

Challenge Objects Observing List, Valid Dates: Aug 4-12, 2018

Observer: _____

Suggested Optical aid: **Telescopes with aperture at least 250 mm (10")**

Pin requirements: **Find any 15 of the following. No 'goto' or setting circles allowed**

Object	Type	Constellation	Mag	Date	Notes, more space on back
NGC 6364	Galaxy	Hercules	14.1		
IC 4617 *	Galaxy	Hercules	16.0		
NGC 6207	Galaxy	Hercules	12.1		
PGC 60967	Galaxy Sb	Hercules	15.0		
Arp 103	Galaxy x 3	Hercules			
UGC 9241	Galaxy Sc	Bootes	14.2		
UGC 9240	Galaxy Irregular	Bootes	13.3		
MRK 841	Active Galactic Nuclei	Bootes			
NGC 6791	Open Cluster	Lyra	9.5		
Pluto	Minor planet	Sagittarius	14.2		
NGC 6822	Galaxy	Sagittarius	9.3		
Palomar 11	Globular Cluster	Aquarius	9.8		
IC 5146	Emission Neb/ Reflection Neb	Cygnus			
NGC 7317-20	Galaxy	Pegasus	14.6		
Jones 1	Planetary Neb	Pegasus	12.1		
NGC 7822 *	Emission Neb/ Reflection Neb	Cepheus			
IC 59	Emission Neb/ Reflection Neb	Cassiopeia			
NGC 609	Open Cluster	Cassiopeia	11.0		
IC 1795	Emission Neb	Cassiopeia			
Maffei 1 *	Galaxy E3	Cassiopeia			
Abel 426	Galaxy Cluster	Perseus			
NGC 1432/35	Reflection Neb	Taurus			
IC 342	Galaxy SBc	Camelopardalis	9.1		

* suggested aperture at least 300 mm

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Arp 103	
UGC 9241	
UGC 9240	
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Pluto	
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