

Circumpolar Observations

IC	10	Cas		Galaxy IBm
	Oct 05 2016	12"	11mmT6	PF,S,OVAL,DIFF,NND,R=F
	Nov 11 2009	12"	7.5mmW	VF,PS,R,NND,AV,R=F
	Oct 25 2009	12"	11mmT6	F,PS,OVAL,NND,AV,R=F
	Aug 21 2004	8"	11mmT6	CLEAR SKIES - H.H. LITE. 1ST REAL TEST
IC	1231	Dra		Galaxy Scd:
	Sep 05 2010	12"	5.5mmN	CF,CS,OVAL,MEXT,UB,NND,R=F,PA=10
IC	2166	Lyn		Galaxy SAB(s)bc
	Nov 10 2012	18"	7mm TV	DIFF,PF,PS,OVAL,UB,NND,R=F
IC	2174	Cam		Galaxy SBa
	Feb 01 2005	31"	17mmT4	MF,OVAL,PATCHY,NND,R=G
IC	2179	Cam		Galaxy E1-2
	Feb 01 2005	31"	17mmT4	MB,ML,EL,NUC,HISB,R=G
IC	2184	Cam		Galaxy I?
	Feb 01 2005	31"	17mmT4	DIFF,MB,MF,PATCH,NND,R=G
IC	2209	Cam		Galaxy SB(rs)b:
	Oct 12 2012	18"	7mm TV	VF,VS,R,UB,NND,AV,R=F
IC	2389	Cam		Galaxy SB(s)b?
	Mar 08 2013	18"	7mm TV	PF,VS,EON,,UB,NND,R=F
IC	2574	UMa		Galaxy SAB(s)m
	Aug 21 2004	8"	11mmT6	CLEAR SKIES - H.H. LITE. 1ST REAL TEST
IC	334	Cam		Galaxy S?
	Oct 12 2012	18"	7mm TV	F,S,OVAL,BNUC,R=G
IC	342	Cam		Galaxy SAB(rs)cd
	Oct 12 2012	18"	7mm TV	DIFF,F,L,R,UB,NND,R=G
IC	356	Cam		Galaxy SA(s)ab pec
	Oct 12 2012	18"	7mm TV	F,L,OVAL,BNUC,R=G, SPIRAL ARM NORTH
IC	381	Cam		Galaxy SAB(rs)bc
	Oct 12 2012	18"	7mm TV	PF,PS,OVAL,PEXT,UB,NND,R=F,PA=90
IC	391	Cam		Galaxy SA(s)c
	Oct 12 2012	18"	7mm TV	PF,PS,R,FNUC,R=F
IC	396	Cam		Galaxy S?
	Oct 12 2012	18"	7mm TV	PF,PS,OVAL,FNUC,R=F
IC	440	Cam		Galaxy SA(r)ab
	Oct 12 2012	18"	7mm TV	PF,PS,OVAL,UB,NND,R=F,PA=120
IC	442	Cam		Galaxy S?
	Oct 12 2012	18"	7mm TV	PF,PS,R,FNUC,R=F

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IC 445	Cam	Galaxy S0?	
Oct 12 2012	18"	7mm TV	PF,PS,OVAL,UB,NND,R=F
IC 449	Cam	Galaxy E:	
Oct 12 2012	18"	7mm TV	PF,PS,OVAL,MEXT,NND,R=F,BRIGHTER TO NE.
IC 450	Cam	Galaxy SAB0+:	
Oct 12 2012	18"	7mm TV	VF,VS,OVAL,UB,NND,AV2,R=P
IC 451	Cam	Galaxy SAB(r)b:	
Nov 10 2012	18"	7mm TV	VF,VS,OVAL,UB,NND,AV2,R=F
IC 455	Cep	Galaxy S0	
Nov 16 2012	18"	5mm TV	VF,VS,OVAL,NND,R=F
IC 458	Lyn	Galaxy S0-:	
Nov 10 2012	18"	7mm TV	PF,PS,OVAL,UB,NND,R=F
Feb 01 2005	31"	17mmT4	MB,R,FNUC,MSB,R=G
IC 459	Lyn	Galaxy C	
Feb 01 2005	31"	17mmT4	VF,OVAL,NND,AV,R=F
IC 460	Lyn	Galaxy	
Feb 01 2005	31"	17mmT4	VF,MS,EL,NND,LSB,R=F
IC 461	Lyn	Galaxy S	
Feb 01 2005	31"	17mmT4	MF,OVAL,NND,R=F
IC 464	Lyn	Galaxy E?	
Feb 01 2005	31"	17mmT4	MB,S,EON,OVAL,NND,R=G
IC 465	Lyn	Galaxy S?	
Feb 01 2005	31"	17mmT4	MB,MS,EL,FNUC,MSB,R=G
IC 467	Cam	Galaxy SAB(s)c:	
Feb 01 2005	31"	17mmT4	MB,ML,OVAL,PATCH,NND,R=G
IC 469	Cep	Galaxy SAB(rs)ab:	
Nov 16 2012	18"	5mm TV	VF,VS,OVAL,VEXT,NND,AV2,R=F
IC 4763	Dra	Galaxy S?	
Sep 05 2010	12"	5.5mmN	CF,PS,EON,UB,NND,R=F,PA=165
IC 4867	Cyg	Galaxy S0	
Aug 13 2010	31"	17mmT4	PF,PS,OVAL,MEXT,FNUC,R=F
Jul 27 2009	16"	11mmT6	PF,PS,OVAL,NND,AV,R=F
IC 499	Cam	Galaxy Sa	
Nov 16 2012	18"	7mm TV	PF,PS,OVAL,MEXT,UB,NND,R=G
IC 511	Cam	Galaxy S0/a:	
May 25 2014	18"	8mm Ds	PF,PS,OVAL,PEXT,UB,NND,AV1,R=F

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IC 512	Cam	Galaxy SAB(s)cd			
May 25 2014	18"	8mm Ds	PF,PS,OVAL,UB,NND,R=F		
IC 520	Cam	Galaxy SAB(rs)ab?			
Mar 08 2013	18"	7mm TV	PF,PS,OVAL,UB,NND,R=F		
IC 529	Cam	Galaxy SA(s)c:			
May 25 2014	18"	8mm Ds	PF,PS,OVL,PEXT,UB,NND,R=F		
IC 694	UMa	Galaxy SBm? pec			
Jun 22 2012	18"	8.8 ES	PF,PS,R,UB,NND,R=F,PAIRED W/NGC-3690		
IC 836	Dra	Galaxy S			
Feb 23 2006	31"	17mmT4	PB,PL,EON,FNUC,HISB,R=G		
NGC 1184	Cep	H704-2	Galaxy S0/a		F,PL,ME
Nov 13 2007	8"	11mmT6	VF,VS,OVAL,NND,R=F		
NGC 1343	Cas	H694-3	Galaxy SAB(s)b: pec		F,VS,IR,GBM,D*V NR
Oct 31 2010	12"	5.5mmN	PF,CS,OVAL,MEXT,UB,NND,R=F. TWO STARS AT WEST EDGE.		
Sep 12 2010	12"	5.5mmN	CF,CS,OVAL,UB,NND,R=F,PA=110		
NGC 1469	Cam	Galaxy SA0-:			VF,VS,R,B*NR
Oct 12 2012	18"	7mm TV	PF,PS,OVAL,VEXT,FNUC,R=F,PA=45		
NGC 1485	Cam	Galaxy SAB? sp			EF,PS,R
Oct 12 2012	18"	7mm TV	PF,PS,OVAL,EEXT,UB,NND,R=F,PA=160		
NGC 1530	Cam	Galaxy SB(rs)b			PB,L
Oct 12 2012	18"	7mm TV	PF,S,OVAL,FNUC,R=F		
NGC 1544	Cep	Galaxy S?			VF,VS
Jul 31 2011	12"	5mm TV	VF,VS,R,UB,NND,R=F		
NGC 1560	Cam	Galaxy SA(s)d sp			VF,L,E,*9.3SP
Oct 12 2012	18"	7mm TV	DIFF,VF,S,EON,UB,NND,AV,R=F,PA=120		
NGC 1569	Cam	H768-2	Galaxy IBm		PB,S,LE,BNM,*9.5N1'
Oct 12 2012	18"	7mm TV	PF,PS,OVAL,PEXT,FNUC,R=G,DISTURBED NE CORNER,PA=45		
NGC 1573	Cam	Galaxy E			VF,S,*9.5F
Oct 12 2012	18"	7mm TV	PF,PS,OVAL,MEXT,UB,NND,R=F		
NGC 1961	Cam	H747-3	Galaxy SAB(rs)c		CF,PL,IF,MBM,ER,*INV
Nov 03 2004	8"	11mmT6	VF,EL,OVAL,NND,AV,R=F		
NGC 2128	Cam	Galaxy S0-:			VF,VS,VLE
Oct 12 2012	18"	7mm TV	PF,PS,OVAL,FNUC,R=F		
NGC 2146	Cam	Galaxy SB(s)ab pec			PB,2'L,LE
Oct 12 2012	18"	7mm TV	PF,S,OVAL,FNUC,R=G,SPIRAL, NORTH/SOUTH ARMS		

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NGC 2146A	Cam		Galaxy SAB(s)c:	
Oct 12 2012	18"	7mm TV	PF,PS,OVAL,MEXT,UB,NND,R=F,PA=120	
NGC 2256	Cam		Galaxy SAB0-?	F,R,*9.5 3'SF
Oct 12 2012	18"	7mm TV	DIFF,PF,PS,R,UB,NND,R=F	
NGC 2258	Cam		Galaxy SA(r)0^	F,2*10,11F
Oct 12 2012	18"	7mm TV	PF,PS,OVAL,FNUC,R=F	
NGC 2268	Cam		Galaxy SAB(r)bc	PF,PL,LE
Oct 12 2012	18"	7mm TV	PF,PS,OVAL,MEXT,FNUC,R=G, MOTTLED	
NGC 2273	Lyn		Galaxy SB(r)a:	F,S,IR,(R)
Nov 10 2012	18"	7mm TV	PF,PS,OVAL,FNUC,R=F	
NGC 2273B	Lyn		Galaxy SB(rs)cd:	
Nov 10 2012	18"	7mm TV	DIFF,VF,PS,OVAL,UB,NND,AV2,R=F	
NGC 2276	Cep		Galaxy SAB(rs)c	F,60",LBM
May 22 2004	8"	25mmPL	DECENT NIGHT - MEGASTAR CONTROL	
NGC 2300	Cep		Galaxy SA0^	PB,PL,LE,BM
Aug 21 2004	8"	11mmT6	CLEAR SKIES - H.H. LITE. 1ST REAL TEST	
NGC 2314	Cam		Galaxy E3	VF,S,R
Feb 01 2005	31"	17mmT4	MB,ML,EL,FNUC,MSB,R=G	
NGC 2315	Lyn		Galaxy S0/a	EF
Nov 10 2012	18"	7mm TV	PF,VS,EON,UB,NND,R=F,PA=45	
NGC 2320	Lyn		H861-2 Galaxy E	PB,S,IR,GBM,*8SP
Nov 10 2012	18"	7mm TV	PF,PS,OVAL,FNUC,R=F	
NGC 2321	Lyn		Galaxy SBa	VF,12'N OF2320
Nov 10 2012	18"	7mm TV	VF,PS,OVAL,UB,NND,AV2,R=F	
NGC 2322	Lyn		H874-3 Galaxy SBa:	VF,VS,LE
Nov 10 2012	18"	7mm TV	PF,VS,OVAL,VEXT,HSB,R=G	
NGC 2326	Lyn		H734-2 Galaxy SB(rs)b	VF,PL,IR,PSMBM,ST P
Nov 10 2012	18"	7mm TV	PF,PS,OVAL,MEXT,UB,NND,R=F	
NGC 2326A	Lyn		Galaxy SA(s)m:	
Nov 10 2012	18"	7mm TV	VF,VS,OVAL,UB,NND,AV2,R=F	
NGC 2332	Lyn		H862-2 Galaxy S0:	F,S,R,PSBM
Nov 10 2012	18"	7mm TV	PF,PS,OVAL,MEXT,UB,NND,R=F	
NGC 2336	Cam		Galaxy SAB(r)bc	PB,PL,R,2*11NR
Oct 12 2012	18"	7mm TV	F,S,OVAL,MEXT,UB,NND,R=F	

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NGC 2340	Lyn		H736-2	Galaxy E	PF,S,R,GLBM,R
Nov 16 2012	18"	7mm TV	PF,PS,OVAL,UB,NND,R=F		
Feb 01 2005	31"	17mmT4	MB,ML,EL,OVAL,FNUC,MSB,R=G		
NGC 2347	Cam		H746-3	Galaxy (R')SA(r)b:	VF,S,R,LBM
Feb 01 2005	31"	17mmT4	VB,ML,OVAL,SNUC,HISB,R=G		
NGC 2363	Cam			Galaxy Irr	NEB* OR VFVS,2366SF
Feb 01 2005	31"	17mmT4	VF,VS,OVAL,NND,R=F		
NGC 2366	Cam		H748-3	Galaxy Irr	VF,PL,MBM,CVEDTAILS
Feb 01 2005	31"	17mmT4	MF,ML,PATCHY,NUC,R=G		
NGC 2403	Cam		H44-5	Galaxy Sc	CB,EL,VME,VGMBMN
Nov 26 2006	1.9"	12x50	PF,PS,OVAL,AV,R=F		
Oct 06 2004	8"	11mmT6	MB,EL,OVAL,NND,R=G		
NGC 2426	Lyn		H822-2	Galaxy E	CF,R,VGBM,R,*8P
Nov 10 2012	18"	7mm TV	PF,PS,OVAL,UB,NND,R=F		
NGC 2431	Lyn		H829-3	Galaxy (R')SB(s)a:	EF,VS,R,BM
Feb 01 2005	31"	17mmT4	MB,EL,OVAL,NND,R=G		
NGC 2441	Cam			Galaxy SAB(r)b:	VF,PS
Feb 01 2005	31"	17mmT4	MB,ML,OVAL,FNUC,MSB,R=G		
NGC 2446	Lyn			Galaxy Sb	F,AM4*
Feb 01 2005	31"	17mmT4	MB,OVAL,PATCH,NND,R=G		
NGC 2456	Lyn			Galaxy E	VF,R,VGBM
Feb 01 2005	31"	17mmT4	MB,S,R,PATCH,NND,R=G		
NGC 2457	Lyn			Galaxy Sbc	F,PL,R,2456SP
Feb 01 2005	31"	17mmT4	VF,VS,OVAL,PATCH,NND,AV,R=F		
NGC 2458	Lyn			Galaxy	VF,*12CLOSE
Feb 01 2005	31"	17mmT4	VF,S,OVAL,NND,AV,R=F		
NGC 2460	Cam			Galaxy SA(s)a	F,S,R,S*CENTRE
Oct 12 2012	18"	7mm TV	PF,PS,OVAL,UB,NND,R=F		
NGC 2462	Lyn			Galaxy	VF,VS,VLBM
Feb 01 2005	31"	17mmT4	VF,OVAL,NND,AV,R=F		
NGC 2463	Lyn			Galaxy	EF,R
Nov 10 2012	18"	7mm TV	VF,VS,R,UB,NND,AV3,R=P		
NGC 2468	Lyn			Galaxy SA0:	F,R,BM
Nov 10 2012	18"	7mm TV	VF,VS,OVAL,UB,NND,R=F		
NGC 2469	Lyn		H836-3	Galaxy Sbc pec:	F,VS,R,*9SF
Nov 10 2012	18"	7mm TV	PF,VS,OVAL,UB,NND,R=F		

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NGC 2472	Lyn		Galaxy Sb	2OF10NEB IN LINE
Nov 10 2012	18"	7mm TV	VF,VS,OVAL,UB,NND,R=F	
NGC 2474	Lyn		H830-3 Galaxy E0	F,PS,(E),(BMVS*)L*NF
Nov 10 2012	18"	7mm TV	VF,VS,R,UB,NND,R=F,PAIRED W/NGC-2475	
NGC 2475	Lyn		Galaxy E1	DNEB W/2474
Nov 10 2012	18"	7mm TV	VF,VS,R,UB,NND,R=F,PAIRED W/NGC-2474	
NGC 2488	Lyn		H837-3 Galaxy S0-:	VF,VS,R,GLBM
Nov 10 2012	18"	7mm TV	PF,PS,OVAL,UB,NND,R=F	
NGC 2497	Lyn		H838-3 Galaxy E?	EF,VS
Nov 10 2012	18"	7mm TV	PF,PS,R,UB,NND,R=F	
NGC 2500	Lyn		H709-3 Galaxy SB(rs)d	F,L,R,VGBM,R,AM ST
Mar 28 2011	12"	5mm TV	VF,PS,R,UB,NND,R=F	
NGC 2505	Lyn		H839-3 Galaxy SBa	EF,VS
Nov 10 2012	18"	7mm TV	PF,PS,OVAL,VEXT,UB,NND,R=F,PA=90	
NGC 2518	Lyn		Galaxy E-S0	2NEB,F,L,R,GBM
Nov 10 2012	18"	7mm TV	VF,PS,OVAL,UB,NND,AV1,R=F	
NGC 2521	Lyn		Galaxy SA0- pec?	PF,PL,R,PSBM,*9NP3'
Nov 10 2012	18"	7mm TV	PF,PS,OVAL,UB,NND,R=F	
NGC 2523	Cam		Galaxy SB(r)bc	PB,PL,LE,LBM,*NR
Oct 12 2012	18"	7mm TV	DIFF,PF,S,OVAL,UB,NND,R=F	
NGC 2523A	Cam		Galaxy SB(s)c:	
Oct 12 2012	18"	7mm TV	VS,VS,OVAL,UB,NND,AV3,R=P	
NGC 2523B	Cam		Galaxy SA(s)b: sp	
Oct 12 2012	18"	7mm TV	PF,PS,EON,UB,NND,R=F,PA=185	
NGC 2523C	Cam		Galaxy E?	
Oct 12 2012	18"	7mm TV	PF,VS,OVAL,UB,NND,R=F	
NGC 2534	Lyn		H840-3 Galaxy E1? pec	PF,PL,R,PSBM,*8S
Nov 10 2012	18"	7mm TV	PF,PS,R,FNUC,R=F	
NGC 2544	Cam		Galaxy SB(s)a:	EEF,PS,R,SEVB*AROUND
Oct 12 2012	18"	7mm TV	PF,PS,OVAL,UB,NND,R=F	
NGC 2549	Lyn		Galaxy SA(r)0^ sp	PB,S,ME0,PSMBM
Nov 10 2012	18"	7mm TV	F,PS,EON,BNUC,R=F,PA=60	
NGC 2550	Cam		Galaxy Sb:	EEF,PS,CE
Nov 16 2012	18"	7mm TV	VF,VS,OVAL,NND,AV,R=F	
NGC 2550A	Cam		Galaxy Sc	
Nov 16 2012	18"	7mm TV	VF,VS,OVAL,MEXT,UB,R=F	

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NGC 2551	Cam		Galaxy SA(s)0/a	VF,S,F*IN CENTRE
Nov 16 2012	18"	7mm TV	VF,PS,OVAL,UB,NND,R=F	
NGC 2552	Lyn		H711-3 Galaxy SA(s)m?	EF,CL,LE45
Nov 10 2012	18"	7mm TV	DIFF,PF,S,OVAL,UB,NND,R=F	
NGC 2591	Cam		Galaxy Scd: sp	F,S,E,LBM
May 25 2014	18"	8mm Ds	PF,PS,EON,UB,NND,R=F,PA=30	
Nov 16 2012	18"	7mm TV	VF,VS,EON,UB,NND,R=G	
NGC 2633	Cam		Galaxy SB(s)b	F,S,LE
Mar 08 2013	18"	7mm TV	PF,VS,OVAL,MEXT,UB,NND,R=F	
Nov 16 2012	18"	7mm TV	PF,PS,OVAL,UB,AV,R=F	
NGC 2634	Cam		Galaxy E1:	F,S,LE
Mar 08 2013	18"	7mm TV	VF,VS,R,UB,NND,R=F	
Nov 16 2012	18"	7mm TV	PF,PS,R,UB,NND,R=F	
NGC 2634A	Cam		Galaxy SB(s)bc? sp	
May 25 2014	18"	8mm Ds	VF,VS,EON,UB,NND,R=F,PA=50	
NGC 2636	Cam		Galaxy E0:	VF,S,2*11,12 F
May 25 2014	18"	8mm Ds	VF,VS,R,UB,NND,AV2,R=P	
NGC 2639	UMa		H204-1 Galaxy (R)SA(r)a:?	CB,S,E130,PSMBM
Mar 16 2010	12"	11mmT6	PB,PS,OVAL,UB,NND,R=F	
NGC 2646	Cam		Galaxy SB(r)0^:	VF,S,2F*2.5'SF
Mar 08 2013	18"	7mm TV	PF,PS,R,UB,NND,R=F	
NGC 2655	Cam		H288-1 Galaxy SAB(s)0/a	VB,CL,LE90,GSVMBM
Oct 06 2004	8"	7.5mmW	MB,EL,EON,FNUC,R=G	
NGC 2681	UMa		H242-1 Galaxy (R')SAB(rs)0/a	VB,VL,VG,VSMBM*10
May 10 2005	8"	11mmT6	MB,FS,R,FNUC,R=F	
NGC 2685	UMa		Galaxy (R)SB0+ pec	PF,R,F*INCENTRE
Mar 04 2006	8"	11mmT6	PF,PS,OVAL,NND,R=F	
NGC 2715	Cam		Galaxy SAB(rs)c	PB,L,E
Mar 08 2013	18"	7mm TV	PF,PS,OVAL,PET,UB,NND,R=F	
NGC 2732	Cam		Galaxy S0 sp	PB,S,E45,*13NF
May 25 2014	18"	8mm Ds	PF,PS,EON,FNUC,R=G,PA=75	
NGC 2742	UMa		H249-1 Galaxy SA(s)c:	CB,CL,E90,ER
Mar 13 2007	8"	11mmT6	PF,PS,OVAL,NND,R=F	
NGC 2748	Cam		Galaxy SABc	PB,PL,E,VGLBM
May 25 2014	18"	8mm Ds	PF,PS,OVAL,VEXT,UB,NND,R=F	
NGC 2756	UMa		H828-2 Galaxy Sb	PB,PS,E,VGBM
Mar 28 2011	12"	7mm TV	VF,VS,OVAL,UB,NND,R=F	

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NGC 2768	UMa		H250-1	Galaxy E6:	CB,CL,LE,PSBMLBN
Mar 04 2006	8"	11mmT6	MB,ML,OVAL,NND,R=F		
NGC 2787	UMa		H216-1	Galaxy SB(r)0+	B,PL,LE90,MBM,R,*INV
Mar 04 2006	8"	11mmT6	F,PS,R,NND,R=F		
NGC 2805	UMa		H878-3	Galaxy SAB(rs)d	VF,L,R,MBM
Jun 07 2010	12"	11mmT6	PF,PS,OVAL,MEXT,UB,NND,R=F		
NGC 2841	UMa		H205-1	Galaxy SA(r)b:	VB,L,VME151,VSMBM*10
Mar 04 2006	8"	11mmT6	PB,PL,EON,FNUC,MSB,R=G		
NGC 2880	UMa		H260-1	Galaxy SB0-	B,CS,R,MBM,AM ST
Mar 04 2006	8"	11mmT6	PF,PS,R,NND,R=F		
NGC 2908	Dra		H977-3	Galaxy S	EF,VS
May 23 2012	18"	8.8 ES	CF,CS,R,UB,NND,AV1,R=F		
NGC 2938	Dra		H963-3	Galaxy SB(rs)cd	EF,S,IF,D*F3'
May 23 2012	18"	8.8 ES	VF,CS,OVAL,MEXT,UB,NNE,AV2,R=F		
NGC 2950	UMa		H68-4	Galaxy (R)SB(r)0^	B,PS,R,VGVMBMN
Mar 04 2006	8"	11mmT6	PB,PS,R,FNUC,,R=G		
NGC 2957A	Dra			Galaxy E1:	EF,*13NR
Jul 13 2013	18"	7mm TV	VF,VS,OVAL,PEXT,NND,R=P		
NGC 2957B	Dra			Galaxy E	
Jul 13 2013	18"	7mm TV	VF,VS,OVAL,PEXT,NND,R=P		
NGC 2963	Dra		H315-3	Galaxy SBab	VF,VS,R,BM
Jul 13 2013	18"	7mm TV	PF,PS,OVAL,PEXT,UB,NND,R=F		
NGC 2976	UMa		H285-1	Galaxy SAc pec	B,VL,ME152,ST INV
Mar 04 2006	8"	11mmT6	DIFF,F,FL,EON,NND,R=F		
NGC 2977	Dra		H282-1	Galaxy Sb:	CB,PL,IF,
Jul 08 2018	12"	8mm Et	PF,PS,OVAL,UB,NND,R=F		
Aug 31 2010	12"	7mm TV	VF,VS,OVAL,MEXT,PATCH,NND,R=F. PA=110		
NGC 2985	UMa		H78-1	Galaxy (R')SA(rs)ab	VB,CL,R,PSMBM,*INV F
Mar 04 2006	8"	11mmT6	PB,FS,OVAL,FNUC,R=G		

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NGC 3031	UMa	M81	Galaxy SA(s)ab	EB,EL,E156,GSVMBMBN 2
Apr 20 2018	12"	11mmT6		
Jul 25 2017	12"	11mmT6	NOT BAD.	
May 14 2017	12"	11mmT6	EXCELLENT	
Jul 01 2016	12"	8mm Et	EYE CANDY	
Apr 14 2016	12"	8mm Ds	F,S,OVAL,NND,R=G	
Mar 16 2012	18"	17mmAT	2012 M.M.	
Mar 01 2011	12"	17mmAT	M.M. 2011 - MANUAL SETTING CIRCLES	
Mar 08 2010	12"	26mm	M.M. 2010 MANUAL SETTING CIRCLES	
Mar 20 2009	16"	26mm	MESSIER MARATHON - 2009	
Mar 08 2007	1.9"	12x50	FB,L,OVAL,FNUC,R=G	
Aug 20 2006	1.9"	12x50	PB,PL,OVAL,FNUC,HISB,R=G	
Mar 19 2006	8"	19mmW	PB,PL,EL,EON,BNUC,R=G	
May 04 2005	8"	19mmW	VB,VL,OVAL,BNUC,VHISB,R=E!	
Apr 04 2005	8"	11mmT6	VB,VL,EON,NUC,HISB,R=E!!	
Feb 10 2005	8"	11mmT6	MF,ML,OVAL,NND,R=F	
Apr 14 2004	31"	17mmT4	CLEAR NIGHT - MEGASTAR CONTROL	
Apr 05 2004	8"	25mmPL	FULLMOON - **MEGASTAR CONTROL**	
Mar 19 2004	8"	25mmPL	2004 MESSIER MARATHON - ARGO NAVIS	
Feb 28 2004	8"	25mmPL	COMPTER = ARGO NAVIS	
Dec 30 2003	8"	25mmPL	H/M COLD	

NGC 3034	UMa	M82	H79-4	Galaxy I0 sp	VB,VL,VME(RAY)
Apr 20 2018	12"	11mmT6			
Jul 25 2017	12"	11mmT6	NOT BAD		
May 14 2017	12"	11mmT6	EXCELLENT		
Jul 01 2016	12"	8mm Et	EYE CANDY		
Apr 14 2016	12"	8mm Ds	F,S,PEXT,NND,R=G,BRIGHT KNOT ON ONE END.		
Sep 19 2014	12"	17mmAT	5-DAYS AFTER NEW - SIGHTSEEING, HOME - 8/15/14		
Mar 30 2014	28"	17mmAT	SUPER NOVA IN M-82. NEAT TO SEE. M-82 LOOKED GREAT WITH THE DUST LANES		
Mar 16 2012	18"	17mmAT	2012 M.M.		
Mar 01 2011	12"	17mmAT	M.M. 2011 - MANUAL SETTING CIRCLES		
Mar 08 2010	12"	26mm	M.M. 2010 MANUAL SETTING CIRCLES		
Mar 20 2009	16"	26mm	MESSIER MARATHON - 2009		
Mar 08 2007	1.9"	12x50	FB,FS,OVAL,NND,R=F		
Aug 20 2006	1.9"	12x50	PB,L,OVAL,FNUC,R=G		
Mar 19 2006	8"	19mmW	PB,PL,EON,FNUC,R=G		
May 04 2005	8"	19mmW	VB,ML,EL,EON,BNUC,VHISB,R=E!		
Apr 14 2004	31"	17mmT4	CLEAR NIGHT - MEGASTAR CONTROL		
Apr 05 2004	8"	25mmPL	FULLMOON - **MEGASTAR CONTROL**		
Mar 19 2004	8"	25mmPL	2004 MESSIER MARATHON - ARGO NAVIS		
Feb 28 2004	8"	25mmPL	COMPTER = ARGO NAVIS		
Dec 30 2003	8"	25mmPL	H/M COLD		

NGC 3057	Dra	H978-3	Galaxy SB(s)dm	EF,PL,VLBM,2S* S
Jul 08 2018	12"	8mm Et	VF,PS,OVAL,UB,NNDD,R=F	
Sep 09 2010	12"	5.5mmN	VF,CS,OVAL,R,NND,AV,R=P	

Circumpolar Observations

NGC 3061	Dra		H903-2	Galaxy (R')SB(rs)c	VF,PL,RESOLVABLE
Jul 08 2018	12"	8mm Et	VF,PS,OVAL,UB,NND,AV,R=F		
Sep 09 2010	12"	5.5mmN	VF,CS,R,NND,AV,R=F		
NGC 3065	UMa		H333-2	Galaxy SA(r)0^	PF,VS,R,BM,*11NR
Mar 28 2011	12"	5mm TV	VF,PS,R,UB,NND,AV,R=F		
NGC 3073	UMa		H853-3	Galaxy SAB0-	VF,S,VGLBM
Mar 28 2011	12"	5mm TV	VF,VS,R,UB,NND,AV,R=F		
NGC 3077	UMa		H286-1	Galaxy I0 pec	CB,CL,MBM,R WITH RAY
Mar 13 2007	8"	11mmT6	PF,L,OVAL,NND,AV,R=F		
May 24 2004	8"	25mmPL	DECENT NIGHT - MEGASTAR CONTROL		
NGC 3079	UMa		H47-5	Galaxy SB(s)c sp	VB,L,ME135
Mar 04 2006	8"	11mmT6	PF,FL,EON,NND,R=F		
NGC 3147	Dra		H79-1	Galaxy SA(rs)bc	VB,L,R,VGVSVMBM
Jul 25 2017	12"	11mmT6	PF,PS,OVAL,MEXT,NND,R=F		
Sep 02 2016	12"	8mm Et	PF,PS,R,FNUC,R=F, 2 STARS TO SOUTHEAST.		
Jul 23 2006	8"	11mmT6	PF,PS,OVAL,NND,R=F		
Jun 19 2004	8"	25mmPL	GOOD NIGHT - MEGASTAR		
NGC 3194	Dra		H965-3	Galaxy S?	VF,VS
Aug 31 2010	12"	7mm TV	CF,VS,OVAL,MEXT,UB,NND,AV,R=P. PA=170		
NGC 3197	Dra		H966-3	Galaxy Sbc	VF,VS
Jul 13 2013	18"	7mm TV	PF,PS,OVAL,MEXT,UB,NND,R=F		
NGC 3206	UMa		H266-1	Galaxy SB(s)cd	PB,CL,E,VGLBM
Apr 09 2010	12"	11mmT6	VF,CS,OVAL,PEXT,UB,NND,AV,R=F		
NGC 3212	Dra		H980-3	Galaxy SB?	VF,S,2ND OF 3
Jul 13 2013	18"	7mm TV	VF,PS,OVAL,MEXT,UB,NND,R=F,PAIRED W/NGC-3215		
NGC 3215	Dra		H981-3	Galaxy S?	VF,S,3RD OF 3
Jul 13 2013	18"	7mm TV	VF,PS,PEXT,UB,NND,R=F,PAIRED W/NGC-3212		
NGC 3218	Dra		H283-1	Galaxy SB(s)bc:	CB,CL,ER,
Aug 25 2011	12"	5mm TV	F,VS,OVAL,MEXT,UB,NND,AV1,R=P		
NGC 3225	UMa		H882-2	Galaxy Scd:	CF,PL,LE,VGBM
Mar 28 2011	12"	5mm TV	VF,VS,OVAL,NND,AV,R=F		
NGC 3252	Dra		H316-3	Galaxy SBd? sp	EF,PS,ME,R
Jul 13 2013	18"	7mm TV	PF,PS,EON,UB,NND,R=F,PA=35		
NGC 3310	UMa		H60-4	Galaxy SAB(r)bc pec	CB,PL,R,VG,VSMBMN
Mar 13 2007	8"	11mmT6	CB,PS,R,FNUC,R=G		
NGC 3343	Dra		H317-3	Galaxy E	PF,S,R,GBM
Jul 13 2013	18"	7mm TV	PF,PS,OVAL,MEXT,UB,NND,R=F		

Circumpolar Observations

NGC 3359	UMa		H52-5	Galaxy SB(rs)c	PB,L,E0,GLBM
Apr 09 2010	12"	11mmT6	PF,PS,OVAL,PEXT,FNUC,R=G		
NGC 3397	Dra		H284-1	Galaxy (R)SA(r)b:	CB,VS,IF
Aug 25 2011	12"	5mm TV	F,VS,OVAL,PEXT,UB,FNUC,R=F		
NGC 3403	Dra		H335-2	Galaxy SABc:	PF,L,IE,VGBM
Feb 23 2006	31"	17mmT4	MB,FS,OVAL,NND,LSB.R=F		
NGC 3406	UMa			Galaxy E	PB,R,PGBM
May 30 2014	18"	8mm Ds	PF,PS,R,UB,NND,R=F		
NGC 3435	UMa		H887-2	Galaxy Sb	CF,PS,LE,VGBM
May 30 2014	18"	8mm Ds	VF,PS,OVAL,UB,NND,R=F		
NGC 3440	UMa		H914-3	Galaxy SBb? sp	VF,S,LE
May 30 2014	18"	8mm Ds	PF,PS,EON,UB,NND,R=F,PA=50		
NGC 3445	UMa		H267-1	Galaxy SAB(s)m	CB,PL,IR,VGLBM,*NF2'
May 30 2014	18"	8mm Ds	PFL,PS,R,UB,NND,R=F		
NGC 3448	UMa		H233-1	Galaxy I0	B,PL,ME67,GBM
Apr 09 2010	12"	11mmT6	PF,PS,EON,UB,NND,R=F		
NGC 3458	UMa		H268-1	Galaxy SAB0:	VB,VS,R,STELLAR
Apr 09 2010	12"	11mmT6	PB,CS,R,BNUC,R=G		
NGC 3471	UMa		H972-3	Galaxy Sa	VF,S,R,BM
Apr 09 2010	12"	11mmT6	PF,CS,OVAL,UB,NND,R=F		
NGC 3516	UMa		H336-2	Galaxy (R)SB(s)0^:	PB,VS,IR,PSMBM*
Jul 14 2010	12"	7.5mmW	PF,CS,OVAL,FNUC,R=F		
NGC 3523	Dra		H904-2	Galaxy Sbc	F,PL,LBM,
Jul 13 2013	18"	7mm TV	VF,PS,R,UB,NND,AV,R=F		
Feb 23 2006	31"	17mmT4	DIFF,B,ML,R,NND,R=F		
NGC 3556	UMa	M108	H46-5	Galaxy SB(s)cd sp	CB,VL,VME79,PBM,R
Apr 20 2018	12"	11mmT6			
Jul 15 2015	12"	17mmT4			
May 23 2015	12"	11mmT6			
Mar 16 2012	18"	17mmAT	2012 M.M.		
Mar 01 2011	12"	17mmAT	M.M. 2011 - MANUAL SETTING CIRCLES		
Mar 08 2010	12"	26mm	M.M. 2010 MANUAL SETTING CIRCLES		
Mar 20 2009	16"	26mm	MESSIER MARATHON - 2009		
Mar 08 2007	1.9"	12x50	F,S,EON,NND,R=F		
Aug 20 2006	1.9"	12x50	PF,PS,OVAL,NND,R=F		
Mar 19 2006	8"	19mmW	FB,FL,EL,EON,RNUC,R=G		
Mar 19 2004	8"	25mmPL	2004 MESSIER MARATHON - ARGO NAVIS		
Dec 26 2003	8"	25mmPL	Q/M COLD		

Circumpolar Observations

NGC 3562	Dra		H337-2	Galaxy E	PF,PS,LE,GBM,*70"NP
Aug 31 2010	12"	7mm TV	CF,PS,OVAL,PATCH,NND,AV,R=F.	PA=135	
NGC 3610	UMa		H270-1	Galaxy E5:	VB,PS,LE90,VSVMBMSN
Mar 17 2007	8"	11mmT6	PB,S,R,BNUC,R=G		
Mar 13 2007	8"	11mmT6	PF,PS,R,NND,R=F		
NGC 3613	UMa		H271-1	Galaxy E6	VB,CL,ME305,SMBMN
Mar 17 2007	8"	11mmT6	F,PS,OVAL,FNUC,R=G		
NGC 3619	UMa		H244-1	Galaxy (R)SA(s)0+:	CB,CL,R,VGMBM
Mar 17 2007	8"	11mmT6	F,PS,R,NND,R=F		
NGC 3622	UMa		H879-2	Galaxy S?	PB,S,R,GBM
Jul 14 2010	12"	7.5mmW	VF,CS,OVAL,MEXT,UB,NND,AV,R=F		
NGC 3631	UMa		H226-1	Galaxy SA(s)c	PB,L,R,SVMBMRN
Mar 17 2007	8"	11mmT6	B,PL,R,FNUC,R=G		
NGC 3642	UMa		H245-1	Galaxy SA(r)bc:	PB,PL,R,VGBM
Mar 17 2007	8"	11mmT6	F,PL,OVAL,NND,R=F		
NGC 3654	UMa		H880-2	Galaxy S?	F,S,LE15
May 30 2014	18"	8mm Ds	PF,PS,OVAL,MEXT,UB,NND,R=F		
NGC 3656	UMa		H782-2	Galaxy (R')I0: pec	PB,S,R,VGBM,*12P
May 30 2014	18"	8mm Ds	PF,PS,R,UB,NND,R=F		
NGC 3657	UMa		H768-3	Galaxy SAB(rs)c pec	CF,VS,R,STELLAR
May 30 2014	18"	8mm Ds	PF,PS,R,UB,NND,R=F		
NGC 3668	UMa		H845-2	Galaxy Sbc	F,PS,IR,GBM,*9NP
Jul 14 2010	12"	7.5mmW	VF,CS,R,UB,NND,AV,R=F		
NGC 3669	UMa		H829-2	Galaxy SBcd: sp	VF,PL,PME135,ER
Jul 14 2010	12"	7.5mmW	VF,CS,EON,UB,NND,AV,R=P		
NGC 3674	UMa		H886-2	Galaxy S0 sp	PF,IF
May 30 2014	18"	8mm Ds	PF,PS,OVAL,EEXT,UB,NND,R=F,PA=25		
NGC 3682	Dra		H262-1	Galaxy SA(s)0/a:?	CB,S,IR,SPMBMN
Aug 31 2010	12"	7mm TV	PF,CS,OVAL,MEXT,UB,NND,R=F.	PA=75	
NGC 3683	UMa		H246-1	Galaxy SB(s)c?	CB,PL,E
Mar 28 2011	12"	5mm TV	VF,PS,OVAL,UB,NND,AV,R=F		
NGC 3690	UMa		H247-1	Galaxy IBm pec	PB,PS,VLE80,PGBM
Jun 22 2012	18"	8.8 ES	PF,PS,OVAL,UB,NND,R=F,PAIRED W/IC-694		
NGC 3718	UMa		H221-1	Galaxy SB(s)a pec	PB,VL,R,VGLBM
May 23 2012	18"	8.8 ES	F,S,OVAL,MEXT,UB,NND,R=F		
Feb 23 2006	31"	17mmT4	VB,VL,OVAL,BNUC,HISB,R=G		

Circumpolar Observations

NGC 3729	UMa		H222-1	Galaxy SB(r)a pec	PB,PL,LE0,GBM,*12NR
Feb 23 2006	31"	17mmT4	FB,FL,R,BNUC,HISB,R=G		
NGC 3735	Dra		H287-1	Galaxy SAc: sp	PB,L,ME130,MBM
Aug 31 2010	12"	7mm TV	CF,PS,EON,UB,NND,R=F. PA=90		
Aug 29 2010	12"	7mm TV	CF,PS,EON,UB,NND,R=F. PA=90		
NGC 3736	Dra			Galaxy Sb	VF,VS,R
Jul 13 2013	18"	7mm TV	PF,PS,OVAL,NND,AV,R=F		
NGC 3738	UMa		H783-2	Galaxy Im	PB,PL,BM
Jun 22 2012	18"	8.8 ES	B,PS,OVAL,MEXT,UB,NND,R=F		
NGC 3752	Dra		H905-2	Galaxy Sab	PB,PL
Jul 13 2013	18"	7mm TV	PF,PS,OVAL,MEXT,NND,R=F		
NGC 3756	UMa		H784-2	Galaxy SAB(rs)bc	PF,L,LE
Mar 01 2011	12"	11mmT6	PF,PS,OVAL,MEXT,UB,NND,R=F		
NGC 3879	Dra		H881-2	Galaxy Sdm:	F,PL,ME105
Feb 23 2006	31"	17mmT4	FB,FL,EON,FNUC,MSB,R=G		
NGC 3888	UMa		H785-2	Galaxy SAB(rs)c	PB,S,LE,PGBM
Mar 17 2007	8"	11mmT6	PF,PS,UB,NND,R=F		
NGC 3890	Dra		H940-3	Galaxy S?	VF,S,R,BM
Jul 13 2013	18"	7mm TV	VF,VS,OVAL,UB,NND,AV1,R=F		
Feb 23 2006	31"	17mmT4	FB,FL,R,BNUC,FHISB,R=G		
NGC 3898	UMa		H228-1	Galaxy SA(s)ab	B,PL,LE,SVMBM
Mar 17 2007	8"	11mmT6	PB,PS,OVALFNUC,R=G		
NGC 3901	Cam		H970-3	Galaxy Scd:	PF,PL,RESOLVABLE
May 25 2014	18"	8mm Ds	VF,PS,OVAL,VEXT,UB,NND,R=F		
NGC 3945	UMa		H251-1	Galaxy (R)SB(rs)0+	B,PL,R,GMBM,R,*12SP
Mar 17 2007	8"	11mmT6	PF,S,OVAL,NND,R=F		
NGC 3953	UMa		H45-5	Galaxy SB(r)bc	CB,L,E0,VSMBLRN
Mar 18 2007	8"	11mmT6	PB,PL,EL,OVAL,FNUC,MSB,R=G		
NGC 3961	Dra		H905-3	Galaxy (R)SB(r)a:	EF,VS
Jul 13 2013	18"	7mm TV	VF,VS,OVAL,NND,AV2,R=F		
Feb 23 2006	31"	17mmT4	FB,FL,OVALM,FNUC,MSB,R=G		
NGC 3982	UMa		H62-4	Galaxy SAB(r)b:	B,PL,R,G,SBM,DISC
Mar 18 2007	8"	11mmT6	PF,L,OVAL,NND,=F		

Circumpolar Observations

NGC 3992	UMa	M109	H61-4	Galaxy SB(rs)bc	CB,VL,PME,SBMBRN
Apr 20 2018	12"	11mmT6			
Jul 15 2015	12"	17mmT4			
Mar 16 2012	18"	17mmAT	2012 M.M.		
Mar 01 2011	12"	17mmAT	M.M. 2011 - MANUAL SETTING CIRCLES		
Mar 08 2010	12"	26mm	M.M. 2010 MANUAL SETTING CIRCLES		
Mar 20 2009	16"	26mm	MESSIER MARATHON - 2009		
Mar 19 2006	8"	19mmW	F,FS,OVAL,NND,R=F		
Mar 19 2004	8"	25mmPL	2004 MESSIER MARATHON - ARGO NAVIS		
Mar 09 2004	8"	25mmPL	COMPTER = ARGO NAVIS		
NGC 3998	UMa		H229-1	Galaxy SA(r)0⁺?	CB,PS,R,VG,SMBM
Mar 18 2007	8"	11mmT6	PB,PL,OVAL,FNUC,MSB,R=G		
NGC 4026	UMa		H223-1	Galaxy S0 sp	VB,CL,ME176,VSVMBMBN
Mar 18 2007	8"	11mmT6	PB,L,OVAL,FNUC,MSB,R=G		
NGC 4034	Dra		H903-3	Galaxy Scd:	EF,S,IF,GVLBM
Jul 13 2013	18"	7mm TV	VF,PS,OVAL,MEXT,UB,NND,R=F		
NGC 4036	UMa		H253-1	Galaxy S0-	VB,VL,E
Mar 18 2007	8"	11mmT6	PB,PL,EON,FNUC,MSB,R=G		
NGC 4041	UMa		H252-1	Galaxy SA(rs)bc:	B,CL,R,G,PSVMBMRN
Mar 18 2007	8"	11mmT6	PF,PL,R,NND,R=F		
NGC 4085	UMa		H224-1	Galaxy SAB(s)c:?	B,PL,ME78,VSBM
Mar 18 2007	8"	11mmT6	VF,PS,EL,EON,NND,AV,R=F		
NGC 4088	UMa		H206-1	Galaxy SAB(rs)bc	B,CL,E55,LBM
Mar 18 2007	8"	11mmT6	PF,L,EON,UB,NND,R=F		
NGC 4102	UMa		H225-1	Galaxy SAB(s)b?	B,PS,R,BMBN,*12SPVNR
Mar 18 2007	8"	11mmT6	PF,PS,EL,OVAL,UB,NND,R=F		
NGC 4108	Dra			Galaxy (R')SAc:	B,S,R,GBM
Aug 31 2010	12"	7mm TV	VF,CS,OVAL,NND,AV,R=F. PA=90??		
NGC 4120	Dra		H904-3	Galaxy SA(rs)cd:	EF,VS,E
Jul 13 2013	18"	7mm TV	VF,PS,EON,UB,NND,R=F		
NGC 4125	Dra			Galaxy E6 pec	PB,PL,CE,MBM
Sep 02 2016	12"	8mm Et	PF,PS,OVAL,FNUC,R=G.		
Sep 07 2005	8"	11mmT6	MB,ML,OVAL,FNUC,MSB,R=G		
Sep 01 2005	8"	7.5mmW	MB,MS,OVAL,NND,MSB,R=F		
NGC 4127	Cam		H279-1	Galaxy SAc?	F,PL,VLE,GLBM
May 25 2014	18"	8mm Ds	VF,PS,OVAL,PEXT,UB,NND,R=F		
NGC 4128	Dra		H263-1	Galaxy SA0: sp	CB,LE,BM
Aug 31 2010	12"	7mm TV	PF,PS,EON,FNUC,MSB,R=G. PA=10		
Aug 29 2010	12"	7mm TV	PF,PS,OVAL,PEXT,FNUC,R=F. PA=10		

Circumpolar Observations

NGC 4133	Dra		H278-1	Galaxy SABb:	PB,CL,R,GMBM
Aug 31 2010	12"	7mm TV	CF,PS,OVAL,EXT,UB,NND,R=F.	PA=70	
Aug 12 2010	12"	7mm TV	VF,VS,OVAL,MEXT,NND,AV,R=P		
NGC 4157	UMa		H208-1	Galaxy SAB(s)b? sp	PF,CL,VME60,(DOUBLE)
Mar 16 2012	18"	8.8 ES	PFB,PS,EON,FNUC,R=F.	A.L. FLAT GALAXY	
Aug 06 2010	12"	7mm TV	PF,PS,EON,UB,NND,R=F		
NGC 4159	Dra		H941-3	Galaxy S?	EF,PS,R,TRI2*
Apr 17 2015	18"	8mm Ds	VF,PS,OVAL,UB,NND,R=F		
NGC 4205	Dra			Galaxy S?	PB,PS,R,*12F,LN
Aug 15 2015	12"	8mm Ds	PF,PS,OVAL,UB,NND,R=F		
NGC 4210	Dra		H850-3	Galaxy SB(r)b	PF,PS,R,VGBM
Aug 31 2010	12"	7mm TV	VF,PS,R,NND,R=F		
NGC 4221	Dra			Galaxy (R)SB(r)0+	PB,S,R,PSBM
Aug 31 2010	12"	7mm TV	PF,PS,OVAL,EXT,FNUC,R=F.		
NGC 4236	Dra		H51-5	Galaxy SB(s)dm	VF,EL,ME160,VGBM
Sep 01 2005	8"	7.5mmW	MF,ML,NND,LSB,R=F		
NGC 4250	Dra		H264-1	Galaxy SAB(r)0+	PB,S,R,PGBM
Aug 12 2010	12"	7mm TV	CF,PS,OVAL,UB,NND,R=F		
Aug 06 2010	12"	7mm TV	PF,CS,OVAL,UB,NND,R=F		
NGC 4256	Dra		H846-2	Galaxy SA(s)b: sp	PB,L,CE38,BMBN
Aug 31 2010	12"	7mm TV	PF,PS,EON,FNUC,MSB,R=F.	PA=170	
Jul 16 2009	16"	11mmT6	PS,EON,NND,R=F		
NGC 4271	UMa		H804-2	Galaxy S0-:	PB,PL,IF
Mar 28 2011	12"	5mm TV	PF,VS,OVAL,VFNUC,R=F		
NGC 4290	UMa		H805-2	Galaxy SB(rs)ab:	PB,L,R,GMBM
Mar 01 2011	12"	11mmT6	CF,CS,OVAL,UB,NND,R=F		
NGC 4291	Dra		H275-1	Galaxy E	PB,VS,R,LBM,3*F
Apr 17 2015	18"	8mm Ds	F,S,ROUND,UB,NND,R=F		
Jul 14 2010	12"	7.5mmW	PF,CS,OVAL,FNUC,MSB,R=F		
NGC 4319	Dra		H276-1	Galaxy SB(r)ab	PB,PS,VLE,SBM
Jul 14 2010	12"	7.5mmW	CF,PS,R,UB,LSB,R=F		
NGC 4332	Dra		H847-2	Galaxy SB(s)a	PF,S,VLE,VGBM
Jul 14 2010	12"	7.5mmW	CF,PS,OVAL,UB,NND,R=F		
NGC 4386	Dra		H277-1	Galaxy SAB0^:	PB,CL,LE,PSMBM
Jul 14 2010	12"	7.5mmW	PF,CS,OVAL,MEXT,FNUC,R=F		
NGC 4391	Dra		H852-3	Galaxy SA0-:	CF,S,R,SBM,***SP
Jul 14 2010	12"	7.5mmW	CF,VS,R,UB,NND,R=F		

Circumpolar Observations

NGC 4441	Dra		H848-2	Galaxy SAB0+ pec	PB,S,IR,BM
Jul 14 2010	12"	7.5mmW	VF,PS,R,NND,AV,R=P		
NGC 4512	Dra			Galaxy SB(s)dm	PB,S,R,PSBM
Jul 14 2010	12"	7.5mmW	VF,CS,OVAL,UB,NND,AV,R=P		
NGC 4521	Dra		H849-2	Galaxy S0/a	PB,S,PME,PGBM,*P12S
Aug 31 2010	12"	7mm TV	CF,PS,EON,UB,NND,R=G. PA=195		
NGC 4545	Dra		H850-2	Galaxy SB(s)cd:	F,L,IR,VGBM,S*NF
Feb 23 2006	31"	17mmT4	PB,PL,OVAL,FNUC,PHISB,R=G		
NGC 4572	Dra		H939-3	Galaxy S	EF,S
Feb 23 2006	31"	17mmT4	PF,FL,EON,NND,R=F		
NGC 4589	Dra		H273-1	Galaxy E2	CB,L,LE,PGMBM
Feb 23 2006	31"	17mmT4	VB,FL,OVAL,BNUC,HISB,R=G		
NGC 4605	UMa		H254-1	Galaxy SB(s)c pec	B,L,VME118,GLBM
Aug 31 2010	12"	7mm TV	DIFF,CF,PS,OVAL,UB,NND,R=F. PA=90		
NGC 4648	Dra		H274-1	Galaxy E3	PB,CS,R,GBM,**P
Feb 23 2006	31"	17mmT4	VB,FL,OVAL,BNUC,HISB,R=G		
NGC 4693	Dra		H906-3	Galaxy Sd	VF,PLE
Feb 23 2006	31"	17mmT4	MB,ML,EOBN,UB,NND,R=G		
NGC 4749	Dra		H907-3	Galaxy Sb? sp	VF,CL,E135
Feb 23 2006	31"	17mmT4	MB,ML,EON,UB,NND,R=G		
NGC 4750	Dra		H78-4	Galaxy (R)SA(rs)ab	PB,L,R,VG,VSBM
Feb 23 2006	31"	17mmT4	VB,VL,R,BNUC,HISB,R=G		
NGC 4857	Dra		H908-3	Galaxy SABb	EF,VS,IR,VLBM
Feb 23 2006	31"	17mmT4	PB,FL,OVAL,FNUC,MSB,R=G		
NGC 5144	UMi		H70-4	Galaxy SAc? pec	(PLN),CB,S,R,G,SLBM
Sep 02 2016	12"	8mm Et	VF,VS,OCAL,UB,NND,R=F		
NGC 5204	UMa		H63-4	Galaxy SA(s)m	PB,CL,IR,GMBM,R
Mar 01 2011	12"	11mmT6	PF,PS,OVAL,UB,NND,R=F		
NGC 5295	Cam		H946-3	Galaxy	VF,VS,R
May 25 2014	18"	8mm Ds	VF,VS,R,NND,AV3,R=P		
NGC 5308	UMa		H255-1	Galaxy S0- sp	B,PL,ME57,PSMBEN
Mar 01 2011	12"	11mmT6	PF,CS,EON,FNUC,R=G		
NGC 5322	UMa		H256-1	Galaxy E3-4	VB,PL,IR,PSMBM
Mar 18 2007	8"	11mmT6	PB,L,OVAL,FNUC,HISB,R=G		
NGC 5430	UMa		H827-2	Galaxy SB(s)b	PB,S,IE,MBM
Mar 01 2011	12"	11mmT6	CF,CS,OVAL,MEXT,UB,NND,R=F		

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NGC 5443	UMa		H799-2	Galaxy SB(s)b?	PF,L,E
Mar 01 2011	12"	11mmT6	VF,CS,OVAL,PEXT,UB,NND,AV,R=F		
NGC 5457	UMa	M101		Galaxy SAB(rs)cd	PB,VL,IR,G,VSMBMBSN 4
Jul 15 2015	12"	17mmT4			
Sep 19 2014	12"	17mmAT	5-DAYS AFTER NEW - SIGHTSEEING, HOME - 8/15/14		
Mar 16 2012	18"	17mmAT	2012 M.M.		
Mar 01 2011	12"	17mmAT	M.M. 2011 - MANUAL SETTING CIRCLES		
Mar 08 2010	12"	26mm	M.M. 2010 MANUAL SETTING CIRCLES		
Mar 20 2009	16"	26mm	MESSIER MARATHON - 2009		
Aug 20 2006	1.9"	12x50	F,S,OVAL,NND,R=F		
Mar 26 2006	8"	19mmW	F,L,OVAL,NND,R=F		
Mar 19 2004	8"	25mmPL	2004 MESSIER MARATHON - ARGO NAVIS		
Mar 13 2004	8"	25mmPL	COMPUTER = ARGO NAVIS		
Mar 10 2004	8"	25mmPL	N/M, NO COMPUTER		
NGC 5473	UMa		H231-1	Galaxy SAB(s)0-	PB,S,R,GBM
Sep 19 2014	12"	17mmAT	5-DAYS AFTER NEW - SIGHTSEEING, HOME - 8/15/14		
Mar 18 2007	8"	11mmT6	PF,PS,OVAL,UB,NND,R=F		
NGC 5474	UMa		H214-1	Galaxy S(c)	PB,L,BM
Mar 18 2007	8"	11mmT6	VF,PS,R,NND,AV,R=F		
NGC 5480	UMa		H692-2	Galaxy SA(s)c:	F,PS,VGBM,NP OF 2
Apr 16 2009	16"	17mmT4	PF,PS,R,UB,NND,R=F		
NGC 5481	UMa		H693-2	Galaxy E+	F,VS,SMBM,STELL,SF-2
Apr 16 2009	16"	17mmT4	PF,PS,R,UB,NND,R=F		
NGC 5485	UMa		H232-1	Galaxy SA0 pec	CB,R,VGBM,F OF 2
Mar 18 2007	8"	11mmT6	PF,PS,R,NND,AV,R=F		
NGC 5520	Boo		H676-3	Galaxy Sb	F,S,LE,STELLAR
Apr 29 2011	12"	7mm TV	PF,PS,OVAL,MEXT,FNUC,R=F		
May 21 2009	16"	11mmT6	PF,PS,OVAL,UB,NND,R=F		
NGC 5585	UMa		H235-1	Galaxy SAB(s)d	PF,L,IR,VGMBM,R
Mar 01 2011	12"	11mmT6	CF,PS,OVAL,MEXT,UB,NND,R=F		
NGC 5602	Boo		H694-2	Galaxy Sa	PF,PS,LE,MBM
May 21 2009	16"	11mmT6	CF,PS,OVAL,NND,R=F		
NGC 5631	UMa		H236-1	Galaxy SA(s)0^	B,S,R,PSBMN
Mar 18 2007	8"	11mmT6	CF,CS,R,NND,R=F		
NGC 5640	Cam		H949-3	Galaxy Ia	EF,S,LE
May 25 2014	18"	8mm Ds	VF,VS,R,UB,NND,AV3,R=P		
NGC 5667	Dra		H807-2	Galaxy Scd: pec	PB,PS,E0
Aug 15 2015	12"	8mm Ds	PF,PS,OVAL,UB,NND,R=F		

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NGC 5678	Dra		H237-1	Galaxy SAB(rs)b	B,L,LE0,VGMBM
Aug 06 2010	12"	7mm TV	PF,PS,OVAL,UB,MSB,R=F		
NGC 5687	Boo		H808-2	Galaxy S0-?	PF,S,IF,RESOLVA,*10F
Aug 03 2008	8"	11mmT6	VF,VS,OVAL,NND,AV,R=F		
NGC 5777	Dra		H806-3	Galaxy Sb	VF,VS,LE
May 23 2012	18"	11mmT6	PF,PS,EON,UB,NND,R=F, PA=100		
NGC 5832	UMi		H332-2	Galaxy SB(rs)b?	PB,CL,IR,BP,R
Sep 02 2016	12"	8mm Et	VF,PS,OVAL,AV1,R=P		
NGC 5866	Dra	M102	H215-1	Galaxy SA0+ sp	VB,CL,PME146,GBM
Mar 16 2012	18"	17mmAT	2012 M.M.		
Mar 01 2011	12"	17mmAT	M.M. 2011 - MANUAL SETTING CIRCLES		
Mar 08 2010	12"	26mm	M.M. 2010 MANUAL SETTING CIRCLES		
Mar 20 2009	16"	26mm	MESSIER MARATHON - 2009		
Mar 26 2006	8"	19mmW	B,S,OVAL,FNUC,MSB,R=F		
Mar 19 2004	8"	25mmPL	2004 MESSIER MARATHON - ARGO NAVIS		
NGC 5879	Dra		H757-2	Galaxy SA(rs)bc:?	CB,S,E,MBMRN,R
Aug 12 2010	12"	7mm TV	PF,PS,OVAL,MEXT,UB,NND,R=F		
Aug 06 2010	12"	7mm TV	PF,PS,OVAL,VEXT,FNUC,R=G		
NGC 5894	Dra		H763-2	Galaxy SBdm?	PF,PS,E0
Aug 06 2010	12"	7mm TV	VF,FS,PEXT,UB,NND,AV,R=F		
NGC 5905	Dra		H758-2	Galaxy SB(r)b	PF,PS,IR
Aug 06 2010	12"	7mm TV	DIFF,PF,PS,R,UB,NND,R=F		
NGC 5907	Dra		H759-2	Galaxy SA(s)c: sp	CB,VL,VME155,VGPSBMN
Jun 07 2010	12"	7.5mmW	PF,PL,EON,FNUC,FAINT BULGE,R=G		
Jul 23 2006	8"	11mmT6	PF,PS,EON,VFNUC,R=F		
NGC 5908	Dra		H760-2	Galaxy SA(s)b: sp	PF,PS,R
Aug 06 2010	12"	7mm TV	PF,PS,OVAL,MEXT,UB,NND,R=F		
NGC 5949	Dra		H906-2	Galaxy SA(r)bc?	F,S,LE45,VGLBM
Aug 06 2010	12"	7mm TV	PF,CS,OVAL,UB,NND,R=F		
NGC 5963	Dra		H761-2	Galaxy S pec	PF,PS,IF
Aug 06 2010	12"	7mm TV	PF,CS,OVAL,MEXT,UB,NND,R=F		
NGC 5965	Dra		H762-2	Galaxy Sb	CF,CL,LE
Aug 06 2010	12"	7mm TV	CF,CS,EON,UB,NND,R=F		
NGC 5981	Dra			Galaxy Sc? sp	F,ME
Aug 15 2015	12"	8mm Ds	VF,VS,EON,UB,NND,AV1,R=P		
NGC 5982	Dra		H764-2	Galaxy E3	CB,S,R,PSBM,R
Aug 15 2015	12"	8mm Ds	F,PS,OVAL,FNUC,R=F		
Apr 13 2005	8"	11mmT6	VF,VS,OVAL,NND,R=F		

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NGC 5985	Dra		H766-2	Galaxy SAB(r)b	PB,CL,IE,R
Aug 15 2015	12"	8mm Ds	DIFF,PF,S,OVAL,UB,NND,R=F		
Sep 07 2005	8"	11mmT6	MB,ML,EL,OVAL,FNUC,MSB,R=G		
Apr 13 2005	8"	11mmT6	MB,ML,EL,OVAL,FNUC,R=G		
NGC 5987	Dra		H765-2	Galaxy Sb	PF,CS
Aug 06 2010	12"	7mm TV	PF,PS,OVAL,PEXT,FNUC,MSB,R=G		
NGC 5989	Dra		H738-3	Galaxy Scd?	VF,VS
Aug 15 2015	12"	8mm Ds	VF,PS,OVAL,UB,NND,R=F		
NGC 6015	Dra		H739-3	Galaxy SA(s)cd	VF,PL,R,VGBM
Sep 07 2005	8"	11mmT6	VF,VS,EL,OVAL,NND,R=F		
NGC 6048	UMi		H873-2	Galaxy E	F,R,BM
Sep 02 2016	12"	8mm Et	PF,PS,OVAL,NND,R=F		
NGC 6068	UMi		H973-3	Galaxy SBbc?	VF,VS,LE0,R
Sep 02 2016	12"	8mm Et	VF,VS,OVAL,NNDL,AV,R=F		
NGC 6079	UMi		H884-3	Galaxy E	VF,VS
Aug 15 2015	12"	8mm Ds	VF,VS,OVAL,UB,NND,R=F		
Aug 31 2010	12"	7mm TV	CF,PS,OVAL,NND,R=F. PA=90		
NGC 6090	Dra			Galaxy S0?	VF,S,R
Aug 15 2015	12"	8mm Ds	PF,PS,OVAL,MEXT,UB,NND,R=F		
NGC 6140	Dra		H740-3	Galaxy SB(s)cd pec	CF,PL,IR
Sep 07 2005	8"	11mmT6	VF,VS,OVAL,NND,AV,R=F		
NGC 6189	Dra			Galaxy Scd:	VF,PS,LE
Sep 05 2010	12"	7mm TV	VF,CS,OVAL,UB,NND,AV,R=F,PA=65		
NGC 6190	Dra			Galaxy Scd:	VF,PS,R,F*NR
Sep 05 2010	12"	5.5mmN	CF,CS,R,UB,NND,R=F		
NGC 6211	Dra			Galaxy SB(r)0⁺ pec:	VF,PS,R,SP OF 2
Sep 05 2010	12"	7mm TV	PF,PS,OVAL,FNUCC,R=F,PA=95		
NGC 6217	UMi		H280-1	Galaxy (R)SB(rs)bc	B,CL,LE,SLBM
Sep 02 2016	12"	8mm Et	PF,PS,OVAL,FNUC,R=F. SQM-20.08		
Mar 18 2007	8"	11mmT6	VF,VS,R,NND,AV,R=F		
NGC 6223	Dra			Galaxy Pec	F,S,R,MBM
Sep 05 2010	12"	7mm TV	PF,PS,OVAL,FNUC,R=F,PA=140		
NGC 6226	Dra			Galaxy Pec	F,S,TRIW/2*12\$14
Sep 05 2010	12"	5.5mmN	CF,VS,OVAL,UB,NND,R=F,PA=90		
NGC 6232	Dra			Galaxy (R')SB(s)a	PF,PL,LE
Sep 05 2010	12"	7mm TV	CF,PS,R,UB,NND,R=F		

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NGC 6236	Dra		Galaxy SAB(s)cd	F,PL
Sep 05 2010	12"	7mm TV	VF,PS,OVAL,UB,NND,AV,R=F,PA=45	
NGC 6247	Dra		Galaxy Pec	F,PS,IF
Sep 05 2010	12"	5.5mmN	CF,CS,OVAL,MEXT,UB,NND,R=F	
NGC 6251	UMi		H974-3 Galaxy E	CF,S,BM,P OF 2
Sep 02 2016	12"	8mm Et	VF,VS,R,NND,R=F	
NGC 6306	Dra		Galaxy SB(s)ab pec:	VF,VS,LE
Sep 05 2010	12"	5.5mmN	VF,VS,OVAL,UB,NND,AV,R=F,PA=10 PAIRED WITH NGC 6307	
NGC 6307	Dra		Galaxy (R')SB(s)0/a p	VF,VS,LE,*13NR N
Sep 05 2010	12"	5.5mmN	CF,CS,OVAL,MEXT,FNUC,R=F,PA=10 PAIRED WITH NGC 6306	
NGC 6310	Dra		Galaxy Sb: sp	F,PL,LE
Sep 05 2010	12"	5.5mmN	CF,CS,EON,UB,NND,R=F,PA=110	
NGC 6324	UMi		H945-3 Galaxy S?	VF,S,E,S*S
Sep 02 2016	12"	8mm Et	VF,VS,OVAL,NND,R=F	
NGC 6338	Dra		H812-2 Galaxy S0	F,S,R,VGLBM
Apr 29 2011	12"	5mm TV	VF,CS,OVAL,UB,NND,R=F	
NGC 6340	Dra		H767-2 Galaxy SA(s)0/a	CF,PL,R,VGMBM
Sep 07 2005	8"	11mmT6	MB,ML,R,FNUC,MSB,R=G	
NGC 6359	Dra		Galaxy SA0-:	PB,S,R,BMN=*12
Sep 05 2010	12"	5.5mmN	PF,CS,OVAL,FNUC,R=F,PA=5	
Aug 12 2010	12"	7mm TV	PF,PS,R,NND,R=F	
NGC 6361	Dra		Galaxy SAB: sp	VF,PS,ME,NEAR BET 2*
Sep 05 2010	12"	5.5mmN	CF,CS,EON,UB,NND,R=F,PA=95	
NGC 6370	Dra		Galaxy E	VF,VS,R,B*NR N
Apr 29 2011	12"	5mm TV	CF,CS,R,UB,NND,R=F,STAR TO S.W.	
NGC 6381	Dra		Galaxy SA(s)c?	VF,PL,E
Sep 05 2010	12"	5.5mmN	VF,CS,OVAL,UB,NND,AV,R=P,PA=90	
NGC 6395	Dra		Galaxy Scd:	VF,PL,LE,D*N
Sep 05 2010	12"	5.5mmN	VF,CS,EON,UB,NND,AV,R=F,PA=75	
NGC 6411	Dra		Galaxy E	VS,GBM
Sep 05 2010	12"	5.5mmN	PF,PS,OVAL,MEXT,FNUC,NSB,R=G,PA=105	
NGC 6412	Dra		H41-6 Galaxy SA(s)c	GCL,CL,R,VGBM,RR
Sep 05 2010	12"	5.5mmN	DIFF,PF,PS,OVAL,NND,R=F,PA=170	
NGC 6434	Dra		H741-3 Galaxy SBbc:	VF,VS,R,STELLAR,*8S
Sep 05 2010	12"	5.5mmN	PF,CS,OVAL,PEXT,NND,R=F,PA=160	

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NGC 6503	Dra		Galaxy SA(s)cd	PF,L,ME,*9F4'
Oct 21 2012	8"	5mm TV	PF,PS,OVAL,MEXT,UB,NND,R=F	
Jun 19 2004	8"	25mmPL	GOOD NIGHT - MEGASTAR	
NGC 6508	Dra		Galaxy E:	VF,S,3ST NR
Sep 05 2010	12"	5.5mmN	CF,PS,R,UB,NND,R=F	
NGC 6521	Dra		Galaxy E	F,PL,3RD OF 3
Apr 29 2011	12"	5mm TV	CF,CS,R,UB,NND,R=F	
NGC 6621	Dra		Galaxy Sb: pec	PF,PS,R,LBM,S OF 2
Aug 24 2012	18"	7mm TV	VF,VS,EON,UB,NND,AV1,R=F	
NGC 6643	Dra		Galaxy SA(rs)c	PB,PL,E50,2ST P
Sep 07 2005	8"	11mmT6	VF,VS,OVAL,NND,AV,R=F	
Jun 19 2004	8"	25mmPL	GOOD NIGHT - MEGASTAR	
NGC 6651	Dra		Galaxy SA(r)c	EEF,PS,LE,VDIFFIC
Apr 29 2011	12"	5mm TV	VF,CS,OVAL,UB,NND,R=F	
NGC 6654	Dra		Galaxy (R')SB(s)0/a	*12,13INPB,PL NEBY
Jul 27 2009	16"	11mmT6	PF,PS,EL,OVAL,NND,R=F	
NGC 6667	Dra		Galaxy SABab? pec	VF,PL,LE,VF D* NR
Jul 27 2009	16"	11mmT6	CF,PS,EON,NND,AV,R=F	
NGC 6677	Dra		Galaxy Compact	VF,VS,BET*VNR\$VF D*
Sep 05 2010	12"	5.5mmN	PF,CS,R,UB,NNE,R=F	
NGC 6691	Dra		Galaxy SB(rs)bc	VF,PL,R,PB*S NR
Apr 29 2011	12"	5mm TV	CF,VS,R,UB,NND,R=F	
NGC 6701	Dra		Galaxy (R')SB(s)a	PB,PS,ME,F*CLOSE F
Sep 05 2010	12"	5.5mmN	PF,PS,OVAL,MEXT,FNUC,MSB,R=G,PA=30	
NGC 6750	Dra		Galaxy Sc	VF,VS,R
Sep 05 2010	12"	5.5mmN	CF,PS,OVAL,MET,UB,NND,R=F,PA=35	
NGC 6757	Dra		Galaxy SB(r)0/a	PF,ME,3F*INV
Sep 05 2010	12"	5.5mmN	DIFF,CF,PS,OVAL,UB,NND,R=F,PA=105	
NGC 6764	Cyg		Galaxy SB(s)bc	PF,PL,ME,SEVV*INV
Jul 21 2004	8"	25mmPL	SHORT NIGHT - CLOUDS ROLLED IN.	
NGC 6786	Dra		Galaxy SB?	EEF,S,R,2ST NF
Sep 05 2010	12"	5.5mmN	CF,PS,OVAL,UB,NND,R=F,PA=85	
NGC 6789	Dra		Galaxy Im	EEF,PL,R,VDIFFIC
Sep 05 2010	12"	5.5mmN	VF,PS,OVAL,UB,NND,AV,R=F,PA=120	
NGC 6796	Dra		Galaxy Sbc: sp	VF,PS,ME NS
Sep 05 2010	12"	5.5mmN	CF,PS,EON,UB,NND,R=F,PA=45	

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NGC 6798	Cyg		Galaxy S0	F,VS,R,*VNR
Jul 21 2004	8"	25mmPL	SHORT NIGHT - CLOUDS ROLLED IN.	
NGC 6801	Cyg		Galaxy SAcD	EF,PS,R,F*S NR
Jul 21 2004	8"	25mmPL	SHORT NIGHT - CLOUDS ROLLED IN.	
NGC 6824	Cyg		H878-2 Galaxy SA(s)b:	PB,IF,BM
Nov 13 2007	8"	11mmT6	CF,CS,R,UB,NND,R=F	
Jul 21 2004	8"	25mmPL	SHORT NIGHT - CLOUDS ROLLED IN.	
NGC 6869	Dra		Galaxy S0	PB,PS,R
Jul 27 2009	16"	11mmT6	PF,PS,R,UB,NND,R=F	
NGC 6916	Cyg		Galaxy SBbc	EEF,PS,F*NR P,VDIFFI
Jul 21 2004	8"	25mmPL	SHORT NIGHT - CLOUDS ROLLED IN.	
NGC 6946	Cep		H76-4 Galaxy SAB(rs)cd	VF,VL,VG,VSBM,RR
Aug 31 2010	12"	7mm TV	DIFF,PF,S,OVAL,MEXT,UB,NND,R=G. PA=180	
Nov 03 2004	8"	11mmT6	MB,OVAL,NND,MSB,R=G	
Oct 10 2004	8"	11mmT6	MF,OVAL,PATCH,NND,R=F	
NGC 6949	Cep		Galaxy S?	EF,PS,IR
Nov 16 2012	18"	5mm TV	VF,VS,R,UB,R=F	
NGC 6952	Cep		Galaxy SAB(rs)bc	PB,OVAL,DIF,*15NR F
Aug 25 2011	12"	5mm TV	PF,CS,R,UB,FNUC,R=G	