

# Bright Galaxies Logbook

The Astronomy Logbook Project

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# Preface

This is a log book for observers wanting to see some of the bright galaxies in the sky. All of the galaxies listed in this logbook are expected to be visually observable with a 6-inch (150mm) telescope, from reasonably dark (Bortle 4) skies.

This is a compilation of observation log forms for each of the objects accompanied by useful information about the object, 3 star charts, and an image from the Digitized Sky Surveys. It may gain more features as time progresses.

Galaxies were programmatically chosen from the SAC database (<http://www.saguaroastro.org/content/downloads.htm>) by applying the following filters:

- Galaxy not a Messier object
- Galaxy is marked “cB” or brighter in Dreyer’s descriptions
- Galaxy is brighter than 11.0 mag (to avoid tiny, high-surface brightness galaxies)

Since there was no human intervention involved, there could be errors. However, I checked that most of the galaxies I consider bright and significant were on the list, and those that I consider even somewhat faint were not.

Many of these galaxies may not be visible at your latitude. The book is hemisphere-neutral, and just lists objects irrespective of southern / northern declination. It is important to note that objects low in the horizon are made substantially more difficult by airmass.

The book’s content and structure is inspired by the Bangalore Astronomical Society’s (<http://bas.org.in>) observer certification programs. The idea for this particular logbook came from Mr. Naveen Nanjundappa.

Hope you will enjoy observing these galaxies!

–Akarsh Simha

# Legal

## Most Importantly

- **You may not use this compilation for commercial / profit-making purposes!** This is because this compilation uses images from the Digitized Sky Surveys, and data from Dr. Wolfgang Steinicke's Revised NGC / IC. Please see <http://gsss.stsci.edu/Acknowledgements/DSSCopyrights.htm> and the NGC/IC section of <http://www.klima-luft.de/steinicke/> (in the German) or [http://www.klima-luft.de/steinicke/index\\_e.htm](http://www.klima-luft.de/steinicke/index_e.htm) (in English) for details.
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- **Images** from the *Digitized Sky Survey* used in this compilation come from the *POSS II* (Northern Hemisphere) and *UKSTU* (Southern Hemisphere) surveys. The following copyright statement is found on the DSS access portal at the STScI, USA (<http://gsss.stsci.edu/Acknowledgments/DataCopyrights.htm>)
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<sup>1</sup>i.e. at the MAST website: <http://archive.stsci.edu/>

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- **Star Catalog Data** used in the star charts come from three major catalogs: *Hipparcos*, *Tycho 2*, and *USNO NOMAD* and rendered using *KStars*.

- *Hipparcos* and *Tycho 2* were obtained from the Astronomical Data Center run by the NASA. While the data center is now closed, at the time of download, the website said:

“All ADC data are public domain unless otherwise stated in the “ReadMe” file. The data are for scientific use only and have no commercial value.”

As of January 2013, an archive of the old website is still accessible here: [http://web.archive.org/web/20060908091808/http://adc.astro.umd.edu/adc/questions\\_feedback.html#policies1](http://web.archive.org/web/20060908091808/http://adc.astro.umd.edu/adc/questions_feedback.html#policies1)

- *USNO NOMAD* was obtained from the US Naval Observatory (<http://www.nofs.navy.mil/nomad/>).

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No explicit statement is made about the NOMAD catalog in particular.

- **Deep-Sky Object Data** used in the star charts and the data table come mostly from the Revised NGC/IC catalog by Wolfgang Steinicke, and that data is Copyright (c) 2003 Wolfgang Steinicke. The visual magnitudes for objects, however, come from a newer version of the Revised NGC/IC catalog by Wolfgang Steinicke, released in January 2013, and that data is Copyright (c) 2003-2013 Wolfgang Steinicke (steinicke-zehnle@t-online.de). When unavailable, the visual magnitudes have been substituted with blue magnitudes, also from the same catalog.

The data has been made freely available for **non-commercial use**.

Data for non-NGC/IC objects is not from Dr. Steinicke’s catalog, and was collected manually by hand from various sources, most notably SIMBAD and the SAC database.

The Dreyer and SAC descriptions, and magnitudes wherever available come from the Saguaro Astronomy Club (SAC) database, and it is freely available for non-commercial use.

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Akarsh Simha may be reached at [akarshsimha@gmail.com](mailto:akarshsimha@gmail.com).

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# Acknowledgements

## The Bangalore Astronomical Society



The makers of this compilation acknowledge the Bangalore Astronomical Society (BAS) for the inspiration behind this idea. In particular, the makers thank the council members of the BAS during 2013.

## Austin Astronomical Society



Akarsh Simha would like to thank Austin Astronomical Society for keeping his astronomy spirit alive, and providing some of the motivation much required to complete these logbooks. The members of the AAS gave him much necessary encouragement, many many valuable suggestions, and shared his excitement at the finished product. Austin Astronomical Society's webpage is found at <http://austinastro.org>.

Please note that the presence of the logo of the AAS does not indicate any form of endorsement of this project by them.

## The Digitized Sky Survey

The images used in this compilation come from the Digitized Sky Survey plates, in particular, those from the POSS-II and UKSTU surveys.

The Digitized Sky Survey was produced at the Space Telescope Science Institute under U.S. Government grant NAG W-2166. The images of these surveys are based on photographic data obtained using the Oschin Schmidt Telescope on Palomar Mountain and the UK Schmidt Telescope. The plates were processed into the present compressed digital form with the permission of these institutions.

The Second Palomar Observatory Sky Survey (POSS-II) was made by the California Institute of Technology with funds from the National Science Foundation, the National Aeronautics and Space Administration, the National Geographic Society, the Sloan Foundation, the Samuel Oschin Foundation, and the Eastman Kodak Corporation. The Oschin Schmidt Telescope is operated by the California Institute of Technology and Palomar Observatory.

The UK Schmidt Telescope was operated by the Royal Observatory Edinburgh, with funding from the UK Science and Engineering Research Council (later the UK Particle Physics and Astronomy Research Council), until 1988 June, and thereafter by the Anglo-Australian Observatory. The blue plates of the southern Sky Atlas and its Equatorial Extension (together known as the SERC-J), the near-IR plates (SERC-I), as well as the Equatorial Red (ER), and the Second Epoch [red] Survey (SES) were all taken with the UK Schmidt telescope at the AAO.



The images themselves were downloaded from the Mikulski Archive for Space Telescopes (MAST; <http://archive.stsci.edu/>).

The makers thank the DSS for making sky imagery freely available for non-profit activities, and also thank MAST for the excellent web service provided by them.

## Deep-Sky Object Data

The makers thank Dr. Wolfgang Steinicke for providing the Revised NGC / IC catalog under terms making it free for non-commercial use.

The Dreyer and SAC descriptions, and some of the data for non-NGC/IC objects, come from the Saguaro Astronomy Club database. The makers thank the Saguaro Astronomy Club for providing their compilation for free non-commercial use.

## KStars and other open-source tools



The makers particularly thank, the developers of KStars, (<http://edu.kde.org/kstars>) the software that made the rendition of star maps used in this compilation possible and made available, in an easy form, the data used in this compilation. KStars was also used to fetch appropriate DSS URLs for the objects. KStars is a cross-platform astronomy software licensed under the GNU General Public License v2 (<https://www.gnu.org/licenses/gpl-2.0>). It qualifies as free software.

The typesetting of the charts was done using  $\text{\LaTeX}$ . `xmlstarlet` was used to parse XML for object descriptions generated by KStars. Inkscape and ImageMagick were used to convert between graphics formats. Inkscape was also used to generate several of the graphics used here. Several tools from the standard GNU suite, such as `bash`, `wget`, `sed` and `awk` proved very useful.

**This compilation was generated using only free and open source software.**

# Credits

This is a list of people who contributed to this project, in no order of significance (except possibly chronological). (Feel free to add your name to the list if you forked this / made a derivative work!)

- Akarsh Simha (akarshsimha@gmail.com) – **original idea**; also responsible for creating the script that generates logbooks
- Kumar Appaiah – Several educative lessons on git, emacs, sed, and awk that made this compilation possible.
- Naveen Nanjundappa – several valuable suggestions
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# 1

## Glossary of Technical Terms

Some of the technical terms used in the compilation are explained *in brief* here. Many resources that offer more detailed explanations and further information are available on the internet. You could alternatively also use KStars' AstroInfo project, accessible from the KStars Help Menu. See <http://edu.kde.org/kstars> for more.

- **Right Ascension and Declination** together constitute the **Equatorial Geocentric Coordinates** used in astronomy. It is a *coordinate system* used to designate positions in the sky.

Just like the location of a point on the earth is specified by the latitude and longitude, the location of a point in the sky is specified using the Right Ascension (RA) and Declination (Dec). Usually, these are denoted by the symbols  $\alpha$  and  $\delta$ .

The declination is simply a projection of the earth's latitudes onto the sky. For example, the north celestial pole lies at a declination of  $+90^\circ$ , and is in the direction vertically above when standing at the north pole of the earth, which has a latitude of  $+90^\circ$ . Southern declinations are considered negative. Declination is usually measured in degrees.

Unlike longitude, RA is measured in hours. Just like an arbitrary longitude is chosen to be zero degrees (namely the prime meridian), a point called the *First point of Aries* (usually denoted  $\gamma$ ) is chosen to be the zero for RA. 1 hour corresponds to 15 degrees.

- **Precession; Epoch; J2000.0:** The axis about which the earth rotates is not stationary. Just like a spinning top, the earth wobbles causing the axis itself to move. This wobbling of the axis of the earth is described by motions called *precession* and *nutation*. Precession is the dominant of the two. As a result of precession, the pole star of today, Polaris, will no longer be near the pole several centuries later.

The earth's axis traces a circle in the sky over a period of 26000 years. This might sound like a small effect over a couple years, but astronomical positions are measured with rather high precision. Thus, precession effects must be taken into account.

Most catalogs of stars and deep-sky objects list the RA and Dec of objects, but the RA and Dec of these objects actually vary because of precession. To remedy this, the catalogs provide RA and Dec at a specific instant in time, called an *epoch*. Once the RA and Dec are known at this epoch, the RA and Dec at any other time may be calculated.

A very common epoch is *J2000.0* which occurred at the beginning of the year 2000. Most catalogs specify the RA and Dec at this instant of time. Already in the year 2013, we can see noticeable differences in the current coordinates when compared to the catalog coordinates at 2000.0

- **Units of Angular Measure** are important, because distances and sizes in the sky are measured as an angle subtended at the earth.

For instance, the moon and the sun are both about  $\frac{1}{2}^\circ$  in (angular) diameter – they subtend an angle of  $\frac{1}{2}^\circ$  at the center of the earth.

The degree is the most common unit of angular measure. A degree is subdivided into 60 arcminutes. Arcminute is often denoted with a small apostrophe-like marking:  $1^\circ = 60'$ . An arcminute is further divided into 60 arcseconds. An arcsecond is often denoted with a double apostrophe:  $1' = 60''$ . Thus  $1^\circ = 3600''$ .

The earth rotates through  $360^\circ$  about its axis in 24 hours of time. Thus every hour of time corresponds to  $15^\circ$  of rotation of the earth. Thus, often in astronomy, the *hour* is used as a measure of angle, exactly equal to  $15^\circ$ . The sky, as viewed from earth, actually goes back to the same position in about 23 hours and 56 minutes, a duration known as the *sidereal day*, because the revolution of the earth adds to the rotation of the earth. However, when hour is used as a measure of angle, it is exactly equal to  $15^\circ$ . 60 minutes (of time) comprise an hour, and 60 seconds (of time) comprise a minute.

Angles are sometimes quoted as decimal values in degrees or hours (eg:  $31.25^\circ$ ). The same angle may be quoted as a combination of integer degrees, (arc)minutes and (arc)seconds (eg:  $31^\circ 15' 0''$ ) or hours, minutes (of time) and seconds (of time).

In this compilation, RA is usually specified in the hours-minutes-seconds system, whereas Declination is usually specified in the degrees-minutes-seconds system.

- **Magnitude scale** is almost always used in astronomy to express the brightnesses of astronomical objects. It's a logarithmic scale of brightness, which means increments in magnitude actually amount to multiplicative factors in brightness. In particular, in the magnitude scale, a difference of 5 in magnitude corresponds to  $100\times$  in brightness. The other important thing to note – the higher the magnitude of a star / object, the *fainter* it is! A magnitude 6 star is a  $100x$  fainter than a magnitude 1 star.

If two stars have magnitudes  $m_1$  and  $m_2$ , the ratio of their brightnesses is given by

$$\frac{I_2}{I_1} = 10^{0.4(m_1 - m_2)} \quad (1.1)$$

Even if the object is an extended object (unlike a star, which almost always appears like a point through telescopes), the magnitude includes all the “light” (flux) from the object, no matter what the size of the object is. For extended objects, a definition of **surface brightness** is more convenient. Surface brightness, often measured in “magnitudes per square arcsecond” is a measure of how bright an object’s surface is. So a large object “A” with the same magnitude as a small object “B”, will still have a much larger (i.e. fainter) surface brightness than object “B”.

## 2

# Understanding and Using the Log Form

## 2.1 Description of the form

- **The title** carries the common name of the object (if any) and the primary catalog number
- **The subtitle** specifies the *type* of the object (eg: Planetary Nebula, Galaxy etc) and the constellation in which it lies.
- **Icons indicating observability** are shown on the right of the page.



Objects that are expected to be visible from dark sites with small binoculars (eg:  $10 \times 50$ ) are indicated with this binocular icon.



Objects that are expected to be visible to the naked eye from dark skies ( $\sim$  Bortle 3) are marked with this eye icon.



Objects that are expected to be visible from city sites with smaller telescopes (eg:  $4'' \sim 6''$ ) are indicated with this city skyline icon, accompanied by a small telescope icon.



If the object is also expected to be visible in binoculars from city skies, a tiny version of the same binocular icon is displayed just above the telescope icon, next to the city skyline icon.



If the object is also expected to be visible with the naked eye from city skies, a tiny version of the same eye icon is displayed next to the city skyline icon.

— If no icon is displayed, it indicates that the object most likely requires a telescope from dark skies, or data is unavailable about its visibility. Note that this should not discourage more advanced observers to attempt the object from city skies or with binoculars. Please consult various online forums for more information. Cloudy Nights (<http://www.cloudynights.com/ubbthreads/ubbthreads.php>) is one such forum.

- **The data table** lists some useful data about the object.

The first two rows list the RA and Dec, first current as of the date of compilation, and then J2000.0.

The “Size” field lists the size of the object in arcminutes. Imagine fitting the object into a rectangle in the sky. The larger (usually first) dimension, called the *major axis* specifies the length of the rectangle. The smaller dimension (*minor axis*) specifies the breadth of the rectangle. For example, 8' × 3' means that the object will roughly fit into a rectangle with a length of 8 arcminutes and a breadth of 3 arcminutes in the sky.

The “Position Angle” field specifies the orientation of the major axis of the object (the “length” of the rectangle mentioned above). It is measured in degrees, from North towards East. If it says 90°, it usually is invalid / unknown.

The “Magnitude” field specifies the magnitude of the object. Usually, this is the visual magnitude and not the blue (“photographic” magnitude), except for some objects, usually indicated in the preface. Note this carefully, because the visual and blue magnitudes may differ somewhat substantially.

The “Other Designation” field carries an alternate catalog designation of the object when available.

- **The sky chart** shows a map of the sky around the object.

**North is upwards** in the map.

The circle in the center represents a **circle of 1° diameter** on the sky.

The black dots are stars. The green / red symbol in the center of the 1° circle represents the object. An effort is made to represent the size of the object accurately.

The lines connecting stars are constellation lines, and help you visualize the constellations. Note that these are not standard and may differ across star charts. Always look up the name / designation of the star (or the RA/Dec of the object) to match against other charts.

The fainter jagged, but solid, lines are the boundaries of constellations as defined by the IAU.

The broken / dashed lines running up-down are lines of constant right ascension, just like longitudes on a map of the earth.

The broken / dashed lines running left-right are lines of constant declination, just like latitudes on a map of the earth. If you see a thick horizontal line that extends through to the ends of the map, that represents the celestial equator. The celestial equator line has numbers marking hours of right ascension.

The text in all block capitals (dark green) are the name of the constellation. Many a time you may see the text crossing a constellation boundary line – the **name always refers to the constellation to the right side** of the name.

- **A DSS image** is provided to give you a rough idea of what the object looks like. The appearance through your equipment, of course, could be drastically different depending on its capabilities! The DSS Image is an actual photo of the object taken with a fairly large, professional astronomical telescope. It is usually good to get a rough idea of what features may be visible and what may not be. Of course, it takes practice to realize which features in a DSS image you may actually expect to see through your telescope!

The dimensions of the region of the sky in the image (in arcminutes) are specified below the image (eg:  $30' \times 15'$ ). The first dimension is the width.

Most of the time, blue POSS2/UKSTU DSS images are used. Red DSS images are used when the blue plates are unavailable. Blue plates will usually provide a better estimate of the observability of objects than red plates, as the eye is more sensitive to blue when in night-vision mode (“scotopic” vision). However, it should be borne in mind that DSS images are not really calibrated. The letters ‘B’, ‘R’ and ‘I’ in the caption of the DSS image, alongside the dimensions, indicate that the image is blue, red and infrared (respectively).

In the DSS images, **north is upwards**, as with the map.

- **The Observation Log** is where you log your own observations. Fill out the details as per your wishes. If you are using this logbook to earn a certification from some organization, please look up the organization’s guidelines for logging. Sometimes, the log form may indicate fields that are required by the certifying organization – but please double check the organization’s guidelines to be sure.

## 2.2 Using the form

### 2.2.1 Wide-field Charts

To use these forms, you will need to have wide-field star charts showing the constellations handy. Preferably the chart should have RA and Declination markings.

If you do not have a star atlas, you may purchase several commercially available star atlases, or print out the Free Mag 7 Star Atlas hosted at [http://www.cloudynights.com/item.php?item\\_id=1052](http://www.cloudynights.com/item.php?item_id=1052).

You could also use the wide-field star charts for the month, generated by this website: <http://skymaps.com/>.

Note that some of the wide-field star charts are designed to be held above your head and used – the cardinal points on the map may align up correctly only if you hold them above your head.

You may alternately also use computer software to obtain wide-field views. There are several free, open-source options, the most recommended for this purpose being Stellarium. Stellarium may be obtained for a variety of operating systems at <http://www.stellarium.org>. Other recommended options include KStars – <http://edu.kde.org/kstars> and SkyChart – <http://www.ap-i.net/skychart/start>, which also run on a variety of operating systems.

### 2.2.2 Visibility of Objects

To check if an object is visible at your latitude, you could find the lowest declination you can see by the formula

$$\text{Lowest Observable Declination} = 90^\circ - \text{Observation Latitude.} \quad (2.1)$$

Substitute your latitude without the sign, irrespective of whether it is northern or southern. In the southern hemisphere, you’ll get the lowest northern declination visible. In the northern hemisphere, you’ll get the lowest southern declination visible.

If the object is in the opposite hemisphere to where you are observing, check that its declination is closer to zero than the Lowest Observable Declination you calculated above.

Often, you cannot observe objects that are too close to the horizon. The atmosphere itself limits your observations somewhat to about  $5^\circ$  above the horizon (this is a very ballpark figure). Light-pollution domes can make things worse. Just subtract the number of degrees you lose near the horizon from the Lowest Observable Declination you calculated, to make your estimate more practical. High altitudes can sometimes help lower the horizon, so observing from a high altitude could add a few degrees to the Lowest Observable Declination.

Objects that do not qualify the criterion you calculate above can never be seen from your latitude, unless you fly pretty high above the ground! So you can eliminate such objects from your observing list, or save them for a cross-continental trip to the other hemisphere (or a long trip to a more tropical region).

Other objects, while visible from your latitude, may not be visible at the given time of the year etc. The best way to determine whether an object is visible at a given time from a given latitude is to use astronomy software. That is why knowing constellations is very helpful – so you can quickly figure out if a certain object is visible by checking if the constellation in which it resides is visible. Wide-field star charts generated for a given night (you need one for the evening and one for the early morning next day) will be able to help you quickly check up on visible constellations, so you can plan your observation.

If you like rough estimates, you can make one by knowing the RA of the sun. Block off 1 hour after sunset and before sunrise. 1 hour of time (almost exactly) corresponds to 1 hour of RA so if the object's RA lies outside this twilight zone, you are likely to be able to observe it. This kind of an estimate does not work well at high latitudes, at times away from the equinoxes. The use of computer software is strongly recommended.

### 2.2.3 Locating the Constellations, finding a reference star

First, make sure you are aware of the cardinal directions around you.

In the northern hemisphere, an easy way to identify north is to look for the Big Dipper, a famous asterism of 7 stars, that is part of the constellation Ursa Major. If the Big Dipper is not visible, Cassiopeia is a good alternative. The constellation has the shape of an M,  $\Sigma$ , W or  $\mathcal{Z}$  depending on the orientation.

In the southern hemisphere, you may look for the Southern Cross (Crux) to identify south.

Once you have identified north / south, also identify east / west and find out if your wide-field chart is designed to be held above your head and used.

Use your wide-field star atlas to identify the constellation patterns in the sky. Remember that the constellation patterns differ across various sky maps.

Prominent patterns that are easy to identify are the Great Square of Pegasus, Cassiopeia, Orion, the head of Taurus the bull, Auriga, the Southern Cross, the Big Dipper, Corvus, Scorpius, the Teapot in Sagittarius. Use these as landmarks to find your way around the sky.

Identify a bright star (the bigger the circles, the brighter the stars they represent), which we will refer to as the *reference star*, within the finder chart embedded in the log. Locate the star in your wide-field charts, and thereby locate it on the sky.

### 2.2.4 Finding the object

Once you have located the reference star, recalling that the sky maps have north on the top, orient the book correctly to map what you see in the sky with the sky chart in the logbook.

Then, a variety of options are at your disposal. One is to try to find the location of the object in the sky precisely, by using a bunch of stars, and point the telescope / binoculars to that location. For example, if you see on the chart that the object is exactly between two stars, you could just point your telescope exactly to that location on the sky, using the two stars for reference. Another technique is *star hopping* – work a route from the reference star to the object using various other stars as landmarks.

Many an internet resource can help explain these techniques better.

Finally, you may need to pan the telescope a bit, or move your binoculars around a bit to actually locate the object.

Remember that many telescopes and some finder scopes produce inverted or mirrored images. Some people often find it useful to identify unambiguous patterns that have directionality to them of stars and just position relatively. Others like to orient the map correctly, and then account for the reflection or inversion



of their telescopes in their head. If you would rather have an erect field, there are erecting prisms available from many vendors for standard (1.25" and 2") telescope focusers.

If the object is rather faint, you may need to precisely zero in on it by using the star field around the object. To see the star field around the object, the easiest way is to use software. The DSS images may occasionally help you in this regard.

### 2.2.5 Observing the object

*Averted vision*, also known as *peripheral vision* is an important observing technique. Use internet resources to understand and master this technique.

Note that the magnitude is not a true indicator of the brightness of the object as seen with a telescope. A large object "A" with the same magnitude as a fainter object "B", will appear much fainter than "B" because the light is spread over a larger area.

In the description provided in the logging form, for some objects, you may notice a number of abbreviations specified. These constitute J L E Dreyer's description of the object, and these descriptions are very helpful to get a feel for what the object actually looks like. Note that J L E Dreyer had larger telescopes and was observing from dark skies when making these descriptions. However, the descriptions are more apt than magnitudes when determining how bright an object is. Many resources on the internet have explanations for the abbreviations used in Dreyer's descriptions. Here is one such resource: <http://spider.seds.org/ngc/des.html>.

# 3

## List of Objects by Constellation

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NGC 5005	[310]
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### Andromeda

NGC 891 [40]

### Aries

NGC 772 [38]

### Bootes

NGC 5248 [328]

### Camelopardalis

NGC 2403 [112]  
NGC 2655 [116]

### Cancer

NGC 2775 [124]

### Canes Venatici

NGC 4111 [222]  
NGC 4143 [224]  
NGC 4151 [226]  
NGC 4214 [230]  
NGC 4449 [256]  
NGC 4490 (Cocoon Galaxy) [262]  
NGC 4618 [284]  
NGC 4631 (Whale Galaxy) [286]

### Canis Major

NGC 2217 [110]

### Cassiopeia

NGC 278 [28]

### Centaurus

NGC 3557 [172]  
NGC 4945 [306]  
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### Cetus

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**Coma Berenices**

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 NGC 4251 [234]  
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 NGC 4414 [246]  
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 NGC 4565 (Needle Galaxy) [274]  
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**Dorado**

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**Draco**

NGC 3147 [146]  
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**Eridanus**

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**Fornax**

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 NGC 1316 (Fornax A) [56]  
 NGC 1344 [60]  
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 NGC 7213 [360]  
 NGC 7410 [366]  
 NGC 7418 [368]  
 NGC 7552 (Grus Quartet) [370]

**Horologium**

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 NGC 1512 [84]

**Hydra**

NGC 2784 [126]  
 NGC 3585 [174]  
 NGC 3621 [186]  
 NGC 3923 [200]  
 NGC 5061 [316]  
 NGC 5101 [320]

**Indus**

NGC 7049 [356]

**Leo**

NGC 2903 [134]  
 NGC 3193 (Hickson 44) [152]  
 NGC 3377 [160]  
 NGC 3384 [162]  
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 NGC 3593 [176]  
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 NGC 3608 [180]  
 NGC 3640 [188]  
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**Leo Minor**

NGC 2859 [132]  
 NGC 3245 [154]

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### Lynx

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### Pavo

NGC 6684 [350]  
NGC 6744 [352]

### Pegasus

NGC 7217 [362]  
NGC 7331 [364]  
NGC 7814 [372]

### Perseus

NGC 1023 [46]

### Pyxis

NGC 2613 [114]

### Reticulum

NGC 1543 [92]  
NGC 1559 [98]

### Sculptor

NGC 134 [24]  
NGC 253 (Sculptor Galaxy, Silver Dollar) [26]  
NGC 55 [22]  
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### Serpens Caput

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### Sextans

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### Telescopium

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### Tucana

NGC 292 (Small Magellanic Cloud) [30]

### Ursa Major

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NGC 2768 [122]  
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NGC 3953 [208]  
NGC 3998 [210]  
NGC 4026 [212]  
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NGC 4371 [244]  
NGC 4429 [248]  
NGC 4435 (The Eyes, Markarian Chain) [250]

NGC 4438 (The Eyes, Markarian Chain) [252]  
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NGC 4457 [260]  
NGC 4517 [266]  
NGC 4526 [268]  
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NGC 4570 [276]  
NGC 4596 [280]  
NGC 4636 [288]  
NGC 4643 [290]  
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NGC 4754 [304]  
NGC 5018 [312]  
NGC 5084 [318]  
NGC 5363 [334]  
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# 4

## List of Objects by Type

NOTE: Numbers in square brackets are page numbers

### Galaxy

NGC 1023 [46]	NGC 2403 [112]
NGC 1097 [48]	NGC 253 (Sculptor Galaxy, Silver Dollar) [26]
NGC 1201 [50]	NGC 2613 [114]
NGC 1291 [52]	NGC 2655 [116]
NGC 1300 [54]	NGC 2681 [118]
NGC 1316 (Fornax A) [56]	NGC 2683 [120]
NGC 1332 [58]	NGC 2768 [122]
NGC 1344 [60]	NGC 2775 [124]
NGC 134 [24]	NGC 2784 [126]
NGC 1350 [62]	NGC 2787 [128]
NGC 1365 [64]	NGC 278 [28]
NGC 1379 [66]	NGC 2841 [130]
NGC 1380 [68]	NGC 2859 [132]
NGC 1387 [70]	NGC 2903 [134]
NGC 1395 [72]	NGC 292 (Small Magellanic Cloud) [30]
NGC 1398 [74]	NGC 2950 [136]
NGC 1399 [76]	NGC 2976 [138]
NGC 1404 [78]	NGC 2985 [140]
NGC 1407 [80]	NGC 3077 [142]
NGC 1433 [82]	NGC 3079 [144]
NGC 1512 [84]	NGC 3147 [146]
NGC 1532 [86]	NGC 3166 [148]
NGC 1533 [88]	NGC 3169 [150]
NGC 1537 [90]	NGC 3193 (Hickson 44) [152]
NGC 1543 [92]	NGC 3245 [154]
NGC 1549 [94]	NGC 3310 [156]
NGC 1553 [96]	NGC 3344 [158]
NGC 1559 [98]	NGC 3377 [160]
NGC 1566 [100]	NGC 3384 [162]
NGC 1617 [102]	NGC 3412 [164]
NGC 1672 [104]	NGC 3486 [166]
NGC 1792 [106]	NGC 3489 [168]
NGC 1808 [108]	NGC 3521 [170]
NGC 2217 [110]	NGC 3557 [172]
	NGC 3585 [174]
	NGC 3593 [176]
	NGC 3607 [178]
	NGC 3608 [180]
	NGC 3610 [182]
	NGC 3613 [184]
	NGC 3621 [186]

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NGC 3640	[188]	NGC 4666	[296]
NGC 3665	[190]	NGC 4698	[298]
NGC 3675	[192]	NGC 4725	[300]
NGC 3810	[194]	NGC 4753	[302]
NGC 3893	[196]	NGC 4754	[304]
NGC 3898	[198]	NGC 4945	[306]
NGC 3923	[200]	NGC 4976	[308]
NGC 3938	[202]	NGC 5005	[310]
NGC 3941	[204]	NGC 5018	[312]
NGC 3945	[206]	NGC 5033	[314]
NGC 3953	[208]	NGC 5061	[316]
NGC 3998	[210]	NGC 5084	[318]
NGC 4026	[212]	NGC 5101	[320]
NGC 4030	[214]	NGC 5102	[322]
NGC 4036	[216]	NGC 5128 (Centaurus A)	[324]
NGC 4051	[218]	NGC 5195	[326]
NGC 4088	[220]	NGC 5248	[328]
NGC 4111	[222]	NGC 5253	[330]
NGC 4143	[224]	NGC 5322	[332]
NGC 4151	[226]	NGC 5363	[334]
NGC 4203	[228]	NGC 5566	[336]
NGC 4214	[230]	NGC 55	[22]
NGC 4216	[232]	NGC 5701	[338]
NGC 4251	[234]	NGC 5746	[340]
NGC 4274	[236]	NGC 578	[32]
NGC 4278	[238]	NGC 5813	[342]
NGC 4314	[240]	NGC 5846	[344]
NGC 4365	[242]	NGC 584	[34]
NGC 4371	[244]	NGC 5907	[346]
NGC 4414	[246]	NGC 5921	[348]
NGC 4429	[248]	NGC 613	[36]
NGC 4435 (The Eyes, Markarian Chain)	[250]	NGC 6684	[350]
NGC 4438 (The Eyes, Markarian Chain)	[252]	NGC 6744	[352]
NGC 4442	[254]	NGC 6868	[354]
NGC 4449	[256]	NGC 7049	[356]
NGC 4450	[258]	NGC 7144	[358]
NGC 4457	[260]	NGC 7213	[360]
NGC 4490 (Cocoon Galaxy)	[262]	NGC 7217	[362]
NGC 4494	[264]	NGC 7331	[364]
NGC 4517	[266]	NGC 7410	[366]
NGC 4526	[268]	NGC 7418	[368]
NGC 4536	[270]	NGC 7552 (Grus Quartet)	[370]
NGC 4559	[272]	NGC 772	[38]
NGC 4565 (Needle Galaxy)	[274]	NGC 7814	[372]
NGC 4570	[276]	NGC 891	[40]
NGC 4589	[278]	NGC 908	[42]
NGC 4596	[280]	NGC 936	[44]
NGC 4605	[282]		
NGC 4618	[284]		
NGC 4631 (Whale Galaxy)	[286]		
NGC 4636	[288]		
NGC 4643	[290]		
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# 5

## List of Common Names

The following table is ordered alphabetically by common name.

Table 5.1: Objects by common name

Common Name	Catalog Designation	Page
Centaurus A	NGC 5128	324
Cocoon Galaxy	NGC 4490	262
Fornax A	NGC 1316	56
Grus Quartet	NGC 7552	370
Hickson 44	NGC 3193	152
Needle Galaxy	NGC 4565	274
Sculptor Galaxy, Silver Dollar	NGC 253	26
Small Magellanic Cloud	NGC 292	30
The Eyes, Markarian Chain	NGC 4435	250
The Eyes, Markarian Chain	NGC 4438	252
Whale Galaxy	NGC 4631	286



# 6

## Checklist of Objects

Use this checklist to look up page numbers, to look up essential information, and to make entries of the dates of your first and subsequent observations.

Table 6.1: Checklist of Objects

Sl. No.	Object	Type	Constellation	Mag.	Size	Page	Obs. Date	Second Obs.
1	NGC 55	Galaxy	Sculptor	7.9	31.2' × 5.9'	22		
2	NGC 134	Galaxy	Sculptor	10	8.4' × 1.8'	24		
3	NGC 253 (Sculptor Galaxy, Silver Dollar)	Galaxy	Sculptor	7.2	29' × 6.8'	26		
4	NGC 278	Galaxy	Cassiopeia	11	2.1' × 2'	28		
5	NGC 292 (Small Magellanic Cloud)	Galaxy	Tucana	2.3	319.1' × 205.1'	30		
6	NGC 578	Galaxy	Cetus	11	4.8' × 3'	32		
7	NGC 584	Galaxy	Cetus	10	4.1' × 2'	34		
8	NGC 613	Galaxy	Sculptor	10	5.5' × 4.2'	36		
9	NGC 772	Galaxy	Aries	10	7.2' × 4.3'	38		
10	NGC 891	Galaxy	Andromeda	9.9	11.7' × 1.6'	40		
11	NGC 908	Galaxy	Cetus	10	6.1' × 2.7'	42		
12	NGC 936	Galaxy	Cetus	10	4.7' × 4.1'	44		
13	NGC 1023	Galaxy	Perseus	9.4	7.4' × 2.5'	46		
14	NGC 1097	Galaxy	Fornax	9.5	9.4' × 6.6'	48		
15	NGC 1201	Galaxy	Fornax	11	3.6' × 2.1'	50		
16	NGC 1291	Galaxy	Eridanus	8.5	11' × 9.5'	52		
17	NGC 1300	Galaxy	Eridanus	10	6.2' × 4.1'	54		

*Continued on the following page*

Table 6.1: Checklist of Objects

Sl. No.	Object	Type	Constellation	Mag.	Size	Page	Obs. Date	Second Obs.
18	NGC 1316 (Fornax A)	Galaxy	Fornax	8.5	11' × 7.2'	56		
19	NGC 1332	Galaxy	Eridanus	10	4.5' × 1.4'	58		
20	NGC 1344	Galaxy	Fornax	10	4.8' × 3.1'	60		
21	NGC 1350	Galaxy	Fornax	10	5.9' × 3.1'	62		
22	NGC 1365	Galaxy	Fornax	9.6	11' × 6.2'	64		
23	NGC 1379	Galaxy	Fornax	11	2.4' × 2.3'	66		
24	NGC 1380	Galaxy	Fornax	9.9	4' × 2.4'	68		
25	NGC 1387	Galaxy	Fornax	11	2.8' × 2.6'	70		
26	NGC 1395	Galaxy	Eridanus	9.6	5' × 4.5'	72		
27	NGC 1398	Galaxy	Fornax	9.7	7.2' × 5.2'	74		
28	NGC 1399	Galaxy	Fornax	9.6	6.9' × 6.5'	76		
29	NGC 1404	Galaxy	Fornax	10	3.3' × 3'	78		
30	NGC 1407	Galaxy	Eridanus	9.7	4.6' × 4.3'	80		
31	NGC 1433	Galaxy	Horologium	9.9	6.5' × 5.9'	82		
32	NGC 1512	Galaxy	Horologium	10	8.9' × 5.6'	84		
33	NGC 1532	Galaxy	Eridanus	9.9	11.6' × 3.4'	86		
34	NGC 1533	Galaxy	Dorado	11	2.8' × 2.3'	88		
35	NGC 1537	Galaxy	Eridanus	11	3.9' × 2.6'	90		
36	NGC 1543	Galaxy	Reticulum	10	3.8' × 2.8'	92		
37	NGC 1549	Galaxy	Dorado	9.8	4.9' × 4.1'	94		
38	NGC 1553	Galaxy	Dorado	9.4	4.5' × 2.8'	96		
39	NGC 1559	Galaxy	Reticulum	11	3.5' × 2'	98		
40	NGC 1566	Galaxy	Dorado	9.7	8.2' × 6.5'	100		
41	NGC 1617	Galaxy	Dorado	10	4.3' × 2.1'	102		
42	NGC 1672	Galaxy	Dorado	9.7	6.7' × 5.6'	104		
43	NGC 1792	Galaxy	Columba	10	5.2' × 2.6'	106		
44	NGC 1808	Galaxy	Columba	9.9	6.5' × 3.9'	108		
45	NGC 2217	Galaxy	Canis Major	11	4.7' × 4.3'	110		
46	NGC 2403	Galaxy	Camelopardalis	8.5	23.4' × 11.8'	112		
47	NGC 2613	Galaxy	Pyxis	10	6.5' × 1.4'	114		
48	NGC 2655	Galaxy	Camelopardalis	10	4.9' × 4.1'	116		
49	NGC 2681	Galaxy	Ursa Major	10	3.6' × 3.3'	118		
50	NGC 2683	Galaxy	Lynx	9.8	9.3' × 2.1'	120		
51	NGC 2768	Galaxy	Ursa Major	9.9	6.4' × 3'	122		
52	NGC 2775	Galaxy	Cancer	10	4.3' × 3.3'	124		

*Continued on the following page*

Table 6.1: Checklist of Objects

Sl. No.	Object	Type	Constellation	Mag.	Size	Page	Obs. Date	Second Obs.
53	NGC 2784	Galaxy	Hydra	10	5.5' × 2.2'	126		
54	NGC 2787	Galaxy	Ursa Major	11	3.1' × 1.8'	128		
55	NGC 2841	Galaxy	Ursa Major	9.2	8.1' × 3.5'	130		
56	NGC 2859	Galaxy	Leo Minor	11	4.6' × 4.1'	132		
57	NGC 2903	Galaxy	Leo	9	12.6' × 6'	134		
58	NGC 2950	Galaxy	Ursa Major	11	2.7' × 1.8'	136		
59	NGC 2976	Galaxy	Ursa Major	10	5.9' × 2.7'	138		
60	NGC 2985	Galaxy	Ursa Major	10	4.6' × 3.4'	140		
61	NGC 3077	Galaxy	Ursa Major	9.9	5.2' × 4.7'	142		
62	NGC 3079	Galaxy	Ursa Major	11	8.1' × 1.3'	144		
63	NGC 3147	Galaxy	Draco	11	3.9' × 3.5'	146		
64	NGC 3166	Galaxy	Sextans	10	4.8' × 2.3'	148		
65	NGC 3169	Galaxy	Sextans	10	4.2' × 2.9'	150		
66	NGC 3193 (Hickson 44)	Galaxy	Leo	11	2' × 2'	152		
67	NGC 3245	Galaxy	Leo Minor	11	3.2' × 1.8'	154		
68	NGC 3310	Galaxy	Ursa Major	11	3.1' × 2.4'	156		
69	NGC 3344	Galaxy	Leo Minor	9.9	7.1' × 6.5'	158		
70	NGC 3377	Galaxy	Leo	10	5' × 3'	160		
71	NGC 3384	Galaxy	Leo	9.9	5.4' × 2.7'	162		
72	NGC 3412	Galaxy	Leo	10	3.7' × 2.2'	164		
73	NGC 3486	Galaxy	Leo Minor	10	7.1' × 5.2'	166		
74	NGC 3489	Galaxy	Leo	10	3.6' × 2.2'	168		
75	NGC 3521	Galaxy	Leo	9	11.2' × 5.4'	170		
76	NGC 3557	Galaxy	Centaurus	10	4' × 3'	172		
77	NGC 3585	Galaxy	Hydra	9.9	4.6' × 2.5'	174		
78	NGC 3593	Galaxy	Leo	11	5.2' × 1.9'	176		
79	NGC 3607	Galaxy	Leo	9.9	4.6' × 4'	178		
80	NGC 3608	Galaxy	Leo	11	3.2' × 2.6'	180		
81	NGC 3610	Galaxy	Ursa Major	11	2.7' × 2.3'	182		
82	NGC 3613	Galaxy	Ursa Major	11	3.9' × 1.9'	184		
83	NGC 3621	Galaxy	Hydra	9.7	12.3' × 6.8'	186		
84	NGC 3640	Galaxy	Leo	10	4' × 3.2'	188		
85	NGC 3665	Galaxy	Ursa Major	11	4.3' × 3.3'	190		
86	NGC 3675	Galaxy	Ursa Major	10	5.9' × 3.1'	192		
87	NGC 3810	Galaxy	Leo	11	4.3' × 3'	194		

*Continued on the following page*

Table 6.1: Checklist of Objects

Sl. No.	Object	Type	Constellation	Mag.	Size	Page	Obs. Date	Second Obs.
88	NGC 3893	Galaxy	Ursa Major	10	4.5' × 2.8'	196		
89	NGC 3898	Galaxy	Ursa Major	11	4.4' × 2.6'	198		
90	NGC 3923	Galaxy	Hydra	9.8	5.9' × 3.9'	200		
91	NGC 3938	Galaxy	Ursa Major	10	5.4' × 4.9'	202		
92	NGC 3941	Galaxy	Ursa Major	10	3.5' × 2.5'	204		
93	NGC 3945	Galaxy	Ursa Major	11	5.2' × 3.5'	206		
94	NGC 3953	Galaxy	Ursa Major	10	6.9' × 3.6'	208		
95	NGC 3998	Galaxy	Ursa Major	11	2.7' × 2.3'	210		
96	NGC 4026	Galaxy	Ursa Major	11	5.2' × 1.3'	212		
97	NGC 4030	Galaxy	Virgo	11	4.2' × 3.2'	214		
98	NGC 4036	Galaxy	Ursa Major	11	4.3' × 1.7'	216		
99	NGC 4051	Galaxy	Ursa Major	10	5.2' × 3.9'	218		
100	NGC 4088	Galaxy	Ursa Major	11	5.6' × 2.1'	220		
101	NGC 4111	Galaxy	Canes Venatici	11	4.6' × 1'	222		
102	NGC 4143	Galaxy	Canes Venatici	11	2.3' × 1.4'	224		
103	NGC 4151	Galaxy	Canes Venatici	11	6.3' × 4.5'	226		
104	NGC 4203	Galaxy	Coma Berenices	11	3.5' × 3.2'	228		
105	NGC 4214	Galaxy	Canes Venatici	9.8	8' × 6.6'	230		
106	NGC 4216	Galaxy	Virgo	10	8.1' × 1.8'	232		
107	NGC 4251	Galaxy	Coma Berenices	11	3.6' × 1.5'	234		
108	NGC 4274	Galaxy	Coma Berenices	10	6.8' × 2.4'	236		
109	NGC 4278	Galaxy	Coma Berenices	10	3.8' × 3.8'	238		
110	NGC 4314	Galaxy	Coma Berenices	11	4.2' × 3.7'	240		
111	NGC 4365	Galaxy	Virgo	9.6	6.9' × 5'	242		
112	NGC 4371	Galaxy	Virgo	11	4' × 2.3'	244		
113	NGC 4414	Galaxy	Coma Berenices	10	4.4' × 3'	246		
114	NGC 4429	Galaxy	Virgo	10	5.8' × 2.8'	248		
115	NGC 4435 (The Eyes, Markarian Chain)	Galaxy	Virgo	11	3' × 2.2'	250		
116	NGC 4438 (The Eyes, Markarian Chain)	Galaxy	Virgo	10	8.5' × 3'	252		
117	NGC 4442	Galaxy	Virgo	10	4.5' × 1.8'	254		
118	NGC 4449	Galaxy	Canes Venatici	9.6	6.2' × 4.4'	256		
119	NGC 4450	Galaxy	Coma Berenices	10	5.4' × 4.1'	258		
120	NGC 4457	Galaxy	Virgo	11	2.6' × 2.3'	260		
121	NGC 4490 (Cocoon Galaxy)	Galaxy	Canes Venatici	9.8	6.4' × 3.2'	262		
122	NGC 4494	Galaxy	Coma Berenices	9.8	4.8' × 3.5'	264		

*Continued on the following page*

Table 6.1: Checklist of Objects

Sl. No.	Object	Type	Constellation	Mag.	Size	Page	Obs. Date	Second Obs.
123	NGC 4517	Galaxy	Virgo	10	10.5' × 1.5'	266		
124	NGC 4526	Galaxy	Virgo	9.3	7' × 2.5'	268		
125	NGC 4536	Galaxy	Virgo	11	7.6' × 3.2'	270		
126	NGC 4559	Galaxy	Coma Berenices	10	10.7' × 4.4'	272		
127	NGC 4565 (Needle Galaxy)	Galaxy	Coma Berenices	9.6	15.8' × 2.1'	274		
128	NGC 4570	Galaxy	Virgo	11	3.7' × 1.2'	276		
129	NGC 4589	Galaxy	Draco	11	3.4' × 2.8'	278		
130	NGC 4596	Galaxy	Virgo	10	4' × 3'	280		
131	NGC 4605	Galaxy	Ursa Major	10	5.9' × 2.4'	282		
132	NGC 4618	Galaxy	Canes Venatici	11	4.2' × 3.4'	284		
133	NGC 4631 (Whale Galaxy)	Galaxy	Canes Venatici	9.2	15.2' × 2.8'	286		
134	NGC 4636	Galaxy	Virgo	9.5	5.9' × 4.6'	288		
135	NGC 4643	Galaxy	Virgo	11	3.1' × 2.5'	290		
136	NGC 4651	Galaxy	Coma Berenices	11	4' × 2.7'	292		
137	NGC 4665	Galaxy	Virgo	10	3.5' × 3.5'	294		
138	NGC 4666	Galaxy	Virgo	11	4.5' × 1.4'	296		
139	NGC 4698	Galaxy	Virgo	11	4' × 2.5'	298		
140	NGC 4725	Galaxy	Coma Berenices	9.4	10.7' × 7.6'	300		
141	NGC 4753	Galaxy	Virgo	10	6' × 2.8'	302		
142	NGC 4754	Galaxy	Virgo	11	4.4' × 2.4'	304		
143	NGC 4945	Galaxy	Centaurus	8.4	19.8' × 4'	306		
144	NGC 4976	Galaxy	Centaurus	10	5.6' × 3'	308		
145	NGC 5005	Galaxy	Canes Venatici	9.8	5.8' × 2.9'	310		
146	NGC 5018	Galaxy	Virgo	11	3.4' × 2.6'	312		
147	NGC 5033	Galaxy	Canes Venatici	10	10.7' × 5'	314		
148	NGC 5061	Galaxy	Hydra	10	3.5' × 3'	316		
149	NGC 5084	Galaxy	Virgo	10	9.3' × 1.7'	318		
150	NGC 5101	Galaxy	Hydra	11	5.4' × 4.6'	320		
151	NGC 5102	Galaxy	Centaurus	9.6	8.6' × 2.7'	322		
152	NGC 5128 (Centaurus A)	Galaxy	Centaurus	6.8	25.7' × 20'	324		
153	NGC 5195	Galaxy	Canes Venatici	9.6	5.9' × 4.6'	326		
154	NGC 5248	Galaxy	Bootes	10	6.2' × 4.5'	328		
155	NGC 5253	Galaxy	Centaurus	10	5' × 1.9'	330		
156	NGC 5322	Galaxy	Ursa Major	10	6' × 4.1'	332		
157	NGC 5363	Galaxy	Virgo	10	4.1' × 2.6'	334		

*Continued on the following page*

Table 6.1: Checklist of Objects

Sl. No.	Object	Type	Constellation	Mag.	Size	Page	Obs. Date	Second Obs.
158	NGC 5566	Galaxy	Virgo	11	6.6' × 2.3'	336		
159	NGC 5701	Galaxy	Virgo	11	4.3' × 4.1'	338		
160	NGC 5746	Galaxy	Virgo	10	7.4' × 1.3'	340		
161	NGC 5813	Galaxy	Virgo	10	4' × 2.8'	342		
162	NGC 5846	Galaxy	Virgo	10	4' × 3.7'	344		
163	NGC 5907	Galaxy	Draco	10	12.6' × 1.4'	346		
164	NGC 5921	Galaxy	Serpens Caput	11	4.8' × 4'	348		
165	NGC 6684	Galaxy	Pavo	10	4.6' × 2.9'	350		
166	NGC 6744	Galaxy	Pavo	8.5	20.1' × 12.9'	352		
167	NGC 6868	Galaxy	Telescopium	11	3.6' × 2.8'	354		
168	NGC 7049	Galaxy	Indus	11	4.5' × 3'	356		
169	NGC 7144	Galaxy	Grus	11	3.7' × 3.6'	358		
170	NGC 7213	Galaxy	Grus	10	3.1' × 2.8'	360		
171	NGC 7217	Galaxy	Pegasus	10	4' × 3.4'	362		
172	NGC 7331	Galaxy	Pegasus	9.5	10.2' × 4.2'	364		
173	NGC 7410	Galaxy	Grus	10	5.2' × 1.6'	366		
174	NGC 7418	Galaxy	Grus	11	3.5' × 2.6'	368		
175	NGC 7552 (Grus Quartet)	Galaxy	Grus	11	3.4' × 2.7'	370		
176	NGC 7814	Galaxy	Pegasus	11	5.5' × 2.3'	372		

# 7

## Logging Forms

This section contains the actual logging forms.

Note that the page numbers for each chart are listed in the Checklist section.

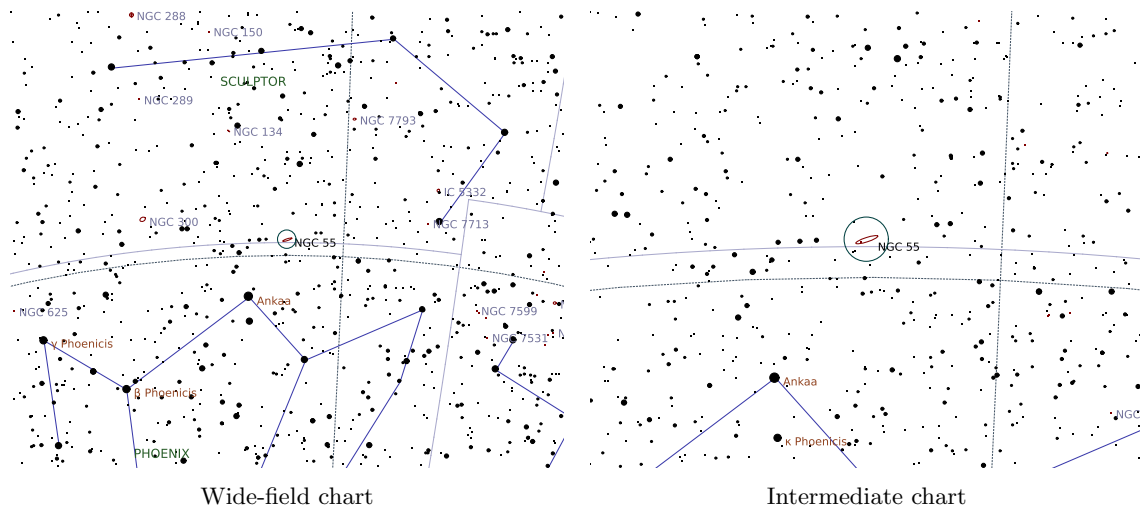
# NGC 55

## Galaxy in Sculptor

Right Ascension (current)	00 <sup>h</sup> 15 <sup>m</sup> 46 <sup>s</sup>	Declination (current)	−39° 08′ 55″
Right Ascension (J2000.0)	00 <sup>h</sup> 15 <sup>m</sup> 08 <sup>s</sup>	Declination (J2000.0)	−39° 13′ 10″
Size	31.2′ × 5.9′	Position Angle	−18°
Magnitude	7.9	Other Designation	–

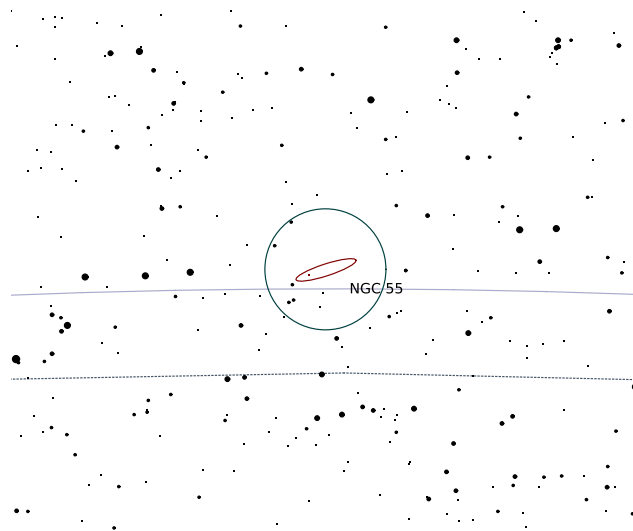
**Description:** Dreyer: vB;vL;vmE;triN

**SAC:** Sculptor Galaxy Group



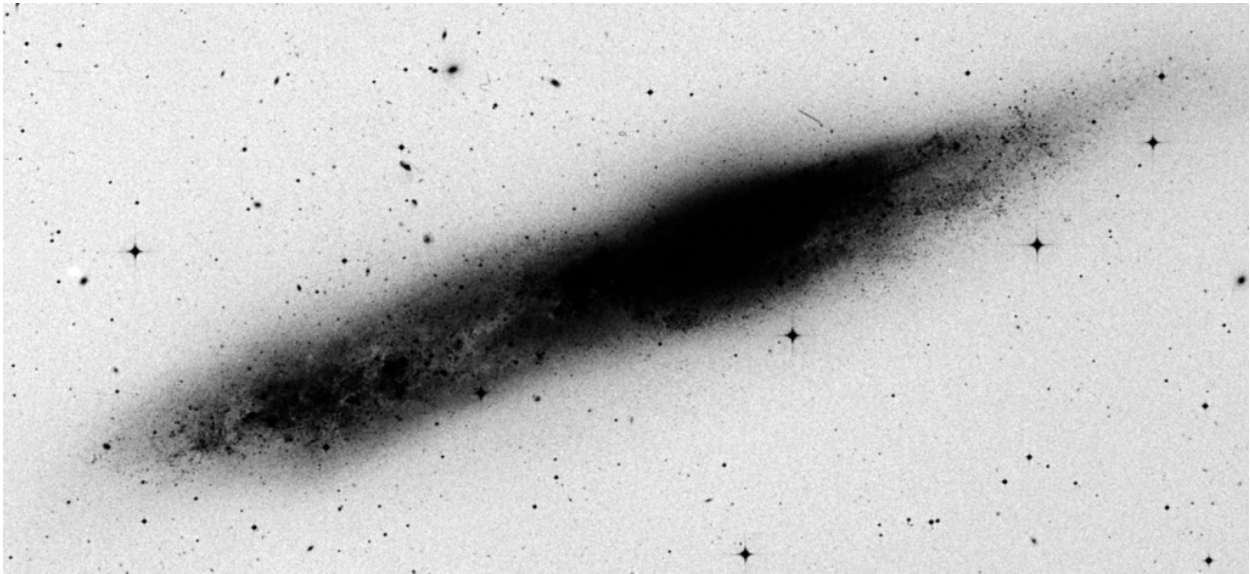
Wide-field chart

Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 32.8')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

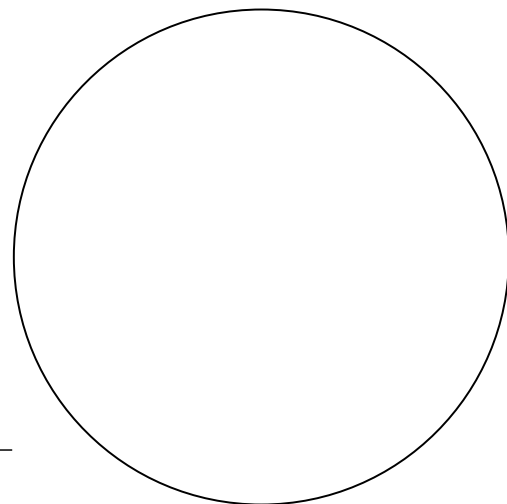
\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_ FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

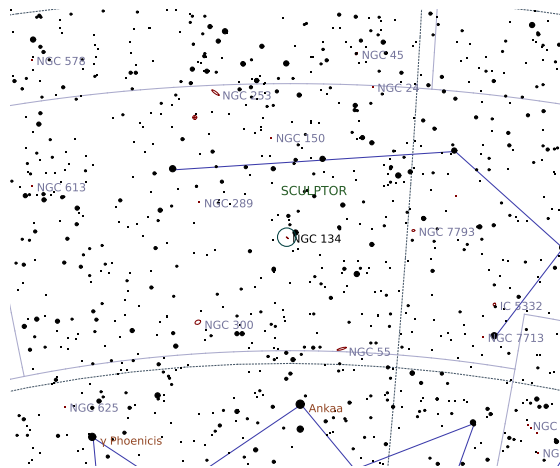
# NGC 134

## Galaxy in Sculptor

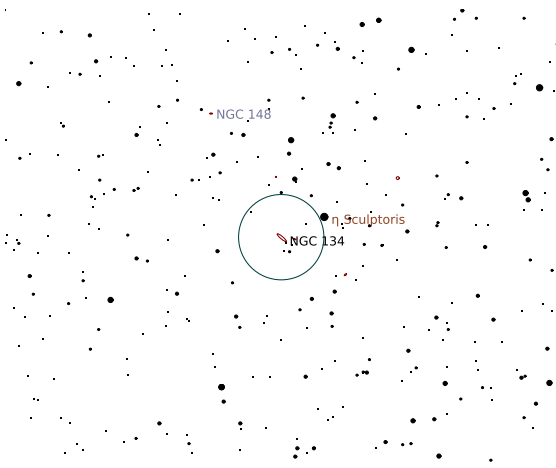
Right Ascension (current)	00 <sup>h</sup> 30 <sup>m</sup> 59 <sup>s</sup>	Declination (current)	−33° 10′ 29″
Right Ascension (J2000.0)	00 <sup>h</sup> 30 <sup>m</sup> 21 <sup>s</sup>	Declination (J2000.0)	−33° 14′ 42″
Size	8.4′ × 1.8′	Position Angle	40°
Magnitude	10	Other Designation	—

**Description:** Dreyer: vB;L;vmE 47 degrees;psbM;f of 2;\*10 np 45''

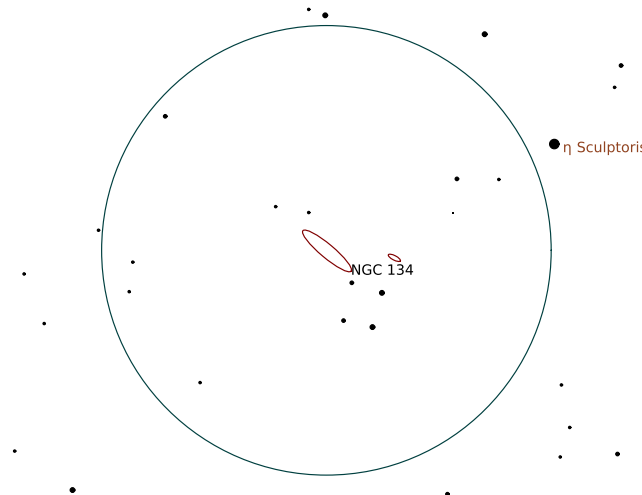
**SAC:** Nearly edge-on



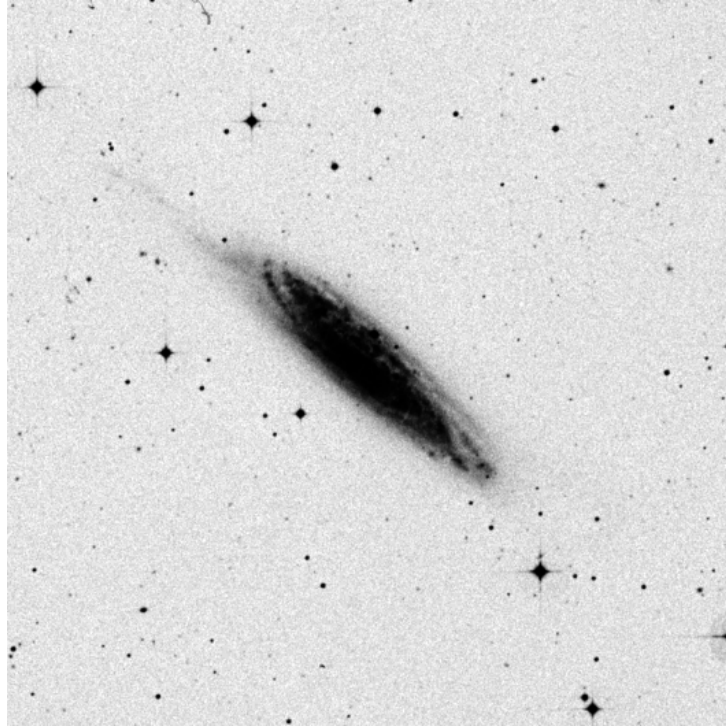
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

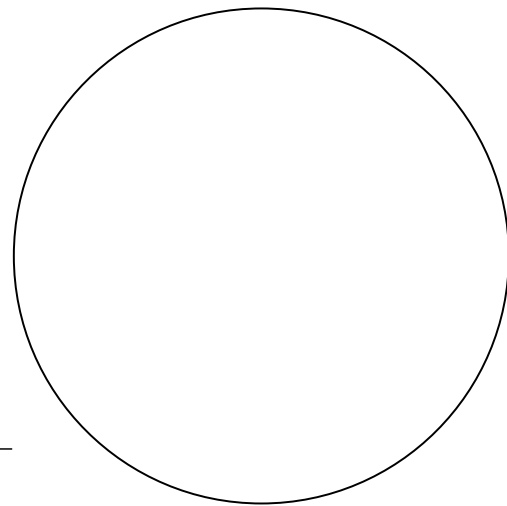
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

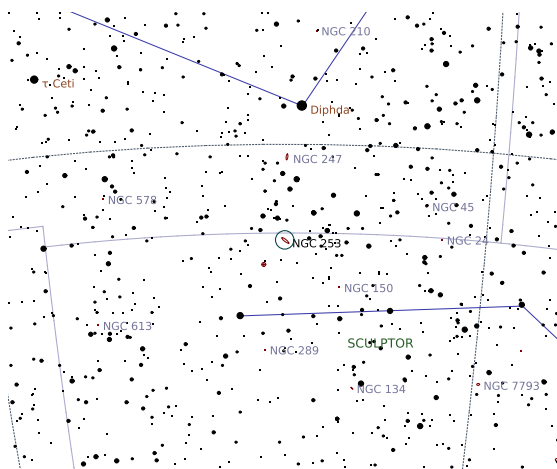
# NGC 253 (Sculptor Galaxy, Silver Dollar)

Galaxy in Sculptor

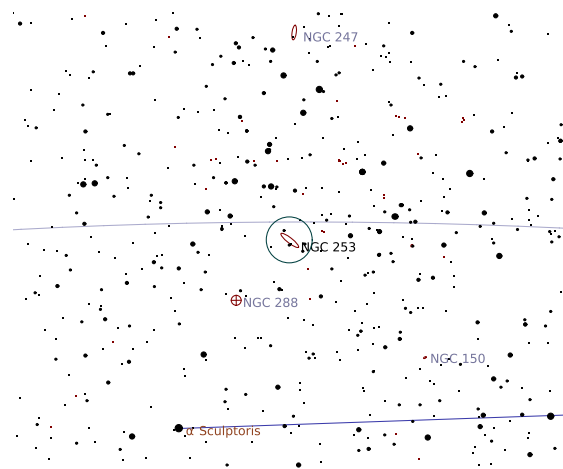
Right Ascension (current)	00 <sup>h</sup> 48 <sup>m</sup> 11 <sup>s</sup>	Declination (current)	−25° 13′ 05″
Right Ascension (J2000.0)	00 <sup>h</sup> 47 <sup>m</sup> 33 <sup>s</sup>	Declination (J2000.0)	−25° 17′ 15″
Size	29′ × 6.8′	Position Angle	38°
Magnitude	7.2	Other Designation	–

Description: Dreyer: !!vvB;vvL;vmE 54 degrees;gbM

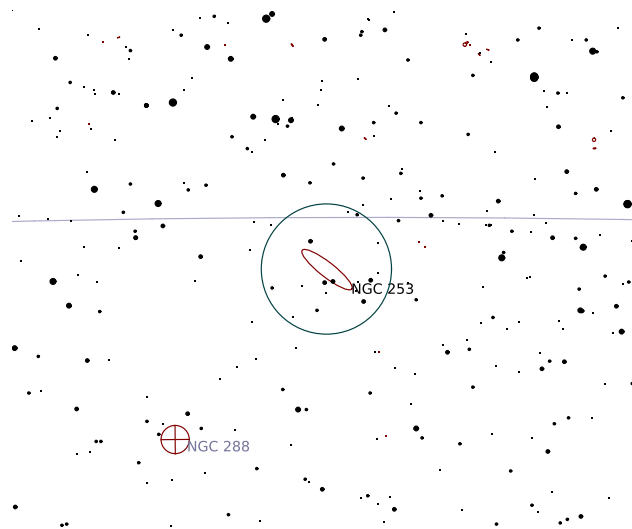
SAC: H V 1;Sandage-arms are more defined by dust than AASlogo.eps AASlogo-eps-converted-to.pdf Acknowledgements.t



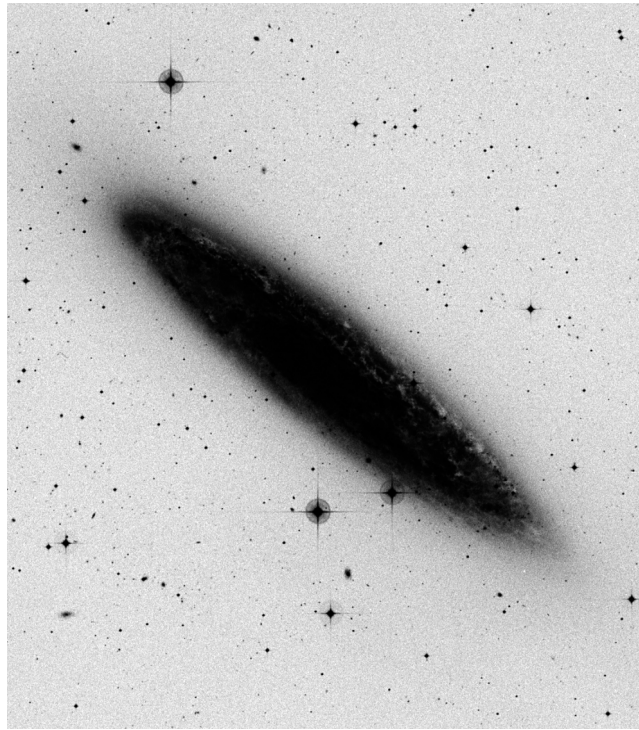
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (28.2' × 32.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

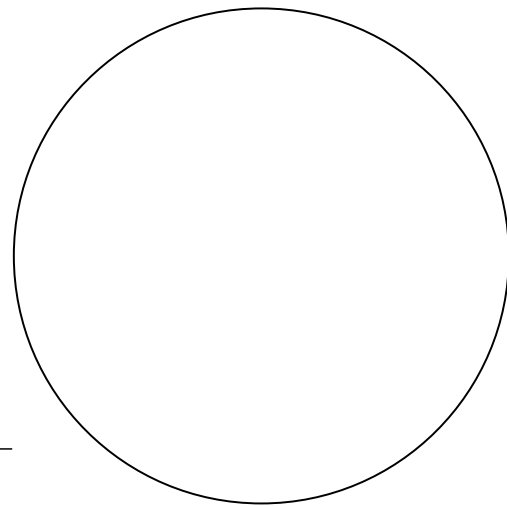
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

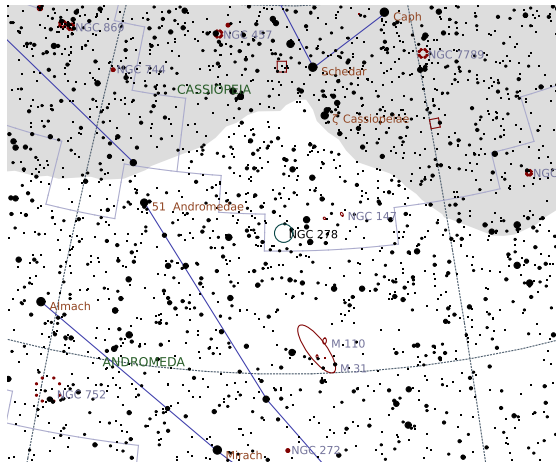
# NGC 278

## Galaxy in Cassiopeia

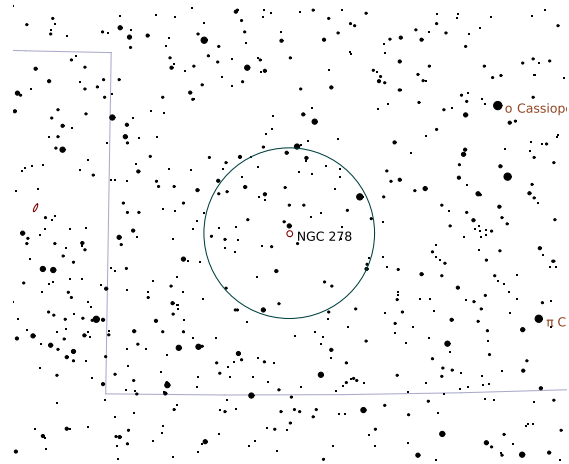
Right Ascension (current)	00 <sup>h</sup> 52 <sup>m</sup> 48 <sup>s</sup>	Declination (current)	47° 37' 30''
Right Ascension (J2000.0)	00 <sup>h</sup> 52 <sup>m</sup> 04 <sup>s</sup>	Declination (J2000.0)	47° 33' 03''
Size	2.1' × 2'	Position Angle	78°
Magnitude	11	Other Designation	—

**Description:** Dreyer: cB;pL;R;2 st 10 nr

**SAC:** H I 159;Lg B nucl;sev knotty massive arms;B part sharp edge;UGC 528



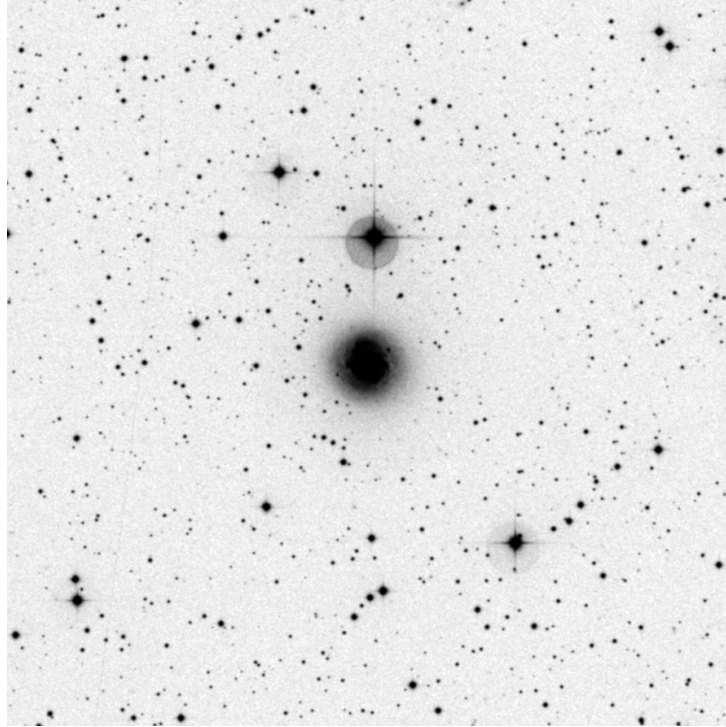
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

# NGC 292 (Small Magellanic Cloud)

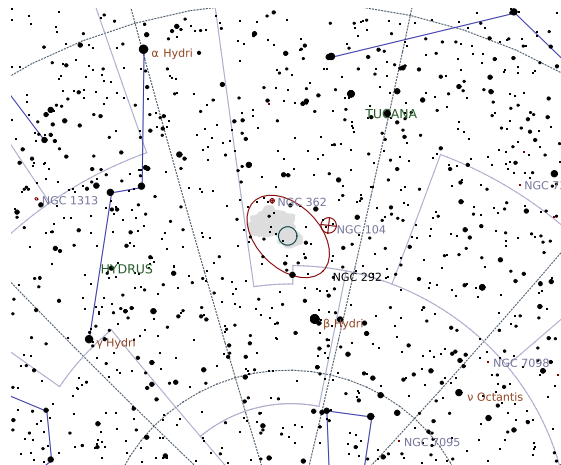
Galaxy in Tucana

Right Ascension (current)	00 <sup>h</sup> 53 <sup>m</sup> 04 <sup>s</sup>	Declination (current)	−72° 44′ 30″
Right Ascension (J2000.0)	00 <sup>h</sup> 52 <sup>m</sup> 40 <sup>s</sup>	Declination (J2000.0)	−72° 48′ 34″
Size	319.1′ × 205.1′	Position Angle	45°
Magnitude	2.3	Other Designation	—

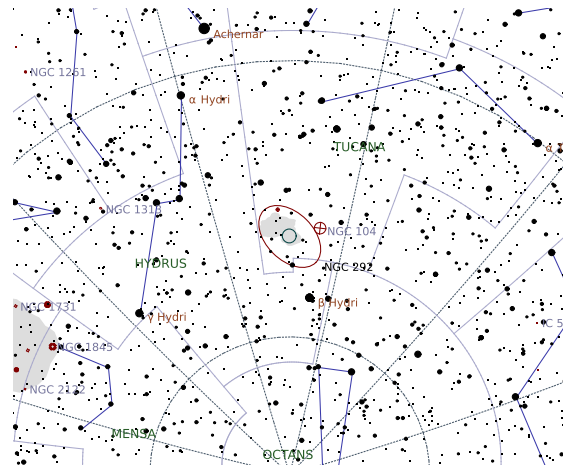


Description: Dreyer: !!!vvB;eeL;iR;st 12...18

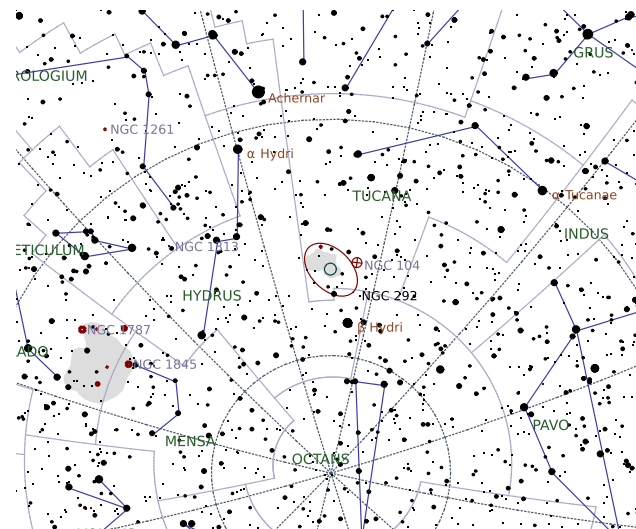
SAC: Memb Local Group;LMC 22 deg distant \_\_REPLACE\_PIPE\_NGC 524} \\



Wide-field chart

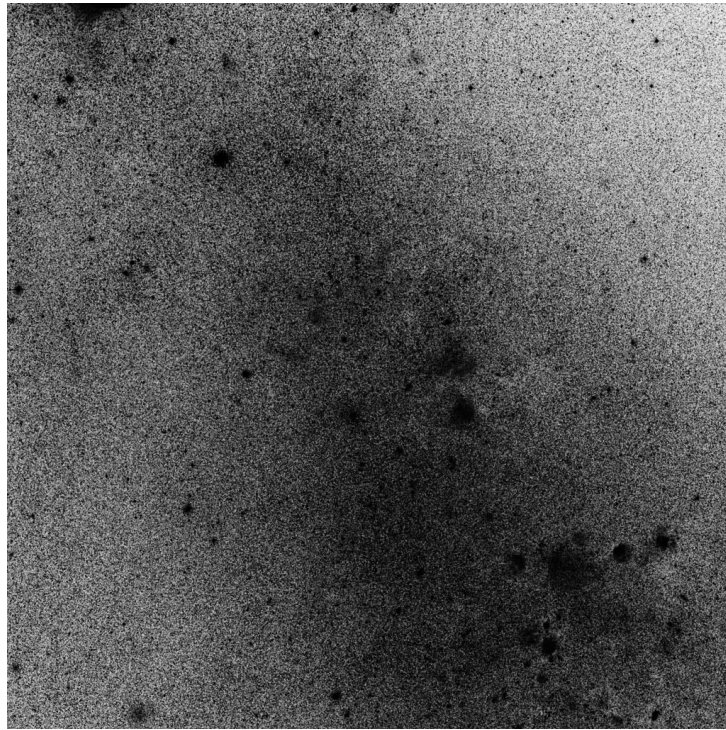


Intermediate chart



Zoomed-in chart





DSS Image (75.0' × 75.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

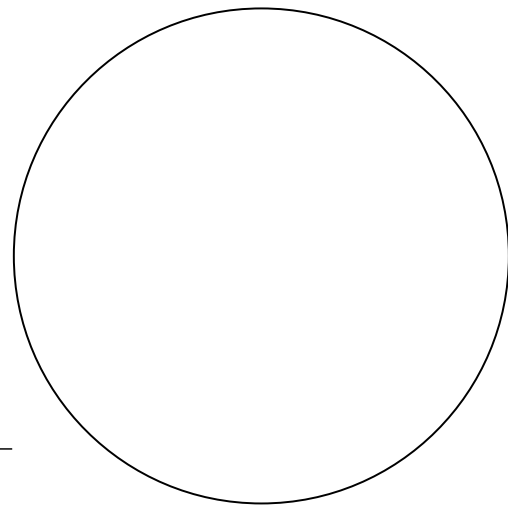
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



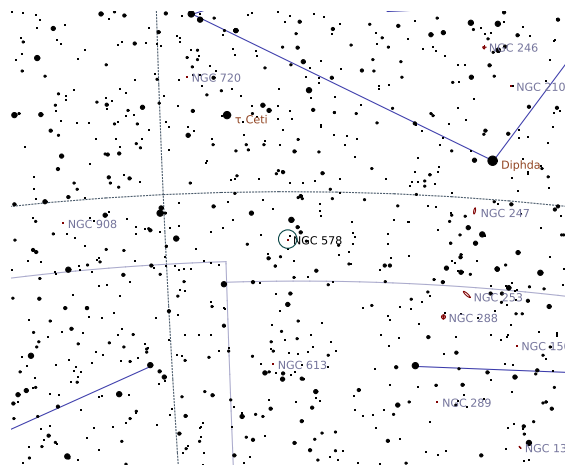
Sketch

# NGC 578

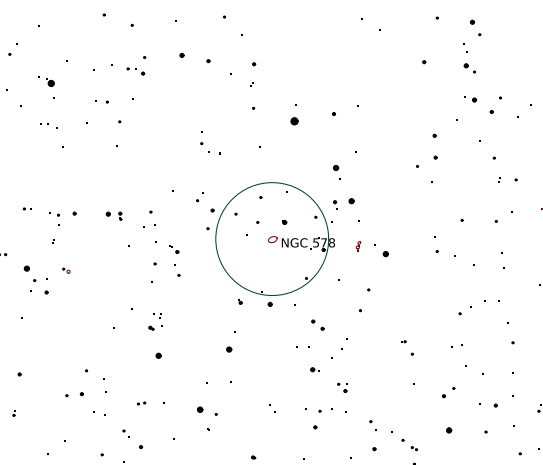
Galaxy in Cetus

Right Ascension (current)	01 <sup>h</sup> 31 <sup>m</sup> 05 <sup>s</sup>	Declination (current)	-22° 36' 06"
Right Ascension (J2000.0)	01 <sup>h</sup> 30 <sup>m</sup> 28 <sup>s</sup>	Declination (J2000.0)	-22° 40' 00"
Size	4.8' × 3'	Position Angle	-20°
Magnitude	11	Other Designation	-

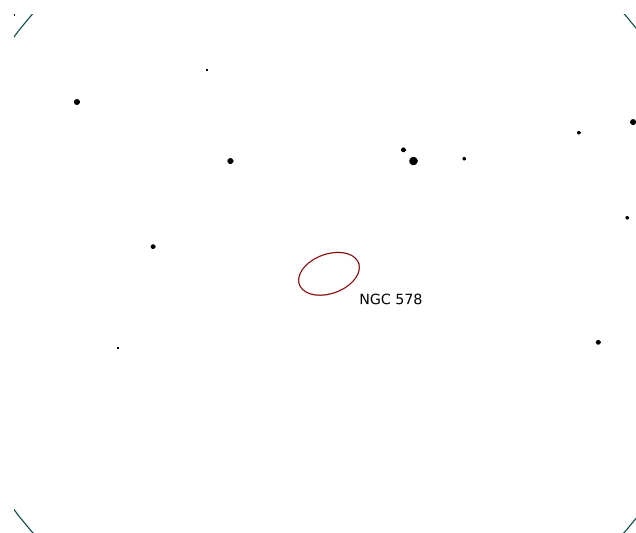
**Description:** Dreyer: B;L;pmE;gpmB



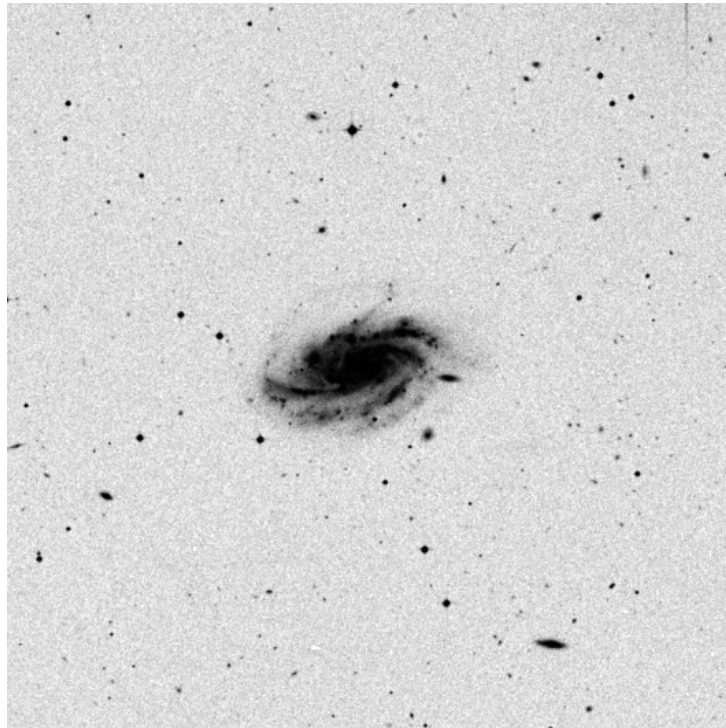
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

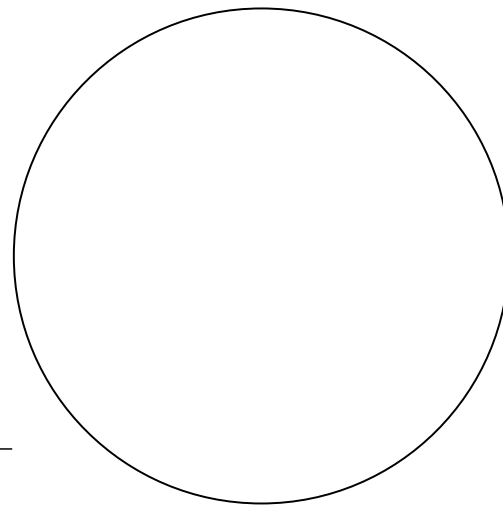
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



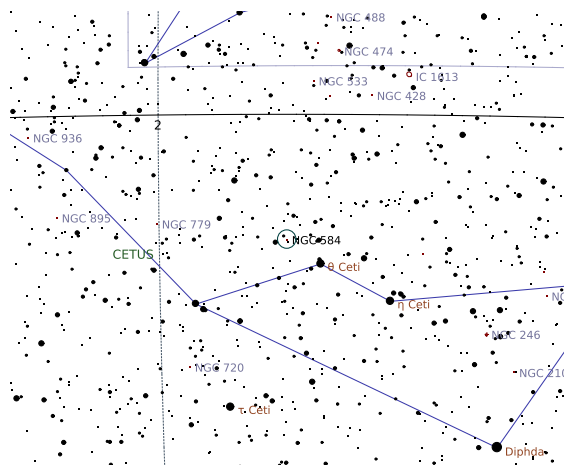
Sketch

# NGC 584

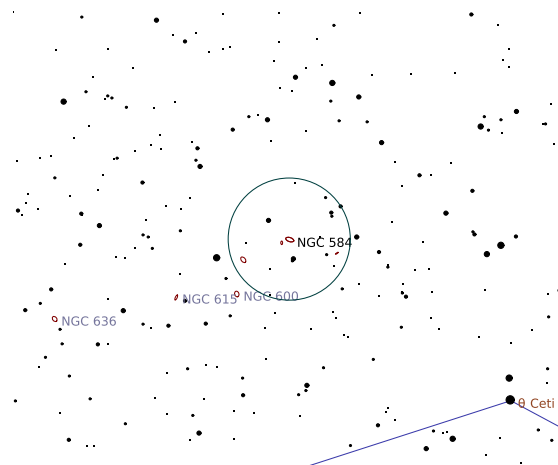
## Galaxy in Cetus

Right Ascension (current)	01 <sup>h</sup> 31 <sup>m</sup> 59 <sup>s</sup>	Declination (current)	−6° 48′ 04″
Right Ascension (J2000.0)	01 <sup>h</sup> 31 <sup>m</sup> 20 <sup>s</sup>	Declination (J2000.0)	−6° 52′ 02″
Size	4.1′ × 2′	Position Angle	18°
Magnitude	10	Other Designation	—

**Description:** Dreyer: vB;pL;R;mbM;p of 2



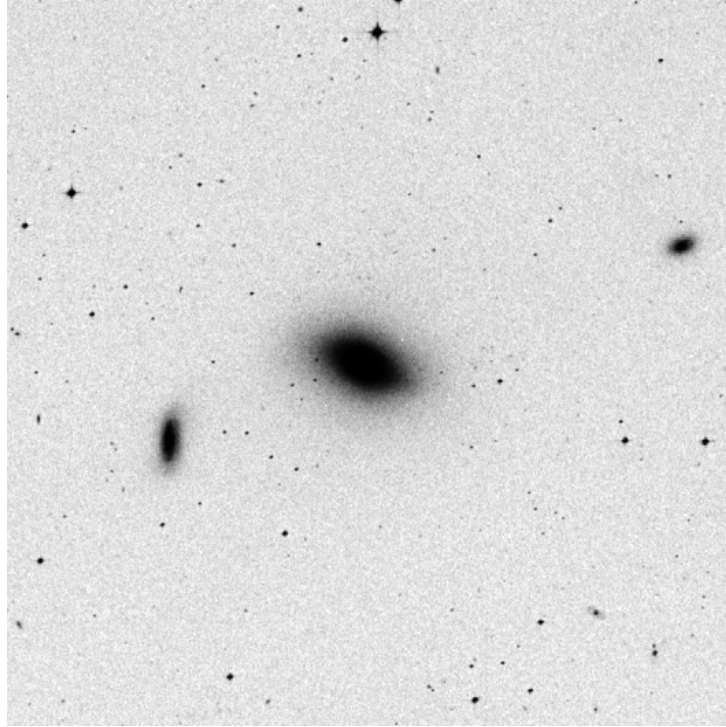
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

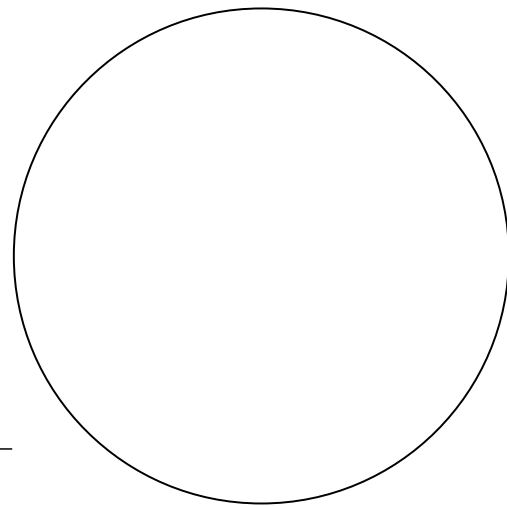
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

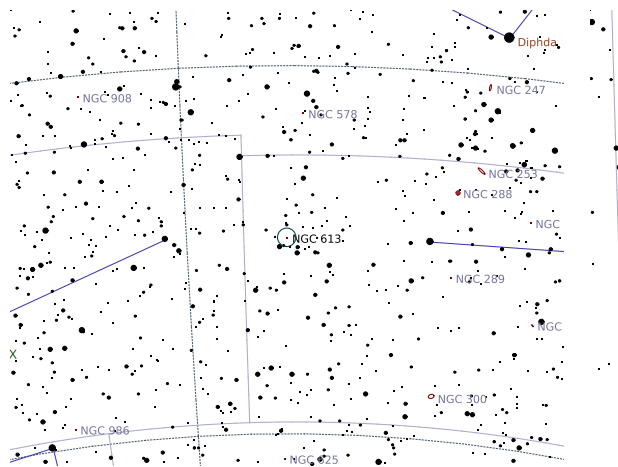
# NGC 613

## Galaxy in Sculptor

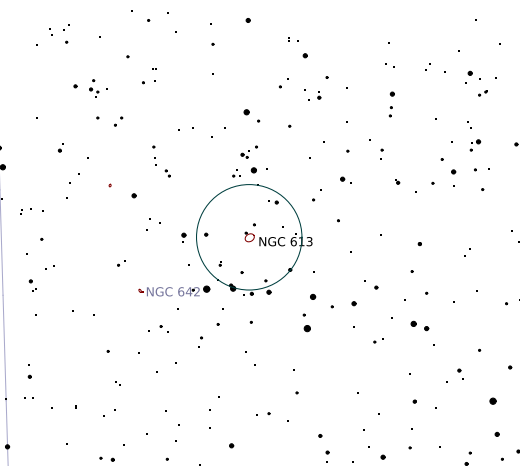
Right Ascension (current)	01 <sup>h</sup> 34 <sup>m</sup> 54 <sup>s</sup>	Declination (current)	-29° 21' 16"
Right Ascension (J2000.0)	01 <sup>h</sup> 34 <sup>m</sup> 18 <sup>s</sup>	Declination (J2000.0)	-29° 25' 07"
Size	5.5' × 4.2'	Position Angle	-30°
Magnitude	10	Other Designation	-

**Description:** Dreyer: vB;vL;vmE118;sbM;\* nf

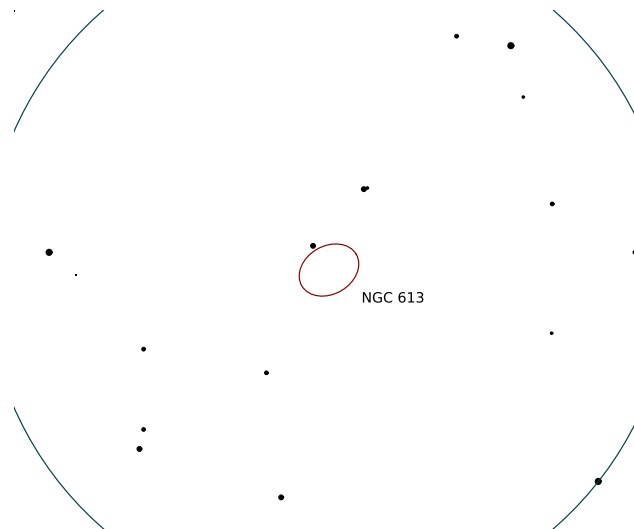
**SAC:** H I 281



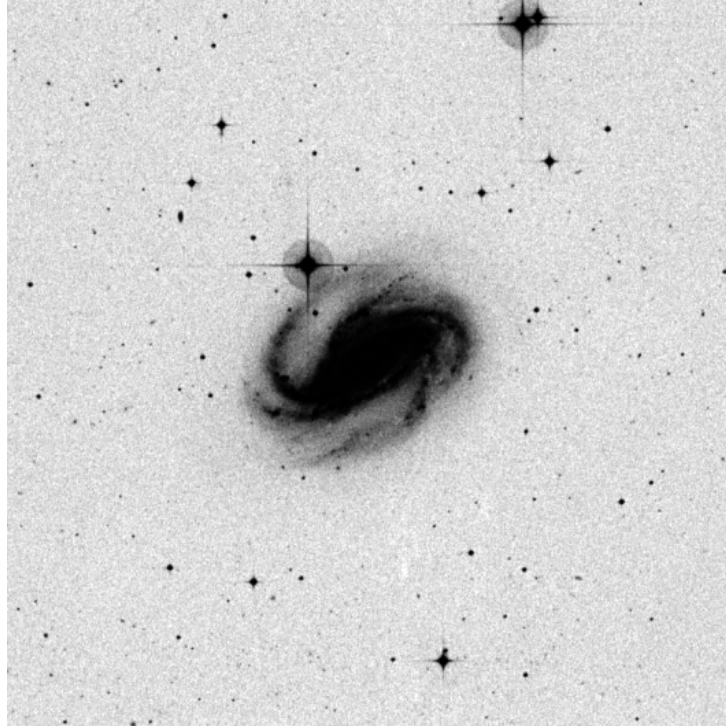
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

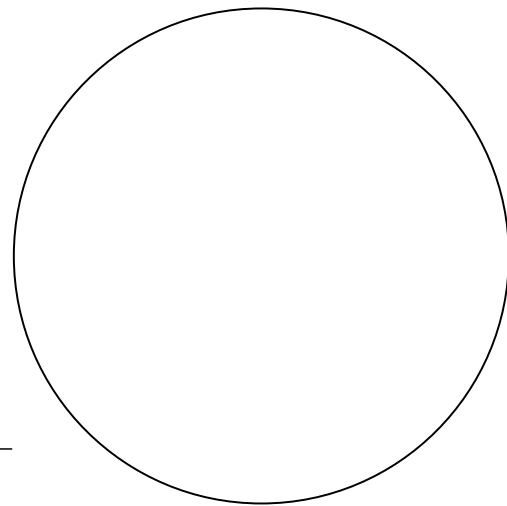
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

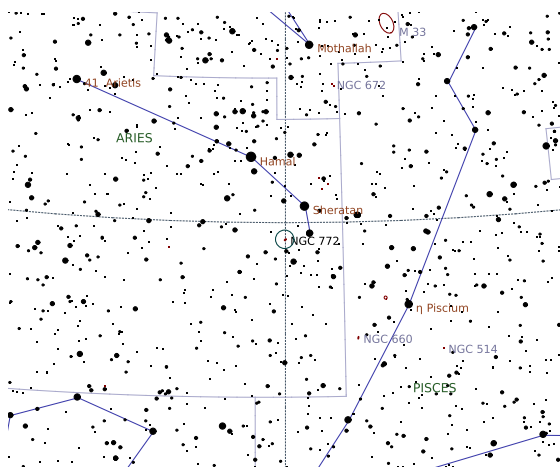
# NGC 772

Galaxy in Aries

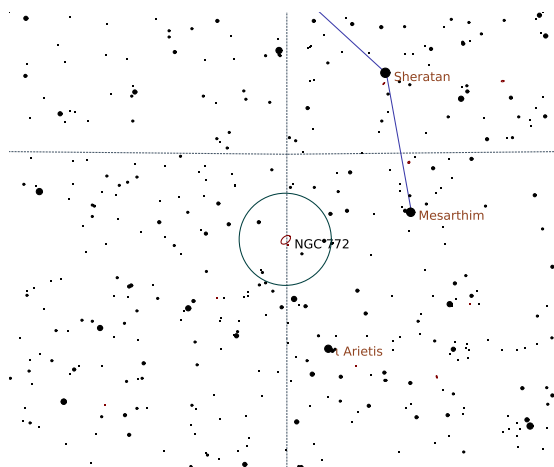
Right Ascension (current)	02 <sup>h</sup> 00 <sup>m</sup> 03 <sup>s</sup>	Declination (current)	19° 04' 17"
Right Ascension (J2000.0)	01 <sup>h</sup> 59 <sup>m</sup> 19 <sup>s</sup>	Declination (J2000.0)	19° 00' 27"
Size	7.2' × 4.3'	Position Angle	-40°
Magnitude	10	Other Designation	-

**Description:** Dreyer: B;cL;R;gbM;r

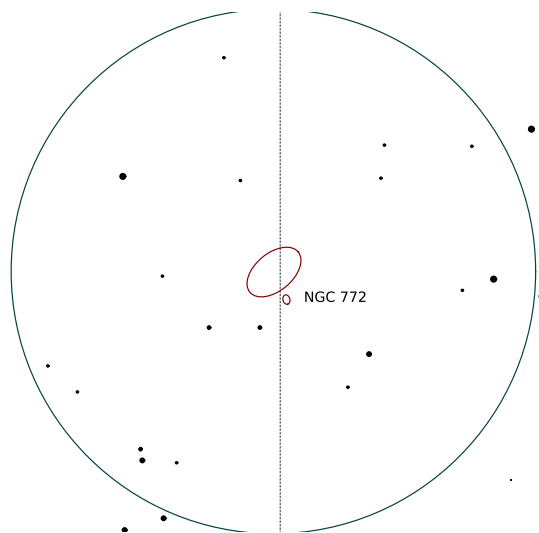
**SAC:** H I 112;Several tightly coiled arms br on NW side;UGC 1466



Wide-field chart

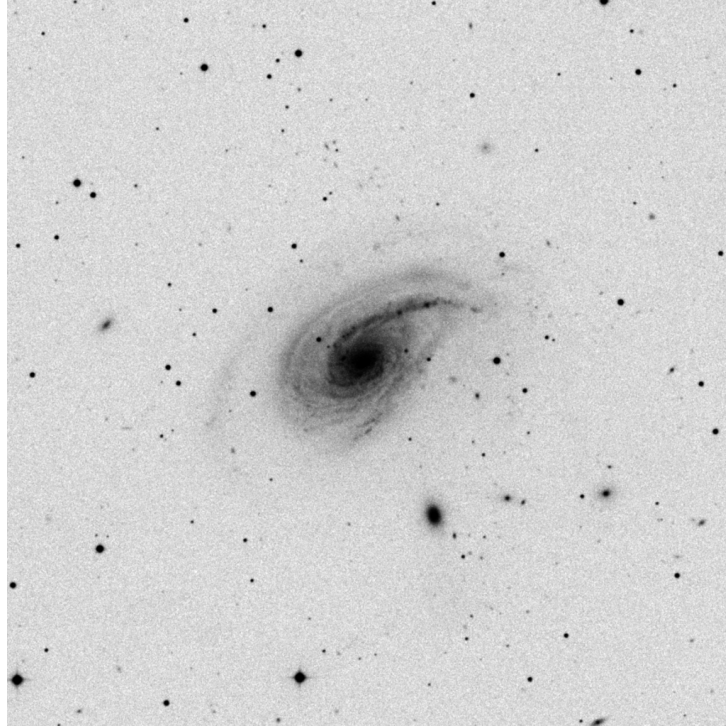


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

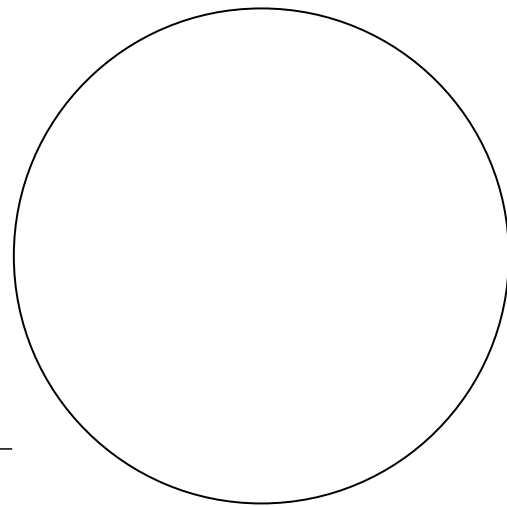
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

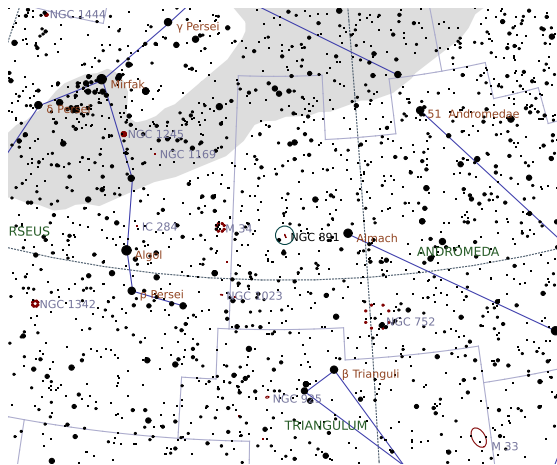
# NGC 891

## Galaxy in Andromeda

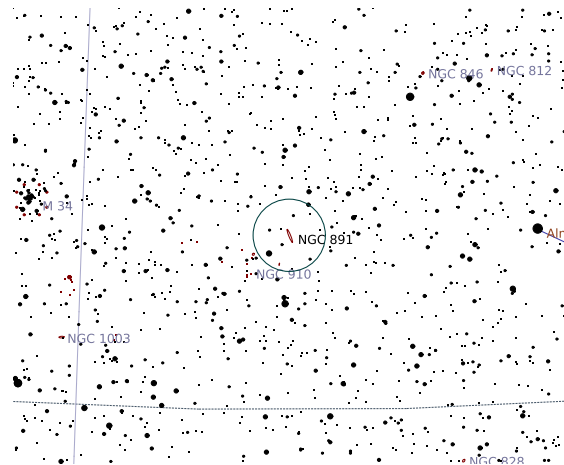
Right Ascension (current)	02 <sup>h</sup> 23 <sup>m</sup> 23 <sup>s</sup>	Declination (current)	42° 24' 32"
Right Ascension (J2000.0)	02 <sup>h</sup> 22 <sup>m</sup> 33 <sup>s</sup>	Declination (J2000.0)	42° 20' 50"
Size	11.7' × 1.6'	Position Angle	68°
Magnitude	9.9	Other Designation	—

**Description:** Dreyer: B;vL;vmE22

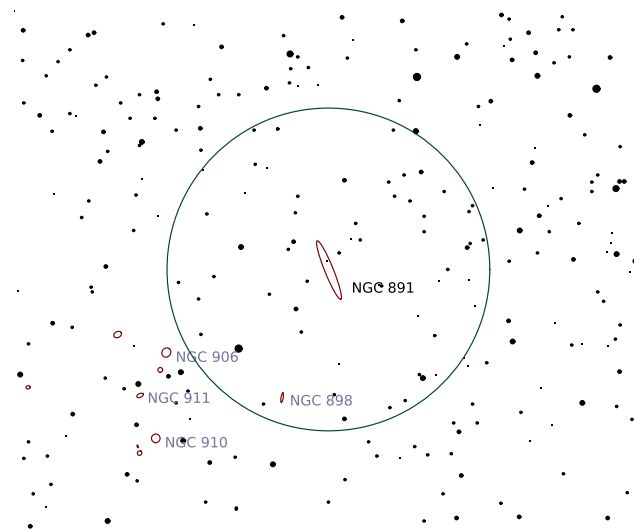
**SAC:** H V 19;NGC 1023 group;Lord Rosse drawing shows dark lane



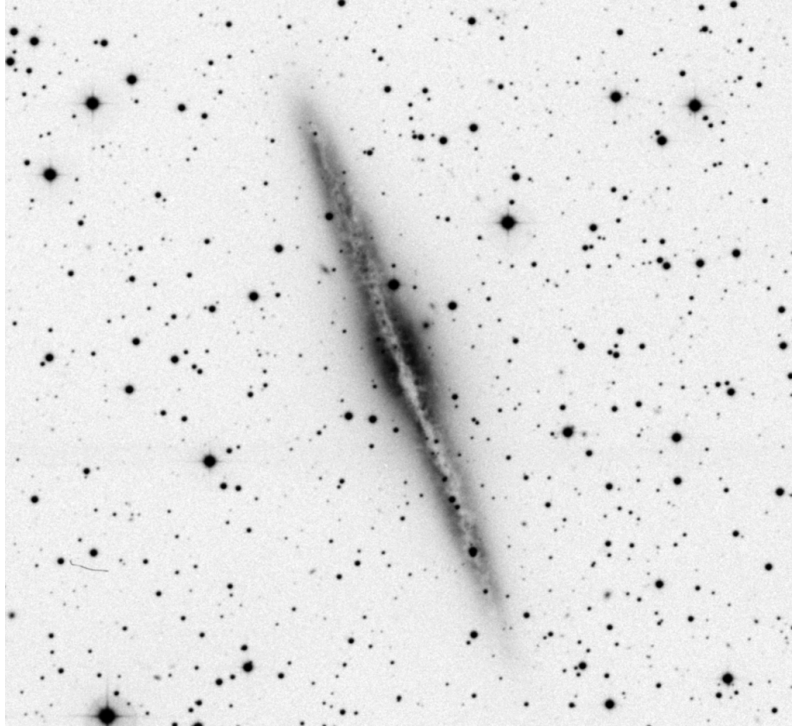
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (16.4' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

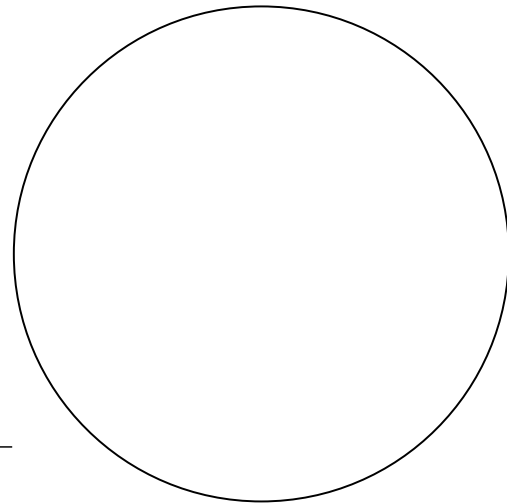
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

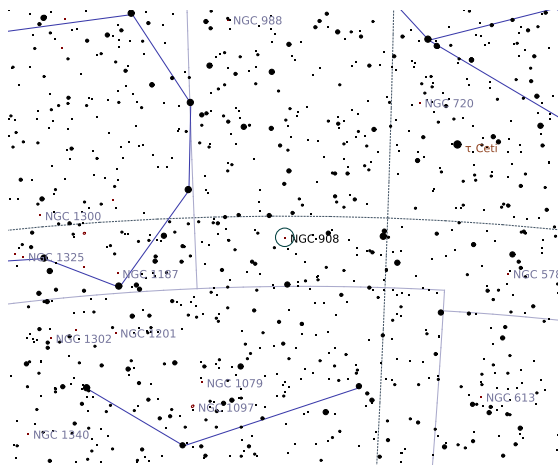
# NGC 908

## Galaxy in Cetus

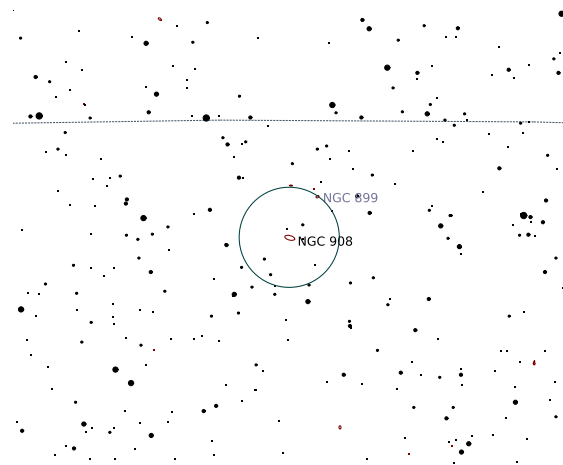
Right Ascension (current)	02 <sup>h</sup> 23 <sup>m</sup> 40 <sup>s</sup>	Declination (current)	-21° 10' 37"
Right Ascension (J2000.0)	02 <sup>h</sup> 23 <sup>m</sup> 04 <sup>s</sup>	Declination (J2000.0)	-21° 14' 00"
Size	6.1' × 2.7'	Position Angle	15°
Magnitude	10	Other Designation	—

**Description:** Dreyer: cB;vL;E

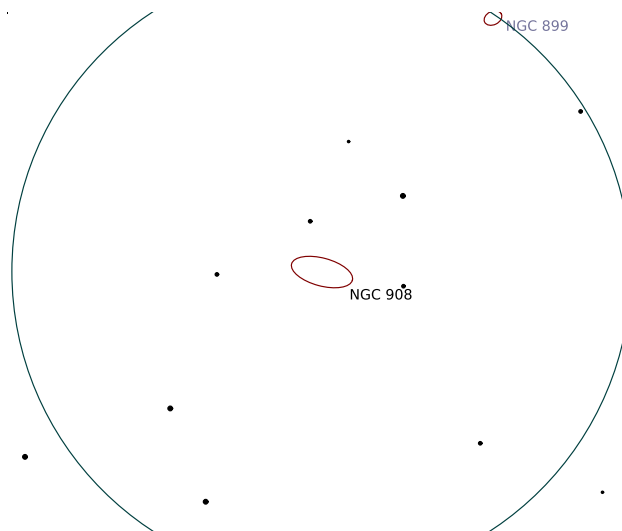
**SAC:** H I 153



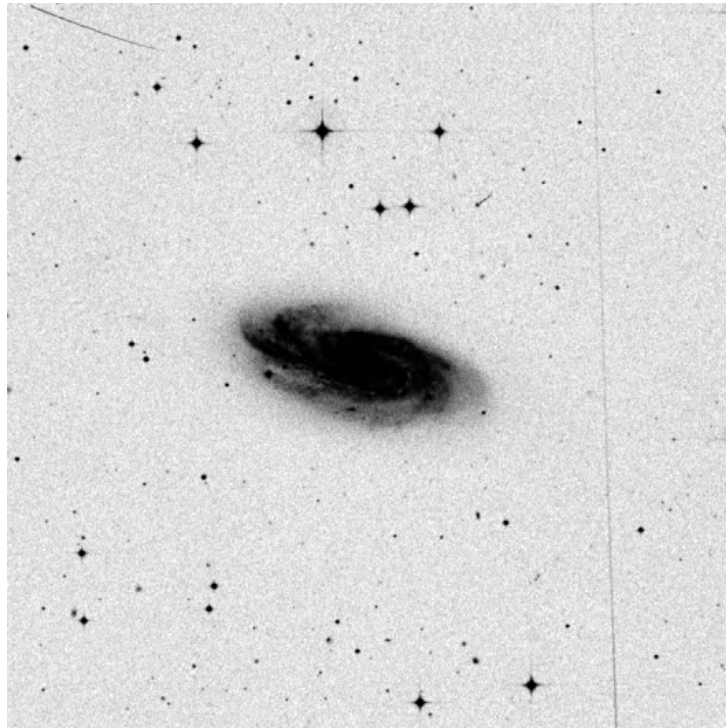
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

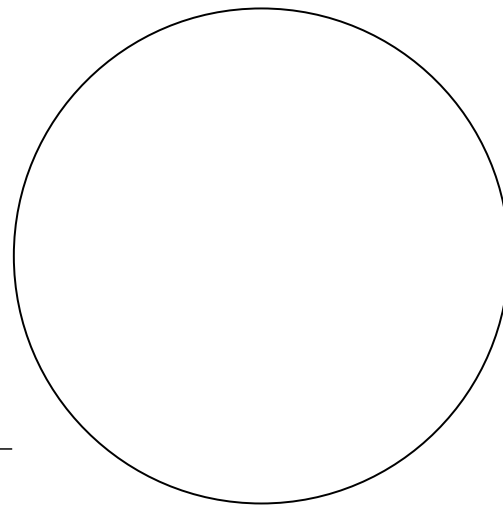
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

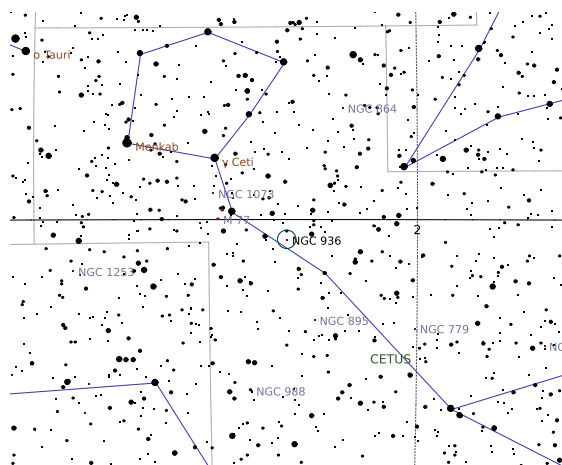
# NGC 936

Galaxy in Cetus

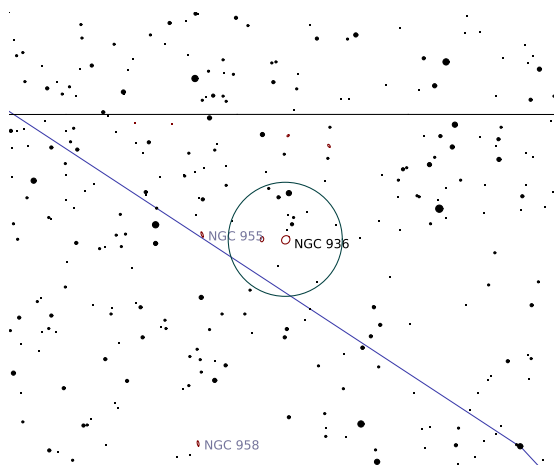
Right Ascension (current)	02 <sup>h</sup> 28 <sup>m</sup> 17 <sup>s</sup>	Declination (current)	-1° 05' 58"
Right Ascension (J2000.0)	02 <sup>h</sup> 27 <sup>m</sup> 37 <sup>s</sup>	Declination (J2000.0)	-1° 09' 23"
Size	4.7' × 4.1'	Position Angle	-45°
Magnitude	10	Other Designation	-

**Description:** Dreyer: vB;vL;R;mbMN;p of 2

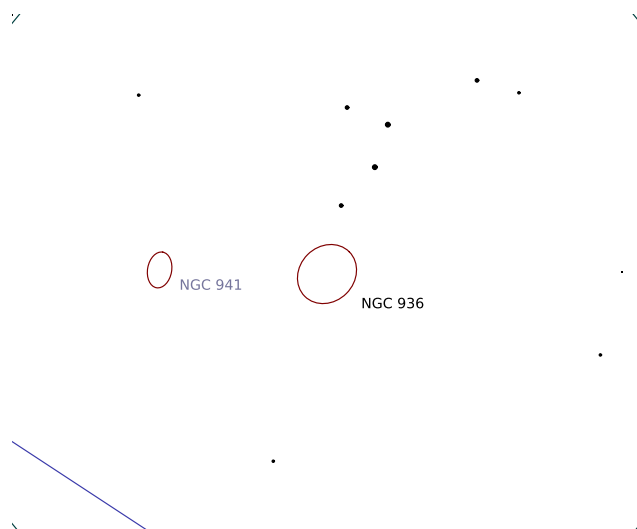
**SAC:** H IV 23;Thick central bar;P w NGC 941 12' foll



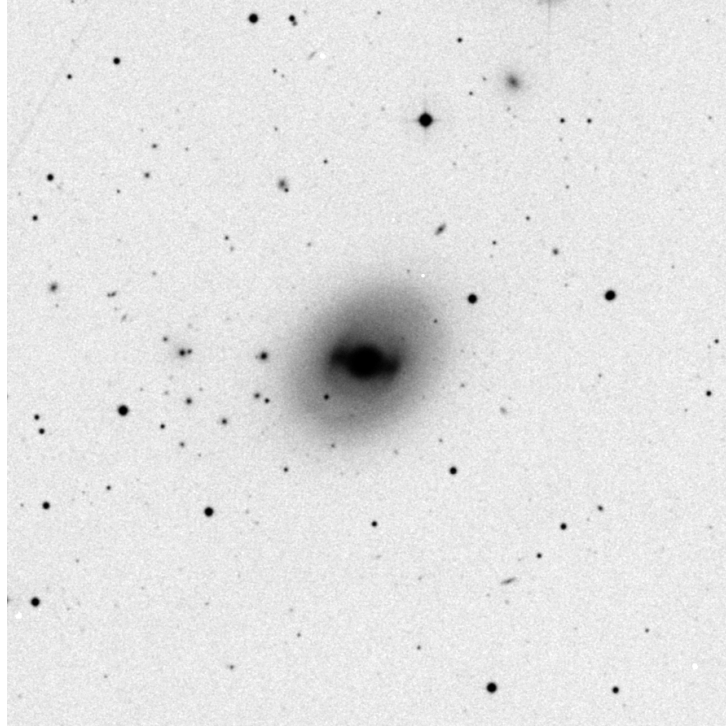
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

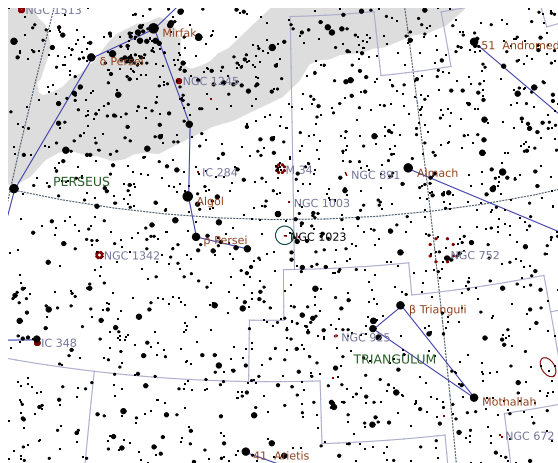
# NGC 1023

## Galaxy in Perseus

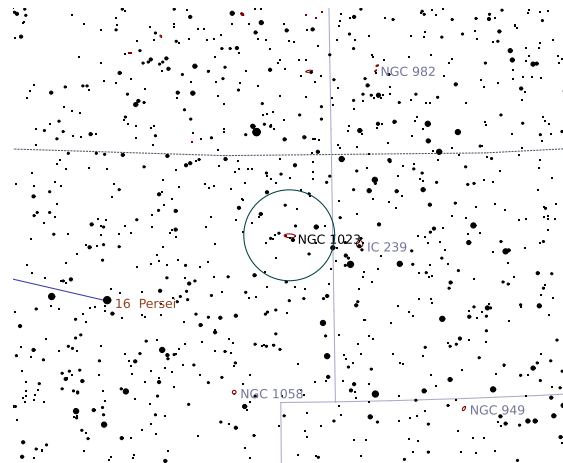
Right Ascension (current)	02 <sup>h</sup> 41 <sup>m</sup> 14 <sup>s</sup>	Declination (current)	39° 07' 16"
Right Ascension (J2000.0)	02 <sup>h</sup> 40 <sup>m</sup> 24 <sup>s</sup>	Declination (J2000.0)	39° 03' 48"
Size	7.4' × 2.5'	Position Angle	3°
Magnitude	9.4	Other Designation	—

**Description:** Dreyer: vB;vL;vmE;vvmbM

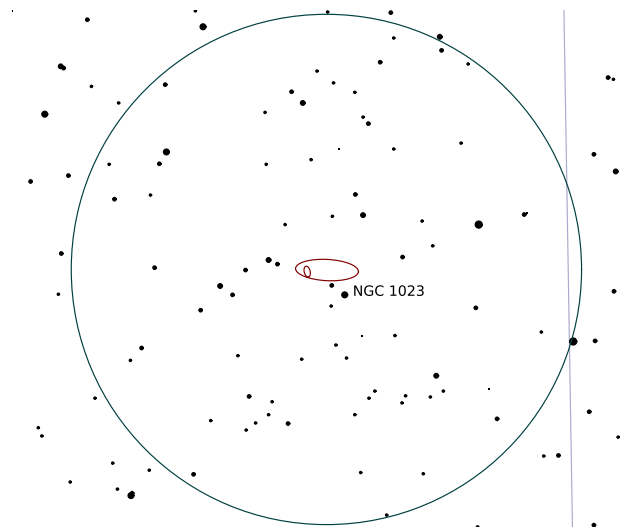
**SAC:** H I 156;brtst in grp;more neb 10' E;lens shp F tuft on E tip



Wide-field chart

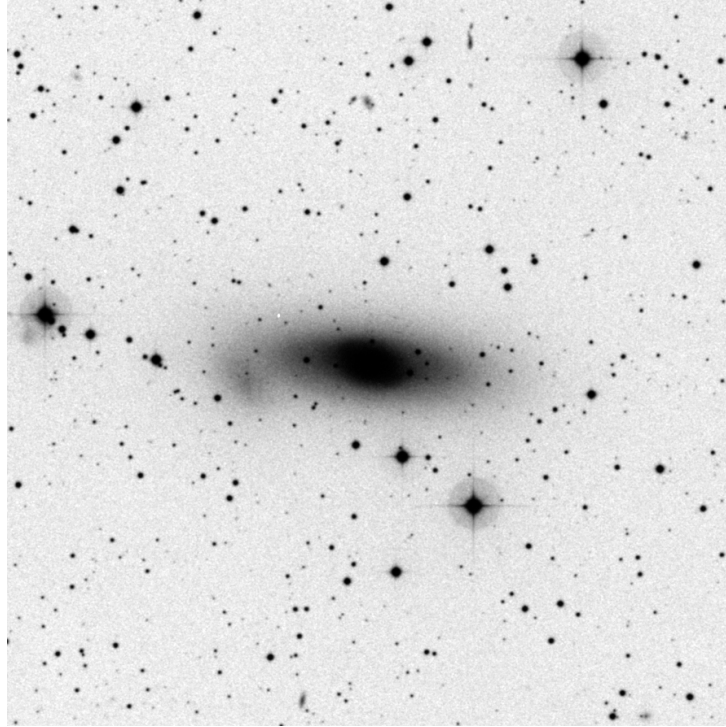


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

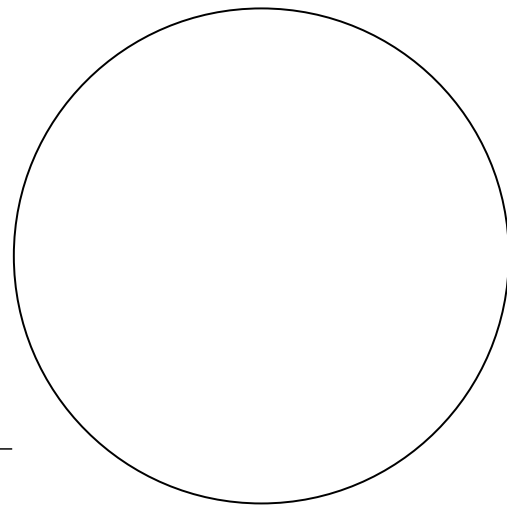
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

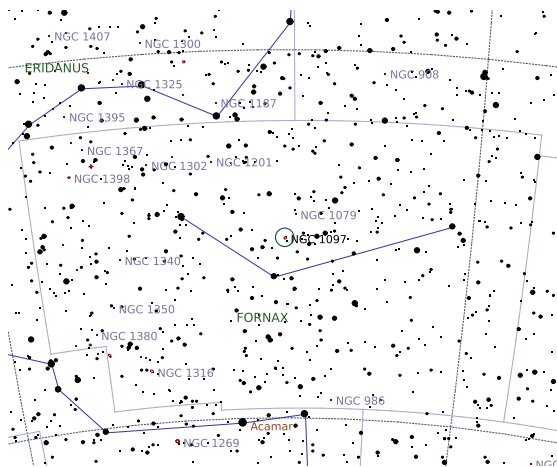
# NGC 1097

## Galaxy in Fornax

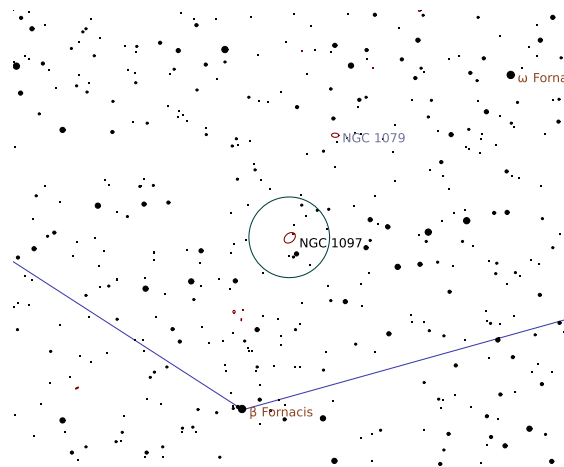
Right Ascension (current)	02 <sup>h</sup> 46 <sup>m</sup> 52 <sup>s</sup>	Declination (current)	-30° 13' 29"
Right Ascension (J2000.0)	02 <sup>h</sup> 46 <sup>m</sup> 19 <sup>s</sup>	Declination (J2000.0)	-30° 16' 32"
Size	9.4' × 6.6'	Position Angle	-40°
Magnitude	9.5	Other Designation	-

**Description:** Dreyer: vB;L;vmE151;vbMN

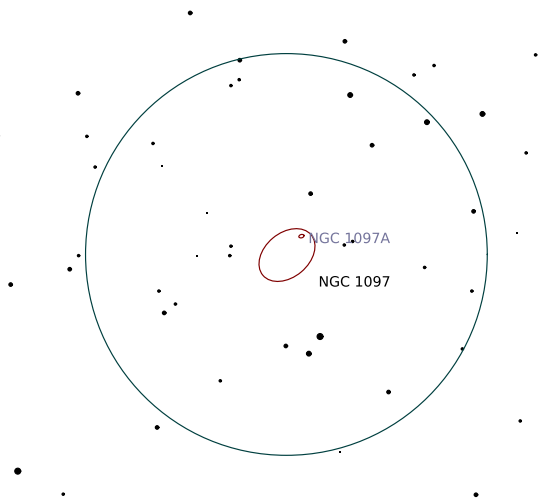
**SAC:** H V 48



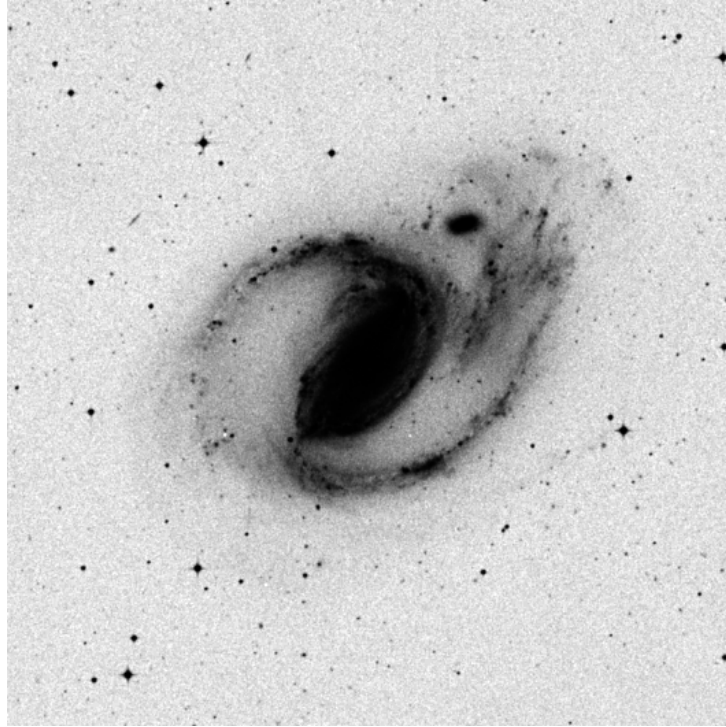
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

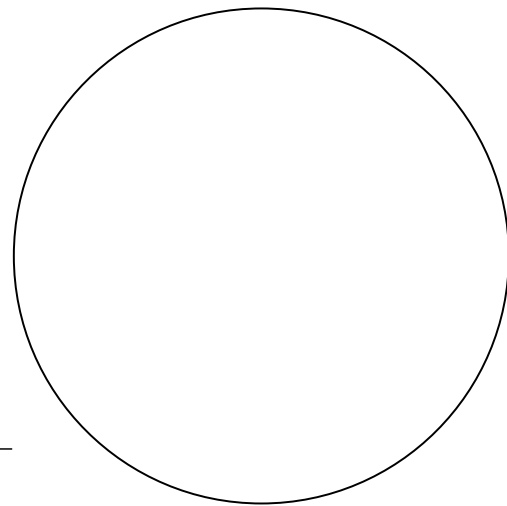
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

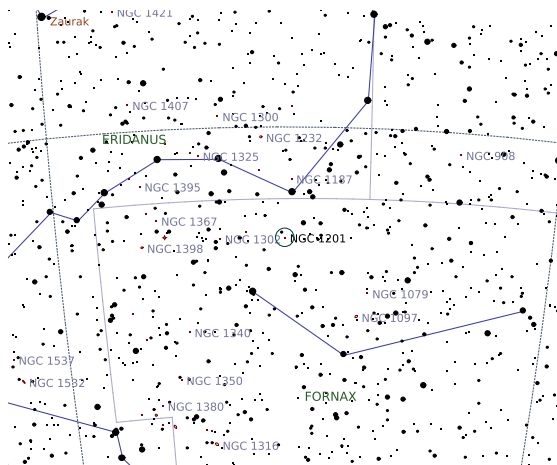
# NGC 1201

## Galaxy in Fornax

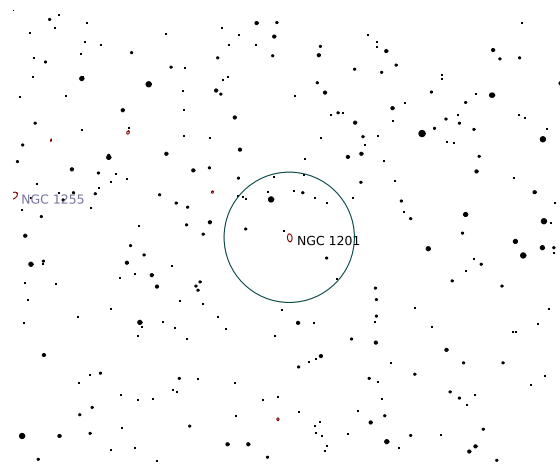
Right Ascension (current)	03 <sup>h</sup> 04 <sup>m</sup> 41 <sup>s</sup>	Declination (current)	-26° 01' 19"
Right Ascension (J2000.0)	03 <sup>h</sup> 04 <sup>m</sup> 07 <sup>s</sup>	Declination (J2000.0)	-26° 04' 08"
Size	3.6' × 2.1'	Position Angle	83°
Magnitude	11	Other Designation	—

**Description:** Dreyer: cB;pS;v1E;r;S\* nr

**SAC:** H I 109



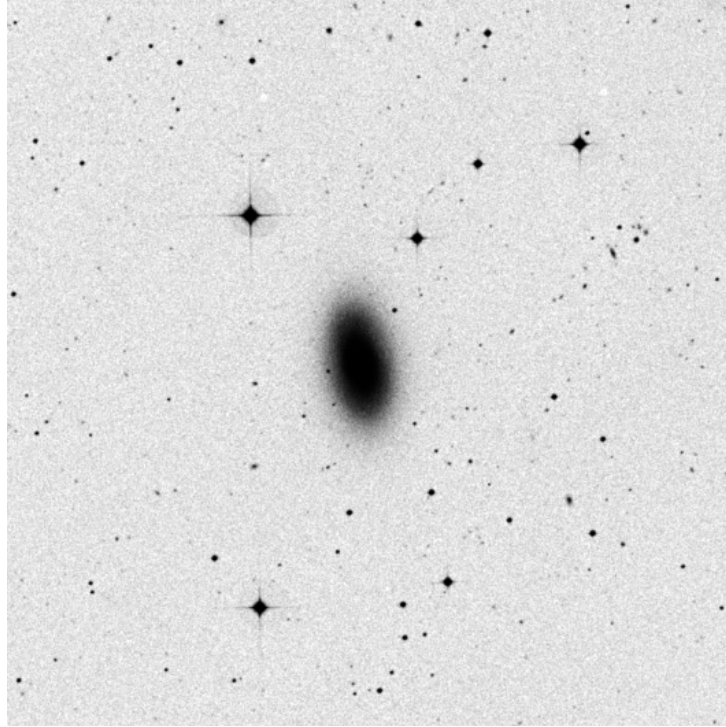
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

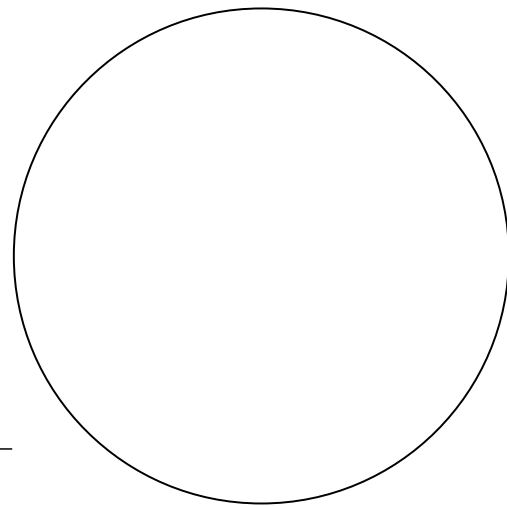
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

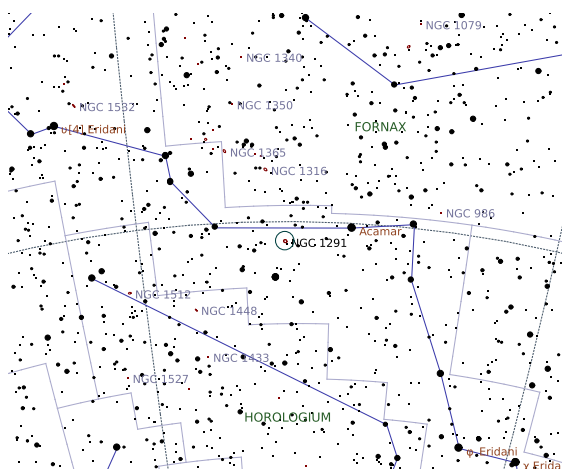
# NGC 1291

Galaxy in Eridanus

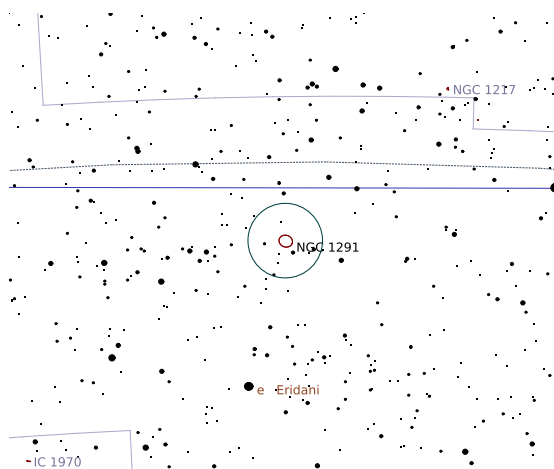
Right Ascension (current)	03 <sup>h</sup> 17 <sup>m</sup> 47 <sup>s</sup>	Declination (current)	-41° 03' 52''
Right Ascension (J2000.0)	03 <sup>h</sup> 17 <sup>m</sup> 18 <sup>s</sup>	Declination (J2000.0)	-41° 06' 26''
Size	11' × 9.5'	Position Angle	18°
Magnitude	8.5	Other Designation	—

**Description:** (Also known as NGC 1269) **Dreyer:** vB;pL;R;mbM;er

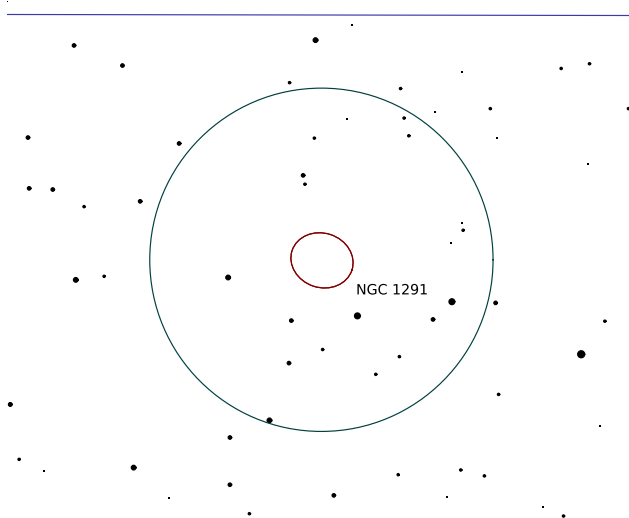
**SAC:** comp 2;2';PA138;UGC 2666



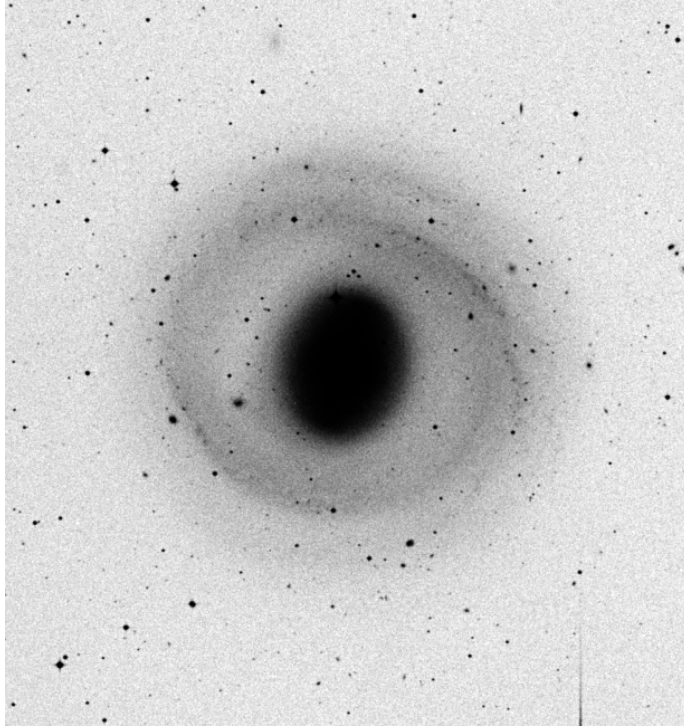
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (17.4' × 18.4')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

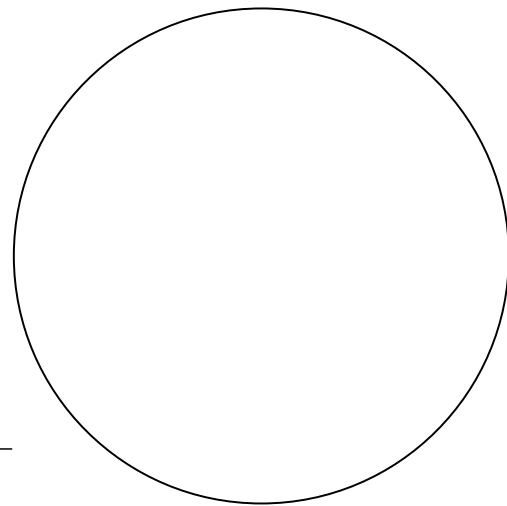
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



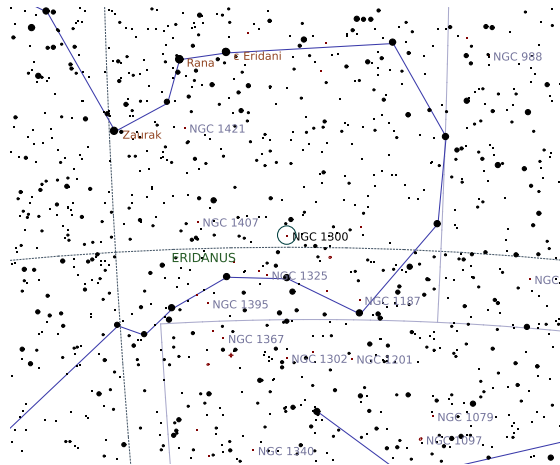
Sketch

# NGC 1300

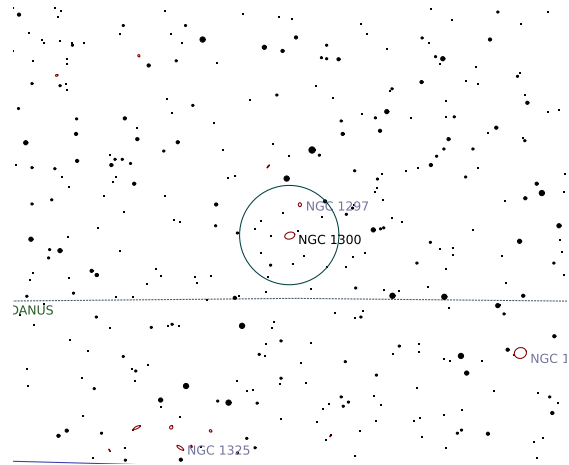
## Galaxy in Eridanus

Right Ascension (current)	03 <sup>h</sup> 20 <sup>m</sup> 16 <sup>s</sup>	Declination (current)	-19° 22' 04"
Right Ascension (J2000.0)	03 <sup>h</sup> 19 <sup>m</sup> 40 <sup>s</sup>	Declination (J2000.0)	-19° 24' 41"
Size	6.2' × 4.1'	Position Angle	-16°
Magnitude	10	Other Designation	-

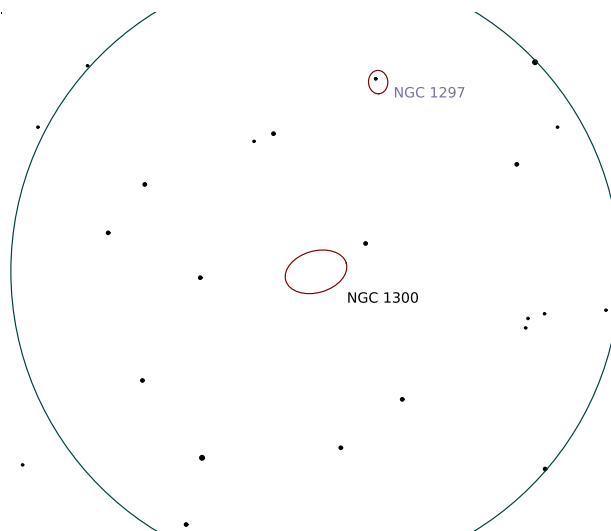
**Description:** Dreyer: cB;vL;vmE;psvmbM



Wide-field chart

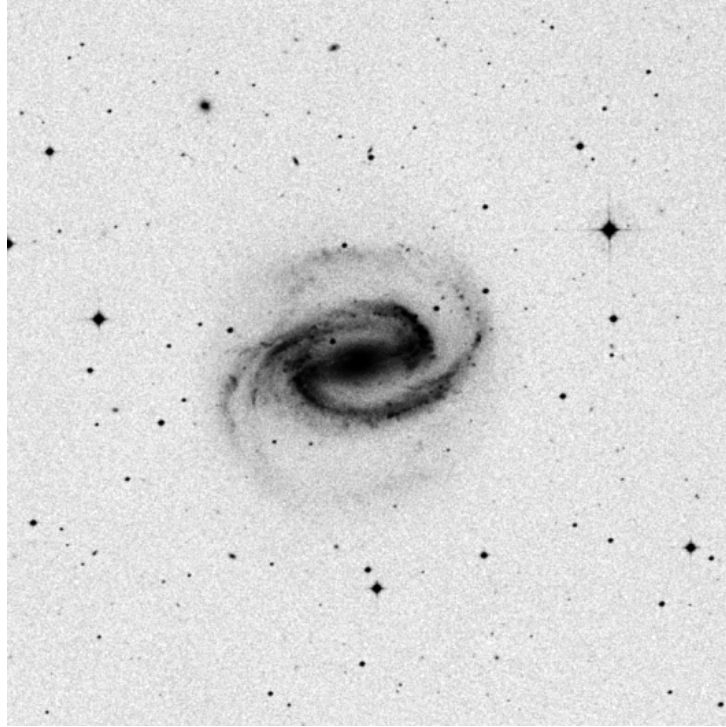


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

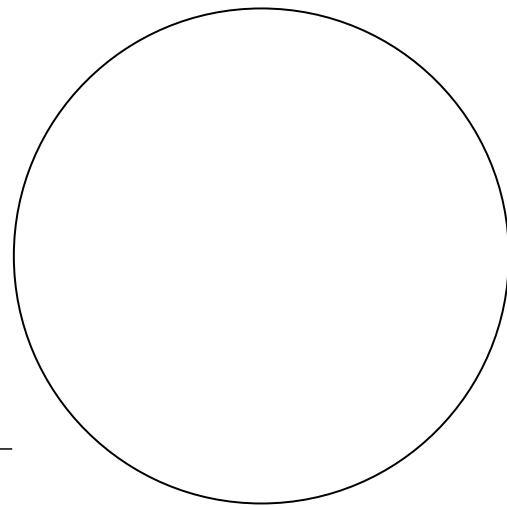
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

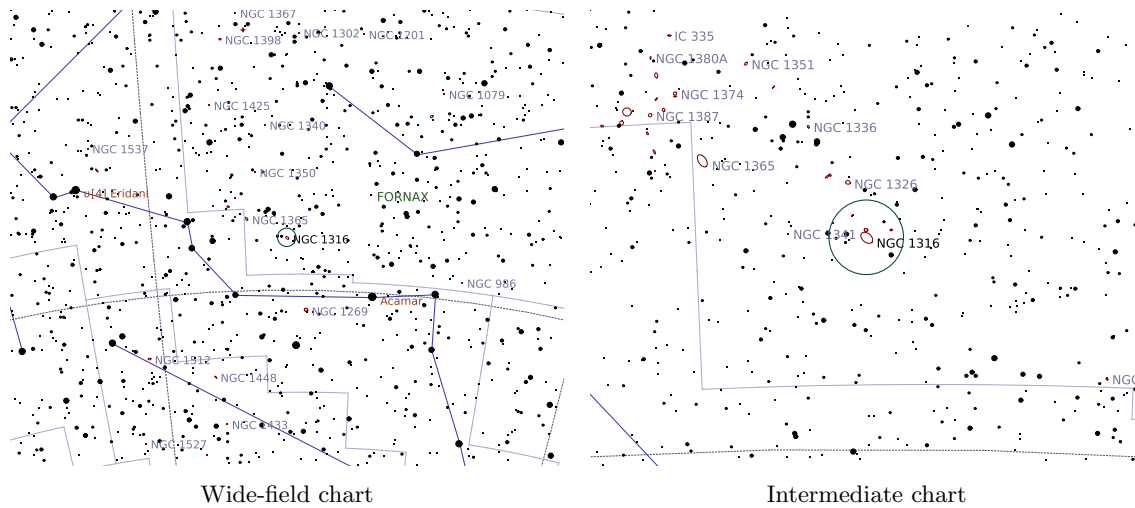
# NGC 1316 (Fornax A)

Galaxy in Fornax

Right Ascension (current)	03 <sup>h</sup> 23 <sup>m</sup> 11 <sup>s</sup>	Declination (current)	-37° 09' 58''
Right Ascension (J2000.0)	03 <sup>h</sup> 22 <sup>m</sup> 41 <sup>s</sup>	Declination (J2000.0)	-37° 12' 28''
Size	11' × 7.2'	Position Angle	40°
Magnitude	8.5	Other Designation	-

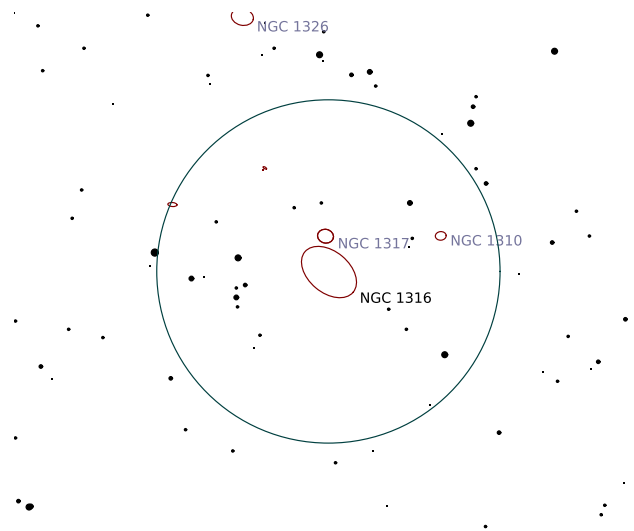
**Description:** Dreyer: vB;cL;v1E;vsmbMN

**SAC:** Fornax Galaxy Cluster member

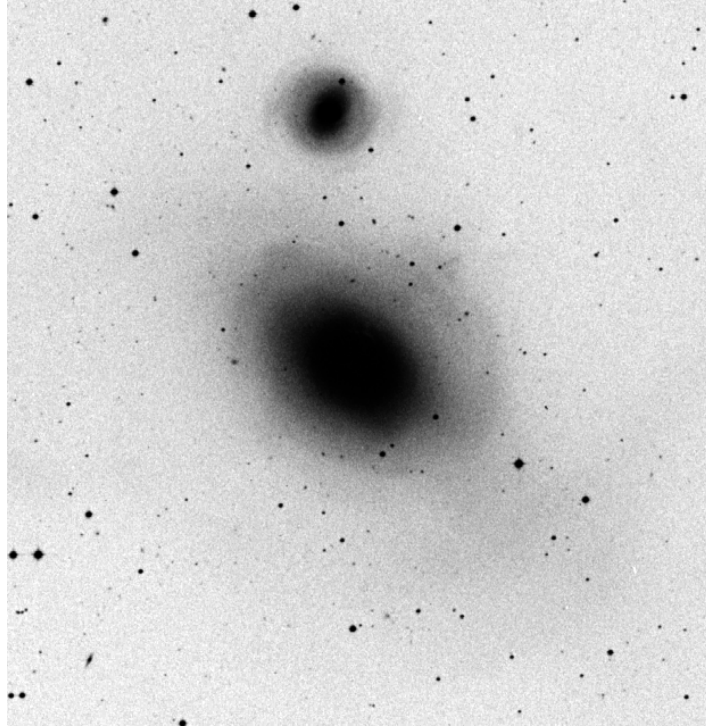


Wide-field chart

Intermediate chart



Zoomed-in chart



DSS Image (17.6' × 18.1')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

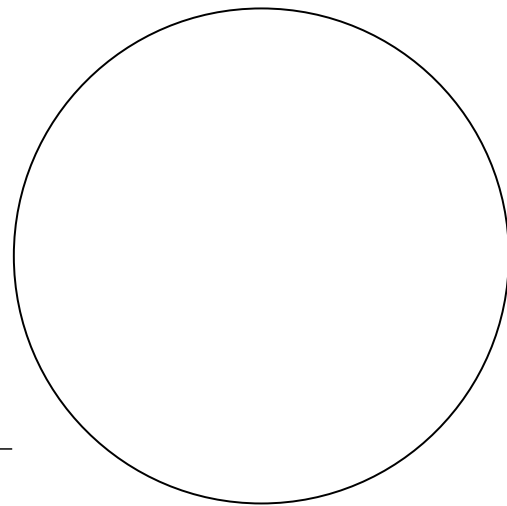
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

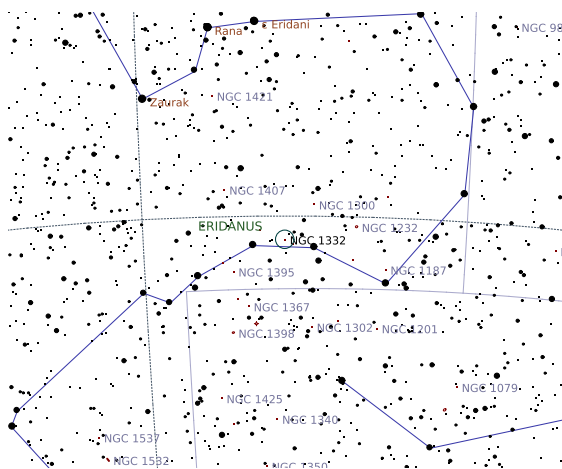
# NGC 1332

## Galaxy in Eridanus

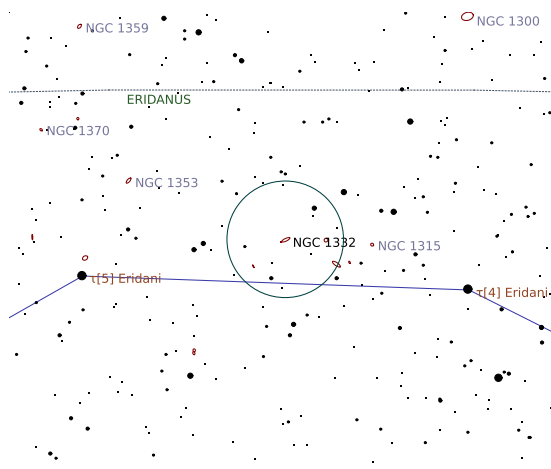
Right Ascension (current)	03 <sup>h</sup> 26 <sup>m</sup> 52 <sup>s</sup>	Declination (current)	-21° 17' 34"
Right Ascension (J2000.0)	03 <sup>h</sup> 26 <sup>m</sup> 17 <sup>s</sup>	Declination (J2000.0)	-21° 20' 04"
Size	4.5' × 1.4'	Position Angle	-25°
Magnitude	10	Other Designation	-

**Description:** Dreyer: vB;S;E114;smbMN

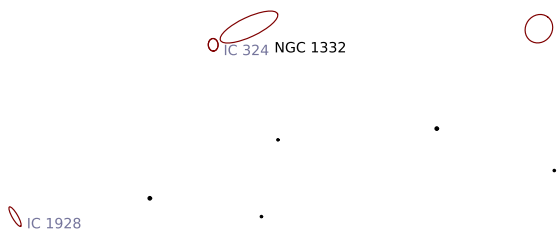
**SAC:** H I 60



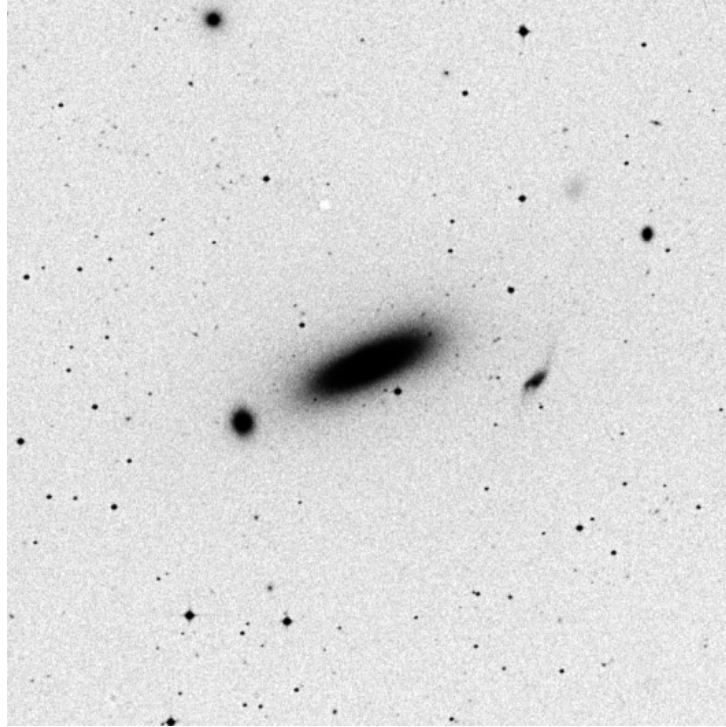
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

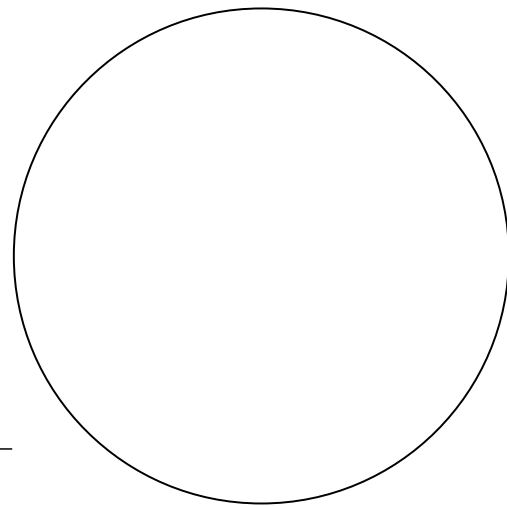
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

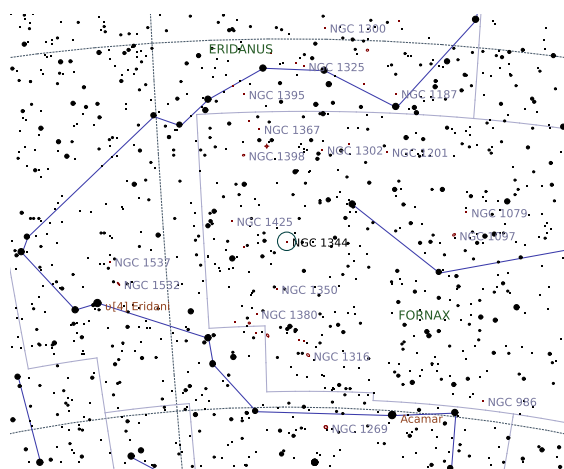
# NGC 1344

Galaxy in Fornax

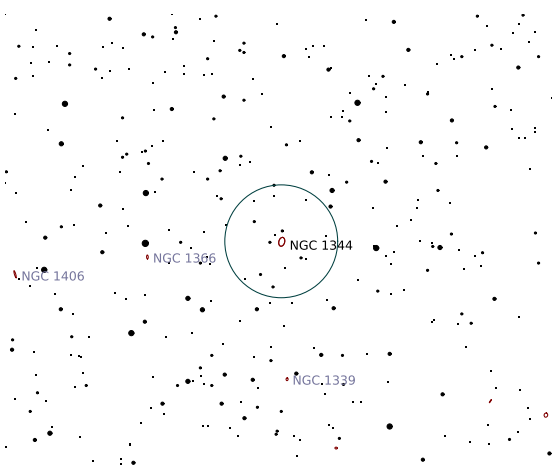
Right Ascension (current)	03 <sup>h</sup> 28 <sup>m</sup> 51 <sup>s</sup>	Declination (current)	-31° 01' 39"
Right Ascension (J2000.0)	03 <sup>h</sup> 28 <sup>m</sup> 19 <sup>s</sup>	Declination (J2000.0)	-31° 04' 05"
Size	4.8' × 3.1'	Position Angle	-75°
Magnitude	10	Other Designation	-

**Description:** Dreyer: cB;pL;iR;vgbM

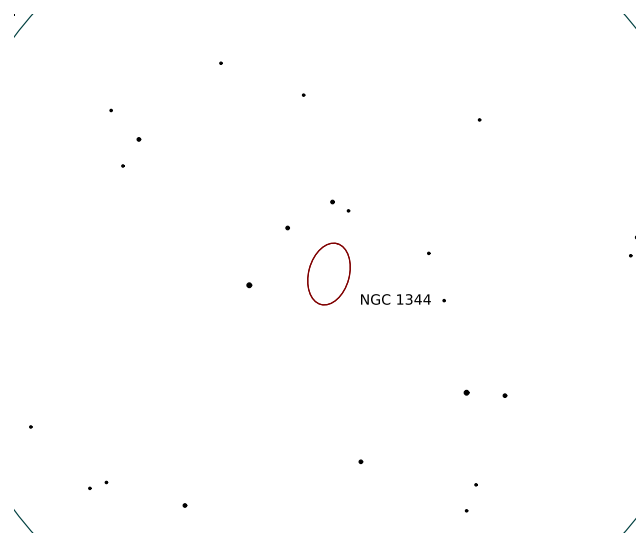
**SAC:** H I 257



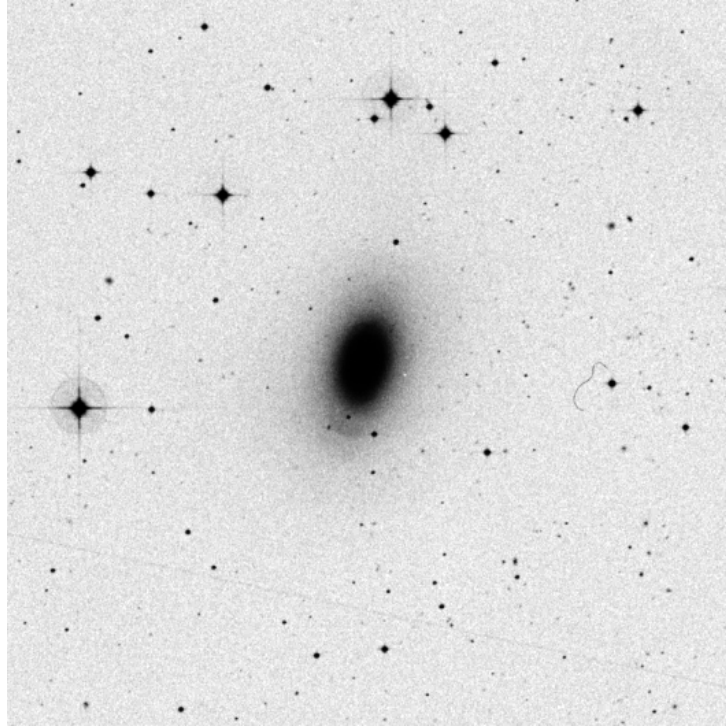
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

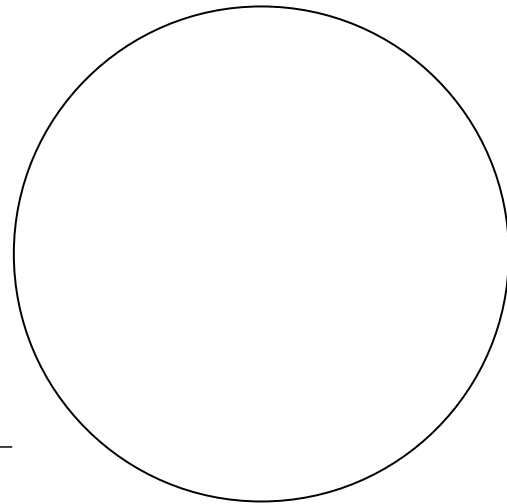
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

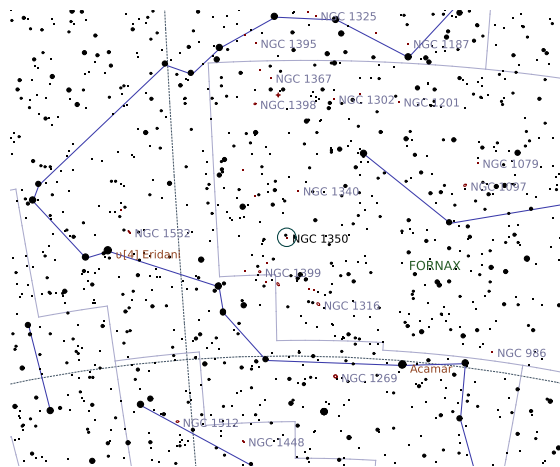
# NGC 1350

Galaxy in Fornax

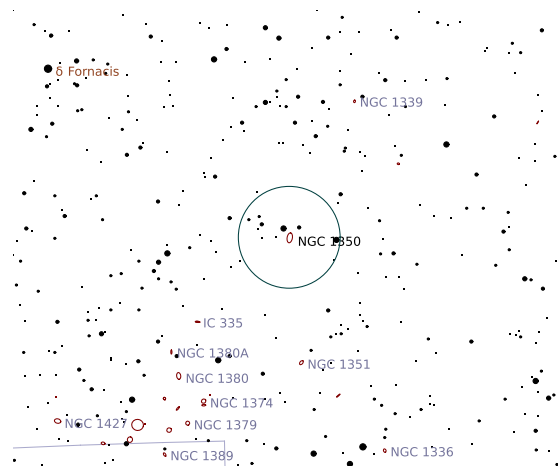
Right Ascension (current)	03 <sup>h</sup> 31 <sup>m</sup> 38 <sup>s</sup>	Declination (current)	-33° 35' 15"
Right Ascension (J2000.0)	03 <sup>h</sup> 31 <sup>m</sup> 07 <sup>s</sup>	Declination (J2000.0)	-33° 37' 38"
Size	5.9' × 3.1'	Position Angle	-80°
Magnitude	10	Other Designation	-

**Description:** Dreyer: B;L;mE;vmbMRN

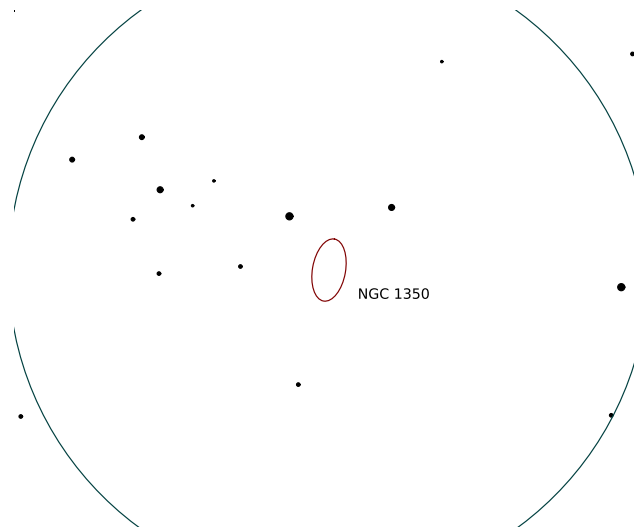
**SAC:** Fornax Galaxy Cluster member



Wide-field chart

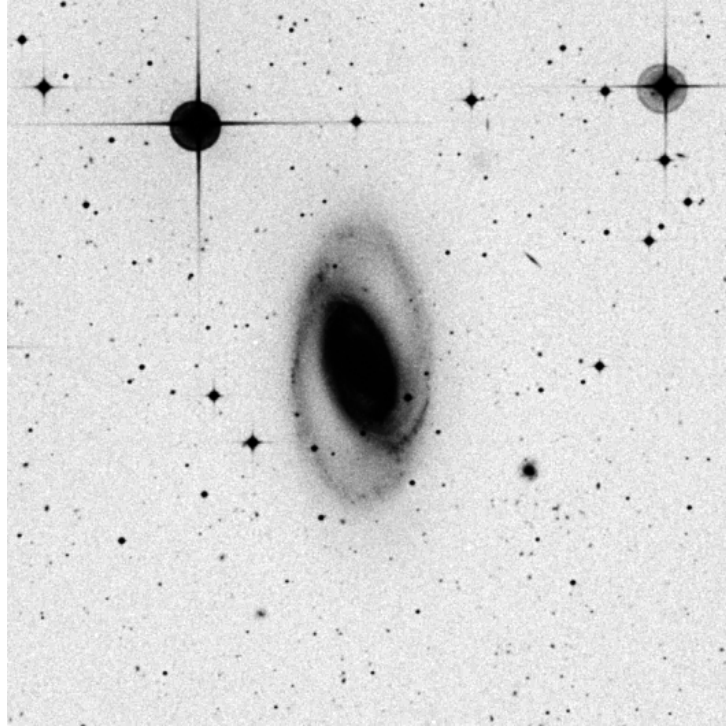


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

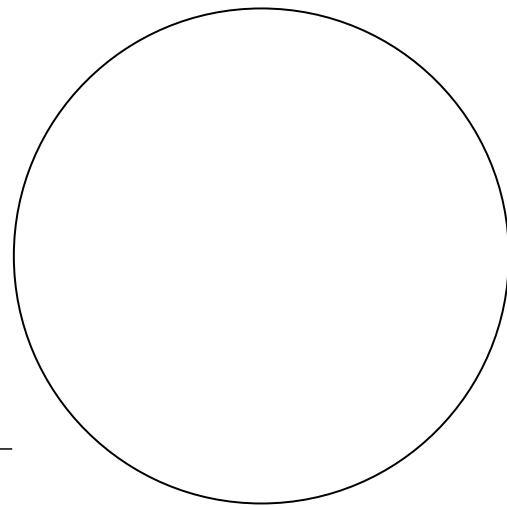
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

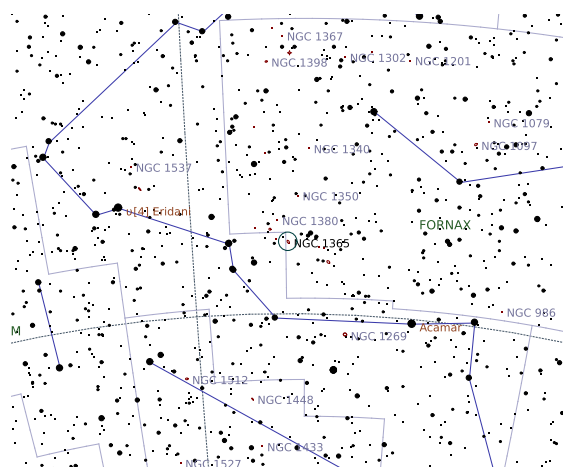
# NGC 1365

## Galaxy in Fornax

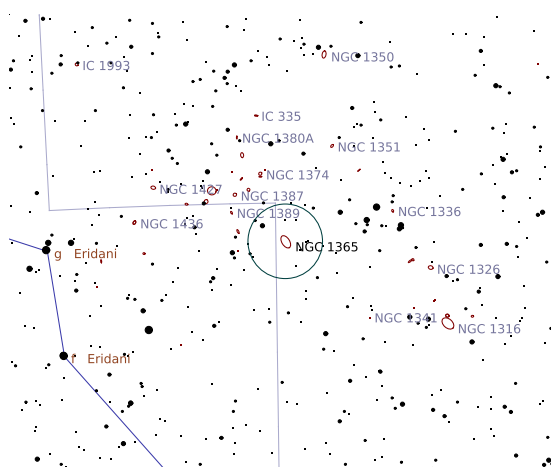
Right Ascension (current)	03 <sup>h</sup> 34 <sup>m</sup> 06 <sup>s</sup>	Declination (current)	-36° 06' 07"
Right Ascension (J2000.0)	03 <sup>h</sup> 33 <sup>m</sup> 36 <sup>s</sup>	Declination (J2000.0)	-36° 08' 27"
Size	11' × 6.2'	Position Angle	58°
Magnitude	9.6	Other Designation	–

**Description:** Dreyer: !!;vB;vL;mE;BN

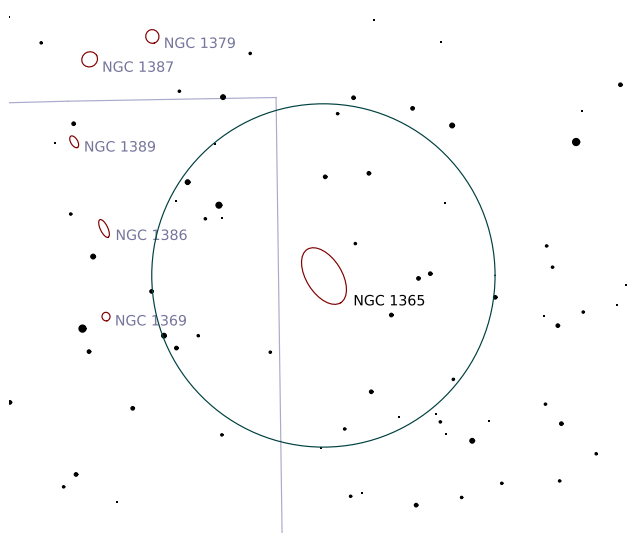
**SAC:** Best example of barred spiral;Fornax Galaxy Cluster member



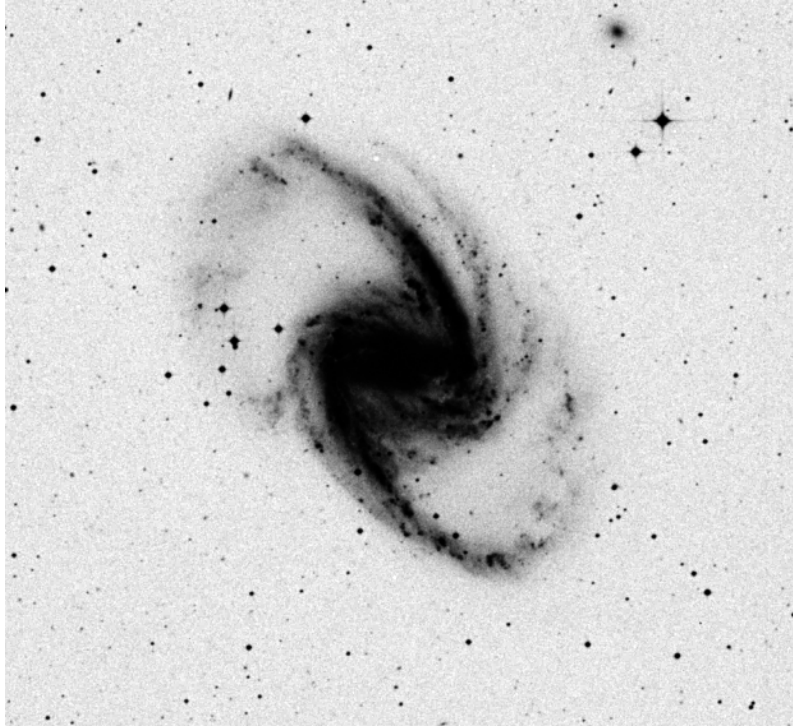
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (17.6' × 16.1')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

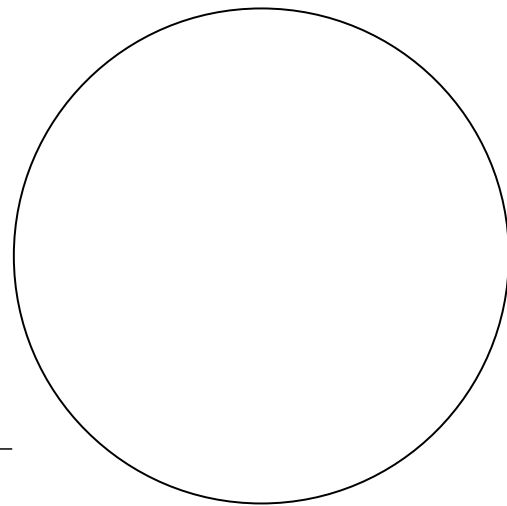
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



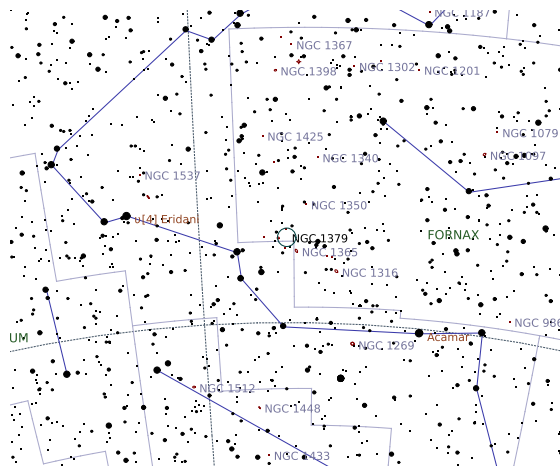
**Sketch**

# NGC 1379

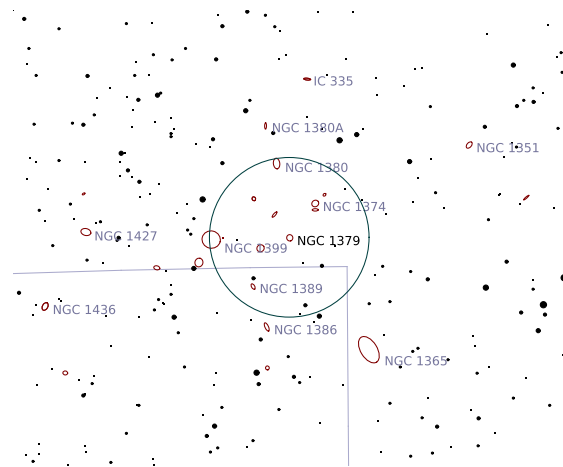
## Galaxy in Fornax

Right Ascension (current)	03 <sup>h</sup> 36 <sup>m</sup> 33 <sup>s</sup>	Declination (current)	-35° 24' 09"
Right Ascension (J2000.0)	03 <sup>h</sup> 36 <sup>m</sup> 03 <sup>s</sup>	Declination (J2000.0)	-35° 26' 27"
Size	2.4' × 2.3'	Position Angle	73°
Magnitude	11	Other Designation	—

**Description:** Dreyer: B;pL;R;gpmbM  
**SAC:** Fornax Galaxy Cluster member



Wide-field chart



Intermediate chart



NGC 1381

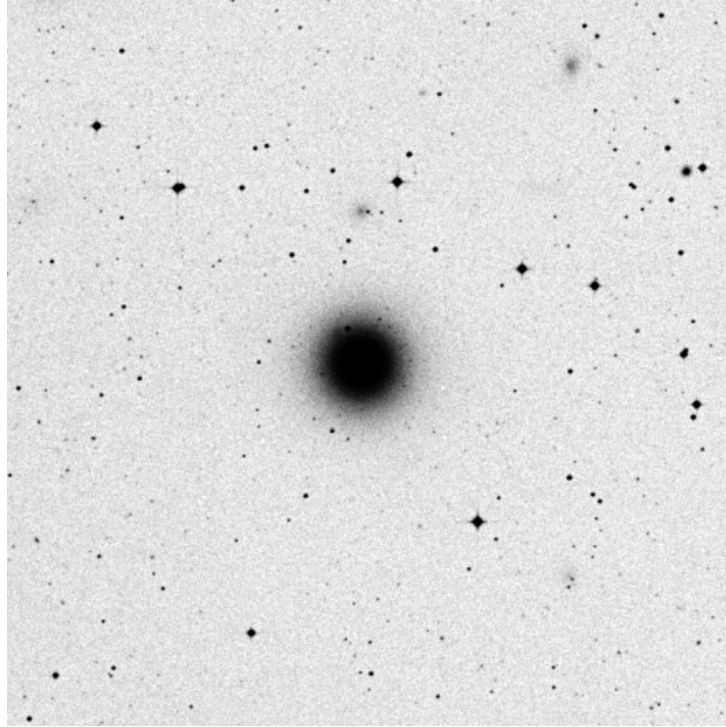


NGC 1379



NGC 1387

Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

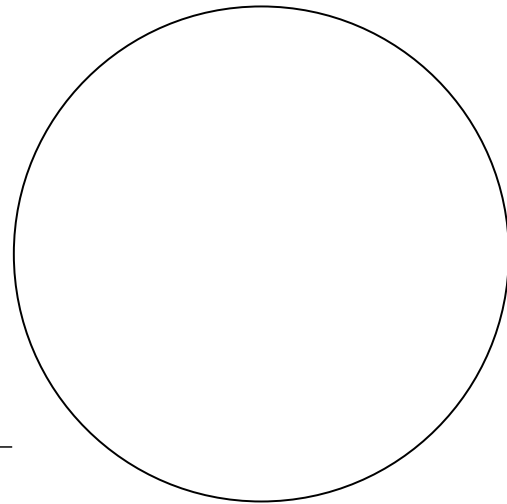
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

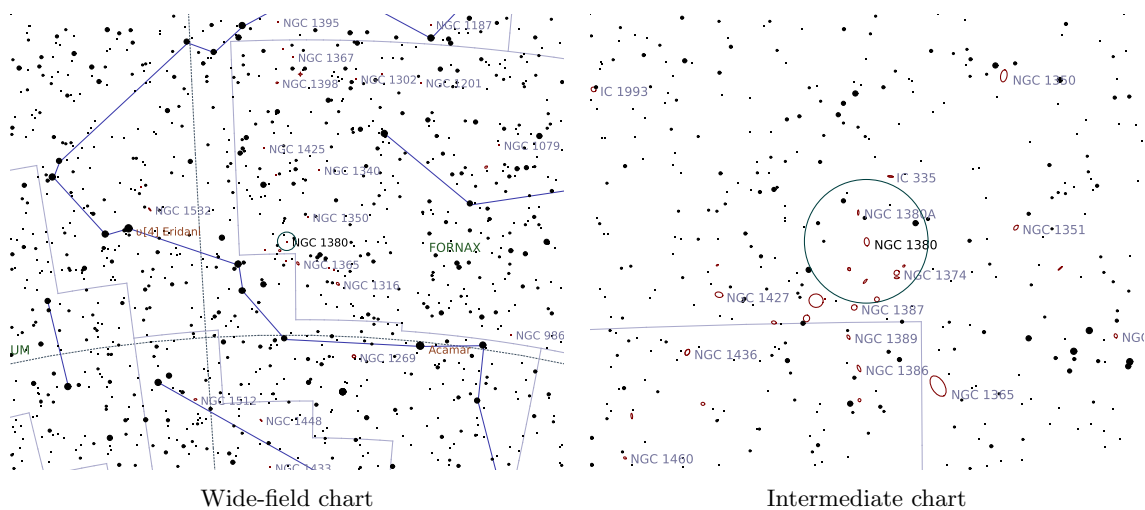
# NGC 1380

## Galaxy in Fornax

Right Ascension (current)	03 <sup>h</sup> 36 <sup>m</sup> 58 <sup>s</sup>	Declination (current)	-34° 56' 14"
Right Ascension (J2000.0)	03 <sup>h</sup> 36 <sup>m</sup> 27 <sup>s</sup>	Declination (J2000.0)	-34° 58' 31"
Size	4' × 2.4'	Position Angle	83°
Magnitude	9.9	Other Designation	-

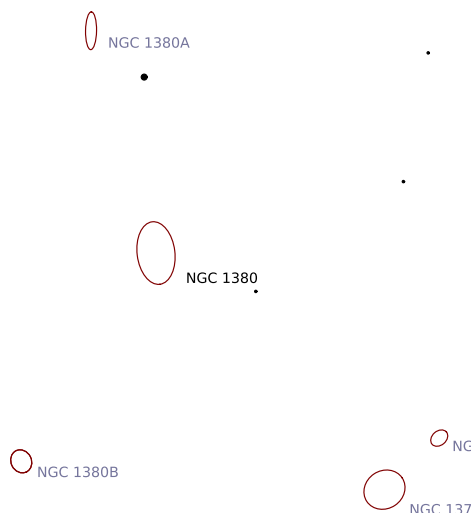
**Description:** Dreyer: vB;L;R;psbM

**SAC:** Fornax Galaxy Cluster member

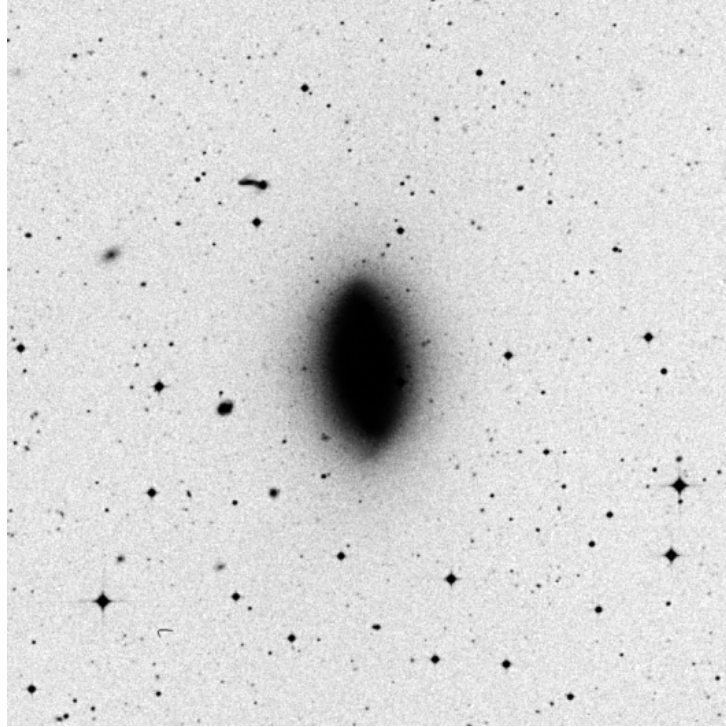


Wide-field chart

Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

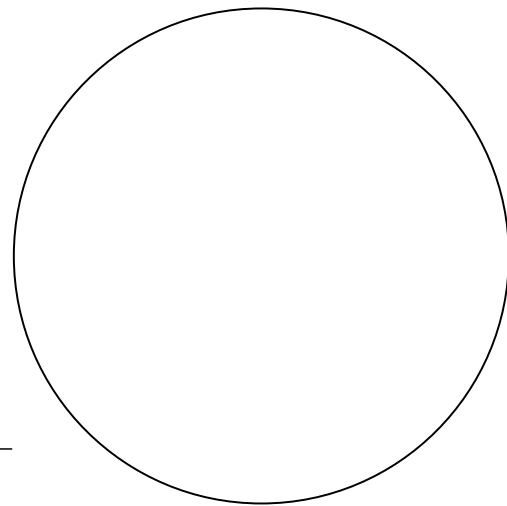
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

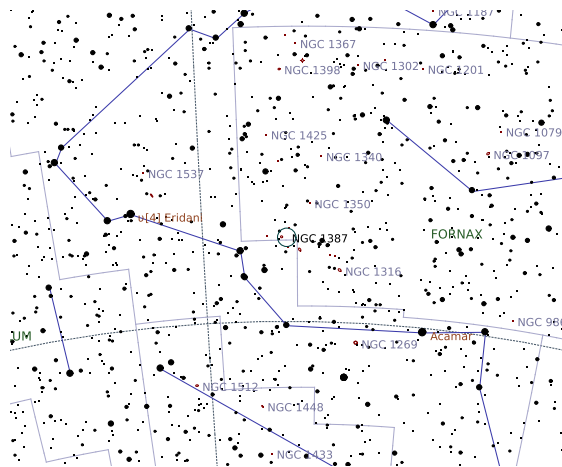
# NGC 1387

## Galaxy in Fornax

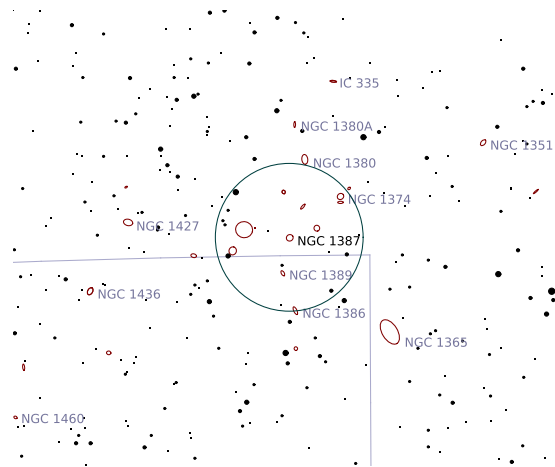
Right Ascension (current)	03 <sup>h</sup> 37 <sup>m</sup> 27 <sup>s</sup>	Declination (current)	-35° 28' 04"
Right Ascension (J2000.0)	03 <sup>h</sup> 36 <sup>m</sup> 57 <sup>s</sup>	Declination (J2000.0)	-35° 30' 21"
Size	2.8' × 2.6'	Position Angle	-29°
Magnitude	11	Other Designation	-

**Description:** Dreyer: vB;pL;R;gmbM

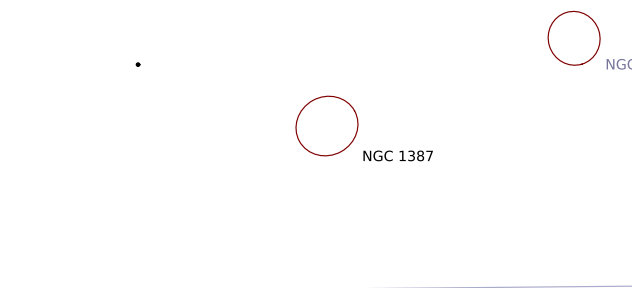
**SAC:** Fornax Galaxy Cluster member



Wide-field chart

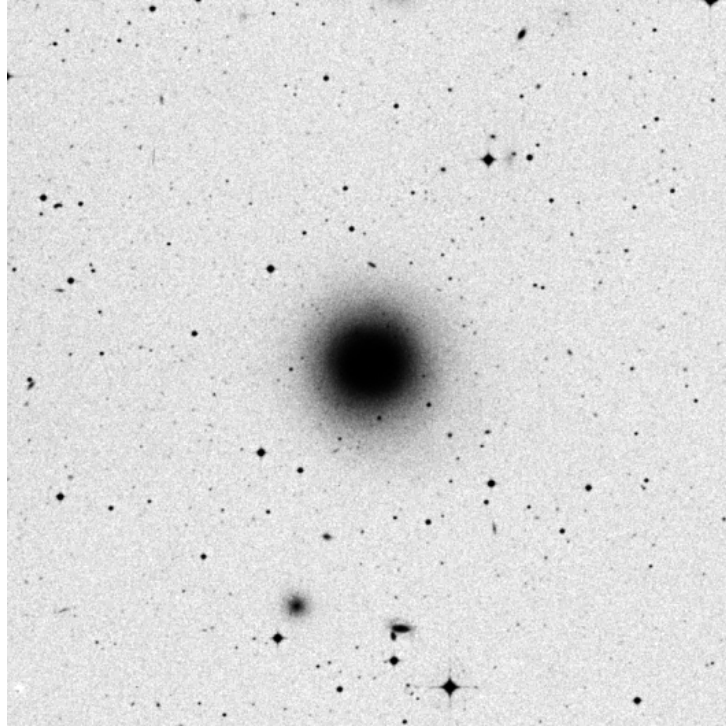


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

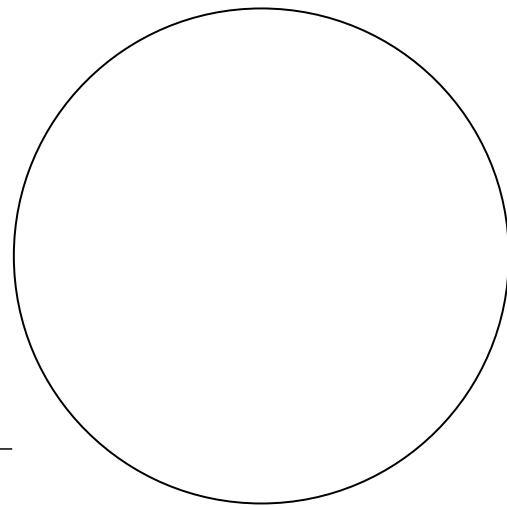
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

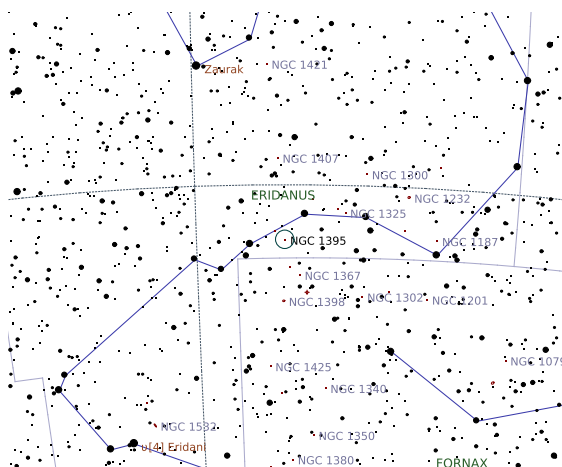
# NGC 1395

## Galaxy in Eridanus

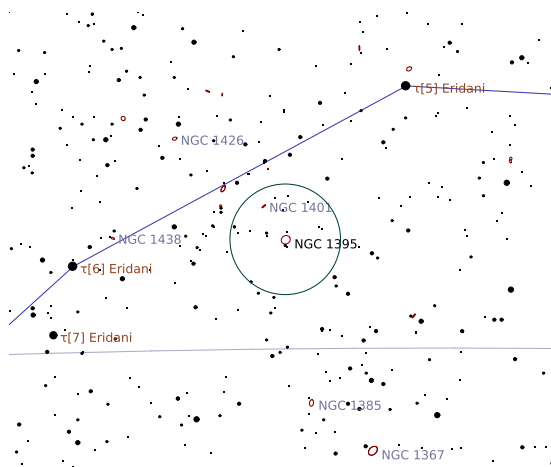
Right Ascension (current)	03 <sup>h</sup> 39 <sup>m</sup> 04 <sup>s</sup>	Declination (current)	-22° 59' 20''
Right Ascension (J2000.0)	03 <sup>h</sup> 38 <sup>m</sup> 29 <sup>s</sup>	Declination (J2000.0)	-23° 01' 38''
Size	5' × 4.5'	Position Angle	-30°
Magnitude	9.6	Other Designation	-

**Description:** Dreyer: B;pS;E;psmbM

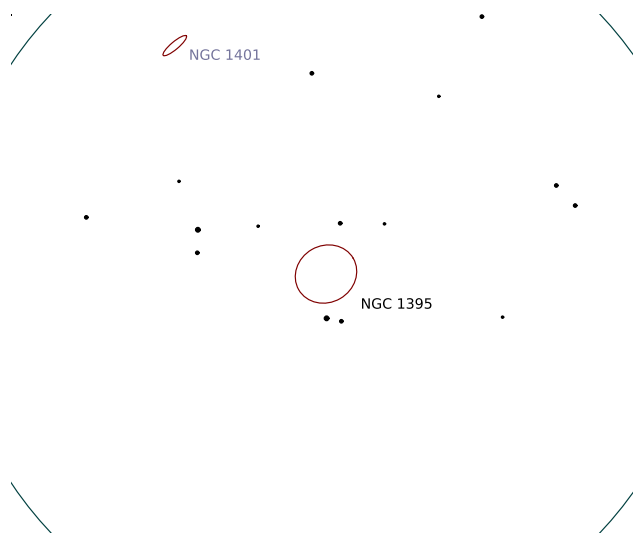
**SAC:** H I 58



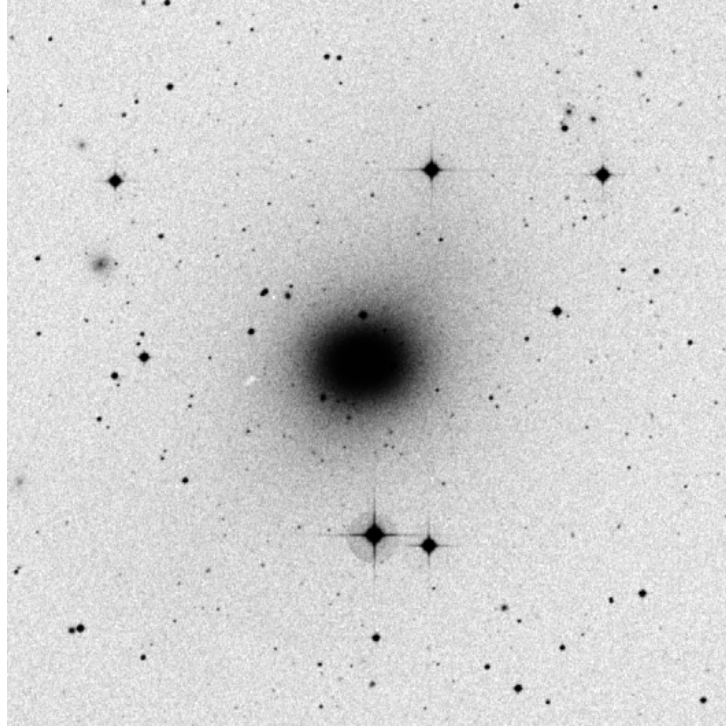
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

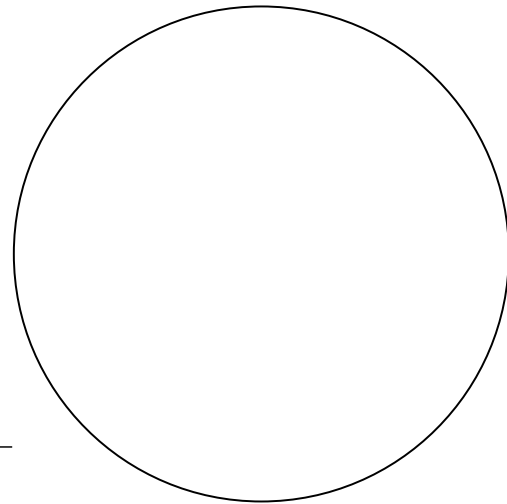
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



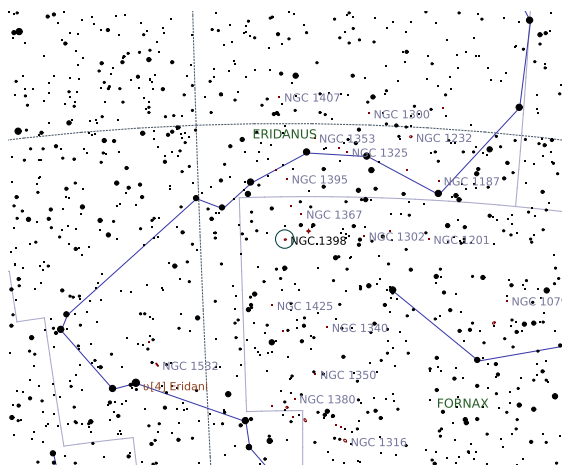
Sketch

# NGC 1398

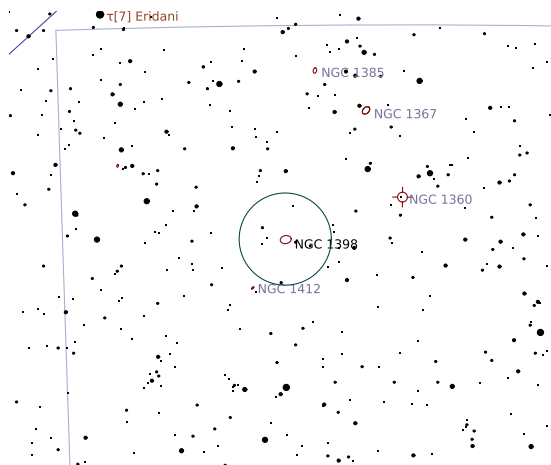
## Galaxy in Fornax

Right Ascension (current)	03 <sup>h</sup> 39 <sup>m</sup> 26 <sup>s</sup>	Declination (current)	-26° 17' 57"
Right Ascension (J2000.0)	03 <sup>h</sup> 38 <sup>m</sup> 52 <sup>s</sup>	Declination (J2000.0)	-26° 20' 14"
Size	7.2' × 5.2'	Position Angle	-10°
Magnitude	9.7	Other Designation	-

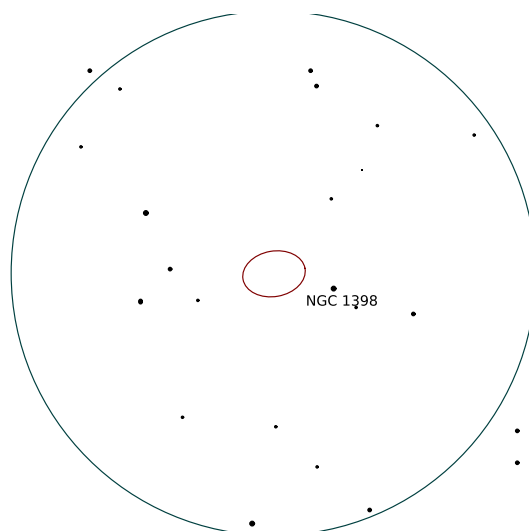
**Description:** Dreyer: cB; cL; R; vmbM



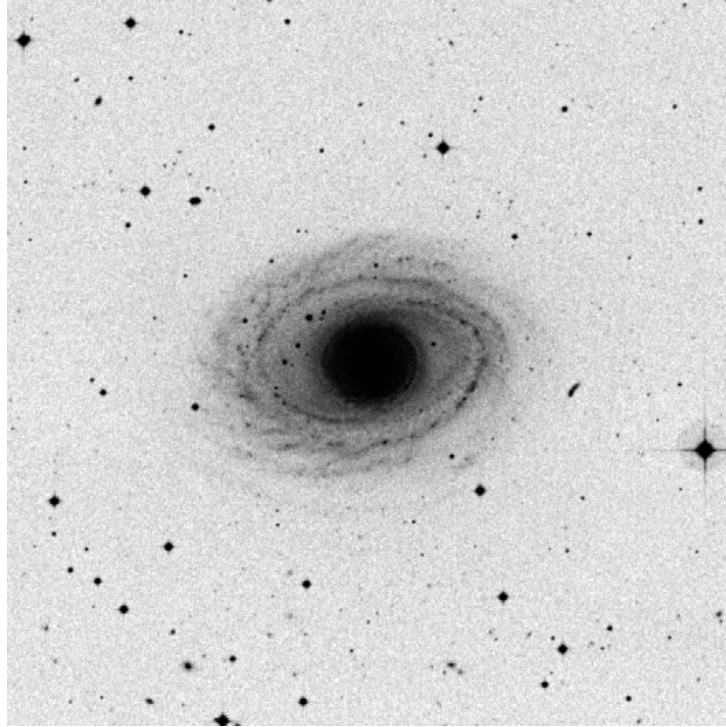
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

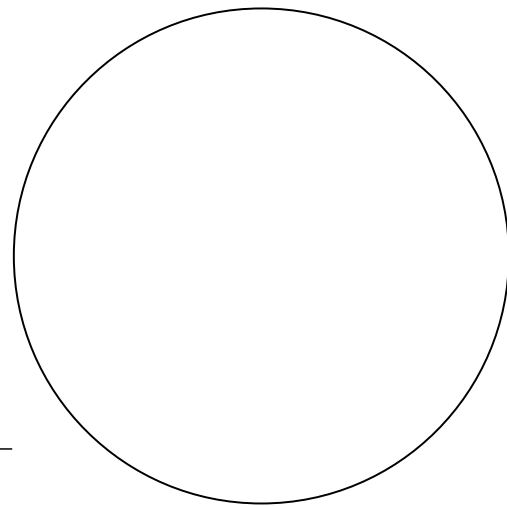
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

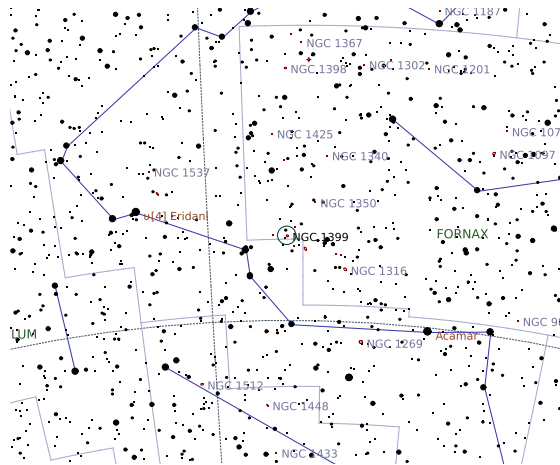
# NGC 1399

## Galaxy in Fornax

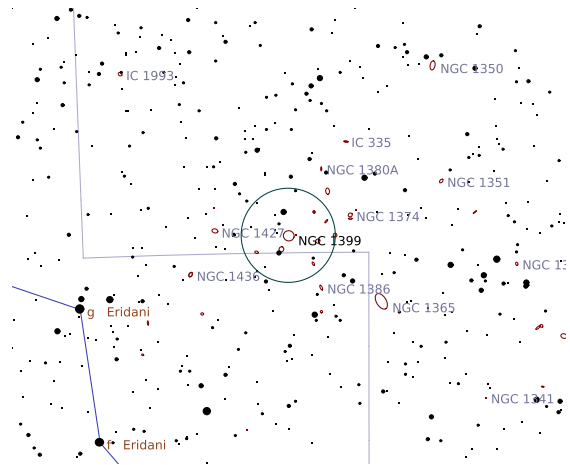
Right Ascension (current)	03 <sup>h</sup> 38 <sup>m</sup> 58 <sup>s</sup>	Declination (current)	-35° 24' 44"
Right Ascension (J2000.0)	03 <sup>h</sup> 38 <sup>m</sup> 28 <sup>s</sup>	Declination (J2000.0)	-35° 26' 59"
Size	6.9' × 6.5'	Position Angle	14°
Magnitude	9.6	Other Designation	—

**Description:** Dreyer: vB;pL;psbM;rr

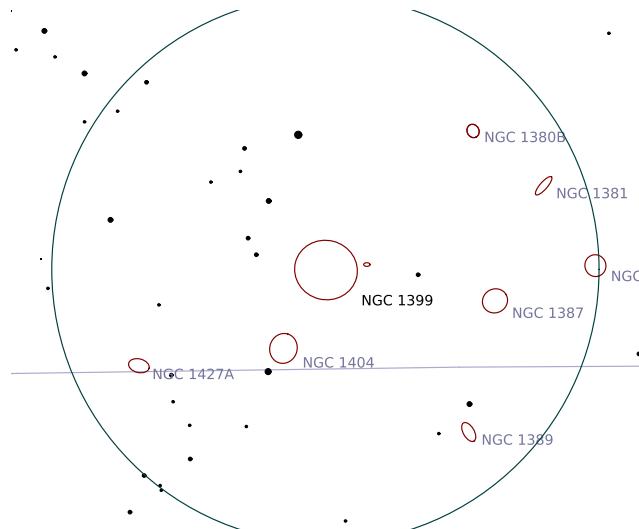
**SAC:** Fornax Galaxy Cluster member



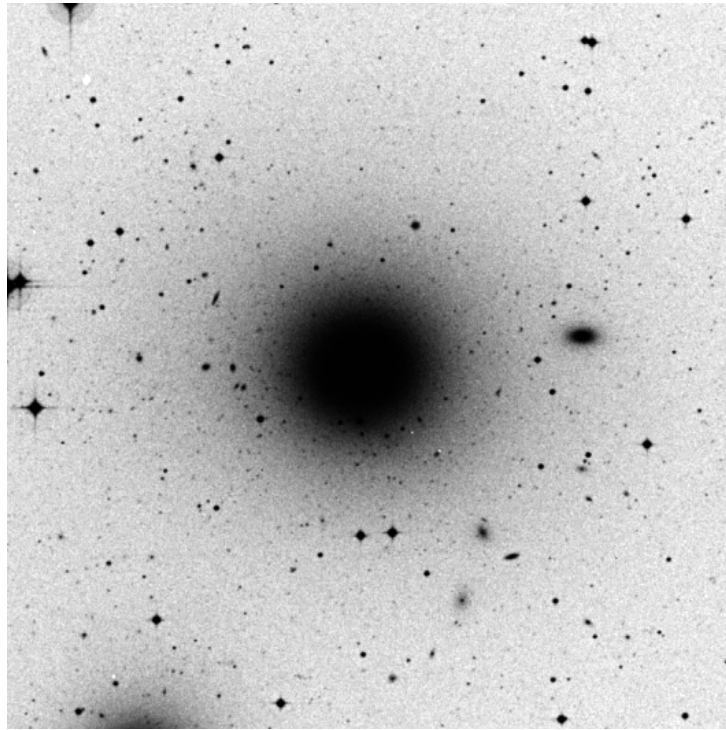
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

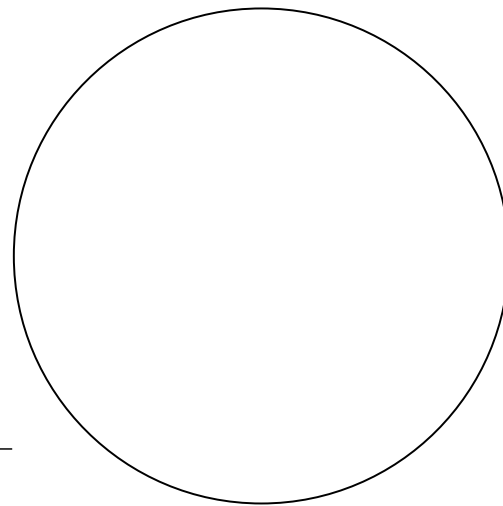
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

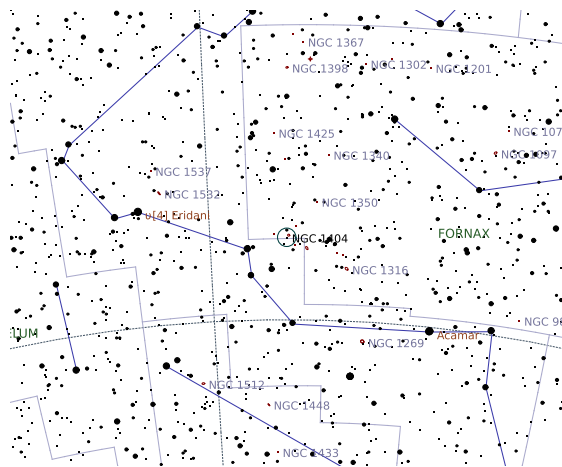
# NGC 1404

## Galaxy in Fornax

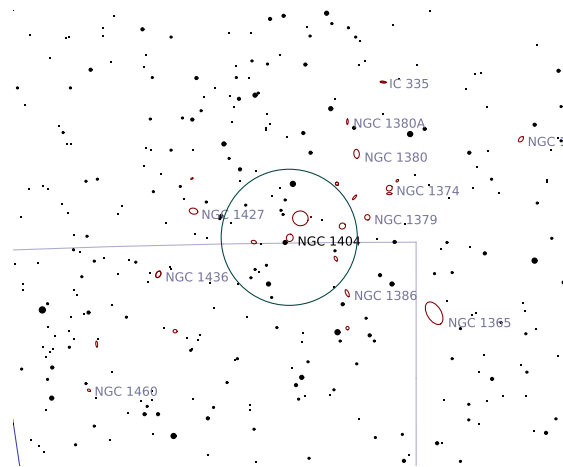
Right Ascension (current)	03 <sup>h</sup> 39 <sup>m</sup> 21 <sup>s</sup>	Declination (current)	-35° 33' 19"
Right Ascension (J2000.0)	03 <sup>h</sup> 38 <sup>m</sup> 51 <sup>s</sup>	Declination (J2000.0)	-35° 35' 34"
Size	3.3' × 3'	Position Angle	-73°
Magnitude	10	Other Designation	-

**Description:** Dreyer: vB;pL;R;psmbM

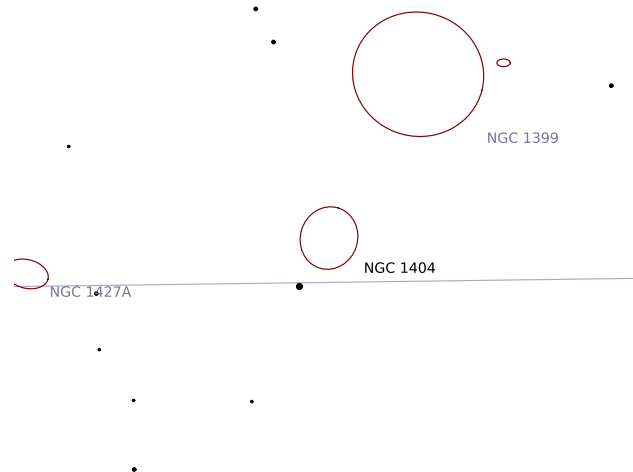
**SAC:** Fornax Galaxy Cluster member



Wide-field chart

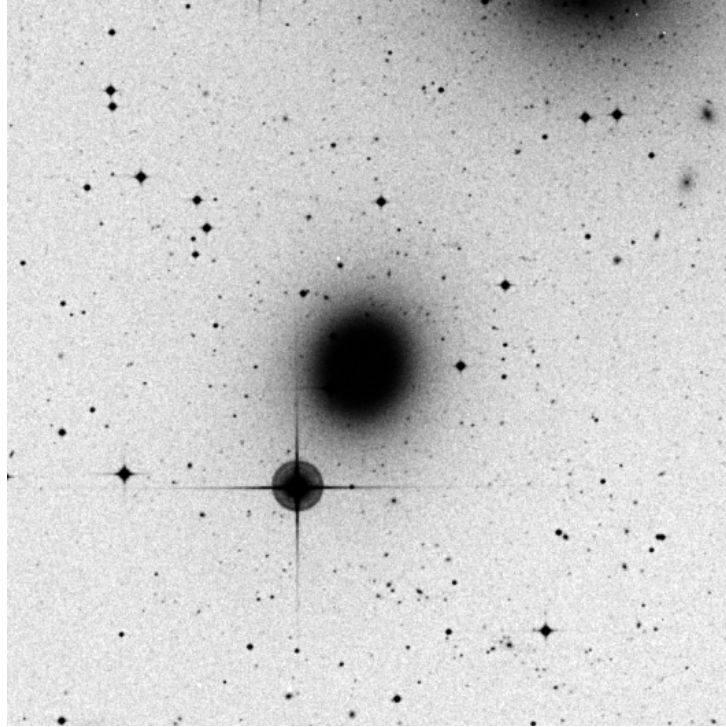


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

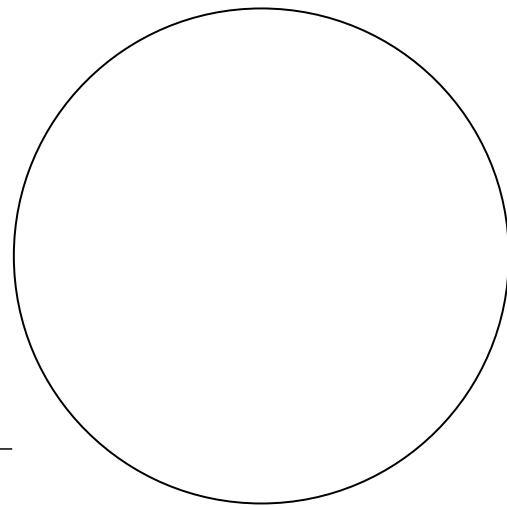
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

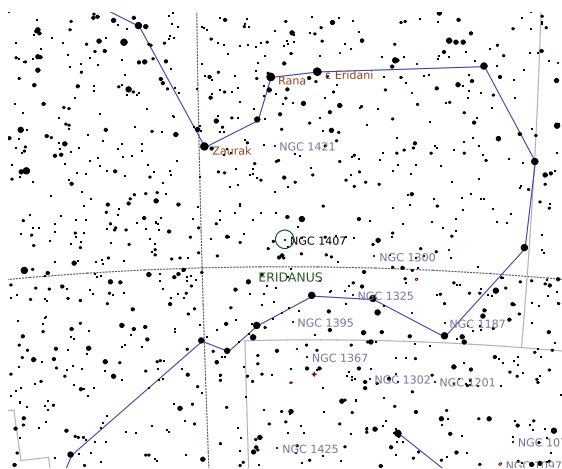
# NGC 1407

## Galaxy in Eridanus

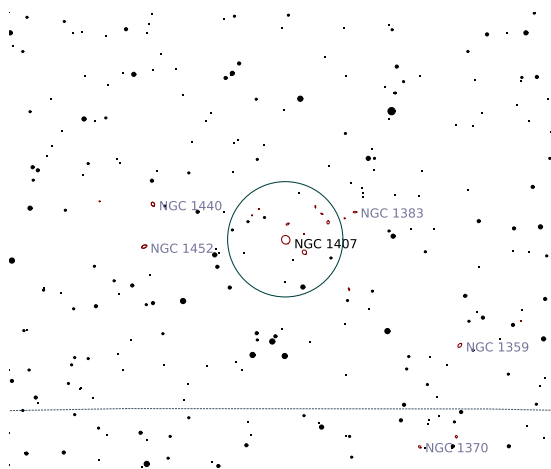
Right Ascension (current)	03 <sup>h</sup> 40 <sup>m</sup> 47 <sup>s</sup>	Declination (current)	-18° 32' 31"
Right Ascension (J2000.0)	03 <sup>h</sup> 40 <sup>m</sup> 11 <sup>s</sup>	Declination (J2000.0)	-18° 34' 49"
Size	4.6' × 4.3'	Position Angle	55°
Magnitude	9.7	Other Designation	—

**Description:** Dreyer: vB;L;R;svmbMN

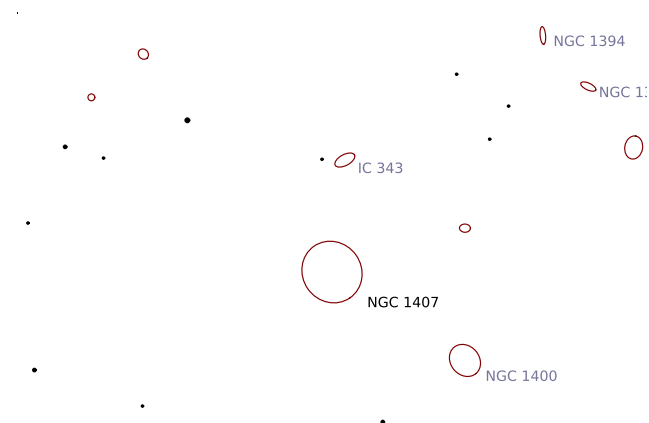
**SAC:** H I 107



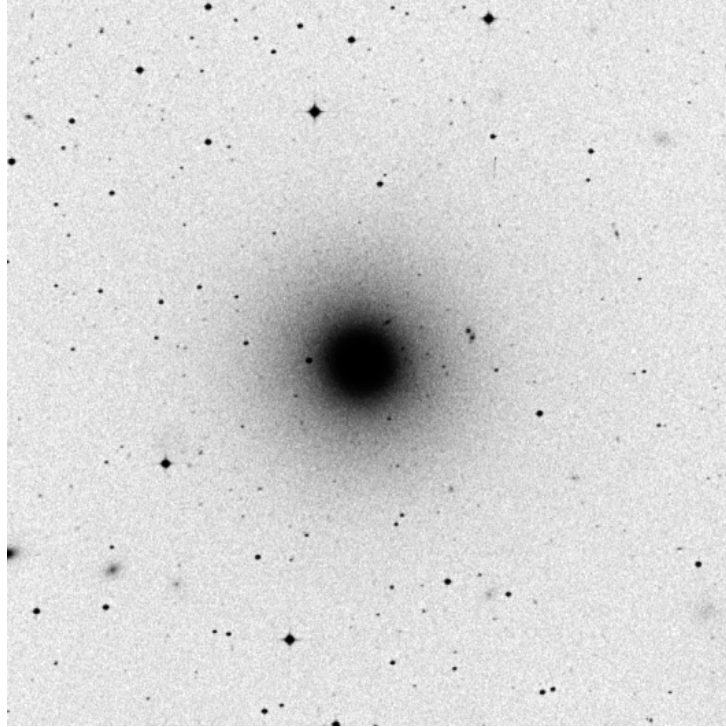
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

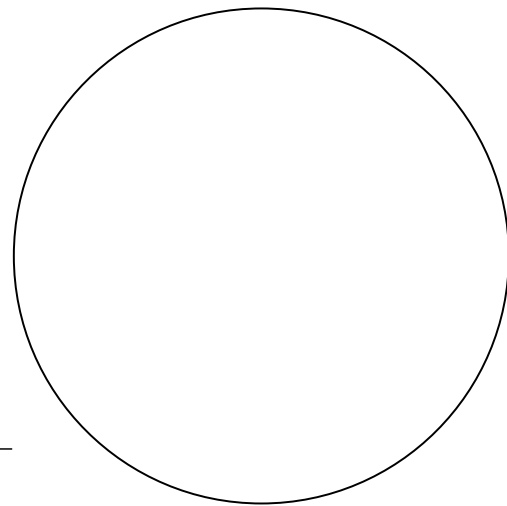
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



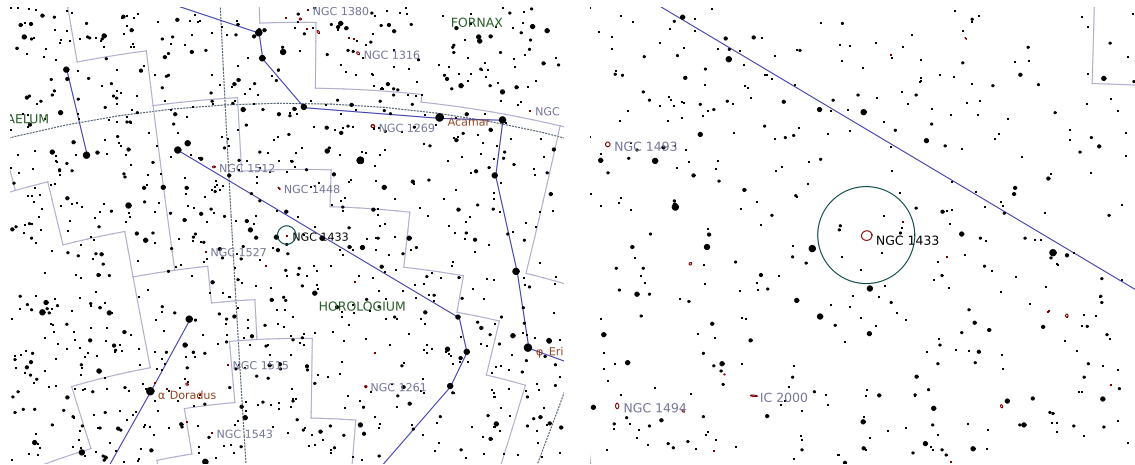
**Sketch**

# NGC 1433

## Galaxy in Horologium

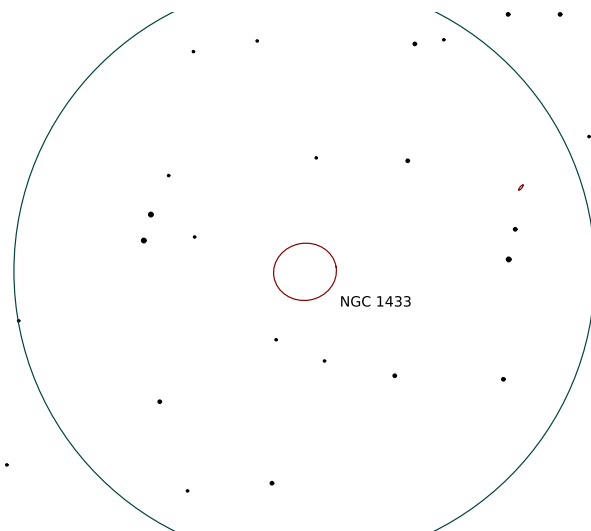
Right Ascension (current)	03 <sup>h</sup> 42 <sup>m</sup> 26 <sup>s</sup>	Declination (current)	-47° 11' 09"
Right Ascension (J2000.0)	03 <sup>h</sup> 42 <sup>m</sup> 01 <sup>s</sup>	Declination (J2000.0)	-47° 13' 19"
Size	6.5' × 5.9'	Position Angle	-9°
Magnitude	9.9	Other Designation	-

**Description:** Dreyer: vB;L;pmE;vsmbM\*10

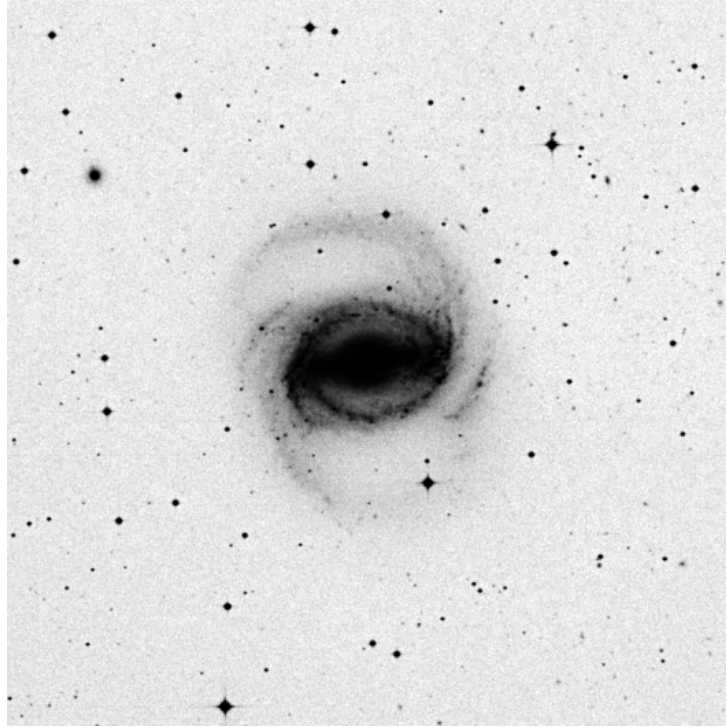


Wide-field chart

Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

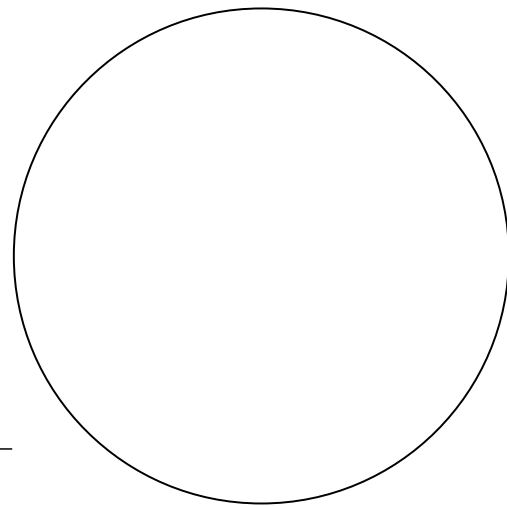
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

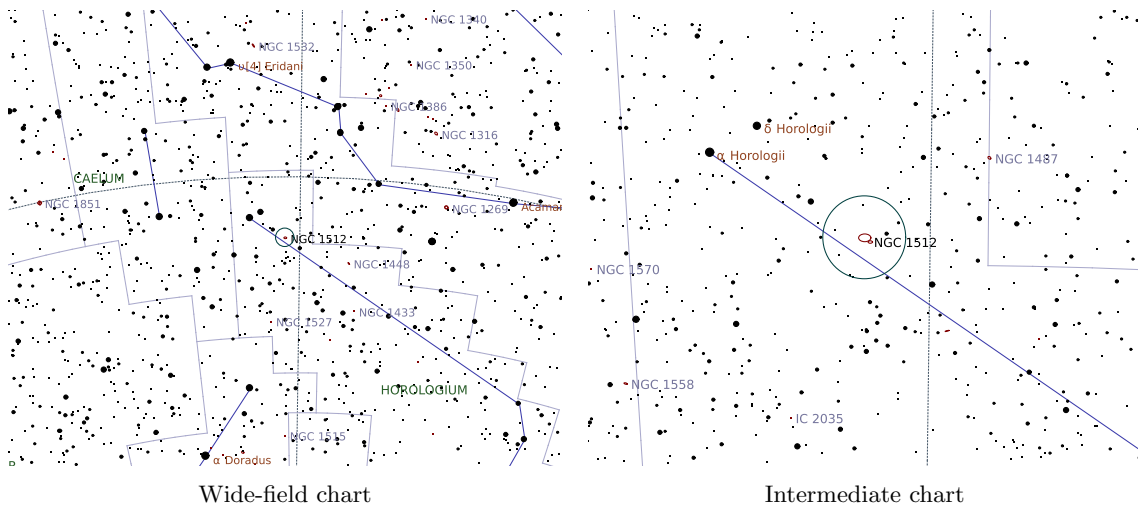
# NGC 1512

## Galaxy in Horologium

Right Ascension (current)	04 <sup>h</sup> 04 <sup>m</sup> 20 <sup>s</sup>	Declination (current)	-43° 19' 08''
Right Ascension (J2000.0)	04 <sup>h</sup> 03 <sup>m</sup> 54 <sup>s</sup>	Declination (J2000.0)	-43° 20' 56''
Size	8.9' × 5.6'	Position Angle	0°
Magnitude	10	Other Designation	–

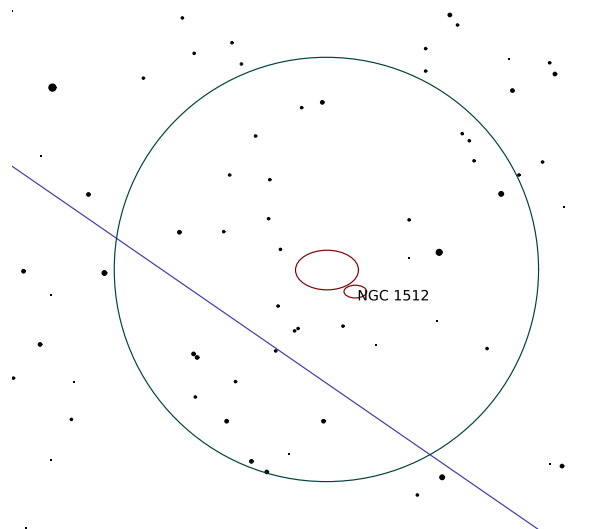
**Description:** Dreyer: B;cL;R;bM

**SAC:** lenticular

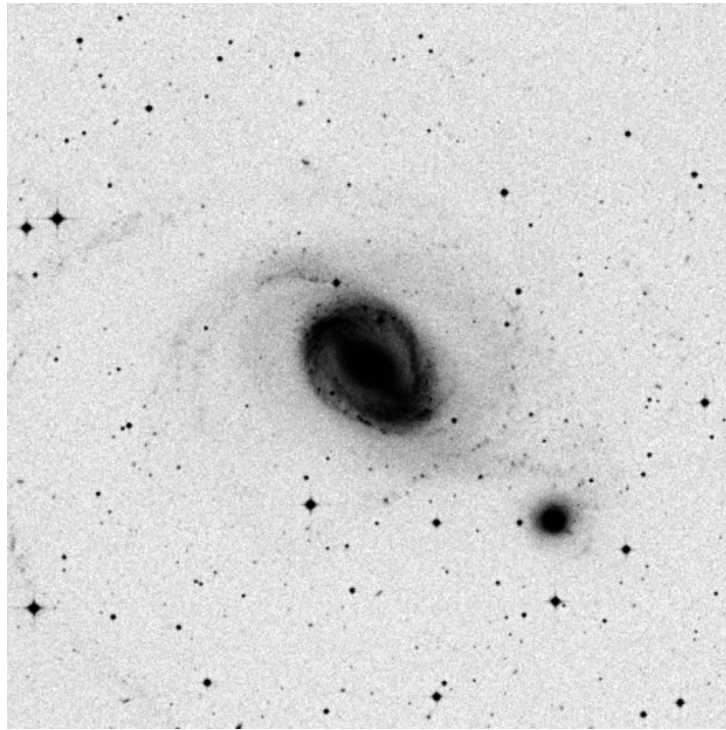


Wide-field chart

Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

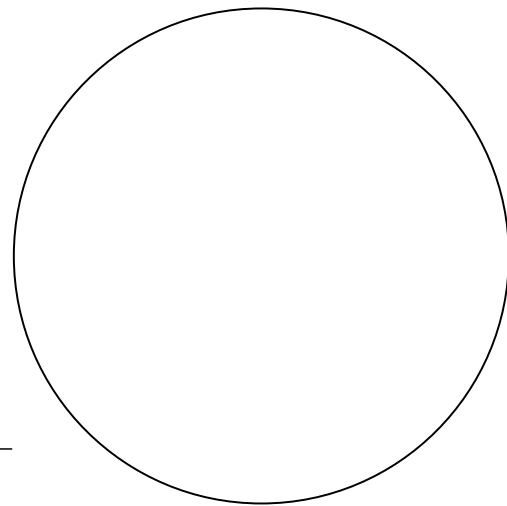
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

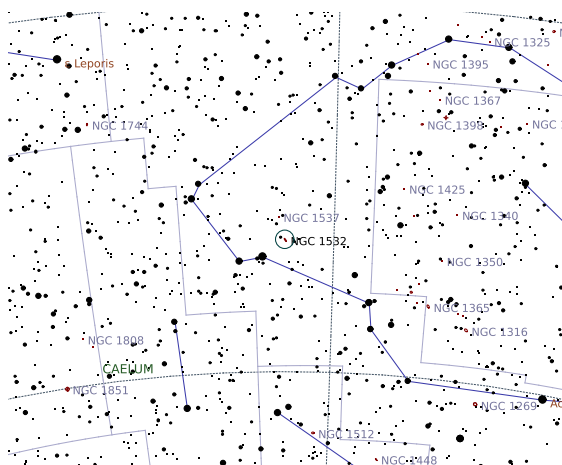
# NGC 1532

## Galaxy in Eridanus

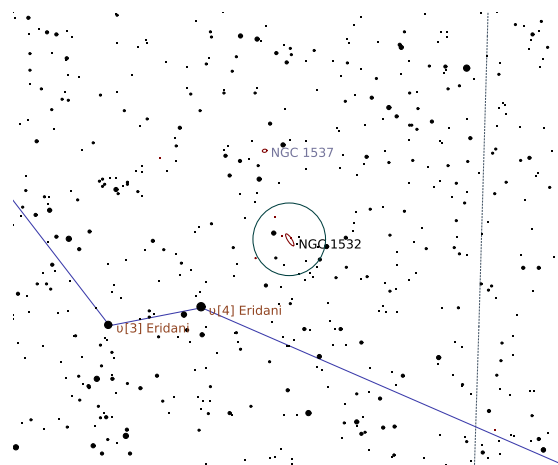
Right Ascension (current)	04 <sup>h</sup> 12 <sup>m</sup> 34 <sup>s</sup>	Declination (current)	-32° 50' 41"
Right Ascension (J2000.0)	04 <sup>h</sup> 12 <sup>m</sup> 03 <sup>s</sup>	Declination (J2000.0)	-32° 52' 23"
Size	11.6' × 3.4'	Position Angle	57°
Magnitude	9.9	Other Designation	—

**Description:** Dreyer: B;vL;vmE32;psmbM

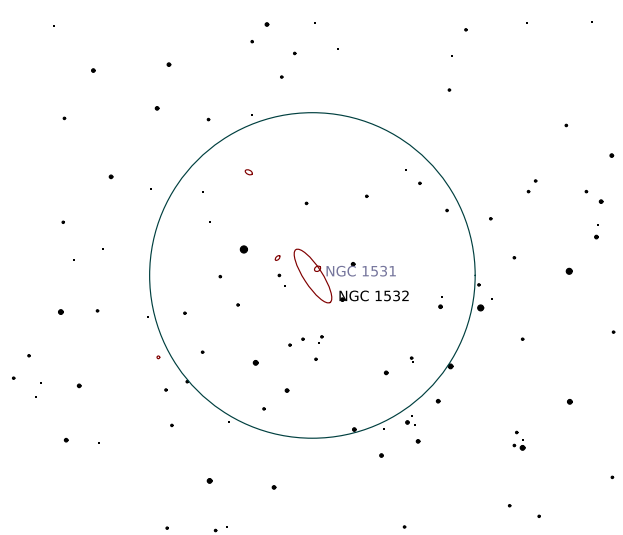
**SAC:** NGC 1531 np 2';Nearly edge-on



Wide-field chart

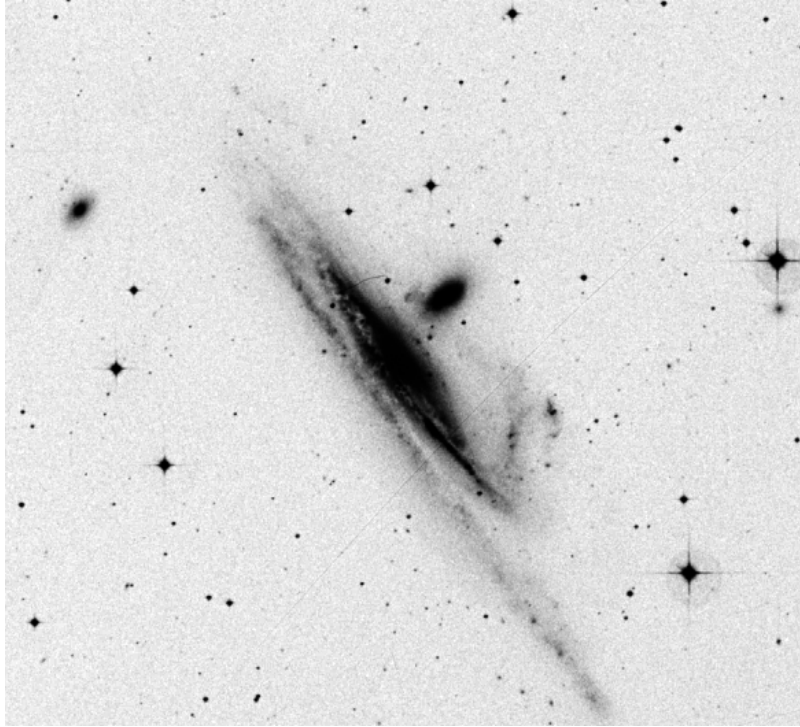


Intermediate chart



Zoomed-in chart





DSS Image (16.6' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

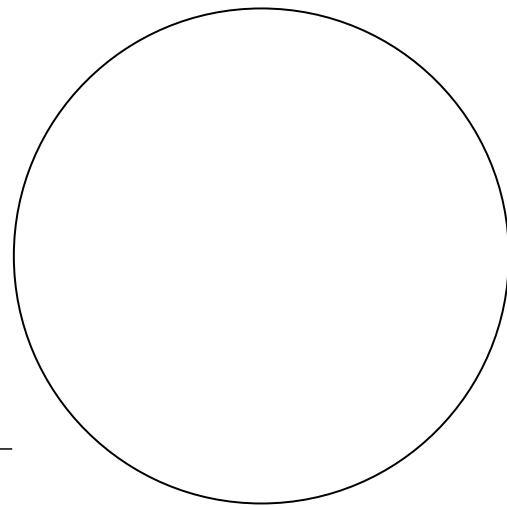
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



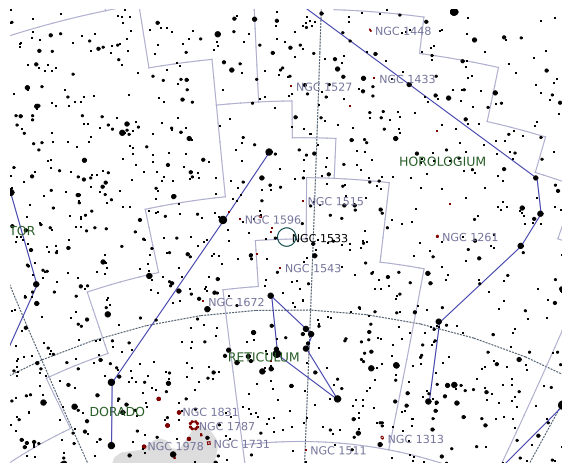
**Sketch**

# NGC 1533

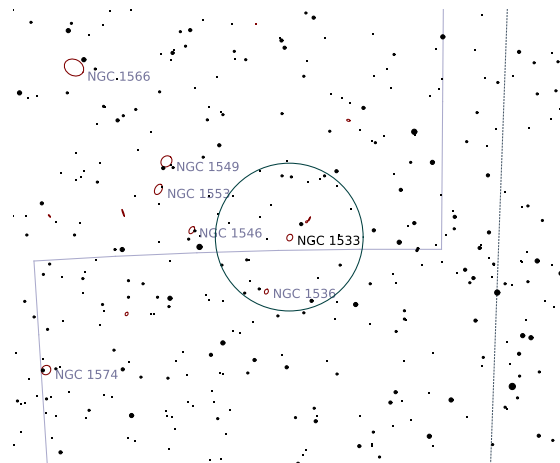
Galaxy in Dorado

Right Ascension (current)	04 <sup>h</sup> 10 <sup>m</sup> 08 <sup>s</sup>	Declination (current)	-56° 05' 23''
Right Ascension (J2000.0)	04 <sup>h</sup> 09 <sup>m</sup> 51 <sup>s</sup>	Declination (J2000.0)	-56° 07' 04''
Size	2.8' × 2.3'	Position Angle	-61°
Magnitude	11	Other Designation	-

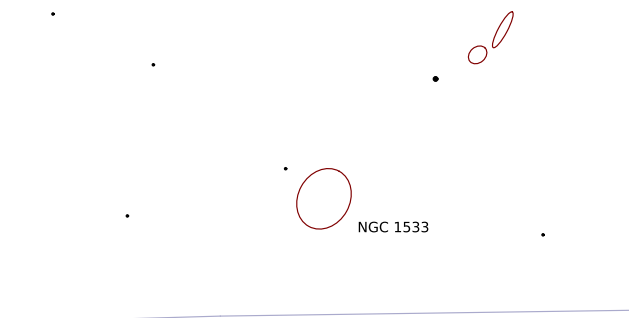
Description: Dreyer: vB;vL;R;smbM;2\*10 nf



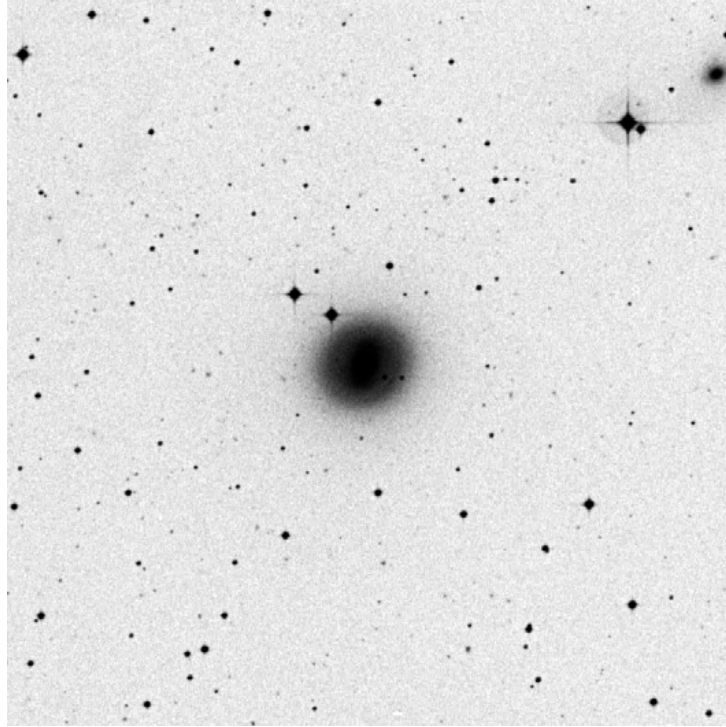
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

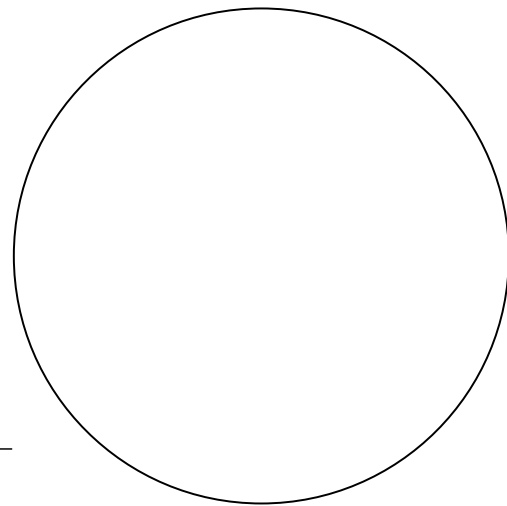
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



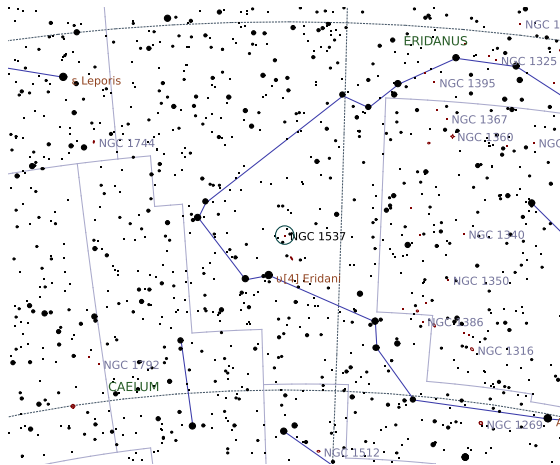
Sketch

# NGC 1537

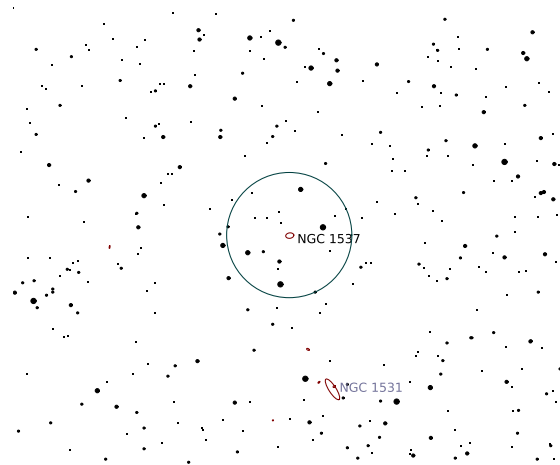
Galaxy in Eridanus

Right Ascension (current)	04 <sup>h</sup> 14 <sup>m</sup> 11 <sup>s</sup>	Declination (current)	-31° 37' 04"
Right Ascension (J2000.0)	04 <sup>h</sup> 13 <sup>m</sup> 40 <sup>s</sup>	Declination (J2000.0)	-31° 38' 44"
Size	3.9' × 2.6'	Position Angle	-8°
Magnitude	11	Other Designation	-

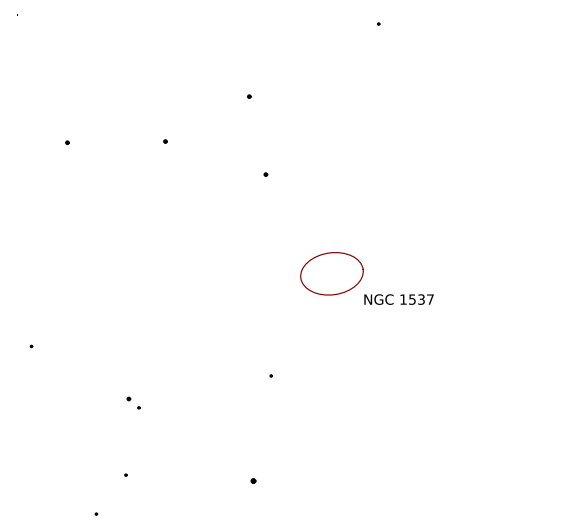
**Description:** Dreyer: vB;pS;lE;psvmbM



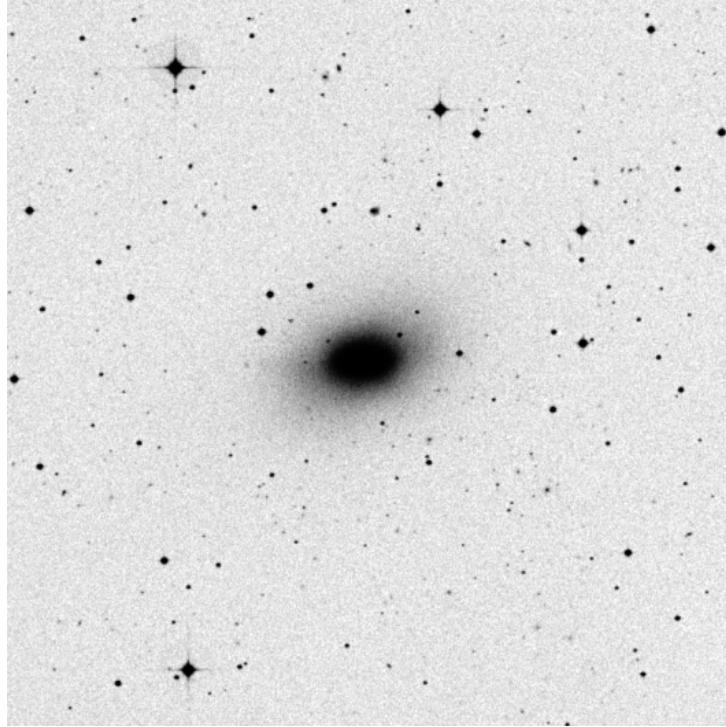
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

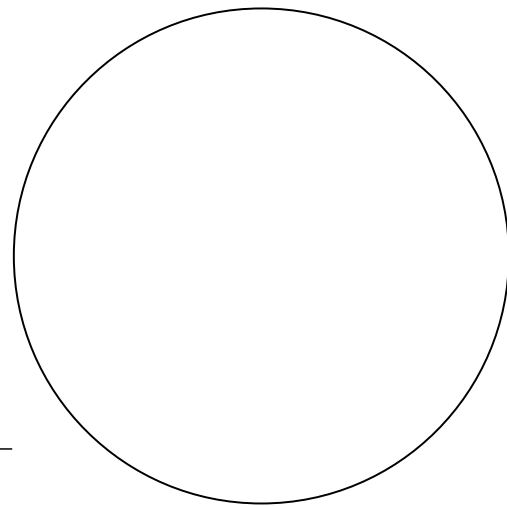
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



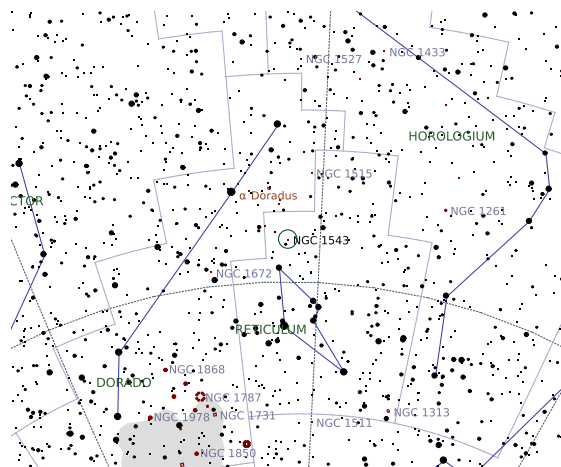
Sketch

# NGC 1543

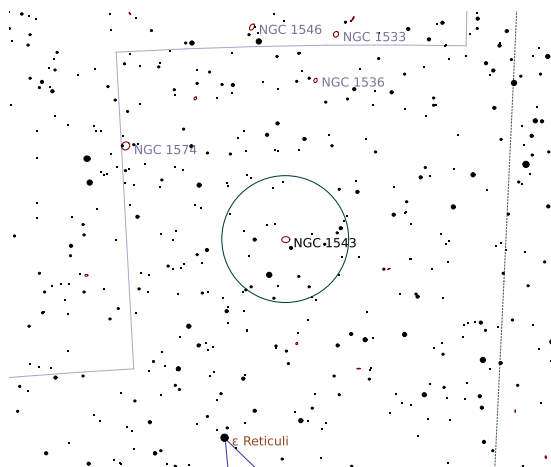
## Galaxy in Reticulum

Right Ascension (current)	04 <sup>h</sup> 12 <sup>m</sup> 59 <sup>s</sup>	Declination (current)	-57° 42' 36"
Right Ascension (J2000.0)	04 <sup>h</sup> 12 <sup>m</sup> 43 <sup>s</sup>	Declination (J2000.0)	-57° 44' 14"
Size	3.8' × 2.8'	Position Angle	-3°
Magnitude	10	Other Designation	-

**Description:** Dreyer: B;pL;E;smbMN=\*11



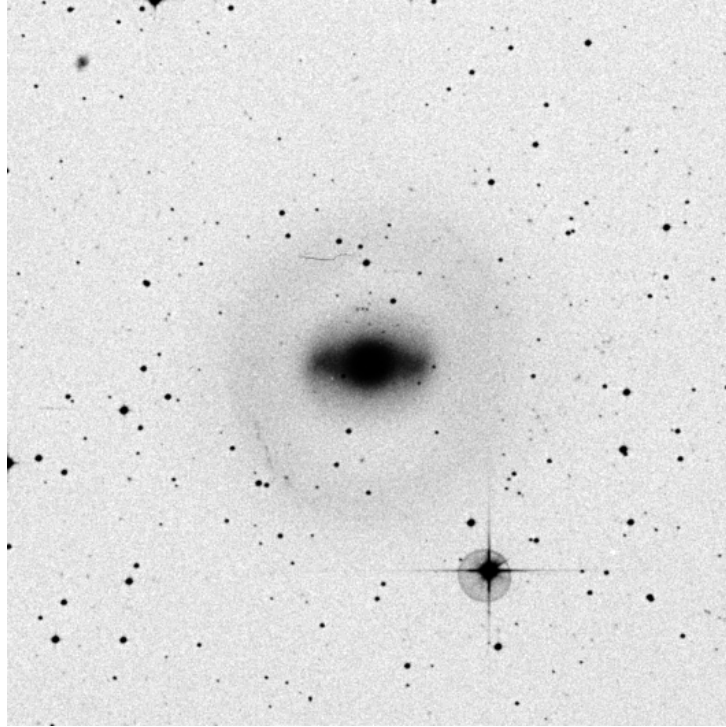
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

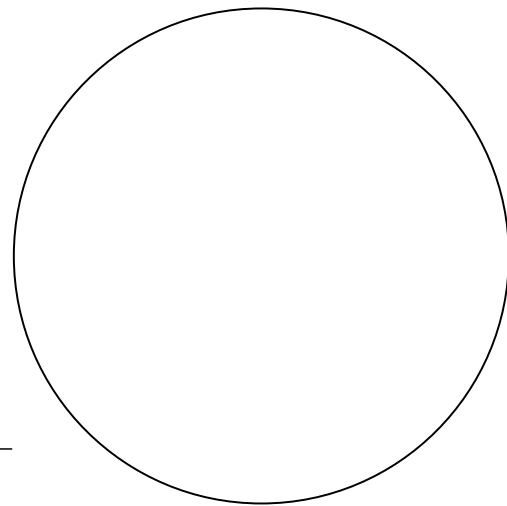
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

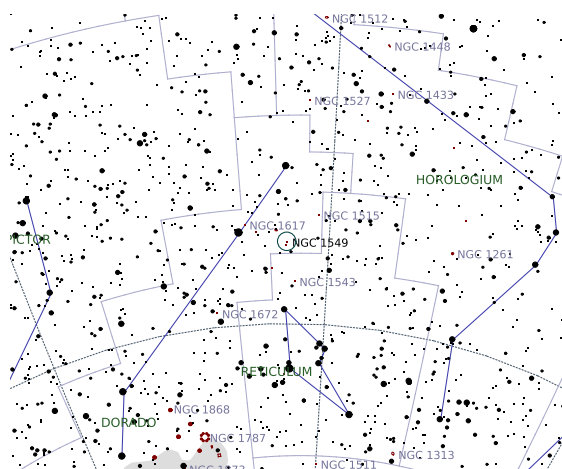
# NGC 1549

## Galaxy in Dorado

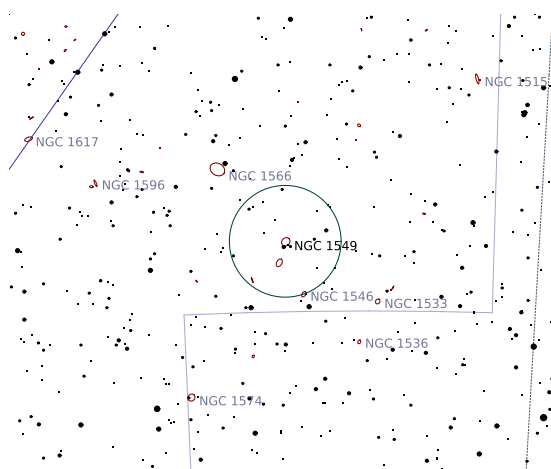
Right Ascension (current)	04 <sup>h</sup> 16 <sup>m</sup> 03 <sup>s</sup>	Declination (current)	-55° 33' 54"
Right Ascension (J2000.0)	04 <sup>h</sup> 15 <sup>m</sup> 45 <sup>s</sup>	Declination (J2000.0)	-55° 35' 29"
Size	4.9' × 4.1'	Position Angle	-45°
Magnitude	9.8	Other Designation	-

**Description:** Dreyer: B;p;R

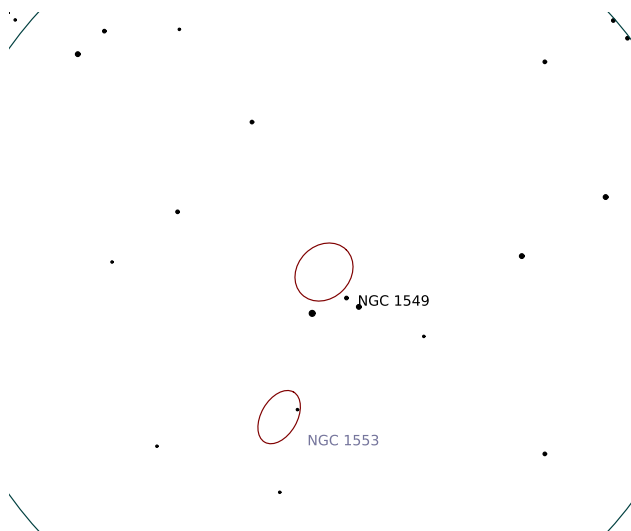
**SAC:** P w NGC 1553



Wide-field chart

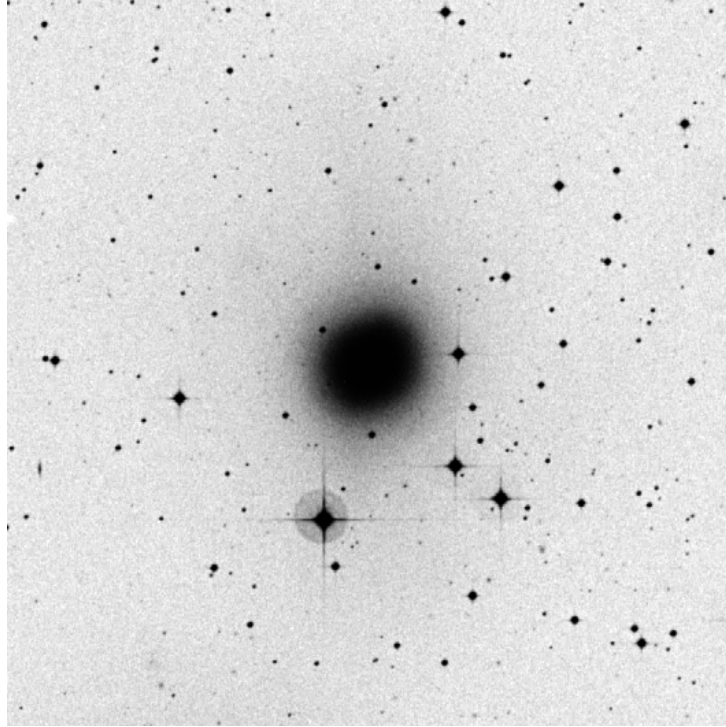


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

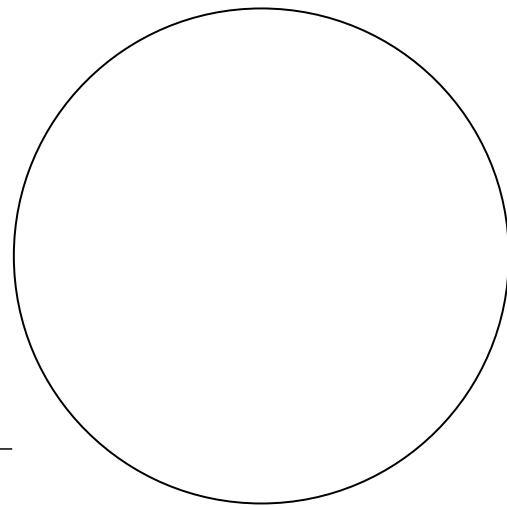
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



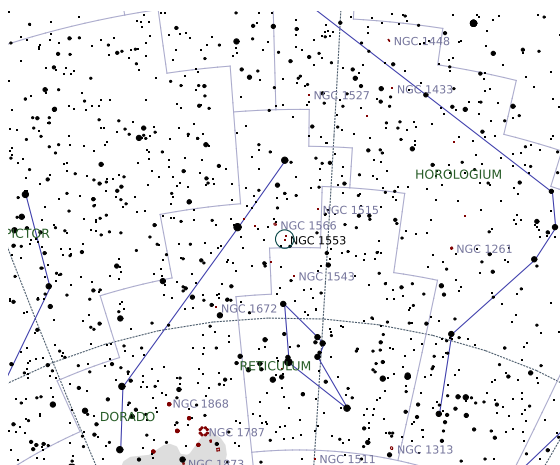
**Sketch**

# NGC 1553

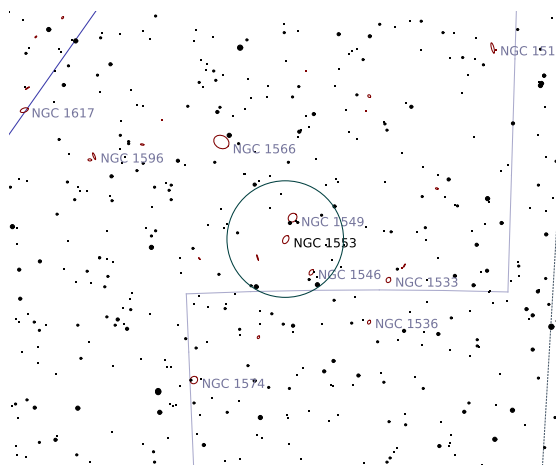
## Galaxy in Dorado

Right Ascension (current)	04 <sup>h</sup> 16 <sup>m</sup> 27 <sup>s</sup>	Declination (current)	-55° 45' 12''
Right Ascension (J2000.0)	04 <sup>h</sup> 16 <sup>m</sup> 10 <sup>s</sup>	Declination (J2000.0)	-55° 46' 46''
Size	4.5' × 2.8'	Position Angle	-60°
Magnitude	9.4	Other Designation	-

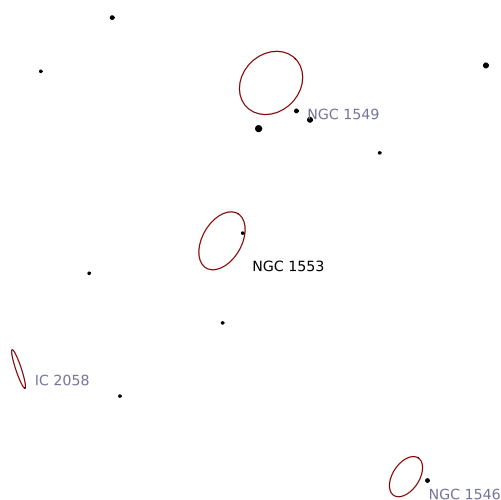
**Description:** Dreyer: vB;pS;R;gmbM;am 3\*;a Dneb



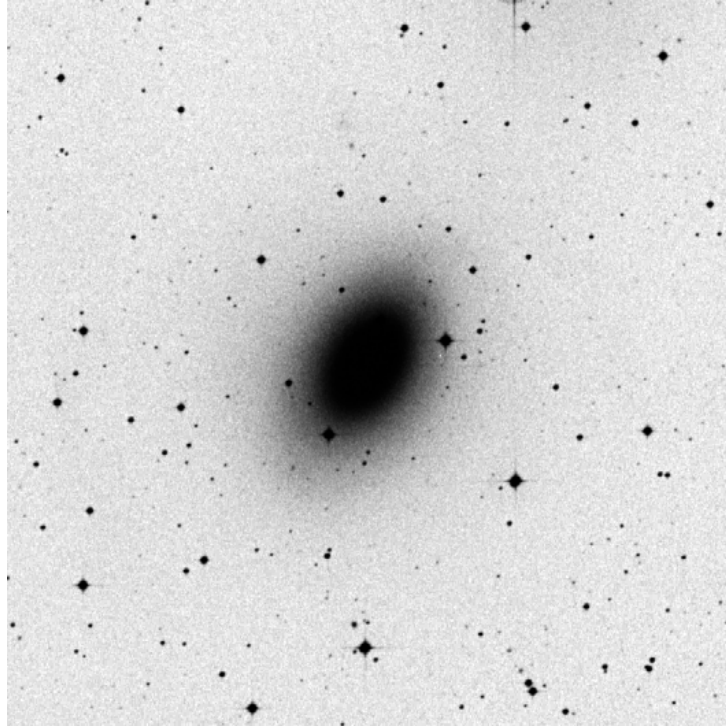
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

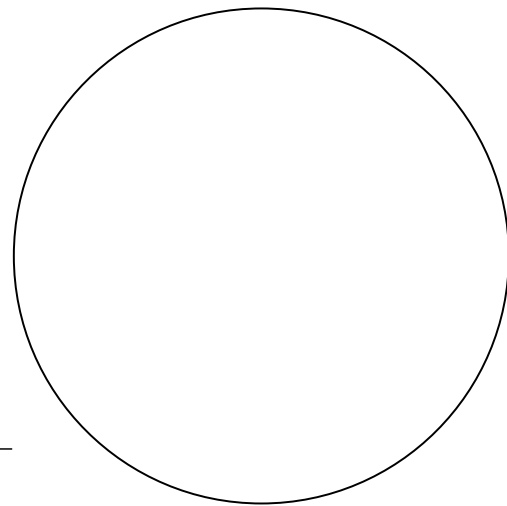
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



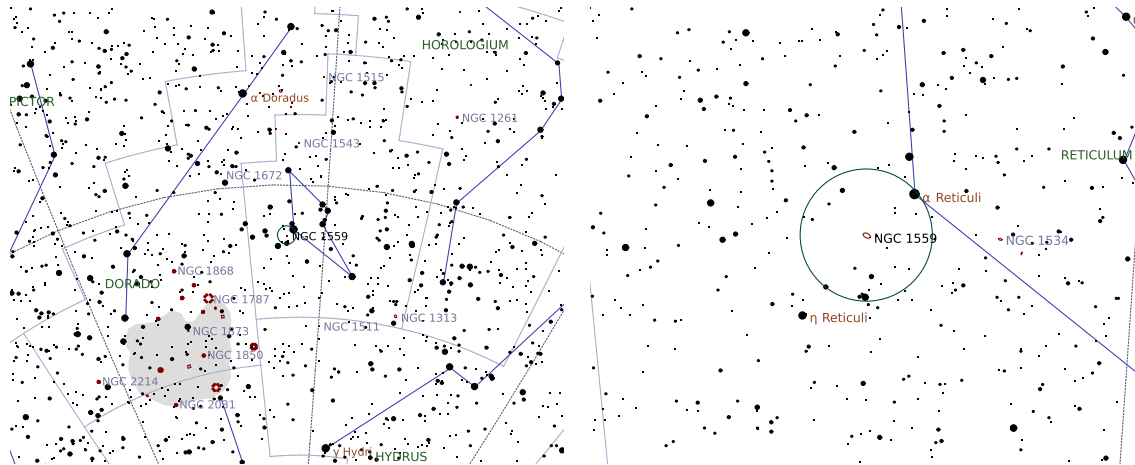
Sketch

# NGC 1559

## Galaxy in Reticulum

Right Ascension (current)	04 <sup>h</sup> 17 <sup>m</sup> 46 <sup>s</sup>	Declination (current)	−62° 45′ 30″
Right Ascension (J2000.0)	04 <sup>h</sup> 17 <sup>m</sup> 36 <sup>s</sup>	Declination (J2000.0)	−62° 47′ 02″
Size	3.5′ × 2′	Position Angle	26°
Magnitude	11	Other Designation	—

**Description:** Dreyer: vB;vL;mE;vgpmbM;\*14 att n

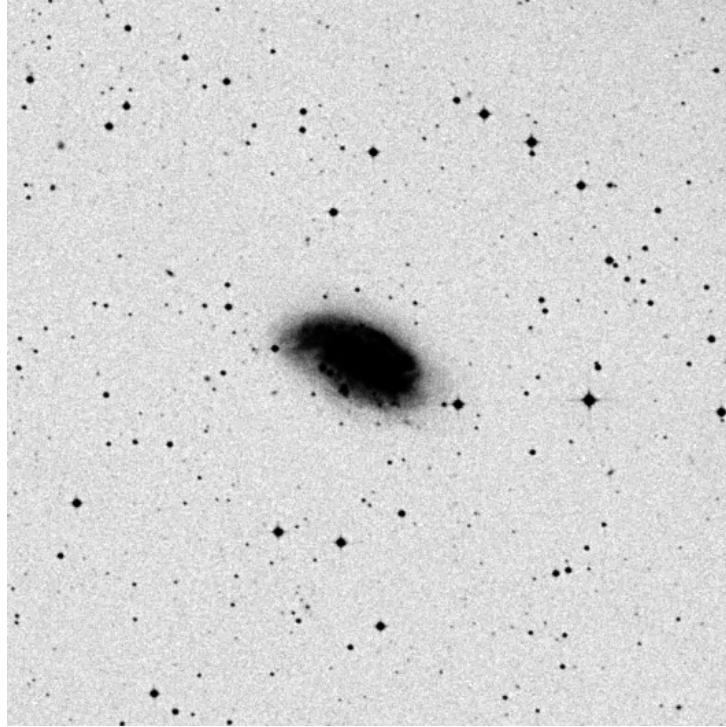


Wide-field chart

Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

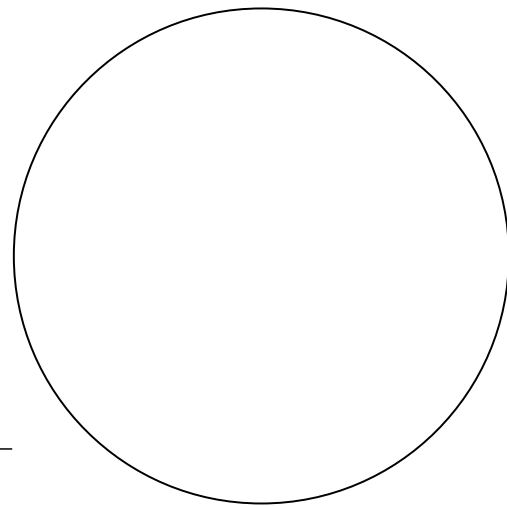
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



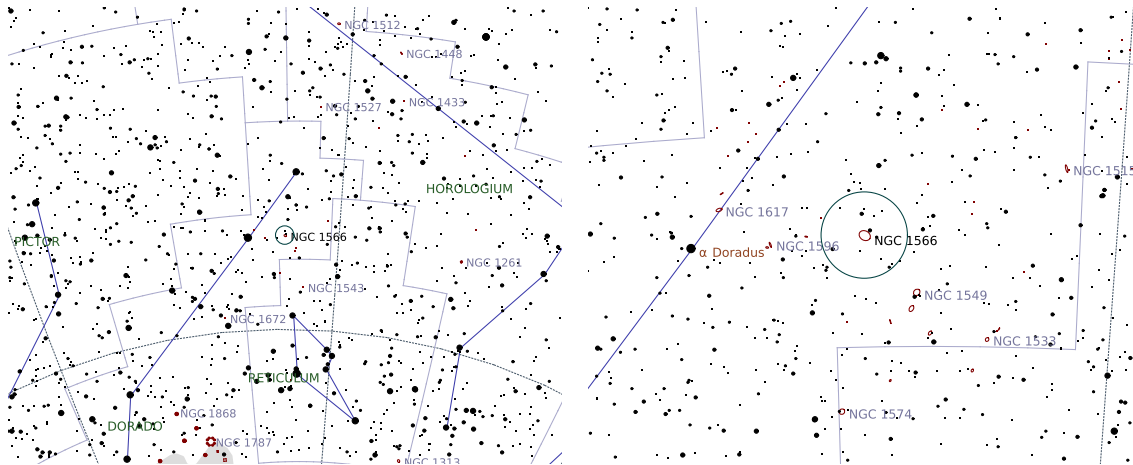
Sketch

# NGC 1566

## Galaxy in Dorado

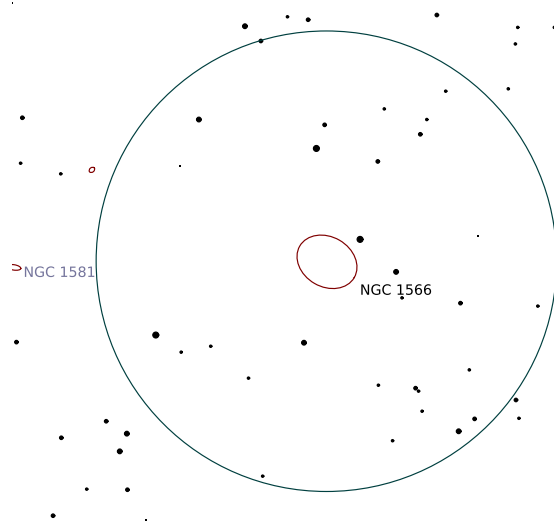
Right Ascension (current)	04 <sup>h</sup> 20 <sup>m</sup> 18 <sup>s</sup>	Declination (current)	-54° 54' 44"
Right Ascension (J2000.0)	04 <sup>h</sup> 20 <sup>m</sup> 00 <sup>s</sup>	Declination (J2000.0)	-54° 56' 14"
Size	8.2' × 6.5'	Position Angle	30°
Magnitude	9.7	Other Designation	—

**Description:** Dreyer: B;vL;vg;svmbM;15d in RA

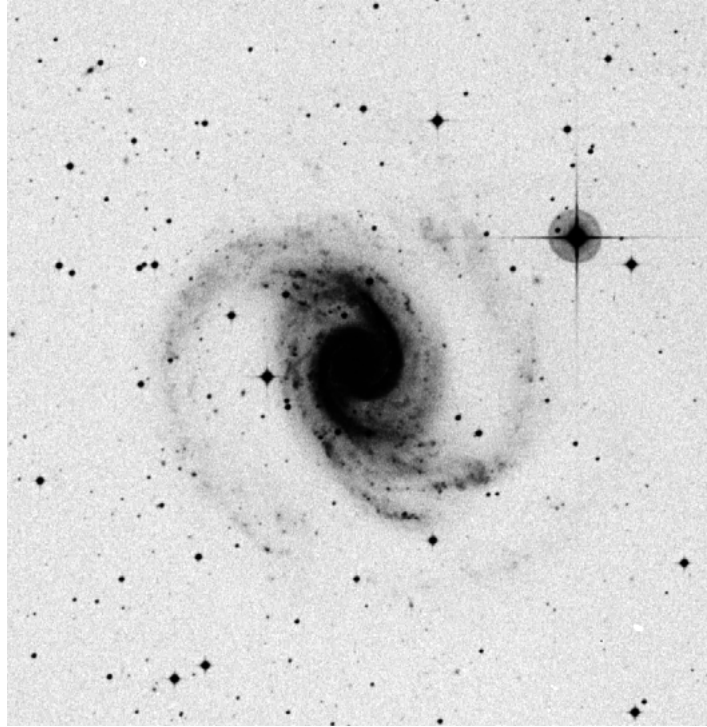


Wide-field chart

Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.4')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

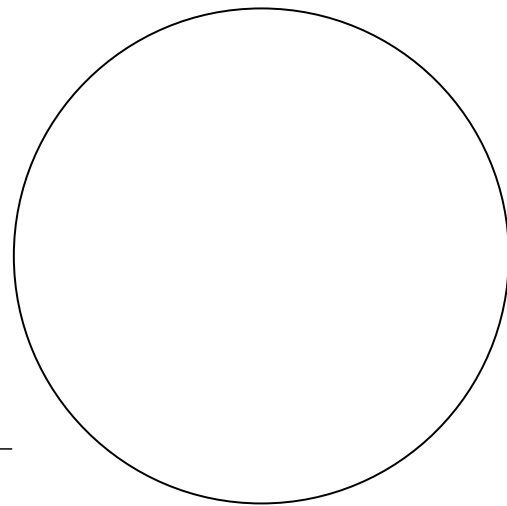
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



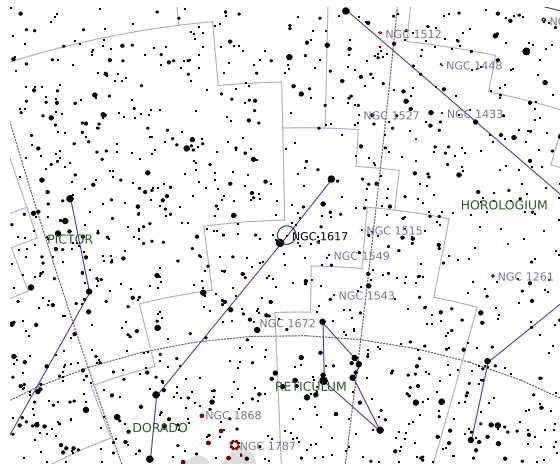
Sketch

# NGC 1617

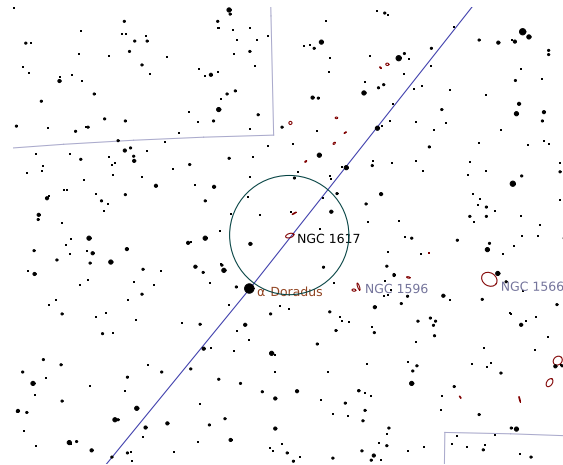
## Galaxy in Dorado

Right Ascension (current)	04 <sup>h</sup> 31 <sup>m</sup> 57 <sup>s</sup>	Declination (current)	-54° 34' 49"
Right Ascension (J2000.0)	04 <sup>h</sup> 31 <sup>m</sup> 39 <sup>s</sup>	Declination (J2000.0)	-54° 36' 07"
Size	4.3' × 2.1'	Position Angle	-17°
Magnitude	10	Other Designation	-

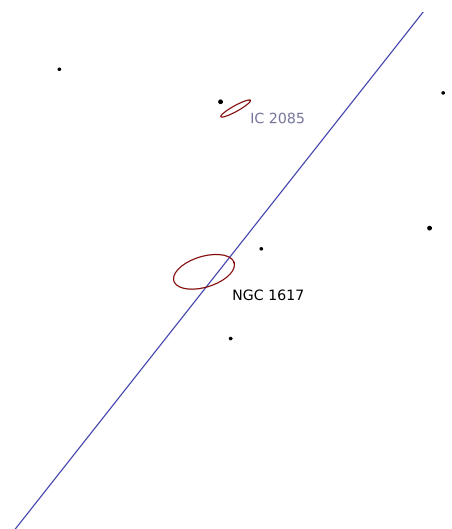
**Description:** Dreyer: B;L;mE106;vg;vsmbMN 5''



Wide-field chart

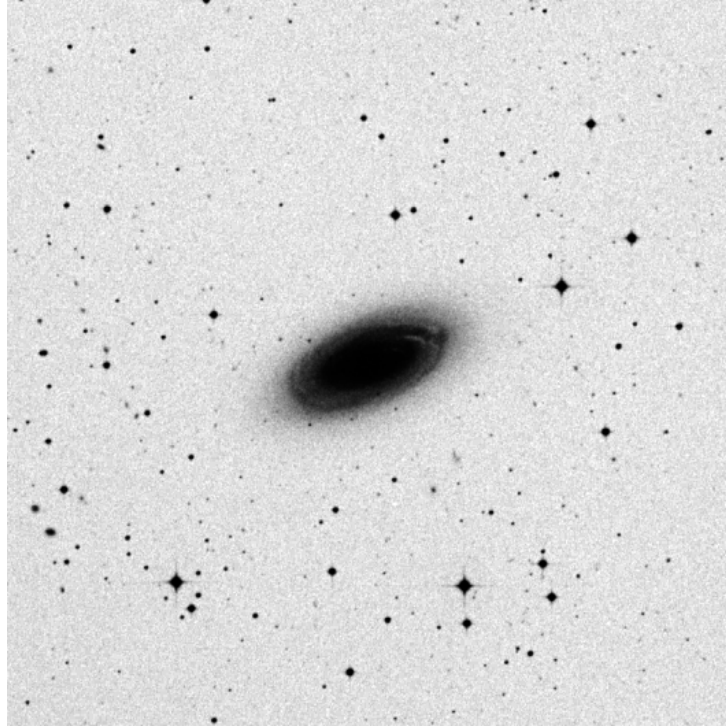


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

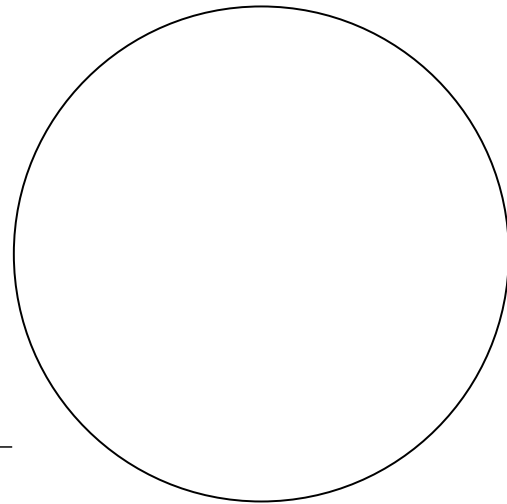
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



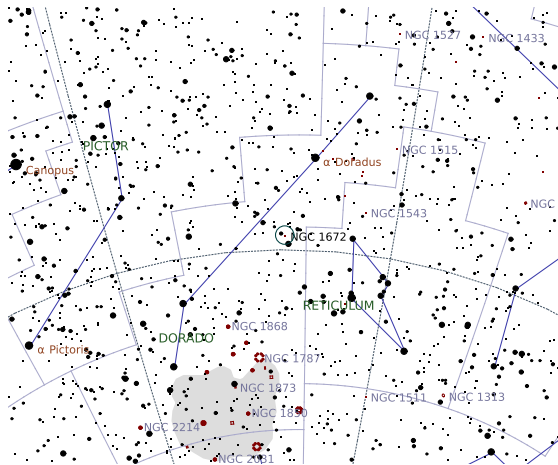
**Sketch**

# NGC 1672

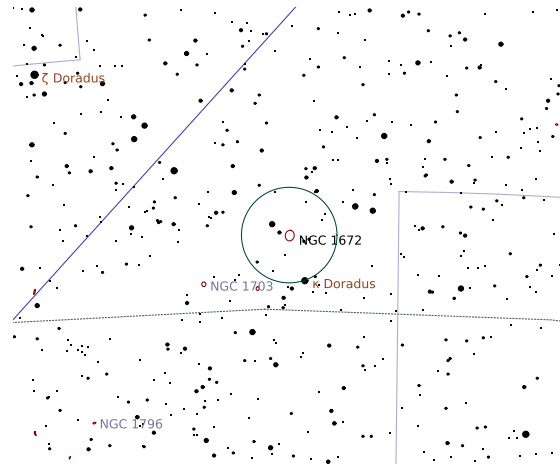
## Galaxy in Dorado

Right Ascension (current)	04 <sup>h</sup> 45 <sup>m</sup> 55 <sup>s</sup>	Declination (current)	-59° 13' 50"
Right Ascension (J2000.0)	04 <sup>h</sup> 45 <sup>m</sup> 42 <sup>s</sup>	Declination (J2000.0)	-59° 14' 52"
Size	6.7' × 5.6'	Position Angle	-80°
Magnitude	9.7	Other Designation	-

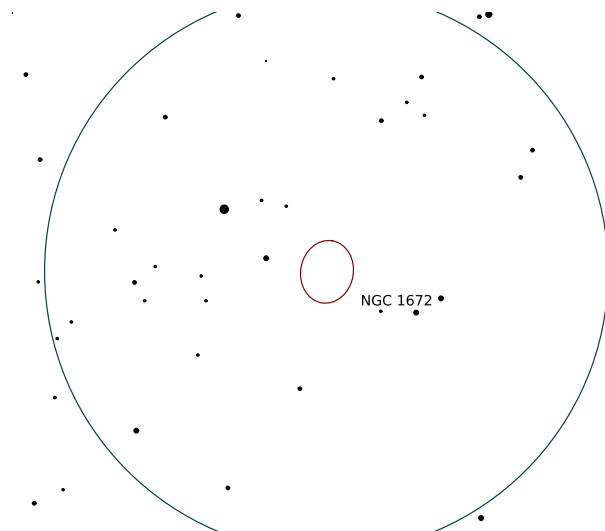
**Description:** Dreyer: B;L;smbMN



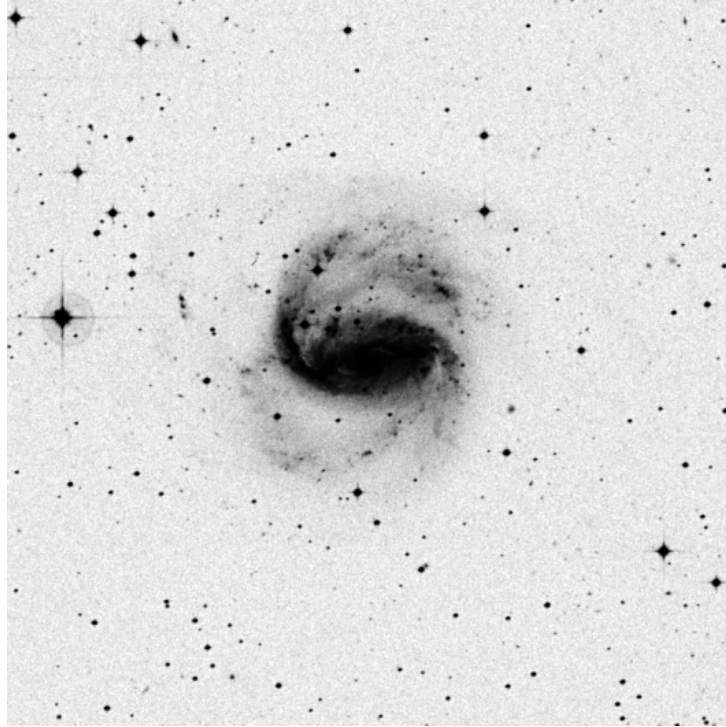
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

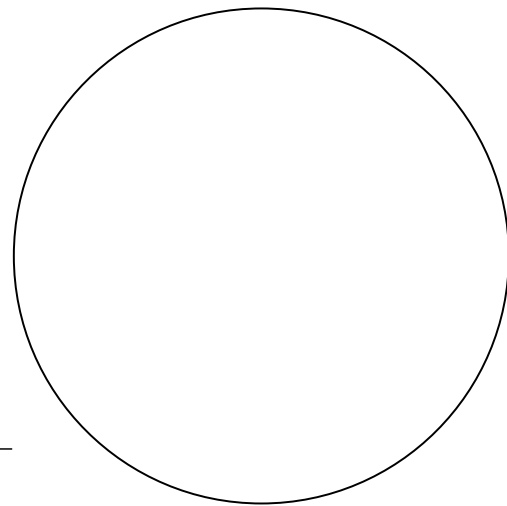
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



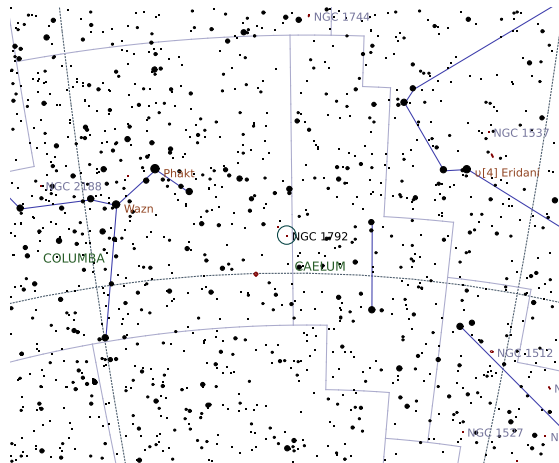
**Sketch**

# NGC 1792

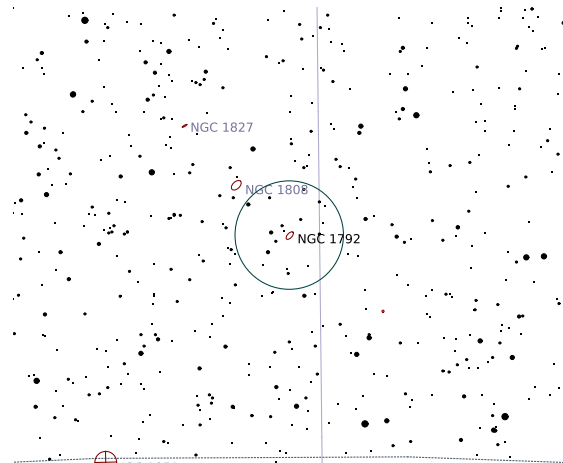
Galaxy in Columba

Right Ascension (current)	05 <sup>h</sup> 05 <sup>m</sup> 41 <sup>s</sup>	Declination (current)	-37° 58' 04"
Right Ascension (J2000.0)	05 <sup>h</sup> 05 <sup>m</sup> 13 <sup>s</sup>	Declination (J2000.0)	-37° 58' 47"
Size	5.2' × 2.6'	Position Angle	-47°
Magnitude	10	Other Designation	-

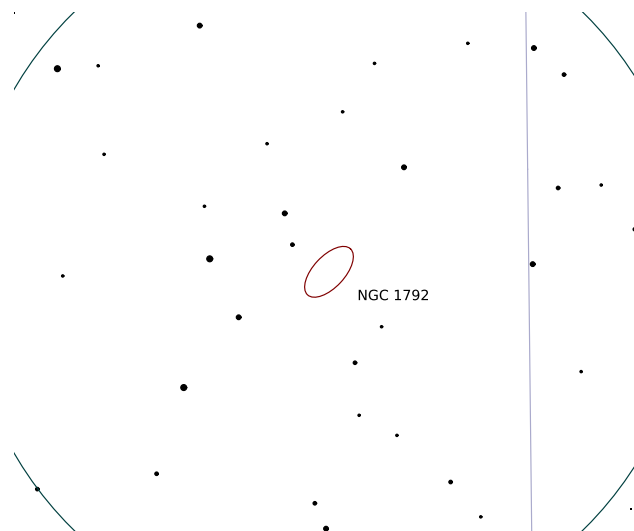
**Description:** Dreyer: vB;vL;mE314;glbM;rr



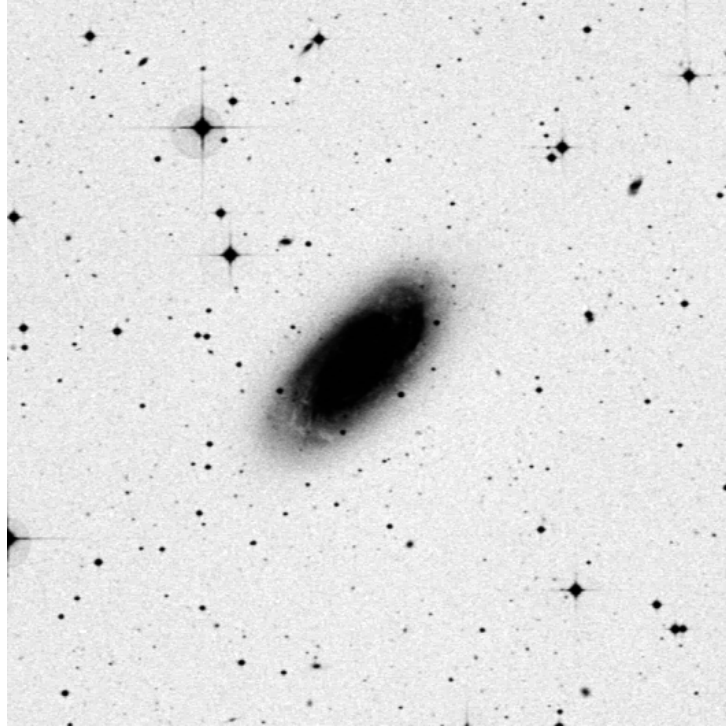
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

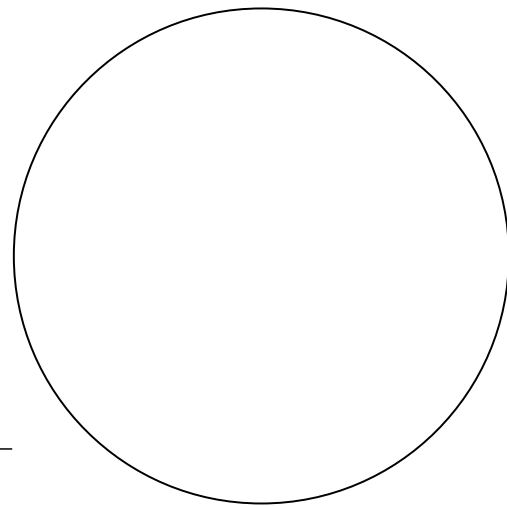
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

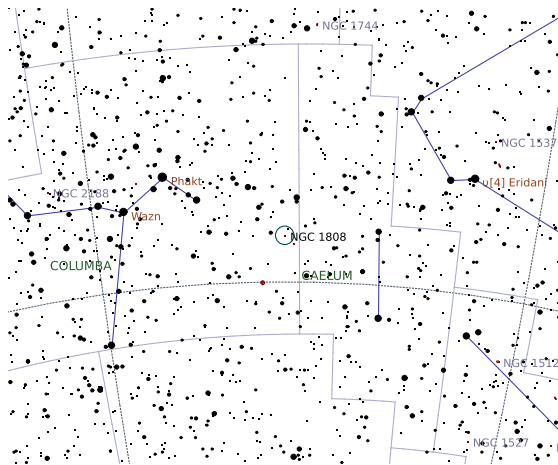
# NGC 1808

## Galaxy in Columba

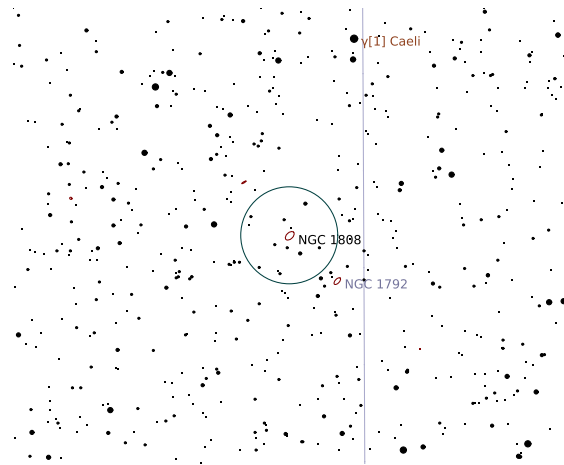
Right Ascension (current)	05 <sup>h</sup> 08 <sup>m</sup> 10 <sup>s</sup>	Declination (current)	-37° 30' 08''
Right Ascension (J2000.0)	05 <sup>h</sup> 07 <sup>m</sup> 42 <sup>s</sup>	Declination (J2000.0)	-37° 30' 48''
Size	6.5' × 3.9'	Position Angle	-43°
Magnitude	9.9	Other Designation	-

**Description:** Dreyer: B;L;E;psbM

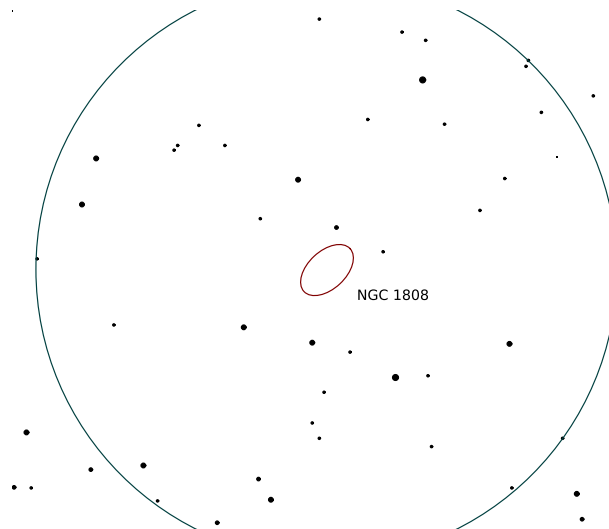
**SAC:** F outer arms



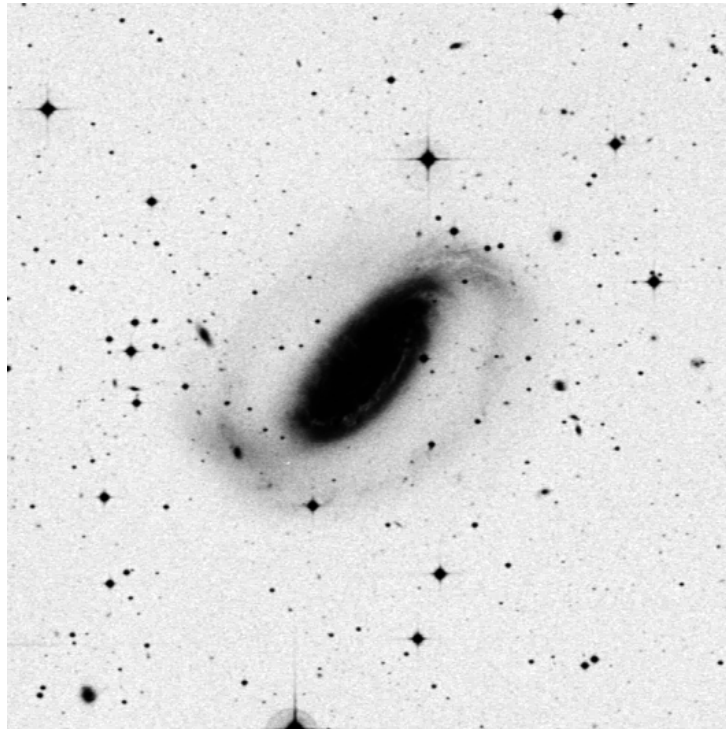
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

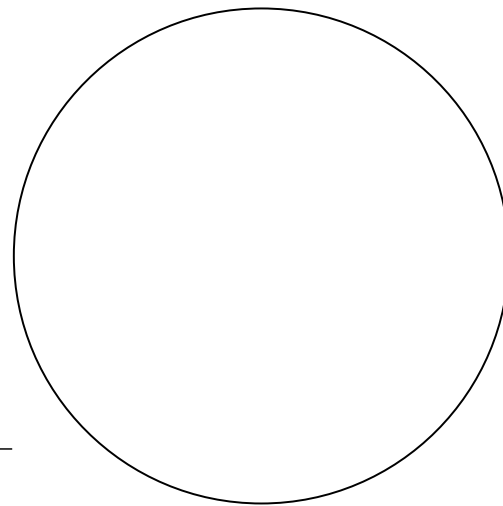
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



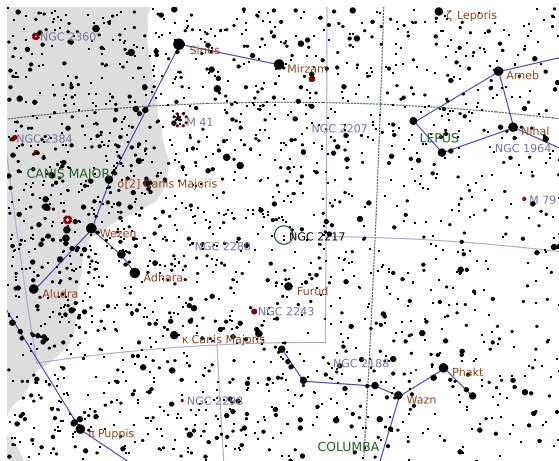
Sketch

# NGC 2217

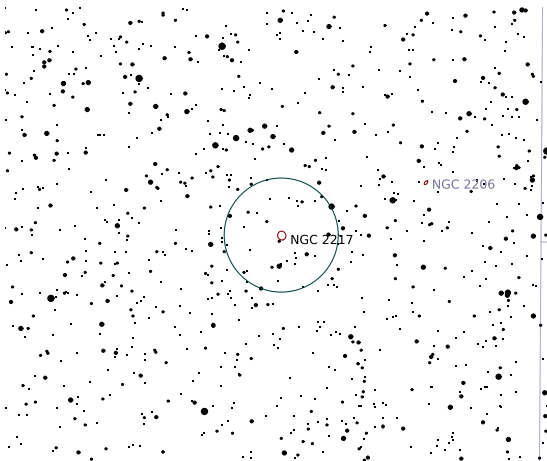
## Galaxy in Canis Major

Right Ascension (current)	06 <sup>h</sup> 22 <sup>m</sup> 12 <sup>s</sup>	Declination (current)	-27° 14' 45"
Right Ascension (J2000.0)	06 <sup>h</sup> 21 <sup>m</sup> 39 <sup>s</sup>	Declination (J2000.0)	-27° 14' 03"
Size	4.7' × 4.3'	Position Angle	69°
Magnitude	11	Other Designation	–

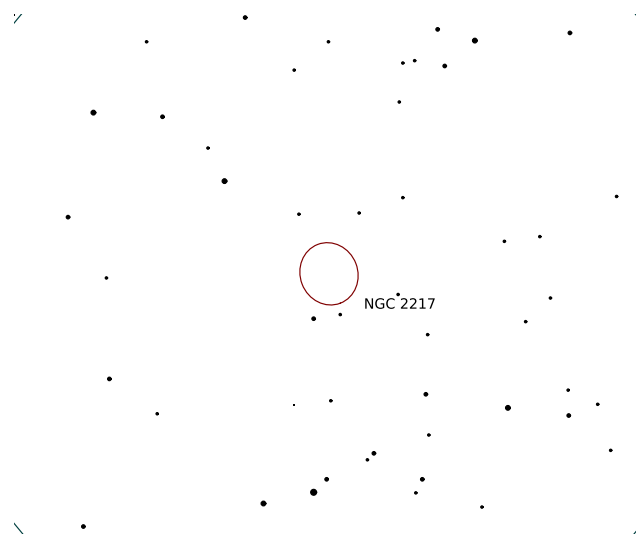
Description: Dreyer: vB;S;R;psmbM;r



Wide-field chart

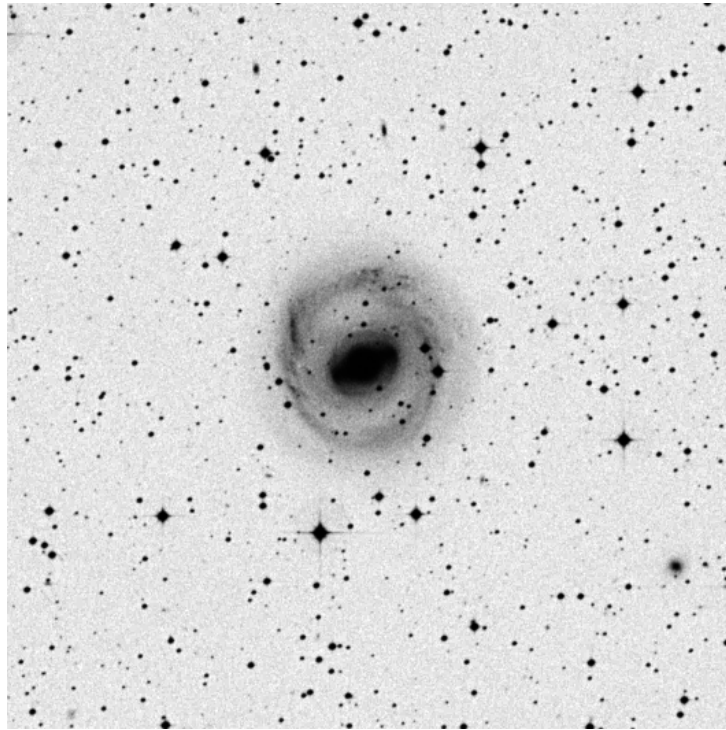


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

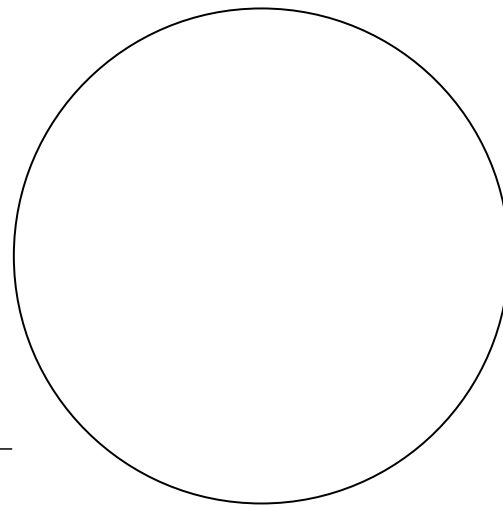
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

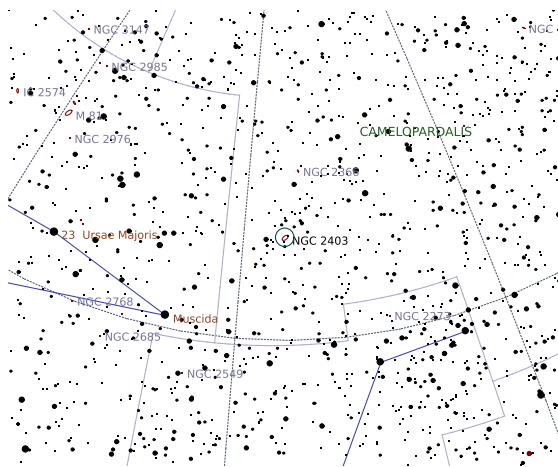
# NGC 2403

## Galaxy in Camelopardalis

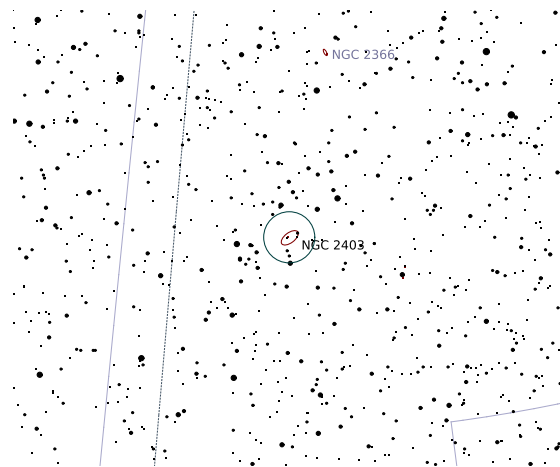
Right Ascension (current)	07 <sup>h</sup> 38 <sup>m</sup> 09 <sup>s</sup>	Declination (current)	65° 34' 14"
Right Ascension (J2000.0)	07 <sup>h</sup> 36 <sup>m</sup> 50 <sup>s</sup>	Declination (J2000.0)	65° 36' 06"
Size	23.4' × 11.8'	Position Angle	-37°
Magnitude	8.5	Other Designation	-

**Description:** Dreyer: !! cB;eL;vmE;vgmbMN

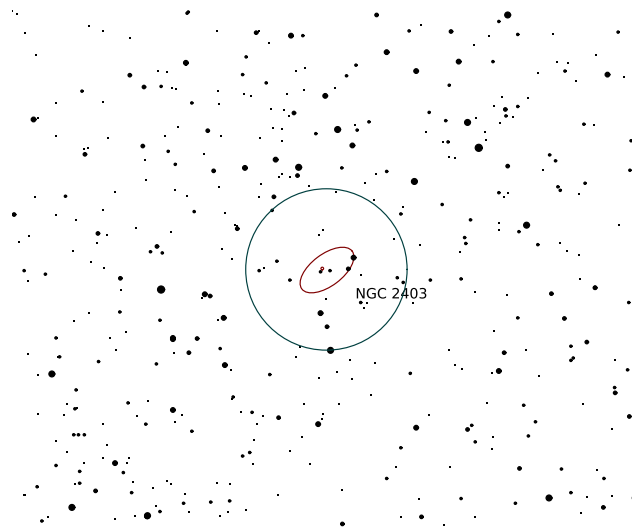
**SAC:** H V 44;in M81 group;many well res irreg arms;broad bar



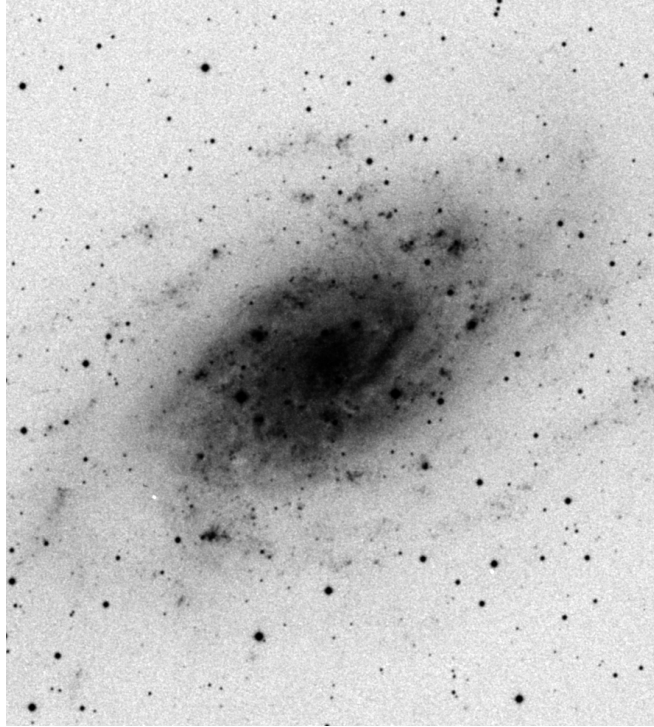
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 16.6')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

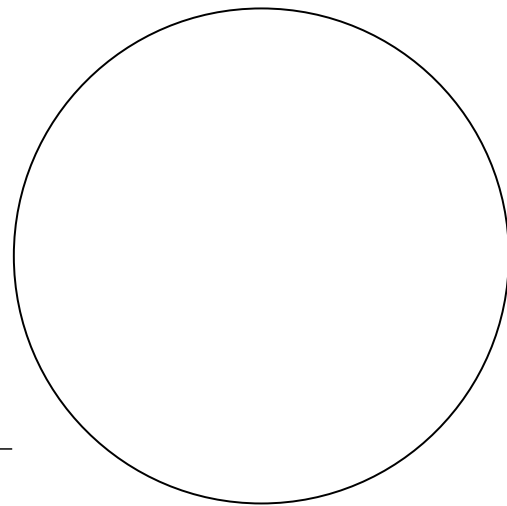
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

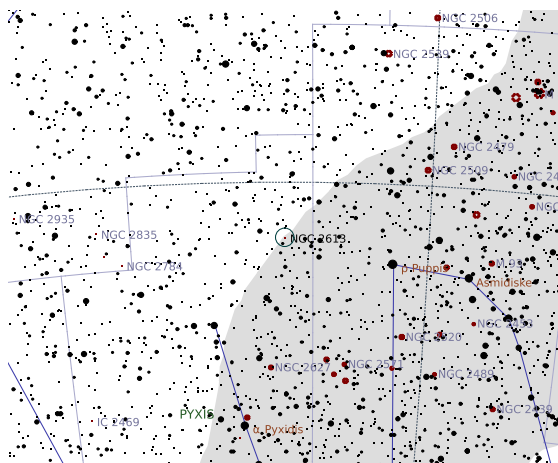
# NGC 2613

## Galaxy in Pyxis

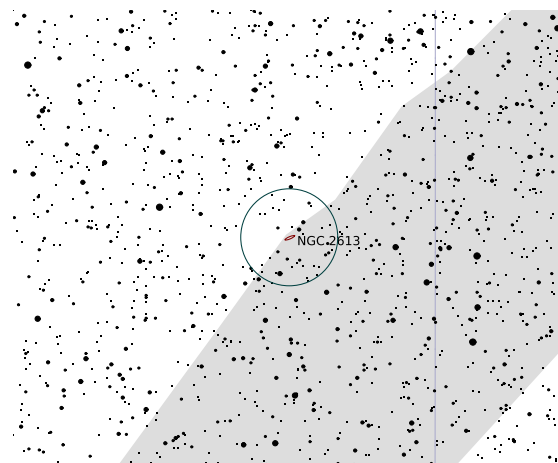
Right Ascension (current)	08 <sup>h</sup> 33 <sup>m</sup> 58 <sup>s</sup>	Declination (current)	-23° 01' 20"
Right Ascension (J2000.0)	08 <sup>h</sup> 33 <sup>m</sup> 22 <sup>s</sup>	Declination (J2000.0)	-22° 58' 22"
Size	6.5' × 1.4'	Position Angle	-23°
Magnitude	10	Other Designation	-

**Description:** Dreyer: cB;L;vmE 110 deg

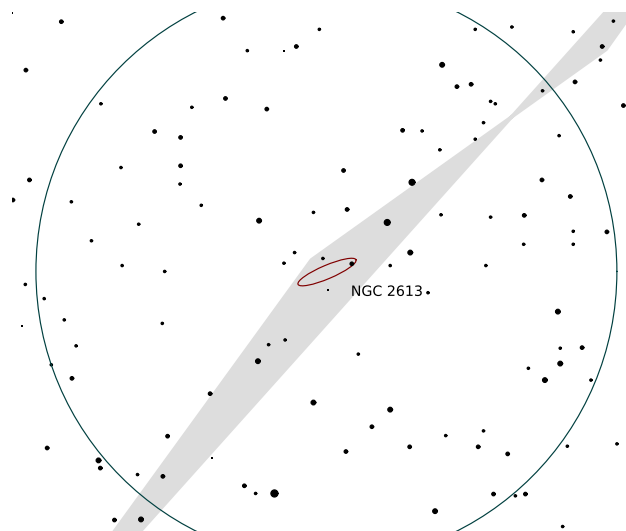
**SAC:** H II 266;1.2 deg W from D\* Burnham 208;Nearly edge-on



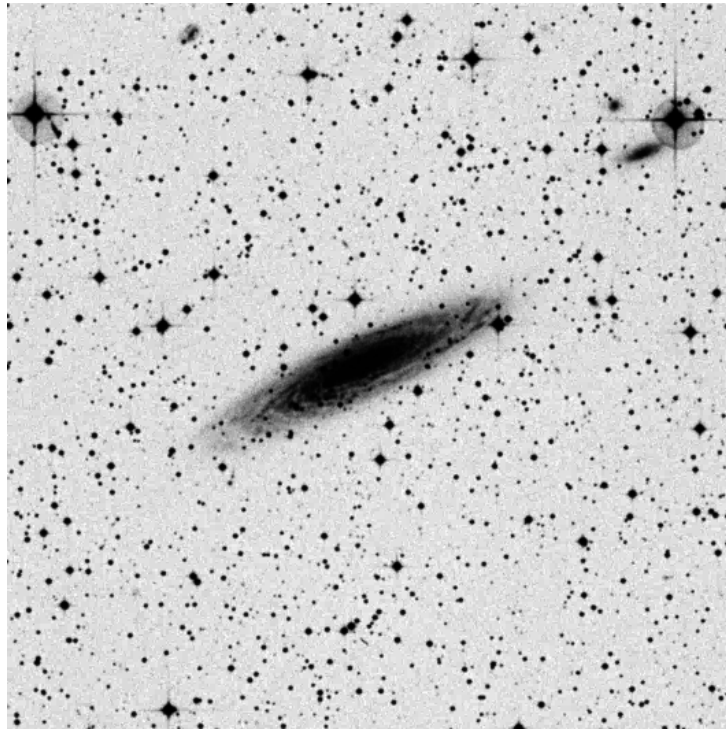
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

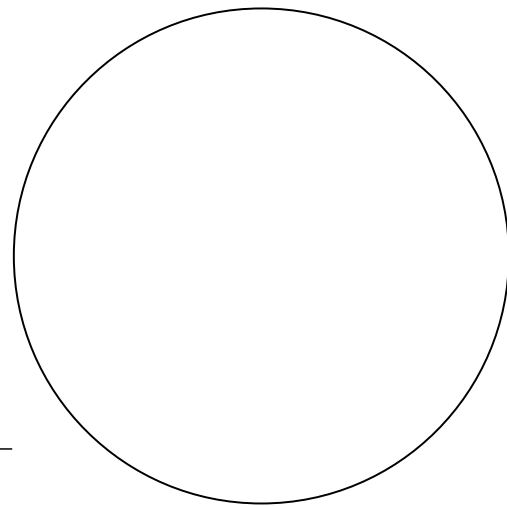
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

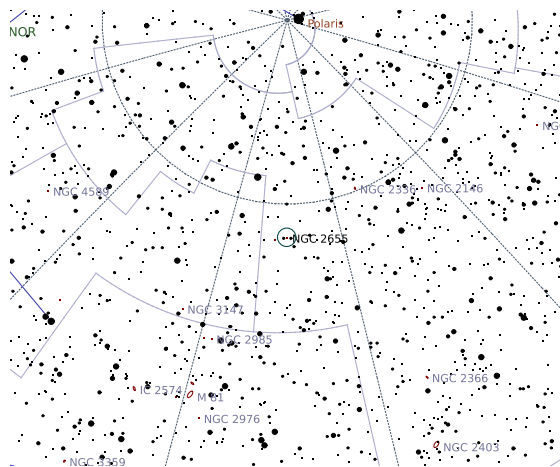
# NGC 2655

## Galaxy in Camelopardalis

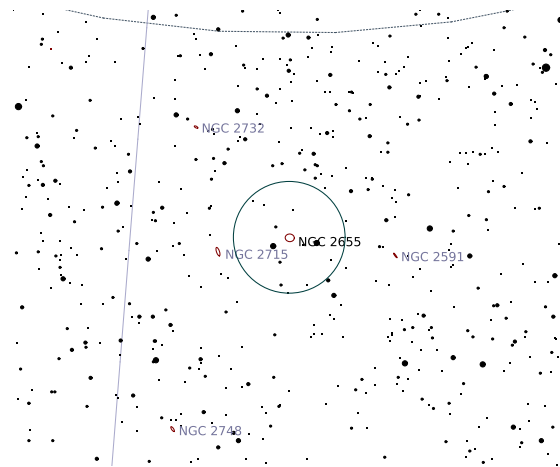
Right Ascension (current)	08 <sup>h</sup> 57 <sup>m</sup> 24 <sup>s</sup>	Declination (current)	78° 10' 14"
Right Ascension (J2000.0)	08 <sup>h</sup> 55 <sup>m</sup> 37 <sup>s</sup>	Declination (J2000.0)	78° 13' 25"
Size	4.9' × 4.1'	Position Angle	5°
Magnitude	10	Other Designation	—

**Description:** Dreyer: vB;cL;lE 90;gsymbM;diff

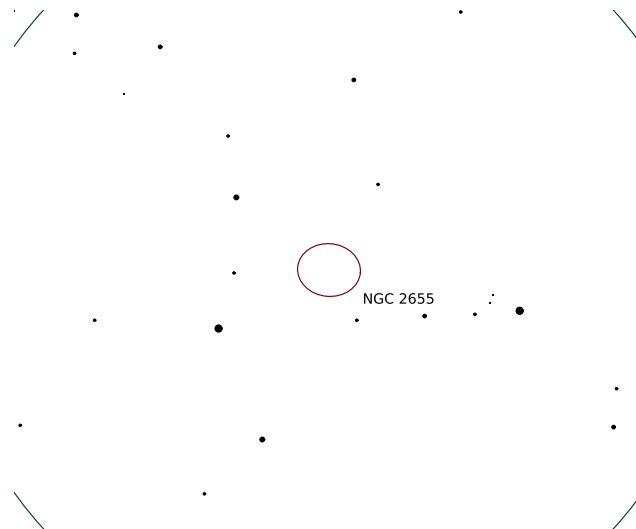
**SAC:** H I 288;large nucleus w asym dk matter in lens;faint outer whirls



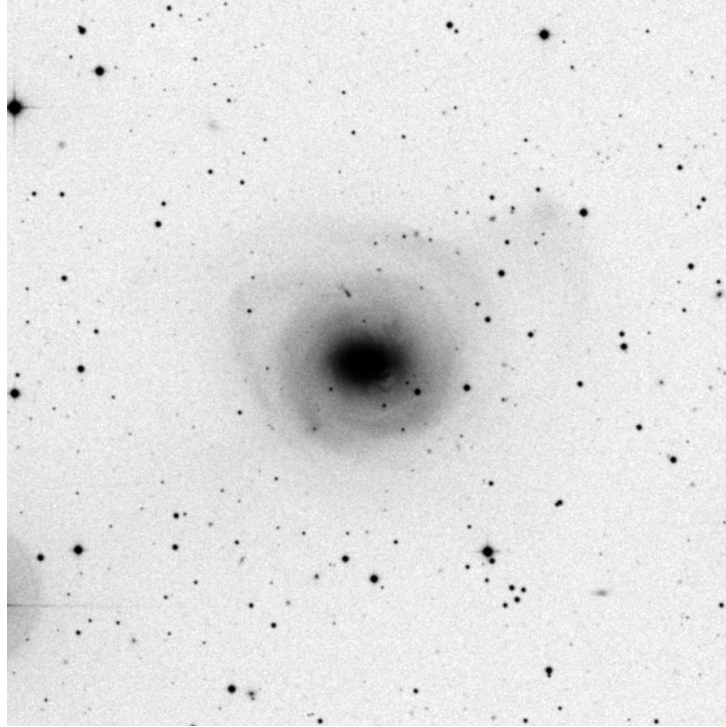
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

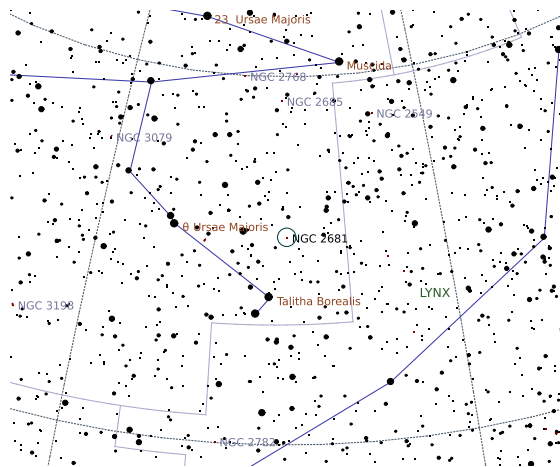
# NGC 2681

## Galaxy in Ursa Major

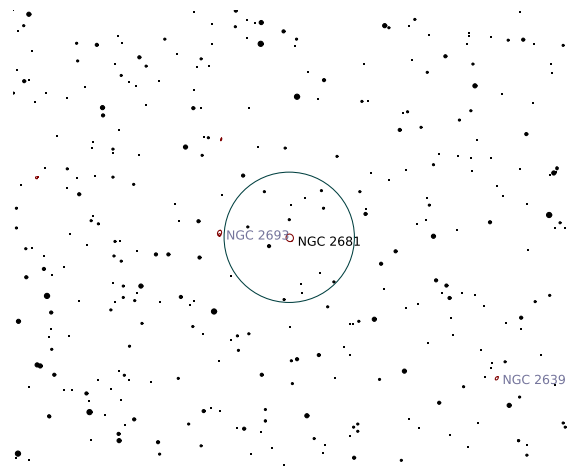
Right Ascension (current)	08 <sup>h</sup> 54 <sup>m</sup> 31 <sup>s</sup>	Declination (current)	51° 15' 35"
Right Ascension (J2000.0)	08 <sup>h</sup> 53 <sup>m</sup> 32 <sup>s</sup>	Declination (J2000.0)	51° 18' 47"
Size	3.6' × 3.3'	Position Angle	54°
Magnitude	10	Other Designation	–

**Description:** Dreyer: vB;vL;vg;vsmbM \*10

**SAC:** H I 242; Compact center and distinct spiral arms



Wide-field chart

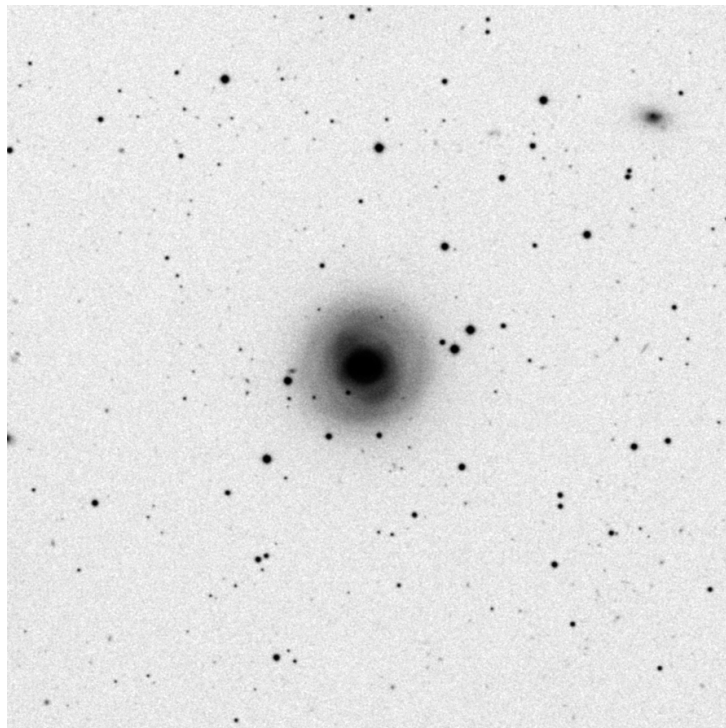


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

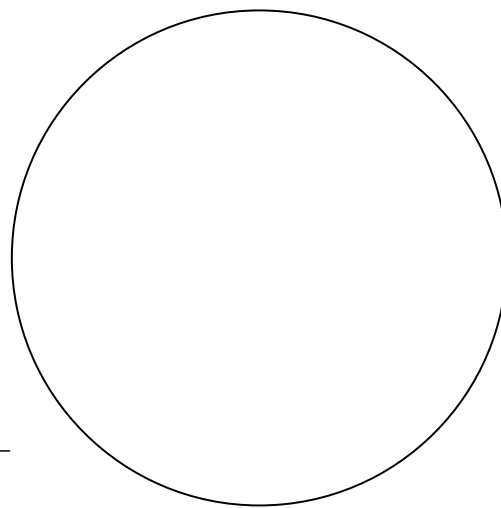
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

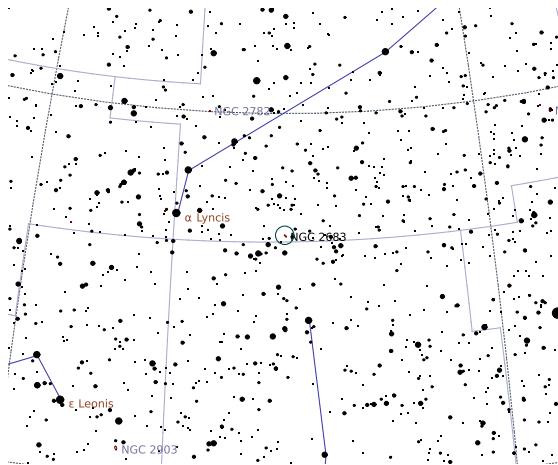
# NGC 2683

Galaxy in Lynx

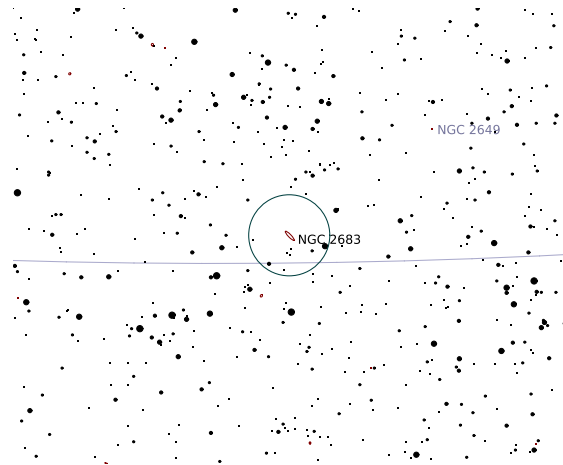
Right Ascension (current)	08 <sup>h</sup> 53 <sup>m</sup> 32 <sup>s</sup>	Declination (current)	33° 21' 59"
Right Ascension (J2000.0)	08 <sup>h</sup> 52 <sup>m</sup> 41 <sup>s</sup>	Declination (J2000.0)	33° 25' 12"
Size	9.3' × 2.1'	Position Angle	46°
Magnitude	9.8	Other Designation	–

**Description:** Dreyer: vB;vL;vmE39;gmbM

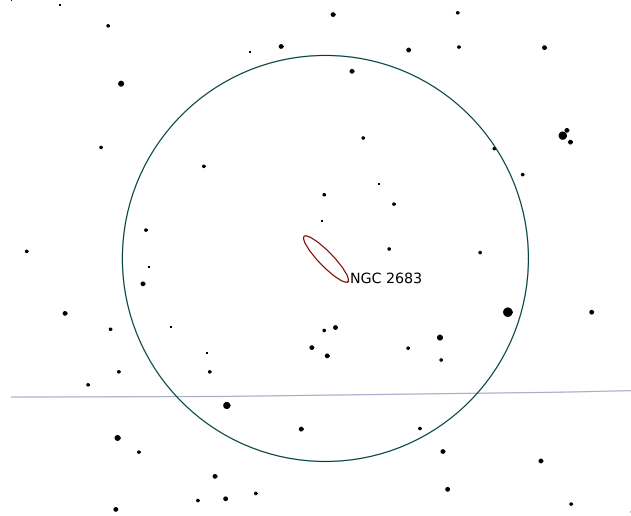
**SAC:** H I 200;peanut-shaped bulge;many filam; arm w dk lanes 1 side



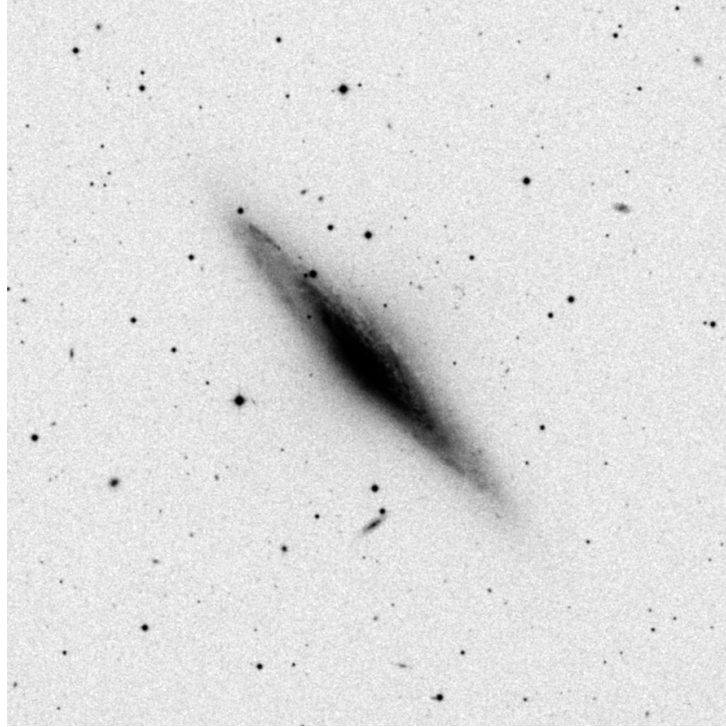
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

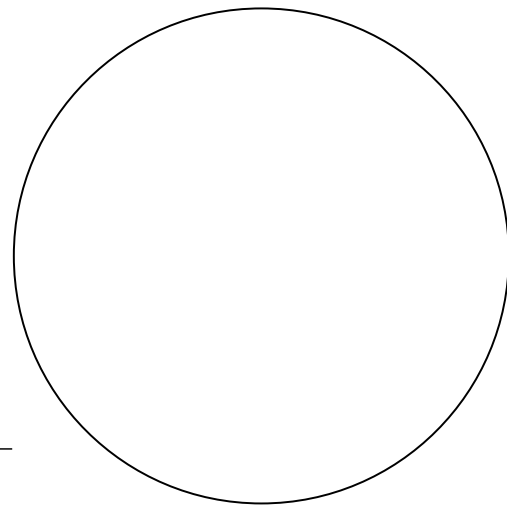
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

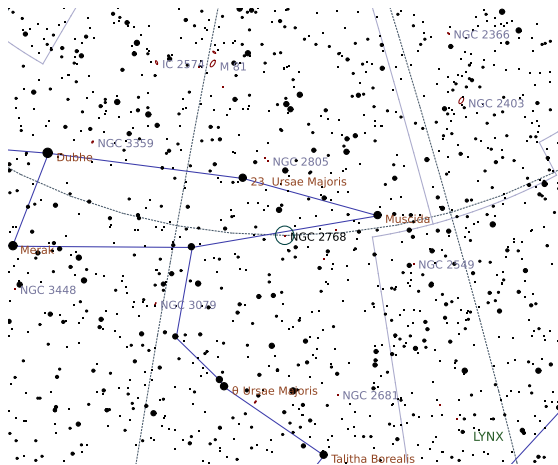
# NGC 2768

## Galaxy in Ursa Major

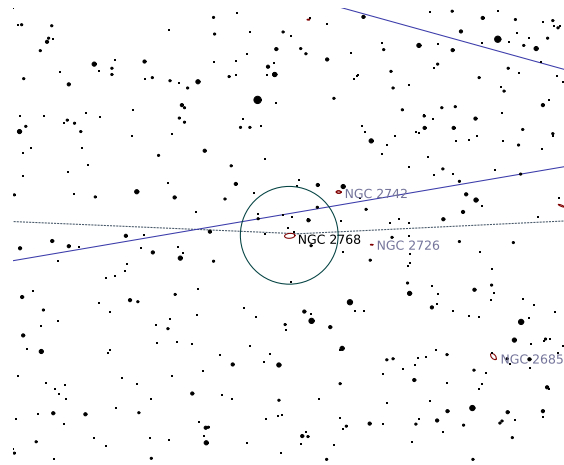
Right Ascension (current)	09 <sup>h</sup> 12 <sup>m</sup> 41 <sup>s</sup>	Declination (current)	59° 58' 44"
Right Ascension (J2000.0)	09 <sup>h</sup> 11 <sup>m</sup> 37 <sup>s</sup>	Declination (J2000.0)	60° 02' 11"
Size	6.4' × 3'	Position Angle	-5°
Magnitude	9.9	Other Designation	-

**Description:** Dreyer: cB;cL;lE;psbM;LBN

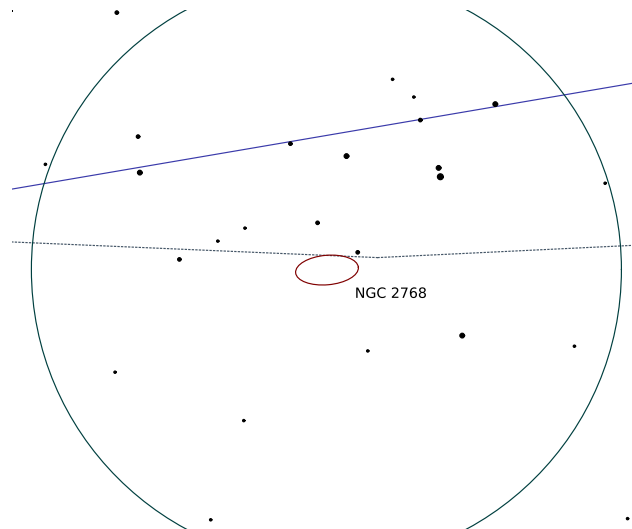
**SAC:** H I 250;vsvB center; smooth neb in lens and external envelope



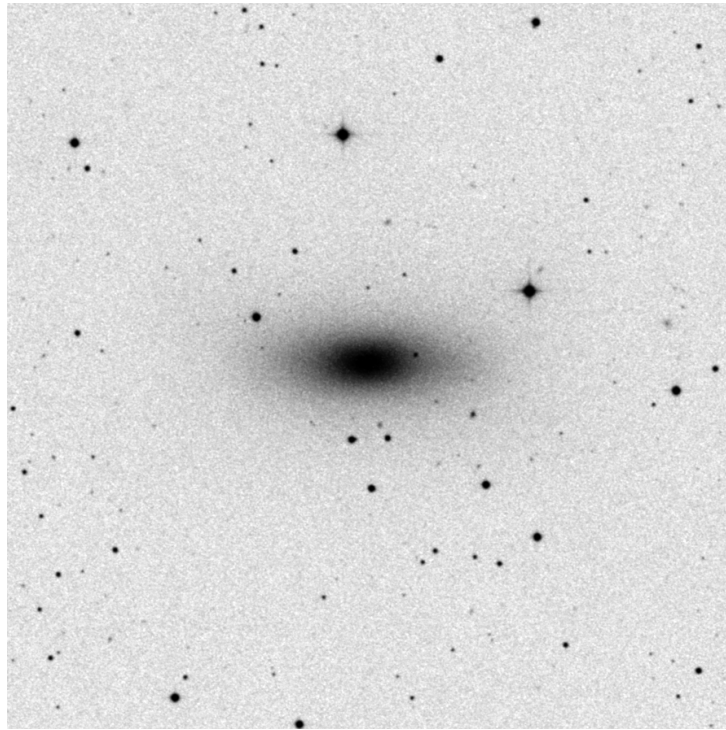
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

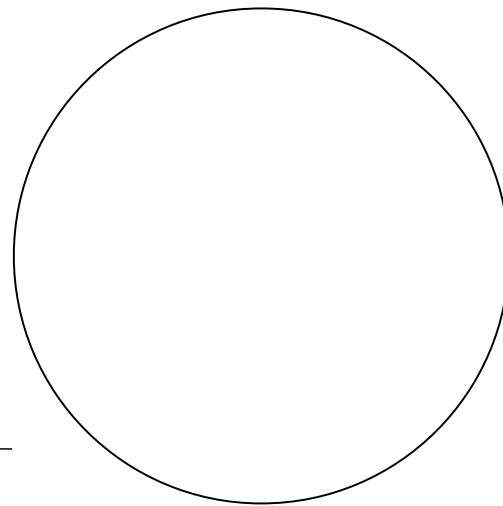
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

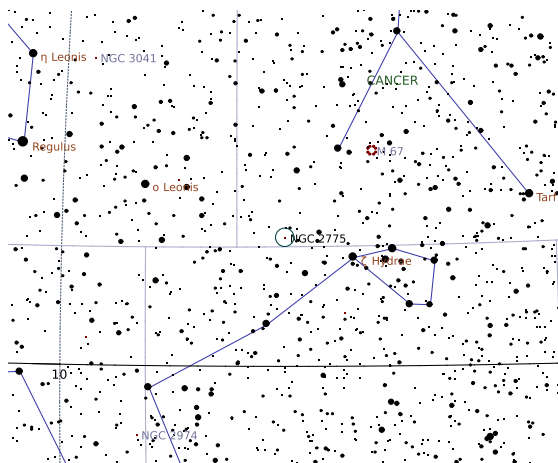
# NGC 2775

Galaxy in Cancer

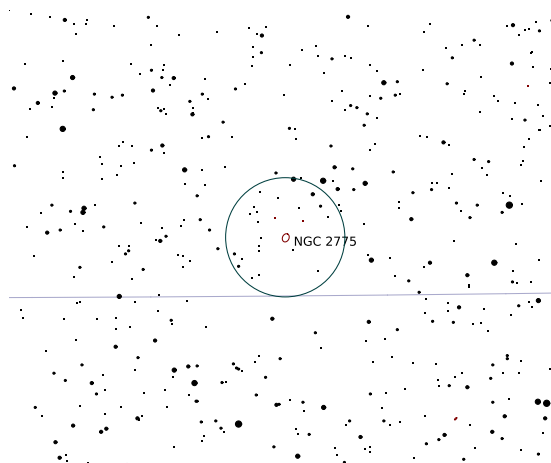
Right Ascension (current)	09 <sup>h</sup> 11 <sup>m</sup> 03 <sup>s</sup>	Declination (current)	6° 58' 45''
Right Ascension (J2000.0)	09 <sup>h</sup> 10 <sup>m</sup> 20 <sup>s</sup>	Declination (J2000.0)	7° 02' 14''
Size	4.3' × 3.3'	Position Angle	-65°
Magnitude	10	Other Designation	-

**Description:** Dreyer: cB;cL;R;vgysmbM;r

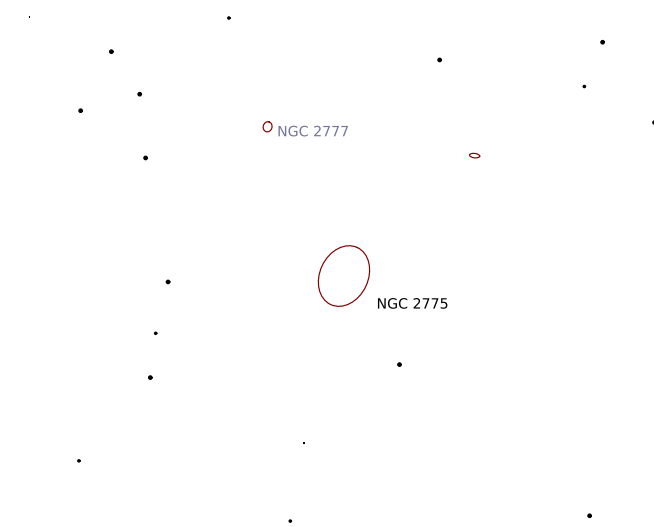
**SAC:** H I 2;N in B smooth lens;many knotty arms form dk lane



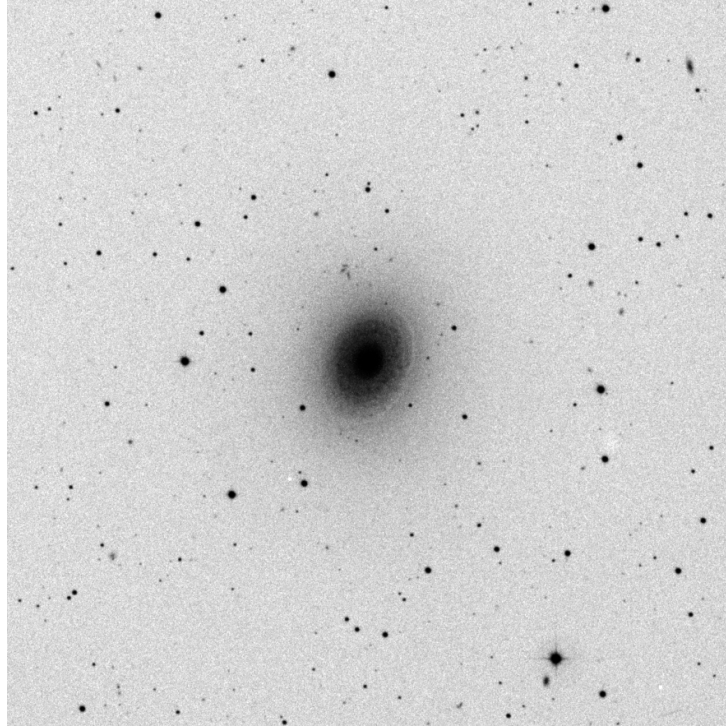
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

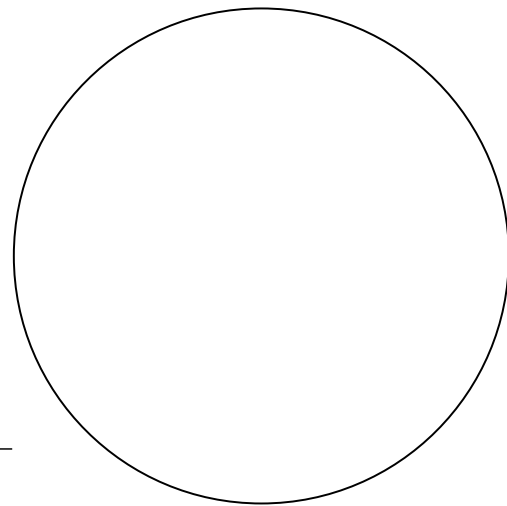
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

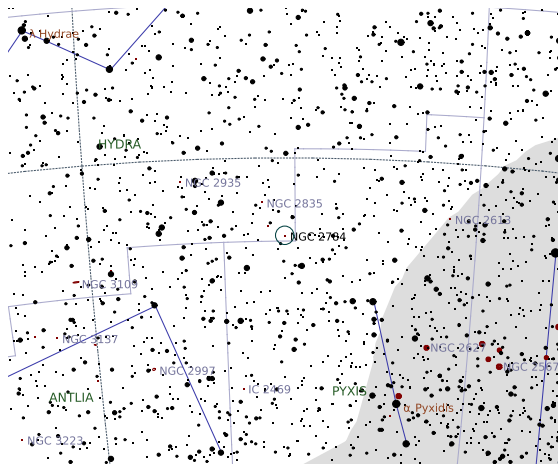
# NGC 2784

## Galaxy in Hydra

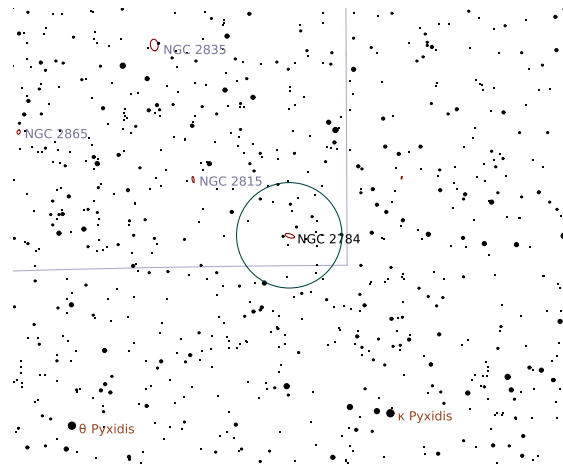
Right Ascension (current)	09 <sup>h</sup> 12 <sup>m</sup> 56 <sup>s</sup>	Declination (current)	-24° 13' 50"
Right Ascension (J2000.0)	09 <sup>h</sup> 12 <sup>m</sup> 19 <sup>s</sup>	Declination (J2000.0)	-24° 10' 21"
Size	5.5' × 2.2'	Position Angle	17°
Magnitude	10	Other Designation	—

**Description:** Dreyer: B;L;mE 64 deg;gmbM

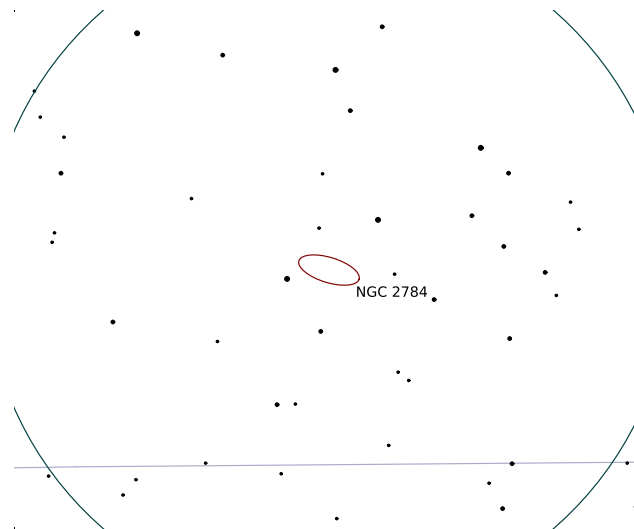
**SAC:** H I 59



Wide-field chart

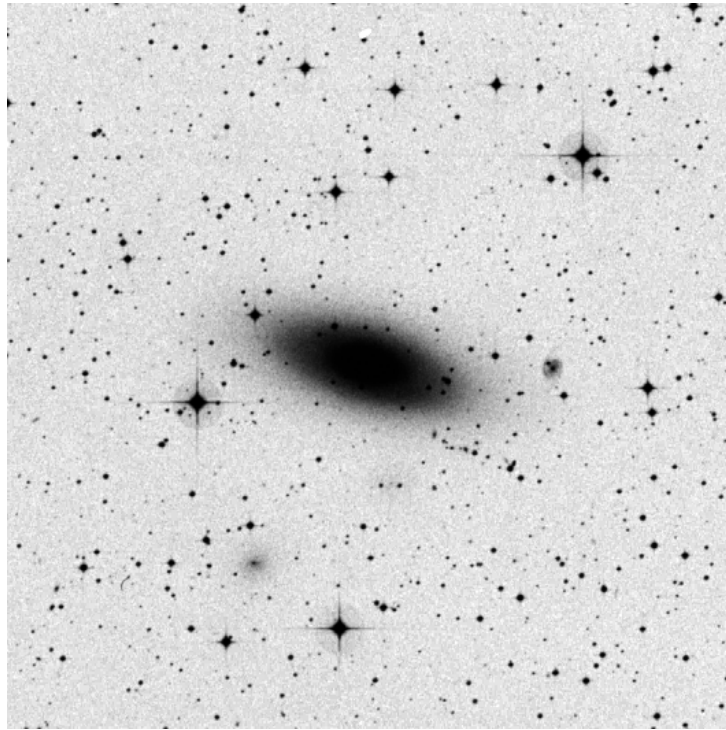


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

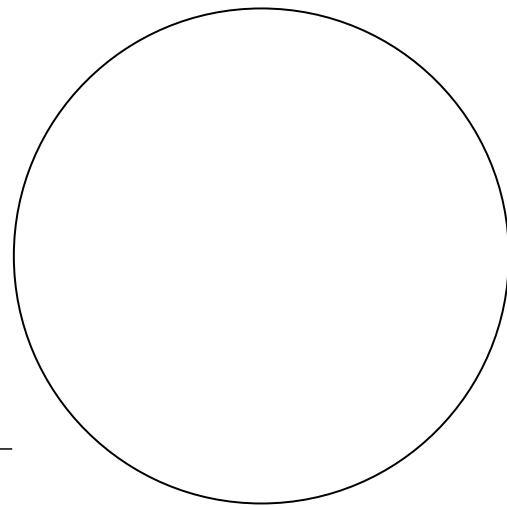
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

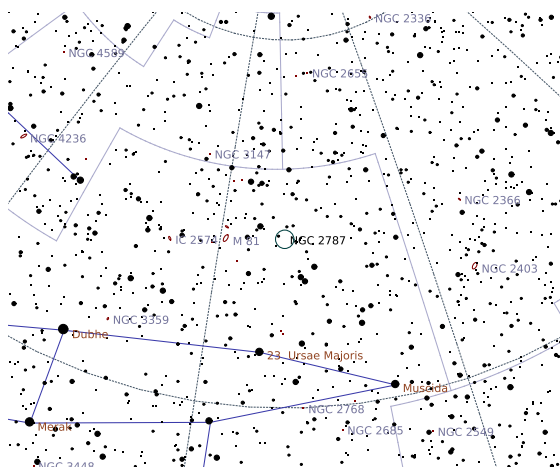
# NGC 2787

## Galaxy in Ursa Major

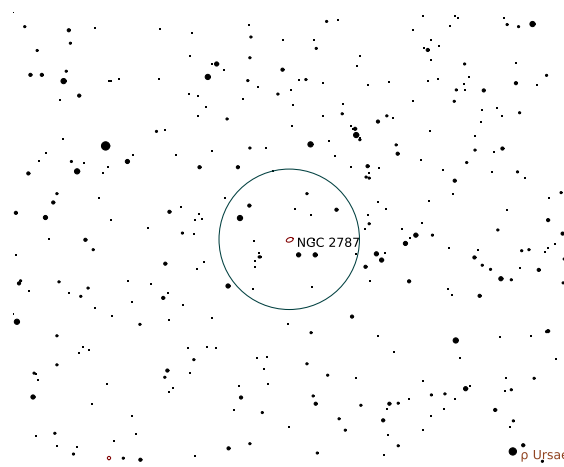
Right Ascension (current)	09 <sup>h</sup> 20 <sup>m</sup> 32 <sup>s</sup>	Declination (current)	69° 08' 40"
Right Ascension (J2000.0)	09 <sup>h</sup> 19 <sup>m</sup> 18 <sup>s</sup>	Declination (J2000.0)	69° 12' 13"
Size	3.1' × 1.8'	Position Angle	-21°
Magnitude	11	Other Designation	-

**Description:** Dreyer: B;pL;lE 90 deg;mbM;r;vS\* sf inv

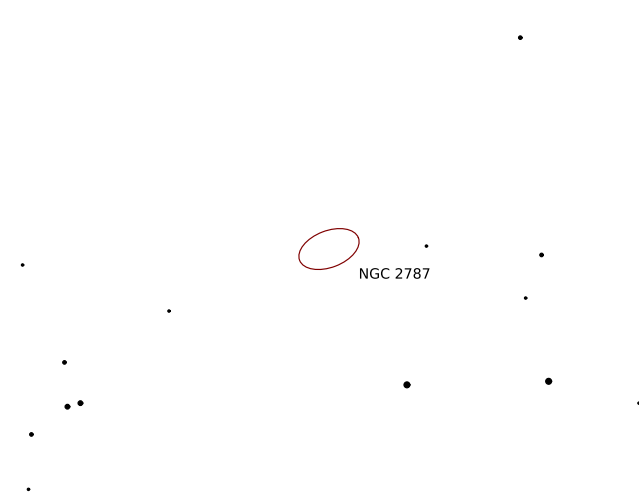
**SAC:** H I 216;B nucl in B inner lens;strong narrow bar w blobs



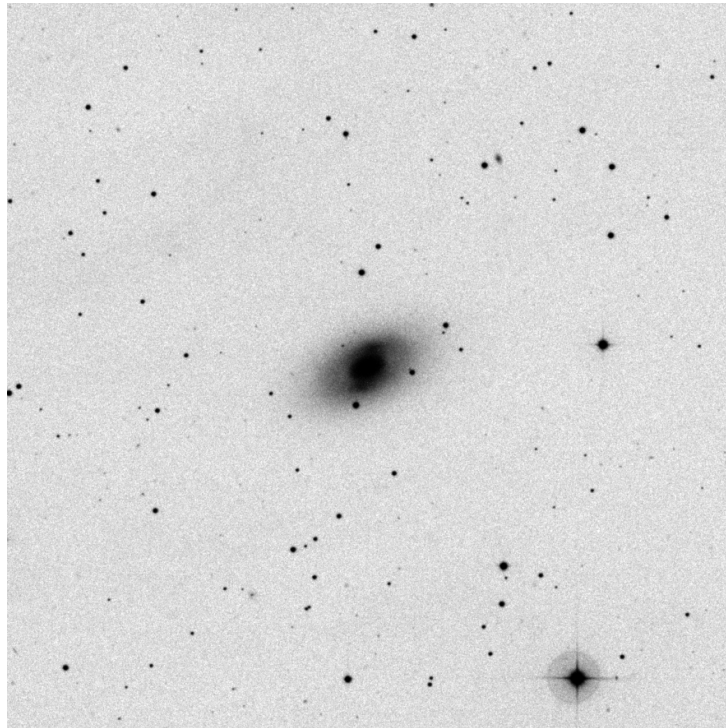
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

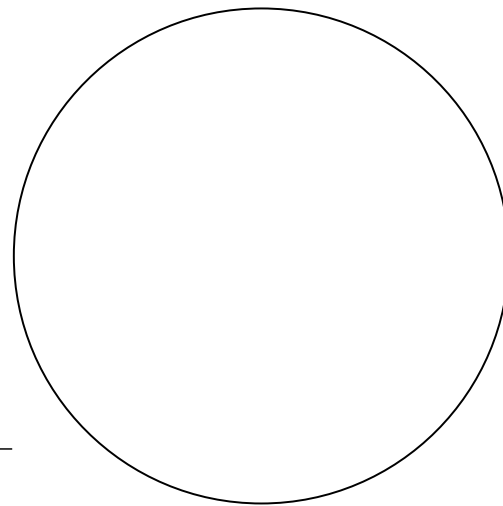
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



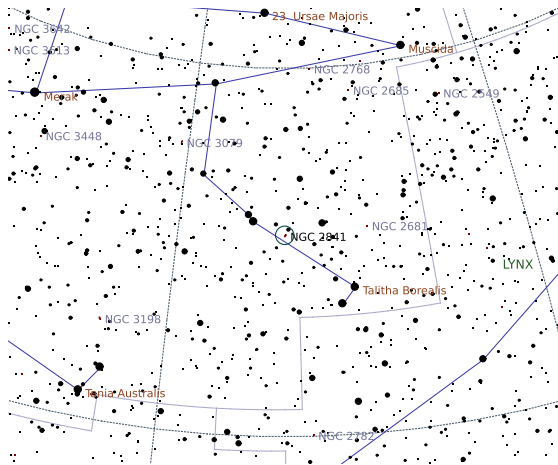
Sketch

# NGC 2841

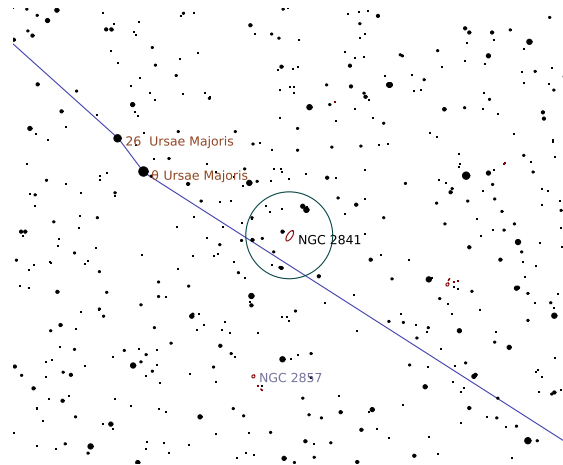
## Galaxy in Ursa Major

Right Ascension (current)	09 <sup>h</sup> 22 <sup>m</sup> 58 <sup>s</sup>	Declination (current)	50° 54' 59"
Right Ascension (J2000.0)	09 <sup>h</sup> 22 <sup>m</sup> 02 <sup>s</sup>	Declination (J2000.0)	50° 58' 35"
Size	8.1' × 3.5'	Position Angle	-57°
Magnitude	9.2	Other Designation	-

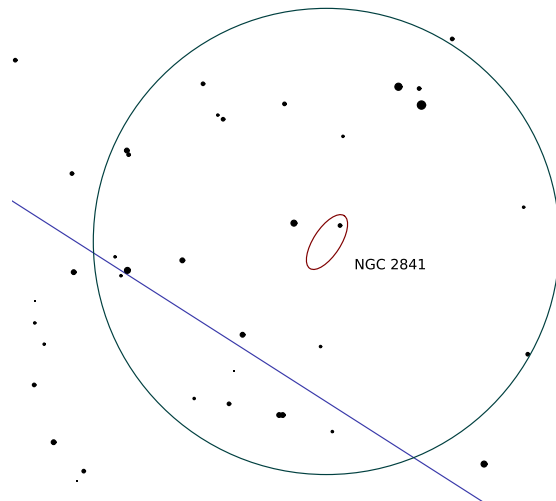
**Description:** Dreyer: vB;L;vmE151;vsmbM = \*10  
**SAC:** H I 205;fine spiral w symmetrical whorls



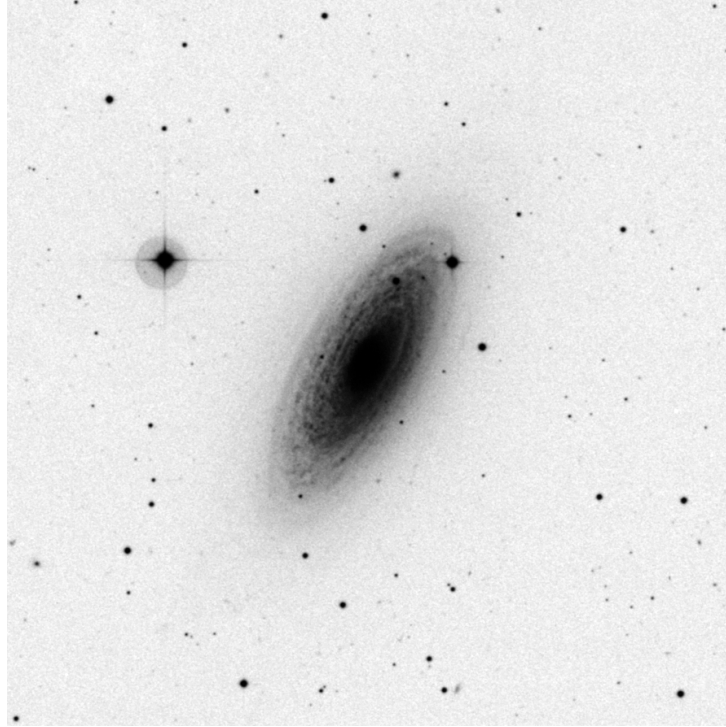
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

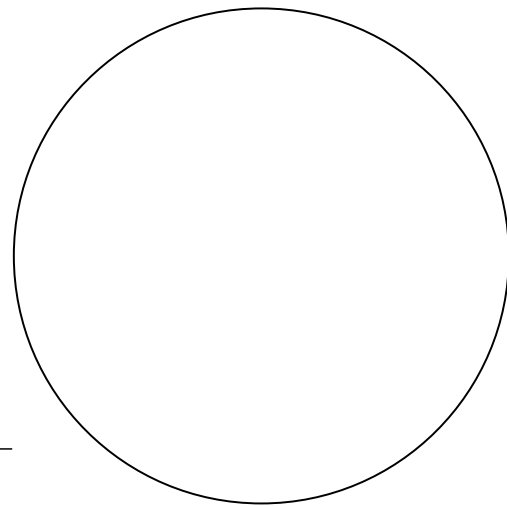
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

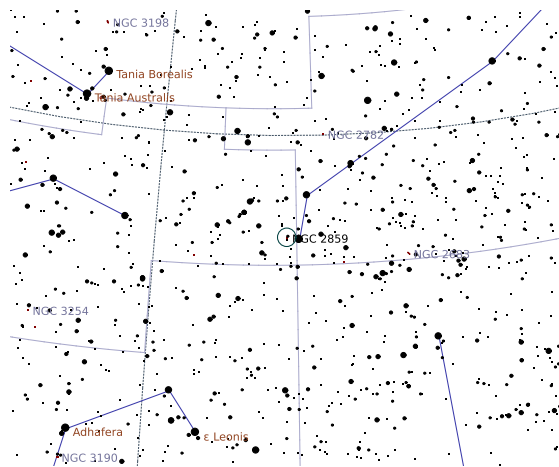
# NGC 2859

Galaxy in Leo Minor

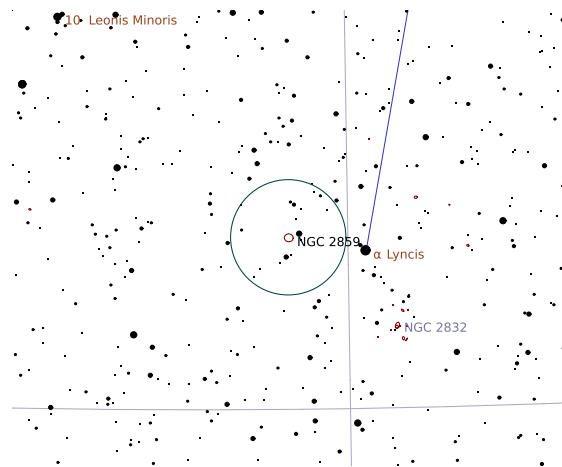
Right Ascension (current)	09 <sup>h</sup> 25 <sup>m</sup> 08 <sup>s</sup>	Declination (current)	34° 27' 09"
Right Ascension (J2000.0)	09 <sup>h</sup> 24 <sup>m</sup> 18 <sup>s</sup>	Declination (J2000.0)	34° 30' 48"
Size	4.6' × 4.1'	Position Angle	5°
Magnitude	11	Other Designation	–

**Description:** Dreyer: vB;pL;R;smbM

**SAC:** H I 137;bright nucleus in diff. bar w diff. blobs



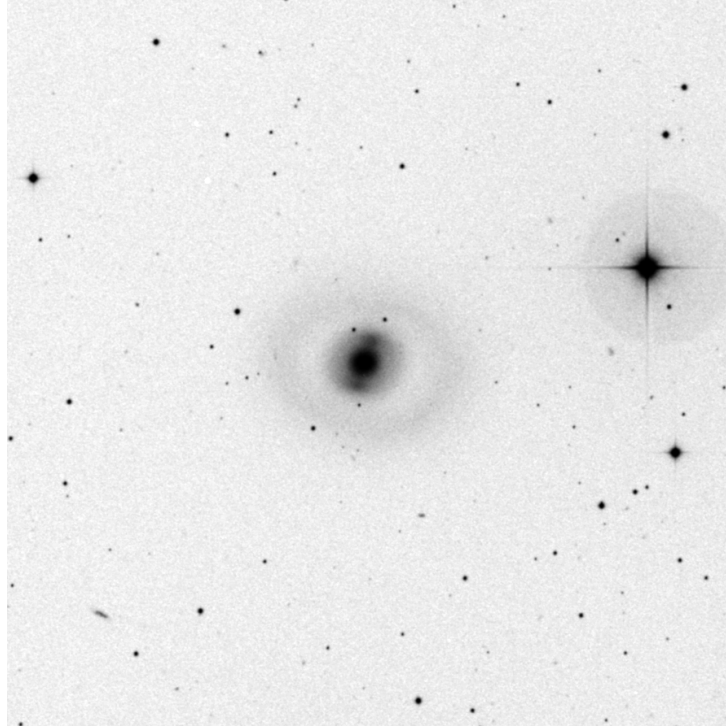
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

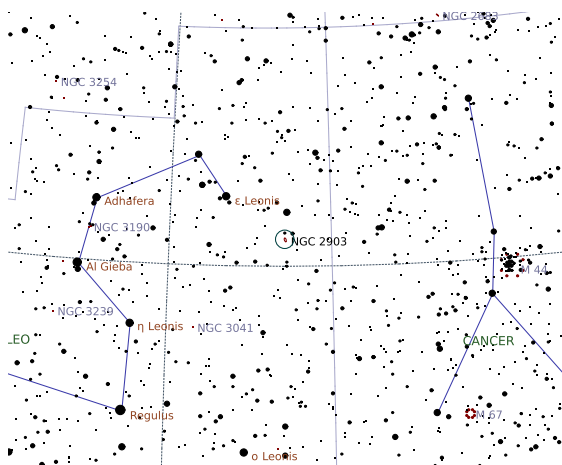
# NGC 2903

Galaxy in Leo

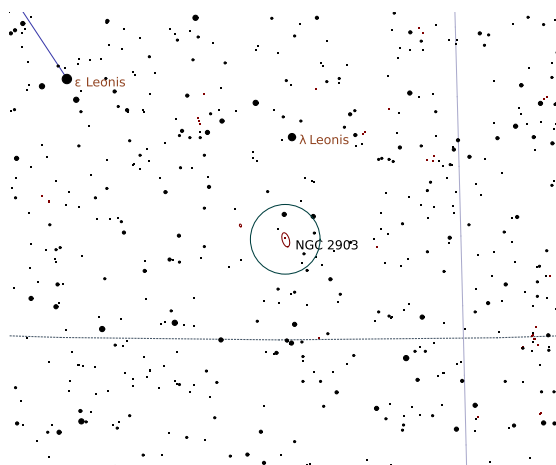
Right Ascension (current)	09 <sup>h</sup> 32 <sup>m</sup> 55 <sup>s</sup>	Declination (current)	21° 26' 12"
Right Ascension (J2000.0)	09 <sup>h</sup> 32 <sup>m</sup> 09 <sup>s</sup>	Declination (J2000.0)	21° 29' 57"
Size	12.6' × 6'	Position Angle	73°
Magnitude	9	Other Designation	–

**Description:** Dreyer: cB;vL;E;gmbM;r;sp of 2

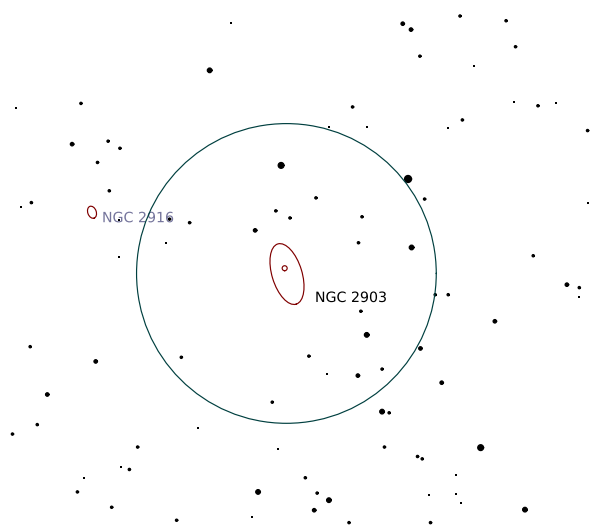
**SAC:** H I 56;short B nucleus bar;fine multi arm spiral



Wide-field chart

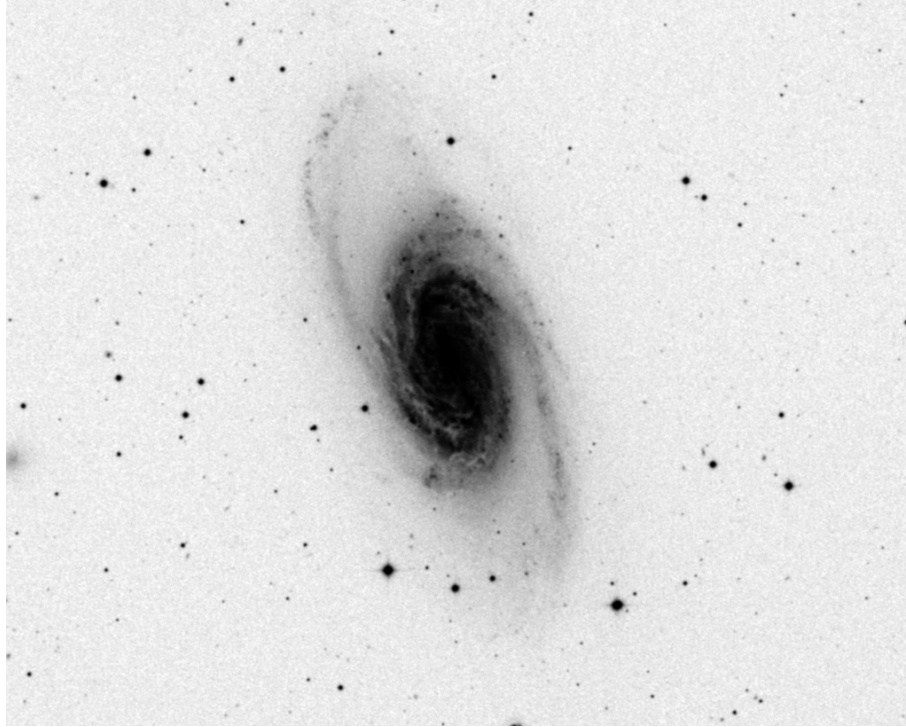


Intermediate chart



Zoomed-in chart





DSS Image (18.8' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

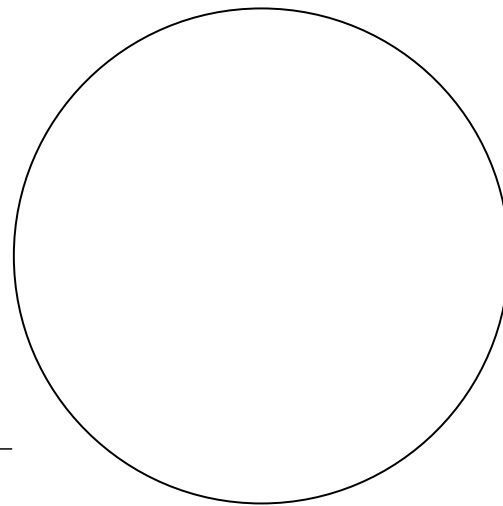
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

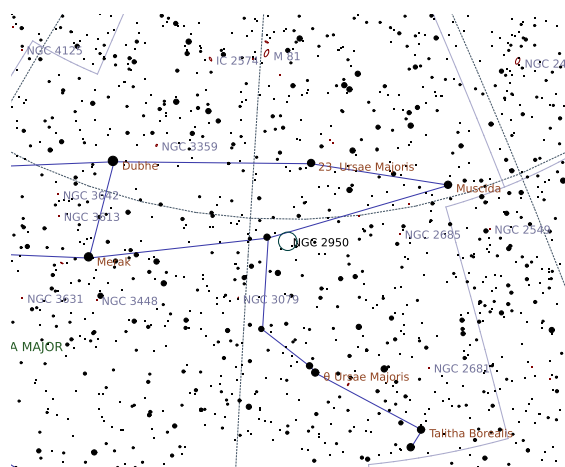
# NGC 2950

Galaxy in Ursa Major

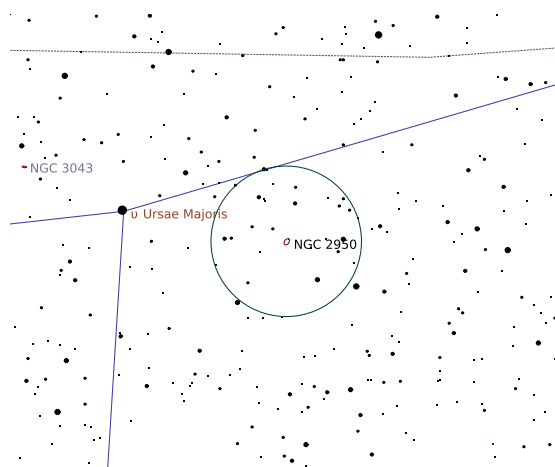
Right Ascension (current)	09 <sup>h</sup> 43 <sup>m</sup> 33 <sup>s</sup>	Declination (current)	58° 47' 14"
Right Ascension (J2000.0)	09 <sup>h</sup> 42 <sup>m</sup> 34 <sup>s</sup>	Declination (J2000.0)	58° 51' 05"
Size	2.7' × 1.8'	Position Angle	−55°
Magnitude	11	Other Designation	–

**Description:** Dreyer: B;pS;R;vgvmbMN

**SAC:** H IV 68



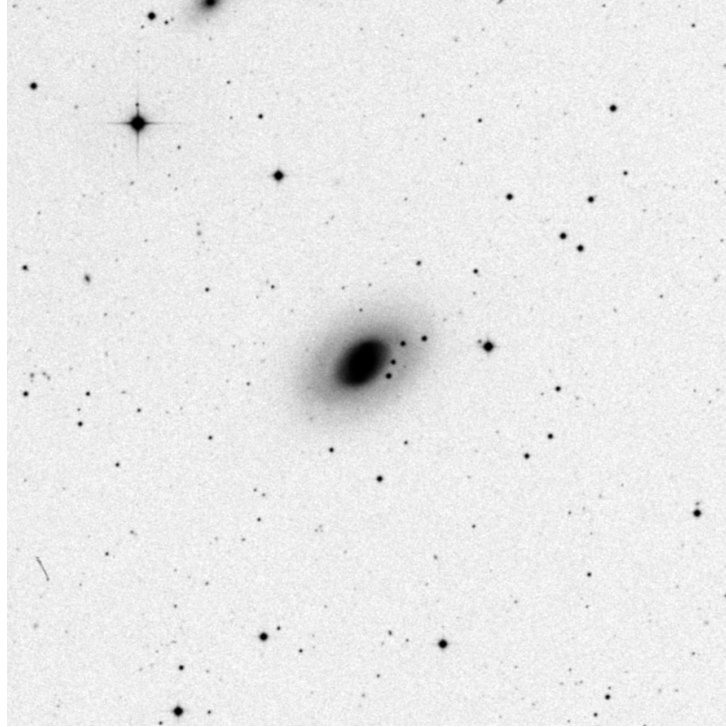
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

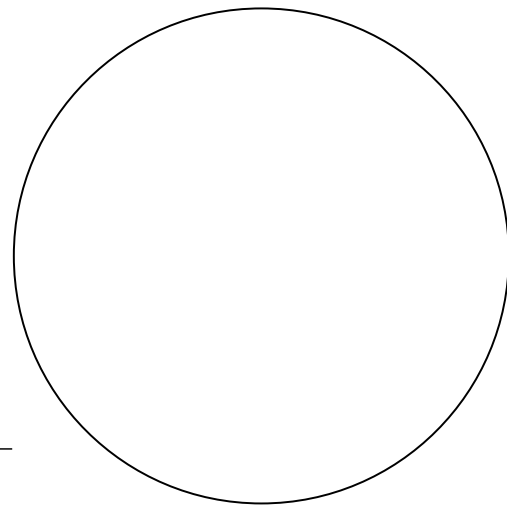
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

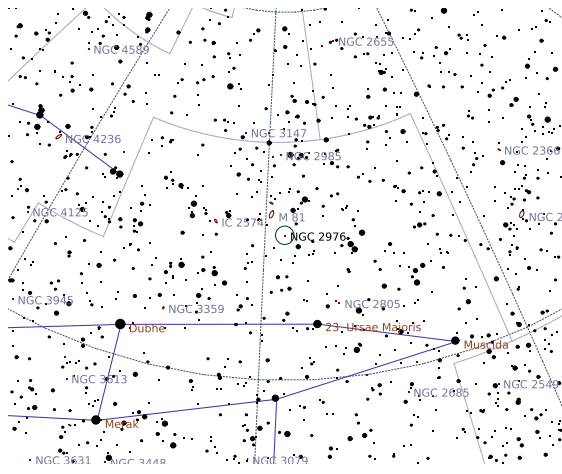
# NGC 2976

## Galaxy in Ursa Major

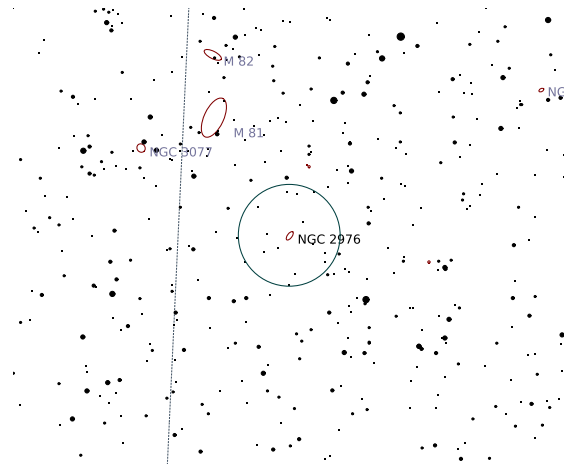
Right Ascension (current)	09 <sup>h</sup> 48 <sup>m</sup> 21 <sup>s</sup>	Declination (current)	67° 51' 09"
Right Ascension (J2000.0)	09 <sup>h</sup> 47 <sup>m</sup> 14 <sup>s</sup>	Declination (J2000.0)	67° 55' 03"
Size	5.9' × 2.7'	Position Angle	-53°
Magnitude	10	Other Designation	-

**Description:** Dreyer: B;vL;mE152;st inv

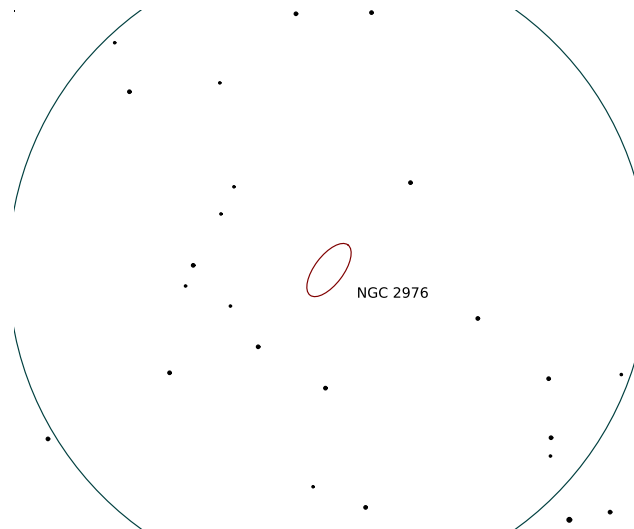
**SAC:** H I 285;B main body;chaotic inner w many dk lane;F outer disc



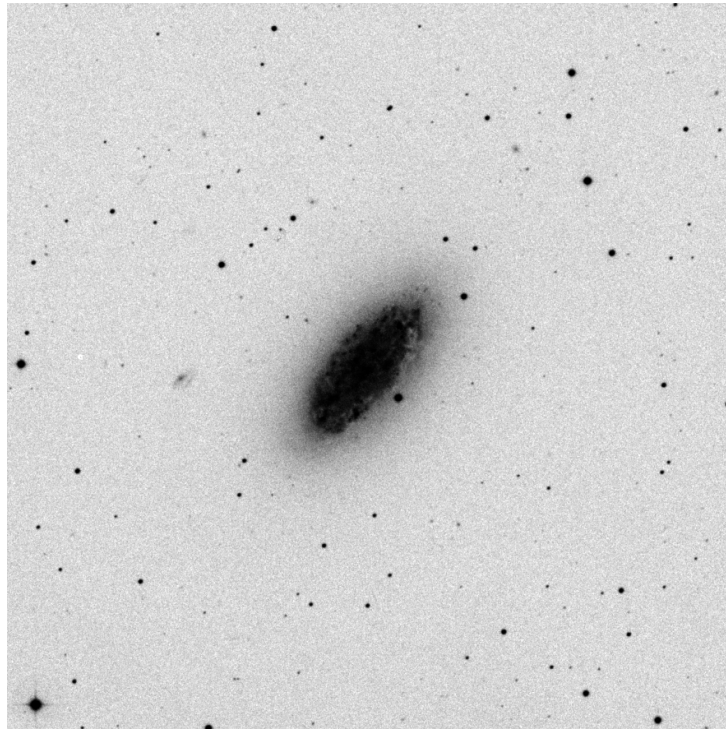
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

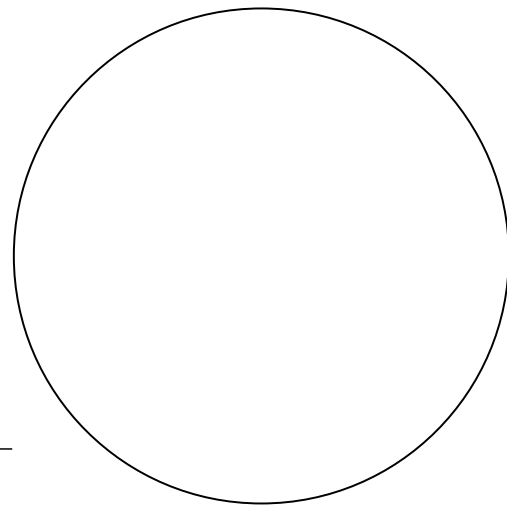
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

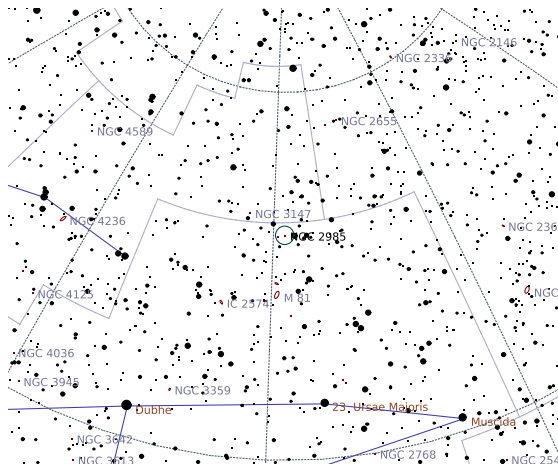
# NGC 2985

Galaxy in Ursa Major

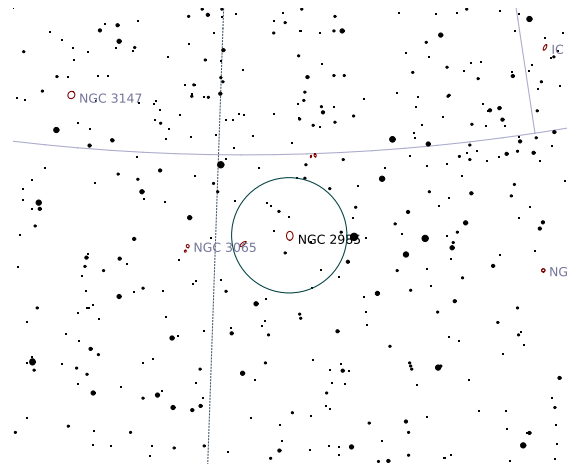
Right Ascension (current)	09 <sup>h</sup> 51 <sup>m</sup> 35 <sup>s</sup>	Declination (current)	72° 12' 47"
Right Ascension (J2000.0)	09 <sup>h</sup> 50 <sup>m</sup> 21 <sup>s</sup>	Declination (J2000.0)	72° 16' 43"
Size	4.6' × 3.4'	Position Angle	90°
Magnitude	10	Other Designation	–

**Description:** Dreyer: vB;cL;R;psmbM;\* inv f

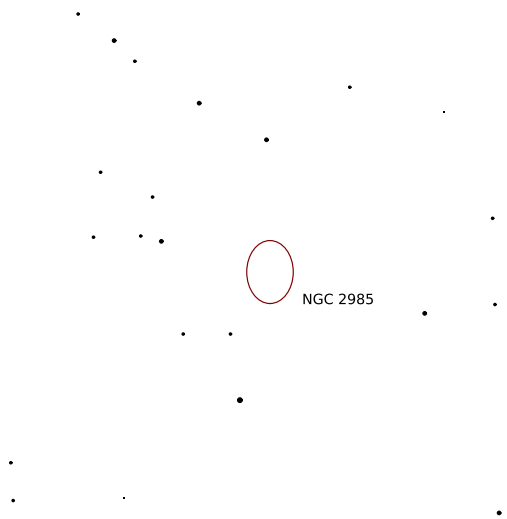
**SAC:** H I 78;diff BN;many poor res knotty arms; P w NGC 3027 at 25'



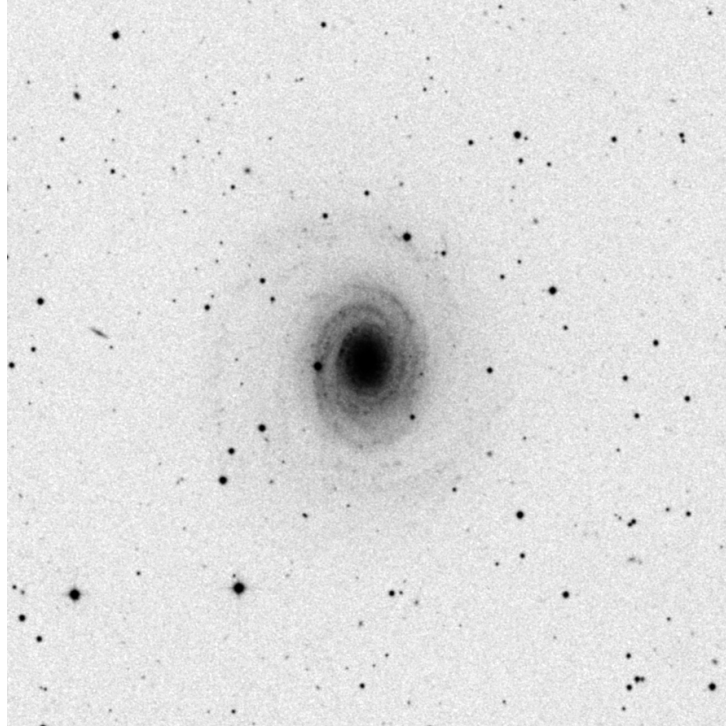
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

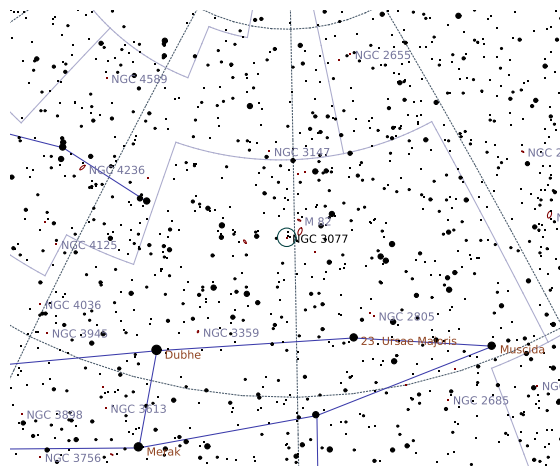
# NGC 3077

Galaxy in Ursa Major

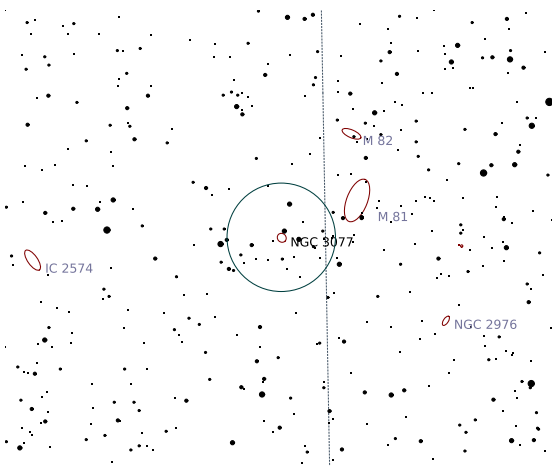
Right Ascension (current)	$10^{\text{h}} 04^{\text{m}} 26^{\text{s}}$	Declination (current)	$68^{\circ} 40' 02''$
Right Ascension (J2000.0)	$10^{\text{h}} 03^{\text{m}} 20^{\text{s}}$	Declination (J2000.0)	$68^{\circ} 44' 06''$
Size	$5.2' \times 4.7'$	Position Angle	$45^{\circ}$
Magnitude	9.9	Other Designation	—

**Description:** Dreyer: cB;cL;mbM;R w ray

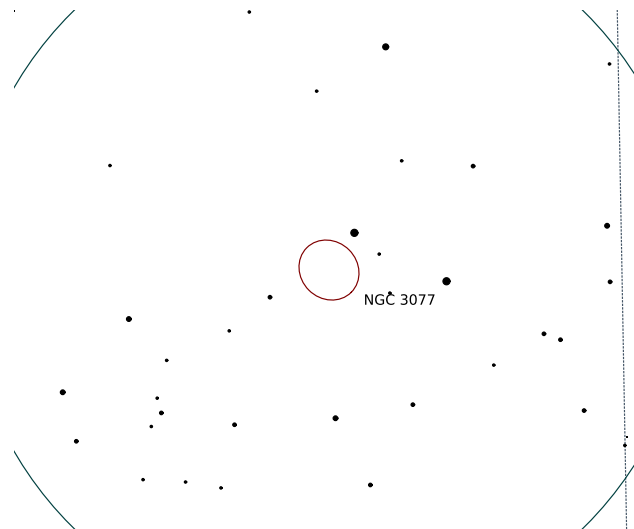
**SAC:** H I 286;M81 group;dust streamers tending to radial direction



Wide-field chart

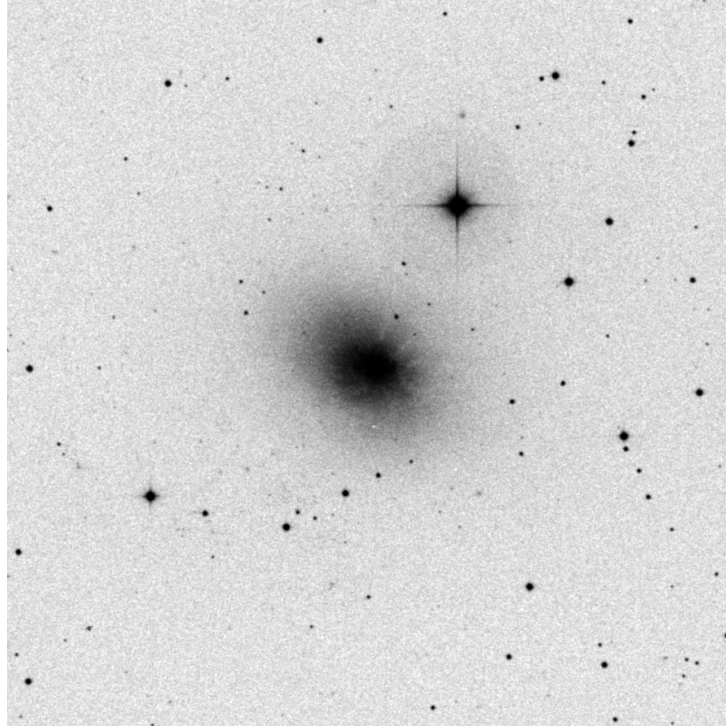


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

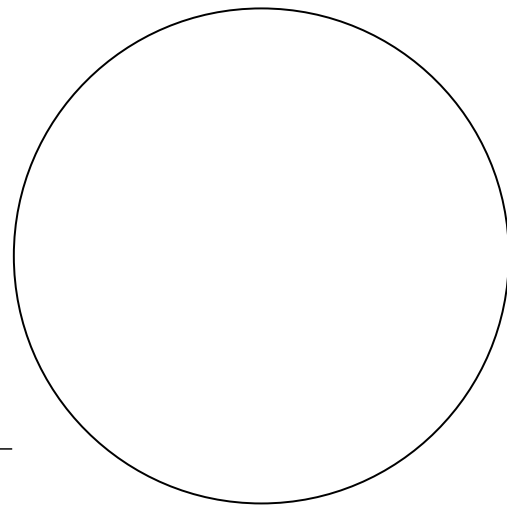
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

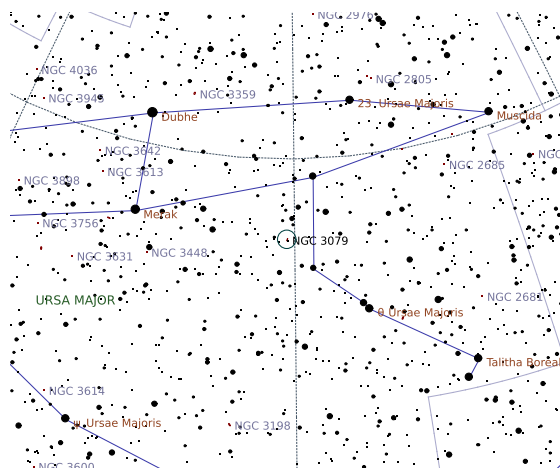
# NGC 3079

## Galaxy in Ursa Major

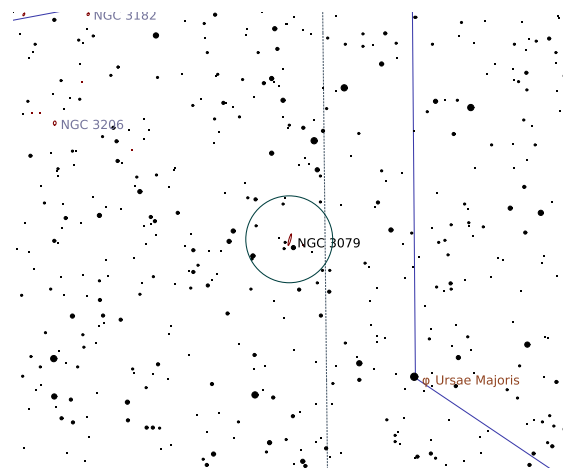
Right Ascension (current)	10 <sup>h</sup> 02 <sup>m</sup> 52 <sup>s</sup>	Declination (current)	55° 36' 49"
Right Ascension (J2000.0)	10 <sup>h</sup> 01 <sup>m</sup> 57 <sup>s</sup>	Declination (J2000.0)	55° 40' 53"
Size	8.1' × 1.3'	Position Angle	-75°
Magnitude	11	Other Designation	-

**Description:** Dreyer: vB;L;mE 135;long streak

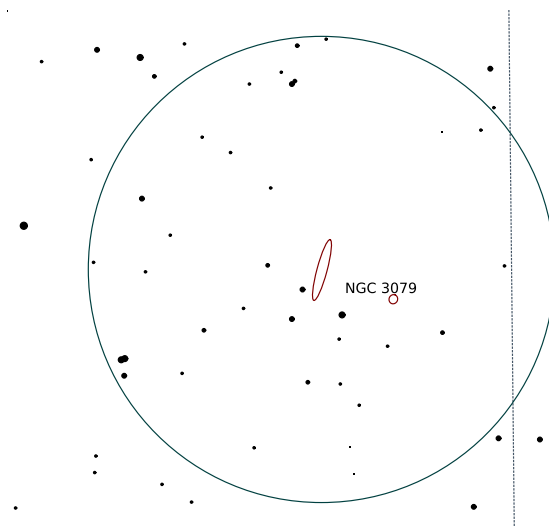
**SAC:** H V 47;brightest of 3;comp 6.5 nf;0.9'X0.4';mag 14.6



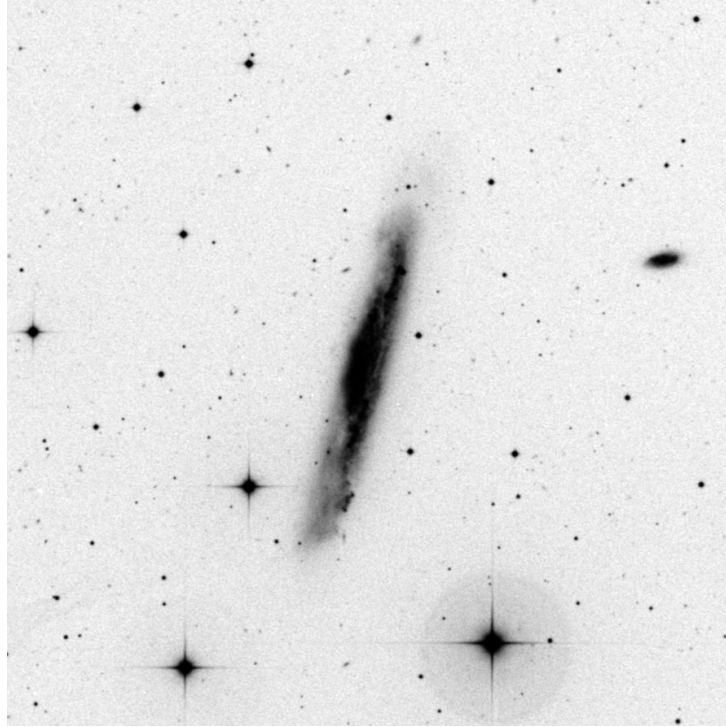
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

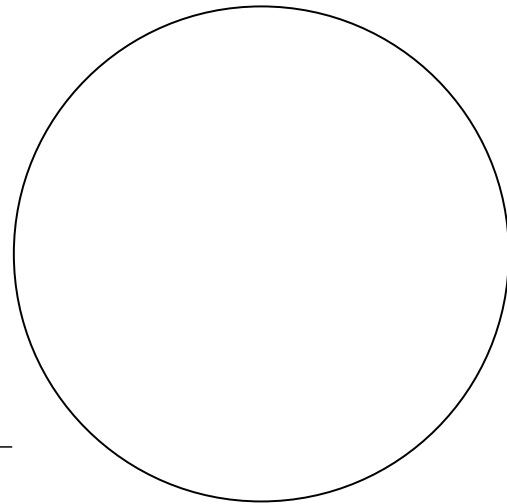
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

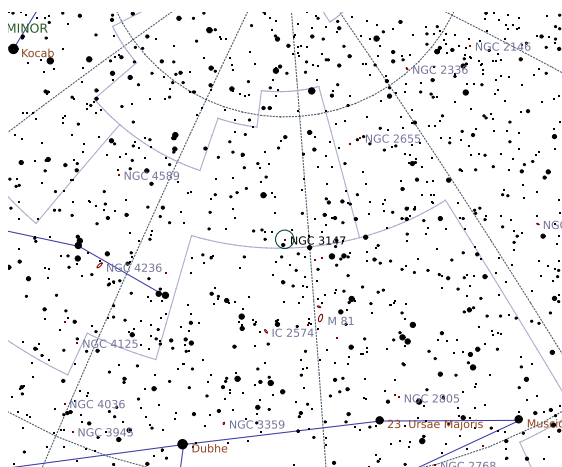
# NGC 3147

## Galaxy in Draco

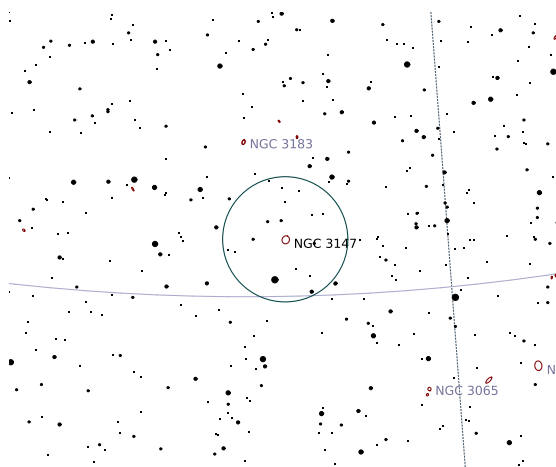
Right Ascension (current)	$10^{\text{h}} 18^{\text{m}} 03^{\text{s}}$	Declination (current)	$73^{\circ} 19' 49''$
Right Ascension (J2000.0)	$10^{\text{h}} 16^{\text{m}} 53^{\text{s}}$	Declination (J2000.0)	$73^{\circ} 24' 01''$
Size	$3.9' \times 3.5'$	Position Angle	$-65^{\circ}$
Magnitude	11	Other Designation	—

**Description:** Dreyer: vB;L;R;vgvsvmbM

**SAC:** H I 79;vBN;many filam. narrow arms in lens



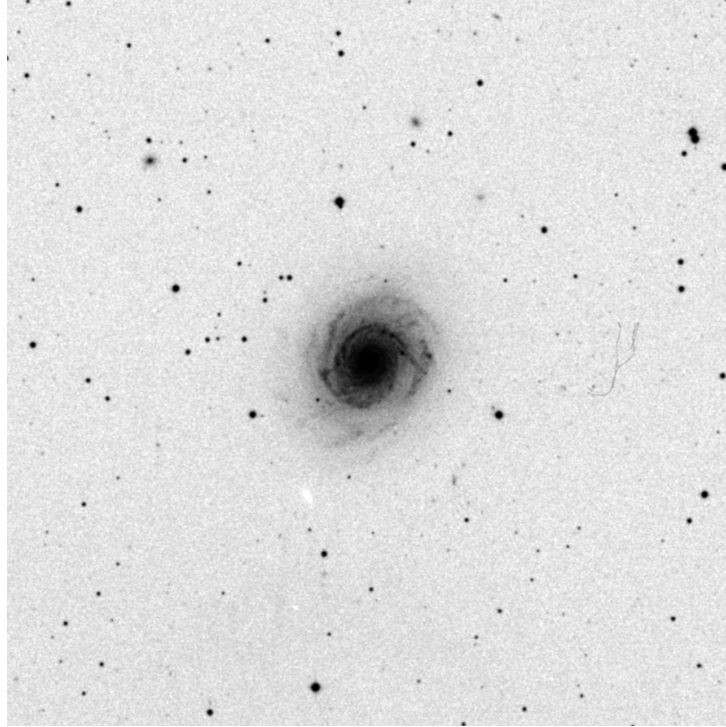
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

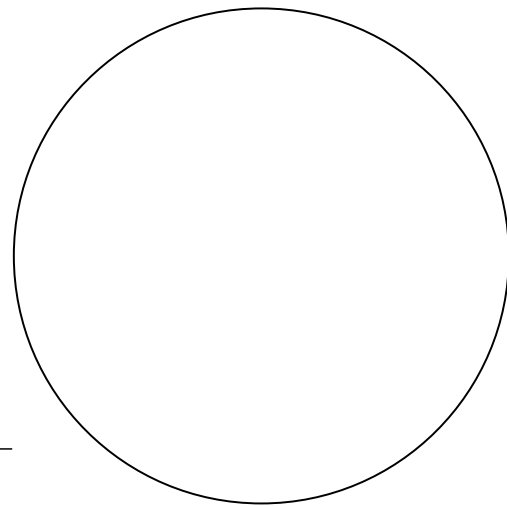
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

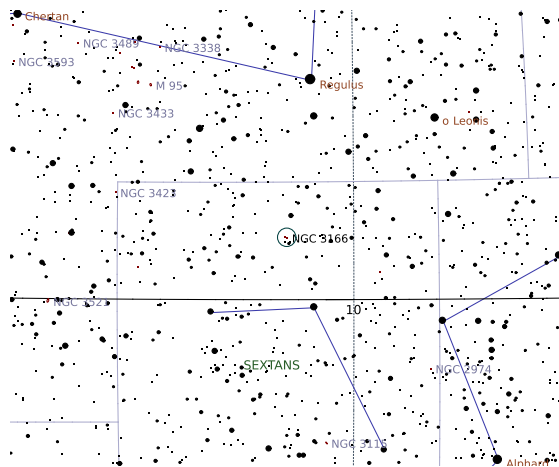
# NGC 3166

## Galaxy in Sextans

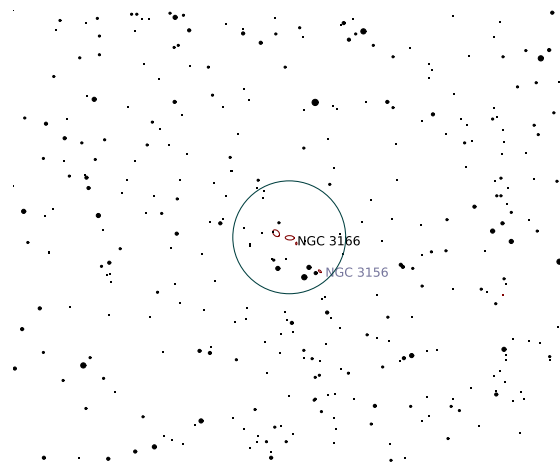
Right Ascension (current)	10 <sup>h</sup> 14 <sup>m</sup> 27 <sup>s</sup>	Declination (current)	3° 21' 23''
Right Ascension (J2000.0)	10 <sup>h</sup> 13 <sup>m</sup> 45 <sup>s</sup>	Declination (J2000.0)	3° 25' 33''
Size	4.8' × 2.3'	Position Angle	3°
Magnitude	10	Other Designation	—

**Description:** Dreyer: B;pS;R;psmbM;2nd of 3

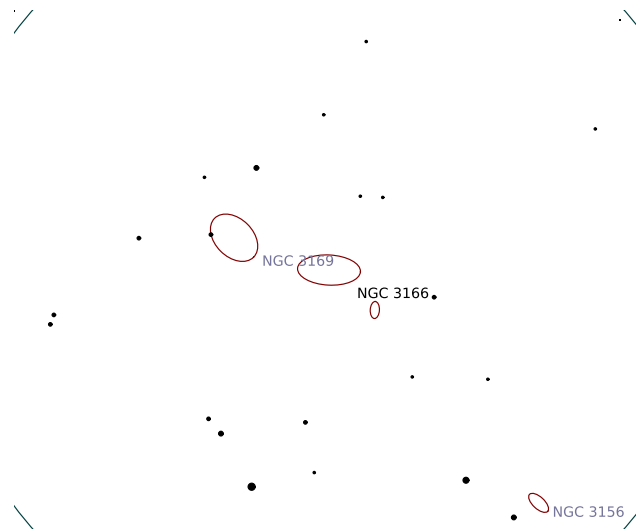
**SAC:** H I 3;brightest in group



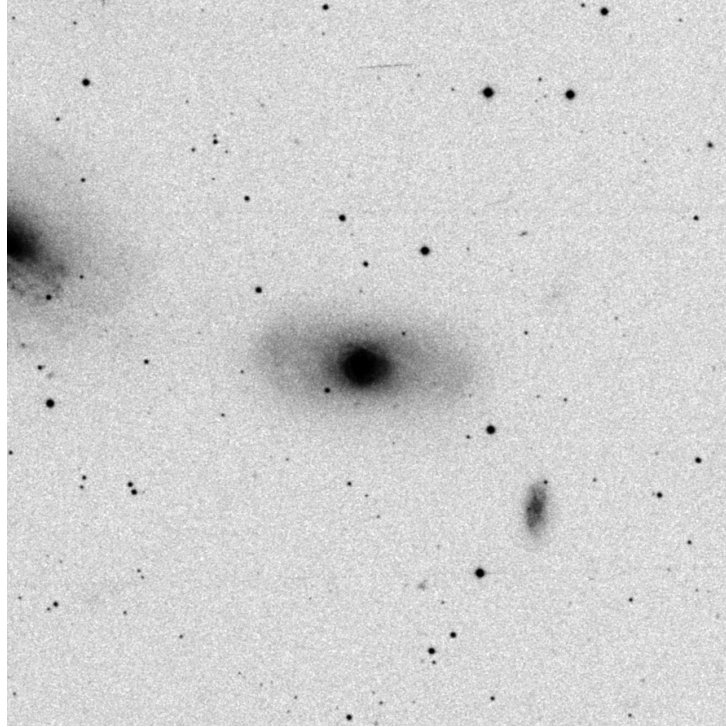
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



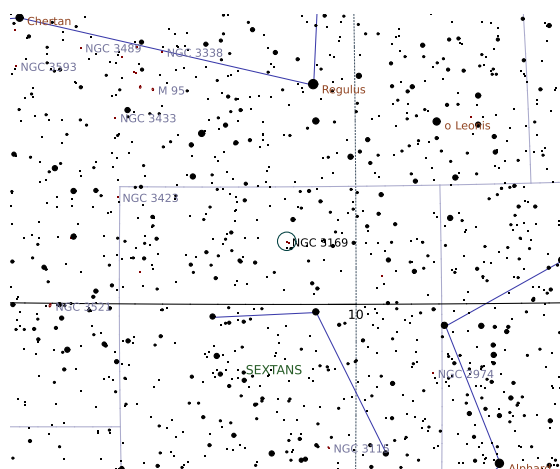
**Sketch**

# NGC 3169

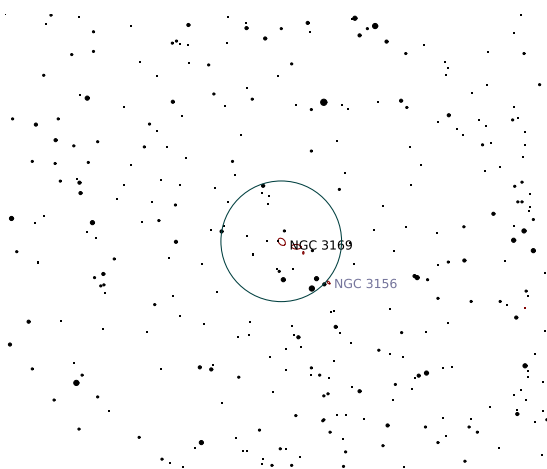
## Galaxy in Sextans

Right Ascension (current)	10 <sup>h</sup> 14 <sup>m</sup> 56 <sup>s</sup>	Declination (current)	3° 23' 51"
Right Ascension (J2000.0)	10 <sup>h</sup> 14 <sup>m</sup> 14 <sup>s</sup>	Declination (J2000.0)	3° 28' 01"
Size	4.2' × 2.9'	Position Angle	45°
Magnitude	10	Other Designation	—

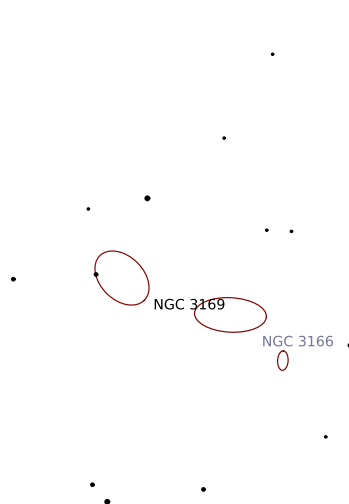
**Description:** Dreyer: B;pL;v1E;pgmbM;\*11;78;80'';3rd of 3  
**SAC:** H I 4;eF corona vis to approx 8X6;P w NGC 3166



Wide-field chart

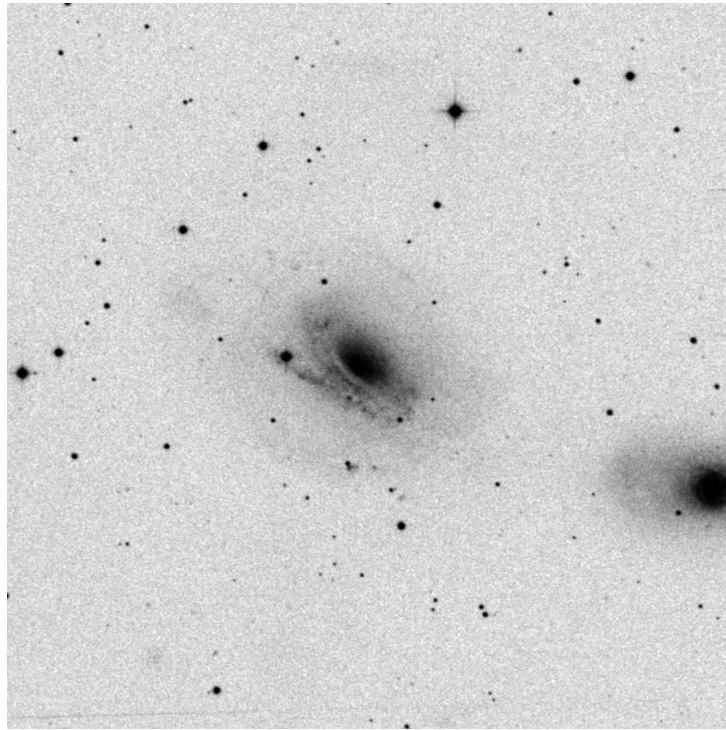


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

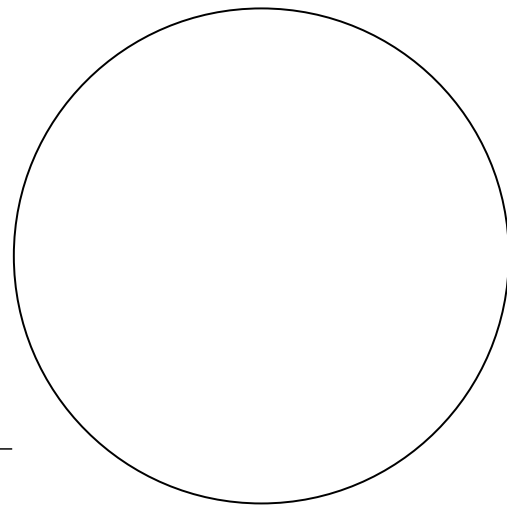
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

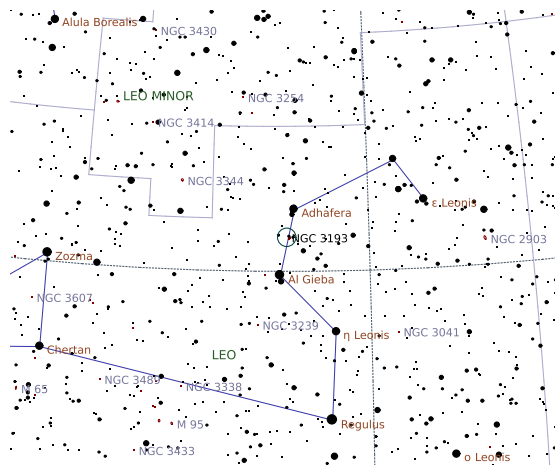
# NGC 3193 (Hickson 44)

Galaxy in Leo

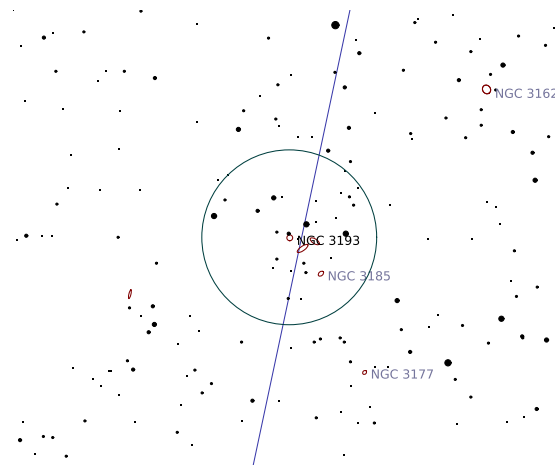
Right Ascension (current)	10 <sup>h</sup> 19 <sup>m</sup> 09 <sup>s</sup>	Declination (current)	21° 49' 24''
Right Ascension (J2000.0)	10 <sup>h</sup> 18 <sup>m</sup> 24 <sup>s</sup>	Declination (J2000.0)	21° 53' 38''
Size	2' × 2'	Position Angle	90°
Magnitude	11	Other Designation	–

**Description:** Dreyer: B;S;v1E;ps1bM;\*9.5;354;80''

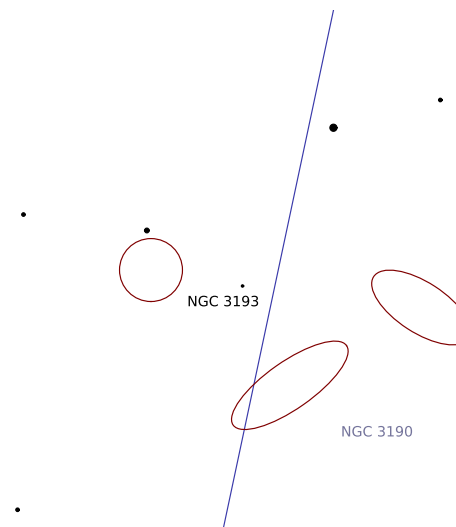
**SAC:** H II 45;NGC 3189–90 group;vB center in smooth nebula



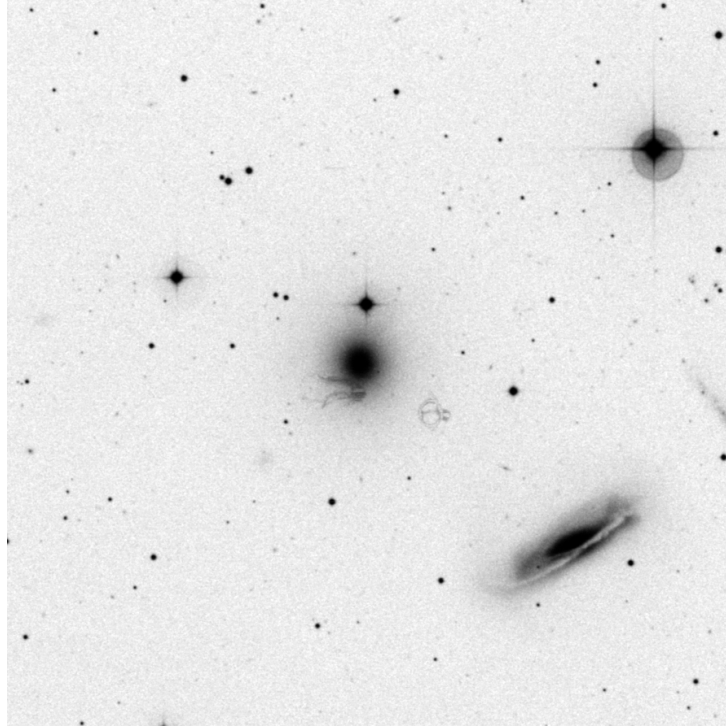
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

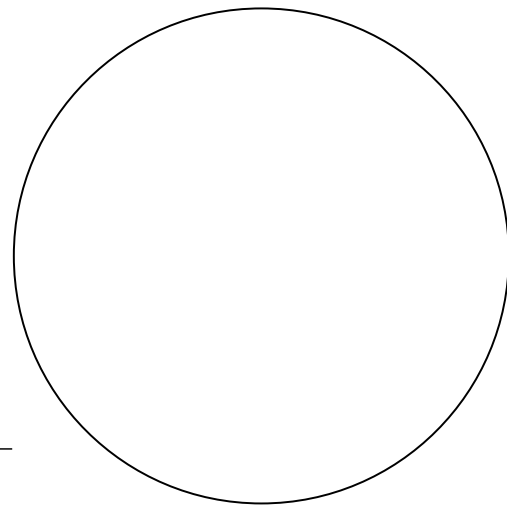
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

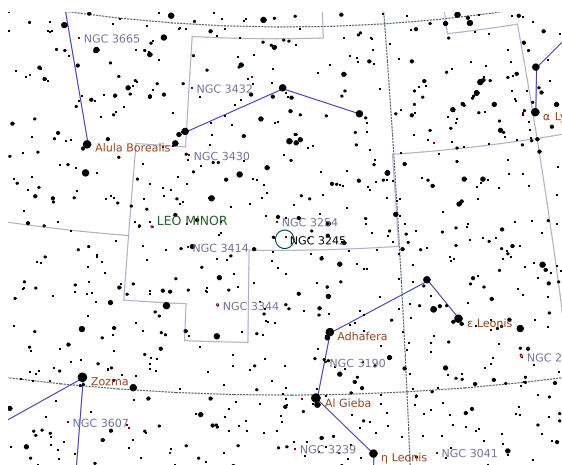
# NGC 3245

Galaxy in Leo Minor

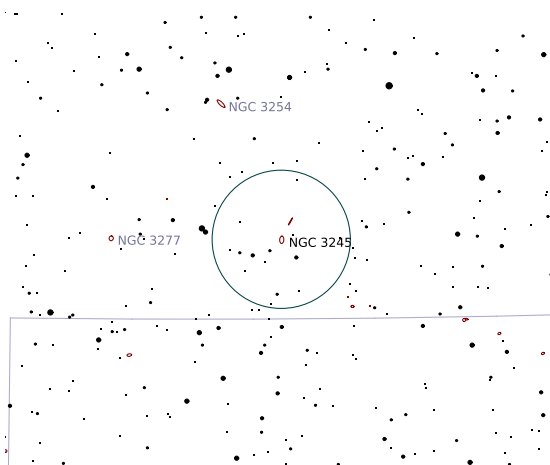
Right Ascension (current)	$10^{\text{h}} 28^{\text{m}} 04^{\text{s}}$	Declination (current)	$28^{\circ} 26' 10''$
Right Ascension (J2000.0)	$10^{\text{h}} 27^{\text{m}} 18^{\text{s}}$	Declination (J2000.0)	$28^{\circ} 30' 28''$
Size	$3.2' \times 1.8'$	Position Angle	$-87^{\circ}$
Magnitude	11	Other Designation	—

**Description:** Dreyer: vB;pL;E 0;smbMEN

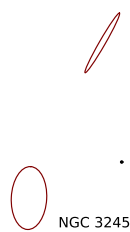
**SAC:** H I 86



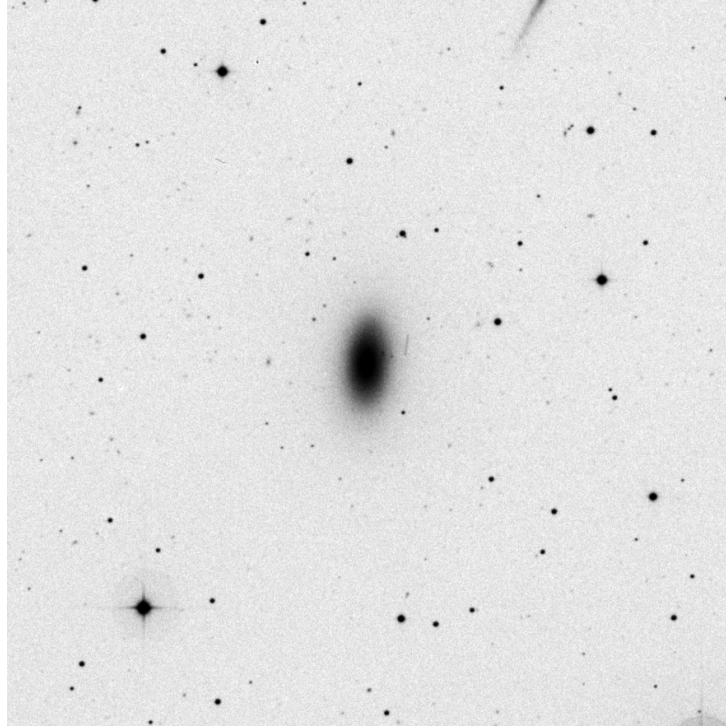
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

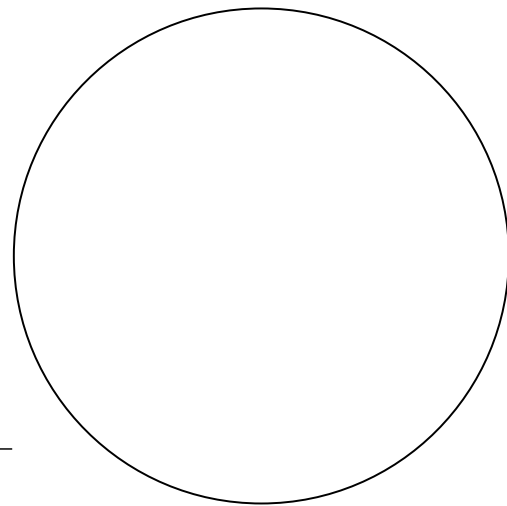
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

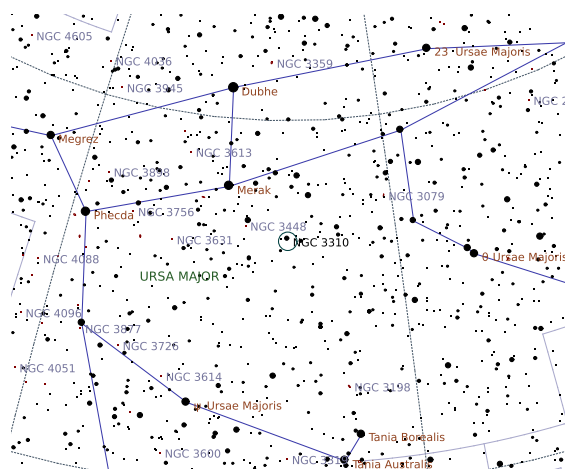
# NGC 3310

Galaxy in Ursa Major

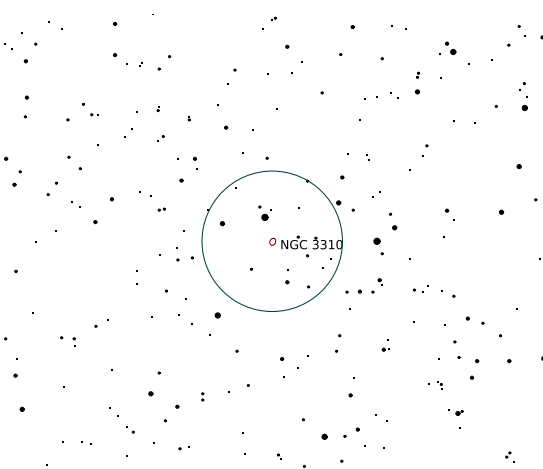
Right Ascension (current)	$10^{\text{h}} 39^{\text{m}} 36^{\text{s}}$	Declination (current)	$53^{\circ} 25' 48''$
Right Ascension (J2000.0)	$10^{\text{h}} 38^{\text{m}} 45^{\text{s}}$	Declination (J2000.0)	$53^{\circ} 30' 12''$
Size	$3.1' \times 2.4'$	Position Angle	$-66^{\circ}$
Magnitude	11	Other Designation	–

**Description:** Dreyer: cB;pL;R;vg;vsmbMN 15''

**SAC:** H IV 60;UGC 5786



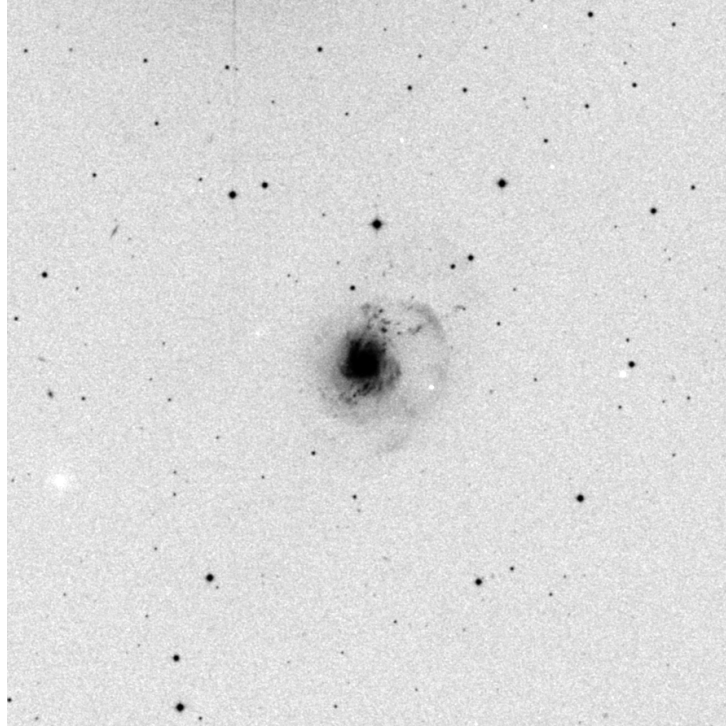
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

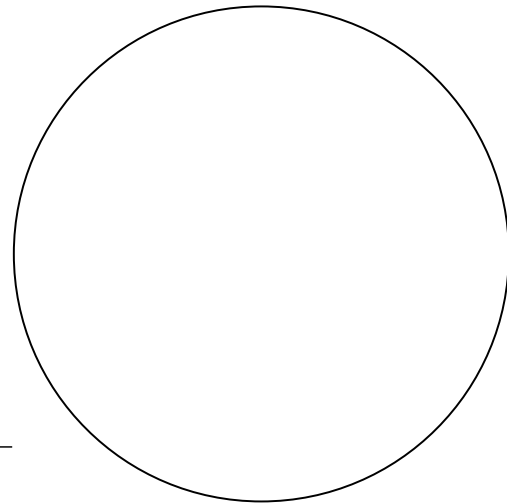
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

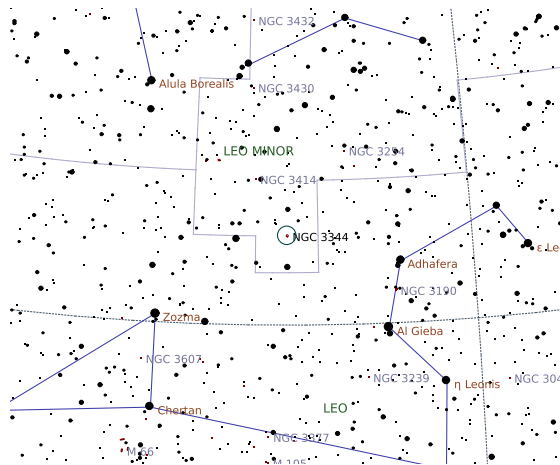
# NGC 3344

## Galaxy in Leo Minor

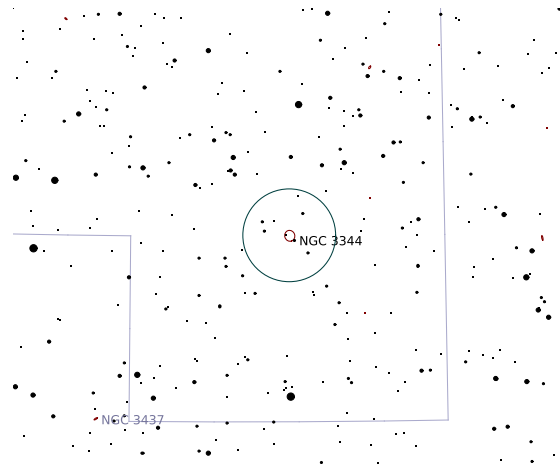
Right Ascension (current)	$10^{\text{h}} 44^{\text{m}} 15^{\text{s}}$	Declination (current)	$24^{\circ} 50' 57''$
Right Ascension (J2000.0)	$10^{\text{h}} 43^{\text{m}} 30^{\text{s}}$	Declination (J2000.0)	$24^{\circ} 55' 22''$
Size	$7.1' \times 6.5'$	Position Angle	$72^{\circ}$
Magnitude	9.9	Other Designation	—

**Description:** Dreyer: cB;L;gbM;\* inv;2 st f

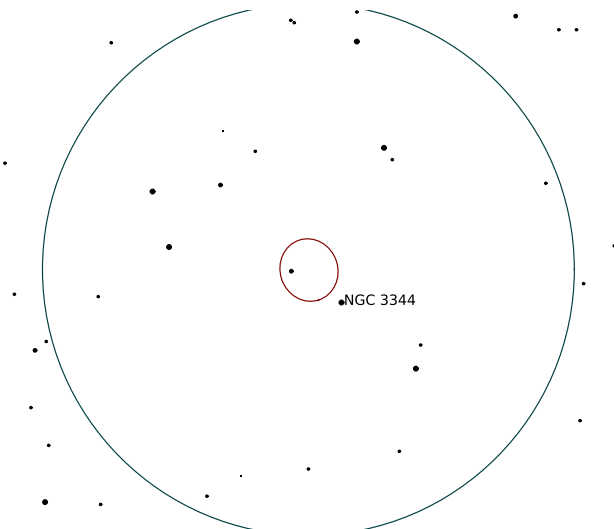
**SAC:** H I 81



Wide-field chart

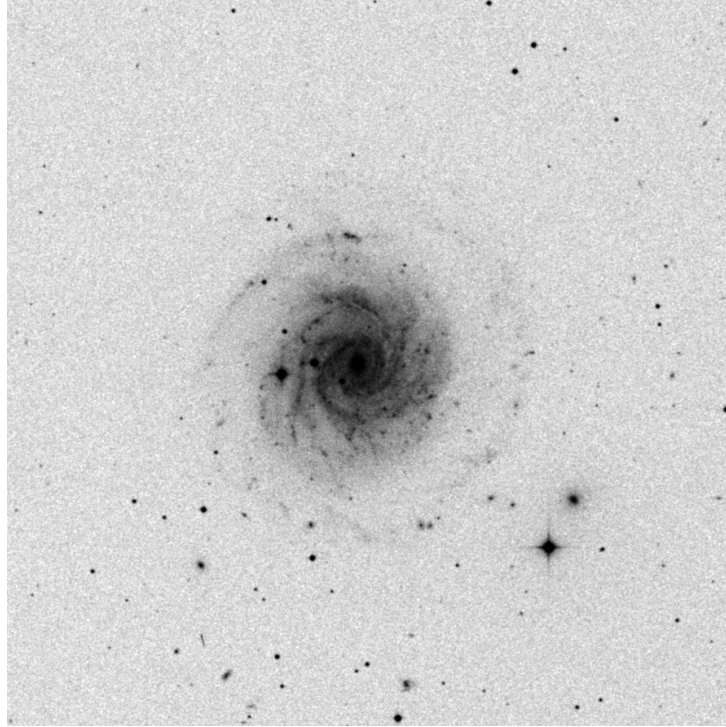


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

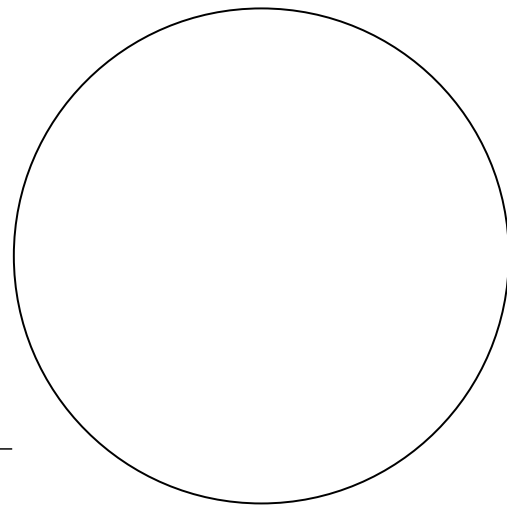
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

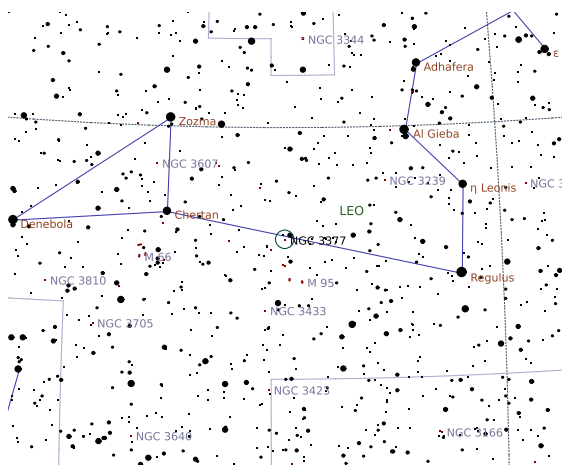
# NGC 3377

Galaxy in Leo

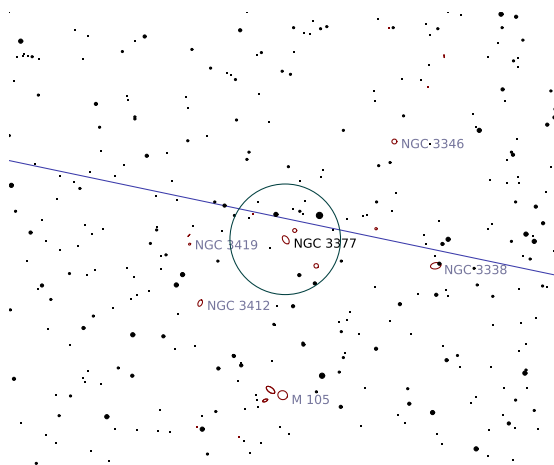
Right Ascension (current)	$10^{\text{h}} 48^{\text{m}} 25^{\text{s}}$	Declination (current)	$13^{\circ} 54' 43''$
Right Ascension (J2000.0)	$10^{\text{h}} 47^{\text{m}} 42^{\text{s}}$	Declination (J2000.0)	$13^{\circ} 59' 09''$
Size	$5' \times 3'$	Position Angle	$55^{\circ}$
Magnitude	10	Other Designation	—

**Description:** Dreyer: vB;cL;lE;svmbMBN

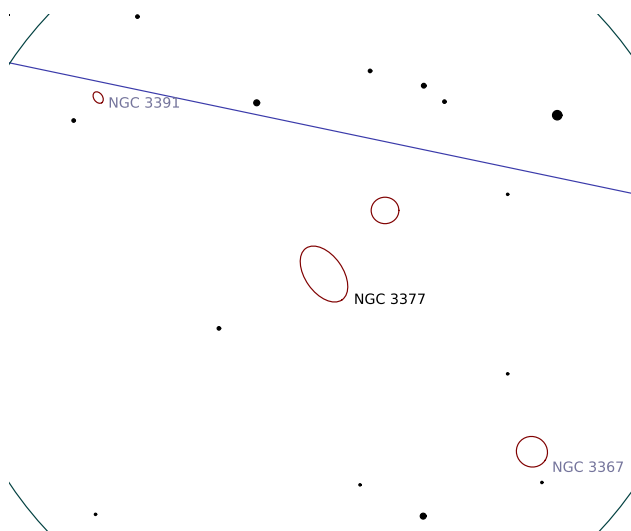
**SAC:** H II 99;Leo group



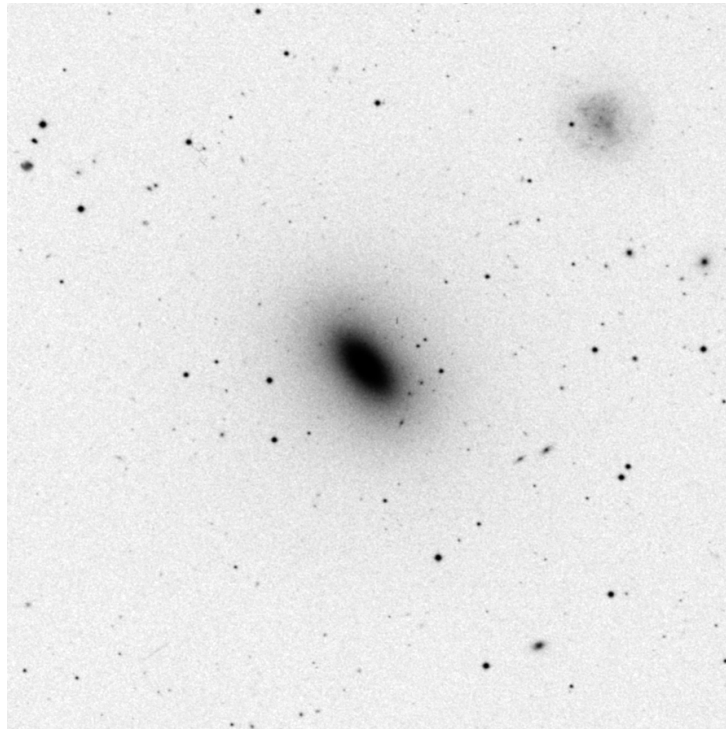
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

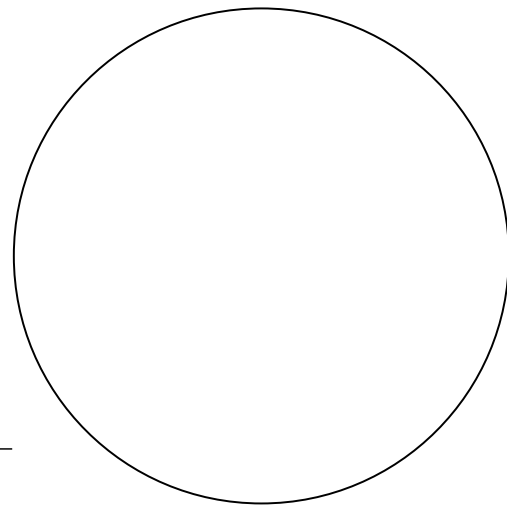
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

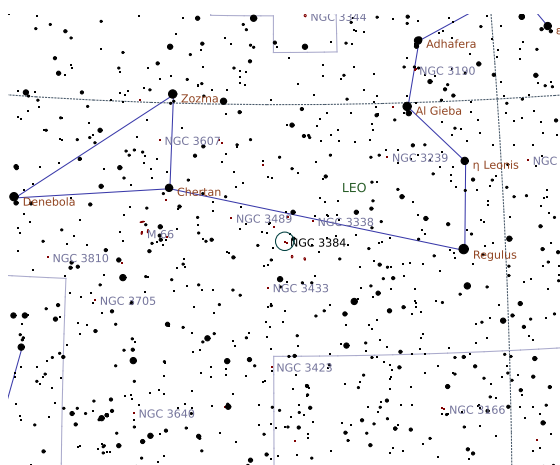
# NGC 3384

Galaxy in Leo

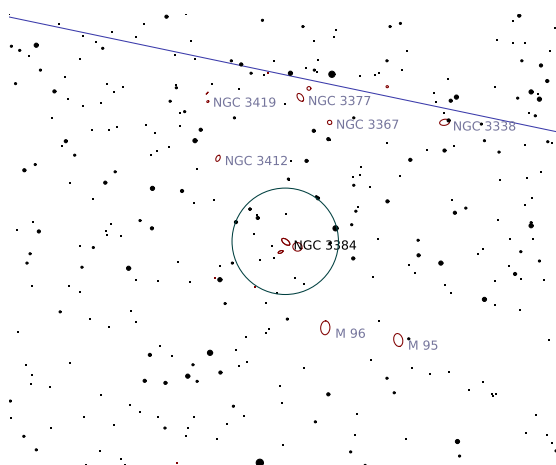
Right Ascension (current)	10 <sup>h</sup> 48 <sup>m</sup> 59 <sup>s</sup>	Declination (current)	12° 33' 17"
Right Ascension (J2000.0)	10 <sup>h</sup> 48 <sup>m</sup> 16 <sup>s</sup>	Declination (J2000.0)	12° 37' 43"
Size	5.4' × 2.7'	Position Angle	37°
Magnitude	9.9	Other Designation	–

**Description:** Dreyer: vB;L;R;psmbM;2nd of 3

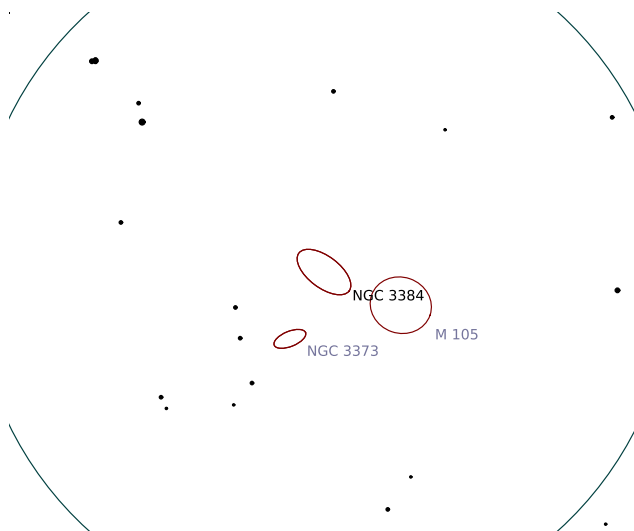
**SAC:** H I 18;Leo group;in triple group w NGC 3379 and NGC 3389



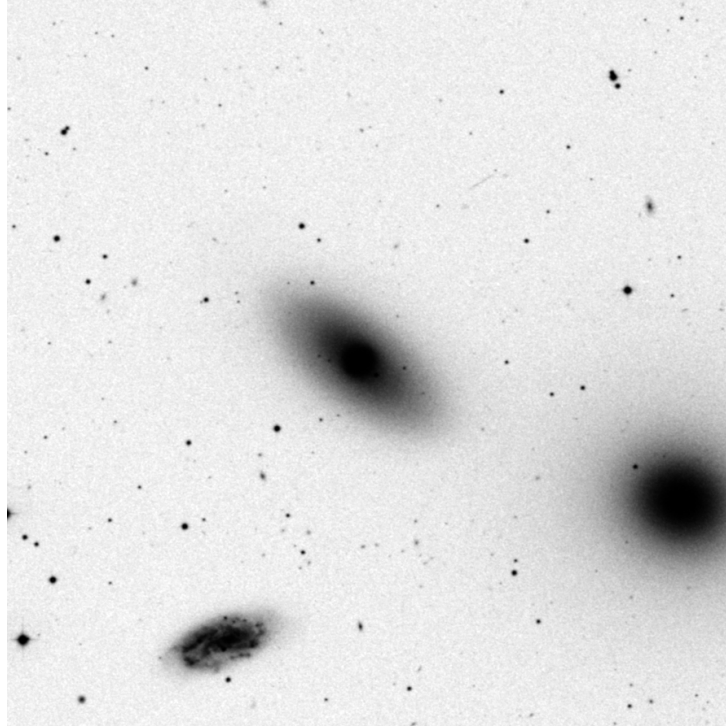
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

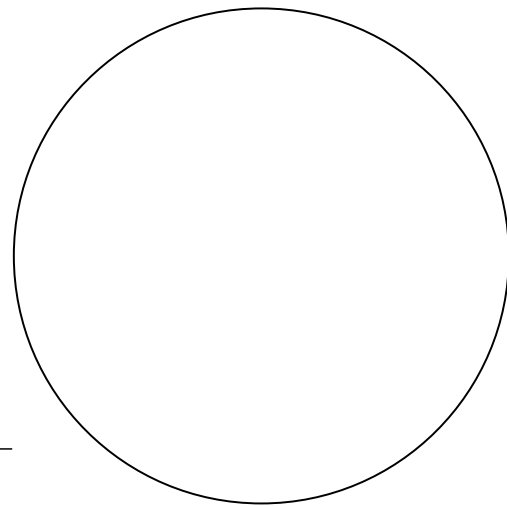
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

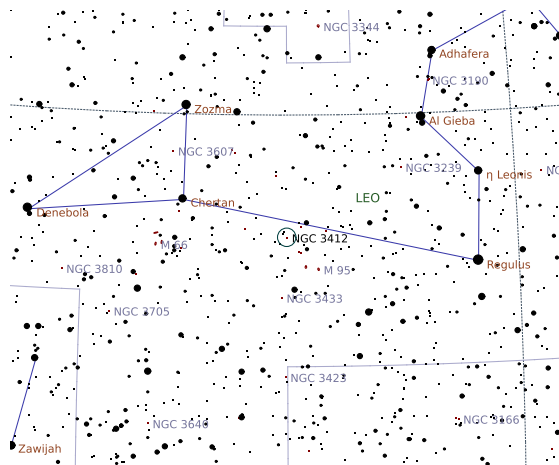
# NGC 3412

Galaxy in Leo

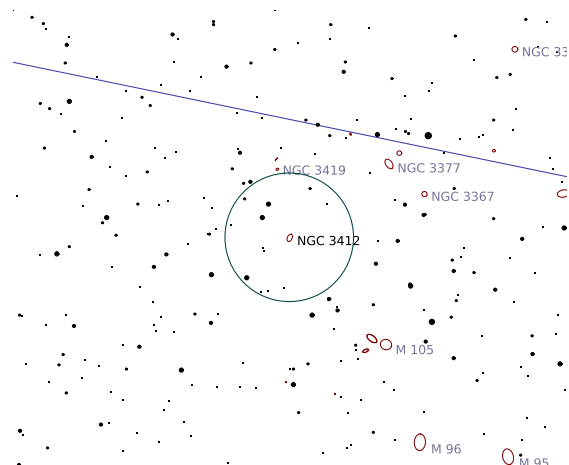
Right Ascension (current)	$10^{\text{h}} 51^{\text{m}} 36^{\text{s}}$	Declination (current)	$13^{\circ} 20' 19''$
Right Ascension (J2000.0)	$10^{\text{h}} 50^{\text{m}} 53^{\text{s}}$	Declination (J2000.0)	$13^{\circ} 24' 46''$
Size	$3.7' \times 2.2'$	Position Angle	$-65^{\circ}$
Magnitude	10	Other Designation	—

**Description:** Dreyer: B;S;1E 135;smbMN

**SAC:** H I 27;Leo group



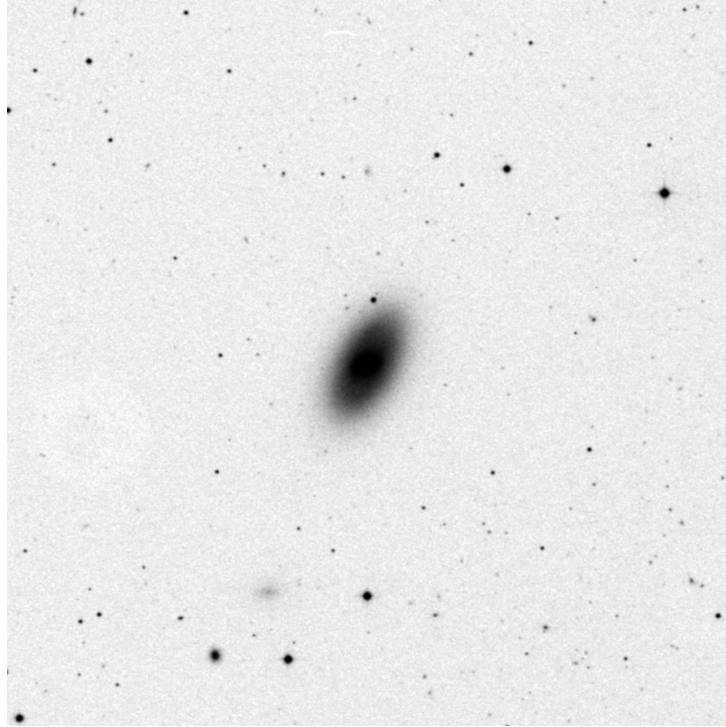
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

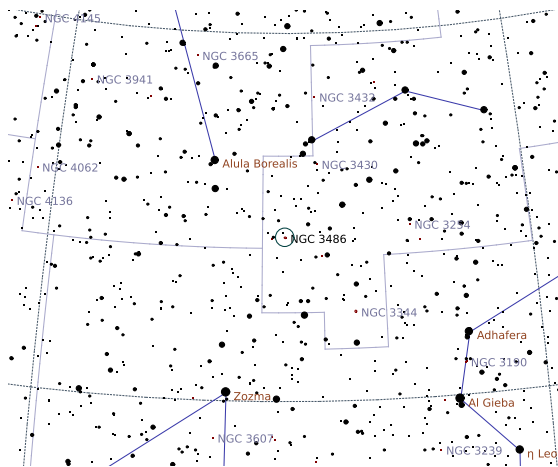
# NGC 3486

Galaxy in Leo Minor

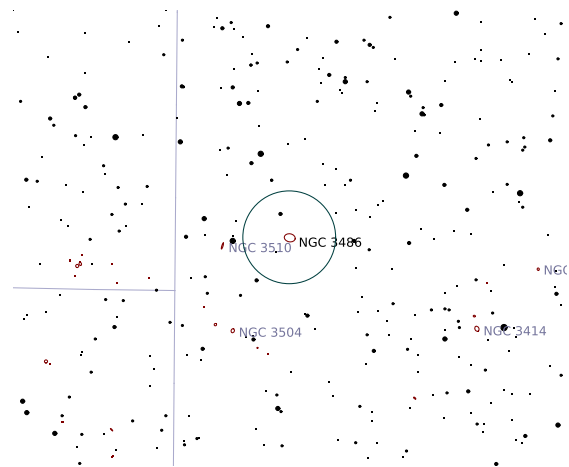
Right Ascension (current)	11 <sup>h</sup> 01 <sup>m</sup> 08 <sup>s</sup>	Declination (current)	28° 54' 01"
Right Ascension (J2000.0)	11 <sup>h</sup> 00 <sup>m</sup> 24 <sup>s</sup>	Declination (J2000.0)	28° 58' 32"
Size	7.1' × 5.2'	Position Angle	10°
Magnitude	10	Other Designation	–

**Description:** Dreyer: cB;cL;R;gmbM

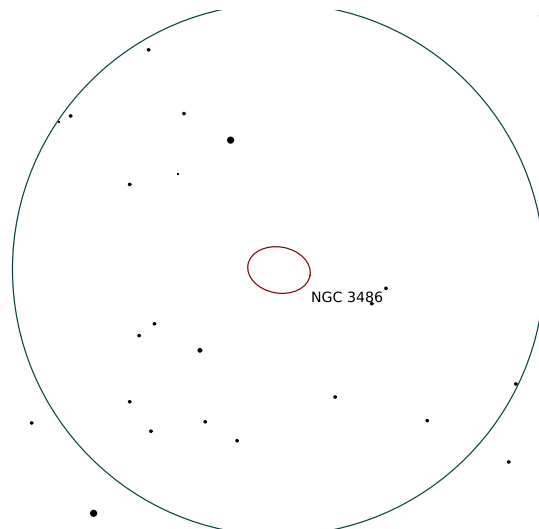
**SAC:** H I 87



Wide-field chart

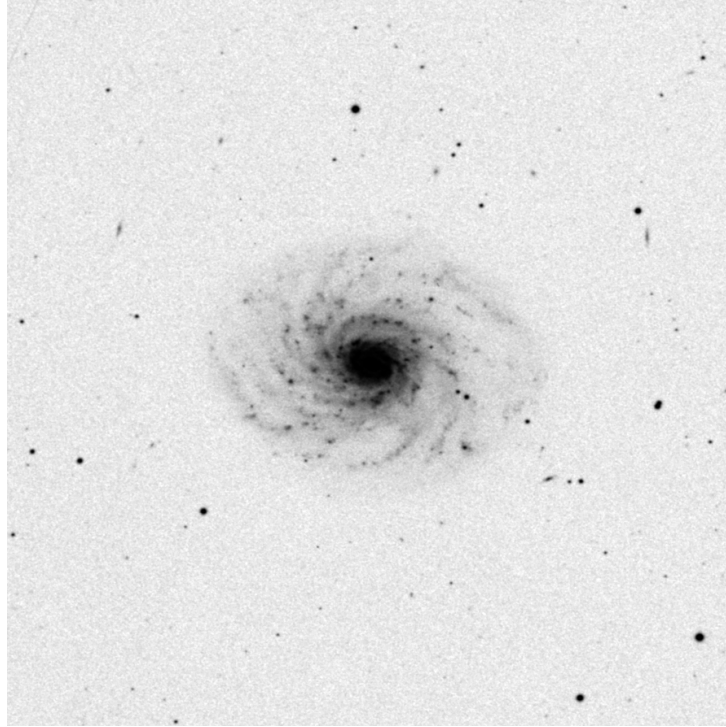


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

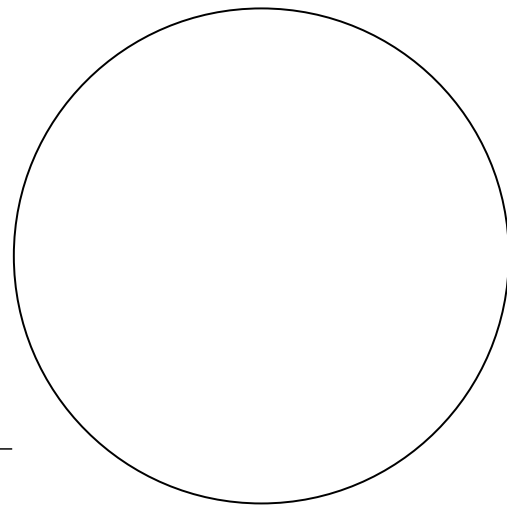
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

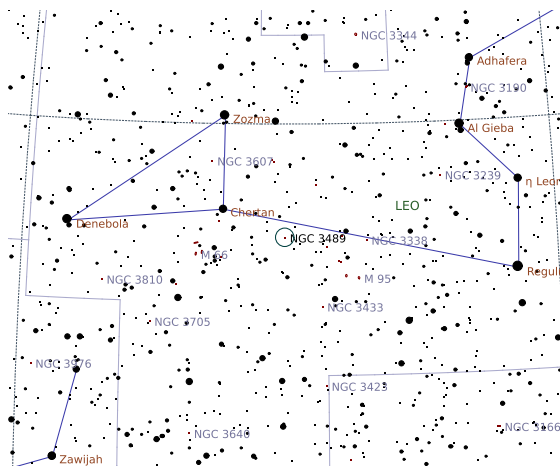
# NGC 3489

## Galaxy in Leo

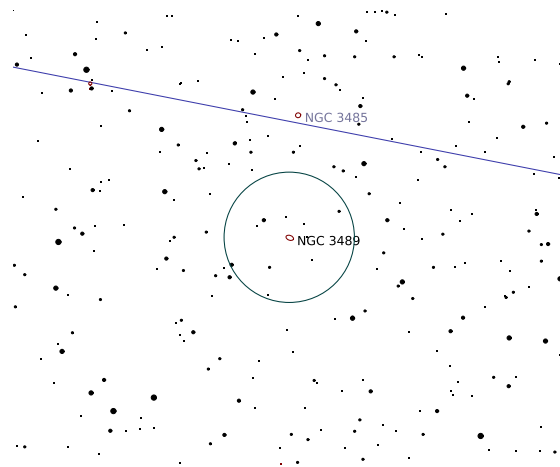
Right Ascension (current)	11 <sup>h</sup> 01 <sup>m</sup> 01 <sup>s</sup>	Declination (current)	13° 49' 33"
Right Ascension (J2000.0)	11 <sup>h</sup> 00 <sup>m</sup> 18 <sup>s</sup>	Declination (J2000.0)	13° 54' 03"
Size	3.6' × 2.2'	Position Angle	20°
Magnitude	10	Other Designation	–

**Description:** Dreyer: vB;pL;lE 80;smbMN

**SAC:** H II 101;Leo group



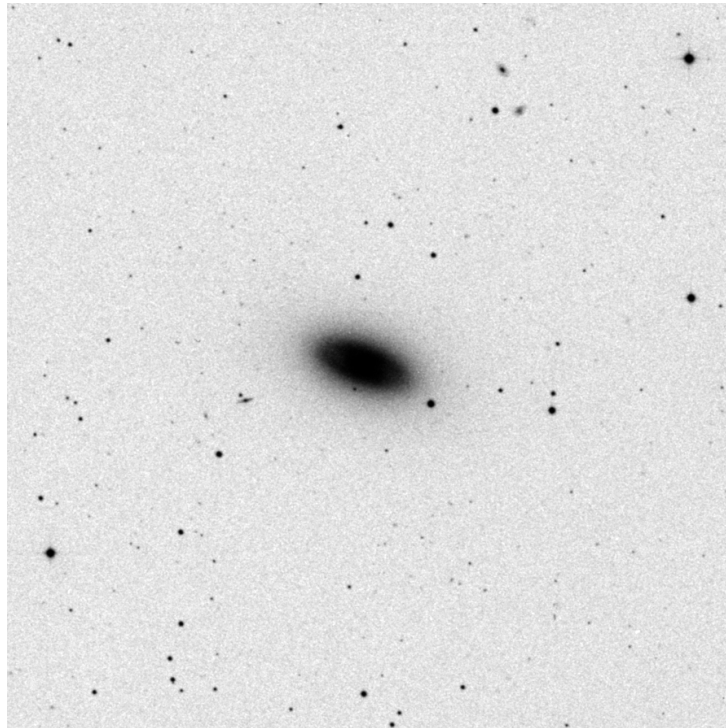
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

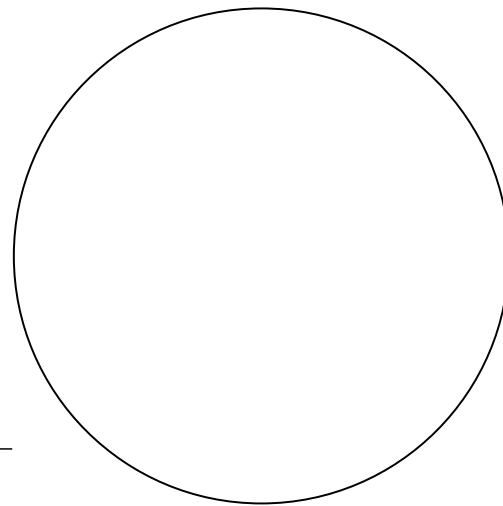
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

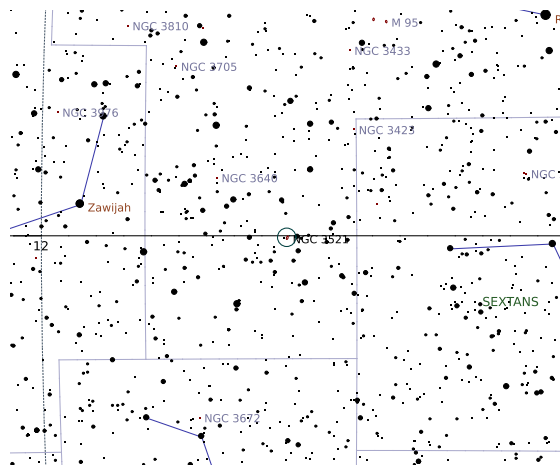
# NGC 3521

Galaxy in Leo

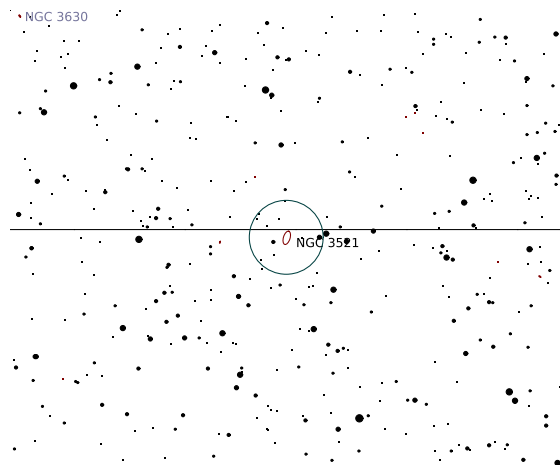
Right Ascension (current)	11 <sup>h</sup> 06 <sup>m</sup> 30 <sup>s</sup>	Declination (current)	-0° 06' 42"
Right Ascension (J2000.0)	11 <sup>h</sup> 05 <sup>m</sup> 48 <sup>s</sup>	Declination (J2000.0)	-0° 02' 13"
Size	11.2' × 5.4'	Position Angle	-73°
Magnitude	9	Other Designation	-

**Description:** Dreyer: cB;cL;mE 140;vsmbMN

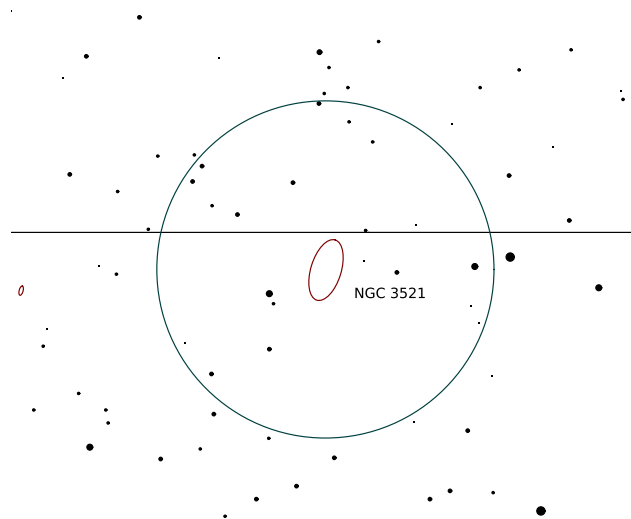
**SAC:** H I 13



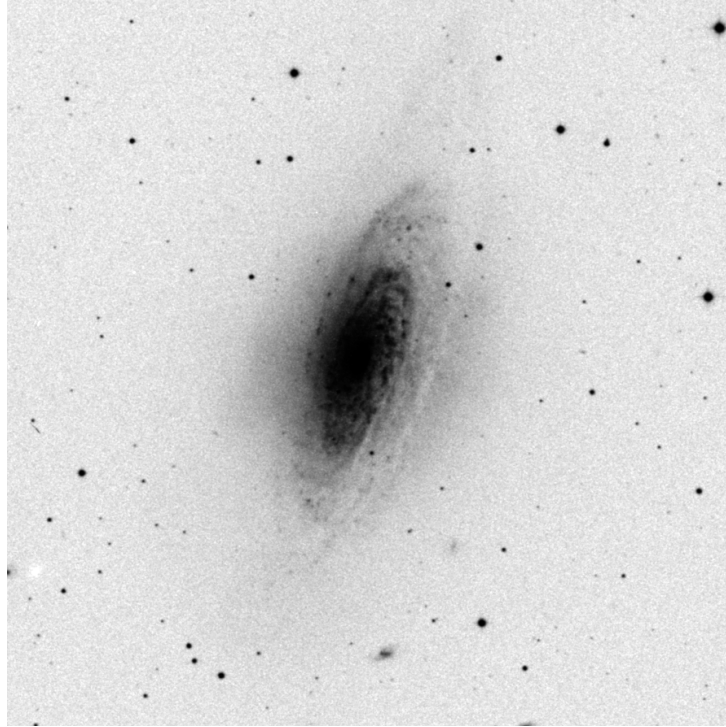
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

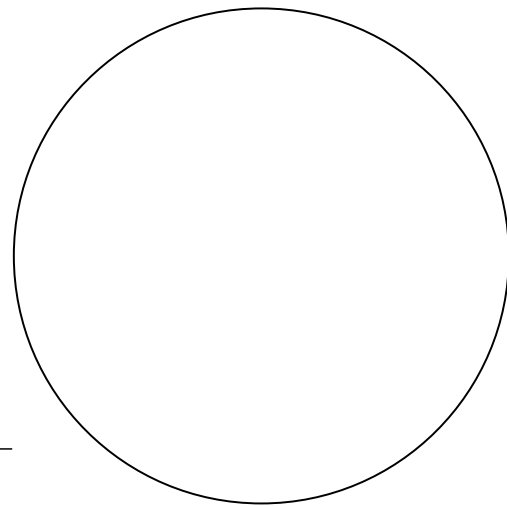
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



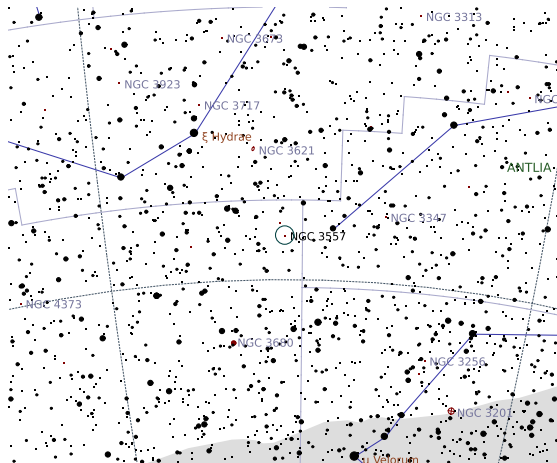
Sketch

# NGC 3557

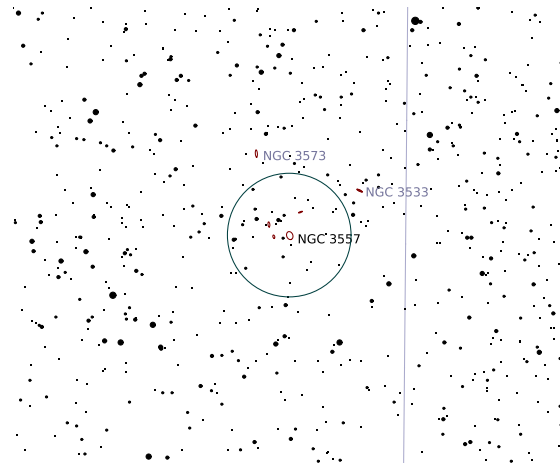
## Galaxy in Centaurus

Right Ascension (current)	11 <sup>h</sup> 10 <sup>m</sup> 36 <sup>s</sup>	Declination (current)	-37° 36' 45"
Right Ascension (J2000.0)	11 <sup>h</sup> 09 <sup>m</sup> 57 <sup>s</sup>	Declination (J2000.0)	-37° 32' 22"
Size	4' × 3'	Position Angle	69°
Magnitude	10	Other Designation	—

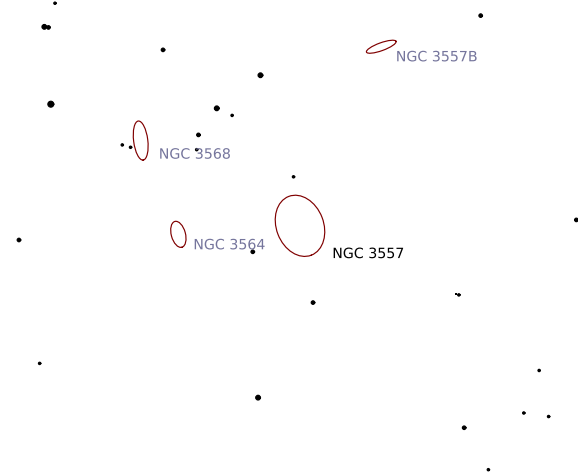
**Description:** Dreyer: B;S;R;pgmbM;1st of 3



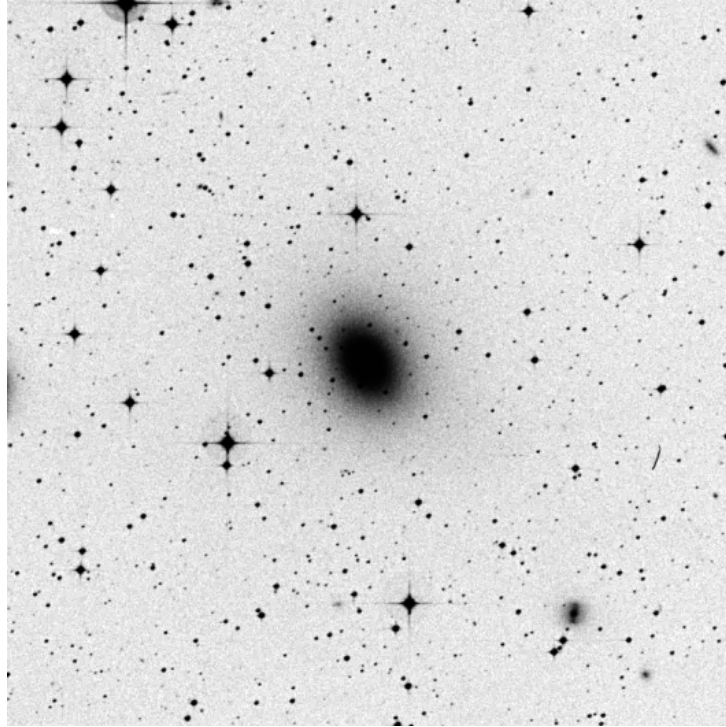
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

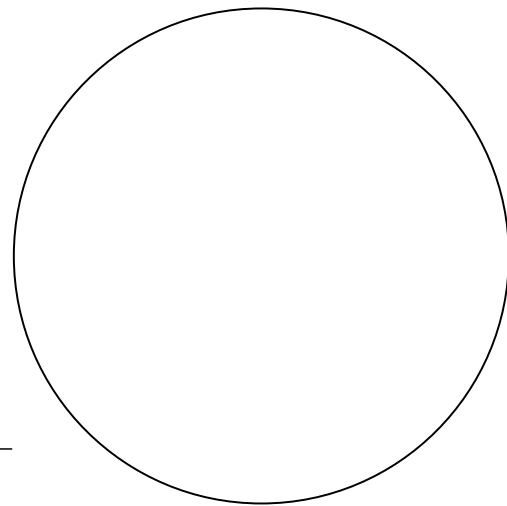
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

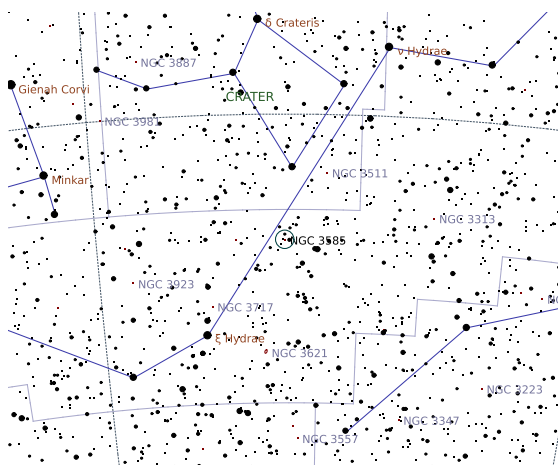
# NGC 3585

## Galaxy in Hydra

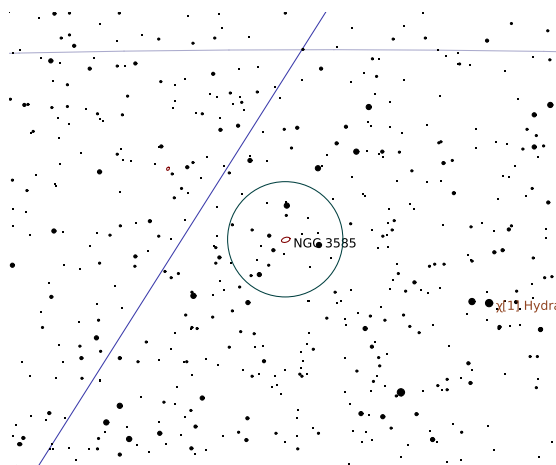
Right Ascension (current)	11 <sup>h</sup> 13 <sup>m</sup> 57 <sup>s</sup>	Declination (current)	-26° 49' 43''
Right Ascension (J2000.0)	11 <sup>h</sup> 13 <sup>m</sup> 17 <sup>s</sup>	Declination (J2000.0)	-26° 45' 18''
Size	4.6' × 2.5'	Position Angle	-17°
Magnitude	9.9	Other Designation	-

**Description:** Dreyer: B;pL;E;vsmbMN;2 B st tri

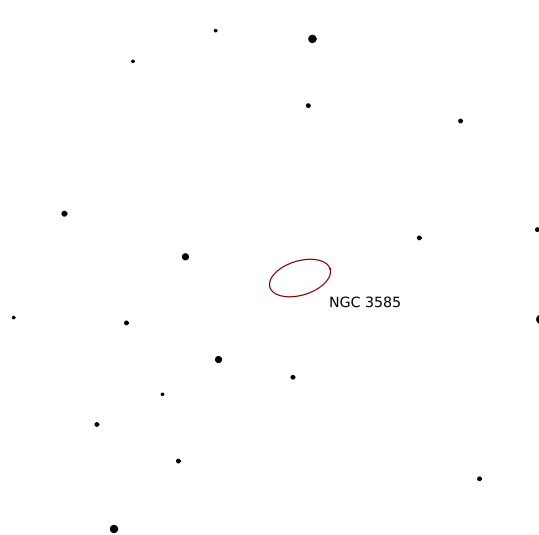
**SAC:** H II 269



Wide-field chart

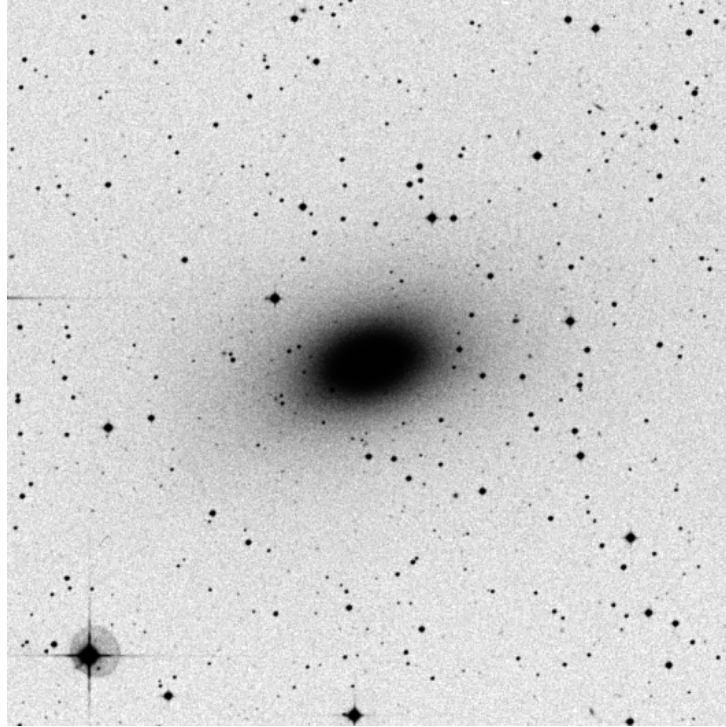


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

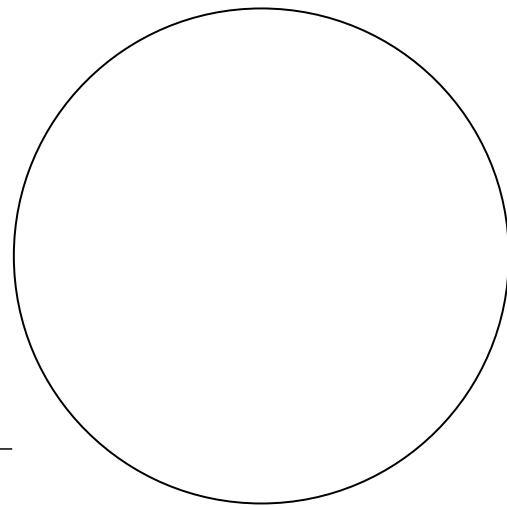
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

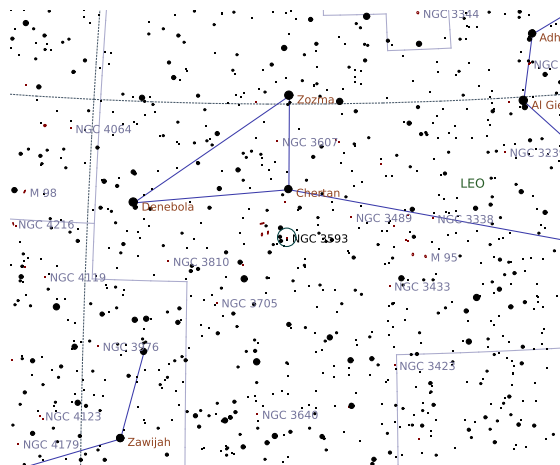
# NGC 3593

Galaxy in Leo

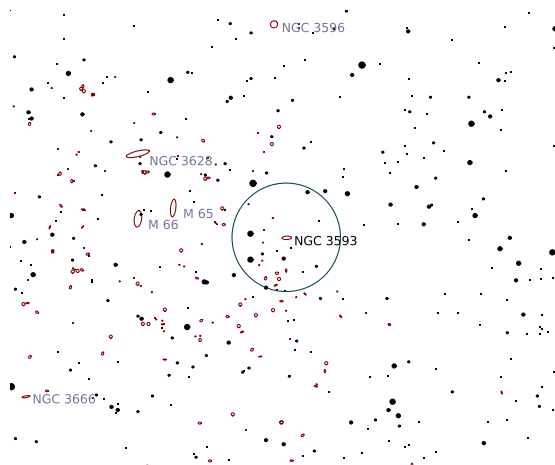
Right Ascension (current)	11 <sup>h</sup> 15 <sup>m</sup> 20 <sup>s</sup>	Declination (current)	12° 44' 32"
Right Ascension (J2000.0)	11 <sup>h</sup> 14 <sup>m</sup> 37 <sup>s</sup>	Declination (J2000.0)	12° 49' 06"
Size	5.2' × 1.9'	Position Angle	-2°
Magnitude	11	Other Designation	-

**Description:** Dreyer: B;cL;E 90;psmbM

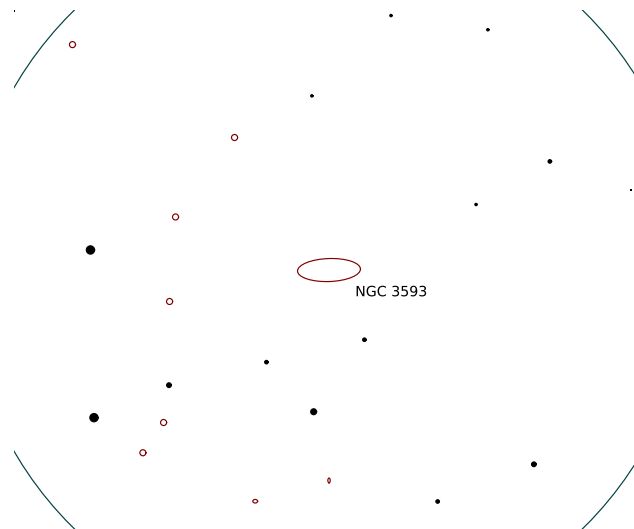
**SAC:** H I 29;in NGC 3607 group;BN w L bulge and dk lane



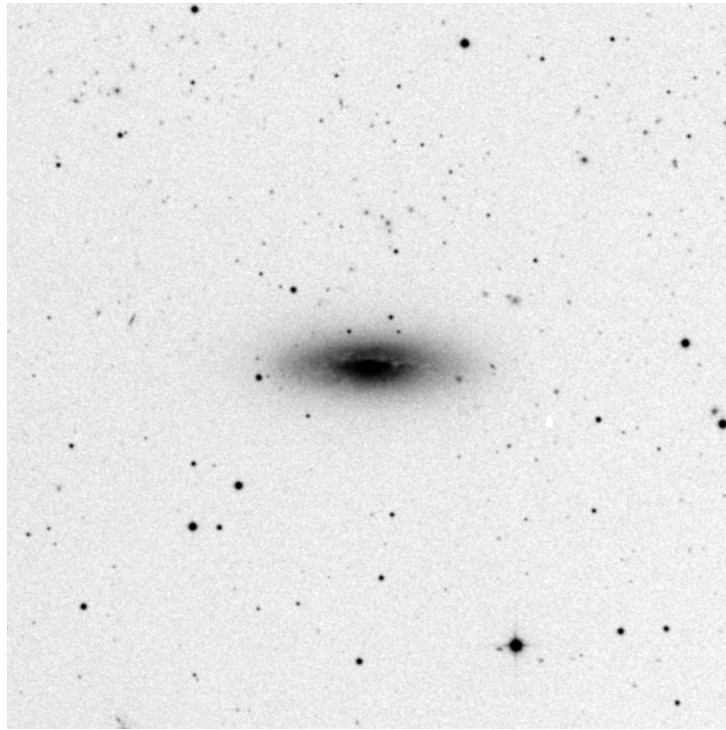
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

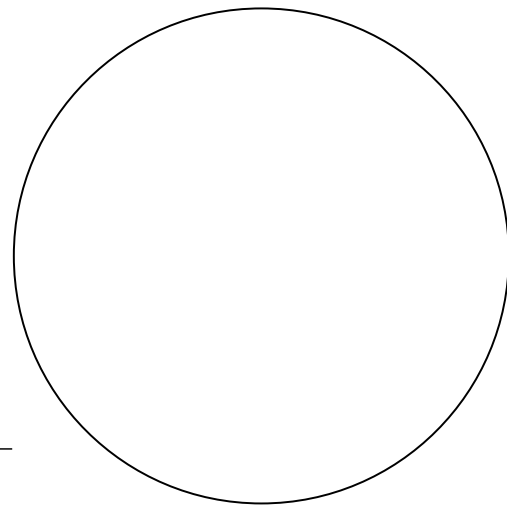
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

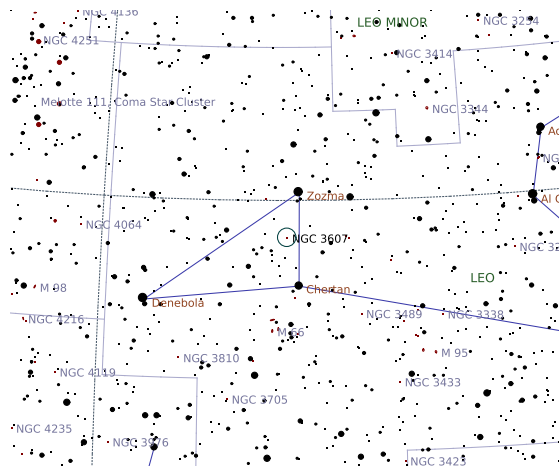
# NGC 3607

Galaxy in Leo

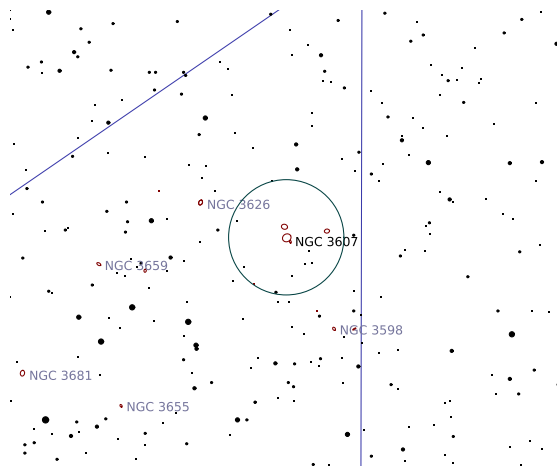
Right Ascension (current)	11 <sup>h</sup> 17 <sup>m</sup> 37 <sup>s</sup>	Declination (current)	17° 58' 33"
Right Ascension (J2000.0)	11 <sup>h</sup> 16 <sup>m</sup> 54 <sup>s</sup>	Declination (J2000.0)	18° 03' 08"
Size	4.6' × 4'	Position Angle	-30°
Magnitude	9.9	Other Designation	-

**Description:** Dreyer: vB;L;R;vmbM;2nd of 3

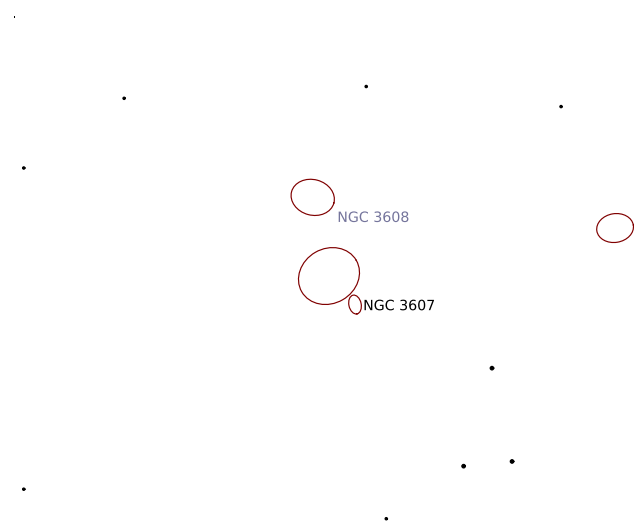
**SAC:** H II 50;brightest in group;P w NGC 3608 at 6.2';PA10



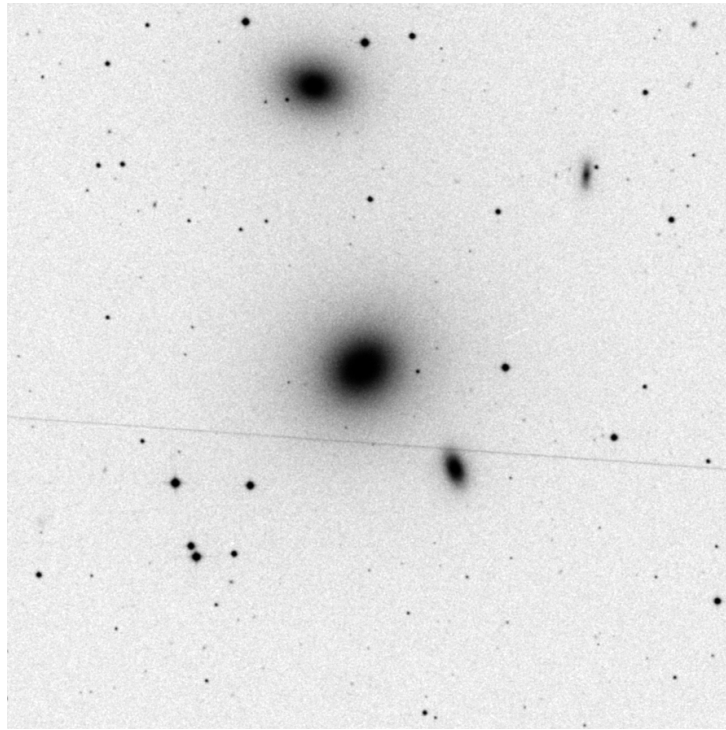
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

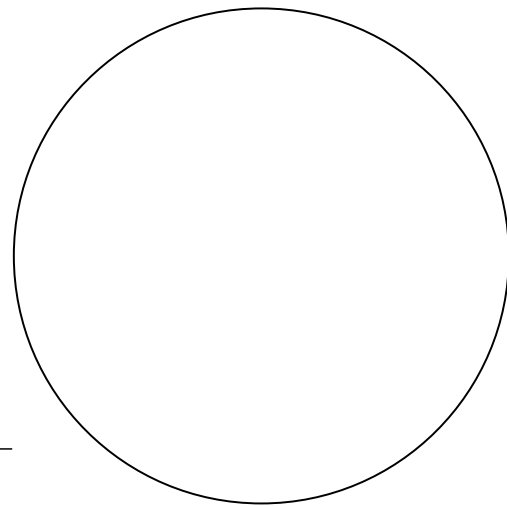
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

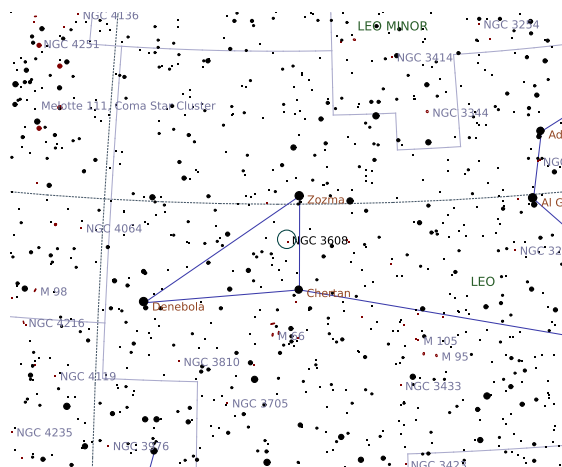
# NGC 3608

Galaxy in Leo

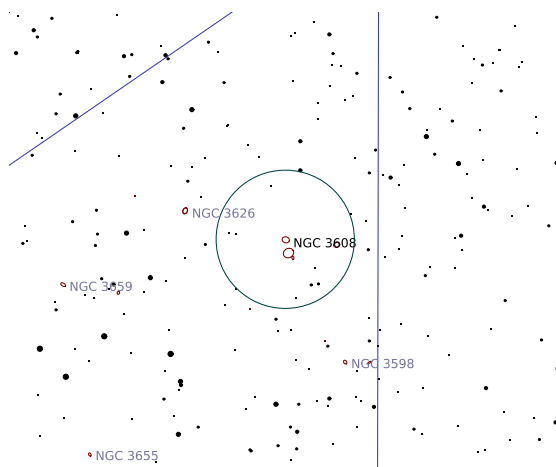
Right Ascension (current)	11 <sup>h</sup> 17 <sup>m</sup> 42 <sup>s</sup>	Declination (current)	18° 04' 18"
Right Ascension (J2000.0)	11 <sup>h</sup> 16 <sup>m</sup> 59 <sup>s</sup>	Declination (J2000.0)	18° 08' 53"
Size	3.2' × 2.6'	Position Angle	15°
Magnitude	11	Other Designation	—

**Description:** Dreyer: B;pL;R;psbM;3rd of 3

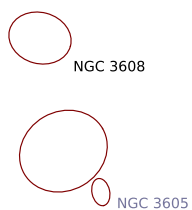
**SAC:** H II 51;NGC 3607 group;comp 5.9';PA251;0.8'X0.3'



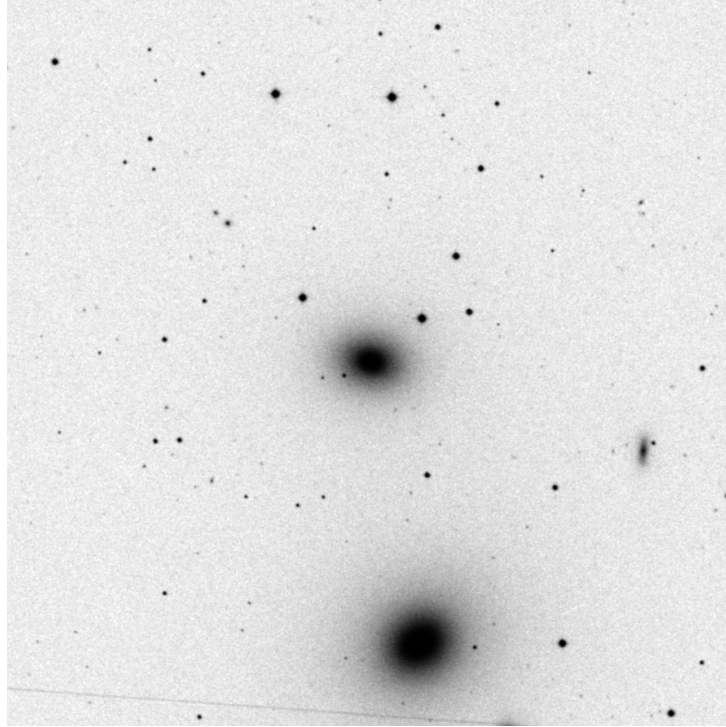
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

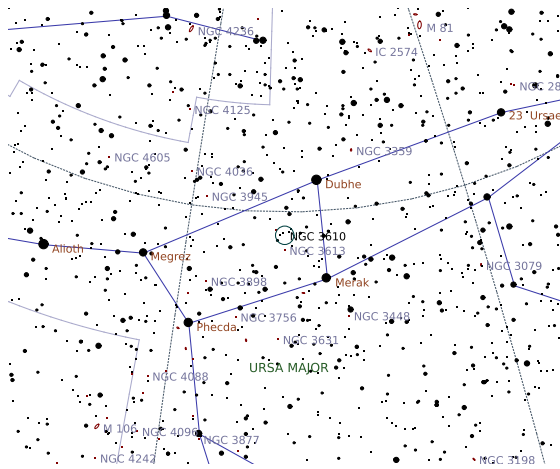
# NGC 3610

Galaxy in Ursa Major

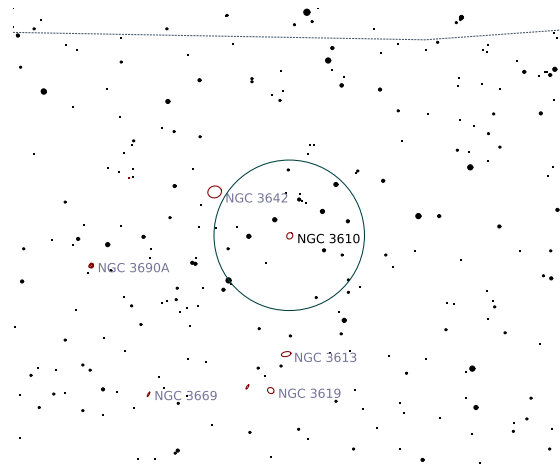
Right Ascension (current)	11 <sup>h</sup> 19 <sup>m</sup> 12 <sup>s</sup>	Declination (current)	58° 42' 34"
Right Ascension (J2000.0)	11 <sup>h</sup> 18 <sup>m</sup> 24 <sup>s</sup>	Declination (J2000.0)	58° 47' 12"
Size	2.7' × 2.3'	Position Angle	-54°
Magnitude	11	Other Designation	-

**Description:** Dreyer: vB;pS;1E 90;vsmbMSN

**SAC:** H I 270;comp 3.7';PA232;0.25'X0.25'



Wide-field chart

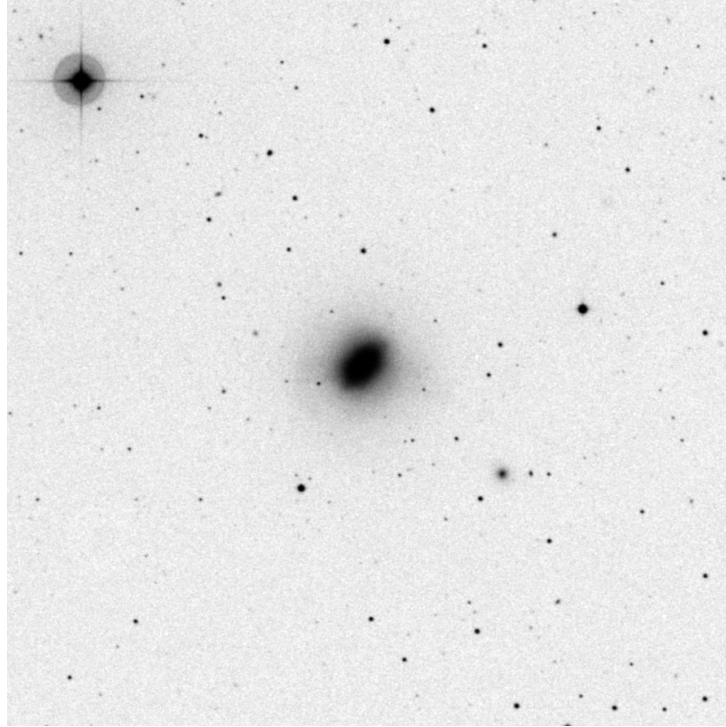


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

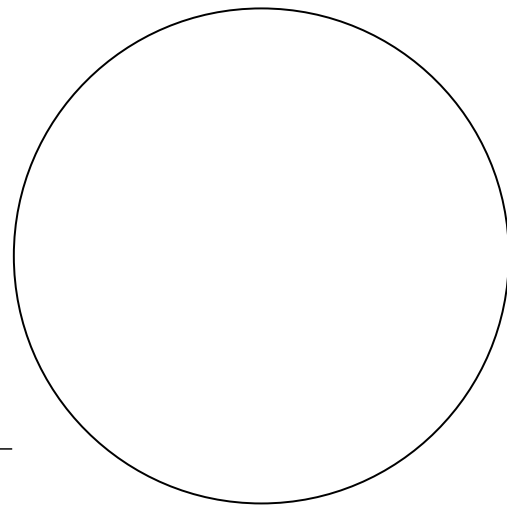
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

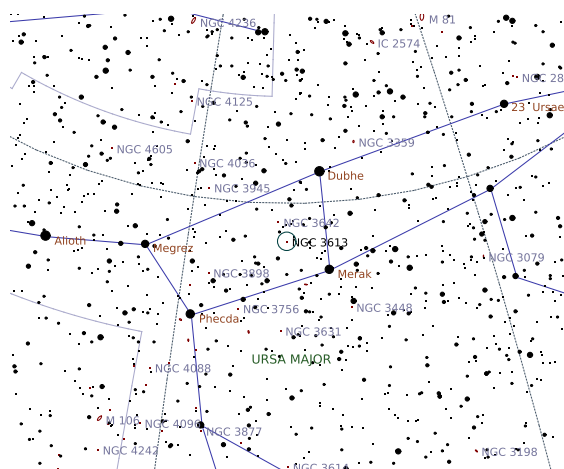
# NGC 3613

Galaxy in Ursa Major

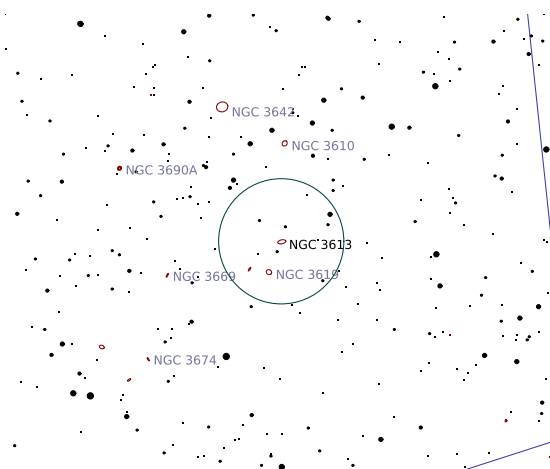
Right Ascension (current)	11 <sup>h</sup> 19 <sup>m</sup> 22 <sup>s</sup>	Declination (current)	57° 55' 24"
Right Ascension (J2000.0)	11 <sup>h</sup> 18 <sup>m</sup> 35 <sup>s</sup>	Declination (J2000.0)	58° 00' 02"
Size	3.9' × 1.9'	Position Angle	-12°
Magnitude	11	Other Designation	-

**Description:** Dreyer: vB;cL;mE 305;smbMN

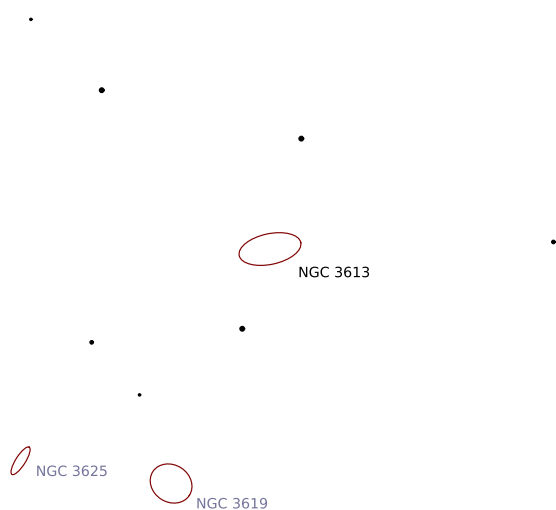
**SAC:** H I 271;P w NGC 3619 at 15.7' PA158



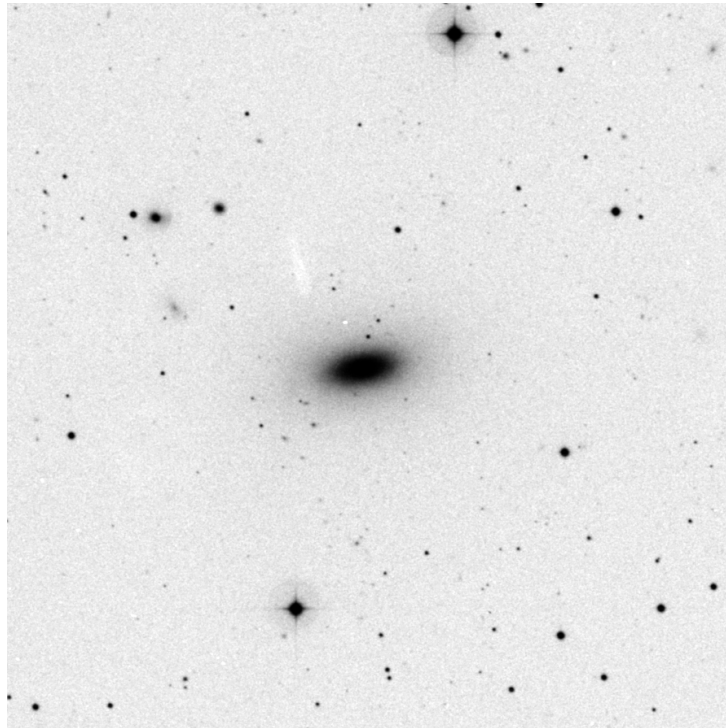
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

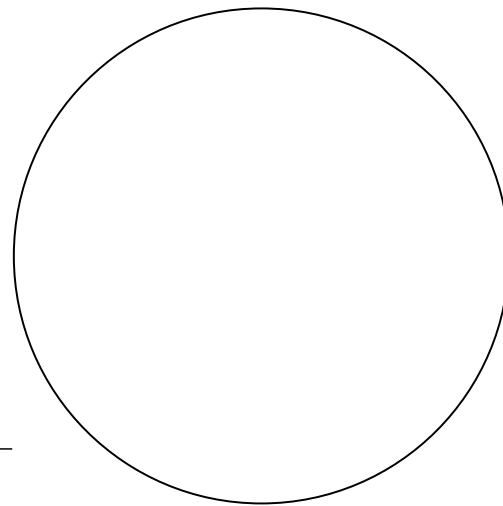
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

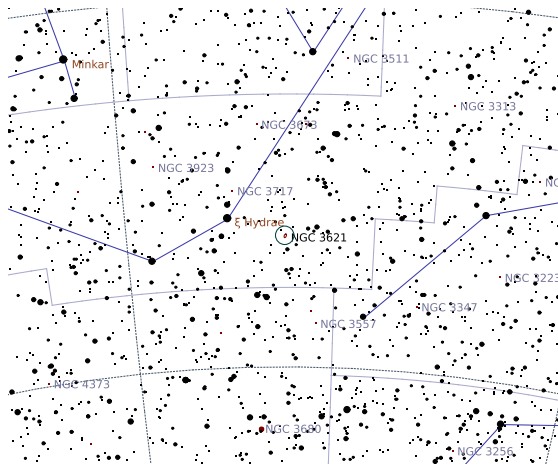
# NGC 3621

## Galaxy in Hydra

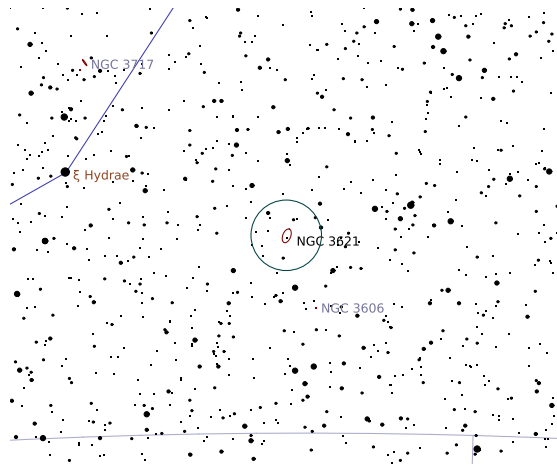
Right Ascension (current)	11 <sup>h</sup> 18 <sup>m</sup> 55 <sup>s</sup>	Declination (current)	-32° 53' 05"
Right Ascension (J2000.0)	11 <sup>h</sup> 18 <sup>m</sup> 15 <sup>s</sup>	Declination (J2000.0)	-32° 48' 40"
Size	12.3' × 6.8'	Position Angle	-69°
Magnitude	9.7	Other Designation	-

**Description:** Dreyer: cB;vL;E 160;am 4 st

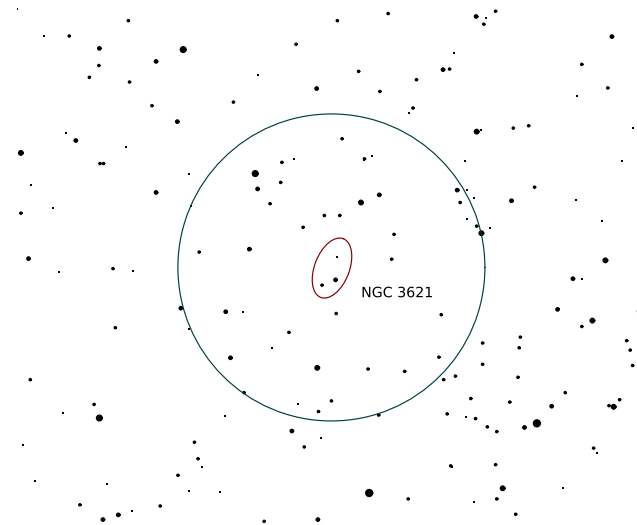
**SAC:** H I 241



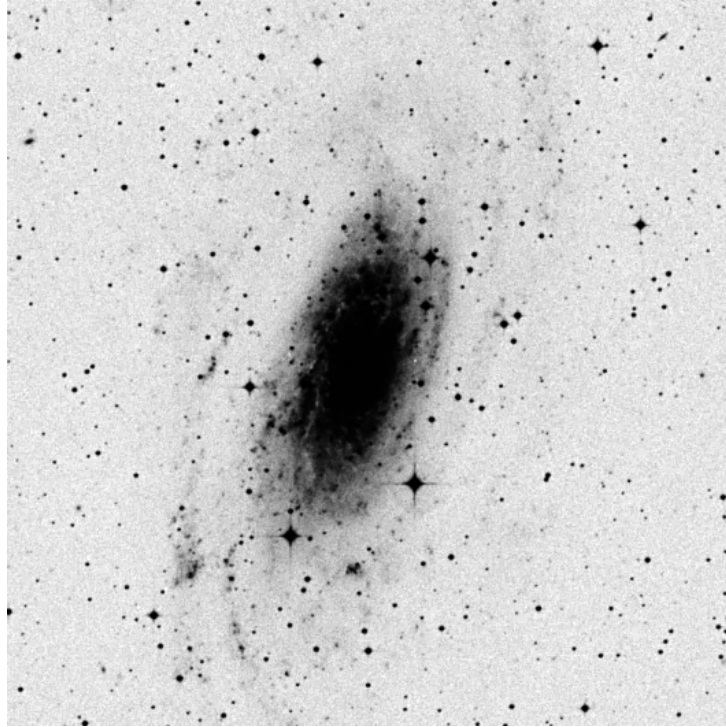
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

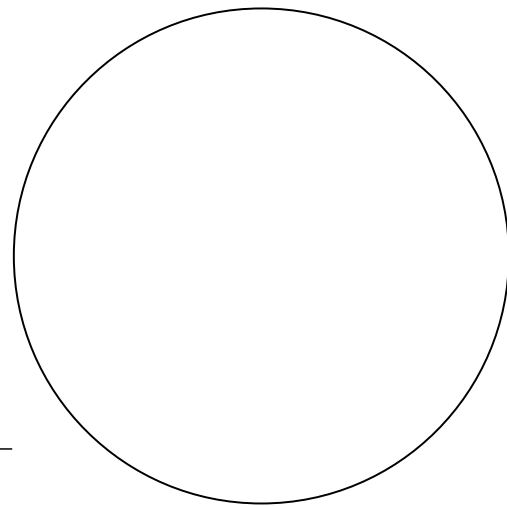
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

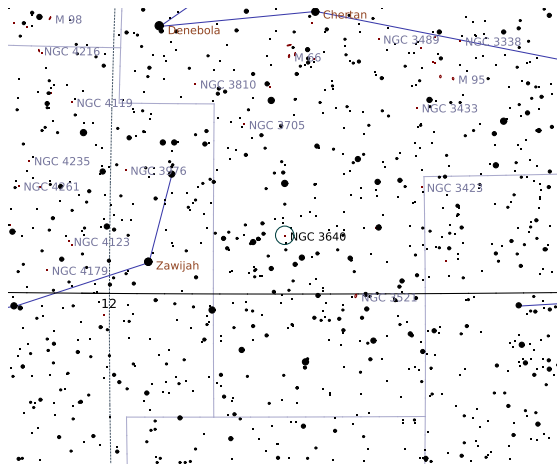
# NGC 3640

Galaxy in Leo

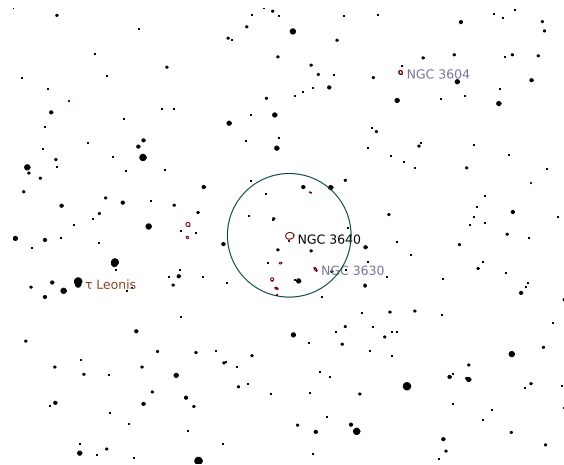
Right Ascension (current)	11 <sup>h</sup> 21 <sup>m</sup> 48 <sup>s</sup>	Declination (current)	3° 09' 32''
Right Ascension (J2000.0)	11 <sup>h</sup> 21 <sup>m</sup> 06 <sup>s</sup>	Declination (J2000.0)	3° 14' 05''
Size	4' × 3.2'	Position Angle	-10°
Magnitude	10	Other Designation	-

**Description:** Dreyer: B;pL;R;psbM

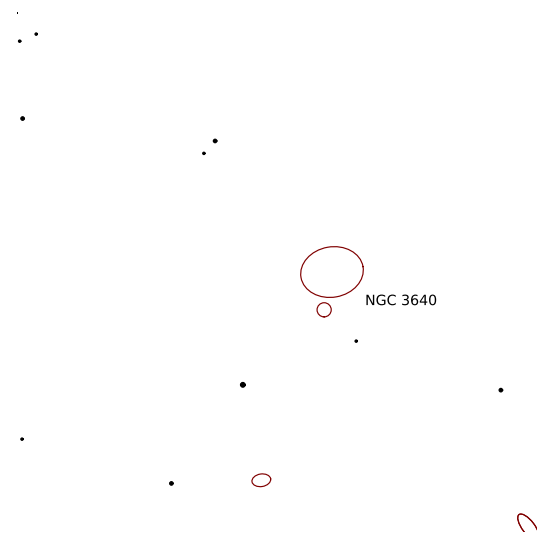
**SAC:** H II 33;P w NGC 3641 at 2.5';PA170



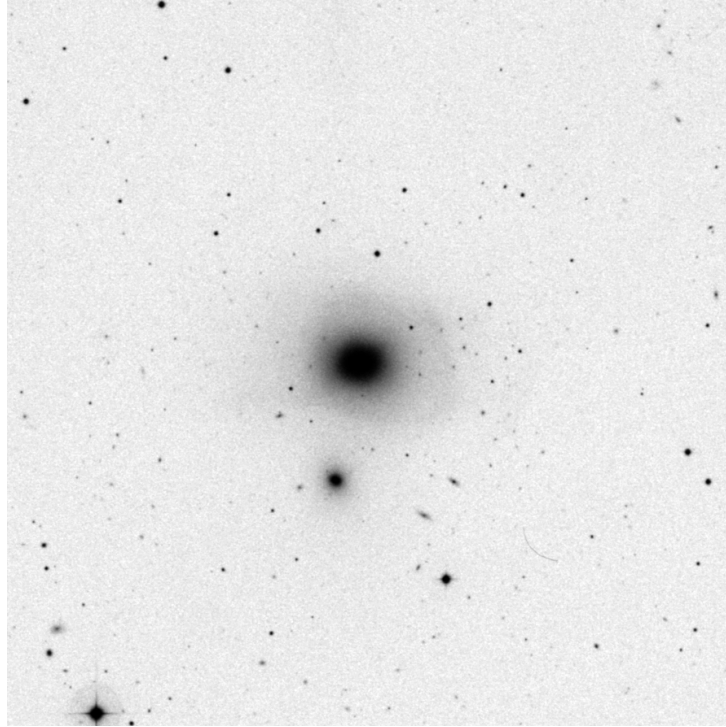
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

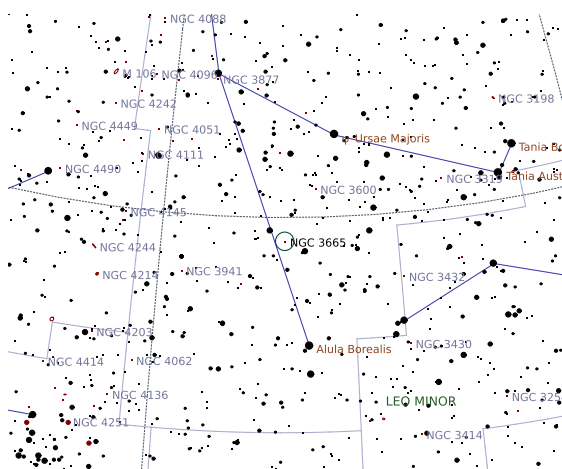
# NGC 3665

Galaxy in Ursa Major

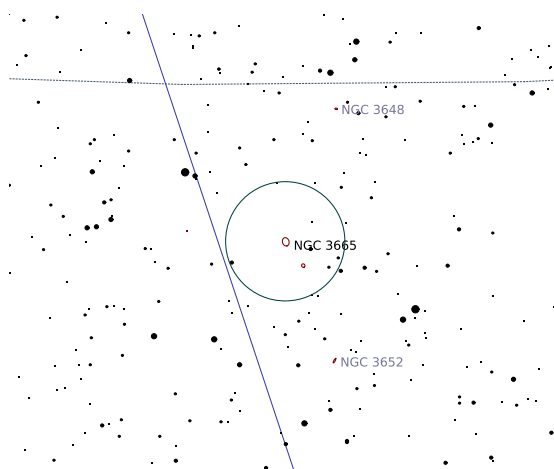
Right Ascension (current)	11 <sup>h</sup> 25 <sup>m</sup> 27 <sup>s</sup>	Declination (current)	38° 41' 09"
Right Ascension (J2000.0)	11 <sup>h</sup> 24 <sup>m</sup> 43 <sup>s</sup>	Declination (J2000.0)	38° 45' 47"
Size	4.3' × 3.3'	Position Angle	72°
Magnitude	11	Other Designation	–

**Description:** Dreyer: cB;cL;iR;pgmbM

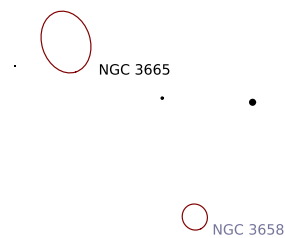
**SAC:** H I 219;P w NGC 3658



Wide-field chart

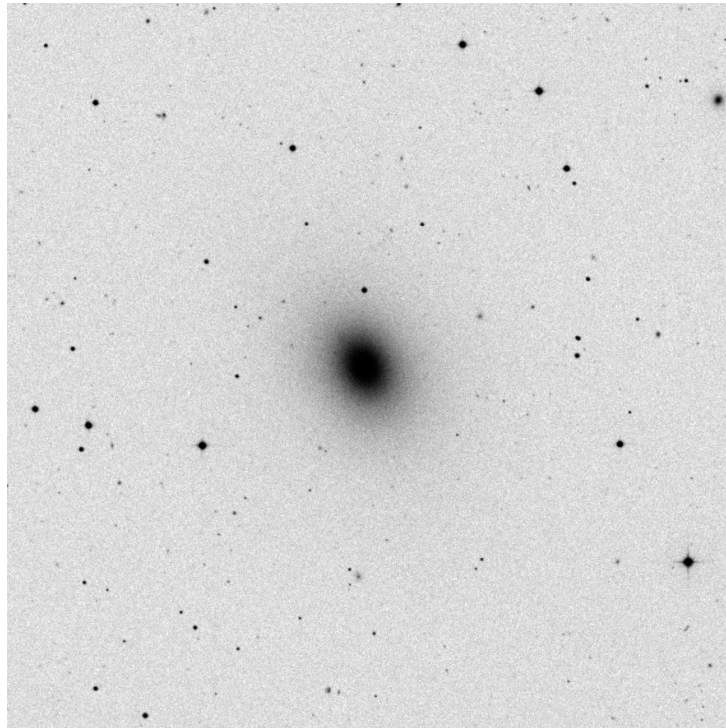


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

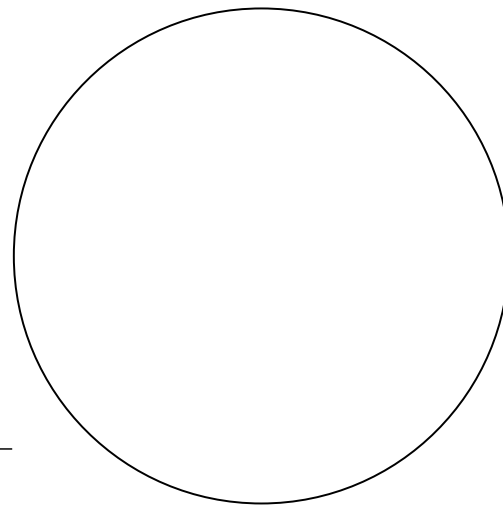
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

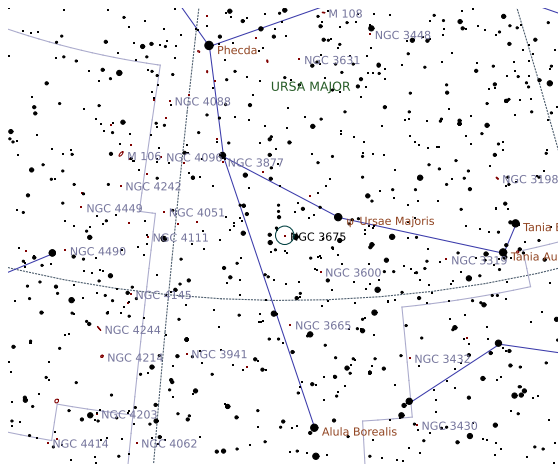
# NGC 3675

Galaxy in Ursa Major

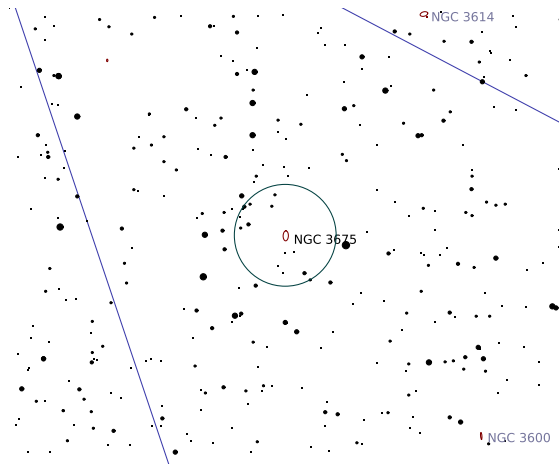
Right Ascension (current)	11 <sup>h</sup> 26 <sup>m</sup> 52 <sup>s</sup>	Declination (current)	43° 30' 32"
Right Ascension (J2000.0)	11 <sup>h</sup> 26 <sup>m</sup> 08 <sup>s</sup>	Declination (J2000.0)	43° 35' 11"
Size	5.9' × 3.1'	Position Angle	−88°
Magnitude	10	Other Designation	—

**Description:** Dreyer: vB;cL;vmE 0;vsmbMN;many st p

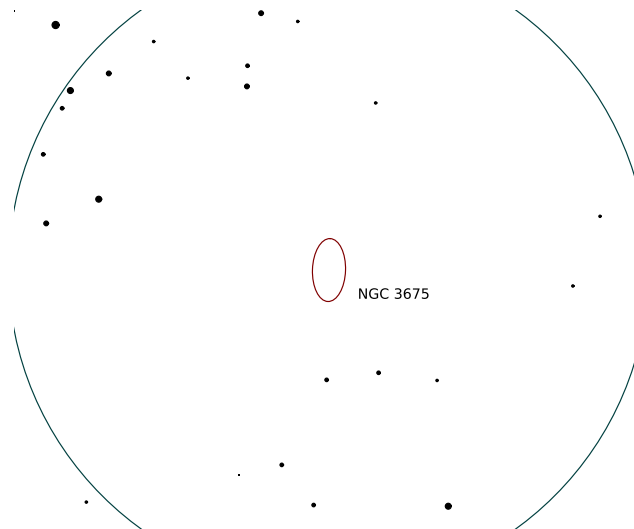
**SAC:** H I 194;in field of 56 UMa



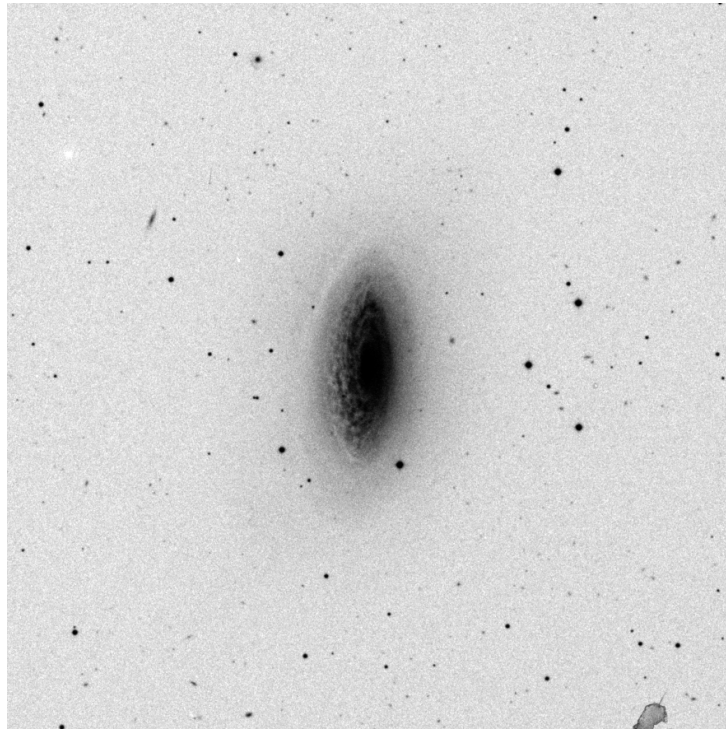
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

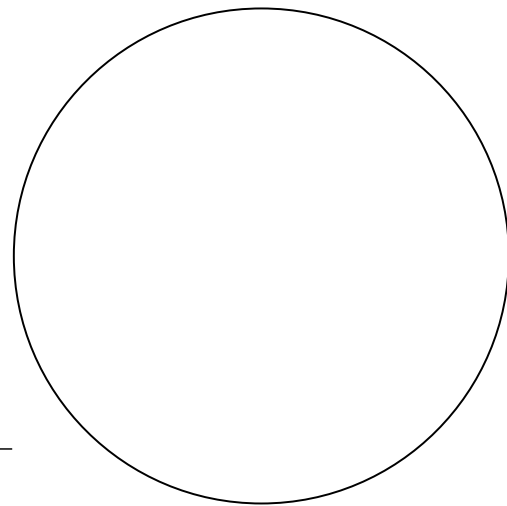
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

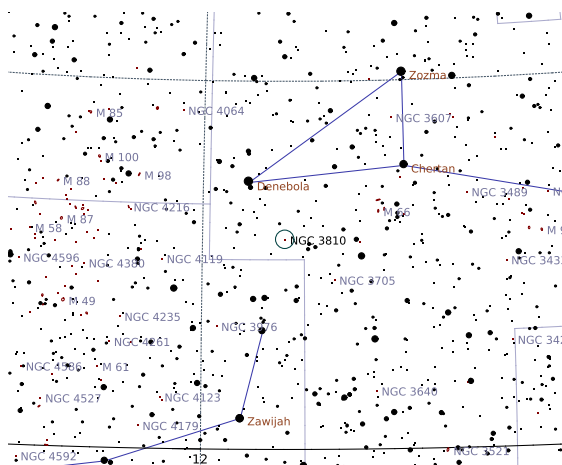
# NGC 3810

Galaxy in Leo

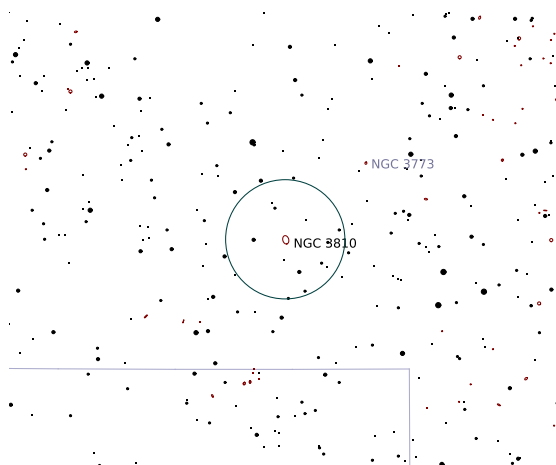
Right Ascension (current)	11 <sup>h</sup> 41 <sup>m</sup> 40 <sup>s</sup>	Declination (current)	11° 23' 36"
Right Ascension (J2000.0)	11 <sup>h</sup> 40 <sup>m</sup> 58 <sup>s</sup>	Declination (J2000.0)	11° 28' 13"
Size	4.3' × 3'	Position Angle	75°
Magnitude	11	Other Designation	—

**Description:** Dreyer: B;L;v1E

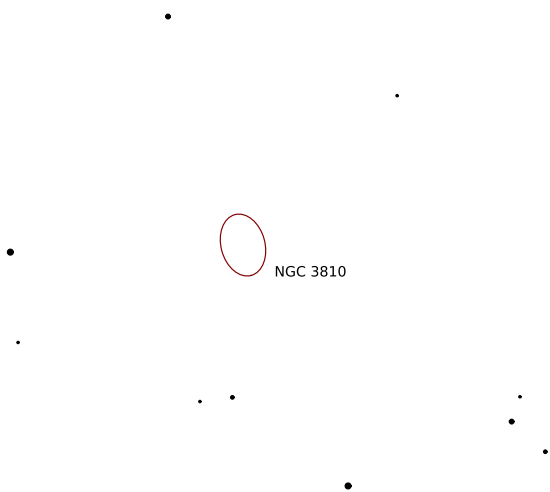
**SAC:** H I 21



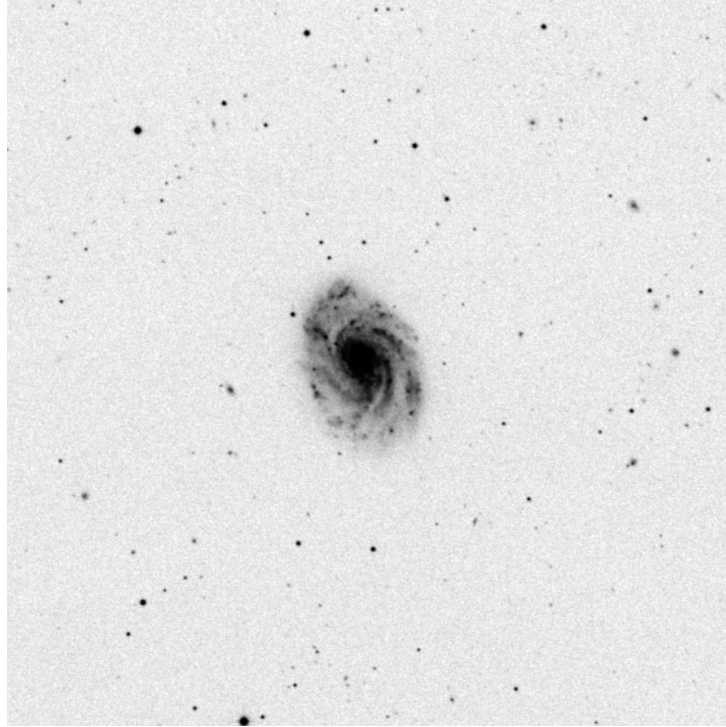
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

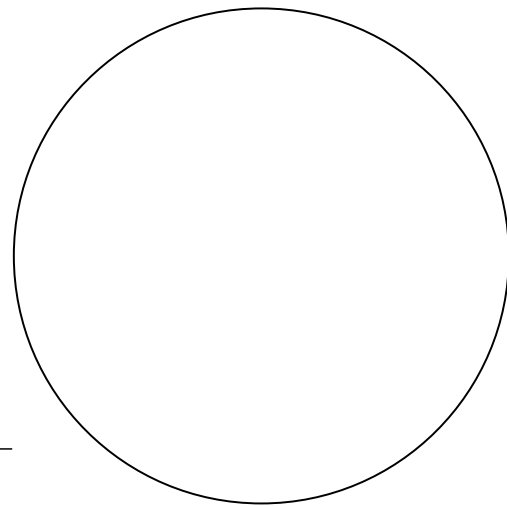
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

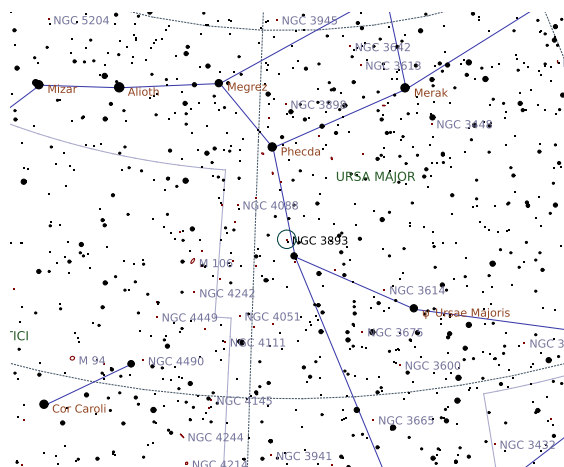
# NGC 3893

Galaxy in Ursa Major

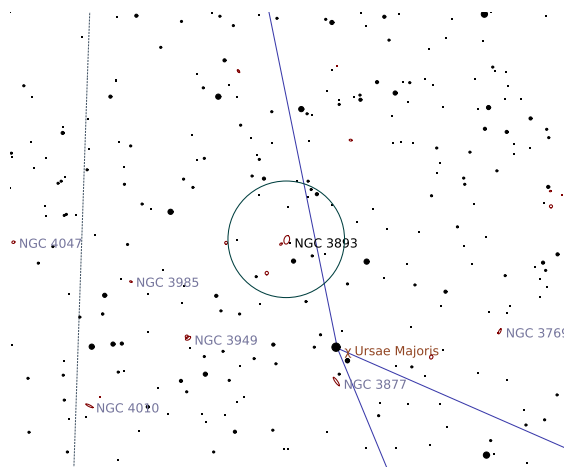
Right Ascension (current)	11 <sup>h</sup> 49 <sup>m</sup> 21 <sup>s</sup>	Declination (current)	48° 37' 59"
Right Ascension (J2000.0)	11 <sup>h</sup> 48 <sup>m</sup> 38 <sup>s</sup>	Declination (J2000.0)	48° 42' 41"
Size	4.5' × 2.8'	Position Angle	-75°
Magnitude	10	Other Designation	-

**Description:** Dreyer: B;pL;R;mbM

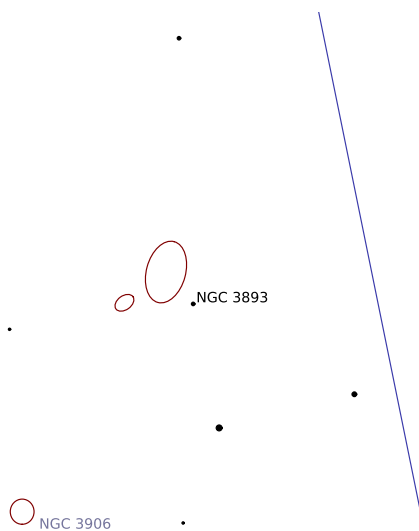
**SAC:** H II 738;P w NGC 3896 at 3.9';PA125



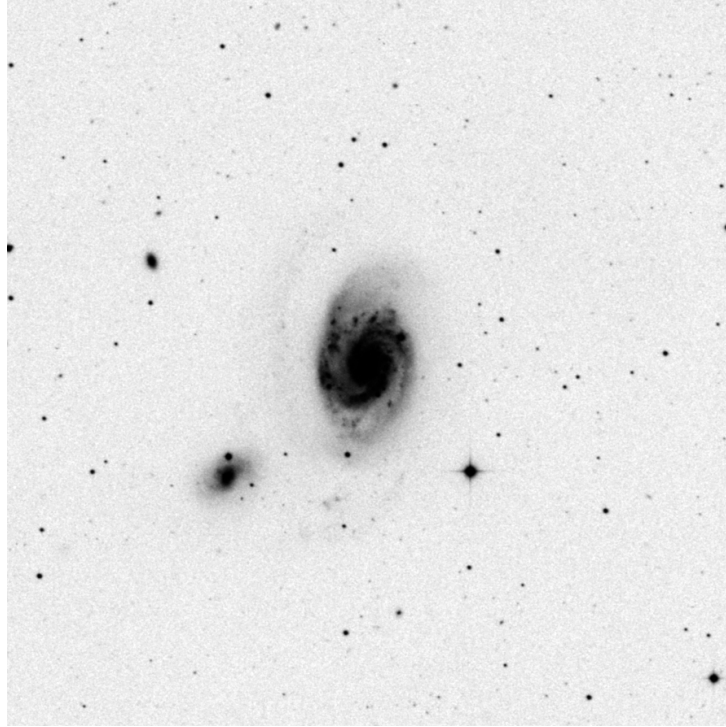
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

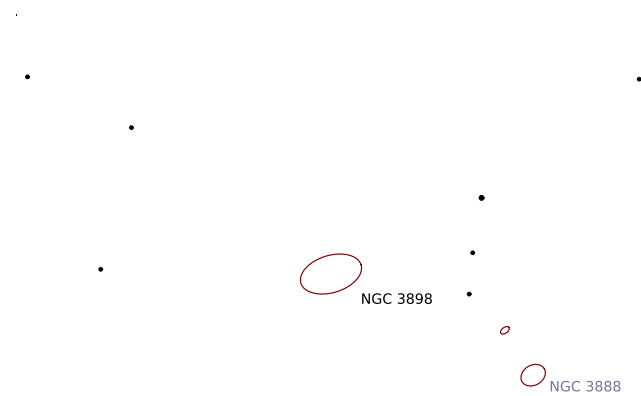
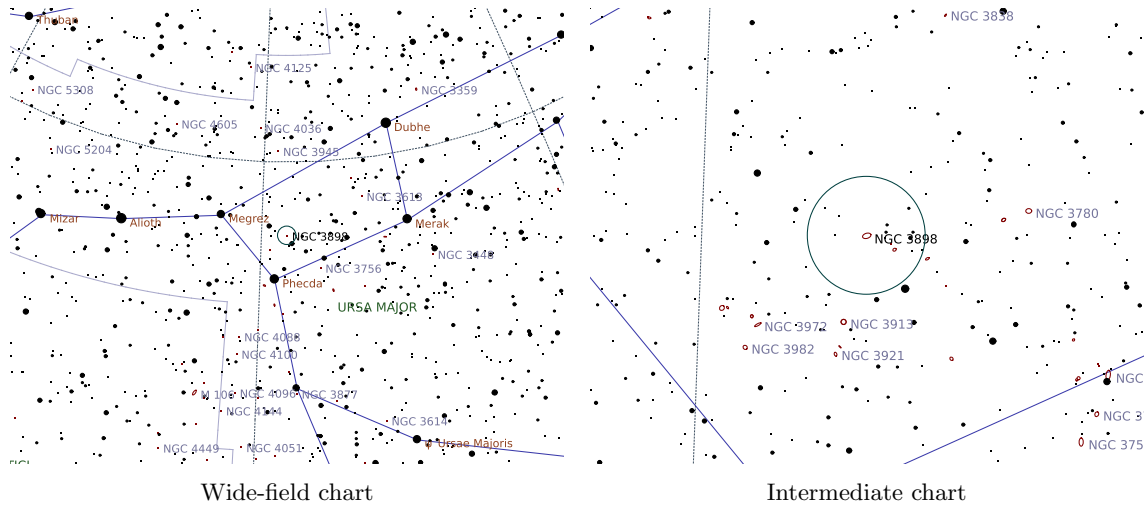
# NGC 3898

Galaxy in Ursa Major

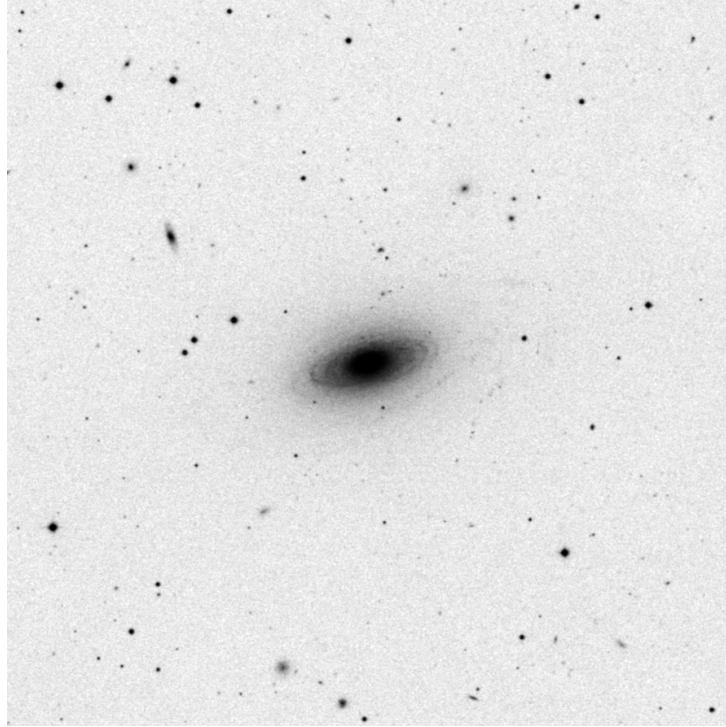
Right Ascension (current)	11 <sup>h</sup> 49 <sup>m</sup> 58 <sup>s</sup>	Declination (current)	56° 00' 22"
Right Ascension (J2000.0)	11 <sup>h</sup> 49 <sup>m</sup> 15 <sup>s</sup>	Declination (J2000.0)	56° 05' 05"
Size	4.4' × 2.6'	Position Angle	-17°
Magnitude	11	Other Designation	-

**Description:** Dreyer: B;pL;lE;svmbM

**SAC:** H I 228;comp 5 ' ;PA60;0.7'X0.12';NGC 3888 15' south







DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

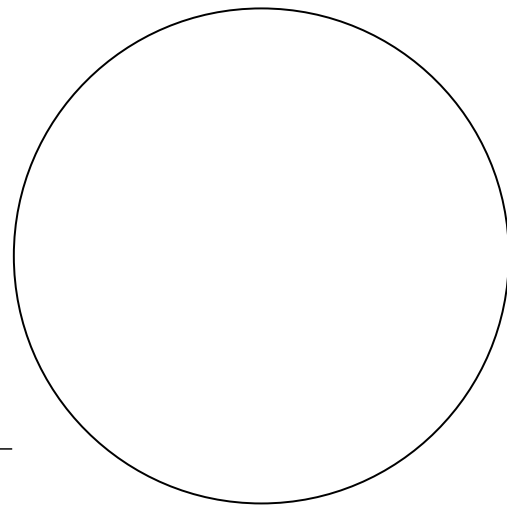
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

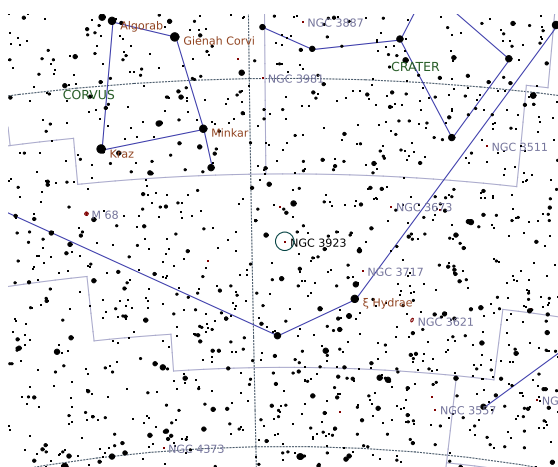
# NGC 3923

## Galaxy in Hydra

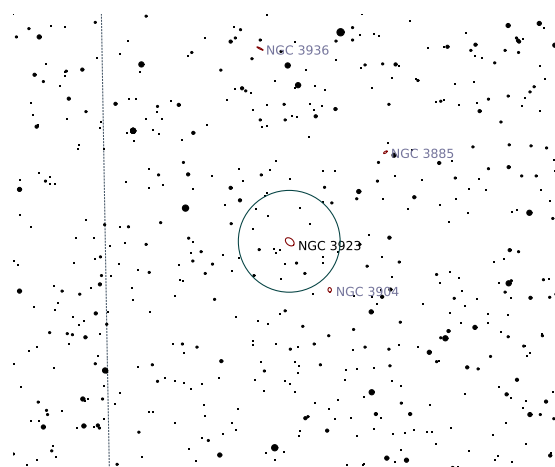
Right Ascension (current)	11 <sup>h</sup> 51 <sup>m</sup> 43 <sup>s</sup>	Declination (current)	-28° 52' 49"
Right Ascension (J2000.0)	11 <sup>h</sup> 51 <sup>m</sup> 01 <sup>s</sup>	Declination (J2000.0)	-28° 48' 21"
Size	5.9' × 3.9'	Position Angle	40°
Magnitude	9.8	Other Designation	—

**Description:** Dreyer: B;pL;lE;gmbM;r;vS\* sp inv

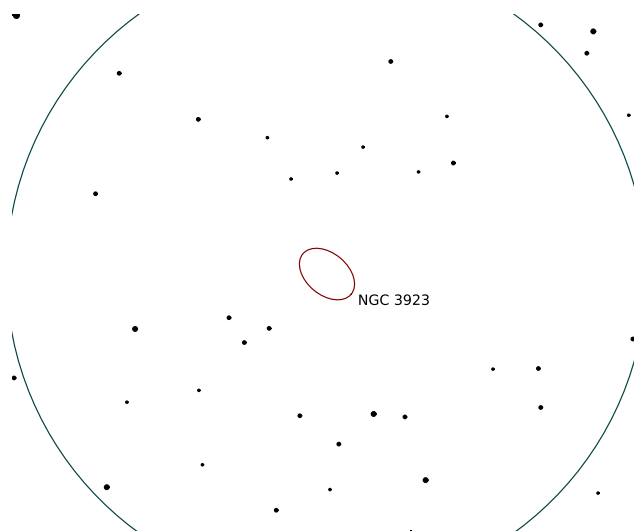
**SAC:** H I 259



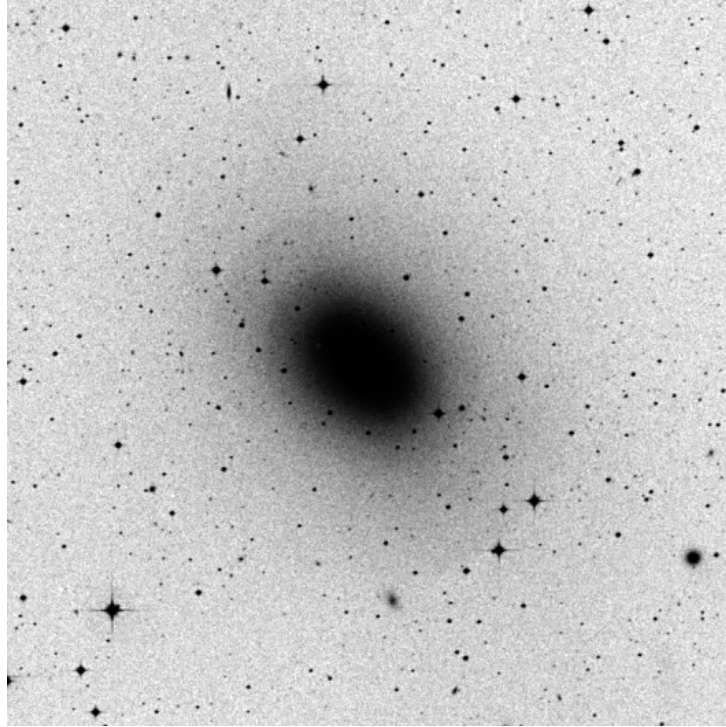
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

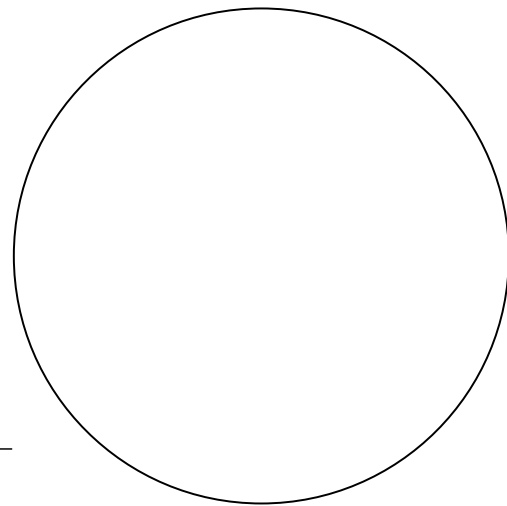
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

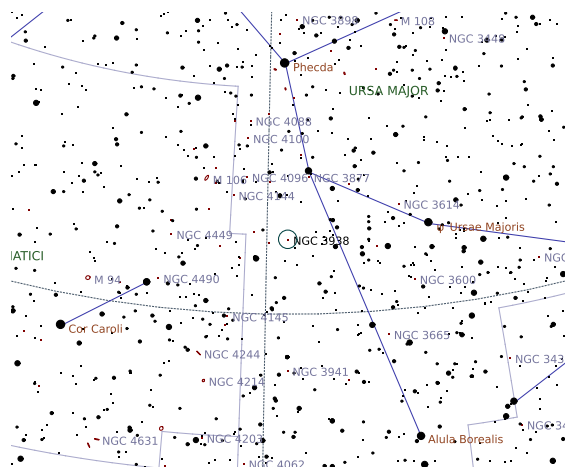
# NGC 3938

Galaxy in Ursa Major

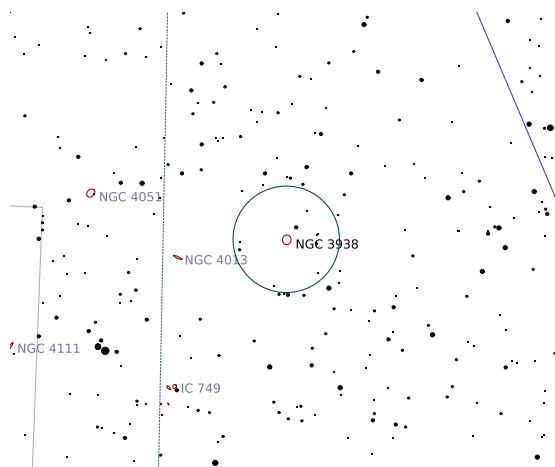
Right Ascension (current)	$11^{\text{h}} 53^{\text{m}} 31^{\text{s}}$	Declination (current)	$44^{\circ} 02' 35''$
Right Ascension (J2000.0)	$11^{\text{h}} 52^{\text{m}} 49^{\text{s}}$	Declination (J2000.0)	$44^{\circ} 07' 17''$
Size	$5.4' \times 4.9'$	Position Angle	$90^{\circ}$
Magnitude	10	Other Designation	–

**Description:** Dreyer: B;vL;R;bM;pBN;er

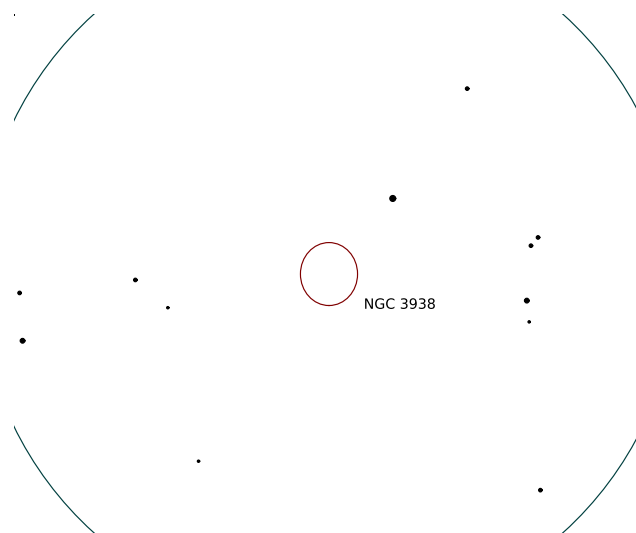
**SAC:** H I 203;Fine face on spiral



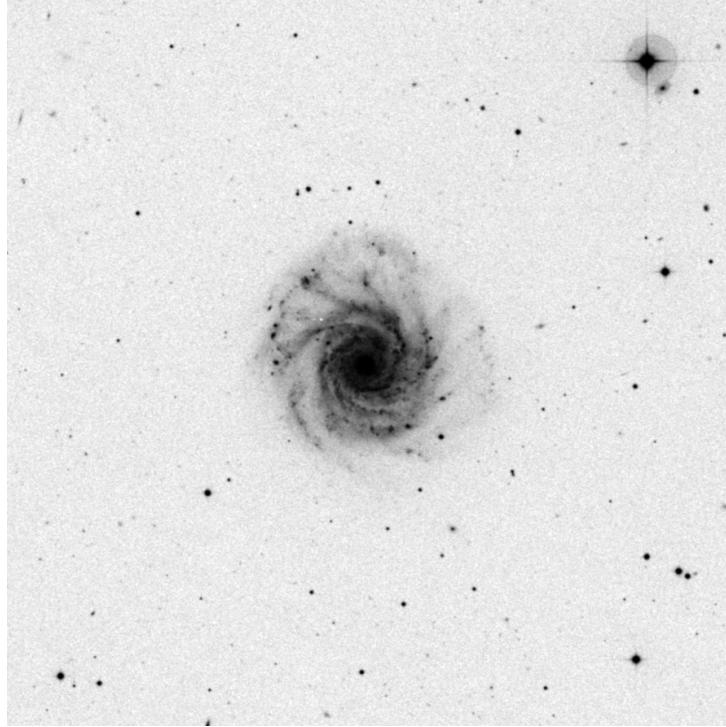
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

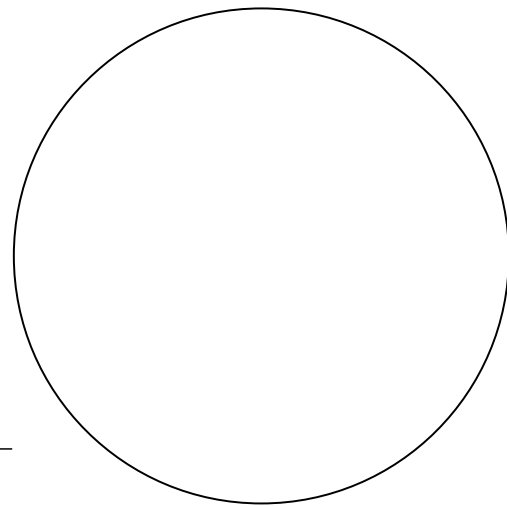
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



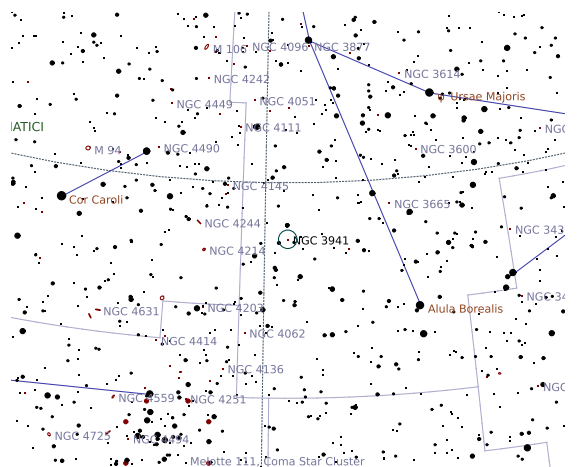
Sketch

# NGC 3941

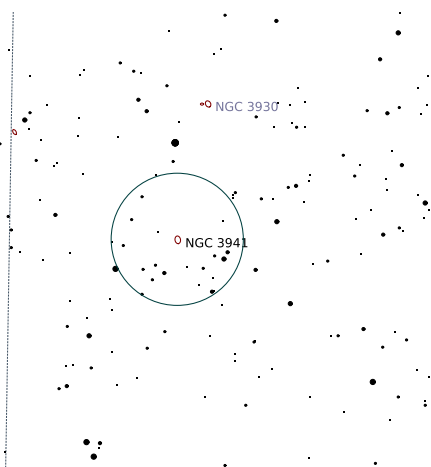
## Galaxy in Ursa Major

Right Ascension (current)	11 <sup>h</sup> 53 <sup>m</sup> 37 <sup>s</sup>	Declination (current)	36° 54' 31"
Right Ascension (J2000.0)	11 <sup>h</sup> 52 <sup>m</sup> 55 <sup>s</sup>	Declination (J2000.0)	36° 59' 13"
Size	3.5' × 2.5'	Position Angle	80°
Magnitude	10	Other Designation	—

**Description:** Dreyer: vB;pL;R;smbM \*9  
**SAC:** H I 173



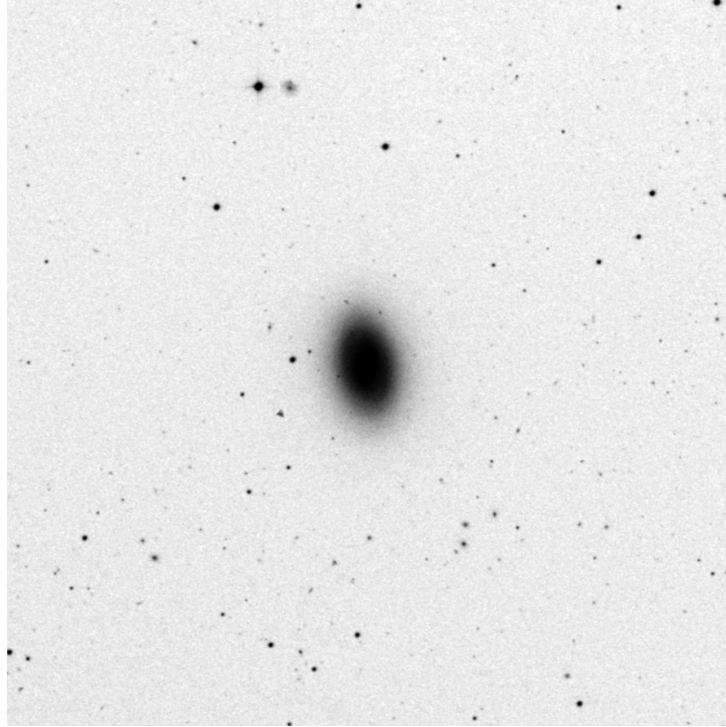
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

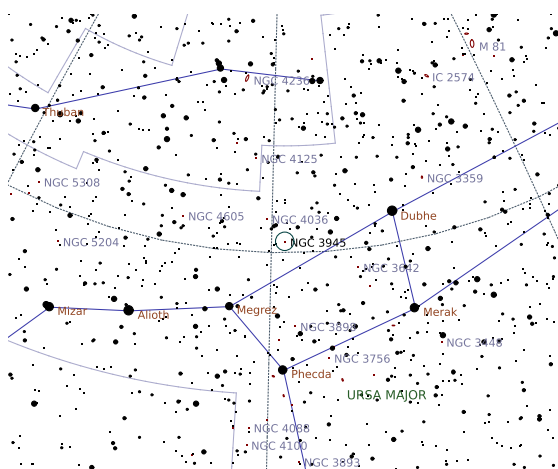
# NGC 3945

Galaxy in Ursa Major

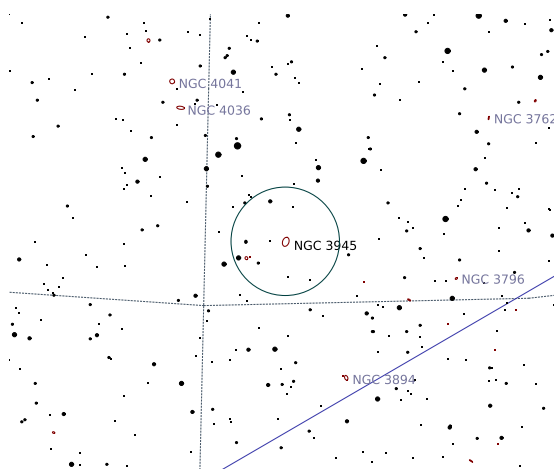
Right Ascension (current)	11 <sup>h</sup> 53 <sup>m</sup> 56 <sup>s</sup>	Declination (current)	60° 35' 48"
Right Ascension (J2000.0)	11 <sup>h</sup> 53 <sup>m</sup> 13 <sup>s</sup>	Declination (J2000.0)	60° 40' 31"
Size	5.2' × 3.5'	Position Angle	-70°
Magnitude	11	Other Designation	-

**Description:** Dreyer: B;pL;R;gmbM;r;\*12 sp

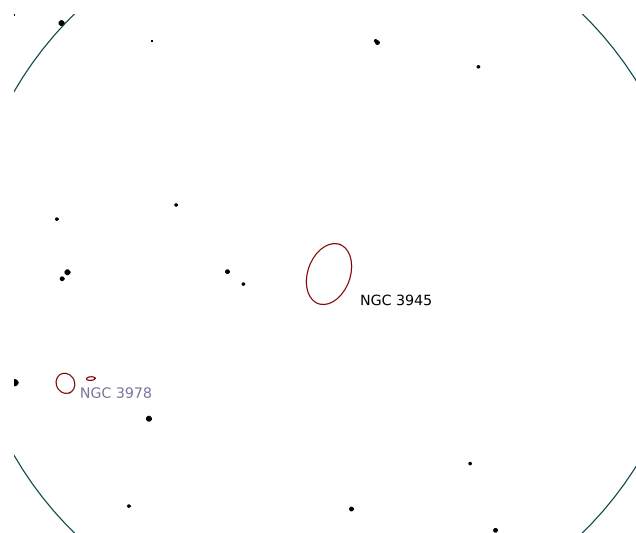
**SAC:** H I 251



Wide-field chart

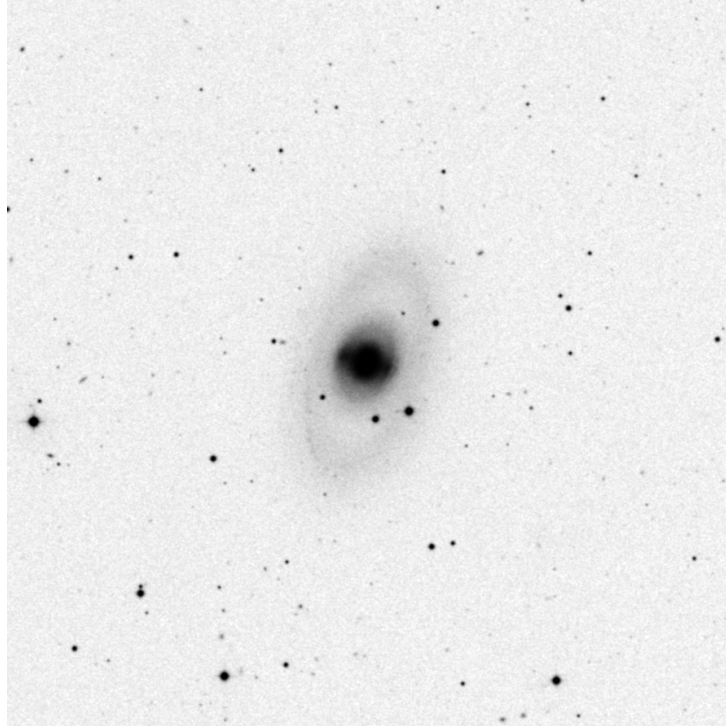


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

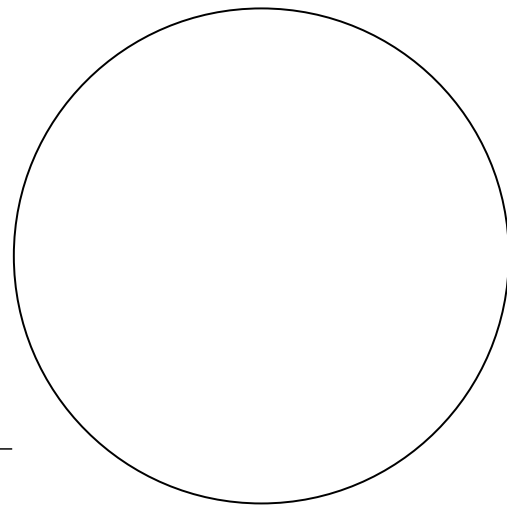
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

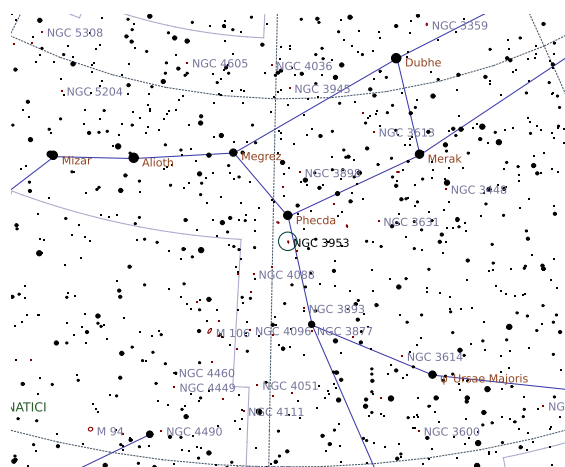
# NGC 3953

Galaxy in Ursa Major

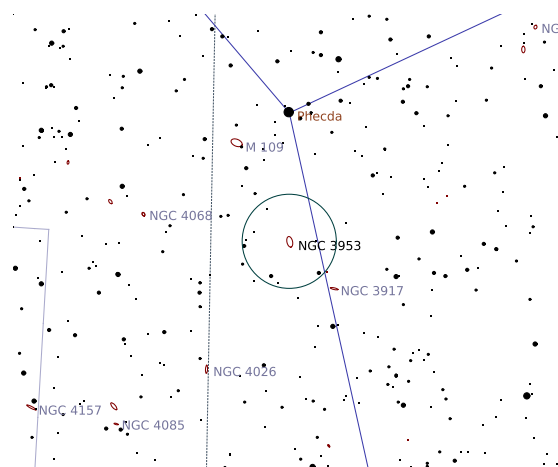
Right Ascension (current)	11 <sup>h</sup> 54 <sup>m</sup> 30 <sup>s</sup>	Declination (current)	52° 14' 47"
Right Ascension (J2000.0)	11 <sup>h</sup> 53 <sup>m</sup> 48 <sup>s</sup>	Declination (J2000.0)	52° 19' 30"
Size	6.9' × 3.6'	Position Angle	77°
Magnitude	10	Other Designation	—

**Description:** Dreyer: cB;L;E 0;vsbM;fine spiral

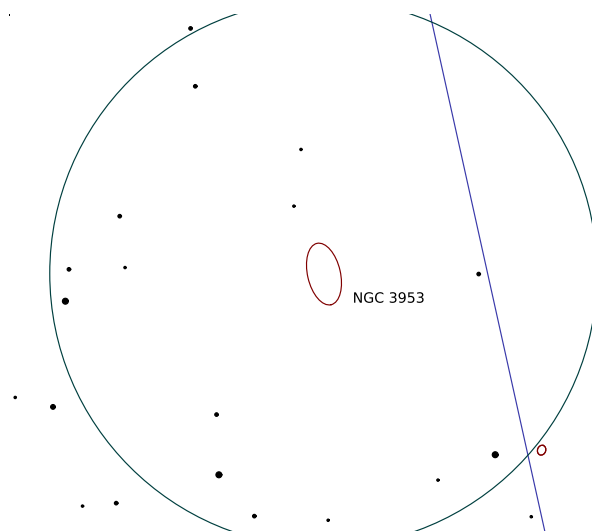
**SAC:** H V 45;comps 3.9';PA190;0.3'X0.1';4.6';PA156;0.4'X0.4'



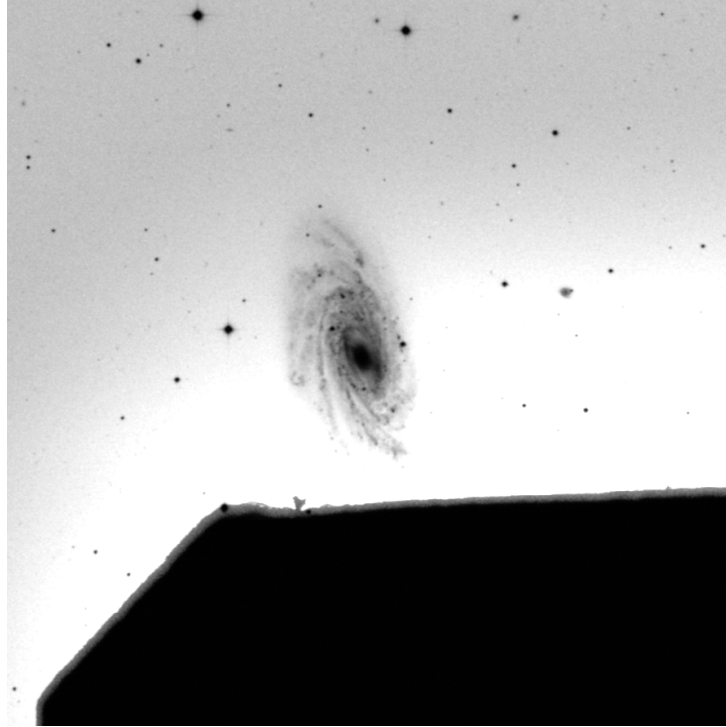
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

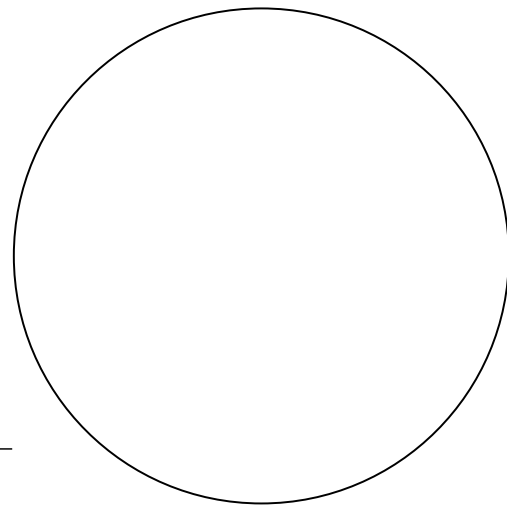
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



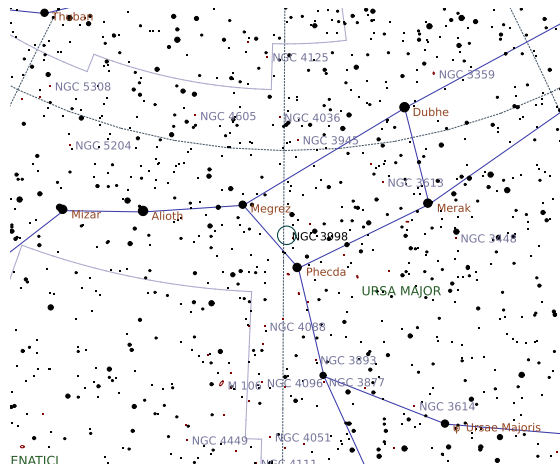
Sketch

# NGC 3998

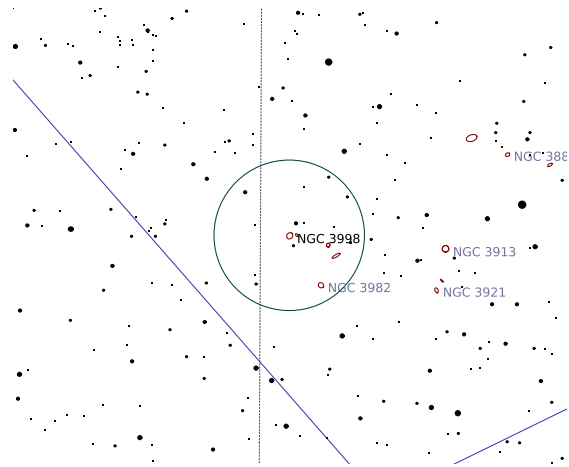
Galaxy in Ursa Major

Right Ascension (current)	11 <sup>h</sup> 58 <sup>m</sup> 37 <sup>s</sup>	Declination (current)	55° 22' 31"
Right Ascension (J2000.0)	11 <sup>h</sup> 57 <sup>m</sup> 55 <sup>s</sup>	Declination (J2000.0)	55° 27' 14"
Size	2.7' × 2.3'	Position Angle	-50°
Magnitude	11	Other Designation	-

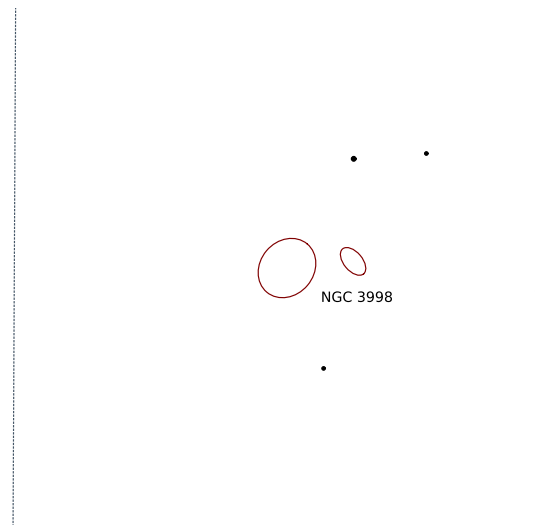
**Description:** Dreyer: cB;pS;R;vg;smbM  
**SAC:** H I 229;comp 4.7';PA145;0.3'X0.3'



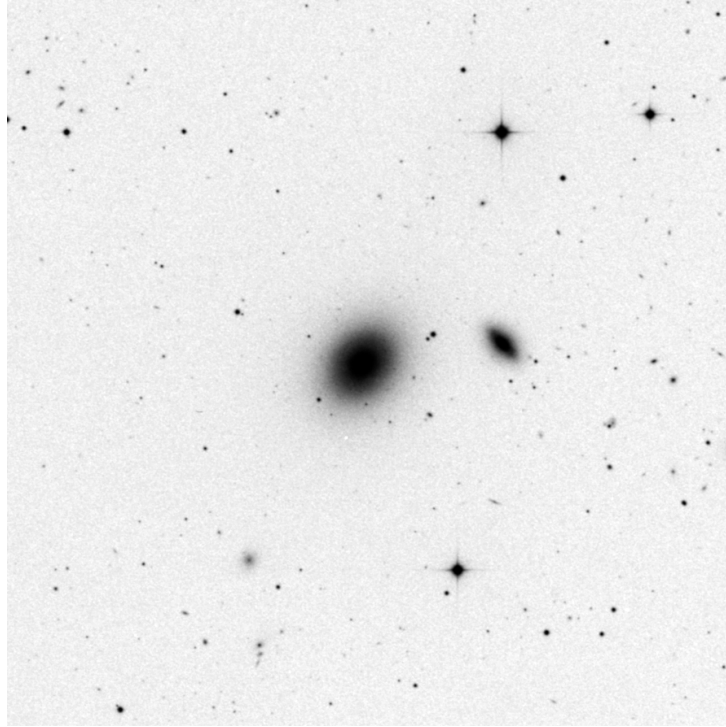
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

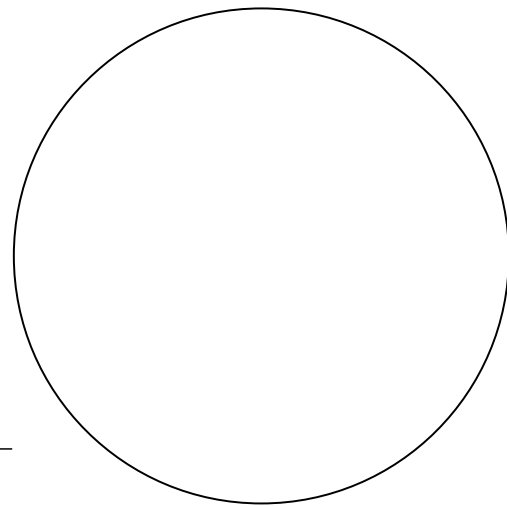
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

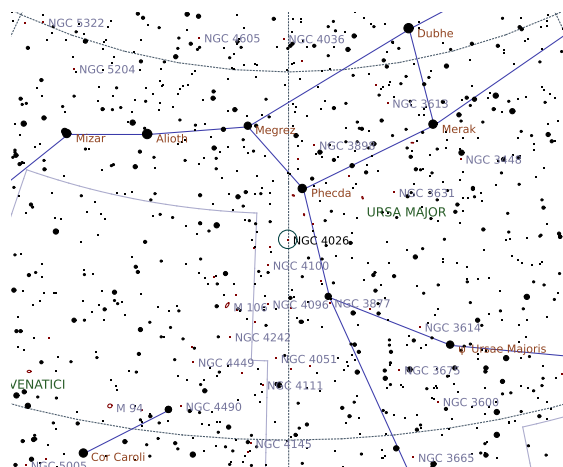
# NGC 4026

Galaxy in Ursa Major

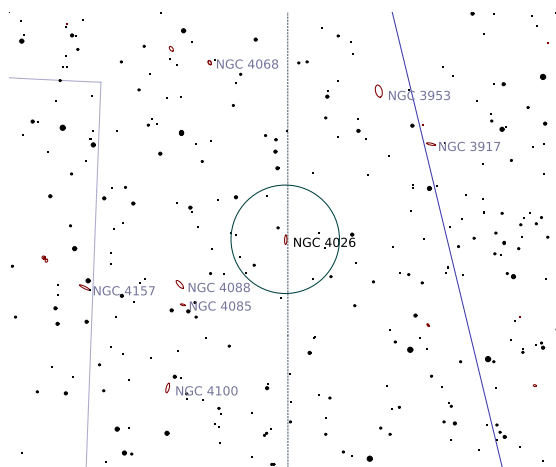
Right Ascension (current)	12 <sup>h</sup> 00 <sup>m</sup> 07 <sup>s</sup>	Declination (current)	50° 53' 00"
Right Ascension (J2000.0)	11 <sup>h</sup> 59 <sup>m</sup> 25 <sup>s</sup>	Declination (J2000.0)	50° 57' 43"
Size	5.2' × 1.3'	Position Angle	−88°
Magnitude	11	Other Designation	—

**Description:** Dreyer: vB;cL;mE176;vsymbM;BN

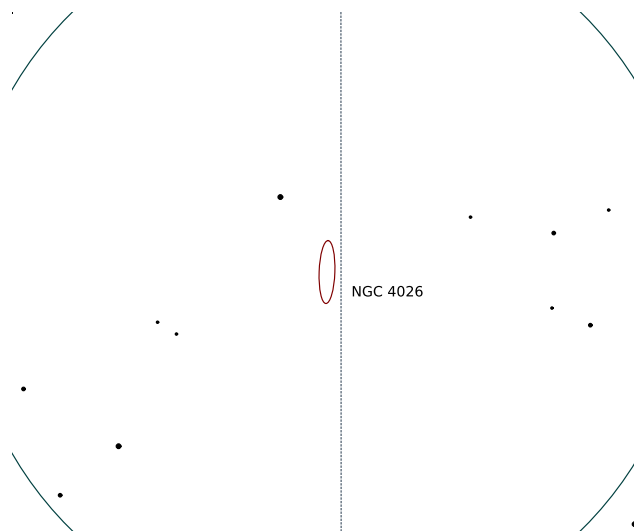
**SAC:** H I 223;edge on lens shape



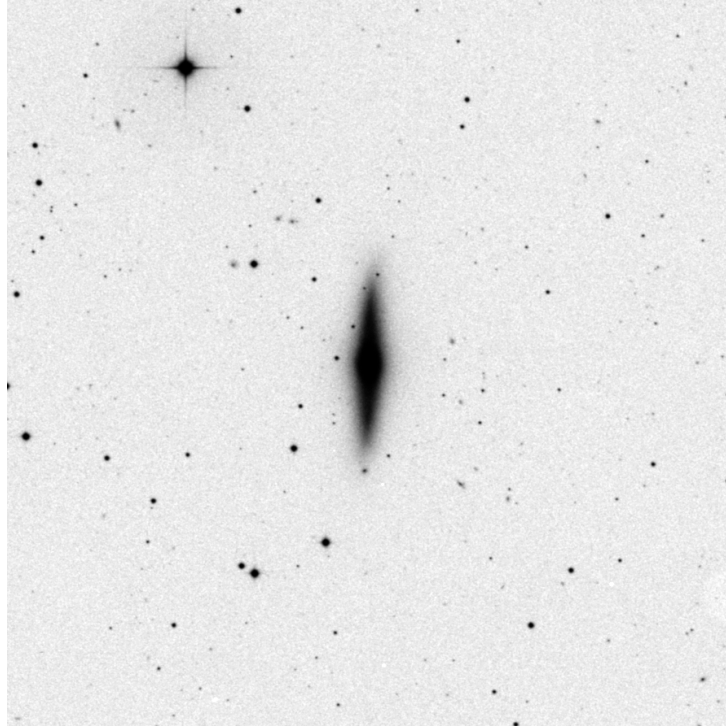
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

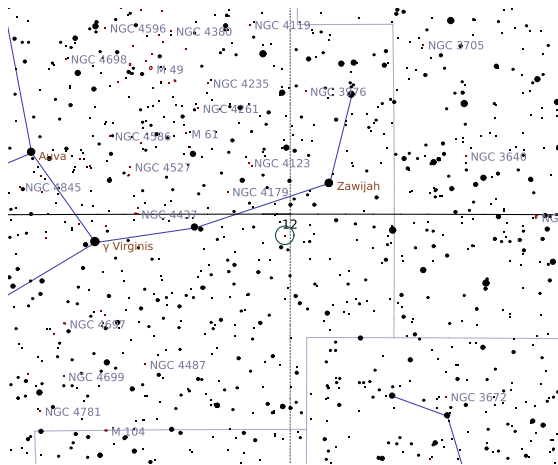
# NGC 4030

## Galaxy in Virgo

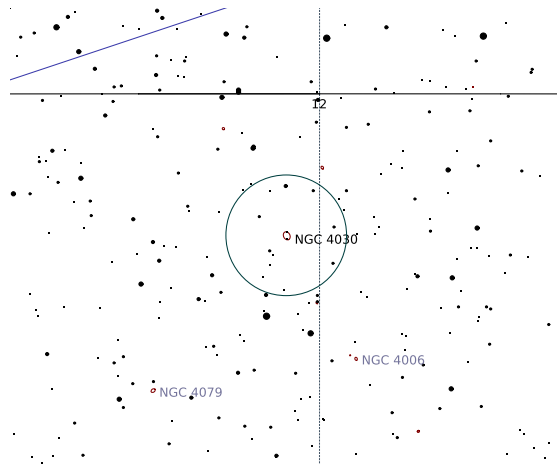
Right Ascension (current)	$12^{\text{h}} 01^{\text{m}} 05^{\text{s}}$	Declination (current)	$-1^{\circ} 10' 36''$
Right Ascension (J2000.0)	$12^{\text{h}} 00^{\text{m}} 23^{\text{s}}$	Declination (J2000.0)	$-1^{\circ} 06' 02''$
Size	$4.2' \times 3.2'$	Position Angle	$63^{\circ}$
Magnitude	11	Other Designation	—

**Description:** Dreyer: cB;L;v1E;psmbM;B\* nr

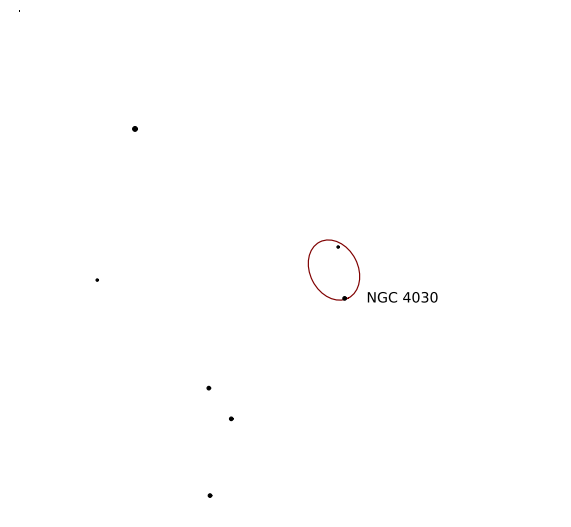
**SAC:** H I 121;fine nearly face on spiral



Wide-field chart

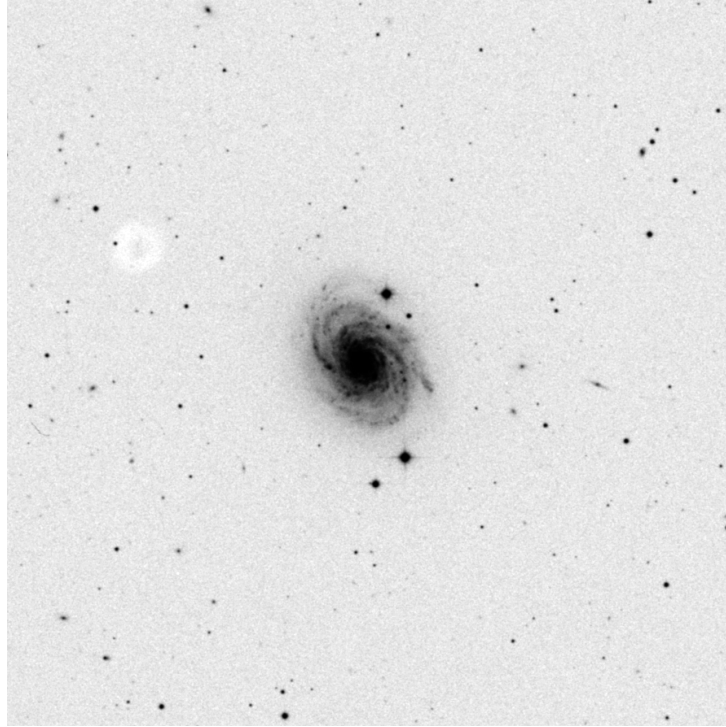


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

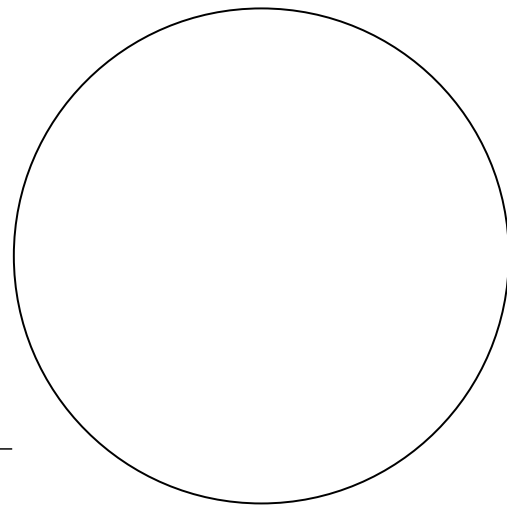
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

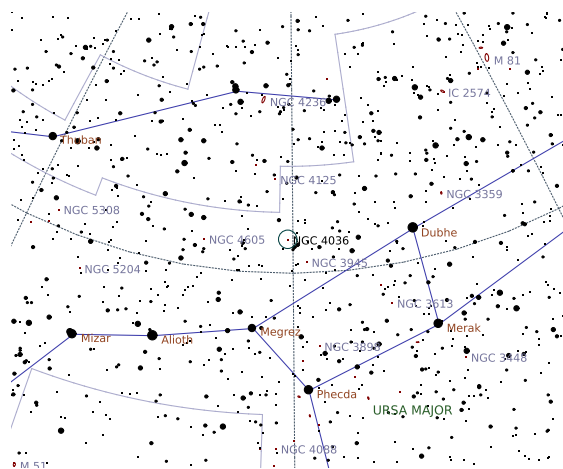
# NGC 4036

Galaxy in Ursa Major

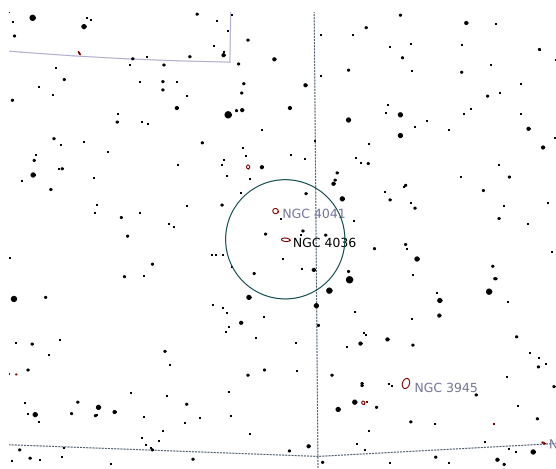
Right Ascension (current)	12 <sup>h</sup> 02 <sup>m</sup> 09 <sup>s</sup>	Declination (current)	61° 49' 02"
Right Ascension (J2000.0)	12 <sup>h</sup> 01 <sup>m</sup> 27 <sup>s</sup>	Declination (J2000.0)	61° 53' 46"
Size	4.3' × 1.7'	Position Angle	5°
Magnitude	11	Other Designation	—

**Description:** Dreyer: vB;vL;E;vBN

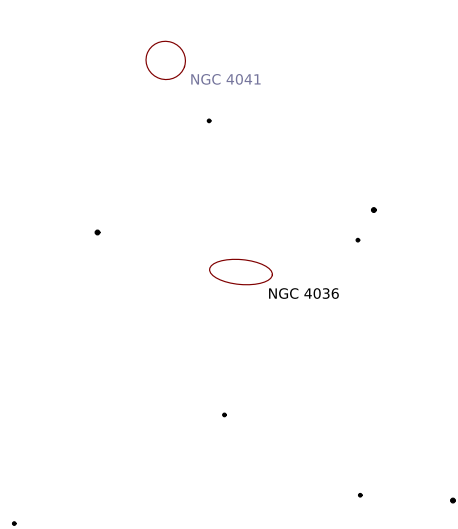
**SAC:** H I 253;NGC 4041 @ 15';spindle shape



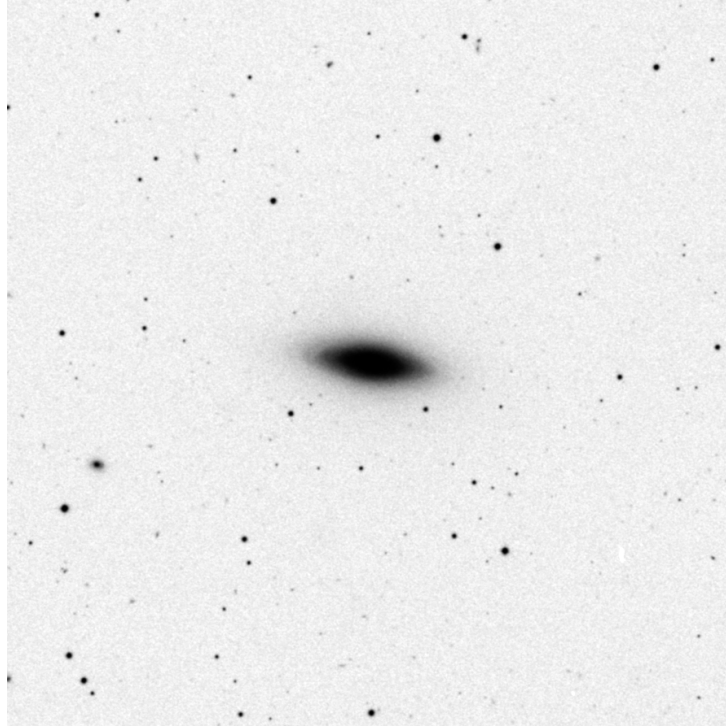
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

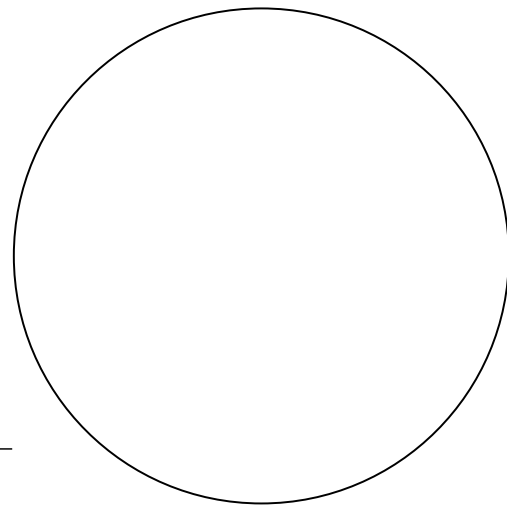
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



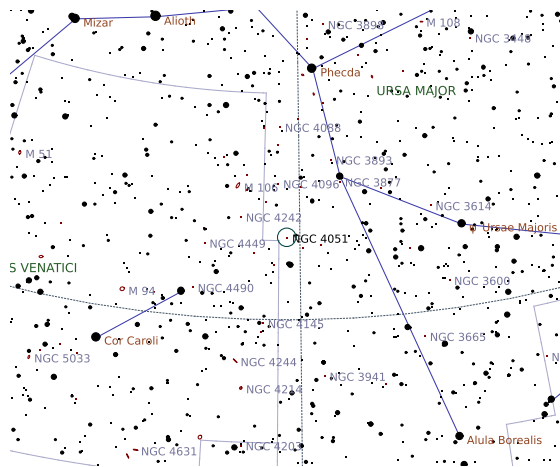
**Sketch**

# NGC 4051

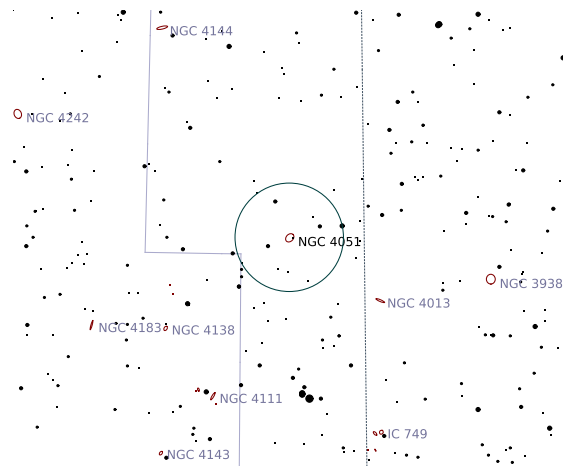
Galaxy in Ursa Major

Right Ascension (current)	12 <sup>h</sup> 03 <sup>m</sup> 50 <sup>s</sup>	Declination (current)	44° 27' 12"
Right Ascension (J2000.0)	12 <sup>h</sup> 03 <sup>m</sup> 09 <sup>s</sup>	Declination (J2000.0)	44° 31' 55"
Size	5.2' × 3.9'	Position Angle	−45°
Magnitude	10	Other Designation	–

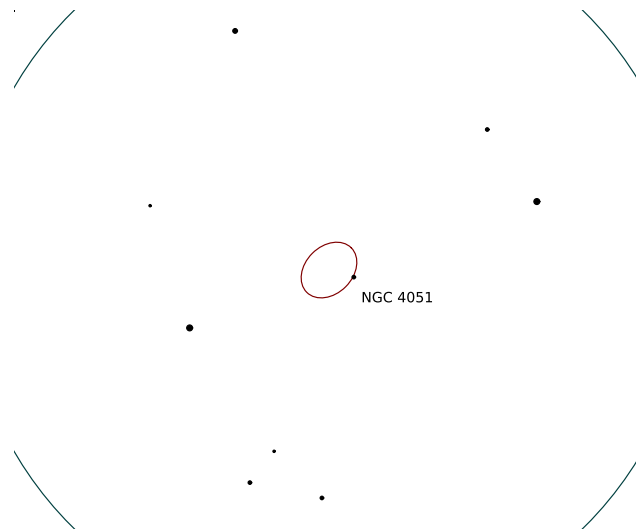
**Description:** Dreyer: B;vL;E;vgvsmbM\*11;vseBN or \*  
**SAC:** H IV 56;thick spiral arms



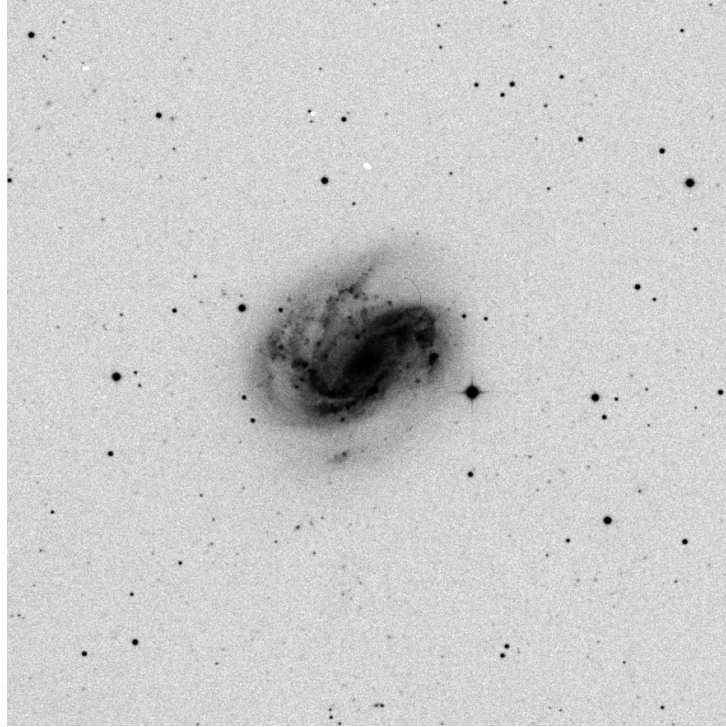
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

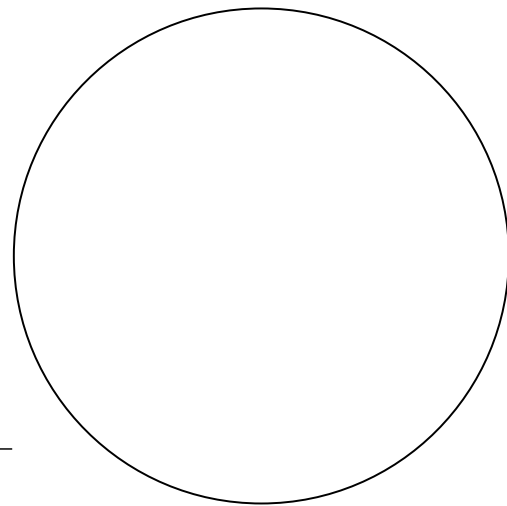
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

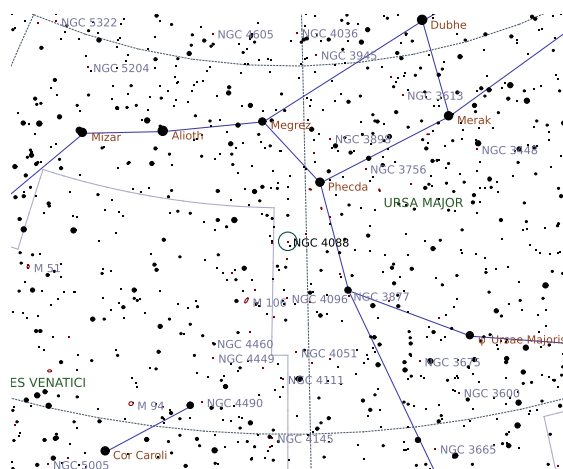
# NGC 4088

Galaxy in Ursa Major

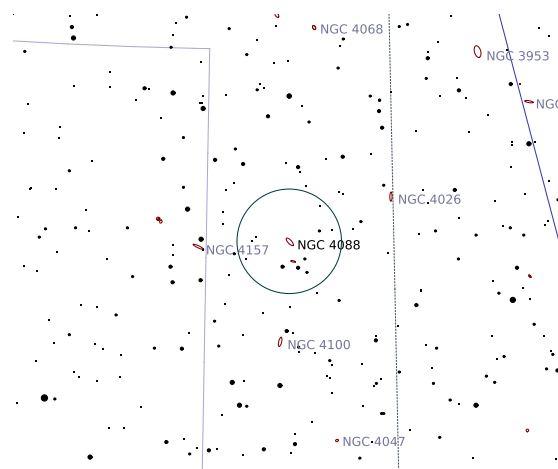
Right Ascension (current)	12 <sup>h</sup> 06 <sup>m</sup> 15 <sup>s</sup>	Declination (current)	50° 27' 43"
Right Ascension (J2000.0)	12 <sup>h</sup> 05 <sup>m</sup> 34 <sup>s</sup>	Declination (J2000.0)	50° 32' 26"
Size	5.6' × 2.1'	Position Angle	47°
Magnitude	11	Other Designation	—

**Description:** Dreyer: B;cL;E55;lbM

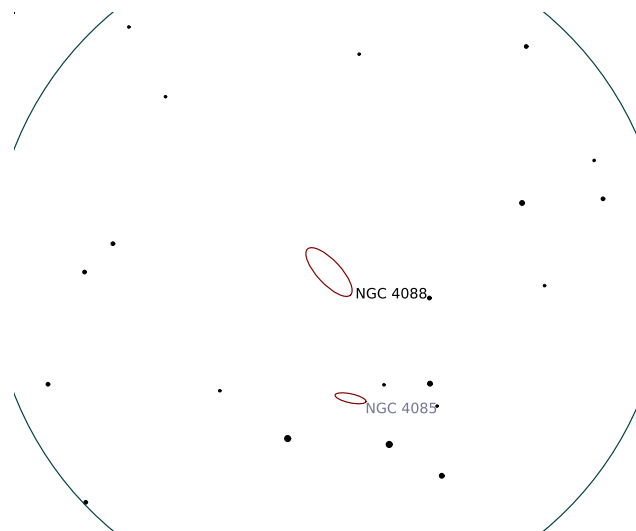
**SAC:** H I 206;P w NGC 4085 11' to south;distorted spirl arms;UGC 7081



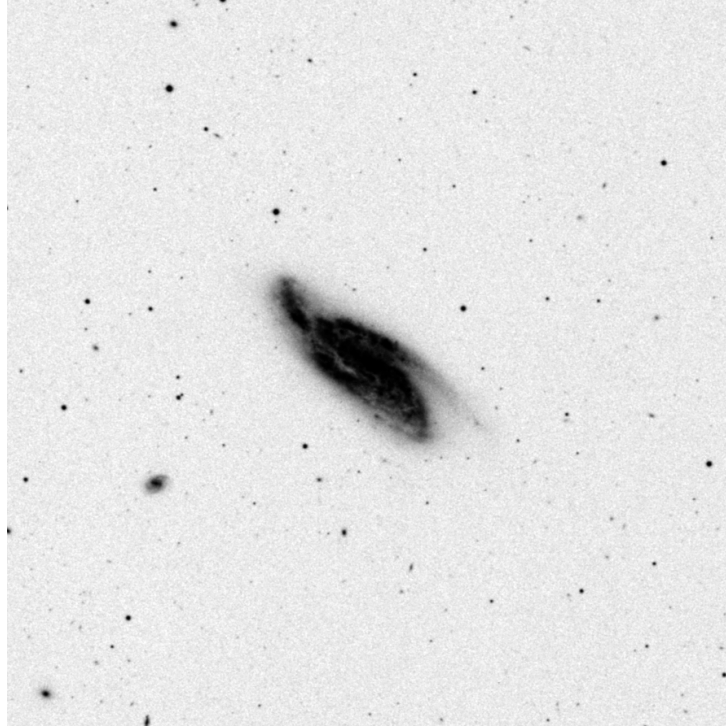
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

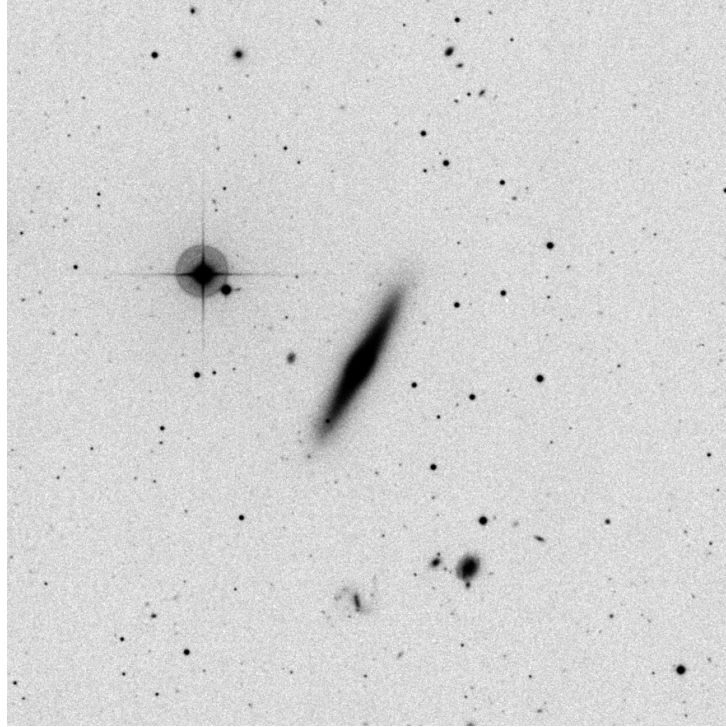
\_\_\_\_\_



Sketch







DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

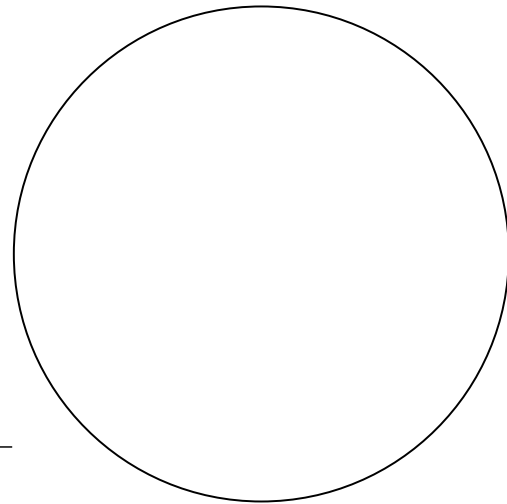
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

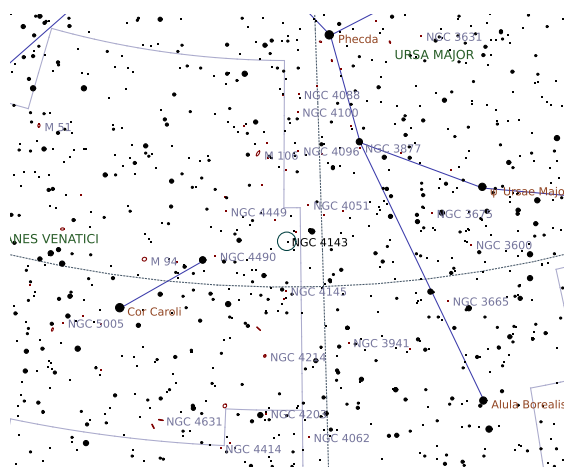
# NGC 4143

## Galaxy in Canes Venatici

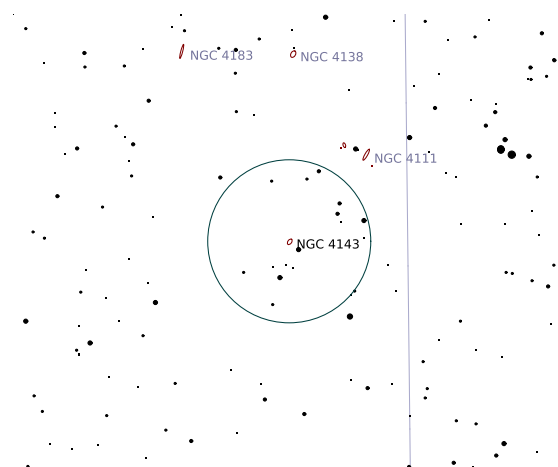
Right Ascension (current)	12 <sup>h</sup> 10 <sup>m</sup> 17 <sup>s</sup>	Declination (current)	42° 27' 22"
Right Ascension (J2000.0)	12 <sup>h</sup> 09 <sup>m</sup> 36 <sup>s</sup>	Declination (J2000.0)	42° 32' 04"
Size	2.3' × 1.4'	Position Angle	-54°
Magnitude	11	Other Designation	-

**Description:** Dreyer: cB;R;vg;vsbMN

**SAC:** H IV 54



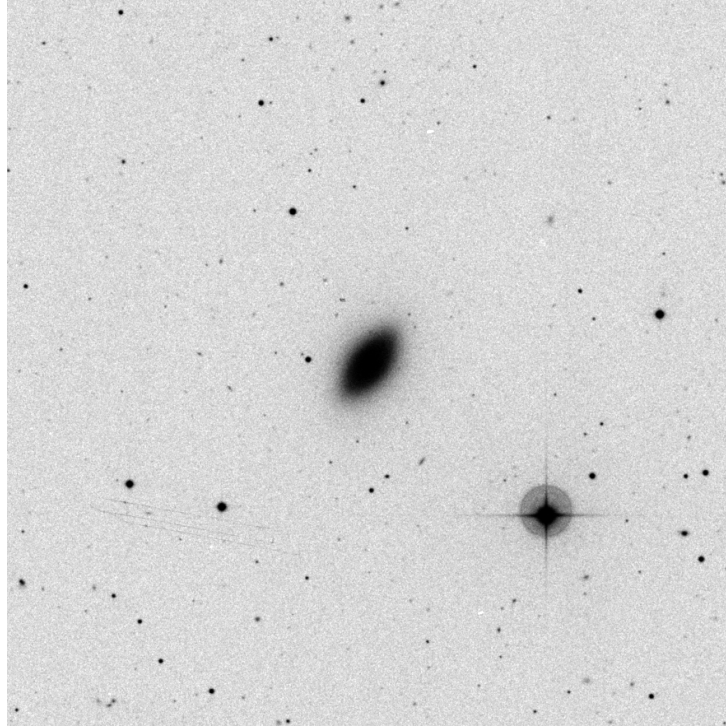
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

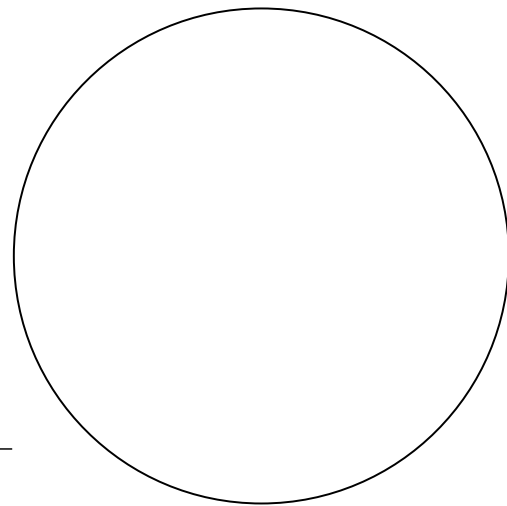
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

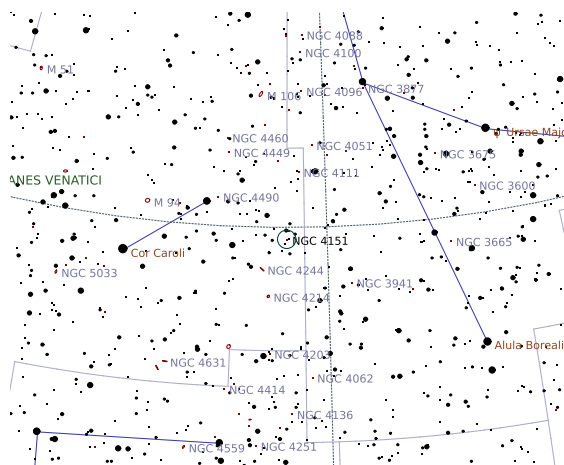
# NGC 4151

Galaxy in Canes Venatici

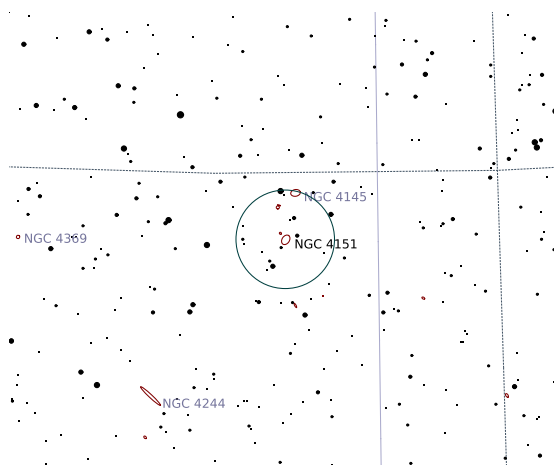
Right Ascension (current)	12 <sup>h</sup> 11 <sup>m</sup> 13 <sup>s</sup>	Declination (current)	39° 19' 42"
Right Ascension (J2000.0)	12 <sup>h</sup> 10 <sup>m</sup> 32 <sup>s</sup>	Declination (J2000.0)	39° 24' 24"
Size	6.3' × 4.5'	Position Angle	−56°
Magnitude	11	Other Designation	–

**Description:** Dreyer: vB;S;R;vsmbMBN;p of 2

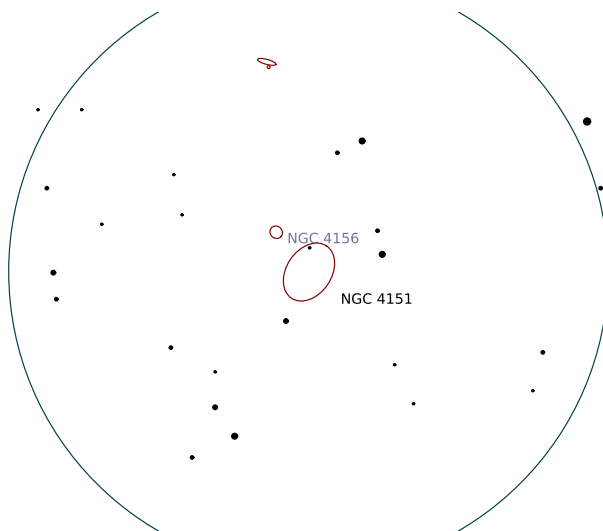
**SAC:** H I 165;P w NGC 4145;NGC 4156 @ 5.2';Ho 345c @ 8.8'



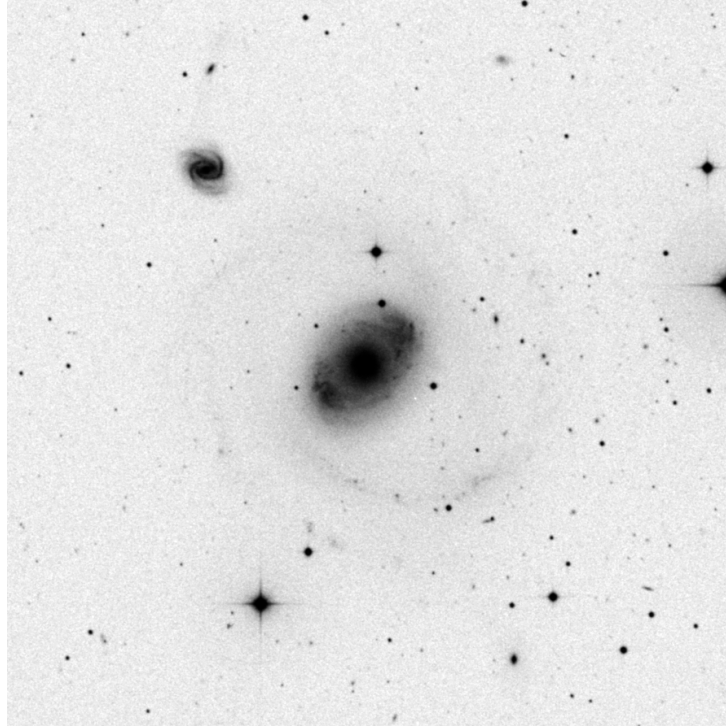
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

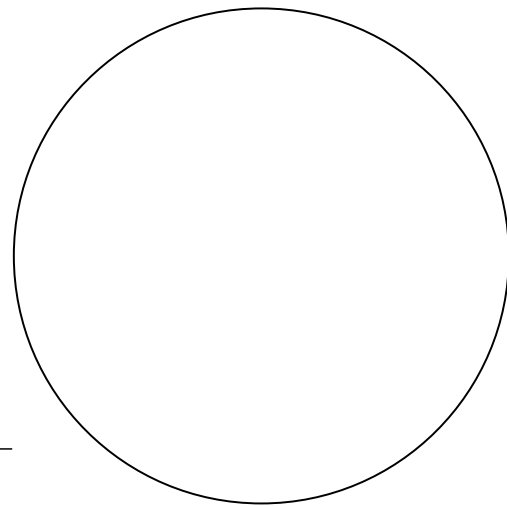
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

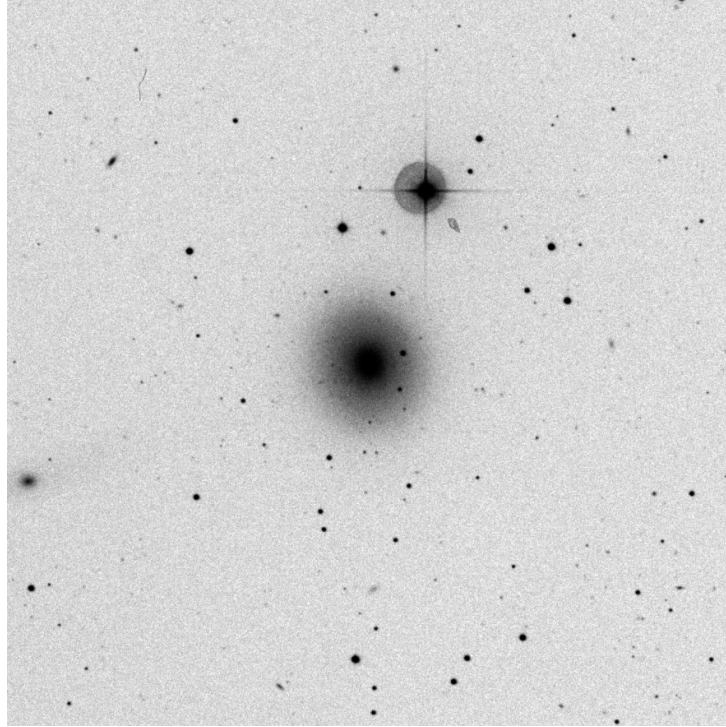
\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

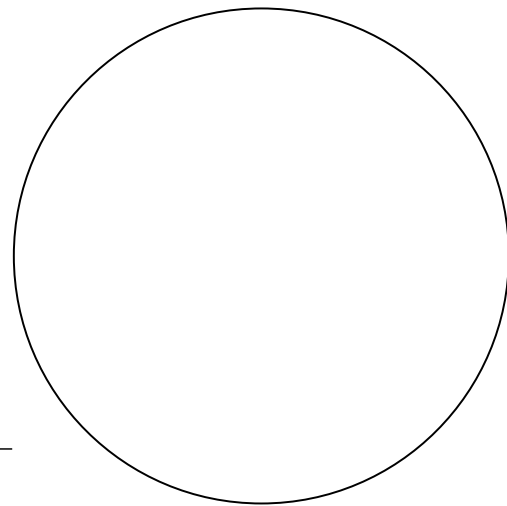
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

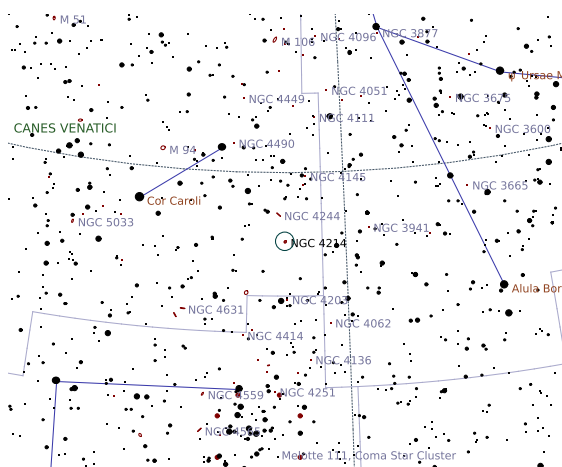
# NGC 4214

## Galaxy in Canes Venatici

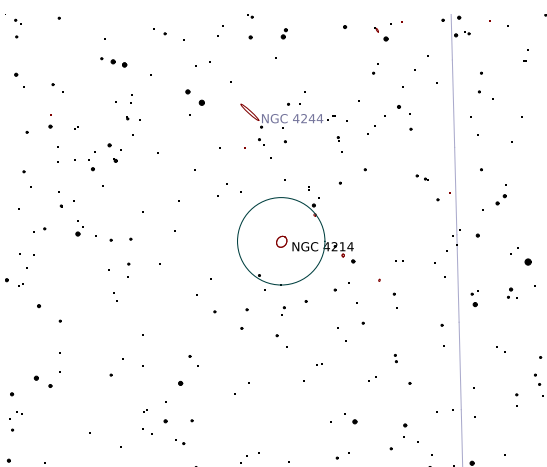
Right Ascension (current)	12 <sup>h</sup> 16 <sup>m</sup> 19 <sup>s</sup>	Declination (current)	36° 14' 58"
Right Ascension (J2000.0)	12 <sup>h</sup> 15 <sup>m</sup> 38 <sup>s</sup>	Declination (J2000.0)	36° 19' 39"
Size	8' × 6.6'	Position Angle	-54°
Magnitude	9.8	Other Designation	-

**Description:** Dreyer: cB;cL;iE;biN;=NGC 4208

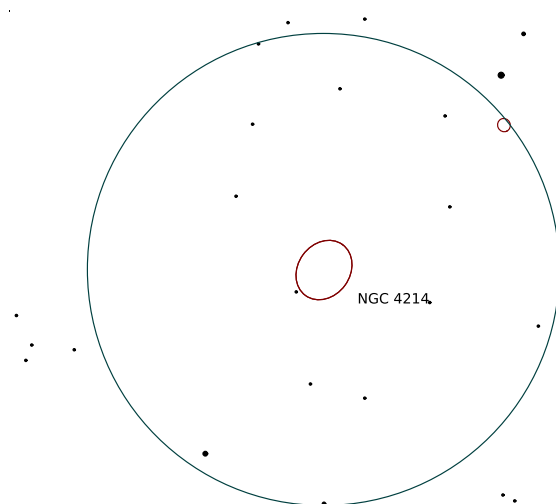
**SAC:** H I 95



Wide-field chart

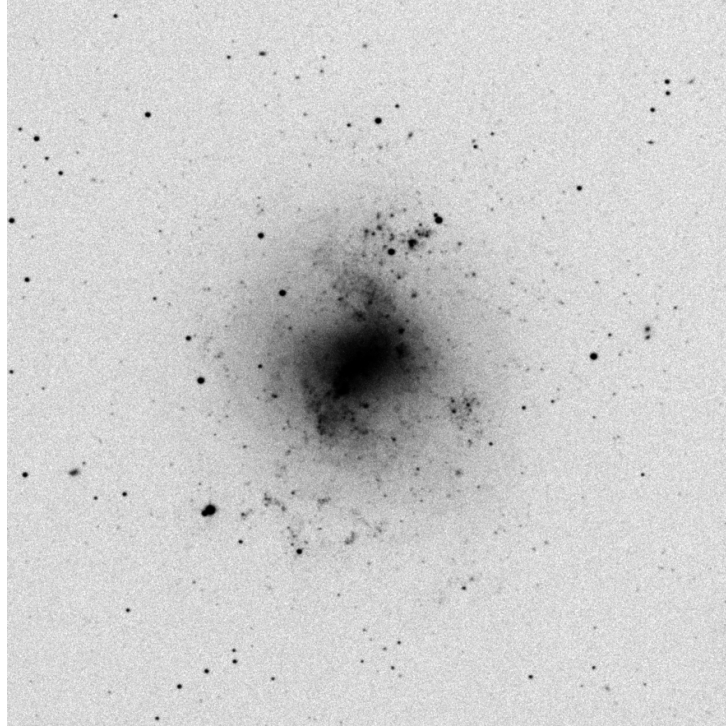


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

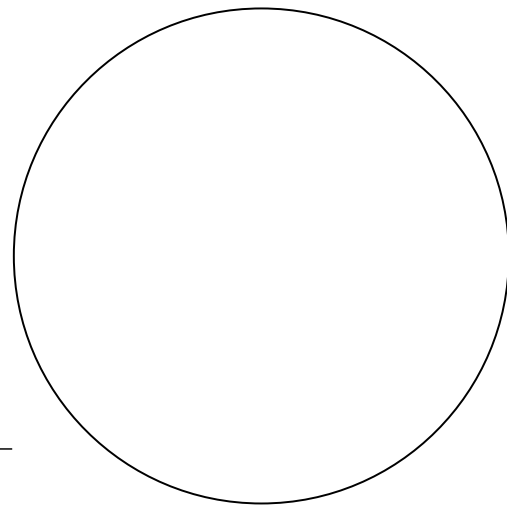
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

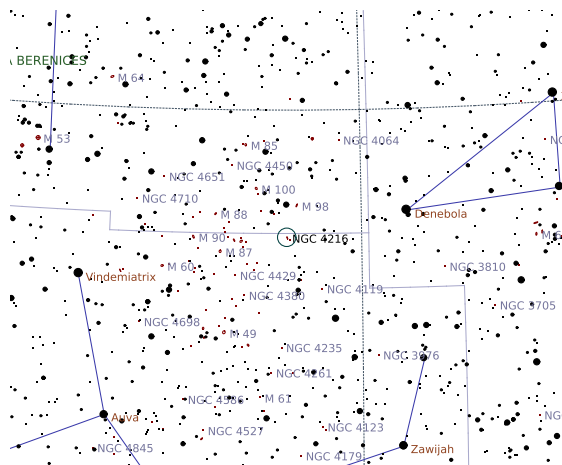
# NGC 4216

## Galaxy in Virgo

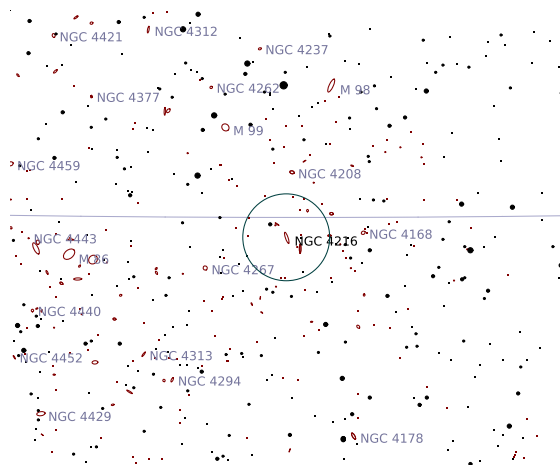
Right Ascension (current)	12 <sup>h</sup> 16 <sup>m</sup> 35 <sup>s</sup>	Declination (current)	13° 04' 14"
Right Ascension (J2000.0)	12 <sup>h</sup> 15 <sup>m</sup> 54 <sup>s</sup>	Declination (J2000.0)	13° 08' 52"
Size	8.1' × 1.8'	Position Angle	71°
Magnitude	10	Other Designation	–

**Description:** Dreyer: vB;vL;vmE17;sbMN

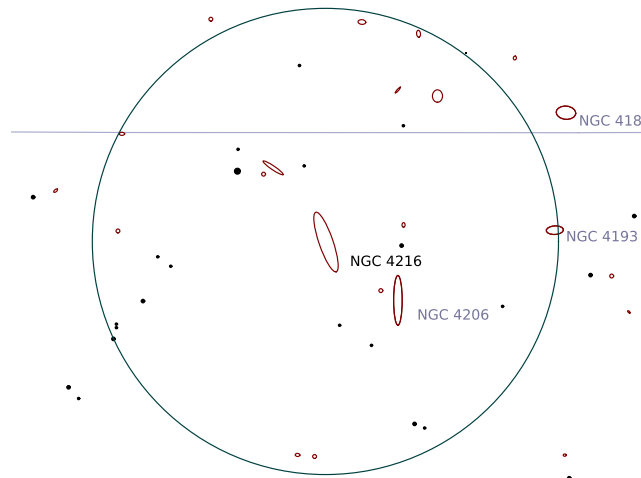
**SAC:** H I 35;UGC 7284;edge on streak;two other in field



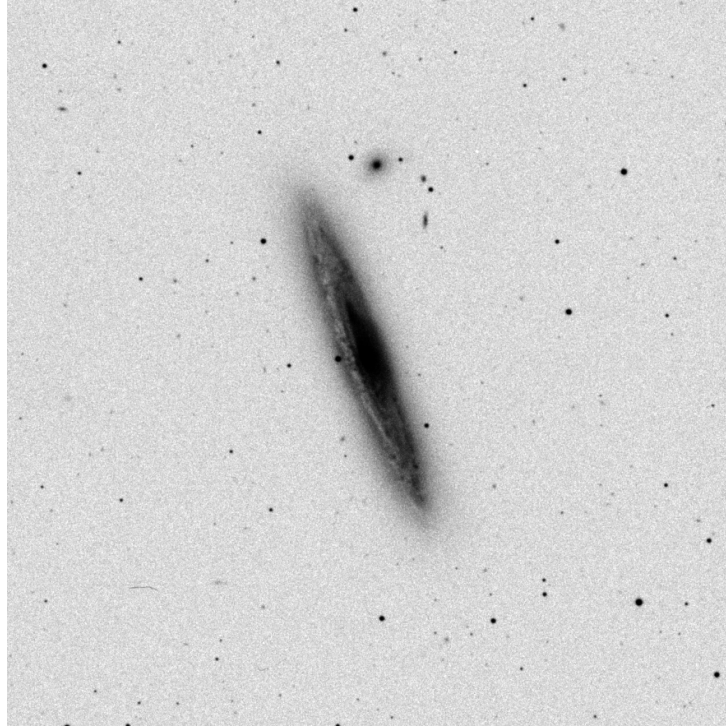
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

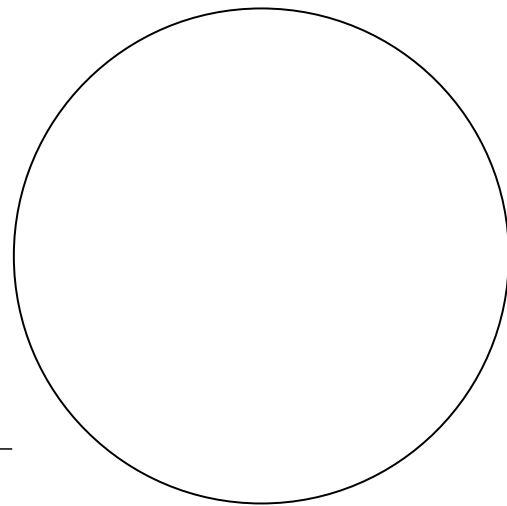
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

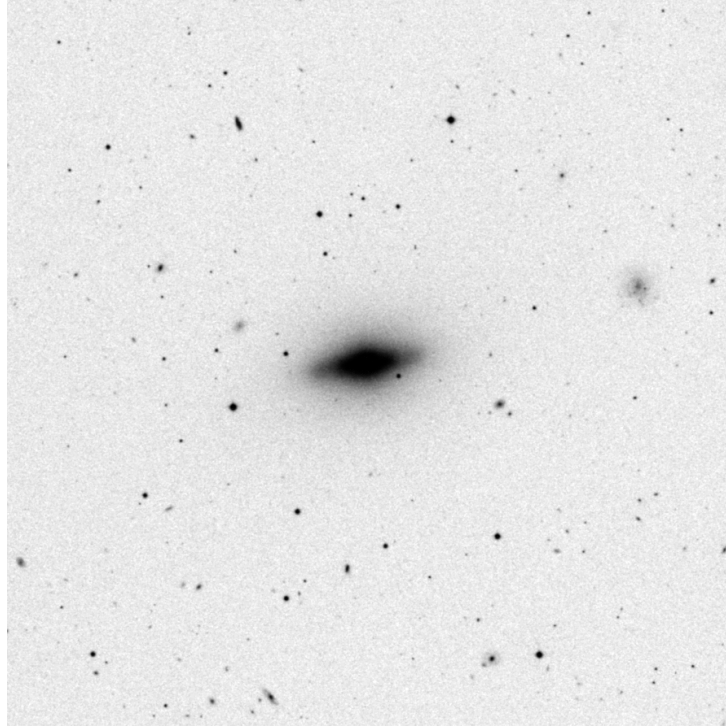
\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

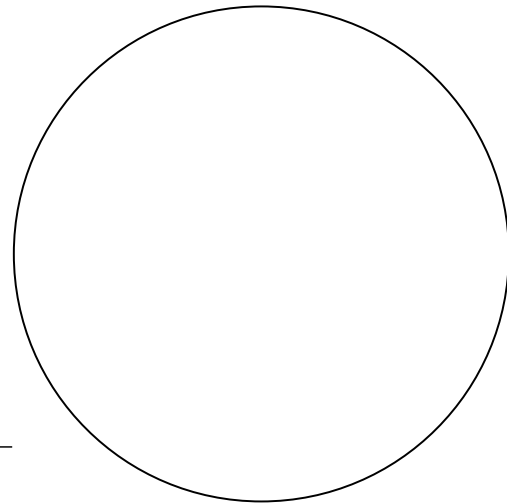
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

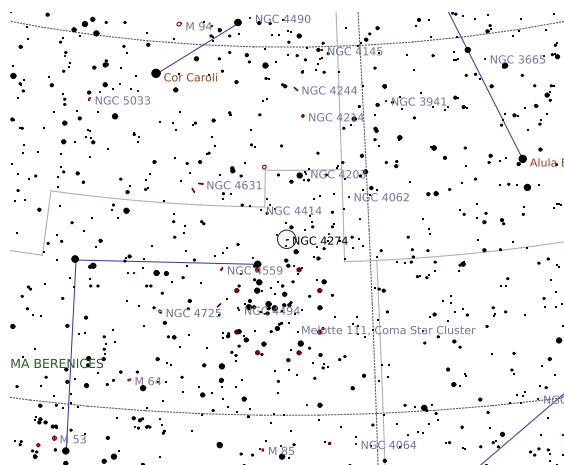
# NGC 4274

## Galaxy in Coma Berenices

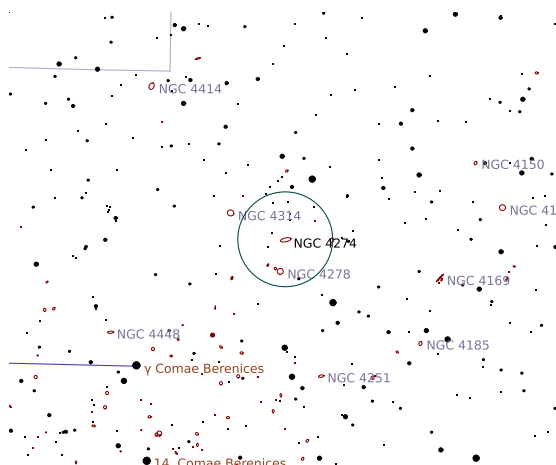
Right Ascension (current)	12 <sup>h</sup> 20 <sup>m</sup> 31 <sup>s</sup>	Declination (current)	29° 32' 09"
Right Ascension (J2000.0)	12 <sup>h</sup> 19 <sup>m</sup> 50 <sup>s</sup>	Declination (J2000.0)	29° 36' 49"
Size	6.8' × 2.4'	Position Angle	-12°
Magnitude	10	Other Designation	-

**Description:** Dreyer: vB;vL;E90;mbMN

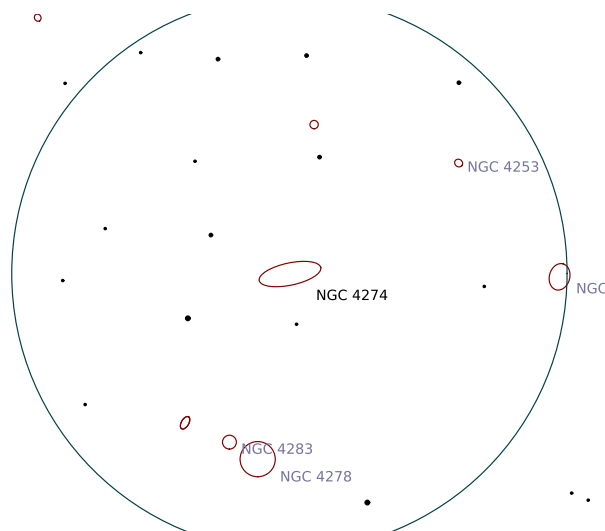
**SAC:** H I 75; Saturn-like inner ring w F outer halo



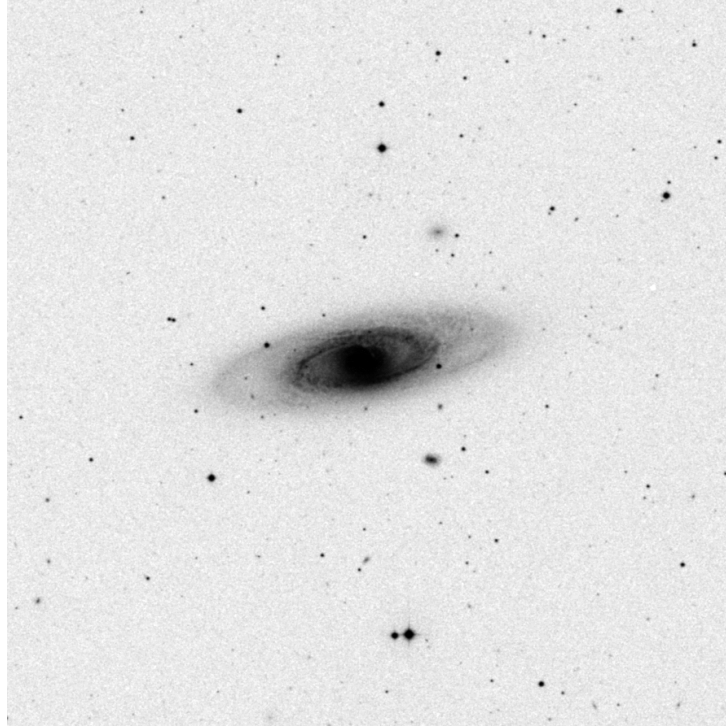
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

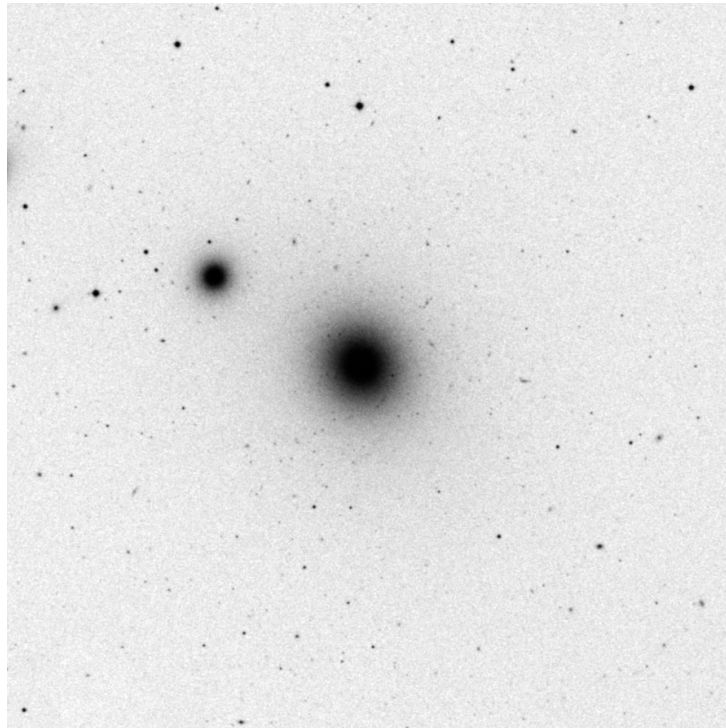
\_\_\_\_\_



Sketch







DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

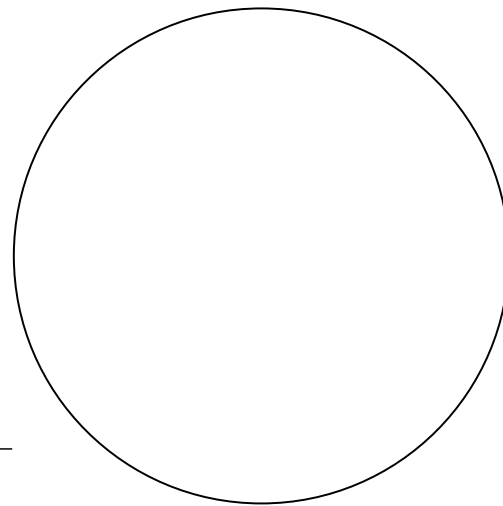
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

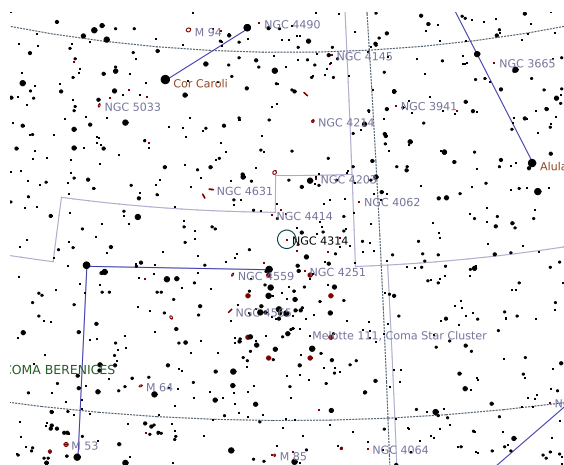
# NGC 4314

## Galaxy in Coma Berenices

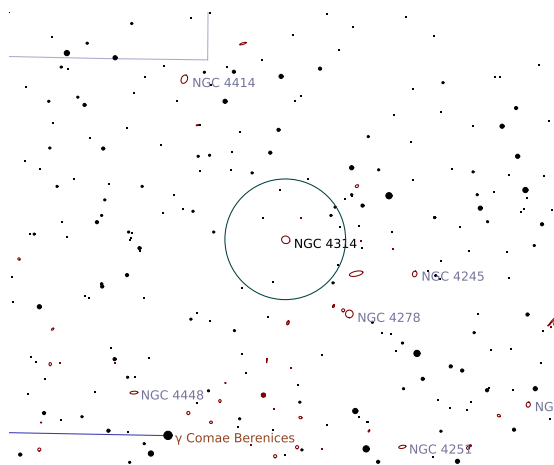
Right Ascension (current)	12 <sup>h</sup> 23 <sup>m</sup> 12 <sup>s</sup>	Declination (current)	29° 49' 05"
Right Ascension (J2000.0)	12 <sup>h</sup> 22 <sup>m</sup> 31 <sup>s</sup>	Declination (J2000.0)	29° 53' 45"
Size	4.2' × 3.7'	Position Angle	21°
Magnitude	11	Other Designation	–

**Description:** Dreyer: cB;L;E150;sbM;\* np;eBN w spir struct

**SAC:** H I 76



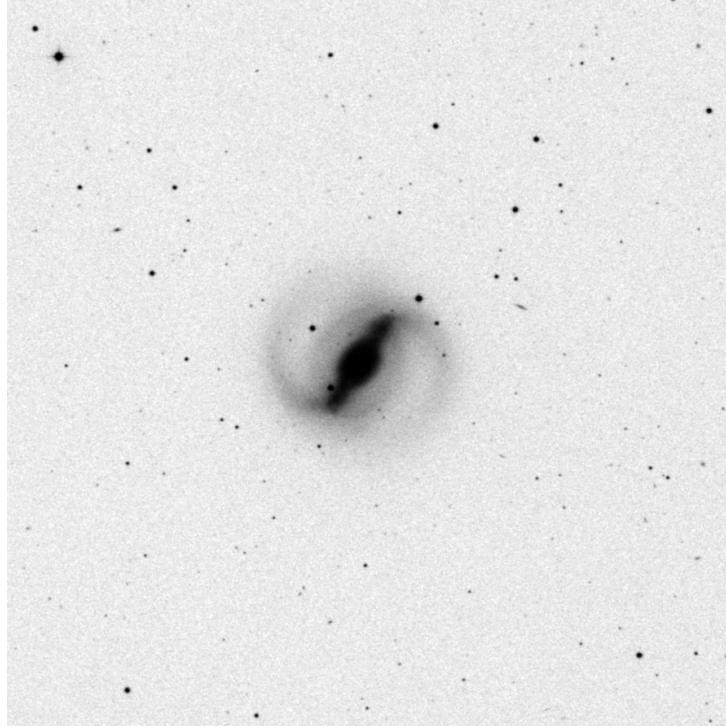
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

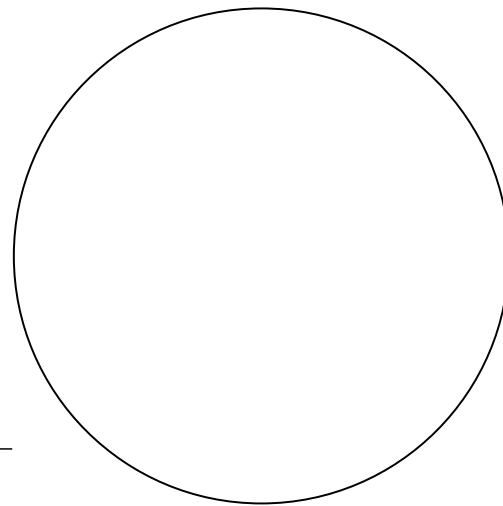
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

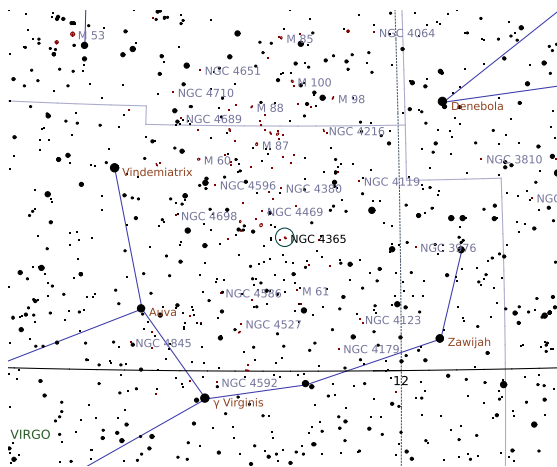
# NGC 4365

## Galaxy in Virgo

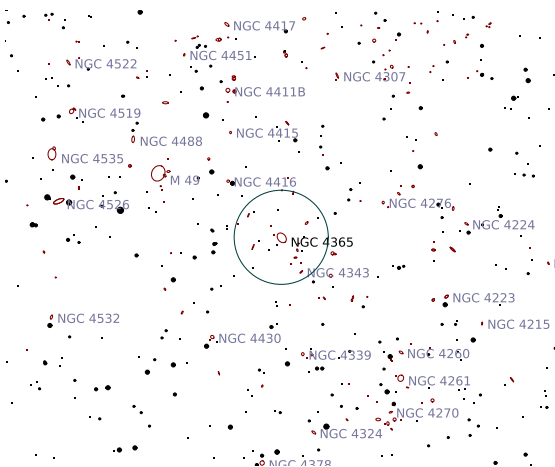
Right Ascension (current)	12 <sup>h</sup> 25 <sup>m</sup> 09 <sup>s</sup>	Declination (current)	7° 14' 28''
Right Ascension (J2000.0)	12 <sup>h</sup> 24 <sup>m</sup> 28 <sup>s</sup>	Declination (J2000.0)	7° 19' 03''
Size	6.9' × 5'	Position Angle	50°
Magnitude	9.6	Other Designation	—

**Description:** Dreyer: cB;pL;v1E;g1;smbM

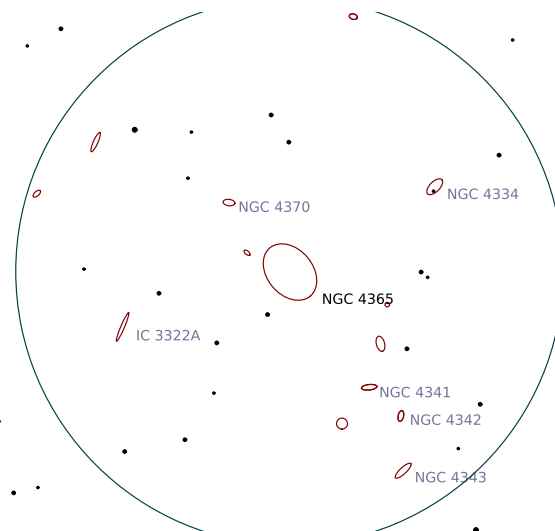
**SAC:** H I 30;NGC 4370 @ 10 '



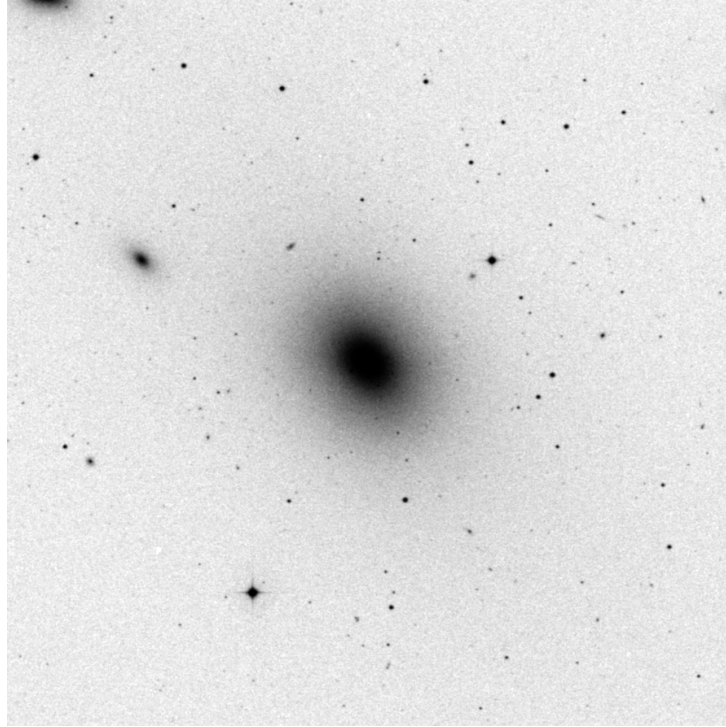
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

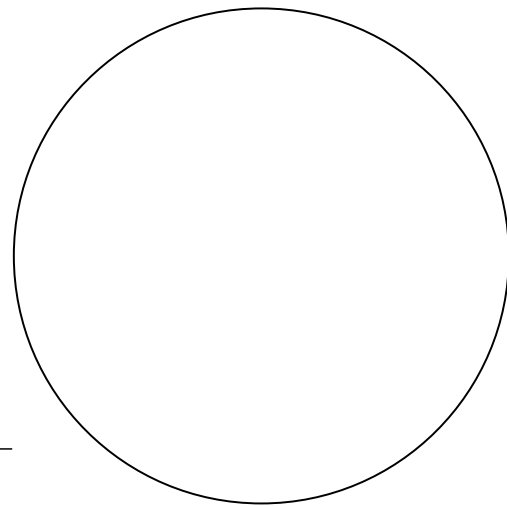
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

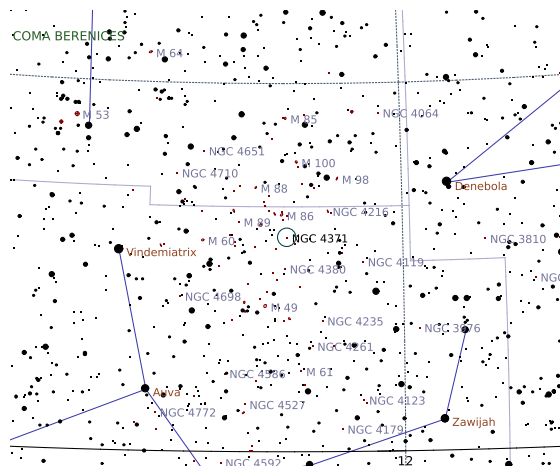
# NGC 4371

## Galaxy in Virgo

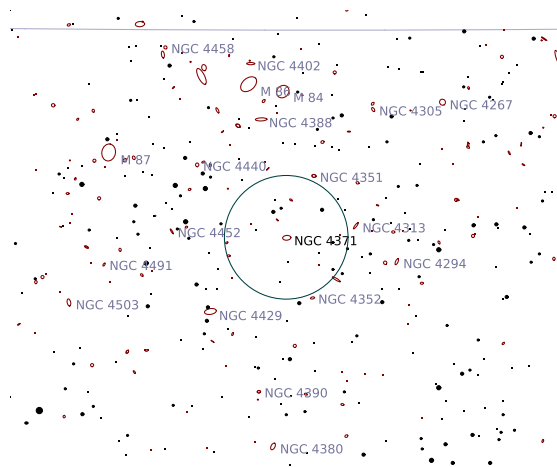
Right Ascension (current)	12 <sup>h</sup> 25 <sup>m</sup> 36 <sup>s</sup>	Declination (current)	11° 37' 39"
Right Ascension (J2000.0)	12 <sup>h</sup> 24 <sup>m</sup> 55 <sup>s</sup>	Declination (J2000.0)	11° 42' 15"
Size	4' × 2.3'	Position Angle	-5°
Magnitude	11	Other Designation	-

**Description:** Dreyer: B;pS;R;gbM

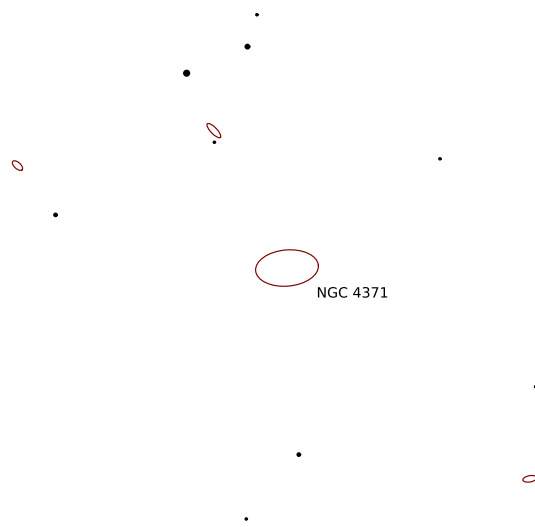
**SAC:** H I 22



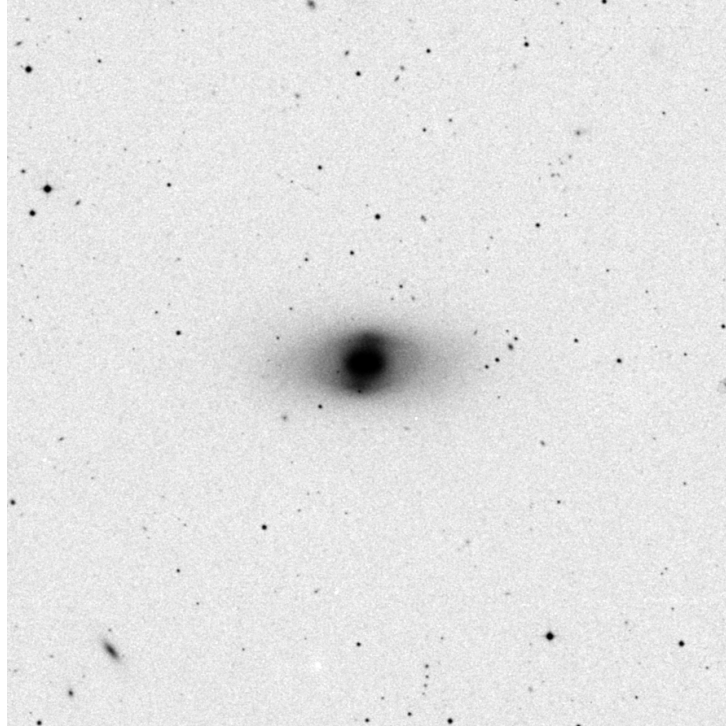
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

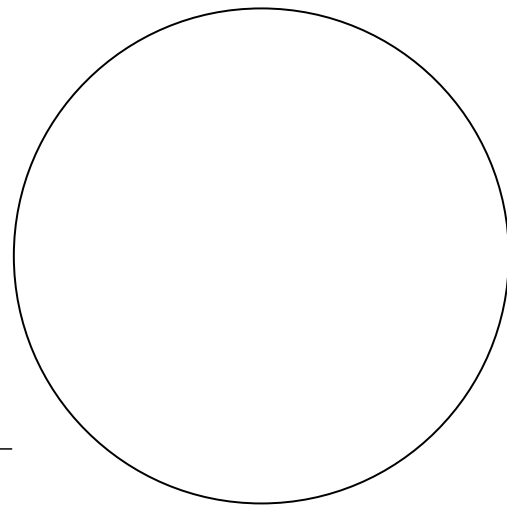
\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_ FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

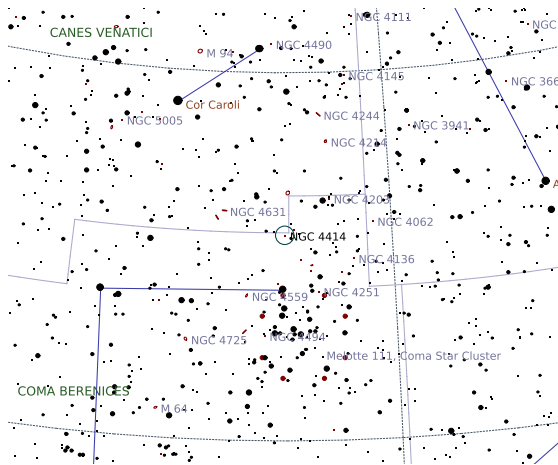
# NGC 4414

## Galaxy in Coma Berenices

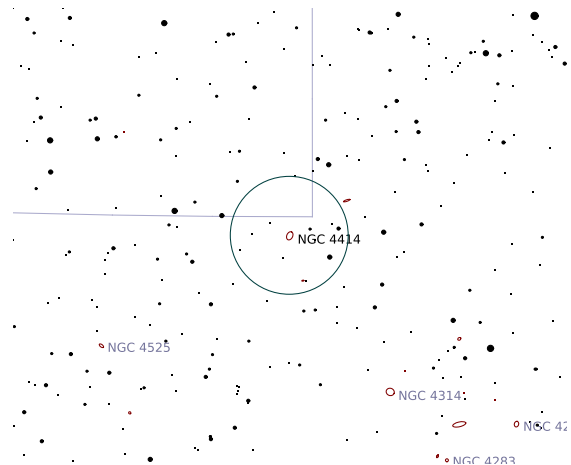
Right Ascension (current)	12 <sup>h</sup> 27 <sup>m</sup> 07 <sup>s</sup>	Declination (current)	31° 08' 45"
Right Ascension (J2000.0)	12 <sup>h</sup> 26 <sup>m</sup> 27 <sup>s</sup>	Declination (J2000.0)	31° 13' 25"
Size	4.4' × 3'	Position Angle	-65°
Magnitude	10	Other Designation	-

**Description:** Dreyer: vB;L;E;g;vsmbM\*;B diff N in B bulge

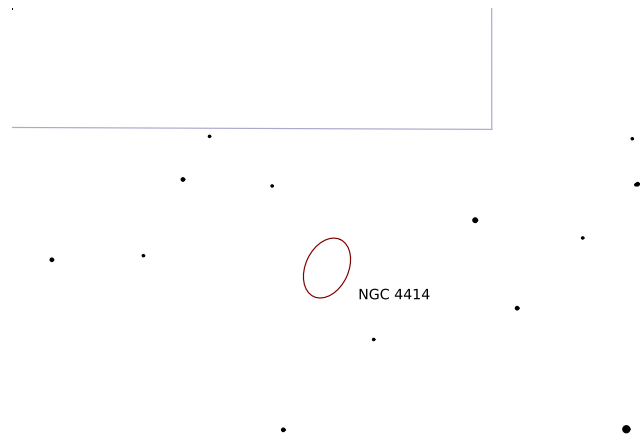
**SAC:** H I 77



Wide-field chart

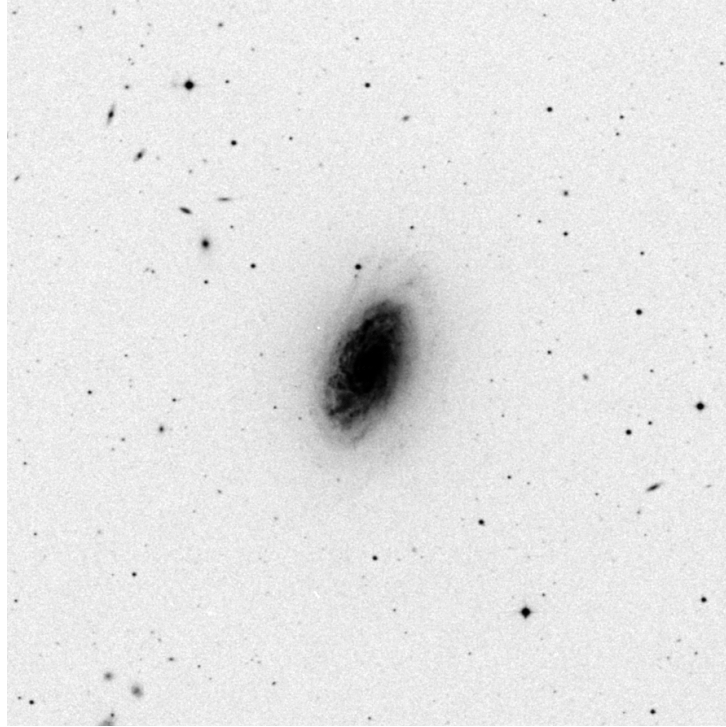


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

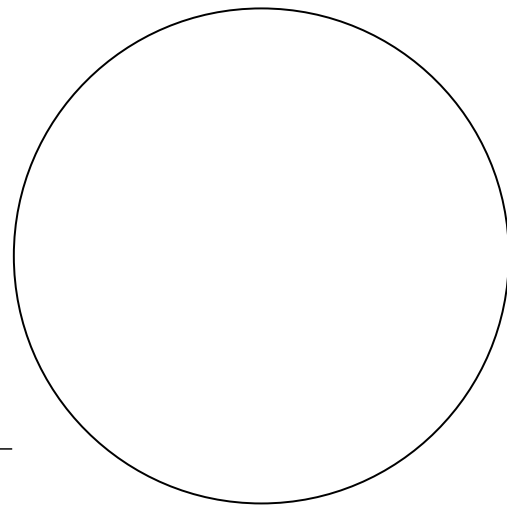
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



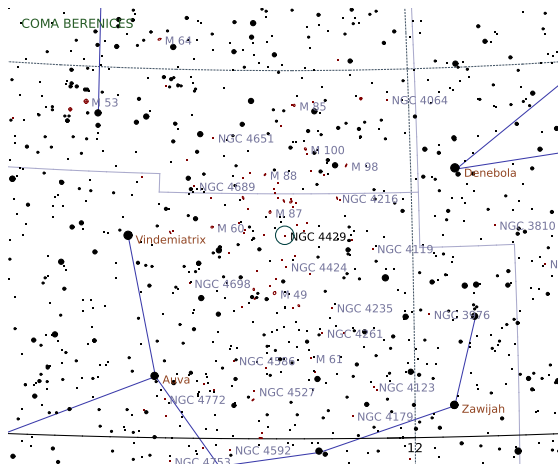
Sketch

# NGC 4429

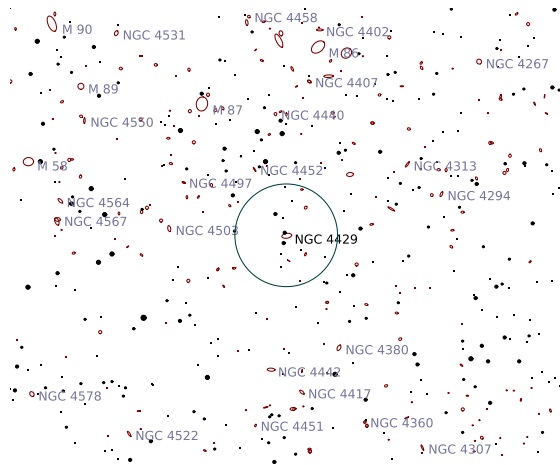
## Galaxy in Virgo

Right Ascension (current)	12 <sup>h</sup> 28 <sup>m</sup> 07 <sup>s</sup>	Declination (current)	11° 01' 51"
Right Ascension (J2000.0)	12 <sup>h</sup> 27 <sup>m</sup> 26 <sup>s</sup>	Declination (J2000.0)	11° 06' 27"
Size	5.8' × 2.8'	Position Angle	−9°
Magnitude	10	Other Designation	—

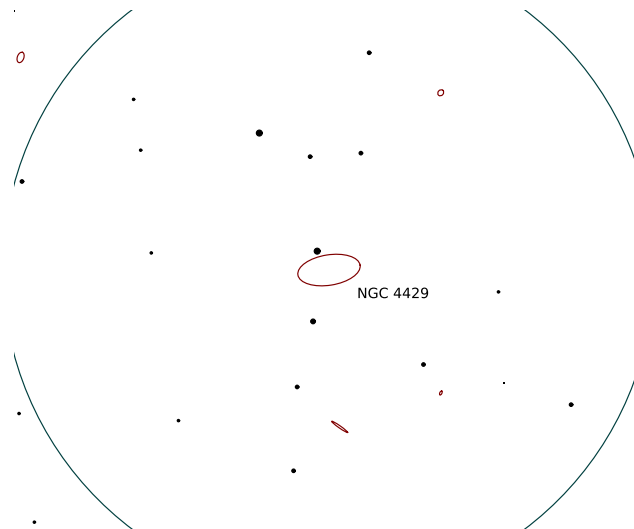
**Description:** Dreyer: B;L;cE;psbM;\*10 nf  
**SAC:** H II 65;oval w large outer ring



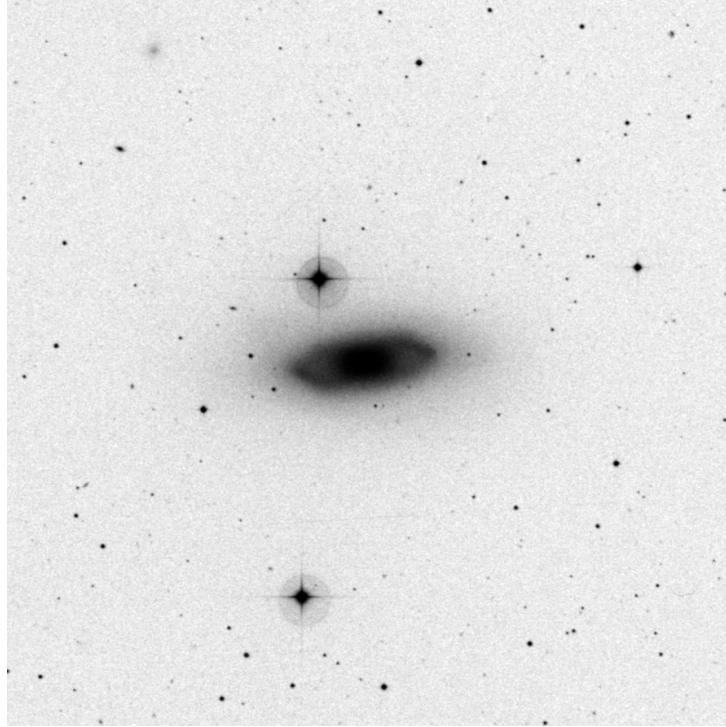
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

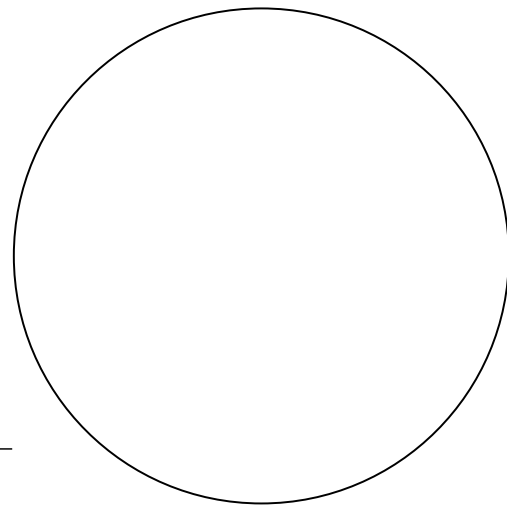
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

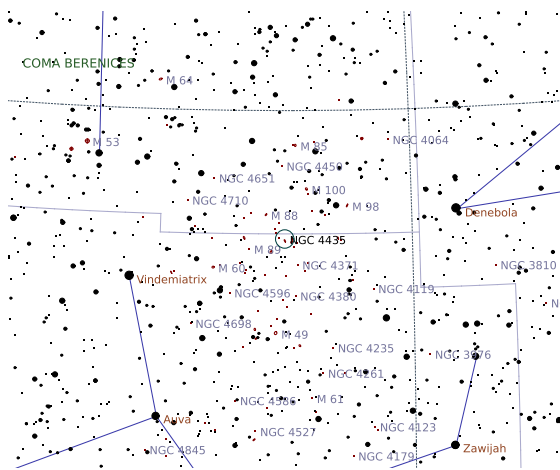
# NGC 4435 (The Eyes, Markarian Chain)

Galaxy in Virgo

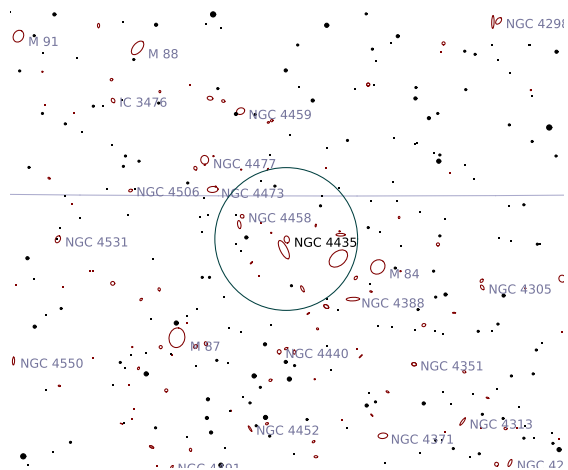
Right Ascension (current)	12 <sup>h</sup> 28 <sup>m</sup> 21 <sup>s</sup>	Declination (current)	13° 00' 11"
Right Ascension (J2000.0)	12 <sup>h</sup> 27 <sup>m</sup> 40 <sup>s</sup>	Declination (J2000.0)	13° 04' 47"
Size	3' × 2.2'	Position Angle	77°
Magnitude	11	Other Designation	–

**Description:** Dreyer: vB;cL;R;np of 2

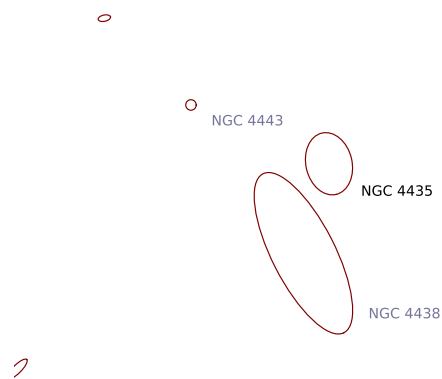
**SAC:** H I 28;Markarian's chain;NGC 4438 @ 4.3' SSE



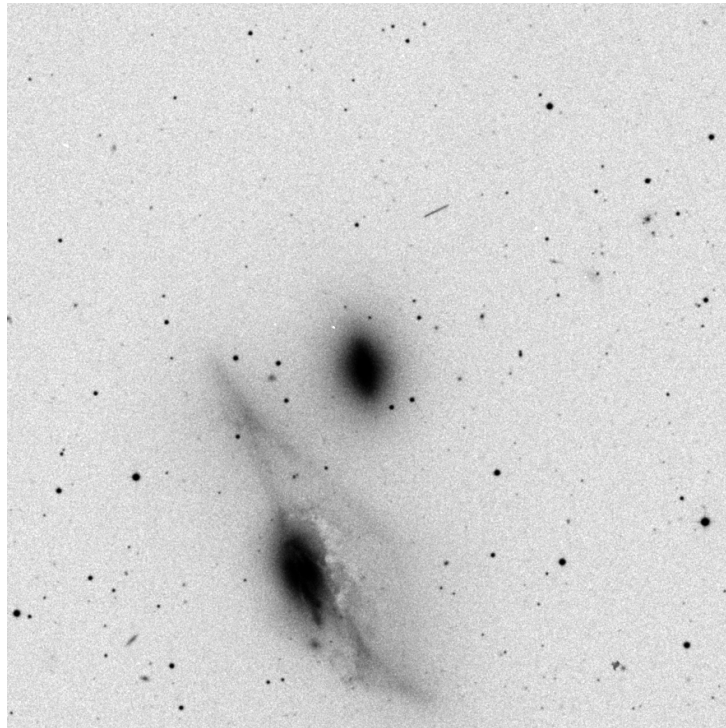
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

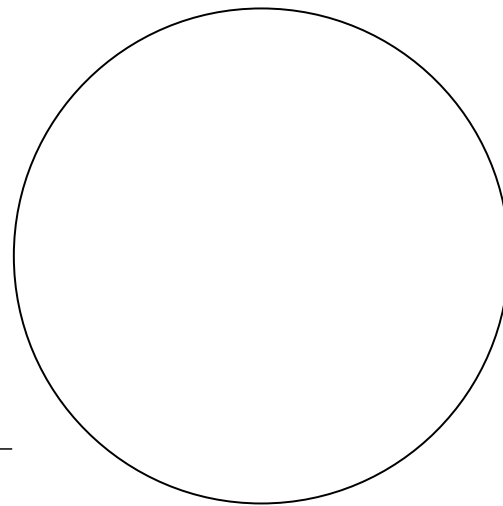
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

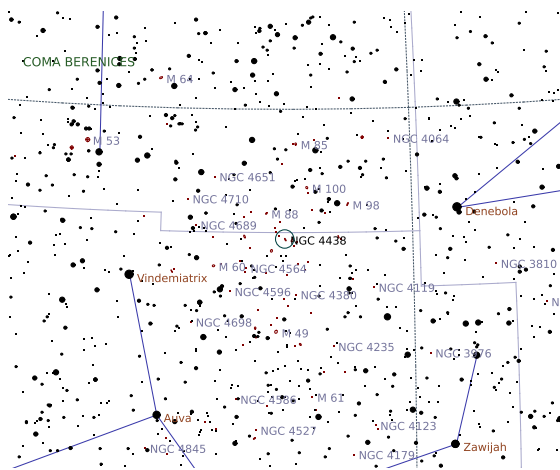
# NGC 4438 (The Eyes, Markarian Chain)

Galaxy in Virgo

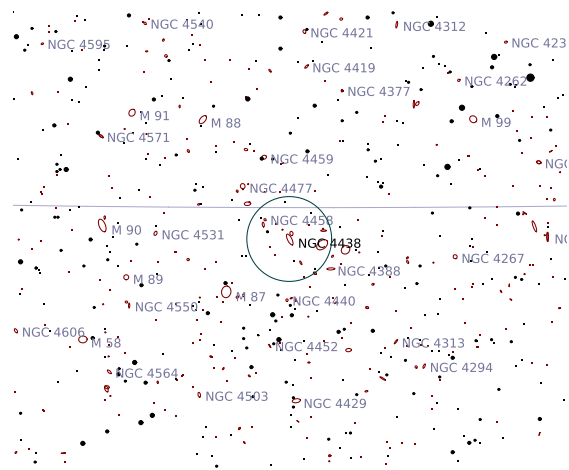
Right Ascension (current)	12 <sup>h</sup> 28 <sup>m</sup> 26 <sup>s</sup>	Declination (current)	12° 55' 55"
Right Ascension (J2000.0)	12 <sup>h</sup> 27 <sup>m</sup> 45 <sup>s</sup>	Declination (J2000.0)	13° 00' 31"
Size	8.5' × 3'	Position Angle	63°
Magnitude	10	Other Designation	—

**Description:** Dreyer: B;cL;vLE;r;sf of 2

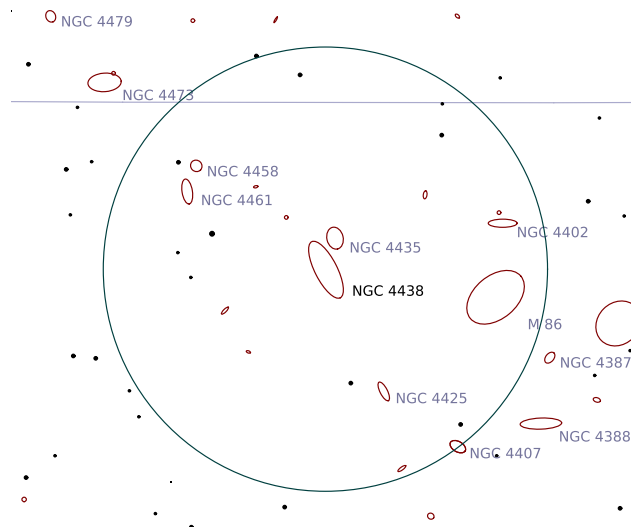
**SAC:** H I 28;Markarian's chain;NGC 4435 @ 4.4';long filaments



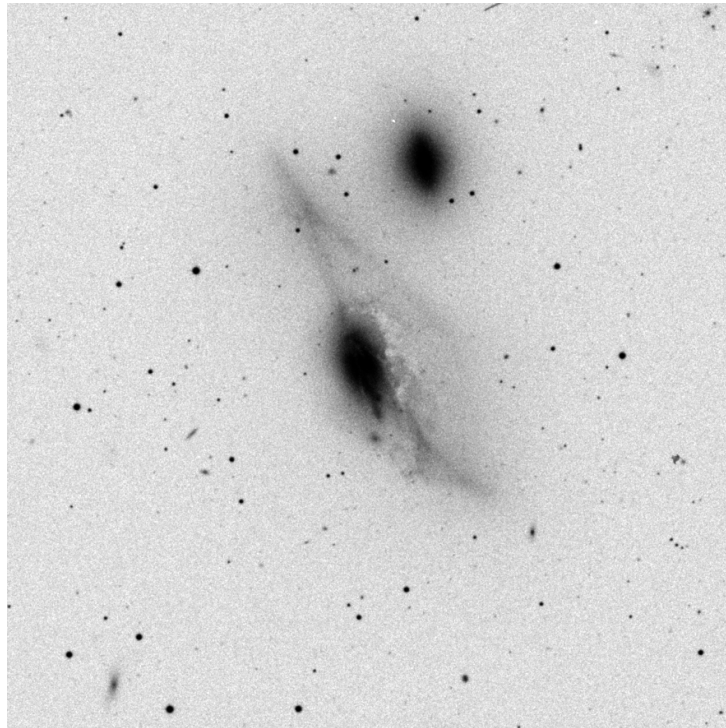
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

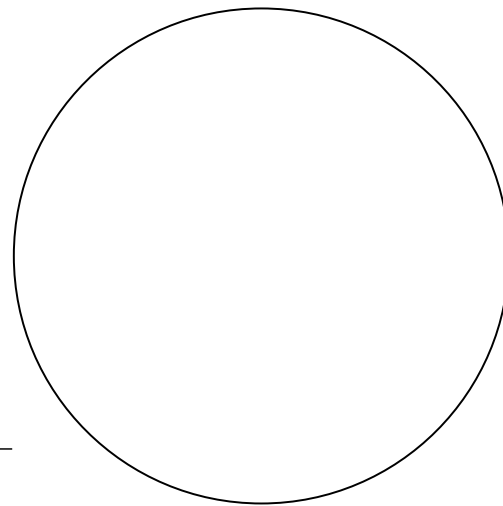
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

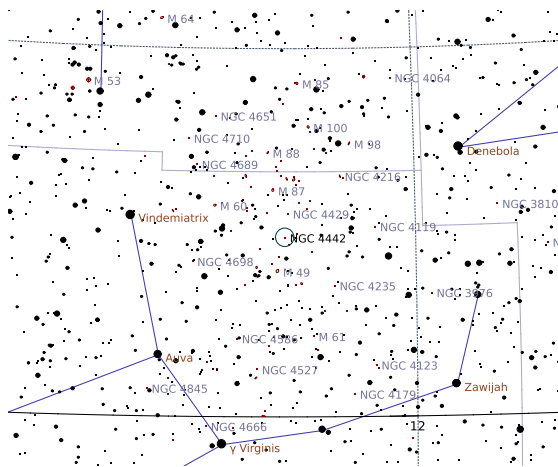
# NGC 4442

## Galaxy in Virgo

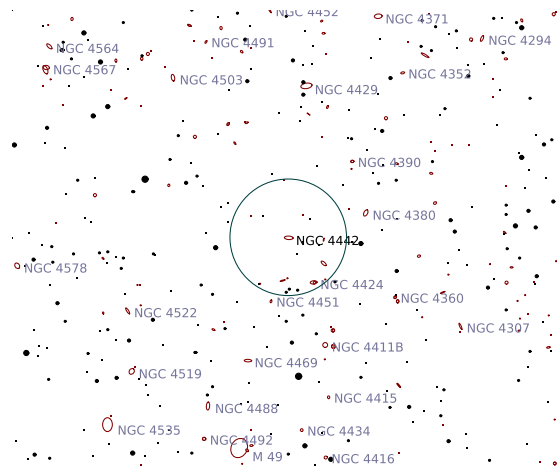
Right Ascension (current)	12 <sup>h</sup> 28 <sup>m</sup> 44 <sup>s</sup>	Declination (current)	9° 43' 39"
Right Ascension (J2000.0)	12 <sup>h</sup> 28 <sup>m</sup> 03 <sup>s</sup>	Declination (J2000.0)	9° 48' 14"
Size	4.5' × 1.8'	Position Angle	3°
Magnitude	10	Other Designation	—

**Description:** Dreyer: vB;pL;R;smbM

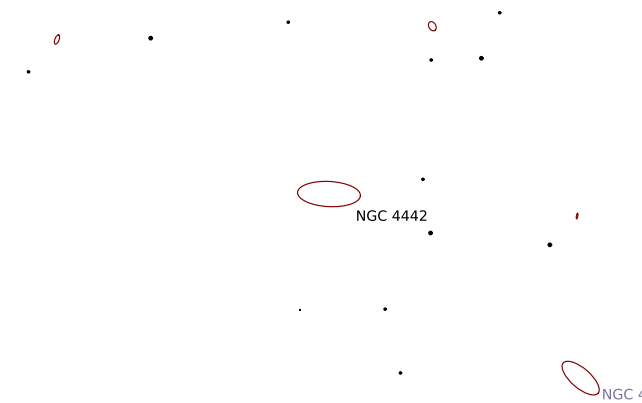
**SAC:** H II 156



Wide-field chart

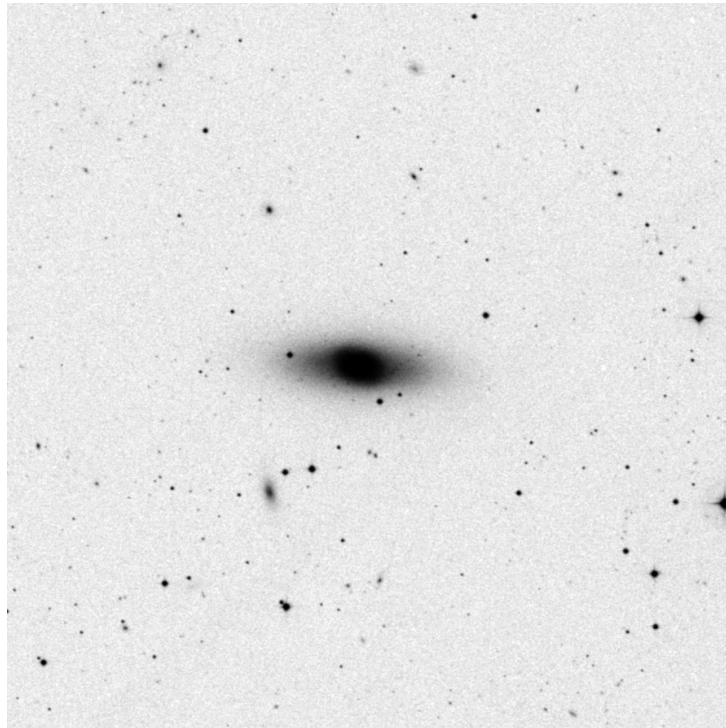


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

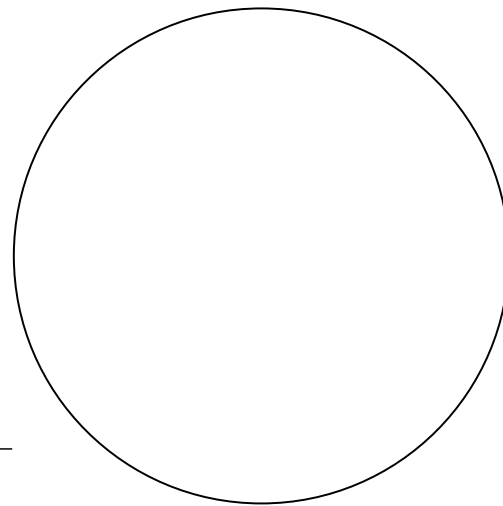
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

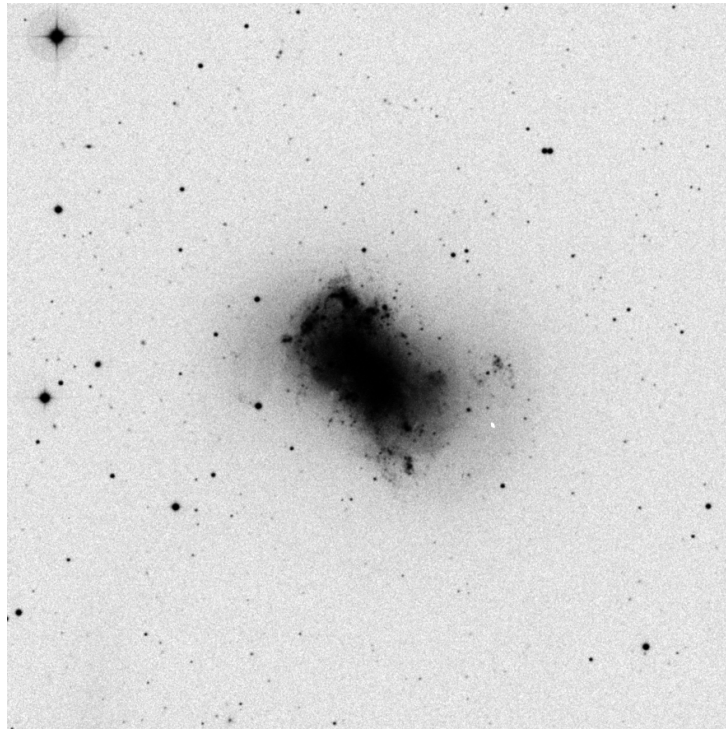
\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

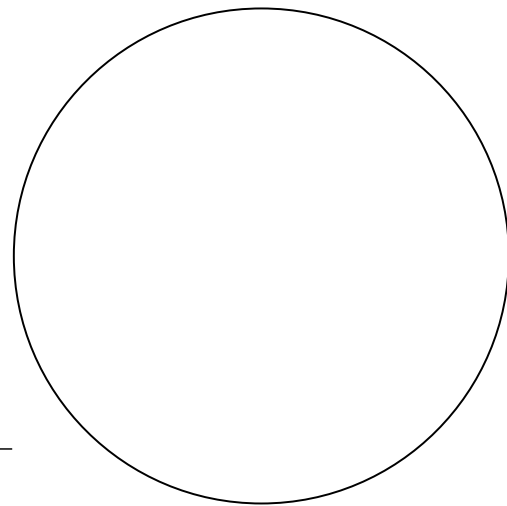
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

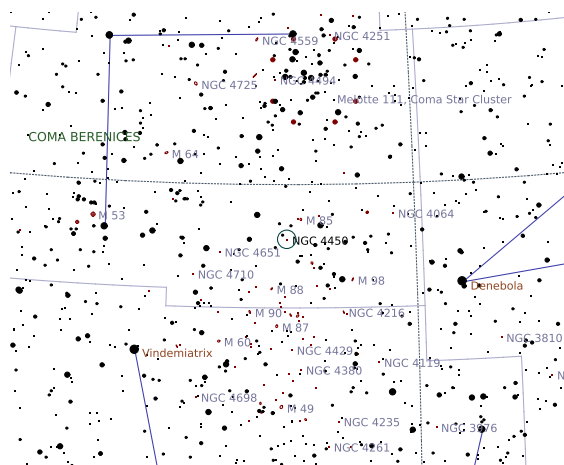
# NGC 4450

## Galaxy in Coma Berenices

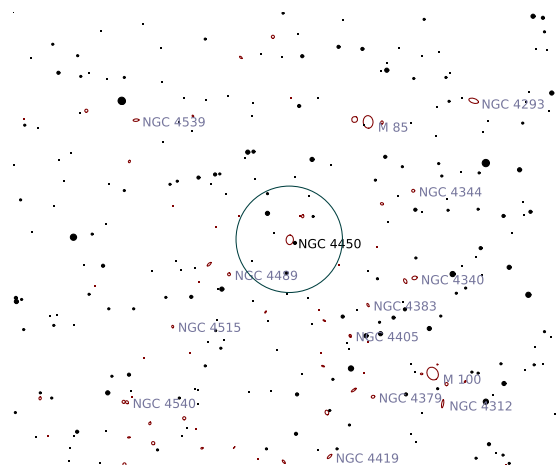
Right Ascension (current)	12 <sup>h</sup> 29 <sup>m</sup> 10 <sup>s</sup>	Declination (current)	17° 00' 26"
Right Ascension (J2000.0)	12 <sup>h</sup> 28 <sup>m</sup> 29 <sup>s</sup>	Declination (J2000.0)	17° 05' 03"
Size	5.4' × 4.1'	Position Angle	-85°
Magnitude	10	Other Designation	-

**Description:** Dreyer: B;L;R;gvmbM\*;r;B\* sp

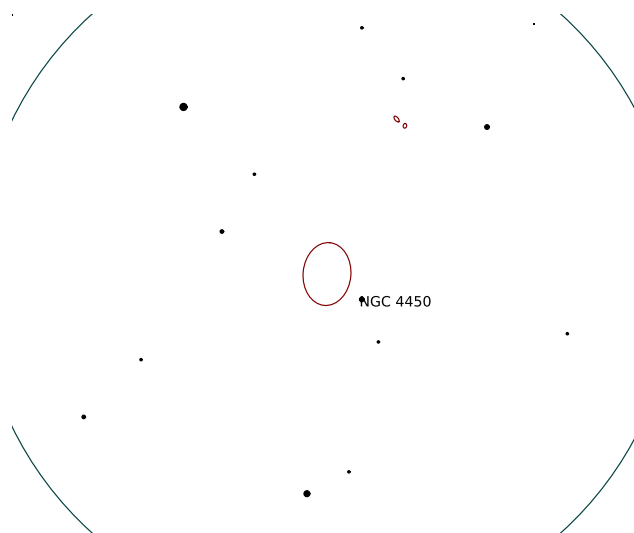
**SAC:** H II 56



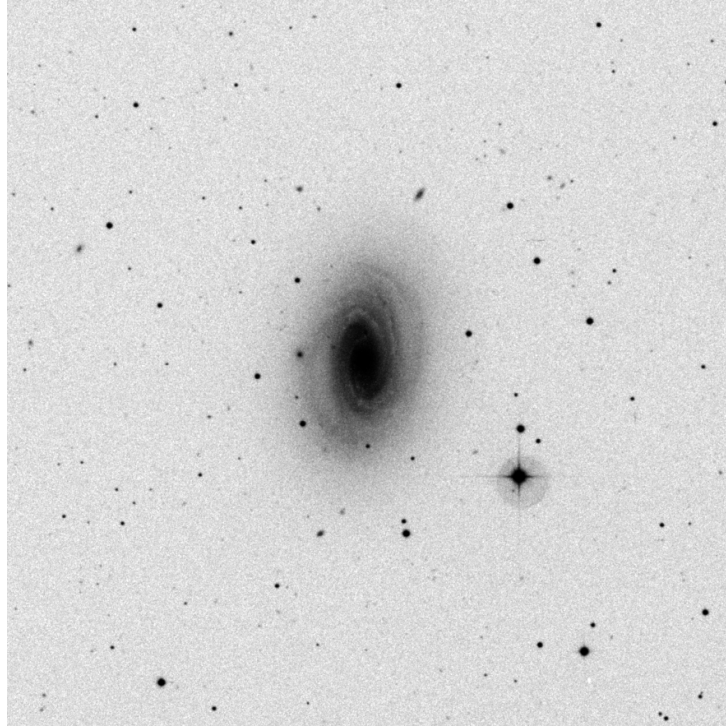
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

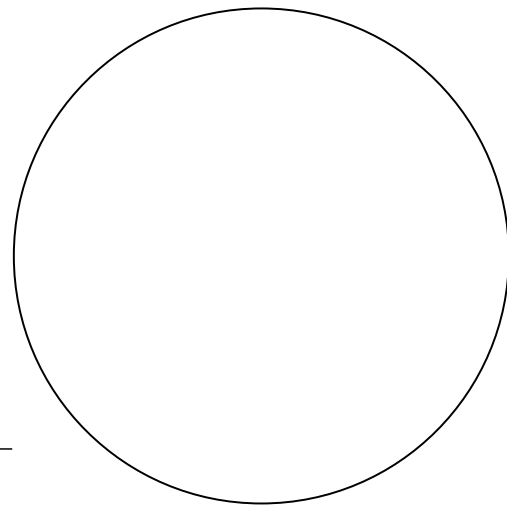
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

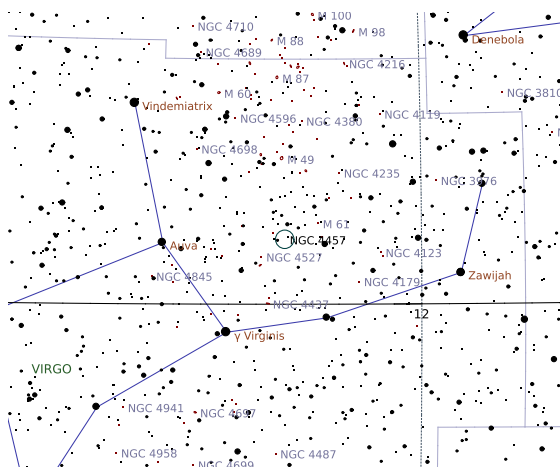
# NGC 4457

## Galaxy in Virgo

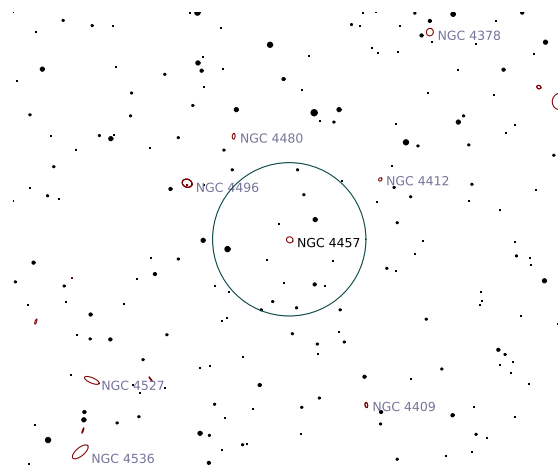
Right Ascension (current)	12 <sup>h</sup> 29 <sup>m</sup> 39 <sup>s</sup>	Declination (current)	3° 29' 42''
Right Ascension (J2000.0)	12 <sup>h</sup> 28 <sup>m</sup> 58 <sup>s</sup>	Declination (J2000.0)	3° 34' 16''
Size	2.6' × 2.3'	Position Angle	24°
Magnitude	11	Other Designation	—

**Description:** Dreyer: cB;pS;R;smbMN;vBN

**SAC:** H II 35



Wide-field chart

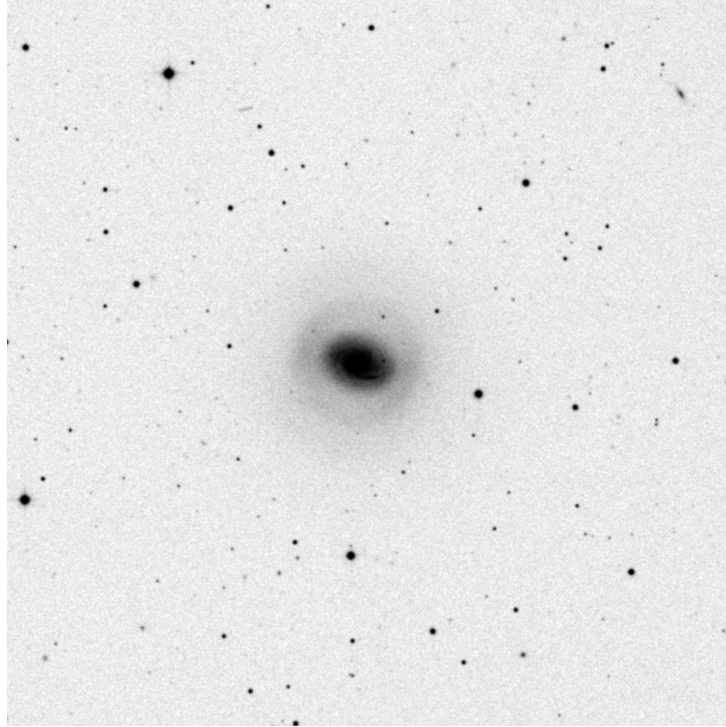


Intermediate chart



NGC 4457

Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



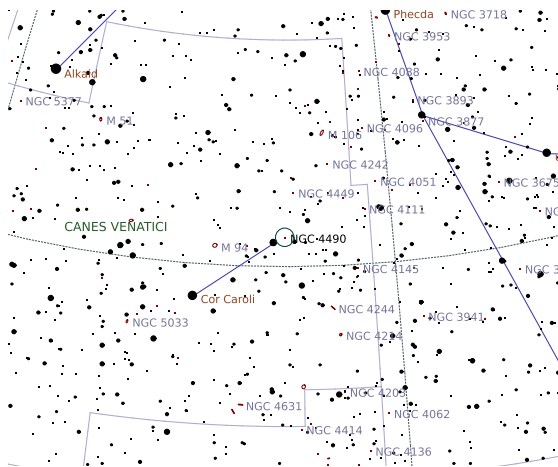
Sketch

# NGC 4490 (Cocoon Galaxy)

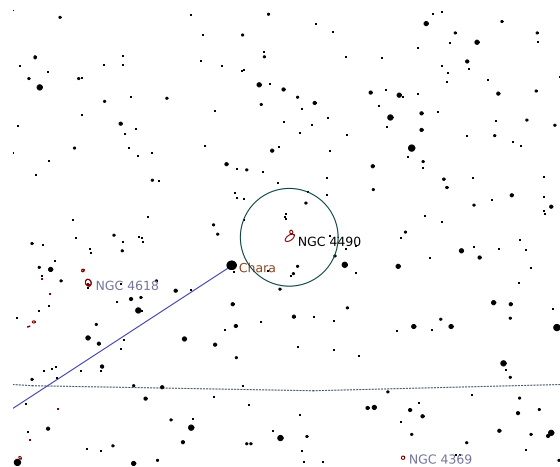
Galaxy in Canes Venatici

Right Ascension (current)	12 <sup>h</sup> 31 <sup>m</sup> 15 <sup>s</sup>	Declination (current)	41° 33' 54"
Right Ascension (J2000.0)	12 <sup>h</sup> 30 <sup>m</sup> 36 <sup>s</sup>	Declination (J2000.0)	41° 38' 34"
Size	6.4' × 3.2'	Position Angle	-35°
Magnitude	9.8	Other Designation	-

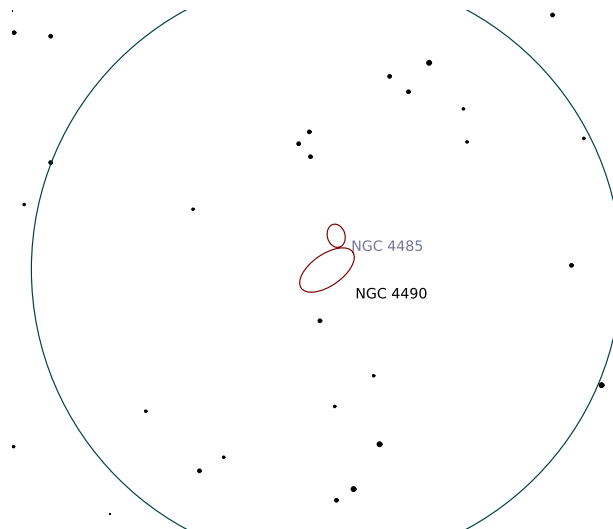
**Description:** Dreyer: vB;vL;mE130;r;sf of 2  
**SAC:** H I 198;disrupted;P w NGC 4485 @ 3.5'



Wide-field chart

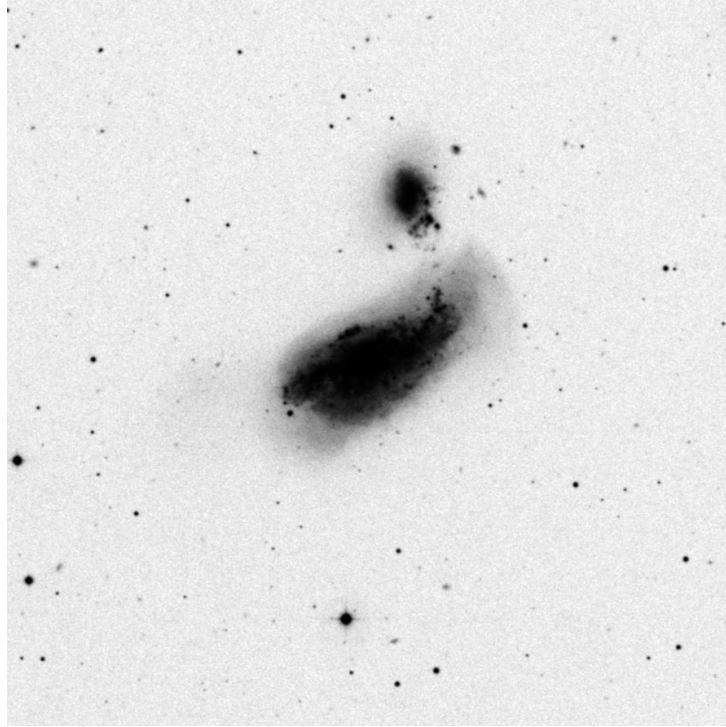


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

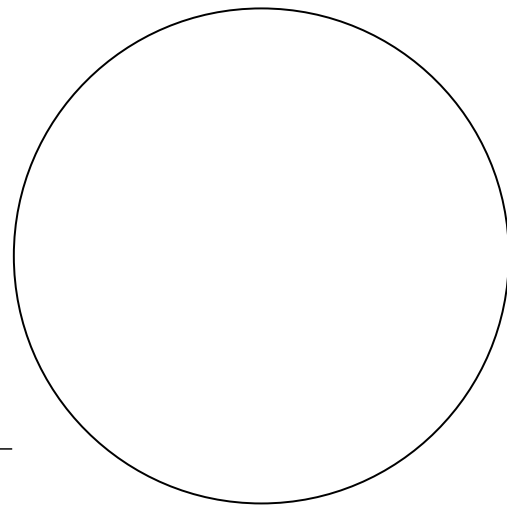
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

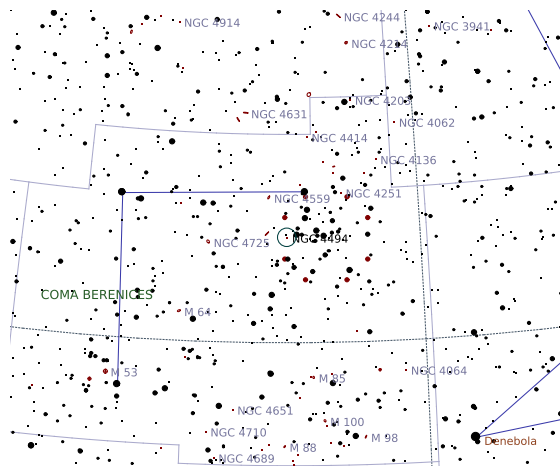
# NGC 4494

## Galaxy in Coma Berenices

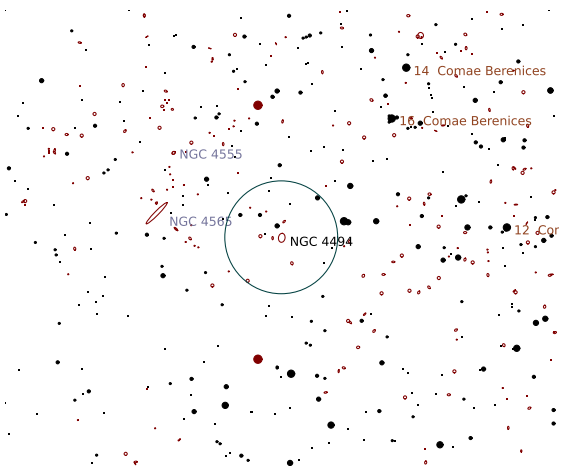
Right Ascension (current)	12 <sup>h</sup> 32 <sup>m</sup> 04 <sup>s</sup>	Declination (current)	25° 41' 53"
Right Ascension (J2000.0)	12 <sup>h</sup> 31 <sup>m</sup> 24 <sup>s</sup>	Declination (J2000.0)	25° 46' 31"
Size	4.8' × 3.5'	Position Angle	-81°
Magnitude	9.8	Other Designation	-

**Description:** Dreyer: vB;pL;R;vsmbMN

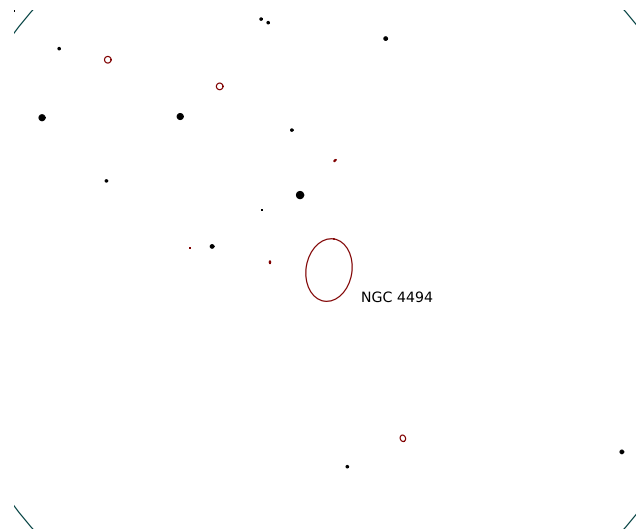
**SAC:** H I 83



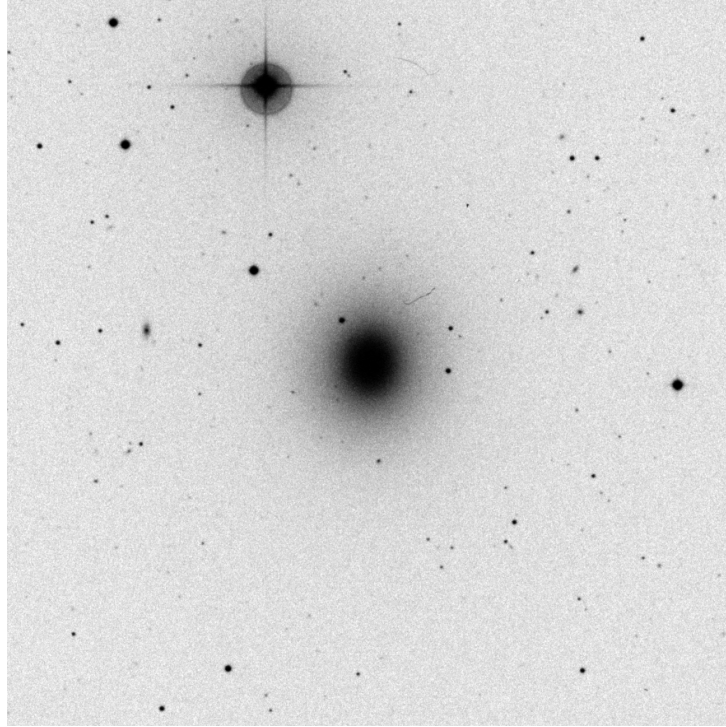
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

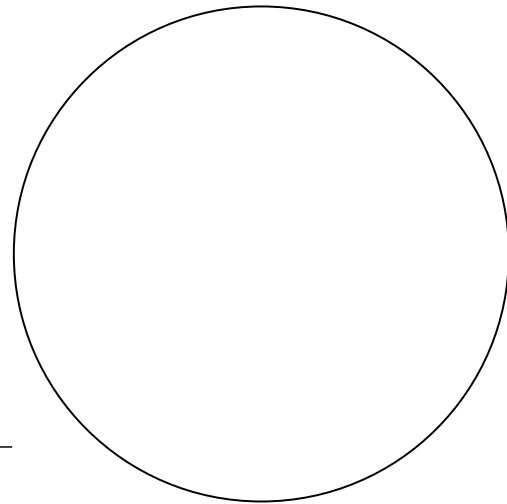
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

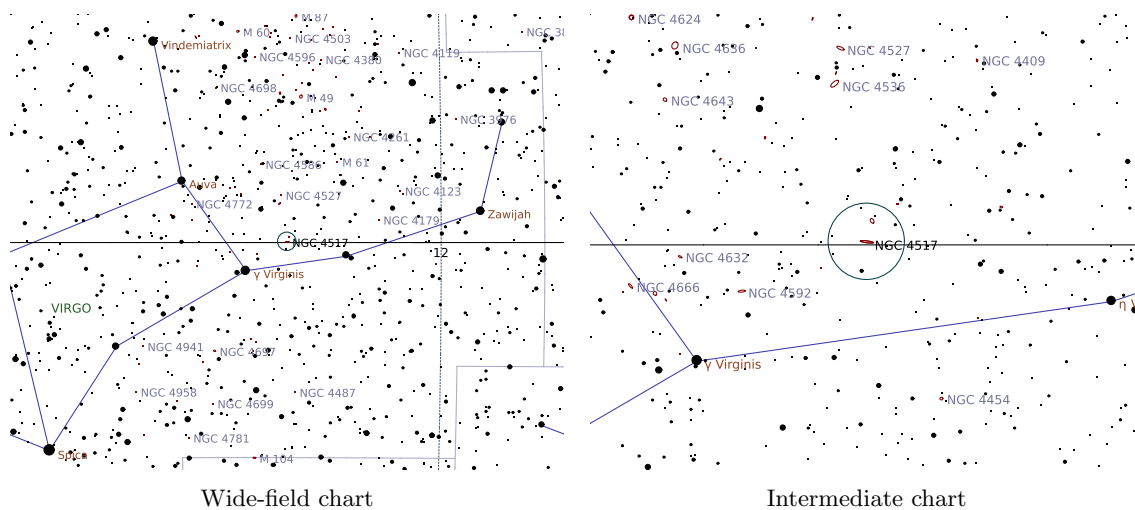
# NGC 4517

## Galaxy in Virgo

Right Ascension (current)	12 <sup>h</sup> 33 <sup>m</sup> 27 <sup>s</sup>	Declination (current)	0° 02' 24''
Right Ascension (J2000.0)	12 <sup>h</sup> 32 <sup>m</sup> 45 <sup>s</sup>	Declination (J2000.0)	0° 06' 56''
Size	10.5' × 1.5'	Position Angle	7°
Magnitude	10	Other Designation	—

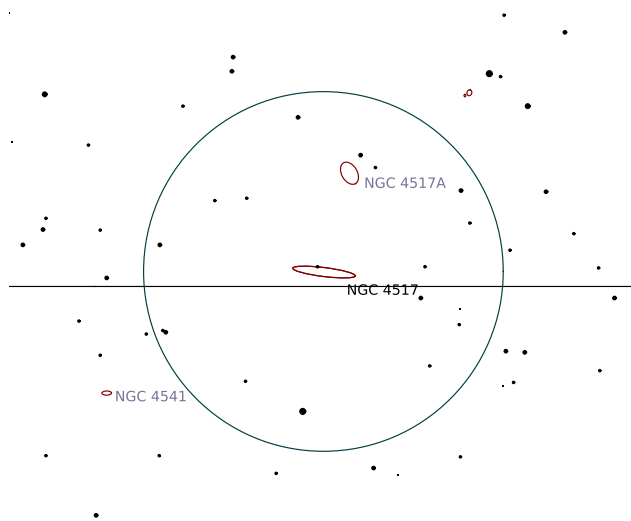
**Description:** Dreyer: cB;vL;vmE89;pB\*in cont

**SAC:** H IV 5;NGC 4517A @ 17';long narrow streak w dust patches

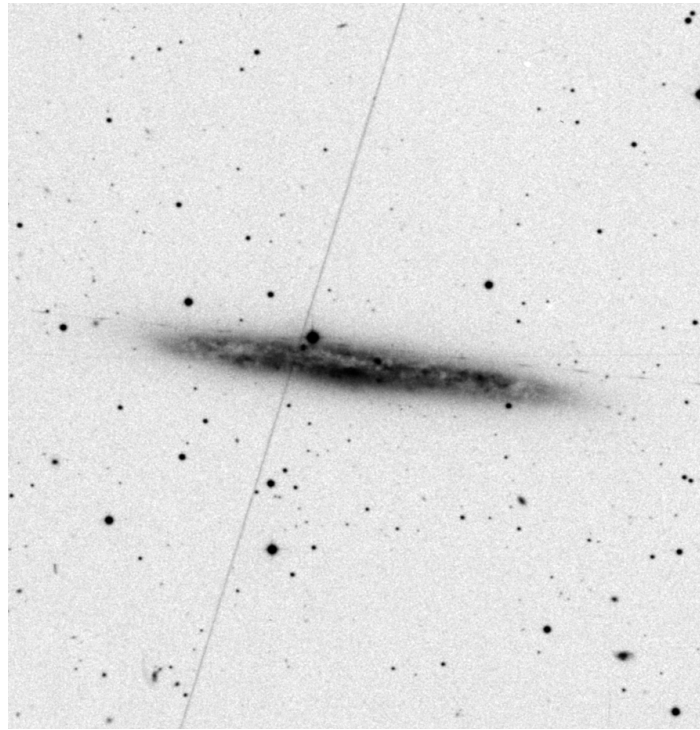


Wide-field chart

Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.6')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

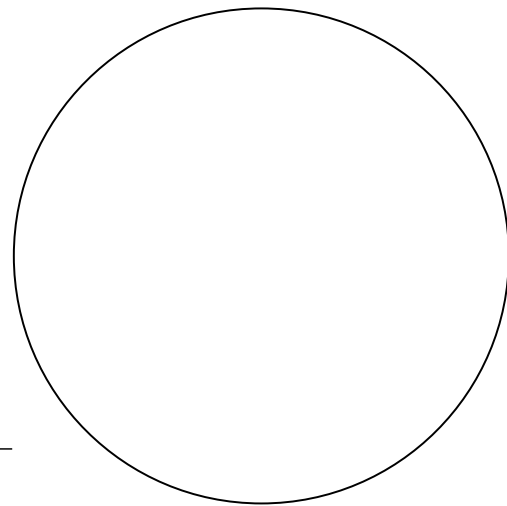
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

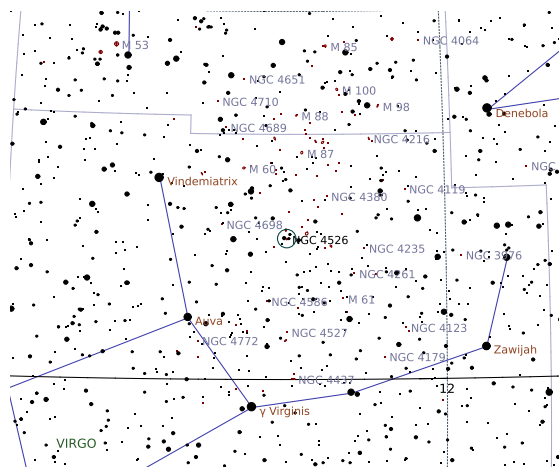
# NGC 4526

## Galaxy in Virgo

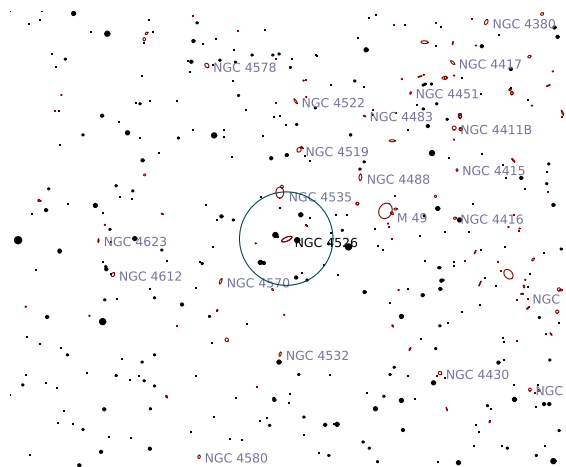
Right Ascension (current)	12 <sup>h</sup> 34 <sup>m</sup> 43 <sup>s</sup>	Declination (current)	7° 37' 22''
Right Ascension (J2000.0)	12 <sup>h</sup> 34 <sup>m</sup> 02 <sup>s</sup>	Declination (J2000.0)	7° 41' 56''
Size	7' × 2.5'	Position Angle	-23°
Magnitude	9.3	Other Designation	-

**Description:** (Also NGC 4560) **Dreyer:** vB;vL;mE120;psmbM

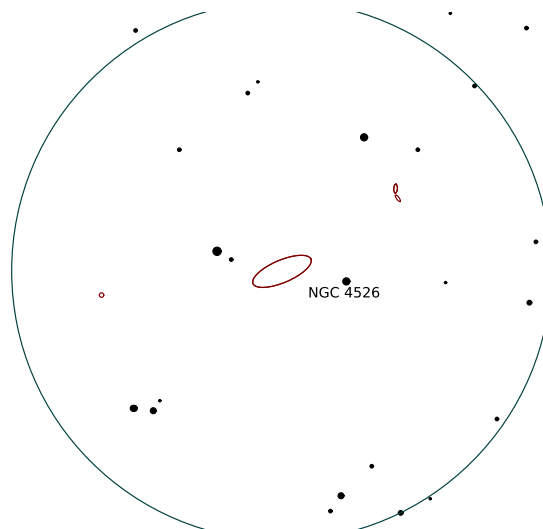
**SAC:** H I 31;lenticular;between two 7th mag stars



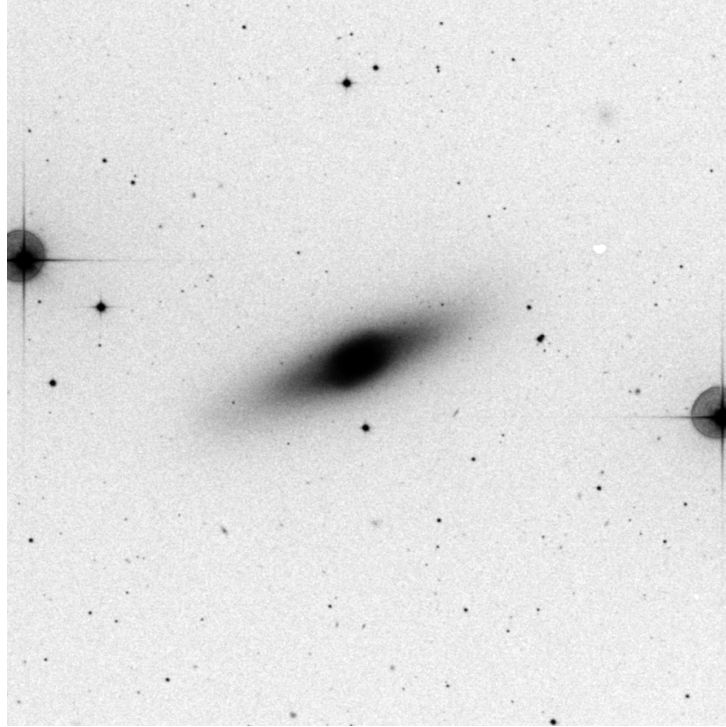
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

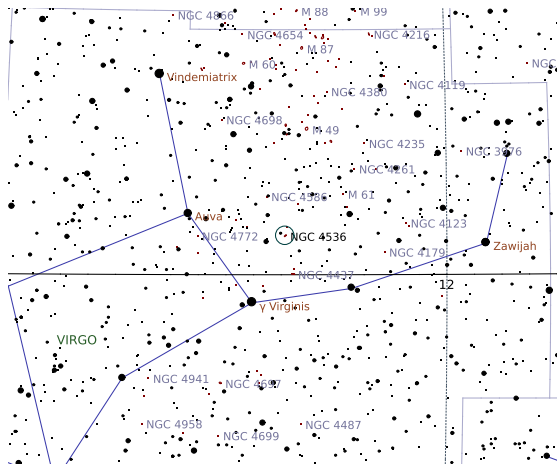
# NGC 4536

## Galaxy in Virgo

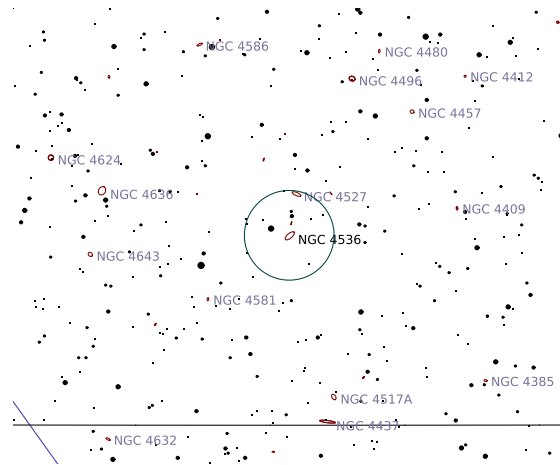
Right Ascension (current)	12 <sup>h</sup> 35 <sup>m</sup> 07 <sup>s</sup>	Declination (current)	2° 06' 42''
Right Ascension (J2000.0)	12 <sup>h</sup> 34 <sup>m</sup> 26 <sup>s</sup>	Declination (J2000.0)	2° 11' 14''
Size	7.6' × 3.2'	Position Angle	-40°
Magnitude	11	Other Designation	-

**Description:** Dreyer: B;vL;mE110;sbM;er

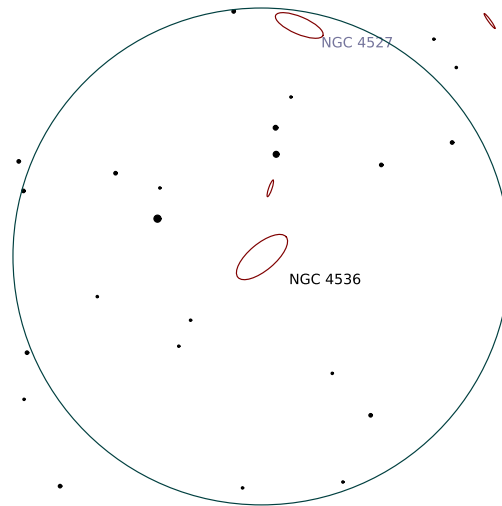
**SAC:** H V 2;NGC 4533 @ 8.2';high tilt spiral w long curvd arms



Wide-field chart

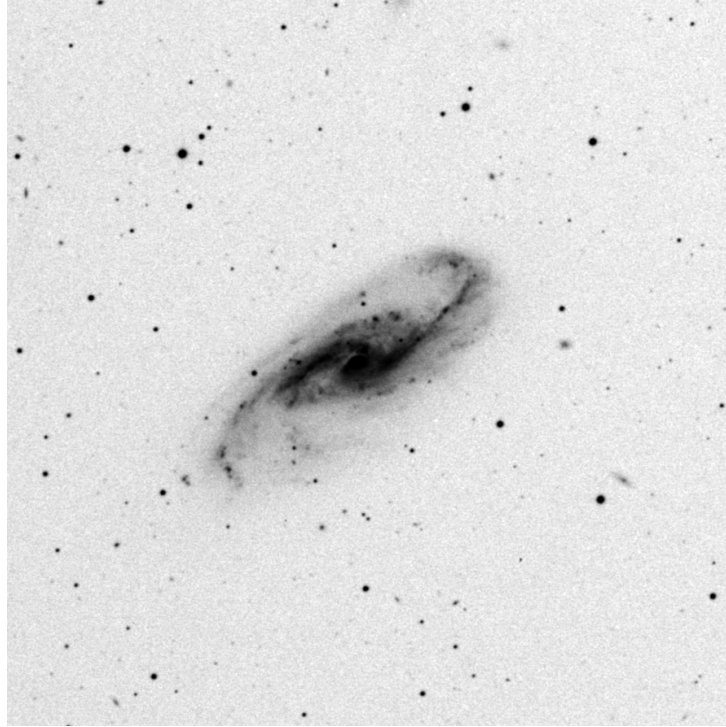


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

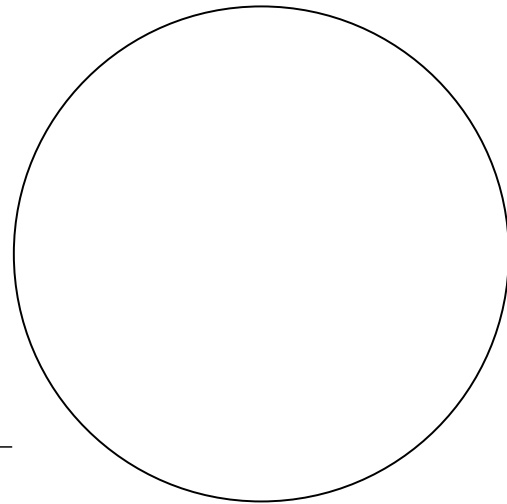
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

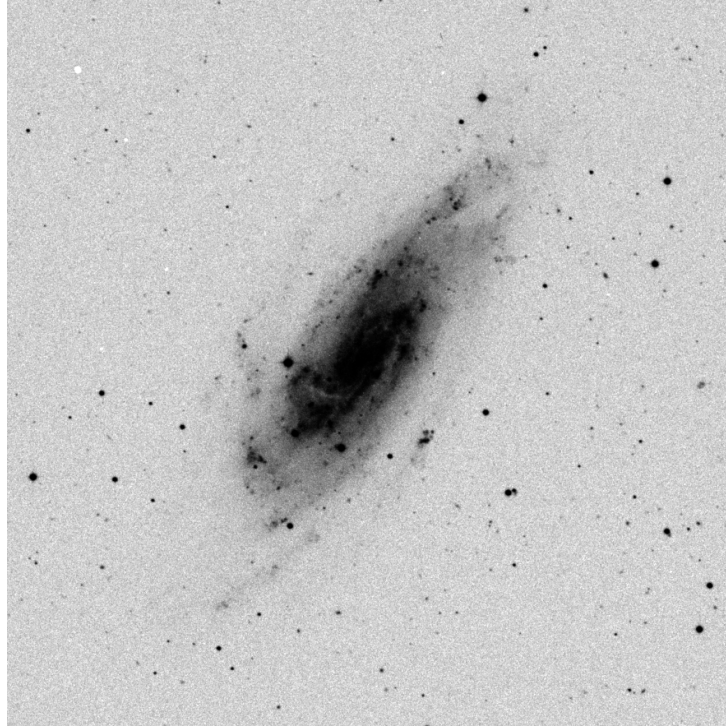
\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

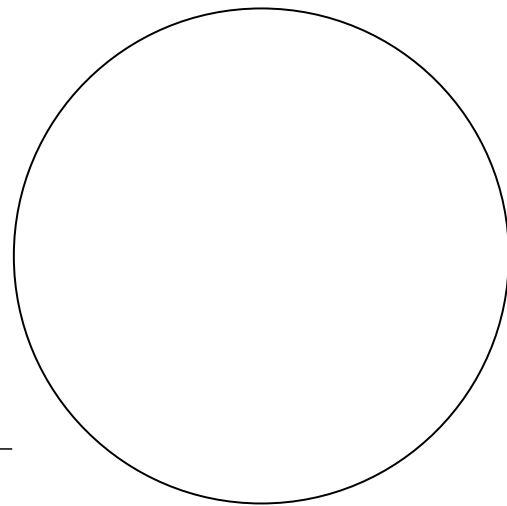
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



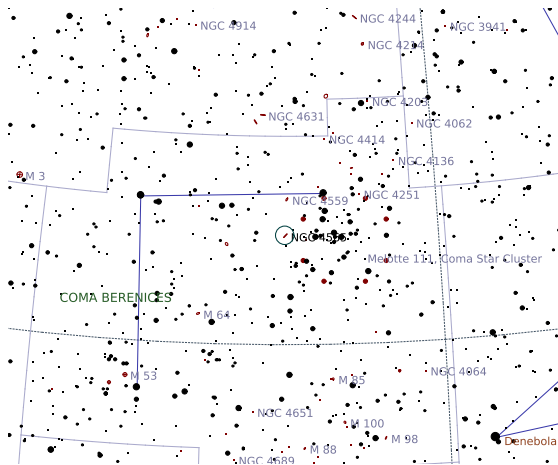
Sketch

# NGC 4565 (Needle Galaxy)

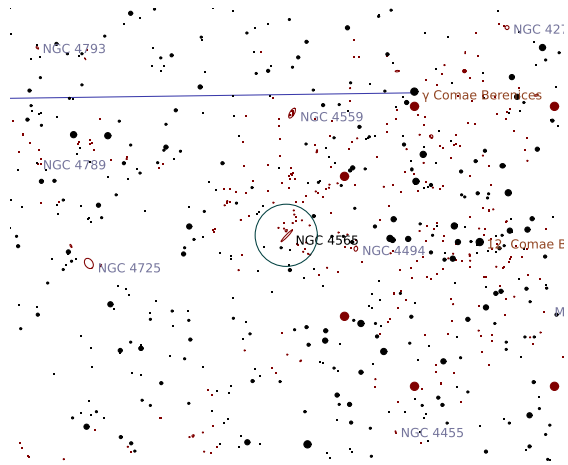
Galaxy in Coma Berenices

Right Ascension (current)	12 <sup>h</sup> 37 <sup>m</sup> 00 <sup>s</sup>	Declination (current)	25° 54' 39"
Right Ascension (J2000.0)	12 <sup>h</sup> 36 <sup>m</sup> 20 <sup>s</sup>	Declination (J2000.0)	25° 59' 16"
Size	15.8' × 2.1'	Position Angle	-46°
Magnitude	9.6	Other Designation	-

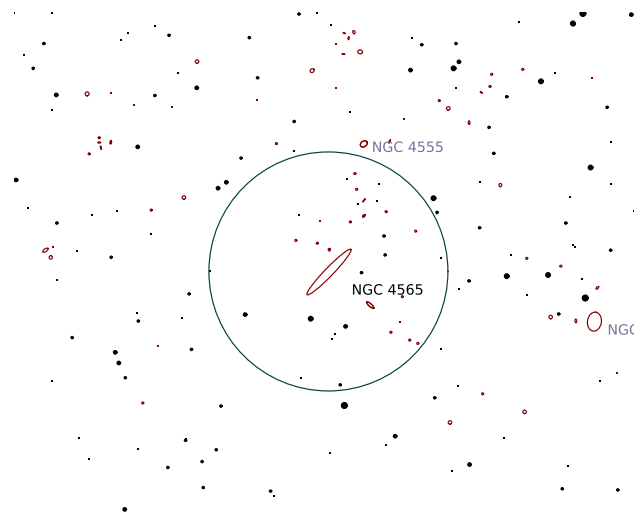
**Description:** Dreyer: !!B;eL;eE135;vsbMN = \*10-11  
**SAC:** H V 24;NGC 4562 @ 13.4';classic edge-on galaxy



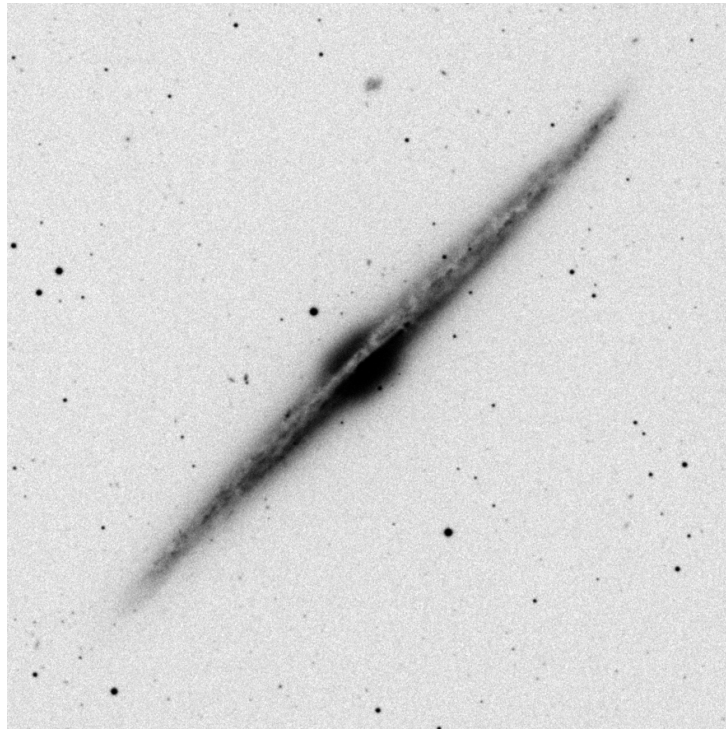
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

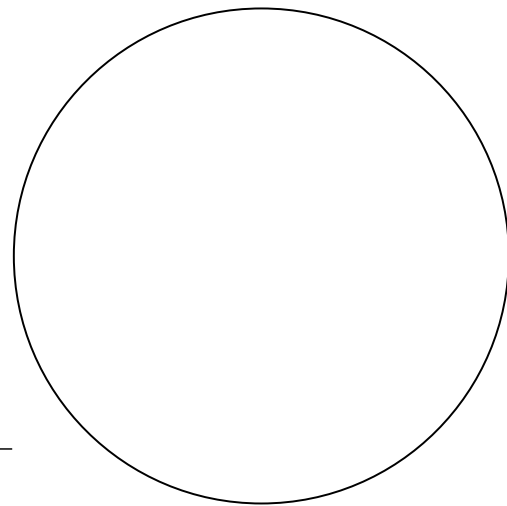
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

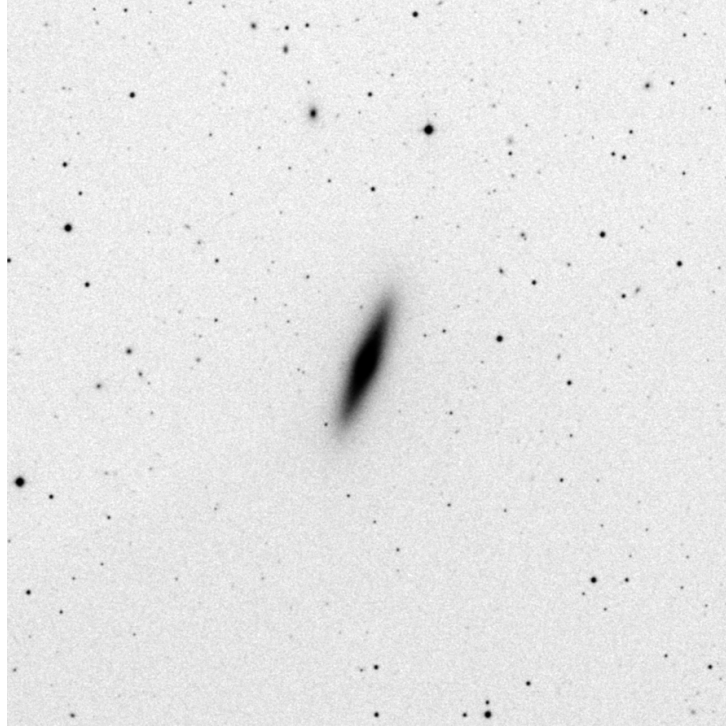
\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

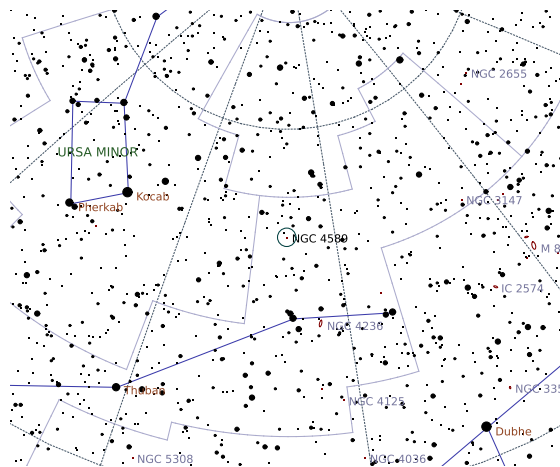
# NGC 4589

## Galaxy in Draco

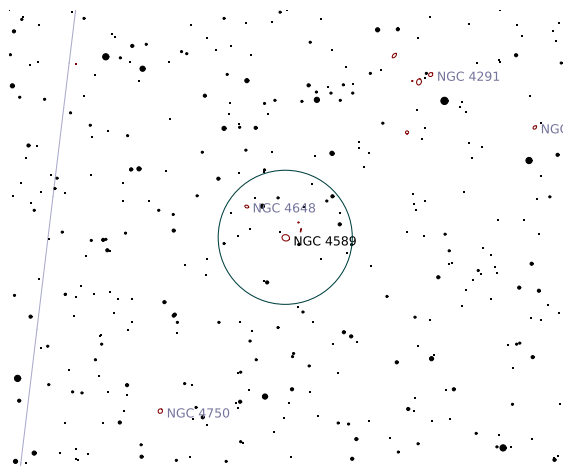
Right Ascension (current)	12 <sup>h</sup> 37 <sup>m</sup> 56 <sup>s</sup>	Declination (current)	74° 06' 50"
Right Ascension (J2000.0)	12 <sup>h</sup> 37 <sup>m</sup> 24 <sup>s</sup>	Declination (J2000.0)	74° 11' 31"
Size	3.4' × 2.8'	Position Angle	15°
Magnitude	11	Other Designation	—

**Description:** Dreyer: cB;L;1E;pgmbM

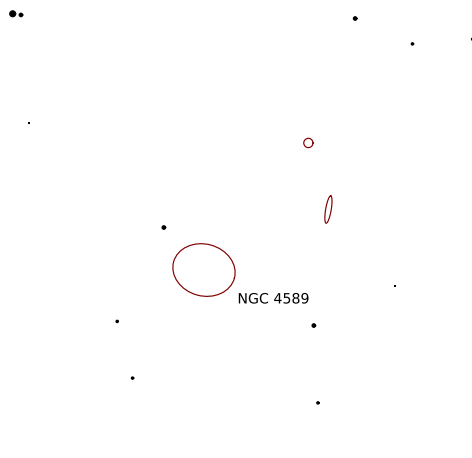
**SAC:** H I 273;P w NGC 4572 @ 7.5';NGC 4648 @ 22'



Wide-field chart

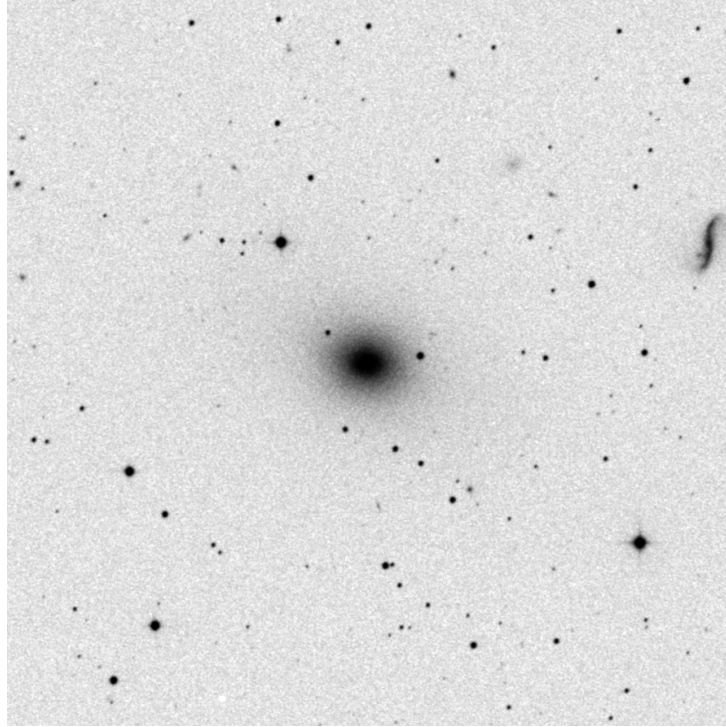


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

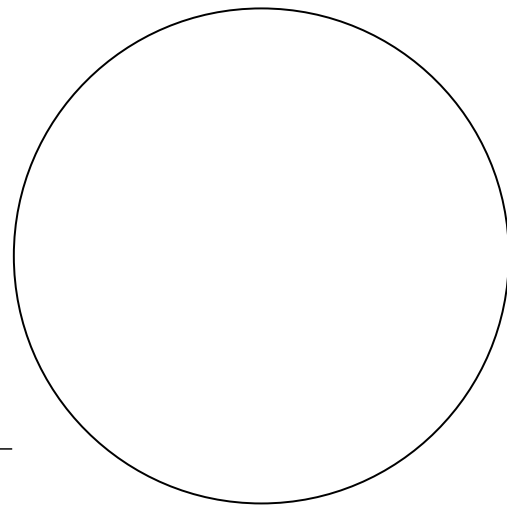
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



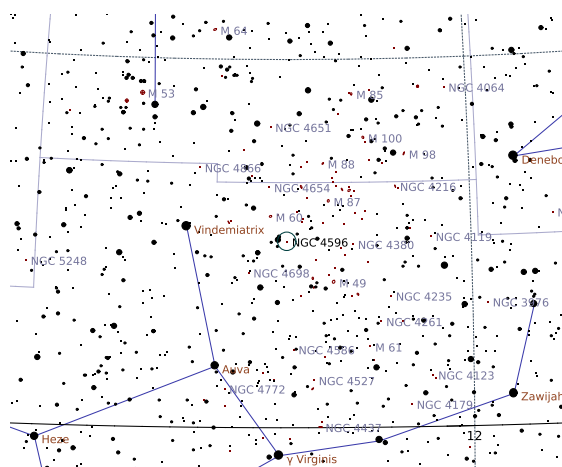
Sketch

# NGC 4596

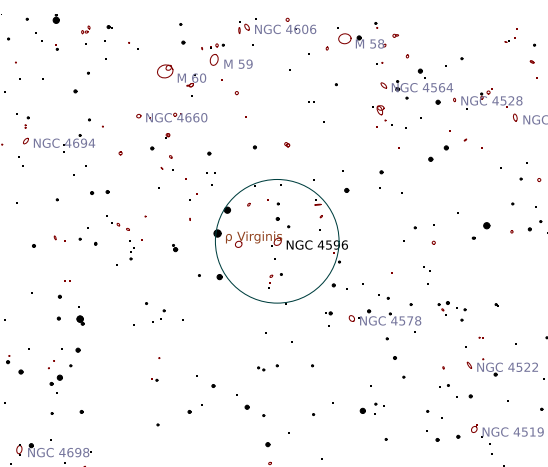
## Galaxy in Virgo

Right Ascension (current)	12 <sup>h</sup> 40 <sup>m</sup> 37 <sup>s</sup>	Declination (current)	10° 06' 02"
Right Ascension (J2000.0)	12 <sup>h</sup> 39 <sup>m</sup> 56 <sup>s</sup>	Declination (J2000.0)	10° 10' 35"
Size	4' × 3'	Position Angle	-45°
Magnitude	10	Other Designation	-

**Description:** Dreyer: B;pS;R;gmbM;r;3 AASlogo.eps AASlogo-eps-converted-to.pdf Acknowledgements.tex Austin.eps Austi  
**SAC:** H I 24;NGC 4608 @ 19 ' ;disc w projecting anae



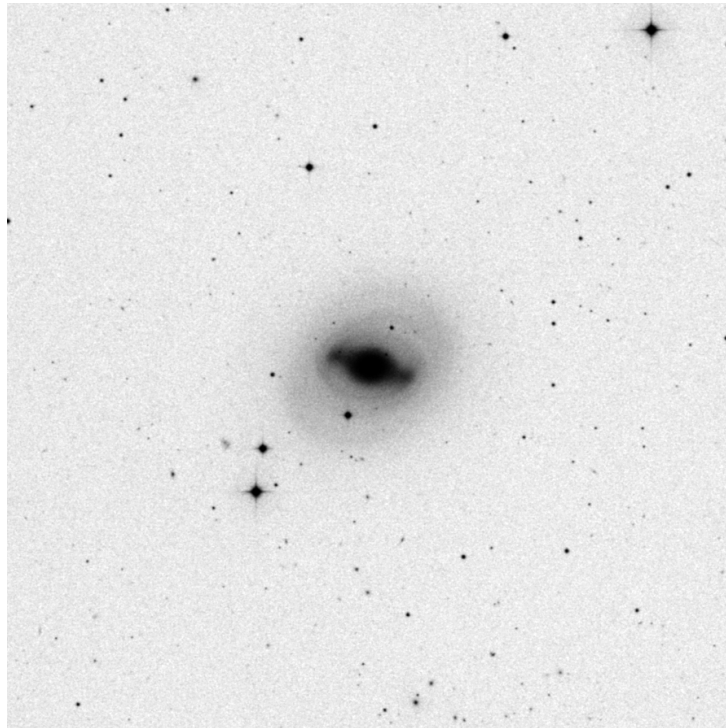
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

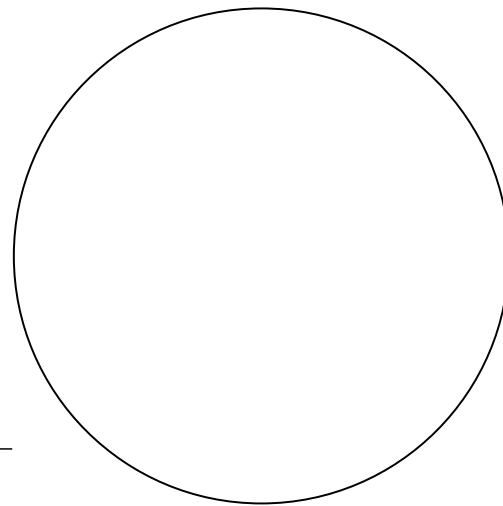
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

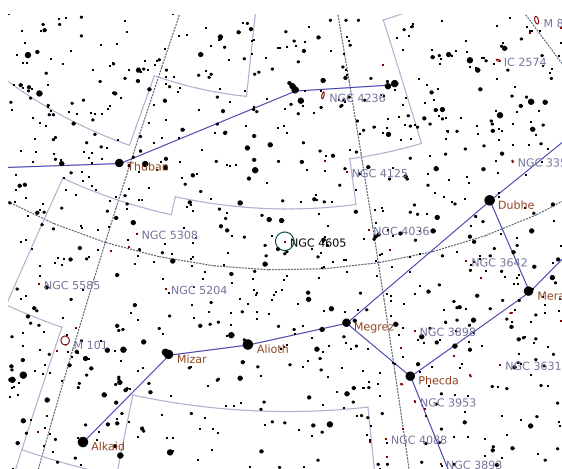
# NGC 4605

Galaxy in Ursa Major

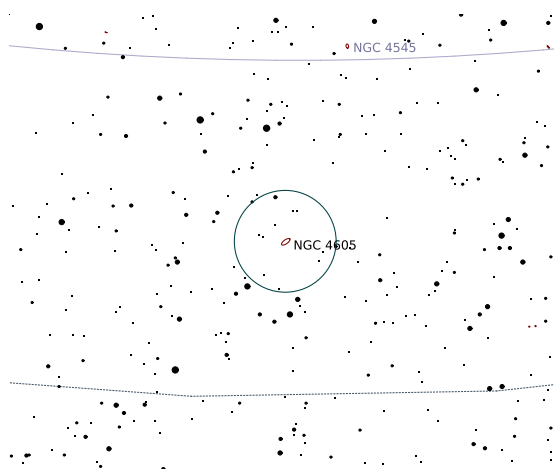
Right Ascension (current)	12 <sup>h</sup> 40 <sup>m</sup> 35 <sup>s</sup>	Declination (current)	61° 31' 50"
Right Ascension (J2000.0)	12 <sup>h</sup> 39 <sup>m</sup> 59 <sup>s</sup>	Declination (J2000.0)	61° 36' 30"
Size	5.9' × 2.4'	Position Angle	−35°
Magnitude	10	Other Designation	—

**Description:** Dreyer: B;L;vmE118;g1bM

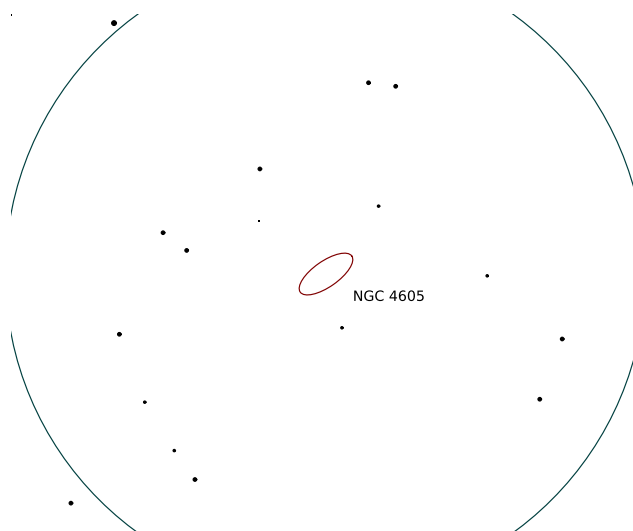
**SAC:** H I 254



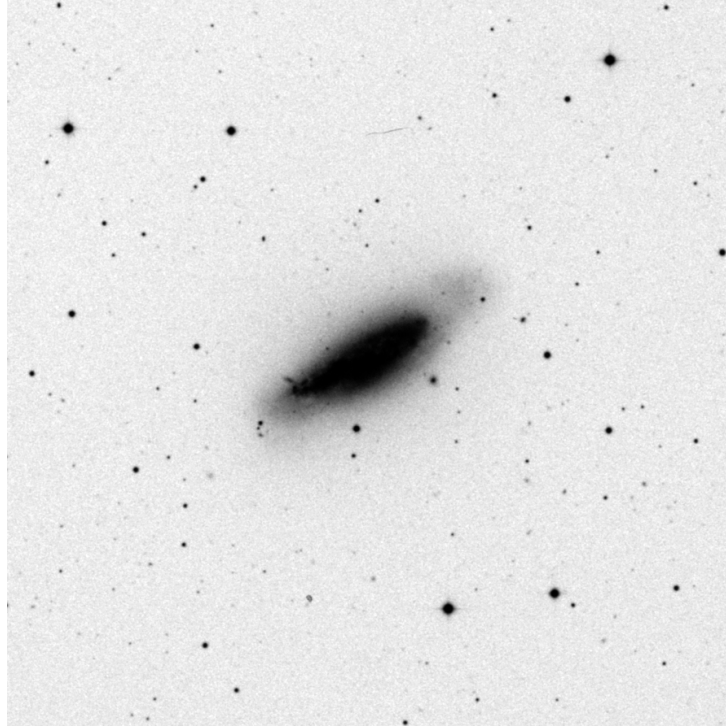
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

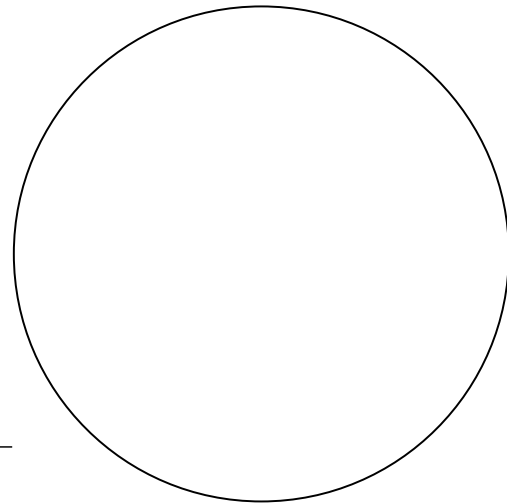
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

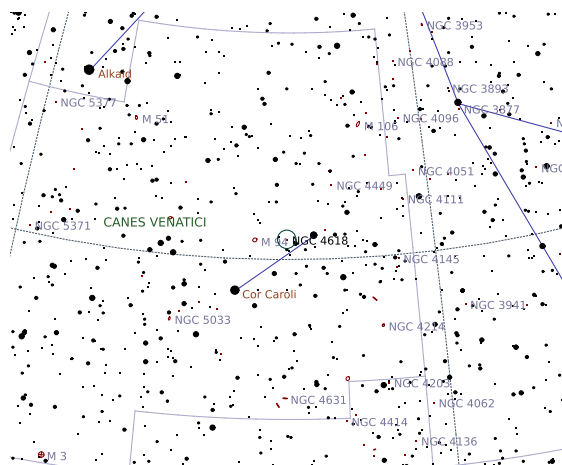
# NGC 4618

Galaxy in Canes Venatici

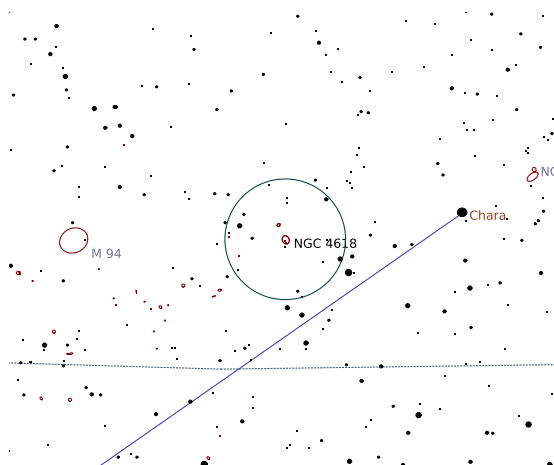
Right Ascension (current)	12 <sup>h</sup> 42 <sup>m</sup> 12 <sup>s</sup>	Declination (current)	41° 04' 25"
Right Ascension (J2000.0)	12 <sup>h</sup> 41 <sup>m</sup> 33 <sup>s</sup>	Declination (J2000.0)	41° 09' 04"
Size	4.2' × 3.4'	Position Angle	65°
Magnitude	11	Other Designation	—

**Description:** Dreyer: B;L;E;mbM;curved branch n

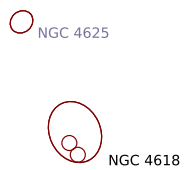
**SAC:** H I 178;P w NGC 4625 @ 8.3'



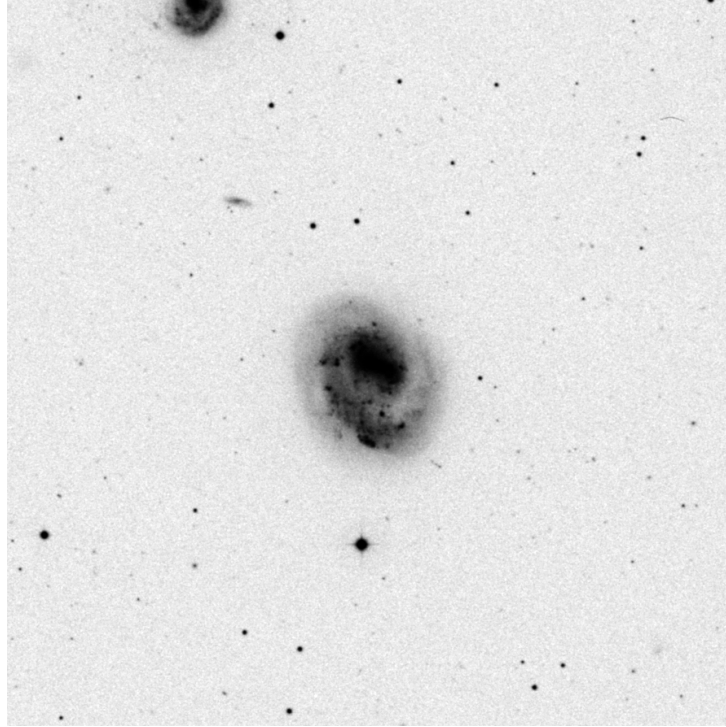
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

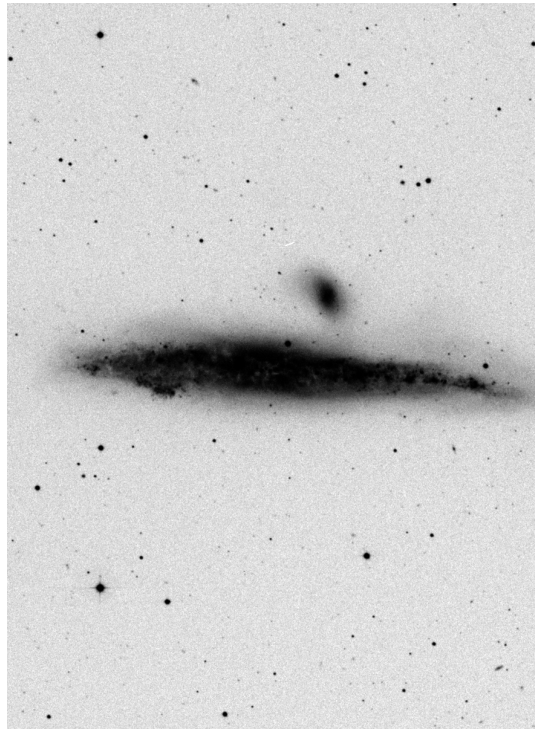
\_\_\_\_\_



**Sketch**







DSS Image (15.0' × 20.4')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

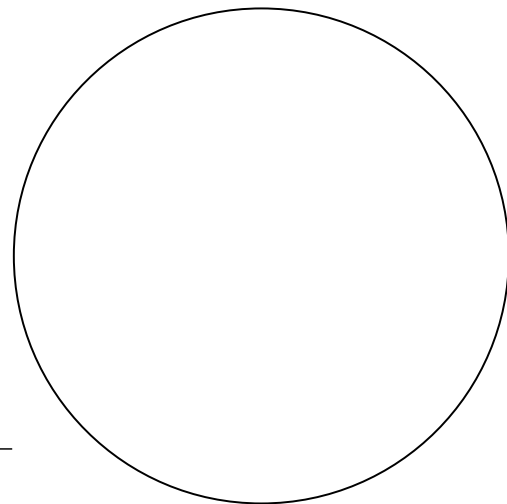
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

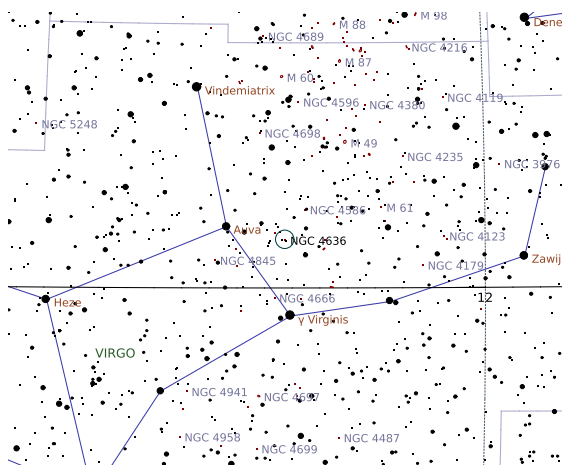
# NGC 4636

## Galaxy in Virgo

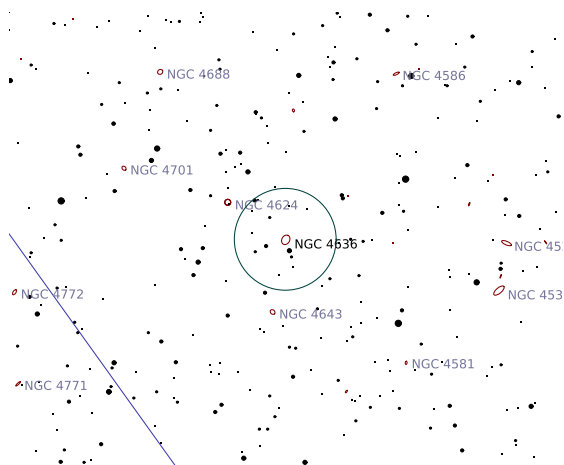
Right Ascension (current)	12 <sup>h</sup> 43 <sup>m</sup> 30 <sup>s</sup>	Declination (current)	2° 36' 43"
Right Ascension (J2000.0)	12 <sup>h</sup> 42 <sup>m</sup> 49 <sup>s</sup>	Declination (J2000.0)	2° 41' 14"
Size	5.9' × 4.6'	Position Angle	−60°
Magnitude	9.5	Other Designation	—

**Description:** Dreyer: B;L;iR;vgvmbM;r

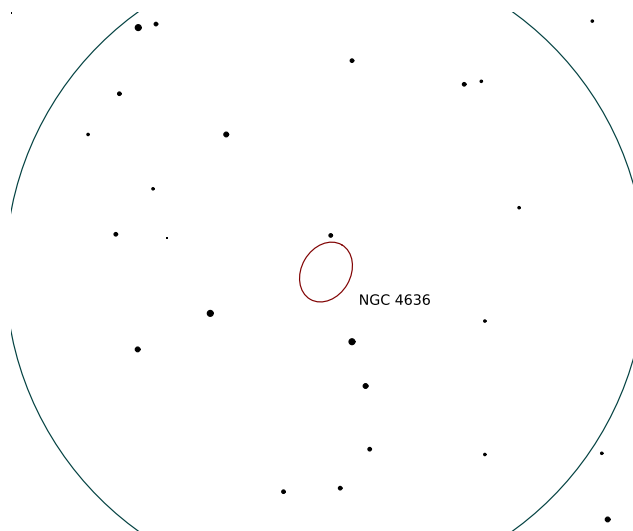
**SAC:** H II 38



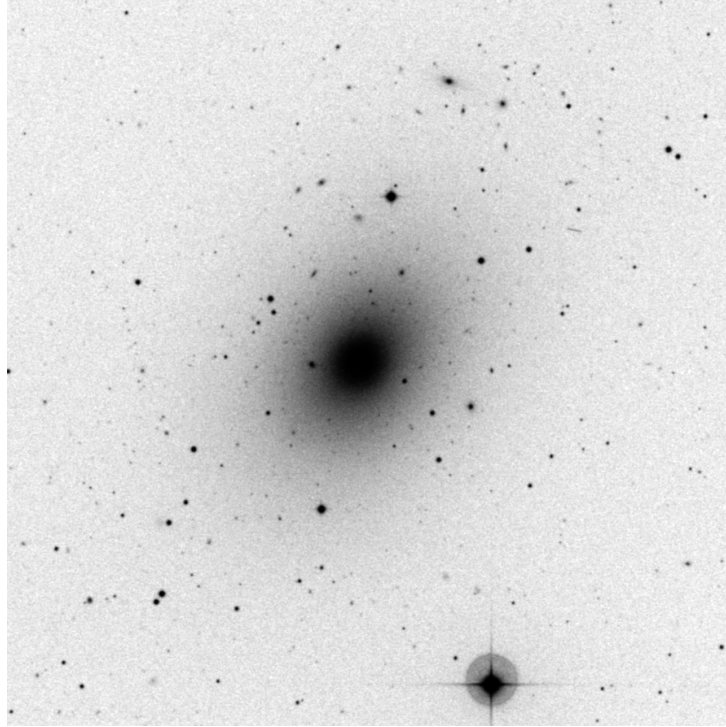
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

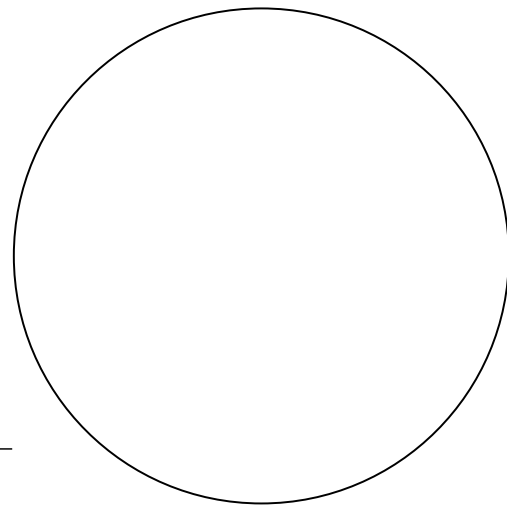
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

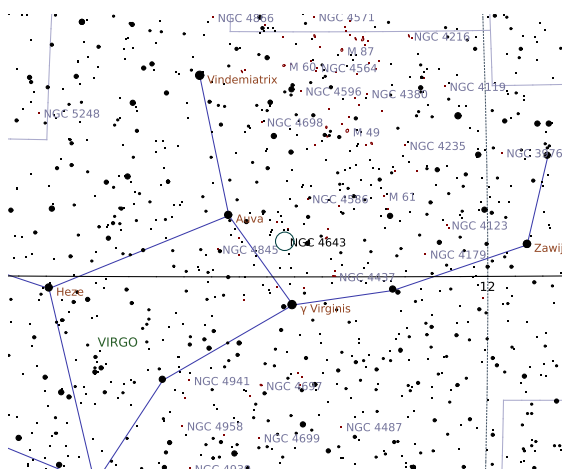
# NGC 4643

## Galaxy in Virgo

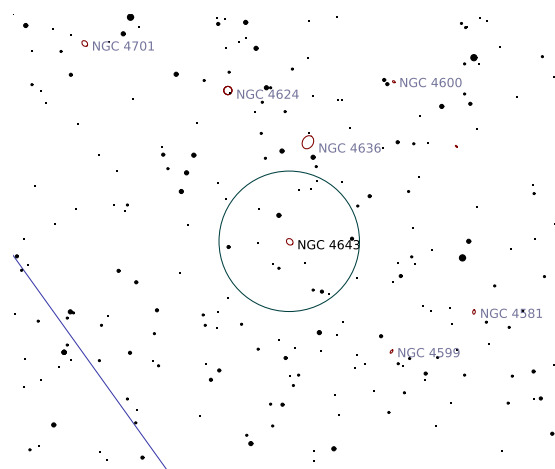
Right Ascension (current)	12 <sup>h</sup> 44 <sup>m</sup> 01 <sup>s</sup>	Declination (current)	1° 54' 11"
Right Ascension (J2000.0)	12 <sup>h</sup> 43 <sup>m</sup> 20 <sup>s</sup>	Declination (J2000.0)	1° 58' 41"
Size	3.1' × 2.5'	Position Angle	42°
Magnitude	11	Other Designation	—

**Description:** Dreyer: cB;pS;lE;mbM

**SAC:** H I 10; Saturn-like central mass w projecting ansae



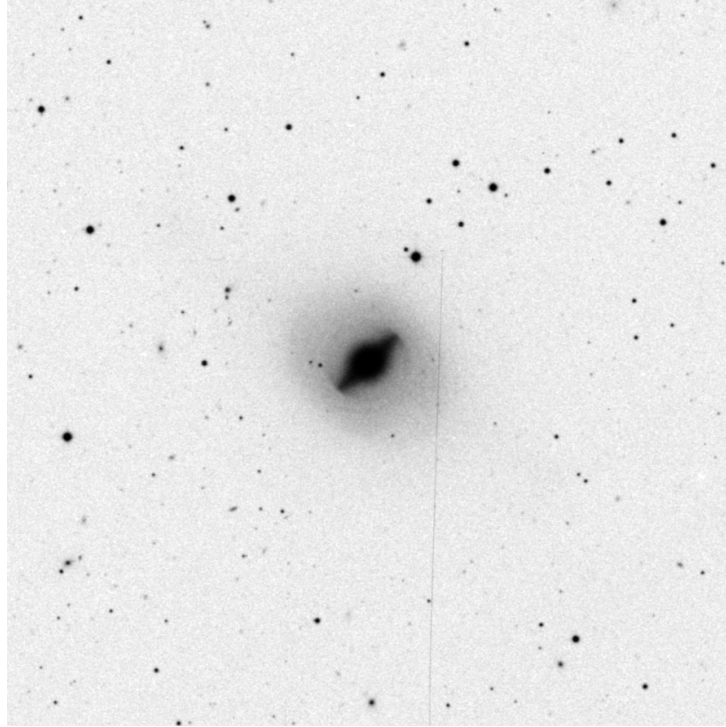
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

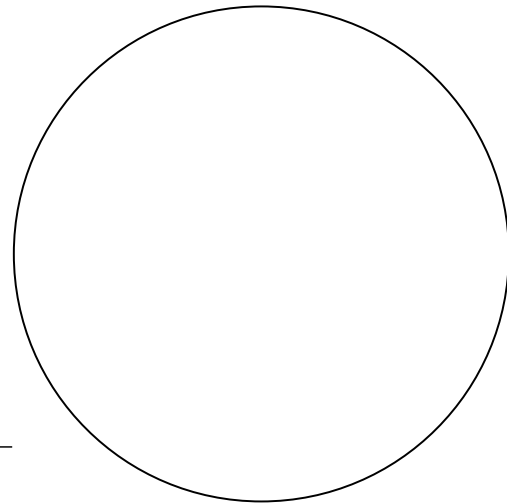
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

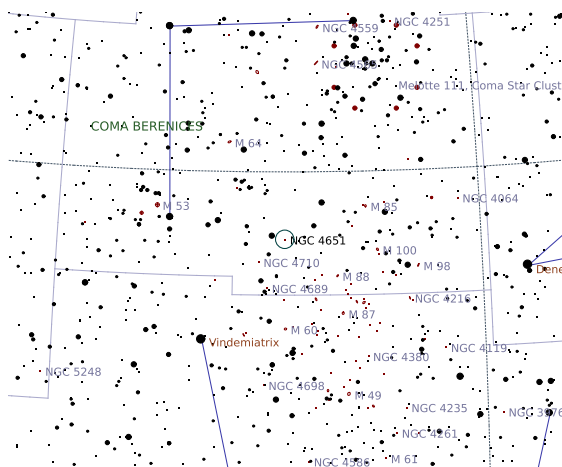
# NGC 4651

## Galaxy in Coma Berenices

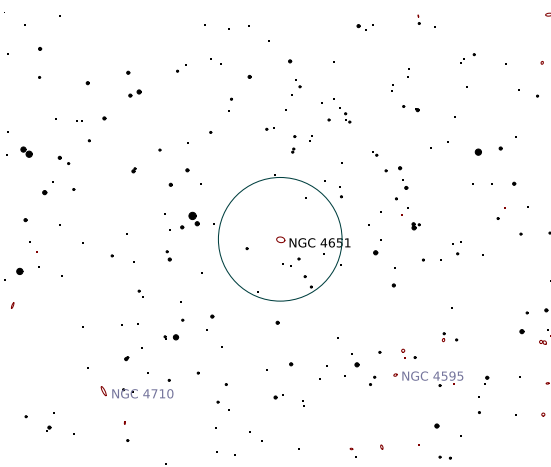
Right Ascension (current)	12 <sup>h</sup> 44 <sup>m</sup> 22 <sup>s</sup>	Declination (current)	16° 19' 03"
Right Ascension (J2000.0)	12 <sup>h</sup> 43 <sup>m</sup> 42 <sup>s</sup>	Declination (J2000.0)	16° 23' 37"
Size	4' × 2.7'	Position Angle	10°
Magnitude	11	Other Designation	–

**Description:** Dreyer: cB;L;E90;gbM;r

**SAC:** H II 12



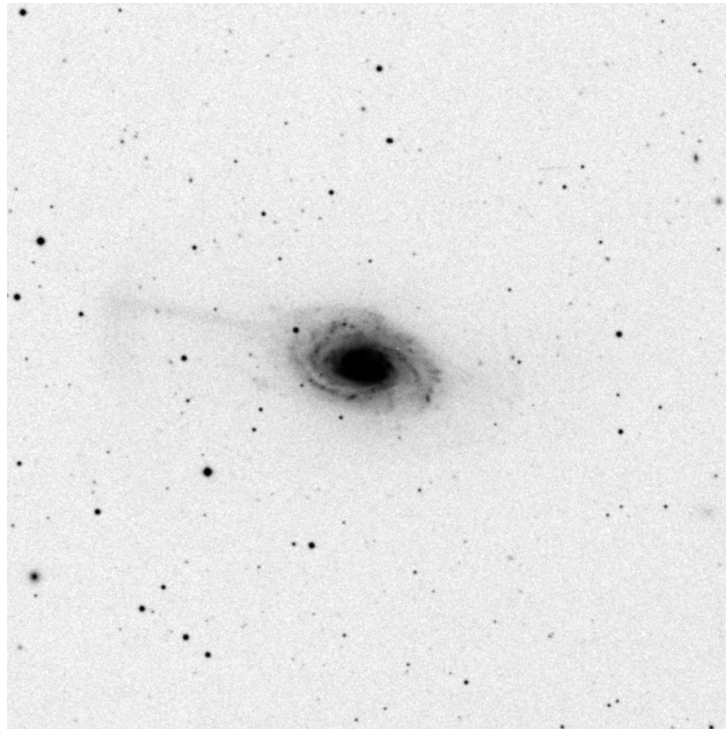
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

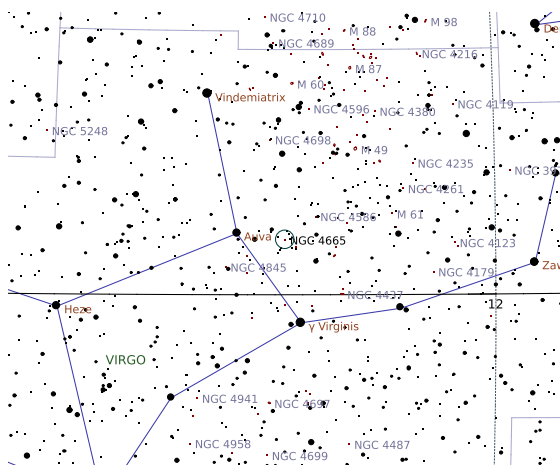
# NGC 4665

## Galaxy in Virgo

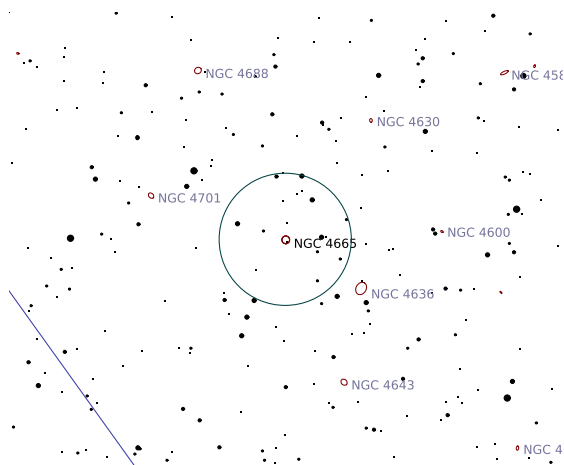
Right Ascension (current)	12 <sup>h</sup> 45 <sup>m</sup> 47 <sup>s</sup>	Declination (current)	2° 58' 49''
Right Ascension (J2000.0)	12 <sup>h</sup> 45 <sup>m</sup> 06 <sup>s</sup>	Declination (J2000.0)	3° 03' 19''
Size	3.5' × 3.5'	Position Angle	90°
Magnitude	10	Other Designation	—

**Description:** Dreyer: B;pL;iR;mbM;\*10 sp

**SAC:** H I 142



Wide-field chart

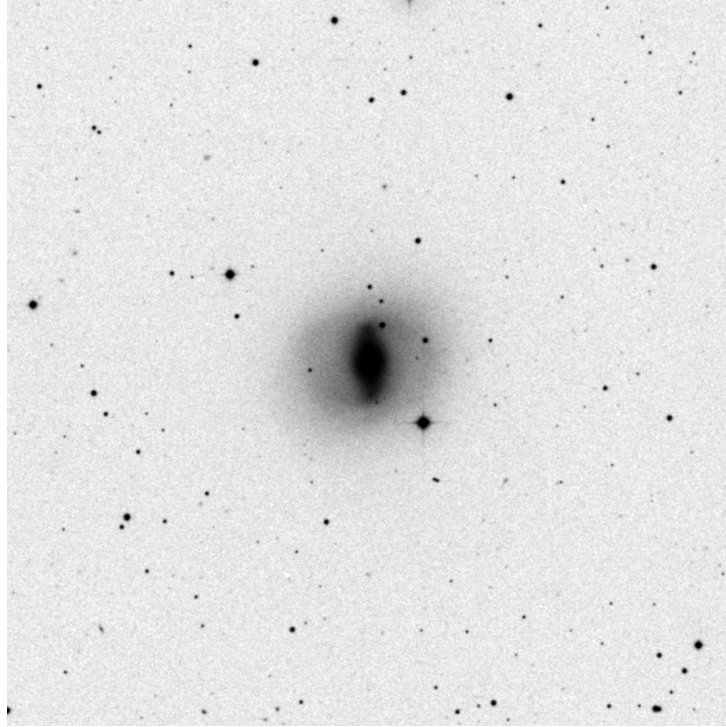


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

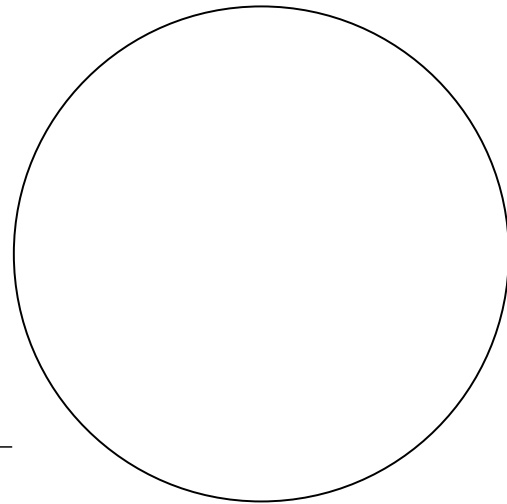
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

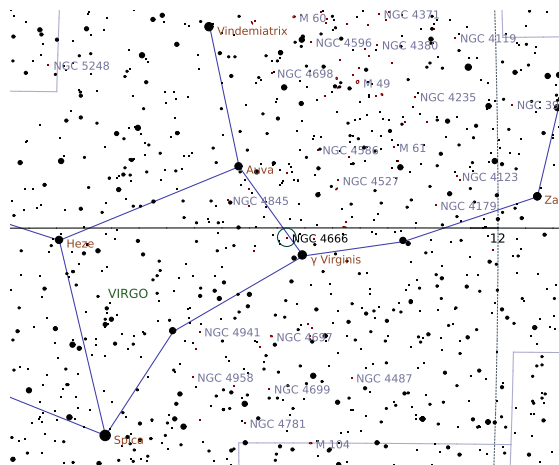
# NGC 4666

## Galaxy in Virgo

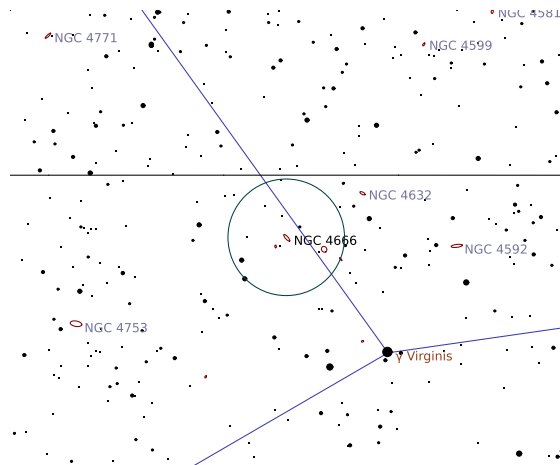
Right Ascension (current)	12 <sup>h</sup> 45 <sup>m</sup> 50 <sup>s</sup>	Declination (current)	−0° 32′ 14″
Right Ascension (J2000.0)	12 <sup>h</sup> 45 <sup>m</sup> 08 <sup>s</sup>	Declination (J2000.0)	−0° 27′ 46″
Size	4.5′ × 1.4′	Position Angle	48°
Magnitude	11	Other Designation	—

**Description:** Dreyer: B;vL;mE45;psbM

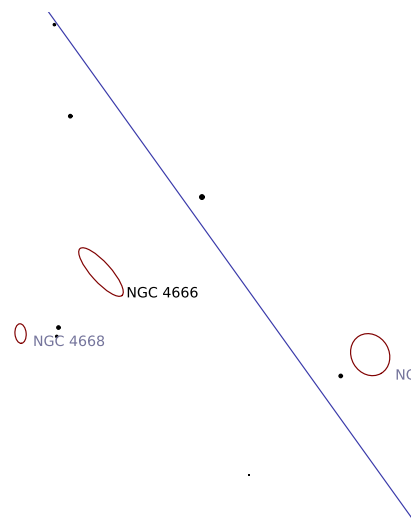
**SAC:** H I 15;NGC 4668 @ 7.3';NGC 4653 @ 20 ';edge on



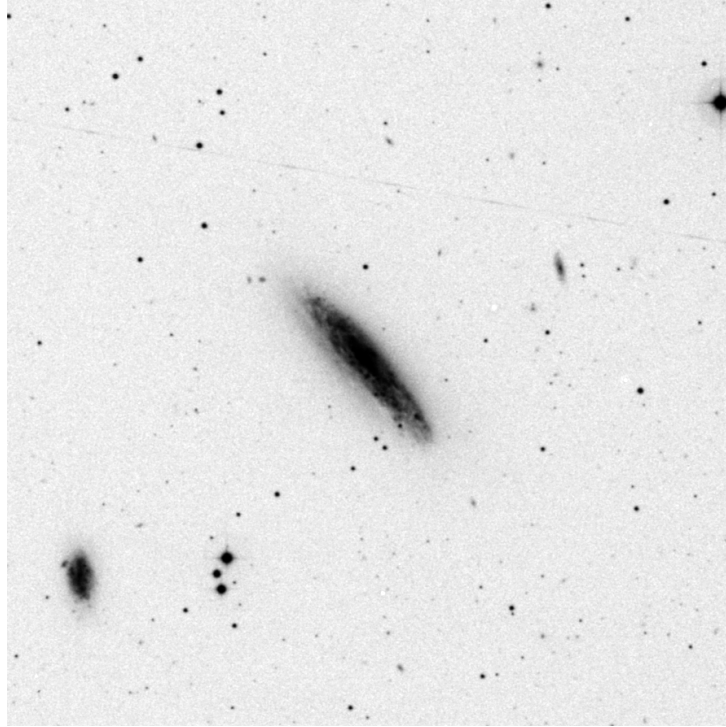
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

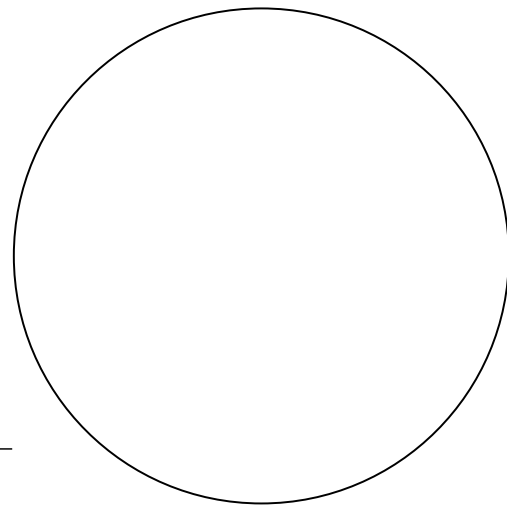
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

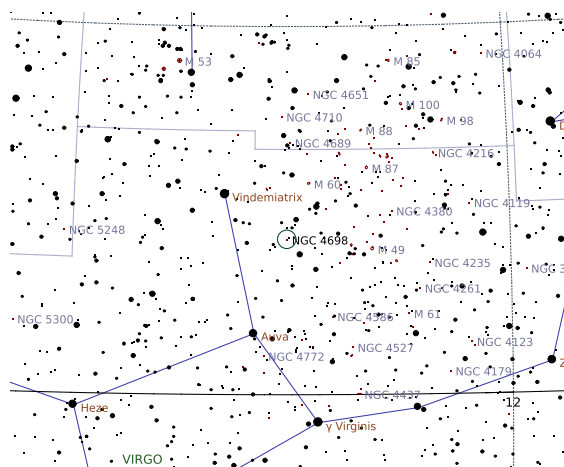
# NGC 4698

## Galaxy in Virgo

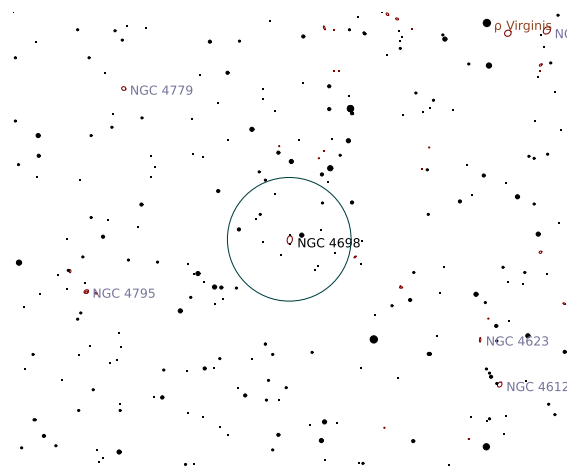
Right Ascension (current)	12 <sup>h</sup> 49 <sup>m</sup> 04 <sup>s</sup>	Declination (current)	8° 24' 47''
Right Ascension (J2000.0)	12 <sup>h</sup> 48 <sup>m</sup> 23 <sup>s</sup>	Declination (J2000.0)	8° 29' 18''
Size	4' × 2.5'	Position Angle	−80°
Magnitude	11	Other Designation	—

**Description:** Dreyer: cB;pL;iR;bM;r

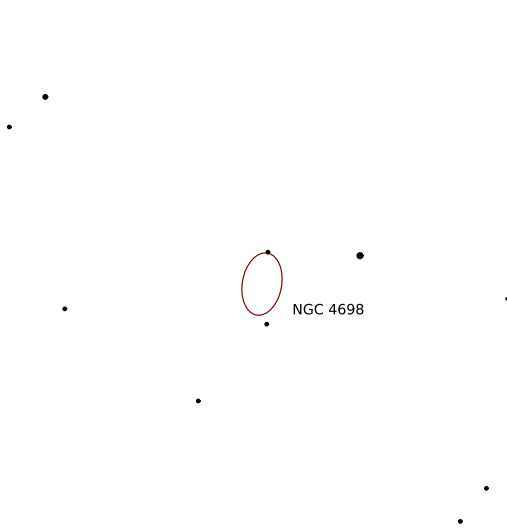
**SAC:** H I 8



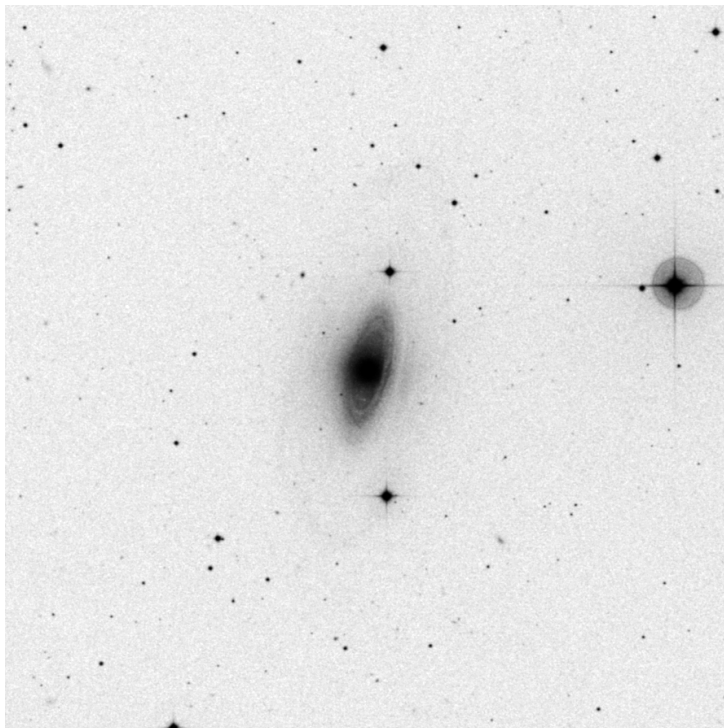
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

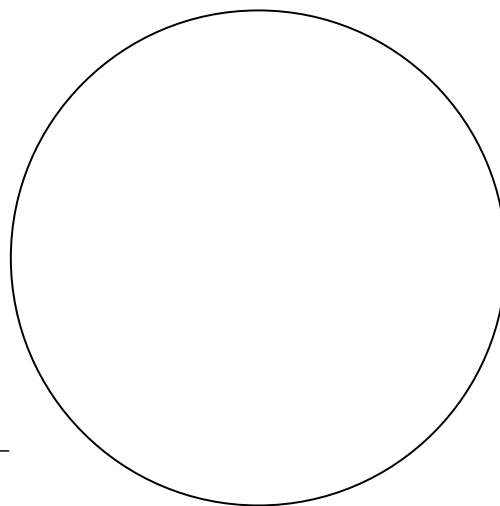
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

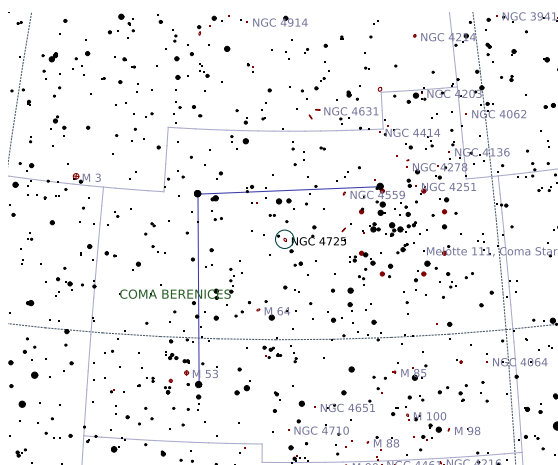
# NGC 4725

## Galaxy in Coma Berenices

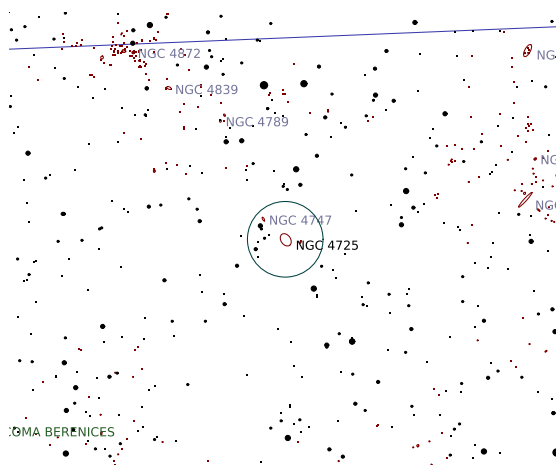
Right Ascension (current)	12 <sup>h</sup> 51 <sup>m</sup> 06 <sup>s</sup>	Declination (current)	25° 25' 26"
Right Ascension (J2000.0)	12 <sup>h</sup> 50 <sup>m</sup> 26 <sup>s</sup>	Declination (J2000.0)	25° 30' 00"
Size	10.7' × 7.6'	Position Angle	55°
Magnitude	9.4	Other Designation	—

**Description:** Dreyer: vB; vL; E; vg; vsvbmM; eBN

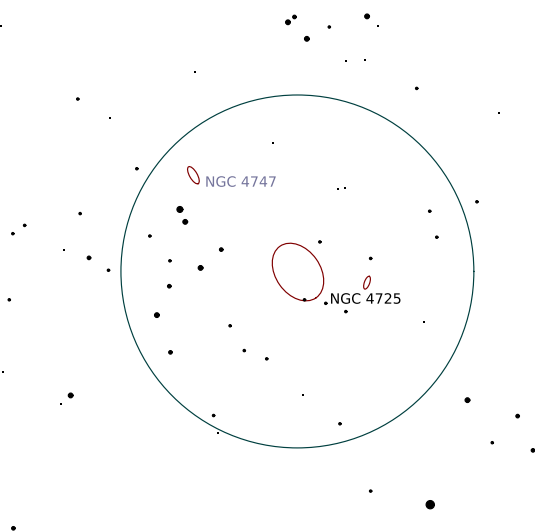
**SAC:** H I 84; P w NGC 4712 @ 12 '



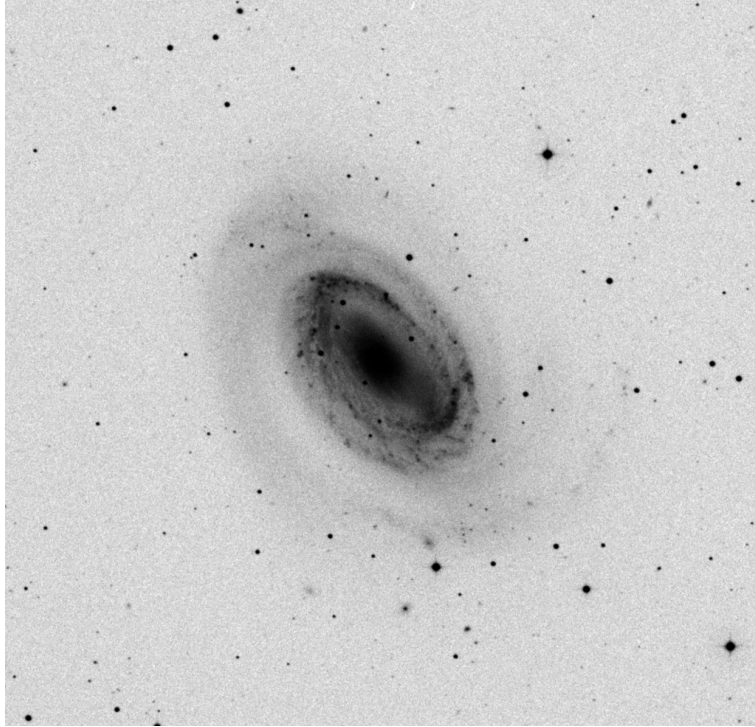
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (18.1' × 17.4')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

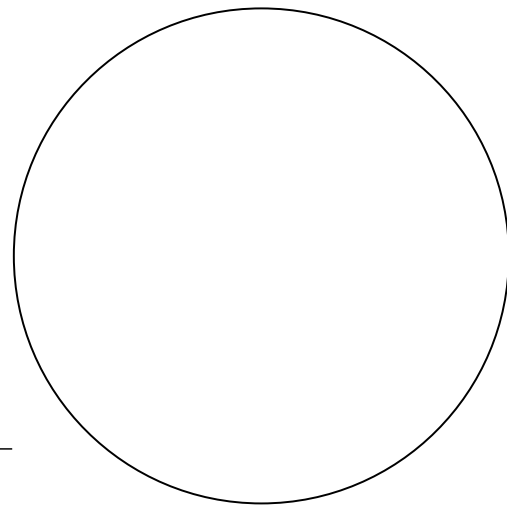
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

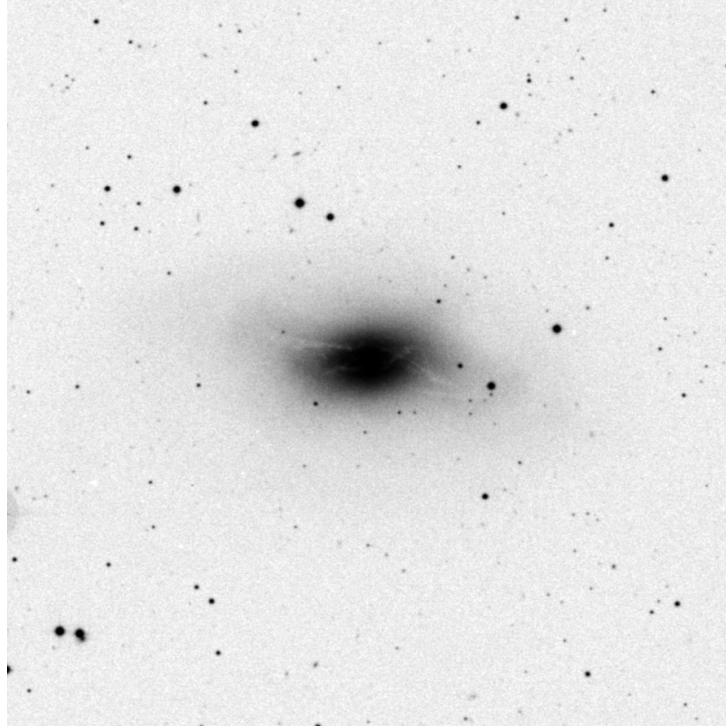
\_\_\_\_\_



**Sketch**







DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

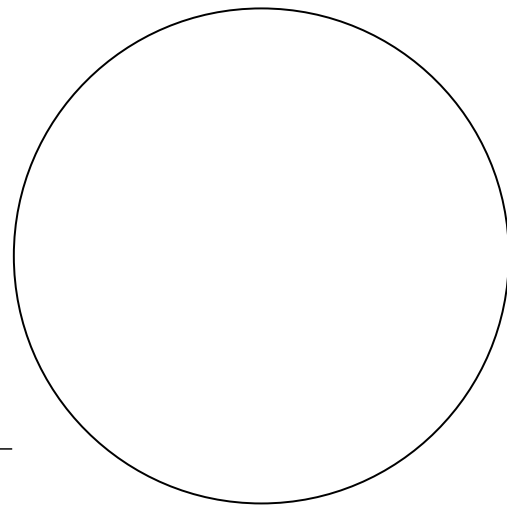
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



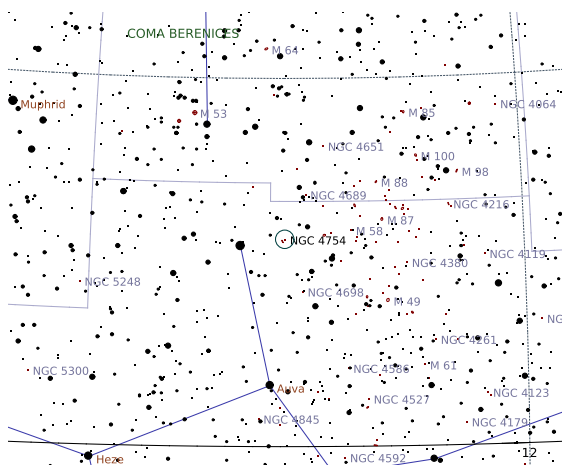
Sketch

# NGC 4754

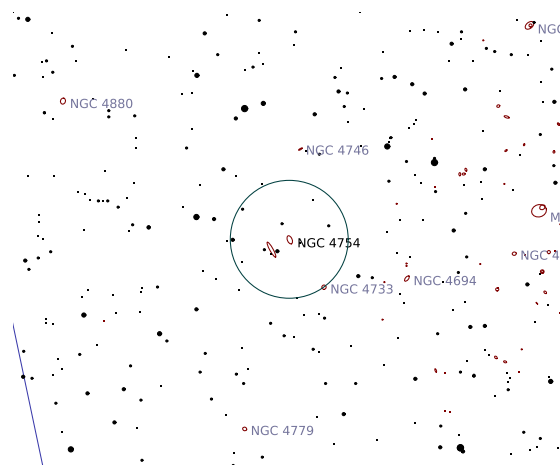
Galaxy in Virgo

Right Ascension (current)	12 <sup>h</sup> 52 <sup>m</sup> 58 <sup>s</sup>	Declination (current)	11° 14' 20"
Right Ascension (J2000.0)	12 <sup>h</sup> 52 <sup>m</sup> 17 <sup>s</sup>	Declination (J2000.0)	11° 18' 50"
Size	4.4' × 2.4'	Position Angle	67°
Magnitude	11	Other Designation	—

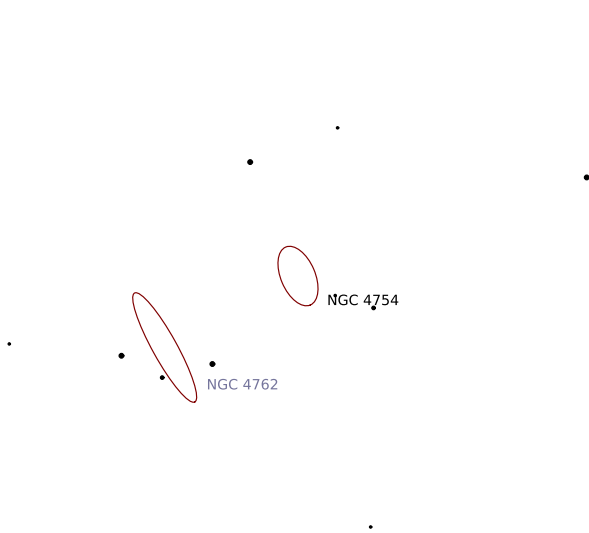
**Description:** Dreyer: B;pL;R;psbM;p of 2  
**SAC:** H I 25;P w NGC 4762 11' to NW



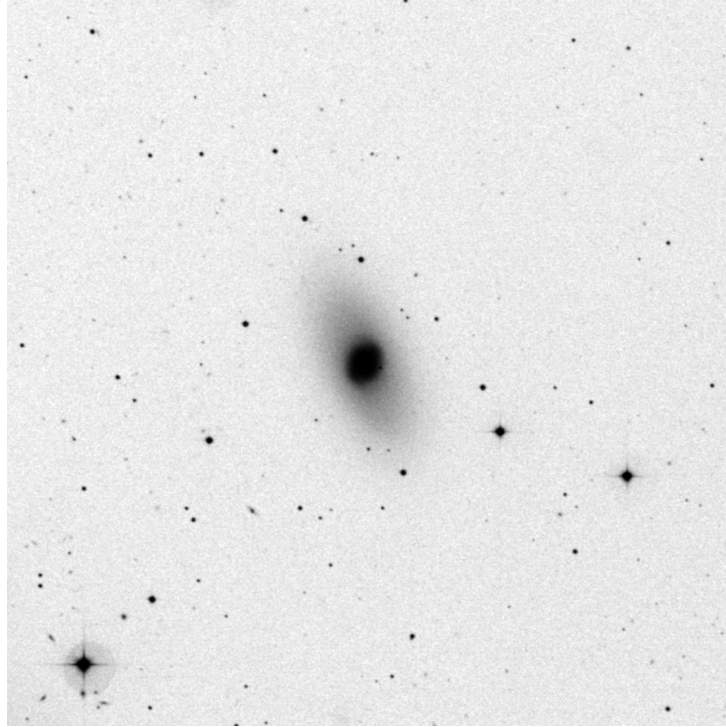
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

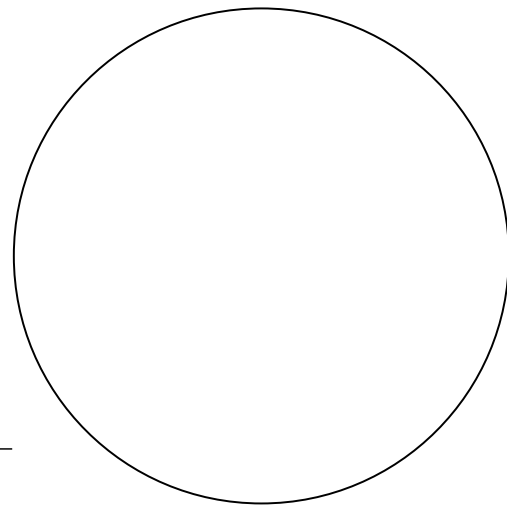
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

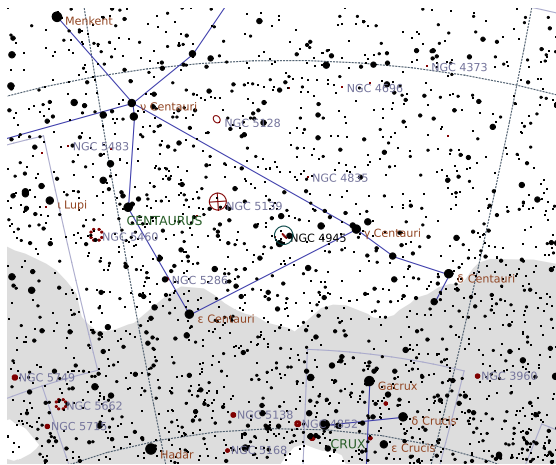
# NGC 4945

## Galaxy in Centaurus

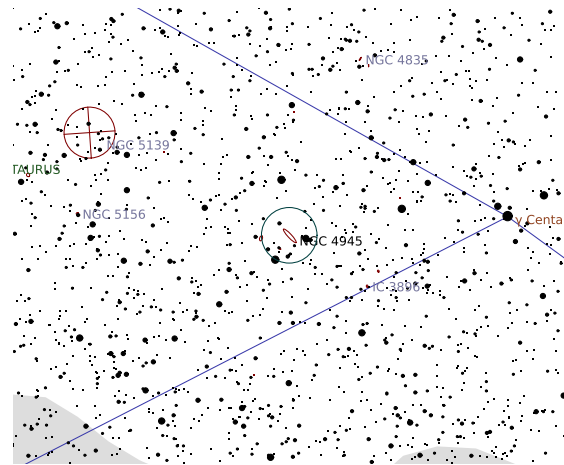
Right Ascension (current)	13 <sup>h</sup> 06 <sup>m</sup> 14 <sup>s</sup>	Declination (current)	-49° 31' 53"
Right Ascension (J2000.0)	13 <sup>h</sup> 05 <sup>m</sup> 26 <sup>s</sup>	Declination (J2000.0)	-49° 27' 46"
Size	19.8' × 4'	Position Angle	47°
Magnitude	8.4	Other Designation	—

**Description:** Dreyer: B;vL;vmE39

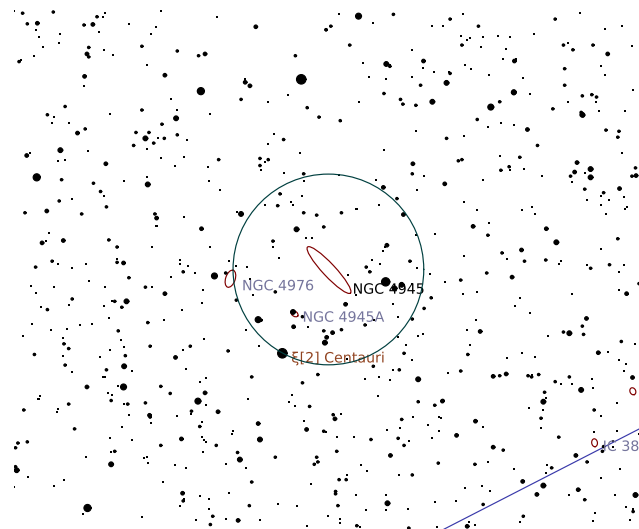
**SAC:** Nearly edge-on



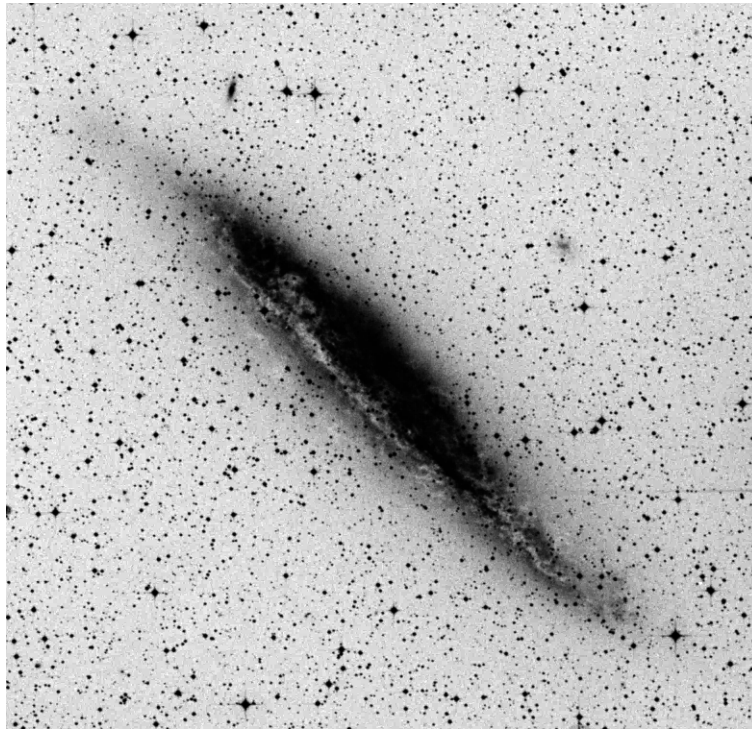
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (22.2' × 21.4')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

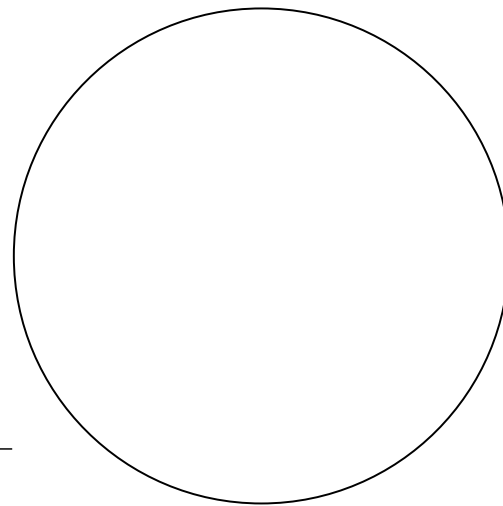
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



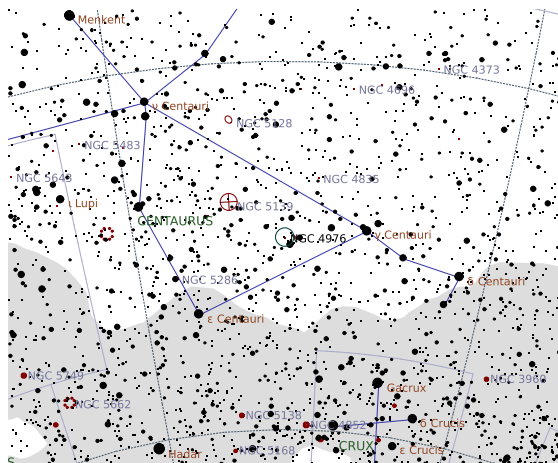
**Sketch**

# NGC 4976

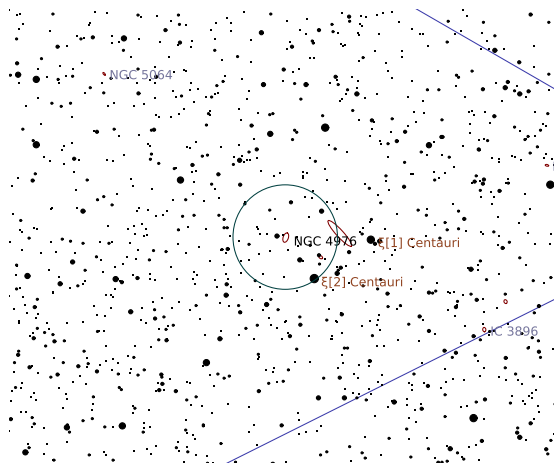
## Galaxy in Centaurus

Right Ascension (current)	13 <sup>h</sup> 09 <sup>m</sup> 25 <sup>s</sup>	Declination (current)	-49° 34' 27"
Right Ascension (J2000.0)	13 <sup>h</sup> 08 <sup>m</sup> 37 <sup>s</sup>	Declination (J2000.0)	-49° 30' 21"
Size	5.6' × 3'	Position Angle	-71°
Magnitude	10	Other Designation	-

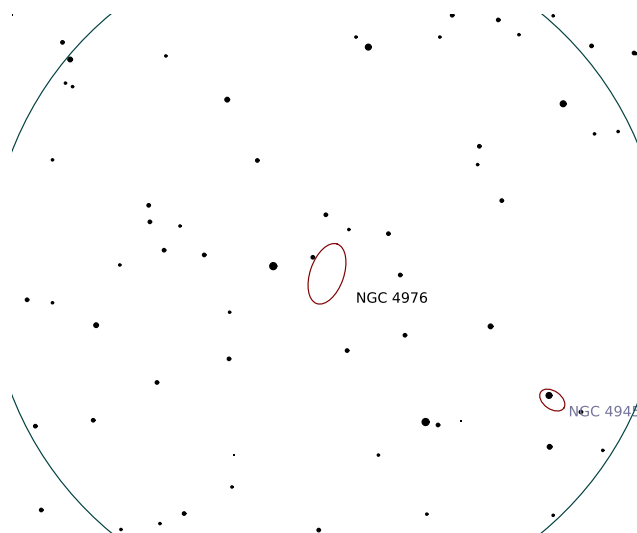
**Description:** Dreyer: B;pL;R;gmbM



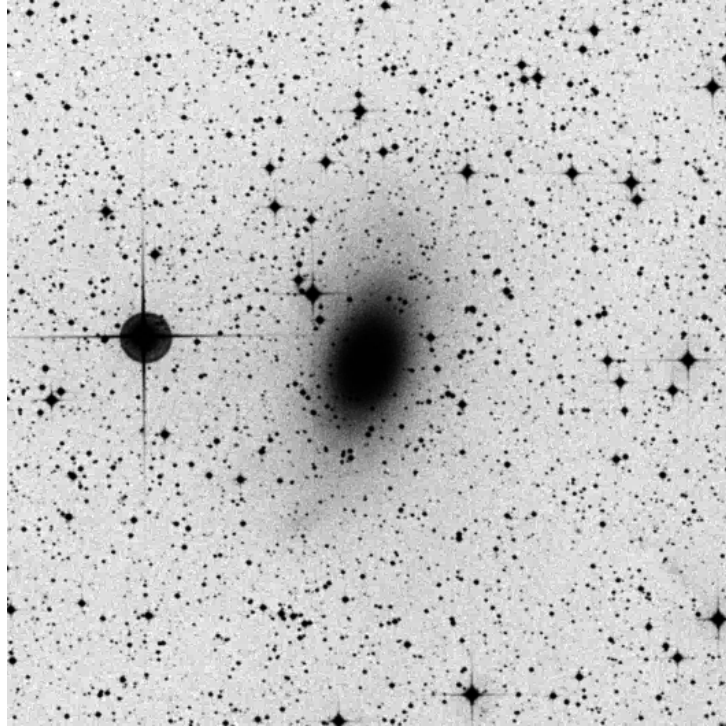
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

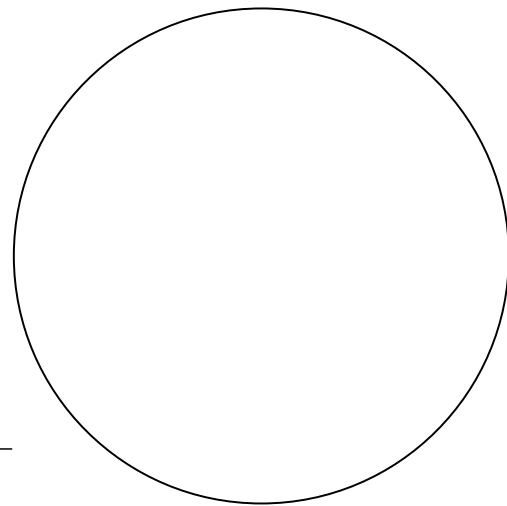
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

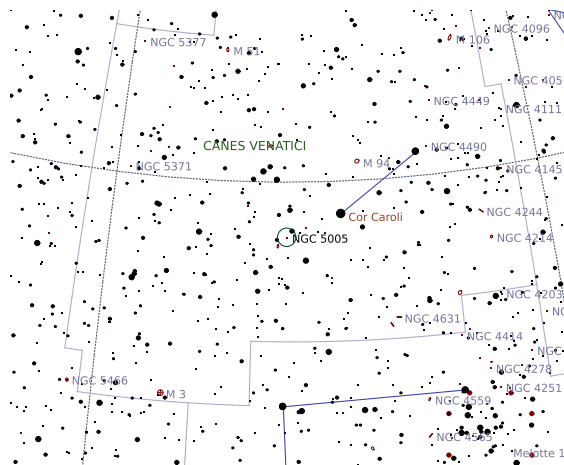
# NGC 5005

Galaxy in Canes Venatici

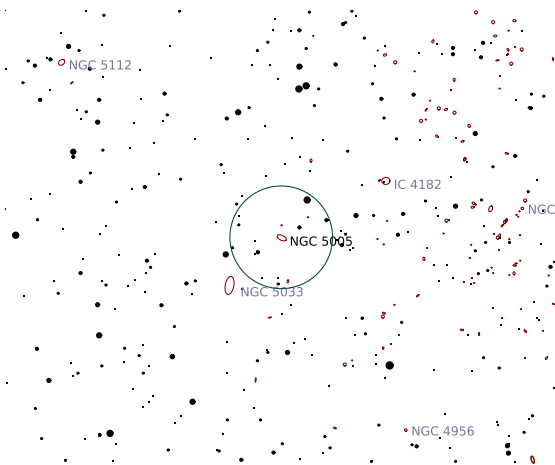
Right Ascension (current)	13 <sup>h</sup> 11 <sup>m</sup> 33 <sup>s</sup>	Declination (current)	36° 59' 01"
Right Ascension (J2000.0)	13 <sup>h</sup> 10 <sup>m</sup> 56 <sup>s</sup>	Declination (J2000.0)	37° 03' 31"
Size	5.8' × 2.9'	Position Angle	25°
Magnitude	9.8	Other Designation	—

**Description:** Dreyer: vB;vL;vmE66;vsbMN

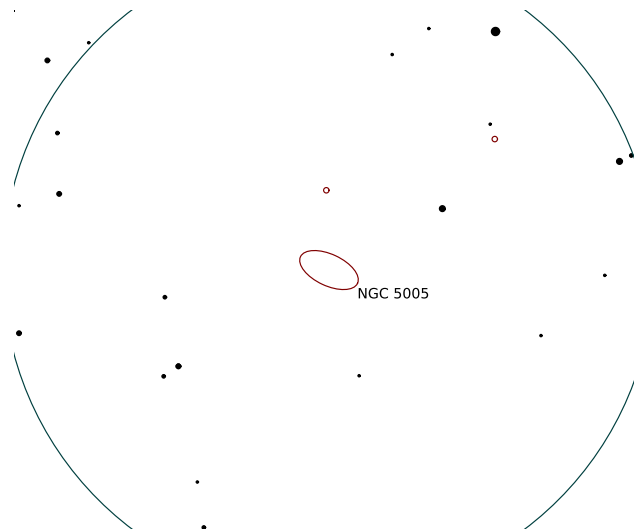
**SAC:** H I 96;P w NGC 5033;eBN in B lens;sev knotty arms



Wide-field chart

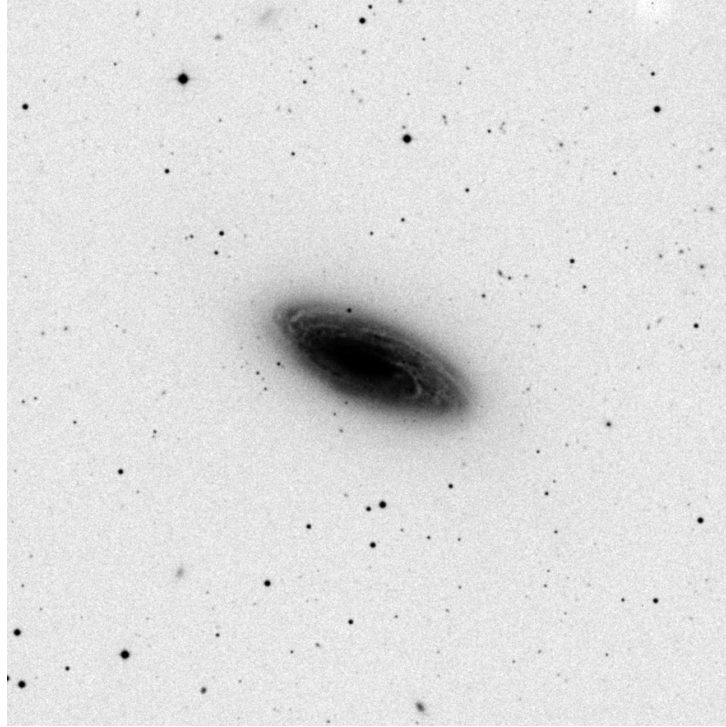


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

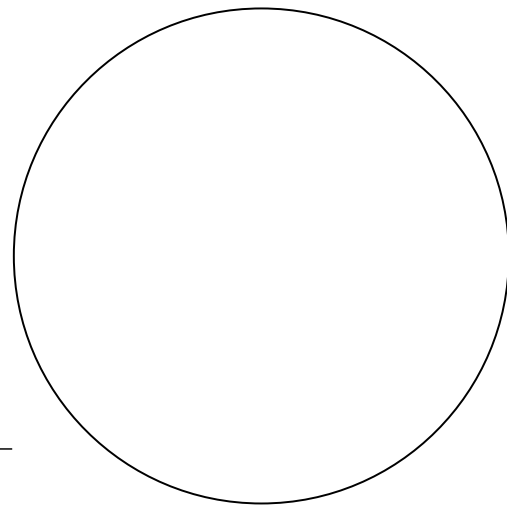
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

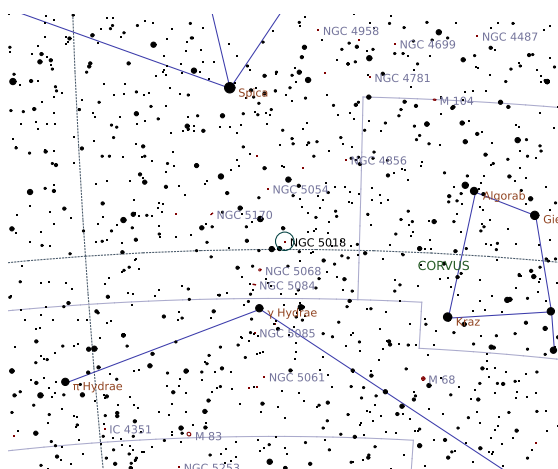
# NGC 5018

## Galaxy in Virgo

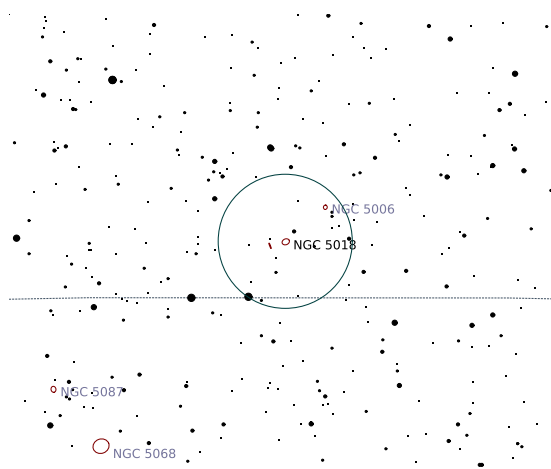
Right Ascension (current)	13 <sup>h</sup> 13 <sup>m</sup> 44 <sup>s</sup>	Declination (current)	-19° 35' 23"
Right Ascension (J2000.0)	13 <sup>h</sup> 13 <sup>m</sup> 00 <sup>s</sup>	Declination (J2000.0)	-19° 31' 10"
Size	3.4' × 2.6'	Position Angle	-22°
Magnitude	11	Other Designation	-

**Description:** Dreyer: cB;S;R;mbMpBN

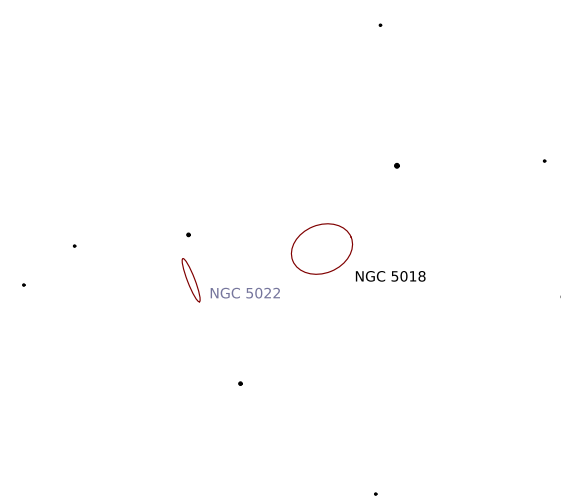
**SAC:** H II 746



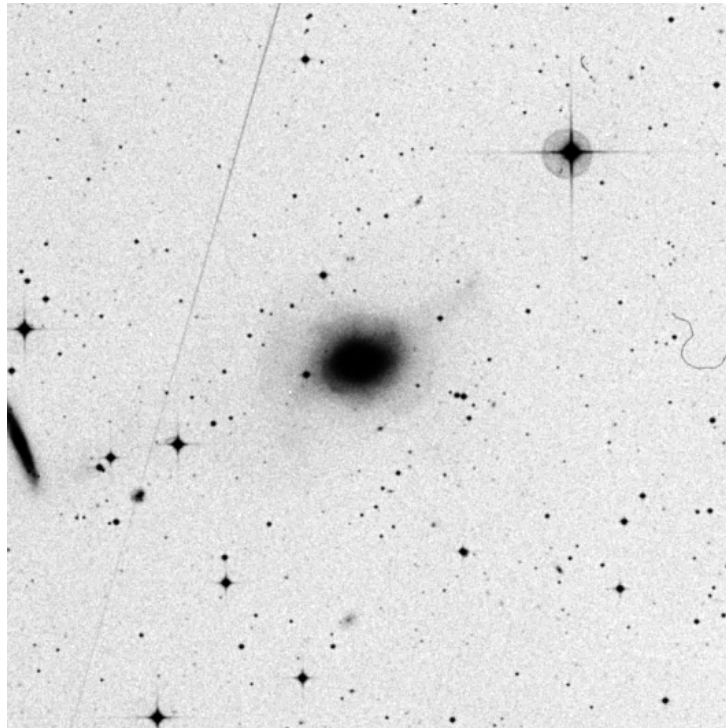
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

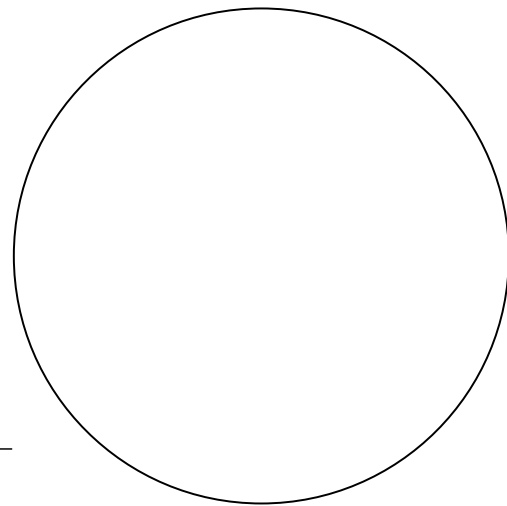
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

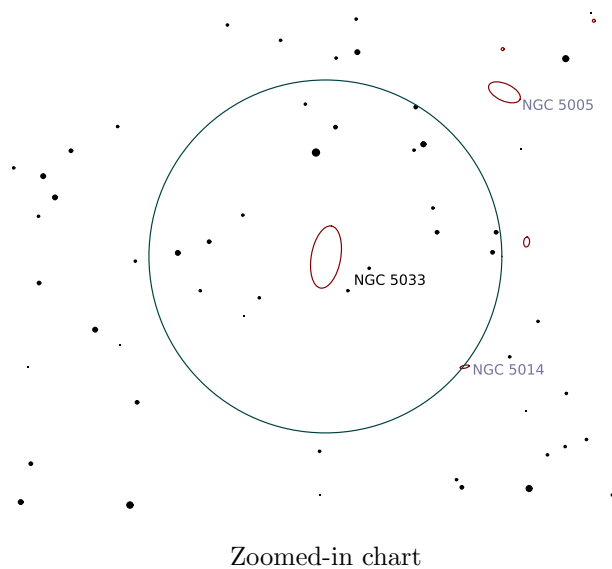
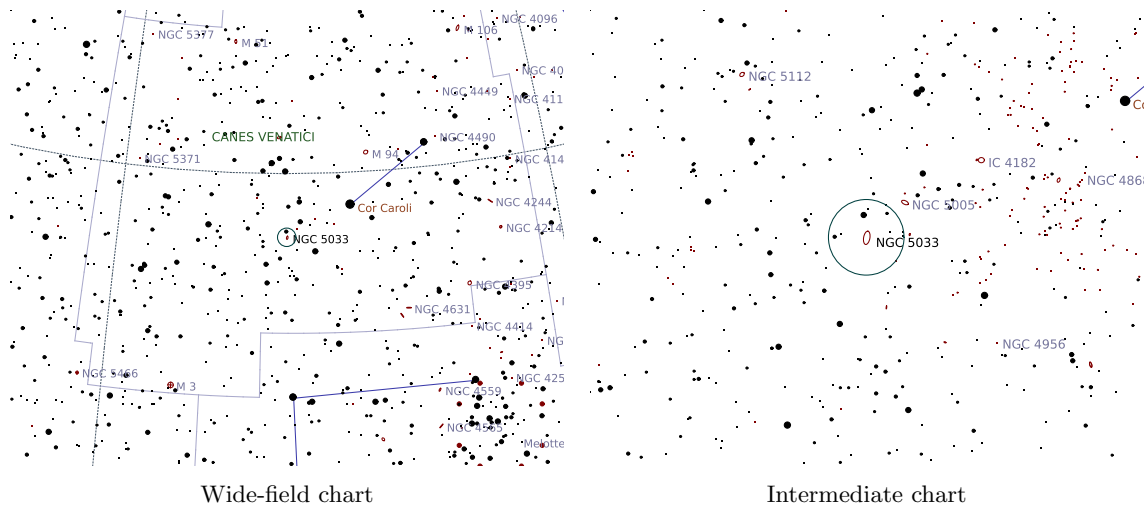
# NGC 5033

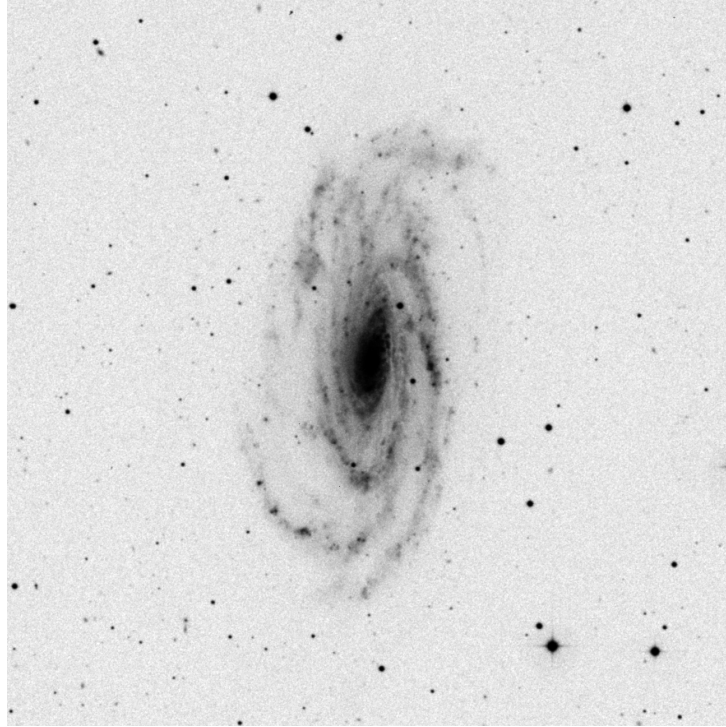
Galaxy in Canes Venatici

Right Ascension (current)	13 <sup>h</sup> 14 <sup>m</sup> 05 <sup>s</sup>	Declination (current)	36° 31' 07"
Right Ascension (J2000.0)	13 <sup>h</sup> 13 <sup>m</sup> 28 <sup>s</sup>	Declination (J2000.0)	36° 35' 36"
Size	10.7' × 5'	Position Angle	-80°
Magnitude	10	Other Designation	-

**Description:** Dreyer: vB;pL;E167;smbM;vBN

**SAC:** H I 97;P w NGC 5005;svBN in B bulge w spir patt of dk lanes





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

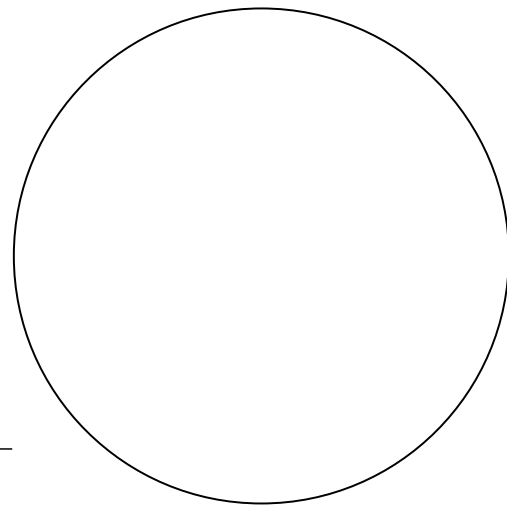
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

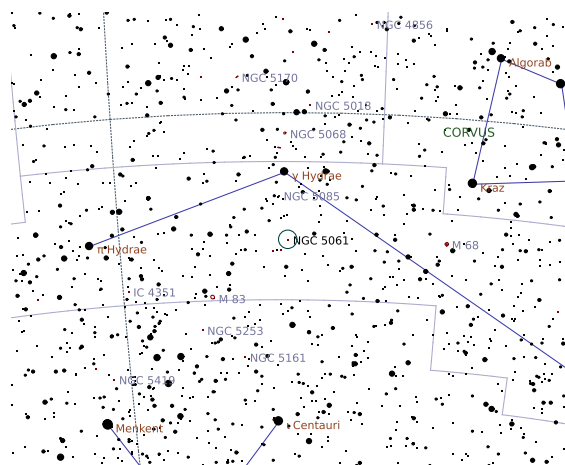
# NGC 5061

## Galaxy in Hydra

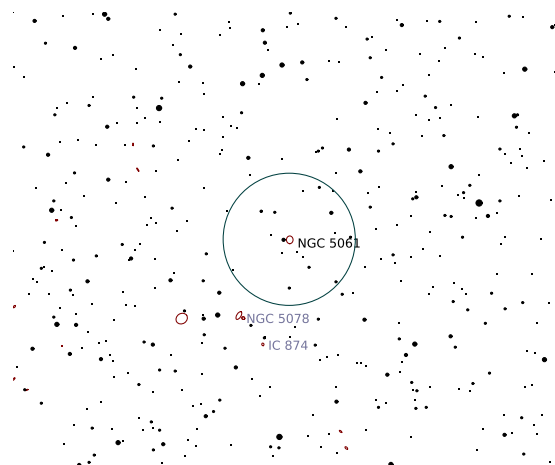
Right Ascension (current)	13 <sup>h</sup> 18 <sup>m</sup> 50 <sup>s</sup>	Declination (current)	-26° 54' 23"
Right Ascension (J2000.0)	13 <sup>h</sup> 18 <sup>m</sup> 05 <sup>s</sup>	Declination (J2000.0)	-26° 50' 14"
Size	3.5' × 3'	Position Angle	90°
Magnitude	10	Other Designation	–

**Description:** Dreyer: vB;S;R;vsmbM;\*10f

**SAC:** H I 138



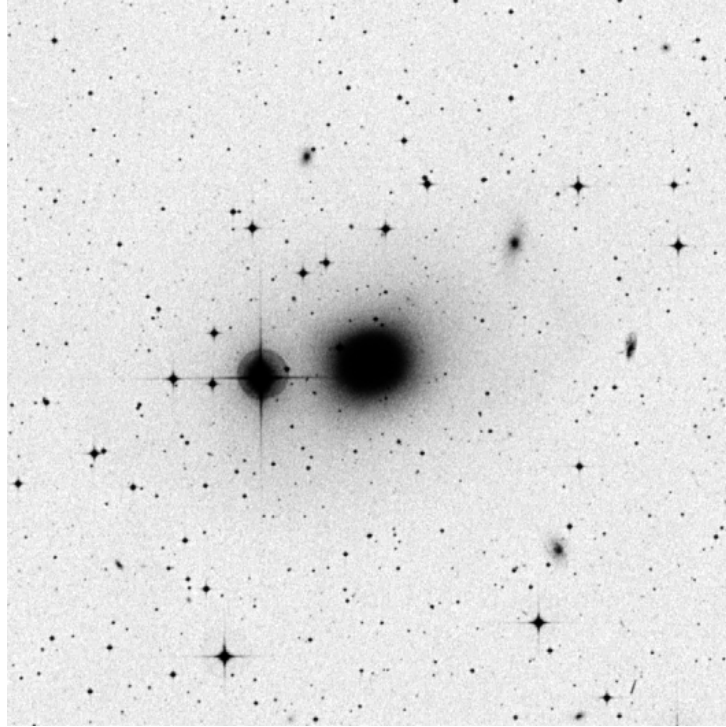
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

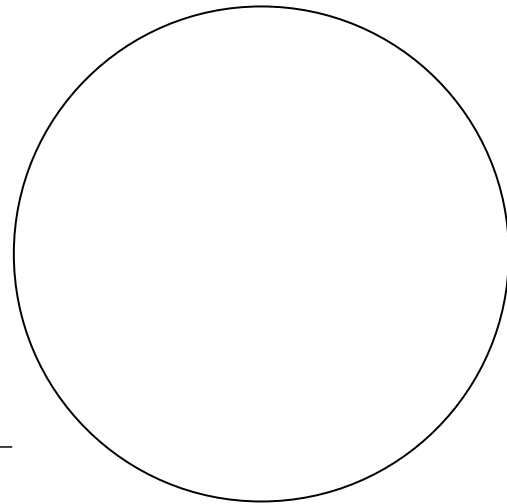
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

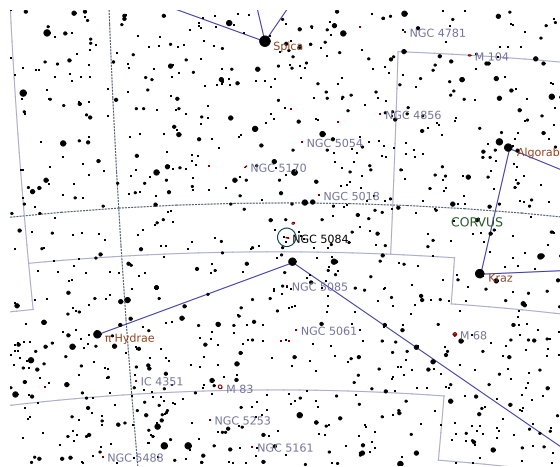
# NGC 5084

## Galaxy in Virgo

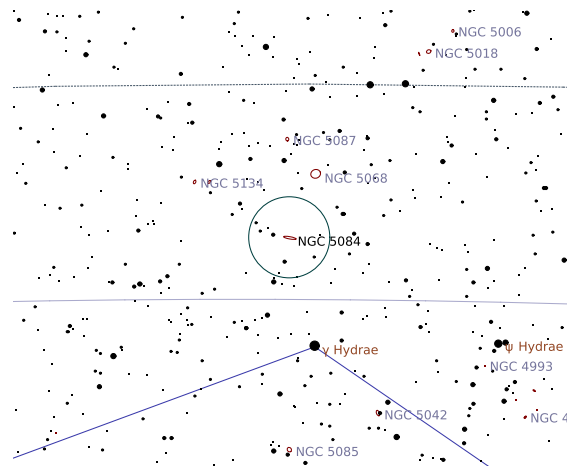
Right Ascension (current)	13 <sup>h</sup> 21 <sup>m</sup> 00 <sup>s</sup>	Declination (current)	-21° 53' 49''
Right Ascension (J2000.0)	13 <sup>h</sup> 20 <sup>m</sup> 16 <sup>s</sup>	Declination (J2000.0)	-21° 49' 39''
Size	9.3' × 1.7'	Position Angle	10°
Magnitude	10	Other Designation	—

**Description:** Dreyer: cB;cS;v1E90

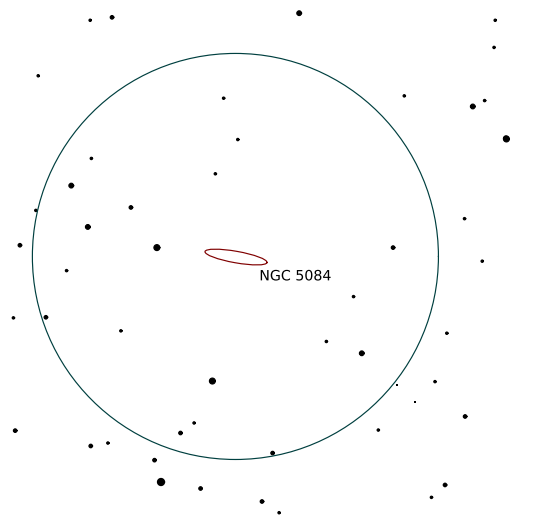
**SAC:** H II 313



Wide-field chart

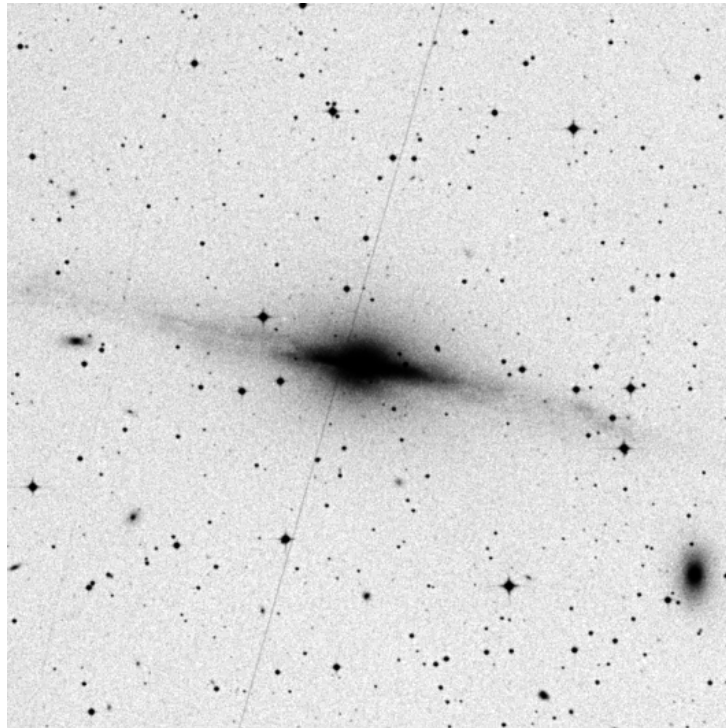


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

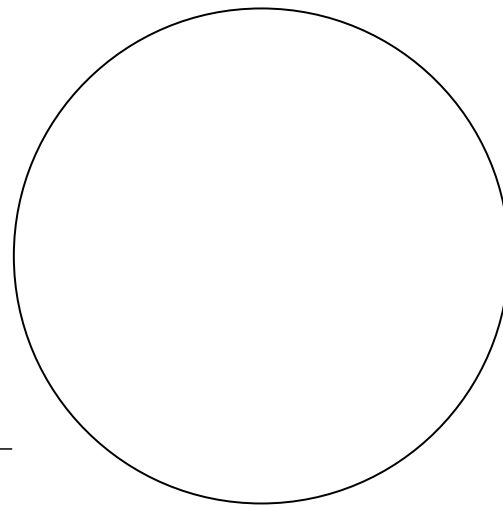
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

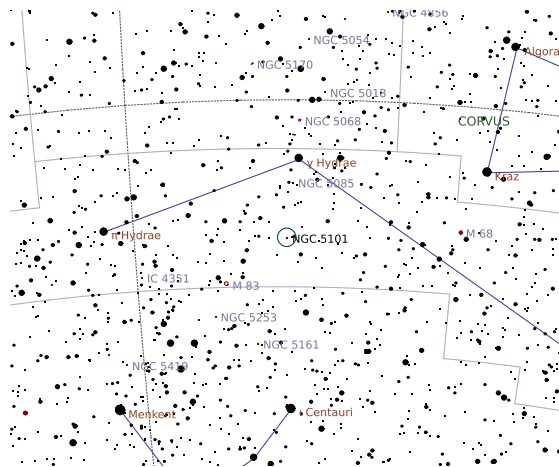
# NGC 5101

## Galaxy in Hydra

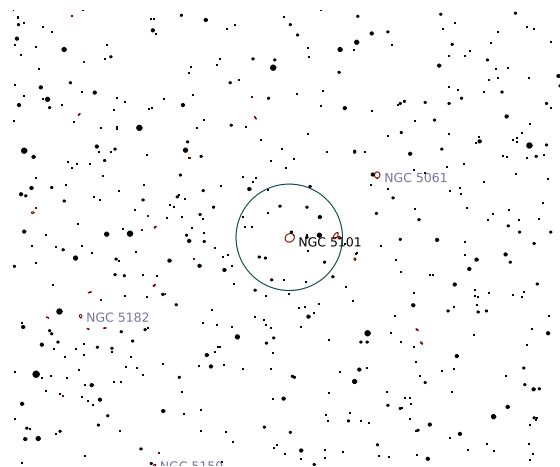
Right Ascension (current)	13 <sup>h</sup> 22 <sup>m</sup> 31 <sup>s</sup>	Declination (current)	-27° 29' 58"
Right Ascension (J2000.0)	13 <sup>h</sup> 21 <sup>m</sup> 46 <sup>s</sup>	Declination (J2000.0)	-27° 25' 51"
Size	5.4' × 4.6'	Position Angle	-33°
Magnitude	11	Other Designation	-

**Description:** Dreyer: cB;pS;lE;psbM\*

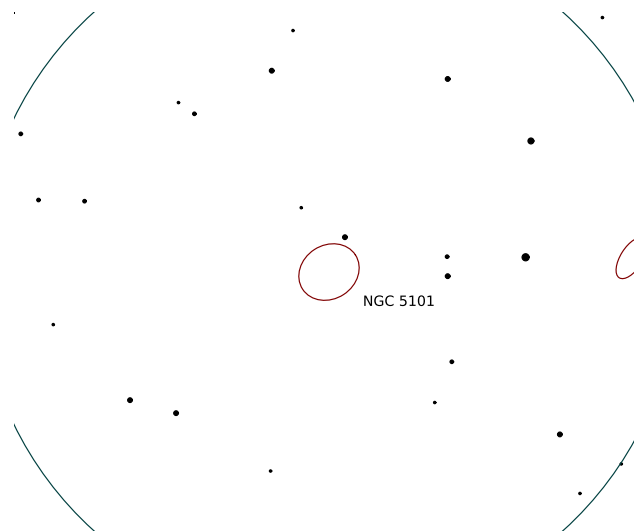
**SAC:** H II 567



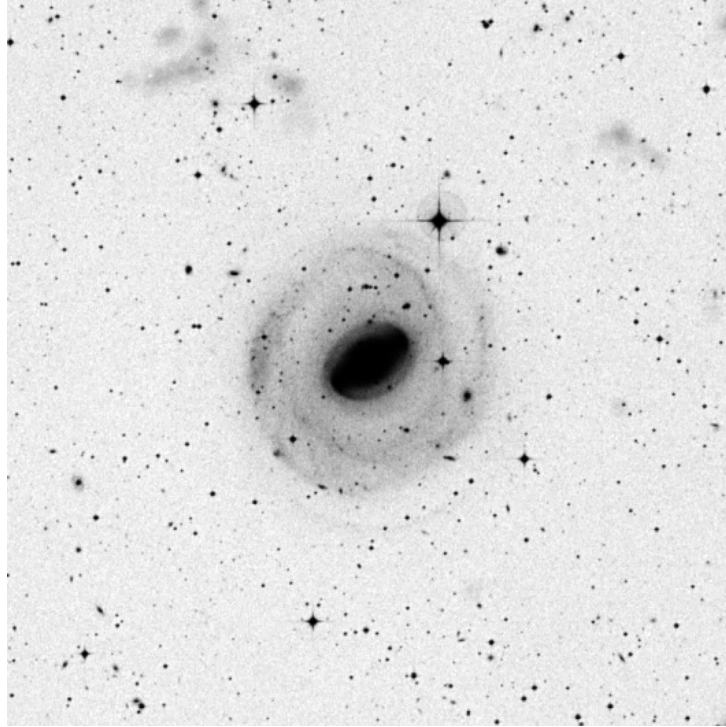
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

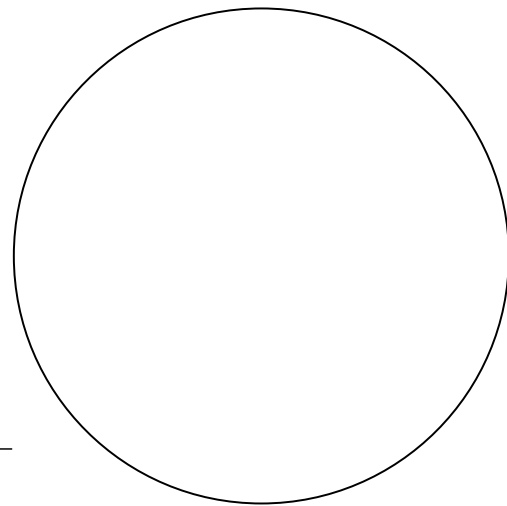
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

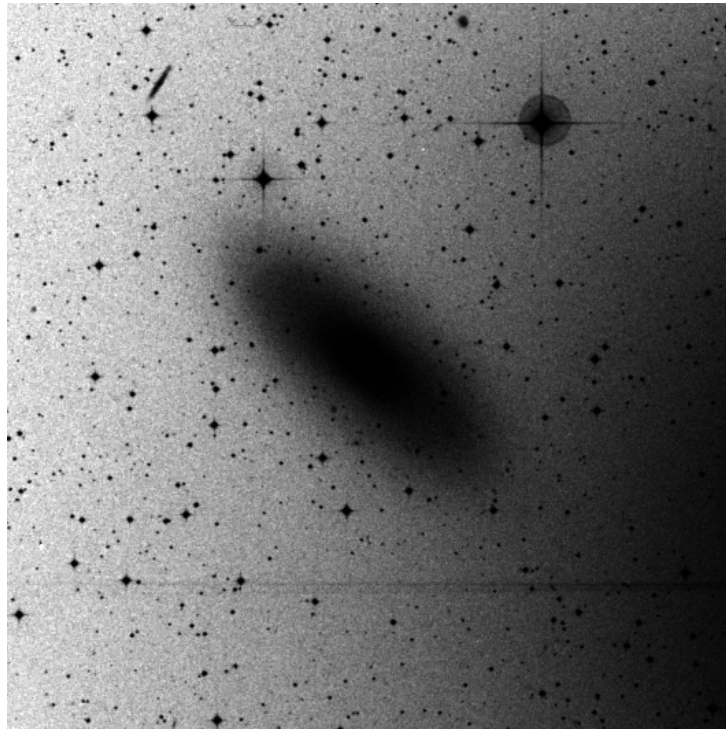
\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

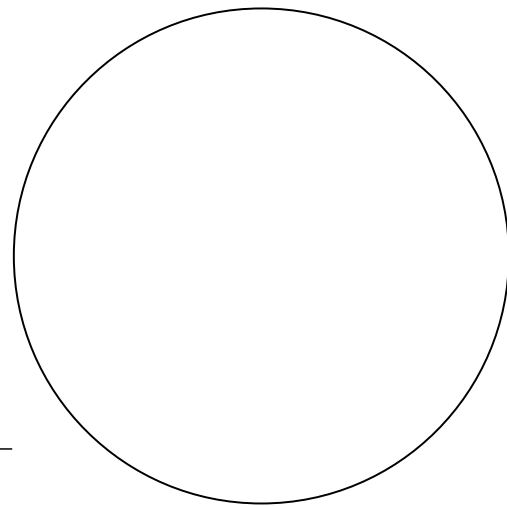
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

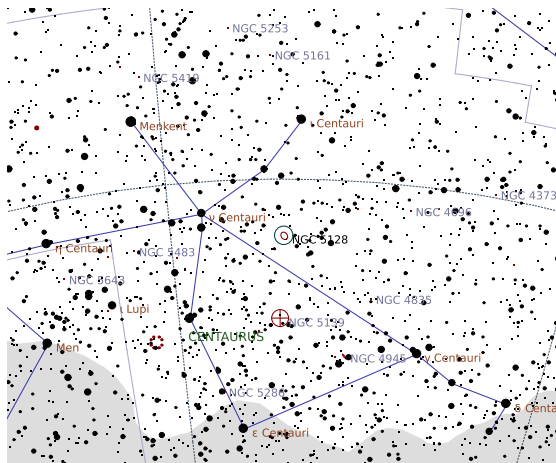
# NGC 5128 (Centaurus A)

## Galaxy in Centaurus

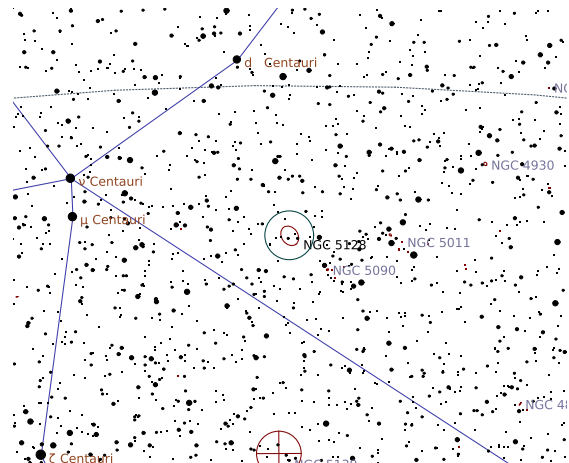
Right Ascension (current)	13 <sup>h</sup> 26 <sup>m</sup> 17 <sup>s</sup>	Declination (current)	-43° 04' 59"
Right Ascension (J2000.0)	13 <sup>h</sup> 25 <sup>m</sup> 29 <sup>s</sup>	Declination (J2000.0)	-43° 00' 58"
Size	25.7' × 20'	Position Angle	55°
Magnitude	6.8	Other Designation	—

**Description:** Dreyer: !!vB;vL;vmE122;bifid

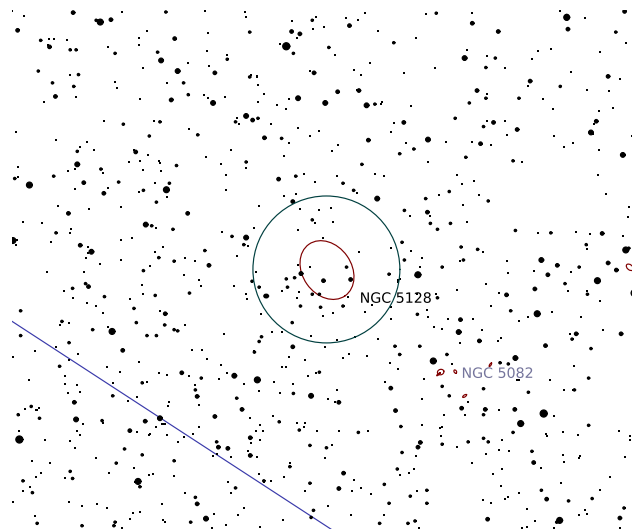
**SAC:** Dark central band;radio source



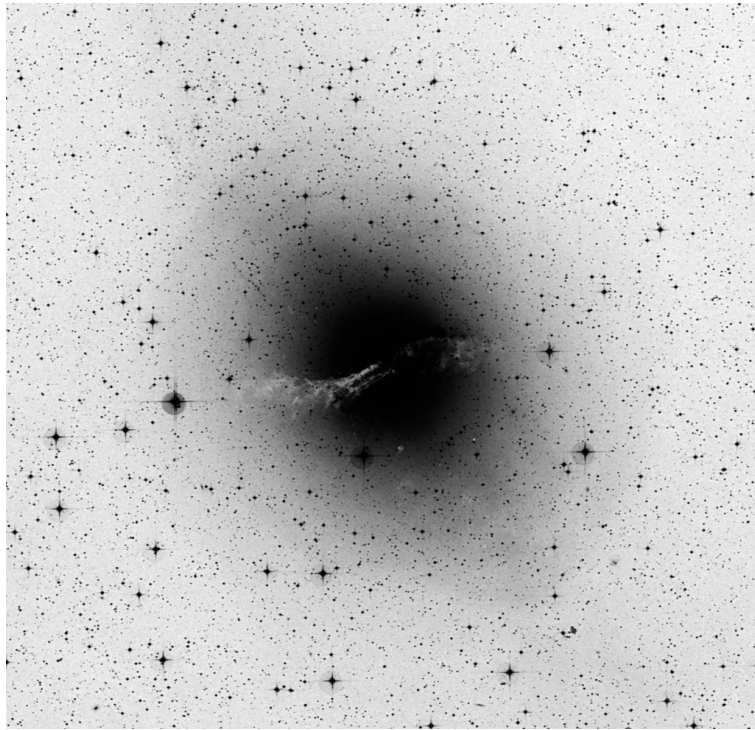
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (37.5' × 36.1')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

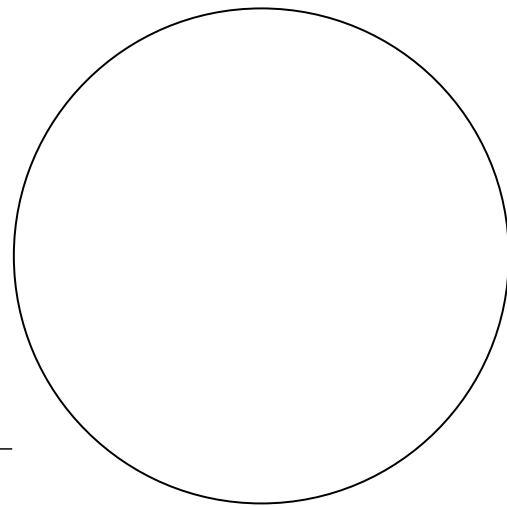
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



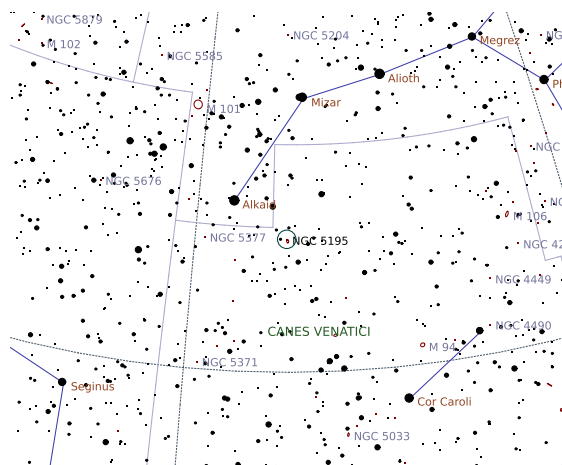
**Sketch**

# NGC 5195

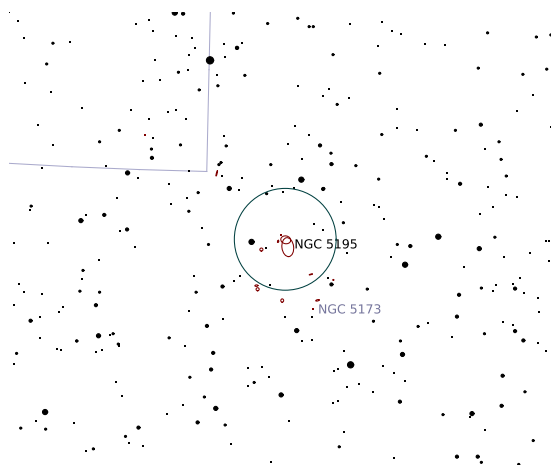
Galaxy in Canes Venatici

Right Ascension (current)	13 <sup>h</sup> 30 <sup>m</sup> 33 <sup>s</sup>	Declination (current)	47° 11' 39"
Right Ascension (J2000.0)	13 <sup>h</sup> 29 <sup>m</sup> 59 <sup>s</sup>	Declination (J2000.0)	47° 16' 03"
Size	5.9' × 4.6'	Position Angle	11°
Magnitude	9.6	Other Designation	–

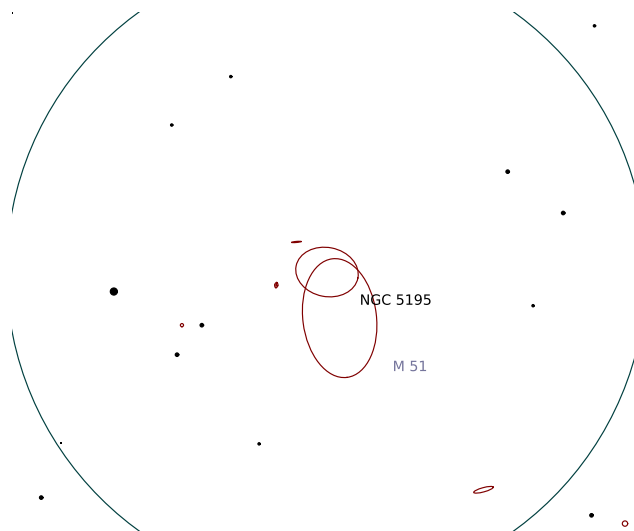
**Description:** Dreyer: B;pS;lE;vgbM;inv M51  
**SAC:** H I 186;Interacting P w M 51;peculiar



Wide-field chart

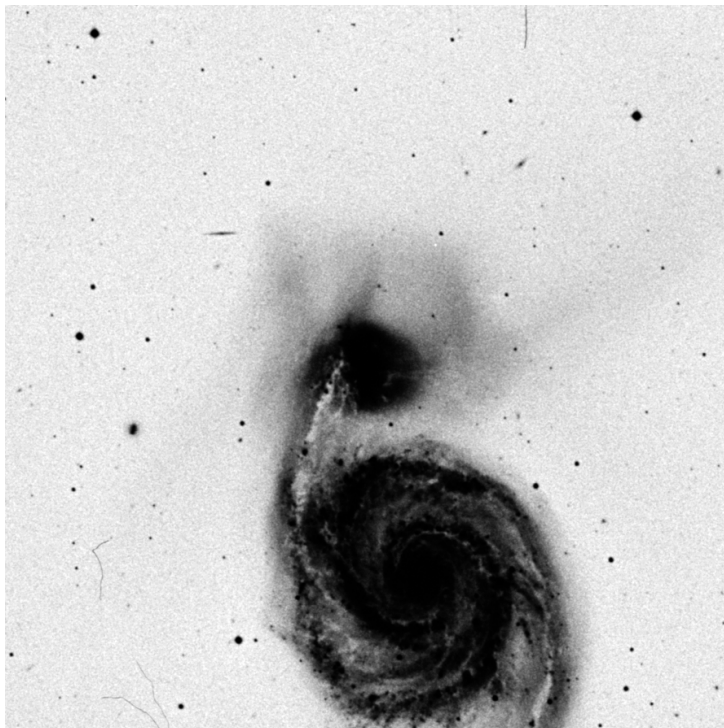


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

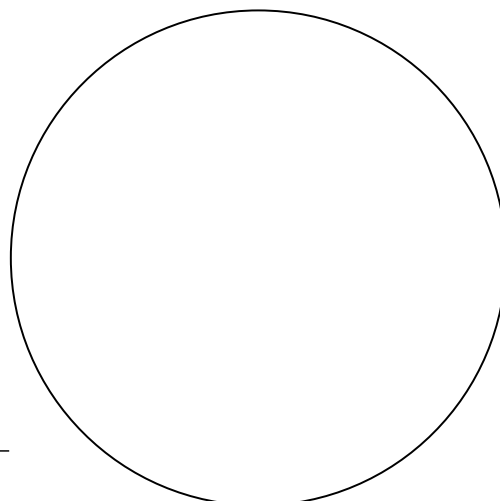
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

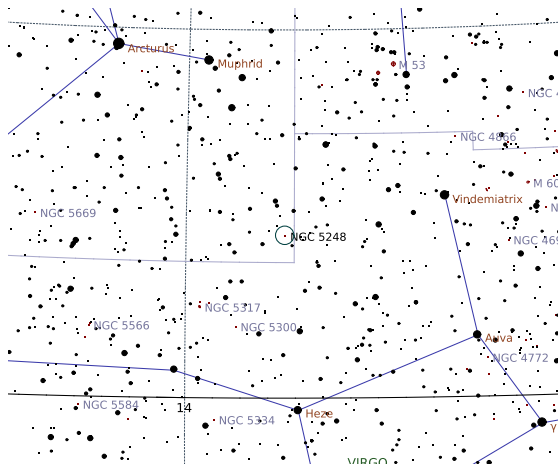
# NGC 5248

## Galaxy in Bootes

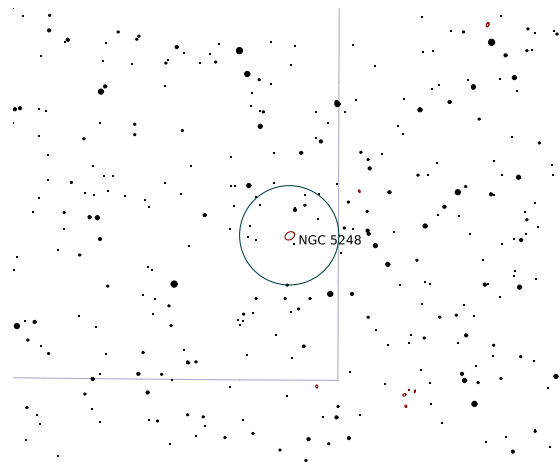
Right Ascension (current)	13 <sup>h</sup> 38 <sup>m</sup> 12 <sup>s</sup>	Declination (current)	8° 48' 58''
Right Ascension (J2000.0)	13 <sup>h</sup> 37 <sup>m</sup> 32 <sup>s</sup>	Declination (J2000.0)	8° 53' 10''
Size	6.2' × 4.5'	Position Angle	-32°
Magnitude	10	Other Designation	-

**Description:** Dreyer: B;L;E150;psbMRN

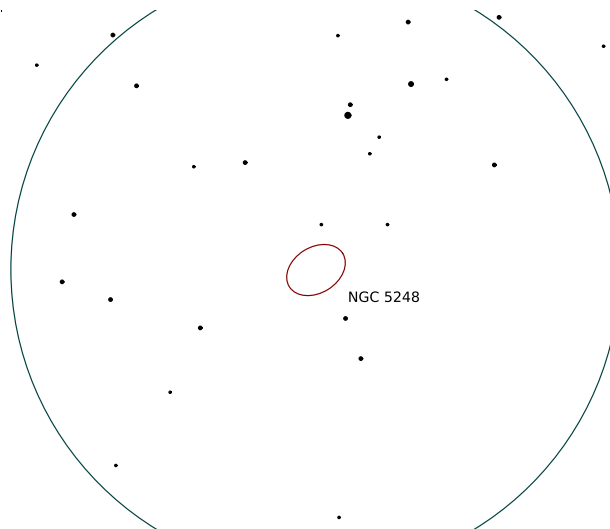
**SAC:** H I 34;eBN in vB lens w many dk lanes



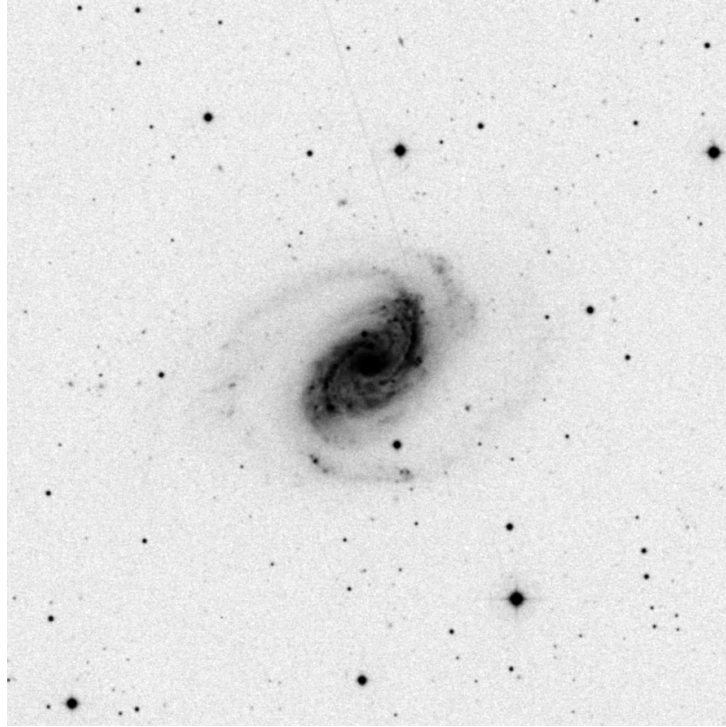
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

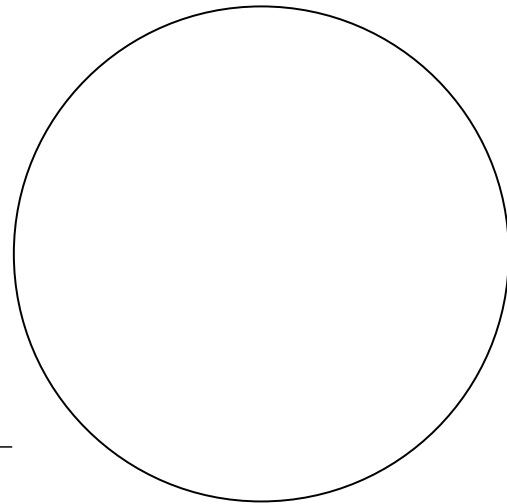
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

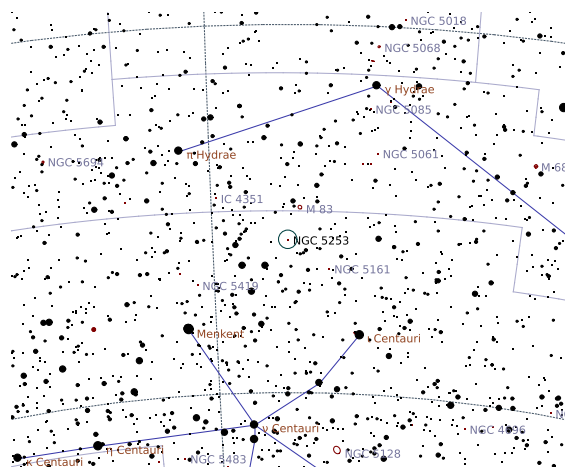
# NGC 5253

## Galaxy in Centaurus

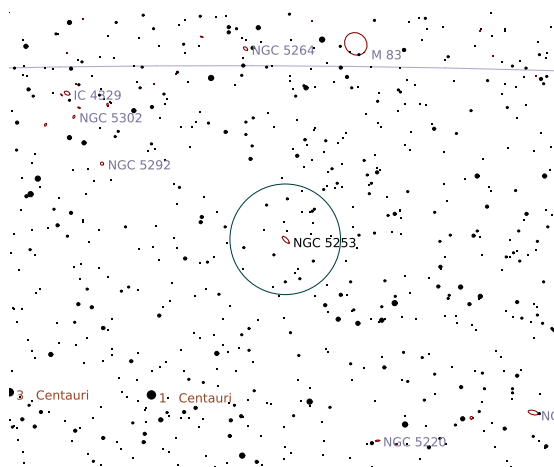
Right Ascension (current)	13 <sup>h</sup> 40 <sup>m</sup> 41 <sup>s</sup>	Declination (current)	-31° 42' 27"
Right Ascension (J2000.0)	13 <sup>h</sup> 39 <sup>m</sup> 55 <sup>s</sup>	Declination (J2000.0)	-31° 38' 30"
Size	5' × 1.9'	Position Angle	45°
Magnitude	10	Other Designation	—

**Description:** Dreyer: B;pL;E45;psmbM

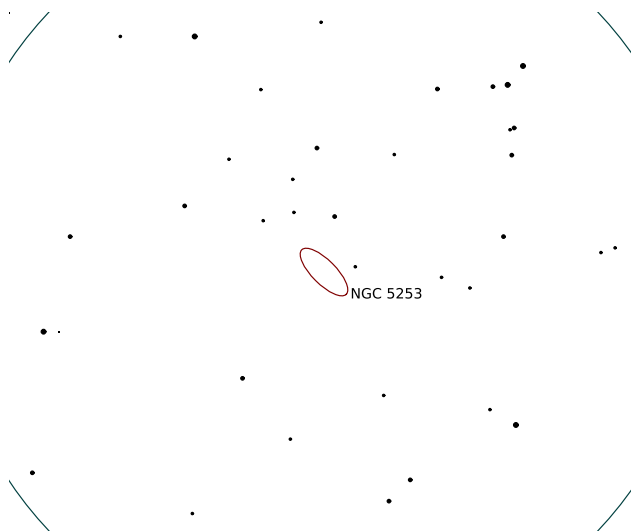
**SAC:** H II 638;SN in 1895 & 1975



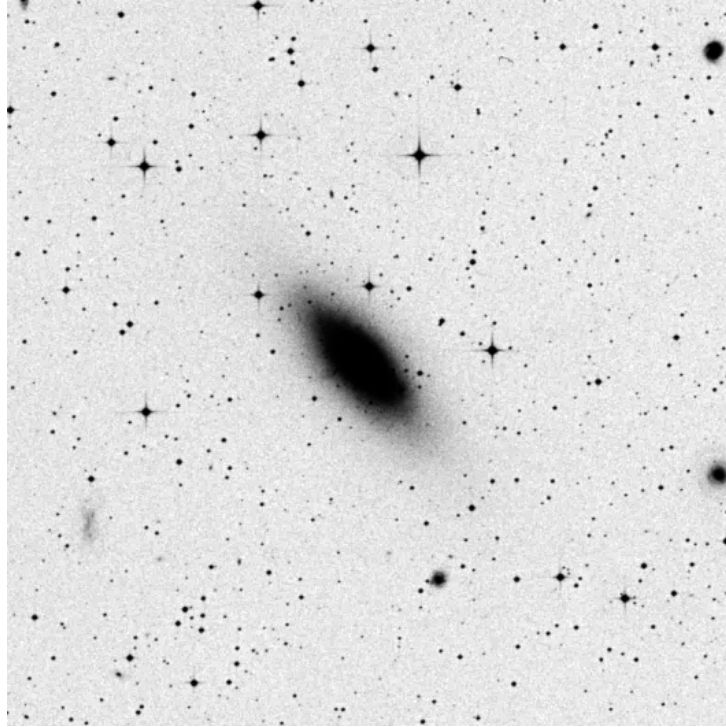
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

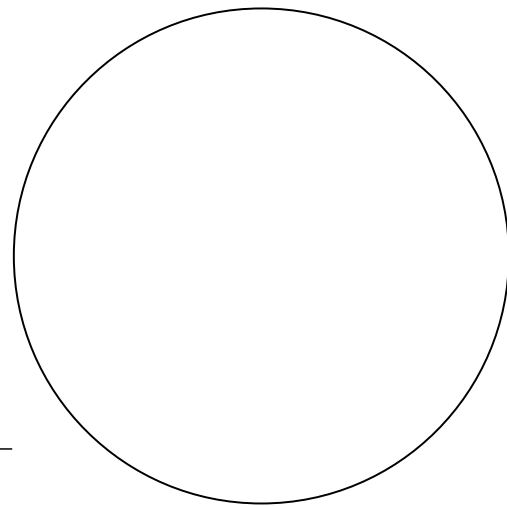
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

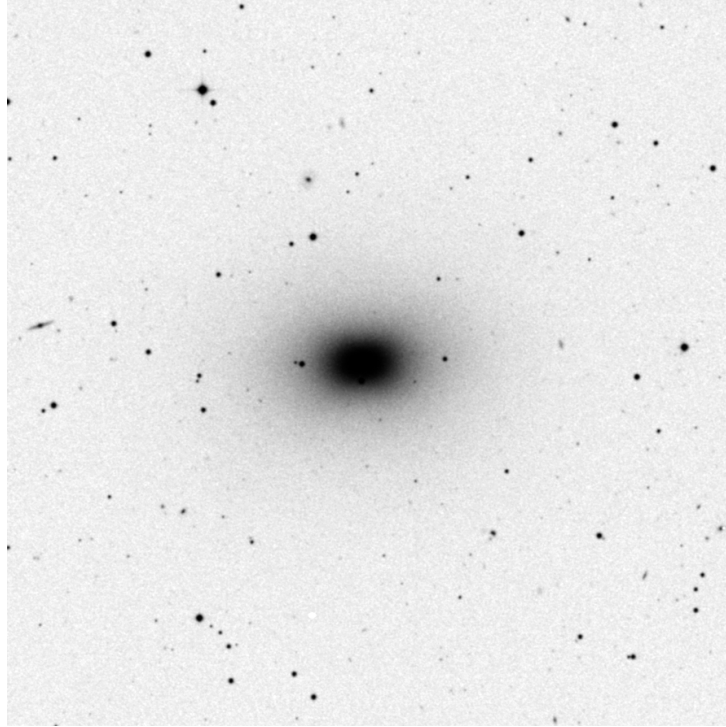
\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

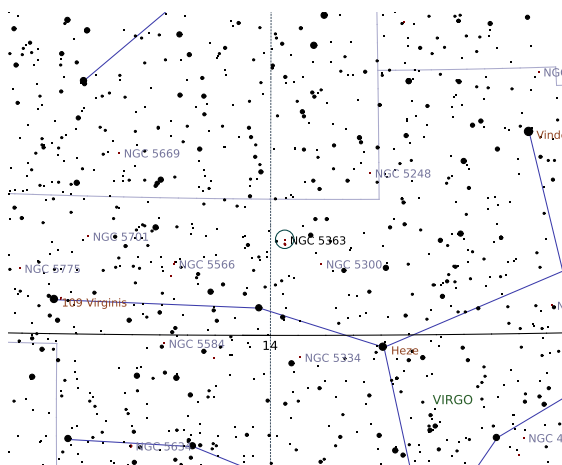
# NGC 5363

## Galaxy in Virgo

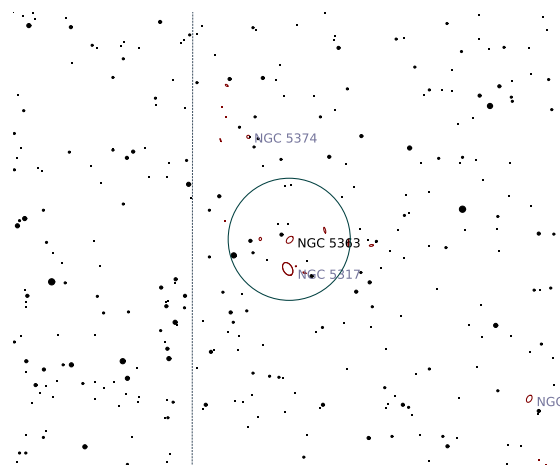
Right Ascension (current)	13 <sup>h</sup> 56 <sup>m</sup> 47 <sup>s</sup>	Declination (current)	5° 11' 13"
Right Ascension (J2000.0)	13 <sup>h</sup> 56 <sup>m</sup> 07 <sup>s</sup>	Declination (J2000.0)	5° 15' 14"
Size	4.1' × 2.6'	Position Angle	-45°
Magnitude	10	Other Designation	-

**Description:** Dreyer: B;pL;R;psbM;\*8 nf

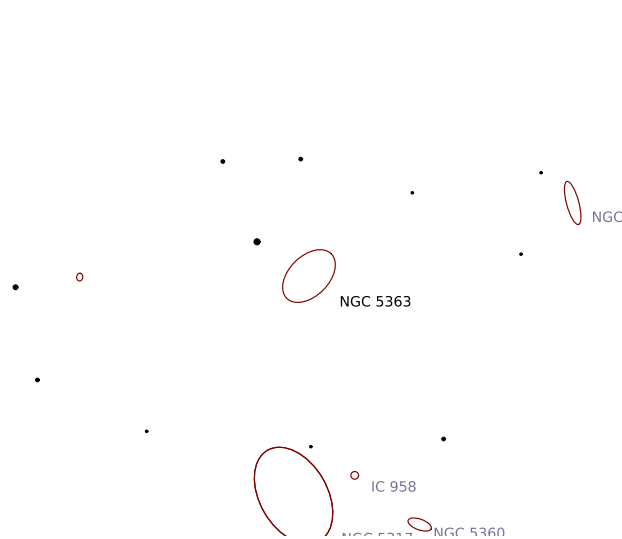
**SAC:** H I 6;P w NGC 5364 at 14.5' 2 B dif N in contact



Wide-field chart

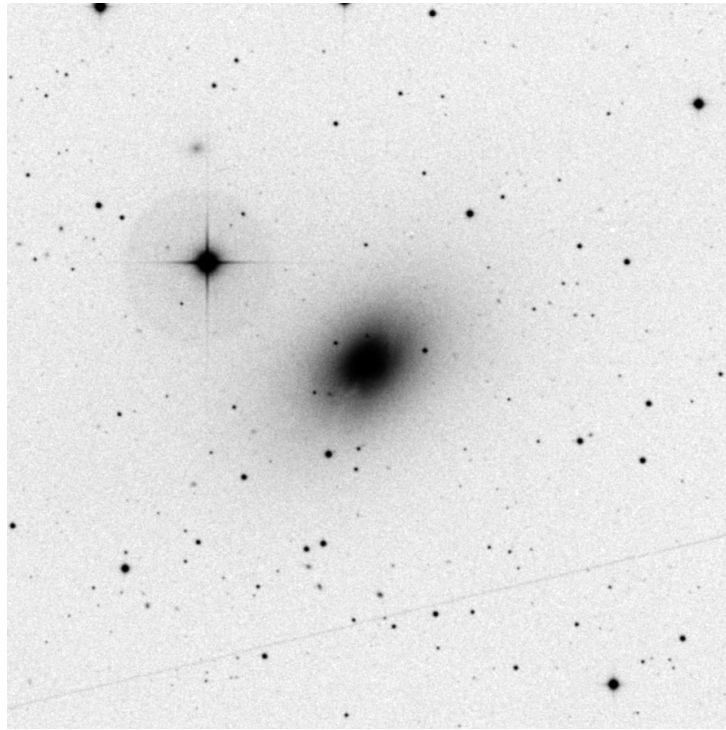


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

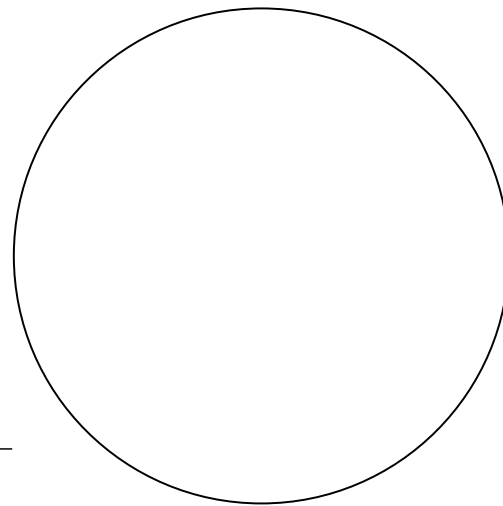
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

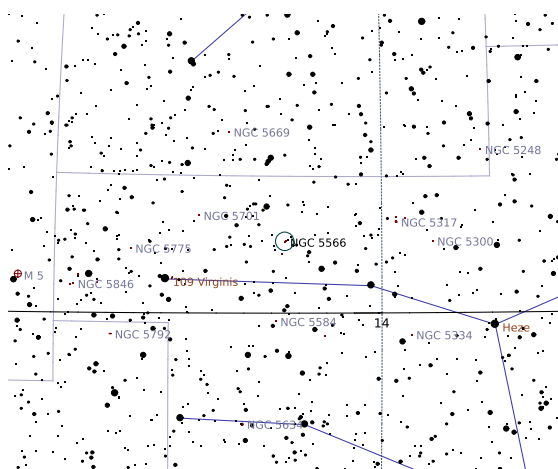
# NGC 5566

## Galaxy in Virgo

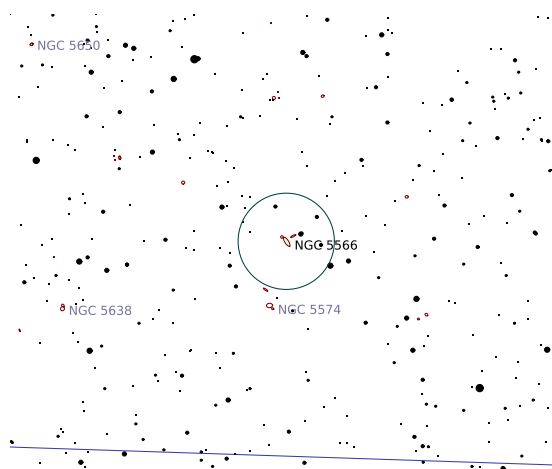
Right Ascension (current)	14 <sup>h</sup> 21 <sup>m</sup> 00 <sup>s</sup>	Declination (current)	3° 52' 14"
Right Ascension (J2000.0)	14 <sup>h</sup> 20 <sup>m</sup> 20 <sup>s</sup>	Declination (J2000.0)	3° 55' 59"
Size	6.6' × 2.3'	Position Angle	57°
Magnitude	11	Other Designation	–

**Description:** Dreyer: B;pL;R;psbM;r;\*f1.5'

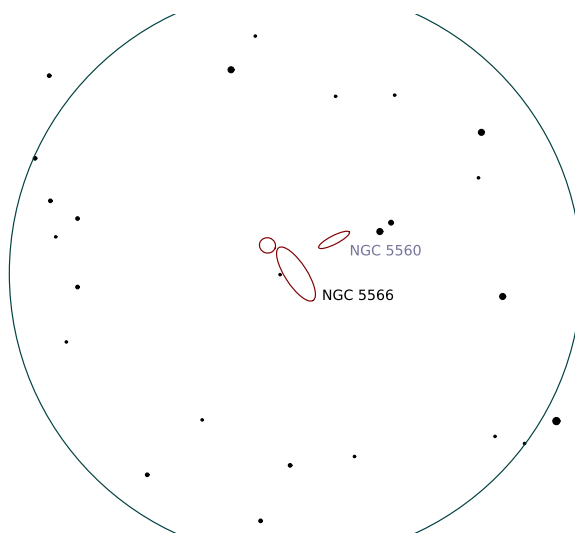
**SAC:** H I 144;double galaxy



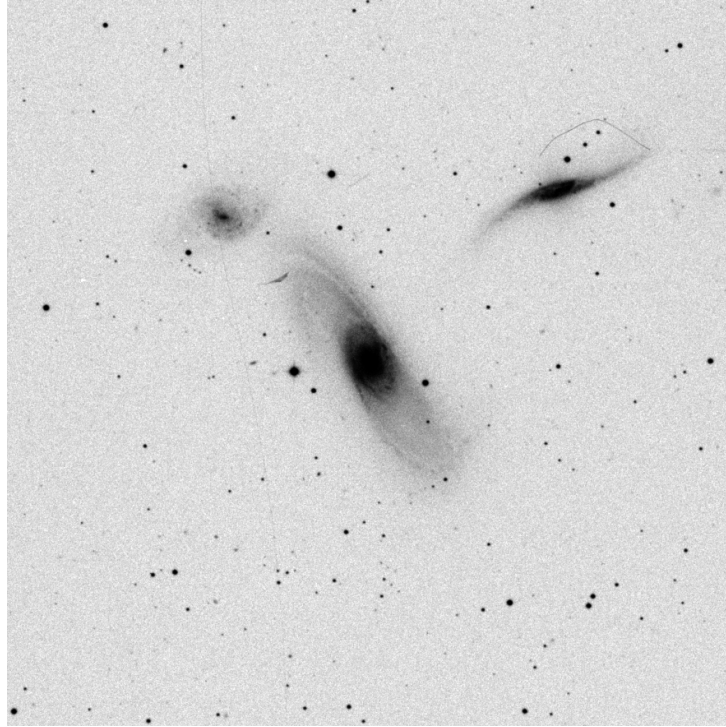
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

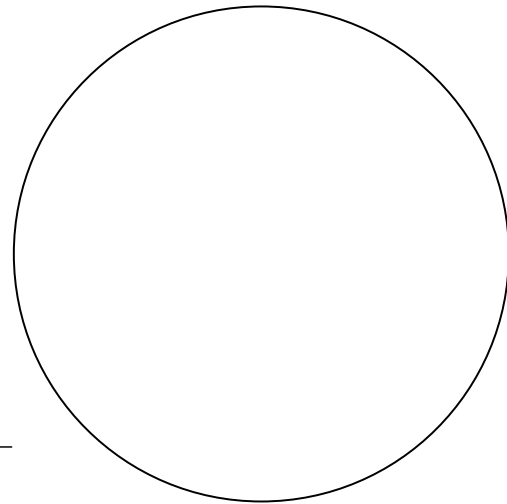
\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_ FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

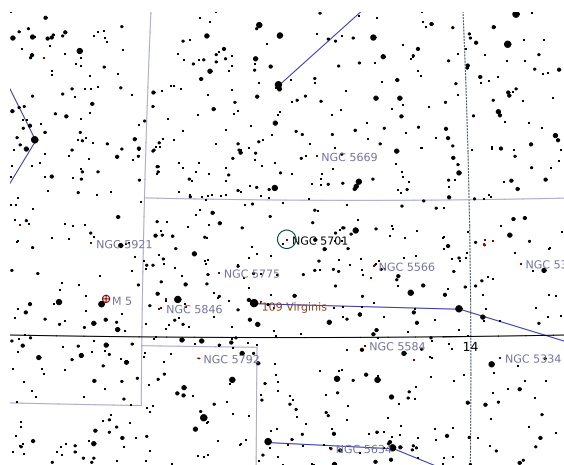
# NGC 5701

## Galaxy in Virgo

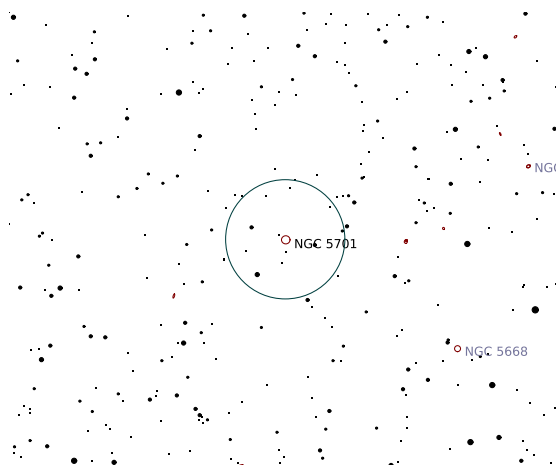
Right Ascension (current)	14 <sup>h</sup> 39 <sup>m</sup> 51 <sup>s</sup>	Declination (current)	5° 18' 18''
Right Ascension (J2000.0)	14 <sup>h</sup> 39 <sup>m</sup> 11 <sup>s</sup>	Declination (J2000.0)	5° 21' 49''
Size	4.3' × 4.1'	Position Angle	0°
Magnitude	11	Other Designation	–

**Description:** Dreyer: cB;pS;R;mbM;\*11p15''

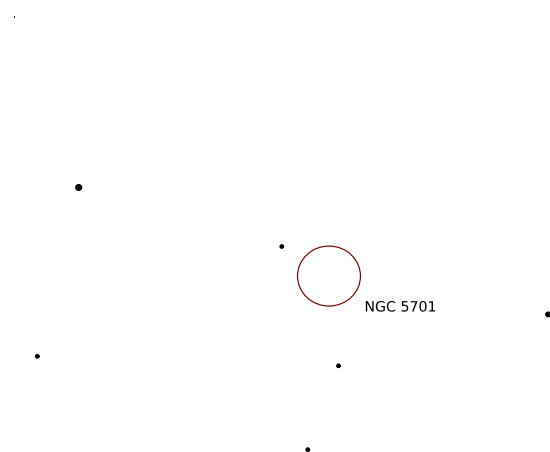
**SAC:** H II 575;Several vF;vS comps in field



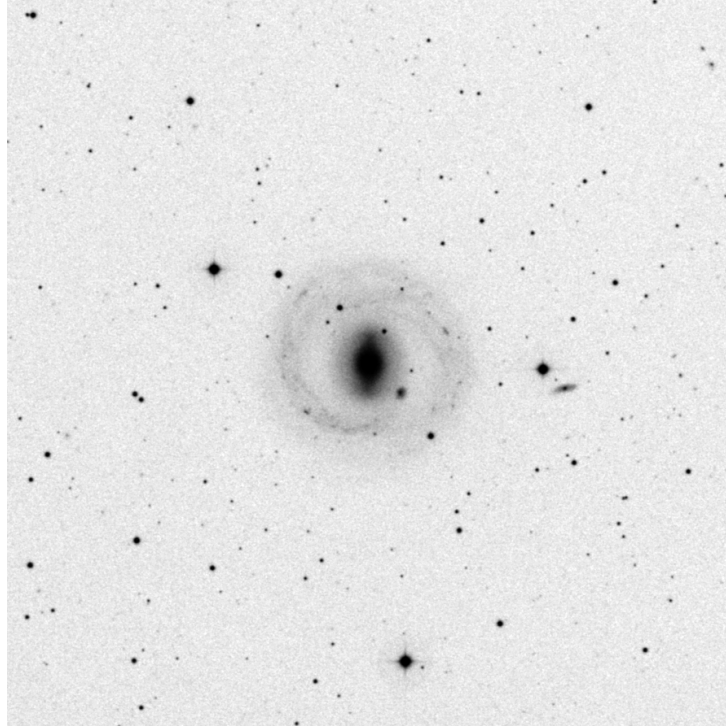
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

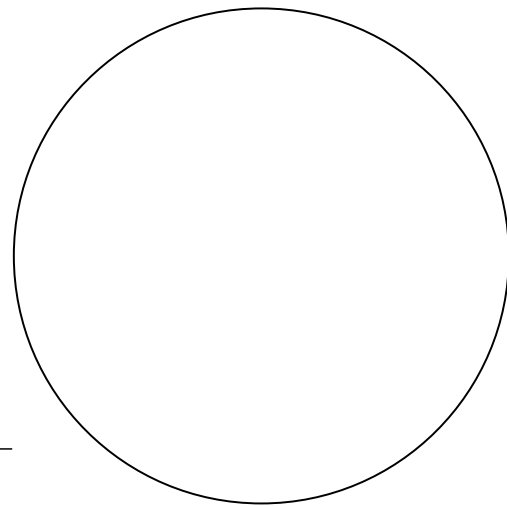
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

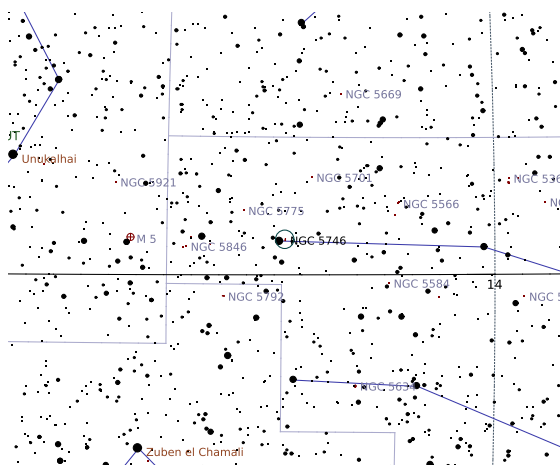
# NGC 5746

## Galaxy in Virgo

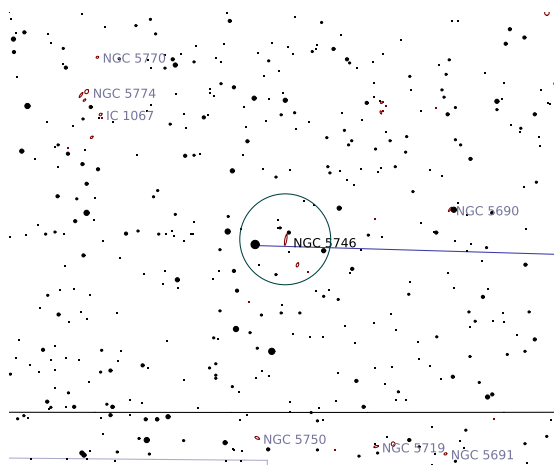
Right Ascension (current)	14 <sup>h</sup> 45 <sup>m</sup> 36 <sup>s</sup>	Declination (current)	1° 53' 56''
Right Ascension (J2000.0)	14 <sup>h</sup> 44 <sup>m</sup> 55 <sup>s</sup>	Declination (J2000.0)	1° 57' 22''
Size	7.4' × 1.3'	Position Angle	-80°
Magnitude	10	Other Designation	-

**Description:** Dreyer: B;L;vmE170;bM;BN

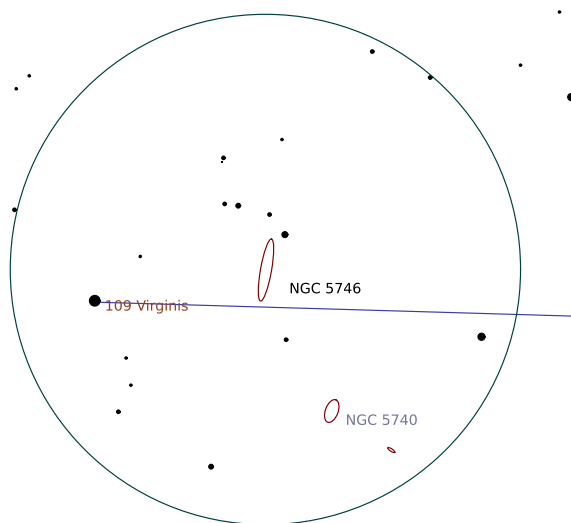
**SAC:** H I 126;vsBN in B cent.bulge;NGC 5740 at 18';edge on



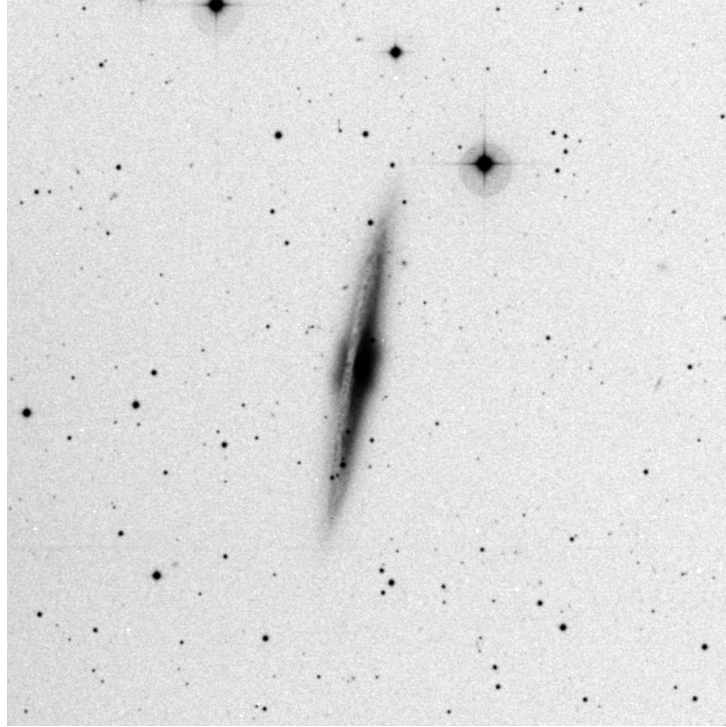
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

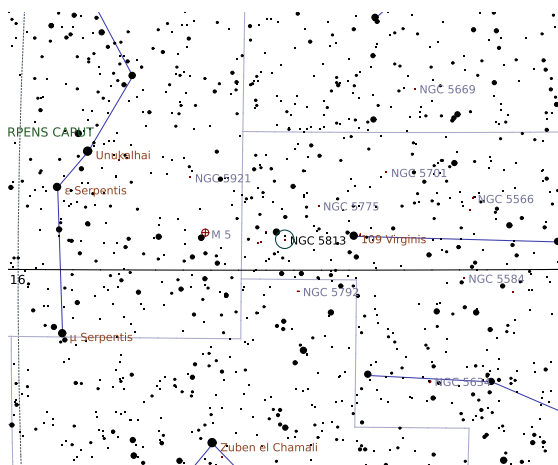
# NGC 5813

## Galaxy in Virgo

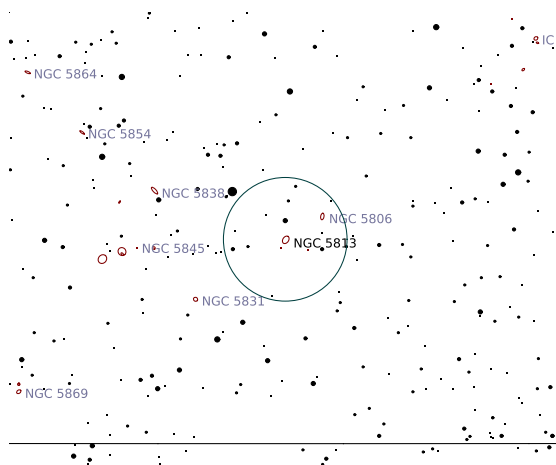
Right Ascension (current)	15 <sup>h</sup> 01 <sup>m</sup> 51 <sup>s</sup>	Declination (current)	1° 38' 55''
Right Ascension (J2000.0)	15 <sup>h</sup> 01 <sup>m</sup> 11 <sup>s</sup>	Declination (J2000.0)	1° 42' 07''
Size	4' × 2.8'	Position Angle	-55°
Magnitude	10	Other Designation	-

**Description:** Dreyer: B;pS;R;psmbM

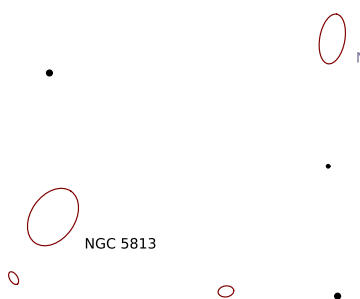
**SAC:** H I 127; In NGC 5846 group; P w NGC 5814 at 5'; NGC 8506 at 21'



Wide-field chart

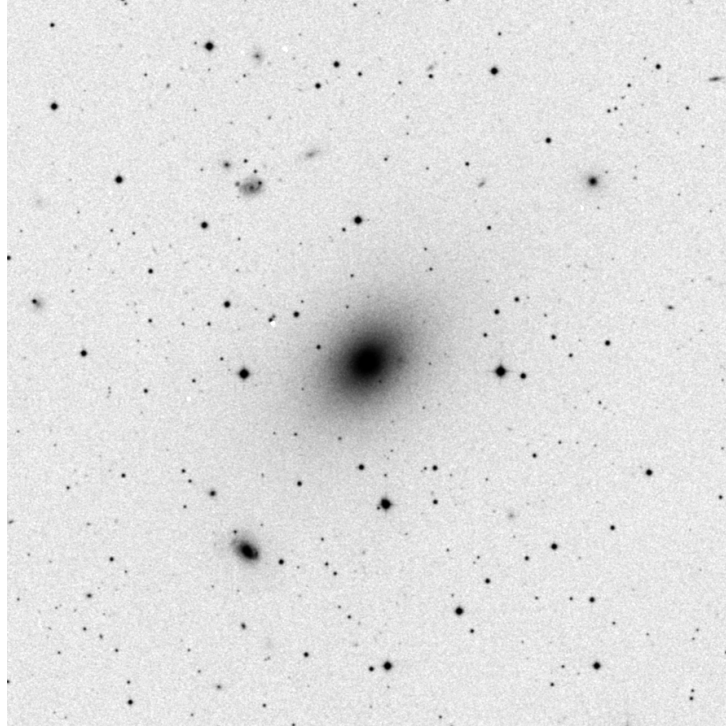


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

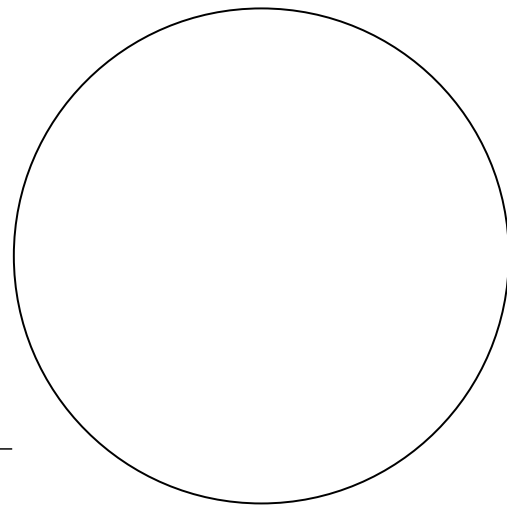
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

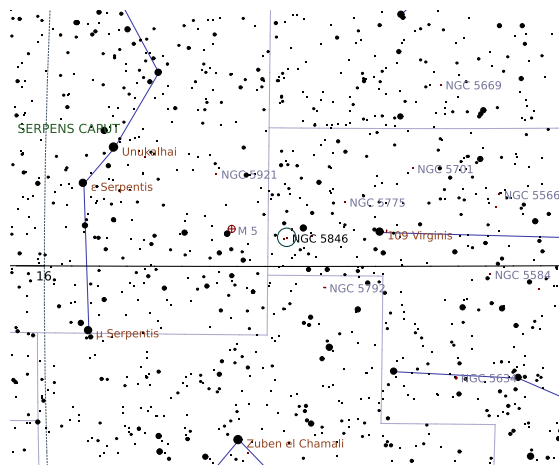
# NGC 5846

## Galaxy in Virgo

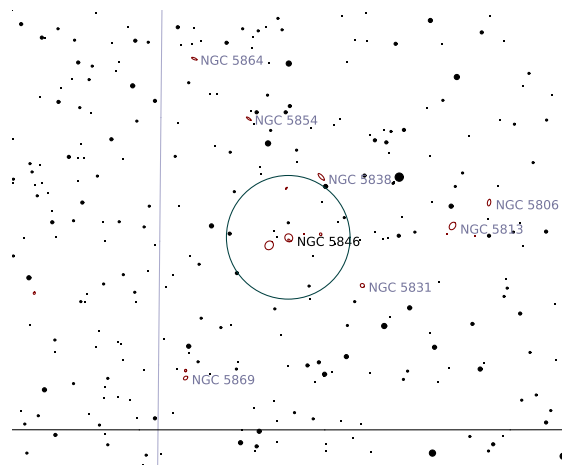
Right Ascension (current)	15 <sup>h</sup> 07 <sup>m</sup> 09 <sup>s</sup>	Declination (current)	1° 33' 11''
Right Ascension (J2000.0)	15 <sup>h</sup> 06 <sup>m</sup> 29 <sup>s</sup>	Declination (J2000.0)	1° 36' 19''
Size	4' × 3.7'	Position Angle	48°
Magnitude	10	Other Designation	—

**Description:** Dreyer: vB;pL;R;psbMN;F\* inv S;n of 2

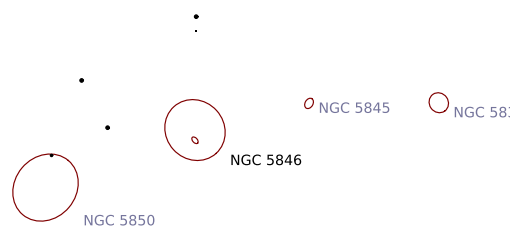
**SAC:** H I 128;Brightest in group;P w NGC 5846A at 1';NGC 5850 10'ESE



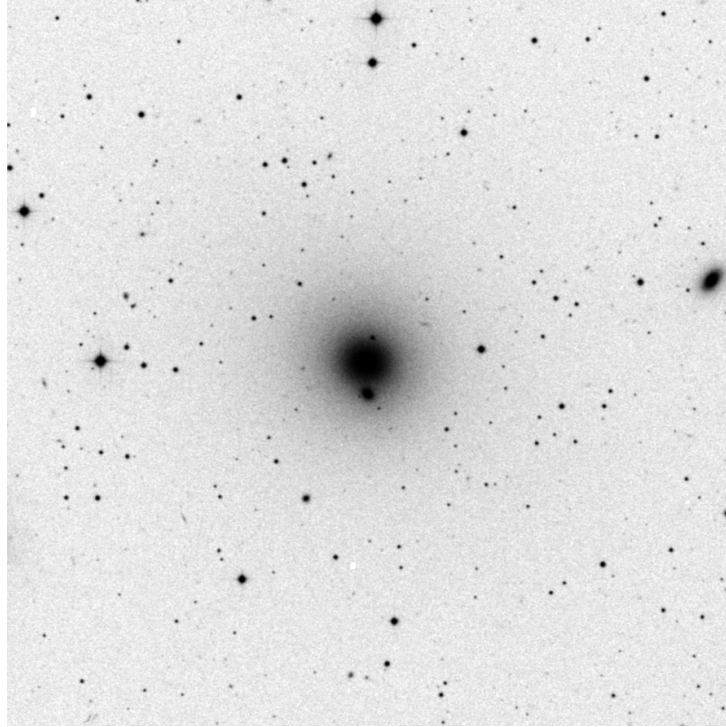
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

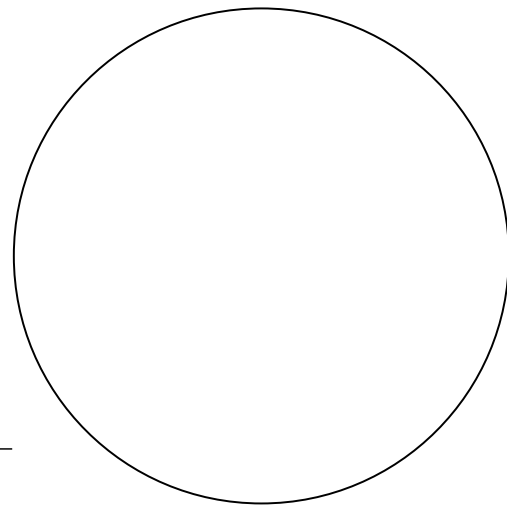
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

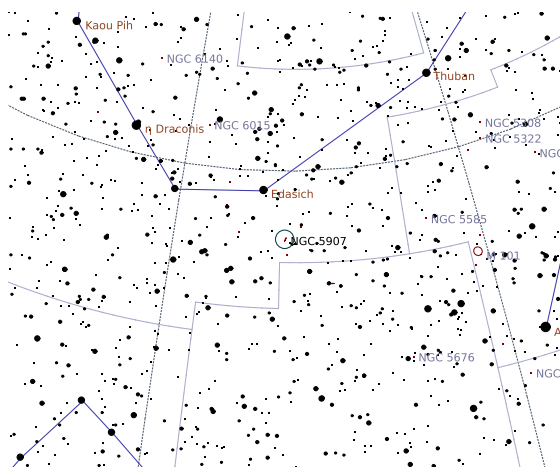
# NGC 5907

## Galaxy in Draco

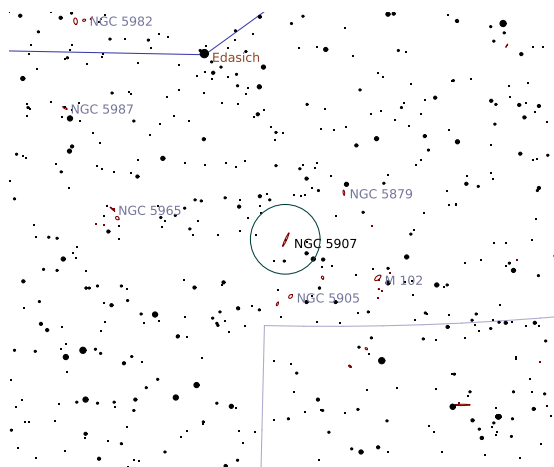
Right Ascension (current)	15 <sup>h</sup> 16 <sup>m</sup> 13 <sup>s</sup>	Declination (current)	56° 16' 37"
Right Ascension (J2000.0)	15 <sup>h</sup> 15 <sup>m</sup> 53 <sup>s</sup>	Declination (J2000.0)	56° 19' 49"
Size	12.6' × 1.4'	Position Angle	−65°
Magnitude	10	Other Designation	—

**Description:** Dreyer: cB;vL;vmE155;vgBMN

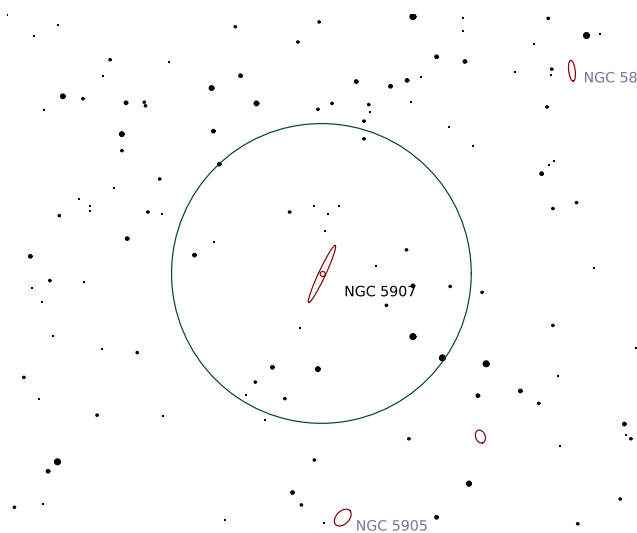
**SAC:** H II 759;vs bulge nearly hidden by strong dk lane; SN 1940a



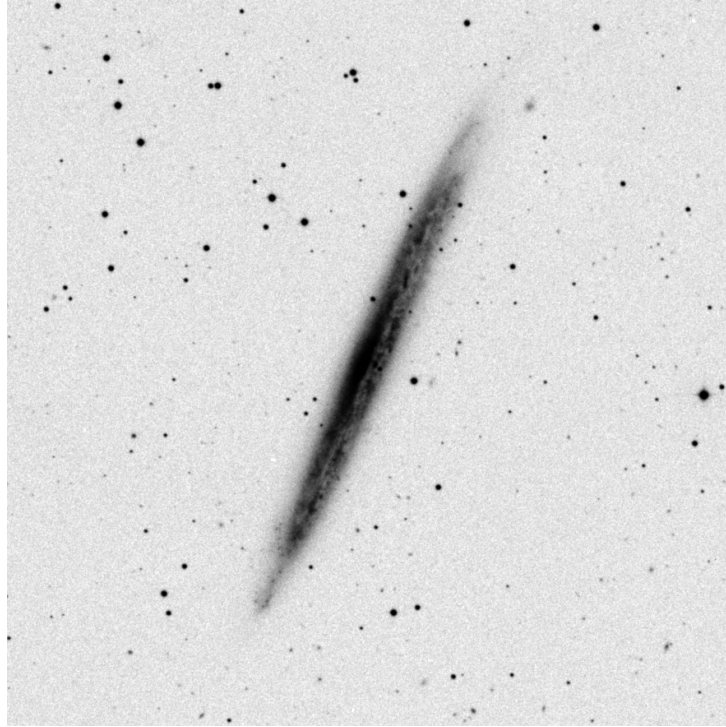
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

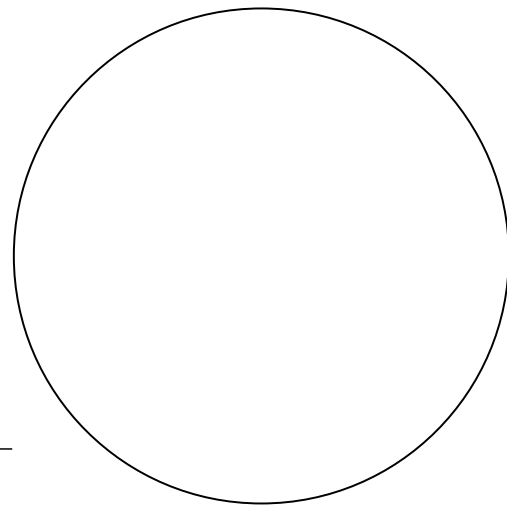
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

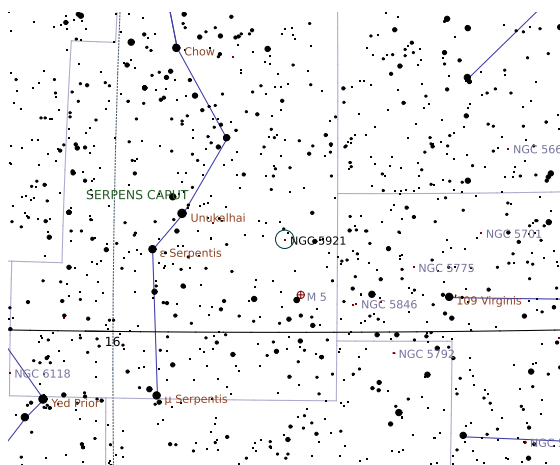
# NGC 5921

## Galaxy in Serpens Caput

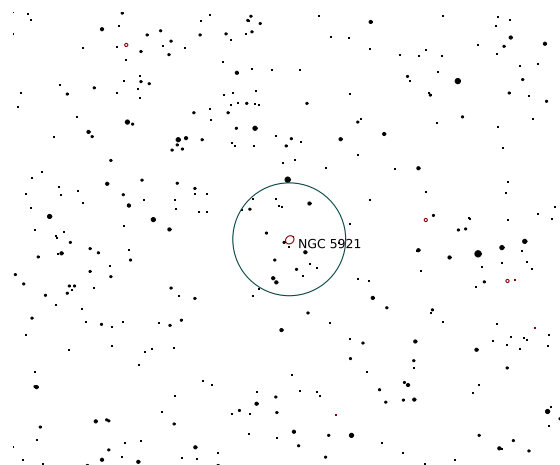
Right Ascension (current)	15 <sup>h</sup> 22 <sup>m</sup> 35 <sup>s</sup>	Declination (current)	5° 01' 18''
Right Ascension (J2000.0)	15 <sup>h</sup> 21 <sup>m</sup> 56 <sup>s</sup>	Declination (J2000.0)	5° 04' 13''
Size	4.8' × 4'	Position Angle	-40°
Magnitude	11	Other Designation	-

**Description:** Dreyer: cB;cL;iR;vsbM\*12;am \*

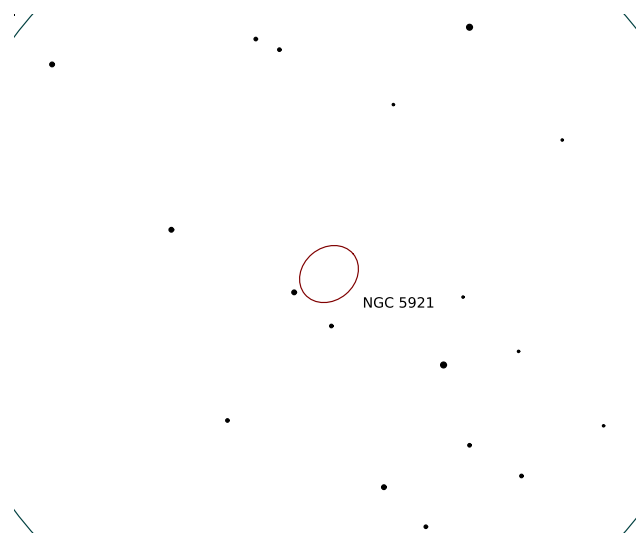
**SAC:** H I 148;eBN in B bar



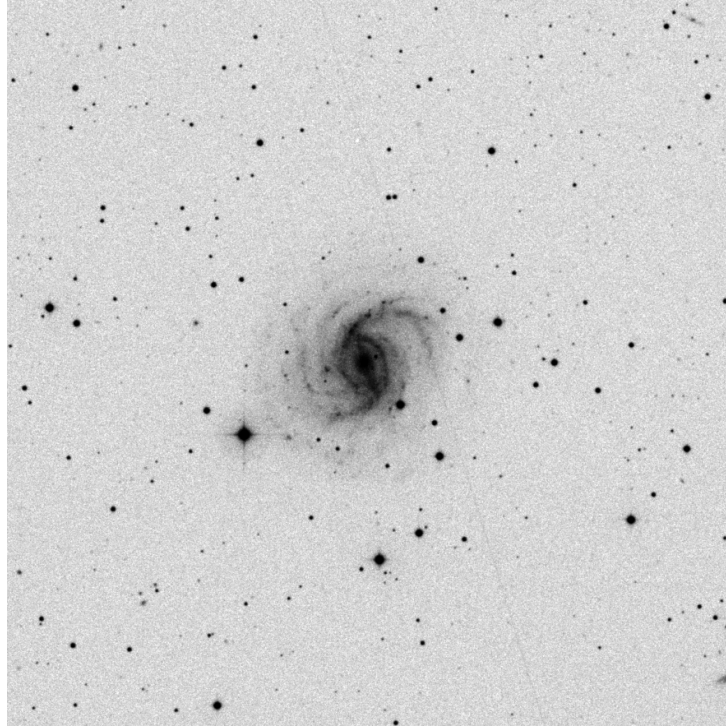
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

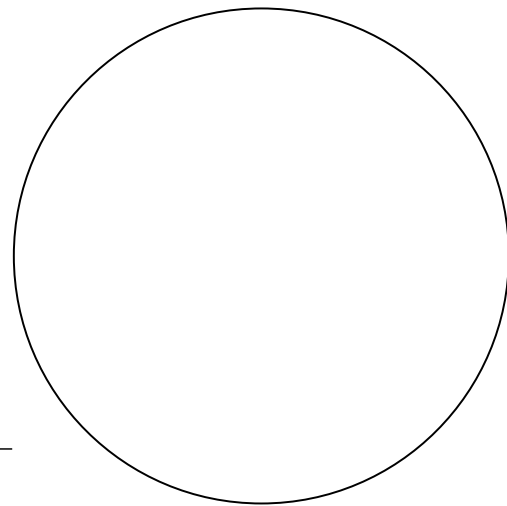
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



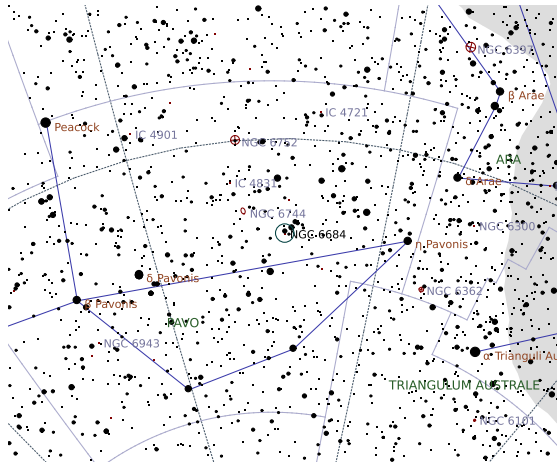
Sketch

# NGC 6684

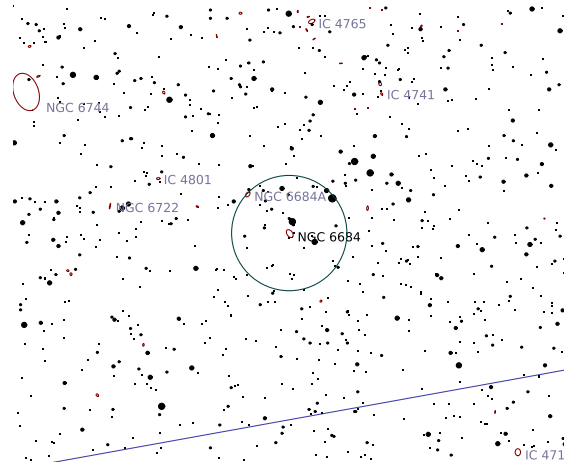
## Galaxy in Pavo

Right Ascension (current)	18 <sup>h</sup> 50 <sup>m</sup> 13 <sup>s</sup>	Declination (current)	-65° 09' 11"
Right Ascension (J2000.0)	18 <sup>h</sup> 48 <sup>m</sup> 57 <sup>s</sup>	Declination (J2000.0)	-65° 10' 22"
Size	4.6' × 2.9'	Position Angle	55°
Magnitude	10	Other Designation	—

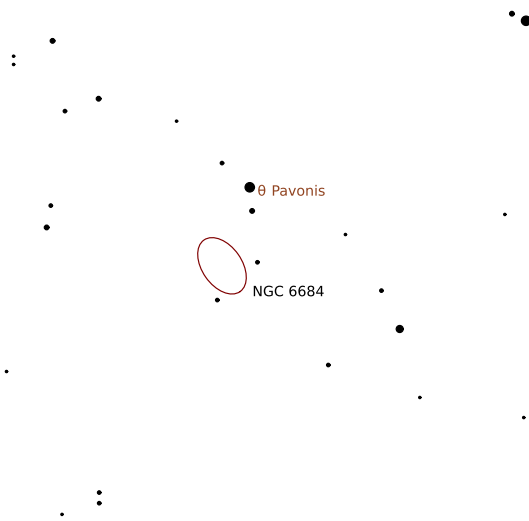
**Description:** Dreyer: vB;pL;R;vg;psvmbM



Wide-field chart

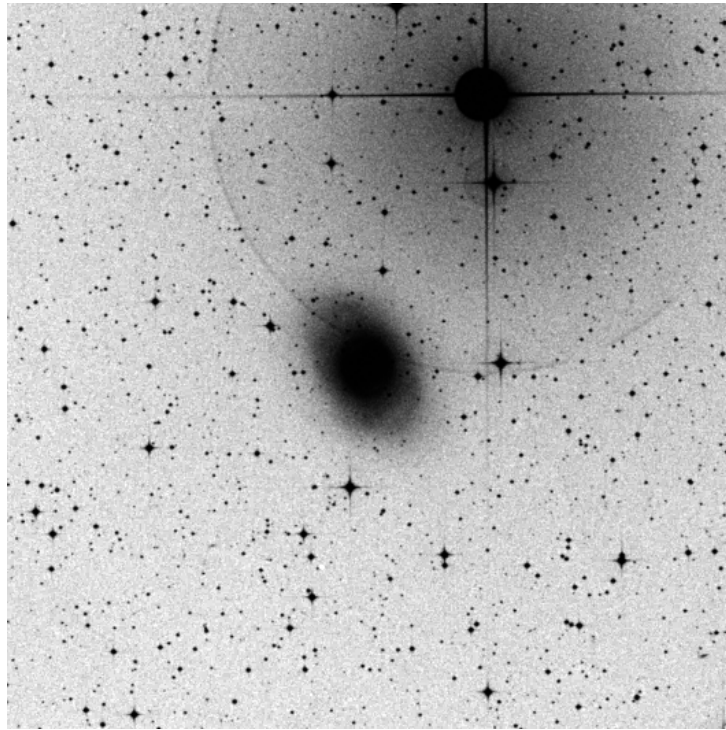


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

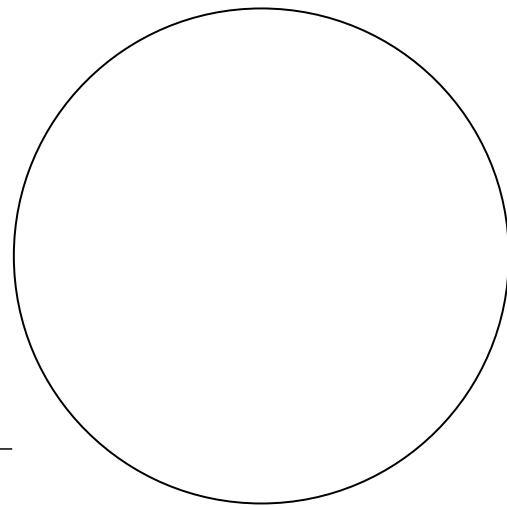
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



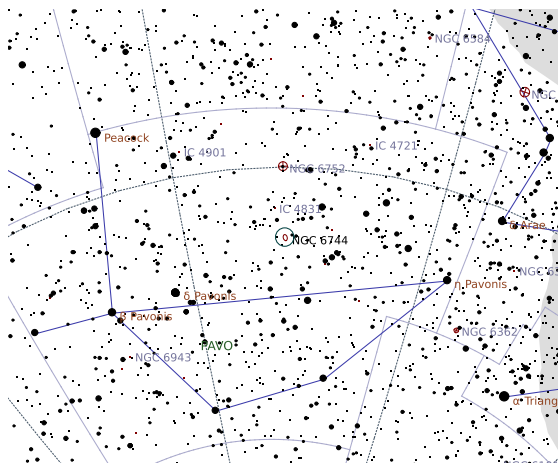
Sketch

# NGC 6744

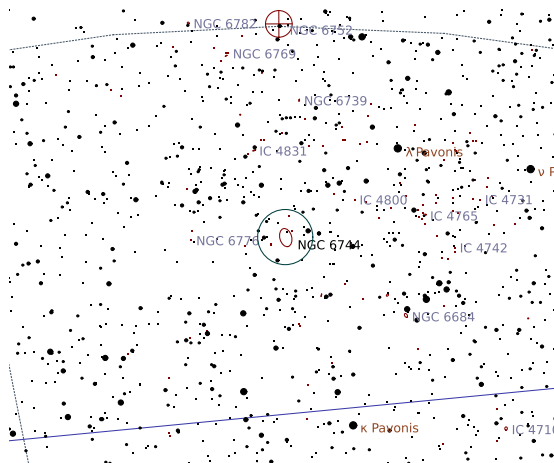
## Galaxy in Pavo

Right Ascension (current)	19 <sup>h</sup> 10 <sup>m</sup> 59 <sup>s</sup>	Declination (current)	−63° 49′ 51″
Right Ascension (J2000.0)	19 <sup>h</sup> 09 <sup>m</sup> 46 <sup>s</sup>	Declination (J2000.0)	−63° 51′ 24″
Size	20.1′ × 12.9′	Position Angle	75°
Magnitude	8.5	Other Designation	–

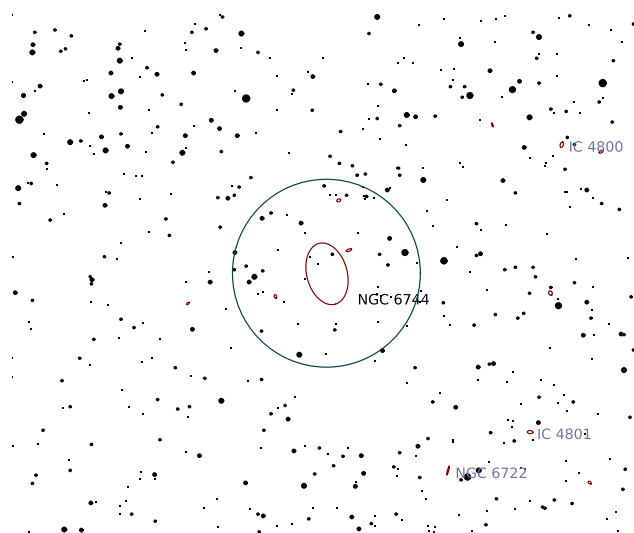
**Description:** Dreyer: cB;cL;R;vg;svmbM;r



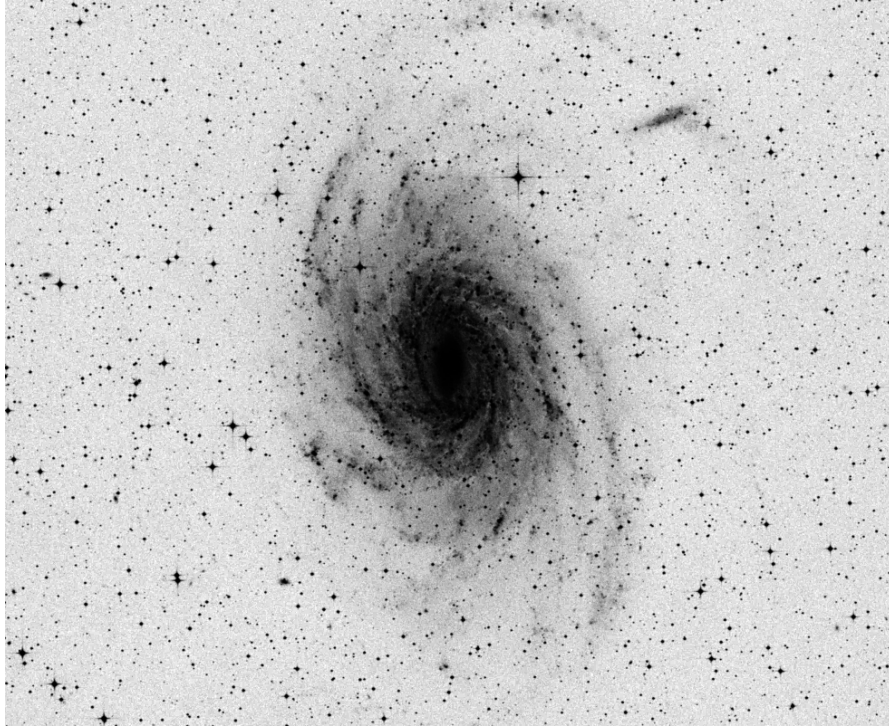
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (27.8' × 22.7')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

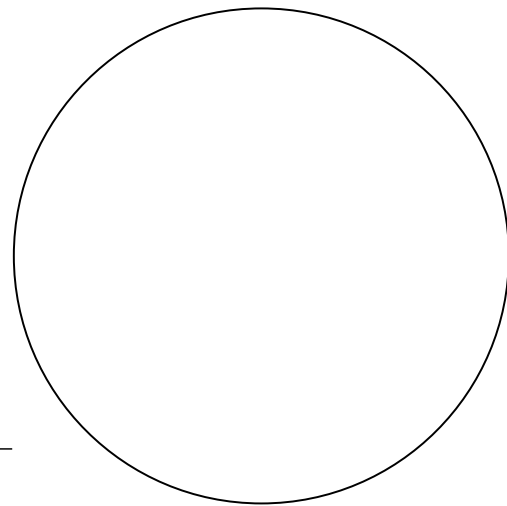
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



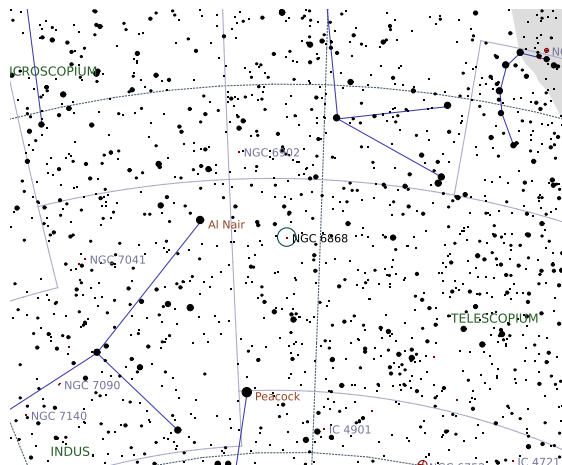
**Sketch**

# NGC 6868

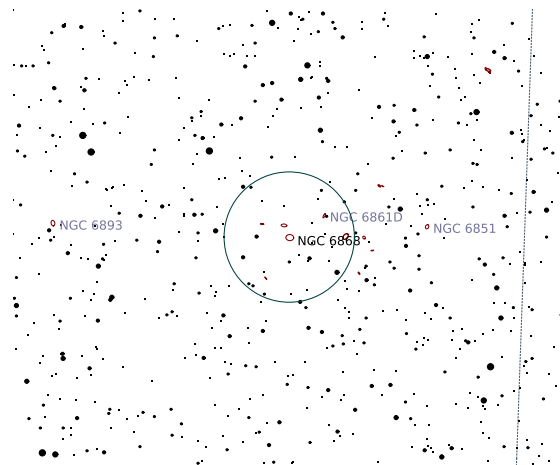
## Galaxy in Telescopium

Right Ascension (current)	20 <sup>h</sup> 10 <sup>m</sup> 50 <sup>s</sup>	Declination (current)	-48° 20' 18"
Right Ascension (J2000.0)	20 <sup>h</sup> 09 <sup>m</sup> 54 <sup>s</sup>	Declination (J2000.0)	-48° 22' 48"
Size	3.6' × 2.8'	Position Angle	4°
Magnitude	11	Other Designation	—

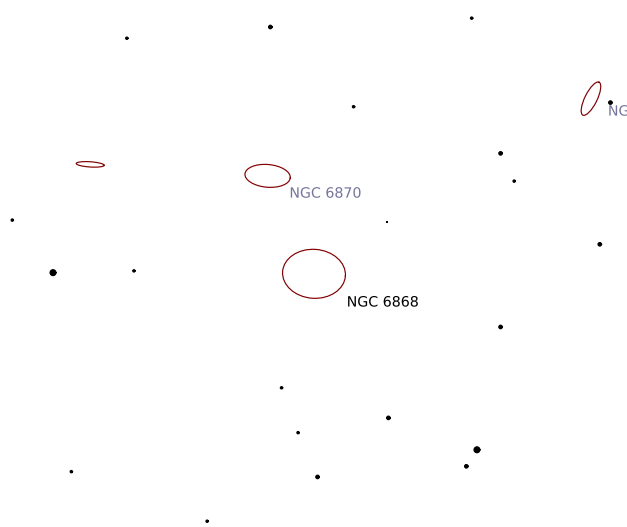
**Description:** Dreyer: vB;S;R;pgvmbM



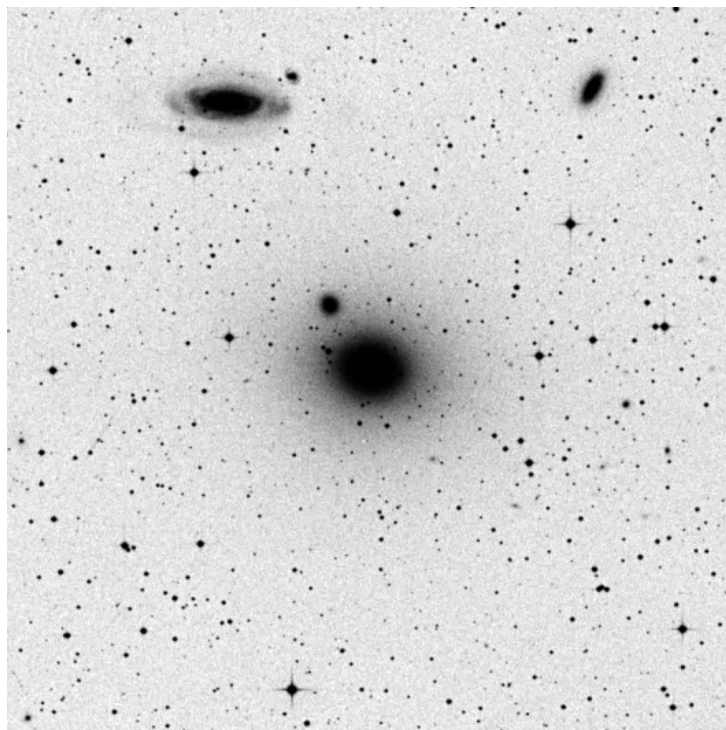
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

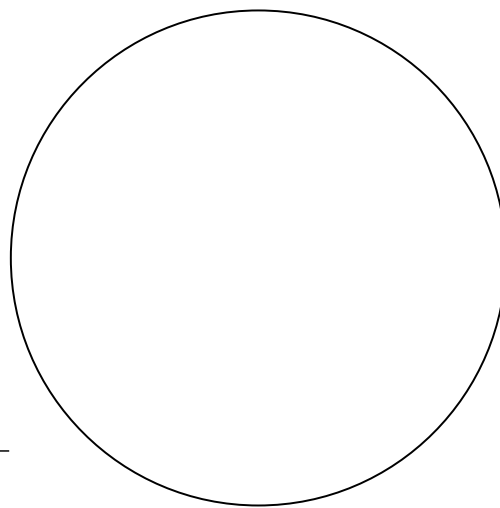
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



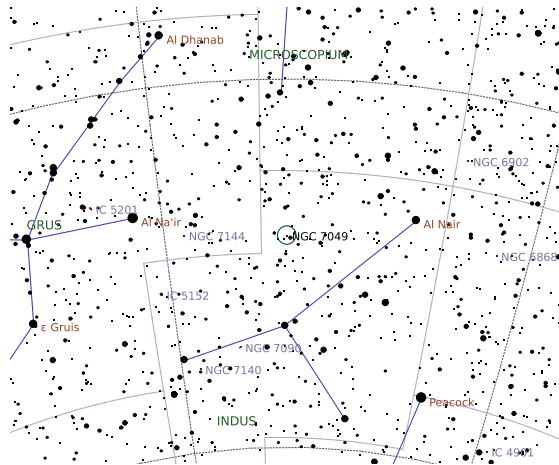
**Sketch**

# NGC 7049

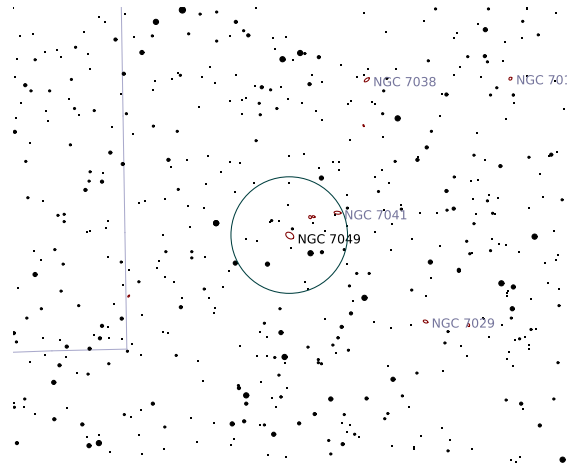
## Galaxy in Indus

Right Ascension (current)	21 <sup>h</sup> 19 <sup>m</sup> 52 <sup>s</sup>	Declination (current)	-48° 30' 16"
Right Ascension (J2000.0)	21 <sup>h</sup> 19 <sup>m</sup> 00 <sup>s</sup>	Declination (J2000.0)	-48° 33' 41"
Size	4.5' × 3'	Position Angle	33°
Magnitude	11	Other Designation	—

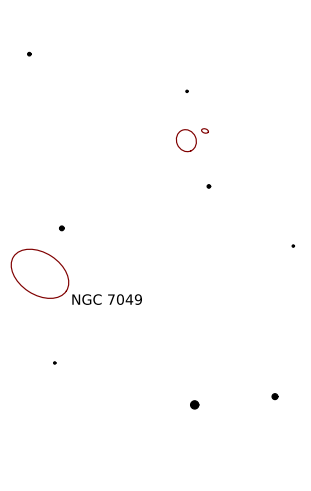
**Description:** Dreyer: vB;pS;E;mbM



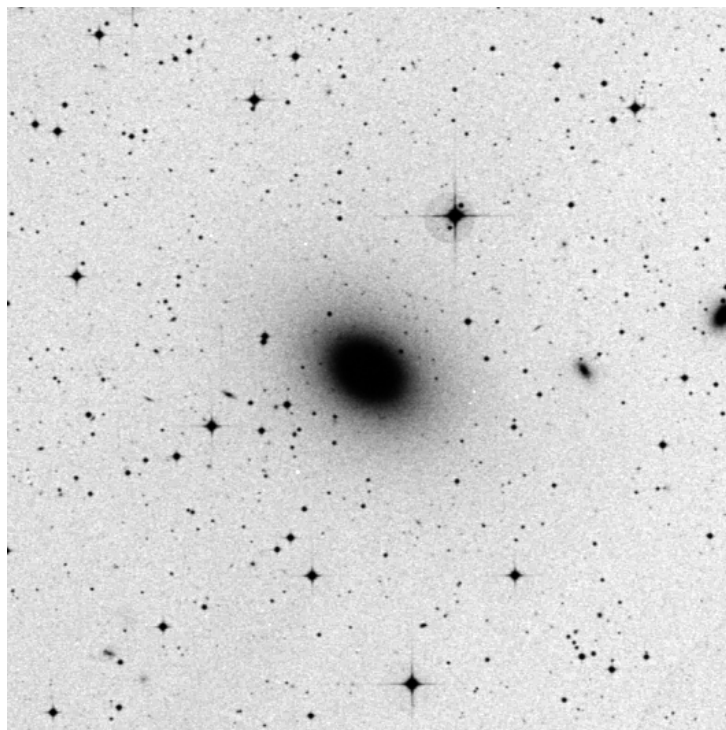
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

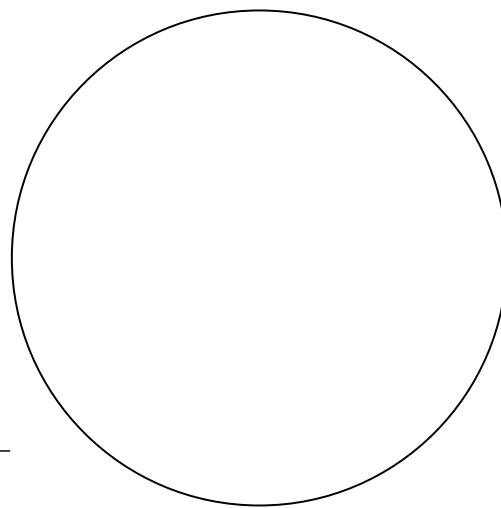
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



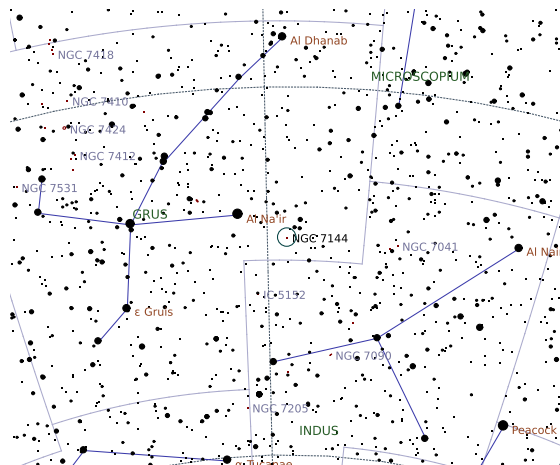
Sketch

# NGC 7144

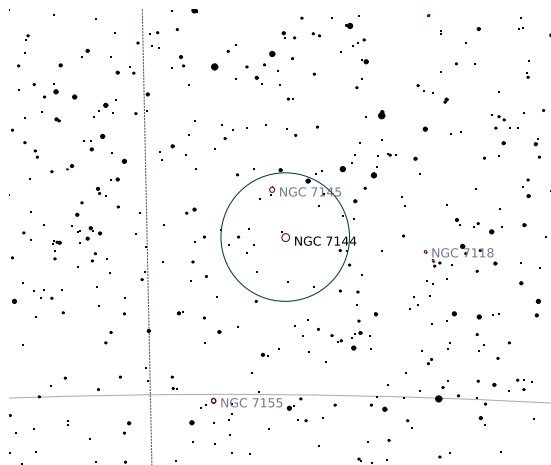
Galaxy in Grus

Right Ascension (current)	21 <sup>h</sup> 53 <sup>m</sup> 31 <sup>s</sup>	Declination (current)	-48° 11' 31"
Right Ascension (J2000.0)	21 <sup>h</sup> 52 <sup>m</sup> 42 <sup>s</sup>	Declination (J2000.0)	-48° 15' 17"
Size	3.7' × 3.6'	Position Angle	90°
Magnitude	11	Other Designation	—

**Description:** Dreyer: vB;pS;R;mbMN



Wide-field chart

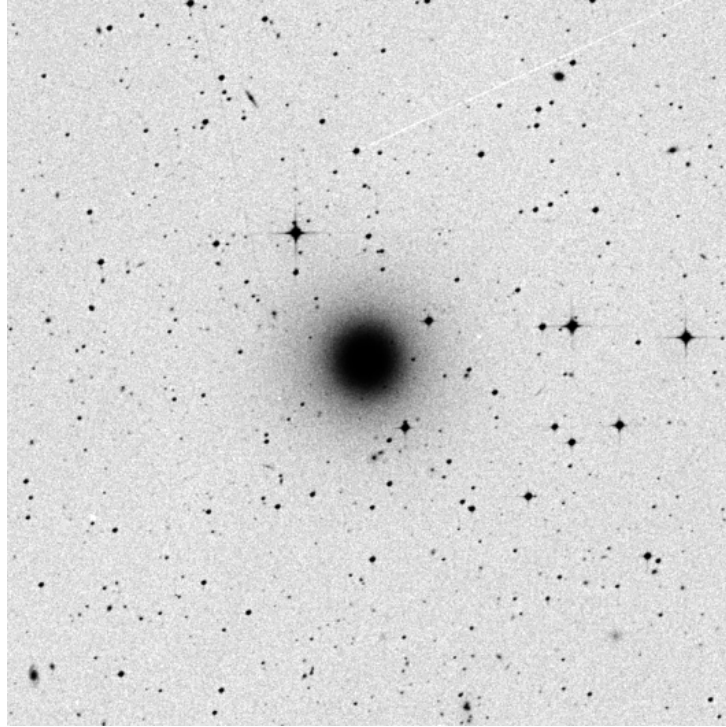


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

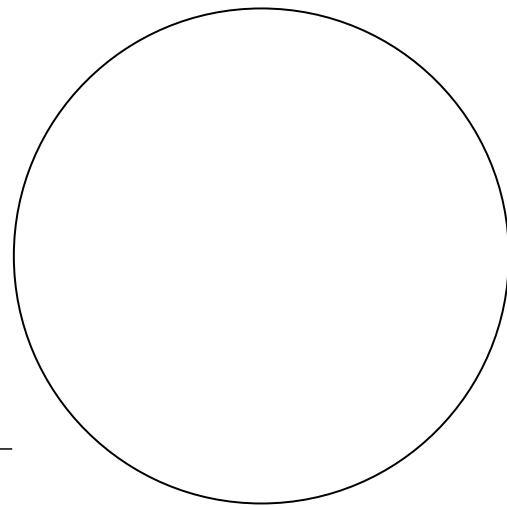
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

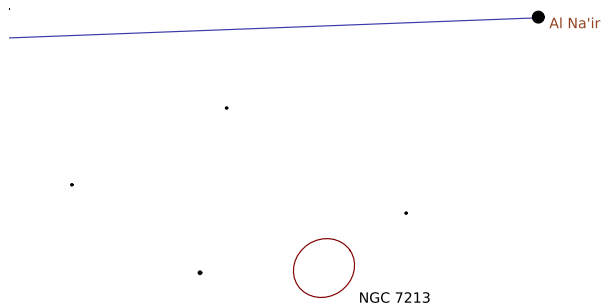
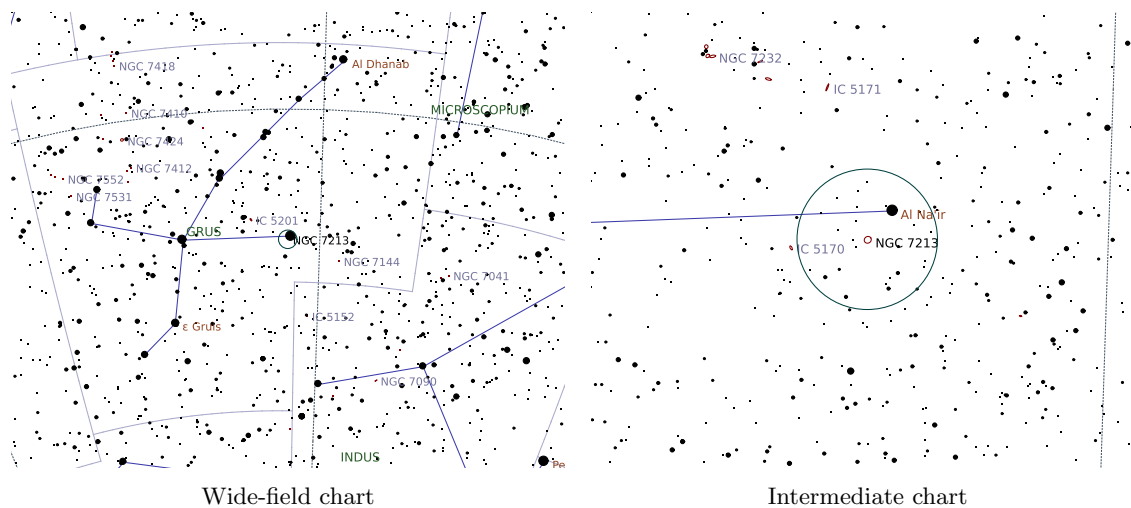
# NGC 7213

## Galaxy in Grus

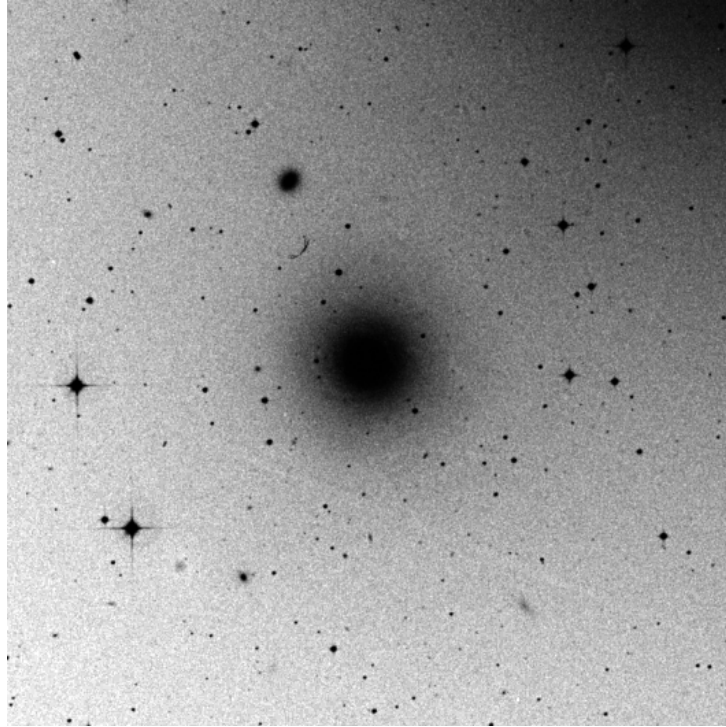
Right Ascension (current)	22 <sup>h</sup> 10 <sup>m</sup> 04 <sup>s</sup>	Declination (current)	-47° 06' 07"
Right Ascension (J2000.0)	22 <sup>h</sup> 09 <sup>m</sup> 16 <sup>s</sup>	Declination (J2000.0)	-47° 10' 01"
Size	3.1' × 2.8'	Position Angle	-34°
Magnitude	10	Other Designation	-

**Description:** Dreyer: vB;pS;R;gbM

**SAC:** 16' SE from Alpha Gru



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

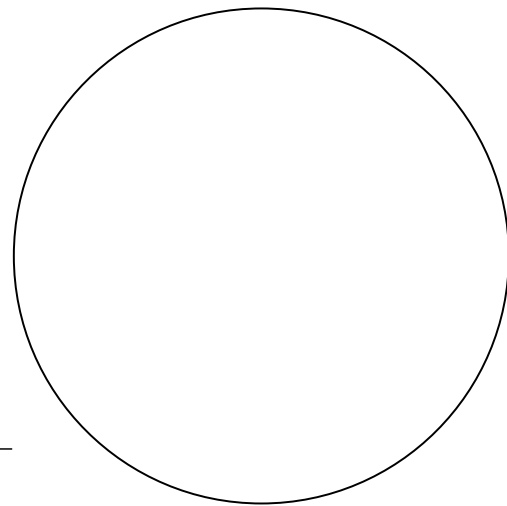
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch

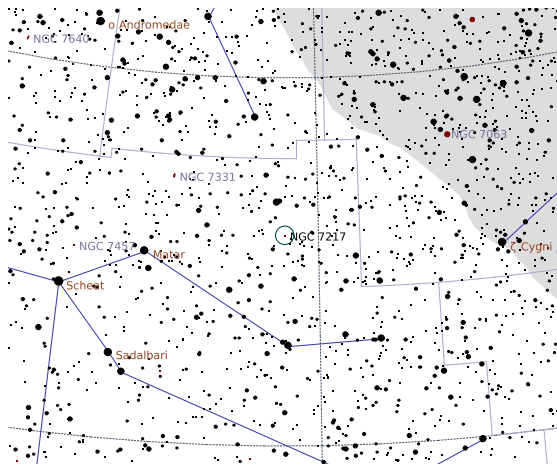
# NGC 7217

## Galaxy in Pegasus

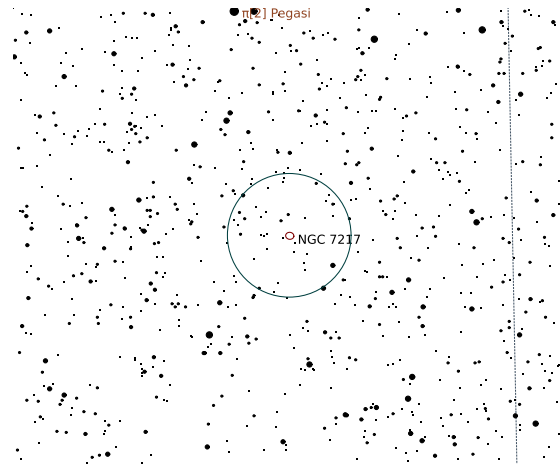
Right Ascension (current)	22 <sup>h</sup> 08 <sup>m</sup> 26 <sup>s</sup>	Declination (current)	31° 25' 31"
Right Ascension (J2000.0)	22 <sup>h</sup> 07 <sup>m</sup> 52 <sup>s</sup>	Declination (J2000.0)	31° 21' 34"
Size	4' × 3.4'	Position Angle	7°
Magnitude	10	Other Designation	–

**Description:** Dreyer: B;pL;gbM;er

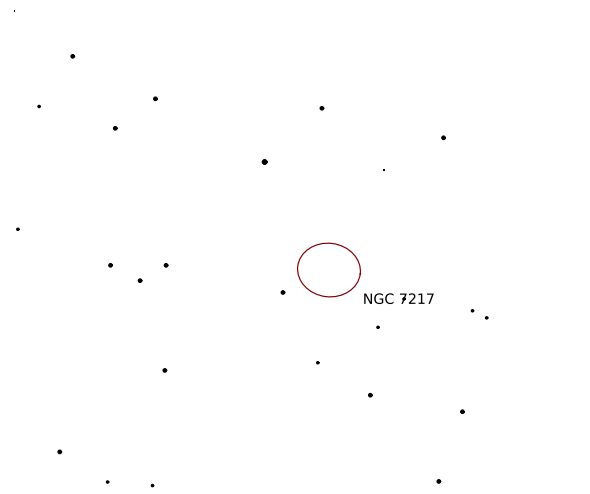
**SAC:** H II 207;vB diff Nuc .35'X0.27'many knotty arms



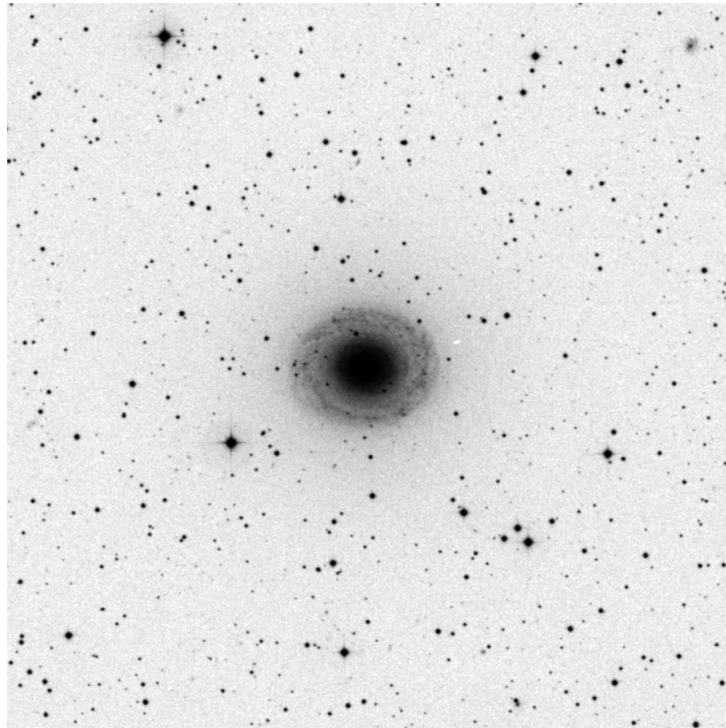
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

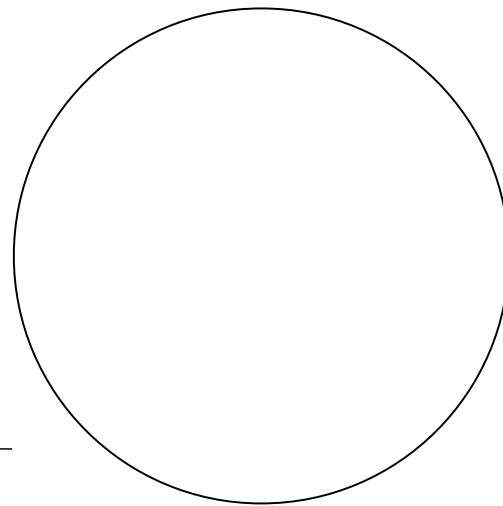
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

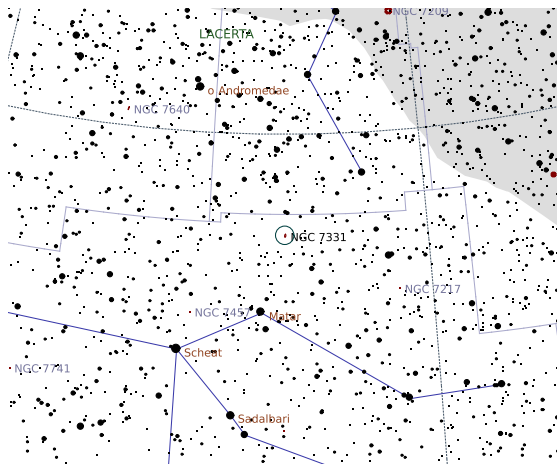
# NGC 7331

## Galaxy in Pegasus

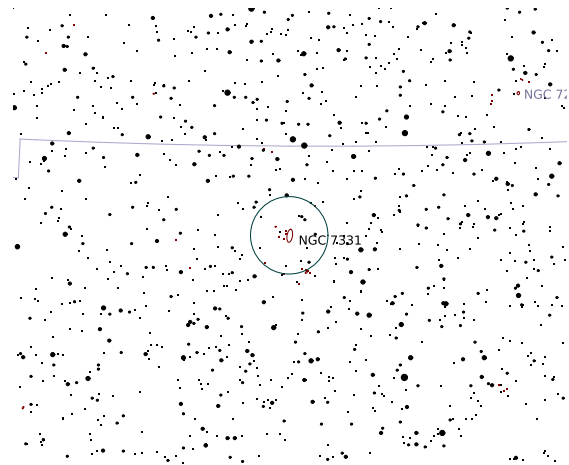
Right Ascension (current)	22 <sup>h</sup> 37 <sup>m</sup> 40 <sup>s</sup>	Declination (current)	34° 29' 25"
Right Ascension (J2000.0)	22 <sup>h</sup> 37 <sup>m</sup> 05 <sup>s</sup>	Declination (J2000.0)	34° 25' 13"
Size	10.2' × 4.2'	Position Angle	-81°
Magnitude	9.5	Other Designation	-

**Description:** Dreyer: B;pL;pmE163;smbM

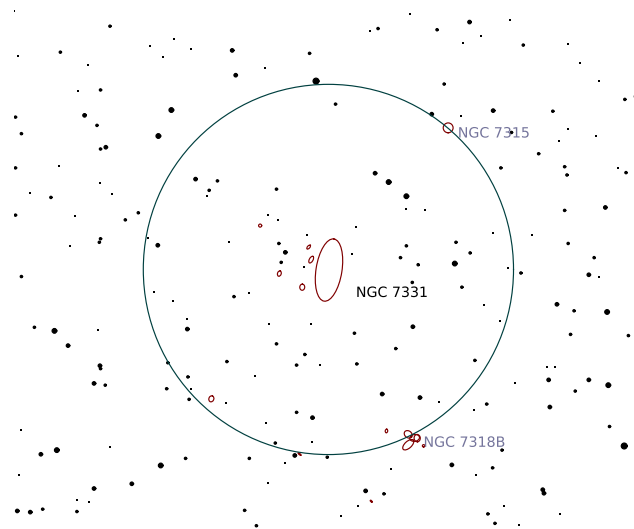
**SAC:** H I 53;UGC 12113;Brightest in group of F obj;sev dark lanes



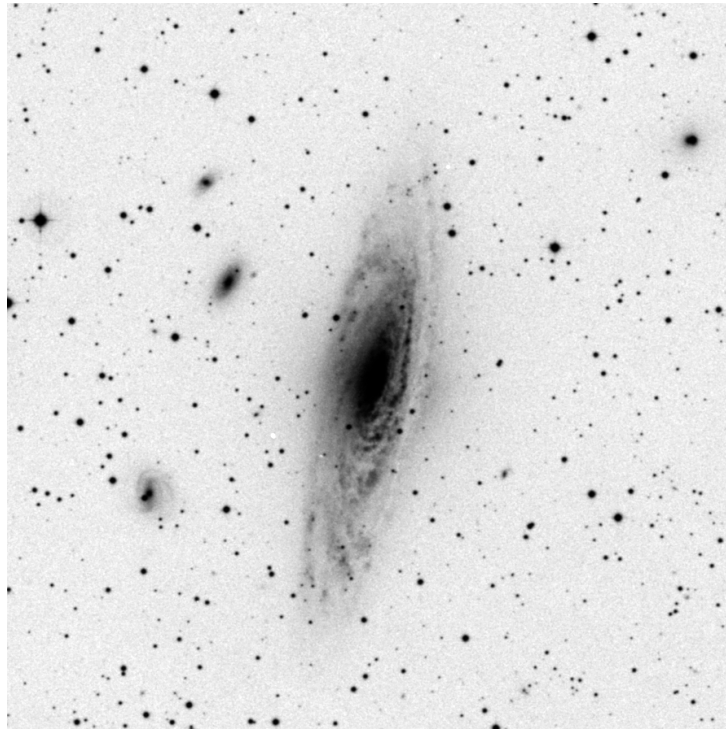
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

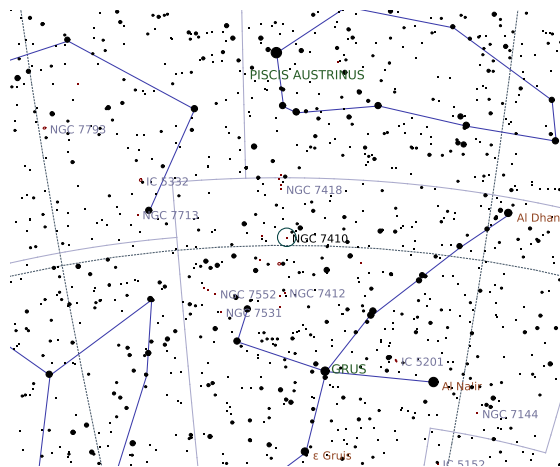
# NGC 7410

## Galaxy in Grus

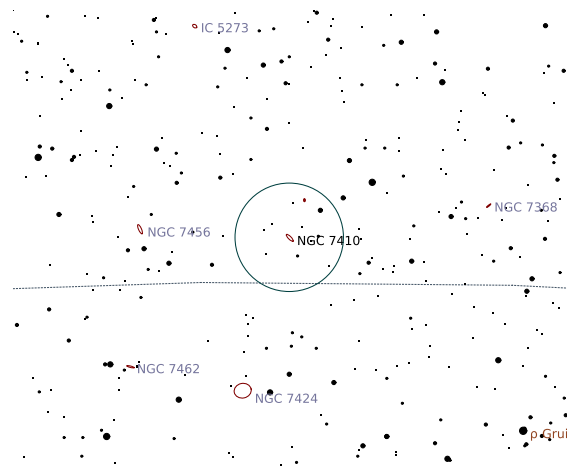
Right Ascension (current)	22 <sup>h</sup> 55 <sup>m</sup> 43 <sup>s</sup>	Declination (current)	-39° 35' 34"
Right Ascension (J2000.0)	22 <sup>h</sup> 55 <sup>m</sup> 00 <sup>s</sup>	Declination (J2000.0)	-39° 39' 44"
Size	5.2' × 1.6'	Position Angle	45°
Magnitude	10	Other Designation	—

**Description:** Dreyer: cB;L;vmE43;mbM

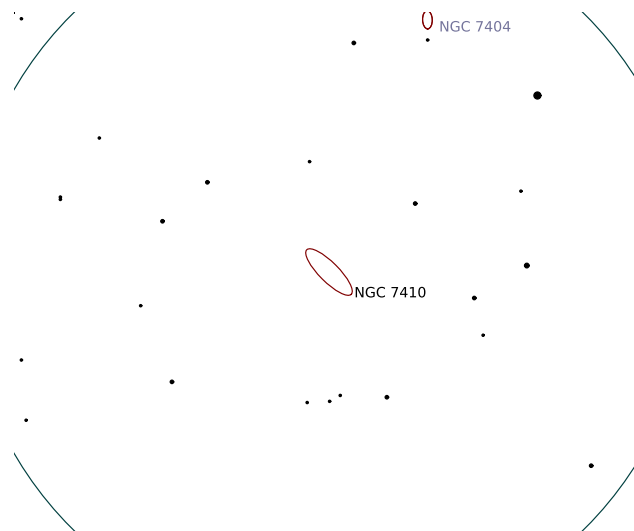
**SAC:** Nearly edge-on



Wide-field chart

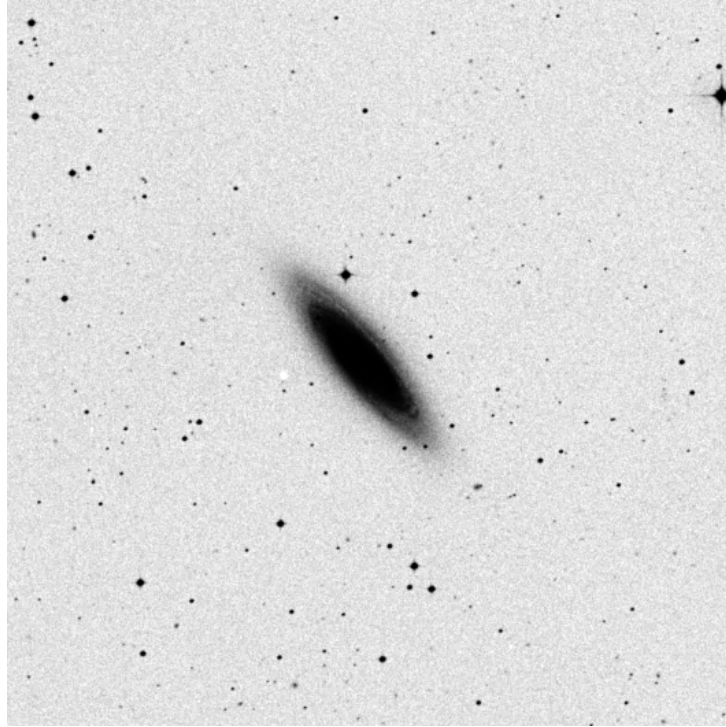


Intermediate chart



Zoomed-in chart





DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

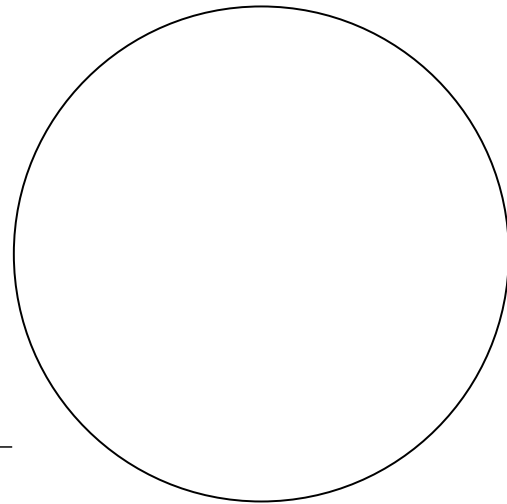
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



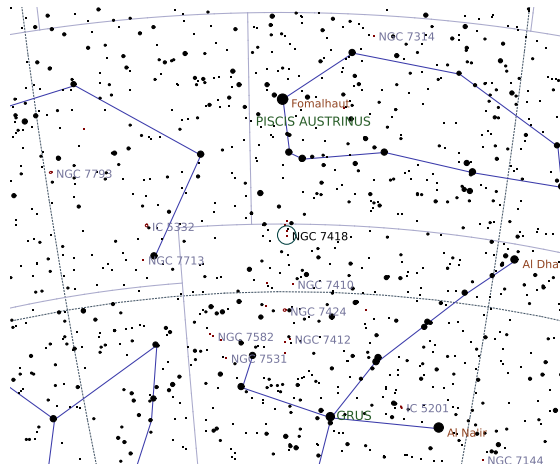
**Sketch**

# NGC 7418

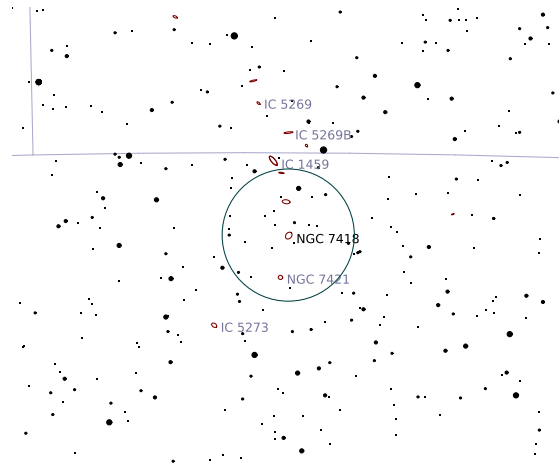
## Galaxy in Grus

Right Ascension (current)	22 <sup>h</sup> 57 <sup>m</sup> 18 <sup>s</sup>	Declination (current)	-36° 57' 33"
Right Ascension (J2000.0)	22 <sup>h</sup> 56 <sup>m</sup> 35 <sup>s</sup>	Declination (J2000.0)	-37° 01' 44"
Size	3.5' × 2.6'	Position Angle	-49°
Magnitude	11	Other Designation	-

**Description:** Dreyer: cB;vL;v1E;vg1bM



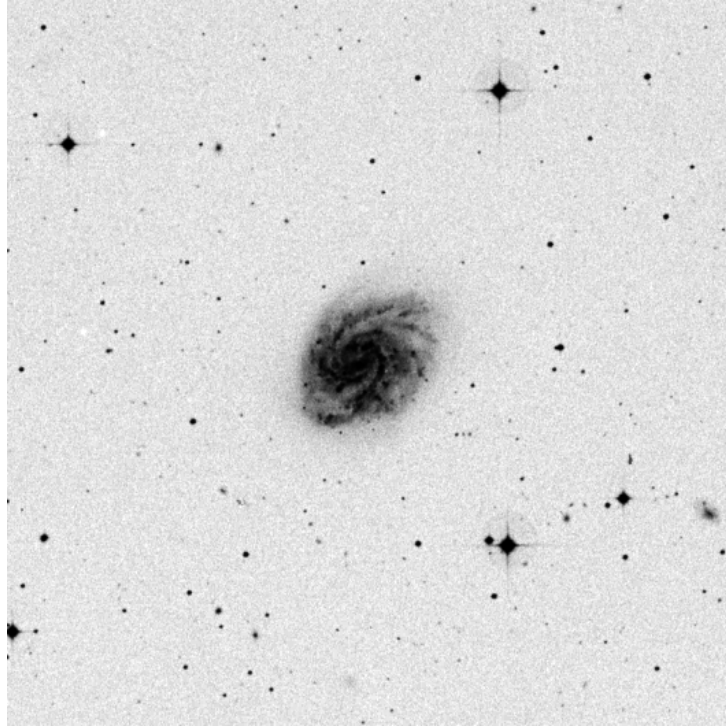
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

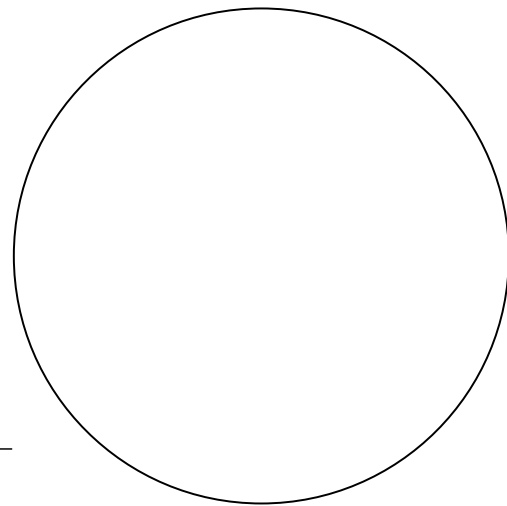
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



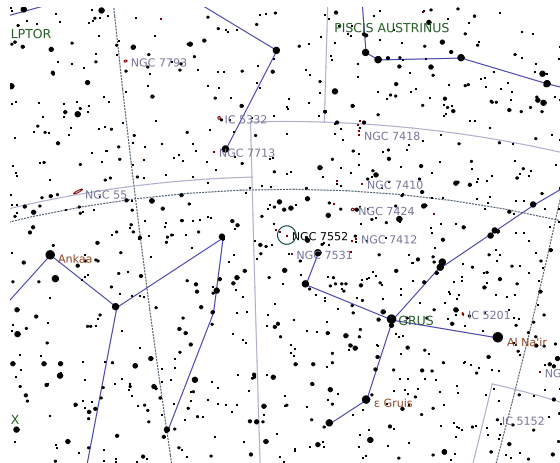
Sketch

# NGC 7552 (Grus Quartet)

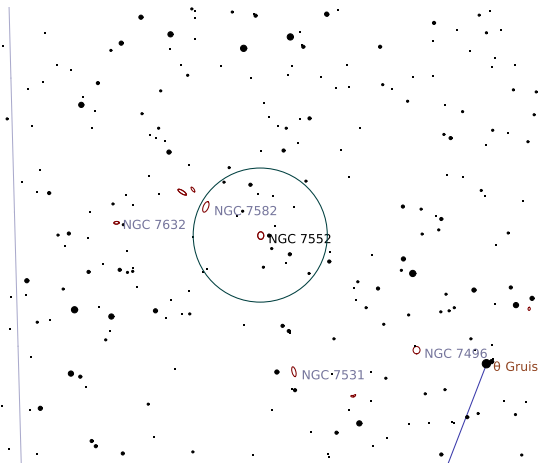
Galaxy in Grus

Right Ascension (current)	23 <sup>h</sup> 16 <sup>m</sup> 52 <sup>s</sup>	Declination (current)	-42° 30' 51"
Right Ascension (J2000.0)	23 <sup>h</sup> 16 <sup>m</sup> 10 <sup>s</sup>	Declination (J2000.0)	-42° 35' 05"
Size	3.4' × 2.7'	Position Angle	89°
Magnitude	11	Other Designation	—

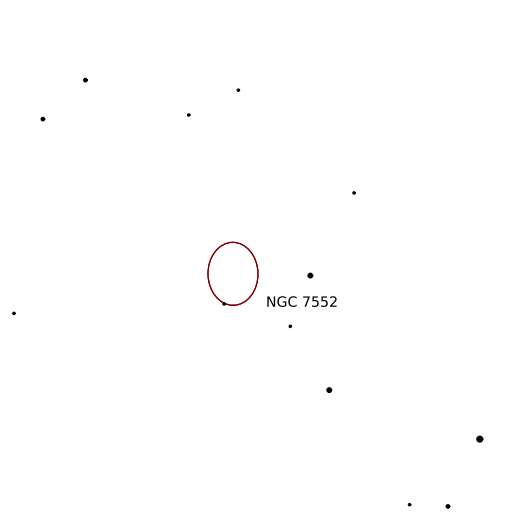
**Description:** Dreyer: B;S;mE90;vsbM \*13



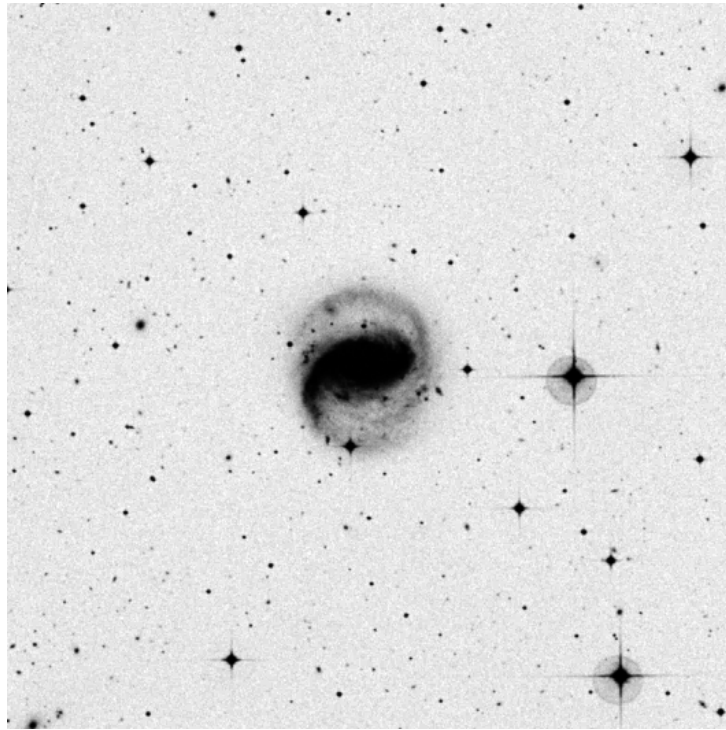
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

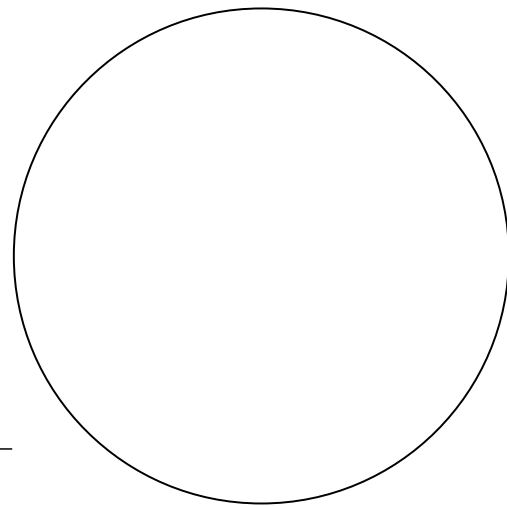
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



**Sketch**

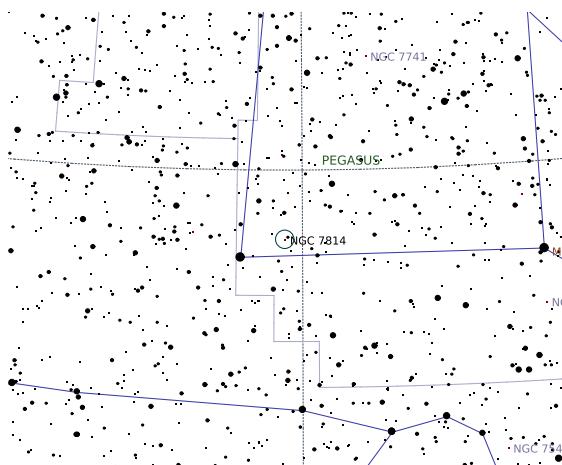
# NGC 7814

## Galaxy in Pegasus

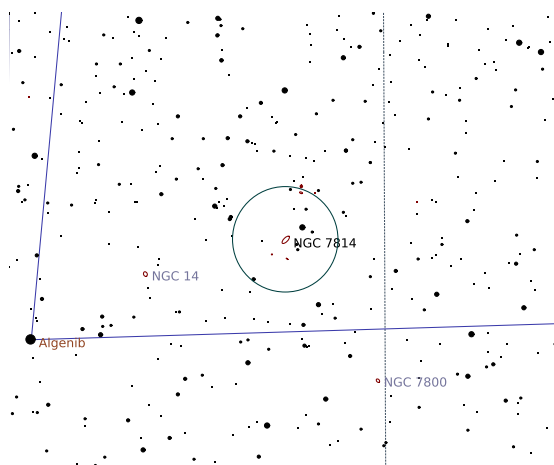
Right Ascension (current)	00 <sup>h</sup> 03 <sup>m</sup> 54 <sup>s</sup>	Declination (current)	16° 13' 09"
Right Ascension (J2000.0)	00 <sup>h</sup> 03 <sup>m</sup> 14 <sup>s</sup>	Declination (J2000.0)	16° 08' 43"
Size	5.5' × 2.3'	Position Angle	−45°
Magnitude	11	Other Designation	–

**Description:** Dreyer: cB;cL;E;vgbM

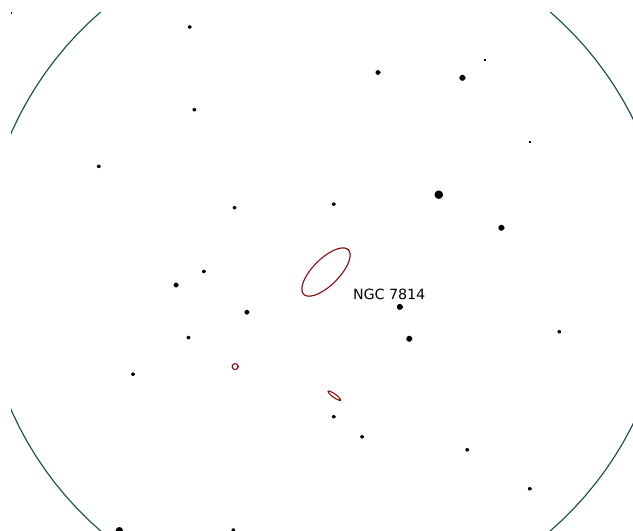
**SAC:** H II 240;Equatorial dust lane;Nearly edge-on



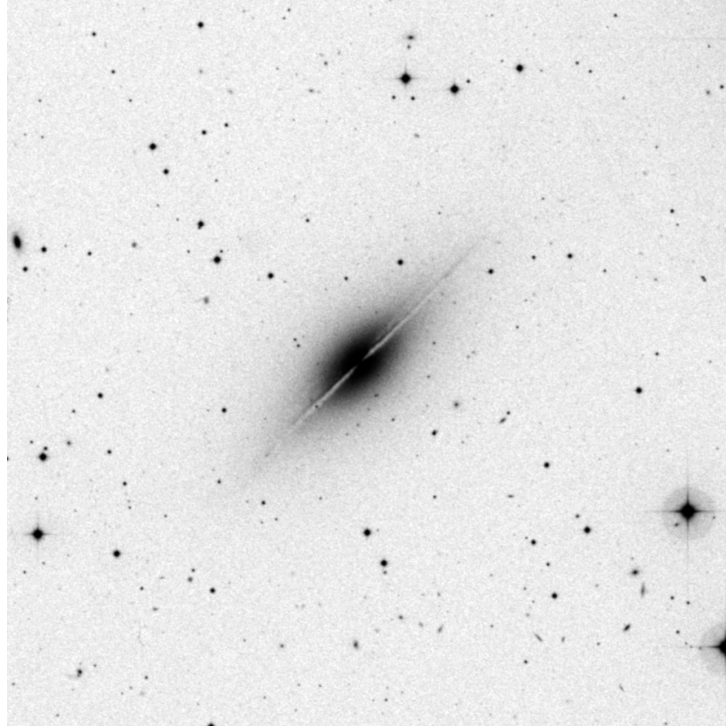
Wide-field chart



Intermediate chart



Zoomed-in chart



DSS Image (15.0' × 15.0')

\* Date: \_\_\_\_\_

\* Time: \_\_\_\_\_

\* Aperture: \_\_\_\_\_

\* Power: \_\_\_\_\_

Equipment Details: \_\_\_\_\_

\_\_\_\_\_

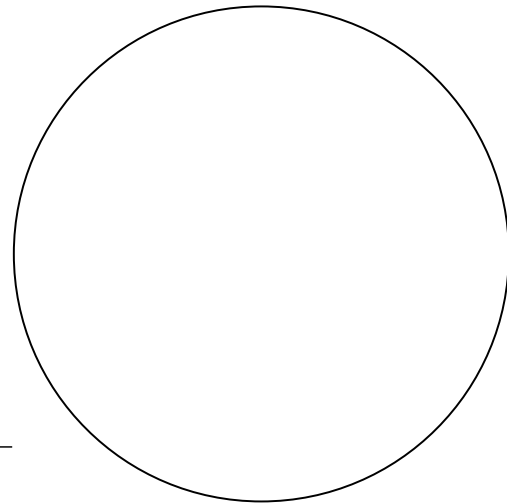
\* Seeing: \_\_\_\_\_

Observation Location: \_\_\_\_\_

FOV: \_\_\_\_\_

\* Description: \_\_\_\_\_

\_\_\_\_\_



Sketch