

HERSCHEL OBSERVATIONS

NGC 6744+A		SITE 02	SEEING II	TRANS II
CONST		INSTR 25"	EYEPIECE 26mm	POWER 110
		COMMENTS		
		← EX elong galaxy		
DATE 5/26/9		N 101		
TIME 12:10				
NGC 7049		SITE 02	SEEING II	TRANS II
CONST		INSTR 25"	EYEPIECE 26mm	POWER 110
		COMMENTS		
DATE 5/26/9				
TIME 12:30				
NGC 7		SITE 02	SEEING II	TRANS II
CONST		INSTR 25"	EYEPIECE 26mm	POWER 110
		COMMENTS		
DATE 5/26/9				
TIME 12:40				
NGC 10552		SITE 02	SEEING II	TRANS II
CONST		INSTR 25" Dob	EYEPIECE 26mm	POWER 110
		COMMENTS		
		Bright on E - elongated		
DATE 5/26/9		bright glow		
TIME 3:15				

STZ
C101

LGG
2.1

Observing Log

Object type: Galaxy

213

LGGN?

STE

Object ID: LMC Cont.

Clusters

Const.: _____

Observer B. Young

RA: _____ Dec.: _____

Date 5/23/9

Mag: _____ Size: _____

Time 7:40 pm

Location 02

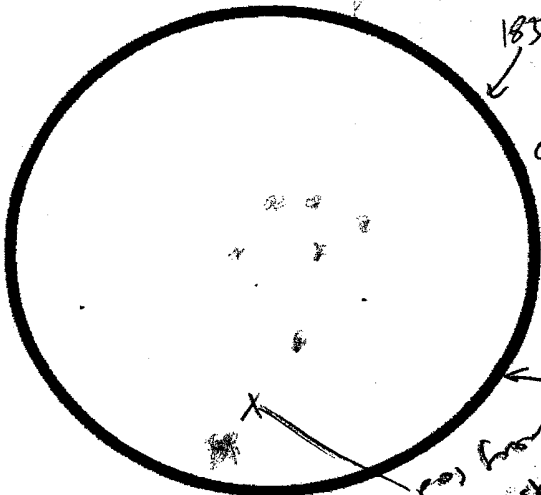
Seeing II Transparency II

Instrument 18" Dob

Size 18"

Eyepiece 26mm

Field of view 1° Power 79X



Clusters

• Can this ~~galaxy~~ be seen with direct vision, or is averted vision required?

• What is the overall shape? As drawn

• Is a core noticeable? N/A

• Is the core compact or stellar? N/A

• Can any detail be seen between the core and the outer envelope of the object? No

• Are the edges of the outer envelope sharp or diffuse? All

• Can any detail or mottling be seen in the outer envelope (bright or dark patches or lanes)? No

• Are there any other deep-sky objects in the same field of view? If so, what? Back other

So many objects - impossible to keep straight

Description _____

HERSCHEL OBSERVATIONS

U66N
213

5/24

7:39 P.M.

slowly
LA
541
F+3
210,

NGC	—	SITE	02	SEEING	II	TRANS	II
CONST		INSTR	12x60's	EYEPiece		POWER	
		COMMENTS					
		DARK DODDNO					
DATE	5/23/9						
TIME	11:15						
NGC	1070	SITE	02	SEEING	II	TRANS	II
CONST	LMC	INSTR	18" DOB.	EYEPiece	17mm	POWER	120X
		COMMENTS					
		← 2060 (in 15)					
		even better @ 9mm					
		← 2044					
DATE	5/24/9						
TIME	6:45						
NGC	VARIOUS	SITE	02	SEEING	II	TRANS	II
CONST	LMC	INSTR	18" DOB	EYEPiece	17	POWER	120X
		COMMENTS					
		← 1968					
		← 1955					
		← 1940					
		← 1985					
		seen too close NO, NOT SURE WHAT THESE ARE					
DATE	5/24/9						
TIME	6:55						
NGC	VARIOUS	SITE	02	SEEING	II	TRANS	II
CONST	LMC	INSTR	18" DOB	EYEPiece	17	POWER	120X
		COMMENTS					
		← 1935					
		← 1934					
		← 1928					
DATE	5/24/9						
TIME	7:15						

5/23

5/24

STC

C103

U66N

U66N

STC

U66N

CARDINAL
DIRECTIONS
MRE OFF
COMMENTS 10/11/91

HERSCHEL OBSERVATIONS

2660V 2.3

NGC 1872		SITE 02	SEEING II	TRANS II
CONST LMC		INSTR 18" DOB	EYEPIECE 17mm	POWER 120X
1881		COMMENTS		
DATE 5/24/91		← 1874/76/77/80 COMPLEX (DN = dark "finger")		
TIME 8:00		← 1894 (see PAGE 7)		
NGC VARIOUS		SITE 02	SEEING II	TRANS II
CONST LMC		INSTR 18" DOB	EYEPIECE 17mm	POWER 120X
1850 →		COMMENTS		
1454? →		← 1847		
DATE 5/24/91		← 1856 (globular)		
TIME 8:10		← 1828		
		← 1835 (globular)		
NGC 2516		SITE 02	SEEING II	TRANS II
CONST		INSTR 12x60	EYEPIECE	POWER 12
		COMMENTS		
DATE				
TIME				
NGC 3372		SITE 02	SEEING II	TRANS II
CONST		INSTR 25"	EYEPIECE 13mm	POWER 220
η Car		COMMENTS		
KEYHOLE		Card sketch		
DATE				
TIME				

LG6N

LG6N

SBC

C96

STC

C92

HERSCHEL OBSERVATIONS

213
L66W
All
or
SHMS
BE

NGC 362		SITE 02	SEEING II	TRANS II
CONST SMC		INSTR 25" Dob	EYEPIECE 26mm	POWER 110X
		COMMENTS		
		Nice bright cluster		
		v/res all over edges		
DATE 5/26/9				
TIME 4:10				
NGC 376/419/		SITE 02	SEEING II	TRANS II
CONST SMC 422		INSTR 25" Dob	EYEPIECE 26mm	POWER 110X
		COMMENTS		
		← 376 All small open clusters		
DATE 5/26/9				
TIME 4:20				
NGC 460/465		SITE 02	SEEING II	TRANS II
CONST SMC		INSTR 25" Dob	EYEPIECE 26mm	POWER 110X
		COMMENTS		
		← 460 Small dm OCs		
		← 465		
DATE				
TIME				
NGC Various		SITE 02	SEEING II	TRANS II
CONST SMC		INSTR 25" Dob	EYEPIECE 26mm	POWER 110X
		COMMENTS		
		220 some granularity		
		220 area Others are way as down		
DATE				
TIME				

C104
STC

419 =
STC

↑ 220 ↑ 222 ↑ 231 ↑ 241

HERSCHEL OBSERVATIONS

NGC 121	X 104		SITE 02	SEEING II	TRANS II
CONST SMC			INSTR 25" Dob	EYEPiece 26mm	POWER 110X
			COMMENTS		
			Try, no res but look @ neighbor		
DATE 5/26/9					
TIME 3:25					
NGC 104			SITE 02	SEEING II	TRANS II
CONST SMC			INSTR 25" Dob	EYEPiece 26mm	POWER 110X
			COMMENTS		
			Huge - only a portion drawn m + nucleus and 2 ← hadn't noticed bright star		
DATE 5/26/9					
TIME 3:30					
NGC 306/330			SITE 02	SEEING II	TRANS II
CONST SMC			INSTR 25" Dob	EYEPiece 26mm	POWER 110X
			COMMENTS		
			← dm		
DATE 5/26/9					
TIME 3:45					
NGC Varies 1616	111 →		SITE 02	SEEING II	TRANS II
CONST SMC			INSTR 25" Dob	EYEPiece 26mm	POWER 110X
			COMMENTS		
			← 1612		
DATE 5/26/9					
TIME 4:00					

(L66N
2.4

STC
C104

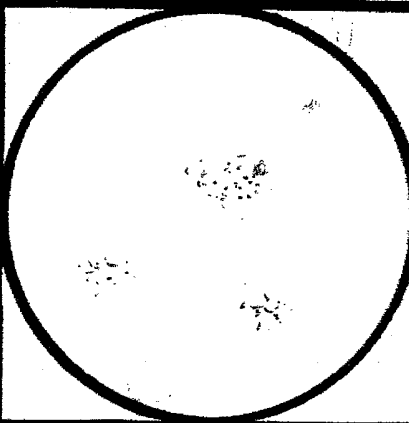
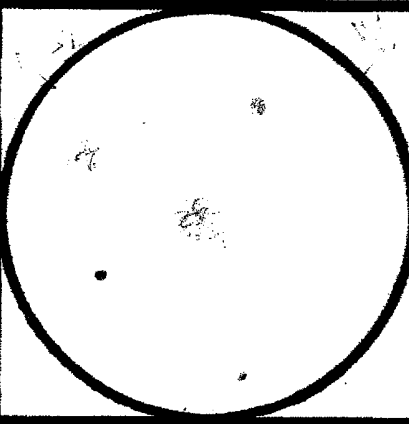
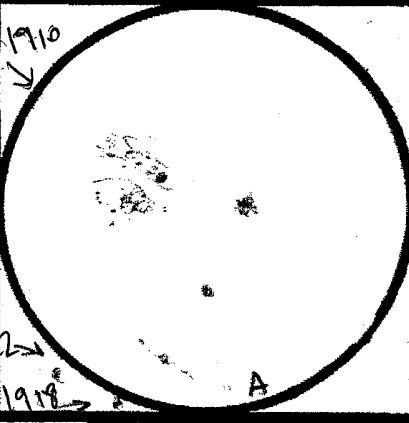
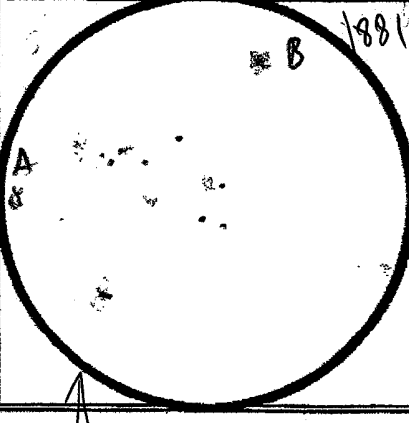
330 =
STC

346 =
STC

HERSCHEL OBSERVATIONS

All LMC

2.3

NGC	1970		SITE	02	SEEING	II	TRANS	II
CONST	LMC		INSTR	18" Dob	EYEPIECE	17mm	POWER	120X
COMMENTS								
← 1953 small dim ← 1970 + 1962 + 1965 + 1966 Nos much more, but clusters easy ← 1994 RICH ← 1967 STARS OR BRIGHT								
DATE	5/24/9		SITE	02	SEEING	II	TRANS	II
CONST	LMC		INSTR	18" Dob	EYEPIECE	17mm	POWER	120X
COMMENTS								
← 1754 All some clump mess ← 1766								
DATE	5/24/9		SITE	02	SEEING	II	TRANS	II
CONST	LMC		INSTR	18" Dob	EYEPIECE	17mm	POWER	120X
COMMENTS								
1910 nice cluster - split in half 1963 - fairly bright 1914 dim 1918 v. small & dim 1913 dim 1922 " "								
DATE	5/24/9		SITE	02	SEEING	II	TRANS	II
CONST	LMC		INSTR	18" Dob	EYEPIECE	17mm	POWER	120X
COMMENTS								
← 1881 Nice, easy ← 1894 w/ 2 others? Very dim 1913 small, dim ← small globular								

U66N

U66N

U66N

U66N

U66N

1898 ~~over~~ 1892 no!

7

HERSCHEL OBSERVATIONS

2.3

NGC 2122		SITE 02	SEEING II	TRANS II
CONST LMC		INSTR 18"	EYEPiece 18	POWER 114
DATE 5/25/9		COMMENTS w/03 18mm 13"		
TIME 8:05				
NGC 1818		SITE 02	SEEING II	TRANS II
CONST LMC 1810		INSTR 18" Dob.	EYEPiece 18mm	POWER 114X
1822 →		COMMENTS 18mm 18"		
1926 →		← 1810		
DATE 5/25/9		← 1818		
TIME 8:15 w/ JUNE				
NGC 2136 + 2137		SITE 02	SEEING II	TRANS II
CONST LMC		INSTR 18" Dob	EYEPiece 18mm	POWER 114X
DATE 5/25/9		COMMENTS 18" 18mm		
TIME 8:20		2136 = larger OC		
NGC 1783		SITE 02	SEEING II	TRANS II
CONST LMC		INSTR 18" Dob	EYEPiece 18mm	POWER 114X
DATE 5/25/9		COMMENTS 18 & 18		
TIME 8:30		Some mottling & 1		

LGGN

LGGN

LGGN

on edge

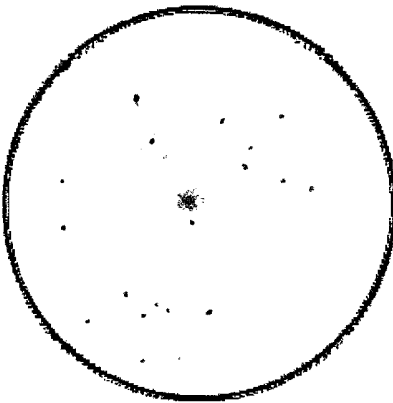
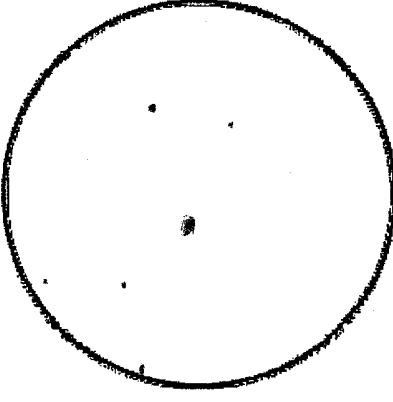
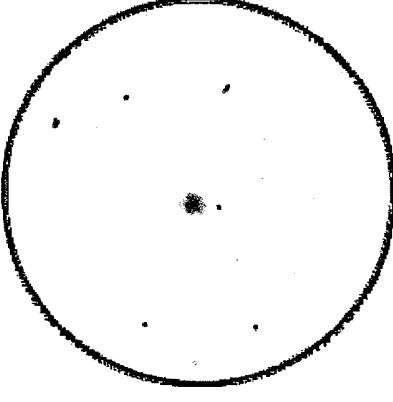
8

HERSCHEL OBSERVATIONS

NGC 549 + 2 other		SITE 02	SEEING II	TRANS II
CONST		INSTR 25"	EYEPiece 26mm	POWER 110
		COMMENTS		
DATE 5/25/9				
TIME 10:48				
NGC 5365 + ?		SITE 02	SEEING II	TRANS II
CONST		INSTR 25"	EYEPiece 26mm	POWER 110
		COMMENTS		
		More like 2 fields but both stars on a line		
DATE 5/25/9				
TIME 11:00				
NGC 6337		SITE 02	SEEING II	TRANS II
CONST		INSTR 25" Dob	EYEPiece 26mm	POWER 110
		COMMENTS		
		↓ (Andrew's) "Diamond ring"		
DATE 5/25/9				
TIME 11:10				
NGC 6522		SITE 02	SEEING II	TRANS II
CONST		INSTR 25" Dob	EYEPiece 42mm	POWER 70X
		COMMENTS		
		Actually visible - not like at home!		
DATE 5/25/9				
TIME 11:20				

L66W
219

Local Group & Galactic Neighborhood Observations

Object: M79 Date: 1/2/9 Instrument: 12" DOB Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 8:00pm # of Galaxies: - FOV: 0°.6 AV scale: Dimmest LM star:		Notes: SMALL, EASY TO FIND IN LEO. HAD SHOWN TO VISITOR ETC EARLIER TONIGHT. SUGGESTS HINTS OF RESOLUTION ON EDGES.	2.2
Object: NGC 1851 Date: 1/2/9 Instrument: 12" DOB Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 9:20pm # of Galaxies: - FOV: 0°.6 AV scale: Dimmest LM star:		Notes: SMALL, DENSE GLOBULAR, DIMMER THAN I REMEMBER BUT VISIBLE IN 6X30 FINDER. NO RESOLUTION EXCEPT "CLUMPS" AT EDGES. EVEN GLOW	2.2
Object: M54 Date: 6/17/9 Instrument: XT-12 Seeing: II Transparency II - Eyepiece 10mm Power: 150X Time: 12:25 am CDT # of Galaxies: - FOV: 0°.3 AV scale: Dimmest LM star:		Notes: <u>NO RES</u> VERY FINE, NO HINTS EVEN ON EDGES.	2.2

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

HERSCHEL OBSERVATIONS

(LGGN
3.4)

NGC 5011		SITE 02	SEEING II	TRANS II
CONST ALEA		INSTR 25" Dob	EYEPIECE 26mm	POWER 110X
		COMMENTS		
		A		
DATE 5/25/9		← 5011B per photo in LGGC guide		
TIME 7:30				
NGC 5011C		SITE 02	SEEING II	TRANS II
CONST		INSTR 25" Dob	EYEPIECE 26mm	POWER 110X
		COMMENTS		
		MUST BE "C"		
DATE 5/25/9		Nothing seen for sure to		
TIME 7:35		Sash		
NGC 1C4329		SITE 02	SEEING II	TRANS II
CONST		INSTR 25"	EYEPIECE 26mm	POWER 110
		COMMENTS		
		5 seen easily - more limited		
DATE 5/25/9				
TIME 7:45				
NGC 3766		SITE 02	SEEING II	TRANS II
CONST		INSTR 25	EYEPIECE 42	POWER 70
		COMMENTS		
		Note oc w/ red star		
DATE 5/25/9				
TIME 7:55				

LGGN
("C")

LGGN
("C")

LGGN?
AB?

STC
C97

3,11

7.4 Local Group & Galactic Neighborhood Observations (choose one)

Object M66 GroupDate 6/18/9

R.A. _____

Time 10:30 pm CDT

Dec _____

Location RMCC 3593

Magnitude _____

Instrument x512Constellation LeoEyepiece 2x42Transparency II -Power (X) 90Seeing IIIField of View 0°.6Aperture & Focal Length 12" 1500mmFaintest Naked Eye Star 5.5# of averted vision galaxies 0# of direct vision galaxies 4Group or Cluster M66

- * Can the faintest galaxy/galaxies be seen with direct vision ³⁶²⁸ or is averted vision required? If averted vision is required, give an estimate on the AV scale for all objects that require it.
- * Is there any grouping or clustering apparent? Any interaction between galaxies? YES
- * Do the galaxies form any particular pattern? Are they evenly or unevenly distributed? NO
- * Are details such as nuclei ^{Δ+1}, dust lanes or spiral arms visible in any of the galaxies? in M66 & M65
- * Are any of the galaxies close enough to one another to appear superimposed? If so, are any signs of interaction visible? NO

Description

WONDERFUL GROUP - GETTING LOW BUT
STILL EASILY SEEN

Local Group & Galactic Neighborhood, McGown & Murray

Observing Log

Object Type: Galaxy Group or Galaxy Cluster

3, 10

Object ID: MS1 Group

5223

Observer B. Young

R.A.: _____

Date 6/19/9

Dec.: _____

Time 12:15-12:45 AM CDT

Magnitude: _____

Location RMCC

Const.: _____

Seeing III Transparency II-

Faintest Naked Eye Star 5.5

Instrument XT-12

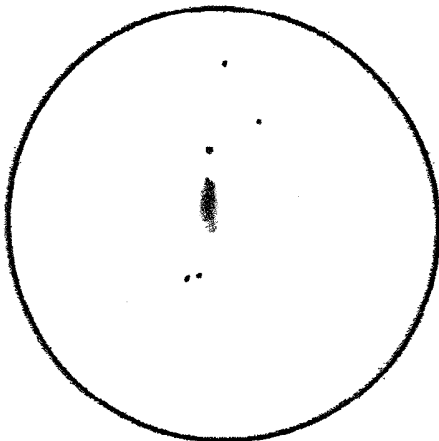
Aperture and Focal Length 12" 1500mm

Eyepiece 2x42

Magnification 75x Field of view 0.5

No. of averted vision galaxies 2

No. of direct vision galaxies 4



← M63

* Can the faintest galaxy/galaxies be seen with direct vision, or is averted vision required? If averted vision is required, give an estimate on the AV scale for all objects that require it.

* Estimate the apparent size of the galaxy group or cluster. 10° separation

* Do the galaxies form any particular pattern? Are they evenly or unevenly distributed?

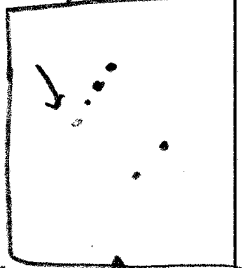
* Are details such as nuclei, dust lanes or spiral arms visible in any of the galaxies?

M61/53 M63 MS1

* Are any of the galaxies close enough to one another to appear superimposed? If so, are any signs of interaction visible? MS1/5195 with connecting arm

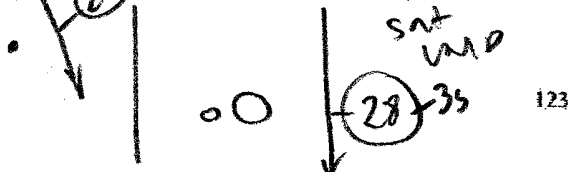
Description MS1 & M63 absolutely stunning.

12:45 am
AV my
5229 752



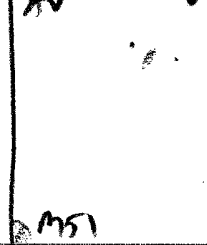
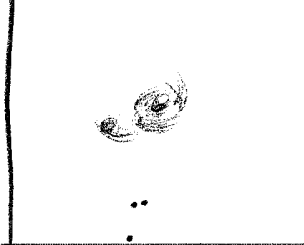
AV=2

(McGraw-Hill, Cole-Huston, Pratt 2000)



MS1 + 5195 90x

90x 5196



AV=3

HERSCHEL OBSERVATIONS

LGGN

NGC M106		SITE RMCC	SEEING III	TRANS II-
CONST CnV		INSTR XT-12" 1500mm	EYEPiece 2x42	POWER 75
		COMMENTS		
		Nice bright, elong, w/ nuc (or star?) offset at center		
DATE 6/19/9				
TIME 12:45				
NGC 4485+		SITE RMCC	SEEING "	TRANS "
CONST 4490		INSTR XT-12	EYEPiece 10	POWER 150
		COMMENTS		
		Appear they could overlap		
DATE 6/19/9				
TIME 12:50				
NGC 4096		SITE "	SEEING "	TRANS "
CONST UM-		INSTR "	EYEPiece 2x42	POWER 75x
		COMMENTS		
		Elongated DV		
DATE "				
TIME 12:55				
NGC 4217		SITE "	SEEING "	TRANS "
CONST CnV		INSTR "	EYEPiece 2x42	POWER 75x
		COMMENTS		
		Amorphous glow - seen DV - use AV to extend AV=1		
DATE "				
TIME 1:00				

3.9

✓

3.14

14

HERSCHEL OBSERVATIONS

LGGW

NGC 4144		SITE RMCC	SEEING II	TRANS II-
CONST Vma		INSTR XT-12 1300	EYEPiece 2x42	POWER 952
DATE 6/19/9		COMMENTS		
TIME 1:10		Small glow seen with AV only AV = 2		
NGC 5702		SITE RMCC	SEEING II	TRANS II
CONST Cen		INSTR XT-12	EYEPiece 2x42	POWER 75
DATE 6/21/9		COMMENTS		
TIME 10:25		Small elliptical just off Cen from TUSA		
NGC 5253		SITE RMCC	SEEING II	TRANS II
CONST Cen		INSTR XT-12	EYEPiece 10	POWER 150x
DATE 6/21/9		COMMENTS		
TIME 10:40		Seems elongated but can't be sure @ this elevation.		
NGC 2841		SITE "	SEEING "	TRANS "
CONST Vma		INSTR "	EYEPiece 2x42	POWER 75
DATE 6/21/9		COMMENTS		
TIME 11:06		Nice bright core + elongated glow w/ star on edge Some mottling 10m Sat.		

M106 star

check for 4945M 02

USE M83 & Cen A

from 02 because they were so much better than TUSA!

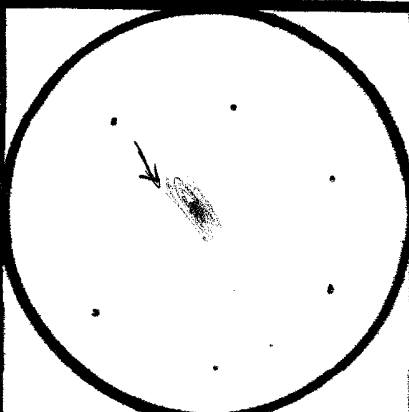
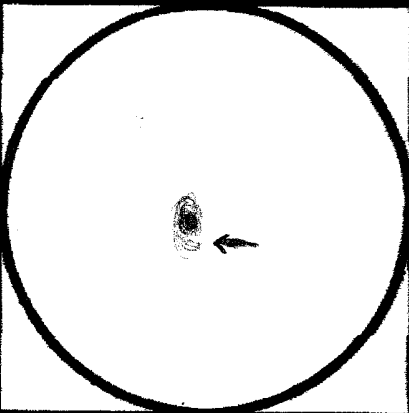
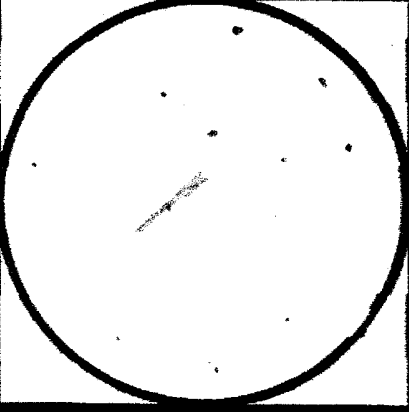
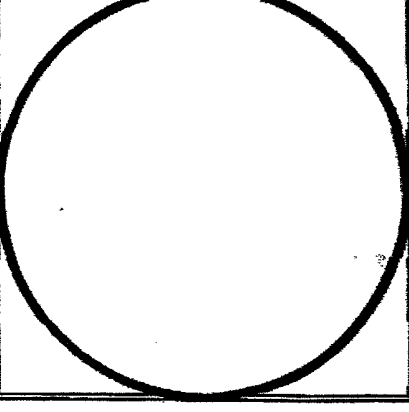
(21) + 3 after WAT (not seen)

15

HERSCHEL OBSERVATIONS

LG66N

M64/94 group

NGC M64		SITE RMCC	SEEING #	TRANS #
CONST Com		INSTR XT-12	EYEPiece 2x42	POWER 7x
#GAL = 1		COMMENTS		
FOV = 0°6		This one has dark area apparent on N side		
DATE 6/21/9		SITE "	SEEING "	TRANS "
TIME 11:40		INSTR "	EYEPiece 2x42	POWER 7x
NGC M94		COMMENTS		
CONST CnV		Bright big core w/ some glow, some mottling		
#GAL = 1		SITE "	SEEING "	TRANS "
FOV = 0°6		INSTR "	EYEPiece "	POWER 7.5x
DATE 6/21/9		COMMENTS		
TIME 11:55		Pencil thin, some arc hard to see Use Av, though not rigid Av=1		
NGC 4244		SITE "	SEEING "	TRANS "
CONST CnV		INSTR "	EYEPiece "	POWER 7.5x
#GAL = 1		COMMENTS		
FOV = 0°6				
DATE 6/22/9		SITE "	SEEING "	TRANS "
TIME 12:05		INSTR "	EYEPiece "	POWER 7.5x
NGC		COMMENTS		
CONST				
DATE		SITE "	SEEING "	TRANS "
TIME		INSTR "	EYEPiece "	POWER 7.5x
		COMMENTS		

Local Group & Galactic Neighborhood Observations

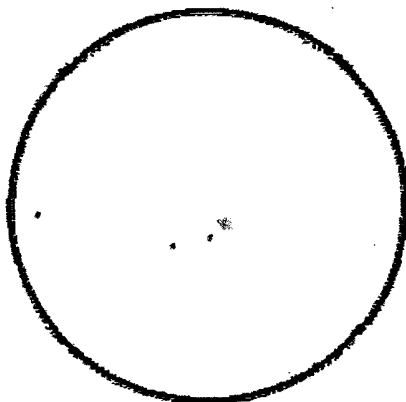
M81 Group

Object: M81+82+N3077 Date: 6/22/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 mm Power: 37x Time: 11:30 # of Galaxies: 2 FOV: 10.2 AV scale: All in Dimmest LM star:		Notes: BEST PAIR OUT THERE + ONE IN GROUP THAT JUST FITS IN LOW POWER FIELD M82 MOTTLED, M81 NICEROUND GLOW w/ HINTS OF ARMS
Object: IC2574 Date: 6/22/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75x Time: 11:40 # of Galaxies: 1 FOV: 0.6 AV scale: 2 Dimmest LM star: 13		Notes: Very faint but seen, and can hold most of the time. Amorphous glow
Object: N2403 Date: 6/22/9 Instrument: XT-12 Seeing: II Transparency II Eyepiece 2x42 Power: 75x Time: 11:55 # of Galaxies: 1 FOV: 0.6 AV scale: NOT MERGED BUT USE Dimmest LM star:		Notes: Nice rand glow between 2 stars, may have seen small nucleus.

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

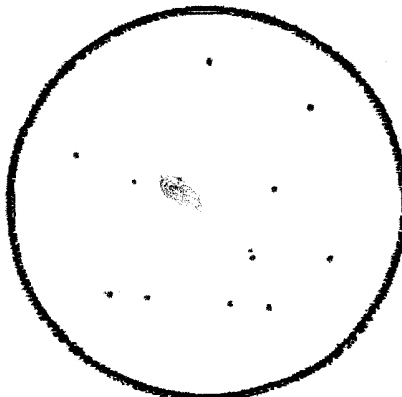
Local Group & Galactic Neighborhood, McGown & Murray

Object: N 2366
 Date: 6/23/19
 Instrument: XT-12
 Seeing: II
 Transparency: II
 Eyepiece: 10
 Power: 150
 Time: 12:05
 # of Galaxies: 1
 FOV: 0°.3
 AV scale: 2
 Dimmest LM star: >13



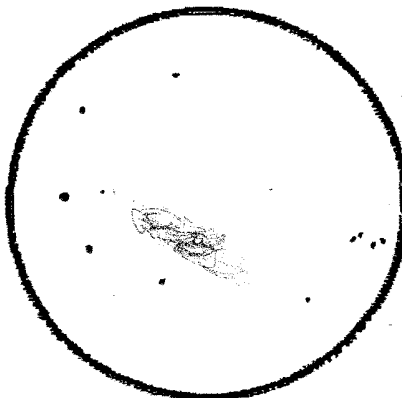
Notes: Check older
 obs - with
 low. Seen,
 held > than
 not seen,
 No detail

Object: N 2976
 Date: 6/23/19
 Instrument: XT-12
 Seeing: II
 Transparency: II
 Eyepiece: 2x42
 Power: 75X
 Time: 12:20
 # of Galaxies: 1
 FOV: 0°.6
 AV scale: —
 Dimmest LM star: —



Notes:
 Nice big glow
 w/ some noisy
 No obvious nuc.
 but star on edge

Object: N 4236
 Date: 6/23/19
 Instrument: XT-12
 Seeing: II
 Transparency II
 Eyepiece 2x42
 Power: 75X
 Time: 12:30
 # of Galaxies: 1
 FOV: 0°.6
 AV scale: AV 2
 Dimmest LM star: 14



Notes:
 "Sideways" bar?
 WOW
 →
 Huge glow
 Why never seen
 before?

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

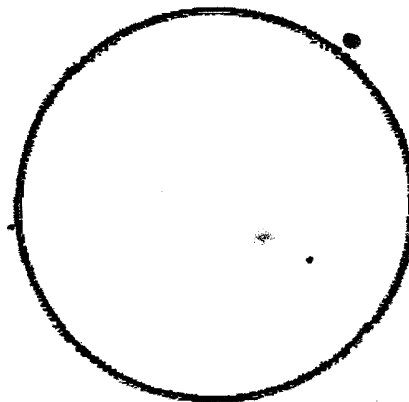
Local Group & Galactic Neighborhood, McGown & Murray

Local Group & Galactic Neighborhood Observations

May/64

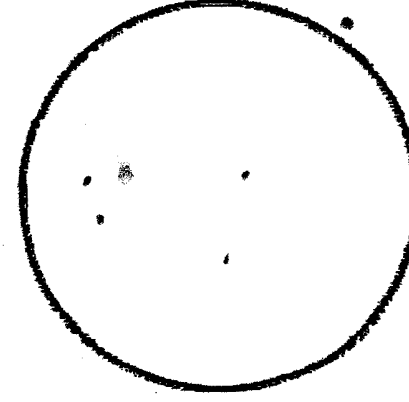
Object: IC 3687
 Date: 6/23/9
 Instrument: XT-12
 Seeing: II
 Transparency: II
 Eyepiece: 10 mm
 Power: 150x
 Time: 1:05
 # of Galaxies:
 FOV: 0°.3
 AV scale: AV3
 Dimmest LM star: (Few stars - 13)

Notes: Barely, AV only
 But seems to show glow @ 75x



Object: IC 4182
 Date: 6/23/9
 Instrument: XT-12
 Seeing: II
 Transparency: II
 Eyepiece: 10
 Power: 150
 Time: 1:15
 # of Galaxies: 1
 FOV: 0°.3
 AV scale: 3
 Dimmest LM star:

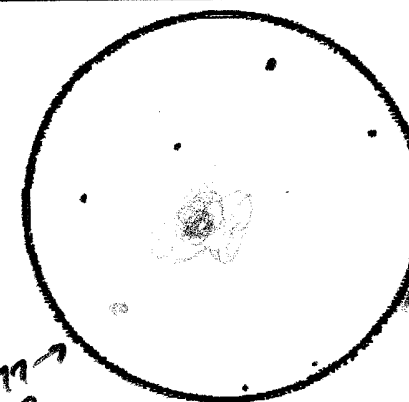
Notes: Small glow, AV only, held most of the time
 No detail



Object: M101
 Date: 6/23/9
 Instrument: XT-12
 Seeing: II
 Transparency: II
 Eyepiece: 42
 Power: 37x
 Time: 1:25
 # of Galaxies: 3
 FOV: 1°.2
 AV scale:
 Dimmest LM star: 13

Notes: M101 AMAZING WITH LARGE GLOW, HINTS OF STRUCTURE AND NUCLEUS OBVIOUS.

5474 DV
 5474 DV round glow
 5477 HELD AV > 50%
 NICE GLOW OFF CENTER



5477 → AV2

Group

M101 Group

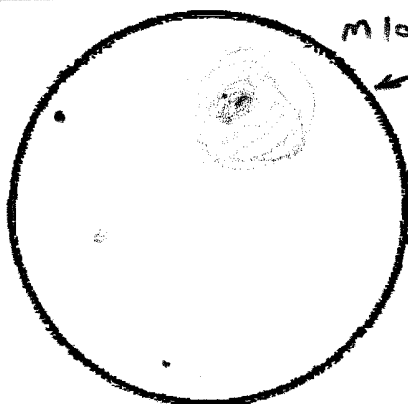
The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

Local Group & Galactic Neighborhood Observations

M101
Group

Object: M101 + 5477
Date: 6/23/9
Instrument: XT-12
Seeing: II
Transparency: II
Eyepiece: 2x42
Power: 75X
Time: 1:30
of Galaxies: 2
FOV: 0°.6
AV scale: 2
Dimmest LM star: 14

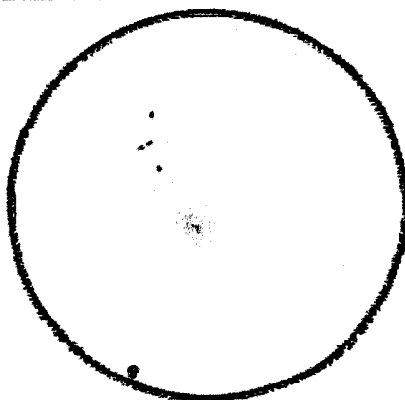


M101 Notes:

NVC + SPAN

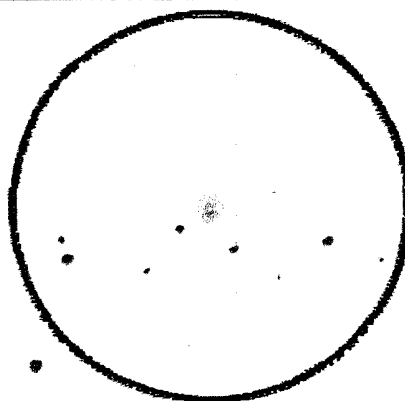
ANOTHER
VIEW

Object: N 5474
Date: 6/23/9
Instrument: XT-12
Seeing: II
Transparency: II
Eyepiece: 2x42
Power: 75X
Time: 1:40
of Galaxies: 1
FOV: 0°.6
AV scale: DV
Dimmest LM star:



Notes: Seen well,
NVC + glow

Object: N 5585
Date: 6/23/9
Instrument: XT-12
Seeing: II
Transparency II
Eyepiece 2x42
Power: 75
Time: 1:50
of Galaxies: 1
FOV: 0°.6
AV scale: -
Dimmest LM star:



Notes:

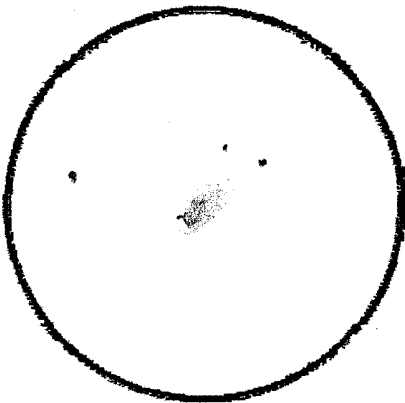
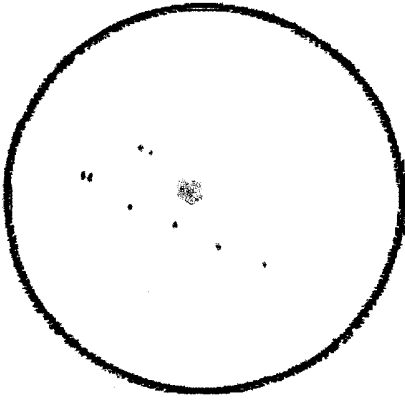
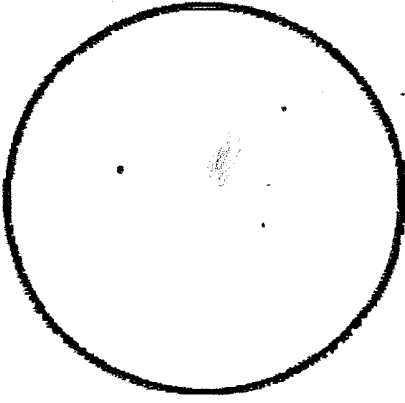
NVC & Nand
glow - try
NVC, DV, AV
helps brighten
it

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

Local Group & Galactic Neighborhood Observations

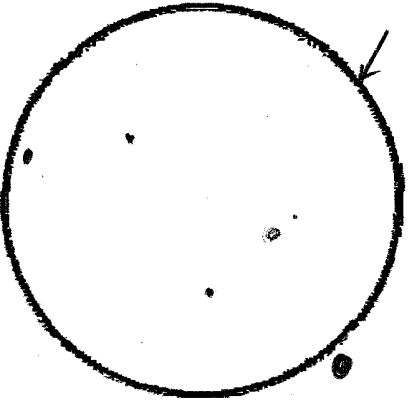
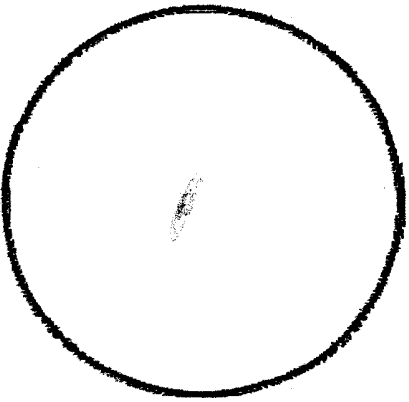
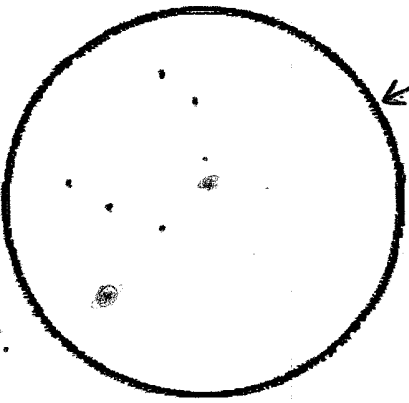
M109
Group
N

Object: M109 Date: 6/23/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 10:35 # of Galaxies: 1 FOV: 0.6 AV scale: Dimmest LM star:		Notes: Beautiful large galaxy
Object: N3953 Date: 6/23/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 10:48 # of Galaxies: 1 FOV: 0.6 AV scale: Dimmest LM star:		Notes: Some mottling Bright nucleus
Object: N3917 Date: 6/23/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 10:50 # of Galaxies: 1 FOV: 0.6 AV scale: AV1 Dimmest LM star: 14		Notes: Once found, can hold on elong. glow

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

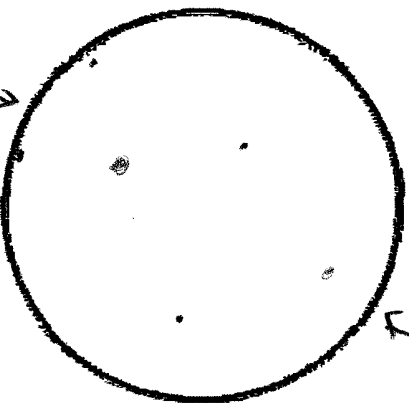
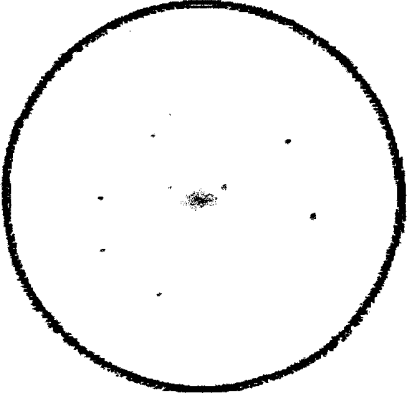
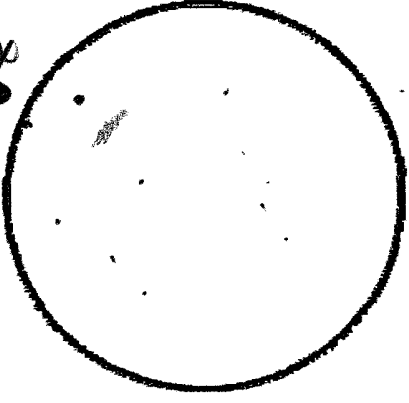
Local Group & Galactic Neighborhood Observations

Object: N3922 Date: 6/23/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 11:00 # of Galaxies: 1 FOV: 0.6 AV scale: 2 Dimmest LM star: 14		Notes: Nucleus only? Small Edm	M109 N
Object: M109 Date: 6/23/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 11:05 # of Galaxies: 1 FOV: 0.6 AV scale: Dimmest LM star:		Notes: Nice elongated galaxy, broad nucleus.	M109 N
Object: N3950/3898 Date: 6/23/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 11:10 # of Galaxies: 3 FOV: 0.6 AV scale: Dimmest LM star: 13 3888 3898		Notes: All DV but 3898 dim, best to use AV to see other 2 have nucleus seen	M109 N

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

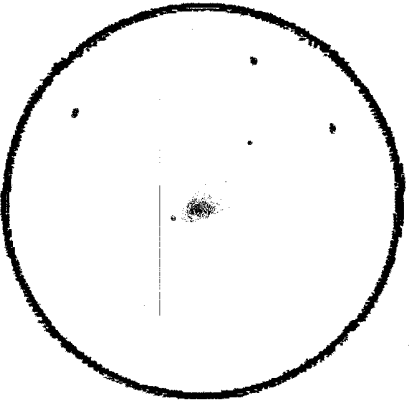
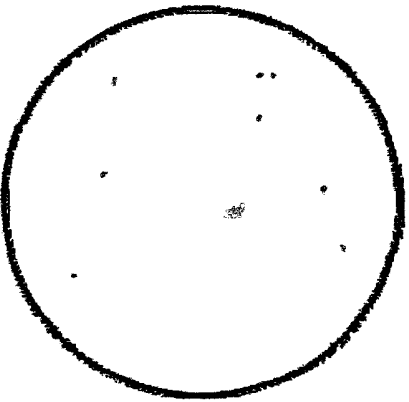
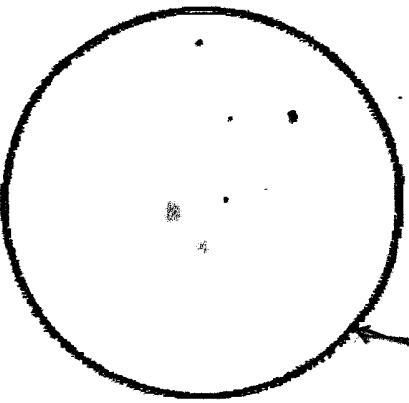
Local Group & Galactic Neighborhood Observations

Object: N 3795 Date: 6/23/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 11:50 # of Galaxies: 2 FOV: 0'.6 AV scale: AV3 (3795A) Dimmest LM star: 13		Notes: ← DV Easy, small bright glow AV=3 ↓	109 N
Object: N 3675 Date: 6/24/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75X Time: 12:00 # of Galaxies: 1 FOV: 0'.6 AV scale: Dimmest LM star:		Notes: N.ze medium glow w/nuc.	109 S
Object: N 3877 Date: 6/24/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 12:10 # of Galaxies: 1 FOV: 0'.6 AV scale: Dimmest LM star:		Notes: N.ze clumpy short elongated galaxy & X mark	109 S

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

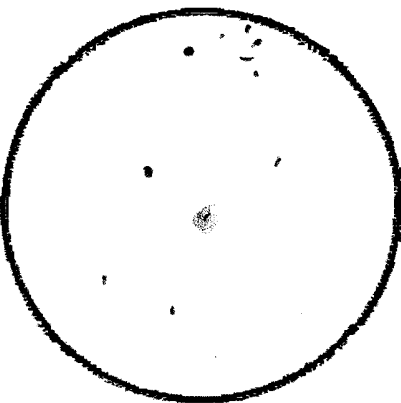
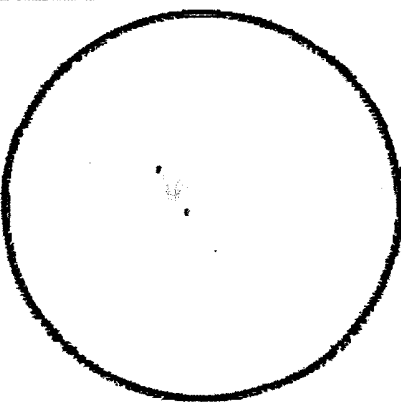
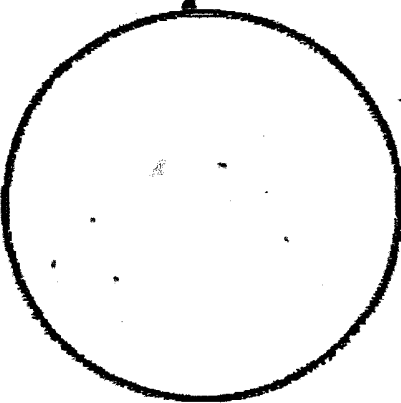
Local Group & Galactic Neighborhood Observations

Object: N3726 Date: 6/24/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 12:25 # of Galaxies: 1 FOV: 0'.6 AV scale: Dimmest LM star:		Notes: nice & gray bar?
Object: N3769 Date: 6/24/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 12:35 # of Galaxies: 1 FOV: 0'.6 AV scale: Dimmest LM star: 13		Notes: Small glow No detail
Object: N3893 Date: 6/24/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 12:45 # of Galaxies: 2 FOV: 0'.6 AV scale: Dimmest LM star: 13		Notes: 3896 not in group 3893 easy small glow 3896

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

Local Group & Galactic Neighborhood Observations

Object: N 3938 Date: 6/24/19 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 12:55 # of Galaxies: 1 FOV: 0.6 AV scale: Dimmest LM star:		Notes: Lonely road even glow w/ tiny pc.	109 S
Object: N 4242 Date: 6/24/19 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 1:05 # of Galaxies: 1 FOV: 0.6 AV scale: 1 Dimmest LM star: 14		Notes: Thought I saw last week, it's, this galaxy	M106
Object: N 4288 Date: 6/24/19 Instrument: XT-12 Seeing: II Transparency II Eyepiece 2x42 Power: 75 Time: 1:15 # of Galaxies: 1 FOV: 0.6 AV scale: AV3 Dimmest LM star: 14		Notes: Small glow AV > 50%.	M106

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

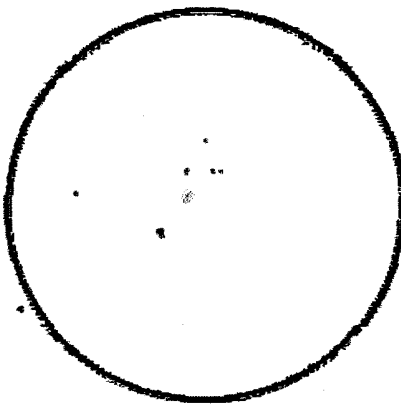
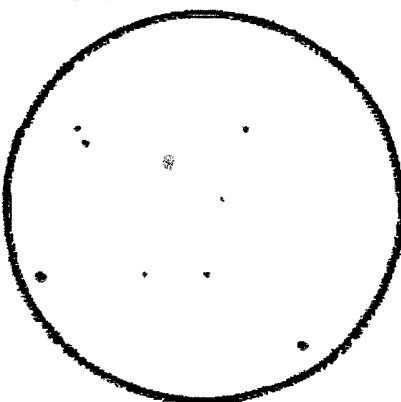
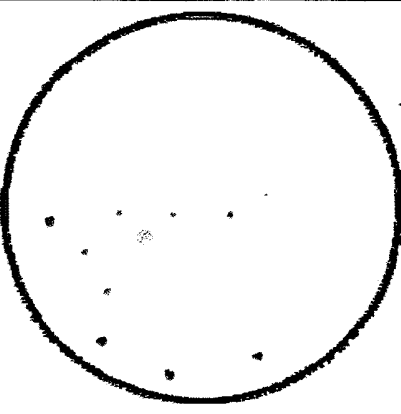
Local Group & Galactic Neighborhood, McGown & Murray

STARTED
FROM MSS

752

Local Group & Galactic Neighborhood Observations

EGGC

Object: <u>Arp 2</u> Date: <u>6/24/19</u> Instrument: <u>XT-12</u> Seeing: <u>II</u> Transparency: <u>II</u> Eyepiece: <u>10</u> Power: <u>150</u> Time: <u>1:35</u> # of Galaxies: <u>—</u> FOV: <u>0.3</u> AV scale: <u>3</u> Dimmest LM star: <u>14.5</u>		Notes: Tiny but seen AV 7502
Object: <u>Terzan 8</u> Date: <u>6/24/19</u> Instrument: <u>XT-12</u> Seeing: <u>II</u> Transparency: <u>II</u> Eyepiece: <u>10</u> Power: <u>150</u> Time: <u>1:45</u> # of Galaxies: <u>—</u> FOV: <u>0.3</u> AV scale: <u>2</u> Dimmest LM star: <u>14.5</u>		Notes: No detail but held AV
Object: <u>Terzan 7</u> Date: <u>6/24/19</u> Instrument: <u>XT-12</u> Seeing: <u>II</u> Transparency: <u>II</u> Eyepiece: <u>10</u> Power: <u>150</u> Time: <u>1:55</u> # of Galaxies: <u>—</u> FOV: <u>0.3</u> AV scale: <u>Av 2</u> Dimmest LM star: <u>14.5</u>		Notes: Also held AV, a little bit bigger than Ter 8.

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

HIT
N6723
ON
WAY
752

← HITS
OF
STARS
AT
EDGE

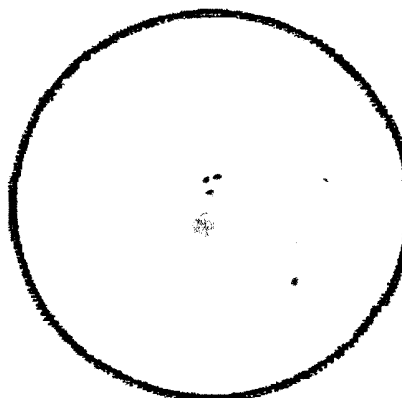
7.4 Local Group & Galactic Neighborhood Observations (choose one)

EGGC

Object Pal 12
R.A. _____
Dec _____
Magnitude _____
Constellation Cap
Transparency II
Seeing II

Date 6/24/9
Time 3:30
Location RMCC
Instrument XT-12
Eyepiece 10
Power (X) 150
Field of View 0.3

Aperture & Focal Length 12" 1500mm
Faintest Naked Eye Star 6.0
of averted vision galaxies 1
of direct vision galaxies 0
Group or Cluster EGGC



- * Can the faintest galaxy/galaxies be seen with direct vision, or is averted vision required? If averted vision is required, give an estimate on the AV scale for all objects that require it. AV 4
- * Is there any grouping or clustering apparent? Any interaction between galaxies? N/A
- * Do the galaxies form any particular pattern? Are they evenly or unevenly distributed? N/A
- * Are details such as nuclei, dust lanes or spiral arms visible in any of the galaxies? N/A
- * Are any of the galaxies close enough to one another to appear superimposed? If so, are any signs of interaction visible? N/A

Description Very faint & small, seen AV < 50x, at
time near a A of stars. LM=14.5

HERSCHEL OBSERVATIONS

L66N

NGC 4526/		SITE RMCC	SEEING II	TRANS II
CONST 4535		INSTR XT-12	EYEPiece 2x42	POWER 75x
Vrrgo		COMMENTS		
		← 4526		
DATE 6/25/9		← 4535		
TIME 11:15				
NGC TONS		SITE RMCC	SEEING //	TRANS //
CONST		INSTR XT-12	EYEPiece //	POWER //
		COMMENTS		
		WOW		
DATE 6/25/9		← 4457		
TIME 11:25		← 4445		
NGC 4365/		SITE //	SEEING //	TRANS //
CONST 4370		INSTR //	EYEPiece //	POWER //
		COMMENTS		
		← 4365 DV		
DATE 6/25/9		← 4370 AV=2		
TIME 11:45		← 4365, reliable (slightly > 1 arcmin)		
NGC 4429		SITE //	SEEING //	TRANS //
CONST		INSTR //	EYEPiece //	POWER //
		COMMENTS		
		Blong. (checked w/100x)		
DATE 6/25/9				
TIME 12:00				

Observing Log

Object type: Nebula *Planetary Nebula*

*NOT
LGBN*

Object ID: *Ngc 6309*

Const.: *Oph*

RA: _____ Dec.: _____

Mag: _____ Size: _____

Observer *B. Yank*

Date *6/26/9*

Time *1:20 CDT*

Location *BMCC*

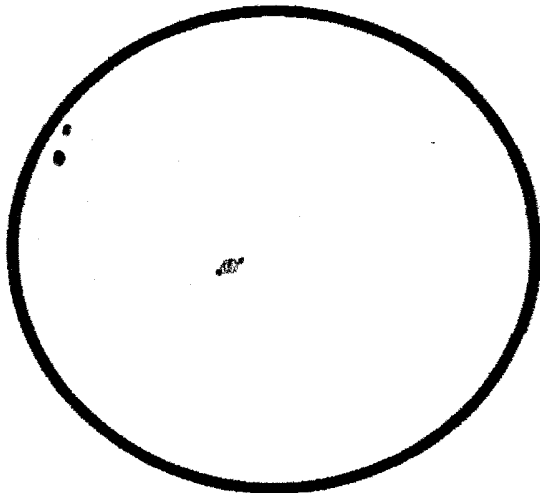
Seeing *II* Transparency *II*

Instrument *XT-12*

Size *12*

Eyepiece *10*

Field of view *0.3* Power *100*



- Can this nebula be seen with direct vision, or is averted vision required?
- Is there an overall shape of the object or is it simply irregular? *Round*
- Is any part of the outer edge of the nebula sharply defined? *yes*
- Is any part of the nebula brighter or more concentrated? *No*
- Is there any particular area where you notice an absence of stars in this cluster? *No*
- Are there any voids or dark patches, or lanes in the nebula? Any bright filaments or streamers? *No*
- Is there an open cluster nearby or involved or any obvious stars involved with this nebula? *Between 2*
- Any suggestions for observing this nebula (I.e. filter, power, field of view, etc.)?
- Are there any other deep-sky objects in the same field of view? If so, what? *No*

Description *PN?*
HAVE I SEEN?

7.4 Local Group & Galactic Neighborhood Observations (choose one)

Object M84/M86 clump

Date 6/26/9

R.A. _____

Time 1130 CDX

Dec _____

Location RMCC

Magnitude _____

Instrument XT-12

Constellation _____

Eyepiece 2X42

Transparency II

Power (X) 75

Seeing II

Field of View 0.6

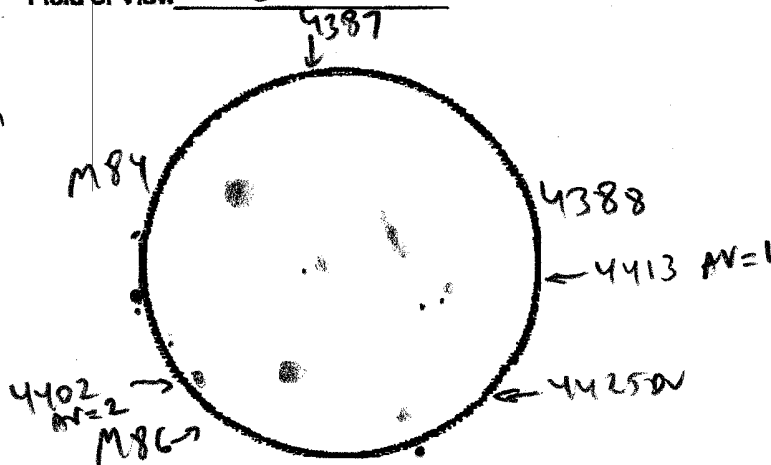
Aperture & Focal Length 12" 1500mm

Faintest Naked Eye Star 5.5

of averted vision galaxies 1

of direct vision galaxies 8

Group or Cluster Virgo SC



* Can the faintest galaxy/galaxies be seen with direct vision, or is averted vision required? If averted vision is required, give an estimate on the AV scale for all objects that require it. See notes

* Is there any grouping or clustering apparent? Any interaction between galaxies? Obvious No

* Do the galaxies form any particular pattern? Are they evenly or unevenly distributed? Not obvious

* Are details such as nuclei, dust lanes or spiral arms visible in any of the galaxies? Some details in M84 + M86 + 4388

* Are any of the galaxies close enough to one another to appear superimposed? If so, are any signs of interaction visible? No

Description

What a cluster!

7.4 Local Group & Galactic Neighborhood Observations (choose one)

Object N4164+4165+4168

R.A. _____

Dec _____

Magnitude _____

Constellation _____

Transparency II

Seeing II

Date 6/26/9

Time 1:45

Location Rmcc

Instrument X5-12

Eyepiece 2x42

Power (X) 75

Field of View 0.6

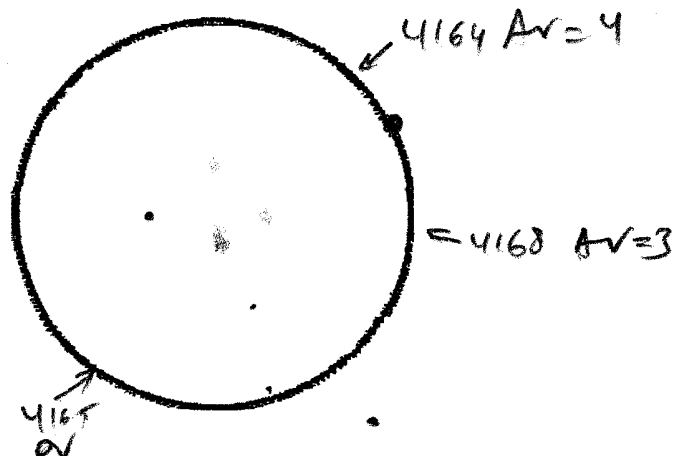
Aperture & Focal Length 12" 1500mm

Faintest Naked Eye Star 5.5

of averted vision galaxies 2

of direct vision galaxies 1

Group or Cluster Virgo



- * Can the faintest galaxy/galaxies be seen with direct vision, or is averted vision required? If averted vision is required, give an estimate on the AV scale for all objects that require it.
- * Is there any grouping or clustering apparent? Any interaction between galaxies? ABIT No
- * Do the galaxies form any particular pattern? Are they evenly or unevenly distributed?
- * Are details such as nuclei, dust lanes or spiral arms visible in any of the galaxies? No
- * Are any of the galaxies close enough to one another to appear superimposed? If so, are any signs of interaction visible? No

Description

Messier & stars?

Local Group & Galactic Neighborhood, McGown & Murray

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OBJECT	NOTES		
N6C 4371	DATE 6/26/9	TIME 12:15	Ollivier w/001213 N6C.
	POWER 150K	SEEING II T=II	
	INSTRUMENT: XT-12	TYPE F/1500mm	
N6C 4351 103258	DATE 6/26/9	TIME 12:30	← 4351 DV ellip. m.p. w/100 x
	POWER 75K	SEEING II T=II	
	INSTRUMENT: XT-12	TYPE F/1500mm	
N5238	DATE 6/26/9	TIME 2:00	← 5238 N=2 5238 NOT seen ← 5250 N=3
	POWER 75	SEEING II T=II	
	INSTRUMENT: "	TYPE F/ "	
N5204	DATE "	TIME 2:10	Round glow w/ Compass meters
	POWER 75K	SEEING II T=II	
	INSTRUMENT: "	TYPE F/ "	
DDO 216	DATE "	TIME 3:30	A AVE 4 VERIFY
	POWER 150K	SEEING " "	
	INSTRUMENT: "	TYPE F/ "	
G1 (m31)	DATE 6/26/9	TIME 4:00	DV! seen well
	POWER 150K	SEEING " "	
	INSTRUMENT: "	TYPE F/ H	
	DATE	TIME	OTHER DATA APPLIES TO ABOVE: FAI N.E. STAR = 5.5m 4371 = Virgo SC
	POWER	SEEING	
	INSTRUMENT:	TYPE F/	
	DATE	TIME	4351 = 4354 = Virgo SC 103258 = Virgo SC - confirmed ① Faintest star in field = 13 ② 5238/5204 = M101 GROUP
	POWER	SEEING	
	INSTRUMENT:	TYPE F/	
	DATE	TIME	DDO 216 - confirmed ③ Faintest star in field = 14 ④ G1 = M31 Globular Cluster
	POWER	SEEING	
	INSTRUMENT:	TYPE F/	
	DATE	TIME	
	POWER	SEEING	
	INSTRUMENT:	TYPE F/	

A Beginner's Guide

① = sky-map.org

② Not drawn - these are all > 11 mag

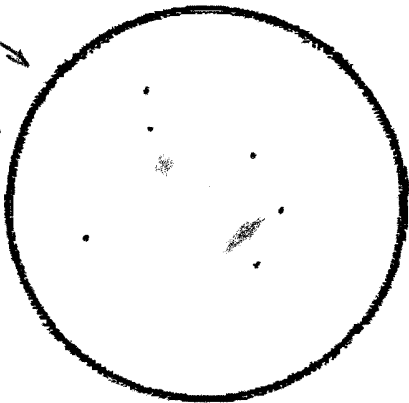
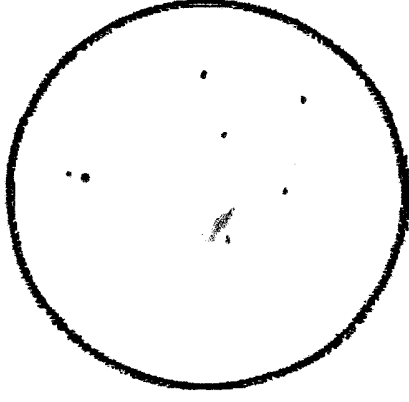
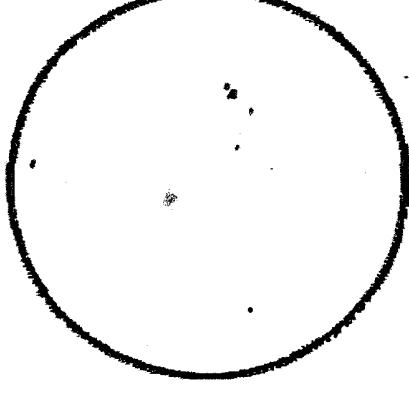
③ = sky-map.org - seems to match one bright part.

④ Star A = 13m, I know I saw dimmer ones.

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Local Group & Galactic Neighborhood Observations

Virgo
SC

Object: 4754 Date: 6/27/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 11:20 # of Galaxies: 2 FOV: 0°.6 AV scale: — Dimmest LM star: —		Notes: 4762 looks like spiral w/ compact core. 4754 elliptical
Object: 4710 Date: 6/27/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75x Time: 11:30 # of Galaxies: 1 FOV: 0°.6 AV scale: — Dimmest LM star: —		Notes: nice lenticular shape with easy nucleus
Object: M65 Date: 6/27/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 11:40 # of Galaxies: 1 FOV: 0°.6 AV scale: — Dimmest LM star: —		Notes: nice but small! Don't push power Looks elliptical

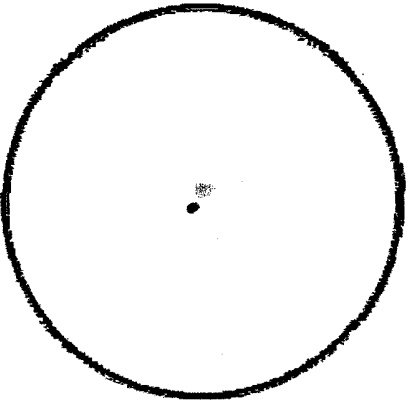
The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

(31) 12444
+13
Fader

Local Group & Galactic Neighborhood Observations

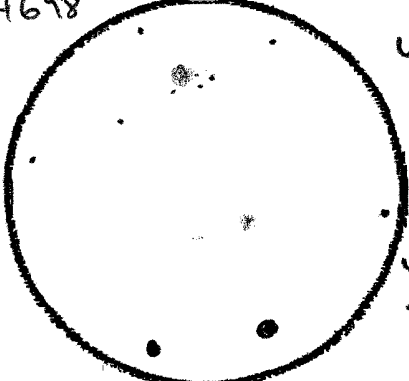
Virgo Sc

Object: N4571
Date: 6/27/9
Instrument: XT-12
Seeing: II
Transparency: II
Eyepiece: 2x42
Power: 75x
Time: 11:50
of Galaxies: 1
FOV: 0°.6
AV scale: —
Dimmest LM star: —



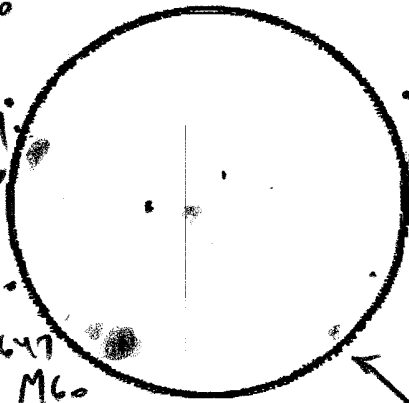
Notes: 150x no more detail

Object: N4596/4608/4698
Date: 6/28/9
Instrument: XT-12
Seeing: II
Transparency: II
Eyepiece: 2x42
Power: 75x
Time: 12:00
of Galaxies: 3
FOV: 0°.6
AV scale: —
Dimmest LM star: 32-38



Notes: medium size & bright
4596 round glow - small nuc.
4698
nice glow w/
nucleus seen
4608
small glow w/ compact nuc.

Object: M59/60
Date: 6/28/9 AREA
Instrument: XT-12
Seeing: II
Transparency II
Eyepiece 2x42
Power: 75x
Time: 12:15
of Galaxies: 7 (a) + 1 (AV)
FOV: 0°.6
AV scale: 4641 = AV3
Dimmest LM star: 14



Notes: 4641 AV=3 tiny round glow.
4638/4637 150x to split (not obvious @ 75x)
150x detail
4660
M60
slight overlap
Confirmed w/ 150x

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

↑
GOOD LONG! Averted
GREAT "CLUMP"

6 cm

← 323 625 47 50

for

From

Local Group & Galactic Neighborhood, McGown & Murray

M31 GLOBALS

992

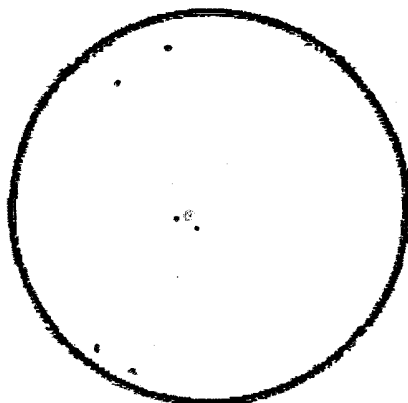
(45-52)

OM32

M31
Core

Local Group & Galactic Neighborhood Observations

Object: G78 (M31)
Date: 6/28/19
Instrument: XT-12
Seeing: II
Transparency: II
Eyepiece: 10
Power: 150
Time: 3:45
of Galaxies: —
FOV: 0°.3
AV scale: DV
Dimmest LM star: 14

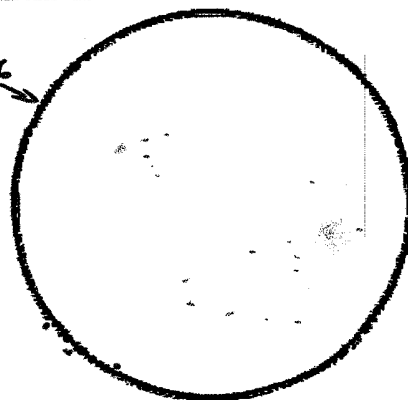


Notes:

Seen a few
bit of AV scale,
DV, small and
glow.

Object: G76 / NGC 206
Date: 6/28/19
Instrument: XT-12
Seeing: II
Transparency: II
Eyepiece: 10
Power: 150x
Time: 3:50
of Galaxies: —
FOV: 0°.3
AV scale: —
Dimmest LM star: 14

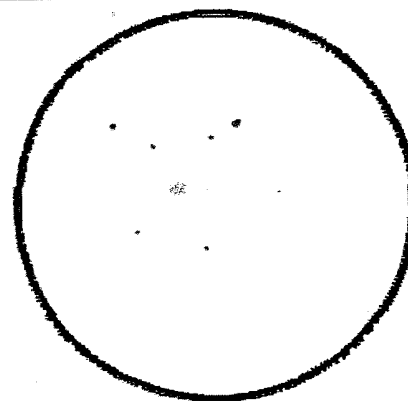
G76



Notes:

Both DV.
NGC 206 obvious
glow ("star cloud")
G76 very small very
dim, but seen
← NGC 206
AV=1.

Object: G280 (M31)
Date: 6/28/19
Instrument: XT-12
Seeing: II
Transparency II
Eyepiece 10
Power: 150
Time: 4:20
of Galaxies: —
FOV: 0°.3
AV scale: —
Dimmest LM star: —



Notes:

Again, seen AV=1
using chart in
Guide to find it
easily — small
dim glow.

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

Very surprised to see
these so well @ a
Bortle "BLUE" site

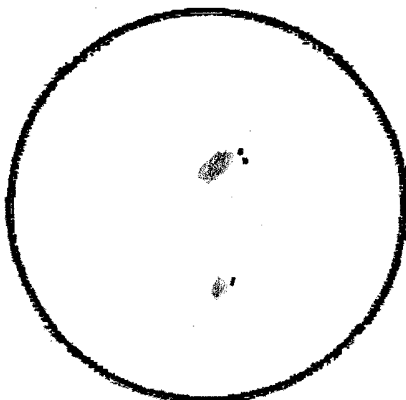
36

Local Group & Galactic Neighborhood Observations

M109

GNAP

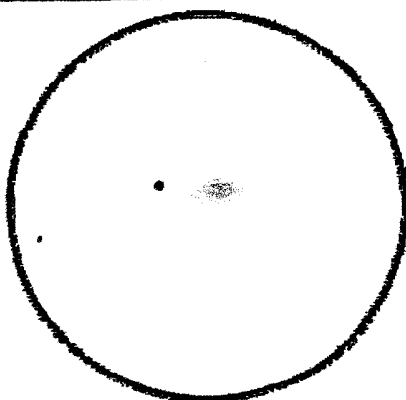
Object: N3718+3729
Date: 6/29/19
Instrument: XT-12
Seeing: II
Transparency: II
Eyepiece: 2x42
Power: 75X
Time: 12:25
of Galaxies: 2
FOV: 0°.6
AV scale: —
Dimmest LM star: —



Notes:

Both oval 3718
brighter & brighter
No details or
nuclei, barely
seen

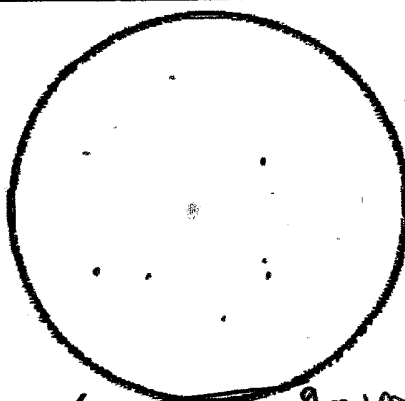
Object: N3756
Date: 6/29/19
Instrument: XT-12
Seeing: II
Transparency: II
Eyepiece: 10
Power: 150X
Time: 12:35
of Galaxies: 1
FOV: 0°.3
AV scale: —
Dimmest LM star: —



Notes:

elong w/ compact
nuc.

Object: N3913
Date: 6/29/19
Instrument: XT-12
Seeing: II
Transparency II
Eyepiece 2x42
Power: 75X
Time: 12:50
of Galaxies: 1
FOV: 0°.6
AV scale: AV2
Dimmest LM star: 13



Notes:

No detail
small glow

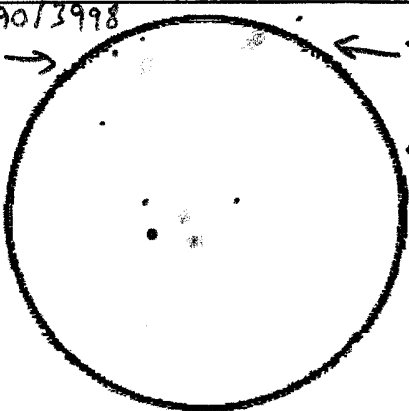
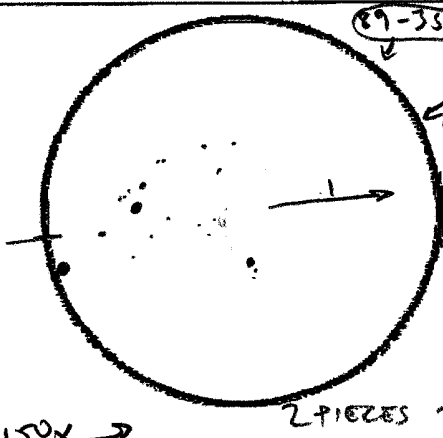
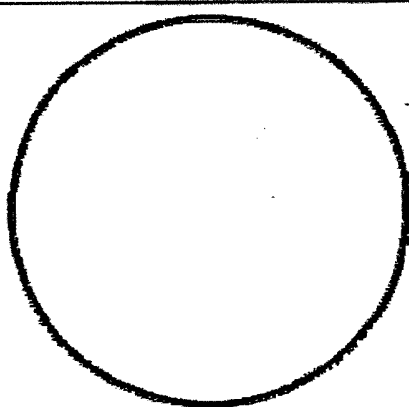
← 9mm
70-45

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

Local Group & Galactic Neighborhood Observations

M109 Group

Object: N3972/3982/3990/3998 Date: 6/29/9 Instrument: XT-12 Seeing: I- Transparency: II Eyepiece: 2x42 Power: 75x Time: 1:20 # of Galaxies: 30V + 1AV FOV: 0°6 AV scale: 2(3972) Dimmest LM star: 14	Notes: ← 3982 DV ← 3990 DV ← 3998 DV 
Object: IC 10 Date: 6/29/9 Instrument: XT-12 Seeing: I- Transparency: II Eyepiece: 2x42/10 Power: 75/150 Time: 3:00 # of Galaxies: 1 FOV: 0.6/0.3 AV scale: 3-4 Dimmest LM star: 15m? @ 150x →	Notes: 89-33 6m WMO 15 ← AV=4  2 PIECES TO IT →
Object: Date: Instrument: Seeing: Transparency Eyepiece Power: Time: # of Galaxies: FOV: AV scale: Dimmest LM star:	Notes:  150x view LOCAL GROUP 2.1 ← AV=4 ← AV=3 ← wow

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

Local Group & Galactic Neighborhood Observations

M109 S

Group

Object: N 3600 Date: 6/30/9 Instrument: XT-12 Seeing: III Transparency: II Eyepiece: 10 Power: 150 Time: 10:30 # of Galaxies: 1 FOV: 0°.3 AV scale: 2 Dimmest LM star: 13		Notes: Barely seen - just a faint smudge
Object: N 3949 / 3950 Date: 6/30/9 Instrument: XT-12 Seeing: III Transparency: II Eyepiece: 10 Power: 180x Time: 10:45 # of Galaxies: 1 DV 1 AN FOV: 0°.3 AV scale: (3950) = AV3 Dimmest LM star: Assumed 13m based on nearby		Notes: Along axis w/ halo DV Hm 05 3950
Object: N 4010 Date: 6/30/9 Instrument: XT-12 Seeing: III Transparency: II Eyepiece: 10 Power: 180 Time: 10:55 # of Galaxies: 1 FOV: 0°.3 AV scale: 3 Dimmest LM star: 13		Notes: Barely saw any glow - no detail

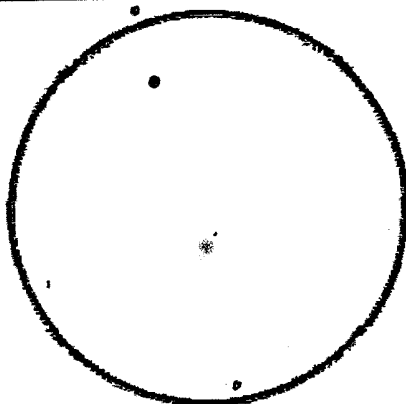
The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

Local Group & Galactic Neighborhood Observations

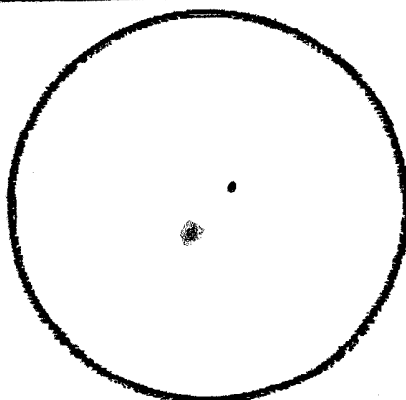
M109
S Group

Object: N4051
Date: 7/1/9
Instrument: XT-12
Seeing: III
Transparency: II
Eyepiece: 2x42
Power: 75
Time: 12:00
of Galaxies: 1
FOV: 0°.6
AV scale: —
Dimmest LM star: —



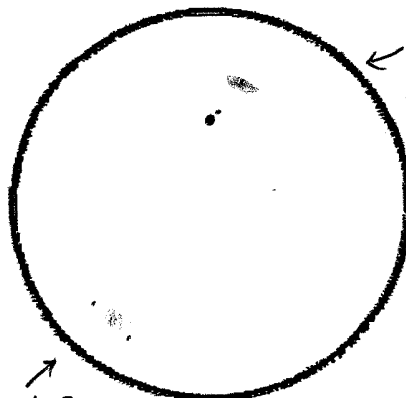
Notes: Not quite
this bright, but
easily seen DV
looks like elliptical
150x no help, this
is best view

Object: N4143
Date: 7/1/9
Instrument: XT-12
Seeing: III
Transparency: II
Eyepiece: 10
Power: 150
Time: 12:10
of Galaxies: 1
FOV: 0°.3
AV scale: —
Dimmest LM star: —



Notes:
More bright
elliptical w/
compact nucleus
L stars nearby

Object: N4111/M117
Date: 7/1/9
Instrument: XT-12
Seeing: III
Transparency II
Eyepiece 2x42
Power: 75
Time: 12:25
of Galaxies: 10V 1AV
FOV: 0°.6
AV scale: 2 (M117 on 4)
Dimmest LM star: 13



Notes:
← M111 elongated w/
bright nucleus

small glow, no
details

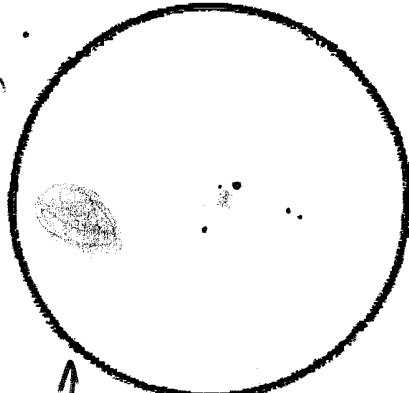
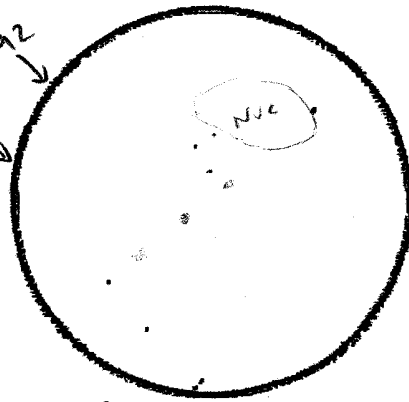
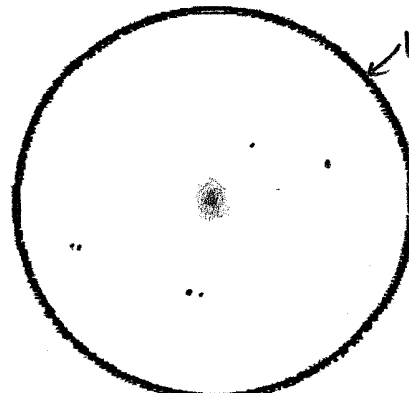
The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

41

Local Group & Galactic Neighborhood Observations

M33

Object: N 603/604 Date: 7/1/9 Instrument: XT-12 Seeing: III Transparency: II Eyepiece: 2x42 Power: 75 Time: 4:10 # of Galaxies: - FOV: 0°.6 AV scale: - Dimmest LM star: -		Notes: BOTH DV 10 FOR NGC 603 DUBIOUS, BUT THERE IS A "FUZZY" STAR AT PLOTTED POSITION PER GUIDE. NG 604 A SMALL GLOW W/ FS ON ONE SIDE
Object: N 588/592/595 Date: 7/1/9 Instrument: XT-12 Seeing: III Transparency: II Eyepiece: 2x42 Power: 75x Time: 4:20 # of Galaxies: - FOV: 0°.6 AV scale: 2 (588) Dimmest LM star: 13.		Notes: 3 in a row glows, all small & dim. 588 seen 750% of the time. No details on any.
Object: NGC 147/185 Date: 7/1/9 Instrument: XT-12 Seeing: II Transparency II Eyepiece 2x42 Power: 75 Time: 4:30 # of Galaxies: 2 FOV: 0°.6 AV scale: - Dimmest LM star: -		Notes: 147 141 dar ↓ AV=1

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

★ 185 nice & bright,
 large oval glow w/
 compact nucleus. 147
 elongated nearly even
 glow, not as bright. 42

OBJECT	NOTES	
4183	DATE 7/1/9 TIME 10:30 POWER 750 SEEING II T=II INSTRUMENT: XT-12 TYPE F/ 1500mm	Barely seen e 150x, lost Tiny dim glow
4217	DATE 7/1/9 TIME 10:40 POWER 750 SEEING II T=II INSTRUMENT: XT-12 TYPE F/ 150mm	Revisit etc, large compact elongated glow
4346	DATE " TIME 10:50 POWER 150 SEEING " INSTRUMENT: " TYPE F/ "	Some clumps on E&W side of compact nucleus DV
4389	DATE " TIME 10:55 POWER 750 SEEING " INSTRUMENT: " TYPE F/ "	Didn't push, med sized even glow w/ no nuc
4142	DATE " TIME 11:00 POWER 150 SEEING " INSTRUMENT: XT-12 TYPE F/ AV=3①	Tiny dim glow < 100x time but seen
4102	DATE " TIME 11:10 POWER 150x SEEING " INSTRUMENT: " TYPE F/ "	Ellip? Compact nuc. Easy DV Cmt split placed dub
4157	DATE " TIME 11:20 POWER 150x SEEING " INSTRUMENT: " TYPE F/ "	Lovely elong glow Not a distance DV
4085 4088	DATE " TIME 11:45 POWER 150x SEEING " INSTRUMENT: " TYPE F/ "	Much larger brighter, seen on one side top-sided 4088 →
4026	DATE 7/2/9 TIME 12:30 POWER 150x SEEING " INSTRUMENT: " TYPE F/ AV=1	Just let the small dim glow drift in Aid along 1 me
5764 w/1783 Group	DATE 7/2/9 TIME 12:45 POWER 150x SEEING " INSTRUMENT: " TYPE F/ "	Seen AV=2 very dim glow, small rest go ~

A Beginner's Guide

① DIMMEST STAY ~ 14 m based on

SEE GUIDE
BOOK
ENCLATH

29
14m
seen
+ 12m

43

2007
July 5th Sue French

on way h 5036
w/1330 702

Observing Log

Object type: Nebula

NOT
L66N

Object ID: NGC 6563

Const.: _____

RA: _____ Dec.: _____

Mag: _____ Size: _____

Observer _____

Date 7/2/9

Time 2:45

Location NMCC

Seeing III Transparency I-

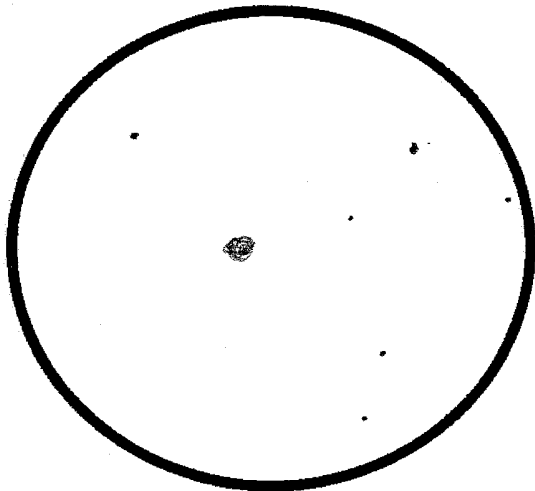
Instrument Xt-12

Size 12

Eyepiece 10

Field of view _____ Power 150

w/03



- Can this nebula be seen with direct vision, or is averted vision required?
- Is there an overall shape of the object or is it simply irregular? Oval - not round
- Is any part of the outer edge of the nebula sharply defined? yes
- Is any part of the nebula brighter or more concentrated? No
- Is there any particular area where you notice an absence of stars in this cluster? —
- Are there any voids or dark patches, or lanes in the nebula? Any bright filaments or streamers? None
- Is there an open cluster nearby or involved or any obvious stars involved with this nebula? No
- Any suggestions for observing this nebula (I.e. filter power, field of view, etc.)?
- Are there any other deep-sky objects in the same field of view? If so, what? No

Description _____

Observing Log

Object type: Nebula

July 2009 sat

Sue French

Not
UGBN

Object ID: NBC 6445/6440

Const.: _____

RA: _____ Dec.: _____

Mag: _____ Size: _____

Observer _____

Date 7/1/9

Time 2:50

Location _____

Seeing _____ Transparency _____

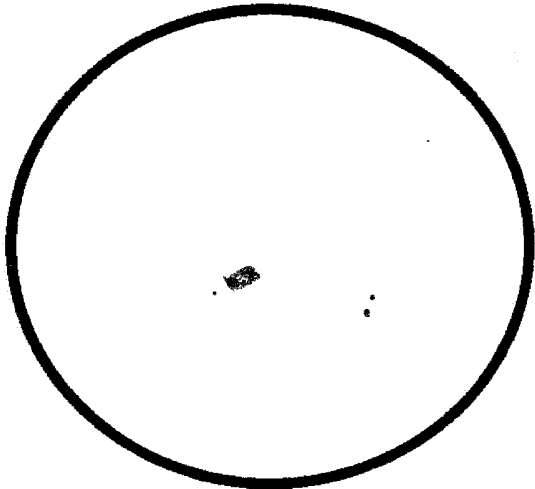
Instrument _____

Size 12

Eyepiece 10

Field of view _____ Power _____

Wp3



w/o
03

- Can this nebula be seen with direct vision, or is averted vision required?
- Is there an overall shape of the object or is it simply irregular?
- Is any part of the outer edge of the nebula sharply defined?
- Is any part of the nebula brighter or more concentrated?
- Is there any particular area where you notice an absence of stars in this cluster?
- Are there any voids or dark patches, or lanes in the nebula? Any bright filaments or streamers?
- Is there an open cluster nearby or involved or any obvious stars involved with this nebula?
- Any suggestions for observing this nebula (I.e. filter, power, field of view, etc.)?
- Are there any other deep-sky objects in the same field of view? If so, what?

Description _____

6440
1502
notes

45

7.4 Local Group & Galactic Neighborhood Observations (choose one)

Object N 4459/4473/4477 Date 7/19/9
 R.A. _____ Time 10:55
 Dec _____ Location RMCC
 Magnitude _____ Instrument XT-12
 Constellation VN Eyepiece 2x42
 Transparency II Power (X) 75
 Seeing II Field of View 0°.6

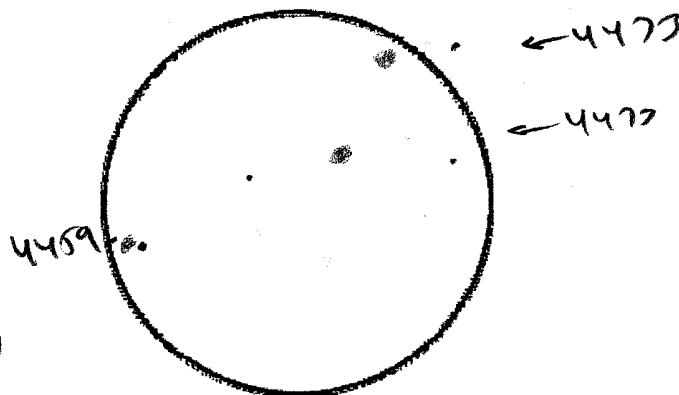
Aperture & Focal Length 12" 1500mm

Faintest Naked Eye Star 6

of averted vision galaxies 0

of direct vision galaxies 3

Group or Cluster M88 area (VNG SC)



- * Can the faintest galaxy/galaxies be seen with direct vision, or is averted vision required? If averted vision is required, give an estimate on the AV scale for all objects that require it.
- * Is there any grouping or clustering apparent? Any interaction between galaxies?
- * Do the galaxies form any particular pattern? Are they evenly or unevenly distributed?
- * Are details such as nuclei, dust lanes or spiral arms visible in any of the galaxies? Only hints
- * Are any of the galaxies close enough to one another to appear superimposed? If so, are any signs of interaction visible? No

Description

Local Group & Galactic Neighborhood, McGown & Murray

Local Group & Galactic Neighborhood Observations

Object: N 5264 Date: 7/19/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 10 Power: 150 Time: 10:00 # of Galaxies: 1 FOV: 0.3 AV scale: — Dimmest LM star: —		Notes: Seen, small & dim because so low. 2' x 1' approx.
Object: M 83 Date: 7/19/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 10 Power: 150 Time: 10:05 # of Galaxies: 1 FOV: 0.3 AV scale: — Dimmest LM star: —		Notes: For comparison
Object: IC 10 Date: 9/14/9 Instrument: XT-12 Seeing: II Transparency II- Eyepiece 2x42 Power: 75 Time: 9:20 # of Galaxies: 1 FOV: 0.6 AV scale: Dimmest LM star:		Notes: Confirmed Round/oral glow in intense star field. 3' x 2' core

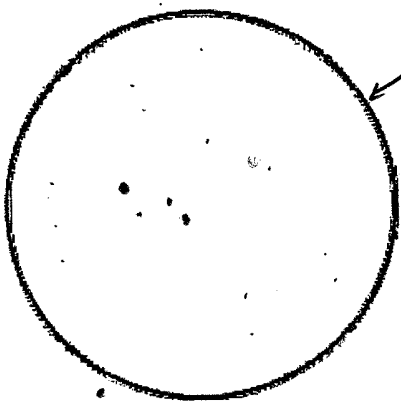
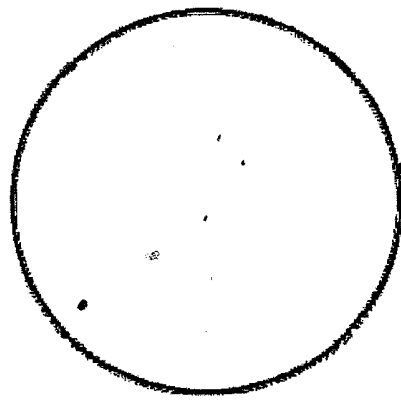
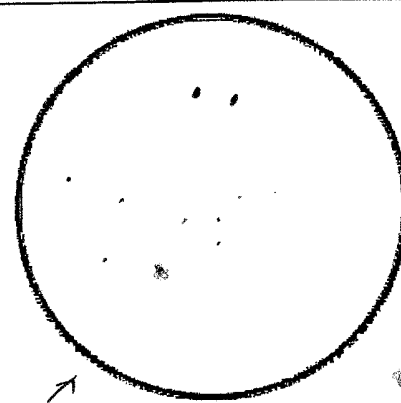
↑ RMCC
 ↓ OKIE
 TER

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

ALL
OUIETEX

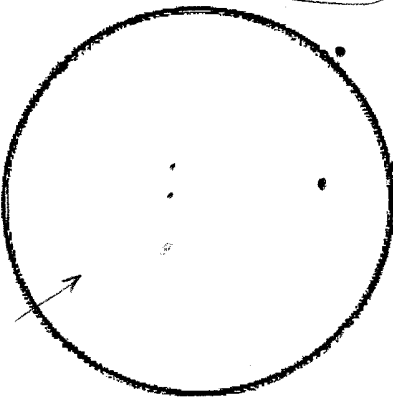
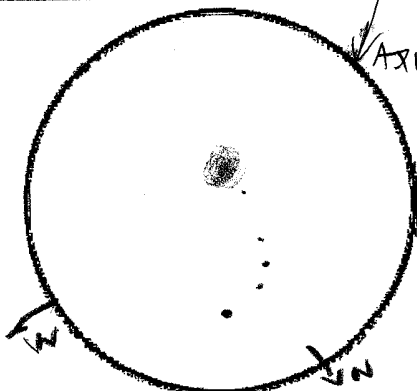
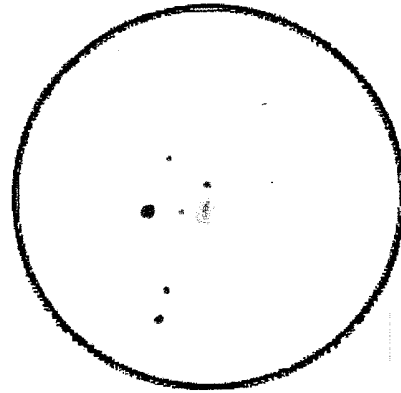
Local Group & Galactic Neighborhood Observations

Object: 000210 Date: 9/14/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 10 Power: 150 Time: 9:35 # of Galaxies: 1 FOV: 0°.3 AV scale: 3 Dimmest LM star: 14		Notes: Very dim FOV. as 1 dm glow near 4 mms.
Object: G1 Date: 9/14/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 10 mm Power: 150 Time: 10:20 # of Galaxies: 1 FOV: 0°.3 AV scale: Dimmest LM star:		Notes: TINY BLOB OF GLOW WAY OUT FROM MAIN CLUSTER
Object: G76/N206 Date: 9/14/9 Instrument: XT-12 Seeing: II Transparency II Eyepiece 10 mm Power: 150x Time: 10:30 # of Galaxies: 2 FOV: 0°.3 AV scale: Dimmest LM star:		Notes: FAINT, BUT EASILY FOUND NEAR NGC 206

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

Local Group & Galactic Neighborhood Observations M31
NUCLEUS

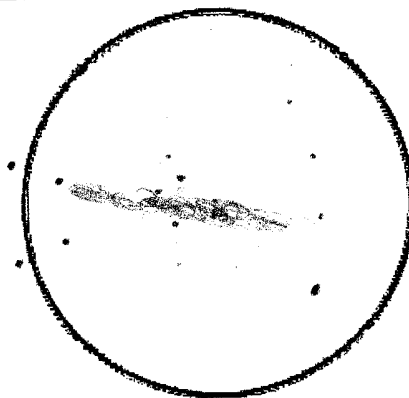
Object: 678 Date: 9/15/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 10mm Power: 150X Time: 12:00 # of Galaxies: 1 FOV: 0°.3 AV scale: Dimmest LM star:		Notes: ANOTHER CONFIRMED GLUB FROM EARLIER SLIGHT AT HOME
Object: N 7793 Date: 9/15/9 Instrument: XT-12 Seeing: II Transparency: II Eyepiece: 2x42 Power: 75 Time: 12:10 # of Galaxies: 1 FOV: 0°.6 AV scale: Dimmest LM star:		Notes: Lots of detail by nucleus - hints of bar or at least clumpiness in shown direction
Object: N 45 Date: 9/15/9 Instrument: XT-12 Seeing: II Transparency II Eyepiece 10 Power: 150 Time: 12:25 # of Galaxies: 1 FOV: 0°.3 AV scale: 2 Dimmest LM star: 14		Notes: SMALL OVER GLOW NEAR FIELD STAR

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood Observations

TEX

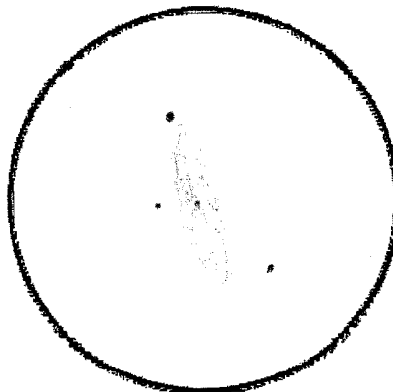
Object: N253
Date: 9/15/19
Instrument: XT-12
Seeing: II
Transparency: II-
Eyepiece: 2x42
Power: 75
Time: 1:00
of Galaxies: 1
FOV: 0°.6
AV scale:
Dimmest LM star:



Notes:

WOW
STILL SEEMS
CUT OFF ON EAST
BUT MORE EXTENSION
ON BOTH SIDES

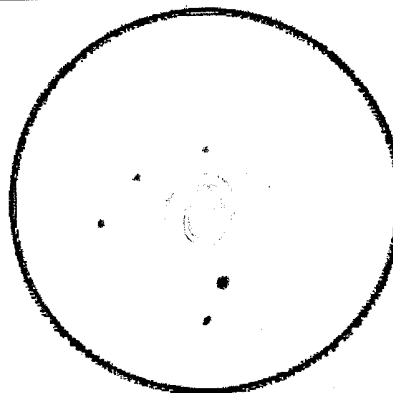
Object: N247
Date: 9/15/19
Instrument: XT-12
Seeing: II
Transparency: III
Eyepiece: 2x42
Power: 75
Time: 1:10
of Galaxies: 1
FOV: 0°.6
AV scale:
Dimmest LM star:



Notes:

LARGE EVEN
OVAL GLOW -
AT LOW ELEVATION
NOT MUCH DETAIL

Object: IC 160
Date: 9/15/19
Instrument: XT-12
Seeing: II
Transparency: III
Eyepiece: 2x42
Power: 75
Time: 1:20
of Galaxies: 1
FOV: 0°.6
AV scale: 4
Dimmest LM star: 14



Notes: JUST HINTS
OF GLOW IN
SPOTS NEAR
POSITION

N288
white in
cloudy

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray

Local Group & Galactic Neighborhood Observations

OKIE-
TEX

Object: N925 Date: 9/15/9 Instrument: XT-12 Seeing: II Transparency: II- Eyepiece: 2x42 Power: 75 Time: 2:15 # of Galaxies: 1 FOV: 0°6 AV scale: Dimmest LM star:		Notes: Easily seen round glow w/ several stars or clumps on one side
Object: N1058 Date: 9/15/9 Instrument: XT-12 Seeing: II Transparency: II- Eyepiece: 2x42 Power: 75 Time: 2:25 # of Galaxies: 1 FOV: 0°6 AV scale: Dimmest LM star:		Notes: Oval, fairly bright, not much detail
Object: N300 Date: 9/14/9 Instrument: XT-12 Seeing: II Transparency II- Eyepiece 2x42 Power: 75 Time: 2:50 # of Galaxies: 1 FOV: 0°6 AV scale: Dimmest LM star:		Notes: Large uneven glow not too bright some hint of detail in outer halo.

The AV scale for averted vision is used to classify the difficulty of observation. This 1-5 scale is explained in Appendix V, #4.

Local Group & Galactic Neighborhood, McGown & Murray