

## Observation Plan for the month of June 2018

### Moon

<b>New</b>	<b>1<sup>st</sup> Quarter</b>	<b>Full Moon</b>	<b>Last Quarter</b>
<b>13/6/18</b>	<b>20/6/18</b>	<b>28/6/18</b>	<b>6/6/18</b>

### Planets

<b>Planet</b>	<b>Magnitude</b>	<b>Comments</b>
<b>Mercury</b>	<b>-0.3</b>	<b>Setting at about 22:00.</b>
<b>Venus</b>	<b>-4.0</b>	<b>Setting at about midnight.</b>
<b>Mars</b>	<b>-1.2 to -2.2</b>	<b>Rising at about midnight.</b>
<b>Jupiter</b>	<b>-2.4</b>	<b>Setting at about 03:00</b>
<b>Saturn</b>	<b>0.0</b>	<b>Visible all night long.</b>
<b>Uranus</b>	<b>+5.9</b>	<b>Rising at about 02:30.</b>
<b>Neptune</b>	<b>+7.9</b>	<b>Rising at about 01:00.</b>

**Meteor Showers – no meteor showers this month.**

### Deep Sky

<b>Constellation</b>	<b>Object</b>	<b>RA</b>	<b>Dec</b>	<b>Mag</b>	<b>Type</b>	<b>Dates seen</b>
<b>Boótes</b>	<b>NGC5466</b>	<b>14h 05'</b>	<b>+28° 32'</b>	<b>+9.2</b>	<b>Globular Cluster</b>	
<b>Camelopardis</b>	<b>IC342</b>	<b>03h 47'</b>	<b>+68° 06'</b>	<b>+9.1</b>	<b>Galaxy</b>	
<b>Camelopardis</b>	<b>NGC1502</b>	<b>04h 08'</b>	<b>+62° 21'</b>	<b>+4.1</b>	<b>Open Cluster</b>	
<b>Camelopardis</b>	<b>NGC2403</b>	<b>07h 37'</b>	<b>+65° 35'</b>	<b>+8.9</b>	<b>Galaxy</b>	

<b>Canes Venatici</b>	<b>NGC4111</b>	<b>12h 07'</b>	<b>+43° 04'</b>	<b>+10.7</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC4138</b>	<b>12h 09'</b>	<b>+43° 41'</b>	<b>+11.3</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC4145</b>	<b>12h 10'</b>	<b>+39° 53'</b>	<b>+11.3</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC4151</b>	<b>12h 11'</b>	<b>+39° 24'</b>	<b>+11.5</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC4214</b>	<b>12h 16'</b>	<b>+36° 20'</b>	<b>+10.2</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC4220</b>	<b>12h 16'</b>	<b>+47° 53'</b>	<b>+11.3</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC4244</b>	<b>12h 17'</b>	<b>+37° 48'</b>	<b>+10.4</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>M106</b>	<b>12h 19'</b>	<b>+47° 18'</b>	<b>+9.1</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC4449</b>	<b>12h 28'</b>	<b>+44° 05'</b>	<b>+10.1</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC4490</b>	<b>12h 31'</b>	<b>+41° 39'</b>	<b>+9.8</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC4631</b>	<b>12h 42'</b>	<b>+32° 32'</b>	<b>+9.8</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC4656</b>	<b>12h 44'</b>	<b>+32° 10'</b>	<b>+11.0</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>M94</b>	<b>12h 50'</b>	<b>+41° 07'</b>	<b>+8.8</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC5005</b>	<b>13h 11'</b>	<b>+37° 04'</b>	<b>+10.6</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC5033</b>	<b>13h 13'</b>	<b>+36° 36'</b>	<b>+10.2</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>M63</b>	<b>13h 16'</b>	<b>+42° 02'</b>	<b>+9.3</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>M51</b>	<b>13h 30'</b>	<b>+47° 12'</b>	<b>+8.9</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC5195</b>	<b>13h 30'</b>	<b>+47° 16'</b>	<b>+9.6</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>M3</b>	<b>13h 42'</b>	<b>+28° 23'</b>	<b>+6.3</b>	<b>Globular Cluster</b>	
<b>Canes Venatici</b>	<b>NGC5377</b>	<b>13h 56'</b>	<b>+47° 14'</b>	<b>+11.3</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC5383</b>	<b>13h 57'</b>	<b>+41° 51'</b>	<b>+11.5</b>	<b>Galaxy</b>	
<b>Canes Venatici</b>	<b>NGC5273</b>	<b>35h 42'</b>	<b>+35° 39'</b>	<b>+11.6</b>	<b>Galaxy</b>	
<b>Cassiopeia</b>	<b>NGC129</b>	<b>00h 30'</b>	<b>+60° 13'</b>	<b>+9.8</b>	<b>Open Cluster</b>	
<b>Cassiopeia</b>	<b>NGC281</b>	<b>00h 53'</b>	<b>+56° 38'</b>	<b>+7.4</b>	<b>Diffuse Nebula</b>	
<b>Cassiopeia</b>	<b>NGC457</b>	<b>01h 19'</b>	<b>+58° 19'</b>	<b>+5.1</b>	<b>Open Cluster</b>	
<b>Cassiopeia</b>	<b>M103</b>	<b>01h 33'</b>	<b>+60° 42'</b>	<b>+6.9</b>	<b>Open Cluster</b>	
<b>Cassiopeia</b>	<b>M52</b>	<b>23h 24'</b>	<b>+61° 35'</b>	<b>+8.2</b>	<b>Open Cluster</b>	

<b>Cepheus</b>	<b>NGC40</b>	<b>00h 13'</b>	<b>+72° 33'</b>	<b>+10.7</b>	<b>Planetary Nebula</b>	
<b>Cepheus</b>	<b>NGC188</b>	<b>00h 44'</b>	<b>+85° 22'</b>	<b>+9.3</b>	<b>Open Cluster</b>	
<b>Cepheus</b>	<b>NGC7023</b>	<b>21h 02'</b>	<b>+68° 10'</b>	<b>+6.8</b>	<b>Reflection Nebula</b>	
<b>Cepheus</b>	<b>NGC7354</b>	<b>22h 40'</b>	<b>+61° 17'</b>	<b>+12.2</b>	<b>Planetary Nebula</b>	
<b>Coma Berenices</b>	<b>NGC4147</b>	<b>12h 10'</b>	<b>+18° 33'</b>	<b>+10.3</b>	<b>Globular Cluster</b>	
<b>Coma Berenices</b>	<b>M98</b>	<b>12h 14'</b>	<b>+14° 24'</b>	<b>+10.9</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>M99</b>	<b>12h 19'</b>	<b>+14° 55'</b>	<b>+10.4</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>NGC4293</b>	<b>12h 21'</b>	<b>+18° 23'</b>	<b>+10.4</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>M100</b>	<b>12h 23'</b>	<b>+15° 49'</b>	<b>+10.1</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>M85</b>	<b>12h 25'</b>	<b>+18° 11'</b>	<b>+9.2</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>NGC4414</b>	<b>12h 26'</b>	<b>+31° 13'</b>	<b>+10.1</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>NGC4450</b>	<b>12h 29'</b>	<b>+17° 05'</b>	<b>+10.1</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>NGC4473</b>	<b>12h 30'</b>	<b>+13° 26'</b>	<b>+10.2</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>NGC4477&amp;4459</b>	<b>12h 30'</b>	<b>+13° 38'</b>	<b>+10.4</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>M88</b>	<b>12h 32'</b>	<b>+14° 25'</b>	<b>+10.3</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>M91</b>	<b>12h 35'</b>	<b>+14° 30'</b>	<b>+10.9</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>NGC4559</b>	<b>12h 36'</b>	<b>+27° 57'</b>	<b>+10.5</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>NGC4565</b>	<b>12h 36'</b>	<b>+25° 59'</b>	<b>+10.6</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>M64</b>	<b>12h 57'</b>	<b>+21° 41'</b>	<b>+9.3</b>	<b>Galaxy</b>	
<b>Coma Berenices</b>	<b>M53</b>	<b>13h 13'</b>	<b>+18° 10'</b>	<b>+7.7</b>	<b>Globular Cluster</b>	
<b>Draco</b>	<b>NGC5907</b>	<b>15h 15'</b>	<b>+56° 19'</b>	<b>+11.1</b>	<b>Galaxy</b>	
<b>Draco</b>	<b>NGC6543</b>	<b>17h 58'</b>	<b>+66° 37'</b>	<b>+8.8</b>	<b>Planetary Nebula</b>	
<b>Hercules</b>	<b>IC4593</b>	<b>16h 12'</b>	<b>+12° 04'</b>	<b>+10.7</b>	<b>Planetary Nebula</b>	
<b>Hercules</b>	<b>M13</b>	<b>16h 42'</b>	<b>+36° 28'</b>	<b>+5.9</b>	<b>Globular Cluster</b>	
<b>Hercules</b>	<b>NGC6207</b>	<b>16h 43'</b>	<b>+36° 50'</b>	<b>+11.6</b>	<b>Galaxy</b>	
<b>Hercules</b>	<b>NGC6229</b>	<b>16h 46'</b>	<b>+47° 31'</b>	<b>+9.4</b>	<b>Globular Cluster</b>	
<b>Hercules</b>	<b>M92</b>	<b>17h 17'</b>	<b>+43° 08'</b>	<b>+6.5</b>	<b>Globular Cluster</b>	

<b>Lacerta</b>	<b>NGC7209</b>	<b>22h 05'</b>	<b>+46° 29'</b>	<b>+7.8</b>	<b>Open Cluster</b>	
<b>Leo</b>	<b>NGC2903</b>	<b>09h 32'</b>	<b>+21° 30'</b>	<b>+9.6</b>	<b>Galaxy</b>	
<b>Leo</b>	<b>NGC3226</b>	<b>10h 23'</b>	<b>+19° 54'</b>	<b>+11.4</b>	<b>Galaxy</b>	
<b>Leo</b>	<b>NGC3227</b>	<b>10h 24'</b>	<b>+19° 52'</b>	<b>+10.3</b>	<b>Galaxy</b>	
<b>Leo</b>	<b>M95</b>	<b>10h 44'</b>	<b>+11° 42'</b>	<b>+10.5</b>	<b>Galaxy</b>	
<b>Leo</b>	<b>M96</b>	<b>10h 47'</b>	<b>+11° 49'</b>	<b>+10.1</b>	<b>Galaxy</b>	
<b>Leo</b>	<b>M105</b>	<b>10h 48'</b>	<b>+12° 35'</b>	<b>+10.2</b>	<b>Galaxy</b>	
<b>Leo</b>	<b>M65</b>	<b>11h 19'</b>	<b>+13° 05'</b>	<b>+10.2</b>	<b>Galaxy</b>	
<b>Leo</b>	<b>M66</b>	<b>11h 20'</b>	<b>+12° 59'</b>	<b>+9.5</b>	<b>Galaxy</b>	
<b>Leo</b>	<b>NGC3628</b>	<b>11h 21'</b>	<b>+13° 31'</b>	<b>+9.5</b>	<b>Galaxy</b>	
<b>Leo Minor</b>	<b>NGC3432</b>	<b>10h 53'</b>	<b>+36° 37'</b>	<b>+11.2</b>	<b>Galaxy</b>	
<b>Perseus</b>	<b>M76</b>	<b>01h 42'</b>	<b>+51° 34'</b>	<b>+12.2</b>	<b>Planetary Nebula</b>	
<b>Perseus</b>	<b>NGC869</b>	<b>02h 19'</b>	<b>+57° 08'</b>	<b>+4.3</b>	<b>Open Cluster</b>	
<b>Perseus</b>	<b>NGC884</b>	<b>02h 22'</b>	<b>+57° 06'</b>	<b>+4.3</b>	<b>Open Cluster</b>	
<b>Perseus</b>	<b>NGC1023</b>	<b>02h 40'</b>	<b>+39° 04'</b>	<b>+10.35</b>	<b>Galaxy</b>	
<b>Perseus</b>	<b>M34</b>	<b>02h 42'</b>	<b>+42° 47'</b>	<b>+5.8</b>	<b>Open Cluster</b>	
<b>Perseus</b>	<b>NGC1499</b>	<b>04h 03'</b>	<b>+36° 23'</b>	<b>+5.0</b>	<b>Diffuse Nebula</b>	
<b>Perseus</b>	<b>NGC1491</b>	<b>04h 03'</b>	<b>+51° 19'</b>		<b>Emission Nebula</b>	
<b>Perseus</b>	<b>NGC1579</b>	<b>04h 30'</b>	<b>+35° 16'</b>		<b>Emission Nebula</b>	
<b>Ursa Major</b>	<b>M81</b>	<b>09h 56'</b>	<b>+69° 04'</b>	<b>+7.8</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>M82</b>	<b>09h 56'</b>	<b>+69° 41'</b>	<b>+9.2</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>NGC3079</b>	<b>10h 02'</b>	<b>+55° 41'</b>	<b>+10.9</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>NGC3077</b>	<b>10h 03'</b>	<b>+68° 44'</b>	<b>+9.8</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>NGC3198</b>	<b>10h 20'</b>	<b>+45° 33'</b>	<b>+10.3</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>M108</b>	<b>11h 11'</b>	<b>+55° 40'</b>	<b>+10.9</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>M97</b>	<b>11h 15'</b>	<b>+55° 01'</b>	<b>+12.0</b>	<b>Planetary Nebula</b>	
<b>Ursa Major</b>	<b>NGC3675</b>	<b>11h 26'</b>	<b>+43° 35'</b>	<b>+11.0</b>	<b>Galaxy</b>	

<b>Ursa Major</b>	<b>NGC3726</b>	<b>11h 33'</b>	<b>+47° 01'</b>	<b>+10.9</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>NGC3877</b>	<b>11h 46'</b>	<b>+47° 29'</b>	<b>+11.8</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>NGC3893</b>	<b>11h 49'</b>	<b>+48° 43'</b>	<b>+10.5</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>NGC3953</b>	<b>11h 54'</b>	<b>+52° 20'</b>	<b>+10.1</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>M109</b>	<b>11h 58'</b>	<b>+53° 23'</b>	<b>+10.8</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>NGC4026</b>	<b>11h 59'</b>	<b>+50° 57'</b>	<b>+11.7</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>NGC4036</b>	<b>12h 01'</b>	<b>+61° 54'</b>	<b>+10.7</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>NGC4051</b>	<b>12h 03'</b>	<b>+44° 32'</b>	<b>+10.2</b>	<b>Galaxy</b>	
<b>Ursa Major</b>	<b>M40</b>	<b>12h 22'</b>	<b>+58° 50'</b>	<b>+8.0</b>	<b>Double Star</b>	
<b>Ursa Major</b>	<b>M101</b>	<b>14h 03'</b>	<b>+54° 21'</b>	<b>+7.7</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>M84</b>	<b>12h 25'</b>	<b>+12° 53'</b>	<b>+10.1</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>M84</b>	<b>12h 25'</b>	<b>+12° 53'</b>	<b>+10.1</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC4378</b>	<b>12h 25'</b>	<b>+04° 55'</b>	<b>+12.3</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC4388</b>	<b>12h 26'</b>	<b>+12° 40'</b>	<b>+11.0</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>M86</b>	<b>12h 26'</b>	<b>+12° 57'</b>	<b>+8.9</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>M84</b>	<b>12h 26'</b>	<b>+12° 47'</b>	<b>+9.3</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC4438&amp;4435</b>	<b>12h 28'</b>	<b>+13° 01'</b>	<b>+10.0</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC4438</b>	<b>12h 28'</b>	<b>+13° 01'</b>	<b>+10.2</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>3C 273</b>	<b>12h 29'</b>	<b>+02° 03'</b>	<b>+11.7- 13.2</b>	<b>Quasar</b>	
<b>Virgo</b>	<b>M87</b>	<b>12h 31'</b>	<b>+12° 24'</b>	<b>+9.5</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC4564</b>	<b>12h 37'</b>	<b>+11° 20'</b>	<b>+11.1</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>M90</b>	<b>12h 38'</b>	<b>+13° 04'</b>	<b>+9.5</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>M104</b>	<b>12h 39'</b>	<b>-11° 37'</b>	<b>+9.1</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>M58</b>	<b>12h 39'</b>	<b>+11° 43'</b>	<b>+9.8</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC4636</b>	<b>12h 43'</b>	<b>+02° 41'</b>	<b>+9.5</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC4665</b>	<b>12h 45'</b>	<b>+03° 03'</b>	<b>+10.5</b>	<b>Galaxy</b>	

<b>Virgo</b>	<b>NGC4753</b>	<b>12h 52'</b>	<b>-01° 12'</b>	<b>+9.9</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC4762</b>	<b>12h 53'</b>	<b>+11° 04'</b>	<b>+10.3</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC4461</b>	<b>12h029'</b>	<b>+13° 11'</b>	<b>+11.2</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC4435</b>	<b>12h28'</b>	<b>+13° 05'</b>	<b>+10.8</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC5044</b>	<b>13h 16'</b>	<b>-16° 28'</b>	<b>+11.0</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC5077</b>	<b>13h 20'</b>	<b>-12° 44'</b>	<b>+11.5</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC5247</b>	<b>13h 29'</b>	<b>-17° 58'</b>	<b>+10.5</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC5170</b>	<b>13h 31'</b>	<b>-18° 03'</b>	<b>+12.0</b>	<b>Galaxy</b>	
<b>Virgo</b>	<b>NGC5846</b>	<b>15h 06'</b>	<b>+01° 36'</b>	<b>+10.0</b>	<b>Galaxy</b>	