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**EVENTS CALENDAR**

**March 28**, Annual Astronomy and Space Day, at the Cradle of Aviation Museum, Noon to 4:00 PM. See page 4.

**April 4**, Robert Mott, "The History of the Bayport Aerodrome 1945 – Present," at the Bethpage Public Library. Details on page 2.

**April 6**, NASA Teacher Day, "The Challenge of Discovery," 4 locations + Webinar, Details on page 5.

**April 7**, Engineering EXPO, 11:00 AM to 4:00 PM, at White Plains High School. Additional information on page 6.

**April 8**, Deadline for voting for AIAA National Board of Directors.

Suggestion for a meeting? Contact anyone above.

*Note from the Chairman*

Regrettably, we were not able to schedule a March section meeting, but we have an interesting speaker on a topic of local interest for our April 4 meeting. We are still working on May and June meetings.

This is the time of year when AIAA members choose the national leadership of the Institute. If you are interested in having a voice in determining the future direction of AIAA, you can cast your ballot at the AIAA website.

An outstanding slate of candidates has been nominated. Please learn about the candidates by reading their statements and then vote for those you consider the best qualified.

Go to [www.aiaa.org/BODvote](http://www.aiaa.org/BODvote) by the end of the day on April 8<sup>th</sup>.

Follow the links to Access the 2013 BOD Election Booklet and the 2013 BOD Voter's Guide.

We will also be having the election of officers and council members for the Long Island Section shortly. A nominating committee has been formed and would be happy to talk to you about serving on the Council. We are always looking for new ideas and serving on the Council will give you an opportunity to share your ideas with the leadership of the Long Island Section and help guide our activities and priorities. Please contact either:  
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Ed Deutsch (516) 781-2262 edjdeutsch@verizon.net

**Dave Paris, 516-458-8593 davidsparis@optonline.net**



**AIAA/BAS/  
IEEE(AES)  
JOINT MEETING**

**Thursday, April 4, 2013**



**Robert Mott,  
Museum Director of the Bayport Aerodrome Society (BAS)**

**"The History of The Bayport Aerodrome  
1945 - Present"**

**Location:** Bethpage Public Library  
47 Powell Avenue  
Bethpage, NY 11714

**Time:** 6:00 PM Social Time  
6:30 PM Pizza  
7:00 PM Presentation

**Cost for Pizza:** \$5, Members and Guests  
Free, for Students

**RESERVATIONS REQUESTED  
RSVP BY April 3, 2013  
to: David Paris at  
davidsparis@optonline.net  
or (516) 458-8593**

Long Island has long been known as the cradle of aviation history, with many aeronautical firsts occurring here since Glenn Curtiss flew from the Hempstead Plains in 1909. At one time, there were as many as 120 private and commercial airfields operating all over the island. One by one these airfields were shut down and lost as Long Island prospered, property values soared, and developers sought land to build new communities and industries throughout the 20<sup>th</sup> century. The Bayport Aerodrome has beaten the odds to survive as a throwback to those grass airfields of aviation's golden age. It's a story of how a few colorful individuals hacked a rustic working airport out of the Long Island Pine Barrens after WWII that was miraculously saved from the developer's axe 30 years later by an equally colorful community of passionate vintage aviation buffs. Their combined achievements led to the existence of one of Long Island's best kept aviation secrets.

Bob Mott is a Professional Assistant, Adjunct Professor, and Coach in the Physical Education and Athletic Departments at Suffolk County Community College. In his spare time he volunteers as the Museum Director of the Bayport Aerodrome Society, holds a private pilots license, and is a life-long aviation buff.

**Directions:** The library is west of Route 135 in Bethpage. Take Route 135 to Exit 8, then West on Powell Ave. for about 0.25 miles. The library is on the south side of the street. Park across Powell Ave., opposite the library.



## REPORT ON FEBRUARY SECTION MEETING

At the February 20th Section meeting, Civil Air Patrol (CAP) Lt. Col. Darren Cioffi gave a very interesting presentation to an audience of AIAA, IIE, IEEE, ASME and CAP members. Col. Cioffi is the Director of Emergency Services for the CAP New York Wing and served as the CAP Incident Commander working closely with FEMA, New York State and other local municipalities in response to Hurricane Irene and Superstorm Sandy. He talked about the history of CAP and CAP's Response to Superstorm Sandy.

The Civil Air Patrol (CAP) was formed in December, 1941 and was chartered by Congress in 1948 as the official auxiliary of the US Air Force following WW2 service by many civilian pilot volunteers. CAP has approximately 34,000 volunteer senior members and 26,000 cadets (ages 12 - 18), a fleet of over 500 aircraft and a nationwide emergency radio network. The three CAP primary mission areas set forth by Congress continue to the present: aerospace education; cadet programs; and emergency services. The New York Wing has 70 squadrons and the Long Island Group has six cadet and one senior squadron and operates out of MacArthur Airport.



Immediately after Superstorm Sandy, CAP volunteers flew 389 missions over the devastated area and took 190,000 aerial photographs. These digital photos were tagged and sent to FEMA within 10 minutes while the aircraft were still flying to assist FEMA, New York, New Jersey and other localities in making timely assessments of the damage from the storm as well as the potential additional damage that could have occurred in the aftermath of the storm. This was done at a small fraction of the cost that would have been incurred if helicopters or even drones were used to gather the information.

## REPORT ON ENGINEERS WEEK CELEBRATION

On February 13, the Metropolitan Engineering Societies Council (MESC), of which AIAA is a member, sponsored an Engineers Week meeting at the Polytechnic Institute of NYU. The Hellenic American Technical Chamber (HATC) co-sponsored the meeting at which Nicholas P. Kotsoumitis, a Principal at KAPC Architects, gave the keynote speech about the "Replacement of St. Nicholas Church at the World Trade Center (WTC)." The meeting was organized by AIAA Long Island Section Vice-Chairman Greg Homatas, who is our representative to MESC.

The evening included a dinner and remarks by Mr. Wasyl Kinach, MESC Chairman and Dr. Richard S. Thorsen, NYU-Poly Vice President Emeritus. Dr. Thorsen talked about how the nature of engineering has changed over the years and how Poly has changed to keep pace. He noted that lifelong learning is essential for engineers and that we need top engineers to compete with Asian nations. He also noted, that while nursing is still the profession trusted most by the public, engineering is now in fifth place.

Mr. Kotsoumitis spoke about the design and construction challenges faced in the replacement of the Saint Nicholas Greek Orthodox Church which was located across the street from the WTC and was destroyed by falling debris from the South Tower. The original St. Nicholas Church was founded by Greek immigrants in 1922. After ten years of legal struggles with the Port Authority of New York and New Jersey, a settlement was finally reached to build a new church. The church could not be rebuilt on the original site because a new access ramp to the underground supply delivery area is being built at that location. The new church will be built on a reinforced platform above the delivery area. The architects have not been able to finalize the construction plans until the platform is completed.

# **Cradle of Aviation Museum**

## **11<sup>TH</sup> ANNUAL ASTRONOMY AND SPACE DAY**

**Thursday March 28<sup>th</sup>, Noon to 4:00 PM**

Exciting free activities at the Museum include:

**Comet Tales:** ATRIUM, Ongoing Noon-4:00PM

Unlock the mysteries of one of our solar system's oldest celestial bodies, comets! Make your own model comet with shimmering dust tails. Then play our matching game to learn the characteristics of meteors, asteroids, meteorites, and comets.

**Space Exploration Discovery Cart:** GALLERIES, Ongoing Noon-4:00PM

Come and experience space exploration when museum educators bring our space gallery to life with a variety of hands-on activities and demos.

**Outdoor solar telescopes & sun spotter viewing:** OUTSIDE FRONT OF MUSEUM, (*Weather permitting*)

Ongoing Noon-4:00PM

The Amateur Observers Society is bringing the ability to observe the Sun with their amazing telescope. See the beauty of our closest star, the Sun!

\* Never look directly at the sun without proper equipment.

***Sign up for the following programs in the Atrium***

**Free Starlab mini programs:** ATRIUM, Limited to 25 per group: 12:00, 1:00, 2:00, & 3:00PM

Discover the current night sky and hear the stories of constellations when you enter into this portable planetarium.

**Meteorite and Meteor Wrong:** 2<sup>nd</sup> FLOOR, Limited space: 1:00 & 3:00PM

It's a bird, it's a plane, it's a meteorite! Check out some real Earth and meteorite samples to devise a step by step procedure that participants will use to recognize meteorites.

**Space Rocks Workshop:** 2<sup>nd</sup> FLOOR, Limited space: 12:00, & 2:00PM

Did you know there are rocks in space?! Discover the size and scale of the asteroid belt as well as its potential as a source of meteors.

Free interactive educational talks include:

**Comet Talk with Solar System Ambassador Ben Parris:** 2<sup>nd</sup> Floor Mitchel Room,

Limited space: 12:30 & 2:30PM

What object, the size of a small town, can grow larger than the Earth when it heats up, and then chase its own ten million-mile tail? A big red dog? No, a comet! Come and learn about our Solar System's unsettled warriors!

**Near Earth Objects Talk with Solar System Ambassador David Paris:** 2<sup>nd</sup> Floor Mitchel Room

Limited space: 1:30 & 3:30 PM

Near Earth Objects (NEO's) are asteroids and comets that pass close to Earth. Was a meteor crash in Russia and a close asteroid orbit last month a cosmic coincidence? Do these objects pose a threat to us? In this talk we will explore these questions and see some photographs of our asteroid neighbors.

**Zoos and Time Tables Talk:** 2<sup>nd</sup> Floor Sperry Room, Limited Space: 1:00 & 3:00 PM

Be a citizen scientist! Come learn about the speed of light and how you can help scientists find and classify the billions of galaxies in our universe!

## NASA Teacher Day, "The Challenge of Discovery," Saturday, April 6

On site workshops at 4 locations + Live Webinar for those who cannot attend + archive for later viewing

Workshop locations:

Jet Propulsion Laboratory, Pasadena, CA,	8:30 am – 2:30 pm PT
University of Arizona, Tucson, AZ,	8:30 am – 2:30 pm MT
Johnson Space Center, Houston, TX,	10:30 – 4:30 CT
Johns Hopkins University Applied Physics Lab, Laurel, MD,	11:30 – 5:30 ET

The cost is \$25 (includes lunch and snacks). (Travel support is not available.)

Register now [http://dawn.jpl.nasa.gov/discovery/challenge\\_of\\_discovery.asp](http://dawn.jpl.nasa.gov/discovery/challenge_of_discovery.asp)

This engaging, dynamic workshop is for formal and informal educators in grades 4-12. It's the third in a series, using the excitement of NASA missions that are exploring the solar system to help teachers convey real-world science and engineering concepts to their students.

This time we delve into the stories behind some amazing NASA missions, from conception to science results. Learn how scientists, engineers, and mission operators collaborate to meet the challenges of complex missions to assure the science goals will be met.

"The Challenge of Discovery" will highlight science and engineering from NASA missions that are in a variety of phases:

- OSIRIS-REx, an asteroid sample return project that is under development for launch in 2016;
- MESSENGER, which has been orbiting Mercury for nearly two years and is returning a wealth of images and data;
- New Horizons, still en route to Pluto for a 2015 flyby;
- We will also learn how missions prepare to bring back a sample – where is the best place to grab that asteroid dirt from? - and what happens when those precious samples land back on Earth.

Investigate what it takes to move a fantastic idea from dream to reality. Mission scientists and engineers will discuss their roles and perspectives and how they must communicate well so the science dreams can be achieved within the engineering realities. It will be a very lively workshop with activities to help you teach both science and engineering concepts.

### Cradle of Aviation Museum

1 Davis Ave. Garden City, NY 11530 (516) 572-4111

<http://www.cradleofaviation.org/>

Visit the Cradle with your children and grandchildren, explore their world-class exhibits, talk to their knowledgeable docents, join in their events, and watch a first run movie in their wide screen domed theatre. The Cradle always has great events planned, especially for students.

Visit the Cradle's website <http://www.cradleofaviation.org>

## REPORT ON Apollo 17 Astronaut Harrison Schmitt's Talk

At our Cradle of Aviation Museum on February 28, we were treated to an exciting talk by Apollo 17 Astronaut Harrison Schmitt, the last human to step onto the moon. Harrison is a geologist and when Apollo 18 was cancelled, Astronaut boss Deke Slayton said he wanted a scientist on the last Lunar mission, and Harrison was selected to go for jet pilot training and prepare to launch with Lunar Module Commander Gene Cernan, known for his great personality. Apollo Command Module pilot was Ronald Evans. They launched on December 6, 1972, a night launch at 12:33 a.m. and 301 hours and 51 minutes later splashed down in the Pacific on December 19, 1972. He brought back 244 lbs. of Moon rocks and dust.

The auditorium was filled, with about one-third young people. After a lengthy Q&A Harrison faced a line of 100 fans in the lobby for a Book Signing of his "Return To The Moon" that was published in 2005. Harrison told us things I never heard from other Astronauts. He said judging distance was very difficult. One of the mountains was 35,000 feet high, more than double that of Pikes Peak. With the 1/6 Earth gravity, he said cross-country skiing was the best training for walking on the moon. He told about the 3.5 day trip to reach Lunar Orbit and his famous photo at 34,000 miles out that shows northeast Africa and the Red Sea, the general area where humanity began. A framed copy of that is in my office and represents much of our scientific achievement.

Dr. Schmitt said the fine dust on the lunar surface is ash from a volcano and was found to vary in color in different areas of the Lunar surface. Where Apollo 17 landed the color was an orange cast. It had a green cast where Apollo 15 landed. Harrison drove the Lunar Rover. He said at the top speed of eleven mph it really kicked up the dust. Harrison mentioned that he had an allergic reaction to the Lunar dust for a while, then it disappeared. A NASA Doctor who helped them out of the Apollo capsule reported having an allergic reaction to the dust.

Thirteen years later, researchers at the University of Wisconsin discovered each tiny particle of Lunar dust contains a teeny bit of Helium-3 and in abundance that could be mined. 220 pounds of Helium-3 would power Dallas for a year, making the value \$141M.

Frank Hayes

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## 10th Annual Engineering EXPO

**Sunday, April 7, 2013  
White Plains High School, White Plains, NY 10605  
From 11am to 4pm**

**LEARN** about career opportunities in the engineering field and about career opportunities in fields from bridge and building design to the world of nanotechnology and biochemical. Learn about college curriculum offerings, admission requirements and financial aid information.

**MEET** representatives of over 40 of the region's leading learning institutions including Rutgers, Cornell, Columbia, Penn State, Villanova, RPI and SUNY.

**VISIT** the AIAA booth to talk about careers in aerospace.

For more information, visit: [http://www.beanengineer.org/Home\\_Page.html](http://www.beanengineer.org/Home_Page.html)

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## REPORT ON ENGINEERS WEEK SEMINAR SERIES

On February 12, the Engineers Joint Committee of Long Island (EJCLI), of which the AIAA is a member, sponsored a day of engineering seminars at Dave & Busters in Farmingdale. The seminars covered a variety of subjects including Small Modular Nuclear Reactors, Variable Refrigerant Flow (VRF) Heat Pump Systems, and Testing of Electrical Systems.