

2009 MARCH-APRIL STARMAP

Date and Time:
 Early March: 11:00 P.M.
 Late March: 10:00 P.M.
 Early April: 10:00 P.M.
 Late April: 9:00 P.M.

- How to Use This Map:**
1. Find North in the sky using the Big Dipper and the North Star.
 2. While facing North, hold the starmap straight in front of you with NORTH at the bottom.
 3. Look for the constellations in that area of the sky.
 4. When you want to look at other areas, always turn the map so that the direction you're facing is at the bottom of the map.

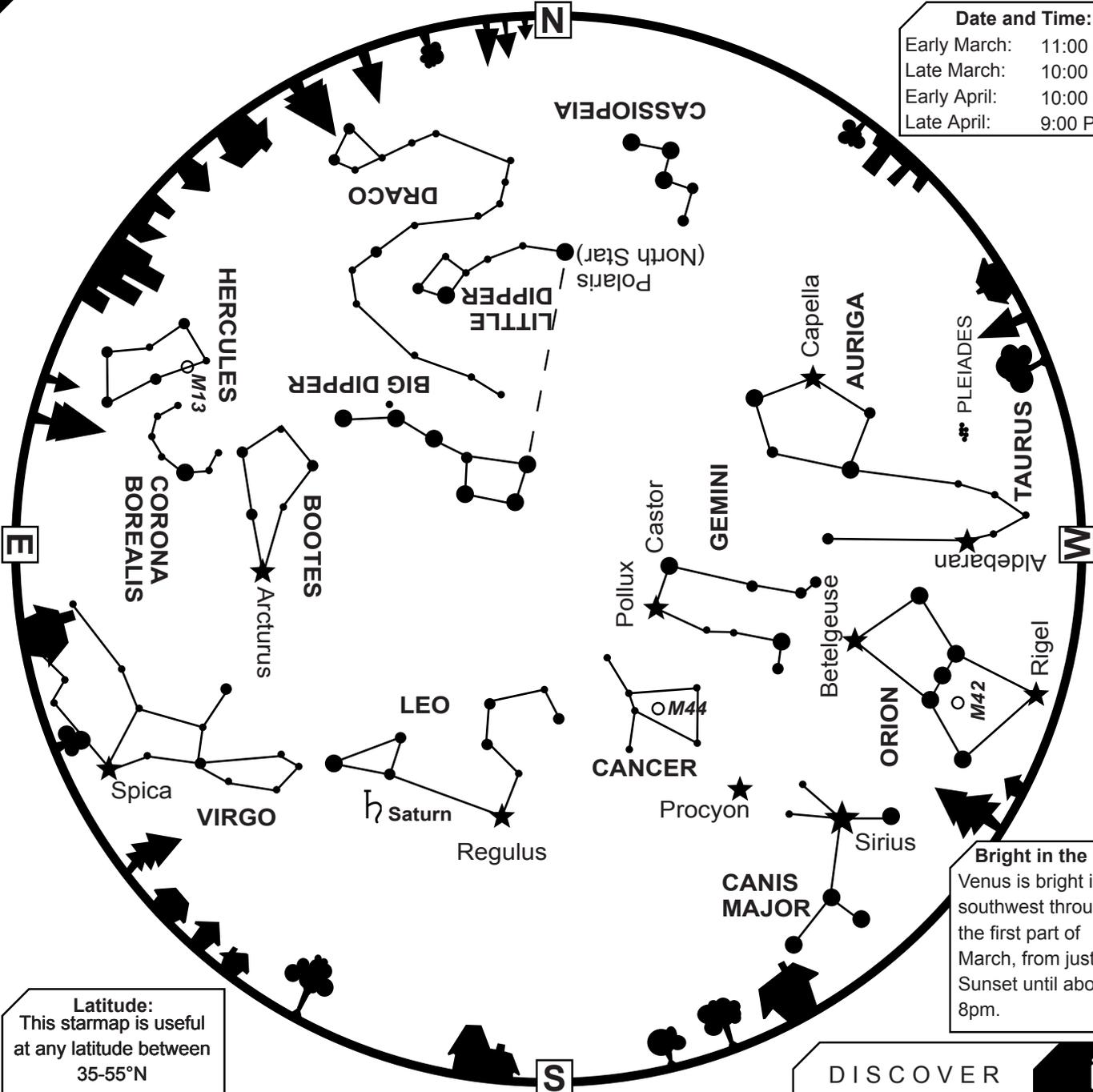
Key:

CONSTELLATION NAMES
 Star Names
 STAR GROUP NAMES
Deep Sky Object Designations
 Planet Names

- ★ 1st magnitude stars
- 2nd magnitude stars
- 3rd magnitude stars
- 4th magnitude stars
- Deep sky objects:
 - M13 - Hercules Globular Cluster
 - M42 - Orion Nebula
 - M44 - Beehive Cluster

Planets:
 ♄ - Saturn

Bright in the SW
 Venus is bright in the southwest through the first part of March, from just after Sunset until about 8pm.

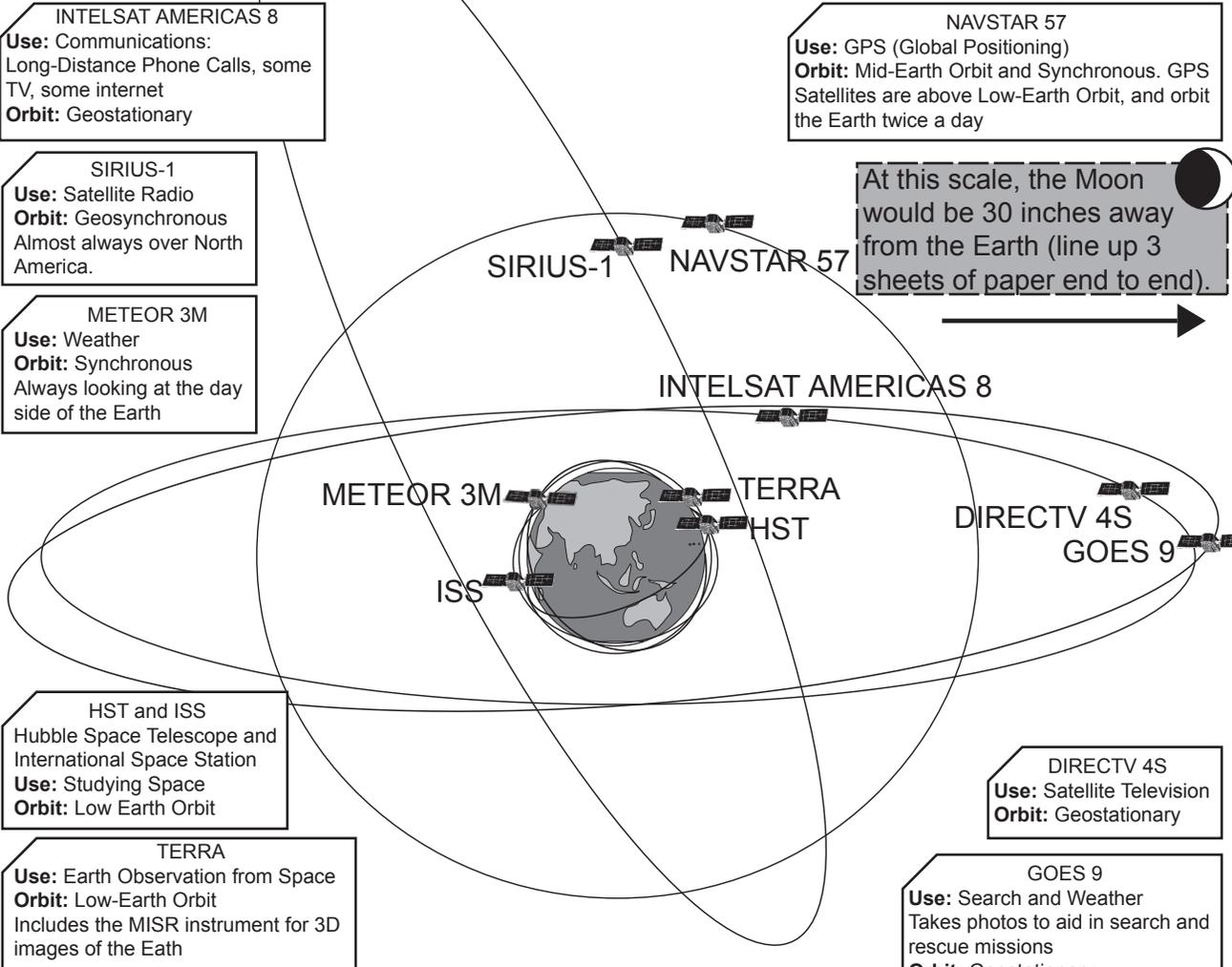


Latitude:
 This starmap is useful at any latitude between 35-55°N



Satellites You Use

Scientists who study the Earth (and space) use satellites all the time, but satellites are a prevalent part of our everyday lives. Here are a few examples of satellites you use, without even knowing it!



At this scale, the Moon would be 30 inches away from the Earth (line up 3 sheets of paper end to end).

Three common types of satellite orbits:

<p>Synchronous Orbit Geosynchronous satellites are always over the same part of the Earth. Geostationary satellites are over the equator. Sun-Synchronous satellites are always looking at the daytime side of the Earth.</p>	<p>Low-Earth Orbit Objects in Low-Earth Orbit stay close to the Earth and orbit quickly - circling the Earth once every hour or two. The Space Shuttle orbits like this.</p>	<p>Polar Orbit A satellite in a polar orbit passes over the poles of the Earth. As the Earth turns underneath the satellite, the satellite passes over many different parts of the Earth.</p>
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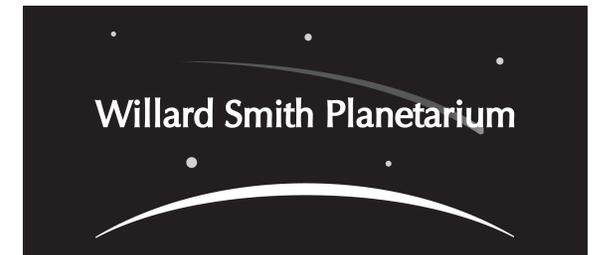
Earth Observation from Space

Explore Earth like you've never seen it before! Peering back at our planet from satellites and space craft, scientists are discovering secrets about our oceans, forests and weather.

Throughout the month of April, Pacific Science Center visitors will meet these scientists and participate in hands-on activities on six designated research days. The celebration of Earth Observation from Space research will culminate in a larger scale **special event on Saturday, May 2nd** which will showcase a broad array of local researchers, government agencies and companies.

Also during that event on May 2nd we'll be celebrating Astronomy Day with crafts, extra planetarium shows, and lots of space activities!

The Willard Smith Planetarium Astronomy Hotline:
206-443-2920



The Willard Smith Planetarium is now booking private shows for your special occasion. For more information, please call our group sales and special events line at: **206-443-3611**.

First Quarter	Full Moon	Third Quarter	New Moon
March 3 April 2	March 10 April 9	March 18 April 17	March 26 April 24