

## IYA Dark Skies Script Actions and Narration Southern Hemisphere: Finding Orion *Designed for use with Stellarium version 0.9.1*

**Synopsis:** *This script provides suggestions for finding the constellation Orion.*

**Note:** *There are several pauses built into the Stellarium script; these are marked in the narration. To progress to the next part of the script, press the “k” key.*

### **Suggested Narration:**

Orion the hunter is one of the most enjoyable constellations to observe. Our sky is set for March 21, 2009 at 9 pm, which is a great time to look for this distinctive group of stars. You may already have an idea of where to look, but if not, this lesson will explain how to find it.

No matter which constellation you are looking for, it is helpful to know which direction is which. Here's the easiest way to do this in the southern hemisphere.

Start by looking for Crux, the Southern Cross. There are four bright stars in a distinctive cross-shape, and Crux is about halfway between the horizon and the zenith at this time. The zenith is the highest point of the sky.

<PAUSE>

Let's label bright stars. The brightest star in the constellation Crux is called Acrux, so look for that label in the sky.

<PAUSE>

We'll connect the dots in the Southern Cross for you. You'll notice that one of the lines in the cross is longer than the other. Follow this longer line toward the horizon, and you'll have found approximate south.

<PAUSE>

Once you've found one compass point, you can find the others. Let's turn on the compass points to make it simple to remember which way is which.

<PAUSE>

Now let's look for Orion. If you look toward the north, you may see one star there that is brighter than all the others—Sirius. Sirius is the brightest star in our night sky. It is in the constellation Canis Major, one of Orion's hunting dogs. Because Sirius is so very bright, it is helpful in locating Orion.

<PAUSE>

Let's turn on our picture of Canis Major now. Canis Major follows Orion across the sky, so we will look for Orion lower in the sky than Sirius.

You've probably heard of the three bright stars in a row that make Orion's belt. At this sky time, Orion's belt is almost exactly due northwest. To picture Orion, you have to imagine him standing on his head.

Here are a couple of more hints to help you visualize Orion: His right shoulder is the red giant star Betelgeuse, which in Arabic roughly translates as “armpit of the giant.” To the west and a bit higher in the sky named Betelgeuse is a bluish-white supergiant star called Rigel, which makes Orion's left foot. In fact the name Rigel is Arabic for “foot.”

**<PAUSE>**

Let's turn on our Orion picture now... Hanging from Orion's belt are three stars that make his sword. The middle object is actually not a star at all, but the Great Orion Nebula, an area where new stars are forming. This is a great target for a telescope.

**<PAUSE>**

Let's take a quick look at a Hubble Space Telescope image of the Great Orion Nebula. This is the brightest star forming region in the sky, and it is visible to the naked eye under moderately good conditions.

Hopefully you are now ready to go out and find Orion in the real night sky. Remember that if you do not already know which way is which, you can use Crux, the Southern Cross, to first find south and then the other compass points. A star map is a handy tool as well, and these are available on many websites. Happy night sky observing!