October Observing List
Prepared by Bill Breeden

Double Stars (Astronomical League's Double Star List)
_____ 95. Xi Cep SAO 19827 Kurhah Const. CEP Type DS RA 22 03.8 Decl. +64° 38' Mag. 4.4 6.5
_____ 96. Zeta Aqr SAO 146107 Const. AQR Type DS RA 22 28.8 Decl. -00° 01' Mag. 4.3 4.5
_____ 97. Delta Cep SAO 34508 Const. CEP Type DS RA 22 29.2 Decl. +58° 25' Mag. 3.9 6.3
_____ 98. 8 Lac SAO 72509 Const. LAC Type DS RA 22 35.9 Decl. +39° 38' Mag. 5.7 6.5
_____ 99. 94 Aqr SAO 165625 Const. AQR Type DS RA 23 19.1 Decl. -13° 28' Mag. 5.3 7.3

Carbon Stars (Astronomical League's Carbon Star List)
_____ 96. RZ Peg GSC 2724:1872 RA 22 05 52 Decl. +33 30 24 Mag. 7.6 – 13.6 Per. 439 Class C9 (Ne)
_____ 97. RU Aqr SAO 165676 RA 23 24 24 Decl. -17 19 08 Mag. 8.5 – 10.1 Per. 69 Class C6 (M5e)
_____ 98. ST And GSC 2778:765 RA 23 38 45 Decl. +35 46 Mag. 7.7-11.8 Per. 328 Class C4-C6 (R3e)
_____ 99. TX Psc SAO 128374 RA 23 46 23 Decl. +03 29 12 Mag. 4.8 – 5.2 Per. Irr. Class C7 (N0)
_____ 100. SAO 128396 (Psc) GSC 592:649 RA 23 49 05 Decl. +06 22 56 Mag. 8.5-8.8 Class C3 (R3)

Messier Objects
_____ M52 NGC7654 Const. CAS Type OC RA 23 24.2 Decl. +61 35 Mag. 7.3

Caldwell Objects
_____ C9 Sh2-155 Cave Nebula Const. CEP Type BN RA 22 56 48.00 Decl. +62 37 00.0 Mag. 7.7
_____ C11 NGC7635 Bubble Nebula Const. CAS Type BN RA 23 20 42.00 Decl. +61 12 00.0 Mag. 7
_____ C16 NGC7243 Const. LAC Type OC RA 22 15 18.00 Decl. +49 53 00.0 Mag. 6.4
_____ C22 NGC7662 Const. AND Type PN RA 23 25 54.00 Decl. +42 33 00.0 Mag. 9.2
_____ C30 NGC7331 Const. PEG Type SG RA 22 37 06.00 Decl. +34 25 00.0 Mag. 9.5
_____ C44 NGC7479 Const. PEG Type SG RA 23 04 54.00 Decl. +12 19 00.0 Mag. 11
_____ C63 NGC7293 Helix Nebula Const. AQR Type PN RA 22 29 36.00 Decl. -20 48 00.0 Mag. 6.5

Royal Astronomical Society of Canada Objects
_____ 2. NGC7293 Const. AQR Type PN RA 22 29.6 Decl. -20 48 Mag. 6.5
_____ 3. NGC7331 Const. PEG Type G-Sb RA 22 37.1 Decl. +34 25 Mag. 9.5
_____ 4. NGC7635 Const. CAS Type EN RA 23 20.7 Decl. +61 12 Mag. -
_____ 5. NGC7789 Const. CAS Type OC RA 23 57.0 Decl. +56 44 Mag. 6.7
_____ 11. NGC7662 Blue Snowball Const. AND Type PN RA 23 25.9 Decl. +42 33 Mag. 9.2

Hidden Treasures (Stephen O'Meara)
_____ 106. NGC7380 Const. CEP Type NbOC RA 22h47m00s Decl. +58°06'00" Mag. 7.2
_____ 107. O'Meara 1 Const. PSC Type ASM RA 23h40m42s Decl. +07°57'00" Mag. ---
_____ 108. NGC7789 Const. CAS Type OC RA 23h57m00s Decl. +56°44'00" Mag. 6.7
_____ 109. NGC7793 Const. SCL Type GAL RA 23h57m48s Decl. -32°35'00" Mag. 9.1

Secret Deep (Stephen O'Meara)
_____ 105. NGC7209 Const. LAC Type OC RA 22h05.8m Decl. +46°29' Mag. 7.7 Size 15'
_____ 106. NGC7354 Const. CEP Type PN RA 22h40.3m Decl. +61°17' Mag. 12.2 Size 22"x18"
_____ 107. NGC7510 Const. CEP Type OC RA 23h11.1m Decl. +60°34' Mag. 7.9 Size 7'
_____ 108. NGC7538 Const. CEP Type BN RA 23h13.5m Decl. +61°31' Mag. -- Size 9'x6'
_____ 109. NGC7790 Const. CAS Type OC RA 23h58.4m Decl. +61°12.5' Mag. 8.5 Size 5'

Notes: This list contains deep sky objects with Right Ascension (RA) of 22 and 23 hours. These lines of RA cross the meridian (the highest point they can reach) near 10:00 pm during October. This list can also be used at 8:00 pm in November, and at midnight in September. Declination can be used to determine if an object is visible from your latitude. Observing all objects in each monthly list will allow you to observe all objects in the catalogs represented here over the course of one year.

Key: M=Messier Catalog. C=Caldwell Catalog. NGC=New General Catalogue. IC=Index Catalog. SAO=Smithsonian Astrophysical Observatory Star Catalog. Const.=Constellation. DS=Double Star. GSC=Guide Star Catalog. GC=Globular Cluster. OC=Open Cluster. GAL=Galaxy. SG=Spiral Galaxy. PN=Planetary Nebula. EN=Emission Nebula. RN=Reflection Nebula. BN=Bright Nebula. AST=Asterism. RA=Right Ascension. Decl.=Declination. Mag.=Magnitude. Size=Apparent Size.

Updated 5/19/2023.