

JULY-AUG 2010 STARMAP

HOW TO USE THIS MAP:

Find North in the sky using the Big Dipper & the North Star.

TO FIND A CONSTELLATION:

1. Which direction is the constellation closest to?
2. How high in the sky should you look for the constellation?
3. Are there any bright stars in the constellation?
4. What shape does the constellation look like to you?

KEY

CONSTELLATION NAMES

Star Names

Deep Sky Object Designations

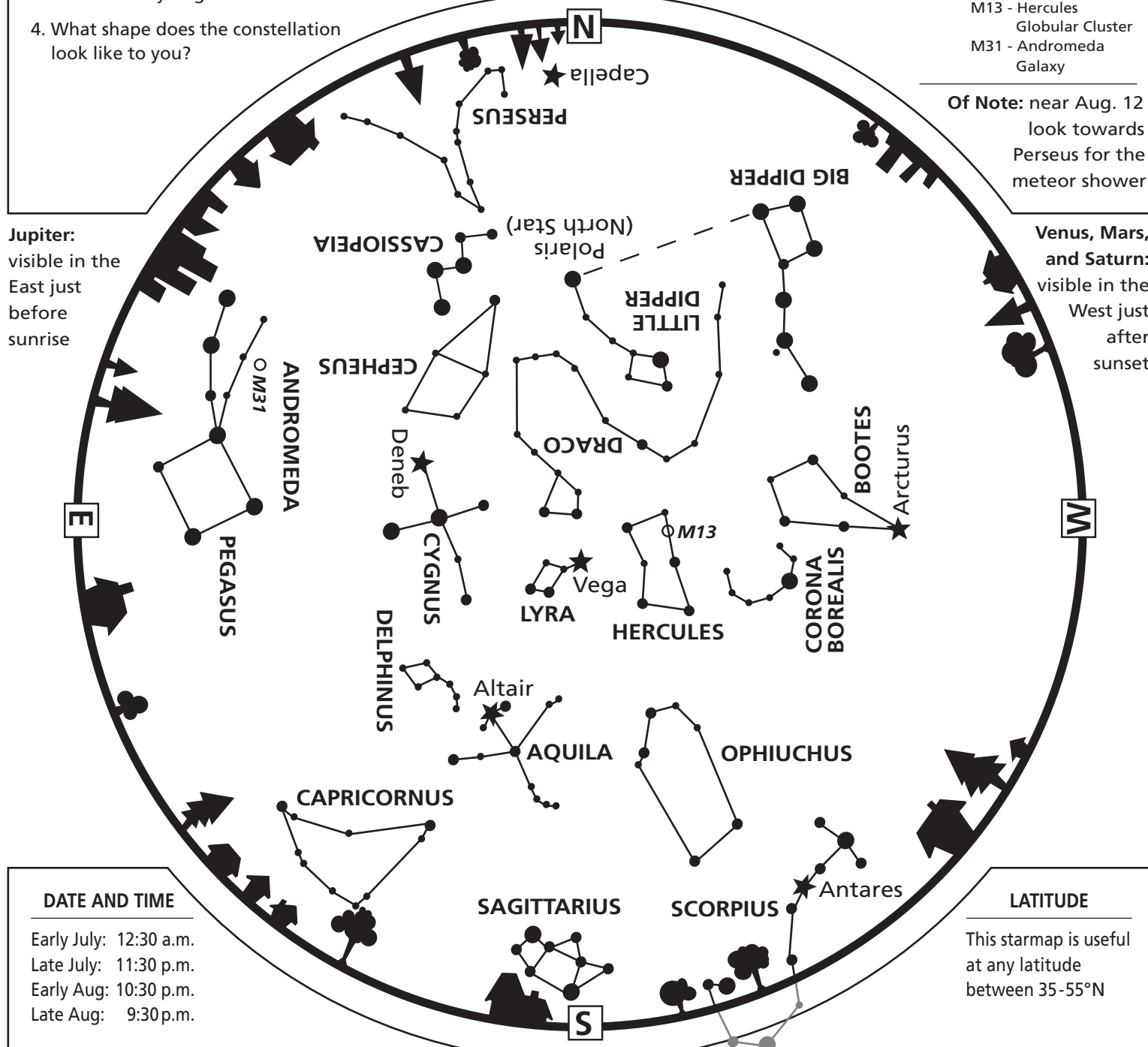
Planet Names

- ★ 1st magnitude stars
- 2nd magnitude stars
- 3rd magnitude stars
- 4th magnitude stars
- Deep sky objects:
 - M13 - Hercules Globular Cluster
 - M31 - Andromeda Galaxy

Of Note: near Aug. 12
look towards
Perseus for the
meteor shower

Jupiter:
visible in the
East just
before
sunrise

**Venus, Mars,
and Saturn:**
visible in the
West just
after
sunset



DATE AND TIME

Early July: 12:30 a.m.
Late July: 11:30 p.m.
Early Aug: 10:30 p.m.
Late Aug: 9:30 p.m.

LATITUDE

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



PACIFIC SCIENCE CENTER

Located under the arches, near the Space Needle pacificsciencecenter.org

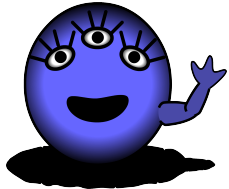
EXOPLANETS NOW

The field of researching planets around other stars (extra-solar planets or exoplanets) is exploding. Planets around other stars were first confirmed in the middle of the 1990s, and since then most of those planets have been "Hot Jupiters" - Jupiter-sized planets orbiting very close to their stars. Now NASA has a mission, Kepler, searching for Earth-like exoplanets. Kepler is focused on a specific region of the sky, in the constellation Cygnus, and will take 4 years to complete its mission. Already it has found over 700 candidates and has confirmed five.

As of June 29, 2010, the current exoplanet counts are:
DETECTED EXOPLANETS **DISCOVERED BY KEPLER**
464 **5**

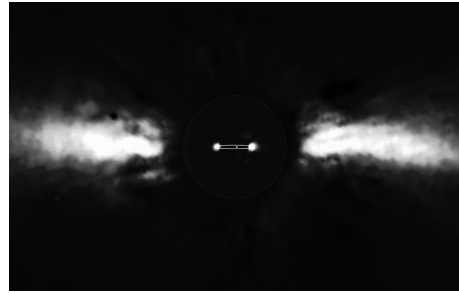
Exoplanet Encyclopedia: <http://exoplanet.eu/>
 Kepler: <http://kepler.nasa.gov/>

STRANGE PLANETS

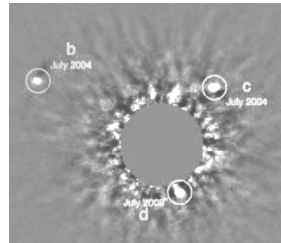
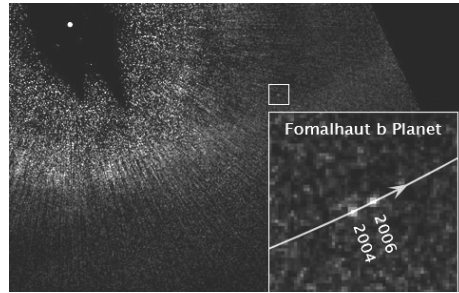


A new feature show is open in the Willard Smith Planetarium! Astronomers have found hundreds of planets lurking light years from our solar system! In the planetarium show Strange Planets, our alien friend Gort has lost his starmap and needs your help to find his extrasolar home. 40 minutes - ages 4 and up.

PHOTOS OF EXOPLANETS



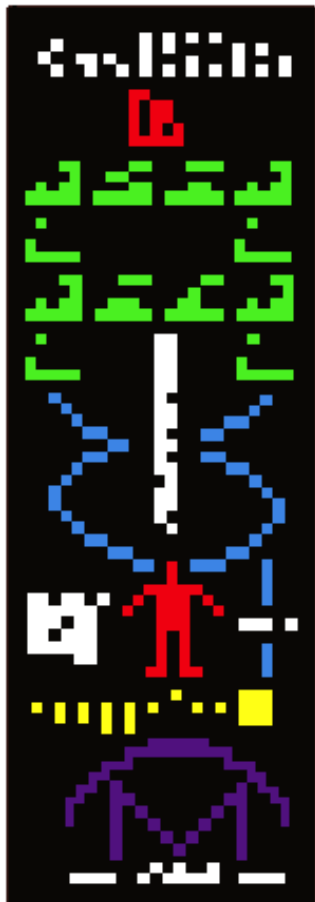
These are the first three "direct" photographs of planets around other stars. In all of them the star is blocked out. The first is a picture of the star beta Pictoris, and its planet moving from one side to the other. The second is Fomalhaut b, taken by



Hubble, a planet around the bright star Fomalhaut. The third is HR8799 b, c, and d - three planets around the star HR8799, detected using the Gemini Observatory in Hawaii.

PUZZLE

MESSAGE IN A BOTTLE



In 1974 Frank Drake sent this message into space from Arecibo Observatory - the largest radio telescope in the world.

It was beamed towards the globular cluster M13 (see the front of this map) and won't arrive there for 50,000 years.

What do you think the parts of this message mean?



Astronomy Resources

Our Address: pacificsciencecenter.org/planetarium

Sky Updates: stardate.org

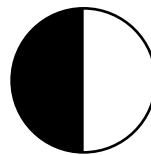
Night Sky Notes and Sky Calendar:
www.pa.msu.edu/abrams/

Astronomy Questions Answered: AlicesAstroInfo.com

EVENTS AND OPPORTUNITIES

University of Washington Observatory:
www.astro.washington.edu/groups/outreach/tjo/
Seattle-Area Astronomy Events: www.seattleastro.org
The Willard Smith Planetarium is now booking private shows for your special occasion. (206) 443-3611.

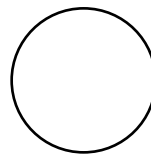
PHASES OF THE MOON



First
Quarter

July 18

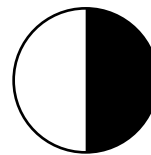
August 16



Full
Moon

July 25

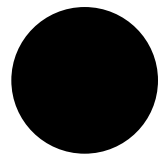
August 24



Third
Quarter

July 4

August 2



New
Moon

July 11

August 9