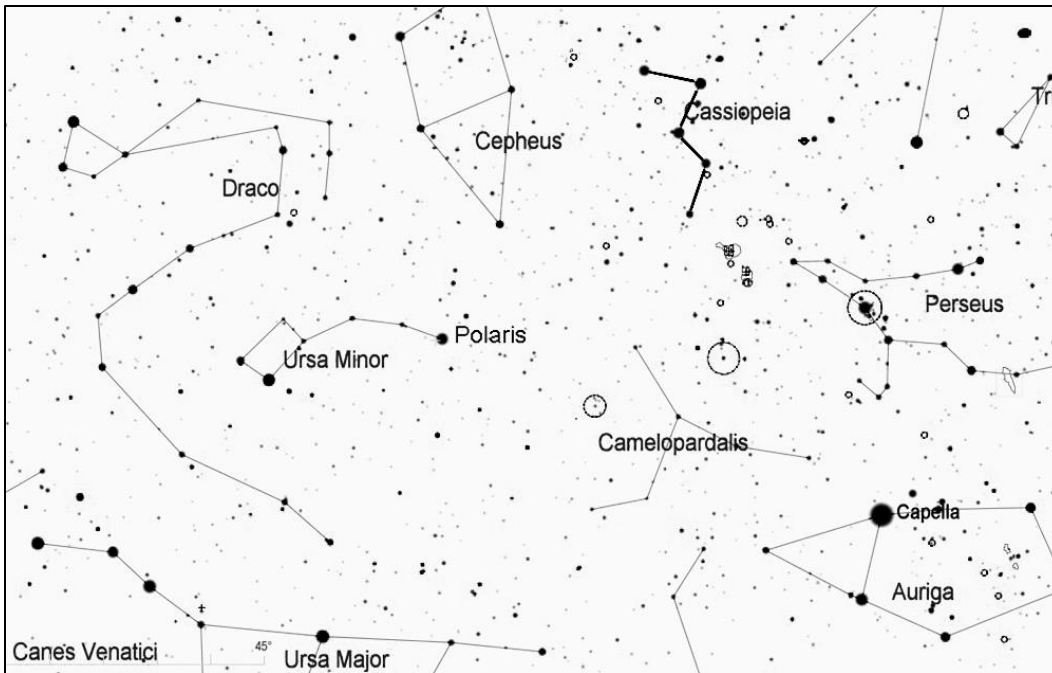


Messier 52 (Open Cluster) and NGC 7635 (Caldwell 11, Bubble Nebula)

Messier 52 is a rich open cluster of some 200 stars covering an area about 1/3 the size of the full Moon. The best view is through a telescope at low power, where the cluster will stand out nicely from the Milky Way background. Just about 1/2 degree away is NGC 7635, the Bubble Nebula, a large and faint nebula surrounding an 8th magnitude star. The nebula is much harder to see, but since it is so close to M52 it is worth an attempt.



Find the constellation Cassiopeia, which can be recognized by its 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, note that the last two stars of the W shape point directly to Messier 52. Extend a line from these two stars that is just slightly longer than the distance between them. Notice that there is one 5th magnitude star just north of M52 and another just south of it (see the arrows in the chart below), and these should be easily visible in binoculars or a finderscope. In between them, you should find M52. The much fainter and more difficult Bubble Nebula (NGC 7635) is about 1/2 degree to the southwest.

