

## November Observing List

Prepared by Bill Breeden

### Double Stars (Astronomical League)

- \_\_\_\_\_ 1. Eta Cas SAO 21732 Achird Const. CAS Type DS RA 00 49.1 Decl. +57° 49' Mag. 3.4 7.5
- \_\_\_\_\_ 2. 65 Psc SAO 74295 Const. PSC Type DS RA 00 49.9 Decl. +27° 43' Mag. 6.3 6.3
- \_\_\_\_\_ 3. Psi 1 Psc SAO 74482 Const. PSC Type DS RA 01 05.6 Decl. +21° 28' Mag. 5.6 5.8
- \_\_\_\_\_ 4. Zeta Psc SAO 109739 Const. PSC Type DS RA 01 13.7 Decl. +07° 35' Mag. 5.6 6.5
- \_\_\_\_\_ 5. Gam Ari SAO 92680 Mesarthim Const. ARI Type DS RA 01 53.5 Decl. +19° 18' Mag. 4.8 4.8
- \_\_\_\_\_ 6. Lambda Ari SAO 75051 Const. ARI Type DS RA 01 57.9 Decl. +23° 36' Mag. 4.9 7.7

### Carbon Stars (Astronomical League)

- \_\_\_\_\_ 1. WZ Cas SAO 21002 RA 00 01 15 Decl. +60 21 19 Mag. 6.9 – 11.0 Per. 186 Class C9 (N1)
- \_\_\_\_\_ 2. SU And GSC 2793:243 RA 00 04 36 Decl. +43 33 04 Mag. 8.0 – 8.5 Per. Irr. Class C6 (Nb)
- \_\_\_\_\_ 3. SAO 109003 (Psc) GSC 594:778 RA 00 05 22 Decl. +08 47 Mag. 8.2-8.3 Per. ? Class C (G4v)
- \_\_\_\_\_ 4. VX And GSC 2794:14 RA 00 19 54 Decl. +44 42 33 Mag. 7.8 – 9.3 Per. 369 Class C4 (N7)
- \_\_\_\_\_ 5. AQ And GSC 2270:318 RA 00 27 31 Decl. +35 35 14 Mag. 6.9-8.6 Per. 346 Class C5 (Nb)
- \_\_\_\_\_ 6. NSV 15196 (And) SAO 74353 RA 00 54 13 Decl. +24 04 Mag. 8.3–8.7 Per. 755 Class C1 (Rp)
- \_\_\_\_\_ 7. W Cas GSC 368:1824 RA 00 54 53 Decl. +58 33 49 Mag. 7.8-12.5 Per. 406 Class C7
- \_\_\_\_\_ 8. Z Psc SAO 74593 RA 01 16 05 Decl. +25 46 09 Mag. 6.5-7.9 Per. 144 Class C7 (N0)

### Messier Objects

- \_\_\_\_\_ M31 NGC224 Andromeda Galaxy Const. AND Type GAL RA 00 42.7 Decl. +41 16 Mag. 4.8
- \_\_\_\_\_ M32 NGC221 Compan. of And Galaxy Const. AND Type GAL RA 00 42.7 Decl. +40 52 Mag. 8.7
- \_\_\_\_\_ M33 NGC598 Const. TRI Type GAL RA 01 33.9 Decl. +30 39 Mag. 6.7
- \_\_\_\_\_ M74 NGC628 Const. PSC Type GAL RA 01 36.7 Decl. +15 47 Mag. 10.2
- \_\_\_\_\_ M76 NGC650 Little Dumbbell Nebula Const. PER Type PN RA 01 42.4 Decl. +51 34 Mag. 10.1
- \_\_\_\_\_ M103 NGC581 Const. CAS Type OC RA 01 33.2 Decl. +60 42 Mag. 7.4
- \_\_\_\_\_ M110 NGC205 Const. AND Type GAL RA 00 40.4 Decl. +41 41 Mag. 9.4

### Caldwell Objects

- \_\_\_\_\_ C1 NGC188 Const. CEP Type OC RA 00 44 24.00 Decl. +85 20 00.0 Mag. 8.1
- \_\_\_\_\_ C2 NGC40 Const. CEP Type PN RA 00 13 00.00 Decl. +72 32 00.0 Mag. 11.6
- \_\_\_\_\_ C8 NGC559 Const. CAS Type OC RA 01 29 30.00 Decl. +63 18 00.0 Mag. 9.5
- \_\_\_\_\_ C10 NGC663 Const. CAS Type OC RA 01 46 00.00 Decl. +61 15 00.0 Mag. 7.1
- \_\_\_\_\_ C13 NGC457 ET Cluster Const. CAS Type OC RA 01 19 06.00 Decl. +58 20 00.0 Mag. 6.4
- \_\_\_\_\_ C17 NGC147 Const. CAS Type EG RA 00 33 12.00 Decl. +48 30 00.0 Mag. 9.3
- \_\_\_\_\_ C18 NGC185 Const. CAS Type EG RA 00 39 00.00 Decl. +48 20 00.0 Mag. 9.2
- \_\_\_\_\_ C28 NGC752 Const. AND Type OC RA 01 57 48.00 Decl. +37 41 00.0 Mag. 5.7
- \_\_\_\_\_ C43 NGC7814 Const. PEG Type SG RA 00 03 18.00 Decl. +16 09 00.0 Mag. 10.5
- \_\_\_\_\_ C51 IC1613 Const. CET Type IG RA 01 04 48.00 Decl. +02 07 00.0 Mag. 9
- \_\_\_\_\_ C56 NGC246 Const. CET Type PN RA 00 47 00.00 Decl. -11 53 00.0 Mag. 8
- \_\_\_\_\_ C62 NGC247 Const. CET Type SG RA 00 47 06.00 Decl. -20 46 00.0 Mag. 8.9
- \_\_\_\_\_ C65 NGC253 Sculptor Galaxy Const. SCL Type SG RA 00 47 36.00 Decl. -25 17 00.0 Mag. 7.1
- \_\_\_\_\_ C70 NGC300 Const. SCL Type SG RA 00 54 54.00 Decl. -37 41 00.0 Mag. 8.1
- \_\_\_\_\_ C72 NGC55 Const. SCL Type SG RA 00 14 54.00 Decl. -39 11 00.0 Mag. 8.2
- \_\_\_\_\_ C104 NGC362 Const. TUC Type GC RA 01 03 12.00 Decl. -70 51 00.0 Mag. 6.6

\_\_\_\_\_ C106 NGC104 47 Tucana Const. TUC Type GC RA 00 24 06.00 Decl. -72 05 00.0 Mag. 4

### Royal Astronomical Society of Canada Objects

- \_\_\_\_\_ 6. NGC185 Const. CAS Type G-E0 RA 00 39.0 Decl. +48 20 Mag. 11.7
- \_\_\_\_\_ 7. NGC281 Const. CAS Type EN RA 00 52.8 Decl. +56 36 Mag. -
- \_\_\_\_\_ 8. NGC457 ET Cluster Const. CAS Type OC RA 01 19.1 Decl. +58 20 Mag. 6.4
- \_\_\_\_\_ 9. NGC663 Const. CAS Type OC RA 01 46.0 Decl. +61 15 Mag. 7.1
- \_\_\_\_\_ 13. NGC253 Const. SCL Type G-Scp RA 00 47.6 Decl. -25 17 Mag. 7.1
- \_\_\_\_\_ 14. NGC772 Const. ARI Type G-Sb RA 01 59.3 Decl. +19 01 Mag. 10.3
- \_\_\_\_\_ 15. NGC246 Const. CET Type PN RA 00 47.0 Decl. -11 53 Mag. 8
- \_\_\_\_\_ 110. NGC40 Const. CEP Type PN RA 00 13.0 Decl. +72 32 Mag. 10.2

### Hidden Treasures (Stephen O'Meara)

- \_\_\_\_\_ 1. NGC189 Const. CAS Type OC RA 00h39m36s Decl. +61°05'40" Mag. 8.8
- \_\_\_\_\_ 2. NGC225 Const. CAS Type OC RA 00h43m32s Decl. +61°47'25" Mag. 7
- \_\_\_\_\_ 3. NGC281 Const. CAS Type NbOC RA 00h52m59s Decl. +56°37'19" Mag. 7.4
- \_\_\_\_\_ 4. NGC288 Const. SCL Type GC RA 00h52m45s Decl. +26°34'43" Mag. 8.1
- \_\_\_\_\_ 5. NGC404 Const. AND Type GAL RA 01h09m30s Decl. +35°43'04" Mag. 10
- \_\_\_\_\_ 6. NGC584 Const. CET Type GAL RA 01h31m18s Decl. -06°52'00" Mag. 10.5
- \_\_\_\_\_ 7. NGC659 Const. CAS Type OC RA 01h44m23s Decl. +60°40'09" Mag. 7.9
- \_\_\_\_\_ 8. NGC772 Const. ARI Type GAL RA 01h59m20s Decl. +19°00'22" Mag. 10.4
- \_\_\_\_\_ 9. NGC908 Const. CET Type GAL RA 01h23m06s Decl. -21°14'00" Mag. 10.2
- \_\_\_\_\_ A1. NGC134 Const. SCL Type GAL RA 00h30m21s Decl. -33°14'50" Mag. 10.4

### Secret Deep (Stephen O'Meara)

- \_\_\_\_\_ 1. vdB 1 Const. CAS Type BN RA 00h11.0m Decl. +58°46' Mag. -- Size 5'x5'
- \_\_\_\_\_ 2. NGC134 Const. SCL Type GAL RA 00h30.4m Decl. -33°15' Mag. 10.4 Size 9'x2'
- \_\_\_\_\_ 3. NGC488 Const. PSC Type GAL RA 01h21.8m Decl. +05°15' Mag. 10.3 Size 6'x4'
- \_\_\_\_\_ 4. NGC654 Const. CAS Type OC RA 01h44.0m Decl. +61°53' Mag. 6.5 Size 6'
- \_\_\_\_\_ 5. Cr463 Const. CAS Type OC RA 01h45.7m Decl. +71°49' Mag. 5.7 Size 57'
- \_\_\_\_\_ A1. NGC129 Const. CAS Type OC RA 00h29.9m Decl. +60°13' Mag. 6.5 Size 12'
- \_\_\_\_\_ A2. NGC436 Const. CAS Type OC RA 01h15.9m Decl. +58°49' Mag. 8.8 Size 5'
- \_\_\_\_\_ A3. IC1747 Const. CAS Type PN RA 01h57.6m Decl. +63°20' Mag. 12.1 Size 13"

**Notes:** This list contains deep sky objects with Right Ascension (RA) of 00 and 01 hours. These lines of RA cross the meridian (the highest point they can reach) near 10:00 pm during November. This list can also be used at 8:00 pm in December, and at midnight in October. 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.