



Presidents Message – August 2013

Red dwarf stars are the most abundant type of star in our galaxy, and the total number of habitable planets orbiting them has just exploded to an estimated 60 billion, according to a new study. Data from NASA's Kepler mission suggests that 6% of nearby red dwarf stars should have at least one Earth sized world in the zone where life as we know it can exist. Such planets may have life that is much older than Earth's.

Large-scale cloud patterns affect atmospheric temperatures on Earth-size planets orbiting stars smaller and cooler than our sun. Researchers found that the atmospheric circulation and cloud cover on these Red Dwarf circling exo-planets mean that these worlds could orbit their stars more closely than thought, expanding the habitable zone. Computer simulations developed by Dorian Abbot, planetary scientist at the University of Chicago, show that we should be looking at orbits much closer to red dwarfs than we've done in the past for worlds that can support liquid water and, possibly, life. And since red dwarfs are the most common type of star populating the universe, searches for habitable planets may want to focus on them.
-National Geographic.

Why is it important? While we don't have an accurate estimate because they are hard to see, we believe that there are roughly 100 billion red dwarfs in just the Milky Way galaxy alone. -The Astrophysical Journal Letters.

What also makes red dwarf systems such a cosmic catch is that the stars are so small. That means the relative size of any orbiting planet will be larger. This is a key factor when using the transit method, where a star's brightness dims when a planet crosses in front of its star. This means that planet hunters get to see more orbits, so the hunting techniques just work better, and more exo-planets will be discovered. Which is amazing to me, because since the Kepler Telescope exoplanet mission got underway, the current count of exoplanet discoveries is already well above 2,000 in number.

Scientist Dorian Abbot explained. "We can look for planets hugging their host red dwarf stars much closer than we previously thought were possible... even though the planet is being exposed to twice as much solar energy, We now think there could still be plenty of liquid water on its surface, due to the large cloud cover and atmospheric circulation." Abbot and his team will to wait a few more years to test their findings, when Hubble's more powerful successor, the James Webb Space Telescope, launches (maybe) in 2018.

If the new estimate, of possibly 60 Billion habitable planets in the Milky Way Galaxy is accurate, then the Universe could potentially be jam packed with life. So stay tuned.

Mike Thomas.

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July 2013 Meeting Minutes

- Meeting Cancelled





Monthly Membership Meeting 7:00PM, Tuesday, August 20, 2013

As you all know, August is "National Astronomy Societies Western History Education Month." In honor of that, the evening program at the monthly meeting will be:



"The Texas Rangers"

The Texas Rangers were established 190 years ago to defend frontier settlements from Indian attacks. Immortalized in poems, songs, books, and movies, the Rangers have become icons of popular culture. This Mike Thomas slide-show lecture covers the exciting history of the famous organization, with a focus on several rangers whose exploits have made them legends.

~ August 2013 ~

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3 Star Party Dark Skies
4	5	6 New Moon 	7	8	9	10 Star Party
11 Perseids Meteor Shower	12 Perseids Meteor Shower	13	14 Moon 1 st Qtr 	15	16	17 Star Party
18	19	20 JCDO WNAS Meeting 7pm	21 Full Moon 	22	23 *Occultation @JCDO 23:15 hrs local time Asteroid 489 Comacina 13.8 sec duration	24 Star Party
25	26	27 Neptune @ Opposition	28 Moon Last Qtr 	29	30	31 Star Party

~ September 2013 ~

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5 New Moon 	6	7 Star Party Dark Skies
8 *Conjunction of the Moon and Venus. The Moon will pass within about a 1/2 degree from the planet Venus in the early evening sky	9	10	11	12 Moon 1 st Qtr 	13	14 Star Party
15	16	17 JCDO WNAS Meeting 7pm	18	19 Full Moon 	20	21 Star Party
22 Autumnal Equinox occurs at 20:44 UTC	23	24	25	26	27 Moon Last Qtr 	28 Star Party
29	30	*Also on September 8: Conjunction of Venus and Saturn. The two planets will be about 3 degrees of each other in the early evening sky				