Mon Nov 1, 2010  FARTHEST NAKED-EYE OBJECT

What's the farthest thing you can see without a telescope? Off in the northeastern sky late this evening, you can find the answer to this question, but only if the skies are very clear, and very dark, and you know just where to look. It's a very dim smudge of light that lies in the direction of the constellation Andromeda. But this small spot is neither little, nor does it have any physical connection with the stars of Andromeda, which are merely trillions of miles away. It's not even a member of our Milky Way, but instead another galaxy, comprising 200 billion stars and approximately two and a half million light years away. One light year, the distance light can travel in a year, is roughly six trillion miles. So when you see the Andromeda Galaxy, you’re looking at something that is fifteen million trillion miles away – and that’s how far out your eye can see.

Tue Nov 2, 2010  HARLOW SHAPLEY  Harlow Shapley born 11/2/1885

Over in the southwest this evening there is a concentration of globular star clusters. No, you can't see them with the unaided eye, but with a telescope you could find them – and each cluster you find contains thousands and thousands of stars packed in tight by gravity. Globular star clusters are all around us, but about half of them are gathered into one small spot in the sky, near the constellation Sagittarius. There was a fellow named Harlow Shapley, who was born 125 years ago, on November 2nd, 1885. And Shapley first realized the significance of this clustering of clusters. In 1920 he suggested that because the globular clusters seemed to be centered around Sagittarius, that it was probable that that was where the center of the Milky Way galaxy was. He was right – our solar system is part of the Milky Way, but we're halfway out from the middle of it all.

Wed Nov 3, 2010  PLANETARIUM SHOW: THE PLANETS

This weekend, Indian River State College’s Hallstrom Planetarium will present, “The Planets.” This is a show I wrote which received funding from the Southeastern Planetarium Association; it was distributed to over a hundred planetariums through the Southeast and other parts of the United States (I think it also playing at the University of Wisconsin this weekend). “The Planets,” is narrated by Kate Mulgrew, who portrayed Captain Kathryn Janeway in the TV series, “Star Trek: Voyager.” You would need a starship to cover the distances we travel in this 40 minute program – all the way from the earth, beyond Saturn, beyond Pluto to the region of comets in the Kuiper Belt and Oort Cloud, as much as five trillion miles from home. And then of course we go to the stars, pointing out familiar star patterns like Pegasus and Orion, but also identifying faint stars like Epsilon Eridani, around which the fictional planet Vulcan orbits. Call the IRSC Box Office at 462-4750 for tickets!

Thu Nov 4, 2010  CONSTELLATION RECOGNITION

Very few of the constellations look like what they're supposed to. Folks long ago who made up these constellations had a lot of imagination, but they didn't necessarily see the pictures either. They'd just name a bright star or group of stars after a hero or an animal, or a monster, and use those stars to tell their children stories about their adventures - in that way, the stories were remembered as myths centuries after they were first told. There are 88 official constellations today, decided upon by astronomers in 1930. Now in the ancient world of the Mediterranean and Middle East, there were less than sixty constellations, owing to a lack of knowledge of stars to the south that were never seen from those latitudes, and also to the creation of many more star figures in the 17th century, some of which were preserved, like Pavo the Peacock, and some of which were later discarded, such as Bufo the toad and Noctua the night owl.

Fri Nov 5, 2010  THE PLANETS

Tonight and tomorrow, The Planets will be presented at the Hallstrom Planetarium. It’s narrated by Kate Mulgrew, who portrayed Captain Janeway in the television series, Star Trek: Voyager. Mulgrew takes us on a grand tour of our solar system, including the most up-to-date information about our neighbor worlds. See the Mariner Valley, the “Grand Canyon” of Mars – fly through the rings of Saturn, stand at the edge of the 10 mile-high ice cliffs of Uranus' moon Miranda - and travel three billion miles out to far-flung Pluto - and beyond, where the sun is just a bright spot in the nighttime. Join us tonight at 7 or 8 PM, or on Saturday afternoon at 1 or 2 PM. Call the IRSC Box office at 462-4750 to get tickets and more show information, or from Martin, Indian River and Okeechobee counties call toll free: 1-800-220-9915. And tonight only, we’re running a special on Jupiter, which, if skies are clear, can be viewed through telescopes set up by the Treasure Coast Astronomical Society.