

Davidson Lands Conservancy WOW Stargazing Event October 14, 2011
Charlotte Area Astronomy Club and the Davidson College Society of Physics Students

Jupiter 5th Planet [after 9pm]			Jupiter is a gas giant with a mass slightly less than one-thousandth of the Sun but is two and a half times the mass of all the other planets in our Solar System combined. Surrounding the planet is a faint planetary ring system and at least 63 moons, including the four large moons called the Galilean moons that were first discovered by Galileo in 1610.
Uranus 7th Planet			Uranus is the seventh planet from the Sun. It has the third-largest planetary radius and fourth-largest planetary mass in the Solar System. Herschel discovered Uranus by telescope in 1781, expanding the Solar System for the first time in modern history. Uranus has a ring system, numerous moons, and has its axis of rotation tilted sideways.
Moon [after 9pm]			The Moon, our natural satellite, always shows us the same face. Its cycle of phases have been an important influence on world cultures. The Moon's gravity produces the ocean tides. The Moon appears almost the same size in the sky as the Sun, allowing it to cover the Sun in total solar eclipses. The Moon is the only celestial body on which humans have landed.
Great Hercules Cluster Globular Cluster (M13)			Messier 13 or the Great Globular Cluster in Hercules is a globular cluster of about 300,000 stars in the constellation of Hercules and lies in the halo of the Milky Way galaxy. It is barely visible with the naked eye on a very clear night even though it is about 145 light-years in diameter. M13 was discovered by Edmond Halley in 1714, and catalogued by Messier in 1764.
Andromeda Galaxy (M31)			The Andromeda Galaxy is a spiral galaxy approximately 2.5 million light-years away in the constellation Andromeda. It is visible with the naked eye. Andromeda is the largest galaxy of the Local Group of 30 galaxies. It appears six times as wide as the full Moon when photographed; only the central region is visible to the naked eye or with a small telescope.
Double Cluster Open Star Clusters (C14)			The Double Cluster (also known as Caldwell 14) is the common name for the naked-eye open star clusters NGC 884 and NGC 869, which are close together in the constellation Perseus. There are more than 300 blue-white super-giant stars in each of the clusters. The clusters are blueshifted as they are moving toward Earth each at a speed of about 22 km/s (14 mi/s).
Eta Cassiopeia Double Star			Eta Cassiopeia is a star system 19.4 light years away from Earth, in the constellation Cassiopeia. Sometimes the traditional name Achird is used. The primary star in the Eta Cassiopeia system is a yellow dwarf, putting it in the same spectral class as our Sun. It therefore resembles what our Sun might look like if we were to observe it from Eta Cassiopeia.

Pinwheel Galaxy (M101)		The Pinwheel galaxy, Messier 101, is a face-on spiral galaxy distanced 21 million light-years away in the constellation Ursa Major, first discovered by Pierre Méchain in 1781. On August 24, 2011, a Type Ia supernova, SN 2011fe, was discovered in M101
Triangulum Galaxy (M33)		The Triangulum galaxy, Messier 33, is spiral galaxy approximately 3 million light years from Earth in the constellation Triangulum. The Triangulum Galaxy is the third-largest member of the Local Group of galaxies, which includes the Milky Way Galaxy, the Andromeda Galaxy. It is one of the most distant permanent objects that can be viewed with the naked eye.
Ring Nebula (M57)		The Ring nebula (also known as M57) is a planetary nebula located in the constellation of Lyra. It is one of the most prominent examples of a planetary nebula, the gaseous remains of red giant star that has ended its life by expelling its material into the surrounding interstellar medium. The central white dwarf star is difficult to spot.
Dumbbell Nebula (M27)		The Dumbbell nebula (also known as M27) is a planetary nebula in the constellation Vulpecula, at a distance of about 1,360 light years. This object was the first planetary nebula to be discovered (in 1764 by Charles Messier). This planetary nebula appears to be shaped like an hourglass. It is believed that the age of the nebula is some 10,000 years.
Wild Duck Cluster Open Star Cluster (M11)		The Wild Duck Cluster, also known as M11, is an open cluster in the constellation Scutum. The Wild Duck Cluster is one of the richest and most compact of the known open clusters, containing about 2900 stars. Its age has been estimated to about 220 million years. Its name derives from the brighter stars forming a triangle which could represent a flying flock of ducks.
Mizar/Alcor		Mizar/Alcor is a quadruple system of two binary stars in the constellation Ursa Major (the second star from the end of the Big Dipper's handle). Mizar and Alcor together are sometimes called the "Horse and Rider," and the ability to resolve the two stars with the naked eye is often quoted as a test of eyesight.
Many of these objects are referred to by their "M" or Messier Catalog number. Messier objects are a set of astronomical objects first listed by French astronomer Charles Messier in 1771. The original motivation of the catalogue was that Messier was a comet hunter, and was frustrated by objects which resembled but were not comets. He therefore compiled a list of these objects, in collaboration with his assistant Pierre Méchain.		
Information on this sheet was gathered from Wikipedia and other sources. Images from Wikipedia except: Jupiter, Uranus, Andromeda, Mizar/Alcor, Ring, and Dumbbell taken by M. Belloni.		