

Ponder the Portage County Skies with Paul Sky events for May 2008

01 civil twilight starts 05:16 a.m.

01 sunrise 05:48 a.m.

02 Space Day

05 New Moon 7:18 am and perigee

05 Cinco de Mayo

05-06 Eta Aquarid meteor shower

06 Mercury 3° south of the Moon sunset

10 Moon passes Mars early afternoon

11 1st quarter moon @ 10:47 pm

12 Moon passes Saturn @ 5 p.m.

14 Mercury at greatest elongation (22°)

19 Full moon @ 9:11 pm

24 Jupiter rises at midnight before moon

27 Last quarter Moon 9:57 pm

**29 Einstein's Theory of Relativity tested during a
total solar eclipse in 1919.**

31 sunset 8:35 p.m.; civil twilight ends 9:11 p.m.

What is civil twilight? Civil twilight starts and ends when the sun is 6° below the horizon because when the sun is 6° or less from the horizon the sky is still quit bright and only the brightest stars and satellites can be seen. In some countries, the end of evening civil twilight is also referred to "lighting up time". We just say, "Look, it is 9:10 p.m. and it is still light out!"

How can civil twilight be a blessing to those who navigate by the stars? If you have ever been in a really dark location with no light pollution (like on the east side of the big island of Hawaii or in the middle of the ocean) you'll understand me when I say that even if you know the sky well there are so many more stars visible it is difficult to find your way around in the sky. Mr. Bill Jenkins, a retired navy captain, mentioned that they would need to remember to look at the sky during and just after civil twilight to catch the brightest stars before it became to dark to locate them amongst the vast expanse of stars.

How can I find out more about Space

Day? If you would like to find out more about Space Day May 02, 2008 go to the website <http://www.spaceday.org/> . If you would like to know 101 ways to celebrate space day go to <http://www.spaceday.org/media/documents/101ways.pdf> . The theme this year, "50 Years of NASA History," marks the golden anniversary of the historic organization.

What makes up most of the universe? By far the universe is mostly the space between matter and energy. The densest object we know, the nucleus of an atom, is by far mostly space. The second most abundant item in the universe we cannot even see, as over 95% of what is something, is dark energy and dark matter. **95% you say, when and why was the percent sign invited?** The answer to this question may make us feel very backward as the percent sign is quite useless and arose to fight superstition with superstition. From the website: <http://www.themathlab.com/Algebra/algebra%20lessons/section3proportions/a340%20history%20of%20percent.htm> During the dark ages, the peddlers"decided to invent a word and a symbol that would "cast the devil out" of every number it came after. Thus the percent symbol was born. The peddlers told the people that God had spoken to them in multiple dreams and showed them this ancient, powerful symbol. The name of the symbol was **PERCENT**, and if you said this word after saying a number or wrote the symbol after writing a number, the evil spirits would be vanquished and spirits of wealth and prosperity would take their place. Thus using the percent concept could actually increase the luck of a family and protect them against evil."

So in actuality, percents are a waste of time? True, percents cannot be used in a calculation until it is changed to a decimal by moving the decimal point two places to the left or to a fraction by dividing the percent by a hundred. "So just remember, "percent" means cent(s). If you need to think in terms of fractions, remember a cent is 1/100. So "percent" also means parts out of 100." It is hard to change a tradition, even if the tradition was born out of superstition and ignorance.

Does this mean that 4¢ and 4% mean the same thing? Yes, 4¢ = .04 and 4% = .04. Sometimes students write .04¢ for 4¢ not realizing that .04¢ = \$.0004 or much less than a penny as a penny is \$.01

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