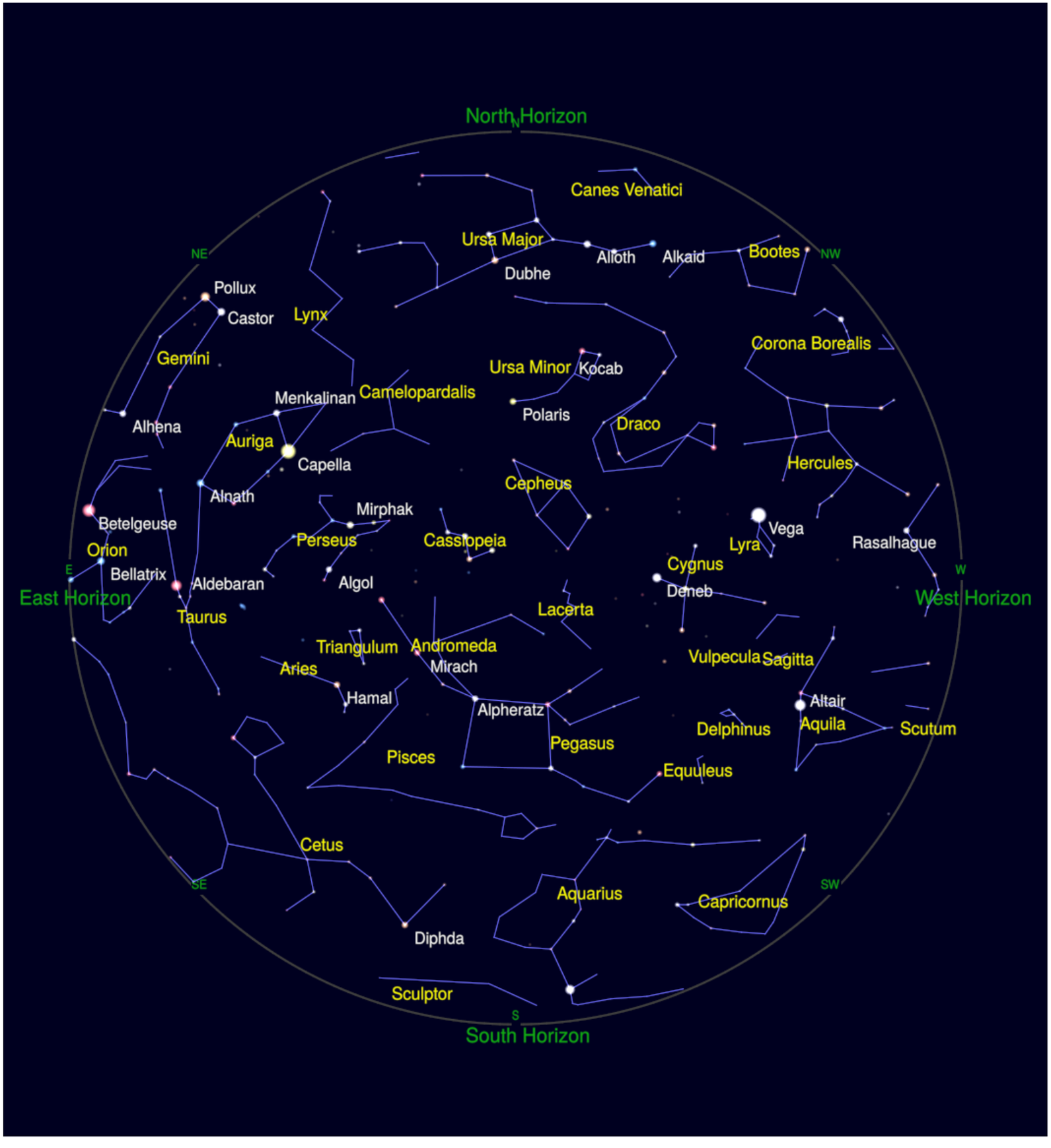

THE NIGHT SKY ABOVE YORK
FOR NOVEMBER & DECEMBER 2015

This chart is orientated for 8pm 16th November, 7pm 30th November and 6pm 14th December but can be used at any time.

To use the chart, hold it up to the sky. Turn the chart so that the direction in which you are looking is at the bottom of the chart. If you are looking to the South then have the 'South Horizon' at the bottom edge. As the Earth turns the stars appear to rotate anti-clockwise around the North Celestial Pole, marked by the star Polaris. Stars rise in the east and set in the west just like the Sun. The sky makes a small westward shift every night as we orbit the Sun.

PLANET WATCH

There are no visible planets in the evening sky at the moment so let's look down this time and consider the Earth as a planet.

Our home, the third rock from the Sun, is similar to the other rocky planets Mercury, Venus and Mars. We don't hold many great solar system records like biggest planet or hottest planet, but we are the densest planet of the eight.

Even more significantly, the Earth is the only place in the Solar System, and indeed the Universe, that we know harbours life. The beginnings and evolution of early life on the planet is still a big area of scientific research. We think either energetic chemical reactions produced molecules that could replicate, or perhaps a comet brought an icy bundle of organisms from another planet and spread life here. The latter idea is known as panspermia.

Either way, life has been critically affected by our astronomical surroundings. The Sun is the energy source for the planet and the orbit of the Moon brings light and tides. We even think the mass-extinction of dinosaurs may have originated from a meteor impact. And the future? Well, watch this space!

CONSTELLATION WATCH

Cassiopeia is one of the most widely recognisable constellations in the northern sky. Forming a tight 'M" (or 'W" depending on your orientation) it is nearly straight up in the early winter sky.

In mythology, Cassiopeia was the wife of Cepheus, King of Aethiopia and mother of the Princess Andromeda (note their close proximity in the sky). Cassiopeia claimed to be more beautiful than her daughter so as a punishment for her vanity she was sent to a throne in the sky to rotate around the North Pole. This means she is forced to spend half of each day holding on tight when upside-down so as not to fall off!

The remnant of a supernova called Cassiopeia A is the brightest radio source in the sky outside our solar system. A picture combining infrared (red) Hubble images (orange) and X-ray light (blue and green) shows the spectacular shape below.