Skyguide

2019 - II

created by:

Robert Zebahl

www.faint-fuzzies.de

in cooperation with:

Rene Merting

www.freunde-der-nacht.net

Vereinigung der Sternfreunde e.V.

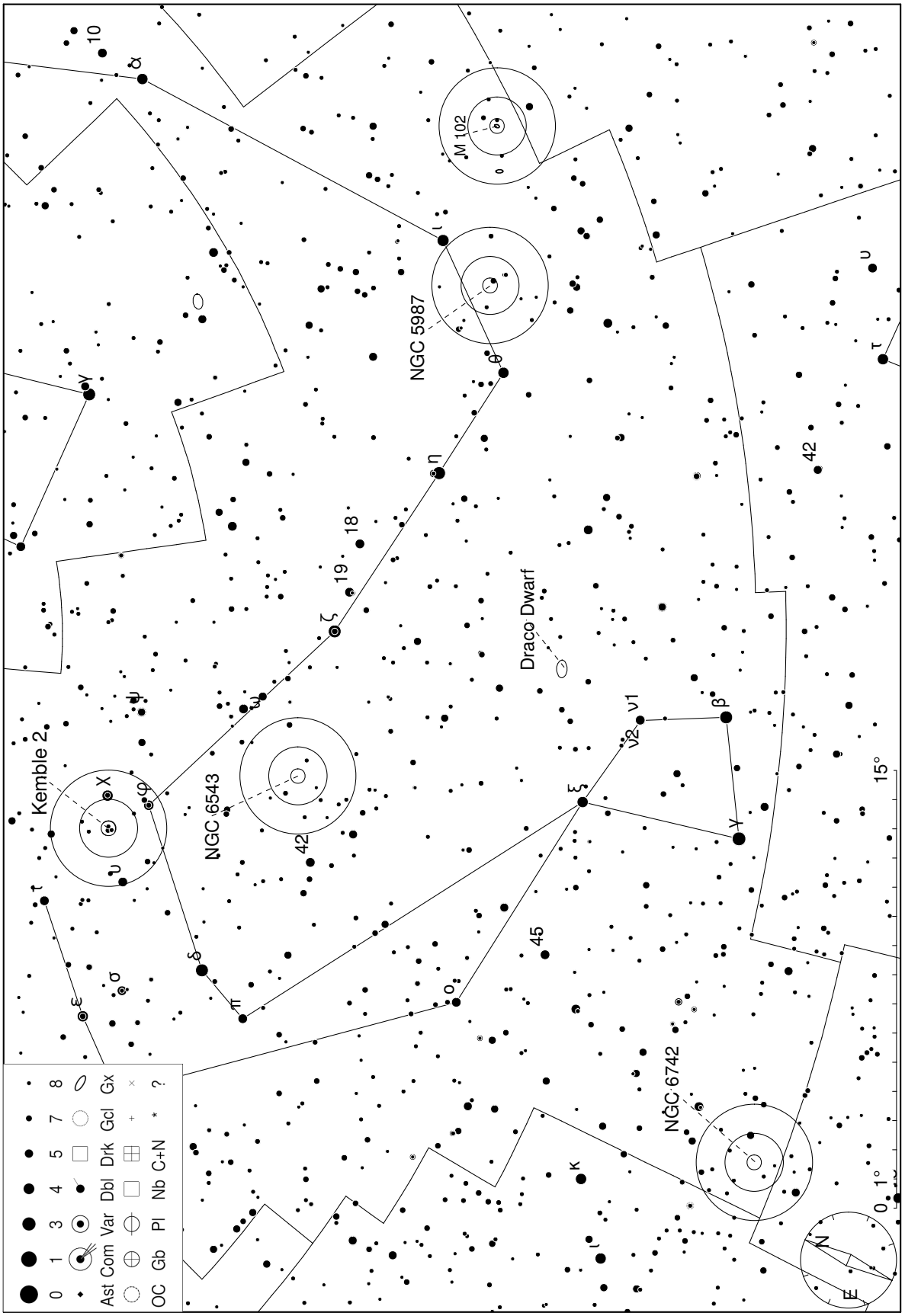
www.deepsky.vdsastro.de

www.vds-astro.de

Skyguide - A Short Introduction

The Skyguide should mainly give you some suggestions for own observations and will briefly describe 5 objects annually for every season. It contains easy as well as difficult objects, which are sorted by ascending difficulty. How difficult an object is, depends on several factors, especially quality of sky, aperture of the used telescope and the experience of the observer.

For each object the most important information are given and if applicable a DSS image (Digitized Sky Survey). In addition you will find a chart, created by the free software Cartes du Ciel (Skychart), to get an overview of where the object is located. This chart shows stars down to a magnitude of about 8.0 mag. Telrad rings (0.5°, 2°, 4°) on the chart mark the position of the object. But basically I recommend creating your own finder charts. The visual descriptions are mainly based on own observations and only serve as a reference point.

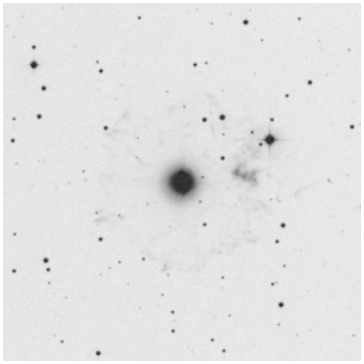


Skyguide

created by:
Robert Zebahl

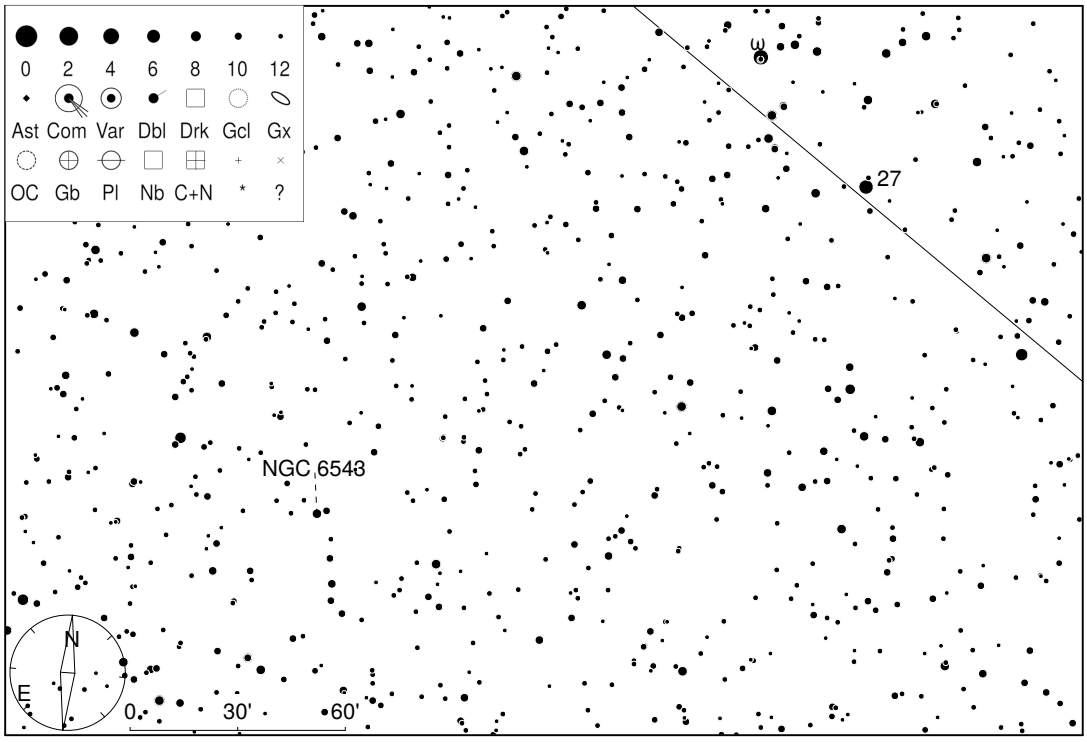
FACHGRUPPE DEEP-SKY
Vereinigung der Sternfreunde e.V.

NGC 6543 (PK 96+29.1, H 4.37, Cat's Eye Nebula) PN



DSS II (blue) - 10.0×10.0'

Constellation	Dra
Coordinates	17h58m33.42s / +66°37'59.52''
Brightness	8.1 mag
Size	0.3×0.3'

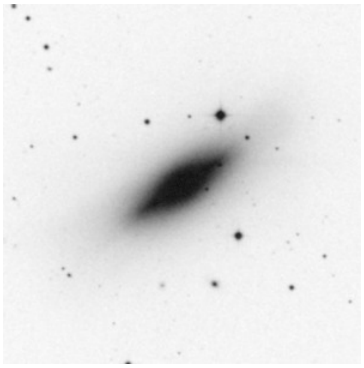


The Cat's Eye Nebula shows highly unusual structures and is the first planetary nebula from which the spectrum was already studied in 1864. The brightest part of the nebula has an apparent diameter of about 20 arc seconds, while its complex outer envelope (faintly visible on the DSS image) measures over 5 arc minutes. With a small telescope only the bright center is visible, but even under urban conditions a small pair of binoculars is sufficient. As the aperture increases, the nebula becomes increasingly turquoise and details become visible. High magnification and steady air are important for detailed observations.

created by:
Robert Zebahl

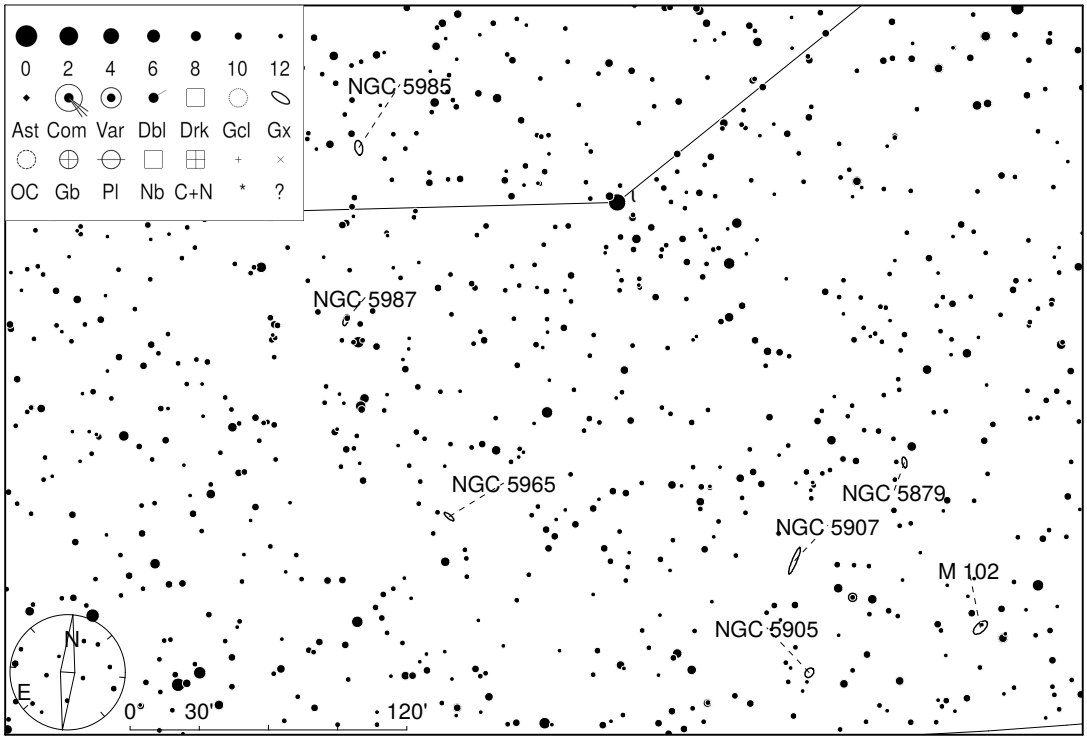
FACHGRUPPE DEEP-SKY
Vereinigung der Sternfreunde e.V.

M 102 (NGC 5866, UGC 9723, H 1.215) GLX



DSS II (blue) - 7.0×7.0'

Constellation	Dra
Coordinates	15h06m29.56s / +55°45'47.91''
Brightness	9.89 mag
Size	6.5×3.2'

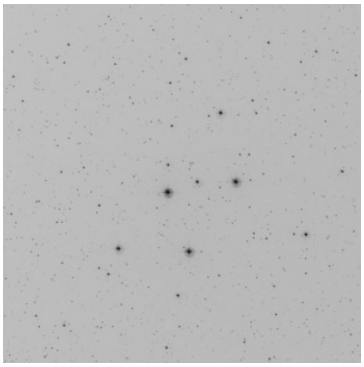


Messier 102 is a lenticular galaxy of the Hubble type S0, whereby this galaxy is sometimes also called spindle galaxy. It is unclear, however, whether Charles Messier had observed this galaxy in particular, since at his time there was no detailed information on its position. So it is quite possible that it is a double observation of Messier 101. It is also possible that the galaxies NGC 5879 or NGC 5928 were observed by him. Today Messier 102 is assigned to the object NGC 5866. Visually this galaxy can be observed due to the high surface brightness well with small instruments also under less dark skies. The galaxy also shows a very fine dust lane, which should be accessible to larger telescopes. In the closer surroundings there are more interesting, but also fainter galaxies. NGC 5907 is probably most known.

created by:
Robert Zebahl

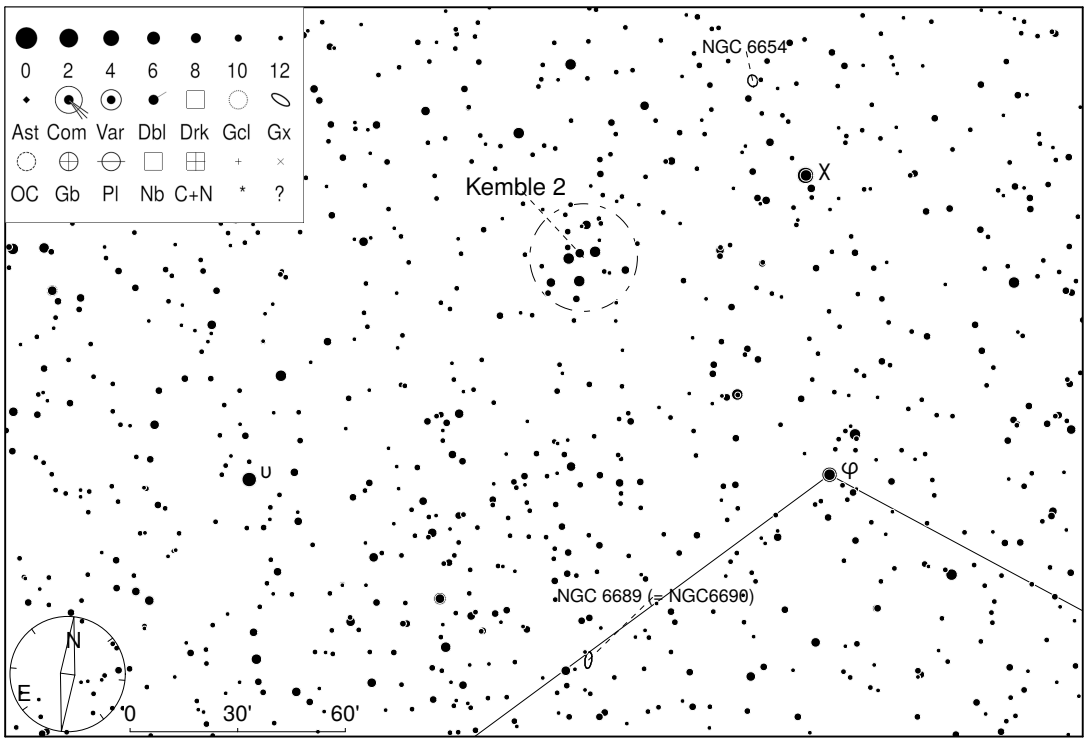
FACHGRUPPE DEEP-SKY
Vereinigung der Sternfreunde e.V.

Kemble 2 (Mini Cassiopeia, Little Queen) AST



DSS II (blue) - 40.0×40.0'

Constellation	Dra
Coordinates	18h35m35.00s / +72°23'56.00''
Brightness	7.0 mag
Size	30×30'

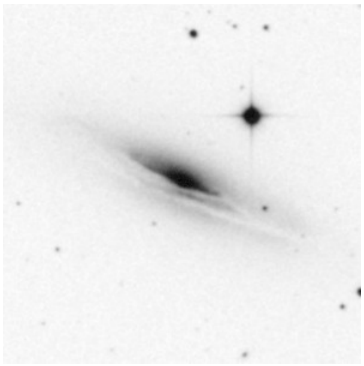


The constellation Cassiopeia is not a summer constellation, but nevertheless at least the small version of Cassiopeia can be observed well. Kemble 2 is a star pattern which is very similar to this constellation. It can easily be observed with a small telescope, but also with a pair of binoculars should be enjoyable.

created by:
Robert Zebahl

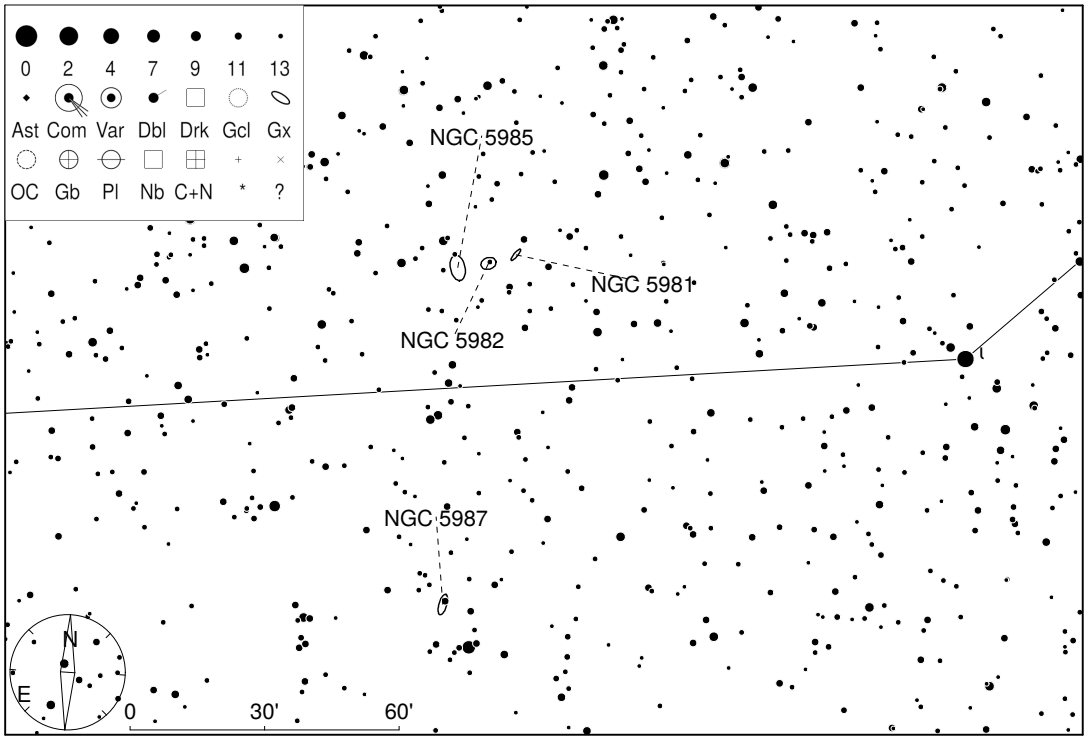
FACHGRUPPE DEEP-SKY
Vereinigung der Sternfreunde e.V.

NGC 5987 (UGC 9971, H 2.765) GLX



DSS II (blue) - 5.0×5.0'

Constellation	Dra
Coordinates	15h39m57.38s / +58°04'46.37''
Brightness	11.7 mag
Size	4.2×1.3'

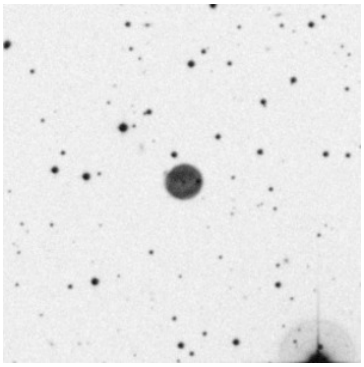


William Herschel discovered this galaxy in 1788 with his 18.7-inch reflector telescope, describing it as 'pF, cS' (pretty faint, considerably small). It is located near a 10.2 mag bright field star and can be well observed under a Bortle 4 sky with 8-inch aperture at medium power. The galaxy as well as the brighter center itself appears clearly elongated. From which telescope aperture are the dust lanes visible? North of NGC 5987 is the well known Draco triplet consisting of the two brighter galaxies NGC 5985 and NGC 5982 as well as the faint Edge-On galaxy NGC 5981.

created by:
Robert Zebahl

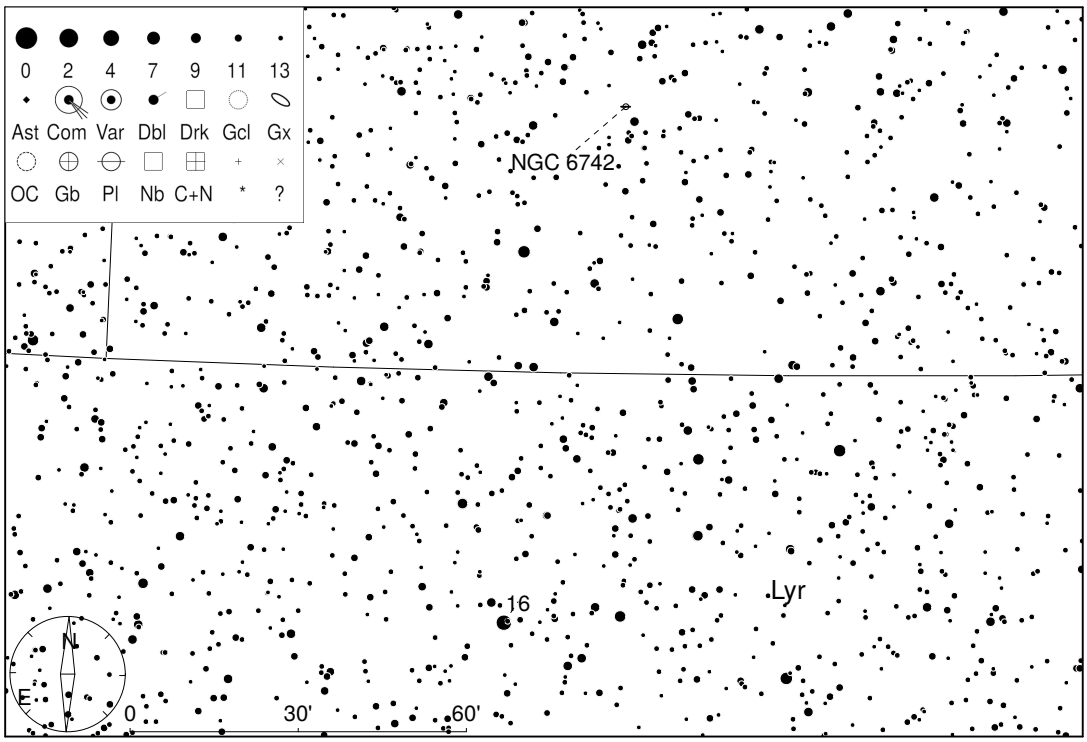
FACHGRUPPE DEEP-SKY
Vereinigung der Sternfreunde e.V.

NGC 6742 (Abell 50, PK 78+18.1, H 3.742) PN



DSS II (blue) - 5.0×5.0'

Constellation	Dra
Coordinates	18h59m20.03s / +48°27'55.24''
Brightness	13.4 mag
Size	0.5×0.5'



Already in 1788 William Herschel discovered this planetary nebula, however without finder charts or even filters. Abell 50 is thus the first of four visually discovered planetary nebulae in the Abell catalogue. Herschel described the nebula as a faint stellar object at the southeastern end of the constellation dragon. Under rural skies, the nebula can easily be observed with an 8-inch telescope. At medium power and [OIII] filter it is visible with direct vision and appears as a small, round, even disc.

created by:
Robert Zebahl

FACHGRUPPE DEEP-SKY
Vereinigung der Sternfreunde e.V.