

Challenge Objects for 8 January 2011 Star Party

January Challenges *	Name	Constel	RA	Dec	Mag	Size	Description
Beginner's winter asterism	Heavenly G						Aldebaran, Capella, Castor, Pollux, Procyon, Sirius, Rigel, Bellatrix, Betelgeuse
Beginner's star cluster	Alpha Perseus Cluster	Perseus	03h 24m	49° 52'	2.3	3°	Cr 39, best in binoculars, 50 stars
Beginner's double star	Phi Taurus	Taurus	04h 20m	27° 21'	5.0, 8.4	sep = 52"	WNW M45, PA = 250° Yellow & blue
Telescopic asterism	Kemble's Kite	Cassiopeia	03h 28m	72° 00'		1.5° x 0.5°	Diamond shaped kite with tail, 15 stars
Colored double star	Gamma Andromeda	Andromeda	02h 4m	42° 20'	2.3, 5.5	sep = 9.7"	Almaak, PA = 63° Orange & blue
Close double star	Alpha Pisces	Pisces	02h 2m	2° 45'	3.8, 4.9	sep = 1.7"	Alrescha, PA = 274°
Carbon star	Y Perseus	Perseus	03h 24m	44° 00'	8.1-11.3		Red color from carbon in atmosphere
Large open cluster	Stock 2	Cassiopeia	02h 15m	59° 15'	4.4	1°	50 stars
Open cluster	NGC 1245	Perseus	03h 15m	47° 14'	8.4	10"	50 stars
Open cluster	NGC 1342	Perseus	03h 31m	37° 23'	6.7	14'	40 stars
Globular cluster	None						
Galaxy	NGC 1232	Eridanus	03h 30m	-20° 34'	10.5	8' x 7'	Fine face-on spiral
Planetary nebula	IC 2003	Perseus	03h 56m	33° 52'	12.6	9"	200x to show disk; central * mag 15
Diffuse nebula	NGC 1333	Perseus	03h 29m	31° 24'		8' x 6'	May be glimpsed in 8-10" scopes
Dark nebula	Barnard 1 & 2	Perseus	03h 33m	-15' & +55'		30' & 20'	NW & SW of NGC 1333, all in 1.5° field
Solar system	Asteroid Hebe	Cetus	01h 07m 30s	-10° 04' 12"	9.6		Approx 20' from Eta Cetus

* January 8 objects chosen, where possible, to be near meridian approximately two to four hours after sunset, RA range 2h to 4h

Challenge Objects for 29 January 2011 Star Party

Febuary Challenges *	Name	Constel	RA	Dec	Mag	Size	Description
Beginner's winter asterism	Heavenly G						Aldebaran, Capella, Castor, Pollux, Procyon, Sirius, Rigel, Bellatrix, Betelgeuse
Beginner's star cluster	Hyades Cluster	Perseus	03h 24m	49° 52'	2.3	5°	Mel 25, best in binoculars, 380 stars
Beginner's double star	Delta Orionis	Orion	05h 32m	-00° 18'	2.2, 6.3	sep = 53"	PA = 359°
Telescopic asterism	Kemble's Cascade	Camelopardalis	04h 00m	63° 00'		2.5°	Chain of ~15 stars ending at NGC 1502
Colored double star	Rho Orionis	Orion	05h 13m	2° 55'	4.5, 8.3	sep = 7"	PA = 65° Yellow & pale orange
Close double star	Eta Orionis	Orion	05h 24m	-2° 24'	3.3, 4.7	sep = 1.9"	PA = 77°
Carbon star	R Lepus	Lepus	05h 05m	-14° 48'	5.9-11		Hind's Crimson Star
Carbon star	W Orionis	Orion	05h 00m	1° 12'	6.5-10		Red color from carbon in atmosphere
Large open cluster	Collinder 464	Camelopardalis	05h 13m	73° 57'	4.2	2°	50 stars
Open cluster	NGC 1647	Taurus	04h 46m	19° 08'	6.4	45'	200 stars
Open cluster	NGC 1893	Auriga	05h 22m	33° 25'	7.5	11'	15-60 stars; OIII filter for IC 410 nebula
Globular cluster	None						
Galaxy	NGC 1600	Eridanus	04h 32m	-05° 05'	10.9	3' x 2.5'	Small and faint, best in 10"+ scopes
Planetary nebula	NGC 1535	Eridanus	04h 14m	-12° 44'	10.4	20"x17"	Multiple shells, bright bluish disk, 100X+
Diffuse nebula	IC 2118	Eridanus	03h 29m	31° 24'		8' x 6'	Witch Head Neb, SNR visible in binocs
Dark nebula	Barnard 33 & IC 434	Orion	05h 41m	-2° 28'		6'x4' 60"x10'	Horsehead Neb; 16"+ & OIII filter required
Solar system	Asteroid Psyche	Taurus	04h 38m 18s	18° 31' 05"	10.6		2°+ WSW NGC 1647, ~ 0h 6m E mag 6*

* January 29 objects chosen, where possible, to be near meridian approximately two to five hours after sunset, RA range 4h to 7h

Challenge Objects for 2 April 2011 Star Party

April Challenges *	Name	Constel	RA	Dec	Mag	Size	Description
Beginner's spring asterism	Sickle of Leo	Leo	10h	20°			Head and front end of Leo the Lion
Beginner's spring asterism	Three Leaps of the Gazelle (Arabic)	Ursa Major	9-11 hr	30-40°	$\xi - \nu, \mu - \lambda, \kappa - \iota$		Three pairs of stars; Gazelle startled by lash of lion's tail in the "pond" (Coma Ber)
Beginner's star cluster	Praesepe	Cancer	08h 40m	19° 40'	3.1	1.5°	M44 faintly visible to naked eye
Beginner's double star	Iota Cancer	Cancer	08h 47m	28° 46'	4.0, 6.6	sep = 31"	PA = 307° Yellow and blue
Telescopic asterism	Broken Engagement Ring	Ursa Major	10h 51m	56° 09'		20'	Open 'C' of 10 stars, like a tiara
Colored double star	Tau Leonis	Leo	11h 28m	2° 51'	5.2, 7	sep = 90"	PA = 180° Yellow & blue
Close double star	38 Lynxis	Lynx	09h 19m	36° 48'	3.8, 6.2	sep = 2.5"	PA = 225°
Carbon star	X Cancer	Cancer	08h 55m	17° 14'	5.6-7.5		Red color from carbon in atmosphere
Carbon star	T Cancer	Cancer	08h 57m	19° 51'	7.6-10.5		Red color from carbon in atmosphere
Large open cluster	None						
Open cluster	NGC 2423	Puppis	07h 37m	-13° 52'	6.7	19'	40 stars, same 2.5° field as M46 & M47
Globular cluster	NGC 2419	Lynxis	07h 38m	38° 53'	10.3	4.6	Small and faint
Galaxy	NGC 2903	Leo	09h 32m	21° 30'	9.7	12.6' x 6.0'	Bright & elongated
Planetary nebula	NGC 3242	Hydra	10h 25m	-18° 39'	8.6	75"	Ghost of Jupiter
Diffuse nebula	None						
Dark nebula	None						
Solar system	Asteroid Massalia	Leo	11h 20m 58s	03° 42' 47"	9.5		Same 1° field as NGC 3630&3640

* April 2 objects chosen, where possible, to be near meridian approximately two to five hours after sunset, RA range 8h to 11h