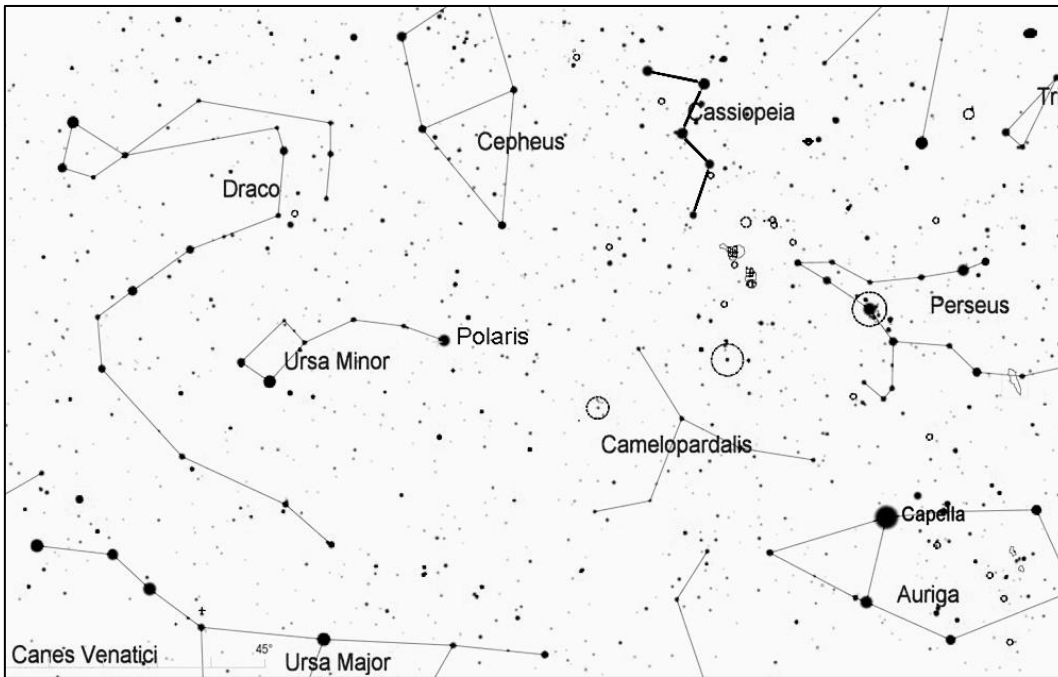


NGC 147 and 185 (Caldwell 17 and 18), Galaxies in Cassiopeia

These two dwarf elliptical galaxies are satellites of Messier 31, the Andromeda Galaxy, which is about 7 degrees away. They are both fairly large and diffuse and not that easy to see except under nice dark skies. NGC 185 has a brighter center that makes it a little easier to see than its neighbor. Both of these galaxies are just over 2 million light years away.



Find the constellation Cassiopeia, which has a distinctive "W" shape (although its orientation changes at different times of year as it circles the north celestial pole). On fall evenings, look for Cassiopeia in the northeast, where its tilt makes it look like a "3", and in the winter look high in the north above Polaris, where it is oriented like an "M".

Once you have located Cassiopeia, use the star at the last angle in the W shape (α) to lead you to zeta (ζ) Cassiopeiae, about 3 degrees away. Continue in this direction about double the distance (5.5 degrees from ζ) and you will arrive at the location of NGC 147. Use a low power eyepiece for the best chance to spot this diffuse oval galaxy, then look about 1 degree to the east for NGC 185.

