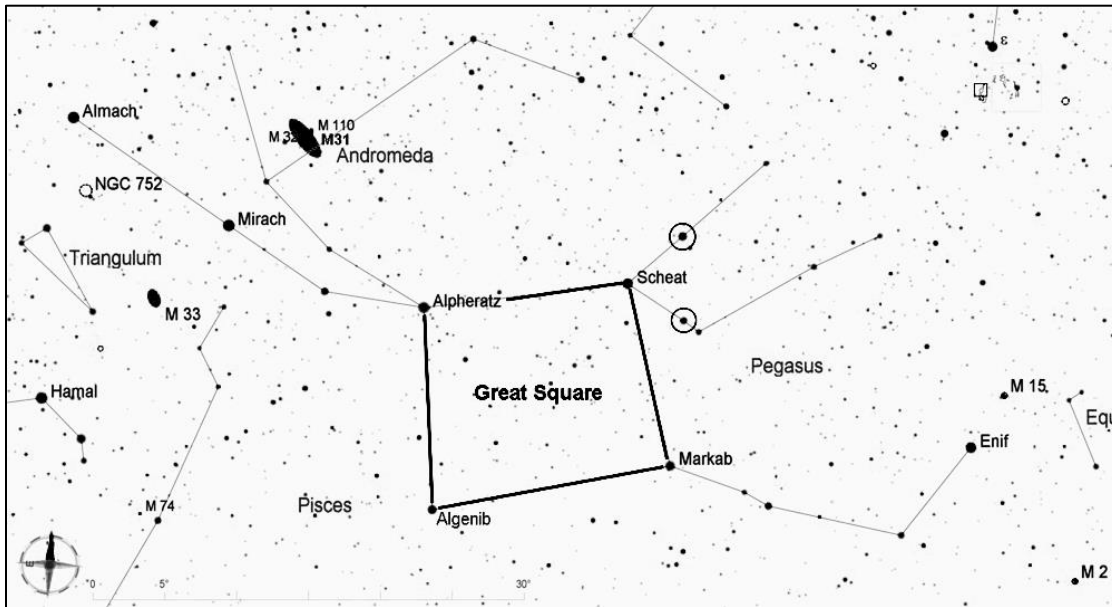


# NGC 7331, Galaxy in Pegasus

NGC 7331, also known as Caldwell 30, is a large spiral galaxy about 47 million light years away, and about 130,000 light years in diameter. The galaxy has a bright central region that can be seen in small telescopes as an oblong glow. With larger telescopes, some of the galaxy's structure can be seen, and so can several smaller galaxies to its east.



Start by finding the Great Square of Pegasus, which rises in the eastern sky during the early fall evenings, is high overhead later in the fall, and sinks in the western sky during early winter. To be sure you know how the square is oriented in the sky, look for the two stars outside the northwest corner of the square (circled in the chart here) that form a small triangle with Scheat.

From Scheat at the northwest corner of the Great Square, look 5 degrees to the northwest to find Matar, magnitude 3. From Matar, move about 4.5 degrees north to reach NGC 7331. At magnitude 9.3, it should be visible in even small telescopes. Use a low-power eyepiece and look for a dim oval patch, then try higher power to look for details in the galaxy's structure.

