

Observation Plan for the month of November 2018

Moon

New	1st Quarter	Full Moon	Last Quarter
7/11/18	15/11/18	23/11/18	30/11/18

Planets

Planet	Magnitude	Comments
Mercury	-0.1	You'll be lucky to catch it – it's setting at about twilight.
Venus	-4.1	Wow, that's bright!!! Rising just before dawn.
Mars	-0.3	Setting at about 23:30
Jupiter	-1.7	Setting just after sunset.
Saturn	+0.6	Setting at about 18:30
Uranus	+5.7	Setting at about 05:00
Neptune	+7.9	Setting at about 01:00

Comets

Name:Stephan-Oterma (38P)	Magnitude	RA	Dec
5th of the month	+9.3	7h 21'	+19° 59'
15th of the month	+9.2	7h 42'	+23° 05'
25th of the month	+9.1	8h 01'	+26° 37'

Meteor Showers

Name	Nominal start date	Nominal end date	Peak ZHR	Originating comet	Moon illumination at peak and comments
Taurid	20/10/2017	30/11/2017	10	2P/Encke	10%
Leonid	15/11/2017	20/11/2017	20	55P/Tempel-Tuttle	70%

Deep Sky

Constellation	Object	RA	Dec	Mag	Type	Dates seen
Andromeda	M110	00h 40'	+41° 23'	+8.9	Galaxy	
Andromeda	M31	00h 43'	+41° 16'	+4.3	Galaxy	
Andromeda	M32	00h 43'	+40° 52'	+8.8	Galaxy	
Andromeda	NGC752	01h 58'	+37° 42'	+6.6	Open Cluster	
Andromeda	NGC691	02h 22'	+42° 20'	+10.8	Galaxy	
Andromeda	NGC891	02h 223'	+42° 21'	+10.8	Galaxy	
Andromeda	NGC7662	23h 26'	+42° 33'	+9.8	Planetary Nebula	
Aquarius	M2	21h 33'	+00° 49'	+6.6	Globular Cluster	
Aquila	NGC6709	18h 51'	+10° 20'	+7.4	Open Cluster	
Aquila	NGC6751	19h 06'	-05° 59'	+11.9	Planetary Nebula	
Aquila	NGC6778	19h 18'	-01° 36'	+11.9	Planetary Nebula	
Aquila	NGC6781	19h 19'	+06° 32'	+11.4	Planetary Nebula	
Aquila	NGC6804	19h 32'	+09° 13'	+12.2	Planetary Nebula	
Aries	NGC772	11h 59'	+19° 00'	+11.2	Galaxy	
Auriga	IC405	05h 17'	+34°17'		Nebula	
Auriga	IC417	05h 28'	+34° 26'	+8	Emission Nebula	

Auriga	M38	05h 29'	+35° 50'	+6.8	Open Cluster	
Auriga	NGC1931	05h 31'	+34° 15'	+10.1	Emission Nebula	
Auriga	M36	05h 36'	+34° 08'	+6.5	Open Cluster	
Auriga	M37	05h 52'	+32° 33'	+6.2	Open Cluster	
Auriga	IC2149	05h 58'	+46° 07'	+11.0	Planetary Nebula	
Camelopardis	IC342	03h 47'	+68° 06'	+9.1	Galaxy	
Camelopardis	NGC1502	04h 08'	+62° 21'	+4.1	Open Cluster	
Camelopardis	NGC2403	07h 37'	+65° 35'	+8.9	Galaxy	
Capricornus	M30	21h 40'	-23° 11'	+6.9	Globular Cluster	
Cassiopeia	NGC129	00h 30'	+60° 13'	+9.8	Open Cluster	
Cassiopeia	NGC281	00h 53'	+56° 38'	+7.4	Diffuse Nebula	
Cassiopeia	NGC457	01h 19'	+58° 19'	+5.1	Open Cluster	
Cassiopeia	M103	01h 33'	+60° 42'	+6.9	Open Cluster	
Cassiopeia	M52	23h 24'	+61° 35'	+8.2	Open Cluster	
Cepheus	NGC40	00h 13'	+72° 33'	+10.7	Planetary Nebula	
Cepheus	NGC188	00h 44'	+85° 22'	+9.3	Open Cluster	
Cepheus	NGC7023	21h 02'	+68° 10'	+6.8	Reflection Nebula	
Cepheus	NGC7354	22h 40'	+61° 17'	+12.2	Planetary Nebula	
Cetus	NGC246	00h 47'	-11° 52'	+8	Planetary Nebula	
Cetus	NGC936	02h 28'	-01° 09'	+10.2	Galaxy	
Cetus	M77	02h 43'	-00° 01'	+9.5	Galaxy	
Cygnus	NGC6826	19h 44'	+50° 32'	+9.8	Planetary Nebula	
Cygnus	NGC6894	20h 16'	+30° 34'	+12.3	Planetary Nebula	
Cygnus	NGC6910	20h 23'	+40° 46'	+7.3	Open Cluster	
Cygnus	M29	20h 24'	+38° 32'	+7.5	Open Cluster	
Cygnus	NGC6946	20h 34'	+60° 10'	+9.7	Galaxy	
Cygnus	NGC6960	20h 45'	+30° 43'	+7.0	Supernova remnant	

Cygnus	NGC6992	20h 56'	+31° 43'	+7.0	Supernova remnant	
Cygnus	NGC6995	20h 57'	+31° 13'	+7.0	Supernova remnant	
Cygnus	NGC7000	21h 01'	+44° 12'	+4.0	Diffuse Nebula	
Cygnus	NGC7008	21h 01'	+54° 37'	+13.00	Planetary Nebula	
Cygnus	NGC7026	21h 06'	+47° 51'	+10.9	Planetary Nebula	
Cygnus	NGC7048	21h 14'	+46° 17'	+12.1	Planetary Nebula	
Cygnus	M39	21h 32'	+48° 26'	+5.3	Open Cluster	
Cygnus	NGC7538	23h 14'	+61° 28'		Emission Nebula	
Cygnus	NGC7635	23h 21'	+61° 18'	+10.00	Emission Nebula	
Draco	NGC5907	15h 15'	+56° 19'	+11.1	Galaxy	
Draco	NGC6543	17h 58'	+66° 37'	+8.8	Planetary Nebula	
Lacerta	NGC7209	22h 05'	+46° 29'	+7.8	Open Cluster	
Pegasus	M15	21h 30'	+12° 10'	+6.4	Globular Cluster	
Pegasus	NGC7094	21h 37'	+12° 47'	+13.4	Planetary Nebula	
Perseus	M76	01h 42'	+51° 34'	+12.2	Planetary Nebula	
Perseus	NGC869	02h 19'	+57° 08'	+4.3	Open Cluster	
Perseus	NGC884	02h 22'	+57° 06'	+4.3	Open Cluster	
Perseus	NGC1023	02h 40'	+39° 04'	+10.35	Galaxy	
Perseus	M34	02h 42'	+42° 47'	+5.8	Open Cluster	
Perseus	NGC1499	04h 03'	+36° 23'	+5.0	Diffuse Nebula	
Perseus	NGC1491	04h 03'	+51° 19'		Emission Nebula	
Perseus	NGC1579	04h 30'	+35° 16'		Emission Nebula	
Pisces	NGC507	01h 23'	+33° 15'	+11.2	Galaxy	
Pisces	M74	01h 37'	+15° 47'	+10.0	Galaxy	
Sagitta	M71	19h 54'	+18° 47'	+8.3	Globular Cluster	
Triangulum	M33	01h 34'	+30° 39'	+5.7	Galaxy	
Triangulum	NGC672	01h 47'	+27° 25'	+11.6	Galaxy	

Triangulum	IC1727	01h 47'	+27° 20'	11.4	Galaxy	
Triangulum	NGC925	02h 27'	+33° 34'	+10.9	Galaxy	
Ursa Major	M81	09h 56'	+69° 04'	+7.8	Galaxy	
Ursa Major	M82	09h 56'	+69° 41'	+9.2	Galaxy	
Ursa Major	NGC3079	10h 02'	+55° 41'	+10.9	Galaxy	
Ursa Major	NGC3077	10h 03'	+68° 44'	+9.8	Galaxy	
Ursa Major	NGC3198	10h 20'	+45° 33'	+10.3	Galaxy	
Ursa Major	M108	11h 11'	+55° 40'	+10.9	Galaxy	
Ursa Major	M97	11h 15'	+55° 01'	+12.0	Planetary Nebula	
Ursa Major	NGC3675	11h 26'	+43° 35'	+11.0	Galaxy	
Ursa Major	NGC3726	11h 33'	+47° 01'	+10.9	Galaxy	
Ursa Major	NGC3877	11h 46'	+47° 29'	+11.8	Galaxy	
Ursa Major	NGC3893	11h 49'	+48° 43'	+10.5	Galaxy	
Ursa Major	NGC3953	11h 54'	+52° 20'	+10.1	Galaxy	
Ursa Major	M109	11h 58'	+53° 23'	+10.8	Galaxy	
Ursa Major	NGC4026	11h 59'	+50° 57'	+11.7	Galaxy	
Ursa Major	NGC4036	12h 01'	+61° 54'	+10.7	Galaxy	
Ursa Major	NGC4051	12h 03'	+44° 32'	+10.2	Galaxy	
Ursa Major	M40	12h 22'	+58° 50'	+8.0	Double Star	
Ursa Major	M101	14h 03'	+54° 21'	+7.7	Galaxy	
Vulpecula	Collinder 399	19h 25'	+20° 11'	+4.8	Open Cluster	
Vulpecula	M27	19h 59'	+22° 43'	+7.6	Planetary Nebula	
Vulpecula	NGC6940	20h 34'	+28° 18'	+7.2	Open Cluster	