
The Shoreline Observer

Newsletter for the Shoreline Amateur Astronomical Association

President - Phil Sherman Vice President - Arlin Ten Kley Secretary/Treasurer - Mike Henry

Mike Henry, Editor 396-0509

February 1995

February Meeting

The February meeting of the Shoreline Amateur Astronomical Association will be held on Thursday February 16th, beginning promptly at 7:00 PM in the West Ottawa Middle School Planetarium.

Business meeting.

Sandy will give a tour of the February night sky (and hopefully a Valentine show).

Sandy will be bringing refreshments.

Star Party Fever

Everyone's itchy. Although we have been scheduling star parties, except for December we haven't had any luck with it. So the next Friday or Saturday night that is clear, and NOT 40 below, we will be having one. Expect a phone call.

Also, don't forget that the Messier Marathon is coming up soon.

It's Quiz Time!!

I know it's been a while, but I have some more quiz questions for you. For those of you who don't recall, when you correctly answer 25 questions, you will receive a gift certificate from Great Lakes Pizza. Please give answers to Mike at the next meeting.

1) What is the distance, in miles, of one parsec?

2) In 1950 if you looked up in the sky at coordinates RA 8h 3.75; Dec +19 52', what would you see?

3) Explain the theory of relativity in 10 words or less: _____

4) The number of _____ in a postage stamp, roughly equals the number of grains of sand in a 12 foot layer laid across the entire contiguous United States.

5) In what year did Galileo show that Venus and Earth orbit the sun?

6) If a leap-year has one extra day in it, then what is leap-frog.

7) The surface of Venus is about how many degrees Fahrenheit?

- 8) How many watts of power is Voyager II's radio transmitter?
- 9) In what year did Galileo show that Venus and Earth rotate around the sun?
- 10) Who is Roy G. Biv?

What's In a Day?

Earth takes slightly less than 365 days and 6 hours to complete its seasonal orbit. In a world without leap days, the vernal equinox (first day of spring) would slide backwards through the days of March at a rate of about one day every four years. There would be great unrest in the fashion industry when the seasons lost their correspondence to the calendar months.

The solution: every four years donate 24 hours to the most needy month (the scheme of the Julian Calendar) but this *over-corrects* the problem by what accumulates to be slightly less than a day every 100 years. The solution: every 100 years (e.g. 1700, 1800, 1900), omit the leap day that would have otherwise appeared-but this scheme *under-corrects* the problem by what accumulates to be slightly less than a day every 400 years.

The solution: every 400 years (e.g. 1800, 2000, 2400), re-insert the leap day that would have otherwise been omitted.

Behold the Gregorian calendar, introduced to the Western World by Pope Gregory XIII and his calendar commission. The new calendar was jump-started in 1582 when the day after October 4 was decreed to be October 15.

But the Gregorian calendar, itself, over corrects the problem.

The solution: subsequent calendar reform now mandates that every 4,000 years (e.g. 4,000, 8,000, 12,000) the leap day should be omitted that would have otherwise have been added by all previous rules-but this *under-corrects* the problem which obviously can be solved when you re-introduce a leap day in every century year that leaves a remainder of 200 or 600 when divided by 900.

You may now rest peacefully knowing that the first day of spring will barely budge for the next 44 millennia.

Stargate Magazine February 1993