

# Alle Herschels waarnemen! Waanzin?



# Alle Herschels waarnemen! Waanzin?

- kort voorstellen
- geschiedenis
- waarnemen

- 2006: basiscursus op Volkssterrenwacht Urania
- Lidl-telescoop (Meade ETX-70) / Orionnevel (M42)



- mijn huidige optica



Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

- veel waarnemen...

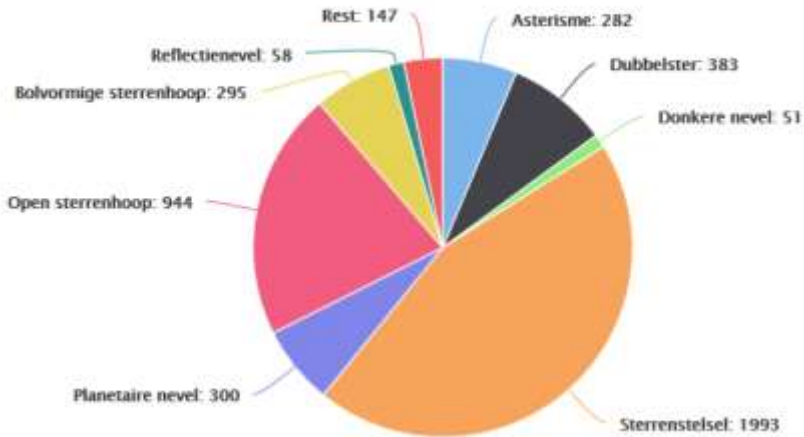
maandgemiddelden Wolfgetal



# • veel waarnemen...

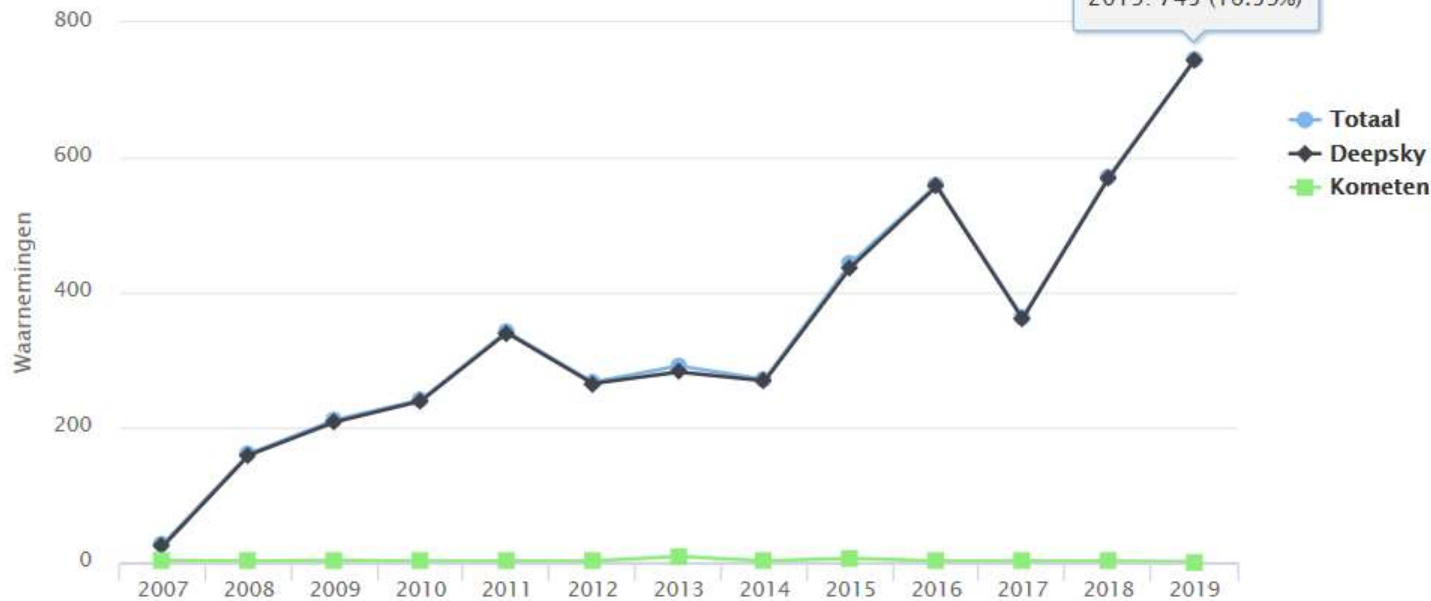
Object types: Jef De Wit

Bron: <https://www.deepskylog.org/>



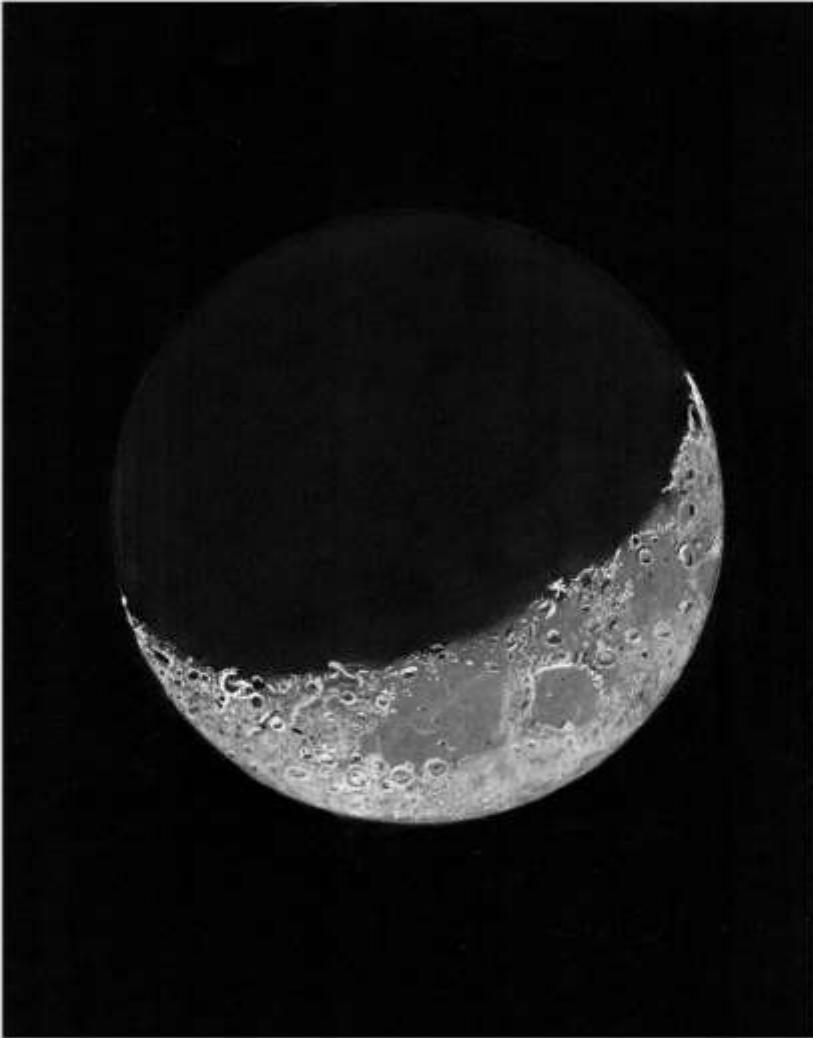
Aantal waarnemingen per jaar: Jef De Wit

Bron: <https://www.deepskylog.org/>

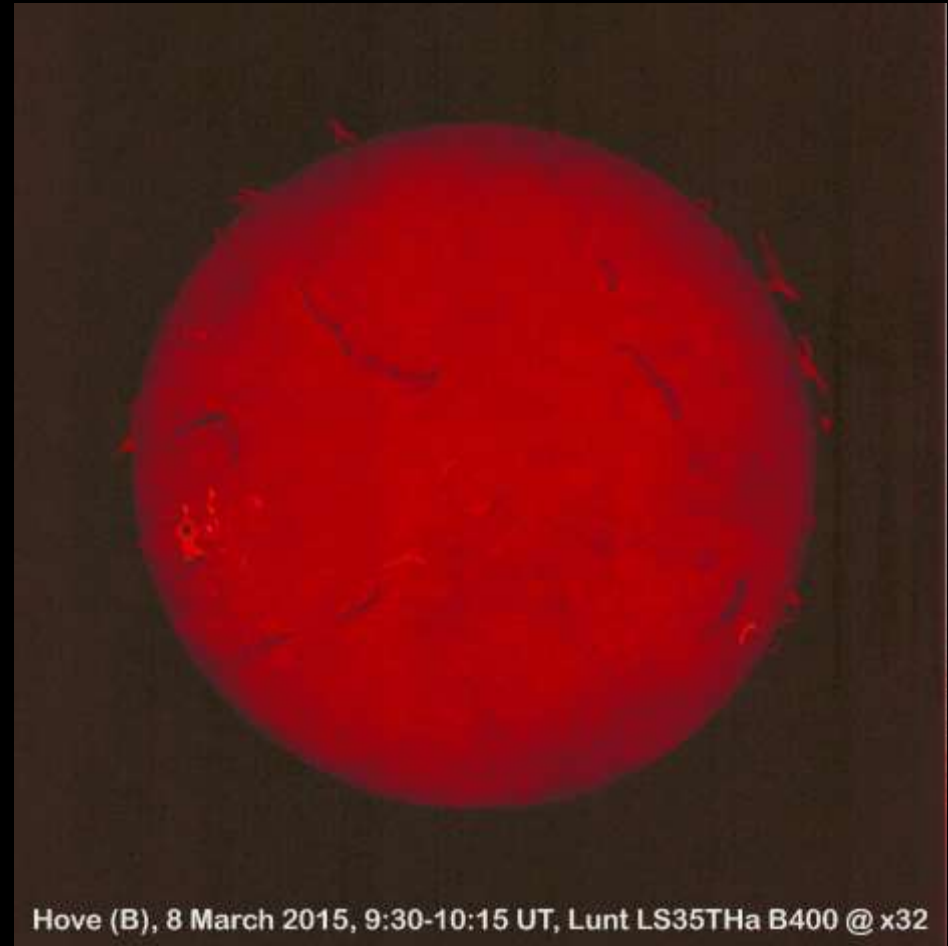


Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

- ...met af en toe een schetsje



Earthshine, Biggekerke (NL), 5 Mars 2014, 19.00-20.30 UT  
8 cm refractor @ x43, altitude 27°  
lunation 4.49 days, illumination 24%



Hove (B), 8 March 2015, 9:30-10:15 UT, Lunt LS35THa B400 @ x32

- af en toe een publicatie

# de Sterrenkijkrant

een speciaal nummer (februari 2017) van het tijdschrift *Heelal* naar aanleiding van de Sterrenkijkdagen (op 3 en 4 maart 2017) en de Zonnekijkdag (op 2 juli 2017)

## STERRENGIDS

DE STERRENHEMEL VAN NACHT TOT NACHT



Astrolabris  
@astrolabris

Startpagina

Info

Foto's

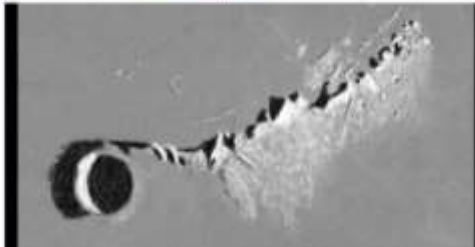
Reviews

Video's

Evenementen

als Vind ik leuk · Volgen · Delen · ...

Omdat de tekening van de komeet van Jef De Wit boven gemiddeld de aandacht trok, misschien eens de weg wijzen naar meer geïnteresseerd hemelwerk van Jef en meteen de aandacht erop vestigen dat dit een heel waardevolle manier is van observeren die contrasteert met fotograferen. Ieder detail die er geïnteresseerd is moet ook effectief gezien worden en gememoriseerd. Je leert het object veel beter kennen, omdat je er ook zo lang mee bezig bent. Ik tekende zelf ooit eens de maankrater Eratos... Meer weergeven



# heelalsterrenkunde 2017

Govert Schilling

## DE STERRENWACHTER

tweemaandelijks tijdschrift van de volkssterrenwacht Urania  
volume 24 / nummer 4 / september – oktober 2012

# KIJK OMHOOG!

Alles over sterrenkijken en telescopen

Jaarboek

Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

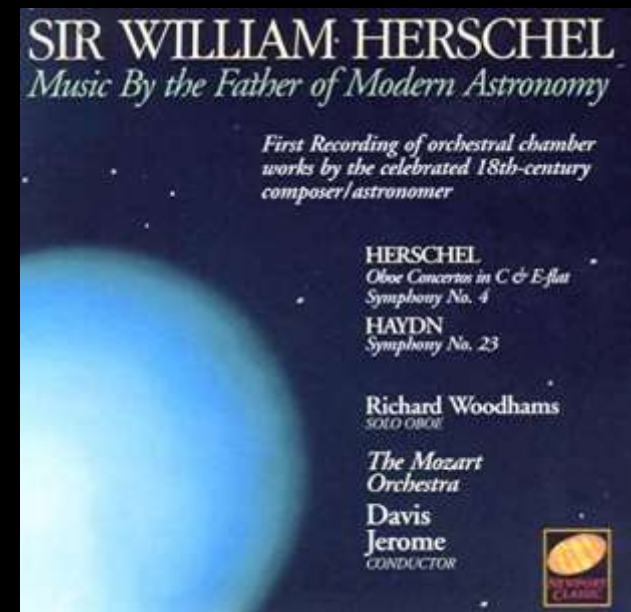
- **Werkgroep Algemene Sterrenkunde (WGAS)**
- **+/- 125 leden, wekelijks op donderdag**
- **waarnemen: Oesterput, Ramillies, Postel**
- **weekends: Grandpré, Medendorf, Starnights**
- **Astroforum, VVS, Cloudy Nights**
- **DSL: database**



**Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019**

# William Herschel (1738-1822)

Friedrich Wilhelm  
vlucht naar Engeland (1757)  
muzikant en componist  
[symphonies](#) (1760-1762)



# William Herschel (1738-1822)

boeken over astronomie  
eerste waarnemingen (1773)

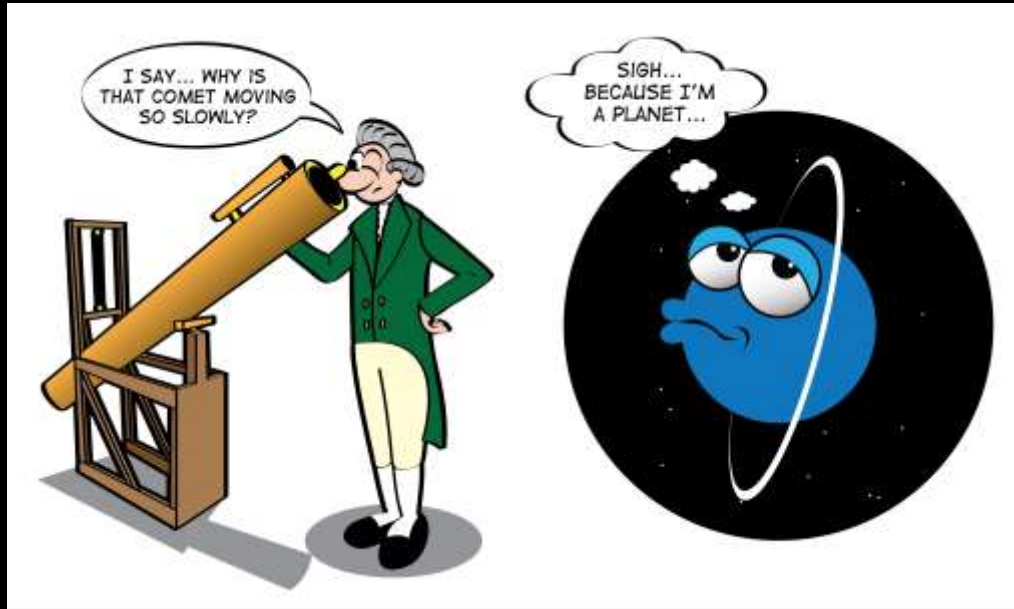
ATM

800-tal dubbelsterren  
(Herschel 500)



# William Herschel (1738-1822)

## ontdekking van Uranus (1781)



Georgium Sidus (George III)  
Johann Bode (M81/Titius-Bode)

## PTM (vanaf 1781)

standaard: 6,2 inch / 16 cm  
7 foot

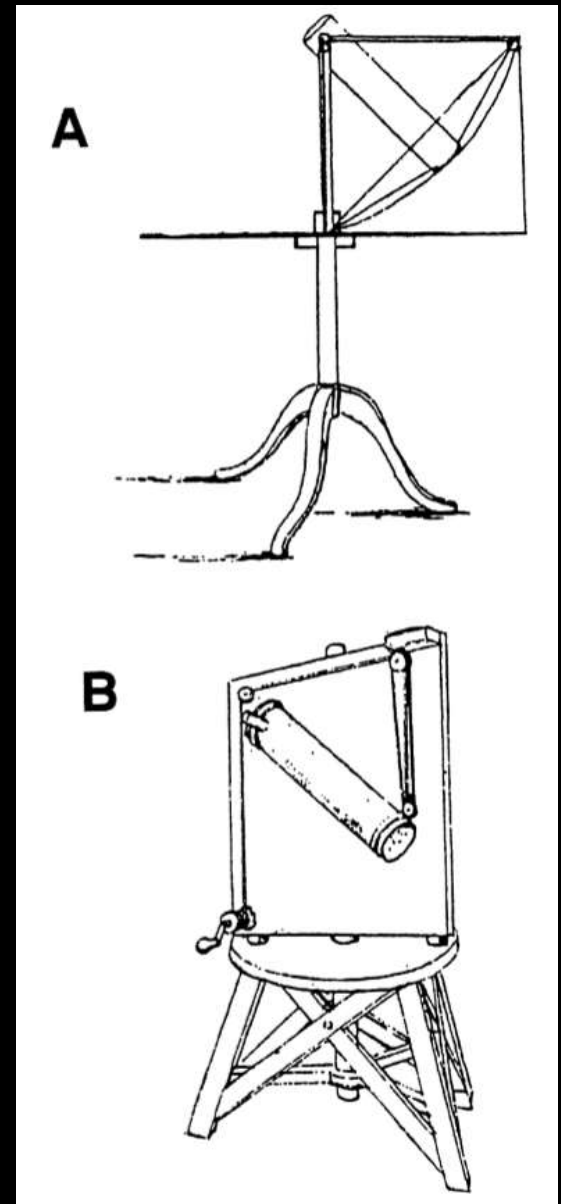
zonder accessoires: £ 105  
≈ £ 160 000 nu  
≈ € 185 000 nu

koninklijk loon William: £ 200  
beste jaar als muzikant: £ 400  
loon Caroline: £ 50



**Charles Messier (1730-1817)**  
**lijst: 1764 - 1781**

**William Herschel (1738-1822)**  
**Caroline Herschel**  
**ontdekt in 1783 12 DSO**  
**“Sweep of the heavens”**  
**1783-1802: 2 500 nieuwe DSO**

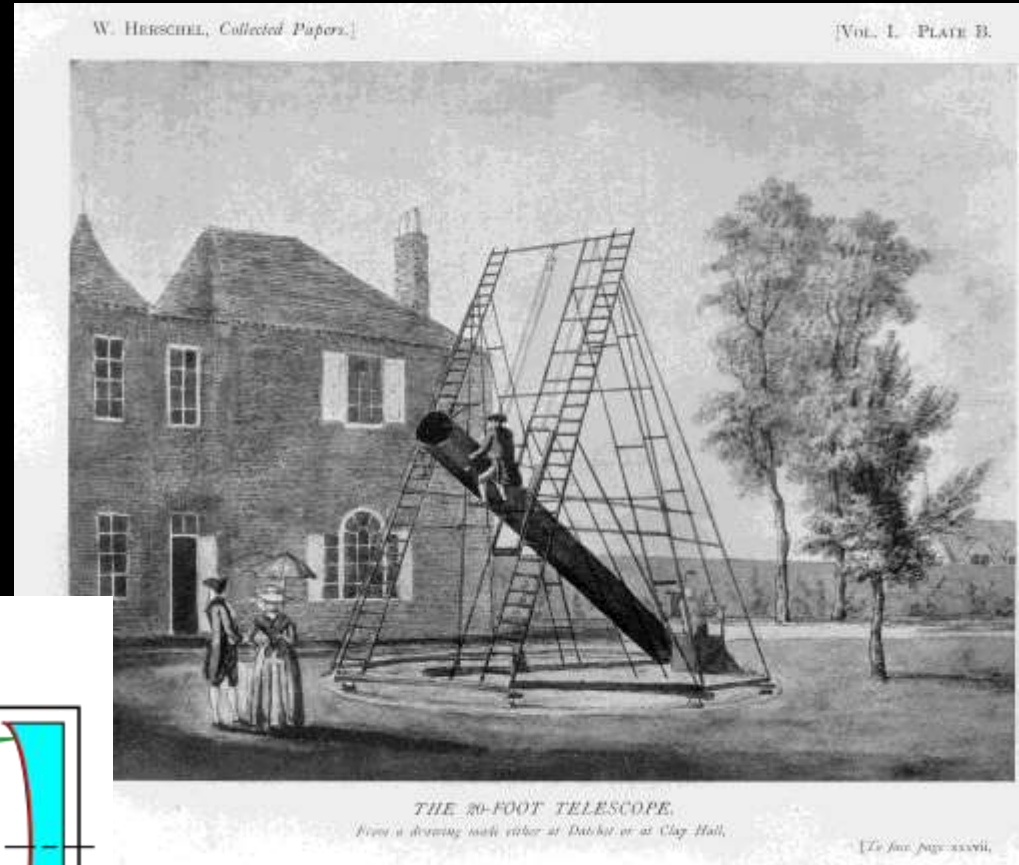
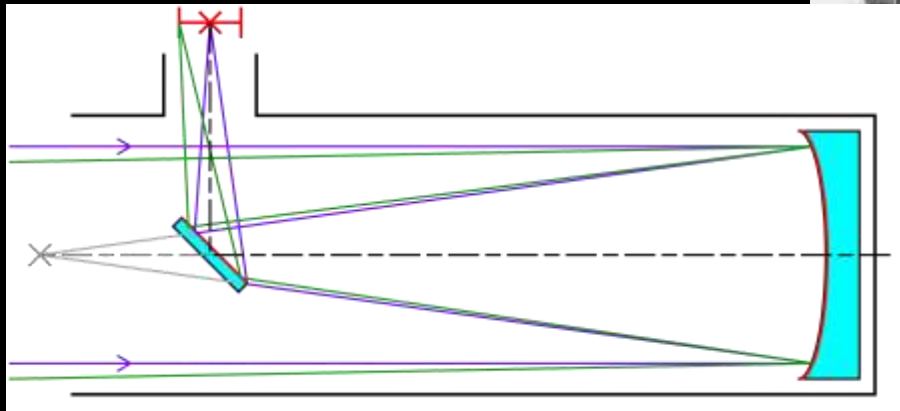


# meest gebruikte telescoop

18,7 inch = 47,5 cm

20 foot = 610 cm

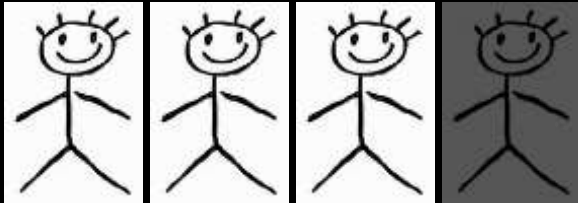
Newtonian (1668)



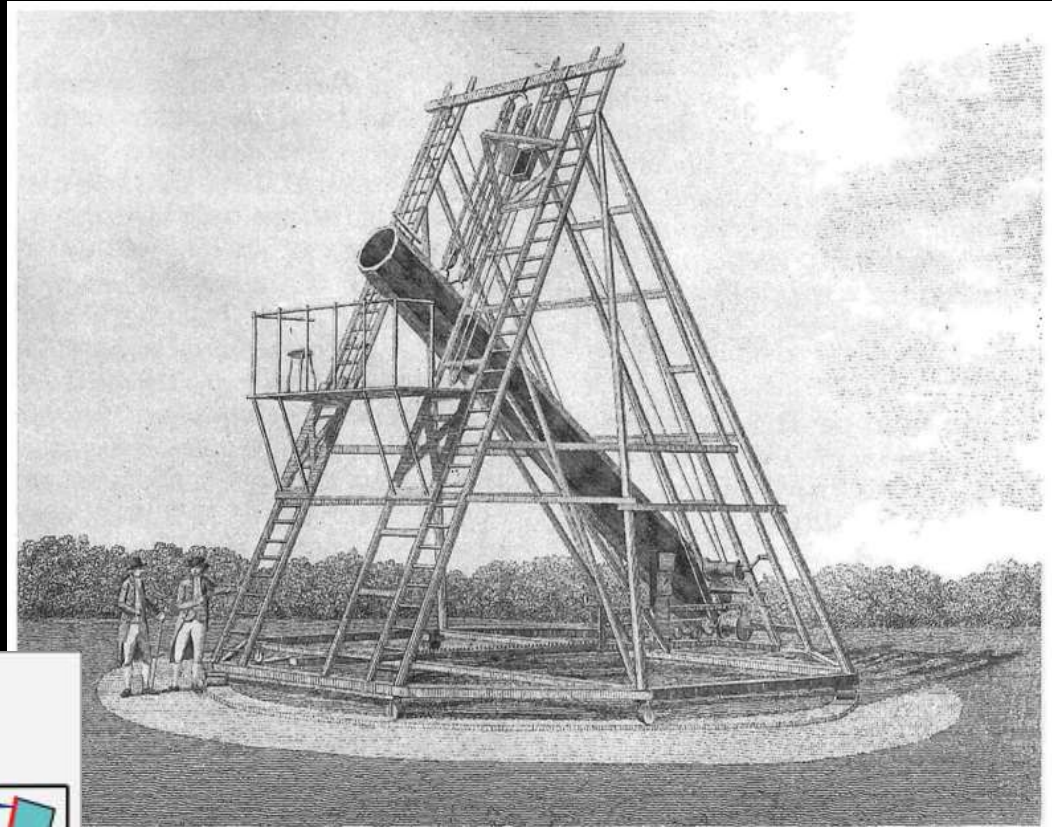
# meest gebruikte telescoop

18,7 inch = 47,5 cm

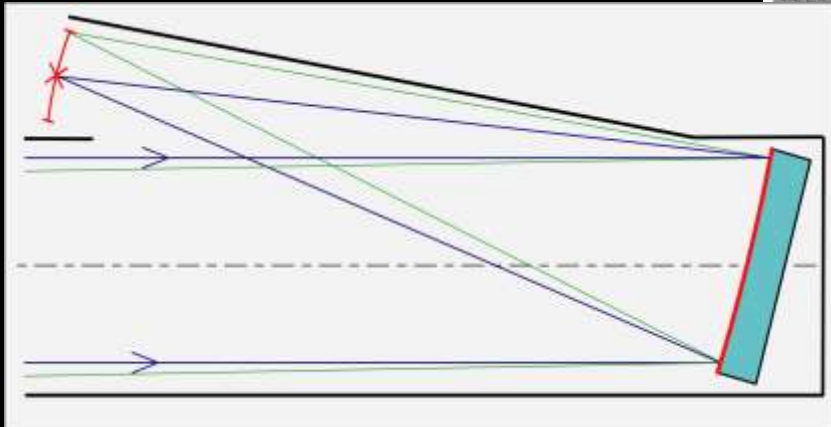
20 foot = 610 cm



Herschelian  
(vanaf 1776)



William Herschel's Twenty-foot Reflecting Telescope

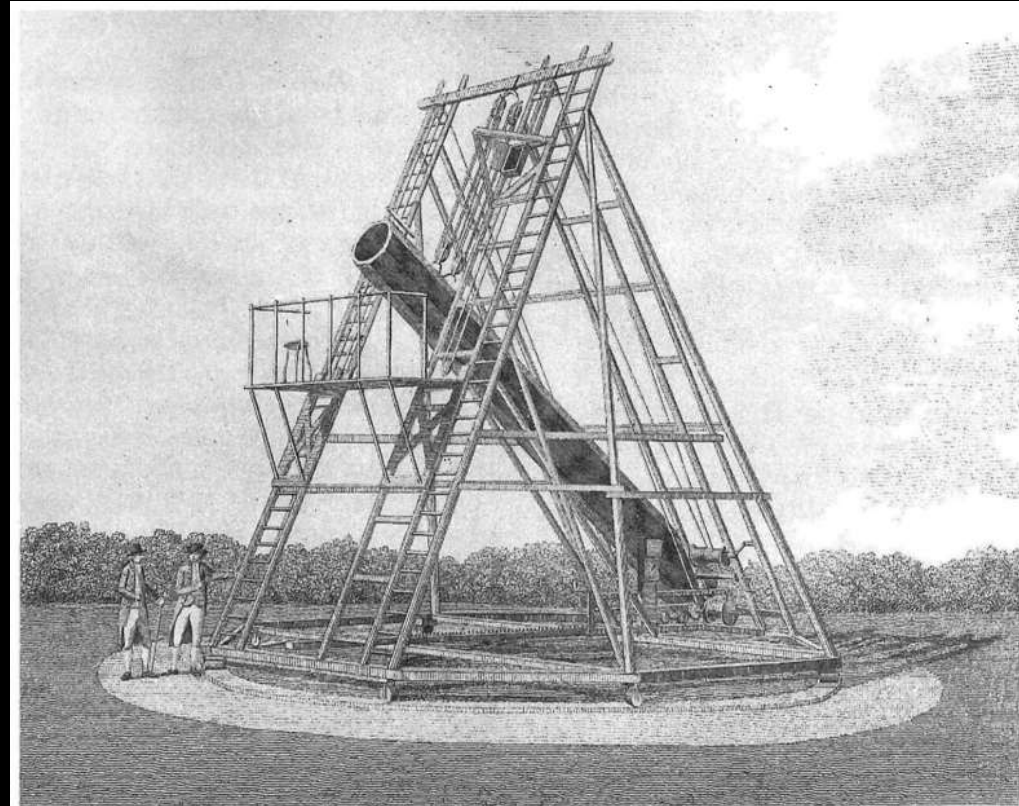


# meest gebruikte telescoop

- \* speculum (u):  
60% reflectie (r)  
+ secundaire (s) 36%
- \* modern (m):  
90% reflectie  
+ secundaire 80%

$$d_m = \sqrt{\frac{(rpu \times rsu \times du^2)}{(rpm \times rsm)}}$$

- \* met secundaire:  
≈ 32 cm spiegel nu
- \* zonder secundaire:  
≈ 41 cm spiegel nu
- \* O'Meara: 25 cm

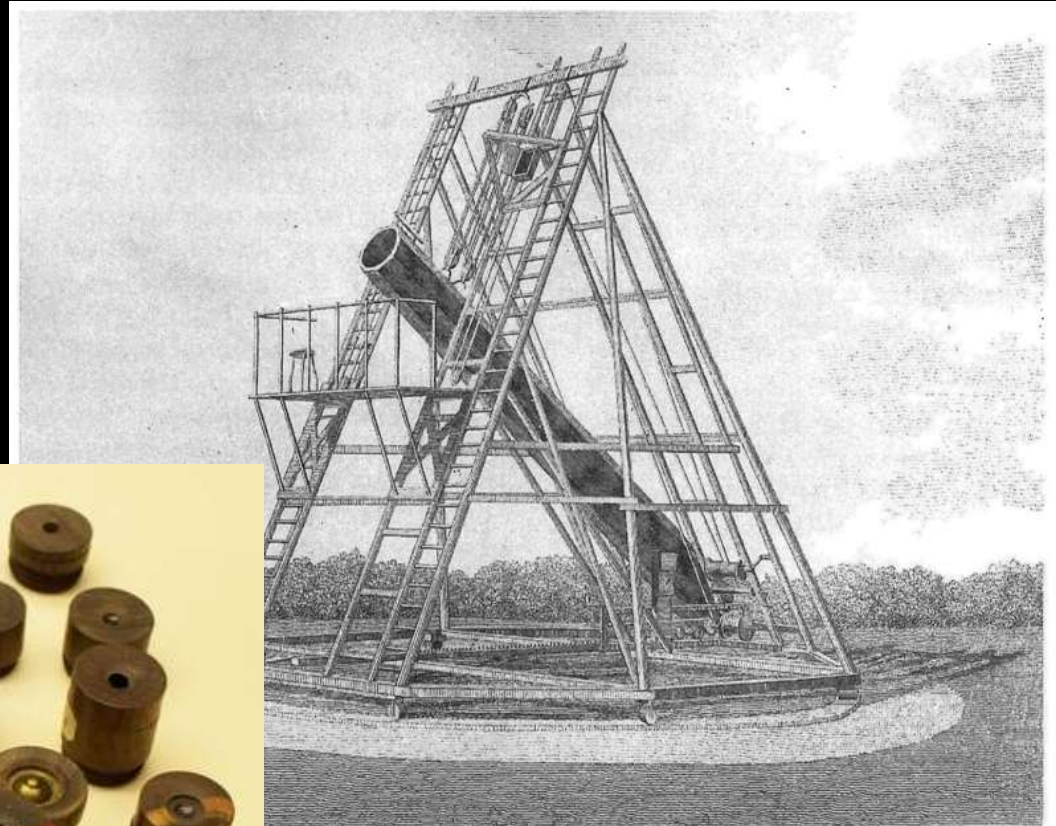


William Herschel's Twenty-foot Reflecting Telescope

# meest gebruikte telescoop

18,7 inch = 47,5 cm

vergroting 157x  
beeldveld 15'04"  
-> 39 mm oculair  
AFOV van 39°

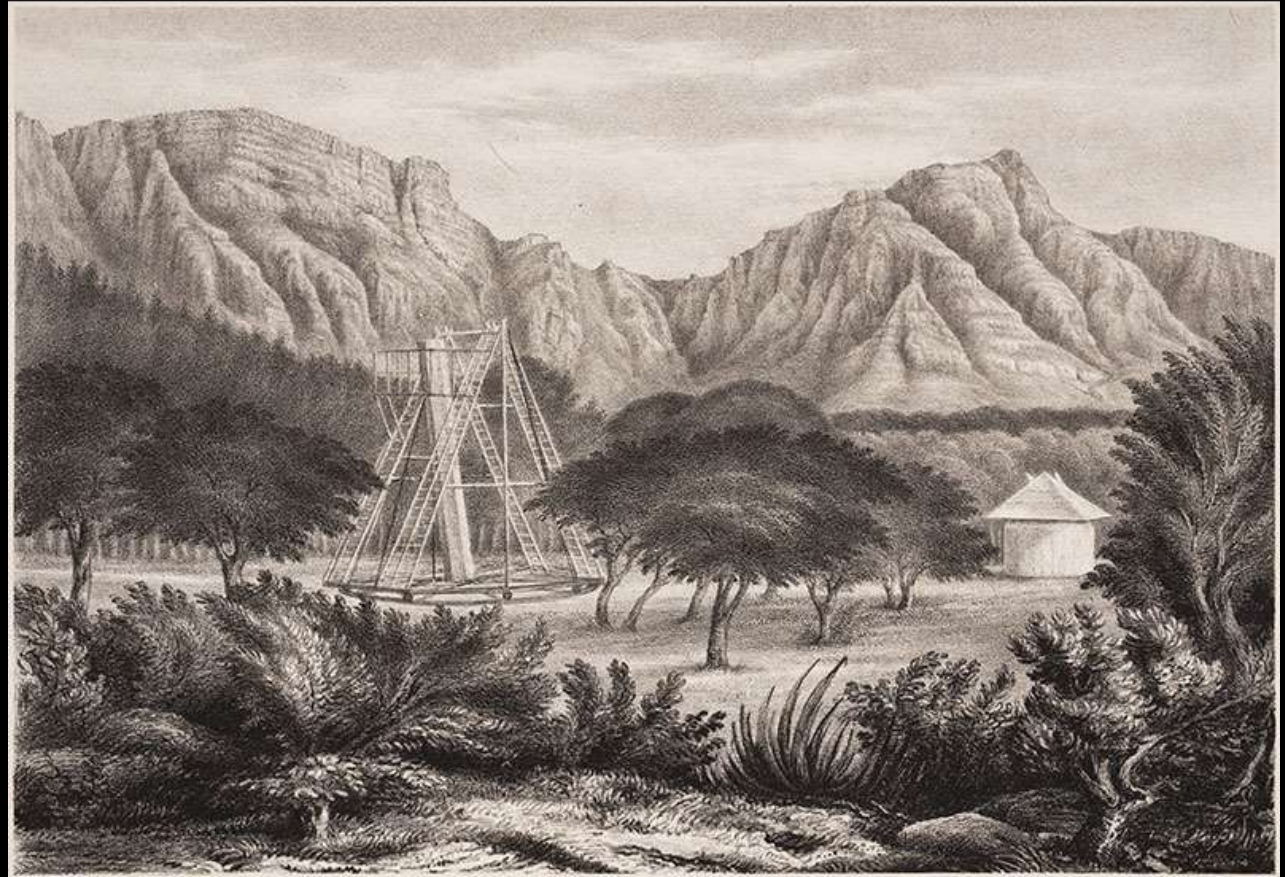


**meest gebruikte telescoop**

**zoon John Herschel (1792-1871)**

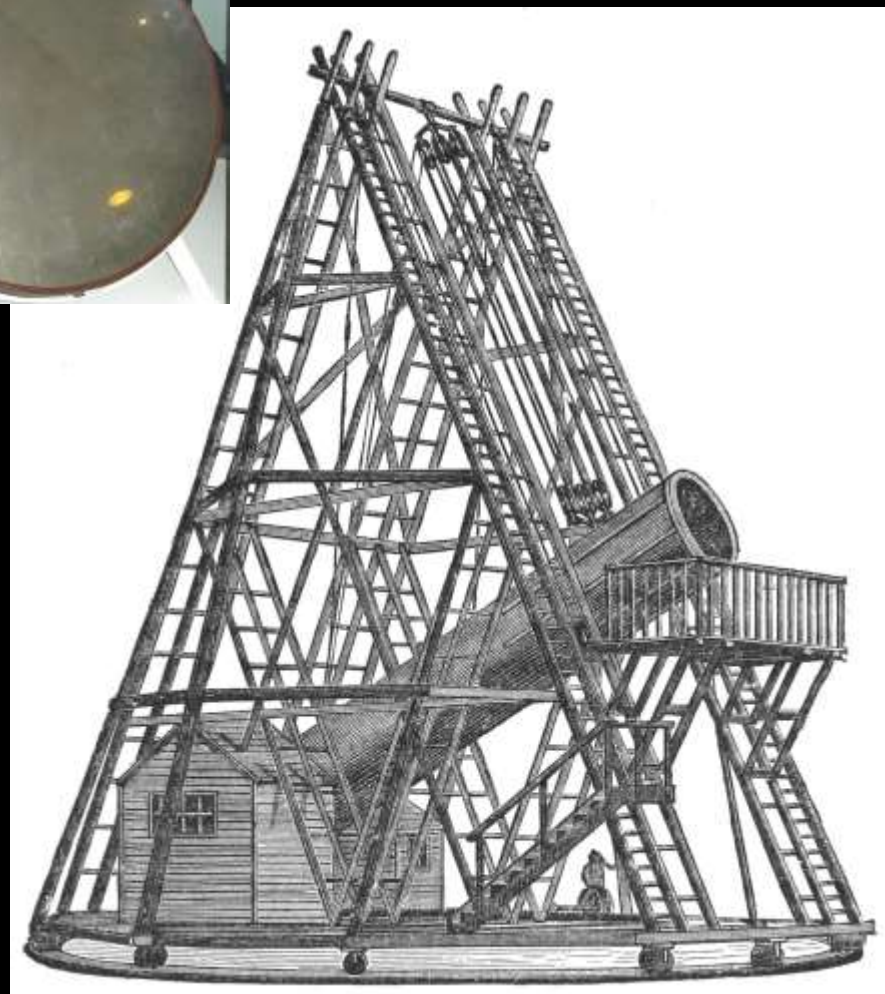
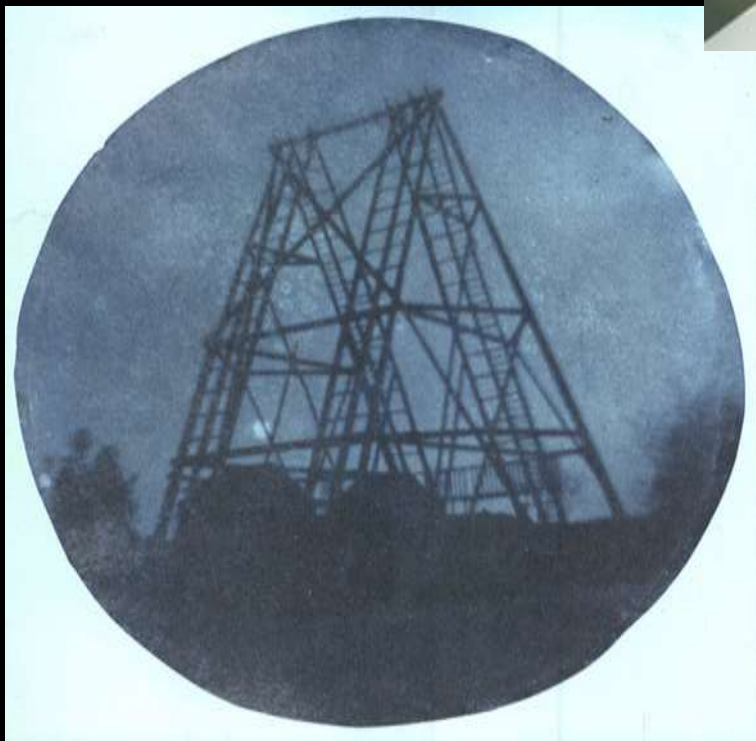
**1823-1828:  
+ 466 DSO**

**1834-1838:  
Zuid-Afrika  
+ 1700 DSO**



# the Great Forty-Foot

bouw 1785-1789  
120 cm spiegel  
† 1839



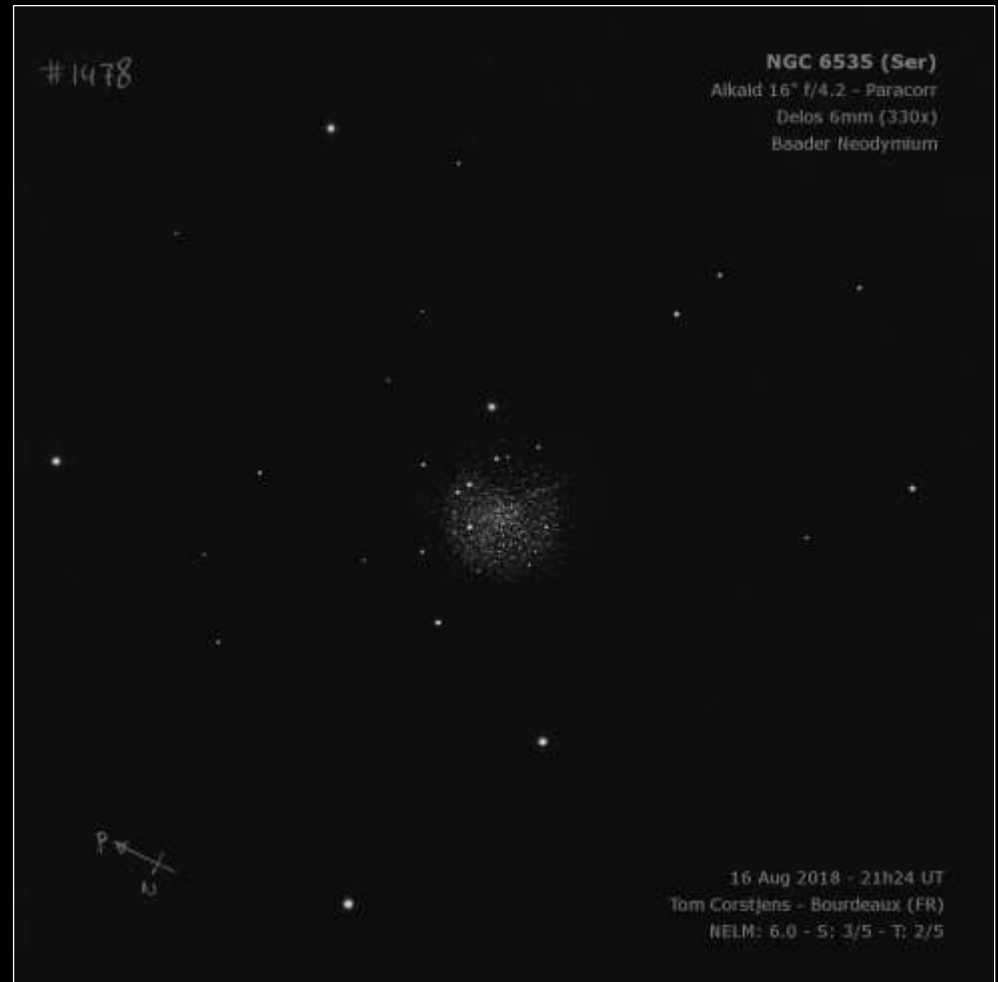
# grootse waarnemer / beste instrument

voor 1783:  
138 DSO bekend

oktober 1783  
- april 1785:  
1000 nieuwe DSO

merkwaardig  
1773-1782:  
4 DSO (NGC 6535)

1783-1802:  
401 nachten  
6 objecten / nacht



# grootse waarnemer / beste instrument

11 april 1785:  
74 nieuwe DSO  
(elke 5' ééntje!)

## The Herschel Sprint



## detail lijst



van NGC 3196 tot NGC 6001  
in 5u30  
tussen dec 26°54' en 29°19'  
enkel bewegen in declinatie  
13 maart – 12 april

# publicatie

## Catalogue of One Thousand New Nebulae and Clusters of Stars (1786)

## Catalogue of a Second Thousand ... (1789)

## Catalogue of 500 ... (1802)

XXVII. *Catalogue of One Thousand new Nebulae and Clusters of Stars.* By William Herschel, LL.D. F. R. S.

Read April 27, 1786.

THE following Catalogue, which contains one thousand new Nebulae and Clusters of stars, is extracted from a series of observations (or Sweeps of the heavens), which was begun in the year 1783, and which I am still continuing till the whole be completed. As I may, perhaps, find an opportunity hereafter to publish these observations at full length, I shall now only mention such circumstances, relating to the instrument and apparatus with which they were made, as will

XX. *Catalogue of a second Thousand of new Nebulae and Clusters of Stars; with a few introductory Remarks on the Construction of the Heavens.* By William Herschel, LL.D. F. R. S.

Read June 11, 1789.

BY the continuation of a review of the heavens with my twenty-foot reflector, I am now furnished with a second thousand of new Nebulae.

XVIII. *Catalogue of 500 new Nebulae, nebulous Stars, planetary Nebulae, and Clusters of Stars; with Remarks on the Construction of the Heavens.* By William Herschel, LL.D. F. R. S.

Read July 1, 1802.

# classificatie

klasse I heldere nevel  
klasse II zwakke nevel  
klasse III zeer zwakke nevel

} *vooral  
sterrenstelsels*

klasse IV planetaire nevel  
klasse V zeer grote nevel

klasse VI zeer compacte  
en rijke cluster  
klasse VII compacte cluster met  
helderheidsverschillen  
klasse VIII cluster met losse  
structuur

} *vooral  
open  
sterrenhopen*

# classificatie

klasse I, II en III

-> handig om de helderheid in te schatten

betrouwbaar?

52 sterrenstelsels hebben 2 Herschel-nummers

26 hebben 2x dezelfde klasse

26 schuiven tussen klasse I en II of tussen II en III

speciaal geval:

NGC 4698 zowel  
in klasse I en III?



David Erzeel

# codetaal

|            |                  |
|------------|------------------|
| B. Bright. | v. very.         |
| F. Faint.  | c. considerably. |
| L. Large.  | p. pretty.       |
| S. Small.  | e. extremely.    |

|                   |                 |
|-------------------|-----------------|
| R. Round.         | l. a little.    |
| E. Extended.      | i. irregularly. |
| M. in the middle. | g. gradually.   |
| b. brighter.      | f. suddenly.    |
| m. much.          |                 |

|                                               |           |
|-----------------------------------------------|-----------|
| r. resolvable.                                | m. milky. |
| er. (joined) easily resolvable.               |           |
| iF. (joined) of an irregular figure.          |           |
| C. Cometic, or resembling a telescopic comet. |           |

|                                                                |  |
|----------------------------------------------------------------|--|
| N. having a Nucleus, or bright compressed spot.                |  |
| l, b, or d. (joined to minutes) long, broad, or diameter.      |  |
| ft. a star. stars.                                             |  |
| n. north. north of.                                            |  |
| s. south. south of.                                            |  |
| p. preceding. np. north preceding. sp. south preceding.        |  |
| f. following. nf. north following. sf. south following.        |  |
| betw. between. ver. 240. verified by a power of 240.           |  |
| bran. branches.                                                |  |
| che. chevelure.                                                |  |
| mer. in the direction of the meridian.                         |  |
| par. in the direction of the parallel of declination.          |  |
| np sf. in a direction from north preceding to south following. |  |
| sp nf. in a direction from south preceding to north following. |  |

# codetaal

NGC3521  
Leo

06-04-2015  
22h30 MET



Tim Böger,  
Lochem  
SQM 20.0

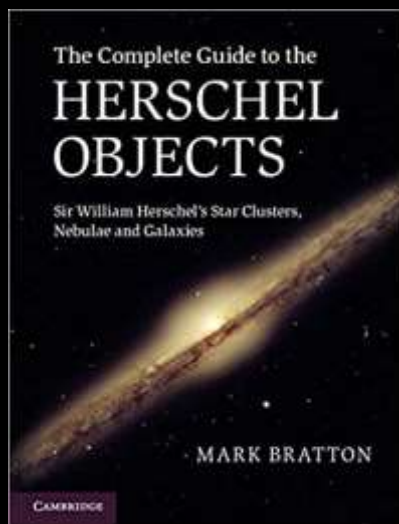
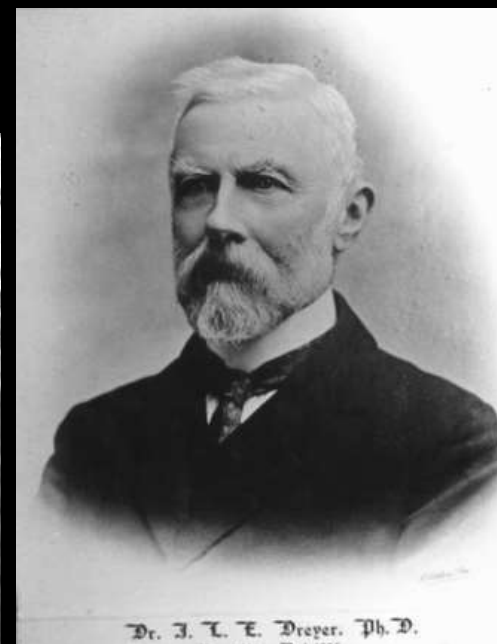
35cm Dobson  
225x

## First class. Bright nebulae.

| I. | 1783 | Stars.    |   | M. S. |   | D.M. | Ob. | Description.                               |
|----|------|-----------|---|-------|---|------|-----|--------------------------------------------|
| 13 | 22   | 69 Leonis | p | 7 57  | n | 0 2  | 3   | { vB. mE. mer. fimbM. 7 or 8'.<br>Fig. 11. |

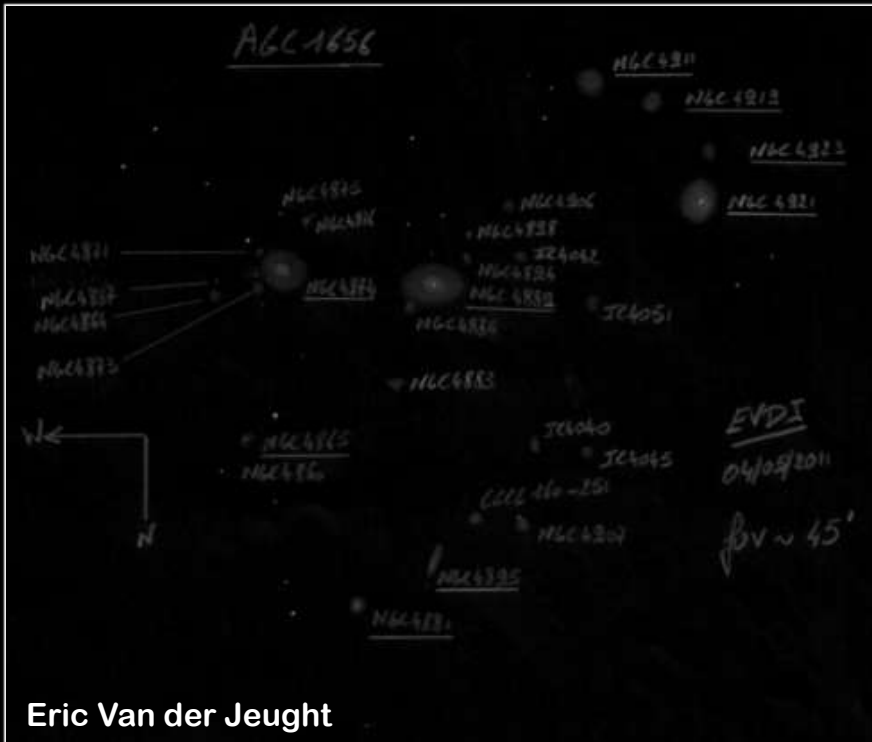
13th nebula of the 1st class. Feb. 22, 1784. It precedes the 69th Leonis of FLAMSTEED's Catalogue  $7' 57''$  in time, and is  $0^{\circ} 2'$  more north than that star. 3 observations. Very bright, much extended in the direction of the meridian of the nebula, suddenly much brighter in the middle 7 or 8' in length.

|                      |               |
|----------------------|---------------|
| William Herschel:    | 2500 objecten |
| John Herschel        | + 8           |
| John Dreyer          | + 3           |
| Lucian Kemble:       | 2478          |
| Mark Bratton:        | 2435          |
| Astronomical League: | 2379/83       |
| DeepskyLog:          | 2441 + 8      |



# Herschel objecten $\neq$ NGC

**New General Catalogue (1888): 7840 objecten  
alle Herschels hebben een NGC-nummer  
behalve IC 4051 (Coma Berenices), IC 2118  
(Eridanus) en IC 1029 (Bootes)**



# Herschel objecten $\neq$ NGC

oorspronkelijk ook 13 Messier objecten:

M8, M20, M33, M43, M47, M48, M49, M61, M76, M82, M88, M91, M102

latere toevoegingen (in 1921, 1947, 1953 en 1966):

M104, M105, M106, M107, M108, M109, M110

in totaal 20 Messier objecten

waarneemverslagen alle  
Messiers door Herschel



# Messierlijst

36% sterrenstelsels

## Herschel 400

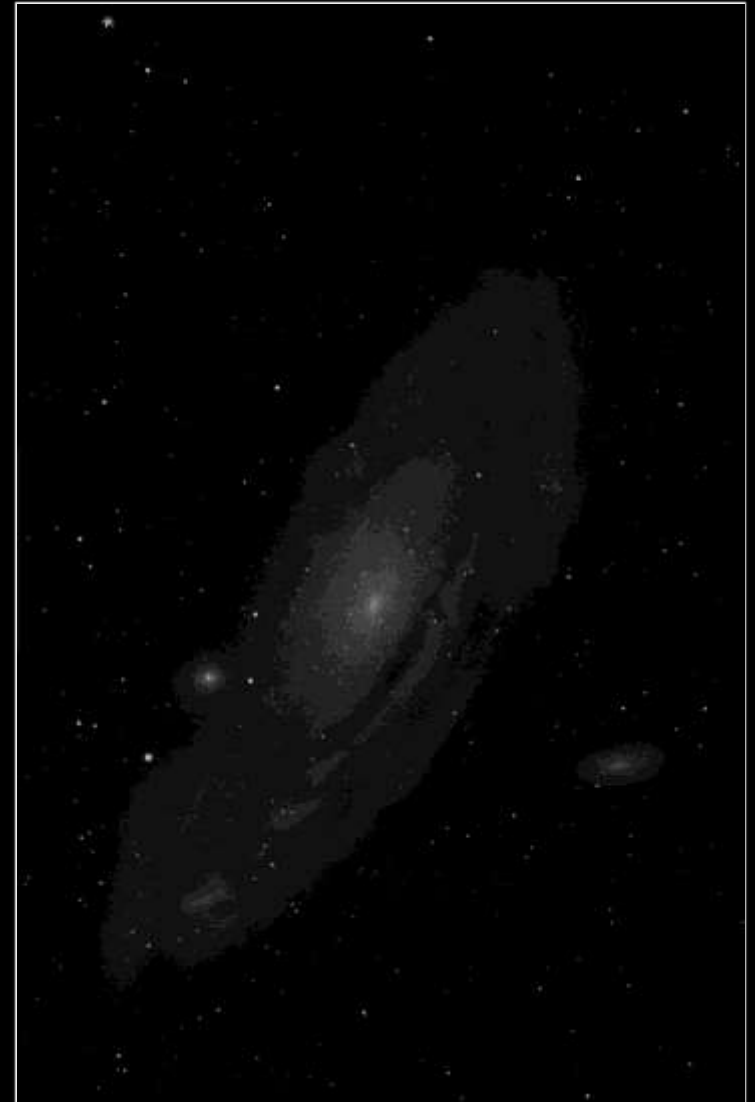
58% sterrenstelsels

## Herschel 400-II

81% sterrenstelsels

## Herschel 400-III

75% sterrenstelsels



Harro Treur

# Herschel objecten

87% sterrenstelsels

zonder H400

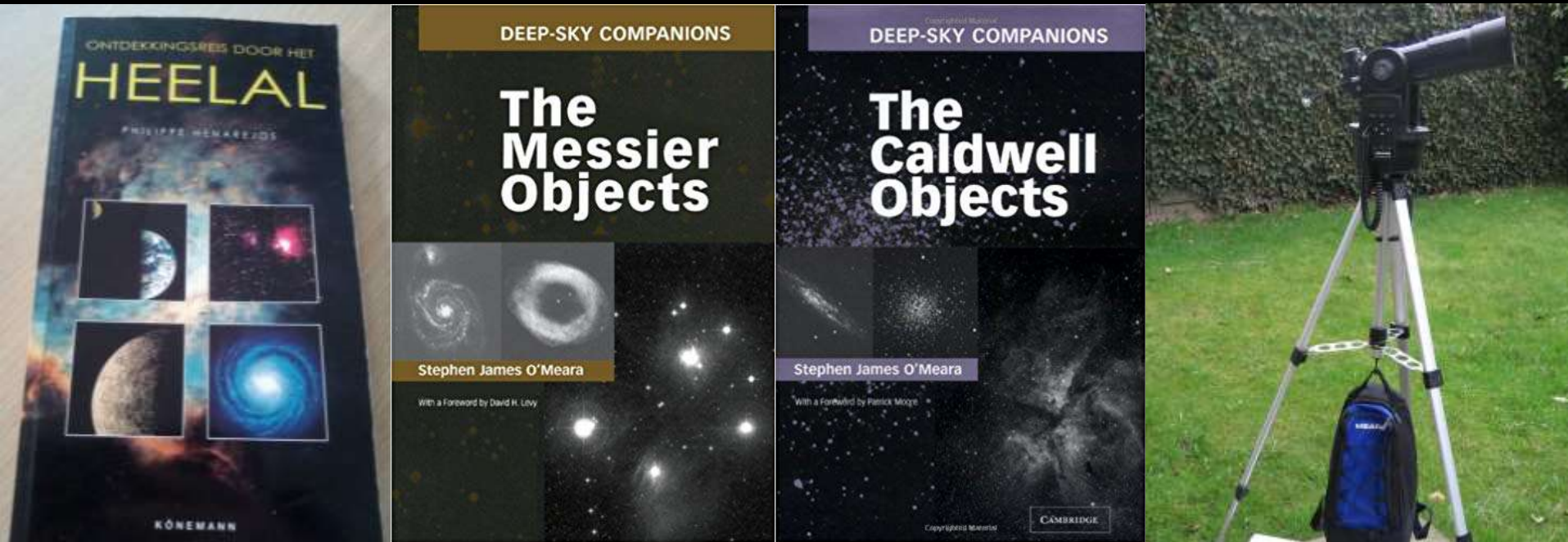
92% sterrenstelsels

zonder H400 I + II

95% sterrenstelsels



# waarneemboeken



Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

# waarneemboeken



... het is allemaal de schuld van



GuusGilein  
PKS 0716+71



Lid geworden op:  
Oct 2006  
Berichten: 4699

Zojuist in mijn postvakje gevonden  
31-03-15, 11:21



Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

# The Complete Guide to the Herschel Objects

Mark Bratton

visuele beschrijving

1992-2001 & 2006-2010

Canada

New Mexico (90) & Chili (70)

vooral 15" telescoop

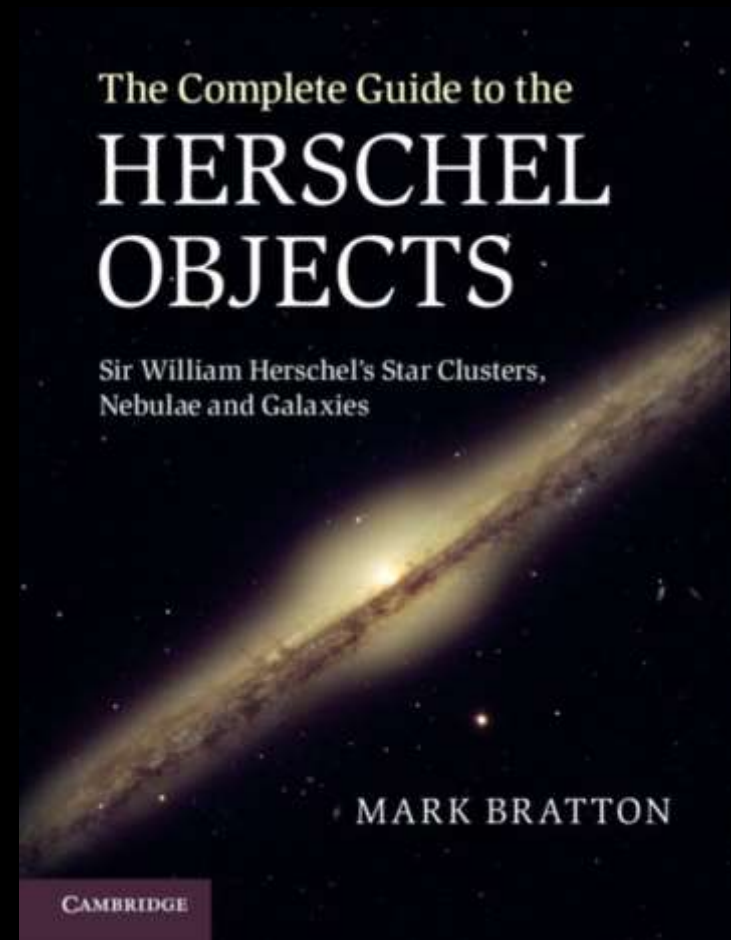
ook 8", 12" en enkele met 24"

interessante inleiding

alle foto's zelfde grootte

af en toe schets

per sterrenbeeld



# The Complete Guide to the Herschel Objects



## NGC3618

|                   |             |        |     |
|-------------------|-------------|--------|-----|
| H334 <sup>3</sup> | 11:18.5     | +23 29 | GLX |
| SABb:             | 1.1' × 0.8' | 14.498 |     |

Photographs show a small face-on galaxy with a tiny, star-like nucleus in a brighter core. Grainy spiral structure emerges from the core with dust patches evident in the E and S and the arms themselves have fairly high surface brightness. Companion galaxy NGC3615 is 7.4' SW and probably forms a physical pair. At the presumed distance, the core-to-core separation between the two galaxies would be about 650 000 ly. Visually, this galaxy is smaller and fainter than its neighbour; it is an ethereal glow which is a little brighter to the middle and very slightly elongated N-S. Radial velocity: 6759 km/s. Distance: 302 mly. Diameter: 97 000 ly.

telescope?

# Steve Gottlieb's NGC notes

[website](#)

meeste waarnemingen  
ook in DSL

|                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------|
| Note: All positions are in Equinox J2000.0<br>In the Observation Files, 13: = 13-inch Telescope, 17.5: = 17.5-inch Telescope, etc. |
| <u>NGC 1-7840 complete</u>                                                                                                         |
| <u>NGC 1 thru NGC 999</u>                                                                                                          |
| <u>NGC 1000 thru NGC 1999</u>                                                                                                      |
| <u>NGC 2000 thru NGC 2999</u>                                                                                                      |
| <u>NGC 3000 thru NGC 3999</u>                                                                                                      |
| <u>NGC 4000 thru NGC 4999</u>                                                                                                      |
| <u>NGC 5000 thru NGC 5999</u>                                                                                                      |
| <u>NGC 6000 thru NGC 6999</u>                                                                                                      |
| <u>NGC 7000 thru NGC 7840</u>                                                                                                      |
| <u>IC 1-5386 complete</u>                                                                                                          |
| <u>IC 1 - 1000</u>                                                                                                                 |
| <u>IC 1001 thru IC 2000</u>                                                                                                        |
| <u>IC 2001 thru IC 3000</u>                                                                                                        |
| <u>IC 3001 thru IC 4000</u>                                                                                                        |
| <u>IC 4001 thru IC 5000</u>                                                                                                        |
| <u>IC 5001 thru IC 5386</u>                                                                                                        |

NGC 3617 = ESO 503-012 = MCG -04-27-008 = UGCA 231 = AM 1115-255 = KTS 42C = PGC 34513  
11 17 50.9 -26 08 04  
V = 12.8; Size 1.8"x1.3"; Surf Br = 13.7; PA = 147d

18" (3/19/04): fairly faint, small, round, 30" diameter. Increases to a very small brighter nucleus. I probably only viewed the brighter core and missed the dim halo.

John Herschel discovered NGC 3617 = h3336 on 22 Mar 1836 and recorded "F; S; R: gbM; 20". His position matches ESO 503-012 = PGC 34513.

NGC 3618 = UGC 6327 = MCG +04-27-014 = CGCG 126-025 = Mrk 1288 = PGC 34575  
11 18 32.6 +23 28 08  
V = 13.6; Size 0.9"x0.8"; Surf Br = 13.1; PA = 175d

17.5" (4/9/99): faint, fairly small, round, 1.0" diameter, weak concentration. Third of three on a line with CGCG 126-022 and NGC 3615 7' SW. At low power collinear with two mag 10 stars equally spaced 8' and 17' NE.

William Herschel discovered NGC 3618 = H III-334 on 10 Apr 1785 (sweep 394) and noted "vF, S, goes into the field with the foregoing [NGC 3615]." CH's reduction is 3.6' northwest of UGC 6327 (similar offset as NGC 3615).

NGC 3618 was assumed to be a new on the 23 Mar 1857 observation by R.J. Mitchell at Birr Castle: "about 6' or 7' nf [NGC 3615] is a S, vvF patch, lbM." JH included this observation in the GC (2365) as well as GC 2368 = III-334. In the 1880 compilation of LdR observations, Dreyer added the note "the latter [GC 2365] is not a "nova" but = III 334, as pointed out by d'Arrest. GC 2365 is to be struck out."

NGC 3619 = UGC 6330 = MCG +10-16-115 = CGCG 291-054 = PGC 34641  
11 19 21.6 +57 45 29  
V = 11.5; Size 2.7"x2.3"; Surf Br = 13.4

17.5" (3/19/88): fairly bright, moderately large, slightly elongated SW-NE, small bright core, stellar nucleus. Forms a pair with NGC 3625 9.5' E and NGC 3613 lies 16' NNW.

8" (3/28/81): faint, small, round.

William Herschel discovered NGC 3619 = H I-244 = h852 on 18 Mar 1790 (sweep 951) and recorded "cB, R, vgmB, 1 1/2" dia." CH's reduced position is just off the northwest edge of UGC 6330. JH made a single observation and noted "pB; R: psmbM; 45". The PD differs 7' from that assigned by my Father: query therefore if the same object." His position is 1.5' too far south, so there does not appear to be a significant discrepancy.

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# Steve Gottlieb's NGC notes

NGC 3618 = UGC 6327 = MCG +04-27-014 = CGCG 126-025  
= Mrk 1288 = PGC 34575                      11 18 32.6 +23 28 08  
V = 13.6; Size 0.9'x0.8'; Surf Br = 13.1; PA = 175d

17.5" (4/9/99): faint, fairly small, round, 1.0' diameter, weak concentration. Third of three on a line with CGCG 126-022 and NGC 3615 7' SW. At low power collinear with two mag 10 stars equally spaced 8' and 17' NE.

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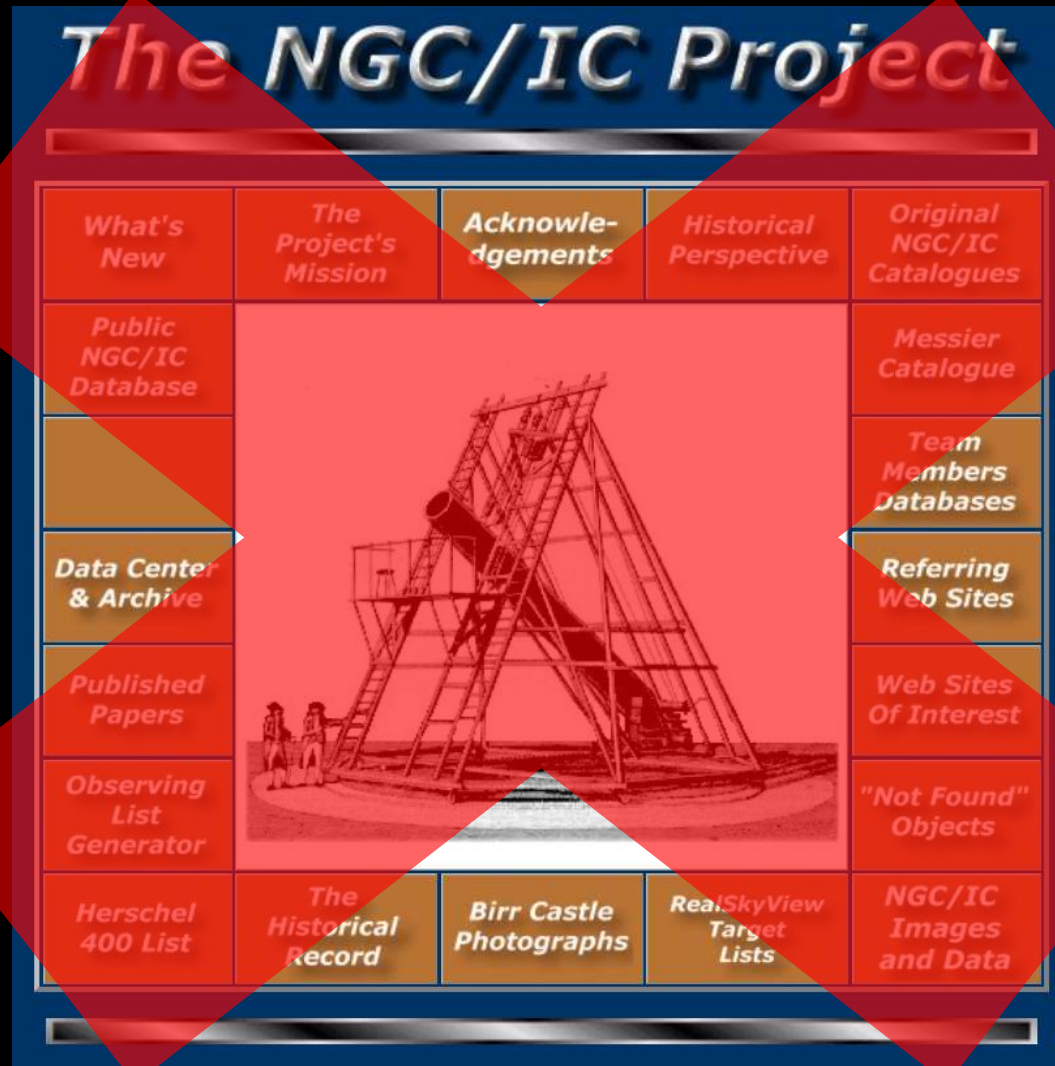
## NGC3618

|                   |             |        |     |
|-------------------|-------------|--------|-----|
| H334 <sup>3</sup> | 11:18.5     | +23 29 | GLX |
| SABb:             | 1.1' × 0.8' | 14,498 |     |

Photographs show a small face-on galaxy with a tiny, star-like nucleus in a brighter core. Grainy spiral structure emerges from the core with dust patches evident in the E and S and the arms themselves have fairly high surface brightness. Companion galaxy NGC3615 is 7.4' SW and probably forms a physical pair. At the presumed distance, the core-to-core separation between the two galaxies would be about 650 000 ly. Visually, this galaxy is smaller and fainter than its neighbour: it is an ethereal glow which is a little brighter to the middle and very slightly elongated N-S. Radial velocity: 6759 km/s. Distance: 302 mly. Diameter: 97 000 ly.

# The NGC/IC Project

[website](#)



## 1<sup>e</sup> plan

lichtvervulde tuin (SQM 19.1 zenitaal)

Melkweg is nooit te zien

Bortle 7: suburban/urban transition (red)

*"Bright skies aren't empty skies"*

James Mallaney

alle Herschel open sterrenhopen schetsen (164)

+ asterismen (26)

+ dubbelsterren (7)

+ sterren (4) = 201 objecten

1<sup>e</sup> plan



Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

1<sup>e</sup> plan



Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

**1<sup>e</sup> plan**

**zwakke & lage objecten op verplaatsing**

**stand van zaken**

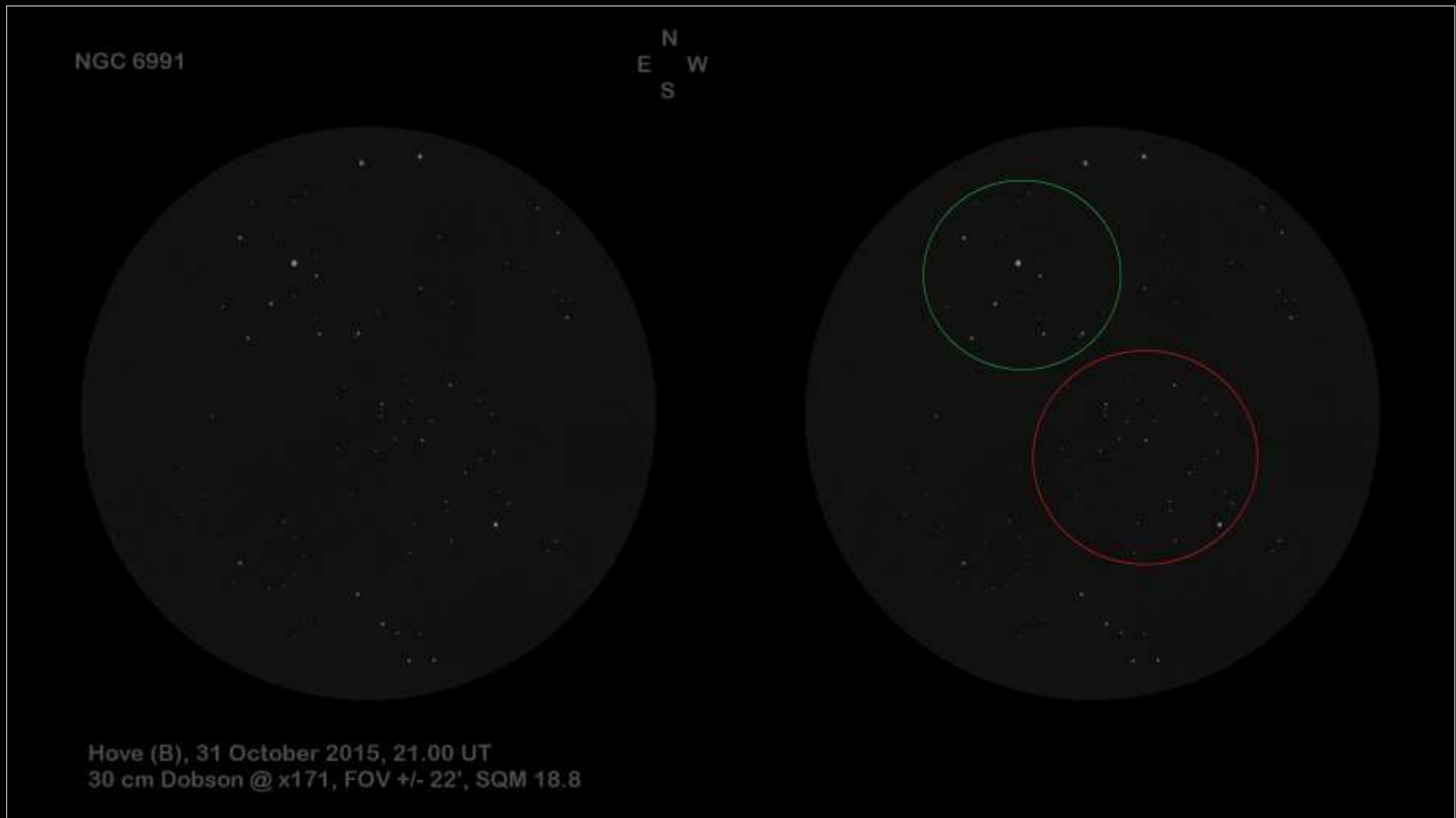
**80% OK (nog 39 schetsen te gaan)**

**vooral Monoceros & Puppis**

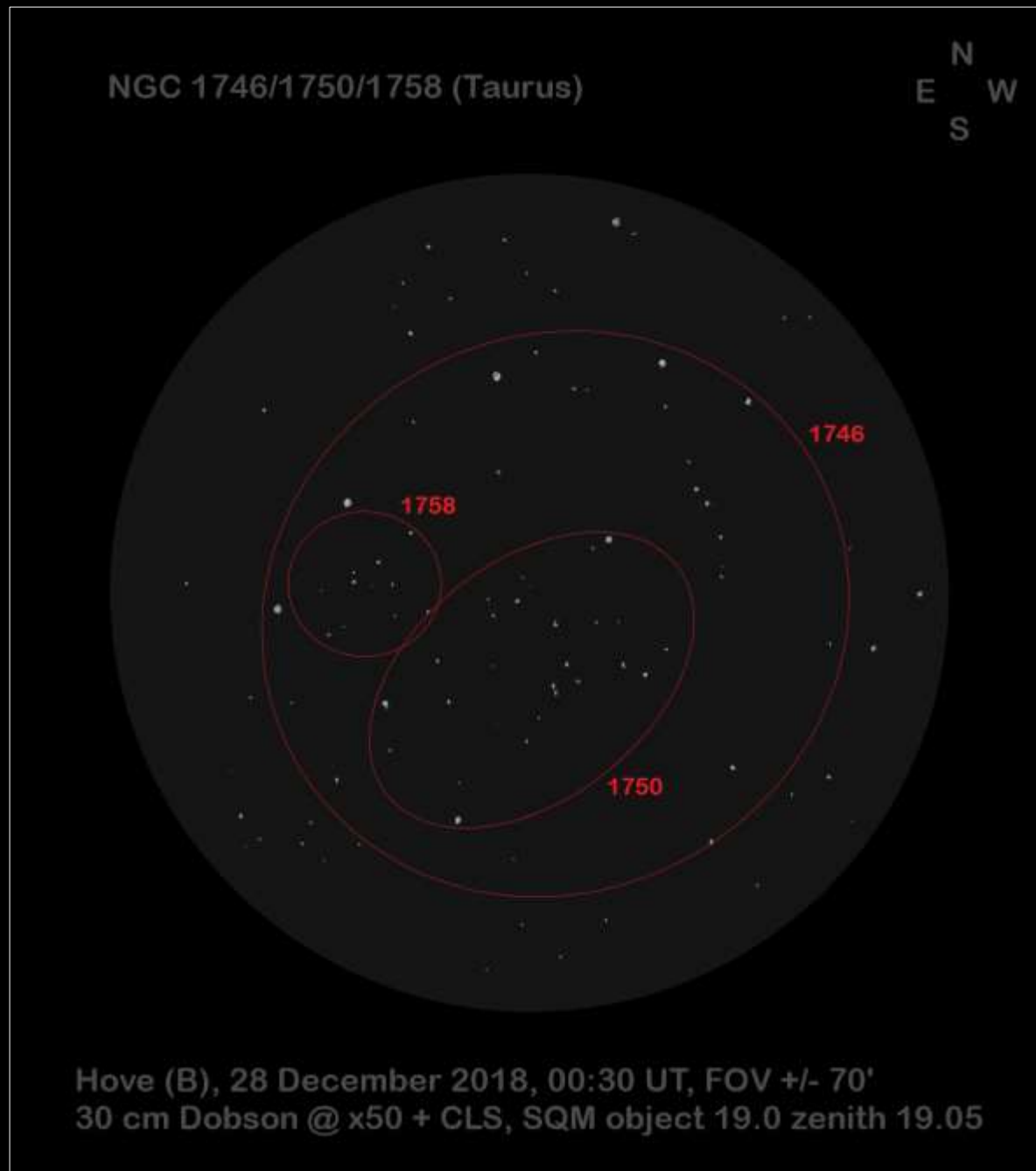
1<sup>e</sup> plan



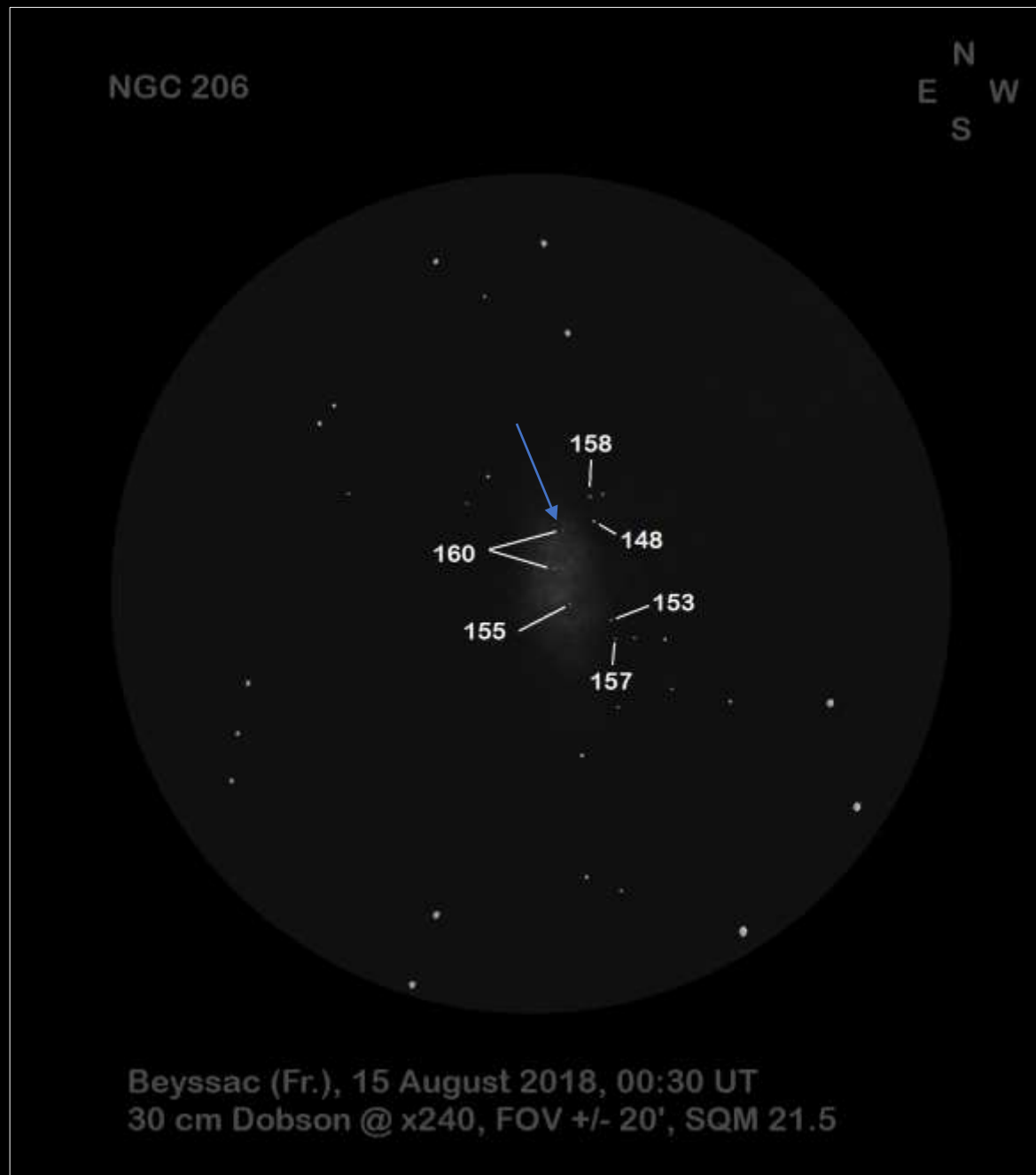
# 1<sup>e</sup> plan



1<sup>e</sup> plan



1<sup>e</sup> plan



1<sup>e</sup> plan

NGC 6940

N  
E W  
S



Hove (B), 3 October 2015, 22.15 UT  
30 cm Dobson @ x92, FOV +/- 35', SQM 18.6

1<sup>e</sup> plan

NGC 1545 (Perseus)

N  
E W  
S



Hove (B), 4 November 2018, 20:35 UT, FOV +/- 45'  
30 cm Dobson @ x92 + CLS, SQM object 18.95 zenith 18.95

1<sup>e</sup> plan

NGC 1883 (Auriga)

N  
E W  
S



Grandpré (Fr.), 6 October 2018, 03:45 UT, FOV +/- 20'  
30 cm Dobson @ x240, SQM object 21.25 zenith 21.25

# 1<sup>e</sup> plan



2009, zelfde vergroting



... het is allemaal de schuld van



GuusGilein  
PKS 0716+71



Lid geworden op:  
Oct 2006  
Berichten: 4699

Zojuist in mijn postvakje gevonden  
31-03-15, 11:21



Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

# 2<sup>e</sup> plan

Hove ▾
Orion Optics 300 F/4 ▾
Lijst - [Beheer](#)

Publiek: Herschel Objects
▾

Overzicht geselecteerde objecten Herschel Objects

✕ Verwijder de lijst
Hernoem
Maak privaat

+ Maak een nieuwe waarnemingslijst aan

Importeer gegevens
De lijst leegmaken
Waarneming toevoegen (langste)
Verwijder waarnemingen

Kies kolommen

Wissel namen en alternatieve namen

| # | Naam  | Sterrenbeeld | Sterrenb. | Mag  | SB   | Type           | Typ   | Grootte       | RA        | Decl      | Interstellarium<br>Deep Sky<br>Atlas | Contrast<br>reserve | Best | Op    | Doorgang | Onder | Be-<br>tijd |
|---|-------|--------------|-----------|------|------|----------------|-------|---------------|-----------|-----------|--------------------------------------|---------------------|------|-------|----------|-------|-------------|
| 1 | NGC12 | Places       | PSC       | 13.2 | 13.9 | Sterrenstelsel | GALXY | 1.6'x1.5'/125 | 00h08m45s | 04d36m42s | 63                                   | -0.5                | 34x  | 08:40 | 15:06    | 21:31 | 19          |
| 2 | NGC13 | Andromeda    | AND       | 13.2 | 13.3 | Sterrenstelsel | GALXY | 2.3'x0.6'/53  | 00h08m48s | 33d25m57s | 39                                   | -0.5                | 171x | 05:19 | 15:06    | 00:52 | 19          |
| 3 | NGC14 | Pegasus      | PEG       | 11.8 | 13.5 | Sterrenstelsel | GALXY | 2.8'x2.1'/25  | 00h08m46s | 15d48m55s | 51                                   | -0.2                | 34x  | 07:41 | 15:06    | 22:31 | 19          |
| 4 | NGC16 | Pegasus      | PEG       | 12.0 | 12.4 | Sterrenstelsel | GALXY | 1.8'x1.0'/16  | 00h09m04s | 27d43m46s | 39                                   | 0.0                 | 92x  | 06:19 | 15:06    | 23:53 | 19          |
| 5 | NGC23 | Pegasus      | PEG       | 11.9 | 13.1 | Sterrenstelsel | GALXY | 2.5'x1.6'/8   | 00h09m53s | 25d55m24s | 39                                   | -0.1                | 34x  | 06:35 | 15:07    | 23:39 | 19          |

# 2<sup>e</sup> plan

Meest actieve waarnemers

februari 2019

| Rang   | Waarnemer          | Aantal waarnemingen | Aantal tekeningen | Waarnemingen vorig jaar | Tekeningen vorig jaar | List:Herschel Objects |
|--------|--------------------|---------------------|-------------------|-------------------------|-----------------------|-----------------------|
|        |                    |                     |                   |                         |                       |                       |
| 1      | Steve Gottlieb     | 13504 (10.44%)      | 0 (0.00%)         | 192 (2.44%)             | 0 (0.00%)             | 2416 (98.69%)         |
| 3      | Arie Otte          | 8866 (6.85%)        | 0 (0.00%)         | 793 (10.07%)            | 0 (0.00%)             | 1668 (68.14%)         |
| 2      | Bob Hogeveen       | 11264 (8.71%)       | 773 (5.04%)       | 637 (8.09%)             | 4 (0.66%)             | 1429 (58.37%)         |
| 19     | Torbjörn Holmqvist | 1813 (1.40%)        | 16 (0.10%)        | 471 (5.98%)             | 0 (0.00%)             | 1328 (54.25%)         |
| 5      | Tom Polakis        | 3876 (3.00%)        | 0 (0.00%)         | 0 (0.00%)               | 0 (0.00%)             | 1086 (44.36%)         |
| 8      | Tom Borger         | 2569 (1.99%)        | 2109 (13.75%)     | 126 (1.60%)             | 92 (15.16%)           | 1010 (41.26%)         |
| 11     | Tom Corstjens      | 2284 (1.77%)        | 2055 (13.40%)     | 125 (1.59%)             | 108 (17.79%)          | 1006 (41.09%)         |
| 6      | Jef De Wit         | 3732 (2.88%)        | 550 (3.59%)       | 508 (6.45%)             | 77 (12.69%)           | 990 (40.44%)          |
| 14     | Olivier Van Aelst  | 2107 (1.63%)        | 11 (0.07%)        | 0 (0.00%)               | 0 (0.00%)             | 989 (40.40%)          |
| 9      | David Erzeel       | 2339 (1.81%)        | 1139 (7.43%)      | 8 (0.10%)               | 0 (0.00%)             | 923 (37.70%)          |
| Totaal |                    | 129378              | 15338             | 7876                    | 607                   | 2448                  |

# 2<sup>e</sup> plan

Meest actieve waarnemers

november 2019

| Rang   | Waarnemer          | Aantal waarnemingen | Aantal tekeningen | Waarnemingen vorig jaar | Tekeningen vorig jaar | List:Herschel Objects |
|--------|--------------------|---------------------|-------------------|-------------------------|-----------------------|-----------------------|
|        |                    |                     |                   |                         |                       |                       |
| 1      | Steve Gottlieb     | 13504 (9.87%)       | 0 (0.00%)         | 0 (0.00%)               | 0 (0.00%)             | 2417 (98.69%)         |
| 3      | Arie Otte          | 9045 (6.61%)        | 0 (0.00%)         | 215 (2.70%)             | 0 (0.00%)             | 1710 (69.82%)         |
| 5      | Jef De Wit         | 4454 (3.26%)        | 574 (3.58%)       | 856 (10.74%)            | 57 (9.39%)            | 1606 (65.58%)         |
| 2      | Bob Hogeveen       | 11528 (8.43%)       | 774 (4.83%)       | 412 (5.17%)             | 3 (0.49%)             | 1436 (58.64%)         |
| 19     | Torbjörn Holmqvist | 1888 (1.38%)        | 16 (0.10%)        | 266 (3.34%)             | 0 (0.00%)             | 1377 (56.23%)         |
| 6      | Tom Polakis        | 3876 (2.83%)        | 0 (0.00%)         | 0 (0.00%)               | 0 (0.00%)             | 1086 (44.34%)         |
| 10     | Tom Corstjens      | 2430 (1.78%)        | 2180 (13.61%)     | 170 (2.13%)             | 143 (23.56%)          | 1045 (42.67%)         |
| 8      | Tom Borger         | 2642 (1.93%)        | 2149 (13.42%)     | 79 (0.99%)              | 42 (6.92%)            | 1017 (41.53%)         |
| 14     | Olivier Van Aelst  | 2107 (1.54%)        | 11 (0.07%)        | 0 (0.00%)               | 0 (0.00%)             | 989 (40.38%)          |
| 11     | David Erzeel       | 2339 (1.71%)        | 1139 (7.11%)      | 0 (0.00%)               | 0 (0.00%)             | 923 (37.69%)          |
| Totaal |                    | 136807              | 16018             | 7967                    | 607                   | 2449                  |

+616

Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

# 2<sup>e</sup> plan

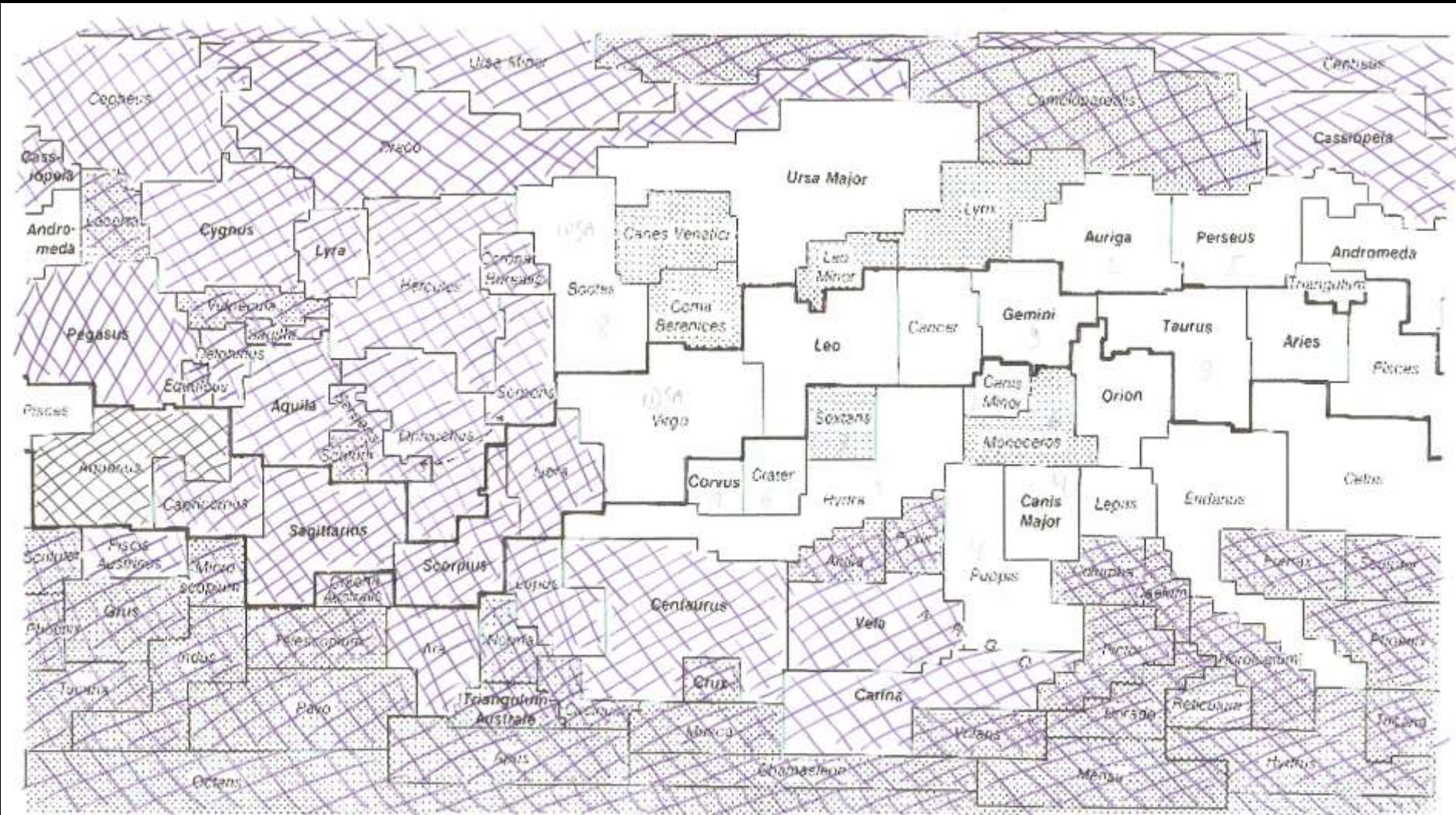
|                             | A                 | B           | C                   | D            | E              | F      | G          | H                            | I        | J        |
|-----------------------------|-------------------|-------------|---------------------|--------------|----------------|--------|------------|------------------------------|----------|----------|
| 1                           | <b>Al gedaan:</b> | <b>1606</b> | <b>Nog te gaan:</b> | <b>842</b>   | <b>65,60 %</b> |        |            | <b>culminatie LT NGC 450</b> |          |          |
| 2                           | Naam              | RA          | Decl                | Sterrenbeeld | Type           | Pagina | culminatie | max h                        | 23:18:00 | 22:02:30 |
| 3                           | NGC 450           | 1:15:30     | -00d51m43s          | Cetus        | Sterrenstelsel | 63     | 23:18:00   | 39                           |          |          |
| 4                           | NGC 493           | 1:22:09     | 00d56m45s           | Cetus        | Sterrenstelsel | 63     | 23:24:39   | 39                           |          |          |
| 5                           | NGC 495           | 1:22:56     | 33d28m13s           | Pisces       | Sterrenstelsel | 39     | 23:25:26   | 72                           |          |          |
| 6                           | NGC 496           | 1:23:12     | 33d31m39s           | Pisces       | Sterrenstelsel | 39     | 23:25:42   | 72                           |          |          |
| 7                           | NGC 521           | 1:24:34     | 01d43m51s           | Cetus        | Sterrenstelsel | 63     | 23:27:04   | 40                           |          |          |
| 8                           | NGC 533           | 1:25:31     | 01d45m31s           | Cetus        | Sterrenstelsel | 63     | 23:28:01   | 40                           |          |          |
| 9                           | NGC 545           | 1:25:59     | -01d20m28s          | Cetus        | Sterrenstelsel | 63     | 23:28:29   | 38                           |          |          |
| 10                          | NGC 547           | 1:26:01     | -01d20m44s          | Cetus        | Sterrenstelsel | 63     | 23:28:31   | 38                           |          |          |
| 11                          | NGC 550           | 1:26:42     | 02d01m18s           | Cetus        | Sterrenstelsel | 63     | 23:29:12   | 41                           |          |          |
| 12                          | NGC 560           | 1:27:25     | -01d54m47s          | Cetus        | Sterrenstelsel | 63     | 23:29:55   | 38                           |          |          |
| 13                          | NGC 564           | 1:27:48     | -01d52m45s          | Cetus        | Sterrenstelsel | 63     | 23:30:18   | 38                           |          |          |
| 14                          | NGC 586           | 1:31:37     | -06d53m37s          | Cetus        | Sterrenstelsel | 63     | 23:34:07   | 33                           |          |          |
| 15                          | NGC 622           | 1:36:00     | 00d39m47s           | Cetus        | Sterrenstelsel | 63     | 23:38:30   | 39                           |          |          |
| 16                          | NGC 702           | 1:51:19     | -04d03m22s          | Cetus        | Sterrenstelsel | 63     | 23:53:49   | 35                           |          |          |
| 17                          | NGC 748           | 1:56:22     | -04d28m04s          | Cetus        | Sterrenstelsel | 63     | 23:58:52   | 35                           |          |          |
| 18                          | NGC 762           | 1:56:58     | -05d24m10s          | Cetus        | Sterrenstelsel | 63     | 23:59:28   | 34                           |          |          |
| 19                          | NGC 781           | 2:00:09     | 12d39m18s           | Aries        | Sterrenstelsel | 50     | 0:02:39    | 51                           |          |          |
| 20                          | NGC 790           | 2:01:22     | -05d22m16s          | Cetus        | Sterrenstelsel | 62     | 0:03:52    | 34                           |          |          |
| 21                          | NGC 794           | 2:02:29     | 18d22m20s           | Aries        | Sterrenstelsel | 50     | 0:04:59    | 57                           |          |          |
| 22                          | NGC 803           | 2:03:45     | 16d01m50s           | Aries        | Sterrenstelsel | 50     | 0:06:15    | 55                           |          |          |
| 23                          | NGC 807           | 2:04:55     | 28d59m14s           | Triangulum   | Sterrenstelsel | 38     | 0:07:25    | 67                           |          |          |
| 24                          | NGC 827           | 2:08:56     | 07d58m16s           | Cetus        | Sterrenstelsel | 50     | 0:11:26    | 46                           |          |          |
| 25                          | NGC 833           | 2:09:21     | -10d08m00s          | Cetus        | Sterrenstelsel | 74     | 0:11:51    | 29                           |          |          |
| 26                          | NGC 835           | 2:09:25     | -10d08m09s          | Cetus        | Sterrenstelsel | 74     | 0:11:55    | 29                           |          |          |
| 27                          | NGC 838           | 2:09:38     | -10d08m47s          | Cetus        | Sterrenstelsel | 74     | 0:12:08    | 29                           |          |          |
| 28                          | NGC 839           | 2:09:43     | -10d11m02s          | Cetus        | Sterrenstelsel | 74     | 0:12:13    | 29                           |          |          |
| 29                          | NGC 850           | 2:11:13     | -01d29m08s          | Cetus        | Sterrenstelsel | 62     | 0:13:43    | 38                           |          |          |
| Herschel object nog te doen |                   |             |                     |              |                |        |            |                              |          |          |

Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

## 2<sup>e</sup> plan

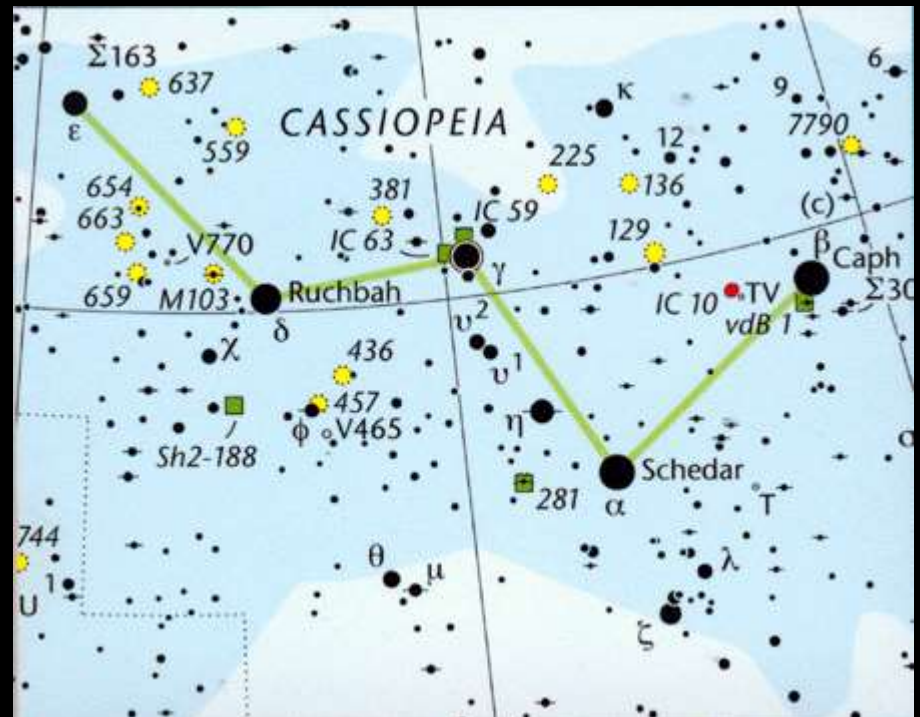
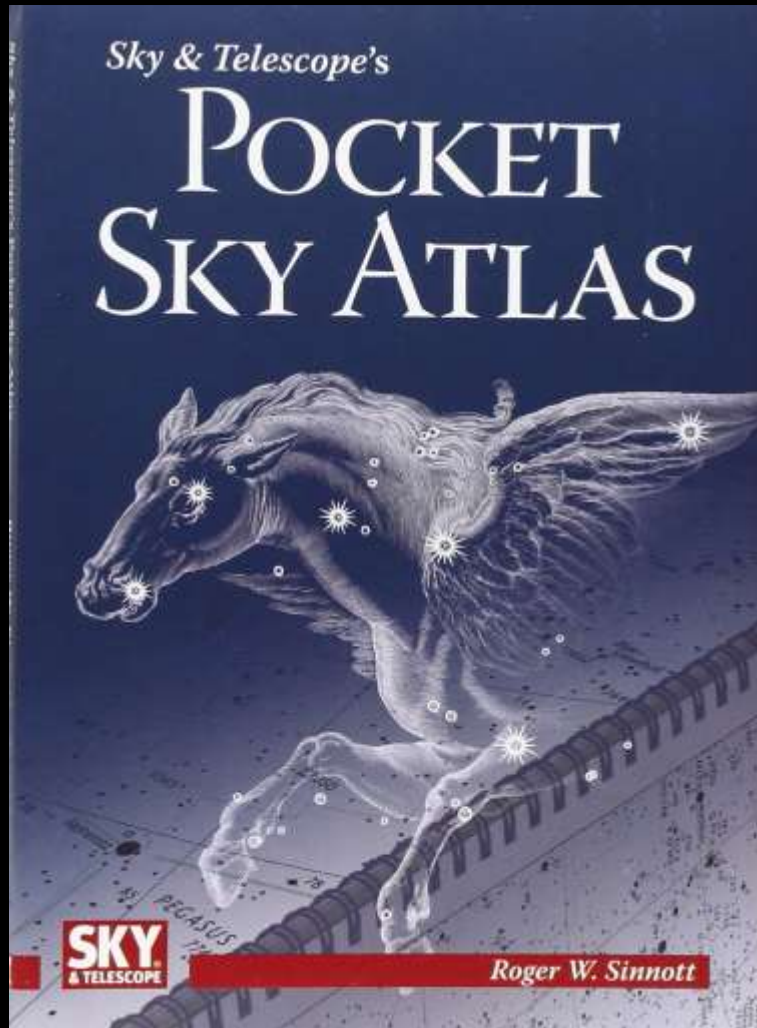
|     |               |     |
|-----|---------------|-----|
| 846 | Andromeda     | 3   |
| 847 | Aries         | 14  |
| 848 | Auriga        | 2   |
| 849 | Boötes        | 8   |
| 850 | Cancer        | 32  |
| 851 | Canes Venatic | 90  |
| 852 | Canis Major   | 4   |
| 853 | Canis Minor   | 2   |
| 854 | Cetus         | 31  |
| 855 | Coma Berenice | 89  |
| 856 | Corvus        | 1   |
| 857 | Crater        | 6   |
| 858 | Eridanus      | 44  |
| 859 | Gemini        | 9   |
| 860 | Hydra         | 3   |
| 861 | Leo           | 108 |
| 862 | Leo Minor     | 18  |
| 863 | Lepus         | 12  |
| 864 | Lynx          | 36  |
| 865 | Monoceros     | 6   |
| 866 | Orion         | 9   |
| 867 | Perseus       | 5   |
| 868 | Pisces        | 2   |
| 869 | Puppis        | 4   |
| 870 | Sextans       | 3   |
| 871 | Taurus        | 9   |
| 872 | Triangulum    | 3   |
| 873 | Ursa Major    | 100 |
| 874 | Virgo         | 189 |

## 2<sup>e</sup> plan

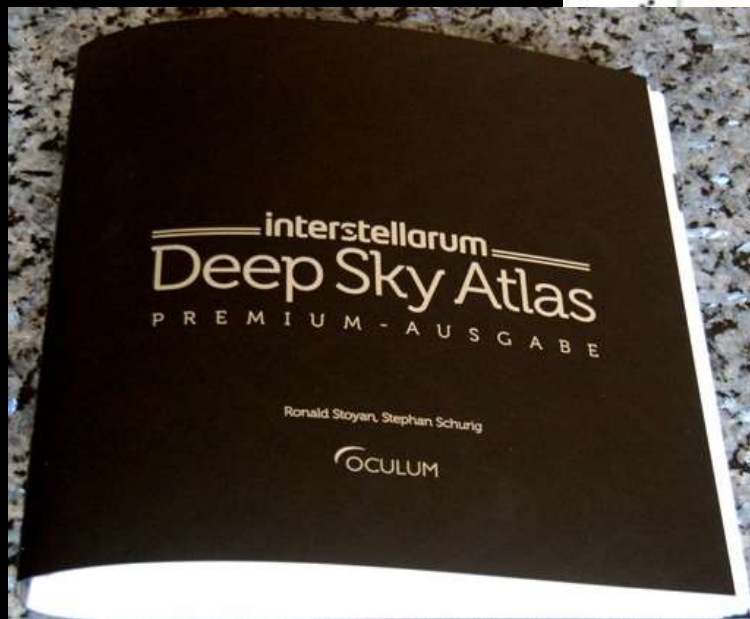
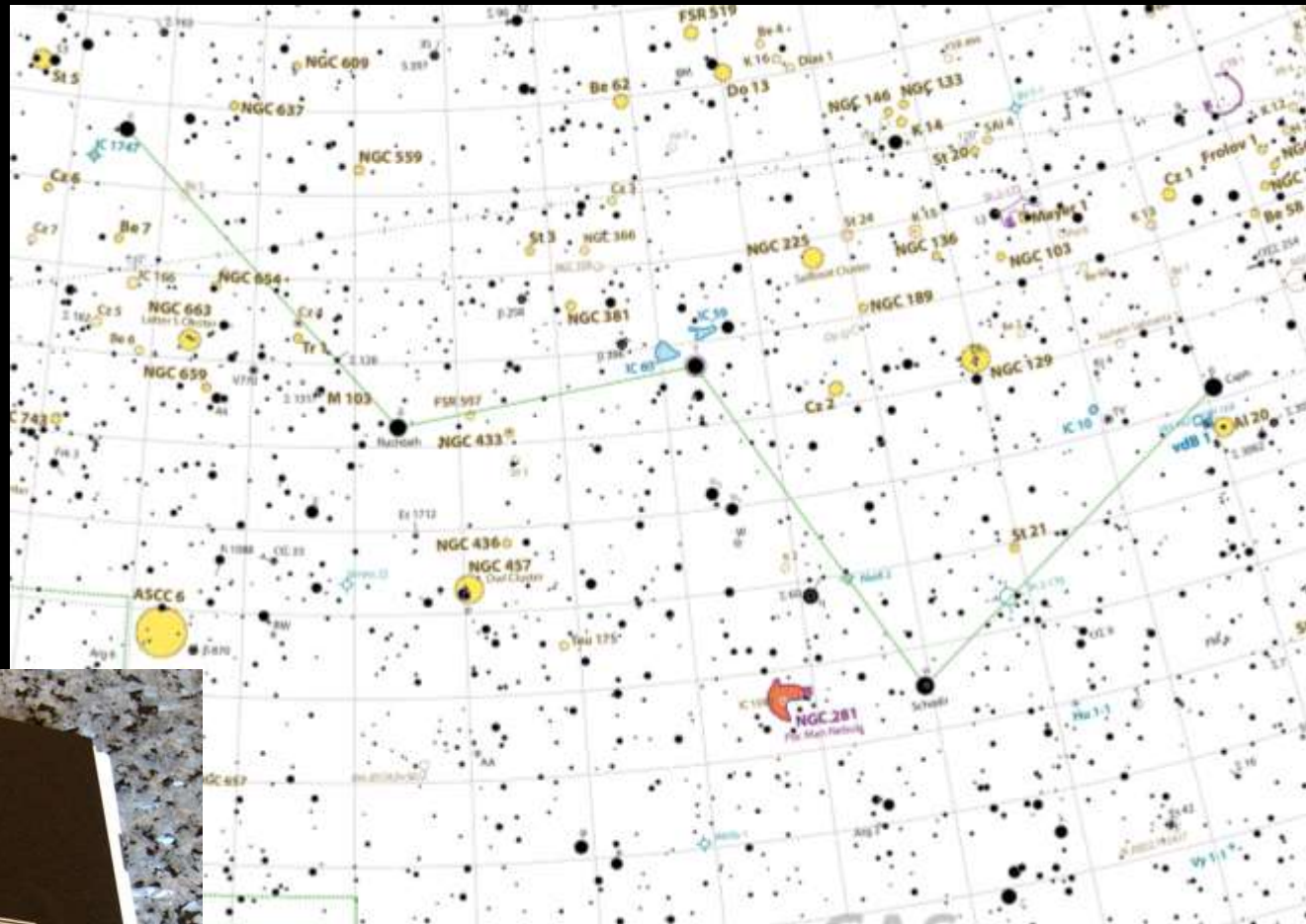


Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

## 2<sup>e</sup> plan

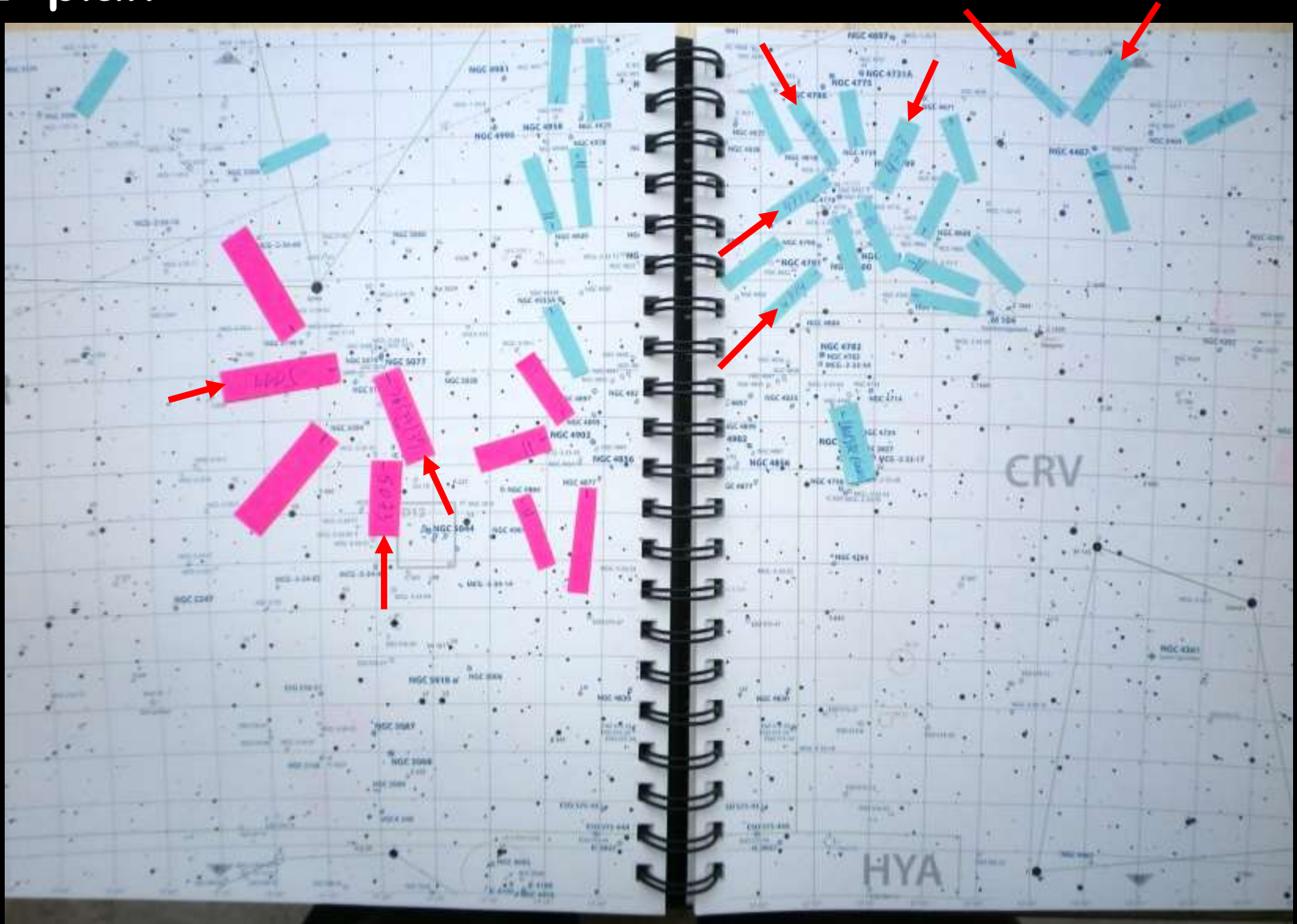


## 2<sup>e</sup> plan



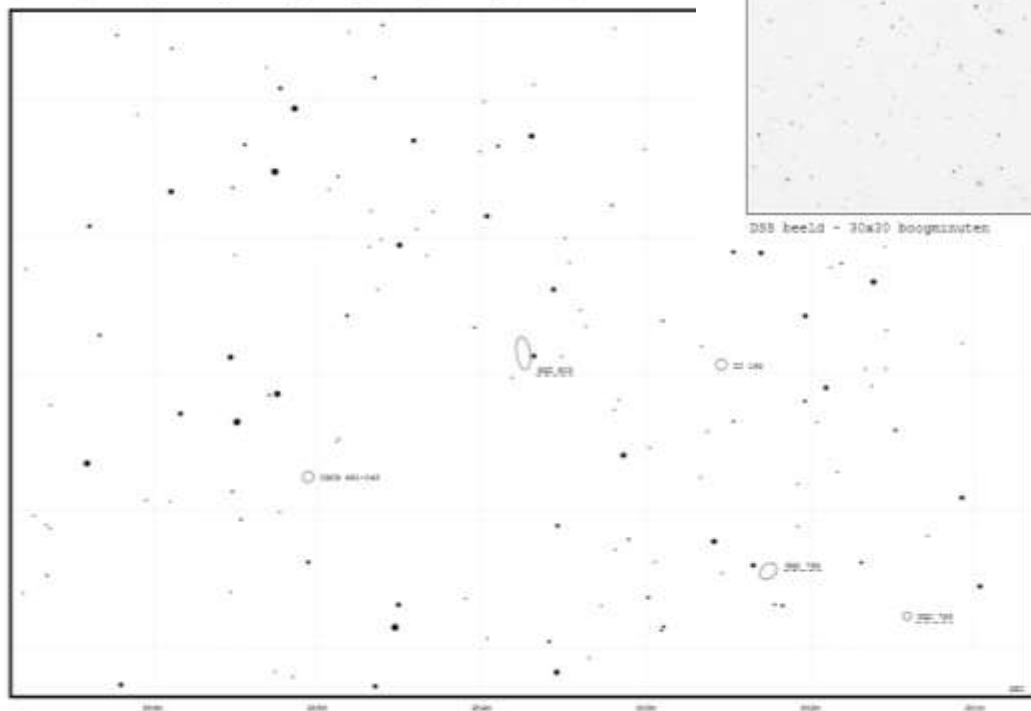
## Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

## 2<sup>e</sup> plan



Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

## 2<sup>e</sup> plan



FeV: 1.5 x 10<sup>5</sup> - Objecten tot neg: 15 - Sterren tot neg: 14 - (Centrum op 2h4m.1492')

10. — *reparans* Nag. = *repollens* Wirtgen *without* *substantia* = *ovata* *lancea* originally found in *Eurhyncha* = *lancea* by *Snyder* in 1930 (1931) *lancea*.

552-553

Beelden voor NGC 803

(a) STScI Digitized Sky Survey

Alternatieve objectnamen: USC 1554

Object type: Sterrenstelsel

Sterrenbeeld: Arias

Rechte Klammer: 02h03m45s

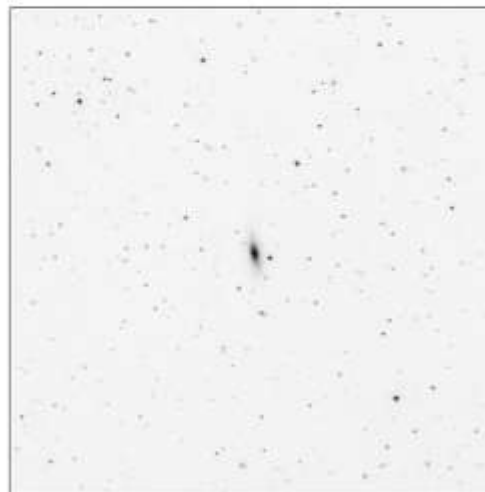
Declination: 16301m50s

Object magnitude: 12.5

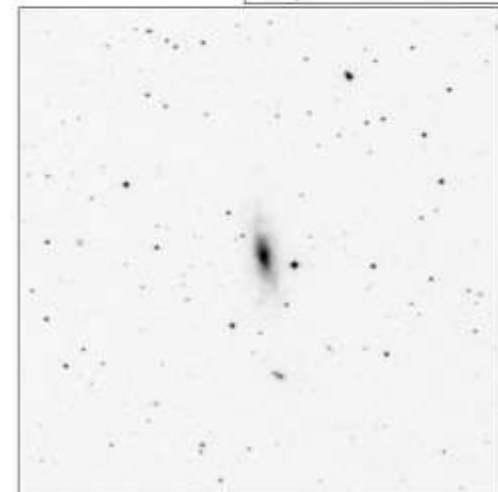
Object oppervlaktehelderh.: 13.7

Grout: 3.0' x 1.5'

Positivshock: 8



D58 beeld - 30x20 hoogmisten



D88 beeld - 13u13 boogminuten

PAGE 808

2<sup>e</sup> plan



Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

2<sup>e</sup> plan



## 2<sup>e</sup> plan

mijn tuin: sterrenstelsels tot mag 11,5  
uitzonderlijk mag 12,0  
exacte positie met zoekkaartjes DSL  
+ filters = tot mag 13,5 (klasse II)



2<sup>e</sup> plan

bandwerk  
geen detail  
detectie



## 2<sup>e</sup> plan

laagste object NGC 3621  
dec  $-32^{\circ}49'$  ( $6^{\circ}$  hoog)

14 objecten dec  $-30^{\circ}$   
of lager waarvan 9 H400



Martijn Straub

## 2<sup>e</sup> plan

1: Antlia, Capricornus, Centaurus,  
Equuleus, Lyra, Sagitta

2: Pyxis

3: Scorpius, Scutum

4: Canis Major

5: Delphinus, Sculptor

Cetus 105

Boötes 113

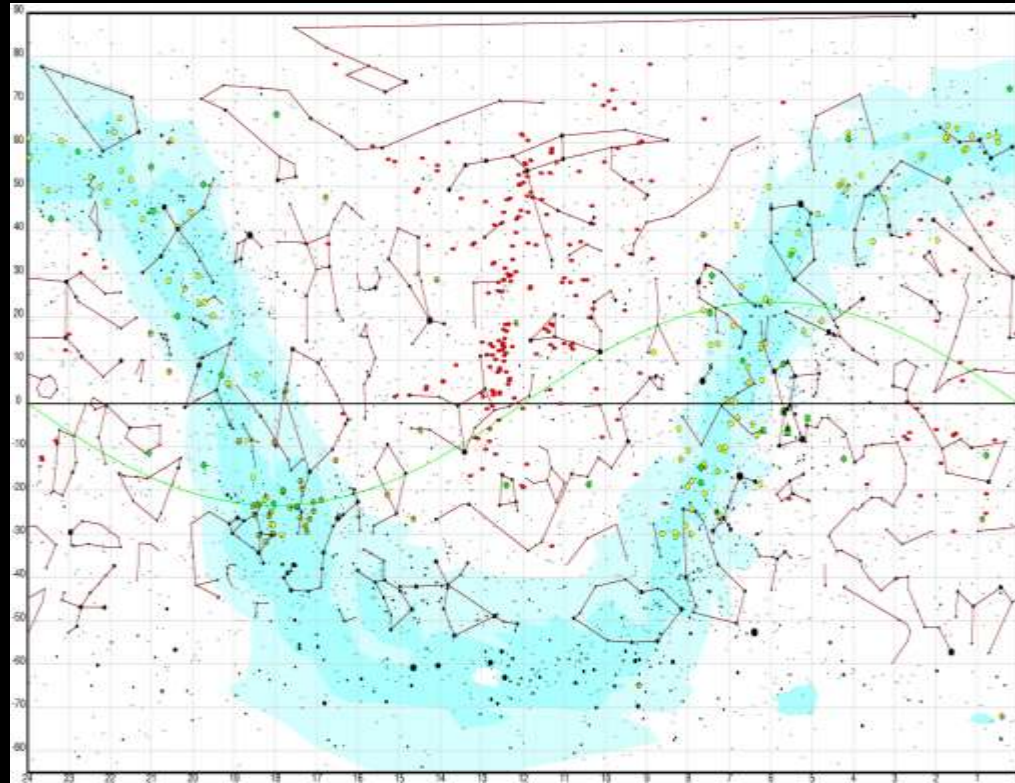
Canes Venatici 144

Coma Berenices 153

Leo 158

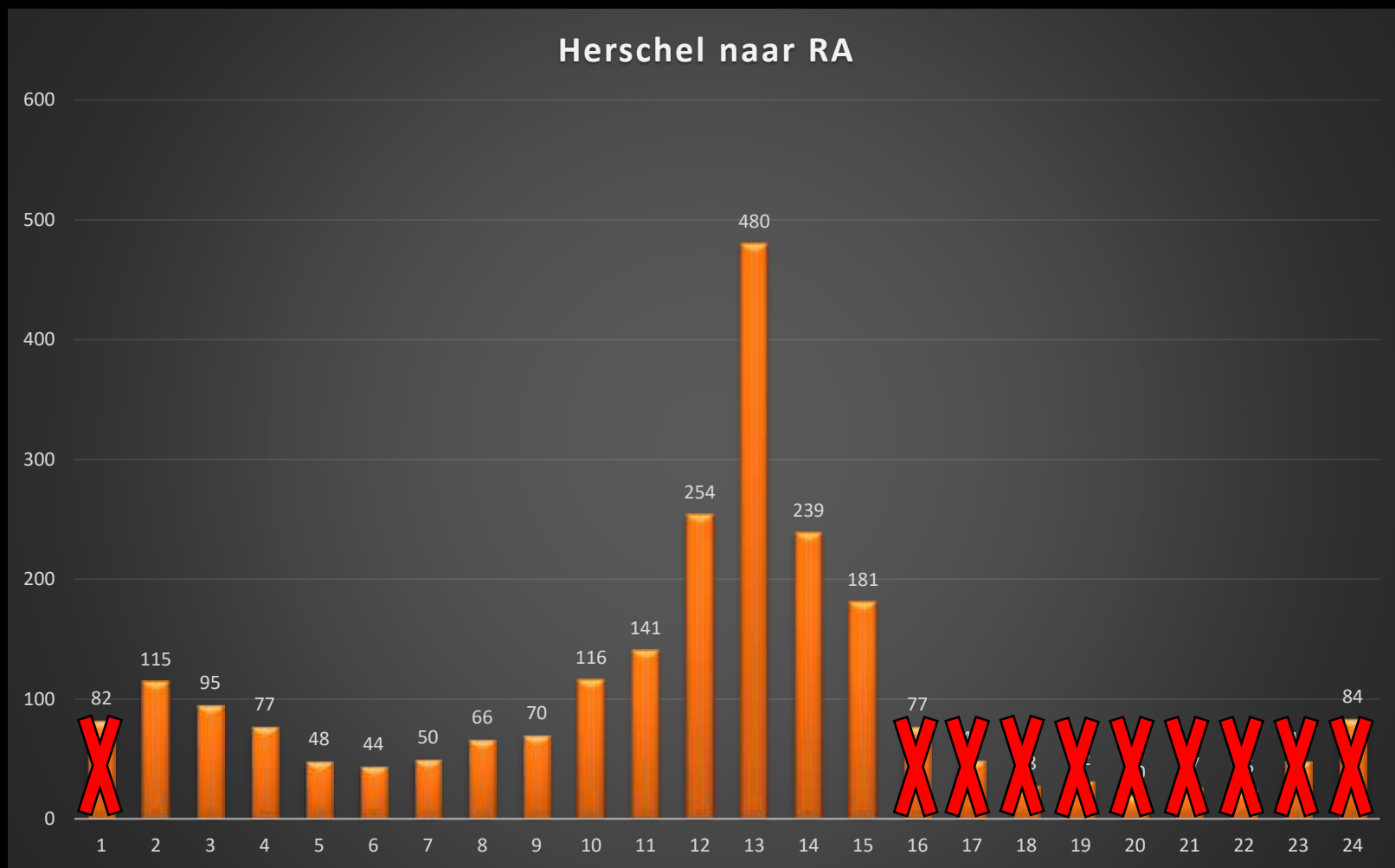
Ursa Major 276

Virgo 344



H400 objecten

## 2<sup>e</sup> plan



Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

## 2<sup>e</sup> plan

obscure objecten  
soms enige waar-  
neming in DSL

bv. NGC 5922  
dubbelster?  
5923 geen Herschel?



2<sup>e</sup> plan

haalbaar met een 30 cm?

zeker niet vanuit mijn tuin!

bv. NGC 6979 (SQM 21,5 / UHC / x50)



|      |         |        |          |     |    |    |    |      |    |      |                               |
|------|---------|--------|----------|-----|----|----|----|------|----|------|-------------------------------|
| 200  | Sept. 7 | 52 (') | Cygni    | f   | 5  | 30 | n  | 1    | 22 | 1    | F. S. crookedly E. r.         |
| 6979 | 4607 ✓  | ...    | II 206 ✓ | ... | 20 | 45 | 16 | 2'45 | 58 | 23'8 | 13'3 vF, S, iE, eev F st f nr |

## 2<sup>e</sup> plan

nog enkele jaren zoet

842 objecten x 15' = 210 uur

210 uur / 4 uur = 52 nachten

laatste 5 jaar: +500 logs / jaar

dus nog 2 jaar te gaan?

maar... steeds zwakkere objecten

maar vooral... ongelijke verdeling aan de hemel !!

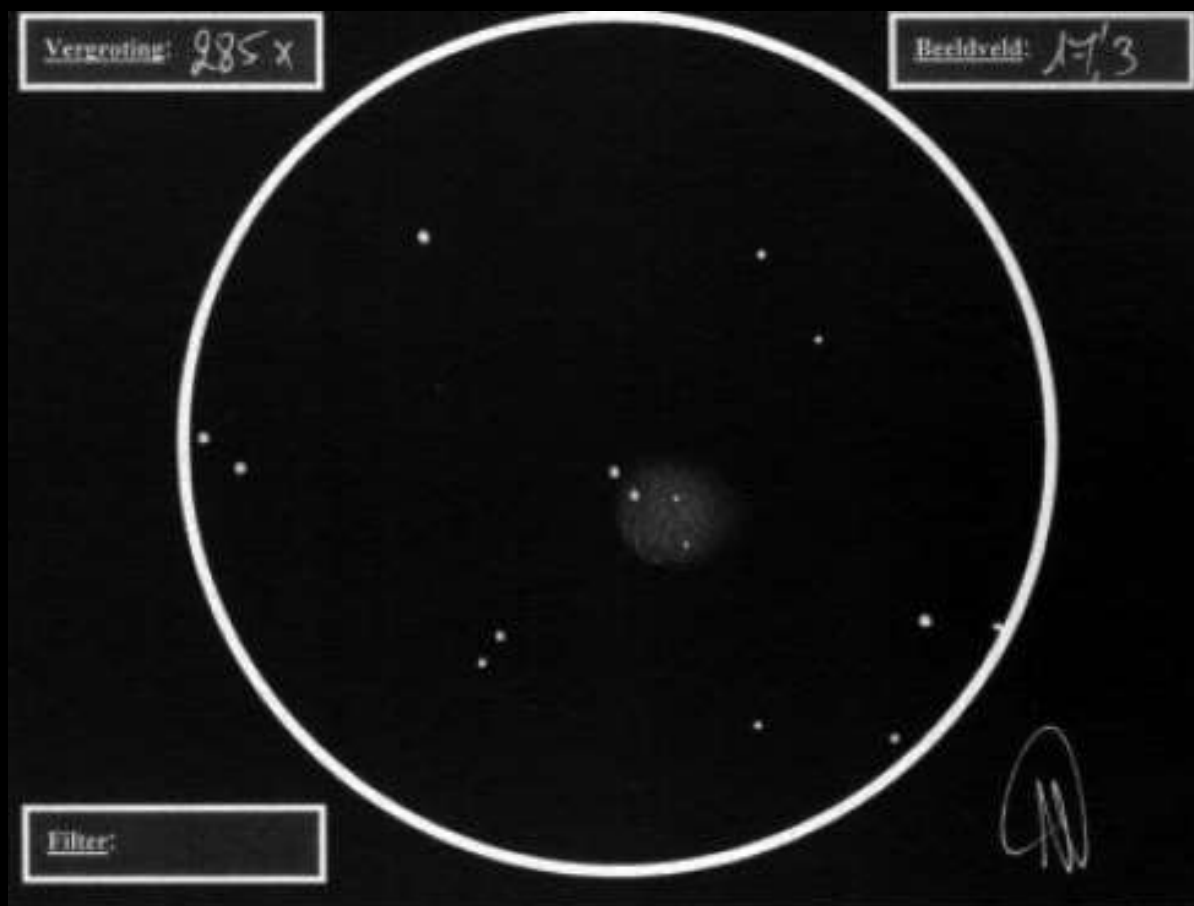
leuk en niet M / H400 / H400-II

NGC 7235 (Cepheus)  
8x42



leuk en niet M / H400 / H400-II

NGC 7538 (Cepheus)  
H-II gebied

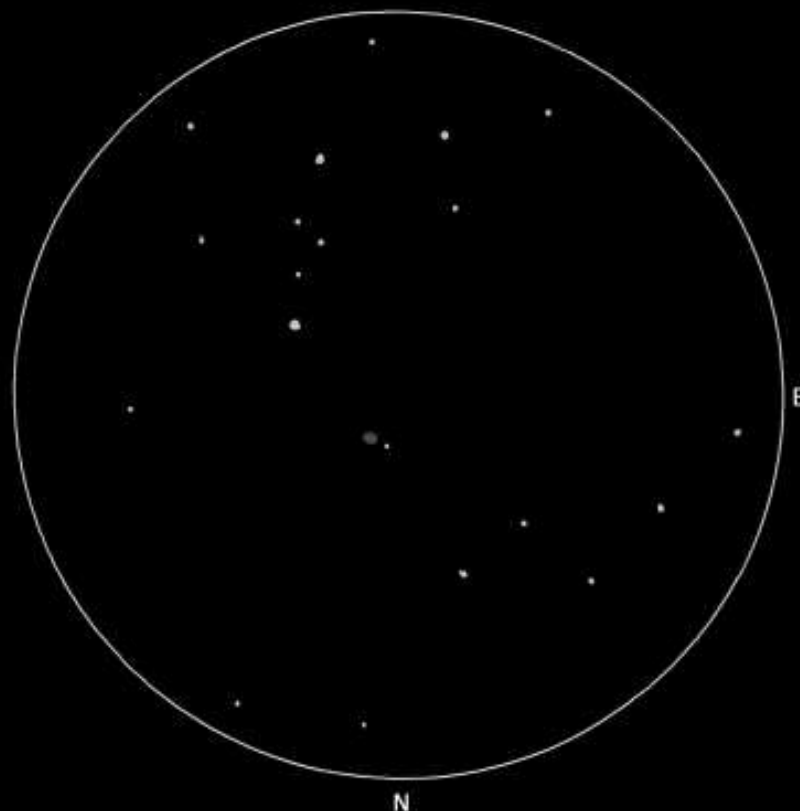


Kurt Christiaens

Alle Herschels waarnemen! Waanzin? – Jef De Wit – Deepskydag 9 november 2019

leuk en niet M / H400 / H400-II

**NGC 6742 (Draco)**  
**Abell 50**



NGC 6742 Dra - Planetary Nebula  
21/07/2014 0035UT  
12" f4.9 Newtonian Reflector  
Plossl 10mm Eyepiece +OIII Filter, x150 - 20' Field

Observer: Patrick Maloney  
Ref: 14/128

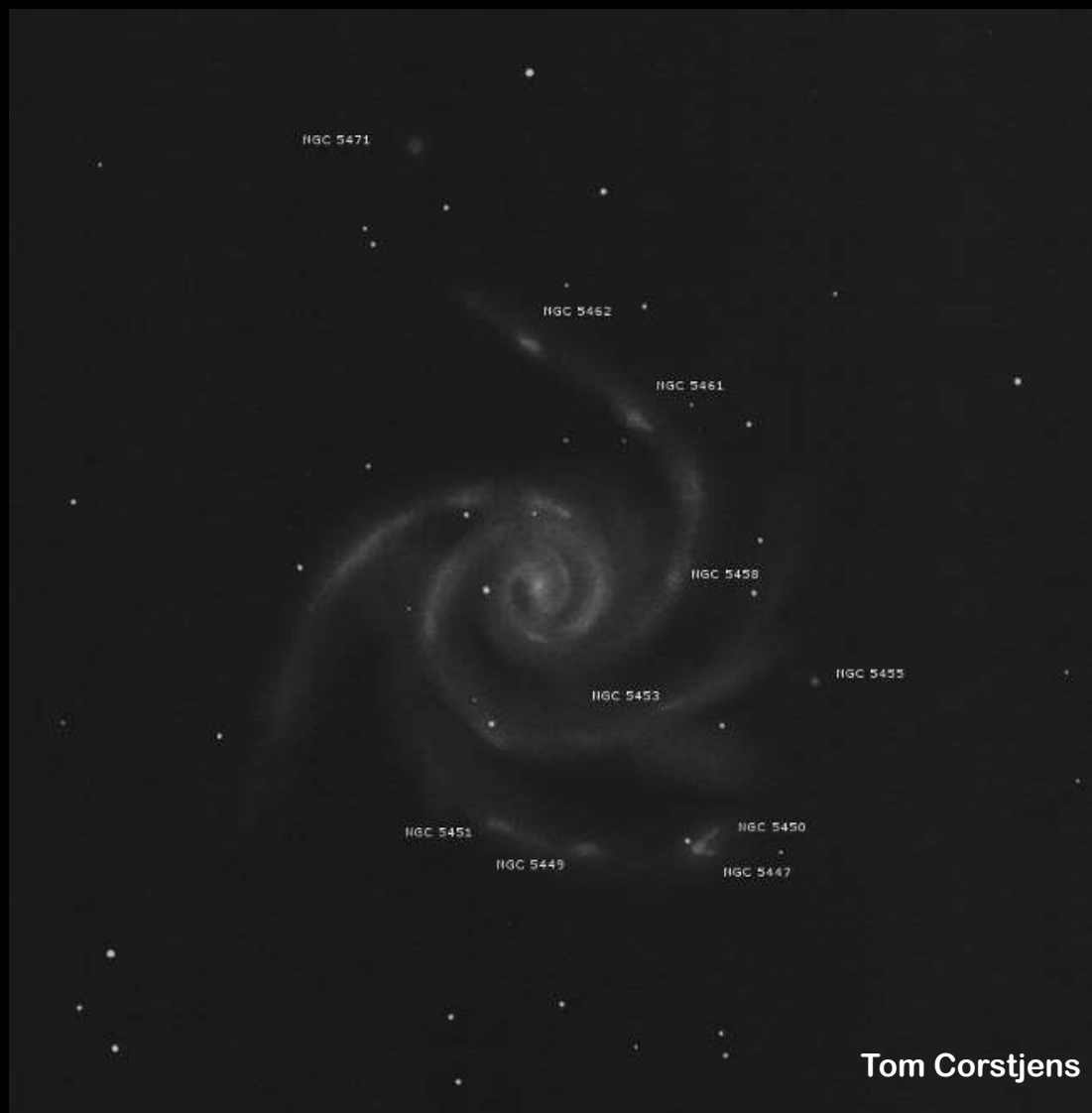
leuk en niet M / H400 / H400-II

## NGC 2240 (Auriga)



leuk en niet M / H400 / H400-II

**NGC 5461**  
**(Ursa Major)**  
**HII in M101**



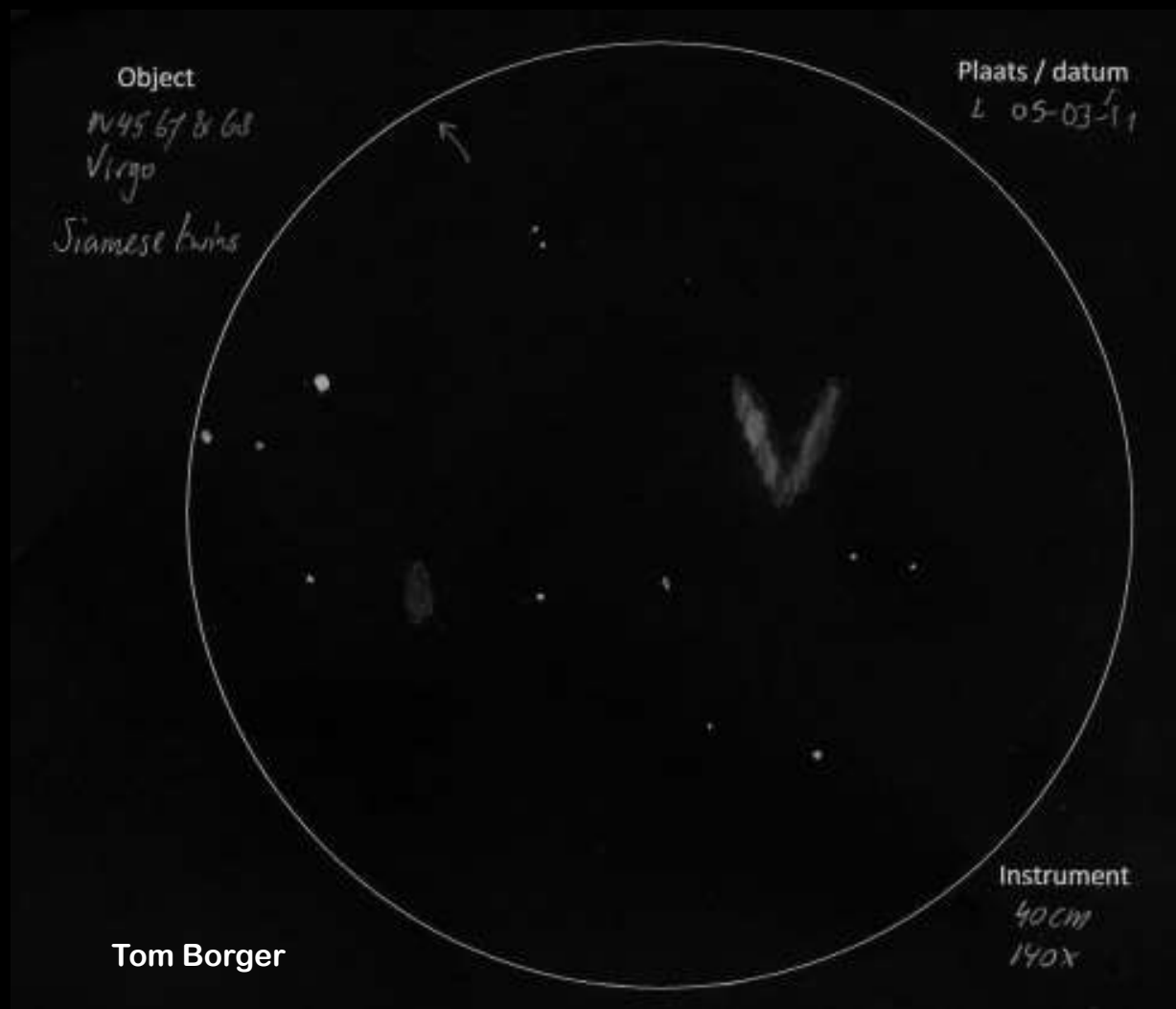
leuk en niet M / H400 / H400-II

**NGC 4627**  
**(Canes Venatici)**  
**Babywalvis**



leuk en niet M / H400 / H400-II

## NGC 4567-8 (Virgo)



leuk en niet M / H400 / H400-II

**NGC 6561**  
**(Sagittarius)**  
**asterisme**  
**≈ Stargate**





**ZIJN ER NOG VRAGEN**