

## Challenge Object Observing List

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

Valid Dates: **July 30th to August 7th, 2011**

NB: Much of this list is contained in the RASC 2008 handbook; \*= suggest aperture 300mm minimum.

<b>OBSERVER</b>					
<b>Optical Aid(s) used</b>					
Pin Requirements: Find and observe <b>any 15</b> of the following 26 listed. <b>No "goto" or s. circles</b>					
<b>Object</b>	<b>Type</b>	<b>Constellation</b>	<b>Mag.</b>	<b>Date</b>	<b>Notes</b>
NGC 6364	Gal	Hercules	14.1		
*IC 4617	Gal	Hercules	16.0		
NGC 6207	Gal	Hercules	12.1		
PGC60967	Gal Sb	Hercules	15.0		
ARP 103	Gal x 3	Hercules			
UGC9241	Gal S?	Bootes	14.2		
UGC9240	Gal Irr	Bootes	13.3		
MRK841	AGN	Bootes	0.0		
NGC 6791	OC	Lyra	9.5		
Lydia	asteriod	Sagittarius	11.9		
Phaero	asteriod	Sagittarius	12.4		
Elpis	asteriod	Ophiucus	12.9		
Pluto	M planet	Sagittarius	14.2		
NGC6822	Gal	Sagittarius	9.3		
Palomar 11	GC	Aquarius	9.8		
IC 5146	E/RN	Cygnus			
NGC 7317-20	Gal	Pegasus	14.6		
Jones 1	PN	Pegasus	12.1		
*NGC 7822	E/RN	Cepheus			
IC59	E/RN	Cassiopeia			
NGC 609	OC	Cassiopeia	11.0		
IC1795	EN	Cassiopeia			
*Maffei I	Gal E3	Cassiopeia			
Abel 426	Gal Clus	Perseus			
NGC1432/35	RN	Taurus			
IC 342	Gal SBc	Camelopard.	9.1		

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### **Bootes**

**UGC 9240:** MCG +08-26-030, DDO 190, ZWG 247.026, 1ZW 87, [RC2] A1422+44, PGC 51472

**UGC 9241:** MCG +06-32-033, ZWG 192.019, Arak 450, IRAS 14231+3242, KUG 1423+327, PGC 51505

**MRK841:** IRAS 15015+1037, PGC 53765, PG 1501+106, QSO 1501+106, 2E 1501.6+1038, 2E 3372, EQ 1501+1037, 1ES 1501+10.6, [HB91] 1501+106, IRAS F15015+1037, 1RXS J150401.5+102620, [VV2000c] J150401.2+102616, [VV98c] J150401.2+102616, [WTW94] 1501+106

### **Hercules**

**PGC60967:** MGC+02-45-005, ZWG 083.028, IRAS 17482+1424

### **ARP103: (3 galaxies)**

1. ZWG 252.003, VV 710, Arp 103, Anon 1348+45B, PGC 59061
2. ZWG 252.003, VV 710, Arp 103, Anon 1648+45A, PGC 59062
3. ZWG 252.003, VV 710, Arp 103, Anon 1648+45C, PGC 59065

### **Cassiopeia**

**Maffei I:** UA 34, Sh 2-191, LBN 659, Weinberger 19, PGC 9892, ZOAG 135.87-00.55, ZOAG 135.83-00.57, 2E 595, 2E 0232.8+5926, IRAS 02329+5926, SPB 32, [VDD93] 19, GSC 03699-02055, LBN 136.29-00.46, LBN 663, ZOAG 135.86-00.55, [RC2] A0232+59, HFLLZOA C027, 2MASXi J0236354+593917, HFLLZOA G135.86-00.55, NVSS J023635+593921, LBN 135.91-00.56, ZOAG 135.83+00.57