

The Texas Star Party

Advanced Observing 2017:

“Open Clusters and Asterisms”



Cluster	Coordinates 2000	Const	Type	Diam Arc'	V Mag.	No. Stars	Bt* V-m	Dist. Lt. Yrs	Trum. Type	Urano One
□ Alessi - J11046	11 04 37.2 – 31 57 39	Hya	Ast	3.3'	11.8	8	12.3			367
□ Brosch 1	12 33 19.5 – 00 38 52	Vir	Ast	0.7'		5	11.5			239
□ ESO 518-03	16 47 04.7 – 25 48 18	Sco	Cl	5.0'		72	11.5	4,127	I2p	336
□ Lynga 13	16 48 54.0 – 43 26 12	Sco	Cl	9.0'		356		3,713	III1m	407
□ Ruprecht 122	16 55 08.3 – 40 56 36	Sco	Cl	5.0'		42	10.5	5,239		407
□ VdB-Ha 205	16 56 11.7 – 40 40 06	Sco	Cl	4.0'		19	6.68	7,042		407
□ ESO 587-04	17 04 21.9 – 19 27 24	Oph	Cl	2.3'		17	11.4	17,183		337
□ Dol-Dzim7	17 11 25.7 + 15 28 35	Her	Cl	3.0'		6	9.7		IV1p	202
□ Trumpler 25	17 24 30.3 – 39 01 16	Sco	Cl	8.0'	11.7	449	11.3	5,927	II1m	408
□ Ruprecht 124	17 27 56.8 – 40 43 28	Sco	Cl?	2.0'		15	12.0		III1p	408
□ Collinder 333	17 31 31.3 – 34 00 37	Sco	Cl	7.0'	9.8	159	8.6	2,787	II2m	376
□ Terzan-Ju 20	17 33 31.6 – 29 19 13	Oph	Ast	2.5'		9	9.9			376
□ Trumpler 27	17 36 12.7 – 33 29 10	Sco	Cl?	6.0'	6.7	155	8.39	3,948	III3m	376
□ Trumpler 28	17 36 56.2 – 32 28 02	Sco	Cl	5.0'	7.7	146	9.84	4,479	III2m n	376
□ Collinder 347	17 46 18.4 – 29 20 02	Sgr	Cl	10.0'	8.8	393	10.7	4,936	II2m n	377
□ NGC 6520/B86	18 03 24.0 – 27 53 18	Sgr	Cl	2.0'	7.6	99	9.0	6,194	III1p n	339
□ Collinder 469	18 16 34.0 – 18 18 42	Sgr	Cl	3.0'	9.1	112	10.7	4,828	IV1p	339
□ Trumpler 32	18 17 10.7 – 13 20 44	Ser	Cl	12.0'	12.2	75	11.8	5,607	I2m	294
□ Ruprecht 170	18 25 12.0 – 10 00 00	Sct	Cl	8.0'		226	13.0	18,859	IV1m	295
□ Bica 3	18 26 06.1 – 13 03 38	Sct	Cl	3.5'		85	11.8	5,346		295
□ Dias 6	18 30 30.0 – 12 18 59	Sct	Cl	6.0'		105	12.0	7,299		295
□ NGC 6645	18 32 36.0 – 16 53 00	Sgr	Cl	14.8'	8.5	72	9.9	4,059	IV1m	295
□ Ruprecht 144	18 33 34.0 – 11 25 00	Sct	Cl	12.0'		358	12.0	5,216	IV1p	295
□ Kemble 2	18 35 00.0 + 72 23 00	Dra	Ast	30.0'		17	7.0			30
□ Apriamasvili 1	18 48 06.0 – 05 51 00	Sct	Cl	5.0'	8.9	94	12.6	7,100	IV1p	295
□ Archinal 1	18 54 49.0 + 05 32 54	Ser	Cl?	1.5'		11	13.4	4,606	II2p	205
□ Alessi 62	18 55 19.0 + 21 36 06	Her	Cl	23.0'		15	8.6	1,780		160
□ Berkeley 82	19 11 20.0 + 13 07 06	Aql	Cl?	2.0'		31	14.0	3,195	III1p	206
□ Berkeley 45	19 19 06.2 + 15 43 07	Aql	Cl	2.0'		83	15.0	7,661	II1p	206
□ Berkeley 46	19 20 53.0 + 37 46 18	Lyr	Cl	10.0'	9.5	321	15.0	13,000	I2r	118
□ King 25	19 24 34.1 + 13 42 14	Aql	Cl?	5.0'		40	14.0		III2m	206
□ Kronberger 13	19 25 15.0 + 13 56 42	Aql	Cl	1.2'		28		4,500		206
□ Teutsch 42	19 30 13.1 + 18 32 09	Sge	Cl	1.1'		28	13.3	5,216		162
□ Teutsch 27	19 37 20.6 + 18 41 51	Sge	Cl	3.6'		65		8,085		162
□ SkiffJ1942+38.6	19 42 24.0 + 38 39 00	Cyg	Cl	10.0'		285	11.3	8,613	II1p	119
□ Teutsch 43	19 42 47.3 + 29 51 10	Cyg	Cl	2.6'		59	11.9	6,846		119
□ Czernik 41	19 50 50.8 + 25 16 47	Vul	Cl	8.0'		68	9.2		III2m	162
□ Kronberger 52	19 58 08.0 + 30 53 12	Cyg	Cl	1.2'		39	14.6	2,300		119
□ Roslund 3	19 58 41.6 + 20 30 39	Sge	Cl	5.0'		153	9.9	4,782	IV1p	162
□ Berkeley 49	19 59 31.0 + 34 38 48	Cyg	Cl?	2.5'	13.0	43	16.0	6,813	I1p	119
□ Kronberger 54	20 03 06.5 + 31 58 05	Cyg	Cl	0.8'		46	13.9	5,600		119
□ Alessi-J20046	20 04 36.0 – 10 31 46	Aql	Ast	20.0'	7.5	20	8.9			298
□ Berkeley 84	20 04 43.0 + 33 54 18	Cyg	Cl	2.5'		57	16.0	8,965	II1p n	119
□ Roslund 4	20 04 45.8 + 29 13 44	Sge	Cl	5.0'	10.0	80	9.5	6,520	II3m n	162
□ IC 1311	20 10 47.4 + 41 13 00	Cyg	Cl	5.0'	13.1	91	17.0	19,645	I1rn n	84
□ AH03-J2011.9	20 11 57.2 + 26 44 38	Vul	Ast	4.5		9	7.6	8,368		163

The **T**exas **S**tar **P**arty – Advanced Observing 2017 (Cont.): “Open Clusters and Asterisms”

<u>Cluster</u>	<u>Coordinates 2000</u>	<u>Const</u>	<u>Type</u>	<u>Diam Arc'</u>	<u>V Mag.</u>	<u>No. Stars</u>	<u>Bt* V-m</u>	<u>Dist. Lt. Yrs</u>	<u>Trum. Type</u>	<u>Urano One</u>
□ Kronberger 73	20 13 44.4 + 36 45 05	Cyg	Cl	1.2'		60	17.0	5,526		119
□ IC 4996	20 16 30.0 + 37 38 00	Cyg	Cl	2.2'	7.3	65	8.0	7,817	II3p n	119
□ Berkeley 86	20 20 12.0 + 38 41 24	Cyg	Cl	6.0'	7.9	73	9.2	3,625	IV2m n	120
□ Collinder 421	20 23 18.0 + 41 42 00	Cyg	Cl	3.6'	10.1	22	9.8	3,423	III1p n	84
□ Berkeley 89	20 24 28.8 + 46 02 36	Cyg	Cl	3.0'		66	15.0	6,650	III1p	85
□ Dolidze 9	20 25 32.8 + 41 54 29	Cyg	Cl?	5.0'	10.47	8	6.8	3,465	IV2pn	85
□ Bica 1	20 33 10.0 + 41 13 07	Cyg	Cl	3.0'		27	11.0	5,868		85
□ Bica 2	20 33 15.0 + 41 18 42	Cyg	Cl	4.0'		55	7.5	5,868		85
□ Stein 1	20 35 11.2 + 46 05 23	Cyg	Ast	1.5'		6	9.5			85
□ Berkeley 53	20 55 57.9 + 51 04 52	Cyg	Cl	22.0'		393	16.0	10,106	III2m	56
□ French 1	21 07 26.4 + 16 18 17	Del	Ast	13.0'			8.8			210
□ Platais 1	21 30 02.0 + 48 58 36	Cyg	Cl	10.0'		414	8.9	4,134		86
□ Barkhatova 2	21 43 38.0 + 51 04 17	Cyg	Cl	5.0'	8.4	69	10.0	5,464	III1p	57
□ Teutsch 74	21 45 40.0 + 58 05 37	Cep	Cl	4.0'		39	14.0	8,639		57

Observe ANY Twenty Objects (20 out of 60!) – Collect a TSP Advanced Observing Pin

Headings:

Type: *Cl* = Cluster; *Ast* = Asterism; *Cl?* / *Ast?* = Type Status Not Clear

Diameter : Arc': Approximate size in arcmin. to 25 mags. per square arcsecond Isophote

V-Magnitude: Visual Magnitude, rough values good to 0.5 to 1.0 magnitude.

Bt V-m:* V-magnitude of the Brightest Star in the Cluster

***** Trumpler (“Trum.”) Type *****

Concentration:

- I. Detached, Strong Concentration
- II. Detached, Slight Concentration
- III. Detached, No Concentration
- IV. Not Detached

Range of Brightness:

- 1. Most Stars of Near Same Brightness
- 2. Medium Range in Brightness
- 3. Bright and Faint Stars in Cluster

Richness:

- vp Very Poor
- p Poor
- m Medium
- r Rich
- Vr Very rich
- n Nebulosity

Source: “MegaStar”, Wilman Bell

Clear – Steady Skies – Happy Hunting,

Larry Mitchell

*TSP Advanced Observing Chairman
Houston Astronomical Society*