

Observation Plan for the month of January 2019

Moon

New	1st Quarter	Full Moon	Last Quarter
6/1/19	14/1/19	21/1/19	27/1/19

Planets

Planet	Magnitude	Comments
Mercury	N/A	Too close to the Sun for observing.
Venus	-4.4	Rising at about 04:30 – can't miss it!
Mars	+0.7	Setting in Pisces at about 23:30.
Jupiter	-1.8	Rising at about 06:00
Saturn	+0.6	Rising at about 07:00 at the end of the month.
Uranus	+5.8	Close to Mars in Pisces, setting at about 22:00.
Neptune	+7.9	Setting at about 21:00 in Aquarius

Comets

Name: Stephan-Oterma (38P)	Magnitude	RA	Dec
5th of the month	+10.2	8h 35'	+42° 22'
15th of the month	+10.7	8h 34'	+45° 00'
25th of the month	+11.3	8h 30'	+46° 41'

Name: Wirtanen (46P)	Magnitude	RA	Dec
5th of the month	+10.5	7h 52'	+59° 14'
15th of the month	+11.5	8h 52'	+58° 52'
25th of the month	+12.4	9h 17'	+56° 37'

Meteor Showers

Name	Nominal start date	Nominal end date	Peak ZHR	Originating comet	Moon illumination at peak and comments
Quadrantid	1/1/2019	6/1/201	100-120	2003 EH ₁	Nearly new Moon.

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	
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	
Canis Major	NGC2207	06h 17'	-21° 22'	+10.7	Galaxy	
Canis Major	IC2165	06h 22'	-13° 00'	+13.0	Planetary Nebula	
Canis Major	NGC2243	06h 30'	-31° 18'	+9.4	Open Cluster	
Canis Major	M41	06h 47'	-20° 44'	+5.0	Open Cluster	
Canis Major	NGC2354	07h 15'	-25° 46'	+6.5	Open Cluster	
Canis Major	NGC2362	07h 19'	-24° 56'	+3.8	Open Cluster	
Canis Major	NGC2360	07h 19'	-15° 39'	+7.2	Open Cluster	
Canis Major	NGC2359	07h 19'	-13° 12'		Emission Nebula	
Canis Major	NGC2374	07h 25'	-13° 18'	+8.0	Open 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	
Draco	NGC5907	15h 15'	+56° 19'	+11.1	Galaxy	
Draco	NGC6543	17h 58'	+66° 37'	+8.8	Planetary Nebula	
Eridanus	NGC1084	02h 47'	-07° 31'	+10.6	Galaxy	
Eridanus	NGC1535	04h 15'	-12° 41'	+10.0	Planetary Nebula	

Eridanus	NGC1637	04h 42'	-02° 49'	+11.5	Galaxy	
Eridanus	IC2118	05h 08'	-07° 12'	+13.0	Nebula	
Gemini	NGC2158	06h 07'	+24° 05'	+12.1	Open Cluster	
Gemini	M35	06h 09'	+24° 20'	+5.6	Open Cluster	
Gemini	IC443	06h 17'	+22° 31'	+12.0	Supernova remnant	
Gemini	NGC2371/2	07h 25'	+29° 29'	+13.0	Planetary Nebula	
Gemini	Abell21	07h 29'	+13° 15'	+16.0	Planetary Nebula	
Gemini	NGC2392	07h 29'	+20° 54'	+9.9	Planetary Nebula	
Lacerta	NGC7209	22h 05'	+46° 29'	+7.8	Open Cluster	
Lepus	Abell7	05h 03'	-15° 36'	+12.2	Planetary Nebula	
Lepus	M79	05h 25'	-24° 32'	+8.0	Globular Cluster	
Lepus	IC418	05h 28'	-12° 41'	+11.0	Planetary Nebula	
Lynx	NGC2332	07h 10'	+50° 11'	+12.8	Galaxy	
Lynx	NGC2340	07h 11'	+50° 10'	+11.70	Galaxy	
Lynx	NGC2419	07h 38'	+38° 52'	+10.3	Globular Cluster	
Lynx	NGC2683	08h 53'	+33° 25'	+10.6	Galaxy	
Lynx	NGC2782	09h 14'	+40° 07'	+11.60	Galaxy	
Lynx	NGC2832	09h 20'	+33° 45'	+11.90	Galaxy	
Orion	NGC1662	04h 48'	+10° 56'	+8.0	Open Cluster	
Orion	Jonckheere 320	05h 06'	+10° 42'	+11.8	Planetary Nebula	
Orion	NGC1788	05h 07'	-03° 21'		Reflection Nebula	
Orion	NGC1994	05h 28'	-05° 19'	+13.3	Galaxy	
Orion	Abell10	05h 32'	+06° 56'	+15.2	Planetary Nebula	
Orion	M42	05h 35'	-05° 27'	+4.0	Diffuse Nebula	
Orion	NGC1981	05h 35'	-04° 24'	+4.2	Open Cluster	
Orion	M43	05h 36'	-05° 16'	+9.0	Diffuse Nebula	
Orion	NGC1999	05h 36'	-06° 43'	+9.5	Planetary Nebula	
Orion	Barnard 33	05h 41'	-02° 27'	H/head	Dark nebula	
Orion	NGC2022	05h 42'	+09° 05'	+12.4	Planetary Nebula	

Orion	NGC2024	05h 42'	-01° 51'	Flame Neb	Emission Nebula	
Orion	M78	05h 47'	+00° 05'	+8.0	Reflection Nebula	
Orion	NGC2112	05h 54'	+00° 25'	+9.0	Emission Nebula	
Orion	NGC2169	06h 08'	+13° 57'	+7.0	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	
Taurus	M45	03h 47'	+24° 07'	+1.2	Open Cluster	
Taurus	NGC1514	04h 09'	+30° 47'	+10.0	Planetary Nebula	
Taurus	Hyades	04h 26'	+15° 51'	+0.8	Open Cluster	
Taurus	NGC1647	04h 46'	+19° 07'	+6.2	Open Cluster	
Taurus	NGC1746	05h 03'	+23° 49'	+6.1	Open Cluster	
Taurus	M1	05h 34'	+22° 01'	+8.4	Supernova remnant	
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	