

OFF COURSE

Rusty Stachlewitz, Associate Editor



Chicago Area Circles

Two Circles in the Sun

You have undoubtedly passed it on the way to a MAGCS event. They have Buffalo (actually North American Bison) in the yard. How could you miss that in the suburbs? Fermilab nestled in Batavia, Illinois, is a U.S. Department of Energy National Laboratory named



after Enrico Fermi, the famed nuclear physicist. It houses a particle accelerator that is four miles across. What does it do? It accelerates particles, of course. More importantly, it stops them. When these particles get accelerated to almost the speed of light, they make a heck of a crash when stopped. The physicists can learn things about the way the universe works by looking at the shrapnel. It's kind of like throwing your computer out the window and then going out in the street to see how it works. In 1995 the Top Quark was discovered at Fermilab. I hope it changed your life the way it changed mine.

More importantly, why do they have buffalo? The first director brought them to the site to signify the tie between the lab and the prairie. When the herd gets larger than 75, the lab holds a buffalo auction. A great way to get a cheap Bison in Batavia! You don't see that every day.



I Thought it Had Something to do with Fleetwood Mac

It is officially called the "Clarence Buckingham Memorial Fountain." Sitting within Grant Park, the fountain, commissioned by Kate Buckingham, was dedicated in 1927 to memorialize her brother. It is one of the largest fountains in the world. Why the Seahorses? There are four of them, and they represent the four states that border Lake Michigan. When the fountain was complete Kate set up a \$300,000 endowment for

the care of the fountain so that the people of Chicago would not get the bill.

The fountain's water capacity is 1.5 million gallons.

Depending on wind conditions, major displays use approximately 14,100 gallons of water per minute conveyed through 134 jets. The fountain can shoot water up to 150 feet into the air. Every hour, on-the-hour, a 20-minute major water display occurs. After dusk the display is accompanied by music.

The water displays are powered by three pumps:

- Pump 3: 75 horsepower, for 1600 gallons of water a minute.
- Pump 2: 190 horsepower, for 5500 gallons of water a minute.
- Pump 1: 250 horsepower, for 7000 gallons of water a minute.



Geeks Must Love a Circle

No it isn't half of a Fermilab. It is Argonne National Laboratory, and you've probably passed this as well and didn't even know it. It's in Lemont, and they don't have Buffalo.

This was the first national laboratory, a descendent of the University of Chicago's Metallurgic Laboratory. The Metallurgic Lab threw together a little thing called the Manhattan Project. The Argonne Lab started with a mission to develop nuclear reactors for peaceful purposes. Now the lab works on everything from the atomic nucleus to global climate change. They have done many things that actually do affect the way you live, such as developing Excimer Laser Surgery and creating Near-Frictionless Carbon surfaces many times smoother than Teflon. They get a round. **-OC**

