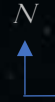


PERSEUS (PER)

√	NGC	RASC	SAC	CALD	HER-400	O-HT	O-SD	Season	Con	Type	R.A. H:m.s	DEC °,'	m_v	Size "	Comment
√	1275			C024				W	Per	IG	03:19.8	41.31	11.6	2.6x2	Perseus A, Peculiar Gxy w. Supermassive Seyfert core
√	1579						D016	W	Per	RN/BN/EN	04:30.2	35.16	–	12x8	Northern Trifid
√	1528				H052(7,61)	T025		W	Per	OC	04:15.2	51.13	6.4	18	# m & m Double Cluster, sickle shape, 165* 9m & fainter
√	1545				H054(8,85)	T026		W	Per	OC	04:21.0	50.15	6.2	12	# m & m Double Cluster, pentagram shape, 10-11m *



NGC 1528 & NGC 1545
Double Cluster



NGC 1528
OC

NGC 1545
OC

b Per
A1 III

56N 12E, Copenhagen DENMARK
2022-02-11, 19:00 Local (UT+1)
Temp.: -1°C, Hum.: 78%, DewPt.: -4°C
Moon 79% Illum. at 58° Alt. in S Auriga
Trsp.: 5/7, Seeing: 7-8/10, Calm
LP:SQM 20 (NELM 6) Bright Suburban

Zeiss 100/640 APQ
TV 41mm PAN + Red longpass filter
Photonis 4G Intens PVS14 NVD
iPhone Xs, NightCap app,
Exp.: 1s, Ave. 60s, ISO-100, Gain Medium

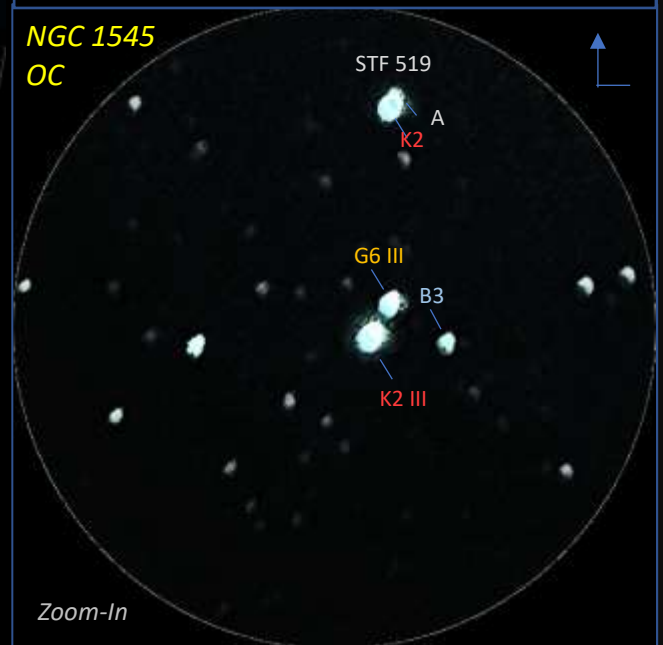
NGC 1528
OC

Zoom-In

NGC 1545
OC

Zoom-In

N1528 and N1545 is a pair of OCs located at a distance of ~0.7 Kpc in our local Ori-Cyg spiral arm, looking out towards Perseus (around 1.5° NE of λ Per). Age of the OCs is ~370 Myr. N1528 has ~165 stars (brightest 8.7^m), while N1545 has a few bright (7-8^m) foreground? stars and many fainter members.



NGC 1579
N. Trifid EN

56N 12E, Copenhagen DENMARK
2022-02-11, 19:30 Local (UT+1)
Temp.: -1°C, Hum.: 78%, DewPt.: -4°C
Moon 79% Illum. at 58° Alt. in S Auriga
Trsp.: 5/7, Seeing: 7-8/10, Calm
LP:SQM 20 (NELM 6) Bright Suburban

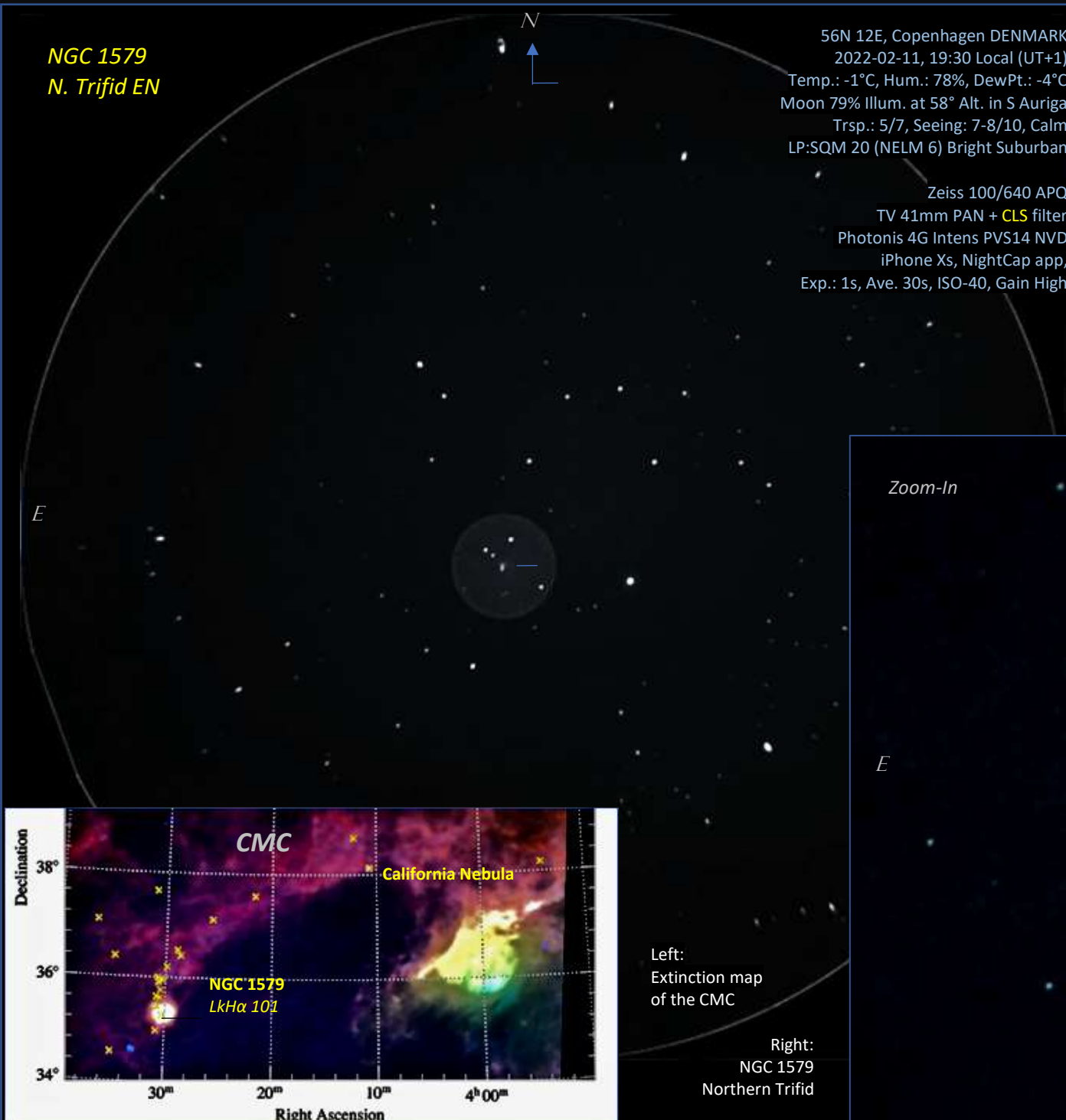
Zeiss 100/640 APQ
TV 41mm PAN + CLS filter
Photonis 4G Intens PVS14 NVD
iPhone Xs, NightCap app,
Exp.: 1s, Ave. 30s, ISO-40, Gain High

N1579 is a small (~10') diffuse reflection nebula (RN) with an inverse U-shaped **dark dust lane (LBN 767)** and a small **H-II emission part (Sh2-222)** around a massive type early-B star *LkHα 101*, that is deeply embedded and heavily obscured (~10^m).

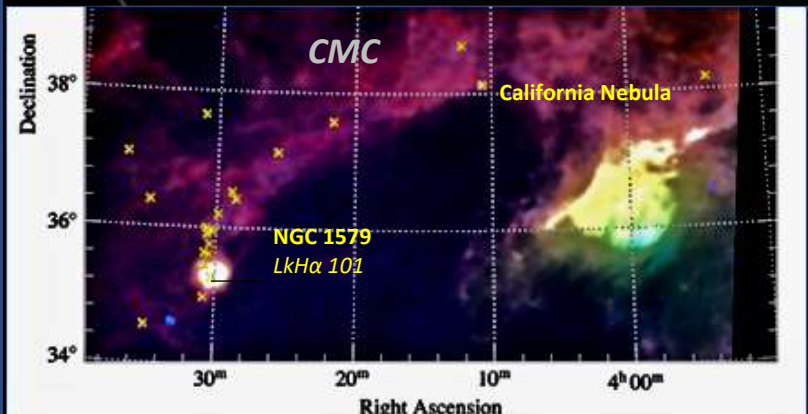
N1579 is an **active star-forming region** with a young (0.5 Myr) **embedded open cluster** of ~100 fainter stars, at least five of these type early-B zero-age main sequence (ZAMS) young stellar objects.

The **Northern Trifid** is located nearby at 0.45 Kpc in our Local Ori-Cyg Arm, in the massive giant **California Molecular Cloud (CMC)**, that also at the SW border features the prominent **California Nebula (N1499)**, excited by the runaway type-O star from Per OB2: ξ Per. The star formation in the CMC is modest compared to the denser Orion Molecular Cloud (OMC), that also harbors the Orion OB1 associations within which multiple supernovae have occurred over the last 10 Myr.

The N. Trifid reflection nebula was easily visible with a CLS filter + NVD, and showed both the LBN767 dark nebula as well as the Sh2-222 emission nebulousity at zoom-in with a 6nm Hα filter + NVD.



Zoom-In



Left:
Extinction map
of the CMC

Right:
NGC 1579
Northern Trifid

Zeiss 100/640 APQ
TV 41mm PAN + 6nm Hα filter
Photonis 4G Intens PVS14 NVD
iPhone Xs, NightCap app,
Exp.: 1s, Ave. 30s, ISO-400, Gain High

NGC 1275

Perseus A

Perseus Gxy Cluster
Abel 426

N



HD20589

1265

E

1275

1272

56N 12E, Copenhagen DENMARK
2022-02-11, 20.00 Local (UT+1)
Temp.: -1°C, Hum.: 78%, DewPt.: -4°C
Moon 79% Illum. at 58° Alt. in S Auriga
Trsp.: 5/7, Seeing: 7-8/10, Calm
LP:SQM 20 (NELM 6) Bright Suburban

Zeiss 100/640 APQ
TV 41mm PAN + 6nm filter
Photonis 4G Intens PVS14 NVD
iPhone Xs, NightCap app,
Exp.: 1s, Ave. 20s, ISO-64, Gain High

Zoom-In
Vixen FL-80S
R2 Live Video

1275

HST Image
1275

Spiral Gxy.

Elliptical

1281

1277
1276

IC1907

1273

1275

1272

The Perseus Cluster (Abel 426) is a massive group with ~12,000 member galaxies located at a distance of 70 Mpc (aka 230 Mly or 4x farther away than the Virgo Cluster). The Perseus Cluster is at the E end of the long Perseus-Pisces supercluster filament that stretches from A426 through A347-A262 to N383 and further W in Andromeda.

The brightest central member of A426 is N1275, a colliding pair consisting of a small spiral galaxy being "swallowed" by a larger elliptical. The collision is fueling a supermassive black hole in N1275, which throws out expanding bubbles and plumes of hot radio-wave and X-ray emitting matter (a Seifert activity).

N1275 (plus a handful of other members ~12^m of AGC 426) could be identified as "faint fuzzies" in my 4" scope + NVD. The view is not impressive, but this colliding pair of galaxies is interesting to hunt down and catch with your own backyard scope!

NGC 1275
Perseus A

Perseus
Gxy Cluster
Abel 426

56N 12E, Copenhagen DENMARK
2016-12-14, 18:30 Local (UT+1)
Trsp.: 3/7, Seeing 5/10, LP: SQM 17.4 (NELM 4.8)

Vixen FL-80S + 1.5x GPC
0.5x Red. + R2 CCD/LCD live video
Exp.: 5s, Ave.: 4-6 DNR, Gain 30 DB

1281 —

IC1907 —

1277 —

1278 —

1274 —

1273 —

1275 —

1272 —

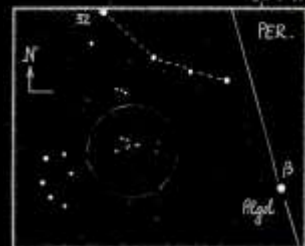
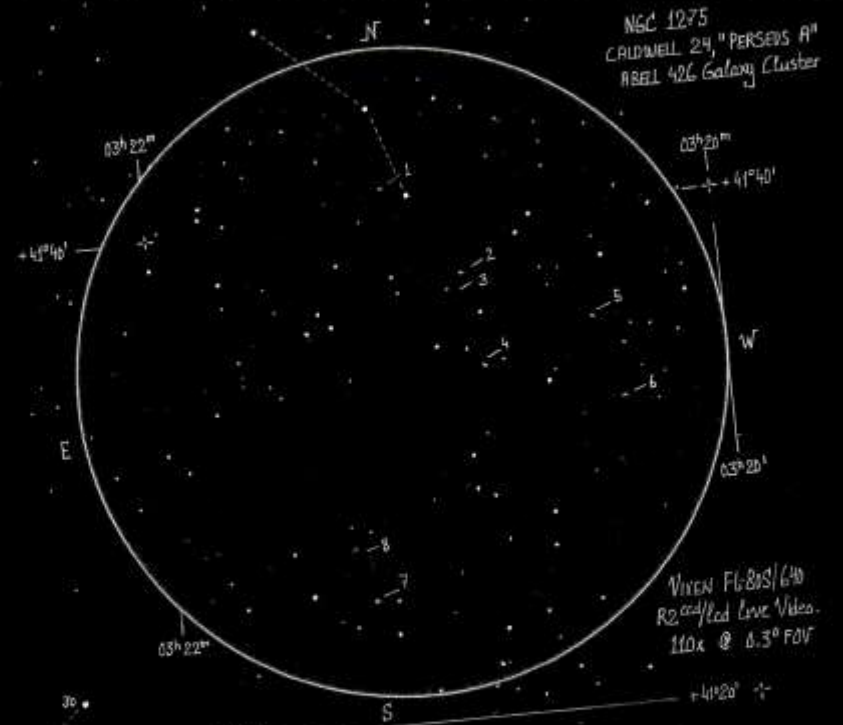
1283 —

1282 —

Observation Record

NGC 1275
Index (Abell 426)

Feature(s): NGC 1275, "Perseus A" Date: 2016-12-14 Time: 17:30 UT Location: 56N 12E, DENMARK
Conditions: Trsp. 3/7, Haze, Rising Moon, Seeing: 5/10 Instrument: Vixen FL-80S/640mm Refractor
Aperture: 80mm f/8 Focal Length: +1.5x GPC = 960mm f/12 EP Filter/Mag: +0.5x Red. R2 CCD/LCD Live Video.
Notes: SQM 17.4, NELM 4.8 (Barlo Red/7 Suburban)
R2 Fixed Exp. 5s(256x), Gain 30DB, Averaging 4-6 DNR



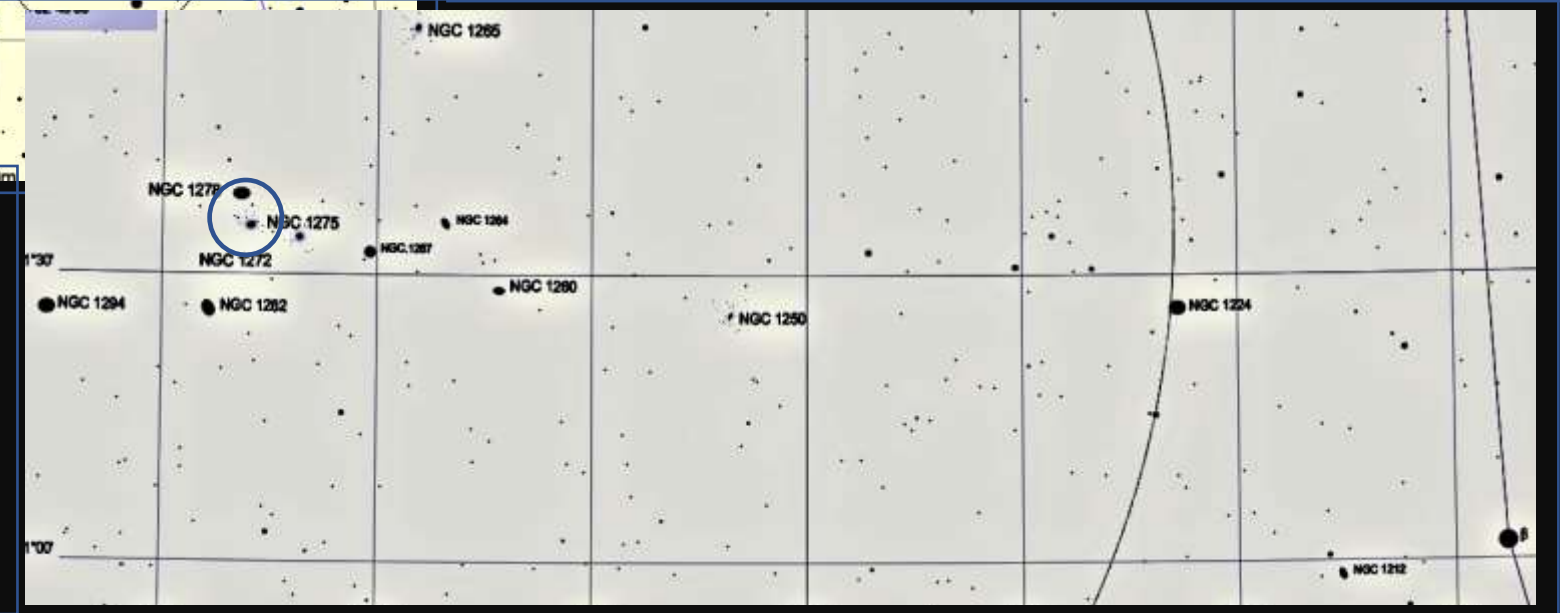
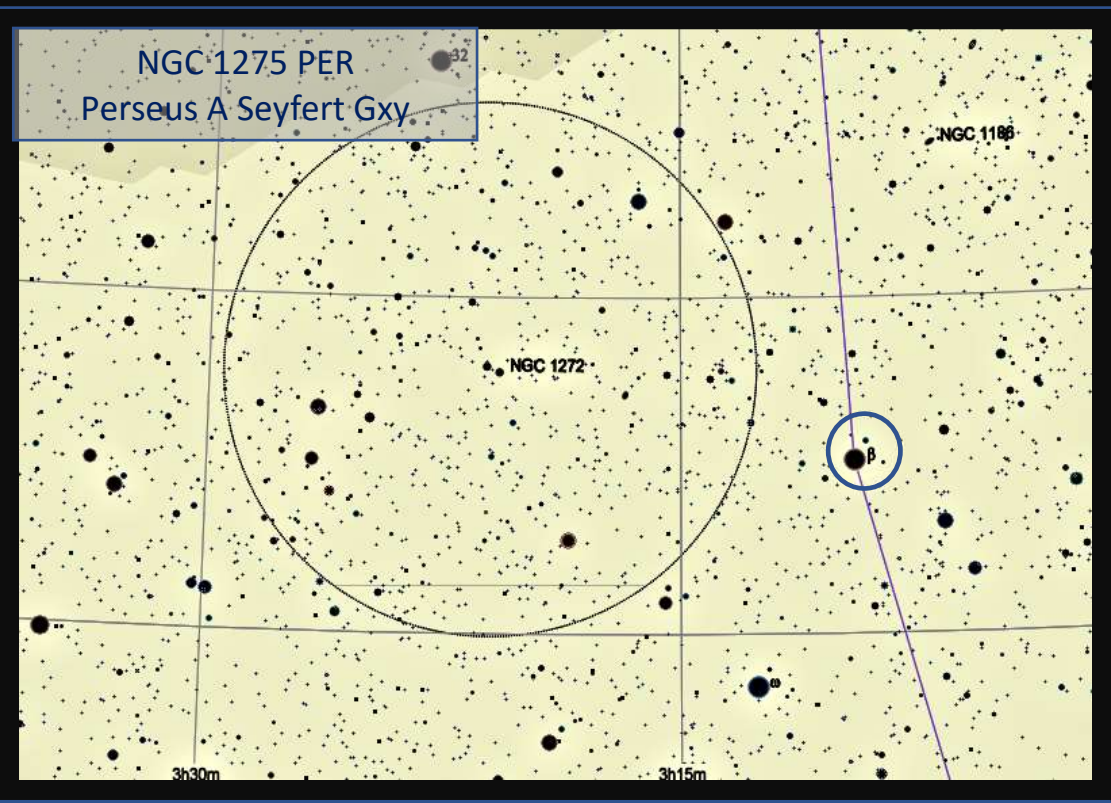
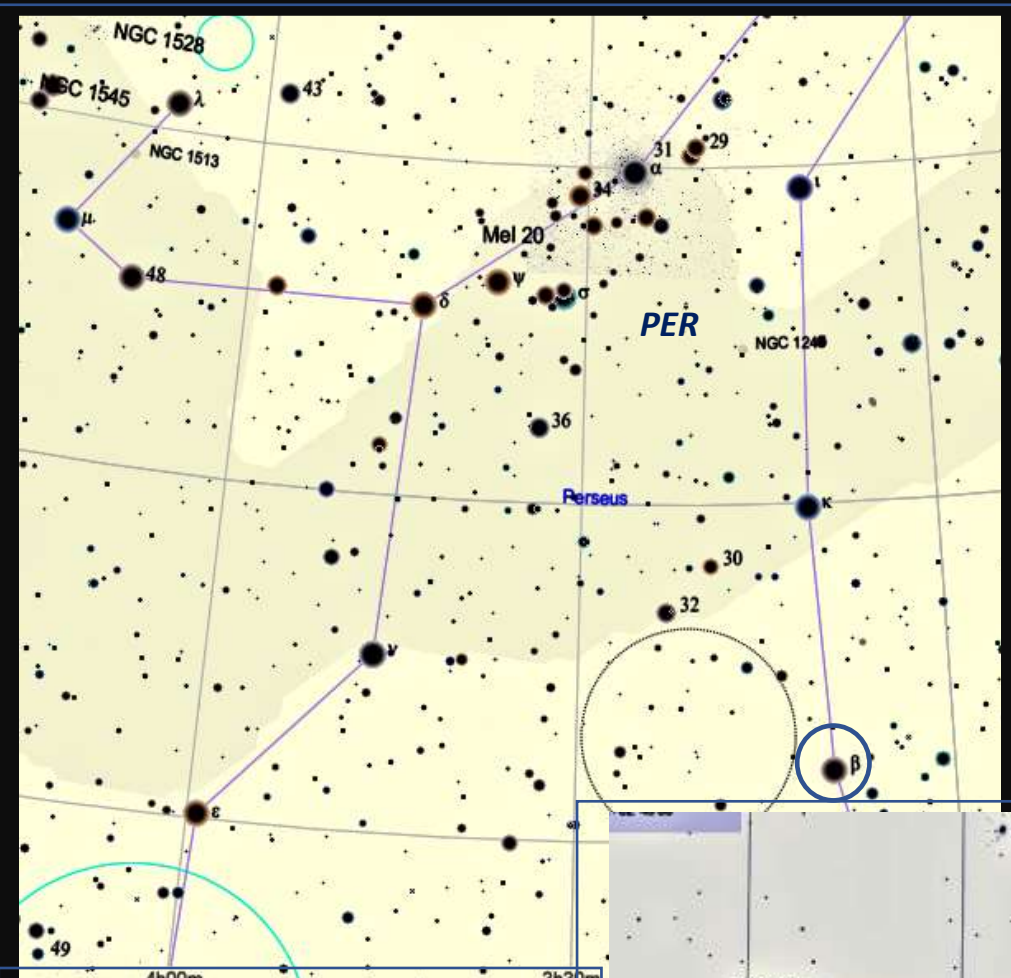
1.	NGC 1281	15.3m
2.	1277	15.4
3.	1278	12.4
4.	1275	11.9 "Perseus A"
5.	1273	13.2
6.	1272	11.7
7.	1282	13.9
8.	1283	13.5 (weak)

Time: FINDER EP/Mag: 10 x 60mm
ID/PA: Bolder Varis Finder.

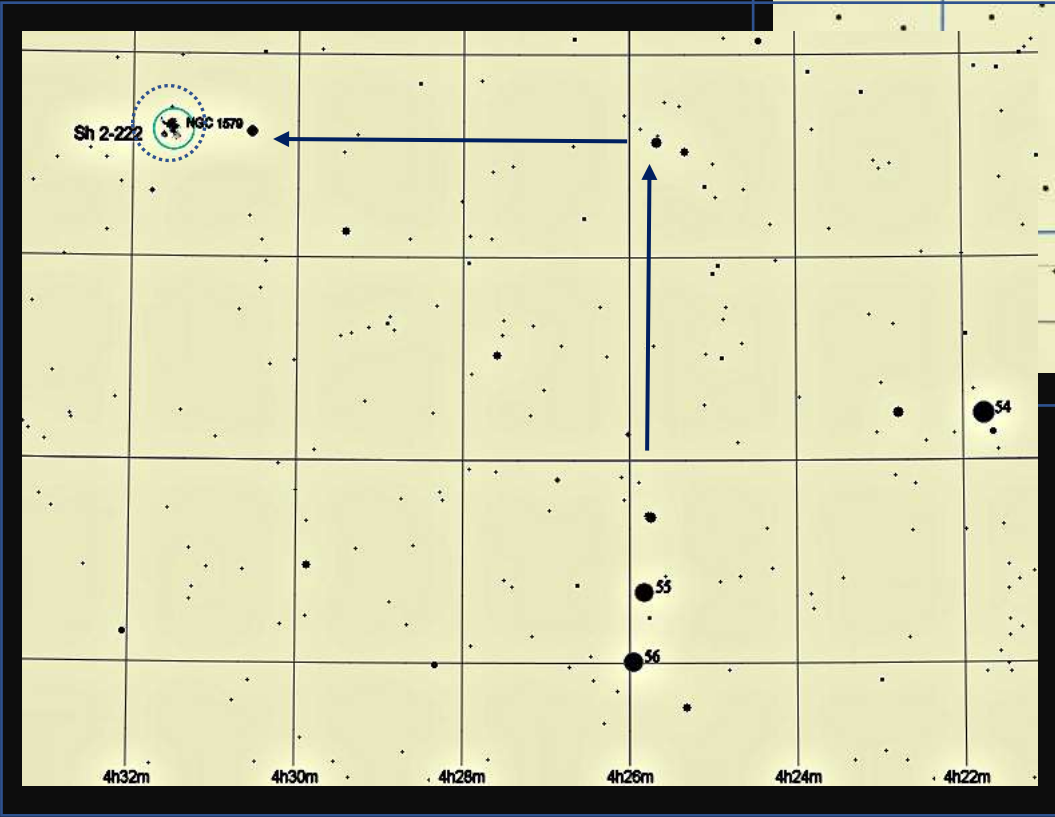
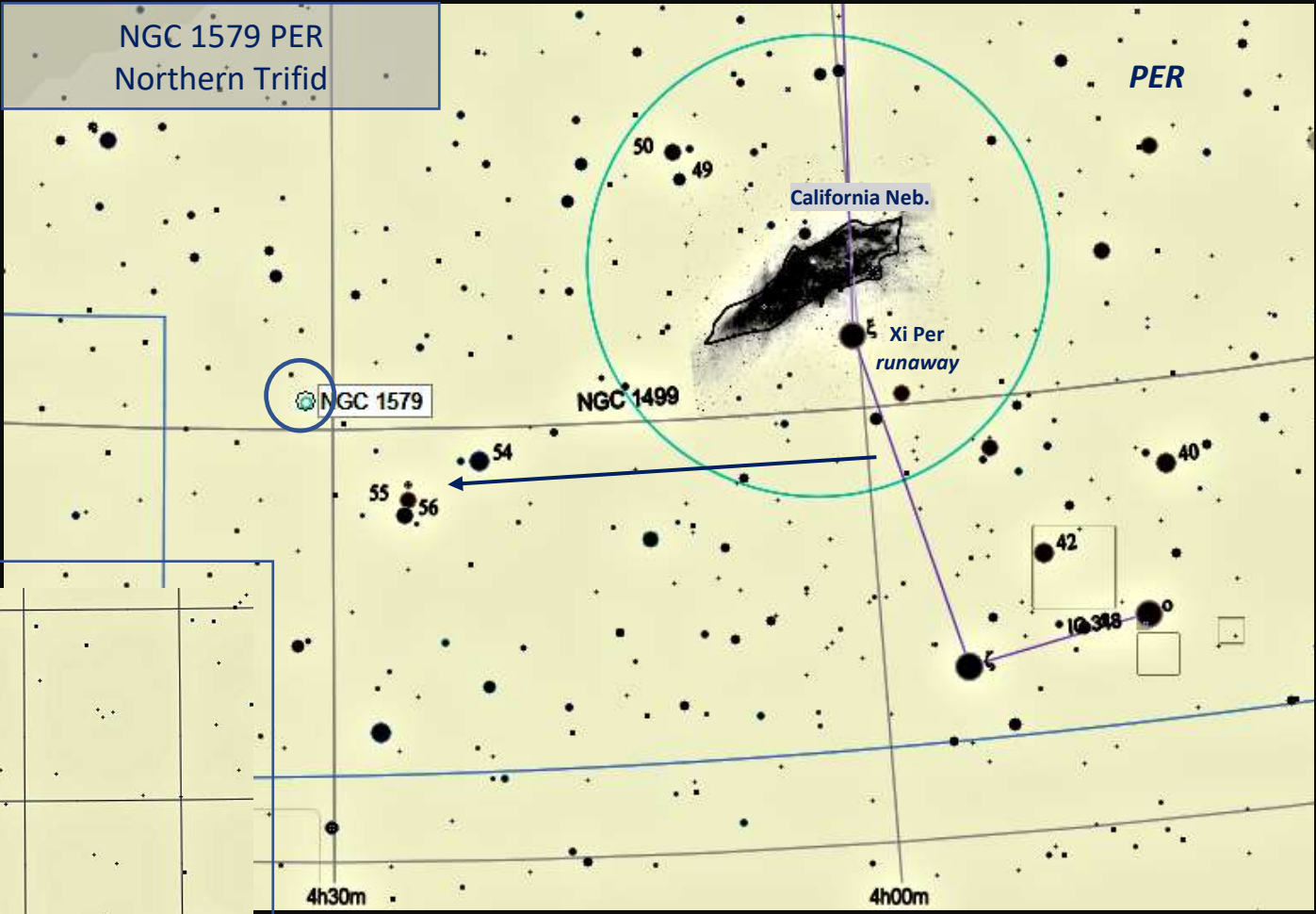
Time: EP/Mag:
ID/PA:

Time: EP/Mag:
ID/PA:

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NGC 1579 PER
Northern Trifid



NGC 1528 - 1545 PER
The other PER
Double Cluster

