



Presidents Message - September, 2010

The Kuiper Belt is an interesting region in the outer reaches of the solar system. In 1951 astronomer Gerard Kuiper speculated that there was a band of debris left over from the formation of the solar system out beyond the orbit of Neptune. He was proved to be correct and it was named after him. The belt extends from the Neptune orbit out another 2 billion miles, and contains thousands of objects, many of them quite large. Pluto is a good example of a Kuiper Belt Object (KBO). It was demoted by the International Astronomical Union to the status of a dwarf planet and KBO. Pluto is about 1,500 miles in diameter and there are other KBOs that are in that size range, like "Orcus" which is 1,000 miles in diameter. Some of the objects are rocky and some are "dirty ice balls" (comets). Short period comets, those that visit us every 200 years or less, are believed to come from this region.

The October issue of Astronomy magazine announced that James Elliot, (M.I.T.), and his colleagues were able to measure the size and reflectivity of a KBO this past June. The object is KBO 55636 and is in orbit 3.7 billion miles from the Sun (40 AUs). Eliot's team included 21 observatories who were set to observe KBO 55636 as it occulted (passed in front of) a star. It turned out that only two observatories had clear seeing, both in Hawaii.

They were able to determine that the object has a diameter of 178 miles (plus or minus 6 miles). The reflectivity of it was calculated to be 0.82, with total reflectivity being 1.0 on the scale. Therefore it reflects nearly all the light that strikes it which leads scientists to believe that its surface is ice. They are perplexed because an ice surface should have space weathering from dust and cosmic ray hits over the past couple of billion years that would have darkened its surface. So either it has undergone "some sort of surface restructuring, or fresh water-ice can persist in the outer solar system for billions of years". The Kuiper Belt is clearly a region of mystery, challenging the astronomical community.

Mike Thomas

August 2010 Minutes

August meeting...for the minutes:

- Observatory Director Robert Collier updated the membership on recent efforts to improve our facility.
- Telescope Operator Dr. Walt Dillard gave those present a description of the methods used to detect exoplanets.
- Mike Thomas gave the PowerPoint presentation "The Legend of King Arthur"

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Speaker info for the *****Tuesday, September 21, 2010 @ 7pm** ***membership meeting:

John Dykes will present his:

"Alaska Photographic Adventure"

Events Calendar

~ September 2010 ~						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 Moon Last Quarter	2	3	4 Dark Skies Star Party
5	6	7 Moon at perigee	8 New Moon	9	10	11 Dark Skies Star Party Venus 0.3° north of Moon, occultation
12	13	14	15 Moon 1 st Quarter	16	17	18 Star Party
19	20	21* <i>WNAS Meeting 7pm JCDO</i> Jupiter @ Opposition	22 Uranus @ Opposition	23 Full Moon Autumnal Equinox occurs in the northern hemisphere at 03:09 UT	24	25 Star Party
26	27	28	29	30	Notes: *Moon at apogee	

~ October 2010 ~						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1 Moon Last Quarter	2 Star Party
3	4	5	6 Moon @ Perigee	7 New Moon	8	9 Dark Skies Star Party
10	11	12	13	14 Moon 1 st Quarter	15	16 Star Party
17	18 Moon @ Apogee	19 <i>WNAS Meeting 7pm JCDO</i>	20 Comet Hartley 2 Closest approach to Earth	21 Orionids Meteor Shower	22 Orionids Meteor Shower	23 Star Party Full Moon
24	25	26	27	28	29	30 Star Party Moon Last Quarter
31	Notes:					