

# Herschel 400 (I) Observations

<b>H1-1</b>	<b>NGC 1055</b>	<b>Cet</b>	<b>Galaxy SBb: sp</b>	<b>PF,CL,IE80,BM,*11N1'</b>
Nov 24 2006	12.5"	12mmT4	PB,PL,OVAL,HISB,R=G	
Sep 27 1981	12.5"	16mm	PB,PL,EDGE ON,FNUC,DIM ARMS,3* IN TRI TO N,DUST LANE E TO W,SBM	
Sep 07 1980	12.5"	24mm	FT AND LG,SAME FOV AS M77	
<b>H1-4</b>	<b>NGC 7009</b>	<b>Aqr</b>	<b>Planetary Neb 4+6</b>	<b>PLN,VB,S,ELLIPTIC</b>
Aug 15 2009	31"	17mmT4	VB,VL,HISB,B BLUEISH,RING DET,F NEB AR CNTRBALL,NO CNTR*,OIII,DOESNOT HELP THAT MUCH BUT RING IS EASIER TO DETECT,R=E	
Sep 27 2005	31"	17mmT4	VF,VL,EL-R,HISB,THICK INNER RING,B BLUE,CNTR *,RINGS DET,R=E	
Sep 27 2005	31"	17mmT4	WITH O/III, EB,VL,EL-R,MORE NEB DET BOTH SIDES OF RING,BTR W/O,R=E	
Sep 01 2002	31"	9mmT6	B BLUE,RING SEEN,DETAIL IN NEB DET,BEST VIEW TO DATE	
Aug 31 1984	12.5"	12mm	VB,MS,R B BLUEISH NEB,SLT EL,UB	
Jul 10 1981	12.5"	16mm	SATURN NEB,RING EASILY SEEN,B BLUE,MB,MS	
Oct 31 1980	12.5"	24mm		
Sep 10 1980	12.5"	24mm		
Jul 17 1980	12.5"	24mm		
Jun 18 1980	12.5"	9mm	DISK SHOWN WELL	
<b>H1-5</b>	<b>NGC 253</b>	<b>ScI</b>	<b>Galaxy SAB(s)c</b>	<b>VVB,VVL,VME54,GBM</b>
Sep 22 2022	12.5"	12mmT4	EB,EL,EL-EDGE ON,NND,HISB,CNTR AREA BKN,MANY F*S IN GAL,PATCHES,H2 RGNS,DUST,FILLS FOV EDGE TO EDGE,BEST TODATE,R=EEE	
Sep 06 2002	12.5"	9mmT6	VB,VL,SPRIAL STR,GLXY 2 FOV IN SIZE,DUST LANES,BREAKS DET,B RGN DET	
Sep 23 1981	12.5"	24mm	DIF,MB,EL,EDGE ON,DARMS,DUST LANE,F* CNTR-W ARM S OF NUC,B* SE&W,KNTY STR SP	
Oct 31 1980	12.5"	24mm		
Oct 29 1980	8"	24mm		
Sep 09 1980	12.5"	24mm	E!!,BEST SIGHTING TO DATE	
Sep 07 1980	12.5"	24mm		
Aug 22 1980	12.5"	24mm	VL	
<b>H1-6</b>	<b>NGC 2420</b>	<b>Gem</b>	<b>Open Cluster I 1 r</b>	<b>CL,CL,RI,C,ST11...18</b>
Feb 21 1984	12.5"	16mm	SAME,~50-100"S,MB,ML	
Oct 30 1981	12.5"	16mm	MB,ML,WELL DISPERSED IN 16MM	
<b>H1-8</b>	<b>NGC 2509</b>	<b>Pup</b>	<b>Open Cluster I 1 r</b>	<b>CL,B,PRI,LC,ST S</b>
Oct 16 1982	12.5"	24mm	MF,ML,~50*S,LOOSE,FEW B*S IN CL	
<b>H2-1</b>	<b>NGC 2775</b>	<b>Cnc</b>	<b>Galaxy SA(r)ab</b>	<b>CB,CL,R,VGVSBM,R</b>
Apr 02 2021	36"	17mmT4	VB,VL,R,BLNUC,HISB,LOOKS LIKE GLOB CL,GRAN HALO,NUC VB WELL DEFINED,SUDLY MBM,R=E	
Feb 21 1984	12.5"	16mm	SAME	
Oct 24 1981	12.5"	12mm	DIF,MF,ML,B CNTR RGN,UB,GOOD DEFINITION WHERE ARMS WIND SUR NUC	
Dec 03 1980	12.5"	24mm		
<b>H2-5</b>	<b>NGC 4536</b>	<b>Vir</b>	<b>Galaxy SAB(rs)bc</b>	<b>B,VL,ME110,SBM,ER</b>
May 03 1981	12.5"	24mm	DIF,PB,EL,ELDARM,PAIR/4527	
<b>H2-6</b>	<b>NGC 2304</b>	<b>Gem</b>	<b>Open Cluster II 1 m</b>	<b>CL,PL,RI,MC,ST VS</b>
Feb 21 1984	12.5"	16mm	SAME	
Oct 30 1981	12.5"	16mm	MF,ML,WEDGE SHAPE,F*S SAME MAG,~50*S	
Oct 31 1980	12.5"	24mm	VCOMPACT,LOOKS LIKE A GLXY,MANY F*S GIVES APPEAR OF NEB	
<b>H2-7</b>	<b>NGC 2244</b>	<b>Mon</b>	<b>Open Cluster II 3 r n</b>	<b>CL,BEAUTIFUL,STSC</b>
Nov 13 2020	36"	55mm	(II 3 m n),EB,EL,JUST FITS IN FOV,~60*S,SVRL VB*S,LOC IN N2237,NEB W/OIII,(3:42am),R=PF	
Mar 18 2007	31"	31mmT5	EB,EEL,SVRL FOV*S,NICE,FEW B*S WITH VAR MAG,LOOSELY SC,R=G	
Feb 25 1984	12.5"	24mm	SAME	
Aug 21 1982	12.5"	24mm	MB,VL,SC,7...9 MAG *S,~20*S,ALM FILLS 24MM FOV	

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<b>H2-7</b>	<b>NGC 2244</b>	<b>Mon</b>	<b>Open Cluster II 3 r n</b>	<b>CL, BEAUTIFUL, STSC</b>
Aug 21 1982	12.5" 24mm	MB, VL, SC, 7...9 MAG *S, ~20*S, ALM FILLS 24MM FOV		
Sep 10 1980	12.5" 24mm			
<b>H3-1</b>	<b>NGC 3166</b>	<b>Sex</b>	<b>Galaxy SAB(rs)0/a</b>	<b>B, PS, R, PSMBM, 2ND OF 3</b>
Nov 24 2006	12.5" 12mmT4	VF, PL, OVAL-R, BLNUC, GMBM, HISB CNTR, HISB, PAIR=3169/3165, R=E		
Oct 22 1982	12.5" 16mm	MB, PS, BNUC, R, GBM, HISB TOWARDS CNTR, PAIR/3169		
<b>H3-2</b>	<b>NGC 157</b>	<b>Cet</b>	<b>Galaxy SAB(rs)bc</b>	<b>PB, L, E, BET2CB*</b>
Sep 21 1984	12.5" 16mm	DIF, PB, BL, 12TH MAG * IN E SIDE, HISB, R, KNOTS SUSP, UNIFORM B		
Sep 10 1980	12.5" 24mm			
Sep 07 1980	12.5" 24mm	LG, F, BET 2*S		
<b>H3-8</b>	<b>NGC 2251</b>	<b>Mon</b>	<b>Open Cluster III 2 m</b>	<b>CL, VL, E, RI, LC</b>
Feb 25 1984	12.5" 24mm	SAME		
Oct 16 1982	12.5" 24mm	LOOSE AND SC, RECTANGLE SHAPE, ~40*S, ALM FILLS 24MM FOV		
<b>H4-1</b>	<b>NGC 3169</b>	<b>Sex</b>	<b>Galaxy SA(s)a pec</b>	<b>B, PL, VLE, PGMBM, 3RD-3</b>
Nov 24 2006	12.5" 12mmT4	VB, PL, OVAL, BLNUC, HISB, GMBM, PAIRS=3166/3165, R=E		
Oct 22 1982	12.5" 16mm	MB, PS, DNUC, R, SBM, MHISB, B*NW, PAIR/3166		
<b>H4-2</b>	<b>NGC 596</b>	<b>Cet</b>	<b>Galaxy E+ pec:</b>	<b>PB, R, BM, R, *6F12'</b>
Sep 27 1981	12.5" 16mm	MF, PS, BNUC, B TOWARDS CNTR		
Sep 10 1980	12.5" 24mm			
Sep 07 1980	12.5" 24mm	PAIR/584		
<b>H4-7</b>	<b>NGC 1817</b>	<b>Tau</b>	<b>Open Cluster IV 2 r</b>	<b>CL, L, RI, LC, ST11...14</b>
Dec 25 1984	12.5" 48mm	SAME		
Aug 21 1982	12.5" 24mm	MB, SL, 3B*S IN W PART, WELL PLACED IN 24MM, ~50*S, SC		
<b>H5-1</b>	<b>NGC 3655</b>	<b>Leo</b>	<b>Galaxy SA(s)c:</b>	<b>PB, PS, IR, BM, R</b>
Mar 03 1984	12.5" 12mm	DIF, MB, PS, MHISB, OVAL, UB		
Jan 30 1981	12.5" 24mm	DIF, PB, VS, DNUC, F HALO		
<b>H5-5</b>	<b>NGC 4293</b>	<b>Com</b>	<b>Galaxy (R)SB(s)0/a</b>	<b>F, VL, E, LBM, R</b>
Mar 08 2010	31" 17mmT4	MB, PL, ELOIG, EDGE ON, FLNUC, SOME GRAN AREAS DET, R=G		
Feb 12 1983	12.5" 16mm	DIF, PF, ML, F*E TIP, NND, KNTS SUSP, UB, SVRL *S OFF ONE SIDE		
Jun 10 1980	6" 24mm			
<b>H5-6</b>	<b>NGC 2194</b>	<b>Ori</b>	<b>Open Cluster II 2 r</b>	<b>CL, L, RI, GVMCM</b>
Dec 30 1983	12.5" 24mm	SAME		
Aug 21 1982	12.5" 24mm	MF, PS, 40-50*S, F GLOW BET *S, SLT OVAL		
<b>H5-8</b>	<b>NGC 2264</b>	<b>Mon</b>	<b>Open Cluster III 3 m n</b>	<b>15MON, CL, **, (NEB)</b>
Mar 05 2021	36" 31mmT5	(III 3 p n), VB, PL, W/OIII, LOOSELY SC, VAR MAG, NEB SUR BTEST *S, SH2-273 SUR N2264, (10:15pm), R=F		
Feb 25 1984	12.5" 24mm	SAME		
Oct 16 1982	12.5" 24mm	MF, ML, 11 F*S SUR A B* WITH AN OVAL PATCH OF NEB		
Sep 10 1980	12.5" 24mm			
<b>H6-1</b>	<b>NGC 5363</b>	<b>Vir</b>	<b>Galaxy I0?</b>	<b>B, PL, R, PSBM, *8NF</b>
Feb 12 1983	12.5" 16mm	VB, ML, BNUC, R, BM, PAIR/5364		
<b>H6-3</b>	<b>NGC 4698</b>	<b>Vir</b>	<b>Galaxy SA(s)ab</b>	<b>CB, PL, IR, BM, R</b>
Mar 27 1982	12.5" 12mm	MF, MS, DNUC, DIF HALO, SBM, R, BET 2F*S		
<b>H6-6</b>	<b>NGC 2355</b>	<b>Gem</b>	<b>Open Cluster II 2 m</b>	<b>CL, PS, PRI, MC, *15..16</b>
Feb 21 1984	12.5" 16mm	SAME		
Oct 16 1982	12.5" 24mm	MF, ML, B* N 1 OBJ DIA, FEW B*S WITH 50 FTR *S, SC		
Oct 30 1981	12.5" 24mm	B* SUR BY SVRL F*S, DIF HALO OF FTR *S IN BG		
<b>H7-7</b>	<b>NGC 6520</b>	<b>Sgr</b>	<b>Open Cluster I 2 r n</b>	<b>CL, PS, RI, LC, ST9...13</b>

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<b>H7-7</b>	<b>NGC 6520</b>	<b>Sgr</b>	<b>Open Cluster I 2 r n</b>	<b>CL,PS,RI,LC,ST9...13</b>
May 12 2021	36"	55mm	(I 3 r n),VB,ML,NICE FOV,CL EASILY DET,~50*S VAR MAG,CNTR OF CL NICE GRP OF F*,W/OIII,CNTR GRP IN NEB,NEB EASILY DET,(3:28am),R=G	
Jul 01 2019	36"	17mmT4	PB,PL,~50 *S,CIRCULAR,EVENLY DIST,NICE SIZE IN FOV,R=G	
Sep 20 1984	12.5"	12mm	MF,ML,2*S IN CNTR ~SAME MAG,SC,B*S WITH F* IN CNTR	
Aug 13 1982	12.5"	24mm	MB,ML,LOOSE,R,40*S,20F*S CL TOWARDS CNTR,8...12MAG	
Jun 18 1980	12.5"	24mm		
<b>H8-5</b>	<b>NGC 3628</b>	<b>Leo</b>	<b>Galaxy Sb pec sp</b>	<b>PB,VL,VME102</b>
Mar 06 2010	31"	17mmT4	EB,EL,EDGE ON UB,SHISB,SVRL F*S IN TIP,DUST LANE,2 HALVES,ONE HALF THICKER THAN OTHER,R=EE	
Mar 03 1984	12.5"	12mm	DIF,MF,PL,EDGE ON,VF*S S OF E ARM,DARK LANES DET,UB,NND	
Mar 27 1981	12.5"	24mm		
Jan 30 1981	12.5"	24mm	DIF,PF,EL,EDGE ON,F HALO,PAIR/M66/M65/3626	
Dec 03 1980	12.5"	24mm		
Jun 10 1980	6"	24mm	BET 2 F*S,SAME FOV AS M65/M66	
<b>H8-6</b>	<b>NGC 5897</b>	<b>Lib</b>	<b>Globular XI</b>	<b>GCL,PF,L,VIR,VGBM,</b>
Jun 25 2019	36"	17mmT4	(Class XII),MB,ML,R,ABOUT 12 BTR *S ON TOP OF L F GLOW OF *S,R=GE	
May 02 1981	12.5"	16mm	PB,EL	
<b>H8-7</b>	<b>NGC 6940</b>	<b>Vul</b>	<b>Open Cluster III 2 r</b>	<b>CL,VB,VL,VRI,CC,STPL</b>
Sep 19 1984	12.5"	16mm	VB,VL,*S SC AND ~SAME MAG,FILLS FOV	
Jul 30 1981	12.5"	12mm	PB,PL,L IN B* FIELD	
Jun 20 1980	12.5"	24mm	GREAT,VL,FILLS FOV,PB	
<b>H8-8</b>	<b>NGC 1647</b>	<b>Tau</b>	<b>Open Cluster II 2 r</b>	<b>CL,VL,ST L,SC</b>
Aug 21 1982	12.5"	24mm	MB,EL,~20*S,FILLS 24MM,LOOSE,SC	
<b>H9-1</b>	<b>NGC 4179</b>	<b>Vir</b>	<b>Galaxy S0 sp</b>	<b>PB,PS,PME135,BMN</b>
Apr 25 1981	12.5"	24mm	DIF,PF,PS,EL,BNUC,F HALO	
<b>H9-6</b>	<b>NGC 5466</b>	<b>Boo</b>	<b>Globular XII</b>	<b>CL,L,VRI,VMC,ST11...</b>
Apr 11 2015	36"	17mmT4	(Class XI),MB,ML,B'S LOOSELY SC,F SOF BG SUR NUC AREA,R=G	
May 06 1981	12.5"	16mm	VB,EL	
Jul 14 1980	12.5"	24mm		
<b>H9-7</b>	<b>NGC 6830</b>	<b>Vul</b>	<b>Open Cluster II 2 p</b>	<b>CL,L,PRI,PC,*11...12</b>
Sep 19 1984	12.5"	16mm	SAME,MB,ML,*S SC,DARK AREA DET IN N RGN	
Jul 30 1981	12.5"	16mm	~20*S,8...9 MAG,MB,ML	
Jul 30 1981	12.5"	24mm	EASILY DET	
<b>H10-1</b>	<b>NGC 4643</b>	<b>Vir</b>	<b>Galaxy SB(rs)0/a</b>	<b>CB,PS,LE,MBM</b>
Mar 27 1982	12.5"	12mm	MB,MS,EL,BNUC,VMBM,HISB TOWARDS CNTR,B* OFF TO SIDE	
Jun 04 1981	12.5"	24mm	DIF,BNUC,DIM HALO	
<b>H10-6</b>	<b>NGC 6144</b>	<b>Sco</b>	<b>Globular XI</b>	<b>CL,CL,MC,GBM,RRR</b>
Jun 25 2019	36"	17mmT4	(Class XI),VF,ML,DOZEN BTR *S ON TOP OF FT GLOW,RSLV,JUPITER CLOSE BY,R=G	
May 28 2008	31"	17mmT4	MB,PL,RSLV,SVRL B*S WITH FTR BG,CORE NOT SO COMPACT,R=G	
Aug 13 1982	12.5"	24mm	DIF,MF,PS,CLOSE TO ANTARIES,F*W,F*N EDGE,OVAL,NO CNTR GATHERING DET	
<b>H10-7</b>	<b>NGC 2482</b>	<b>Pup</b>	<b>Open Cluster IV 1 m</b>	<b>CL,L,CRI,VLC</b>
Dec 03 1980	12.5"	24mm	BLENDS IN WITH FIELD *S,DOESNOT STAND OUT WELL	
<b>H11-4</b>	<b>NGC 6369</b>	<b>Oph</b>	<b>Planetary Neb 4+2</b>	<b>RINGNEB,PB,S,R</b>
May 18 2009	31"	17mmT4	MB,ML,R,RESEMBLES M57,CNTR* ~15TH MAG,RING WITH FT NEB INSIDE,SMWHT BTR SUR CNTR*,OIII DOESNOT HELP MUCH,NEB SLT BTR,R=E	
Jun 04 1981	12.5"	24mm	GREEN,MF,MS,NO CNTR * DET	
Jun 18 1980	12.5"	9mm	GOOD,LOC BESIDE F*,DISK DET	
<b>H11-6</b>	<b>NGC 6284</b>	<b>Oph</b>	<b>Globular IX</b>	<b>GCL,B,L,R,CM,ST16...</b>

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<b>H11-6</b>	<b>NGC 6284</b>	<b>Oph</b>	<b>Globular IX</b>	<b>GCL,B,L,R,CM,ST16...</b>
Jun 25 2019	36"	17mmT4	(Class IX),MB,ML,L DISBURSED UB *S SUR TIGHT BSNUC,R=G	
Jul 21 1984	12.5"	16mm	PF,PS,FNUC,NOT RSLV,SBM,PATCHY	
Jun 04 1981	12.5"	24mm	MB,PL,BNUC	
Jun 18 1980	12.5"	24mm	BTR THAN 6287,BNUC	
Jun 18 1980	12.5"	24mm		
<b>H11-7</b>	<b>NGC 2539</b>	<b>Pup</b>	<b>Open Cluster III 2 m</b>	<b>CL,VL,RI,LC,*11...13</b>
Dec 03 1980	12.5"	24mm	DBL * IN CL (YELLOW & BLUE),BEAUTIFUL!!!	
<b>H11-8</b>	<b>NGC 2395</b>	<b>Gem</b>	<b>Open Cluster IV 2 m</b>	<b>CL,PRI,C</b>
Feb 21 1984	12.5"	24mm	SAME	
Oct 30 1981	12.5"	24mm	MB,PL,SOME B*S WITH FTR *S	
<b>H12-4</b>	<b>NGC 6553</b>	<b>Sgr</b>	<b>Globular XI</b>	<b>GCL,F,L,LE,VGLBM,RR</b>
Jul 01 2019	36"	17mmT4	(Class X),VB,VL,BLNUC,MHISB,F OUTER * 'S RSLV,L UB CNTR RGN,R=E	
Sep 21 1984	12.5"	16mm	SAME,DARK PATCH DET ON EDGE	
Aug 13 1982	12.5"	16mm	MF,PL,OVAL,PATCHY,F*N EDGE,SBM	
<b>H12-6</b>	<b>NGC 6293</b>	<b>Oph</b>	<b>Globular IV</b>	<b>GCL,VB,L,R,PSBM,ST16</b>
Jun 28 2019	36"	17mmT4	(Class III),MB,PS,*S RSLV TO CORE,SNUC,R=G	
Jul 21 1984	12.5"	12mm	MB,PL,BNUC,R,SBM,NO *S RSLV	
Jun 04 1981	12.5"	24mm	MB,ML,BNUC	
Jun 18 1980	12.5"	24mm		
<b>H12-7</b>	<b>NGC 2360</b>	<b>CMa</b>	<b>Open Cluster I 3 r</b>	<b>CL,VL,RI,PC,ST9...12</b>
Oct 16 1982	12.5"	24mm	MB,ML,-50*S SAME MAG,RESEMBLES WILD DUCK CL	
Oct 31 1980	12.5"	24mm	LOOKS LIKE S BEE HIVE	
<b>H12-8</b>	<b>NGC 6664</b>	<b>Sct</b>	<b>Open Cluster III 2 m</b>	<b>CL,L,PRI,VLC</b>
Aug 13 2007	31"	31mmT5	VB,EEL,-40*S,SOME CL,LOOSELY SC,FILLS FOV,R=P	
Aug 13 1982	12.5"	24mm	MB,VL,-20*S,SC,B* IN FIELD,SMWHT V SHAPED	
<b>H13-1</b>	<b>NGC 3521</b>	<b>Leo</b>	<b>Galaxy SAB(rs)bc</b>	<b>CB,CL,ME140,VSBMBN</b>
Feb 25 1984	12.5"	12mm	MB,PL,EL,BNUC,VMBM,BSNUC	
Jan 30 1981	12.5"	24mm	VB,PL,EL,BNUC,DIM HALO	
<b>H13-6</b>	<b>NGC 6451</b>	<b>Sco</b>	<b>Open Cluster I 2 r n</b>	<b>CL,PL,PRI,BIFID,ST12</b>
Aug 13 1982	12.5"	24mm	MF,MS,HAS A N BULGE OF *S,30-40*S WITH F BG GLOW OF MANY *S	
Jun 18 1980	12.5"	24mm		
<b>H13-7</b>	<b>NGC 2204</b>	<b>CMa</b>	<b>Open Cluster II 2 r</b>	<b>CL,L,PRI,LC</b>
Oct 16 1982	12.5"	24mm	VF,ML,LOOSE-SC,-50*S,B* OUTSIDE CL	
<b>H14-6</b>	<b>NGC 6802</b>	<b>Vul</b>	<b>Open Cluster I 1 m</b>	<b>CL,L,VC,E0,ST14...18</b>
Sep 19 1984	12.5"	16mm	MF,ML,EL-REC SHAPE,MANY *S ~SAME MAG,MANY *S RSLV	
Jul 30 1981	12.5"	16mm	EL,*S 10...12 MAG,MF,ML	
<b>H15-1</b>	<b>NGC 4666</b>	<b>Vir</b>	<b>Galaxy SABc:</b>	<b>B,VL,ME45,PSBM</b>
Mar 05 2021	36"	17mmT4	VB,EL,EL,EDGE ON,BLNUC,HISB CNTR,GRAN ARMS,SMWHT TAPERED ENDS,PAIR=4668,R=GE	
Mar 27 1982	12.5"	12mm	DIF,MF,PL,EDGE ON,FNUC,*NUC,SBM,TAPERED ENDS	
<b>H16-1</b>	<b>NGC 4753</b>	<b>Vir</b>	<b>Galaxy I0</b>	<b>CB,L,VLE,VGLBM</b>
Feb 12 1983	12.5"	16mm	MB,ML,ELDNUC,SMB,*NUC	
<b>H16-4</b>	<b>NGC 6905</b>	<b>Del</b>	<b>Planetary Neb 3+3</b>	<b>PLN,B,PS,R,4S*NR</b>
Aug 15 2009	31"	17mmT4	PB,ML,OVAL,CNTR* 14TH,PATCHY AREAS,GREENISH,ONE SIDE BTR THAN OTHER,OIII,HELPS, MORE PATCHY AREAS,ENDS BKN,R=E	
Jul 08 1983	12.5"	12mm	MF,PS,R,TRI OF *S SUR OBJ,OUTER EDGES FTR THAN CNTR	
Jul 30 1981	12.5"	12mm	BLUEISH GREEN COLOR,R,EDGES WELL DEF,CNTR * VF,UB	

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<b>H16-4</b>	<b>NGC 6905</b>	<b>Del</b>	<b>Planetary Neb 3+3</b>	<b>PLN,B,PS,R,4S*NR</b>
Jul 30 1981	12.5" 12mm	BLUEISH GREEN COLOR,R,EDGES WELL DEF,CNTR * VF,UB		
<b>H16-7</b>	<b>NGC 2354</b>	<b>CMa</b>	<b>Open Cluster III 2 r</b>	<b>CL,CRI,LC</b>
Oct 16 1982	12.5" 24mm	MF,VL,LOOSE,SC,~30*S		
Oct 31 1980	12.5" 24mm	LOOSE,NOT MUCH CL		
<b>H16-8</b>	<b>NGC 6834</b>	<b>Cyg</b>	<b>Open Cluster II 2 m</b>	<b>CL,P,LC,*11...12</b>
Sep 19 1984	12.5" 16mm	SAME,MB,MS,L DARK NEB N SVRL DEGREES,STANDS OUT WELL		
Jul 30 1981	12.5" 24mm	MB,ML,EASILY DET,B* IN CNTR,S CL TO N SIDE		
<b>H17-1</b>	<b>NGC 3379</b>	<b>Leo M105</b>	<b>Galaxy E1</b>	<b>VB,CL,R,PSBM,R</b>
Mar 08 2013	36" 17mmT4	MESSIER MARATHON 2013		
Mar 19 2004	12.5" 12mmT4	MESSIER MARATHON 2004		
Mar 02 1984	10" 20mm	SAME		
Feb 25 1984	12.5" 16mm	MB,ML,BNUC,R,PAIR/3384/3389		
Mar 27 1981	12.5" 24mm	MESSIER MARATHON 1981		
Jan 30 1981	12.5" 24mm	EB,VL,BNUC,PAIR/3384/3389		
Dec 03 1980	12.5" 24mm			
<b>H17-5</b>	<b>NGC 598</b>	<b>Tri M33</b>	<b>Galaxy SA(s)cd</b>	<b>EB,EL,R,VGBMN;=M33</b>
Sep 22 2022	12.5" 12mmT4	VB,EL,OVAL,VLNUC,SPR STR,DUST,H2,ARMA,B RGNs,SHISB MID,MHISB H2 ARMS,BEST 12.5" VIEW TODATE,FILLS FOV,R=E		
Sep 14 2012	36" 17mmT4	EB,EEL,BNUC,SVRL FOV'S,KNOTS,SPR STR,H2 RGN,DUST,ARMS,TONS OF DETAIL,R=E		
Mar 19 2004	12.5" 12mmT4	MESSIER MARATHON 2004		
Mar 02 1984	10" 20mm	SAME		
Sep 23 1981	12.5" 16mm	MB,EL,BARMS,SPR STR DET,H2 RGN DET,2-3 MAJOR ARMS SEEN		
Sep 20 1981	12.5" 24mm			
Mar 27 1981	12.5" 24mm	MESSIER MARATHON 1981		
Oct 31 1980	12.5" 24mm			
Sep 18 1980	12.5" 24mm			
Sep 10 1980	12.5" 32mm	GREAT!!,SVRL ARMS,STR SEEN		
Sep 07 1980	12.5" 24mm			
Sep 03 1980	12.5" 24mm			
Aug 22 1980	12.5" 24mm			
Aug 19 1980	12.5" 32mm			
Jul 24 1980	12.5" 32mm	BEST I'VE EVER SEEN,GREAT!!!		
Jul 15 1980	12.5" 24mm	EF,EL,LOOKS LIKE DIF NEB,NO SPR STR DET		
<b>H17-6</b>	<b>NGC 2158</b>	<b>Gem</b>	<b>Open Cluster II 3 r</b>	<b>CL,PS,MC,VRI,IRRTRI</b>
Mar 03 2021	36" 17mmT4	(I 2 r),MG,ML,STANDS OUT WELL IN FOV,*S SIM MAG FEW B*S,~100+*S,F BG GLOW OF *S,(7:48pm),R=G		
Oct 30 1981	12.5" 12mm	RSLV,DOZEN OR SO B*S IN FRONT OF F HALO OF *S		
Mar 27 1981	12.5" 24mm			
Sep 10 1980	12.5" 24mm			
<b>H17-7</b>	<b>NGC 2362</b>	<b>CMa</b>	<b>Open Cluster I 3 r</b>	<b>CL,PL,RI,30CMA</b>
Oct 16 1982	12.5" 24mm	~30*S,VB,VL,B* IN CNTR,TRI SHAPE,*S ~SAME MAG		
Oct 31 1980	12.5" 24mm	6TH MAG CNTR * SUR BY 9TH *S,E		
<b>H18-1</b>	<b>NGC 3384</b>	<b>Leo</b>	<b>Galaxy SB(s)0-:</b>	<b>VB,L,R,PSMBM,2ND OF3</b>
Feb 25 1984	12.5" 16mm	MB,ML,EL,BNUC,BM,PAIR/3379/3389		
Mar 27 1981	12.5" 24mm			
Jan 30 1981	12.5" 24mm	VB,PL,BNUC,F HALO,PAIR/3379/3389		
Dec 03 1980	12.5" 24mm			

## Herschel 400 (I) Observations

<b>H18-1</b>	<b>NGC 3384</b>	<b>Leo</b>	<b>Galaxy SB(s)0-:</b>	<b>VB,L,R,PSMBM,2ND OF3</b>
Dec 03 1980	12.5" 24mm			
<b>H18-4</b>	<b>NGC 7662</b>	<b>And</b>	<b>Planetary Neb 4+3</b>	<b>PLN ORRING,VB,PS,R</b>
Sep 22 2022	12.5" 9mmT6		VB,PL,B CNTR *,GRAN NEB SUR *,NEB FADES,MHISB NEB,R=G	
Sep 02 2008	31" 17mmT4		VB,ML,OVAL-R,B GREENISH,B INNER RING NOT SYM,B GREENISH EDGES IN SPOTS,CNTR* 14TH MAG,R=E	
Aug 31 1984	12.5" 12mm		MB,VS,VR,UNIFORM BLUEISH COLOR,* CLOSE BY	
Sep 23 1981	12.5" 16mm		B BLUEISH GREEN,UB,R WITH FUZZY EDGES,NO CNTR *,MB,PS,15* SW	
Jul 15 1980	12.5" 24mm			
<b>H18-5</b>	<b>NGC 205</b>	<b>And M110</b>	<b>Galaxy E5 pec</b>	<b>VB,VL,ME165,VGVMBM</b>
Mar 19 2004	12.5" 12mmT4		MESSIER MARATHON 2004	
Aug 31 1984	12.5" 24mm		MB,PL,FNUC,COMP TO M31,EL,F* IN E PART,SOFT DIF NUC	
Mar 02 1984	10" 20mm		SAME	
Sep 24 1981	12.5" 16mm		SBM,SLT OVAL,FARMS,DIF,MB,PL,EL	
Sep 20 1981	12.5" 24mm		F* IN S ARM IN EQ PLANE	
Mar 27 1981	12.5" 24mm		MESSIER MARATHON 1981	
Sep 10 1980	12.5" 24mm			
Aug 22 1980	12.5" 24mm			
Aug 19 1980	12.5" 24mm			
Jul 24 1980	12.5" 24mm		BEST OBSERVED TO DATE	
Jul 17 1980	12.5" 24mm			
Jul 11 1980	12.5" 24mm			
<b>H18-7</b>	<b>NGC 6823</b>	<b>Vul</b>	<b>Open Cluster I 3 m n</b>	<b>CL,CRI,E,ST11...12</b>
May 30 2022	36" 17mmT4		(I 3 m n),EB,VL,CL STANDS OUT WELL IN FOV,~30*S,*S VAR MAG,NEB DET,(2:42am),R=FG	
Jun 27 2003	12.5" 24mm		VB,VL,~30*,3B*S WITH MANY FTR *S,LOOSE,SC,PAIR=6820,R=F	
Sep 19 1984	12.5" 16mm		SAME,MB,PL,~20*S	
Jul 30 1981	12.5" 16mm		R,B*S RSLV,4B*S IN CL,MB,ML,*S 8...9 MAG	
<b>H19-1</b>	<b>NGC 4147</b>	<b>Com</b>	<b>Globular VI</b>	<b>GCL,VB,PL,R,GBM,RRR</b>
Mar 08 2010	31" 17mmT4		PB,ML,CLASS ~VI,RSLV TO CORE,BSNUC,MHISB CNTR,F HALO OF *S RSLV,R=G	
Feb 12 1983	12.5" 12mm		MB,PL,RSLV TO CORE,OUTER *S CLOSELY GRP,BM	
Jun 10 1980	6" 24mm		VF,LOOKS LIKE FT GLXY	
<b>H19-5</b>	<b>NGC 891</b>	<b>And</b>	<b>Galaxy SA(s)b? sp</b>	<b>B,VL,VME22</b>
Aug 31 1984	12.5" 16mm		MF,ML,EDGE ON,S ARM BTR THAN N,DUST LANE DET,CNTR BULGE DET	
Sep 23 1981	12.5" 24mm		F* 13MAG NW SIDE, FTR * TO S TIP OF ARM,BULGE DET,ML,MB, EDGE ON	
Sep 20 1981	12.5" 24mm			
Sep 10 1980	12.5" 24mm			
Aug 22 1980	12.5" 24mm			
Jul 24 1980	12.5" 32mm		BEAUTIFUL!!!,DUST LANE VISIBLE	
Jul 17 1980	12.5" 24mm			
Jul 11 1980	12.5" 24mm			
<b>H19-7</b>	<b>NGC 6755</b>	<b>Aql</b>	<b>Open Cluster II 2 r</b>	<b>CL,VL,VRI,PC,,*12.14</b>
Aug 31 1984	12.5" 24mm		SAME,MB,PL	
Jul 10 1981	12.5" 24mm		SMWHT GRP TGT,APPEARS TO BE A DBL CL	
Jul 15 1980	12.5" 24mm			
<b>H20-4</b>	<b>NGC 2185</b>	<b>Mon</b>	<b>Brt Nebula R</b>	<b>*11\$4S*IN VF,L,NEB</b>
Mar 04 2021	36" 17mmT4		(Lb 3),DIF,MF,VS,W/O OIII,PATCH SUR *,OIII DOES NOT HELP MUCH,BEST IN 31MM W/O OIII,N2183 CLOSE,(10:04pm),R=PF	
Nov 24 2006	12.5" 17mmT4		DIF,MF,VS,S PATCH OF NEB SUR *,PAIR=2183OIII DOES NOT HELP,R=F	

## Herschel 400 (I) Observations

<b>H20-4</b>	<b>NGC 2185</b>	<b>Mon</b>	<b>Brn Nebula R</b>	<b>*11\$4S*IN VF,L,NEB</b>
Nov 24 2006	12.5"	17mmT4	DIF,MF,VS,S PATCH OF NEB SUR *,PAIR=2183OIII DOES NOT HELP,R=F	
Aug 21 1982	12.5"	24mm	MB,PS,B* JUST TO S,R,GBM,B CNTR RGN	
<b>H20-5</b>	<b>NGC 247</b>	<b>Cet</b>	<b>Galaxy SAB(s)d</b>	<b>F,EL,VME172</b>
Sep 22 2022	12.5"	12mmT4	MB,VL,EL-EDGE ON,LNUC AREA,NND,SHISB,PATCHY,SVRL F*S OUTER TIP,R=FG	
Sep 24 1981	12.5"	16mm	DIF,MF,VL,B* S EQ PLANE,* OFF E SIDE,NND,PATCHY,EL,SIM TO 253	
Sep 10 1980	12.5"	24mm		
Sep 07 1980	12.5"	32mm	EL,SEEN BY SWEEPING AREA,LG	
<b>H20-6</b>	<b>NGC 288</b>	<b>ScI</b>	<b>Globular X</b>	<b>GCL,B,L,LE,*12...16</b>
Sep 22 2022	12.5"	12mmT4	(Class VIII),PB,PL,R,LBNUC,MOD HISB NUC,MANY *S RELV TO CORE,V IMPRESSIVE,R=E	
Sep 26 2019	36"	17mmT4	(Class XII),VB,EL,LOOKS LIKE OPEN CL,V LTL CNTR CL,R=G	
Sep 23 1981	12.5"	16mm	DIF,MB,EL,R,SVRL HUNDRED *S SAME MAG,V LTL CL TOWARDS MID	
Sep 09 1980	12.5"	16mm	RSLV TO CORE,E!!	
<b>H20-7</b>	<b>NGC 2215</b>	<b>Mon</b>	<b>Open Cluster II 2 m</b>	<b>CL,CL,PRI,PC,ST11.15</b>
Feb 25 1984	12.5"	24mm	SAME	
Oct 16 1982	12.5"	24mm	MF,PL,LOOSE AND SC,~20*S,WELL DEFINED	
<b>H20-8</b>	<b>NGC 6885</b>	<b>Vul</b>	<b>Open Cluster III 2 m</b>	<b>CL,VB,VL,RI,LC,*6.11</b>
May 30 2022	36"	31mmT5	(II 2 m),EB,EL,80% OF FOV,~100*S VAR MAG,B* IN CNTR,CL DET,(3:19am),R=G	
Sep 19 1984	12.5"	16mm	SAME,MB,PL,B* CLOSE TO CNTR	
Jul 06 1983	12.5"	24mm	MB,VS,JUST N OF 6885,B* IN OBJ,~15 *S,OBLONG IN SHAPE	
Aug 13 1982	12.5"	24mm	EB,EL,OVERFILLS EYEPIECE FOV,SVRL B*S	
Jul 30 1981	12.5"	12mm	VB,VL,B* IN CNTR OF CL,~15-20*S	
<b>H21-1</b>	<b>NGC 3810</b>	<b>Leo</b>	<b>Galaxy SA(rs)c</b>	<b>B,L,VLE</b>
Feb 22 2020	36"	17mmT4	VB,VL,FLNUC,MHISB,GRAN,R=G	
Mar 03 1984	12.5"	12mm	DIF,MB,ML,OVAL,SBM,NO *S	
Jan 30 1981	12.5"	24mm	DIF,PB,PL,FNUC,F HALO	
Jun 10 1980	6"	24mm	PB,* HOP FROM BETA	
<b>H21-4</b>	<b>NGC 1964</b>	<b>Lep</b>	<b>Galaxy SAB(s)b</b>	<b>F,VS,R,VSVMBM,3*INV</b>
Dec 21 1981	12.5"	16mm	ELMBM,F* IN GLXY TOWARDS B*S	
Dec 21 1981	12.5"	32mm	PF,VS,HISB,*NUC	
Oct 24 1981	12.5"	16mm	DIF,MF,PS,F*W SIDE,GBM,NUC DET,S AND R,APPEARS LIKE E GLXY	
<b>H21-6</b>	<b>NGC 2266</b>	<b>Gem</b>	<b>Open Cluster II 2 m</b>	<b>CL,PS,EC,RI,ST11..15</b>
Feb 21 1984	12.5"	16mm	SAME,~50-100*S,FORMS SMWHT A TRI,MB,ML	
Oct 30 1981	12.5"	12mm	PB,ML,30*S,1B* E SIDE	
<b>H22-1</b>	<b>NGC 4371</b>	<b>Vir</b>	<b>Galaxy SB(r)0+</b>	<b>B,PS,R,GBM</b>
Apr 25 1981	12.5"	24mm	PB,PS,BNUC,F HALO	
<b>H22-6</b>	<b>NGC 2548</b>	<b>Hya M48</b>	<b>Open Cluster I 3 r</b>	<b>CL,VL,PRI,PMC,*9..13</b>
Mar 03 2021	36"	55mm	(I 3 r),EEB,EEL,BEST IN FINDER,36" TO MUCH SCOPE,SVRL FOV'S,(9:20pm),R=	
Mar 08 2013	36"	17mmT4	MESSIER MARATHON 2013	
Mar 19 2004	12.5"	12mmT4	MESSIER MARATHON 2004	
Mar 02 1984	10"	20mm	SAME	
Mar 27 1982	12.5"	24mm	MB,EL,FILLS 24MM,BTR IN FINDER	
Oct 24 1981	12.5"	24mm	VB,EL,BTR IN FINDER,FILLS UP 24MM	
Mar 27 1981	12.5"	24mm	MESSIER MARATHON 1981	
Dec 03 1980	12.5"	24mm		
<b>H23-4</b>	<b>NGC 936</b>	<b>Cet</b>	<b>Galaxy SB(rs)0+</b>	<b>VB,VL,R,MBMN,P OF 2</b>
Sep 27 1981	12.5"	16mm	MF,PL,BNUC,DARM,SBM,OUTER ARMS SUSP,B BAR TOWARDS NUC,R,FACE ON,PAIR/941	
Sep 18 1980	12.5"	24mm		

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<b>H23-4</b>	<b>NGC 936</b>	<b>Cet</b>	<b>Galaxy SB(rs)0+</b>	<b>VB,VL,R,MBMN,P OF 2</b>
Sep 18 1980	12.5"	24mm		
Sep 07 1980	12.5"	24mm		
<b>H23-6</b>	<b>NGC 6645</b>	<b>Sgr</b>	<b>Open Cluster IV 1 m</b>	<b>CL,PL,VRI,PC,ST11.15</b>
Aug 13 1982	12.5"	24mm	MB,VL,LOOSE,~50*S,SC,SHOWS WELL	
<b>H23-7</b>	<b>NGC 2489</b>	<b>Pup</b>	<b>Open Cluster I 2 m</b>	<b>CL,PL,CRI,PC,*11..13</b>
Oct 16 1982	12.5"	24mm	MF,ML,~40*S SAME MAG,OVAL,WELL DISPERSED IN 24MM	
Dec 03 1980	12.5"	24mm		
<b>H24-1</b>	<b>NGC 4596</b>	<b>Vir</b>	<b>Galaxy SB(r)0+</b>	<b>B,PS,R,GMBM,R,3*F</b>
Jun 04 1981	12.5"	24mm	MB,PL,BNUC,B HALO,PAIR/4608	
<b>H24-5</b>	<b>NGC 4565</b>	<b>Com</b>	<b>Galaxy SA(s)b? sp</b>	<b>B,EL,EE135,VSBMN=*10</b>
Mar 17 2018	36"	17mmT4	EB,EEL,EDGE ON,BNUC,HISB,ABSOLUTELY AMAZING,DUST LANE THROUGH NUC RGN AND BEYOND,S BNUC ONE SIDE OF DUST, EDGE TO EDGE,R=EE	
Feb 05 2005	31"	17mmT4	EB,EEL,EDGE ON,BLNUC,HISB,FILLS FOV,2 HALVES,GMBM,TAPERED ENDS,R=E	
Feb 05 2005	31"	31mmT5	EB,EL,EDGE ON,BNUC,BTR THAN 17MM,JUST FITS IN FOV,DUST LANE,BEST TO DATE,R=E	
Feb 27 1982	12.5"	16mm	MB,PL,V EDGE ON,BNUC,DIM HALO,F*N OF NUC,DUST LANES,CNTR BULGE,!!!	
Mar 27 1981	12.5"	24mm		
<b>H24-6</b>	<b>NGC 7044</b>	<b>Cyg</b>	<b>Open Cluster I 1 r</b>	<b>CL,VF,PL,VRI,VC</b>
Aug 11 1982	12.5"	24mm	DIF,MF,VL,EL10-20 B*S SUR BY HUNDREDS F*S,F GLOW W/AV	
<b>H24-8</b>	<b>NGC 2169</b>	<b>Ori</b>	<b>Open Cluster III 3 m</b>	<b>CL,S,LRI,PMC,**</b>
Mar 03 2021	36"	17mmT4	(III 3 p),VB,PL,B*S WITH F*S,~20 *S,B*S OFF TO NW NOT PART OF CL,LOOSELY SC,(7:53pm),R=G	
Dec 30 1983	12.5"	24mm	SAME	
Aug 21 1982	12.5"	24mm	MB,MS,20*S COUNTED,SPLIT THROUGH CNTR,ON SIDE RESEMBLES HOUR GLASS	
<b>H25-1</b>	<b>NGC 4754</b>	<b>Vir</b>	<b>Galaxy SB(r)0-:</b>	<b>B,PL,R,PSBM,P OF 2</b>
Feb 12 1983	12.5"	16mm	MF,MS,SBM,R,PAIR/4762	
<b>H25-5</b>	<b>NGC 246</b>	<b>Cet</b>	<b>Planetary Neb 3b</b>	<b>VF,L,4*IN DIF NEB</b>
Sep 02 2008	31"	17mmT4	VF,ML,OVAL,OIII HELPS GRTLY,TRANSLUCENT BUBLE,CNTR* 13MAG,BRINGS IN EDGE,R=G	
Sep 27 1981	12.5"	16mm	DIF,BLUE GREEN,MB,BL,SOURRS 4 *S, 1 * S,PATCHY OVALNESS	
Oct 31 1980	12.5"	24mm		
Oct 29 1980	8"	24mm		
Sep 18 1980	12.5"	24mm	3*S IN NEB,ONE MOST LIKELY CNTR *	
<b>H25-6</b>	<b>NGC 1245</b>	<b>Per</b>	<b>Open Cluster II 2 r</b>	<b>CL,PL,RI,C,IR,*12.15</b>
Oct 03 1981	12.5"	24mm	MF,ML,50-80*S	
Sep 03 1980	12.5"	24mm	GREAT!!,LOOKS LIKE MINATURE BEEHIVE	
<b>H25-7</b>	<b>NGC 2186</b>	<b>Ori</b>	<b>Open Cluster II 2 m</b>	<b>CL,PL,PRI,PC,ST L\$\$</b>
Dec 30 1983	12.5"	24mm	NO FIND	
Aug 21 1982	12.5"	24mm	MF,PS,~25*S,F*S WITH B*S,CL SLT ,EL	
<b>H25-8</b>	<b>NGC 2232</b>	<b>Mon</b>	<b>Open Cluster III 2 p</b>	<b>B* 10MON +CL</b>
Nov 13 2020	36"	55mm	(III 2 p),EB,EL,SOME NEB SUR BTEST *,~20*S WIDELY SDISPERSED,(3:35am),R=PF	
Oct 16 1982	12.5"	24mm	VB,VL,BKN IN 2 HALVES,12*S LOOSE AND SC,USE FINDER	
<b>H26-4</b>	<b>NGC 1535</b>	<b>Eri</b>	<b>Planetary Neb 4+2c</b>	<b>PLN,VB,S,R,PS,VSBM,R</b>
Dec 28 2008	31"	17mmT4	VB,ML,R,CNTR*12M,OIII B INNER RING,R HALO,HISB CNTR,OIII HELPS SMWHT,R=E	
Oct 30 1981	12.5"	12mm	BLUE,MB,PL,B CNTR,12MAG CNTR *	
Oct 31 1980	12.5"	24mm	SIM IN COLOR TO SATURN NEB,FIND 1537 FIRST,GREAT!!!	
<b>H26-8</b>	<b>NGC 2129</b>	<b>Gem</b>	<b>Open Cluster I 3 m</b>	<b>CL,PL,40OR50ST8...15</b>
Oct 30 1981	12.5"	16mm	MB,ML,2B*S IN CL SUR BY 10-15*S	
<b>H27-1</b>	<b>NGC 3412</b>	<b>Leo</b>	<b>Galaxy SB(s)0^</b>	<b>B,S,LE135,SMBMN</b>

# Herschel 400 (I) Observations

<b>H27-1</b>	<b>NGC 3412</b>	<b>Leo</b>	<b>Galaxy SB(s)0^</b>	<b>B,S,LE135,SMBMN</b>
Feb 25 1984	12.5" 12mm	MB,PS,EL,BNUC		
Jan 30 1981	12.5" 24mm	PB,PS,BNUC		
<b>H27-4</b>	<b>NGC 3242</b>	<b>Hya</b>	<b>Planetary Neb 4+3b</b>	<b>PLN,VB,LE147,45"D</b>
Dec 28 2008	31" 17mmT4	VB,PL,R,HISB,CNTR*13,OUT SHELL,BTR INNER RING W/TAP SIDES,B BLUEISH,OIII HL,R=E		
Feb 12 1983	12.5" 16mm	MB,PS,R,BLUE FUZZY EDGES,UB,NO CNTR *		
Dec 03 1980	12.5" 24mm	GHOST OF JUPITER,PAIL GREENISH COLOR,GREAT!!		
<b>H27-6</b>	<b>NGC 2301</b>	<b>Mon</b>	<b>Open Cluster I 3 r</b>	<b>CL,RI,L,IF,ST L\$\$</b>
Feb 25 1984	12.5" 24mm	SAME		
Oct 16 1982	12.5" 24mm	MB,VL,~50*S,LOOSE SC,V SHAPE,SOME PARTS CL BY THEMSELVES		
<b>H28-1</b>	<b>NGC 4435</b>	<b>Vir</b>	<b>Galaxy SB(s)0^</b>	<b>VB,CL,R,NP OF 2</b>
Mar 16 2010	31" 17mmT4	VB,VL,OVAL,BLNUC,HISB,PAIR=4438,R=E		
May 01 1981	12.5" 24mm	PB,PS,BNUC		
Mar 27 1981	12.5" 24mm			
Jun 10 1980	6" 24mm			
<b>H28-1</b>	<b>NGC 4438</b>	<b>Vir</b>	<b>Galaxy SA(s)0/a pec:</b>	<b>B,CL,VLE,R,SF OF 2</b>
Mar 16 2010	31" 17mmT4	VB,VL,EL,BLNUC,HISB CNTR,GRAN HALO,SPR STR SUSP,PAIR=4435,R=E		
May 01 1981	12.5" 24mm	DIF,PB,PL,BNUC,DARM		
Mar 27 1981	12.5" 24mm			
Jun 10 1980	6" 24mm			
<b>H28-2</b>	<b>NGC 3226</b>	<b>Leo</b>	<b>Galaxy E2: pec</b>	<b>PB,CL,R,DW/3227</b>
Apr 19 2014	36" 17mmT4	MB,ML,R,BSNUC,F GLOW OF ARMS,PAIR=3227,R=G		
Feb 25 1984	12.5" 12mm	MB,PS,BNUC,BM,R,CLOSE PAIR/3227		
Jan 30 1981	12.5" 24mm	DIF,PB,PL,EL,FNUC,B HALO,PAIR/3227		
Dec 03 1980	12.5" 24mm	COMP CLOSE,PAIR/3227		
<b>H28-3</b>	<b>NGC 3686</b>	<b>Leo</b>	<b>Galaxy SB(s)bc</b>	<b>PB,L,VLE,VGBM,R</b>
Mar 03 1984	12.5" 12mm	DIF,MF,ML,F* IN S ARM,B* TO N,UB,OVAL,NND,VF*SW SIDE,SVRL COMP		
Jan 30 1981	12.5" 24mm	DIF,PF,PL,DIM HALO,SVRL COMP		
<b>H28-4</b>	<b>NGC 4038</b>	<b>Crv</b>	<b>Galaxy SB(s)m pec</b>	<b>PB,CL,R,VGBM</b>
Mar 16 2009	31" 17mmT4	VB,VL,EL,PATCHY AREAS IN GLXY,SHISB,NND,DARK AREA SPLITS TWO,INTRACT=4039,R=G		
Mar 22 2004	12.5" 12mmT4	MF,PL,OVAL,PATCH,UB,NND,CLOSE COMP=4039,R=G		
May 03 1981	12.5" 24mm	DIF,PB,VL,EL,BOTH NUC OF BOTH GLXY SEEN,RING TAIL GLXY,ARMS DET,PAIR/4039		
<b>H28-5</b>	<b>NGC 2024</b>	<b>Ori</b>	<b>Brn Nebula E</b>	<b>IRR,B,VVL,BLACKSPINC</b>
Mar 04 2021	36" 31mmT5	(Lb 1),DIF,MB,EL,W/OIII,KEEP B* OUT OF FOV,L AREAS OF PATCHY NEB,SOME AREAS BKN WITH DARK LANES,EDGES NOT DEF,(9:11pm),R=G		
Jan 24 2004	31" 24mmTP	DIF,MF,EL,SVRL FOV'S,WITH OIII,PATCHY AREAS,R=F		
Aug 21 1982	12.5" 24mm	PF,EL,DARK DUST LANES DET,BREAKS H2 RGN APART,~SAME SIZE AS HELIX		
Dec 03 1980	12.5" 24mm			
Oct 31 1980	12.5" 24mm			
Sep 18 1980	12.5" 24mm	CRACKS IN NEB DET,GREAT!!		
<b>H28-7</b>	<b>NGC 2423</b>	<b>Pup</b>	<b>Open Cluster II 2 m</b>	<b>CL,VL,RI,PC,ST VS</b>
Oct 16 1982	12.5" 24mm	VF,VL,~50*S,OUTSIDE FIELD OF M47,~SAME MAG *S,LOOSE AND SC		
Dec 03 1980	12.5" 24mm			
<b>H29-1</b>	<b>NGC 3593</b>	<b>Leo</b>	<b>Galaxy SA(s)0/a:</b>	<b>B,CL,E90,PSMBM</b>
Mar 03 1984	12.5" 12mm	MB,PL,EDGE ON,BNUC,TAPERED ENDS,NO *S,BM		
Mar 27 1981	12.5" 24mm			
Jan 30 1981	12.5" 24mm	PB,PL,EDGE ON,BNUC,DIM HALO,PAIR/3596		

## Herschel 400 (I) Observations

<b>H29-1</b>	<b>NGC 3593</b>	<b>Leo</b>	<b>Galaxy SA(s)0/a:</b>	<b>B,CL,E90,PSMBM</b>
Jan 30 1981	12.5" 24mm	PB,PL,EDGE ON,BNUC,DIM HALO,PAIR/3596		
<b>H29-2</b>	<b>NGC 3227</b>	<b>Leo</b>	<b>Galaxy SAB(s)a pec</b>	<b>PB,CL,R,DW/3226</b>
Apr 19 2014	36" 17mmT4	MB,ML,OVAL-R,FLNUC,SHISB,FARMS DET,SOME SPR STR SUSP,PAIR=3226,R=G		
Feb 25 1984	12.5" 12mm	MB,MS,EL,BNUC,SBM,CLOSE PAIR/3226,NO *S		
Jan 30 1981	12.5" 24mm	DIF,PB,PL,EL,FNUC,B HALO,PAIR/3226		
Dec 03 1980	12.5" 24mm	COMP CLOSE,PAIR/3226		
<b>H30-1</b>	<b>NGC 4365</b>	<b>Vir</b>	<b>Galaxy E3</b>	<b>CB,PL,VLE,GL,SMBM</b>
Mar 08 2010	31" 17mmT4	PB,PL,OVAL,BLNUC,GRAN AREA SUR NUC,HISB CNTR,R=G		
Apr 25 1981	12.5" 24mm	PB,PL,BNUC,FARMS,PAIR/4342		
Jun 10 1980	6" 24mm	S FUZZY PATCH		
<b>H30-6</b>	<b>NGC 7789</b>	<b>Cas</b>	<b>Open Cluster II 2 r</b>	<b>CL,VL,VRI,VMC,*11.18</b>
Jul 31 1981	12.5" 24mm	~50-100*S,A LOT OF F*S ASSOC WITH CL		
Jun 20 1980	12.5" 24mm			
<b>H30-7</b>	<b>NGC 6568</b>	<b>Sgr</b>	<b>Open Cluster IV 1 m</b>	<b>CL,VL,LC</b>
Sep 21 1984	12.5" 24mm	MB,PL,LOOSE AND SC,B* NEAR BY,*S ~SAME MAG		
Aug 13 1982	12.5" 24mm	MB,VL,LOOSE,~40*S		
<b>H30-8</b>	<b>NGC 2527</b>	<b>Pup</b>	<b>Open Cluster II2m</b>	<b>CL,VL,PRI,LC,*10..15</b>
Oct 16 1982	12.5" 24mm	MB,ML,SC,~20*S SAME MAG		
Dec 03 1980	12.5" 24mm			
<b>H31-1</b>	<b>NGC 4526</b>	<b>Vir</b>	<b>Galaxy SAB(s)0^:</b>	<b>VB,VL,ME120,PSMBM</b>
May 09 2010	31" 17mmT4	EB,EL,EL,BSNUC,HARD TO KEEP B* OUT OF FOV,GRAN ARMS,HISB CNTR,GMBM,TIGHT NUC,R=E		
May 03 1981	12.5" 24mm	VB,PL,EL,BNUC,BARMS		
Jun 10 1980	6" 24mm			
<b>H31-5</b>	<b>NGC 1980</b>	<b>Ori</b>	<b>Open Cluster III 3 m n</b>	<b>VF,VVL,44ORIONIS INV</b>
Oct 16 1982	12.5" 24mm	MB,ML,B* IN CNTR,2F*S CLOSE TO B*,L OVAL AREA SUR B*,CLOSE TO M42		
Sep 09 1980	12.5" 24mm	NEB SUR A NICE DBL *		
<b>H31-6</b>	<b>NGC 663</b>	<b>Cas</b>	<b>Open Cluster II 3 r</b>	<b>CL,B,L,ERI,ST PL</b>
Jul 31 1981	12.5" 16mm	PL,CL BKN IN HALF,DARK PATCH THROUGH CL		
<b>H31-7</b>	<b>NGC 6583</b>	<b>Sgr</b>	<b>Open Cluster I 2 m</b>	<b>CL,PRI,PC,CE,ST13...</b>
Aug 13 1982	12.5" 16mm	DIF,MF,MS,20-30*S,RSLV,R		
<b>H31-8</b>	<b>NGC 2286</b>	<b>Mon</b>	<b>Open Cluster III 2 m</b>	<b>CL,L,C,AB100*9...15</b>
Feb 25 1984	12.5" 24mm	SAME		
Oct 16 1982	12.5" 24mm	MF,EL,V POOR,NO CL DET		
<b>H32-1</b>	<b>NGC 4570</b>	<b>Vir</b>	<b>Galaxy S0 sp</b>	<b>CB,PS,ME0,SBMRN</b>
May 09 2010	31" 17mmT4	VB,VL,EL-EDGE ON,BSNUC,HISB,SUDLY MBM,TAPERED ENDS,SLT CNTR BULGE,R=G		
Jun 04 1981	12.5" 24mm	PB,VS,EL,BNUC		
Jun 10 1980	6" 24mm	JUST BARELY VISIBLE		
<b>H32-5</b>	<b>NGC 1788</b>	<b>Ori</b>	<b>Brn Nebula R</b>	<b>B,CL,R,BM,***15,*1'F</b>
Mar 05 2021	36" 17mmT4	(Lb 1),DIF,MB,PL,W/OIII,* IN EDGE OF BTEST PART OF NEB,BTR * CLOSE BY WITH NEB SUR IT,LOOKS LIKE NEB IN 2 PARTS,(8:00pm),R=FG		
Oct 16 1982	12.5" 16mm	BH2 RGN OR BET NEB AND *		
Oct 16 1982	12.5" 24mm	PB,ML,EL,BM,B* TO W IN NEB,VMBM		
<b>H32-6</b>	<b>NGC 7086</b>	<b>Cyg</b>	<b>Open Cluster II 2 m</b>	<b>CL,CL,VRI,PC,*11..16</b>
Aug 11 1982	12.5" 24mm	MB,PL,~80*S,SMWHT DIVIDED IN CNTR,9...11 MAG *S		
<b>H32-7</b>	<b>NGC 752</b>	<b>And</b>	<b>Open Cluster II 2 r</b>	<b>CL,VVL,RI,*L\$SC</b>
Aug 31 1984	12.5" 24mm	SAME		

## Herschel 400 (I) Observations

<b>H32-7</b>	<b>NGC 752</b>	<b>And</b>	<b>Open Cluster II 2 r</b>	<b>CL,VVL,RI,*L\$SC</b>
Aug 31 1984	12.5" 24mm	SAME		
Aug 13 1982	12.5" 24mm	VB,EL,MANY *S,OVERFILLS 24MM FIELD,BEST IN 8X50 FINDER,R,SC		
Sep 10 1980	12.5" 24mm			
<b>H32-8</b>	<b>NGC 2335</b>	<b>Mon</b>	<b>Open Cluster III 2 m n</b>	<b>CL,L,LC</b>
Mar 05 2021	36" 31mmT5	(II 2 m),VB,VL,LOOSELY SC,CL DET,MOST * SAME MAG,R=F		
Feb 25 1984	12.5" 24mm	SAME		
Oct 16 1982	12.5" 24mm	MF,MS,~30*S,LOOSE AND SC,CLOSE TO 2343		
<b>H33-2</b>	<b>NGC 3640</b>	<b>Leo</b>	<b>Galaxy E3</b>	<b>B,PL,R,PSBM</b>
Mar 03 1984	12.5" 12mm	MB,PL,BNUC,R,BM,CLOSE COMP SW		
Jan 30 1981	12.5" 24mm	PB,PS,DNUC		
<b>H33-4</b>	<b>NGC 1999</b>	<b>Ori</b>	<b>Brt Nebula E</b>	<b>*10,11INV IN NEB</b>
Mar 04 2021	36" 31mmT5	(Lb 1),DIF,PB,VS,NEB EASLY SEEN SUR B*,PATCHY,GRAN,W/OIII,MORE NEB DET,GRAN,VMBM,(8:56pm),R=FG		
Feb 20 2006	31" 31mmT5	W/OIII,DIF,MB,VL,NEB DETAIL DET SUR *,R=G		
Oct 16 1982	12.5" 24mm	MB,PS,BNUC,VMBM,R,12MM-EYE APPEARANCE,TAPERED ENDS,SOME DARK AREA IN NEB		
<b>H33-6</b>	<b>NGC 869</b>	<b>Per</b>	<b>Open Cluster I 3 r</b>	<b>CL,VVL,VRI,*7...14</b>
Oct 03 1981	12.5" 32mm	VB,EL,B DIAMOND SHAPE *S IN CNTR,PAIR/884		
Sep 20 1981	12.5" 24mm			
Oct 31 1980	12.5" 24mm			
Sep 18 1980	12.5" 24mm	H & CHI DBL CL		
Jun 20 1980	12.5" 24mm			
<b>H33-7</b>	<b>NGC 1857</b>	<b>Aur</b>	<b>Open Cluster I 3 m</b>	<b>CL,PRI,PC,ST7...</b>
Dec 03 1980	12.5" 24mm	* APROX 7TH MAG IN CL		
<b>H33-8</b>	<b>NGC 2343</b>	<b>Mon</b>	<b>Open Cluster II 2 p n</b>	<b>CL,CL,P,LC</b>
Feb 25 1984	12.5" 24mm	SAME		
Oct 16 1982	12.5" 24mm	MB,ML,~15*S,LOOSE,SC		
<b>H34-1</b>	<b>NGC 5248</b>	<b>Boo</b>	<b>Galaxy SAB(rs)bc</b>	<b>B,L,E150,PSBMRN</b>
May 06 1981	12.5" 24mm	VB,VL,BNUC,DIM HALO		
<b>H34-4</b>	<b>NGC 2022</b>	<b>Ori</b>	<b>Planetary Neb 4+2</b>	<b>PLN,PB,VS,VLE</b>
Dec 28 2008	31" 17mmT4	MB,ML,R,PATCH,VF CNTR* WITH AV,EDGES FRAILED,OIII DOESNOT HELP MUCH,R=G		
Dec 30 1983	12.5" 12mm	MF,PS,NO CNTR * DET,R,UB,LINE OF F*S OFF TO BOTH SIDES		
Oct 31 1980	12.5" 24mm	LOOKS LIKE PALE GREY *		
Sep 10 1980	12.5" 24mm			
Sep 10 1980	12.5" 32mm	EASILY DET,NICE		
<b>H34-6</b>	<b>NGC 884</b>	<b>Per</b>	<b>Open Cluster I 3 r</b>	<b>CL,VL,VRI,RUBY*M</b>
Oct 03 1981	12.5" 32mm	VB,EL,PAIR/869,BEST IN 2" EYEPIECE		
Sep 20 1981	12.5" 24mm			
Oct 31 1980	12.5" 24mm			
Sep 18 1980	12.5" 24mm	H & CHI DBL CL		
Jun 20 1980	12.5" 24mm			
<b>H34-8</b>	<b>NGC 2353</b>	<b>Mon</b>	<b>Open Cluster III 3 p</b>	<b>CL,L,LC,ONEVB*</b>
Mar 03 2021	36" 55mm	(III 3 p),PB,PL,~20*S L OOSLY SC,VAR MAG,1 B* IN CL,STANDS OUT WELL IN FOV,NICE,(8:23pm),R=PF		
Feb 25 1984	12.5" 24mm	SAME		
Oct 16 1982	12.5" 24mm	MB,ML,OVAL,SC,1 B* IN EDGE OF CL,WELL PLACED		
<b>H35-1</b>	<b>NGC 4216</b>	<b>Vir</b>	<b>Galaxy SAB(s)b:</b>	<b>VB,VL,VME17,SBMN</b>
Mar 08 2010	31" 17mmT4	VB,VL,EDGE ON,VBSNUC,F* OFF NUC,SHISB,GMBM,PAIRS=PGC/MAC,R=E		

## Herschel 400 (I) Observations

<b>H35-1</b>	<b>NGC 4216</b>	<b>Vir</b>	<b>Galaxy SAB(s)b:</b>	<b>VB,VL,VME17,SBMN</b>
Mar 08 2010	31"	17mmT4	VB,VL,EDGE ON,VBSNUC,F* OFF NUC,SHISB,GMBM,PAIRS=PGC/MAC,R=E	
Apr 25 1981	12.5"	24mm	VB,EL,EL-EDGE ON,BNUC,BARMS	
Jun 10 1980	6"	24mm		
<b>H35-6</b>	<b>NGC 136</b>	<b>Cas</b>	<b>Open Cluster II 1 p</b>	<b>GCL,VF,S,EC</b>
Sep 28 2013	36"	17mmT4	MB,ML,~20*S SIM MAG,GOOD CL,FEW BTR,*S, GOOD FOV,R=G	
Aug 13 1982	12.5"	16mm	MF,VS,R,*S RSLV,20*S,F PATCH IN 24MM	
<b>H36-1</b>	<b>NGC 4550</b>	<b>Vir</b>	<b>Galaxy SB0^: sp</b>	<b>PB,S,VLE,SP OF 2</b>
Mar 05 2021	36"	17mmT4	PB,PL,EL,BLNUC,HISB,GRAN HALO,PAIR=N4551,R=G	
Jun 04 1981	12.5"	24mm	DIF,PF,PS,ELDARM,NGC 4551 CLOSE BY,PAIR/M89	
<b>H37-2</b>	<b>NGC 4527</b>	<b>Vir</b>	<b>Galaxy SAB(s)bc</b>	<b>PB,L,PME69,MBM</b>
May 03 1981	12.5"	24mm	PB,PL,ELDNUC,FARMS,PAIR/4536	
<b>H37-4</b>	<b>NGC 6543</b>	<b>Dra</b>	<b>Planetary Neb 3a+2</b>	<b>PLN,VB,PS,SBMVSN</b>
Jun 10 2023	12.5"	17mmT4	VB,MS,R,B BLUE BALL,FUZZY EDGES,SMWHT OF A RING DET ARND BALL,R=GE	
May 19 2009	31"	17mmT4	VB,VL,B GREENISH,CNTR* 10TH MAG,B INNER CORE,GRAN BALL,VF WISPS OF NEB SUR BALL,OIII BRINGS OUT OUTER HALO ONLY,PAIR=IC4677,R=E	
Mar 26 2006	31"	17mmT4	VF,PL,B BLUE,CNTR *,DETAIL IN NEB,DARK INNER RING,PAIR=IC4677,R=E	
Jun 23 2003	12.5"	9mmT6	VB,ML,EL-OVAL,VHISB,BNUC,SLT EL,F HALO SUR GLXY,R=E	
Jul 22 1981	12.5"	16mm	BLUEISH IN COLOR,PB,MS,NO CNTR * DET	
Jul 14 1980	12.5"	24mm		
Jul 11 1980	12.5"	24mm		
Jun 20 1980	12.5"	24mm		
<b>H37-5</b>	<b>NGC 7000</b>	<b>Cyg</b>	<b>Brt Nebula E</b>	<b>F,EEL,DIF NEBULOSITY</b>
Sep 06 2023	12.5"	31mmT5	(Lb 1),DIF,VB,EEL,3-4 FOV'S,NEB EASILY DET,GRAN PATCHES,BKN,G-Bish COLOR,GULF OF MEXICO EASILY OUTLINED,W/OIII,NEB DET IN FTR DETAIL,GULF OF MEXICO DARKER,OUTLING OF NORTH AMERICA CAN BE FOLLOWED,(11:47pm),R=EEE	
Sep 19 2012	36"	31mmT5	VB,W/OIII,ABLE TO SLEW ENTIRE OUTLINE OF NA NEB,NUMEROUS AREAS OF FINE NEB DETAIL,GULF AND S END OF MEX BEST CONTRAST,NICE D* IN MEX TIP - PINK & BLUEISH,R=EE	
Aug 13 1982	12.5"	32mm	FITS WELL IN EYEPIECE,FIRST TIME SEEN THIS WELL, IMPRESSIVE!!!	
Aug 11 1982	12.5"	32mm	EL,ONLY CERTAIN OUTLINES DET,HUNDREDS OF *S WITH COSTAL LINE EFFECT	
<b>H37-6</b>	<b>NGC 2506</b>	<b>Mon</b>	<b>Open Cluster I 2 r</b>	<b>CL,PL,VRI,C,*11...20</b>
Oct 16 1982	12.5"	24mm	MF,ML,SC 'S SUR CLDENSE CL TOWARDS CNTR,~60*S	
<b>H38-2</b>	<b>NGC 4636</b>	<b>Vir</b>	<b>Galaxy E0-1</b>	<b>B,L,IR,VGVMBM,R</b>
Mar 27 1982	12.5"	12mm	DIF,MB,PS,BNUC,COMP SUSP N TIP,B* TO W,MHISB,MBM	
Jun 04 1981	12.5"	16mm	MB,ML,BNUC,DIM HALO	
<b>H38-7</b>	<b>NGC 2324</b>	<b>Mon</b>	<b>Open Cluster II 2 r</b>	<b>CL,L,RI,CC,ST12...16</b>
Feb 25 1984	12.5"	24mm	SAME	
Oct 16 1982	12.5"	24mm	VF,ML,~100*S,BG GLOW,SOME B*S IN CL,WELL PLACED	
<b>H38-8</b>	<b>NGC 2422</b>	<b>Pup M47</b>	<b>Open Cluster I 3 m</b>	<b>CL,B,VL,PRI,ST L\$S</b>
Mar 03 2021	36"	55mm	(I 3 r),EB,EEL,2 FOV'S,MANY *S,VAR MAG,FILLS FOV,(8:45pm),R=G	
Nov 24 2006	12.5"	12mmT4	VB,EL,NOT WELL PLACED,~20*S,LOOSELY SC,M47,R=F	
Mar 19 2004	12.5"	12mmT4	MESSIER MARATHON 2004	
Mar 02 1984	10"	20mm	SAME	
Oct 16 1982	12.5"	24mm	VB,VL,FILLS 24MM,B*S,LOOSE AND SC,~50*S DIFF MAG	
Mar 27 1982	12.5"	24mm	VB,VL,B DBL * IN CNTR,~25*S,NO CL DET,JUST B*S	
Mar 27 1981	12.5"	24mm	MESSIER MARATHON 1981	
Dec 03 1980	12.5"	24mm		
<b>H39-1</b>	<b>NGC 4697</b>	<b>Vir</b>	<b>Galaxy E6</b>	<b>VB,L,LE45,SMBMN</b>

# Herschel 400 (I) Observations

<b>H39-1</b>	<b>NGC 4697</b>	<b>Vir</b>	<b>Galaxy E6</b>	<b>VB,L,LE45,SMBMN</b>
Mar 27 1982	12.5" 12mm	MB,ML,EL-OVAL,F* TO W,GMBM,TAPERED ENDS		
<b>H39-4</b>	<b>NGC 2438</b>	<b>Pup</b>	<b>Planetary Neb 4+2</b>	<b>PLN,PB,PS,VLE,R</b>
Dec 28 2008	31" 17mmT4	VB,ML,R,2*S INSIDE CNTR RING,INNER AREA DARKER,MHISB INNER RING,OIII HELPS,R=E		
Mar 19 2004	12.5" 12mmT4	W/OIII, PLANETARY IN M46,RING SHAPE,CNTR DARKNESS,DONUT APPEARANCE,R=E		
Mar 27 1982	12.5" 12mm	MF,PS,24MM-NO CNTR * DET,R,UB,12MM-CNTR * DET,UB,R,SOME DARK PATCHES SUSP		
Dec 03 1980	12.5" 24mm	PLANETARY IN M46,GREAT!!		
<b>H39-6</b>	<b>NGC 2571</b>	<b>Pup</b>	<b>Open Cluster II 3 m</b>	<b>CL,VL,CRI,LC,ST9...</b>
Oct 16 1982	12.5" 24mm	MB,ML,*S DIFF MAG,SC,LOOSE,~30*S		
<b>H39-7</b>	<b>NGC 1907</b>	<b>Aur</b>	<b>Open Cluster I 1 m n</b>	<b>CL,PRI,PC,R,ST9...12</b>
Mar 27 1981	12.5" 24mm			
<b>H40-6</b>	<b>NGC 6171</b>	<b>Oph M107</b>	<b>Globular X</b>	<b>GCL,L,VRI,VMC,R,RRR</b>
May 09 2010	31" 17mmT4	(Class VI),VB,VL,RSLV TO CORE,L OUTER HALO SC *S VAR MAG,R=E		
Mar 22 2004	12.5" 12mmT4	MESSIER MARATHON 2004		
Jul 21 1984	12.5" 16mm	SAME		
Aug 13 1982	12.5" 16mm	MB,PL,SBM,R,3B*S SUR OBJ,SOME F* SC		
Mar 27 1981	12.5" 24mm	MESSIER MARATHON 1981		
Sep 10 1980	12.5" 24mm			
Jul 11 1980	12.5" 24mm			
Jun 18 1980	12.5" 24mm			
Jun 10 1980	6" 24mm			
May 07 1980	5" 9mm			
Apr 16 1980	6" 24mm			
<b>H40-7</b>	<b>NGC 7128</b>	<b>Cyg</b>	<b>Open Cluster I 3 m</b>	<b>CL,S,PRI,HASARUBY*9</b>
Aug 11 1982	12.5" 24mm	MB,PS,5 OR 6 B*S SUR FTR *S,STANDS OUT WELL,~40 *S		
<b>H41-4</b>	<b>NGC 6514</b>	<b>Sgr M20</b>	<b>Brt Nebula EN+OC</b>	<b>VB,VL,TRIFID,D*INV</b>
May 13 2021	36" 31mmT5	(Lb 1),EB,EEL,BOTH NEB PARTS EASILY DET,RIFTS,EDGES DEF IN DARK AREAS,W/OIII, FILLS FOV,BEST TO DATE,REDDISH COLOR,DARK LANES,(2:40am),R=EE		
Sep 11 2012	36" 31mmT5	EB,EL,W/OIII NICE D* IN CL,BKN PARTS,DARK LANES,BLUEISH GREEN ONE HALF,OTHER REDDISH AND FTR,NEB FILLS FOV,OIII GIVES MORE DETAIL IN NEB,W/OIII,NEB FTR,D* APPEARS BLUEISH,R=EE		
Mar 22 2004	12.5" 12mmT4	MESSIER MARATHON 2004		
Sep 20 1984	12.5" 24mm	SAME,TRIFID NEB		
Aug 13 1982	12.5" 24mm	MB,VL,DUST LANES EASILY DET,B DBL * IN CNTR,BOTH PARTS DET		
Sep 20 1981	12.5" 24mm			
Mar 27 1981	12.5" 24mm	MESSIER MARATHON 1981		
Sep 10 1980	12.5" 24mm			
Jul 17 1980	12.5" 24mm			
Jul 15 1980	12.5" 32mm	GREAT!!,DBL * IS IN CNTR OF NEB		
Jun 18 1980	12.5" 24mm			
Jun 10 1980	6" 24mm			
May 07 1980	5" 9mm			
<b>H41-7</b>	<b>NGC 7296</b>	<b>Lac</b>	<b>Open Cluster II 2 p</b>	<b>CL,IR,LC,ST VS</b>
Sep 20 1984	12.5" 24mm	MB,PS,~20*S SC		
Aug 11 1982	12.5" 24mm	MF,VS,1B*W EDGE,R,FOV FULL OF *S WITH HINT OF MANY MORE!!		
<b>H42-1</b>	<b>NGC 4995</b>	<b>Vir</b>	<b>Galaxy SAB(rs)b</b>	<b>PB,PL,R,VGPMBM,*8NP</b>
Feb 12 1983	12.5" 16mm	MB,ML,MHISB,UB,NND,PATCHY		
<b>H42-5</b>	<b>NGC 4631</b>	<b>CVn</b>	<b>Galaxy SB(s)d sp</b>	<b>VB,VL,EE70,BMN,*ATTN</b>
Mar 17 2007	31" 17mmT4	EB,EL,EL,HISB,ONE SIDE THICKER,MILKY,BH2 RGN,DUST,F* OFF NUC/TIP,R=E		

## Herschel 400 (I) Observations

<b>H42-5</b>	<b>NGC 4631</b>	<b>CVn</b>	<b>Galaxy SB(s)d sp</b>	<b>VB,VL,EE70,BMN,*ATTN</b>
Mar 17 2007	31"	17mmT4	EB,EL,EL,HISB,ONE SIDE THICKER,MILKY,BH2 RGN,DUST,F* OFF NUC/TIP,R=E	
Jan 28 1982	12.5"	12mm	VB,VL,EDGE ON,* N OF NUC,F* W TIP,MHISB,PATCHES DET IN EQ PLANE	
<b>H42-6</b>	<b>NGC 6939</b>	<b>Cep</b>	<b>Open Cluster II 1 r</b>	<b>CL,PL,ERI,PCM,*11.16</b>
Jul 09 1983	12.5"	24mm	MB,PL,~100*S,SMWHT V SHAPED,CL HAS DEFINITE EDGE,PAIR/6946	
Jun 06 1981	12.5"	16mm	PF,PL	
Aug 19 1980	12.5"	32mm	LOC THIS FIRST BEFORE 6946	
<b>H42-7</b>	<b>NGC 457</b>	<b>Cas</b>	<b>Open Cluster II 3 r</b>	<b>CL,B,L,PRI,*7,8,10</b>
Jul 31 1981	12.5"	16mm	B*S,FEW *S ~20,L SC THROT EYEPIECE	
Jul 17 1980	12.5"	24mm		
<b>H43-1</b>	<b>NGC 4594</b>	<b>Vir M104</b>	<b>Galaxy SA(s)a sp</b>	<b>VB,VL,EE92,VSMBMN</b>
Apr 11 2015	36"	17mmT4	EB,EL,EDGE ON,DUST LANE CUTS OFF 1/2 NUC,S SOFT HISB GBM NUC,GRAN HISB ARMS,CNTR BULGE,TAPERED ENDS,INCREDIBLE,R=EE	
Mar 19 2004	12.5"	12mmT4	MESSIER MARATHON 2004	
Feb 12 1983	12.5"	16mm	VB,ML,EDGE ON,BNUC,DUST LANE EASILY DET,B CNTR BULGE,CUT IN TWO	
May 01 1981	12.5"	24mm	VB,PL,EDGE ON,BUC,B HALO,DUST LANE SEEN THROUGH GLXY	
Mar 27 1981	12.5"	24mm	MESSIER MARATHON 1981	
May 07 1980	5"	9mm	E!!,DUST LANE DET,SHAPE DET	
<b>H43-5</b>	<b>NGC 4258</b>	<b>CVn M106</b>	<b>Galaxy Sb</b>	<b>VB,VL,VME0,SBMBN</b>
Mar 08 2010	31"	17mmT4	VB,VL,OVAL,HISB CNTR,EL NUC,GMBM,SPRIAL ARMS,SPR STR,DUST DET,R=EE	
Mar 19 2004	12.5"	12mmT4	MESSIER MARATHON 2004	
Mar 02 1984	10"	20mm	SAME	
Jan 26 1982	12.5"	16mm	VB,VL,BNUC,F HALO,* ON NW EDGE,OVAL,4217 TO W 1 GLXY DIA	
Mar 27 1981	12.5"	24mm	MESSIER MARATHON 1981	
Oct 31 1980	12.5"	24mm		
Jul 05 1980	12.5"	24mm		
May 07 1980	5"	9mm		
<b>H43-8</b>	<b>NGC 1750</b>	<b>Tau</b>	<b>Open Cluster III 2 p</b>	<b>CL,ST L,VCSC</b>
Mar 22 2004	12.5"	25mm	VB,EL,FEW B*S LOOSELY SC,NOT WELL PLACED,OTHER CL,S DET,R=F	
<b>H44-1</b>	<b>NGC 6401</b>	<b>Oph</b>	<b>Globular XIII</b>	<b>PB,PL,R,*12F INV</b>
Jul 01 2019	36"	17mmT4	(Class XI),MB,ML,PATCH,UB,B* JUST OF CNTR OF NUC,OBLONG PATCH,R=G	
Jun 04 1981	12.5"	24mm	DIF	
<b>H44-2</b>	<b>NGC 3190</b>	<b>Leo</b>	<b>Galaxy SA(s)a pec sp</b>	<b>B,PS,E,PSBMN</b>
Mar 06 2010	31"	17mmT4	VB,VL,EL,BSNUC,TIGHT,R VB NUC,HISB CNTR,MHISB RGN FROM NUC,PAIRS=3183/31878,R=E	
Feb 25 1984	12.5"	12mm	MB,PL,EL,MHISB,CLOSE PAIR/3193/3185	
Jan 30 1981	12.5"	24mm	DIF,PB,PL,EDGE ON,DIM NUC,PAIR/3185/3193	
Dec 03 1980	12.5"	24mm		
<b>H44-5</b>	<b>NGC 2403</b>	<b>Cam</b>	<b>Galaxy Sc</b>	<b>CB,EL,VME,VGMBMN</b>
Dec 21 1981	12.5"	16mm	SPR STR DET,BEAUTIFUL!!!	
Dec 21 1981	12.5"	24mm	PB,PL,HISB,BSNUC,L OVAL PATCH,SOME STR SUSP,B*S IN GLXY	
Sep 18 1980	12.5"	24mm	2*S IN GLXY PRESENT	
<b>H44-7</b>	<b>NGC 7510</b>	<b>Cep</b>	<b>Open Cluster II 3 r n</b>	<b>CL,PRI,PC,FAN-SH,B*P</b>
Sep 22 2022	12.5"	9mmT6	(II 3 r n),VB,PL,B & F *S VAR MAG,NICE IN FOV,~40-50*S,F NEB DET,V SHAPE,BTR *S CONC IN A LINE,(10:25pm),R=G	
Jul 09 1983	12.5"	16mm	MB,MS,ARROW HEAD SHAPE,~40*S,SIM TO M103	
Aug 11 1982	12.5"	24mm	MB,VS,B*S RESEMBLE TRI,F*S NW,~30*S,STANDS OUT WELL	
<b>H45-1</b>	<b>NGC 6316</b>	<b>Oph</b>	<b>Globular III</b>	<b>GCL,CB,PS,R,GVMBM</b>
Jun 28 2019	36"	17mmT4	(Class XI),MF,MS,R,UB,HARD TO RESOLVE *S,R=G	

## Herschel 400 (I) Observations

<b>H45-1</b>	<b>NGC 6316</b>	<b>Oph</b>	<b>Globular III</b>	<b>GCL,CB,PS,R,GVMBM</b>
Jun 28 2019	36"	17mmT4	(Class XI),MF,MS,R,UB,HARD TO RESOLVE *S,R=G	
Jun 04 1981	12.5"	24mm	DIF,MF,MS	
<b>H45-2</b>	<b>NGC 3193</b>	<b>Leo</b>	<b>Galaxy E2</b>	<b>B,S,VLE,PSLBM,*9NF</b>
Mar 06 2010	31"	17mmT4	EF,VL,R,BLNUC,HISB,GRAN HALO SUR NUC,PAIRS=3190/3187,R=E	
Feb 25 1984	12.5"	12mm	MB,ML,R,BM,F* TO W,MHISB,CLOSE PAIR/3190/3185	
Jan 30 1981	12.5"	24mm	PB,PL,BNUC,DIM HALO,PAIR/3185/3190	
Dec 03 1980	12.5"	24mm		
Jun 10 1980	6"	24mm	JUST BARELY VISIBLE,DID NOT FIND OTHERS IN AREA	
<b>H45-4</b>	<b>NGC 2392</b>	<b>Gem</b>	<b>Planetary Neb 3b+3b</b>	<b>B,S,R,*9M,*8NF100"</b>
Nov 22 2006	12.5"	12mmT4	EB,VL,B CNTR * GOES AWAY WITH AV,B BLUE BALL,PATCHY AREAS DET OUTER,R=E	
Dec 04 2004	31"	17mmT4	VB,VL,WITH OIII,CNTR * EASY,RINGS SUR CNTR *,DARK RINGS BET OUTER NEB LOOKS MATTED,B BLUE,BEST EVER SEEN TO DATE,R=E	
Feb 21 1984	12.5"	12mm	MB,PS,ESKIMO NUBULA,CNTR * EASILY DET,PATCHED IN NEB DET,FORMS TRI W2*S	
Oct 23 1982	12.5"	12mm	CNTR * DET,SOME DARK AREAS IN GAS DET	
Oct 16 1982	12.5"	12mm	BLUE,MF,VS,R,UB,NO CNTR *	
Oct 31 1980	12.5"	24mm	ESKIMO NEB,NON STELL,GREAT!!	
<b>H45-5</b>	<b>NGC 3953</b>	<b>UMa</b>	<b>Galaxy SB(r)bc</b>	<b>CB,L,E0,VSMBLRN</b>
Mar 15 1985	12.5"	16mm	SAME,PB,PL,BNUC,F* JUST W OF NUC,FACE ON,SPR STR DET	
Feb 12 1983	12.5"	16mm	MB,PL,FNUC,F*W EDGE,OVAL,SOFT NUC,VMBM,FACE ON,HALO	
<b>H45-7</b>	<b>NGC 436</b>	<b>Cas</b>	<b>Open Cluster I 2 m</b>	<b>CL,S,IF,PC</b>
Aug 13 1982	12.5"	24mm	MF,MS,20-30 *S,LOOSE,SC	
<b>H46-1</b>	<b>NGC 6355</b>	<b>Oph</b>	<b>Globular</b>	<b>CF,L,R,GBM,RRR</b>
Jun 28 2019	36"	17mmT4	(Class XI),PF,PS,S TIGHT GRP OF F*S,UB,R=F	
Jun 04 1981	12.5"	24mm	DIF,PF,PS	
<b>H46-5</b>	<b>NGC 3556</b>	<b>UMa M108</b>	<b>Galaxy SB(s)cd sp</b>	<b>CB,VL,VME79,PBM,R</b>
Mar 08 2013	36"	17mmT4	MESSIER MARATHON 2013	
Mar 19 2004	12.5"	12mmT4	MESSIER MARATHON 2004	
Dec 26 2003	31"	17mmT4	VB,EL,EDGE ON,NND,MHISB,3*S IN GLXY,H2 RGN DET,DUST DET,PATCHY ARMS DET,E	
Mar 15 1985	12.5"	12mm	MB,PL,EDGE ON,F*N EDGE,B*CNTR,MHISB,KNTY STR SUSP,E!!!	
Mar 02 1984	10"	20mm	SAME	
Oct 22 1982	12.5"	16mm	DIF,MB,VL,F*N EDGE,EDGE ON,UB,LG,NND	
Mar 27 1981	12.5"	24mm	MESSIER MARATHON 1981	
Oct 31 1980	12.5"	24mm		
Sep 18 1980	12.5"	24mm		
Sep 10 1980	12.5"	24mm		
May 07 1980	5"	9mm		
Apr 16 1980	6"	24mm	IN SAME FOV WITH M97	
<b>H46-7</b>	<b>NGC 654</b>	<b>Cas</b>	<b>Open Cluster II 2 r</b>	<b>CL,IF,RI,1*6.7,</b>
Jul 31 1981	12.5"	24mm	SM,LTL DIFF SEEN IN CL,FEW *S	
<b>H47-1</b>	<b>NGC 6712</b>	<b>Sct</b>	<b>Globular IX</b>	<b>GCL,PB,VL,IRR,RRR</b>
Jun 28 2019	36"	17mmT4	(Class XI),MF,PL,LF NUC,F OUTER *S RSLV,UB CORE,R=G	
Sep 05 2007	31"	17mmT4	PB,VL,OVAL,HUNDREDS *S,RSLV TO CORE,*S MOSTLY SAME MAG,R=E	
Aug 13 2007	31"	31mmT5	VB,VL,RSLV,17MM *S IN CORE DET,R=E	
Aug 13 1982	12.5"	16mm	MB,VL,OVAL,PATCHY,SBM,OUTER *S STARTING TO RSLV	
<b>H47-5</b>	<b>NGC 3079</b>	<b>UMa</b>	<b>Galaxy SB(s)c sp</b>	<b>VB,L,ME135</b>
Mar 06 2003	12.5"	9mmT6	VB,EL,EDGE ON,MHISB,CNTR BULGE,SBM,DUST LANE SUSP,PAIR=3073,R=E	
Jan 08 2003	12.5"	9mmT6	VB,BL,EDGE ON,DUST DET,SLT BULGE IN CNTR,F* IN TIP,MHISB,PAIR/3073	

## Herschel 400 (I) Observations

<b>H47-5</b>	<b>NGC 3079</b>	<b>UMa</b>	<b>Galaxy SB(s)c sp</b>	<b>VB,L,ME135</b>
Jan 08 2003	12.5"	9mmT6	VB,BL,EDGE ON,DUST DET,SLT BULGE IN CNTR,F* IN TIP,MHISB,PAIR/3073	
Mar 15 1985	12.5"	12mm	PB,PL,F* IN N TIP,SAME *S PRESENT,S PART THICKER THAN N	
Oct 22 1982	12.5"	16mm	MF,ML,EDGE ON,F*N TIP,F*E SIDE,UB,TAPERED,NND	
Dec 03 1980	12.5"	24mm	LOOKS LIKE MINATURE M82	
<b>H47-7</b>	<b>NGC 1502</b>	<b>Cam</b>	<b>Open Cluster I 3 m</b>	<b>CL,PRI,CC,IF</b>
Nov 13 2020	36"	55mm	(I 3 m),EB,EL,NEB DET SUR B*S IN CNTR,SC,NICE IN FOV,*S VAR MAG,~25"S,(1:45am),R=G	
Oct 03 1981	12.5"	24mm	MB,ML,B DBL * IN CNTR,~20"S,NICE IN 24MM	
<b>H48-1</b>	<b>NGC 6356</b>	<b>Oph</b>	<b>Globular II</b>	<b>GCL,VB,CL,VGVMBM,RRR</b>
Jun 28 2019	36"	17mmT4	(Class XI),MB,ML,UB,HALO OF F*S SUR SOFT UB NUC,R=G	
Jul 21 1984	12.5"	12mm	MB,ML,BNUC,R,HISB CNTR,*S NOT RSLV	
Jun 04 1981	12.5"	24mm	MB,ML,BNUC	
Jun 18 1980	12.5"	24mm		
Jun 10 1980	6"	24mm		
<b>H48-7</b>	<b>NGC 559</b>	<b>Cas</b>	<b>Open Cluster I 1 m</b>	<b>CL,B,PL,PRI</b>
Jul 31 1981	12.5"	24mm	FEW B*S, MOSTLY FTR *S ~10...11 MAG,~50"S IN ALL	
<b>H49-1</b>	<b>NGC 6522</b>	<b>Sgr</b>	<b>Globular VI</b>	<b>GCL,B,PL,R,GVMBM,RRR</b>
Jul 01 2019	36"	17mmT4	(Class XII),PB,ML,SB NUC,L HALO OF VF*S,MHISB CNTR,RICH * FIELD,R=G	
Sep 20 1984	12.5"	12mm	PF,PS,2F*S BOTH SIDES,EF* ON W EDGE,SBM,PATCHY-R,PAIR/6528 TO W	
Aug 13 1982	12.5"	16mm	MF,VS,F*NE EDGE,R,MBM,OUTER *S JUST RESOLVABLE,PAIR/6538	
<b>H49-7</b>	<b>NGC 637</b>	<b>Cas</b>	<b>Open Cluster I 2 m</b>	<b>CL,PS,B\$VF ST</b>
Jul 31 1981	12.5"	24mm	S IN SWHT BARREN * FIELD,FEW F*S SEEN	
<b>H50-1</b>	<b>NGC 6624</b>	<b>Sgr</b>	<b>Globular VI</b>	<b>GCL,VB,PL,R,RRR,ST16</b>
Jul 01 2019	36"	17mmT4	(Class IV),PB,ML,BSNUC,OUTER *S RSLV TO CORE,HISB CNTR,GMBM,R=GE	
Aug 13 1982	12.5"	16mm	VB,MS,BNUC,R,VMBM	
<b>H50-2</b>	<b>NGC 3607</b>	<b>Leo</b>	<b>Galaxy SA(s)0<sup>+</sup>:</b>	<b>VB,L,R,VMBM,2ND OF 3</b>
Mar 06 2010	31"	17mmT4	VB,VL,OVAL,BLNUC,HISB,PAIRS=3606/3605/PGC34407,R=E	
Mar 03 1984	12.5"	12mm	VB,ML,BNUC,R,BM,PAIRS/3608/3605	
Jan 30 1981	12.5"	24mm	PB,PL,BNUC,PAIR/3605/3608	
Jun 10 1980	6"	24mm	V DIFF TO FIND, NO GUIDE *S	
<b>H50-4</b>	<b>NGC 6229</b>	<b>Her</b>	<b>Globular IV</b>	<b>GCL,VB,L,R,DISC,R</b>
Jun 28 2019	36"	17mmT4	(Class IV),VB,PL,HIGH CL OF *S TOWARDS MID,BLNUC,HISP,R=E	
Feb 25 1982	12.5"	16mm	MB,MS,BNUC,MHISB,ALM RSLV,R	
Jul 14 1980	12.5"	24mm		
Jul 12 1980	12.5"	24mm		
Jul 11 1980	12.5"	24mm		
Jun 17 1980	12.5"	24mm		
Apr 18 1980	6"	24mm	LOOKS LIKE 3RD * IN A TRI	
<b>H51-1</b>	<b>NGC 6638</b>	<b>Sgr</b>	<b>Globular VI</b>	<b>GCL,B,S,R,RR</b>
Jun 28 2019	36"	17mmT4	(Class VIII),PB,MS,F OUTER *S RSLV TO SOF UB L CORE,R=GE	
Jun 18 1980	12.5"	24mm		
Jun 17 1980	12.5"	24mm		
<b>H51-2</b>	<b>NGC 3608</b>	<b>Leo</b>	<b>Galaxy E2</b>	<b>B,PL,R,PSBM,3RD OF 3</b>
Mar 10 2007	31"	17mmT4	MF,MS,OVAL,FLNUC,PAIRS=MAC'S,R=F	
Mar 03 1984	12.5"	12mm	MB,ML,BNUC,SLT EL,BM,SVRL *S NE AND NW,PAIR/3607/3605	
Jan 30 1981	12.5"	24mm	DIF,PF,PL,EL,FNUC AND HALO,PAIR/3605/3607	
<b>H51-4</b>	<b>NGC 6818</b>	<b>Sgr</b>	<b>Planetary Neb 4</b>	<b>PLN,B,VS,R</b>
Sep 02 2008	31"	17mmT4	VB,ML,R,OIII HELPS MUCH,B BLUEISH GREEN,CNTR RGN DARK,NO CNTR* DET,R=E	

## Herschel 400 (I) Observations

<b>H51-4</b>	<b>NGC 6818</b>	<b>Sgr</b>	<b>Planetary Neb 4</b>	<b>PLN,B,VS,R</b>
Sep 02 2008	31"	17mmT4	VB,ML,R,OIII HELPS MUCH,B BLUEISH GREEN,CNTR RGN DARK,NO CNTR* DET,R=E	
Jul 30 2002	12.5"	16mm	MB,ML,B BLUE GREEN,VR	
Sep 20 1984	12.5"	12mm	PB,PS,F* JUST TO W,UB,R	
Sep 20 1981	12.5"	24mm		
Jul 15 1980	12.5"	24mm		
Jun 18 1980	12.5"	24mm		
Jun 17 1980	12.5"	9mm	GREAT,LOOKS LIKE 6210	
<b>H51-7</b>	<b>NGC 7062</b>	<b>Cyg</b>	<b>Open Cluster II 2 m</b>	<b>CL,PS,PRI,PC,ST13...</b>
Aug 11 1982	12.5"	24mm	MB,ML,UNIFORM DIST,FEW B**S WITH F**S,R,~50**S	
<b>H52-1</b>	<b>NGC 7006</b>	<b>Del</b>	<b>Globular I</b>	<b>B,PL,R,GBM</b>
Jul 01 2019	36"	17mmT4	(Class III),PB,ML,OUTER **S RSLV,L MHSB CORE,PAIR=PGC 65907,R=G	
Jul 31 2002	12.5"	12mm	SAME	
Jul 08 1983	12.5"	12mm	DIF,MF,MS,FNUC,R,SBM,SOFT GLOW	
Jul 30 1981	12.5"	24mm	BNUC,NO **S IN HALO SEEN,R,S VDIF	
<b>H52-2</b>	<b>NGC 3626</b>	<b>Leo</b>	<b>Galaxy S0-a</b>	<b>B,S,VLE,SBM</b>
Mar 21 2020	36"	17mmT4	EB,EL-OVAL,VBLNUC,VHISB,HISB HALO,GRAN,VBLNUC,VHISB CNTR,SUDLY VBM,R=E	
Mar 03 1984	12.5"	12mm	MB,PS,BNUC,R,BM	
Jan 30 1981	12.5"	24mm	VB,PS,BNUC,PAIR/M65/M66/3628	
<b>H53-1</b>	<b>NGC 7331</b>	<b>Peg</b>	<b>Galaxy SA(s)b</b>	<b>B,PL,PME163,SMBM</b>
Sep 17 2003	31"	25mm	EB,EL,EDGE ON,BNUC,HISB,TIGHT BNUC,DUST LANE,COMP DET,7331 CL,R=E	
Jun 27 2003	12.5"	9mmT6	EB,EL,BNUC,VHISB,DUST DET,BLNUC,F HALO & ARMS,OTHERS PRESENT,R=E	
Sep 01 2002	12.5"	12mm	SAME	
Sep 21 1984	12.5"	12mm	MB,ML,EDGE ON,SAME,COMP CLOSE BY	
Jul 06 1983	12.5"	16mm	MB,PL,EDGE ON,BLNUC,TAPERED ENDS,DUST LANE SUSP IN 12MM	
Sep 18 1982	12.5"	16mm	MB,ML,EDGE ON,BNUC,DUST LANE SUSP,TAPERED ENDS,7335 CLOSE BY	
Jul 29 1981	12.5"	24mm	SAME,3 COMP GLXY SEEN,7335/7336/7340	
Jul 07 1981	12.5"	24mm	PB,PL,EDGE ON,BNUC,DIM AREA	
Sep 18 1980	12.5"	24mm		
Sep 10 1980	12.5"	24mm		
Sep 07 1980	12.5"	24mm		
Jul 17 1980	12.5"	24mm		
Jul 15 1980	12.5"	24mm		
Jul 12 1980	12.5"	24mm		
Jul 11 1980	12.5"	24mm		
Jun 20 1980	12.5"	24mm		
Jun 17 1980	12.5"	24mm	TWILIGHT STARTING,OBJ WASHED OUT	
<b>H53-4</b>	<b>NGC 1501</b>	<b>Cam</b>	<b>Planetary Neb 3</b>	<b>PLN,PB,PS,VLE,1'DIAM</b>
Oct 09 2010	31"	17mmT4	MB,ML,R,CNTR* 13TH MAG,GRAYISH GREEN COLOR,VR,SHARP EDGES,DARKER INNER RING,OIII HELPS LTL,CNTR* GOES AWAY,R=E	
Oct 03 1981	12.5"	12mm	VR,UB,F CNTR * 14TH MAG DET,GREEN,DIF,MF,MS	
<b>H53-7</b>	<b>NGC 7209</b>	<b>Lac</b>	<b>Open Cluster III 1 m</b>	<b>CL,L,CRI,PC,ST9...12</b>
Jun 24 2022	36"	31mmT5	(III 1 r),EB,EL,FILLS FOV,**S SIM MAG,SC EVENLY,GRP CL,(3:43am),R=F	
Sep 20 1984	12.5"	24mm	VB,VL,~40-50**S,SC,NICE,**S ~SAME MAG	
Jul 15 1980	12.5"	24mm	CL WELL PLACED	
<b>H54-4</b>	<b>NGC 4143</b>	<b>CVn</b>	<b>Galaxy SAB(s)0^</b>	<b>CB,R,VG,VSBMN</b>
Feb 12 1983	12.5"	16mm	MB,PS,EL,BNUC,SBM,TAPERED	
Jan 26 1982	12.5"	16mm	PB,ML,BNUC,NUC DET,VMBM	

## Herschel 400 (I) Observations

<b>H54-4</b>	<b>NGC 4143</b>	<b>CVn</b>	<b>Galaxy SAB(s)0<sup>^</sup></b>	<b>CB,R,VG,VSBMN</b>
Jan 26 1982	12.5"	16mm	PB,ML,BNUC,NUC DET,VMBM	
Jul 05 1980	12.5"	24mm		
<b>H55-1</b>	<b>NGC 7479</b>	<b>Peg</b>	<b>Galaxy SB(s)c</b>	<b>PB,CL,ME12,BET2ST</b>
Oct 07 2010	31"	17mmT4	PB,PL,BSNUC,SCORPIN TAIL,BARRED SPR,ONE SIDE,BTR ARM THAN OTHER,ARMS,R=E	
Sep 21 1984	12.5"	16mm	SAME,MB,PL,VF* ON N TIP,FACE ON,SPR STR DET,S ARM BTR THAN N	
Jul 07 1981	12.5"	24mm	DIF,MF,PL,DIM ARMS,F* (15MAG) ON N SIDE	
Jul 15 1980	12.5"	24mm	EF,PL	
Jul 11 1980	12.5"	24mm		
<b>H55-2</b>	<b>NGC 4394</b>	<b>Com</b>	<b>Galaxy (R)SB(r)b</b>	<b>PB,LE,BM</b>
Mar 08 2010	31"	17mmT4	MB,MS,EL,BLNUC,MHISB CNTR,GMB,PAIR=4382,R=G	
Feb 12 1983	12.5"	16mm	MF,MS,DNUC,R,SBM,PAIR/4382	
Mar 27 1981	12.5"	24mm		
<b>H56-1</b>	<b>NGC 2903</b>	<b>Leo</b>	<b>Galaxy SAB(rs)bc</b>	<b>CB,VL,E,GMBM,R,SPOF2</b>
Mar 17 2018	36"	17mmT4	VB,VL,GRAN HAZE,B PATCHY RGN,SOFT SNUC,GMBM,BAR DET,ARMS ATTACHED BOTH ENDS,SHARP HOOK,R=E	
Jan 20 2004	31"	17mmT4	EB,EL-OVAL,BVLNUC,HISB,BAR DET,BH2 RGN ONE SIDE,ARMS DET,BH2 RGN IS NGC 2905,AWESOME,R=E	
Feb 25 1984	12.5"	12mm	MB,PL,EL,BNUC,3*S OFF TO ONE SIDE,SBM,MB EQ PLANE	
Jan 30 1981	12.5"	24mm	VB,VL,BNUC,DIF HALO,GREAT!!	
Dec 03 1980	12.5"	24mm		
Oct 31 1980	12.5"	24mm		
Jun 10 1980	6"	24mm		
Apr 16 1980	6"	24mm	SPR STR SUSP,DIF	
<b>H56-2</b>	<b>NGC 4450</b>	<b>Com</b>	<b>Galaxy SA(s)ab</b>	<b>B,L,R,GVMBM*,R,B*SP</b>
Mar 16 2010	31"	17mmT4	VB,VL,EL,BSNUC,SBM,HISB CNTR,GRAN OVAL ARMS,R=E	
Feb 12 1983	12.5"	16mm	MB,ML,FNUC,R,LNUC,HALO DET	
Jun 10 1980	6"	24mm		
<b>H56-4</b>	<b>NGC 4051</b>	<b>UMa</b>	<b>Galaxy SAB(rs)bc</b>	<b>B,VL,E,VGVSBM*11</b>
Feb 12 1983	12.5"	16mm	MB,PL,FNUC,F*W EDGE,B* E,*NUC,KNTS SUSP,FACE ON,OVAL	
<b>H56-7</b>	<b>NGC 7790</b>	<b>Cas</b>	<b>Open Cluster II 2 m</b>	<b>CL,PRI,PC</b>
Jul 31 1981	12.5"	24mm	FEW *S,SC IN FIELD *S	
<b>H56-8</b>	<b>NGC 6910</b>	<b>Cyg</b>	<b>Open Cluster I 3 m n</b>	<b>CL,PB,PS,P,PC,*20.12</b>
May 30 2022	36"	17mmT4	(I 3 p n),EB,VL,F NEB AM BTR *S,~20*S,VAR MAG,SC,CL DET,W/OIII,NEB DET THROT CL,(4:30am),R=FG	
Aug 13 1982	12.5"	24mm	V LOOSE,~20 *S,PB,PL	
<b>H58-4</b>	<b>NGC 40</b>	<b>Cep</b>	<b>Planetary Neb 3b+3</b>	<b>F,VS,R,VSBM,*12SP</b>
Sep 02 2008	31"	17mmT4	PB,ML,OVAL,LAYERS OF RINGS DET,B CNTR*,GREENISH,F* ON EDGE,OIII NO HELP,R=E	
Jul 09 1983	12.5"	12mm	MB,PS,BNEC,B CNTR *,SHARP EDGES,R	
Aug 13 1982	12.5"	16mm	BG COLOR,MF,PS,R,B CNTR *,(10TH MAG),SIM TO BLINKING PL,F*W SIDE	
Aug 13 1982	12.5"	7mm	EL STARTING TO SHOW UP	
<b>H58-7</b>	<b>NGC 2479</b>	<b>Pup</b>	<b>Open Cluster III 1 m</b>	<b>CL,PL,PRI,PC,ST S</b>
Oct 16 1982	12.5"	24mm	MF,VL,40-50*S,SC,~SAME MAG	
<b>H59-7</b>	<b>NGC 6866</b>	<b>Cyg</b>	<b>Open Cluster II 2 r</b>	<b>CL,L,VRI,CC</b>
Jun 06 1981	12.5"	16mm	MB,MS	
<b>H59-8</b>	<b>NGC 1664</b>	<b>Aur</b>	<b>Open Cluster III 1 p</b>	<b>CL,LRI,LC,PL</b>
Feb 09 2013	36"	31mmT5	EB,EL,~100*S SC VAR MAG'S,M CL,FILLS FOV,R=G	
Aug 21 1982	12.5"	24mm	MB,PL,B* OUTSIDE CL,*S SAME MAG,~50*S,SC,NICE IN 24MM	
Apr 16 1980	6"	24mm	V DISPERSE,FILLS FOV,SMWHT DET	

## Herschel 400 (I) Observations

<b>H59-8</b>	<b>NGC 1664</b>	<b>Aur</b>	<b>Open Cluster III 1 p</b>	<b>CL,LRI,LC,PL</b>
Apr 16 1980	6" 24mm	V DISPERSE,FILLS FOV,SMWHT DET		
<b>H60-4</b>	<b>NGC 3310</b>	<b>UMa</b>	<b>Galaxy SAB(r)bc pec</b>	<b>CB,PL,R,VG,VSMBMN</b>
Mar 15 1985	12.5" 12mm	SAME		
Oct 22 1982	12.5" 12mm	SAME		
Oct 22 1982	12.5" 16mm	MB,MS,HISB,R,SBM,FORMS TRI WITH 2F*S,B* IN FIELD		
Dec 03 1980	12.5" 24mm			
<b>H60-7</b>	<b>NGC 1513</b>	<b>Per</b>	<b>Open Cluster II 1 m</b>	<b>CL,L,VRI,PC,ST VL</b>
Oct 03 1981	12.5" 24mm	MB,ML,~40*S,DARK PATCH IN CNTR,U SHAPED		
Sep 03 1980	12.5" 24mm			
<b>H60-8</b>	<b>NGC 2311</b>	<b>Mon</b>	<b>Open Cluster III 2 m</b>	<b>CL,LC,NOT RI</b>
Oct 16 1982	12.5" 24mm	MF,ML,~40*S SAME MAG,R		
<b>H61-1</b>	<b>NGC 2974</b>	<b>Sex</b>	<b>Galaxy E4</b>	<b>B,CS,IR,BM,*9SP43"</b>
Jan 29 2014	36" 17mmT4	MB,ML,OVAL,BLNUC,* OFF EDGE,MHISB CNTR,R=G		
Oct 22 1982	12.5" 12mm	MF,VS,SLT EL,B* ON W TIP,HISB,GMBM		
<b>H61-4</b>	<b>NGC 3992</b>	<b>UMa M109</b>	<b>Galaxy SB(rs)bc</b>	<b>CB,VL,PME,SBMBRN</b>
Mar 08 2013	36" 17mmT4	MESSIER MARATHON 2013		
Mar 19 2004	12.5" 12mmT4	MESSIER MARATHON 2004		
Dec 26 2003	31" 17mmT4	EB,EL,EL,BVLNUC,HISB NUC,FARMS DET,PATCHY AREAS DET,M109,R=E		
Mar 27 1981	12.5" 24mm	MESSIER MARATHON 1981		
Sep 18 1980	12.5" 24mm			
<b>H61-7</b>	<b>NGC 1528</b>	<b>Per</b>	<b>Open Cluster II 2 m</b>	<b>CL,B,VRI,CC</b>
Oct 03 1981	12.5" 24mm	VB,VL,ONE HALF CL BTR THAN OTHER,~50*S		
Sep 03 1980	12.5" 24mm			
Jul 17 1980	12.5" 24mm			
<b>H62-4</b>	<b>NGC 3982</b>	<b>UMa</b>	<b>Galaxy SAB(r)b:</b>	<b>B,PL,R,G,SBM,DISC</b>
Feb 12 1983	12.5" 16mm	MB,MS,DNUC,R,SBM,SAME 24MM FIELD WITH 3998		
<b>H62-7</b>	<b>NGC 6756</b>	<b>Aql</b>	<b>Open Cluster I 1 m</b>	<b>CL,S,RI,LC,*11...12</b>
Aug 31 1984	12.5" 16mm	SAME		
Jul 10 1981	12.5" 16mm	INDIVIDUAL *S JUST BARELY VISIBLE,VDIF,RESEMBLES A L GLXY OR GLOB X		
<b>H63-1</b>	<b>NGC 1052</b>	<b>Cet</b>	<b>Galaxy E4</b>	<b>B,PL,R,MBM*12</b>
Sep 27 1981	12.5" 16mm	PB,MS,BNUC,MBM,R,F*NW 1 GLXY DIA SUSP,PAIR/1048		
Sep 18 1980	12.5" 24mm			
Sep 07 1980	12.5" 24mm			
<b>H63-7</b>	<b>NGC 2627</b>	<b>Pyx</b>	<b>Open Cluster II 2 r</b>	<b>CL,CL,PRI,PC,*11..13</b>
Oct 22 1982	12.5" 16mm	MF,MS,FEW B*S WITH FTR BG *S,CL TO S SUSP		
<b>H64-1</b>	<b>NGC 1084</b>	<b>Eri</b>	<b>Galaxy SA(s)c</b>	<b>VB,PL,E,GPMBM</b>
Oct 24 1981	12.5" 12mm	MB,ML,EL,HISB,PATCHY,NND,VMBM		
Oct 31 1980	12.5" 24mm			
Sep 09 1980	12.5" 24mm			
<b>H64-4</b>	<b>NGC 2440</b>	<b>Pup</b>	<b>Planetary Neb 5+3</b>	<b>PLN,CB,NOT VWELL DEF</b>
Dec 28 2008	31" 17mmT4	VB,PL,EL,NO CNTR*,IRR,2 HALVES/LOBS,HISB CNTR,F OUT SHELL,OIII HELP DETAIL,R=E		
Dec 03 1980	12.5" 24mm	SIM TO SATURN NEB,B BLUE,SLT DIF NEB SUR OBJ		
<b>H64-7</b>	<b>NGC 2567</b>	<b>Pup</b>	<b>Open Cluster II 2 m</b>	<b>CL,PL,PRI,LC,IR,*11.</b>
Oct 16 1982	12.5" 24mm	VF,ML,~40*S,SC,~SAME MAG *S		
<b>H64-8</b>	<b>NGC 381</b>	<b>Cas</b>	<b>Open Cluster III 1 m</b>	<b>CL,PC</b>
Sep 28 2013	36" 17mmT4	VB,BL,~30*S,LOOSELY SC,FILLS FOV,R=F		
Jul 31 1981	12.5" 24mm	BLENDS IN WITH FIELD OF *S OF ~SAME MAG		

## Herschel 400 (I) Observations

<b>H64-8</b>	<b>NGC 381</b>	<b>Cas</b>	<b>Open Cluster III 1 m</b>	<b>CL,PC</b>
Jul 31 1981	12.5" 24mm	BLENDS IN WITH FIELD OF *S OF ~SAME MAG		
Sep 03 1980	12.5" 24mm			
<b>H65-1</b>	<b>NGC 4361</b>	<b>Crv</b>	<b>Planetary Neb 3a+2</b>	<b>VB,L,R,VSMBMN,R</b>
Mar 16 2009	31" 17mmT4	VB,EL,B CNTR*,SQUARE SHAPE NEB,GREENISH,W/OIII,NEB MORE PRONOUNCED,HELPS A LTL,NEB MORE SQUARE LIKE,R=E		
May 03 1981	12.5" 16mm	BLUE GREEN,PB,PL,CNTR * ~11MAG DET		
<b>H65-2</b>	<b>NGC 4429</b>	<b>Vir</b>	<b>Galaxy SA(r)0+</b>	<b>B,L,CE,PSBM,*10NF</b>
Apr 25 1981	12.5" 24mm	DIF,PB,PL,FNUC,DARM		
<b>H65-8</b>	<b>NGC 659</b>	<b>Cas</b>	<b>Open Cluster I 2 m</b>	<b>CL,LRI,ST B</b>
Aug 13 1982	12.5" 24mm	MF,MS,SC,APPEARS TO BE BKN IN CNTR,CLOSE TO 663		
<b>H66-7</b>	<b>NGC 7142</b>	<b>Cep</b>	<b>Open Cluster I 2 r</b>	<b>CL,CL,CRI,PC,*11..14</b>
Jun 24 2022	36" 31mmT5	(I 2 r),VB,VL,NICE IN FOV,F* CL BUT EVENLY DIST,SVRL BTR *S SC,(3:38am),R=F		
Jul 09 1983	12.5" 24mm	MB,ML,LOOSE-SC,~40*S SAME MAG		
Aug 11 1982	12.5" 24mm	MF,VL 3OR 4 B*S WITH HUNDREDS OF F*S SC,PAIR/7129		
<b>H66-8</b>	<b>NGC 1027</b>	<b>Cas</b>	<b>Open Cluster II 3 m n</b>	<b>CL,L,SC ST,ONE10M</b>
Aug 13 1982	12.5" 24mm	VB,VL,B* IN CL,15*S		
<b>H67-1</b>	<b>NGC 3962</b>	<b>Crt</b>	<b>Galaxy E1</b>	<b>CB,PL,IR,GMBM,TRI2*</b>
Feb 12 1983	12.5" 16mm	MB,VS,BNUC,R,HISB,BM		
<b>H67-7</b>	<b>NGC 2421</b>	<b>Pup</b>	<b>Open Cluster I 2 r</b>	<b>CL,L,CRI,*11...13</b>
Oct 16 1982	12.5" 24mm	MF,ML,LOOSE AND SC,~30*S SAME MAG		
Dec 03 1980	12.5" 24mm			
<b>H67-8</b>	<b>NGC 7160</b>	<b>Cep</b>	<b>Open Cluster I 3 p</b>	<b>CL,P,VLC</b>
Jul 09 1983	12.5" 24mm	MB,ML,COUPLE OF B*S IN CL WITH FTR *S,~50*S,LOOSE		
Aug 11 1982	12.5" 24mm	VB,MS,2B*S IN CNTR,20-30 *S,DOES NOT STAND OUT WELL IN FOV		
<b>H68-1</b>	<b>NGC 4856</b>	<b>Vir</b>	<b>Galaxy SB(s)0/a</b>	<b>B,R,PSMBM,*13NP</b>
Feb 12 1983	12.5" 16mm	MB,PS,BNUC,R,BM,VF* ON N EDGE		
<b>H68-4</b>	<b>NGC 2950</b>	<b>UMa</b>	<b>Galaxy (R)SB(r)0^</b>	<b>B,PS,R,VGVMBMN</b>
Apr 14 2004	31" 17mmT4	MF,PS,R,BLNUC,SVRL F*S ON EDGE OF HALO,HISB CNTR,GMBM,R=G		
Mar 15 1985	12.5" 12mm	SAME,PF,VS,BNUC,R,BM,NO *S CLOSE IN		
Oct 16 1982	12.5" 12mm	MF,PS,BNUC,* OFF NW SVRL GLXY DIA,GMBM,OVAL		
Dec 03 1980	12.5" 24mm			
Aug 22 1980	12.5" 24mm			
<b>H68-8</b>	<b>NGC 2126</b>	<b>Aur</b>	<b>Open Cluster III 2 m</b>	<b>CL,NOT RI,*7M NORTH</b>
Aug 21 1982	12.5" 24mm	MF,PL,B* IN CL,TRI SHAPE,~20-30*S,NICE IN 24MM		
<b>H69-8</b>	<b>NGC 7686</b>	<b>And</b>	<b>Open Cluster III 2 p</b>	<b>CL,P,LC,*7...11</b>
Sep 22 2022	12.5" 12mmT4	(III 2 p),VB,VL,CL DET,LITTLE CONC,FEW B*S WITH FTR *S,~20*S,(12:20am),R=F		
Aug 31 1984	12.5" 24mm	SAME		
Aug 11 1982	12.5" 24mm	MB,PL,B ORANGE * IN CNTR,LOOSE,LTL CL EFFECT,~40*S		
Sep 10 1980	12.5" 24mm			
<b>H70-1</b>	<b>NGC 5634</b>	<b>Vir</b>	<b>Globular IV</b>	<b>GCL,VB,CL,R,GBM,RRR</b>
Apr 11 2015	36" 17mmT4	(Class III),PB,MS,SPEC FOV,BFOREGR * CLOSE BY,SVRL B*S SUR NUC,MHISB MID,RSLV CORE,LTL OR NO HALO,R=E		
Jun 11 1983	12.5" 20mm	VB,PL,BNUC,TRI OF B*S SUR OBJ,HISB,BM		
<b>H71-2</b>	<b>NGC 4660</b>	<b>Vir</b>	<b>Galaxy E:</b>	<b>VB,S,VSVMBMN</b>
Jun 04 1981	12.5" 24mm	PF,PS,DNUC,DIM HALO,PAIR/M59		
<b>H71-8</b>	<b>NGC 2281</b>	<b>Aur</b>	<b>Open Cluster I 3 m</b>	<b>CL,PRI,VLC,ST PL</b>
Oct 16 1982	12.5" 24mm	MB,VL,~30*S,STANDS OUT WELL,HOUR GLASS SHAPE,LOOSE		

## Herschel 400 (I) Observations

<b>H71-8</b>	<b>NGC 2281</b>	<b>Aur</b>	<b>Open Cluster I 3 m</b>	<b>CL,PRI,VLC,ST PL</b>
Oct 16 1982	12.5" 24mm	MB,VL,~30*S,STANDS OUT WELL,HOUR GLASS SHAPE,LOOSE		
<b>H72-8</b>	<b>NGC 6633</b>	<b>Oph</b>	<b>Open Cluster III 2 m</b>	<b>CL,LC,ST L</b>
Jun 04 1981	12.5" 32mm	EB,EL		
<b>H73-1</b>	<b>NGC 4150</b>	<b>Com</b>	<b>Galaxy SA(r)0^?</b>	<b>B,S,R,PGMBM</b>
Feb 27 1982	12.5" 16mm	MF,MS,BNUC,GMBM,R		
<b>H73-4</b>	<b>NGC 6826</b>	<b>Cyg</b>	<b>Planetary Neb 3a+2</b>	<b>PLN,B,PL,R,*11M</b>
Sep 02 2008	31" 17mmT4	VB,VL,R,GREENISH TECTURE B BALL,CNTR* 10TH MAG,OIII NOT MUCH HELP,R=E		
Jul 24 1981	12.5" 16mm	GREENISH,BLINKING PLANTARY,CNTR* EASILY BLINKS WHEN LOOKING AT CNTR		
Jul 24 1981	12.5" 7mm	CNTR * NO LONGER BLINKS		
Jun 20 1980	12.5" 9mm	B CNTR * EASILY SEEN		
Jun 17 1980	12.5" 16mm	GREAT,GREENISH BLUE COLOR,USE BARLOW AND 16MM		
<b>H74-1</b>	<b>NGC 4245</b>	<b>Com</b>	<b>Galaxy SB(r)0/a:</b>	<b>CB,PL,VLE,SMBM,R</b>
Feb 27 1982	12.5" 16mm	MB,ML,BNUC,R,SNUC		
<b>H75-1</b>	<b>NGC 4274</b>	<b>Com</b>	<b>Galaxy (R)SB(r)ab</b>	<b>VB,VL,E90,MBMN</b>
Feb 12 1983	12.5" 24mm	MB,PL,EL,BNUC,TAPERED ENDS,PAIR/4278/4283		
Feb 27 1982	12.5" 16mm	MB,VL,EL,BNUC,F HALO,SNUC,DIF HALO SUR NUC		
<b>H75-2</b>	<b>NGC 4762</b>	<b>Vir</b>	<b>Galaxy SB(r)0^? sp</b>	<b>PB,VME31,3B*S,F OF 2</b>
Feb 12 1983	12.5" 16mm	MB,MS,3B*S OFF TO A SIDE,APPEARS LIKE M104,PAIR/4754		
<b>H75-8</b>	<b>NGC 7243</b>	<b>Lac</b>	<b>Open Cluster II 2 m</b>	<b>CL,L,P,LC,ST VL</b>
Sep 20 1984	12.5" 24mm	VB,VL,RICH * FIELD,PPEARS TO BE 2 CL,S SIDE BY SIDE,~40*S		
Jul 15 1980	12.5" 24mm	CL WELL PLACED		
<b>H76-1</b>	<b>NGC 4314</b>	<b>Com</b>	<b>Galaxy SB(rs)a</b>	<b>CB,L,E150,SBM,*NP</b>
Feb 12 1983	12.5" 24mm	PB,ML,EDGE ON,BNUC,F*N TIP,BM,TAPERED		
<b>H76-4</b>	<b>NGC 6946</b>	<b>Cep</b>	<b>Galaxy SAB(rs)cd</b>	<b>VF,VL,VG,VSBM,RR</b>
Sep 12 2012	36" 17mmT4	PB,VL,BSNUC,SPR ARMS,KNOTS IN ARMS DET,H2 RGN DET,R=E		
Jun 22 2003	12.5" 9mmT6	VB,EL,R,NND,SHISB,AREAS OF PATCHES DET,SVRL *S IN GLXY,R=E		
Jul 09 1983	12.5" 24mm	MF,VL,OVVAL,3B*S TO ONE SIDE,SVRL F*S IN GLXY,SPR STR SUSP,PAIR/6939		
Aug 14 1982	12.5" 16mm	EDIF,MF,PL,PATCHY,OVVAL,NND,*S IN GLXY,SEE CARD FOR DRAWING		
Jun 06 1981	12.5" 16mm	DIF,VL,MB,SOME SPR STR DET,FACE ON,SEVEAL *S IN GLXY,RESEMBLES M33		
Aug 19 1980	12.5" 32mm	VF,COULD NOT FIND IN 24MM		
<b>H77-1</b>	<b>NGC 4414</b>	<b>Com</b>	<b>Galaxy SA(rs)c?</b>	<b>VB,L,E,G,VSBM*</b>
Feb 12 1983	12.5" 16mm	VB,ML,BNUC,BM,DIF HALO,SLT ELNO *S ON EDGE LIKE PHOTO		
<b>H77-8</b>	<b>NGC 7380</b>	<b>Cep</b>	<b>Open Cluster III 2 m n</b>	<b>CL,PL,PRI,LC,*9...13</b>
Jul 09 1983	12.5" 24mm	MB,PL,SAME DEC AS 7261,L TRI SHAPE,LOOSE,SC,~50*S		
Aug 11 1982	12.5" 24mm	MB,PL,50-70*;S,F GLOW BET *S,TRI SHAPE CL,GRT > 10 ARC MIN		
<b>H78-1</b>	<b>NGC 2985</b>	<b>UMa</b>	<b>Galaxy (R')SA(rs)ab</b>	<b>VB,CL,R,PSMBM,*INV F</b>
Apr 14 2004	31" 17mmT4	VB,PL,R,BLNUC,MHISB,HISB CNTR,R=E		
Mar 15 1985	12.5" 12mm	PB,MS,BNUC,F*E SIDE,R,VMBM		
Dec 03 1980	12.5" 24mm	F* IN ARM RGN		
Aug 22 1980	12.5" 24mm			
<b>H78-8</b>	<b>NGC 225</b>	<b>Cas</b>	<b>Open Cluster III 1 p n</b>	<b>CL,L,LC,*9...10</b>
Nov 11 2020	36" 55mm	(II 1 p),EB,EL,BARELY FITS FOV,* SIM MAG,~20*S,(10:10pm),R=F		
Sep 28 2013	36" 17mmT4	PB,EL,~15*S,LOOSELY SC,SIM MAG,DOESNOT STAND OUT WELL,R=PF		
Aug 13 1982	12.5" 24mm	MB,PL,18-21 *S,SPREADS OUT WELL,*S ~SAME MAG		
<b>H79-1</b>	<b>NGC 3147</b>	<b>Dra</b>	<b>Galaxy SA(rs)bc</b>	<b>VB,L,R,VGVSVMBM</b>
Apr 23 2003	12.5" 9mmT6	VB,VL,OVVAL,BNUC,MHISB,ARMS SUSP,B AREAS IN HALO,GMBM,R=E		
Oct 22 1982	12.5" 16mm	MB,ML,BNUC,INSIDE 4*S,R,SBM,BSNUC		

## Herschel 400 (I) Observations

<b>H79-1</b>	<b>NGC 3147</b>	<b>Dra</b>	<b>Galaxy SA(rs)bc</b>	<b>VB,L,R,VGVSVMBM</b>
Oct 22 1982	12.5" 16mm	MB,ML,BNUC,INSIDE 4"*S,R,SBM,BSNUC		
<b>H79-4</b>	<b>NGC 3034</b>	<b>UMa M82</b>	<b>Galaxy I0 sp</b>	<b>VB,VL,VME(RAY)</b>
Apr 09 2023	36" 17mmT4	EB,EL,EL,HISB,FILLS FOV,BKN PARTS,PATCHES,CNTR RGN SPLIT,BRT HISB PARTS,AWESOME,R=EEE		
Jan 29 2014	36" 17mmT4	M82,EB,EL,EDGE ON,HISB,PATCHES,NUC REG FRAGMENTED,DUST,DETAIL IN ARMS,SN IN ARM ~ 10,5MAG,R=EE		
Mar 08 2013	36" 17mmT4	MESSIER MARATHON 2013		
Feb 04 2005	31" 17mmT4	EB,EL,EDGE ON,HISB,EDGE TO EDGE IN FOV,PATCHY,DUST,NUC BKN,BEST TO DATE,R=E		
Apr 14 2004	31" 17mmT4	EF,EL,HISB,BEST EVER TODATE,NUC AREA PATCHY,DARK AREAS,BRN PARTS,R=E		
Mar 19 2004	12.5" 12mmT4	MESSIER MARATHON 2004		
Mar 15 1985	12.5" 12mm	SAME,IRR		
Mar 02 1984	10" 20mm	VB,VL,EDGE ON,HISB,B* OFF ONE TIP,DARK PATCHES		
Oct 22 1982	12.5" 12mm	VB,VL,EDGE ON,VHISB,2 DUST LANES DET,B RGN DET,TAPERED,KNTY		
Mar 27 1981	12.5" 24mm	MESSIER MARATHON 1981		
Dec 03 1980	12.5" 24mm			
Oct 31 1980	12.5" 24mm			
Oct 29 1980	8" 24mm			
Sep 18 1980	12.5" 24mm			
Sep 10 1980	12.5" 24mm			
Sep 09 1980	12.5" 24mm			
Aug 22 1980	12.5" 24mm			
<b>H79-8</b>	<b>NGC 129</b>	<b>Cas</b>	<b>Open Cluster III 2 m</b>	<b>CL,VL,PR,LC,*9...13</b>
Sep 28 2013	36" 17mmT4	VF,EL,~40"*S,LOOSELY SC,LTL CL,FILLS FOV,R=F		
Aug 13 1982	12.5" 24mm	MB,BL,SC,BLENDS WITH FIELD **S		
<b>H80-8</b>	<b>NGC 1444</b>	<b>Per</b>	<b>Open Cluster IV 1 p</b>	<b>CL OF AB30*12...14</b>
Nov 13 2020	36" 17mmT4	(IV 2 p),VB,ML,B** IN CNTR HAS HINT OF NEB,~10"*S VAR MAG,WIDELY SC,(1:09am),R=F		
Oct 03 1981	12.5" 24mm	MF,VS,SUR B DBL *,~10"*S,SM		
Sep 03 1980	12.5" 24mm	POOR		
<b>H81-1</b>	<b>NGC 3344</b>	<b>LMi</b>	<b>Galaxy (R)SAB(r)bc</b>	<b>CB,L,GBM,*INV,2ST F</b>
Dec 03 1980	12.5" 24mm	BNUC,2F"*S ON EDGE		
<b>H82-1</b>	<b>NGC 3900</b>	<b>Leo</b>	<b>Galaxy SA(r)0+</b>	<b>B,PL,VLE0,BMN</b>
Mar 03 1984	12.5" 12mm	MB,PL,EL,BNUC,SBM,BET 2B"*S		
Feb 12 1983	12.5" 16mm	MF,ML,DNUC,OVAL,BM,TRI OF **S SUR GLXY		
Jan 30 1981	12.5" 24mm	PF,PL,EL,FNUC,F HALO		
<b>H83-1</b>	<b>NGC 4494</b>	<b>Com</b>	<b>Galaxy E1-2</b>	<b>VB,PL,R,VSMBMN</b>
Mar 17 2018	36" 17mmT4	VB,VL,OVAL,S BNUC,HISB,F* OUTER EDGE,GRAN HISB OVAL ARMS SUR NUC,MBM,R=E		
Feb 12 1983	12.5" 16mm	VB,VL,BNUC,R,BM		
<b>H84-1</b>	<b>NGC 4725</b>	<b>Com</b>	<b>Galaxy SAB(r)ab pec</b>	<b>VB,VL,E,VG,VSVMBMEBN</b>
Mar 17 2018	36" 17mmT4	MB,VL,R,L BNUC,MBM,HISB CNTR,7F"*S IN GLXY,ARMS,KNOTS,PATCHES,BAR SUSP,R=GE		
Feb 12 1983	12.5" 24mm	VB,EL,BNUC,BLNUC,OVAL,SLT ,EL		
<b>H85-8</b>	<b>NGC 1545</b>	<b>Per</b>	<b>Open Cluster IV 2 p</b>	<b>CL,PRI,LC,ST L</b>
Oct 03 1981	12.5" 24mm	MB,ML,TRI OF B"*S IN CNTR,~20"*S,SPREAD OUT THIN		
Sep 03 1980	12.5" 24mm			
<b>H86-1</b>	<b>NGC 3245</b>	<b>LMi</b>	<b>Galaxy SA(r)0^:?</b>	<b>VB,PL,E0, SMBMEN</b>
Feb 21 2020	36" 17mmT4	PB,ML,EL,BSNUC,HISB,GRAN HALO,R=G,TIME 11:52PM		
Jan 24 2004	31" 17mmT4	VB,VL,OVAL,BLNUC,MHISB,GMBM,PAIR=3245A,R=E		
Feb 25 1982	12.5" 16mm	MB,MS,BNUC,TAPERED,NUC DET,HISB TOWARDS CNTR		

## Herschel 400 (I) Observations

<b>H86-1</b>	<b>NGC 3245</b>	<b>LMi</b>	<b>Galaxy SA(r)0<sup>+</sup>:?</b>	<b>VB,PL,E0, SMBMEN</b>
Feb 25 1982	12.5" 16mm	MB,MS,BNUC,TAPERED,NUC DET,HISB TOWARDS CNTR		
Dec 03 1980	12.5" 24mm			
<b>H86-2</b>	<b>NGC 4350</b>	<b>Com</b>	<b>Galaxy SA0 sp</b>	<b>CB,VS,ME,VSBM</b>
Feb 12 1983	12.5" 24mm	MB,PS,BNUC,SBM,OVAL,CLOSE PAIR/4340		
Mar 27 1981	12.5" 24mm			
<b>H87-1</b>	<b>NGC 3486</b>	<b>LMi</b>	<b>Galaxy SAB(r)c</b>	<b>CB,CL,R,GMBM</b>
Feb 21 2020	36" 17mmT4	MF,ML,OVAL,FSNUC,R=FG,TIME 12:28AM		
Oct 22 1982	12.5" 24mm	MF,MS,VDIF,PATCH,SBM		
Dec 03 1980	12.5" 24mm			
<b>H88-1</b>	<b>NGC 3504</b>	<b>LMi</b>	<b>Galaxy (R)SAB(s)ab</b>	<b>B,L,E,MBMN,RR,P OF 2</b>
Feb 21 2020	36" 17mmT4	MB,ML,OVAL,BSNUC,L GRAN ARMS,F* IN ARMS,R=G,TIME 12:31AM		
Oct 22 1982	12.5" 16mm	MB,MS,DNUC,LOC IN BARREN AREA,OVAL,SBM		
Dec 03 1980	12.5" 24mm			
<b>H88-8</b>	<b>NGC 1342</b>	<b>Per</b>	<b>Open Cluster III 2 m</b>	<b>CL,VL,AB60*</b>
Nov 13 2020	36" 55mm	(III 2 m),VB,VL,NICE FOV,STANDS OUT AGAINST FOV *S,EASILY DET,~50*S,SIM MAG,FEW B*S,(12:42am),R=FG		
Oct 03 1981	12.5" 24mm	VB,VL,~20*S,DISPURSED		
Sep 03 1980	12.5" 24mm	NOT SO GOOD,DOES NOT LIVE UP TO ASTRO CARD DESCRIPTION		
<b>H89-1</b>	<b>NGC 4251</b>	<b>Com</b>	<b>Galaxy SB0? sp</b>	<b>VB,S,E,VSVMBMN,*F90S</b>
Feb 21 2020	36" 17mmT4	PB,ML,EL,BLNUC,GRAN HALO,GMBM,HISB NUC,R=G,TIME 1:50AM		
Feb 27 1982	12.5" 16mm	EL,BNUC,GMBM		
<b>H90-1</b>	<b>NGC 4278</b>	<b>Com</b>	<b>Galaxy E1-2</b>	<b>VB,PL,R,MBM,R,1STOF3</b>
Mar 07 2021	36" 17mmT4	VB,PL,R,BLNUC,HISB,V GRAN,GLOB CL LIKE,PAIRS=N4283/N4286,R=E		
Feb 21 2020	36" 17mmT4	VB,VL,OVAL,BLNUC,HISB,PAIR=N4283,R=G,TIME 1:58AM		
Feb 12 1983	12.5" 16mm	MB,ML,BNUC,R,VMBM,COMP TO E = 4283		
<b>H91-1</b>	<b>NGC 4448</b>	<b>Com</b>	<b>Galaxy SB(r)ab</b>	<b>B,L,E90,SBM</b>
Feb 21 2020	36" 17mmT4	VB,VL,EL-OVAL,LNUC,MHISB,R=G,TIME 2:10AM		
Feb 12 1983	12.5" 16mm	MF,MS,FNUC,SLT ELMHISB,SBM		
<b>H92-1</b>	<b>NGC 4559</b>	<b>Com</b>	<b>Galaxy SAB(rs)cd</b>	<b>VB,VL,ME150,GBM,3*F</b>
Feb 21 2020	36" 17mmT4	VB,VL,EL-OVAL,?NUC,PATCHY,BKN PARTS,GRAN,R=GE,TIME 2:19AM		
Mar 17 2018	36" 17mmT4	VB,VL,OVAL,PATCH,NND,BKN PATCHES,MHISB IN ARMS,3*S TRIANGLE OUTER EDGE,R=E		
Feb 12 1983	12.5" 24mm	VB,VL,3F*S IN S EDGE,SLT EL,HISB,NND		
<b>H94-1</b>	<b>NGC 3813</b>	<b>UMa</b>	<b>Galaxy SA(rs)b:</b>	<b>CB,PL,PME90,BM</b>
Mar 15 1985	12.5" 16mm	PF,PS,EL-EDGE ON,E-W,F*S AT BOTH TIPS,UB,NND,TAPERED ENDS		
Feb 12 1983	12.5" 16mm	MF,PS,EL,F*E TIP,UB,NND,VF*W TIP SUSP		
<b>H95-1</b>	<b>NGC 4214</b>	<b>CVn</b>	<b>Galaxy IAB(s)m</b>	<b>CB,CL,IE,BIN</b>
Jan 26 1982	12.5" 16mm	PB,PL,EL2F*S OFF TO NE,1*(14MAG)N 1 GLXY DIA,VHISB ALONG EQ,OVAL		
Jul 05 1980	12.5" 24mm			
<b>H96-1</b>	<b>NGC 5005</b>	<b>CVn</b>	<b>Galaxy SAB(rs)bc</b>	<b>VB,VL,VME66,VSBMN</b>
Jan 28 1982	12.5" 16mm	MB,ML,BNUC,SLENDER SHAPE,DIF HALO		
<b>H97-1</b>	<b>NGC 5033</b>	<b>CVn</b>	<b>Galaxy SA(s)c</b>	<b>VB,PL,E167,SMBMVBN</b>
Jan 28 1982	12.5" 16mm	PF,PS,BNUC,F* IN NW TIP,MUCH BM		
<b>H98-1</b>	<b>NGC 5273</b>	<b>CVn</b>	<b>Galaxy SA(s)0<sup>+</sup></b>	<b>CB,PL,R,G,PSMBM</b>
Jan 28 1982	12.5" 16mm	DIF,MF,MS,R,FSNUC,DIF HALO,PAIR/5276		
<b>H99-1</b>	<b>NGC 5557</b>	<b>Boo</b>	<b>Galaxy E1</b>	<b>CB,S,R,VSBM*</b>
Mar 29 2006	31" 17mmT4	VB,PL,R,BLNUC,HISB,GMBM,VF* IN GLXY OUTSIDE NUC,SN? 15 MAG,R=E		
May 06 1981	12.5" 24mm	MB,ML,BNUC WITH DIM HALO		

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<b>H99-1</b>	<b>NGC 5557</b>	<b>Boo</b>	<b>Galaxy E1</b>	<b>CB,S,R,VSBM*</b>
May 06 1981	12.5" 24mm	MB,ML,BNUC WITH DIM HALO		
<b>H99-2</b>	<b>NGC 3377</b>	<b>Leo</b>	<b>Galaxy E5-6</b>	<b>VB,CL,LE,SVMBMBN</b>
Feb 25 1984	12.5" 12mm	MB,PS,PATCHY,UB IN CNTR,R		
Jan 30 1981	12.5" 24mm	PB,PL,BNUC,PAIR/3367		
<b>H100-1</b>	<b>NGC 584</b>	<b>Cet</b>	<b>Galaxy E4</b>	<b>VB,PL,R,MBM,P OF 2</b>
Sep 19 2020	36" 17mmT4	EB,VL,VBLNUC,HISB,V* CLOSE TO NUC,VMBM,PAIR=586,R=G		
Sep 27 1981	12.5" 16mm	MB,PS,BNUC,VMBM,R		
Sep 10 1980	12.5" 24mm			
Sep 07 1980	12.5" 24mm	PAIR/596,GREAT!!		
<b>H101-1</b>	<b>NGC 779</b>	<b>Cet</b>	<b>Galaxy SAB(r)b</b>	<b>CB,L,ME162,MBM</b>
Sep 27 1981	12.5" 16mm	MB,ML,EDGE ON,FNUC,CNTR BULGE,DUST PATCHES,KNTY STR SUSP,GBM		
Sep 18 1980	12.5" 24mm			
Sep 07 1980	12.5" 24mm	,EL		
<b>H101-2</b>	<b>NGC 3489</b>	<b>Leo</b>	<b>Galaxy SAB(rs)0+</b>	<b>VB,PL,LE80,SMBMN</b>
Feb 25 1984	12.5" 12mm	MB,PS,BNUC,F* OFF ON EDGE,BM		
Jan 30 1981	12.5" 24mm	VB,PL,BNUC,PAIR/3485		
<b>H102-1</b>	<b>NGC 1022</b>	<b>Cet</b>	<b>Galaxy (R')SB(s)a</b>	<b>CB,PL,R,MBM,*11NF 2'</b>
Sep 27 1981	12.5" 16mm	MB,ML,NUC SUSP,FARMS,F*W 1 GLXY DIA,BAR SUSP,F CIRCULAR ARMS SUSP,SNS		
Sep 07 1980	12.5" 24mm	FAIR AND FT		
<b>H103-1</b>	<b>NGC 6934</b>	<b>Del</b>	<b>Globular VIII</b>	<b>GCL,B,L,R,RRR,*16...</b>
Jul 01 2019	36" 17mmT4	(Class VI),PB,PL,BNUC,OUTER & CORE **S RSLV,MORE F**S DET LONGER VIEWED,R=E		
Aug 20 2003	31" 25mm	VB,VL,RSLV TO CORE,HUNDRED'S OF **S,MANY **S DET IN CORE,R=E		
Jul 31 2002	12.5" 12mm	SAME		
Jul 08 1983	12.5" 12mm	MB,MS,BNUC,B* TO W,RSLV OUTER **S,GBM		
Jul 30 1981	12.5" 16mm	DNUC,GMBM,SOFT HALO OF **S RSLV,R		
Jul 11 1980	12.5" 24mm			
Jun 20 1980	12.5" 24mm			
Jun 18 1980	12.5" 24mm			
Jun 17 1980	12.5" 24mm			
<b>H104-1</b>	<b>NGC 7606</b>	<b>Aqr</b>	<b>Galaxy SA(s)b</b>	<b>PF,CL,PME0</b>
Jul 10 1981	12.5" 16mm	BPART N SIDE,HALO VIS,RESEMBLES M104,MB,ML,EDGE ON,FARMS		
Sep 09 1980	12.5" 32mm	B,LG		
<b>H105-1</b>	<b>NGC 720</b>	<b>Cet</b>	<b>Galaxy E5</b>	<b>CB,PL,LE,PSMBM</b>
Sep 27 1981	12.5" 16mm	MB,MS,BNUC,GBM		
Oct 29 1980	8" 24mm			
Sep 10 1980	12.5" 24mm			
Sep 07 1980	12.5" 24mm			
<b>H107-1</b>	<b>NGC 1407</b>	<b>Eri</b>	<b>Galaxy E0</b>	<b>VB,L,R,SVMBMN</b>
Nov 11 2020	36" 17mmT4	VB,VL,R,VBLNUC,HISB,MHISB,HALO,R=G		
Oct 24 1981	12.5" 12mm	MB,ML,B NUC,R,PAIR/1400		
Oct 31 1980	12.5" 24mm	PAIR/1400		
Sep 09 1980	12.5" 24mm			
<b>H110-1</b>	<b>NGC 7723</b>	<b>Aqr</b>	<b>Galaxy SB(r)b</b>	<b>CB,CL,E,GMBM,R</b>
Jul 10 1981	12.5" 16mm	DIF,MBM,FNUC,MB,ML,FARMS		
Sep 09 1980	12.5" 24mm			
<b>H111-1</b>	<b>NGC 7727</b>	<b>Aqr</b>	<b>Galaxy SAB(s)a pec</b>	<b>PB,PL,IR,MBM</b>
Oct 07 2010	31" 17mmT4	PB,PL,OVAL,BLNUC,GRAN NUC,HISB CNTR,GBM,R=G		

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<b>H111-1</b>	<b>NGC 7727</b>	<b>Aqr</b>	<b>Galaxy SAB(s)a pec</b>	<b>PB,PL,IR,MBM</b>
Oct 07 2010	31"	17mmT4	PB,PL,OVAL,BLNUC,GRAN NUC,HISB CNTR,GBM,R=G	
Jul 10 1981	12.5"	16mm	MB,ML,VMBM,DIF HALO SUR GLXY	
Sep 09 1980	12.5"	24mm	BNUC,SPR ARM STR DET	
<b>H112-1</b>	<b>NGC 772</b>	<b>Ari</b>	<b>Galaxy SA(s)b</b>	<b>B,CL,R,GBM,R</b>
Oct 23 1982	12.5"	16mm	SAME	
Sep 24 1981	12.5"	16mm	PB,PL,SBM,EL,* E SIDE,F 15TH MAG COMP W/770 1 GLXY DIA,BNUC,FARMS	
Oct 31 1980	12.5"	24mm		
Oct 29 1980	8"	24mm		
Sep 10 1980	12.5"	24mm		
Sep 07 1980	12.5"	24mm	NICE!!,VL,PF,SIM TO M33	
<b>H113-2</b>	<b>NGC 4419</b>	<b>Com</b>	<b>Galaxy SB(s)a sp</b>	<b>B,PME135,SBM</b>
Feb 12 1983	12.5"	16mm	MB,PS,EDGE ON,FNUC,SBM,TAPERED	
Mar 27 1981	12.5"	24mm		
<b>H114-1</b>	<b>NGC 2964</b>	<b>Leo</b>	<b>Galaxy SAB(r)bc:</b>	<b>B,VL,LE,VGBM,SP OF 3</b>
Jan 29 2014	36"	17mmT4	VB,VL,OVAL,BNUC,HISB,DUST,ARMS DET,PATCHY AREAS,R=E	
Feb 25 1984	12.5"	12mm	DIF,MF,MS,PATCHY,OVAL,SBM,NO *S,PAIR/2968	
Jan 30 1981	12.5"	24mm	DIF,VF,VS,FNUC AND HALO	
Dec 03 1980	12.5"	24mm		
<b>H114-2</b>	<b>NGC 4473</b>	<b>Com</b>	<b>Galaxy E5</b>	<b>PB</b>
Mar 16 2010	31"	17mmT4	VB,VL,OVAL,BLNUC,HISB CNTR,GRAN HALO,GMBM,R=E	
Feb 12 1983	12.5"	16mm	MF,PS,DNUC,R,BM,PAIR/4477	
May 01 1981	12.5"	24mm	PB,PL,BNUC,FARMS,PAIR/4461	
Mar 27 1981	12.5"	24mm		
Jun 10 1980	6"	24mm		
<b>H115-2</b>	<b>NGC 4477</b>	<b>Com</b>	<b>Galaxy SB(s)0:?</b>	<b>PB,CL</b>
Mar 16 2010	31"	17mmT4	VB,VL,EL,BLNUC,GRAD MBM,HISB CNTR,PAIR=4479,R=E	
Feb 12 1983	12.5"	16mm	MF,PS,BNUC,R,BM,CLOSE COMP 4479,PAIR/4473	
Mar 27 1981	12.5"	24mm		
Jun 10 1980	6"	24mm		
<b>H116-1</b>	<b>NGC 3395</b>	<b>LMI</b>	<b>Galaxy SAB(rs)cd pec:</b>	<b>CB,PS,ILE,1ST OF 2</b>
Feb 15 2004	31"	17mmT4	VB,VL,OVAL,BLNUC,HISB,GMBM,INTRACT 3396,R=E	
Jan 08 2003	12.5"	9mmT6	MB,PL,BNUC,OVAL,BSNUC,HISB,COMP=3396	
Oct 22 1982	12.5"	24mm	DIF,VF,MS,EL2 PARTS OR INTRACT GLXY,N PART *NUC OR *	
Dec 03 1980	12.5"	24mm	PAIR/3396	
<b>H120-2</b>	<b>NGC 4548</b>	<b>Com M91</b>	<b>Galaxy SB(rs)b</b>	<b>B,L,LE,LBM</b>
Mar 17 2018	36"	17mmT4	VB,EL,EL,BNUC,MHISB,L SOF NUC,BGM,F HALO SUR NUC,ARMS NOT DET,R=GE	
Apr 11 2015	36"	17mmT4	PB,PL,S SOF GRAD BM,F HALO,BTR PATCH-BAR DET,R=G	
May 09 2010	31"	17mmT4	EB,EL,BSNUC,B BAR ACROSS NUC,SUDLY MBM,HISB CNTR,F HALO ARMS,VF OUTER LOOP ONE SIDE,R=E	
Mar 19 2004	12.5"	12mmT4	MESSIER MARATHON 2004	
Mar 02 1984	10"	20mm	SAME	
Feb 12 1983	12.5"	24mm	MB,PL,BNUC,R,LNUC,DIF HALO	
Mar 27 1981	12.5"	24mm	MESSIER MARATHON 1981	
Jun 10 1980	6"	24mm		
<b>H121-1</b>	<b>NGC 4030</b>	<b>Vir</b>	<b>Galaxy SA(s)bc</b>	<b>CB,L,VLE,PSMBM,BSTNR</b>
Apr 25 1981	12.5"	24mm	VB,VL,BNUC,B HALO	
<b>H124-2</b>	<b>NGC 4478</b>	<b>Vir</b>	<b>Galaxy E2</b>	<b>PB,S,R,PSBM,2ND OF 3</b>

## Herschel 400 (I) Observations

<b>H124-2</b>	<b>NGC 4478</b>	<b>Vir</b>	<b>Galaxy E2</b>	<b>PB,S,R,PSBM,2ND OF 3</b>
May 01 1981	12.5" 24mm	PF,PS,EL,FNUC,FARMS,PAIR/4476/M87		
<b>H126-1</b>	<b>NGC 5746</b>	<b>Vir</b>	<b>Galaxy SAB(rs)b? sp</b>	<b>B,L,VME170,BMBN</b>
Mar 09 2021	36" 17mmT4	VB,EL,EDGE ON,LNUC,SHISB,VF*IN TIP,MHISB CNTR,GMBM,L CNTR BULGE,TAPERED ENDS,R=GE		
Jun 11 1983	12.5" 20mm	MB,PL,EDGE ON,DUST LANE SUSP,BNUC BULGE,TAPERED ENDS,MINATURE 4565		
<b>H126-2</b>	<b>NGC 4654</b>	<b>Vir</b>	<b>Galaxy SAB(rs)cd</b>	<b>F,VL,PME,(D),3*NR</b>
Mar 27 1982	12.5" 12mm	DIF,MB,PL,2F*S TO N,B* TO W,*NUC,OVAL,UB,MHISB		
<b>H128-1</b>	<b>NGC 5846</b>	<b>Vir</b>	<b>Galaxy E0-1</b>	<b>VB,PL,R,PSBMN,F*INVS</b>
Mar 16 2010	31" 17mmT4	VB,VL,BLNUC,GRAD BM,GRAN HALO,F* OFF SIDE,V CLOSE COMP=5846A,R=G		
Mar 19 2004	12.5" 12mmT4	MB,ML,EL,NND,SHISB,R=G		
Mar 19 2004	12.5" 12mmT4	MB,ML,OVAL,BLNUC,SHISB,CLOSE COMP=5846A,R=G		
Jun 11 1983	12.5" 20mm	MB,PL,FNUC,F*W 1 GLXY DIA,COMP TO E,R,SBM,SVRL FIELD *S		
<b>H128-2</b>	<b>NGC 4689</b>	<b>Com</b>	<b>Galaxy SA(rs)bc</b>	<b>PB,VL,E,VGLBM,R</b>
Mar 27 1982	12.5" 12mm	EDIF,MF,PL,R,2F*S N,NND,UB,SOME STR SUSP		
<b>H129-1</b>	<b>NGC 4699</b>	<b>Vir</b>	<b>Galaxy SAB(rs)b</b>	<b>VB,R,VMBMRN,R</b>
Mar 27 1982	12.5" 12mm	MB,MS,BNUC,R,SBM,F*S SVRL GLXY DIA		
<b>H130-1</b>	<b>NGC 4958</b>	<b>Vir</b>	<b>Galaxy SB(r)0? sp</b>	<b>VB,PS,E,BMBN</b>
Feb 12 1983	12.5" 16mm	MF,PS,BNUC,F* OFF TO W,TAPERED,SBM		
<b>H134-1</b>	<b>NGC 4781</b>	<b>Vir</b>	<b>Galaxy SB(rs)d</b>	<b>CB,VL,ME</b>
Apr 02 2021	36" 17mmT4	PB,VL,PATCH,SHISB,B PATCHY AREAS,BKN PARTS, * IN EDGE,PAIR=N4784,R=E		
Feb 12 1983	12.5" 24mm	DIF,MF,ML,3 OR 4 F*S GOING OFF TO THE W,NND,UB,OVAL		
<b>H137-1</b>	<b>NGC 2859</b>	<b>LMi</b>	<b>Galaxy (R)SB(r)0+</b>	<b>VB,PL,R,SMBM</b>
Feb 25 1984	12.5" 16mm	MB,ML,BNUC,DIM HALO,STELL BNUC,R,GMBM,F*NE SVRL GLXY DIA		
Dec 03 1980	12.5" 24mm			
<b>H139-1</b>	<b>NGC 4303</b>	<b>Vir M61</b>	<b>Galaxy SAB(rs)bc</b>	<b>VB,VL,VSBM*,BIN</b>
Apr 11 2015	36" 17mmT4	PB,VL,FACE ON,VBSNUC HISB WELL DEFINED,B BAR WITH ARMS AT ENDS,* OFF ONE ARM,B PATCHES IN ARMS,OUTSTANDING,R=E		
Mar 08 2010	31" 17mmT4	PB,PL,BSNUC,MHISB CNTR,FACE ON,F* IN OUTER ARM,SPR STR DET,DUST,PATCHY AREAS IN ARMS,F BAR DET,R=EE		
Mar 19 2004	12.5" 12mmT4	MESSIER MARATHON 2004		
Feb 12 1983	12.5" 24mm	PB,VL,*NUC,ARMS DET,FACE ON,KNTS DET		
Apr 25 1981	12.5" 24mm	DIF,VB,VL,DNUC,FARM		
Mar 27 1981	12.5" 24mm	MESSIER MARATHON 1981		
Jun 10 1980	6" 24mm			
<b>H139-2</b>	<b>NGC 4261</b>	<b>Vir</b>	<b>Galaxy E2-3</b>	<b>PB,PS,R,GBM</b>
Mar 08 2010	31" 17mmT4	PB,ML,OVAL,BLNUC,GRAN HALO,HISB CNTR,PAIRS=NGC/PGC'S,R=G		
Apr 26 2003	12.5" 9mmT6	VB,PL,R,BNUC,HISB CNTR,VMBM,BLNUC,PAIR/4264/4257,R=E		
Apr 25 1981	12.5" 24mm	DIF,PF,PS,FNUC,DIM HALO,PAIR/4260		
<b>H142-1</b>	<b>NGC 4665</b>	<b>Vir</b>	<b>Galaxy SB(s)0/a</b>	<b>B,PL,IR,MBM,*10SP</b>
Mar 05 2021	36" 17mmT4	VB,EL-OVAL,BLNUC,MHISB,B BAR IN NUC,GRAN AREAS,VMBM,HISB CNTR,* IN ARM,R=E		
<b>H143-1</b>	<b>NGC 4900</b>	<b>Vir</b>	<b>Galaxy SB(rs)c</b>	<b>CB,CE,*10ATT POS135</b>
Feb 12 1983	12.5" 16mm	MB,ML,F* IN E EDGE,MHISB,UB,OVAL		
<b>H144-1</b>	<b>NGC 5566</b>	<b>Vir</b>	<b>Galaxy SB(r)ab</b>	<b>B,PL,R,PSBM,R,*F1.5'</b>
Apr 26 2003	12.5" 9mmT6	VB,PL,R,BNUC,VHISB,ARMS DET,LNUC,VMBM,PAIR/5560/5569,R=E		
Jun 11 1983	12.5" 20mm	MB,PL,EL,BNUC,B*SW 1 GLXY DIS,BLNUC,HISB TOWARDS MID,PAIR/5576		
<b>H146-1</b>	<b>NGC 5576</b>	<b>Vir</b>	<b>Galaxy E3</b>	<b>B,S,R,VSBM,F OF 2</b>
Feb 22 2020	36" 17mmT4	VB,PL,R,BLNUC,VMBM,HISB,HISB CNTR,PAIR=N5574,R=E		
Jun 11 1983	12.5" 20mm	PB,ML,BNUC,CLOSE COMP TO W 1 GLXY DIA,F*N 1 GLXY DIA,R-OVAL,SBM,PAIR/5566		

## Herschel 400 (I) Observations

<b>H146-1</b>	<b>NGC 5576</b>	<b>Vir</b>	<b>Galaxy E3</b>	<b>B,S,R,VSMBM,F OF 2</b>
Jun 11 1983	12.5" 20mm	PB,ML,BNUC,CLOSE COMP TO W 1 GLXY DIA,F*N 1 GLXY DIA,R-OVAL,SBM,PAIR/5566		
<b>H147-1</b>	<b>NGC 6304</b>	<b>Oph</b>	<b>Globular XI</b>	<b>GCL,B,CL,R,LBM,RRR</b>
Jun 28 2019	36" 17mmT4	(Class XI),MF,MS,UB,PATCH OF *S,NO BM,R=G		
Jun 04 1981	12.5" 24mm	DIF,MF,PS		
Jun 18 1980	12.5" 24mm			
<b>H149-1</b>	<b>NGC 6342</b>	<b>Oph</b>	<b>Globular IV</b>	<b>CB,PS,LE,ER</b>
Jun 28 2019	36" 17mmT4	(Class VII),MF,PS,MHISB,FEW *S RSLV,SOFT MHISB CORE,S PATCH JUST OF NUC,R=FG		
Jul 21 1984	12.5" 12mm	VF,VS,VF* ON S EDGE,PATCH-UB,NO I'S RSLV		
Jun 04 1981	12.5" 24mm	DIF,PF,PS		
Jun 18 1980	12.5" 24mm	VS,LOOKS LIKE NEB		
Jun 10 1980	6" 24mm	VF,HARD TO SEE		
<b>H150-1</b>	<b>NGC 6440</b>	<b>Sgr</b>	<b>Globular V</b>	<b>PB,PL,R,BM</b>
Jul 01 2019	36" 17mmT4	(Class V),PB,PL,F OUTER *S RSLV,UB LNUC W/*S RSLV,R=G		
Sep 20 1984	12.5" 12mm	DIF,MF,PS,BET A LINE OF *S,6440 TO N 1/2 DEGREE,R,BM		
Aug 13 1982	12.5" 16mm	MF,VS,F*N,R,SBM,VF*W,PAIR/6445		
<b>H151-1</b>	<b>NGC 524</b>	<b>Psc</b>	<b>Galaxy SA(rs)0+</b>	<b>VB,PL,MBM,4S*NR</b>
Sep 24 1981	12.5" 16mm	MB,PS,BNUC,F(13TH)*NW EDGE,F*N&S (4*S IN ALL),HISB IN NUC,VR,DIM DIF HALO		
Oct 31 1980	12.5" 24mm			
Sep 07 1980	12.5" 24mm			
<b>H153-1</b>	<b>NGC 908</b>	<b>Cet</b>	<b>Galaxy SA(s)c</b>	<b>CB,VL,E</b>
Sep 22 2022	12.5" 12mmT4	MF,ML,OVAL,SQUARE SHAPE,SHISB,F* IN EDGE,R=G		
Sep 27 1981	12.5" 16mm	DIF,HISB,PB,PL,EF* COMES AND GOES W ARM,NND,OVAL,BTR IN 24MM,KNTS & DUST SUSP		
Sep 09 1980	12.5" 16mm	SIZE EASILY DET		
<b>H156-1</b>	<b>NGC 1023</b>	<b>Per</b>	<b>Galaxy SB(rs)0-</b>	<b>VB,VL,VME,VVMBM</b>
Feb 04 2005	31" 17mmT4	VF,EL,EL,BLNUC,FARMS,GMBM,SVRL *S IN GLXY,COMP=1023A,R=E		
Aug 17 1982	12.5" 16mm	EDGE ON,MF,ML,LINE OF 3 *S OFF TO E,VMBM,DIF ARMS		
Oct 03 1981	12.5" 12mm	MB,ML,EL,F* OR PART OF GLXY W SIDE,LOOKS LIKE SB GLXY,VMBM,BNUC DET		
Sep 07 1980	12.5" 24mm			
Sep 03 1980	12.5" 24mm			
Aug 22 1980	12.5" 24mm			
Aug 19 1980	12.5" 24mm			
Jul 24 1980	12.5" 24mm	BNUC,GREAT!!!		
Jul 11 1980	12.5" 24mm			
Jun 20 1980	12.5" 24mm	GOOD LOOKING GLXY		
<b>H156-2</b>	<b>NGC 4442</b>	<b>Vir</b>	<b>Galaxy SB(s)0^</b>	<b>VB,PL,R,SMBM</b>
May 01 1981	12.5" 24mm	PB,PS,BNUC,FARM		
<b>H159-1</b>	<b>NGC 278</b>	<b>Cas</b>	<b>Galaxy SAB(rs)b</b>	<b>CB,PL,R,2*10NR</b>
Sep 28 2013	36" 17mmT4	VB,VL,R,BSNUC,SBM,MHISB,SOME GRAN SUR NUC,NICE FOV,R=GE		
Jul 31 1981	12.5" 12mm	GMBM,DIF HALO SEEN,SMWHT OVAL,HISB		
Sep 18 1980	12.5" 20mm	GREAT		
Aug 22 1980	12.5" 24mm			
Aug 19 1980	12.5" 24mm			
Jul 24 1980	12.5" 24mm			
Jul 17 1980	12.5" 24mm			
Jul 15 1980	12.5" 24mm	GREAT!!!		
Jun 18 1980	12.5" 24mm			
<b>H160-1</b>	<b>NGC 4546</b>	<b>Vir</b>	<b>Galaxy SB(s)0-</b>	<b>VB,CL,PME78,VSMBMN</b>

## Herschel 400 (I) Observations

<b>H160-1</b>	<b>NGC 4546</b>	<b>Vir</b>	<b>Galaxy SB(s)0-:</b>	<b>VB,CL,PME78,VSMBMN</b>
Feb 12 1983	12.5" 16mm	MB,PS,BNUC,F*E SVRL GLXY DIA,TAPERED ENDS		
<b>H161-1</b>	<b>NGC 4459</b>	<b>Com</b>	<b>Galaxy SA(r)0+</b>	<b>PB,PL,IR,BM,R,*8SF2'</b>
Mar 07 2021	36" 17mmT4	VB,VL,OVAL-R,BVLNUC,HISB,VMBM,GRAN,R=GE		
May 09 2010	31" 17mmT4	EB,VL,R,BLNUC,GRAN HALO,SUDLY MBM,HISB,R=E		
Feb 12 1983	12.5" 16mm	MB,PS,BNUC,SBM,*NUC,CLOSE TO B*		
Mar 27 1981	12.5" 24mm			
Jun 10 1980	6" 24mm			
<b>H162-1</b>	<b>NGC 4866</b>	<b>Vir</b>	<b>Galaxy SA(r)0+:</b> sp	<b>B,PL,ME90,SBMN,S*INV</b>
Apr 10 2023	36" 17mmT4	VF,VL,EDGE ON,LBNUC,HISB,,TAPERED ENDS,* IN E EDGE,VHISB CORE,MHISB ARMS,GRAN,R=E		
Feb 12 1983	12.5" 16mm	DIF,MF,PS,EDGE ON,FS*NUC,F* IN W TIP,SLT TAPERED		
<b>H163-1</b>	<b>NGC 3115</b>	<b>Sex</b>	<b>Galaxy S0- sp</b>	<b>VB,L,VME46,VGSMBMEN</b>
Mar 27 1982	12.5" 16mm	MB,ML,EDGE ON,BNUC,F HALO,F*S BORDER,F* FARTHER SW,CNTR BULGE		
<b>H164-1</b>	<b>NGC 3294</b>	<b>LMi</b>	<b>Galaxy SA(s)c</b>	<b>CB,L,ME135,GLBM</b>
Feb 15 2004	31" 17mmT4	VB,EL-OVAL,PATCH,UB,NND,PATCHY AREAS DET,KNOTS AND DUST DET,R=E		
Jan 24 2004	31" 17mmT4	VB,VL,EL-EDGE ON,PATCH,UB,NND,R=G		
Oct 22 1982	12.5" 16mm	DIF,MF,ML,EL,UB,SLT EL,NND		
Dec 03 1980	12.5" 24mm			
<b>H165-1</b>	<b>NGC 4151</b>	<b>CVn</b>	<b>Galaxy (R')SAB(rs)ab:</b>	<b>VB,S,R,VSMBMBN,P OF2</b>
Feb 25 2004	31" 17mmT4	VB,VL,OVAL,VBSNUC,2*S IN ARMS,HISB CNTR,GMBM,L AREA OF ARMS,R=E		
Jan 26 1982	12.5" 16mm	DIF,MB,PS,BNUC,*NW SIDE,VMBM,R HALO SUR NUC		
<b>H167-1</b>	<b>NGC 2782</b>	<b>Lyn</b>	<b>Galaxy SAB(rs)a pec</b>	<b>CB,R,MBMBN</b>
Oct 16 1982	12.5" 24mm	DIF,MF,MS,DNUC,2F*S OFF TO S,SBM,*NUC,16MM-SAME		
<b>H168-1</b>	<b>NGC 3184</b>	<b>UMa</b>	<b>Galaxy SAB(rs)cd</b>	<b>PB,VL,R,VGBM</b>
Apr 18 2023	36" 17mmT4	MB,PL,R,SBNUC,MHISB,FACE ON,SPR ARMS DET,DUST, B PATCHES IN ARMS,F* OFF EDGE,VF* NE CLOSE TO NUC,R=G		
Mar 15 1985	12.5" 16mm	SAME		
Oct 22 1982	12.5" 16mm	DIF,MF,ML,R,PATCHY,B* IN N PART,UB,KNTY STR SUSP,NND		
<b>H172-1</b>	<b>NGC 3432</b>	<b>LMi</b>	<b>Galaxy SB(s)m sp</b>	<b>PB,PL,VME40,**NR SP</b>
Apr 09 2008	31" 17mmT4	VB,VL,EDGE ON,UB,NND,HISB,2F*S A TIP,2F*S BOTH SIDES,SLT BOWED,OTHERS,R=E		
Oct 22 1982	12.5" 12mm	SAME,2*S AT S TIP		
Oct 22 1982	12.5" 16mm	DIF,MF,MS,EL,UB,2*S AT BOTH ENDS		
Dec 03 1980	12.5" 24mm			
<b>H173-1</b>	<b>NGC 3941</b>	<b>UMa</b>	<b>Galaxy SB(s)0^</b>	<b>VB,PL,R,SMBM*9</b>
Mar 15 1985	12.5" 12mm	PB,ML,BNUC,R,BM,HISB		
Feb 12 1983	12.5" 16mm	PB,MS,EL,VBNUC,LOOKS LIKE AN E6 GLXY		
<b>H175-1</b>	<b>NGC 4203</b>	<b>Com</b>	<b>Galaxy SAB0-:</b>	<b>VB,S,R,PSMBM</b>
Feb 27 1982	12.5" 16mm	MB,PS,BNUC,R,GBM		
<b>H176-1</b>	<b>NGC 4656</b>	<b>CVn</b>	<b>Galaxy SB(s)m pec</b>	<b>PB,L,VME34,SP OF 2</b>
Mar 09 2021	36" 17mmT4	VB,EL,EDGE ON,BLNUC,MHISB,INTRACT=N4657,HOOK AT END ONE SIDE,SLT CNTR BULGE,* IN NUC,ONE SIDE BTR THAN SIDE,ONE SIDE VF,R=EE		
Jan 28 1982	12.5" 16mm	MF,PL,EDGE ON,*S SUR N TIP,S ARM SLT BULKIER AND BIGGER,MHISB		
<b>H178-1</b>	<b>NGC 4618</b>	<b>CVn</b>	<b>Galaxy SB(rs)m</b>	<b>B,L,E,MBM,CVDBRANCHN</b>
Feb 17 2004	31" 17mmT4	PB,VL,SHISB,IRR,2 HALVES,APP AS 2 GLXY SIDE BY SIDE,ONE HALF BTR,PAIR=4625,R=E		
Jan 28 1982	12.5" 16mm	MF,PL,OVAL-R,COMP TO N (4625),SBM,B* TO S,APPEARS TO BE 2 GLXY OR DARK LANE		
Mar 27 1981	12.5" 24mm			
<b>H186-1</b>	<b>NGC 5195</b>	<b>CVn</b>	<b>Galaxy I0 pec</b>	<b>B,PS,LE,VGBM,INV-M51</b>
Apr 19 2014	36" 17mmT4	EB,EL,BLNUC,HISB,HALF ARMS APPEAR BTR THAN OTHER HALF,INTRACT=5194,R=E		

## Herschel 400 (I) Observations

<b>H186-1</b>	<b>NGC 5195</b>	<b>CVn</b>	<b>Galaxy I0 pec</b>	<b>B,PS,LE,VGBM,INV-M51</b>
Apr 19 2014	36"	17mmT4	EB,EL,BLNUC,HISB,HALF ARMS APPEAR BTR THAN OTHER HALF,INTRACT=5194,R=E	
Apr 19 2014	36"	31mmT5	JUST ABSOLUTELY STUNNING	
Mar 16 2010	31"	17mmT4	VB,VL,OVAL,VBSNUC,HISB CNTR,SUDLY MBM,COMP=M51,SPR ARMS,BRIDGE CONNECTS TO M51,F BAR ACROSS NUC,R=E	
Jan 28 1982	12.5"	24mm	MB,ML,BNUC,OVAL,BM,INTRACT WITH M51	
Apr 16 1980	6"	24mm		
<b>H188-1</b>	<b>NGC 5689</b>	<b>Boo</b>	<b>Galaxy SB(s)0/a:</b>	<b>CB,PL,E87,PSMBM</b>
May 06 1981	12.5"	24mm	PB,VS,BNUC	
<b>H189-1</b>	<b>NGC 5676</b>	<b>Boo</b>	<b>Galaxy SA(rs)bc</b>	<b>B,L,E45,PGBM,R</b>
May 06 1981	12.5"	24mm	VB,VL,BNUC,B HALO	
Jul 14 1980	12.5"	24mm	GET B* OUT OF FOV TO SEE	
<b>H192-1</b>	<b>NGC 7008</b>	<b>Cyg</b>	<b>Planetary Neb 3</b>	<b>CB,L,E45,R,**ATT</b>
Aug 15 2009	31"	17mmT4	MB,PL,PATCH,CNTR* 13TH,2 HALVES,BKN,ANOTHER 13TH * IN NEB,BLOBS BOTH ENDS,OIII,HELPS,MORE NEB,BBLOBS BOTH ENDS,CNTR* STILL VISIBLE,R=E	
Aug 11 1982	12.5"	16mm	MF,PL,BG COLOR,NW PART BTR,PATCHY-R,CNTR 14* DET,LOC E OF A FEW *S	
<b>H193-1</b>	<b>NGC 650</b>	<b>Per M76</b>	<b>Planetary Neb 3+6</b>	<b>VB,P OF DNEB =M76</b>
Sep 02 2008	31"	17mmT4	VB,VL,BHOUR GLASS CNTR RGN,F WISPS OF NEB SIDES,OIII NO HELP,F* EDGE OF HOUR GLASS,NO CNTR* DET,R=E	
Mar 19 2004	12.5"	12mmT4	W/OIII, VB,PL,HOUR GLASS SHAPE,BAR,TWO HALVES,MESSIER MARATHON 2004,R=E	
Dec 06 2002	12.5"	9mmT6	PB,PL,2 LOBES EASILY DET,MHISB,B RGN IN ONE LOBE, M76	
Mar 02 1984	10"	20mm	SAME	
Aug 25 1982	12.5"	16mm	HOUR GLASS SHAPE,WHIPHS OF NEB SUR TIPS,SAME AS BEFORE	
Oct 03 1981	12.5"	24mm	BLUE GREEN,MB,PS,S PART BTR,HISB,2 PARTS DET,DARK PATCH	
Mar 27 1981	12.5"	24mm	MESSIER MARATHON 1981	
Aug 22 1980	12.5"	24mm		
Aug 19 1980	12.5"	24mm		
Jul 24 1980	12.5"	24mm		
Jul 17 1980	12.5"	24mm		
Jul 11 1980	12.5"	24mm		
<b>H194-1</b>	<b>NGC 3675</b>	<b>UMa</b>	<b>Galaxy SA(s)b</b>	<b>VB,CL,VME0,VSMBMN</b>
Mar 15 1985	12.5"	16mm	SAME,PB,ML,BNUC,F*N TIP,CIGAR SHAPE,MHISB,BM	
Oct 22 1982	12.5"	16mm	MB,ML,EL,BNUC,F* IN N TIP,BIG BNUC,GMBM	
<b>H195-1</b>	<b>NGC 4111</b>	<b>CVn</b>	<b>Galaxy SA(r)0+: sp</b>	<b>VB,PS,ME151</b>
Apr 10 2023	36"	17mmT4	VB,VL,EDGE ON,LBNUC,HISB,DUST LANE DET,VMBM,CNTR BULGE,MHISB ARMS,GRAN,EDGES TAPERED,PAIR=N4109,EXCEL PAIR,R=E	
Feb 25 2004	31"	17mmT4	VB,PL,EDGE ON,BNUC,HISB CNTR,CNTR BULGE,TAPERED ENDS,PAIR=4109,R=E	
Feb 12 1983	12.5"	24mm	PB,VS,EDGE ON,BNUC,B* CLOSE BY,F* BET GLXY AND B*,TAPERED ENDS	
<b>H195-2</b>	<b>NGC 6287</b>	<b>Oph</b>	<b>Globular XII</b>	<b>GCL,CB,L,R,GPMCM,RRR</b>
Jun 28 2019	36"	17mmT4	(Class XI),MF,MS,US,*S UB SPREAD CLOST TO NUC,NOT MUCH * BIN CNTR,R=FG	
Jul 21 1984	12.5"	16mm	VDIF,VF,MS,OVAL,UB,NO *S RSLV	
Jun 04 1981	12.5"	24mm	DIF,PF,MS	
Jun 18 1980	12.5"	24mm	EF,NND,LOC IN BARREN * FIELD	
<b>H196-2</b>	<b>NGC 5694</b>	<b>Hya</b>	<b>Globular VII</b>	<b>CB,CS,R,PSBM,R,*9SP</b>
Apr 11 2015	36"	17mmT4	(Class III),PB,MS,BNUC WITH HISB,HALO OF RSLV *S CLOSE TO NUC,19 DEG ALT,R=G	
Jun 11 1983	12.5"	20mm	MF,PS,BNUC,R,2*S SE,1*SW 1 GLXY DIA,1F* SW 2 GLXY DIA,MHISB	
<b>H197-1</b>	<b>NGC 4485</b>	<b>CVn</b>	<b>Galaxy IB(s)m pec</b>	<b>B,PS,IR,NP OF 2</b>
Jan 28 1982	12.5"	16mm	EDIF,PF,PS,EDGE ON,UB,INTRACT WITH 4490	
Mar 27 1981	12.5"	24mm		

## Herschel 400 (I) Observations

<b>H197-1</b>	<b>NGC 4485</b>	<b>CVn</b>	<b>Galaxy IB(s)m pec</b>	<b>B,PS,IR,NP OF 2</b>
Mar 27 1981	12.5"	24mm		
<b>H197-2</b>	<b>NGC 6544</b>	<b>Sgr</b>	<b>Globular</b>	<b>CF,PL,IR,R</b>
Jul 01 2019	36"	17mmT4	(Class VIII),MB,ML,SNUC,LOOSELY SC OUTER *S RSLV TO CORE,SHISB CNTR,R=G	
Sep 20 1984	12.5"	16mm	VF,MS,F* V CLOSE BY,R,BM,SOME *S RSLV	
Aug 13 1982	12.5"	16mm	MF,MS,FNUC,SNUC,GBM,SOME *S RSLV,R	
<b>H198-1</b>	<b>NGC 4490</b>	<b>CVn</b>	<b>Galaxy SB(s)d pec</b>	<b>VB,VL,ME130,R,SF OF2</b>
Jan 28 1982	12.5"	16mm	DIF,PB,PL,EL,BNUC,GBM,INTRACT WITH 4485,SN DISCOVERED 8/10/82	
Mar 27 1981	12.5"	24mm		
Oct 31 1980	12.5"	24mm		
<b>H198-2</b>	<b>NGC 6540</b>	<b>Sgr</b>	<b>Globular</b>	<b>PF,S,IE,ER OR CL</b>
Jul 01 2019	36"	17mmT4	(Class X),MB,MS,EL,SF NUC,V RICH * FIELD,R=F	
Sep 20 1984	12.5"	16mm	VDIF,VF,VS,*S ~SAME MAG(11,5),SC,FIND 6520 FIRST	
Aug 13 1982	12.5"	16mm	DIF,VF,VS,EL PATCH,APPEARS AS A GLXY,LOCATE FROM 6520,FEW *S RSLV	
<b>H199-1</b>	<b>NGC 3198</b>	<b>UMa</b>	<b>Galaxy SB(rs)c</b>	<b>PB,VL,ME45,VGBM</b>
Mar 15 1985	12.5"	16mm	SAME	
Oct 22 1982	12.5"	16mm	DIF,MF,PL,EDGE ON,F*NW EDGE,UB,NND,TAPERED TOWARDS ENDS	
Dec 03 1980	12.5"	24mm		
<b>H199-2</b>	<b>NGC 6517</b>	<b>Oph</b>	<b>Globular IV</b>	<b>PB,PL,R,RR</b>
Jul 01 2019	36"	17mmT4	(Class VII),MB,ML,R,HISB CNTR,GMBM,F OUTER HALO,R=G	
Jun 04 1981	12.5"	24mm	DIF,PF,PS	
<b>H200-1</b>	<b>NGC 2683</b>	<b>Lyn</b>	<b>Galaxy SA(rs)b</b>	<b>VB,VL,VME39,GMBM</b>
Oct 16 1982	12.5"	16mm	MB,ML,EDGE ON,FNUC,F* IN N TIP,B* OFF TO E,DUST LANES SUSP,TAPERED ENDS,HISB	
<b>H200-2</b>	<b>NGC 6528</b>	<b>Sgr</b>	<b>Globular V</b>	<b>GCL,PF,CS,R,GBM,RRR</b>
Jul 01 2019	36"	17mmT4	(Class IX),PB,ML,LB NUC,THIN F HALO *S RSLV,HISB CNTR,R=G	
Sep 20 1984	12.5"	16mm	DIF,VF,VS,6522 SAME FIELD TO E,IN BARREN * AREA,R,SBM	
Aug 13 1982	12.5"	16mm	VDIF,PF,VS,SBM,NO *S RSLV,PAIR/6522	
<b>H201-1</b>	<b>NGC 3877</b>	<b>UMa</b>	<b>Galaxy SA(s)c:</b>	<b>B,L,ME37</b>
Mar 15 1985	12.5"	16mm	SAME,PB,ML	
Feb 12 1983	12.5"	16mm	MB,PL,EDGE ON,KNTS DET,DUST LANES	
<b>H201-2</b>	<b>NGC 6569</b>	<b>Sgr</b>	<b>Globular VIII</b>	<b>GCL,CB,L,R,RRR,*15..</b>
Jul 01 2019	36"	17mmT4	(Class VIII),MB,ML,ALM UB,FEW *S RSLV OUTER EDGE,R=G	
Sep 21 1984	12.5"	24mm	PF,PS,R,SBM,2F*S TO S IN A LINE POINTING TO A B DBL *,F* ON S EDGE	
Aug 13 1982	12.5"	16mm	DIF,MF,MS,R,GBM,UB	
<b>H202-1</b>	<b>NGC 3949</b>	<b>UMa</b>	<b>Galaxy SA(s)bc:</b>	<b>CB,PL,PME,VGBM</b>
Mar 15 1985	12.5"	12mm	MB,ML,RECT SHAPE,UB,MHISB,NO *S	
Feb 12 1983	12.5"	16mm	MF,PL,MHISB,OVAL,*NUC,KNTS SUSP,FACE ON	
<b>H203-1</b>	<b>NGC 3938</b>	<b>UMa</b>	<b>Galaxy SA(s)c</b>	<b>B,VL,R,BMPBN,ER</b>
Mar 15 1985	12.5"	16mm	MF,PL,L OVAL,FACE ON,SBM,SOME KNTY STR SUSP,NO *S	
Feb 12 1983	12.5"	16mm	MB,VL,FACE ON,R,KNTS DET	
<b>H204-2</b>	<b>NGC 6629</b>	<b>Sgr</b>	<b>Planetary Neb 2a</b>	<b>PLNORGCL,PB,EES,R</b>
May 19 2009	31"	12mmT4	MB,PS,R,CNTR* ~13TH MAG,BLUEISH-GREEN,B TOWARDS CNTR,OIII DNH,R=G	
Aug 13 1982	12.5"	7mm	MF,VS,BET 2*S IN FIELD OF VIEW,HARD TO LOC,R,BLUE GREEN COLOR	
<b>H205-1</b>	<b>NGC 2841</b>	<b>UMa</b>	<b>Galaxy SA(r)b:</b>	<b>VB,L,VME151,VSMBM*10</b>
Apr 14 2004	31"	17mmT4	VB,EL,EL,BLNUC,HISB,L AREA OF ARMS,DUST SUSP,* IN TIP,R=E	
Mar 15 1985	12.5"	12mm	SAME,ALL *S PRESENT	
Oct 16 1982	12.5"	12mm	FTR * OFF NE,SAME	
Oct 16 1982	12.5"	16mm	VB,ML,EL,BNUC,F* IN N TIP,F*NW,GMBM,DIF HALO,VF*N	

## Herschel 400 (I) Observations

<b>H205-1</b>	<b>NGC 2841</b>	<b>UMa</b>	<b>Galaxy SA(r)b:</b>	<b>VB,L,VME151,VSMBM*10</b>
Oct 16 1982	12.5" 16mm	VB,ML,EL,BNUC,F* IN N TIP,F*NW,GMBM,DIF HALO,VF*N		
Dec 03 1980	12.5" 24mm			
<b>H205-2</b>	<b>NGC 6642</b>	<b>Sgr</b>	<b>Globular VI</b>	<b>GCL,PB,PL,IR,GPMBM</b>
Jun 28 2019	36" 17mmT4	(Class II),PB,ML,OUTER *S SC AND RSLV TO CORE,MHISB CNTR,R=G		
Aug 13 1982	12.5" 16mm	MF,PS,VMBM,R		
<b>H206-1</b>	<b>NGC 4088</b>	<b>UMa</b>	<b>Galaxy SAB(rs)bc</b>	<b>B,CL,E55,LBM</b>
Mar 06 2003	12.5" 9mmT6	MB,EL-OVAL,PATCH,UB,NND,SHISB,PAIR=4085,R=E		
Feb 12 1983	12.5" 24mm	DIF,PB,PL,EL,HISB,NND,UB,W SIDE WIDER THAN E,PAIR/4085		
<b>H207-2</b>	<b>NGC 7217</b>	<b>Peg</b>	<b>Galaxy (R)SA(r)ab</b>	<b>B,PL,GBM,ER</b>
Sep 14 2012	36" 17mmT4	PB,PL,OVAL-R,BLNUC,HISB,GMBM,F* OFF SIDE,R=G		
Sep 21 1984	12.5" 12mm	PB,PL,BNUC,R,VMBM,SOFT LNUC		
Aug 25 1982	12.5" 16mm	MB,PL,R,VMBM		
Jul 07 1981	12.5" 24mm	MB,PB,ELDIM NUC,F HALO		
Sep 10 1980	12.5" 24mm			
Jul 15 1980	12.5" 24mm			
Jul 12 1980	12.5" 24mm			
Jul 11 1980	12.5" 24mm			
<b>H210-1</b>	<b>NGC 4346</b>	<b>CVn</b>	<b>Galaxy S0 sp</b>	<b>VF,S,ME100,VSMBMBN</b>
Jan 26 1982	12.5" 16mm	DIF,MF,VS,DIM NUC,OVAL,VMBM		
Mar 27 1981	12.5" 24mm			
<b>H211-1</b>	<b>NGC 4800</b>	<b>CVn</b>	<b>Galaxy SA(rs)b</b>	<b>PB,CS,R,PSBM,*14P</b>
Jan 28 1982	12.5" 16mm	DIF,MF,PS,FNUC,* ON W SIDE,OVAL,MBM		
<b>H213-1</b>	<b>NGC 4449</b>	<b>CVn</b>	<b>Galaxy IBm</b>	<b>VB,CL,ME,DORBIFID,*F</b>
Jan 28 1982	12.5" 16mm	DIF,PB,PL,EL,FNUC,F* IN W EDGE NEAR NUC,HISB,GMBM,F* FURTHER W		
Jan 28 1982	12.5" 7mm	*NUC,ANOTHER F* JUST W OF NUC		
<b>H214-1</b>	<b>NGC 5474</b>	<b>UMa</b>	<b>Galaxy S(c)</b>	<b>PB,L,BM</b>
Mar 06 2003	12.5" 9mmT6	PF,PL,R,PATCH,NND,PATCHY,F* IN GLXY DET,R=G		
Jun 11 1983	12.5" 20mm	DIF,MB,PL,FNUC,F*NW 1 GLXY DIA,OVAL,BSNUC,S OF M101		
Mar 27 1981	12.5" 24mm			
<b>H215-1</b>	<b>NGC 5866</b>	<b>Dra M102</b>	<b>Galaxy SA0+ sp</b>	<b>VB,CL,PME146,GBM</b>
Mar 19 2004	12.5" 12mmT4	MESSIER MARATHON 2004		
Apr 23 2003	12.5" 9mmT6	EB,VL,OVAL,BNUC,HISB,AWSOME,BEAUTIFUL,TAPERED ENDS,LNUC AREA,GMBM,R=E		
Mar 02 1984	10" 20mm	SAME		
Jul 09 1983	12.5" 12mm	MB,ML,BNUC,2F*S ON BOTH SIDES,BLNUC,TAPERED ENDS		
Jul 22 1981	12.5" 16mm	VB,ML,EL,BNUC,B HALO SUR NUC		
Mar 27 1981	12.5" 24mm	MESSIER MARATHON 1981		
Jul 14 1980	12.5" 24mm			
Jul 11 1980	12.5" 24mm			
Jun 20 1980	12.5" 24mm			
<b>H216-1</b>	<b>NGC 2787</b>	<b>UMa</b>	<b>Galaxy SB(r)0+</b>	<b>B,PL,LE90,MBM,R,*INV</b>
Mar 26 2003	12.5" 9mmT6	PB,ML,R,MHISB,FACE ON,F* IN GLXY ARMS,GBM,SPR STR SUSP,R=E		
Mar 15 1985	12.5" 12mm	SAME,F* IN E SIDE NOT DET		
Oct 16 1982	12.5" 12mm	R,GMBM,ANOTHER F* IN E PART		
Oct 16 1982	12.5" 16mm	MB,MS,BNUC,OVAL,F* IN S PART,HISB CNTR		
<b>H218-1</b>	<b>NGC 2419</b>	<b>Lyn</b>	<b>Globular II</b>	<b>PB,PL,LE90,VGBM,*4'F</b>
Feb 21 2020	36" 17mmT4	(Class XI),MB,PL,OVAL-R,UB,V LTL CL IN CNTR,E FOV W/B* CLOSE BY,R=G		
Oct 16 1982	12.5" 16mm	MF,PL,R,UB,SBM,2 B*S POINT TO IT,COUPLE OF F*S SC SUR OBJ		

## Herschel 400 (I) Observations

<b>H218-1</b>	<b>NGC 2419</b>	<b>Lyn</b>	<b>Globular II</b>	<b>PB,PL,LE90,VGBM,*4'F</b>
Oct 16 1982	12.5" 16mm	MF,PL,R,UB,SBM,2 B*S POINT TO IT,COUPLE OF F*S SC SUR OBJ		
<b>H219-1</b>	<b>NGC 3665</b>	<b>UMa</b>	<b>Galaxy SA(s)0^</b>	<b>CB,CL,IR,PGMBM</b>
Mar 15 1985	12.5" 16mm	MF,MS,FNUC,BSNUC,F* TO N,MHISB,LNUC RGN		
Oct 22 1982	12.5" 16mm	MB,ML,DNUC,OVAL,MHISB TOWARDS CNTER,LNUC AREA		
<b>H222-1</b>	<b>NGC 3729</b>	<b>UMa</b>	<b>Galaxy SB(r)a pec</b>	<b>PB,PL,LE0,GBM,*12NR</b>
Feb 23 2006	31" 17mmT4	VB,VL,OVAL,BSNUC,HISB,ARMS,PATCHY AREAS,B BAR LIKE NUC W/BULGE,COMP=MAC,* ON EDGE,R=E		
Mar 15 1985	12.5" 16mm	MB,ML,BTR THAN 3718,MHISB,B* ON S EDGE,UB,PAIR/3718		
Oct 22 1982	12.5" 24mm	VF,ML,OVAL,NND,MHISB,F* IN S PART,PAIR/3718		
<b>H223-1</b>	<b>NGC 4026</b>	<b>UMa</b>	<b>Galaxy S0 sp</b>	<b>VB,CL,ME176,VSVMBMBN</b>
Feb 12 1983	12.5" 16mm	MB,PS,EDGE ON,DUST LANE SUSP,VBM,CNTR BULGE		
<b>H224-1</b>	<b>NGC 4085</b>	<b>UMa</b>	<b>Galaxy SAB(s)c:?</b>	<b>B,PL,ME78,VSBM</b>
Mar 06 2003	12.5" 9mmT6	MB,VL,EDGE ON,UB,NND,PAIR=4088,R=G		
Feb 12 1983	12.5" 24mm	DIF,PF,ML,EDGE ON,UB,NND,PAIR/4088		
<b>H224-2</b>	<b>NGC 404</b>	<b>And</b>	<b>Galaxy SA(s)0-:</b>	<b>PB,CL,R,GBM,</b>
Aug 31 1984	12.5" 12mm	VF,MS,FNUC,F*NW 1 GLXY DIA,OVAL-R,SBM,KEEP BETA OUT OF FIELD		
Sep 23 1981	12.5" 16mm	F* TO NE 2 GLXY DIA AWAY,BM,KEEP BETA OUT OF FIELD,DIM NUC,MF,MS		
Sep 20 1981	12.5" 24mm			
Sep 10 1980	12.5" 24mm			
Aug 19 1980	12.5" 24mm			
Jul 11 1980	12.5" 24mm	V CLOSE TO B*		
<b>H225-1</b>	<b>NGC 4102</b>	<b>UMa</b>	<b>Galaxy SAB(s)b?</b>	<b>B,PS,R,BMBN,*12SPVNR</b>
Mar 06 2003	12.5" 9mmT6	PB,ML,OVAL,BNUC,HISB,L HISB NUC,F* OFF ONE EDGE,R=G		
Feb 12 1983	12.5" 16mm	MB,PS,BNUC,R,BM,F* (13 MAG) W EDGE,F* FARTHER E		
<b>H226-1</b>	<b>NGC 3631</b>	<b>UMa</b>	<b>Galaxy SA(s)c</b>	<b>PB,L,R,SVMBMRN</b>
Mar 15 1985	12.5" 16mm	MB,ML,FNUC,FACE ON,SBM,SNUC,SPR STR DET,2 *S OUTER ARMS		
Oct 22 1982	12.5" 16mm	DIF,VF,MS,PATCHY,OVAL,*NUC		
<b>H228-1</b>	<b>NGC 3898</b>	<b>UMa</b>	<b>Galaxy SA(s)ab</b>	<b>B,PL,LE,SVMBM</b>
Mar 15 1985	12.5" 12mm	PB,ML,BNUC,HISB,BM,R-OVAL,PAIR/3888		
Feb 12 1983	12.5" 16mm	MB,PL,EL,BNUC,VMBM		
<b>H229-1</b>	<b>NGC 3998</b>	<b>UMa</b>	<b>Galaxy SA(r)0^?</b>	<b>CB,PS,R,VG,SMBM</b>
Mar 15 1985	12.5" 12mm	PB,MS,BNUC,R,COMP TO W = 3990		
Feb 12 1983	12.5" 16mm	MB,MS,BNUC,R,VMBM,F COMP (3990),FORMS TRI WITH 3982		
<b>H231-1</b>	<b>NGC 5473</b>	<b>UMa</b>	<b>Galaxy SAB(s)0-:</b>	<b>PB,S,R,GBM</b>
Mar 06 2003	12.5" 9mmT6	PB,ML,R,BNUC,MHISB,R=G		
Jun 11 1983	12.5" 20mm	MB,PS,BNUC,BET 2 F*S E&W,R,SBM,CLOSE TO M101 (N)		
Mar 27 1981	12.5" 24mm			
<b>H236-1</b>	<b>NGC 5631</b>	<b>UMa</b>	<b>Galaxy SA(s)0^</b>	<b>B,S,R,PSBMMN</b>
Jun 01 2003	12.5" 9mmT6	PB,ML,EL,BSNUC,SHISB,HALO-ARMS,ALM *,GMBM,R=G		
Jun 11 1983	12.5" 20mm	MF,VS,BNUC,SVRL F*S TO N,R,GBM,BARREN AREA TO S		
<b>H240-2</b>	<b>NGC 7814</b>	<b>Peg</b>	<b>Galaxy SA(s)ab: sp</b>	<b>CB,CL,E,VGBM</b>
Sep 21 1984	12.5" 16mm	MB,PL,EL,SOFT LNUC,HISB,NO *S		
Jul 07 1981	12.5" 24mm	DIF,MF,ML,VF HALO		
Sep 10 1980	12.5" 24mm			
<b>H241-1</b>	<b>NGC 3621</b>	<b>Hya</b>	<b>Galaxy SA(s)d</b>	<b>CB,VL,E160,AM4*</b>
Feb 12 1983	12.5" 24mm	VDIF,VF,ML,3B*S SUR GLXY,SBM,KNTS SUSP,OVAL-PATCHY		
<b>H242-1</b>	<b>NGC 2681</b>	<b>UMa</b>	<b>Galaxy (R')SAB(rs)0/a</b>	<b>VB,VL,VG,VSMBM*10</b>

## Herschel 400 (I) Observations

<b>H242-1</b>	<b>NGC 2681</b>	<b>UMa</b>	<b>Galaxy (R')SAB(rs)0/a</b>	<b>VB,VL,VG,VSMBM*10</b>
Mar 15 1985	12.5" 16mm	SAME		
Oct 16 1982	12.5" 16mm	MB,MS,R,GMBM,BNUC,2F*S W,1F* E		
Dec 03 1980	12.5" 24mm			
<b>H244-1</b>	<b>NGC 3619</b>	<b>UMa</b>	<b>Galaxy (R)SA(s)0+:</b>	<b>CB,CL,R,VGMBM</b>
Mar 15 1985	12.5" 12mm	PF,MS,PATCHY,SNUC,FTR THAN 3613,PAIR/3613		
Oct 22 1982	12.5" 16mm	R,DIF,MF,PS,FUZZY,SBM		
<b>H249-1</b>	<b>NGC 2742</b>	<b>UMa</b>	<b>Galaxy SA(s)c:</b>	<b>CB,CL,E90,ER</b>
Mar 06 2003	12.5" 9mmT6	VB,VL,OVAL,NND,MHISB,PATCHY,SPR STR SUSP,R=E		
Mar 15 1985	12.5" 16mm	DIF,PF,PS,PATCHY-OVAL,NND,UB,3F*S TO S 1 GLXY DIA		
Oct 16 1982	12.5" 16mm	TRI OF 3F*S OFF TO E		
Oct 16 1982	12.5" 24mm	DIF,MF,ML,UB,OVAL,SAME 24MM FIELD W/2768		
<b>H250-1</b>	<b>NGC 2768</b>	<b>UMa</b>	<b>Galaxy E6:</b>	<b>CB,CL,LE,PSBMLBN</b>
Mar 06 2003	12.5" 9mmT6	VB,VL,OVAL,BNUC,HISB,DUST EXPECTED,GMBM,*NUC,HISB CNTR,MHISB ARMS,R=E		
Mar 15 1985	12.5" 16mm	MB,PL,OVAL,PATCHY,MHISB TOWARDS CNTR,NO *S		
Oct 16 1982	12.5" 12mm	MB,ML,2F*S OFF TO S,2B*S ON BOTH SIDES,EL,MBM,TAPERED,BNUC		
Dec 03 1980	12.5" 24mm			
<b>H251-1</b>	<b>NGC 3945</b>	<b>UMa</b>	<b>Galaxy (R)SB(rs)0+</b>	<b>B,PL,R,GMBM,R,*12SP</b>
Mar 15 1985	12.5" 12mm	PB,MS,BNUC,3F*S SUR OBJ,R,VMBM,HISB CNTR		
Feb 12 1983	12.5" 16mm	MB,PS,BNUC,2F*S N,1*W,HISB,R,SBM		
<b>H251-2</b>	<b>NGC 7448</b>	<b>Peg</b>	<b>Galaxy SA(rs)bc</b>	<b>PB,L,E173,VGBM,*F2'</b>
Sep 21 1984	12.5" 12mm	MF,PL,EL,MHISB,BET 2*S,SBM,NO *S		
Jul 07 1981	12.5" 24mm	DIF,MF,ML,F ARM		
Sep 10 1980	12.5" 24mm			
Jul 15 1980	12.5" 24mm	PF,LOC BET 2F*S		
Jul 12 1980	12.5" 24mm			
<b>H252-1</b>	<b>NGC 4041</b>	<b>UMa</b>	<b>Galaxy SA(rs)bc:</b>	<b>B,CL,R,G,PSVMBMRN</b>
Mar 06 2003	12.5" 9mmT6	VB,PL,R,HISB,VLNUC,VF* SUSP IN GLXY,S AREA (RING),FARMS,R=E		
Feb 12 1983	12.5" 16mm	MF,MS,DNUC,R,SBM,PAIR/4036		
<b>H252-3</b>	<b>NGC 488</b>	<b>Psc</b>	<b>Galaxy SA(r)b</b>	<b>PB,L,R,SVMBM,*8F10'</b>
Sep 24 1981	12.5" 16mm	MB,ML,BNUC,VMBM,R,HISB,LINE OF 5*S TO S		
Oct 31 1980	12.5" 24mm			
Oct 29 1980	8" 24mm			
Sep 07 1980	12.5" 24mm	B* CLOSE		
<b>H253-1</b>	<b>NGC 4036</b>	<b>UMa</b>	<b>Galaxy S0-</b>	<b>VB,VL,E</b>
Mar 06 2003	12.5" 9mmT6	VB,VL,BNUC,VBM,BLNUC,HISB CNTR,TAPERED ENDS,R=E		
Feb 12 1983	12.5" 16mm	MB,PL,EDGE ON,BNUC,CNTR BULGE,DUST LANE SUSP,BM,PAIR/4041		
<b>H256-1</b>	<b>NGC 5322</b>	<b>UMa</b>	<b>Galaxy E3-4</b>	<b>VB,PL,IR,PSMBM</b>
Apr 03 2005	31" 17mmT4	VB,VL,EL-OVAL,BLNUC,HISB CNTR,* OR COMP OFF NUC,F* ON EDGE,SN?,R=E		
Feb 12 1983	12.5" 16mm	VB,ML,BNUC,R,BM,2F*S OFF IN A LINE		
<b>H261-1</b>	<b>NGC 1931</b>	<b>Aur</b>	<b>Open Cluster I 3 p n</b>	<b>VB,L,R,B***IN M</b>
Aug 21 1982	12.5" 16mm	MF,PS,3F*S IN CNTR,GBM,OVAL,B CNTR RGN		
<b>H266-2</b>	<b>NGC 2613</b>	<b>Pyx</b>	<b>Galaxy SA(s)b</b>	<b>CB,L,VME110</b>
Oct 22 1982	12.5" 16mm	VDIF,VF,MS,EL,F FIELD *S SUR OBJ,NND,UB		
<b>H270-1</b>	<b>NGC 3610</b>	<b>UMa</b>	<b>Galaxy E5:</b>	<b>VB,PS,LE90,VSMBMSN</b>
Mar 15 1985	12.5" 12mm	PB,MS,BNUC,R,BM,SLT TAPERED DET		
Oct 22 1982	12.5" 16mm	PB,MS,BNUC,R,GMBM		
<b>H271-1</b>	<b>NGC 3613</b>	<b>UMa</b>	<b>Galaxy E6</b>	<b>VB,CL,ME305,SMBMN</b>

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<b>H271-1</b>	<b>NGC 3613</b>	<b>UMa</b>	<b>Galaxy E6</b>	<b>VB,CL,ME305,SMBMN</b>
Mar 15 1985	12.5" 12mm	PB,PS,BNUC,OVAL,SBM,PAIR/3619		
Oct 22 1982	12.5" 16mm	MB,PS,BNUC,R,BSNUC,GBM,PAIR/3619		
<b>H280-1</b>	<b>NGC 6217</b>	<b>UMi</b>	<b>Galaxy (R)SB(rs)bc</b>	<b>B,CL,LE,SLBM</b>
Jun 22 2003	12.5" 9mmT6	PB,VL,R,FNUC,SHISB,FACE ON,FSNUC,DUST SUSP,FARMS,R=E		
Aug 13 1982	12.5" 16mm	PF,PS,DIF,*NUC,OVAL,SBM,NO *S		
<b>H281-1</b>	<b>NGC 613</b>	<b>ScI</b>	<b>Galaxy SB(rs)bc</b>	<b>VB,VL,VME118,SBM,*NF</b>
Sep 27 1981	12.5" 16mm	DIF,MF,ML,ELDNUC,FARMS,11 MAG * NW,SBM,NUC DET,OBLONG IN SHAPE		
Oct 29 1980	8" 24mm			
Sep 09 1980	12.5" 32mm			
<b>H282-2</b>	<b>NGC 615</b>	<b>Cet</b>	<b>Galaxy SA(rs)b</b>	<b>PB,PL,ILE,GBM,*8NP10</b>
Sep 27 1981	12.5" 16mm	DIF,MF,MS,EL,FNUC,*NUC,BTR IN EQ PLANE		
Sep 10 1980	12.5" 24mm			
<b>H285-1</b>	<b>NGC 2976</b>	<b>UMa</b>	<b>Galaxy SAc pec</b>	<b>B,VL,ME152,ST INV</b>
Apr 14 2004	31" 17mmT4	MB,VL,PATCH,UB,MHISB,V UNIQUE IN APPEARANCE,3*S SUR EDGE,RECT,R=E		
Mar 15 1985	12.5" 16mm	IRR,DIF,PF,VL,EL,PATCH,F* S EDGE BY NUC,UB		
Mar 27 1981	12.5" 24mm			
Dec 03 1980	12.5" 24mm	F* IN OUTER ARM RGN		
Aug 22 1980	12.5" 24mm			
<b>H286-1</b>	<b>NGC 3077</b>	<b>UMa</b>	<b>Galaxy I0 pec</b>	<b>CB,CL,MBM,R WITH RAY</b>
Mar 06 2003	12.5" 9mmT6	EB,EL-OVAL,BNUC,HISB,LNUC AREA,MUCH HISB CNTR,R=E		
Mar 15 1985	12.5" 16mm	SAME		
Oct 22 1982	12.5" 12mm	SAME		
Oct 22 1982	12.5" 16mm	MB,ML,BNUC,R-OVAL,HISB,GMBM,LNUC AREA,		
Mar 27 1981	12.5" 24mm			
Dec 03 1980	12.5" 24mm			
Aug 22 1980	12.5" 24mm			
<b>H288-1</b>	<b>NGC 2655</b>	<b>Cam</b>	<b>Galaxy SAB(s)0/a</b>	<b>VB,CL,LE90,GSVMBM</b>
Oct 16 1982	12.5" 12mm	F*E 1 GLXY DIA,ARMS MORE PRODOMENANT		
Oct 16 1982	12.5" 16mm	MB,MS,BNUC,GMBM,OBLONG,DIM HALO		
Dec 21 1981	12.5" 16mm	PB,ML,R,BM,HISB		
Sep 18 1980	12.5" 24mm			
<b>H296-2</b>	<b>NGC 4027</b>	<b>Crv</b>	<b>Galaxy SB(s)dm</b>	<b>GCL,PF,PL,R,RR,ST16</b>
Apr 06 2008	31" 17mmT4	MB,ML,OVAL,MHISB,V*OUTER EDGE,L CNTR REGI,PATCHY NUC,MBM,PAIR=4027A,R=G		
May 03 1981	12.5" 16mm	DIF,PB,PL,DNUC,F HALO		
<b>H316-2</b>	<b>NGC 2371</b>	<b>Gem</b>	<b>Planetary Neb 3a+2</b>	<b>B,S,R,BMN,P OF DNEB</b>
Dec 28 2008	31" 17mmT4	PB,PL,CNTR*15,2 HALVES,LOBS BOTH SIDES,SHISB,HOUR GLASS SH,OIII HELPS V LTL,R=E		
Feb 21 1984	12.5" 12mm	SAME		
Feb 21 1984	12.5" 12mm	SAME,S PART BTR THAN N,CNTR * DET,VF,VS		
Oct 23 1982	12.5" 12mm	MF,MS,2 PARTS EASILY DET,W SIDE BTR,BOTH MHISB,NSS		
Oct 23 1982	12.5" 12mm	SEE 2371		
Dec 03 1980	12.5" 24mm			
Oct 31 1980	12.5" 16mm	DBL NEB,2 NEB ON TOP OF EACH OTHER,NICE!!		
<b>H342-2</b>	<b>NGC 3912</b>	<b>Leo</b>	<b>Galaxy SAB(s)b? pec</b>	<b>F,PL,R,PGBM</b>
Mar 03 1984	12.5" 12mm	SAME,NO *S		
Feb 12 1983	12.5" 16mm	VDIF,VF,VS,UB,PATCHY,SAME 24MM FIELD WITH 3900		
<b>H359-2</b>	<b>NGC 3277</b>	<b>LMi</b>	<b>Galaxy SA(r)ab</b>	<b>CB,CS,R,PGBM</b>
Feb 21 2020	36" 17mmT4	MB,MS,OVAL-R,BNUC,MHISB,R=G,TIME 12:10AM		

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<b>H359-2</b>	<b>NGC 3277</b>	<b>LMi</b>	<b>Galaxy SA(r)ab</b>	<b>CB,CS,R,PGMBM</b>
Feb 21 2020	36"	17mmT4	MB,MS,OVAL-R,BNUC,MHISB,R=G,TIME 12:10AM	
Feb 25 1982	12.5"	16mm	DIF,MF,MS,FNUC,SBM,R	
Dec 03 1980	12.5"	24mm		
<b>H362-2</b>	<b>NGC 3414</b>	<b>LMi</b>	<b>Galaxy S0 pec</b>	<b>B,PL,R,MBM</b>
Feb 21 2020	36"	17mmT4	MB,ML,OVAL,BLNUC,GRAN HALO SUR NUC,R=G,TIME12:21AM	
Feb 15 2004	31"	17mmT4	VB,VL,EL,BLNUC,HISB,PAIRS=3418/MAC,R=E	
Oct 22 1982	12.5"	16mm	MF,MS,BS*NUC,R,SBM	
Dec 03 1980	12.5"	24mm		
<b>H402-2</b>	<b>NGC 6118</b>	<b>Ser</b>	<b>Galaxy SA(s)cd</b>	<b>VF,CL,CE45,R</b>
May 31 1981	12.5"	16mm	DIF,VB,ML,F HALO	
<b>H500-2</b>	<b>NGC 4535</b>	<b>Vir</b>	<b>Galaxy SAB(s)c</b>	<b>PF,VL,R</b>
May 03 1981	12.5"	24mm	DIF,PB,EF,DARM,F* ~11 MAG	
<b>H505-2</b>	<b>NGC 2811</b>	<b>Hya</b>	<b>Galaxy SB(rs)a</b>	<b>PB,PS,E,PSMBM</b>
Feb 12 1983	12.5"	16mm	DIF,PF,PS,EL,F*W,NND,TAPERED ENDS,FIELD OF B*S	
Oct 22 1982	12.5"	16mm	MF,PS,SLT EL,SBM,F* W SVRL GLXY DIA	
<b>H513-2</b>	<b>NGC 5054</b>	<b>Vir</b>	<b>Galaxy SA(s)bc</b>	<b>F,PS,IR</b>
Feb 12 1983	12.5"	24mm	EDIF,EF,VL,PATCH-OVAL,UB,NND	
<b>H534-2</b>	<b>NGC 5364</b>	<b>Vir</b>	<b>Galaxy SA(rs)bc pec</b>	<b>CF,L,R,GBM</b>
Feb 12 1983	12.5"	16mm	DIF,VF,VL,R-OVAL,UB,B* CLOSE BY,PAIR/5363	
<b>H536-2</b>	<b>NGC 4845</b>	<b>Vir</b>	<b>Galaxy SA(s)ab sp</b>	<b>PF,PL,PME,VGBM,*NF</b>
Feb 12 1983	12.5"	16mm	DIF,MF,MS,EL,BET 2F*S,UB,NND	
<b>H569-2</b>	<b>NGC 4273</b>	<b>Vir</b>	<b>Galaxy SB(s)c</b>	<b>PB,L,E,GBM</b>
Apr 26 2003	12.5"	9mmT6	MB,PL,OVAL,UB,*NUC,MHISB,CL,4 OF 9,R=G	
Apr 25 1981	12.5"	24mm	DIF,PF,PS,DARM,PAIR/4270/4281	
<b>H570-2</b>	<b>NGC 4281</b>	<b>Vir</b>	<b>Galaxy S0+: sp</b>	<b>B,VL,R,PGBM</b>
Apr 26 2003	12.5"	9mmT6	MP,PL,EL,BNUC,MHISB,GBM,LNUC AREA,CL,1 OF 9,R=E	
<b>H584-2</b>	<b>NGC 6235</b>	<b>Oph</b>	<b>Globular X</b>	<b>PB,CL,IR,RRR,*14..16</b>
Jun 25 2019	36"	17mmT4	(Class X),FEW BTR *S,F CORE RECT SHAPE,BTR *S SC,R=G	
Jul 21 1984	12.5"	16mm	VDIF,VF,MS,F PATCH,F TRI OF *S SUR OBJ	
Jun 04 1981	12.5"	24mm	DIF,MB,ML,10 MAG *S	
Jun 18 1980	12.5"	24mm	VF,3F*S SUR OBJ	
<b>H586-2</b>	<b>NGC 6445</b>	<b>Sgr</b>	<b>Planetary Neb 3b+3</b>	<b>PB,PS,R,GBM,R,*15NP</b>
May 18 2009	31"	17mmT4	VB,PL,HISB,LOOKS LIKE A BIG MAC SANDWITCH,2 HAMBURGER BUNS,NO CNTR*,SEP,D IN 2 HALVES,BOX-SQUARE SHAPE,OIII, OUTER SIDES OF NEB BTR,R=E	
Sep 20 1984	12.5"	12mm	DIF,MF,PS,F* NW EDGE,B* TO W,PATCHY	
Aug 13 1982	12.5"	16mm	PF,VS,BLUE GREEN,F* ON NW EDGE,OVAL-PATCHY,SBM,PAIR/6440	
<b>H587-2</b>	<b>NGC 6426</b>	<b>Oph</b>	<b>Globular IX</b>	<b>VF,CL,E,VLBM</b>
Jul 01 2019	36"	17mmT4	(Class XI),MF,MS,VF NUC,F OUTER *S RSLV INTO CNTR RGN,R=F	
Jun 04 1981	12.5"	24mm	DIF,MF,PS	
<b>H701-2</b>	<b>NGC 6207</b>	<b>Her</b>	<b>Galaxy SA(s)c</b>	<b>PB,PL,E45,VGMBM</b>
Feb 25 1982	12.5"	16mm	DIF,MF,PS,EL,FNUC,BY M13,4F*S W SIDE,*NUC	
Mar 27 1981	12.5"	24mm		
Jul 14 1980	12.5"	24mm	WITH BARLOW THERE IS A B* IN GLXY CNTR	
Jul 12 1980	12.5"	24mm		
Jul 11 1980	12.5"	24mm		
Jul 05 1980	12.5"	24mm		
Jun 20 1980	12.5"	24mm		

# Herschel 400 (I) Observations

<b>H701-2</b>	<b>NGC 6207</b>	<b>Her</b>	<b>Galaxy SA(s)c</b>	<b>PB,PL,E45,VGMBM</b>
Jun 20 1980	12.5"	24mm		
Jun 17 1980	12.5"	24mm	GREAT,FIRST SIGHTING OF THIS OBJ,SAME 24MM FOV AS M13	
<b>H707-2</b>	<b>NGC 185</b>	<b>Cas</b>	<b>Galaxy E3 pec</b>	<b>PB,VL,IR,VGMBM,R</b>
Sep 28 2013	36"	17mmT4	PB,PL,OVAL,UB,MHISB,SVRL VF* IN GLXY AREA,R=G	
Jul 31 1981	12.5"	24mm	DIF,SETLLAR NUC,DIF HALO,R TO OVAL IN SHAPE	
Sep 18 1980	12.5"	24mm		
Aug 22 1980	12.5"	24mm		
Aug 19 1980	12.5"	24mm		
Jul 17 1980	12.5"	24mm		
Jul 15 1980	12.5"	24mm	DIF,EF,PL,AV	
<b>H730-2</b>	<b>NGC 3726</b>	<b>UMa</b>	<b>Galaxy SAB(r)c</b>	<b>PB,VL,LE0,VSMBM,*11N</b>
Mar 15 1985	12.5"	16mm	DIF,MF,VL,F* ON N EDGE,UB,SOME KNTY STR SUSP	
Oct 22 1982	12.5"	24mm	MB,PL,UB,OBLONG,F* IN N TIP,NND	
<b>H738-2</b>	<b>NGC 3893</b>	<b>UMa</b>	<b>Galaxy SAB(rs)c:</b>	<b>B,PL,R,MBM</b>
Mar 25 2020	36"	17mmT4	VB,VL,OVAL-R,BLNUC,HISB,SPR ARMS DET,F*S IN ARMS,ARMS BOTH SIDES OF NUC,GRAINY,PAIR=N3893,R=E	
Mar 15 1985	12.5"	16mm	MB,ML,FNUC,R,F* ON EDGE,SBM,HISB	
Feb 12 1983	12.5"	16mm	MB,PL,BNUC,B* IN W SIDE,SBM,OVAL	
<b>H743-3</b>	<b>NGC 6781</b>	<b>Aql</b>	<b>Planetary Neb 3+3</b>	<b>PLN,F,L,R,VSBM DISC</b>
Sep 02 2008	31"	17mmT4	MB,VL,OVAL,NO CNTR*,ONE SIDE BKN,OIII HELPS SMWHT L CNTR DARK AREA,R=E	
Aug 31 1984	12.5"	12mm	MF,PL,R,PATCHY,RESEMBLES HELIX NEB	
Jul 10 1981	12.5"	12mm	VL,DIF,R,DARK PATCHES SEEN IN CNTR AREA,GRAYISH COLOR DIF NEB	
<b>H747-3</b>	<b>NGC 1961</b>	<b>Cam</b>	<b>Galaxy SAB(rs)c</b>	<b>CF,PL,IF,MBM,ER,*INV</b>
Jan 30 2003	12.5"	9mmT6	MF,VL,OVAL,PATCH,UB,SHISB,F* IN GLXY,CL 1 OF 8,R=G	
Dec 21 1981	12.5"	16mm	DIF,VF,PS,PATCHY,SBM,F* JUST BESIDE NUC,LINE OF 2F*S TO S	
Oct 03 1981	12.5"	16mm	MF,PL,F*E SIDE,NNS,PATCHY,SLT OVAL,F* S PART OF GLXY	
Sep 18 1980	12.5"	24mm		
<b>H759-2</b>	<b>NGC 5907</b>	<b>Dra</b>	<b>Galaxy SA(s)c: sp</b>	<b>CB,VL,VME155,VGPSBMN</b>
Apr 23 2003	12.5"	9mmT6	VF,VL,EDGE ON,BNUC,MHISB,BEAUTIFUL,DUST LANE,CNTR BULGE,R=E	
Jul 09 1983	12.5"	16mm	MB,PS,EL,V EDGE ON,FNUC,PAIR/5905	
Jul 22 1981	12.5"	16mm	EXT EDGE ON,UB,EQ DUST LANE SEEN	
Mar 27 1981	12.5"	24mm		
Jul 14 1980	12.5"	24mm		
Jul 11 1980	12.5"	24mm		
Jun 20 1980	12.5"	24mm	V IMPRESSIVE,VB,EL	
<b>H764-2</b>	<b>NGC 5982</b>	<b>Dra</b>	<b>Galaxy E3</b>	<b>CB,S,R,PSBM,R</b>
Apr 23 2003	12.5"	9mmT6	VF,ML,BNUC,R,MHISB,GMBM,LNUC,PAIR=5981/5985,R=G	
Jul 09 1983	12.5"	16mm	MB,ML,BNUC,R,BM,SVRL OTHER PAIRS	
Jul 22 1981	12.5"	24mm	VMBM,F HALO,COMP CLOSE 5985	
Jul 14 1980	12.5"	24mm		
Jul 11 1980	12.5"	24mm		
Jun 20 1980	12.5"	24mm		