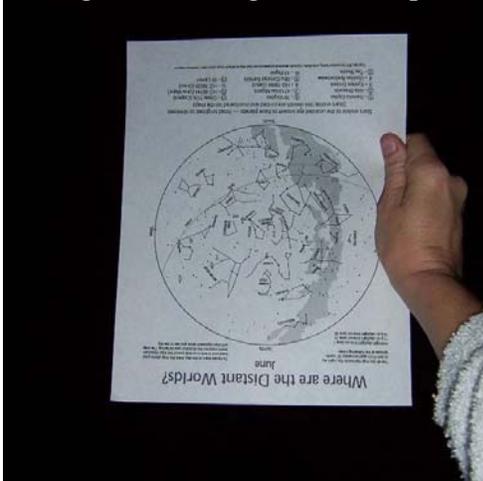


ACTIVITY DESCRIPTION

Leader's Role	Participants' Roles (Anticipated)
<p>Introduction: <u>To Ask:</u> Who has heard that scientists have found planets around stars other than our own Sun? How many of these stars might you think have been found?</p> <p>Anyone ever see a star that has planets around it? (our own Sun, some may know of other stars) We can't see the planets around other stars, but we can see the star. We can also show you a picture of what the system might look like.</p> <p><u>To Say:</u> We're going to look at a map that will show us where to find these stars in the sky.</p> <p>NASA missions are being designed right now to find more stars with planets and to find out which planets might have life! We'll use the star map to find the constellations the stars are in and then find the stars with planets.</p>	<p>Participants begin to think about and respond to questions about extrasolar planets beyond our Solar System.</p>
<p><u>To Ask:</u> What's a constellation? (make sure the participants understand)</p>	<p>Participants share, learn, or are reminded of what constitutes a constellation.</p>
<p><u>To Do:</u> Demonstrate how to use the star map to find a constellation and one of the stars. Assist participants in finding other constellations and stars with planets.</p> <p>To demonstrate how to use a star map: If facing North, hold the map up against the sky and orient the star map so that North on the map is down - toward the northern horizon (see photo to the right). If facing East, orient the map so that East on the star map is down toward the eastern horizon.</p>	<p>Participants practice using a star map to find constellations and stars with planets.</p>

Facing North, using the star map.



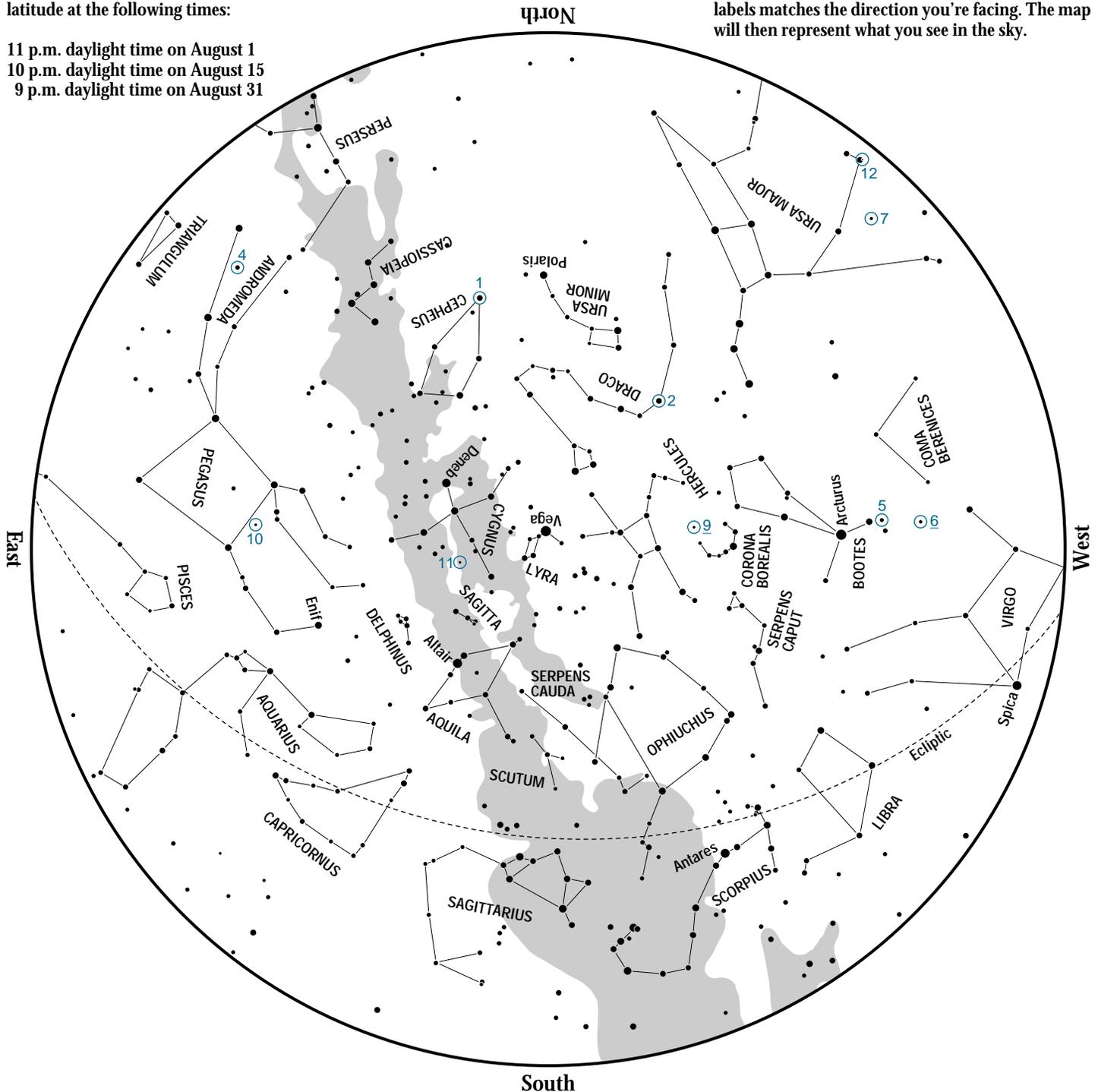
Where are the Distant Worlds?

August

The all-sky map represents the night sky as seen from approximately 35° north latitude at the following times:

- 11 p.m. daylight time on August 1
- 10 p.m. daylight time on August 15
- 9 p.m. daylight time on August 31

To locate stars in the sky, hold the map above your head and orient it so that one of the four direction labels matches the direction you're facing. The map will then represent what you see in the sky.



Stars visible to the unaided eye known to have planets — listed brightest to dimmest (stars visible this month are circled and numbered on the map)

- | | | |
|------------------------|--------------------------|---------------------------|
| ① – Gamma Cephei | ⑥ – 70 Virginis | ⑪ – Gliese 777a (Cygnus) |
| ② – Iota Draconis | ⑦ – 47 Ursae Majoris | ⑫ – HD 89744 (Ursa Major) |
| ③ – Epsilon Eridani | ⑧ – HD 19994 (Cetus) | ⑬ – HD 38529 (Orion) |
| ④ – Upsilon Andromedae | ⑨ – Rho Coronae Borealis | ⑭ – 55 Cancri |
| ⑤ – Tau Bootis | ⑩ – 51 Pegasi | |

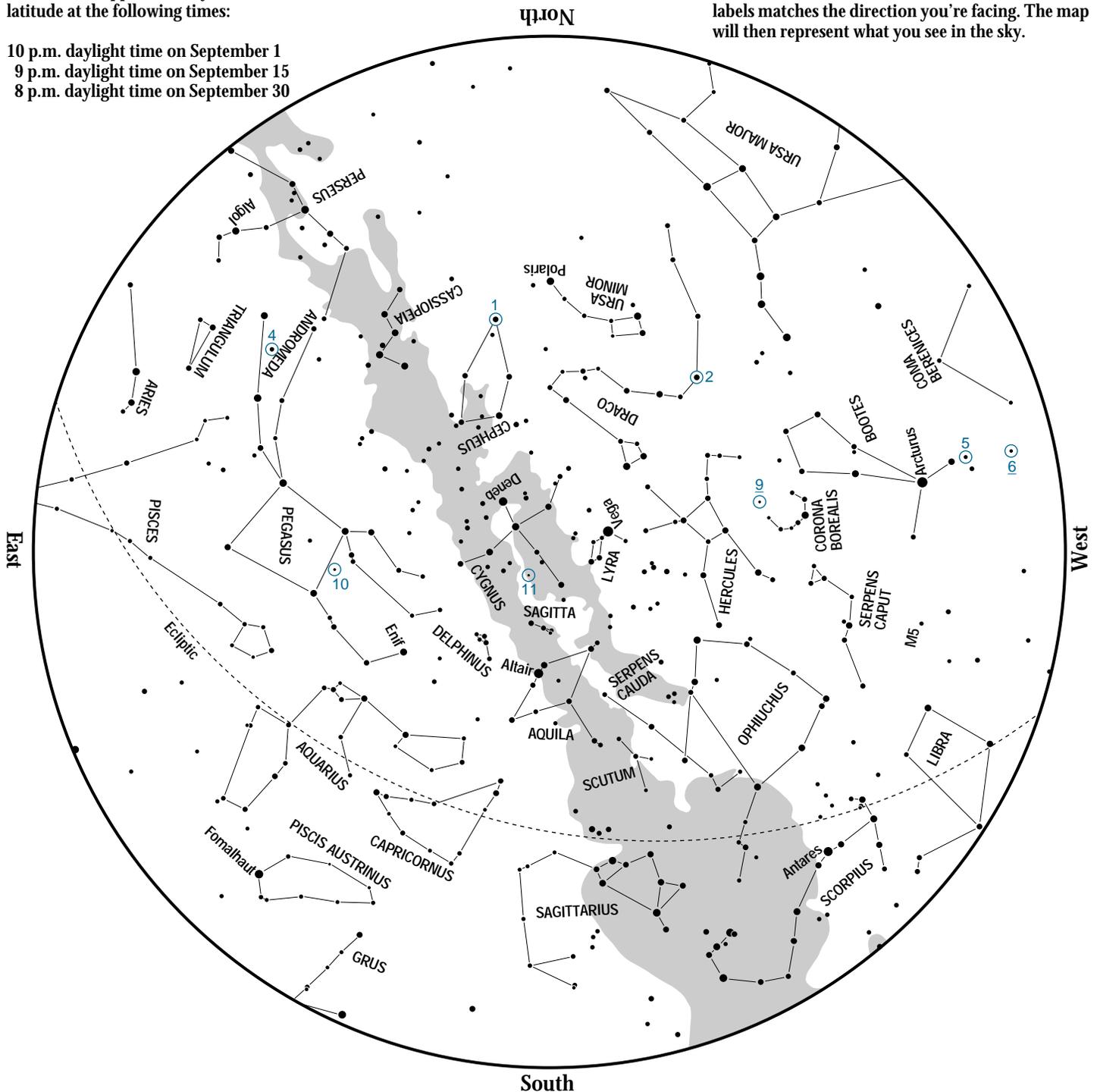
Where are the Distant Worlds?

September

The all-sky map represents the night sky as seen from approximately 35° north latitude at the following times:

- 10 p.m. daylight time on September 1
- 9 p.m. daylight time on September 15
- 8 p.m. daylight time on September 30

To locate stars in the sky, hold the map above your head and orient it so that one of the four direction labels matches the direction you're facing. The map will then represent what you see in the sky.



Stars visible to the unaided eye known to have planets — listed brightest to dimmest (stars visible this month are circled and numbered on the map)

- | | | |
|------------------------|--------------------------|----------------------------|
| ① – Gamma Cephei | ⑥ – 70 Virginis | ⑪ – Gliese 777a (Cygnus) |
| ② – Iota Draconis | 7 – 47 Ursae Majoris | 12 – HD 89744 (Ursa Major) |
| 3 – Epsilon Eridani | 8 – HD 19994 (Cetus) | 13 – HD 38529 (Orion) |
| ④ – Upsilon Andromedae | ⑨ – Rho Coronae Borealis | 14 – 55 Cancri |
| ⑤ – Tau Bootis | ⑩ – 51 Pegasi | |

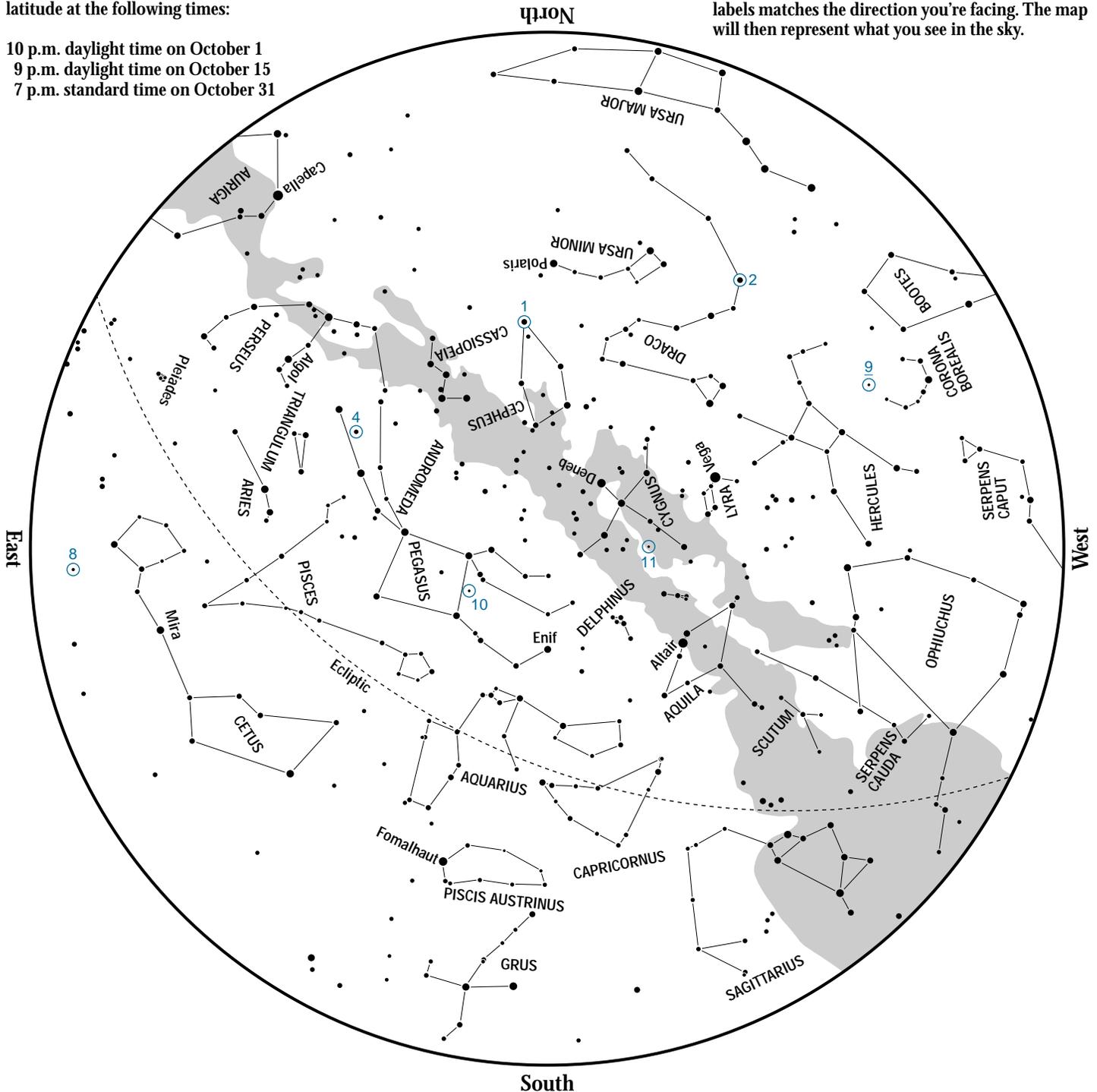
Where are the Distant Worlds?

October

The all-sky map represents the night sky as seen from approximately 35° north latitude at the following times:

- 10 p.m. daylight time on October 1
- 9 p.m. daylight time on October 15
- 7 p.m. standard time on October 31

To locate stars in the sky, hold the map above your head and orient it so that one of the four direction labels matches the direction you're facing. The map will then represent what you see in the sky.



Stars visible to the unaided eye known to have planets — listed brightest to dimmest (stars visible this month are circled and numbered on the map)

- | | | |
|------------------------|--------------------------|---------------------------|
| ① – Gamma Cephei | ⑥ – 70 Virginis | ⑪ – Gliese 777a (Cygnus) |
| ② – Iota Draconis | ⑦ – 47 Ursae Majoris | ⑫ – HD 89744 (Ursa Major) |
| ③ – Epsilon Eridani | ⑧ – HD 19994 (Cetus) | ⑬ – HD 38529 (Orion) |
| ④ – Upsilon Andromedae | ⑨ – Rho Coronae Borealis | ⑭ – 55 Cancri |
| ⑤ – Tau Bootis | ⑩ – 51 Pegasi | |