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## TO USE MAP:

Hold the map in front of you so that the direction you are facing is on the bottom. The stars on the lower half on the map will match up with the stars in the sky. The center of the map is directly overhead in the sky. Constellation and star pattern names are all capitalized. Names of stars have only the first letter capitalized. The map is valid within an hour of:
8:30pm Mid-Jan. EST
6:30pm Mid-Feb. EST

MAGNITUDE is a measure of a star's brightness.
The lower the number, the brighter the star

- ${ }^{\text {st }}$ or brighter magnitude star
- $2^{\text {nd }}$ magnitude star
- $3^{\text {rd }}$ magnitude star
- $4^{\text {th }}$ or fainter magnitude star


## ECLIPTIC:

The imaginary path of the Sun through the year. Constellations of the Zodiac surround the Ecliptic and the Moon and planets appear along it.

## IN THE JANUARY/FEBRUARY SKY

Jan 2
New Moon
Jan 3
Quadrantid meteors peak
(See Celestial Highlights)
Moon near Mercury
Jan 4
Earth at Perihelion
Moon near Saturn
Jan 5
Moon near Jupiter

## Jan 7

Mercury at greatest elongation

## Jan 8

Inferior conjunction of Venus with Sun

Jan 9
First quarter Moon
Jan 12
Moon near the Pleiades
Mercury near Saturn
(See Celestial Highlights)
Jan 13
Moon near Aldebaran
Jan 17
Full Moon near Pollux

## Jan 19

Moon near Regulus
Jan 23
Inferior conjunction of Mercury with Sun

Jan 25
Last quarter Moon
Jan 29
Moon near Mars (morning)


MERCURY
When:
After sunset, early
January
Before sunrise,

## mid-February

Where:
Southwest to West,
January
Southeast,
February

## Constellation:

Capricornus, Sagittarius, Capricornus


VENUS
When:
Not visible, January 1-14
Before sunrise, after
January 15
Where:
Low in Southeast,
after January 15
Constellation:
Sagittarius

## CELESTIAL HIGHLIGHTS

Quadrantid meteors peak January 3 before sunrise - Meteoroids are bits of debris from comets that burn up passing through Earth's atmosphere creating a quick flash or streak of light called a "meteor" or "shooting star." A meteor shower is a high frequency of meteors that seem to come from one area of the sky. Meteor showers are usually named for the constellation that they radiate from, but in the case of the Quadrantids (named after, Quadrans Muralis) the constellation is no longer on modern star maps. Instead look for Quadrantid meteors from the night of January 2 to morning of January 3 near the Big Dipper.

Mercury near Saturn, January 12 - After sunset on January 12 two bright objects can be seen near each other, Mercury and Saturn. Mercury will be closer to the horizon slightly dimmer than Saturn. The brightest dot higher off the horizon is Jupiter.

Planet and Moon groupings - After sunset during the first week of January, four planets, Jupiter, Saturn, Mercury, and Venus are seen forming a line in the southwestern sky. Bright Jupiter will be the highest of the four and at the top of the line, with Venus as the brightest planet lowest in the sky closest to the horizon, Saturn, left and above Mercury are seen in between these two bright planets. (See picture) The Moon moves through this group of planets visiting each one in the sky from January 3 to 5 . Mars and Venus are seen in the morning sky above the south eastern horizon from the
 end of January and into February with Venus moving closer to Mars. Venus catches up with Mars on February 12. Then the two of them keep moving closer together until they are closest in March. Venus will be the brightest of the two and Mars has a reddish color. The waning crescent Moon visits the pair on February 27.

## IN THE WINTER SKY

Winter Circle of Stars - The winter sky holds bright stars and familiar constellations that create a circular pattern in the sky. The stars of the "Winter Circle", can be traced in a clockwise spiral starting in the center with Betelgeuse then moving down and around to Rigel, Sirius, Procyon, Pollux and Capella to Aldebaran. As you trace the circle in the sky compare the brightness and color of the stars. The Moon passes through the Winter Circle a few times during January and February.

The bi-monthly STARMAP is available on the web at https://www. mdsci.org/learn/resources/starmaps/

Feb 27
Moon near Mars and Venus
(morning)
(See Celestial Highlights)

