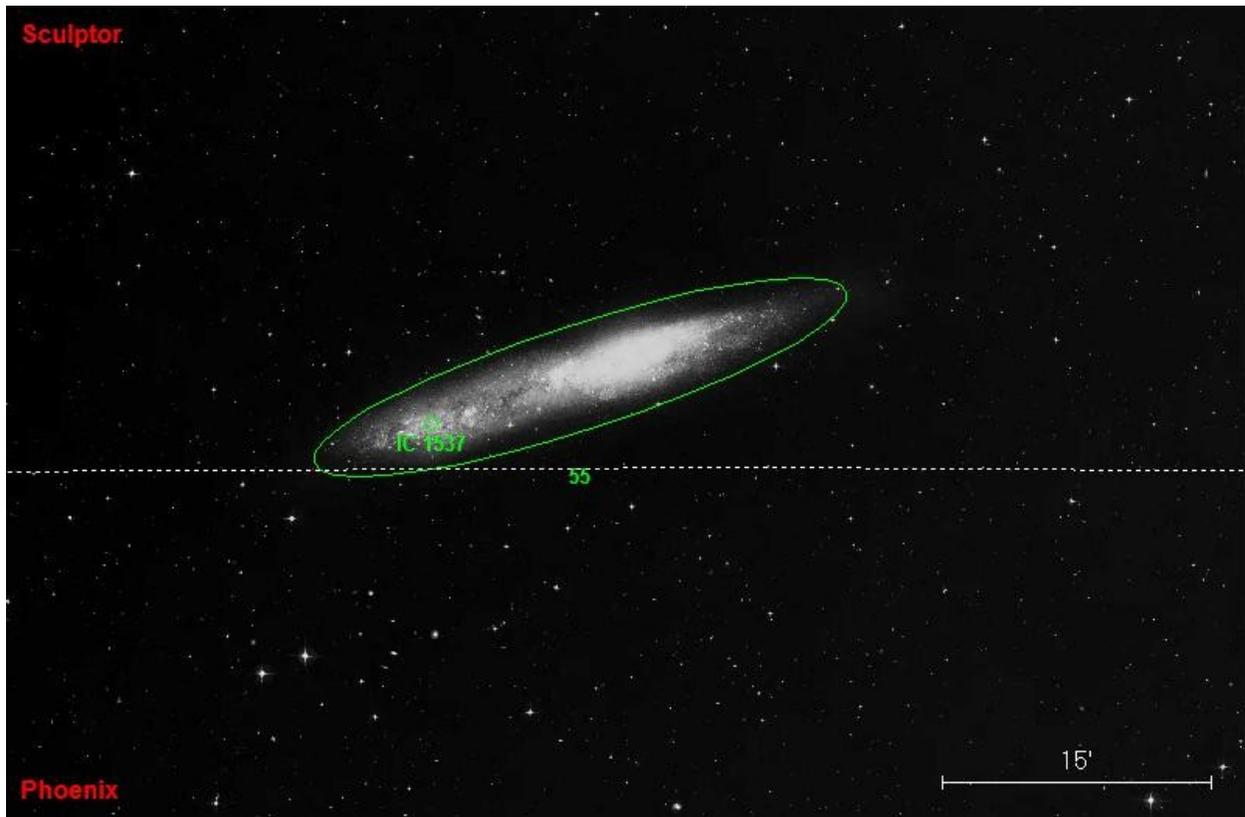


NGC 300 is next on the list. In a smaller scope, look for just a faint brightening of the background sky. As was the case with 7793, NGC 300 has a fairly low surface brightness. Somewhat strangely, I've found that aperture does not often seem to help much, perhaps because of this targets extremely low altitude from my typical observing location. Airmass and extinction are not the astronomers friends.

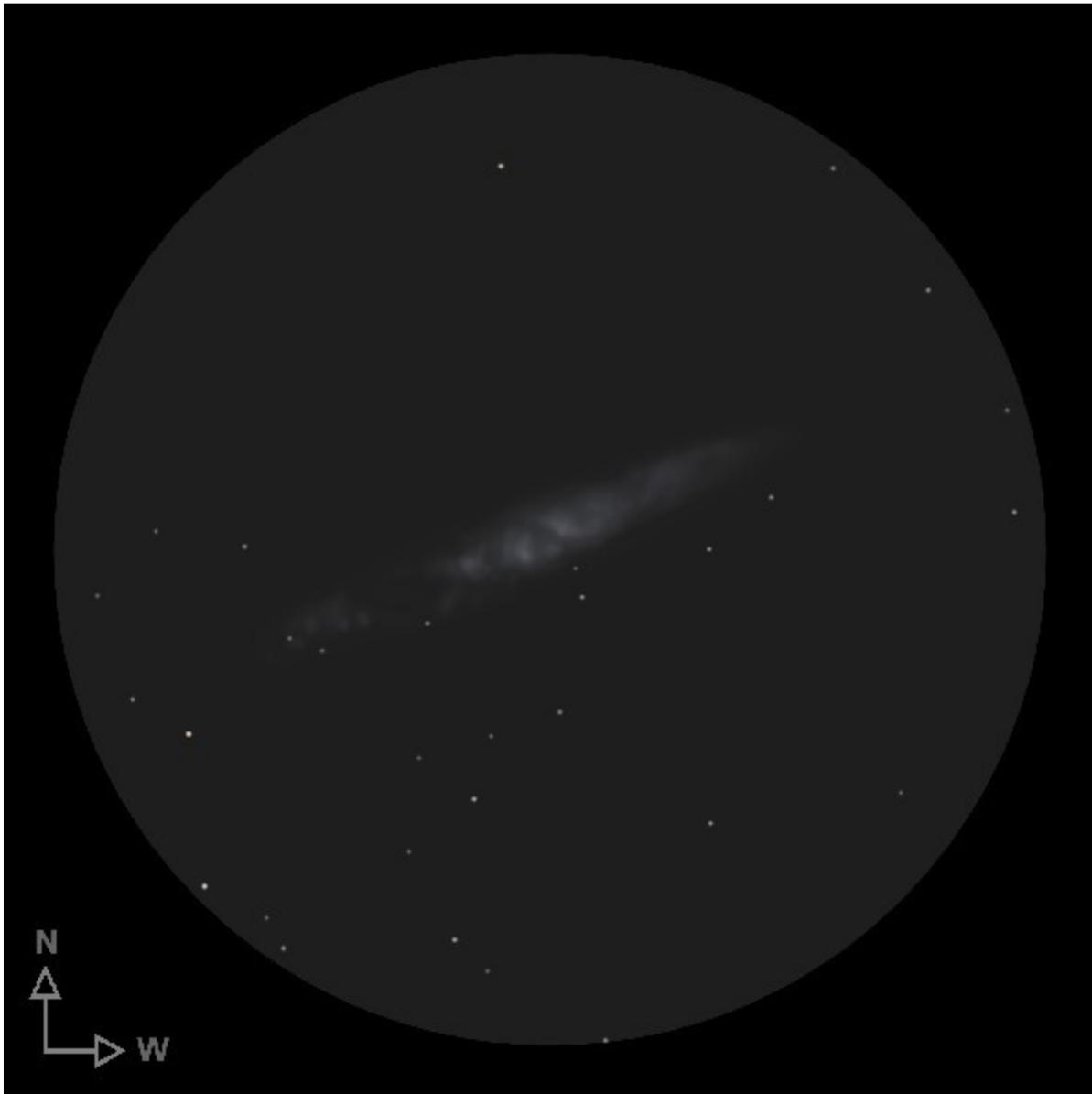
Brian Waddington has this to say:

NGC 300: Instrument 8" LightBridge. mag @ 40 transparency 7 seeing 8.

Not very bright, diffuse, and oval. On a better night it would be more distinct, probably. However with a surface brightness of -14 I am not holding out a lot of hope for seeing great detail.



Finally, we'll hope down to the border of Phoenix and take a look at NGC 55. While 253 is probably the most observed Sculptor group galaxy, NGC 55 is the brightest. Because of its low placement for northern observers, this huge galaxy tends to get short shrift. In a moderate scope at low powers it's probably one of the most interesting galaxies I've seen, showing knots and brighter patches. One, off the eastern side of the galaxy merits its own IC number – 1537. The core of 1537 is fairly bright and concentrated. Some day, I hope to see this from a southern attitude where it rides high overhead.



NGC 55 - Contributed by forum member Cildarith

And with that, that's it for this one. Once again, thanks to the readers who submitted observations, sketches and photos. Your contributions greatly enrich these articles.

As always, I'm gratified if folks find my meanderings useful.

Till next time -

-Tom T.

Additional Resources / References / Just Plain Cool Stuff

Nicolas Louis de Lacaille

http://en.wikipedia.org/wiki/Nicolas_Louis_de_Lacaille

Caroline Herschel's Deep Sky Objects

<http://seds.lpl.arizona.edu/messier/Xtra/similar/cher.html>

When It Comes to Galaxies, Diversity Is Everywhere

<http://hubblesite.org/newscenter/archive/releases/2008/35/image/j/>

If you liked this article, you may want to check out the rest of the series.

http://www.cloudynights.com/category.php?category_id=170

I'd love to hear of your experiences under the night sky - please feel free to e-mail me or send any observing reports to: tomt@cloudynights.com

(Please contact me via Forum PM if I don't respond.

I've been having some issues with spam lately, and probably didn't receive your e-mail.)

Please indicate if I can cite your observations in future columns.

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Special Thanks to Olivier Biot for assistance with the PDF's and all those who take the time to read and contribute to this series.