

THE TEXAS STAR PARTY

Y2K TELESCOPE OBSERVING CLUB

BY
JOHN WAGONER
AMERICAN ASSOCIATION OF AMATEUR ASTRONOMERS

RULES AND REGULATIONS

Welcome to the Texas Star Party's Telescope 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 the ideal conditions of these pristine West Texas skies, thus displaying them to their best advantage. Ok, ok, after all the grumbling after last year's Planetary Party and the previous year's Grazing Grass, I'm going easy on you. This year we are doing Glorious Globulars. The rules are simple. Just observe any 25 of the 67 globulars listed, and log those observations in the spaces below. That's it. Any size telescope can be used. All observations must be made at the Texas Star Party to qualify. For those of you working on the Astronomical League's Binocular or Telescopic Messier Clubs, I have marked those objects with an "M" under the "Prog" column. For the Herschel Club, I have used an "H", and for the Herschel Two Club, an "H II". For those who would like a bigger challenge, I have added five globulars with the designation "EC" for "extra credit". Also, Larry Mitchell of Houston has prepared a program of challenge objects (other than globulars) for larger telescopes that he will make available during TSP.

All Glorious Globulars are within range of small to medium sized telescopes, and are available for observation between 10:00PM and 4:00AM any time during the TSP. Small telescope owners should pay close attention to the size and magnitude of the globulars selected for observation. All objects are listed 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 Texas Star Party Telescope Observing Club lapel pin. These pins are not sold at the TSP and can only be acquired by completing the program, so wear them proudly. These objects were tested at Ft. Davis, and we are giving you your choice of what 25 objects to observe. There are 25 easy objects for small scopes as well as challenge objects for larger scopes. To receive your pin, turn in your observations to ***John Wagoner - TSP Observing Chairman*** any time during the Texas Star Party. I will be at the outside door leading into the TSP Meeting Hall each day between 1:00 PM and 2:30 PM. If you finish the list the last night of TSP, and I am not available to give you your pin, just mail your observations to me at 1409 Sequoia Dr., Plano, Tx. 75023, and I will see that you get a pin. Finally, for those of you who are new to the TSP, and would like to participate in the Planetary Party, or the Great Southern Skies Challenge from previous years, you may observe 25 objects on each of these lists, and turn in your observations for a pin from one or both programs. Good luck and good observing. Now let's get out there and **get glorious!!!**

A big "Thank You" to Robert Haler of the Astronomical Society of Kansas City for designing this year's pin.

GLORIOUS GLOBULARS

(choose any 25 objects)

Chk	Object	Prog	R.A.	DEC	Mag	Size	Const	Urn	SA	Date Observed	Time Observed
[]	NGC 2419	H	07 38.1	+38 53	10.3	4.1'	Lyn	69	5		
[]	NGC 4147	H	12 10.1	+18 33	10.2	4.0'	Com	148	13		
[]	NGC 4590	M 68	12 39.5	-26 45	7.7	12.0'	Hya	329	21		
[]	NGC 5024	M 53	13 12.9	+18 10	7.5	13.0'	Com	150	14		
[]	NGC 5053	H II	13 16.4	+17 42	9.9	11.0'	Com	150	14		
[]	NGC 5272	M 3	13 42.2	+28 23	5.9	16.0'	CVn	110	7		
[]	NGC 5466	H	14 05.5	+28 32	9.0	11.0'	Boo	110	7		
[]	NGC 5634	H	14 29.6	-05 59	9.4	4.9'	Vir	242	14		
[]	NGC 5694	H	14 39.6	-26 32	9.2	3.6'	Hya	332	21		
[]	NGC 5897	H	15 17.4	-21 01	8.6	13.0'	Lib	334	21		
[]	NGC 5904	M 5	15 18.6	+02 05	5.7	17.0'	SerCp	244	14		
[]	NGC 6093	M 80	16 17.0	-22 59	7.3	8.9'	Sco	336	22		
[]	NGC 6121	M 4	16 23.6	-26 32	5.8	26.0'	Sco	336	22		
[]	NGC 6144	H	16 27.3	-26 02	9.0	9.3'	Sco	336	22		
[]	NGC 6171	M107H	16 32.5	-13 03	8.1	10.0'	Oph	291	15		
[]	NGC 6205	M 13	16 41.7	+36 28	5.7	17.0'	Her	114	8		
[]	NGC 6218	M 12	16 47.2	-01 57	6.8	15.0'	Oph	246	15		
[]	NGC 6229	H	16 47.0	+47 32	9.4	4.5'	Her	80	8		
[]	NGC 6235	H	16 53.4	-22 11	10.0	5.0'	Oph	337	22		
[]	NGC 6254	M 10	16 57.1	-04 06	6.6	15.0'	Oph	247	15		
[]	NGC 6266	M 62	17 01.2	-30 07	6.7	14.0'	Oph	376	22		
[]	NGC 6273	M 19	17 02.6	-26 16	6.7	14.0'	Oph	337	22		
[]	NGC 6284	H	17 04.5	-24 46	8.9	5.6'	Oph	337	22		
[]	NGC 6287	H	17 05.2	-22 42	9.3	5.1'	Oph	337	22		
[]	NGC 6293	H	17 10.2	-26 35	8.2	7.9'	Oph	337	22		
[]	NGC 6304	H	17 14.5	-29 28	8.4	6.8'	Oph	376	22		
[]	NGC 6316	H	17 16.6	-28 08	8.8	4.9'	Oph	337	22		
[]	NGC 6333	M 9	17 19.2	-18 31	7.6	9.3'	Oph	337	15		
[]	NGC 6341	M 92	17 17.1	+43 08	6.4	11.0'	Her	81	8		
[]	NGC 6342	H	17 21.2	-19 35	9.8	3.0'	Oph	338	15		
[]	NGC 6355	H	17 24.0	-26 21	9.7	5.0'	Oph	338	22		
[]	NGC 6356	H	17 23.6	-17 49	8.2	7.2'	Oph	293	15		
[]	NGC 6380	EC	17 34.5	-39 04	11.1	3.9'	Sco	376	22	Caution.	
[]	NGC 6401	H	17 38.6	-23 55	9.5	5.6'	Oph	338	22		
[]	NGC 6402	M 14	17 37.6	-03 15	7.6	12.0'	Oph	248	15		
[]	NGC 6426	H	17 44.9	+03 00	11.1	3.2'	Oph	248	15		
[]	DJ 1	EC	17 48.0	-33 04	13.6	3.0'	Sco	377	22		
[]	NGC 6440	H	17 48.9	-20 22	9.1	5.4'	Sgr	338	15		
[]	DJ 2	EC	18 01.0	-27 49	9.9	3.5'	Sgr	339	22		
[]	NGC 6517	H	18 01.8	-08 58	10.3	4.3'	Oph	294	15		
[]	NGC 6522	H	18 03.6	-30 02	8.4	5.6'	Sgr	377	22		
[]	NGC 6528	H	18 04.8	-30 03	9.5	3.7'	Sgr	377	22		
[]	DJ 3	EC H	18 06.3	-27 46	9.5	9.3'	Sgr	377	22	NGC 6540 Yep, it's a globular. Size?	
[]	NGC 6544	H	18 07.3	-25 00	8.1	8.9'	Sgr	339	22		
[]	NGC 6553	H	18 09.3	-25 54	8.1	8.1'	Sgr	339	22		
[]	NGC 6569	H	18 13.6	-31 50	8.7	5.8'	Sgr	377	22		
[]	NGC 6624	H	18 23.7	-30 22	8.0	5.9'	Sgr	378	22		
[]	NGC 6626	M 28	18 24.5	-24 52	6.8	11.0'	Sgr	340	22		
[]	NGC 6637	M 69	18 31.4	-32 21	7.6	7.1'	Sgr	378	22		
[]	NGC 6638	H	18 30.9	-25 30	9.1	5.0'	Sgr	340	22		
[]	NGC 6642	H	18 31.9	-23 29	9.4	4.5'	Sgr	340	22		
[]	NGC 6656	M 22	18 36.4	-23 54	5.1	24.0'	Sgr	340	22		
[]	Pal 8	EC	18 41.5	-19 49	11.2	4.7	Sgr	340	22		
[]	NGC 6681	M 70	18 43.2	-32 18	8.0	7.8'	Sgr	378	22		
[]	NGC 6712	H	18 53.1	-08 42	8.2	7.2'	Sct	295	15		
[]	NGC 6715	M 54	18 55.1	-30 29	7.6	9.1'	Sgr	378	22		
[]	NGC 6717	H II	18 55.1	-22 42	9.2	3.9'	Sgr	340	22		
[]	NGC 6779	M 56	19 16.6	+30 11	8.3	7.1'	Lyr	118	8		
[]	NGC 6809	M 55	19 40.0	-30 58	6.4	19.0'	Sgr	380	22		
[]	NGC 6838	M 71	19 53.8	+18 47	8.0	7.2'	Sge	162	16		
[]	NGC 6864	M 75	20 06.1	-21 55	8.5	6.0'	Sgr	343	23		
[]	NGC 6934	H	20 34.2	+07 24	8.7	5.9'	Del	209	16		
[]	NGC 6981	M 72	20 53.5	-12 32	9.3	5.9'	Aqr	299	16		
[]	NGC 7006	H	21 01.5	+16 11	10.5	2.8'	Del	164	16		
[]	NGC 7078	M 15	21 30.0	+12 10	6.0	12.0'	Peg	210	16		
[]	NGC 7089	M 2	21 33.5	-00 49	6.4	13.0'	Aqr	255	16		
[]	NGC 7099	M 30	21 40.4	-23 11	7.3	11.0'	Cap	346	23		

THE PLANETARY PARTY

(choose any 25 objects)

Chk	Object	R.A.	DEC	Mag	Size	Const	Urn	SA	<u>Date Observed</u>	<u>Time Observed</u>
[]	NGC 2392	07 29.2	+20 55	9.2	45"	Gem	139	5		
[]	NGC 3132	10 07.0	-40 26	9.4	84.0"X53.0"	Vel	399	20		
[]	NGC 3242	10 24.8	-18 38	7.8	45.0"X36.0"	Hya	325	13		
[]	NGC 3587	11 14.8	+55 01	9.9	3.4'X3.3'	UMa	46	2	M97	
[]	NGC 4361	12 24.5	-18 48	10.9	1.9'X1.9'	Crv	328	13		
[]	IC 4406	14 22.4	-44 09	10.3	1.7'X0.6'	Lup	404	21		
[]	NGC 5873	15 12.8	-38 08	11.2	3.0"X3.0"	Lup	373	21		
[]	NGC 5882	15 16.8	-45 39	10.5	7.0"	Lup	405	21		
[]	NGC 6026	16 01.4	-34 32	12.9	54.0"X36.0"	Lup	374	22		
[]	IC 4593	16 11.7	+12 04	10.7	12.0"X10.0"	Her	200	15		
[]	NGC 6153	16 31.5	-40 15	10.9	28.0"X21.0"	Sco	407	22		
[]	NGC 6210	16 44.5	+23 49	8.8	48.0"X8.0"	Her	156	8		
[]	IC 4634	17 01.6	-21 50	10.9	10.0"X8.0"	Oph	337	22		
[]	NGC 6302	17 13.7	-37 06	9.6	83"	Sco	376	22		
[]	NGC 6309	17 14.1	-12 55	11.5	52.0"X52.0"	Oph	292	15		
[]	NGC 6337	17 22.3	-38 29	12.3	49.0"X45.0"	Sco	376	22		
[]	NGC 6369	17 29.3	-23 46	11.4	58.0"X34.0"	Oph	338	22		
[]	NGC 6543	17 58.6	+66 38	8.1	23.0"X17.0"	Dra	30	3		
[]	NGC 6537	18 05.2	-19 51	12.0	5.0"	Sgr	339	15		
[]	NGC 6572	18 12.1	+06 51	8.1	16.0"X13.0"	Oph	204	15		
[]	NGC 6567	18 13.7	-19 05	11.0	11.0"X7.0"	Sgr	339	15		
[]	IC 4699	18 18.5	-45 59	12.0	5.0"	Tel	409	22		
[]	NGC 6629	18 25.7	-23 12	11.3	16.0"X14.0"	Sgr	340	22		
[]	NGC 6644	18 32.6	-25 08	12.2	2.5"	Sgr	340	22		
[]	IC 4776	18 45.8	-33 21	10.4	8.0"X8.0"	Sgr	378	22		
[]	NGC 6720	18 53.6	+33 02	8.8	86.0"X62.0"	Lyr	117	8	M57	
[]	NGC 6741	19 02.6	-00 27	11.5	9.0"X7.0"	Aql	251	16		
[]	NGC 6751	19 05.9	-06 00	11.9	21.0"X21.0"	Aql	251	16		
[]	IC 4846	19 16.5	-09 03	12.0	2.0"	Aql	296	16		
[]	IC 1297	19 17.4	-39 37	10.7	8.0"X6.0"	CrA	379	22		
[]	NGC 6781	19 18.4	+06 33	11.4	1.9'X1.8'	Aql	206	16		
[]	NGC 6790	19 23.2	+01 31	11.4	9.6"X5.4"	Aql	251	16		
[]	NGC 6803	19 31.3	+10 03	11.4	5.0"X5.0"	Aql	207	16		
[]	NGC 6804	19 31.6	+09 13	12.0	62.0"X49.0"	Aql	207	16		
[]	NGC 6818	19 44.0	-14 09	9.3	22.0"X15.0"	Sgr	297	16		
[]	NGC 6826	19 44.8	+50 31	8.8	27.0"X24.0"	Cyg	55	3		
[]	NGC 6853	19 59.6	+22 43	7.3	8.0'X5.7'	Vul	162	8	M27	
[]	NGC 6879	20 10.5	+16 55	11.0	4.7"X4.1"	Sge	163	16		
[]	NGC 6891	20 15.2	+12 42	10.5	74.0"X62.0"	Del	208	16		
[]	IC 4997	20 20.2	+16 45	11.3	2.0"X1.4"	Sge	163	16		
[]	NGC 6905	20 22.4	+20 07	11.1	42.0"X35.0"	Del	163	9		
[]	NGC 7009	21 04.2	-11 22	8.0	44.0"X23.0"	Aqr	300	16		
[]	NGC 7027	21 07.1	+42 14	8.5	18.0"X10.0"	Cyg	85	9		
[]	NGC 7048	21 14.2	+46 16	12.1	60.0"X60.0"	Cyg	86	9		
[]	IC 5148	21 59.5	-39 23	11.0	120"	Gru	383	23		
[]	NGC 7293	22 29.6	-20 48	7.3	12.0'X10.0'	Aqr	347	17		
[]	NGC 7662	23 25.9	+42 33	8.3	32.0"X28.0"	And	88	9		

THE GREAT SOUTHERN SKIES CHALLENGE

(choose any 25 objects)

CHK	Object	R.A.	DEC	Mag	Type	Size	Const	Urn	SA	<u>Date Observed</u>	<u>Time Observed</u>
[]	NGC 4373	12 25.3	-39 46	11.9	Glxy	3.4'X2.5'	Cen	369	21		
[]	IC 3370	12 27.6	-39 20	11.1	Glxy	2.8'X2.4'	Cen	369	21		
[]	NGC 4507	12 35.6	-39 55	12.8	Glxy	2.3'X2.0'	Cen	369	21		
[]	NGC 4767	12 53.9	-39 43	12.6	Glxy	2.6'X1.4'	Cen	369	21		
[]	NGC 4945	13 05.4	-49 28	9.6	Glxy	20'X4.4'	Cen	402	21		
[]	NGC 4976	13 08.6	-49 30	11.2	Glxy	6.0'X3.5'	Cen	402	21		
[]	NGC 5011	13 12.9	-43 06	12.4	Glxy	2.0'X2.0'	Cen	403	21		
[]	NGC 5102	13 22.0	-36 38	9.7	Glxy	9.3'X3.5'	Cen	370	21		
[]	NGC 5128	13 25.5	-43 01	7.0	Glxy	18'X14'	Cen	403	21		
[]	NGC 5139	13 26.8	-47 29	3.5	GbCl	36.0'	Cen	403	21		
[]	NGC 5161	13 29.2	-33 10	12.0	Glxy	5.4'X2.3'	Cen	370	21		
[]	NGC 5193	13 31.9	-33 14	12.7	Glxy	1.8'X1.6'	Cen	370	21		
[]	NGC 5266	13 43.0	-48 11	12.3	Glxy	3.5'X2.5'	Cen	403	21		
[]	NGC 5286	13 46.4	-51 22	7.6	GbCl	9.1'	Cen	430	25		
[]	NGC 5365	13 57.9	-43 57	12.2	Glxy	3.1'X2.4'	Cen	403	21		
[]	NGC 5460	14 07.6	-48 19	5.6	OpCl	25.0'	Cen	404	21		
[]	NGC 5530	14 18.5	-43 24	12.0	Glxy	4.1'X2.2'	Lup	404	21		
[]	IC 4406	14 22.4	-44 09	10.3	PNEb	1.7'X0.6'	Lup	404	21		
[]	NGC 5643	14 32.7	-44 10	10.9	Glxy	4.6'X4.1'	Lup	404	21		
[]	NGC 5824	15 04.0	-33 04	7.8	GbCl	6.2'	Lup	373	21		
[]	NGC 5882	15 16.8	-45 39	10.5	PNEb	7.0"	Lup	405	21		
[]	NGC 5927	15 28.0	-50 40	8.3	GbCl	12.0'	Lup	405	21		
[]	NGC 5946	15 35.5	-50 40	9.6	GbCl	7.1'	Nor	405	21		
[]	NGC 5986	15 46.1	-37 47	7.5	GbCl	9.8'	Lup	374	21		
[]	NGC 6124	16 25.6	-40 40	5.8	OpCl	40.0'	Sco	407	22		
[]	NGC 6139	16 27.7	-38 51	8.9	GbCl	5.5'	Sco	375	22		
[]	NGC 6231	16 54.0	-41 48	2.6	OpCl	14.0'	Sco	407	22		
[]	Cr316-H12	16 55.5	-40 50	3.4	OpCl	105'	Sco	407	22		
[]	NGC 6242	16 55.6	-39 30	6.4	OpCl	9.0'	Sco	375	22		
[]	NGC 6268	17 02.4	-39 44	9.5	OpCl	6.0'	Sco	376	22		
[]	NGC 6281	17 04.8	-37 54	5.4	OpCl	8.0'	Sco	376	22		
[]	NGC 6302	17 13.7	-37 06	9.6	PNEb	83"	Sco	376	22		
[]	NGC 6352	17 25.5	-48 25	8.1	GbCl	7.1'	Ara	408	22		
[]	NGC 6388	17 36.3	-44 44	6.7	GbCl	8.7'	Sco	408	22		
[]	NGC 6441	17 50.2	-37 03	7.2	GbCl	7.8'	Sco	377	22		
[]	NGC 6496	17 59.0	-44 16	8.5	GbCl	6.9'	Sco	408	22		
[]	NGC 6522	18 03.6	-30 02	8.4	GbCl	5.6'	Sgr	377	22		
[]	NGC 6528	18 04.8	-30 03	9.5	GbCl	3.7'	Sgr	377	22		
[]	NGC 6541	18 08.0	-43 42	6.1	GbCl	13.0'	CrA	409	22		
[]	NGC 6723	18 59.6	-36 38	7.2	GbCl	11.0'	Sgr	378	22		



www.AstroMax.com

The American Association of Amateur Astronomers

Observing Log

Observer: _____ Location: _____ Page: _____

INDEX	Period - Instrument		Notes
Object	Date	Time	
	Power	Seeing	
	Type Instrument		
Object	Date	Time	
	Power	Seeing	
	Type Instrument		
Object	Date	Time	
	Power	Seeing	
	Type Instrument		
Object	Date	Time	
	Power	Seeing	
	Type Instrument		
Object	Date	Time	
	Power	Seeing	
	Type Instrument		
Object	Date	Time	
	Power	Seeing	
	Type Instrument		
Object	Date	Time	
	Power	Seeing	
	Type Instrument		
Object	Date	Time	
	Power	Seeing	
	Type Instrument		
Object	Date	Time	
	Power	Seeing	
	Type Instrument		
Object	Date	Time	
	Power	Seeing	
	Type Instrument		



AAAA

The American
Association of
Amateur
Astronomers

P.O. Box 7981
Dallas, TX 75209

Postage
PAID
Plano, TX
75075

A Special Service of **The American Association of Amateur Astronomers**

You **MUST** be a member of the Astronomical League, either through membership in an affiliated astronomical society or as a Member-at-Large, to receive certification for any of the AL observing programs.

As a member of the AAAA, not only are you eligible to earn any of the AL observing awards, but you will also get your own subscription to the Astronomical League's newsletter, the REFLECTOR, as well as our own quarterly newsletter, *The American Astronomer*.

Join the AAAA, the first nationwide astronomy club for all amateur astronomers.

Tell Your Friends the Benefits of Joining
The American Association of Amateur Astronomers!

*Observing Awards. Quarterly Newsletter.
Astronomy News and Special Publications.
Full Membership in the Astronomical League.
Discounts on Astronomical Publications.*



Visit our Web Page: <http://www.AstroMax.com>
E-mail: aaaa@astromax.com

To join the American Association of Amateur Astronomers, send your name and address along with your check for \$20.00 (\$25.00 family) made payable to AAAA, to:
AAAA, P.O. Box 7981, Dallas, TX. 75209