

# The Evening Sky Map

FREE\* EACH MONTH FOR YOU TO EXPLORE, LEARN & ENJOY THE NIGHT SKY

WWW.SKYPMAPS.COM

NORTHERN HEMISPHERE  
SEPTEMBER 2009

## Sky Calendar – September 2009

- 1 **Venus 1.2° SSW of Beehive cluster (M44)** (32° from Sun, morning sky) at 23h UT. Mag. -3.9.
- 2 **Moon near Jupiter** (evening sky) at 19h UT.
- 4 **Full Moon** at 16:03 UT.
- 10 **Moon near the Pleiades** (morning sky) at 17h UT.
- 12 **Last Quarter Moon** at 2:16 UT.
- 13 **Moon very near Mars** (morning sky) at 16h UT. Mag. +0.9. Occultation visible from NW Siberia, Lapland and Greenland.
- 15 **Moon near Beehive cluster (M44)** (45° from Sun, morning sky) at 11h UT.
- 16 **Moon at perigee** (closest to Earth) at 8h UT (364,053 km; 32.9°).
- 16 **Moon near Venus** (29° from Sun, morning sky) at 16h UT. Mag. -3.9.
- 17 **Moon near Regulus** (24° from Sun, morning sky) at 0h UT.
- 17 **Saturn at conjunction** with the Sun at 18h UT. The ringed-planet passes into the morning sky.
- 18 **New Moon** at 18:44 UT. Start of lunation 1073.
- 20 **Mercury at inferior conjunction** with the Sun at 10h UT. Mercury passes into the morning sky.
- 20 **Venus 0.45° NNE from Regulus** (28° from Sun, morning sky) at 13h UT. Mags. -3.9 and +1.4.
- 20 **Moon near Spica** (26° from Sun, evening sky) at 18h UT.
- 22 **September equinox** at 21:22 UT. The time when the Sun reaches the point along the ecliptic where it crosses into the southern celestial hemisphere marking the start of autumn in the Northern Hemisphere and spring in the Southern Hemisphere.
- 24 **Moon very near Antares** (evening sky) at 6h UT. Occultation visible from E Asia and Japan.
- 26 **First Quarter Moon** at 4:50 UT.
- 28 **Moon at apogee** (farthest from Earth) at 4h UT (distance 404,432 km; angular size 29.6°).
- 29 **Moon near Jupiter** (evening sky) at 22h UT.

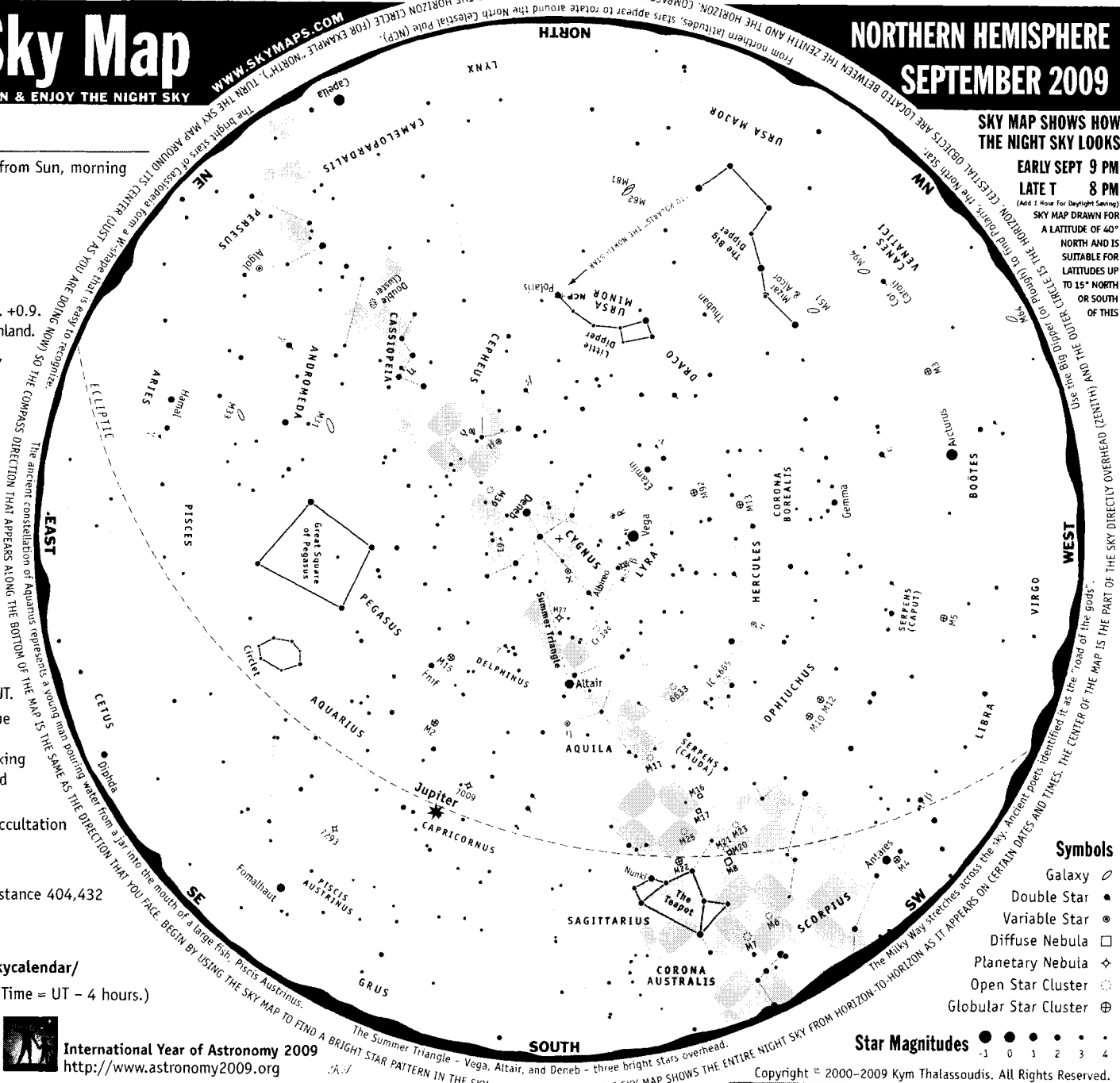
More sky events and links at <http://Skymaps.com/skycalendar/>

All times in Universal Time (UT). (USA Eastern Summer Time = UT - 4 hours.)

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International Year of Astronomy 2009  
<http://www.astronomy2009.org>



SKY MAP SHOWS HOW THE NIGHT SKY LOOKS

EARLY SEPT 9 PM  
LATE T 8 PM  
(Add 1 Hour For Daylight Saving)  
SKY MAP DRAWN FOR A LATITUDE OF 40° NORTH AND IS SUITABLE FOR LATITUDES UP TO 15° NORTH OR SOUTH OF THIS

**Symbols**  
Galaxy ☾  
Double Star ●  
Variable Star ●  
Diffuse Nebula □  
Planetary Nebula ◇  
Open Star Cluster ○  
Globular Star Cluster ⊕

**Star Magnitudes**  
-1 0 1 2 3 4

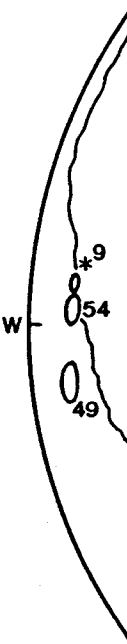
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INSTRUCTIONS: THE SKY MAP SHOWS THE ENTIRE NIGHT SKY FROM HORIZON-TO-HORIZON AS IT APPEARS ON CERTAIN DATES AND TIMES. THE CENTER OF THE MAP IS THE "HEAD OF THE GODS".

# THE MOON

## MAP OF MOON

By ROY BISHOP



### María

LS	Lacus Somniorum (Lake of Dreams) (330°)
MC	Mare Crisium (Sea of Crises) (300°)
MFe	Mare Fecunditatis (Sea of Fertility) (310°)
MFr	Mare Frigoris (Sea of Cold) (0°)
MH	Mare Humorum (Sea of Moisture) (40°)
MI	Mare Imbrium (Sea of Rains) (20°)
MNe	Mare Nectaris (Sea of Nectar) (325°)
MNu	Mare Nubium (Sea of Clouds) (15°)
MS	Mare Serenitatis (Sea of Serenity) (340°)
MT	Mare Tranquillitatis (Sea of Tranquillity) (330°)
MV	Mare Vaporum (Sea of Vapours) (355°)
OP	Oceanus Procellarum (Ocean of Storms) (50°)
SA	Sinus Aestuum (Seething Bay) (8°)
SI	Sinus Iridum (Bay of Rainbows) (32°)
SM	Sinus Medii (Central Bay) (0°)
SR	Sinus Roris (Bay of Dew) (60°)

### Lunar Probes

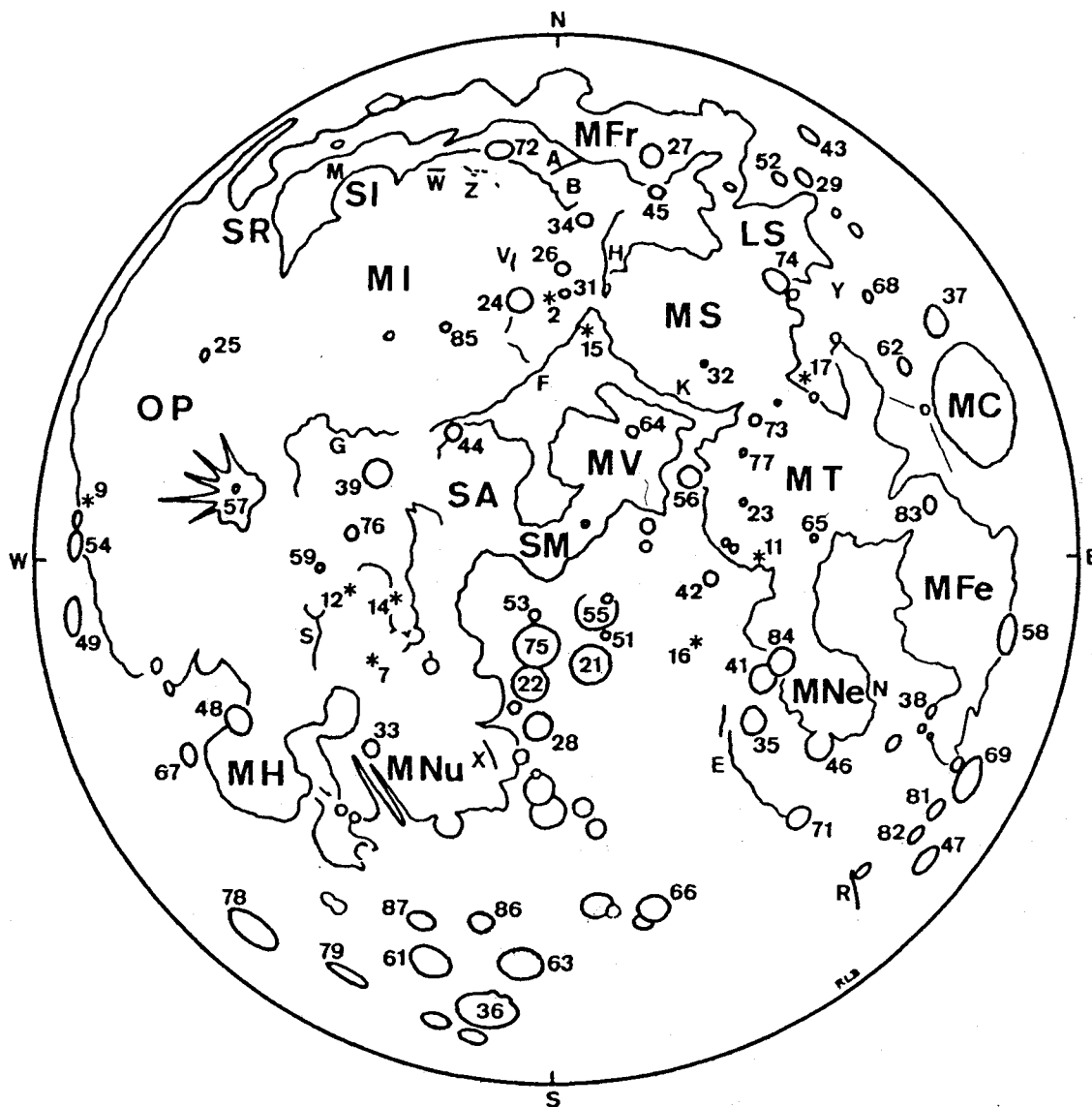
2	Luna 2, First to reach Moon (1959.9.13) (0°)
7	Ranger 7, First close pictures (1964.7.31) (21°)
9	Luna 9, First soft landing (1966.2.3) (64°)
11	Apollo 11, First men on Moon (1969.7.20) (337°)
12	Apollo 12 (1969.11.19) (23°)
14	Apollo 14 (1971.2.5) (17°)
15	Apollo 15 (1971.7.30) (356°)
16	Apollo 16 (1972.4.21) (344°)
17	Apollo 17 (1972.12.11) (329°)

Angles in parentheses equal  $360^\circ - \lambda$ , where  $\lambda$  is the selenographic longitude of the centre of the feature.  $0^\circ$  marks the mean centre of the lunar disk and the angles increase toward the observer's east (i.e. westward on the Moon). These angles facilitate locating the feature on the accompanying map, and may be correlated with the Sun's selenographic colongitude (see *THE SKY MONTH BY MONTH* (pp. 76-103)) to determine the optimum times for viewing the feature.

### Craters

- 21 Albategni
- 22 Alphons
- 23 Arago (
- 24 Archime
- 25 Aristarc
- 26 Aristillu
- 27 Aristote
- 28 Arzache
- 29 Atlas (3
- 31 Autolyce
- 32 Bessel (
- 33 Bulliald
- 34 Cassini (
- 35 Catharin
- 36 Clavius
- 37 Cleomec
- 38 Cook (3
- 39 Coperni
- 41 Cyrillus
- 42 Delambi

MAP OF MOON (continued)



**Craters**

- 13) (0°)
- 131) (21°)
- 64°)
- 7.20) (337°)
- 21 Albatengius (356°)
- 22 Alphonsus (3°)
- 23 Arago (338°)
- 24 Archimedes (4°)
- 25 Aristarchus (47°)
- 26 Aristillus (358°)
- 27 Aristoteles (342°)
- 28 Arzachel (2°)
- 29 Atlas (315°)
- 31 Autolycus (358°)
- 32 Bessel (342°)
- 33 Bullialdus (22°)
- 34 Cassini (355°)
- 35 Catharina (336°)
- 36 Clavius (15°)
- 37 Cleomedes (304°)
- 38 Cook (311°)
- 39 Copernicus (20°)
- 41 Cyrillus (336°)
- 42 Delambre (342°)

- 43 Endymion (305°)
- 44 Eratosthenes (11°)
- 45 Eudoxus (343°)
- 46 Fracastorius (326°)
- 47 Furnerius (299°)
- 48 Gassendi (40°)
- 49 Grimaldi (68°)
- 51 Halley (354°)
- 52 Hercules (321°)
- 53 Herschel (2°)
- 54 Hevelius (66°)
- 55 Hipparchus (354°)
- 56 Julius Caesar (345°)
- 57 Kepler (38°)
- 58 Langrenus (299°)
- 59 Lansberg (27°)
- 61 Longomontanus (21°)
- 62 Macrobius (314°)
- 63 Maginus (6°)
- 64 Manilius (351°)
- 65 Maskelyne (330°)
- 66 Maurolycus (345°)

- 67 Mersenius (49°)
- 68 Newcomb (316°)
- 69 Petavius (298°)
- 71 Piccolomini (327°)
- 72 Plato (10°)
- 73 Plinius (336°)
- 74 Posidonius (330°)
- 75 Ptolemaeus (2°)
- 76 Reinhold (23°)
- 77 Ross (338°)
- 78 Schickard (55°)
- 79 Schiller (40°)
- 81 Snellius (304°)
- 82 Stevinus (305°)
- 83 Taruntius (313°)
- 84 Theophilus (333°)
- 85 Timocharis (13°)
- 86 Tycho (11°)
- 87 Wilhelm (20°)

**Mountains**

- A Alpine Valley (356°)
- B Alps Mts. (359°)
- E Altai Mts. (336°)
- F Apennine Mts. (2°)
- G Carpathian Mts. (24°)
- H Caucasus Mts. (352°)
- K Haemus Mts. (349°)
- M Jura Mts. (34°)
- N Pyrenees Mts. (319°)
- R Rheita Valley (312°)
- S Rhiphaeus Mts. (27°)
- V Spitzbergen (5°)
- W Straight Range (20°)
- X Straight Wall (8°)
- Y Taurus Mts. (319°)
- Z Teneriffe Mts. (13°)

here  $\lambda$  is the  
the feature.  
disk and the  
st (i.e. west-  
ate locating  
and may be  
colongitude  
76-1031) to

# Limiting Magnitude Chart

