

## OAOG Challenge - Galaxies

| NGC / IC | Messier | Const. | Type | R.A.     | Dec.      | Mv   | Size | No * | GX Type | Level | Observe     | Meridian          | Photo       | Name             |
|----------|---------|--------|------|----------|-----------|------|------|------|---------|-------|-------------|-------------------|-------------|------------------|
| 205      | M110    | AND    | GX   | 00:40:23 | 41:41:01  | 8    | 16   |      | E       | 2     | All Year    | Aug13-Oct1-Dec28  | All Year    |                  |
| 221      | M32     | AND    | GX   | 00:42:41 | 40:52:00  | 8.2  | 7.9  |      | E       | 1     | All Year    | Aug14-Oct2-Dec29  | Apr3-Mar30  |                  |
| 224      | M31     | AND    | GX   | 00:42:41 | 41:16:01  | 3.4  | 170  |      | Sb      | 1     | All Year    | Aug14-Oct2-Dec29  | All Year    | Andromeda Galaxy |
| 404      |         | AND    | GX   | 01:09:23 | 35:42:58  | 10.3 | 3.4  |      | E       | 4     | All Year    | Aug19-Oct11-Jan3  | May7-Mar29  |                  |
| 891      |         | AND    | GX   | 02:22:35 | 42:21:02  | 9.9  | 13   |      | Sb      | 3     | All Year    | Sep1-Oct27-Jan18  | May22-Apr19 |                  |
| 7640     |         | AND    | GX   | 23:22:04 | 40:50:56  | 11.3 | 10   |      | SBc     | 5     | All Year    | Jul31-Sep11-Dec10 | All Year    |                  |
| 7184     |         | AQR    | GX   | 22:01:41 | -20:49:02 | 10.8 | 5.8  |      | Sb      | 5     | Apr19-Jan13 | Jul17-Aug22-Nov19 | Jun9-Jan2   |                  |
| 7606     |         | AQR    | GX   | 23:19:04 | -08:29:10 | 10.8 | 5.3  |      | S       | 5     | May26-Feb8  | Jul30-Sep11-Dec9  | Jun12-Jan31 |                  |
| 7727     |         | AQR    | GX   | 23:39:52 | -12:18:11 | 10.6 | 4.5  |      | S       | 5     | Jun9-Feb9   | Aug3-Sep16-Dec14  | Jun22-Jan31 |                  |
| 772      |         | ARI    | GX   | 01:59:17 | 19:00:55  | 10.3 | 7.1  |      | Sb      | 4     | Jun12-Apr1  | Aug27-Oct21-Jan13 | Jun23-Mar24 |                  |
| 5248     |         | BOO    | GX   | 13:37:30 | 08:52:55  | 10.3 | 6.1  |      | Sc      | 4     | Oct29-Sep24 | Jan15-Apr16-May21 | Nov7-Aug31  |                  |
| 5676     |         | BOO    | GX   | 14:32:48 | 49:27:47  | 11.2 | 3.9  |      | Sc      | 5     | All Year    | Feb1-Apr30-May30  | All Year    |                  |
| 2146     |         | CAM    | GX   | 06:18:44 | 78:21:11  | 10.6 | 5.8  |      | S       | 5     | All Year    | Oct15-Dec26-Mar4  | All Year    |                  |
| 2336     |         | CAM    | GX   | 07:27:10 | 80:11:09  | 10.4 | 6.9  |      | SBc     | 4     | All Year    | Oct28-Jan12-Mar17 | All Year    |                  |
| 2403     |         | CAM    | GX   | 07:36:56 | 65:36:03  | 8.5  | 21   |      | Sc      | 2     | All Year    | Oct30-Jan15-Mar19 | All Year    |                  |
| 147      |         | CAS    | GX   | 00:33:10 | 48:30:02  | 9.5  | 12   |      | dE      | 4     | All Year    | Aug12-Sep29-Dec26 | All Year    |                  |
| 185      |         | CAS    | GX   | 00:38:59 | 48:20:02  | 9.2  | 11   |      | dE      | 4     | All Year    | Aug13-Oct1-Dec28  | All Year    |                  |
| 278      |         | CAS    | GX   | 00:52:04 | 47:33:00  | 10.8 | 2    |      | S       | 5     | All Year    | Aug15-Oct4-Dec31  | All Year    |                  |
| 5102     |         | CEN    | GX   | 13:22:01 | -36:37:52 | 9.6  | 8.5  |      | S0      | 5     | Dec19-Jun4  | Jan11-Apr12-May18 | -           |                  |
| 5253     |         | CEN    | GX   | 13:39:55 | -31:38:55 | 10.4 | 4.7  |      | S0      | 5     | Dec10-Jun21 | Jan16-Apr17-May21 | Dec28-Jun4  |                  |
| 6946     |         | CEP    | GX   | 20:34:46 | 60:08:54  | 8.8  | 11   |      | Sc      | 3     | All Year    | Jul1-Jul31-Oct18  | All Year    |                  |
| 6951     |         | CEP    | GX   | 20:37:11 | 66:05:44  | 10.7 | 3.8  |      | Sb      | 5     | All Year    | Jul2-Aug1-Oct19   | All Year    |                  |
| 157      |         | CET    | GX   | 00:34:47 | -08:24:12 | 10.4 | 4.1  |      | S       | 4     | Jun20-Feb23 | Aug12-Sep30-Dec27 | Jun30-Feb14 |                  |
| 210      |         | CET    | GX   | 00:40:34 | -13:52:13 | 10.9 | 4.7  |      | Sbc     | 5     | Jun27-Feb19 | Aug14-Oct1-Dec28  | Jul7-Feb10  |                  |
| 247      |         | CET    | GX   | 00:47:05 | -20:46:15 | 9.1  | 21   |      | Irr     | 3     | Jul6-Feb14  | Aug15-Oct3-Dec30  | Jul15-Feb4  |                  |
| 578      |         | CET    | GX   | 01:30:29 | -22:40:16 | 10.9 | 4.7  |      | Sc      | 5     | Jul16-Feb20 | Aug22-Oct14-Jan7  | Jul25-Feb9  |                  |
| 584      |         | CET    | GX   | 01:31:17 | -06:52:13 | 10.5 | 4.1  |      | E       | 5     | Jul1-Mar7   | Aug22-Oct14-Jan7  | Jul10-Feb26 |                  |

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| NGC / IC | Messier | Const. | Type | R.A.     | Dec.      | Mv   | Size | No * | GX Type | Level | Observe     | Meridian          | Photo       | Name                 |
|----------|---------|--------|------|----------|-----------|------|------|------|---------|-------|-------------|-------------------|-------------|----------------------|
| 596      |         | CET    | GX   | 01:32:53 | -07:02:13 | 10.9 | 3.1  |      | Ebc     | 5     | Jul1-Mar7   | Aug23-Oct15-Jan8  | Jul10-Feb27 |                      |
| 720      |         | CET    | GX   | 01:52:59 | -13:44:15 | 10.2 | 4.5  |      | Ecd     | 4     | Jul11-Mar5  | Aug26-Oct20-Jan12 | Jul19-Feb24 |                      |
| 864      |         | CET    | GX   | 02:15:29 | 05:59:50  | 10.9 | 4.5  |      | Sc      | 5     | Jun29-Mar25 | Aug30-Oct25-Jan16 | Jul8-Mar17  |                      |
| 908      |         | CET    | GX   | 02:23:05 | -21:14:18 | 10.2 | 5.8  |      | Sc      | 4     | Jul23-Mar4  | Sep1-Oct27-Jan18  | Aug1-Feb21  |                      |
| 936      |         | CET    | GX   | 02:27:35 | -01:09:12 | 10.1 | 4.5  |      | SB0     | 4     | Jul7-Mar22  | Sep1-Oct28-Jan19  | Jul15-Mar14 |                      |
| 1052     |         | CET    | GX   | 02:41:05 | -08:15:15 | 10.5 | 2.9  |      | Ebc     | 4     | Jul15-Mar19 | Sep4-Nov1-Jan21   | Jul23-Mar10 |                      |
| 1055     |         | CET    | GX   | 02:41:47 | 00:25:48  | 10.6 | 7.4  |      | Sb      | 5     | Jul9-Mar26  | Sep4-Nov1-Jan21   | Jul17-Mar17 |                      |
| 1068     | M77     | CET    | GX   | 02:42:41 | -00:01:12 | 8.8  | 6.9  |      | Sb      | 2     | Jul9-Mar25  | Sep4-Nov1-Jan22   | Jul17-Mar17 |                      |
| 1087     |         | CET    | GX   | 02:46:23 | -00:30:12 | 10.9 | 3.5  |      | Sc      | 5     | Jul10-Mar26 | Sep5-Nov2-Jan22   | Jul18-Mar18 |                      |
| 2207     |         | CMA    | GX   | 06:16:24 | -21:22:18 | 10.8 | 4.2  |      | Sc      | 5     | Sep2-Apr15  | Oct14-Dec26-Mar3  | Sep11-Apr5  |                      |
| 2217     |         | CMA    | GX   | 06:21:42 | -27:14:19 | 10.7 | 4.2  |      | SBa     | 5     | Sep10-Apr9  | Oct15-Dec27-Mar5  | Sep21-Mar29 |                      |
| 2775     |         | CNC    | GX   | 09:10:19 | 07:01:52  | 10.1 | 4.2  |      | Sa      | 4     | Sep10-Jun6  | Nov17-Feb7-Apr5   | Sep18-May29 |                      |
| 1808     |         | COL    | GX   | 05:07:42 | -37:31:22 | 9.9  | 6.3  |      | Sa      | 5     | Sep17-Mar6  | Oct1-Dec8-Feb18   | -           |                      |
| 4192     | M98     | COM    | GX   | 12:13:49 | 14:53:53  | 10   | 7.9  |      | Sb      | 3     | Oct8-Aug22  | Dec25-Mar26-May6  | Oct17-Jul28 |                      |
| 4203     |         | COM    | GX   | 12:15:07 | 33:11:51  | 10.9 | 3.3  |      | S0      | 5     | All Year    | Dec25-Mar26-May7  | Oct1-Sep14  |                      |
| 4251     |         | COM    | GX   | 12:18:07 | 28:09:55  | 10.7 | 3.5  |      | S0      | 5     | All Year    | Dec26-Mar27-May7  | Oct7-Sep1   |                      |
| 4254     | M99     | COM    | GX   | 12:18:49 | 14:24:53  | 10   | 4.7  |      | Sc      | 3     | Oct10-Aug24 | Dec26-Mar27-May7  | Oct18-Jul29 | Coma Pinwheel Galaxy |
| 4274     |         | COM    | GX   | 12:19:49 | 29:36:51  | 10.4 | 6.6  |      | SBa     | 4     | All Year    | Dec27-Mar27-May7  | Oct6-Sep6   |                      |
| 4278     |         | COM    | GX   | 12:20:07 | 29:16:51  | 10.2 | 3.9  |      | E       | 5     | All Year    | Dec27-Mar28-May7  | Oct6-Sep6   |                      |
| 4293     |         | COM    | GX   | 12:21:13 | 18:22:54  | 10.4 | 5.5  |      | SB0     | 4     | Oct7-Sep4   | Dec27-Mar28-May8  | Oct16-Aug8  |                      |
| 4314     |         | COM    | GX   | 12:22:37 | 29:52:51  | 10.6 | 4.1  |      | SBa     | 5     | All Year    | Dec27-Mar28-May8  | Oct6-Sep9   |                      |
| 4321     | M100    | COM    | GX   | 12:22:55 | 15:48:53  | 9.4  | 6.9  |      | Sc      | 3     | Oct9-Aug29  | Dec27-Mar28-May8  | Oct18-Aug4  |                      |
| 4382     | M85     | COM    | GX   | 12:25:25 | 18:10:53  | 9.3  | 4.7  |      | S0      | 3     | Oct8-Sep6   | Dec28-Mar29-May8  | Oct17-Aug11 |                      |
| 4394     |         | COM    | GX   | 12:25:55 | 18:12:53  | 10.9 | 3.5  |      | SBb     | 5     | Oct8-Sep6   | Dec28-Mar29-May8  | Oct17-Aug11 |                      |
| 4414     |         | COM    | GX   | 12:26:25 | 31:12:51  | 10.1 | 3.5  |      | Sc      | 4     | All Year    | Dec28-Mar29-May9  | Oct5-Sep14  |                      |
| 4450     |         | COM    | GX   | 12:28:31 | 17:04:53  | 10.1 | 5    |      | Sb      | 4     | Oct10-Sep5  | Dec29-Mar30-May9  | Oct18-Aug10 |                      |
| 4459     |         | COM    | GX   | 12:29:01 | 13:58:53  | 10.4 | 3.4  |      | S0      | 5     | Oct12-Aug29 | Dec29-Mar30-May9  | Oct21-Aug3  |                      |

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|----------|---------|--------|------|----------|-----------|------|------|------|---------|-------|-------------|-------------------|-------------|-------------------|
| 4473     |         | COM    | GX   | 12:29:49 | 13:25:53  | 10.2 | 4.2  |      | E       | 5     | Oct13-Aug28 | Dec29-Mar30-May9  | Oct21-Aug2  |                   |
| 4477     |         | COM    | GX   | 12:30:01 | 13:37:53  | 10.4 | 3.7  |      | SB0     | 5     | Oct13-Aug28 | Dec29-Mar30-May9  | Oct21-Aug3  |                   |
| 4494     |         | COM    | GX   | 12:31:25 | 25:46:51  | 9.8  | 4.7  |      | E       | 3     | Oct2-Sep29  | Dec29-Mar30-May9  | Oct11-Sep2  |                   |
| 4501     | M88     | COM    | GX   | 12:32:00 | 14:24:53  | 9.5  | 5.8  |      | Sb      | 3     | Oct12-Sep1  | Dec29-Mar31-May9  | Oct21-Aug6  | Markarian's Chain |
| 4548     | M91     | COM    | GX   | 12:35:24 | 14:12:53  | 10.2 | 4.2  |      | Sc      | 3     | Oct12-Sep3  | Dec30-Mar31-May10 | Oct21-Aug8  |                   |
| 4559     |         | COM    | GX   | 12:36:01 | 27:57:51  | 10   | 10   |      | Sc      | 4     | All Year    | Dec30-Apr1-May10  | Oct10-Sep11 |                   |
| 4565     |         | COM    | GX   | 12:36:19 | 25:58:51  | 9.6  | 15   |      | Sb      | 3     | All Year    | Dec31-Apr1-May10  | Oct12-Sep6  |                   |
| 4651     |         | COM    | GX   | 12:43:43 | 16:23:53  | 10.8 | 3.9  |      | Sc      | 5     | Oct12-Sep12 | Jan1-Apr3-May11   | Oct21-Aug17 |                   |
| 4689     |         | COM    | GX   | 12:47:49 | 13:45:53  | 10.9 | 4.2  |      | Sc      | 5     | Oct16-Sep8  | Jan2-Apr4-May12   | Oct24-Aug13 |                   |
| 4725     |         | COM    | GX   | 12:50:24 | 25:29:51  | 9.4  | 10   |      | Sb      | 3     | All Year    | Jan3-Apr4-May13   | Oct15-Sep13 |                   |
| 4826     | M64     | COM    | GX   | 12:56:42 | 21:40:52  | 8.6  | 7.4  |      | Sb      | 2     | Oct11-Oct1  | Jan4-Apr6-May14   | Oct20-Sep7  | Black Eye Galaxy  |
| 3887     |         | CRT    | GX   | 11:47:07 | -16:51:08 | 10.6 | 3.1  |      | S       | 5     | Oct30-Jun17 | Dec19-Mar19-May2  | Nov8-Jun7   |                   |
| 3962     |         | CRT    | GX   | 11:54:43 | -13:58:03 | 10.7 | 2.5  |      | Ebc     | 5     | Oct28-Jun22 | Dec21-Mar21-May3  | Nov6-Jun12  |                   |
| 4038     |         | CRV    | GX   | 12:01:55 | -18:52:01 | 10.3 | 5    |      | S       | 4     | Nov3-Jun18  | Dec22-Mar23-May4  | Nov13-Jun7  | Antennae Galaxies |
| 4039     |         | CRV    | GX   | 12:01:55 | -18:53:07 | 10.6 | 3    |      | S       | 4     | Nov3-Jun18  | Dec22-Mar23-May4  | Nov13-Jun7  | Antennae Galaxies |
| 4111     |         | CVN    | GX   | 12:07:07 | 43:03:50  | 10.7 | 4.5  |      | S0      | 5     | All Year    | Dec24-Mar24-May5  | All Year    |                   |
| 4143     |         | CVN    | GX   | 12:09:37 | 42:31:57  | 10.7 | 2.2  |      | S0      | 5     | All Year    | Dec24-Mar25-May6  | All Year    |                   |
| 4151     |         | CVN    | GX   | 12:10:31 | 39:23:51  | 10.8 | 6.1  |      | Sa      | 5     | All Year    | Dec24-Mar25-May6  | All Year    |                   |
| 4214     |         | CVN    | GX   | 12:15:37 | 36:19:50  | 9.8  | 8.2  |      | Irr     | 3     | All Year    | Dec26-Mar26-May7  | Sep28-Sep24 |                   |
| 4244     |         | CVN    | GX   | 12:17:31 | 37:48:50  | 10.4 | 16   |      | Sc      | 4     | All Year    | Dec26-Mar27-May7  | All Year    |                   |
| 4258     | M106    | CVN    | GX   | 12:19:01 | 47:17:49  | 8.3  | 17   |      | Sb      | 2     | All Year    | Dec26-Mar27-May7  | All Year    |                   |
| 4449     |         | CVN    | GX   | 12:28:13 | 44:05:49  | 9.6  | 6.1  |      | Irr     | 3     | All Year    | Dec29-Mar30-May9  | All Year    |                   |
| 4490     |         | CVN    | GX   | 12:30:37 | 41:37:50  | 9.8  | 6.1  |      | S       | 3     | All Year    | Dec29-Mar30-May9  | All Year    | Cocoon Galaxy     |
| 4618     |         | CVN    | GX   | 12:41:31 | 41:08:50  | 10.8 | 4.1  |      | S       | 5     | All Year    | Jan1-Apr2-May11   | All Year    |                   |
| 4631     |         | CVN    | GX   | 12:42:07 | 32:31:50  | 9.2  | 15   |      | Sc      | 3     | All Year    | Jan1-Apr2-May11   | Oct7-Sep27  | Whale Galaxy      |
| 4656     |         | CVN    | GX   | 12:44:01 | 32:09:50  | 10.5 | 14   |      | S       | 5     | All Year    | Jan1-Apr3-May12   | Oct8-Sep27  |                   |
| 4736     | M94     | CVN    | GX   | 12:50:55 | 41:06:49  | 8.2  | 4.7  |      | Sb      | 2     | All Year    | Jan3-Apr4-May13   | All Year    |                   |

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| NGC / IC | Messier | Const. | Type | R.A.     | Dec.      | Mv   | Size | No * | GX Type | Level | Observe     | Meridian          | Photo       | Name             |
|----------|---------|--------|------|----------|-----------|------|------|------|---------|-------|-------------|-------------------|-------------|------------------|
| 5005     |         | CVN    | GX   | 13:10:54 | 37:02:49  | 9.8  | 5.5  |      | Sb      | 3     | All Year    | Jan8-Apr9-May16   | All Year    |                  |
| 5033     |         | CVN    | GX   | 13:13:24 | 36:35:49  | 10.2 | 10   |      | Sc      | 4     | All Year    | Jan9-Apr10-May16  | All Year    |                  |
| 5055     | M63     | CVN    | GX   | 13:15:48 | 42:01:48  | 8.6  | 8.5  |      | Sb      | 2     | All Year    | Jan9-Apr11-May17  | All Year    | Sunflower Galaxy |
| 5194     | M51     | CVN    | GX   | 13:29:54 | 47:11:48  | 8.1  | 10   |      | Sc      | 1     | All Year    | Jan13-Apr14-May19 | All Year    | Whirlpool Galaxy |
| 5195     |         | CVN    | GX   | 13:30:00 | 47:15:48  | 9.6  | 5.5  |      | Irr     | 3     | All Year    | Jan13-Apr14-May19 | All Year    |                  |
| 3147     |         | DRA    | GX   | 10:16:57 | 73:23:59  | 10.6 | 3.8  |      | Sb      | 5     | All Year    | Nov30-Feb24-Apr16 | All Year    |                  |
| 4125     |         | DRA    | GX   | 12:08:07 | 65:10:50  | 9.7  | 5.5  |      | E       | 3     | All Year    | Dec24-Mar24-May5  | All Year    |                  |
| 4589     |         | DRA    | GX   | 12:37:28 | 74:12:00  | 10.7 | 3.1  |      | E       | 5     | All Year    | Dec31-Apr1-May10  | All Year    |                  |
| 5866     | M102    | DRA    | GX   | 15:06:30 | 55:45:45  | 10   | 2.9  |      | S0      | 3     | All Year    | Feb14-May9-Jun5   | All Year    | Spindle Galaxy   |
| 5907     |         | DRA    | GX   | 15:15:54 | 56:18:45  | 10.3 | 12   |      | Sc      | 4     | All Year    | Feb17-May11-Jun7  | All Year    | Splinter Galaxy  |
| 6503     |         | DRA    | GX   | 17:49:22 | 70:08:46  | 10.2 | 6.9  |      | Sc      | 4     | All Year    | May9-Jun19-Jul22  | All Year    |                  |
| 1084     |         | ERI    | GX   | 02:45:59 | -07:35:15 | 10.7 | 3.1  |      | S       | 5     | Jul16-Mar20 | Sep5-Nov2-Jan22   | Jul23-Mar12 |                  |
| 1187     |         | ERI    | GX   | 03:02:35 | -22:52:16 | 10.8 | 5.3  |      | Sc      | 5     | Aug1-Mar9   | Sep8-Nov6-Jan26   | Aug10-Feb27 |                  |
| 1232     |         | ERI    | GX   | 03:09:47 | -20:35:19 | 9.9  | 7.1  |      | Sc      | 4     | Jul31-Mar13 | Sep9-Nov8-Jan27   | Aug8-Mar3   |                  |
| 1300     |         | ERI    | GX   | 03:19:41 | -19:25:18 | 10.4 | 6.1  |      | SBc     | 4     | Jul31-Mar16 | Sep11-Nov11-Jan29 | Aug9-Mar6   |                  |
| 1332     |         | ERI    | GX   | 03:26:17 | -21:20:19 | 10.3 | 4.5  |      | S0      | 4     | Aug4-Mar15  | Sep12-Nov12-Jan30 | Aug12-Mar5  |                  |
| 1395     |         | ERI    | GX   | 03:38:29 | -23:02:17 | 9.6  | 5.8  |      | Ecd     | 3     | Aug7-Mar15  | Sep14-Nov15-Feb1  | Aug16-Mar5  |                  |
| 1407     |         | ERI    | GX   | 03:40:12 | -18:35:18 | 9.7  | 4.5  |      | S0      | 4     | Aug3-Mar20  | Sep15-Nov16-Feb2  | Aug11-Mar11 |                  |
| 1532     |         | ERI    | GX   | 04:12:05 | -32:52:19 | 9.9  | 12   |      | Sc      | 3     | Aug26-Mar8  | Sep21-Nov24-Feb8  | Sep11-Feb19 |                  |
| 1537     |         | ERI    | GX   | 04:13:41 | -31:39:19 | 10.6 | 3.8  |      | E       | 5     | Aug24-Mar10 | Sep21-Nov24-Feb8  | Sep7-Feb23  |                  |
| 1600     |         | ERI    | GX   | 04:31:41 | -05:05:14 | 10.9 | 2.3  |      | Ebc     | 5     | Aug1-Apr10  | Sep24-Nov29-Feb12 | Aug9-Apr2   |                  |
| 1637     |         | ERI    | GX   | 04:41:30 | -02:51:14 | 10.8 | 3.9  |      | S       | 5     | Aug1-Apr14  | Sep26-Dec1-Feb13  | Aug9-Apr6   |                  |
| 1097     |         | FOR    | GX   | 02:46:17 | -30:17:21 | 9.5  | 9    |      | SBb     | 3     | Aug7-Feb24  | Sep5-Nov2-Jan22   | Aug19-Feb10 |                  |
| 1201     |         | FOR    | GX   | 03:04:05 | -26:04:20 | 10.7 | 3.5  |      | E       | 5     | Aug4-Mar5   | Sep8-Nov7-Jan26   | Aug15-Feb22 |                  |
| 1255     |         | FOR    | GX   | 03:13:29 | -25:44:16 | 10.9 | 4.1  |      | Sc      | 5     | Aug5-Mar8   | Sep10-Nov9-Jan28  | Aug16-Feb24 |                  |
| 1302     |         | FOR    | GX   | 03:19:53 | -26:04:17 | 10.7 | 3.8  |      | S0a     | 5     | Aug7-Mar8   | Sep11-Nov11-Jan29 | Aug17-Feb25 |                  |
| 1316     |         | FOR    | GX   | 03:22:41 | -37:12:23 | 8.5  | 11   |      | S0      | 3     | Aug27-Feb15 | Sep11-Nov11-Jan29 | -           |                  |

## OAOG Challenge - Galaxies

| NGC / IC | Messier | Const. | Type | R.A.     | Dec.      | Mv   | Size | No * | GX Type | Level | Observe     | Meridian          | Photo       | Name                     |
|----------|---------|--------|------|----------|-----------|------|------|------|---------|-------|-------------|-------------------|-------------|--------------------------|
| 1344     |         | FOR    | GX   | 03:28:17 | -31:04:18 | 10.4 | 5.8  |      | Ecd     | 5     | Aug15-Mar3  | Sep12-Nov13-Jan30 | Aug28-Feb16 |                          |
| 1350     |         | FOR    | GX   | 03:31:05 | -33:38:22 | 10.3 | 5    |      | Sa      | 5     | Aug20-Feb26 | Sep13-Nov14-Jan31 | Sep7-Feb8   |                          |
| 1365     |         | FOR    | GX   | 03:33:35 | -36:08:22 | 9.6  | 11   |      | Sc      | 3     | Aug26-Feb21 | Sep13-Nov14-Feb1  | -           |                          |
| 1371     |         | FOR    | GX   | 03:34:59 | -24:56:17 | 10.7 | 5.5  |      | Sa      | 5     | Aug8-Mar13  | Sep14-Nov15-Feb1  | Aug18-Mar2  |                          |
| 1379     |         | FOR    | GX   | 03:36:05 | -35:27:18 | 10.9 | 2.3  |      | E       | 5     | Aug25-Feb23 | Sep14-Nov15-Feb1  | -           |                          |
| 1380     |         | FOR    | GX   | 03:36:29 | -34:59:18 | 9.9  | 4.7  |      | S0      | 4     | Aug24-Feb24 | Sep14-Nov15-Feb1  | -           |                          |
| 1385     |         | FOR    | GX   | 03:37:29 | -24:30:17 | 10.9 | 3.3  |      | Sb      | 5     | Aug8-Mar14  | Sep14-Nov15-Feb1  | Aug18-Mar3  |                          |
| 1399     |         | FOR    | GX   | 03:38:29 | -35:27:22 | 9.6  | 6.6  |      | E       | 4     | Aug25-Feb23 | Sep14-Nov15-Feb1  | -           |                          |
| 1398     |         | FOR    | GX   | 03:38:53 | -26:20:20 | 9.7  | 6.9  |      | Sba     | 3     | Aug11-Mar12 | Sep14-Nov16-Feb1  | Aug21-Feb28 |                          |
| 1404     |         | FOR    | GX   | 03:38:53 | -35:35:22 | 10   | 3.1  |      | E       | 4     | Aug26-Feb23 | Sep14-Nov16-Feb1  | -           |                          |
| 1425     |         | FOR    | GX   | 03:42:11 | -29:54:18 | 10.6 | 5.5  |      | Sc      | 5     | Aug16-Mar7  | Sep15-Nov16-Feb2  | Aug28-Feb22 |                          |
| 1427     |         | FOR    | GX   | 03:42:17 | -35:25:18 | 10.9 | 3.5  |      | Irr     | 5     | Aug26-Feb24 | Sep15-Nov16-Feb2  | -           |                          |
| IC1459   |         | GRU    | GX   | 22:57:10 | -36:28:10 | 10   | 5    |      | E       | 5     | Jul10-Dec28 | Jul27-Sep5-Dec4   | -           |                          |
| 2784     |         | HYA    | GX   | 09:12:19 | -24:10:09 | 10.2 | 5.3  |      | S0      | 4     | Oct8-May12  | Nov17-Feb8-Apr5   | Oct18-May2  |                          |
| 2986     |         | HYA    | GX   | 09:44:19 | -21:17:09 | 10.8 | 3.1  |      | S0ab    | 5     | Oct10-May20 | Nov24-Feb16-Apr11 | Oct21-May11 |                          |
| 3585     |         | HYA    | GX   | 11:13:19 | -26:45:02 | 9.9  | 4.5  |      | E       | 4     | Nov3-May30  | Dec12-Mar11-Apr26 | Nov15-May19 |                          |
| 3621     |         | HYA    | GX   | 11:18:19 | -32:49:01 | 9.7  | 12   |      | Sc      | 3     | Nov14-May22 | Dec13-Mar12-Apr27 | Dec2-May7   |                          |
| 3923     |         | HYA    | GX   | 11:51:01 | -28:48:01 | 9.8  | 5.8  |      | Ecd     | 4     | Nov13-Jun3  | Dec20-Mar20-May2  | Nov27-May22 |                          |
| 4105     |         | HYA    | GX   | 12:06:43 | -29:46:07 | 10.7 | 2.6  |      | S0bc    | 5     | Nov18-Jun4  | Dec24-Mar24-May5  | Dec2-May23  |                          |
| 5061     |         | HYA    | GX   | 13:18:07 | -26:50:03 | 10.4 | 3.4  |      | Ebc     | 5     | Nov28-Jun25 | Jan10-Apr11-May17 | Dec11-Jun11 |                          |
| 5101     |         | HYA    | GX   | 13:21:49 | -27:26:03 | 10.6 | 5.3  |      | SB0a    | 5     | Nov30-Jun25 | Jan11-Apr12-May18 | Dec12-Jun10 |                          |
| 5236     | M83     | HYA    | GX   | 13:37:00 | -29:51:53 | 8    | 9.5  |      | S       | 2     | Dec6-Jun24  | Jan15-Apr16-May20 | Dec21-Jun8  | Southern Pinwheel Galaxy |
| 2903     |         | LEO    | GX   | 09:32:13 | 21:29:53  | 9    | 12   |      | S       | 2     | Sep3-Jun25  | Nov21-Feb13-Apr8  | Sep11-Jun14 |                          |
| 3193     |         | LEO    | GX   | 10:18:25 | 21:53:53  | 10.9 | 2.9  |      | E       | 5     | Sep11-Jul10 | Nov30-Feb25-Apr17 | Sep19-Jun25 |                          |
| 3227     |         | LEO    | GX   | 10:23:31 | 19:51:53  | 10.3 | 5.3  |      | Sb      | 4     | Sep14-Jul9  | Dec1-Feb26-Apr18  | Sep22-Jun24 |                          |
| 3338     |         | LEO    | GX   | 10:42:07 | 13:44:53  | 11.1 | 5.8  |      | Sc      | 5     | Sep22-Jul5  | Dec5-Mar3-Apr21   | Sep30-Jun22 |                          |
| 3351     | M95     | LEO    | GX   | 10:44:01 | 11:41:53  | 9.7  | 3.9  |      | SBb     | 3     | Sep24-Jul3  | Dec6-Mar3-Apr21   | Oct2-Jun21  |                          |

## OAOG Challenge - Galaxies

| NGC / IC | Messier | Const. | Type | R.A.     | Dec.      | Mv   | Size | No * | GX Type | Level | Observe     | Meridian          | Photo       | Name               |
|----------|---------|--------|------|----------|-----------|------|------|------|---------|-------|-------------|-------------------|-------------|--------------------|
| 3368     | M96     | LEO    | GX   | 10:46:49 | 11:48:53  | 9.3  | 5.8  |      | Sa      | 3     | Sep24-Jul4  | Dec6-Mar4-Apr21   | Oct3-Jun22  |                    |
| 3377     |         | LEO    | GX   | 10:47:43 | 13:58:53  | 10.4 | 5    |      | E       | 4     | Sep23-Jul8  | Dec6-Mar4-Apr22   | Oct1-Jun24  |                    |
| 3379     | M105    | LEO    | GX   | 10:47:49 | 12:34:53  | 9.3  | 3.9  |      | E       | 3     | Sep24-Jul6  | Dec6-Mar4-Apr22   | Oct2-Jun23  |                    |
| 3384     |         | LEO    | GX   | 10:48:19 | 12:37:53  | 9.9  | 5.3  |      | S0      | 3     | Sep24-Jul6  | Dec6-Mar4-Apr22   | Oct2-Jun23  |                    |
| 3412     |         | LEO    | GX   | 10:50:55 | 13:24:53  | 10.5 | 3.5  |      | S0      | 4     | Sep24-Jul8  | Dec7-Mar5-Apr22   | Oct2-Jun24  |                    |
| 3489     |         | LEO    | GX   | 11:00:19 | 13:53:53  | 10.3 | 3.4  |      | S0      | 5     | Sep25-Jul13 | Dec9-Mar7-Apr24   | Oct4-Jun27  |                    |
| 3521     |         | LEO    | GX   | 11:05:49 | -00:02:06 | 9    | 10   |      | Sb      | 3     | Oct7-Jun26  | Dec10-Mar9-Apr25  | Oct16-Jun15 |                    |
| 3607     |         | LEO    | GX   | 11:16:55 | 18:02:53  | 9.9  | 4.7  |      | E       | 4     | Sep25-Jul28 | Dec12-Mar11-Apr27 | Oct3-Jul9   |                    |
| 3608     |         | LEO    | GX   | 11:17:01 | 18:08:55  | 10.8 | 3.1  |      | E       | 5     | Sep25-Jul29 | Dec12-Mar12-Apr27 | Oct3-Jul9   |                    |
| 3623     | M65     | LEO    | GX   | 11:18:55 | 13:04:53  | 9.3  | 9.5  |      | Sa      | 2     | Sep29-Jul19 | Dec13-Mar12-Apr27 | Oct8-Jul2   | Leo Triplet Galaxy |
| 3627     | M66     | LEO    | GX   | 11:20:13 | 12:58:53  | 9    | 8.5  |      | Sb      | 2     | Sep30-Jul19 | Dec13-Mar12-Apr27 | Oct8-Jul3   | Leo Triplet Galaxy |
| 3628     |         | LEO    | GX   | 11:20:19 | 13:35:53  | 9.5  | 14   |      | Sb      | 3     | Sep29-Jul21 | Dec13-Mar12-Apr27 | Oct8-Jul3   |                    |
| 3640     |         | LEO    | GX   | 11:21:07 | 03:13:54  | 10.4 | 3.9  |      | E       | 5     | Oct7-Jul4   | Dec14-Mar13-Apr27 | Oct16-Jun22 |                    |
| 3810     |         | LEO    | GX   | 11:41:01 | 11:27:53  | 10.8 | 4.2  |      | Sc      | 5     | Oct5-Jul26  | Dec18-Mar18-May1  | Oct13-Jul8  |                    |
| 1964     |         | LEP    | GX   | 05:33:24 | -21:57:19 | 10.8 | 5.5  |      | Sc      | 5     | Aug26-Apr7  | Oct6-Dec15-Feb23  | Sep4-Mar28  |                    |
| 2859     |         | LMI    | GX   | 09:24:19 | 34:30:56  | 10.9 | 4.2  |      | SB0     | 5     | Aug20-Jul16 | Nov20-Feb11-Apr7  | Aug29-Jun27 |                    |
| 3245     |         | LMI    | GX   | 10:27:19 | 28:29:54  | 10.8 | 3.1  |      | S0      | 5     | Sep7-Jul29  | Dec2-Feb27-Apr18  | Sep16-Jul7  |                    |
| 3344     |         | LMI    | GX   | 10:43:31 | 24:54:53  | 9.9  | 6.9  |      | Sc      | 4     | Sep13-Jul28 | Dec6-Mar3-Apr21   | Sep22-Jul7  |                    |
| 3414     |         | LMI    | GX   | 10:51:19 | 27:58:53  | 11   | 3.4  |      | SB      | 5     | Sep11-Aug10 | Dec7-Mar5-Apr22   | Sep20-Jul16 |                    |
| 3486     |         | LMI    | GX   | 11:00:25 | 28:57:52  | 10.5 | 6.9  |      | Sc      | 5     | Sep12-Aug18 | Dec9-Mar7-Apr24   | Sep21-Jul22 |                    |
| 6384     |         | OPH    | GX   | 17:32:23 | 07:03:55  | 10.4 | 6.1  |      | Sb      | 5     | Dec17-Dec13 | Apr30-Jun15-Jul14 | Dec27-Dec2  |                    |
| 7814     |         | PEG    | GX   | 00:03:17 | 16:08:53  | 10.6 | 5.3  |      | Sab     | 4     | Apr27-Mar8  | Aug7-Sep22-Dec20  | May20-Feb28 |                    |
| 7217     |         | PEG    | GX   | 22:07:52 | 31:21:53  | 10.1 | 3.8  |      | Sbc     | 4     | All Year    | Jul18-Aug24-Nov20 | All Year    |                    |
| 7331     |         | PEG    | GX   | 22:37:04 | 34:24:55  | 9.5  | 10   |      | Sb      | 3     | All Year    | Jul23-Aug31-Nov29 | All Year    |                    |
| 7457     |         | PEG    | GX   | 23:00:58 | 30:08:54  | 11.2 | 4.2  |      | S0      | 5     | All Year    | Jul27-Sep6-Dec5   | Mar13-Feb28 |                    |
| 7479     |         | PEG    | GX   | 23:04:53 | 12:18:50  | 10.8 | 3.9  |      | SBb     | 5     | Apr2-Feb22  | Jul28-Sep7-Dec6   | Apr28-Feb14 |                    |
| 1023     |         | PER    | GX   | 02:40:23 | 39:04:01  | 9.4  | 8.5  |      | SB0     | 3     | May13-Apr28 | Sep4-Nov1-Jan21   | Jun7-Apr18  |                    |

## OAOG Challenge - Galaxies

| NGC / IC | Messier | Const. | Type | R.A.     | Dec.      | Mv   | Size | No * | GX Type | Level | Observe     | Meridian          | Photo       | Name            |
|----------|---------|--------|------|----------|-----------|------|------|------|---------|-------|-------------|-------------------|-------------|-----------------|
| 488      |         | PSC    | GX   | 01:21:47 | 05:14:50  | 10.3 | 5    |      | Sb      | 4     | Jun17-Mar14 | Aug21-Oct12-Jan6  | Jun28-Mar6  |                 |
| 524      |         | PSC    | GX   | 01:24:47 | 09:31:51  | 10.3 | 2.7  |      | S0      | 4     | Jun13-Mar18 | Aug21-Oct13-Jan6  | Jun25-Mar10 |                 |
| 628      | M74     | PSC    | GX   | 01:36:41 | 15:46:53  | 9.2  | 9.5  |      | Sc      | 3     | Jun9-Mar25  | Aug23-Oct16-Jan9  | Jun21-Mar17 |                 |
| 660      |         | PSC    | GX   | 01:42:59 | 13:37:52  | 11.2 | 8.2  |      | SBa     | 5     | Jun14-Mar25 | Aug24-Oct17-Jan10 | Jun25-Mar17 |                 |
| 741      |         | PSC    | GX   | 01:56:27 | 05:38:14  | 11.1 | 2.9  |      | E       | 5     | Jun25-Mar21 | Aug27-Oct21-Jan13 | Jul4-Mar13  |                 |
| 134      |         | SCL    | GX   | 00:30:22 | -33:15:16 | 10.4 | 8.2  |      | Sc      | 4     | Jul19-Jan23 | Aug12-Sep29-Dec26 | Aug4-Jan5   |                 |
| 253      |         | SCL    | GX   | 00:47:34 | -25:17:16 | 7.2  | 26   |      | Sc      | 2     | Jul11-Feb8  | Aug15-Oct3-Dec30  | Jul21-Jan28 | Sculptor Galaxy |
| 613      |         | SCL    | GX   | 01:34:17 | -29:25:18 | 10.1 | 5.3  |      | Sc      | 4     | Jul24-Feb12 | Aug23-Oct15-Jan8  | Aug5-Jan30  |                 |
| 7507     |         | SCL    | GX   | 23:12:04 | -28:32:11 | 10.4 | 2.7  |      | S0      | 5     | Jun27-Jan17 | Jul29-Sep9-Dec8   | Jul9-Jan3   |                 |
| 7793     |         | SCL    | GX   | 23:57:46 | -32:35:14 | 9.1  | 9    |      | Sd      | 3     | Jul12-Jan18 | Aug6-Sep20-Dec19  | Jul27-Jan1  |                 |
| 2974     |         | SEX    | GX   | 09:42:37 | -03:42:09 | 10.9 | 3.4  |      | S       | 5     | Sep24-Jun4  | Nov23-Feb16-Apr10 | Oct3-May27  |                 |
| 3115     |         | SEX    | GX   | 10:05:13 | -07:43:07 | 8.9  | 7.1  |      | E       | 2     | Oct2-Jun5   | Nov28-Feb21-Apr14 | Oct10-May28 | Spindle Galaxy  |
| 3166     |         | SEX    | GX   | 10:13:49 | 03:25:52  | 10.4 | 4.7  |      | S0      | 4     | Sep25-Jun16 | Nov30-Feb23-Apr16 | Oct3-Jun7   |                 |
| 3169     |         | SEX    | GX   | 10:14:13 | 03:27:53  | 10.2 | 4.2  |      | Sa      | 4     | Sep25-Jun16 | Nov30-Feb24-Apr16 | Oct3-Jun7   |                 |
| 598      | M33     | TRI    | GX   | 01:33:53 | 30:38:58  | 5.7  | 59   |      | Sc      | 2     | May8-Apr7   | Aug23-Oct15-Jan8  | Jun1-Mar29  | Pinwheel Galaxy |
| 672      |         | TRI    | GX   | 01:47:53 | 27:25:56  | 10.9 | 7.1  |      | SBc     | 5     | May23-Apr6  | Aug25-Oct18-Jan11 | Jun11-Mar28 |                 |
| 925      |         | TRI    | GX   | 02:27:17 | 33:34:59  | 10.1 | 10   |      | S       | 4     | May25-Apr19 | Sep1-Oct28-Jan19  | Jun13-Apr10 |                 |
| 2681     |         | UMA    | GX   | 08:53:31 | 51:18:59  | 10.3 | 3.5  |      | Sa      | 4     | All Year    | Nov13-Feb3-Apr2   | All Year    |                 |
| 2768     |         | UMA    | GX   | 09:11:38 | 60:01:59  | 9.9  | 7.9  |      | E       | 3     | All Year    | Nov17-Feb8-Apr5   | All Year    |                 |
| 2787     |         | UMA    | GX   | 09:19:20 | 69:12:02  | 10.8 | 3.1  |      | SB0     | 5     | All Year    | Nov19-Feb10-Apr6  | All Year    |                 |
| 2841     |         | UMA    | GX   | 09:22:01 | 50:57:57  | 9.2  | 7.9  |      | Sb      | 3     | All Year    | Nov19-Feb10-Apr7  | All Year    |                 |
| 2950     |         | UMA    | GX   | 09:42:37 | 58:51:06  | 10.9 | 2.6  |      | SB0     | 5     | All Year    | Nov23-Feb16-Apr10 | All Year    |                 |
| 2976     |         | UMA    | GX   | 09:47:20 | 67:54:58  | 10.2 | 5.8  |      | Sc      | 4     | All Year    | Nov24-Feb17-Apr11 | All Year    |                 |
| 2985     |         | UMA    | GX   | 09:50:27 | 72:17:00  | 10.4 | 4.5  |      | Sb      | 5     | All Year    | Nov25-Feb18-Apr12 | All Year    |                 |
| 3031     | M81     | UMA    | GX   | 09:55:38 | 69:03:56  | 6.9  | 25   |      | Sb      | 1     | All Year    | Nov26-Feb19-Apr13 | All Year    | Bode's Galaxy   |
| 3034     | M82     | UMA    | GX   | 09:55:50 | 69:40:56  | 8.4  | 8.5  |      | Irr     | 1     | All Year    | Nov26-Feb19-Apr13 | All Year    | Bode's Galaxy   |
| 3079     |         | UMA    | GX   | 10:02:01 | 55:40:56  | 10.9 | 7.7  |      | Scd     | 5     | All Year    | Nov27-Feb20-Apr14 | All Year    |                 |

## OAOG Challenge - Galaxies

| NGC / IC | Messier | Const. | Type | R.A.     | Dec.     | Mv   | Size | No * | GX Type | Level | Observe  | Meridian          | Photo       | Name |
|----------|---------|--------|------|----------|----------|------|------|------|---------|-------|----------|-------------------|-------------|------|
| 3077     |         | UMA    | GX   | 10:03:20 | 68:43:57 | 9.9  | 5.3  |      | Irr     | 3     | All Year | Nov27-Feb21-APr14 | All Year    |      |
| 3184     |         | UMA    | GX   | 10:18:19 | 41:24:54 | 9.8  | 7.1  |      | Sc      | 3     | All Year | Nov30-Feb25-Apr17 | Aug31-Aug7  |      |
| 3198     |         | UMA    | GX   | 10:19:55 | 45:32:54 | 10.3 | 8.2  |      | Sc      | 4     | All Year | Dec1-Feb25-Apr17  | All Year    |      |
| 3310     |         | UMA    | GX   | 10:38:43 | 53:29:55 | 10.8 | 3    |      | Sb      | 5     | All Year | Dec5-Mar2-Apr20   | All Year    |      |
| 3359     |         | UMA    | GX   | 10:46:38 | 63:12:56 | 10.6 | 7.1  |      | SBc     | 5     | All Year | Dec6-Mar4-Apr21   | All Year    |      |
| 3556     | M108    | UMA    | GX   | 11:11:31 | 55:39:51 | 10.1 | 7.9  |      | Sc      | 2     | All Year | Dec11-Mar10-Apr26 | All Year    |      |
| 3610     |         | UMA    | GX   | 11:18:26 | 58:46:54 | 10.8 | 2.6  |      | S0      | 5     | All Year | Dec13-Mar12-Apr27 | All Year    |      |
| 3613     |         | UMA    | GX   | 11:18:38 | 58:00:02 | 10.9 | 3.8  |      | E       | 5     | All Year | Dec13-Mar12-Apr27 | All Year    |      |
| 3631     |         | UMA    | GX   | 11:21:01 | 53:09:53 | 10.4 | 4.7  |      | Sc      | 4     | All Year | Dec14-Mar13-Apr27 | All Year    |      |
| 3665     |         | UMA    | GX   | 11:24:43 | 38:45:53 | 10.8 | 2.3  |      | E       | 5     | All Year | Dec14-Mar13-Apr28 | Sep16-Sep4  |      |
| 3675     |         | UMA    | GX   | 11:26:07 | 43:34:59 | 10.2 | 5.8  |      | Sb      | 4     | All Year | Dec15-Mar14-Apr28 | All Year    |      |
| 3718     |         | UMA    | GX   | 11:32:37 | 53:03:53 | 10.8 | 7.9  |      | S0      | 5     | All Year | Dec16-Mar15-Apr29 | All Year    |      |
| 3726     |         | UMA    | GX   | 11:33:19 | 47:01:52 | 10.4 | 6.1  |      | Sc      | 4     | All Year | Dec16-Mar16-Apr29 | All Year    |      |
| 3877     |         | UMA    | GX   | 11:46:06 | 47:30:10 | 11   | 5.3  |      | Sc      | 5     | All Year | Dec19-Mar19-May2  | All Year    |      |
| 3893     |         | UMA    | GX   | 11:48:37 | 48:42:59 | 10.5 | 4.2  |      | Sc      | 5     | All Year | Dec19-Mar20-May2  | All Year    |      |
| 3898     |         | UMA    | GX   | 11:49:13 | 56:04:52 | 10.7 | 4.2  |      | Sa      | 5     | All Year | Dec20-Mar20-May2  | All Year    |      |
| 3938     |         | UMA    | GX   | 11:52:49 | 44:06:51 | 10.4 | 5.3  |      | Sc      | 4     | All Year | Dec20-Mar21-May3  | All Year    |      |
| 3941     |         | UMA    | GX   | 11:52:55 | 36:58:57 | 10.3 | 3.5  |      | S0      | 4     | All Year | Dec20-Mar21-May3  | Sep23-Sep14 |      |
| 3945     |         | UMA    | GX   | 11:53:14 | 60:40:52 | 10.8 | 5.5  |      | SB0     | 5     | All Year | Dec20-Mar21-May3  | All Year    |      |
| 3953     |         | UMA    | GX   | 11:53:49 | 52:19:51 | 10.1 | 6.6  |      | SBb     | 4     | All Year | Dec21-Mar21-May3  | All Year    |      |
| 3992     | M109    | UMA    | GX   | 11:57:37 | 53:22:50 | 9.8  | 7.9  |      | SBb     | 3     | All Year | Dec22-Mar22-May4  | All Year    |      |
| 3998     |         | UMA    | GX   | 11:57:55 | 55:26:52 | 10.7 | 2.6  |      | S0      | 5     | All Year | Dec22-Mar22-May4  | All Year    |      |
| 4026     |         | UMA    | GX   | 11:59:25 | 50:57:59 | 10.8 | 5    |      | S0      | 5     | All Year | Dec22-Mar22-May4  | All Year    |      |
| 4036     |         | UMA    | GX   | 12:01:26 | 61:53:52 | 10.7 | 4.2  |      | S0      | 5     | All Year | Dec22-Mar23-May4  | All Year    |      |
| 4051     |         | UMA    | GX   | 12:03:13 | 44:31:51 | 10.2 | 5    |      | Sb      | 4     | All Year | Dec23-Mar23-May4  | All Year    |      |
| 4088     |         | UMA    | GX   | 12:05:37 | 50:32:50 | 10.6 | 5.5  |      | Sc      | 5     | All Year | Dec23-Mar24-May5  | All Year    |      |
| 4096     |         | UMA    | GX   | 12:06:01 | 47:28:51 | 10.8 | 6.7  |      | Sc      | 5     | All Year | Dec23-Mar24-May5  | All Year    |      |



## OAOG Challenge - Galaxies

| NGC / IC | Messier | Const. | Type | R.A.     | Dec.      | Mv   | Size | No * | GX Type | Level | Observe     | Meridian          | Photo       | Name                  |
|----------|---------|--------|------|----------|-----------|------|------|------|---------|-------|-------------|-------------------|-------------|-----------------------|
| 4605     |         | UMA    | GX   | 12:40:02 | 61:36:58  | 10.3 | 5.5  |      | S       | 4     | All Year    | Dec31-Apr2-May11  | All Year    |                       |
| 5322     |         | UMA    | GX   | 13:49:19 | 60:11:47  | 10.2 | 5.8  |      | E       | 4     | All Year    | Jan19-Apr19-May22 | All Year    |                       |
| 5457     | M101    | UMA    | GX   | 14:03:12 | 54:20:46  | 7.8  | 19   |      | Sc      | 2     | All Year    | Jan23-Apr23-May25 | All Year    | Pinwheel Galaxy       |
| 4030     |         | VIR    | GX   | 12:00:24 | -01:06:07 | 10.6 | 4.1  |      | Sb      | 5     | Oct18-Jul12 | Dec22-Mar23-May4  | Oct27-Jun27 |                       |
| 4179     |         | VIR    | GX   | 12:12:55 | 01:17:55  | 11   | 3.9  |      | S0      | 5     | Oct19-Jul22 | Dec25-Mar26-May6  | Oct27-Jul4  |                       |
| 4216     |         | VIR    | GX   | 12:15:55 | 13:08:53  | 10   | 7.9  |      | Sb      | 3     | Oct10-Aug18 | Dec26-Mar26-May7  | Oct19-Jul25 |                       |
| 4261     |         | VIR    | GX   | 12:19:25 | 05:48:54  | 10.4 | 3.9  |      | E       | 4     | Oct17-Aug4  | Dec27-Mar27-May7  | Oct25-Jul14 |                       |
| 4267     |         | VIR    | GX   | 12:19:49 | 12:47:53  | 10.9 | 3.1  |      | S0      | 5     | Oct11-Aug20 | Dec27-Mar27-May7  | Oct20-Jul26 |                       |
| 4303     | M61     | VIR    | GX   | 12:21:55 | 04:27:55  | 9.7  | 4.7  |      | Sb      | 3     | Oct18-Aug2  | Dec27-Mar28-May8  | Oct27-Jul12 |                       |
| 4365     |         | VIR    | GX   | 12:24:31 | 07:18:54  | 9.6  | 6.6  |      | E       | 3     | Oct17-Aug10 | Dec28-Mar29-May8  | Oct25-Jul18 |                       |
| 4371     |         | VIR    | GX   | 12:24:55 | 11:41:53  | 10.8 | 3.9  |      | SB0     | 5     | Oct13-Aug20 | Dec28-Mar29-May8  | Oct21-Jul27 |                       |
| 4374     | M84     | VIR    | GX   | 12:25:07 | 12:52:54  | 9.3  | 3.9  |      | Eab     | 3     | Oct12-Aug24 | Dec28-Mar29-May8  | Oct21-Jul29 | Markarian's Chain     |
| 4406     | M86     | VIR    | GX   | 12:26:13 | 12:56:54  | 9.2  | 6.9  |      | Ecd     | 3     | Oct12-Aug24 | Dec28-Mar29-May9  | Oct21-Jul30 |                       |
| 4429     |         | VIR    | GX   | 12:27:25 | 11:06:54  | 10   | 5.5  |      | S0      | 4     | Oct14-Aug21 | Dec28-Mar29-May9  | Oct22-Jul27 |                       |
| 4435     |         | VIR    | GX   | 12:27:43 | 13:04:53  | 10.8 | 2.7  |      | SB0     | 4     | Oct13-Aug25 | Dec28-Mar29-May9  | Oct21-Jul31 | The Eyes              |
| 4438     |         | VIR    | GX   | 12:27:49 | 13:00:53  | 10.2 | 8.2  |      | S       | 4     | Oct13-Aug25 | Dec28-Mar29-May9  | Oct21-Jul31 | The Eyes              |
| 4442     |         | VIR    | GX   | 12:28:07 | 09:47:54  | 10.4 | 4.5  |      | SB0     | 4     | Oct15-Aug18 | Dec28-Mar30-May9  | Oct24-Jul25 |                       |
| 4457     |         | VIR    | GX   | 12:29:01 | 03:33:55  | 10.9 | 2.6  |      | S0      | 5     | Oct20-Aug4  | Dec29-Mar30-May9  | Oct29-Jul14 |                       |
| 4472     | M49     | VIR    | GX   | 12:29:49 | 07:59:55  | 8.4  | 7.9  |      | E       | 2     | Oct17-Aug15 | Dec29-Mar30-May9  | Oct25-Jul22 |                       |
| 4486     | M87     | VIR    | GX   | 12:30:48 | 12:23:54  | 8.6  | 6.9  |      | E       | 2     | Oct14-Aug26 | Dec29-Mar30-May9  | Oct22-Jul31 | Virgo A / Smoking Gun |
| 4487     |         | VIR    | GX   | 12:31:07 | -08:03:06 | 10.9 | 4.1  |      | S       | 5     | Oct30-Jul13 | Dec29-Mar30-May9  | Nov8-Jun27  |                       |
| 4517     |         | VIR    | GX   | 12:32:49 | 00:06:56  | 10.4 | 10   |      | Sc      | 4     | Oct24-Jul29 | Dec30-Mar31-May10 | Nov1-Jul10  | Reinmuth 80           |
| 4526     |         | VIR    | GX   | 12:34:01 | 07:41:54  | 9.7  | 7.1  |      | S0      | 3     | Oct18-Aug16 | Dec30-Mar31-May10 | Oct26-Jul24 | Lost Galaxy           |
| 4527     |         | VIR    | GX   | 12:34:07 | 02:38:55  | 10.5 | 6.1  |      | Sb      | 4     | Oct22-Aug5  | Dec30-Mar31-May10 | Oct30-Jul14 |                       |
| 4535     |         | VIR    | GX   | 12:34:19 | 08:11:54  | 10   | 6.9  |      | Sc      | 3     | Oct18-Aug17 | Dec30-Mar31-May10 | Oct26-Jul25 | Lost Galaxy           |
| 4536     |         | VIR    | GX   | 12:34:31 | 02:10:55  | 10.6 | 7.4  |      | Sb      | 5     | Oct22-Aug4  | Dec30-Mar31-May10 | Oct31-Jul14 |                       |
| 4546     |         | VIR    | GX   | 12:35:31 | -03:48:04 | 10.3 | 3.1  |      | E       | 4     | Oct27-Jul23 | Dec30-Mar31-May10 | Nov5-Jul4   |                       |

## OAOG Challenge - Galaxies

| NGC / IC | Messier | Const. | Type | R.A.     | Dec.      | Mv   | Size | No * | GX Type | Level | Observe     | Meridian          | Photo       | Name            |
|----------|---------|--------|------|----------|-----------|------|------|------|---------|-------|-------------|-------------------|-------------|-----------------|
| 4552     | M89     | VIR    | GX   | 12:35:42 | 12:32:54  | 9.8  | 2.9  |      | E       | 3     | Oct14-Aug29 | Dec30-Mar31-May10 | Oct23-Aug4  |                 |
| 4568     |         | VIR    | GX   | 12:36:37 | 11:13:54  | 10.8 | 4.5  |      | Sc      | 5     | Oct16-Aug26 | Dec31-Apr1-May10  | Oct24-Aug1  | Siamese Twins   |
| 4569     | M90     | VIR    | GX   | 12:36:48 | 13:09:54  | 9.5  | 8.5  |      | Sb      | 3     | Oct14-Aug31 | Dec31-Apr1-May10  | Oct23-Aug5  |                 |
| 4570     |         | VIR    | GX   | 12:36:55 | 07:14:54  | 10.9 | 3.7  |      | S0      | 5     | Oct19-Aug17 | Dec31-Apr1-May10  | Oct27-Jul24 |                 |
| 4579     | M58     | VIR    | GX   | 12:37:42 | 11:48:54  | 9.8  | 4.7  |      | Sb      | 3     | Oct15-Aug29 | Dec31-Apr1-May10  | Oct24-Aug3  |                 |
| 4593     |         | VIR    | GX   | 12:39:43 | -05:21:06 | 10.9 | 3.8  |      | SBbc    | 5     | Oct29-Jul21 | Dec31-Apr1-May11  | Nov7-Jul4   |                 |
| 4596     |         | VIR    | GX   | 12:39:55 | 10:10:54  | 10.4 | 3.9  |      | SB0     | 4     | Oct17-Aug26 | Dec31-Apr2-May11  | Oct26-Jul31 |                 |
| 4594     | M104    | VIR    | GX   | 12:40:01 | -11:37:00 | 8.2  | 6.9  |      | Sbc     | 2     | Nov4-Jul10  | Dec31-Apr2-May11  | Nov13-Jun25 | Sombrero Galaxy |
| 4612     |         | VIR    | GX   | 12:41:31 | 07:18:54  | 10.9 | 2.3  |      | S0      | 5     | Oct20-Aug20 | Jan1-Apr2-May11   | Oct28-Jul26 |                 |
| 4621     | M59     | VIR    | GX   | 12:42:00 | 11:38:54  | 9.8  | 1.9  |      | E       | 3     | Oct16-Aug30 | Jan1-Apr2-May11   | Oct25-Aug5  |                 |
| 4636     |         | VIR    | GX   | 12:42:49 | 02:40:55  | 9.5  | 5.8  |      | E       | 3     | Oct24-Aug10 | Jan1-Apr2-May11   | Nov1-Jul18  |                 |
| 4643     |         | VIR    | GX   | 12:43:19 | 01:58:55  | 10.8 | 3    |      | SB0     | 5     | Oct24-Aug8  | Jan1-Apr2-May11   | Nov2-Jul17  |                 |
| 4649     | M60     | VIR    | GX   | 12:43:37 | 11:32:54  | 8.8  | 3.4  |      | E       | 2     | Oct17-Aug31 | Jan1-Apr2-May11   | Oct25-Aug6  |                 |
| 4654     |         | VIR    | GX   | 12:44:01 | 13:07:53  | 10.5 | 4.7  |      | Sc      | 4     | Oct16-Sep5  | Jan1-Apr3-May12   | Oct24-Aug10 |                 |
| 4666     |         | VIR    | GX   | 12:45:07 | -00:28:05 | 10.7 | 4.5  |      | Sc      | 4     | Oct26-Aug4  | Jan1-Apr3-May12   | Nov4-Jul14  |                 |
| 4665     |         | VIR    | GX   | 12:45:07 | 03:02:54  | 10.5 | 3.7  |      | SB0     | 5     | Oct24-Aug12 | Jan1-Apr3-May12   | Nov1-Jul20  |                 |
| 4698     |         | VIR    | GX   | 12:48:25 | 08:28:54  | 10.6 | 3.9  |      | Sa      | 5     | Oct20-Aug26 | Jan2-Apr4-May12   | Oct29-Aug1  |                 |
| 4697     |         | VIR    | GX   | 12:48:37 | -05:48:03 | 9.2  | 7.1  |      | E       | 3     | Oct31-Jul25 | Jan2-Apr4-May12   | Nov9-Jul6   |                 |
| 4699     |         | VIR    | GX   | 12:49:01 | -08:40:02 | 9.5  | 3.7  |      | S       | 3     | Nov3-Jul19  | Jan2-Apr4-May12   | Nov12-Jul2  |                 |
| 4754     |         | VIR    | GX   | 12:52:19 | 11:18:53  | 10.6 | 4.5  |      | SB0     | 4     | Oct19-Sep5  | Jan3-Apr5-May13   | Oct27-Aug10 |                 |
| 4753     |         | VIR    | GX   | 12:52:25 | -01:12:04 | 9.9  | 5.8  |      | S       | 3     | Oct29-Aug6  | Jan3-Apr5-May13   | Nov6-Jul15  |                 |
| 4762     |         | VIR    | GX   | 12:52:55 | 11:13:54  | 10.3 | 8.5  |      | SB0     | 4     | Oct19-Sep5  | Jan3-Apr5-May13   | Oct27-Aug10 |                 |
| 4856     |         | VIR    | GX   | 12:59:19 | -15:02:01 | 10.5 | 4.2  |      | S       | 4     | Nov11-Jul11 | Jan5-Apr6-May14   | Nov20-Jun26 |                 |
| 4902     |         | VIR    | GX   | 13:01:01 | -14:31:05 | 10.9 | 2.9  |      | SBcd    | 5     | Nov11-Jul13 | Jan5-Apr7-May14   | Nov20-Jun27 |                 |
| 4958     |         | VIR    | GX   | 13:05:49 | -08:01:02 | 10.7 | 3.9  |      | E       | 5     | Nov6-Jul29  | Jan7-Apr8-May15   | Nov14-Jul9  |                 |
| 5018     |         | VIR    | GX   | 13:13:01 | -19:31:00 | 10.8 | 3.1  |      | S0      | 5     | Nov18-Jul8  | Jan9-Apr10-May16  | Nov28-Jun22 |                 |
| 5044     |         | VIR    | GX   | 13:15:25 | -16:23:04 | 10.8 | 2.9  |      | E       | 5     | Nov15-Jul15 | Jan9-Apr11-May17  | Nov25-Jun28 |                 |

## OAOG Challenge - Galaxies

| NGC / IC | Messier | Const. | Type | R.A.     | Dec.      | Mv   | Size | No * | GX Type | Level | Observe     | Meridian          | Photo       | Name |
|----------|---------|--------|------|----------|-----------|------|------|------|---------|-------|-------------|-------------------|-------------|------|
| 5084     |         | VIR    | GX   | 13:20:19 | -21:50:04 | 10.5 | 9    |      | S0      | 5     | Nov22-Jul5  | Jan10-Apr12-May18 | Dec3-Jun20  |      |
| 5363     |         | VIR    | GX   | 13:56:06 | 05:14:56  | 10.1 | 3.9  |      | E       | 4     | Nov5-Sep26  | Jan21-Apr21-May24 | Nov13-Sep2  |      |
| 5364     |         | VIR    | GX   | 13:56:12 | 05:00:56  | 10.5 | 6.6  |      | Sb      | 5     | Nov5-Sep26  | Jan21-Apr21-May24 | Nov13-Sep2  |      |
| 5566     |         | VIR    | GX   | 14:20:18 | 03:55:56  | 10.6 | 6.3  |      | SBa     | 5     | Nov11-Oct6  | Jan28-Apr27-May28 | Nov19-Sep13 |      |
| 5576     |         | VIR    | GX   | 14:21:06 | 03:15:56  | 11   | 3.4  |      | Ebc     | 5     | Nov11-Oct5  | Jan28-Apr27-May28 | Nov20-Sep12 |      |
| 5701     |         | VIR    | GX   | 14:39:13 | 05:21:55  | 10.9 | 4.2  |      | SB0     | 5     | Nov13-Oct17 | Feb4-May2-May31   | Nov22-Sep26 |      |
| 5746     |         | VIR    | GX   | 14:44:54 | 01:56:57  | 10.3 | 7.1  |      | Sb      | 4     | Nov17-Oct13 | Feb6-May3-Jun1    | Nov26-Sep22 |      |
| 5813     |         | VIR    | GX   | 15:01:12 | 01:41:57  | 10.5 | 4.1  |      | E       | 5     | Nov20-Oct20 | Feb12-May7-Jun4   | Nov29-Sep30 |      |
| 5838     |         | VIR    | GX   | 15:05:24 | 02:05:56  | 10.9 | 4.1  |      | S0      | 5     | Nov21-Oct23 | Feb14-May8-Jun5   | Nov30-Oct3  |      |
| 5846     |         | VIR    | GX   | 15:06:24 | 01:35:57  | 10   | 3.9  |      | E       | 4     | Nov21-Oct22 | Feb14-May9-Jun5   | Nov30-Oct2  |      |
| 5850     |         | VIR    | GX   | 15:07:07 | 01:32:55  | 10.8 | 4.2  |      | SBb     | 5     | Nov22-Oct22 | Feb14-May9-Jun6   | Nov30-Oct2  |      |