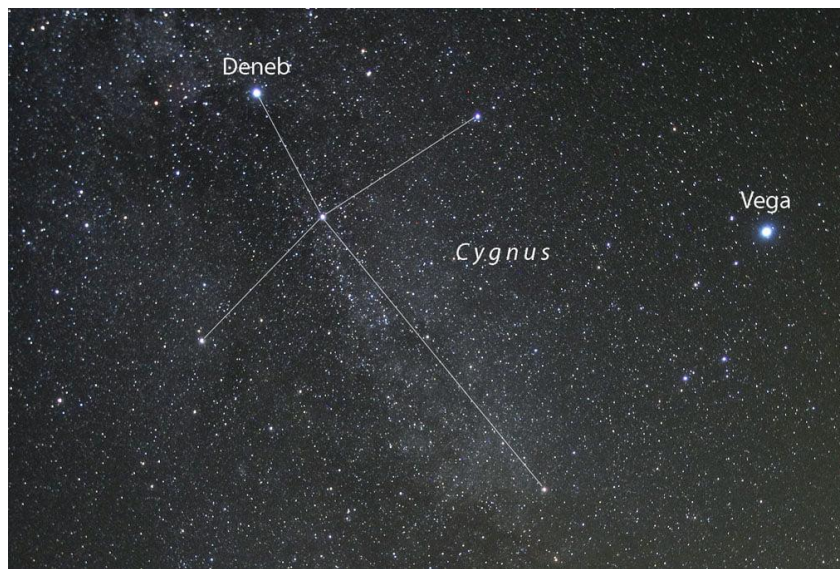


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Figure caption: The constellation Cygnus the swan can be seen on summer nights, and this image shows why it is nicknamed “the northern cross”. It features the star “Deneb” as the tail of the long-necked swan. Deneb is very far away but is a supergiant thousands of times as bright as the sun. Image by Bob (Astro Bob) King.



What is the most distant star you can see?

By Kevin Litten

Scientists have a motto, “if you think you know something but can’t quantify it, you know nothing.” Yeah, science can be difficult. And then there is the internet; everybody has an opinion.

In 1340 Richard Rolle of Hampole wrote, “From the point of the Earth, Saturn the highest planet may be guessed thus.” Or something close to that. Saturn is still the farthest planet most people can see with their unaided vision. Some people claim to be able to see Uranus. Seeing it IS within the realm of possibility.

Many times at Star Festivals or astronomy meetings things sort of devolve into a liar’s club. “Of course I’ve seen it with my own eyes!” I won’t argue with them, but there might have been more than a little inverted imagination in that look they took.

Did you really see that star? Seeing is believing but where is the proof?

Judging the distance to a planet is 5th grade math. Judging the distance to a star is a technological feat. We use satellites to do it. The number you will get will often be given to within 15 to 50%.

The Andromeda Galaxy is the undisputed most distant object our eyes can see; about 2 and a half million light years away. Our eyes cannot differentiate any individual star in that galaxy.

So back to the internet. It will tell you that one of these stars is probably the farthest star you are likely to see: Nu Cephei, Alpha Camelopardalis, Mu Cephei, Rho Cassiopeia, AH Scorpius, V762 Cassiopeia, and many others. And you know what? They are all wrong. The furthest star away you are going to see is ... Deneb.

Deneb is part of the Summer Triangle. It is a first magnitude star, the 19th brightest star in the sky. Deneb in Cygnus is estimated to be about 2000 light years away.

Pointing out dim little stars to most people on astronomy nights, even with my best hand held ultra tactical digital green laser pointer that I bought after watching a commercial hosted by a retired jet fighter, is hard as heck. Pointing out Deneb is easy. Those other dim, little stars? Leave them to the pros.

--Kevin Litten is a member of the Chippewa Valley Astronomical Society