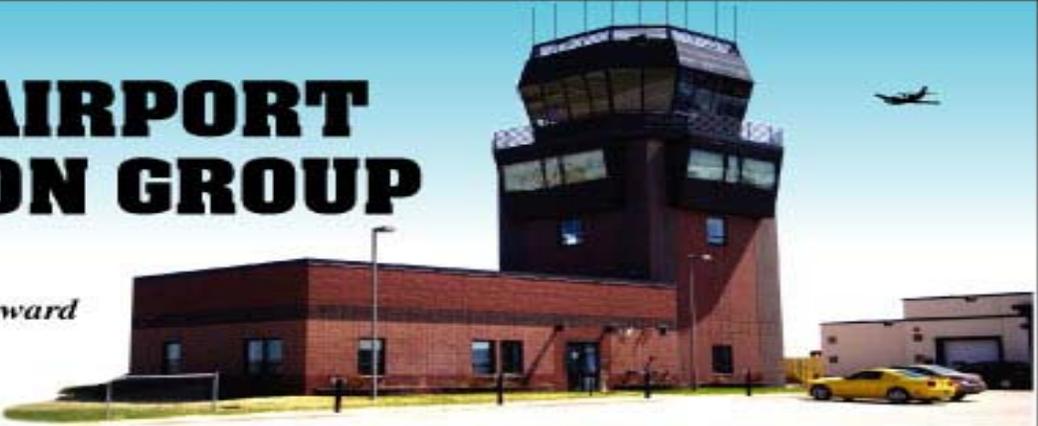


BLAINE AIRPORT PROMOTION GROUP

Taking Your Ambitions Skyward

www.aneairport.org

8891 Airport Road 2C, Blaine, MN 55449



THE EDUCATION COORDINATOR • DECEMBER 8, 2011

In honor, of Marie Curie, the United Nations named 2011 the International Year of Chemistry marking the 100th year of her receiving a second Nobel Prize. *The Smithsonian 10/11* SMITHSONIAN.COM



SCIENCE

Wikipedia, the free encyclopedia, has also published the life history of Marie and her extensive work and discoveries in Physics, and Chemistry.
http://en.wikipedia.org/wiki/Marie_Curie

Richard Phillips Feynman became the best known scientist in the world during his lifetime. Richard received the Nobel Prize in Physics in 1965 with many other notable awards and scientific studies named for him.

Nanotechnology was first coined in 1986 by K. Eric Drexler in his book *Engines of Creation* but the research in this field dates to Feynman's work in 1959. Current manufacturing processes use lithography to imprint circuits on semiconductor wafers that can produce circuits smaller than one micron, measured in nanometers. (There are 25,400 microns in an inch measure and the human eye can see objects as small as 40 micron) Lithography is quickly approaching its physical limits and will lead researchers to new technologies in this new realm of nanotechnology.



With these current lithographic technologies continuing to be replaced with smaller more efficient devices we can only wonder about the future implications of aerospace industries entering this brave new world.

Ball aerospace & Technologies Corp launched its NPP weather satellite October 28, 2011 from Vandenberg Air Force Base in California. The NPP mission will help scientists understand and monitor our environment on Earth and also provide weather data to meteorologists. The NPP spacecraft is an example of advanced technologies being used today and is a continuing effort by NASA's Goddard Space Flight Center using private and corporate companies to develop and deploy space age technologies. This is a help for NASA to continue its long record of environmental monitoring established by EOS (*The Earths Observing System*) providing critical information about clouds, oceans, vegetation, ice, and atmosphere. These missions contribute vital information for national forecasts; sever weather warnings, search and rescue operations, military contingency planning, and environmental monitoring.

The Blaine Airport Promotion Group launched a new form of workshop on November 21, 2011 at the Golden Wings Museum for students of the University Avenue ACES Elementary. The subject was requested by the school to compliment their studies in weather related subjects conducted during the week leading up to the workshop.



Our workshop was equipped with AWOS tower equipment supplied by American Wings Museum as a means to provide a visual and hands-on technology for our students. The Civil Air Patrol, Anoka Composite Squadron, provided instruction about the AWOS system and provided demonstrations of how the system works. Twin City Aviation provided equipment and pilot training in meteorology.

University Avenue ACES • Aerospace, Children’s Engineering and Science

Curriculum Integration Coordinator:

Amy Oliver

Guest Instructors:

Twin City Aviation,

Chris Gabiou

Civil Air Patrol,

Second Lieutenant, Kim Huso

Second Lieutenant, Ted Berg

Technical Support

Craig Hass



LASER BEAM CEILOMETER



VISIBILITY SENSOR



RAIN & CLOUDS



WIND DIRECTION & WIND SPEED

Our next program is planned for December 15, 2011 at the Golden Wings Museum as a family night with guests from the University Avenue ACES School.



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METOROLOGY FOR PILOTS