

**THE TEXAS STAR PARTY
BINOCULAR OBSERVING CLUB
BY
JOHN WAGONER
TEXAS ASTRONOMICAL SOCIETY OF DALLAS
Edited by Karl S. Baltz, Sr. for 2021 Virtual Texas Star Party Event
Three Challenges
Regular-Small to Medium Binoculars
Challenge 50mm and Larger
Challenge From Hell-Advanced**

RULES AND REGULATIONS

Welcome to the Texas Star Party's Binocular Observing Club. The purpose of this club is not to test your observing skills by throwing the toughest objects at you that are hard to see under any conditions, but to give you an opportunity to observe 25 showcase objects under what would normally be the ideal conditions of these pristine West Texas Skies. But since we can't be at Prude Ranch this year because of the Pandemic, you will have to accept the challenge of observing in less than ideal conditions. For some of you, that might mean observing from within the cities where you live. Or for some, getting to the most convenient dark sky location. Which might be an astronomy club observing site or just out in the countryside. Whatever location you chose to observe from. Please state the location beside each object

The Rules are simple.

1st Challenge – Regular Small To Medium Sized Binoculars

Observe any **25 objects** from the attached list and log those observations in the spaces provided. Any size binoculars can be used.

For a Southern Skies Challenge, observe those objects marked with an "S". For an easy list, observe those objects marked with an "E". For a tougher list, observe those objects marked with an "H". But remember, a total of 25 of 50 objects must be observed and you can mix and match lists.

All objects are available for observation between 10:00pm and 4:00am. All objects are in Right Ascension order so that you can observe them before they set in the West, or as they rise in the East. Each person completing this list will receive an official Virtual Texas Star Party Binocular Observing Club Certificate. Certificate will be made available by a download link or attached to a reply email.

2nd Challenge - 50mm or Larger Binoculars

A **Texas Star Party Binocular Challenge** program of 25 objects meant for **50mm or larger binoculars**.

3rd Challenge - 50mm and larger Binoculars For Advanced Observer

"Texas Star party Binocular Program from Hell" program. This is a difficult program of 25 objects for 50mm and larger binoculars, and is for the **advanced binocular observer**.

Each of these additional programs will have its own Completion Certificate. All **Observations must be made between the end of Twilight June 5th, 2021 and Dawn June 13th, 2021.** Times used will be your local times.

Email your log sheets to promotions@texasstarparty.org

In the subject put Binocular Challenges

In the body of your email include the locations where you observed. Do not list per object.

Please email as soon as possible after end of observing period.

Thank You.

Regards,

Karl S. Baltz, Sr.

Enjoy participating in our 2021 Virtual Texas Star Party Visual Observing Challenges and our Virtual Live Streaming broadcast programs.

Texas Star Party Binocular Observing Program

Object	Type	R.A.	Dec	Con	Size	Mag	Date	Time
NGC 129	OpCl	00 29.9	+60 14	Cas	21.0	6.5	H	
NGC 457	OpCl	01 19.1	+58 20	Cas	13.0	6.4	H	
NGC 581 M103	OpCl	01 33.2	+60 42	Cas	6.0	7.0	H	
NGC 663	OpCl	01 46.0	+61 15	Cas	16.0	7.1	H	
NGC 2632 M44	OpCl	08 40.1	+19 59	Cnc	95.0	3.1	E	
NGC 2682 M67	OpCl	08 50.4	+11 49	Cnc	29.0	6.9	H	
Mel 111 Coma Clust	OpCl	12 25.0	+26 00	Com	275.0	1.8	E	
NGC 5128 Cent A	Gal	13 25.5	-43 01	Cen	18.0	7.0	S	
NGC 5139 Omega C	GbCl	13 26.8	-47 29	Cen	36.0	3.5	S	
NGC 5272 M3	GbCl	13 42.2	+28 23	CVn	16.0	5.9	H	
NGC 5460	OpCl	14 07.6	-48 19	Cen	25.0	5.6	S	
NGC 5904 M5	GbCl	15 18.6	+02 05	SerCp	17.0	5.7	H	
NGC 6121 M4	GbCl	16 23.6	-26 32	Sco	26.0	5.8	E	
NGC 6124	OpCl	16 25.6	-40 40	Sco	40.0	5.8	S	
NGC 6205 M13	GbCl	16 41.7	+36 28	Her	17.0	5.7	E	
NGC 6218 M12	GbCl	16 47.2	-01 57	Oph	15.0	6.8	E	

NGC 6231	OpCl	16 54.0	-41 48	Sco	14.0	2.6	S	
Cr316-H12	OpCl	16 55.5	-40 50	Sco	105.0	3.4	S	
NGC 6242	OpCl	16 55.6	-39 30	Sco	9.0	6.4	S	
NGC 6254 M10	GbCl	16 57.1	-04 06	Oph	15.0	6.6	E	
NGC 6268	OpCl	17 02.4	-39 44	Sco	6.0	9.5	S	
NGC 6281	OpCl	17 04.8	-37 54	Sco	8.0	5.4	S	
NGC 6341 M92	GbCl	17 17.1	+43 08	Her	11.0	6.4	E	
NGC 6405 M6	OpCl	17 40.1	-32 13	Sco	33.0	4.2	E	
IC 4665	OpCl	17 46.3	+05 43	Oph	70.0	4.2	E	

TSP Binocular Observing Program (con't.)

Object	Type	R.A.	Dec	Con	Size	Mag	Date	Time
NGC 6475 M7	OpCl	17 53.9	-34 49	Sco	80.0	3.3	E	
NGC 6494 M23	OpCl	17 56.8	-19 01	Sgr	30.0	5.5	E	
NGC 6523 M8	Bneb	18 03.8	-24 23	Sgr	90.0	5.0	E	
NGC 6541	GbCl	18 08.0	-43 42	CrA	13.0	6.1	S	
NGC 6603 M24	OpCl	18 18.4	-18 25	Sgr	120.0	4.0	E	
NGC 6611 M16	OpCl	18 18.8	-13 47	Ser	120.0	6.0	E	
NGC 6613 M18	OpCl	18 19.9	-17 08	Sgr	9.0	6.9	H	
NGC 6618 M17	OpCl	18 20.8	-16 11	Sgr	11.0	6.0	E	
IC 4725 M25	OpCl	18 31.6	-19 15	Sgr	32.0	4.6	E	
NGC 6656 M22	GbCl	18 36.4	-23 54	Sgr	24.0	5.1	E	
IC 4756	OpCl	18 39.0	+05 27	Ser	40.0	4.6	E	
NGC 6705 M11	OpCl	18 51.1	-06 16	Sct	13.0	5.8	E	
NGC 6723	GbCl	18 59.6	-36 38	Sgr	11.0	7.2	S	

Cr399 Coathanger	OpCl	19 25.4	+20 11	Vul	60.0	3.6	E	
NGC 6809 M55	GbCl	19 40.0	-30 58	Sgr	19.0	6.4	H	
NGC 6853 M27	PNeb	19 59.6	+22 43	Vul	8.0	7.3	E	
NGC 6913 M29	OpCl	20 23.9	+38 32	Cyg	6.0	6.6	H	
NGC 6940	OpCl	20 34.6	+28 18	Vul	31.0	6.3	H	
NGC 7078 M15	GbCl	21 30.0	+12 10	Peg	12.0	6.0	H	
NGC 7092 M39	OpCl	21 32.2	+48 26	Cyg	31.0	4.6	E	
NGC 7089 M2	GbCl	21 33.5	-00 49	Aqr	13.0	6.4	H	
NGC 7243	OpCl	22 15.3	+49 53	Lac	21.0	6.4	H	
NGC 7654 M52	OpCl	23 24.2	+61 35	Cas	12.0	6.9	H	
NGC 7789	OpCl	23 57.0	+56 44	Cas	15.0	6.7	H	
NGC 6633	OpCl	18 27.7	+06 34	Oph	27.0	4.6	E	

Texas Star Party Challenge Binocular Program

Object	Type	R.A.	Dec	Con	Size	Mag	Date	Time
NGC 2903	Gal	09 32.2	+21 30	Leo	12.0	9.0		
NGC 3115	Gal	10 05.2	-07 43	Sex	8.1	8.9		
NGC 3368 M96	Gal	10 46.8	+11 49	Leo	6.9	9.2		
NGC 3521	Gal	11 05.8	+00 02	Leo	12.5	9.0		
NGC 3621	Gal	11 18.3	-32 49	Hya	9.8	8.9		
NGC 3623 M65	Gal	11 18.9	+13 05	Leo	8.7	9.3		
NGC 3627 M66	Gal	11 20.2	+12 59	Leo	8.2	8.9		
NGC 4258 M106	Gal	12 19.0	+47 18	CVn	20.0	8.4		
NGC 4374 M84	Gal	12 25.1	+12 53	Vir	5.1	9.1		
NGC 4382 M85	Gal	12 25.4	+18 11	Com	7.5	9.1		
NGC 4406 M86	Gal	12 26.2	+12 57	Vir	12.0	8.9		
NGC 4472 M49	Gal	12 29.8	+08 00	Vir	8.1	8.4		
NGC 4486 M87	Gal	12 30.8	+12 24	Vir	7.1	8.6		
NGC 4649 M60	Gal	12 43.7	+11 33	Vir	7.1	8.8		
NGC 4736 M94	Gal	12 50.9	+41 07	CVn	13.0	8.2		
NGC 4826 M64	Gal	12 56.7	+21 41	Com	9.2	8.5		
NGC 5055 M63	Gal	13 15.8	+42 02	CVn	13.5	8.6		
NGC 5102	Gal	13 22.0	-36 38	Cen	9.8	8.8		
NGC 5194 M51	Gal	13 29.9	+47 12	CVn	8.2	8.4		
NGC 5466	GbCl	14 05.5	+28 32	Boo	11.0	9.0		
NGC 5897	GbCl	15 17.4	-21 01	Lib	12.6	8.6		
NGC 6293	GbCl	17 10.2	-26 35	Oph	7.9	8.2		
NGC 6304	GbCl	17 14.5	-29 28	Oph	6.8	8.4		
NGC 6316	GbCl	17 16.6	-28 08	Oph	4.9	8.8		
NGC 6356	GbCl	17 23.6	-17 49	Oph	7.2	8.2		

Texas Star Party Binocular Program from “Hell”

Object	Type	R.A.	Dec	Con	Size	Mag	Date	Time
NGC 2683	Gal	08 52.7	+33 25	Lyn	8.4	9.8		
NGC 2841	Gal	09 22.0	+50 58	UMa	6.8	9.2		
NGC 3351 M95	Gal	10 44.0	+11 42	Leo	7.8	9.7		
NGC 3379 M105	Gal	10 47.8	+12 35	Leo	3.9	9.3		
NGC 3585	Gal	11 13.3	-26 45	Hya	6.9	9.7		
NGC 3587 M97	P Neb	11 14.8	+55 01	UMa	3.1	9.9		
NGC 4125	Gal	12 08.1	+65 11	Dra	6.1	9.7		
NGC 4254 M99	Gal	12 18.8	+14 25	Com	4.6	9.9		
NGC 4303 M61	Gal	12 21.9	+04 28	Vir	6.0	9.7		
NGC 4321 M100	Gal	12 22.9	+15 47	Com	6.2	9.3		
NGC 4365	Gal	12 24.5	+07 19	Vir	5.6	9.6		
NGC 4449	Gal	12 28.2	+44 06	CVn	5.5	9.6		
NGC 4490	Gal	12 30.6	+41 38	CVn	6.4	9.8		
NGC 4501 M88	Gal	12 32.0	+14 25	Com	6.1	9.6		
NGC 4552 M89	Gal	12 35.7	+12 33	Vir	3.4	9.8		
NGC 4565	Gal	12 36.3	+25 59	Com	14.0	9.6		
NGC 4569 M90	Gal	12 36.8	+13 10	Vir	10.5	9.5		
NGC 4579 M58	Gal	12 37.7	+11 49	Vir	5.5	9.7		
NGC 4621 M59	Gal	12 42.0	+11 39	Vir	4.6	9.6		
NGC 4631	Gal	12 42.1	+32 32	CVn	15.5	9.2		
NGC 4699	Gal	12 49.0	-08 40	Vir	4.4	9.5		
NGC 4725	Gal	12 50.4	+25 30	Com	11.0	9.4		
NGC 5005	Gal	13 10.9	+37 03	CVn	5.8	9.8		
NGC 5866	Gal	15 06.5	+55 46	Dra	6.6	9.9		
NGC 6229	GbCl	16 47.0	+47 32	Her	4.5	9.4		