# THE PULSE OF LONG ISLAND IEEE

**Chairperson's Message by Santo Mazzola,** chairman@IEEE.LI

It is with great sorrow that I write this column. I have to report to you that we recently lost one of our own. On Friday May 29th, 2009 Dave Sterner passed away while scuba diving in Mexico.

**Dave Sterner** was the Pulse Newsletter Editor and a past Chapter Chairman and Vice Chairman of the Electromagnetic Compatibility (EMC) Society. Dave was always a frequent contributor to the EMC-PSTC@LISTSERV.IEEE.ORG list server. Dave was a prominent member of the Long Island ExCom (Executive Committee) and was well liked by all. Dave was the kind of person that no one ever had a bad word for. Dave was employed by Honeywell and had been an engineer on Long Island for many years.

I had known Dave for a long time as we were both in the EMC field. I would see him at the EMC national symposium. Dave was an avid scuba diver and went on many diving trips, he was doing something he loved and that is all anybody could ask for.

I am a very big fan of the late musician Warren Zevon, who when upon hearing he had inoperable mesothelioma said that the lesson he had learned is that we should "Enjoy Every Sandwich." I think that it is a lesson for all of us to "Enjoy Every Day".

**Dave Sterner, we will miss you.**

There will be more on Dave Sterner inside this issue of the Pulse.

I would like to thank **Steve Taranovich** and **Texas Instruments** for allowing our Long Island IEEE members to attend the Texas Instruments Tech Days free of charge by waiving the $99 registration fee. Many of our members took advantage of the offer and Texas Instruments put on a terrific technical seminar.

I would like to congratulate **Christina Nickolas** for establishing the IEEE Long Island Section **Women In Engineering (WIE)** affinity group. Look for news in the upcoming months for activities and meetings that are being planned. Just a note, the WIE affinity group is not for women only, but it is definitely an opportunity for women professionals to network, enhance their career advancement and meet with their peers and share experiences.

I would also like to announce that **Steve Rubin** has been designated as the chairman of the **Long Island Section Power and Energy Society Task Force**. Power and Energy are vital aspects for engineering going forward. In the economy today Power and Energy are critical technologies. Steve has been tasked with having Power and Energy society meetings on Long Island to better serve our members. Keep following the Pulse for schedules and times of these upcoming meetings.

Best Regards,

**Santo (Sandy) Mazzola, Chair IEEE Long Island Section**
chairman@IEEE.LI

# CALENDAR OF IEEE EVENTS

## JUNE 2009

**16**

**The LI Section Power & Energy Society Task Force**
Topic: ***Power and Energy Programs***
Speaker: **Jim Smith**
Location: Room 231 Engineering Building Stony Brook University, L.I.
Time: 6:30 PM

**29**

**ExCom Meeting**
Location: Telephonics, Farmingdale L.I.
Dinner 5:45 PM, Meeting 6:15 PM

## JULY 2009

**1**

**Long Island Consultants Network Meeting**
Topic: ***A Soft-Switched, Bi-Directional Power Converter***
Speaker: **Lee Sirio**
Location: The Great Room, Briarcliffe College, Bethpage, L.I.
Time: 7:00 PM

## AUGUST 2009

**5**

**Long Island Consultants Network Meeting**
Location: The Great Room, Briarcliffe College, Bethpage, L.I.
Time: 7:00 PM

**6**

**Region 1 Summer Meeting**
Location: Springfield, MA
August 6th through August 8th

## SEPTEMBER 2009

**2**

**Long Island Consultants Network Meeting**
Location: The Great Room, Briarcliffe College, Bethpage, L.I.
Time: 7:00 PM

**3**

**Instrumentation and Measurement Meeting**
Location: Telephonics, Farmingdale L.I.
Dinner 5:30 PM, IECTURE 6:00 PM

**21**

**ExCom Meeting**
Location: Telephonics, Farmingdale L.I.
Dinner 5:45 PM, Meeting 6:15 PM

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## THE PULSE OF LONG ISLAND


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### LET US HEAR FROM YOU

The PULSE encourages letters to the editor. Members of the IEEE Long Island Section are encouraged to write in about Pulse articles or about other topics of interest to Long Island engineers. While the IEEE Long Island Section greatly appreciates feedback, we cannot guarantee that all letters will be answered or published. Please direct comments to pulse@IEEE.LI, or to a section officer.

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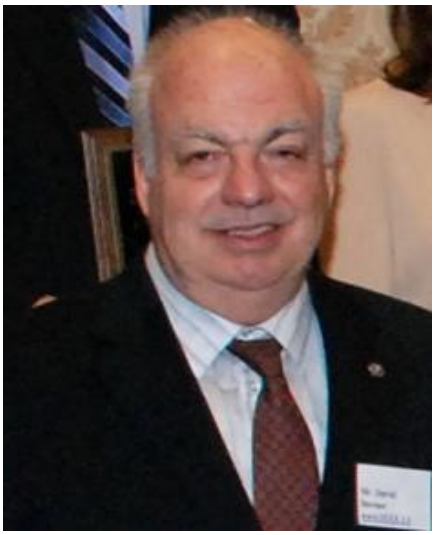
***Congratulations to Christina Nickolas and the new IEEE Long Island Section Women In Engineering (WIE) affinity group!!!***



# David W. Sterner
# Pulse Editor
# A Tribute

On Friday May 29th, 2009 we lost one of our most beloved IEEE Long Island Section member our Pulse Editor David W. Sterner. David was on a diving trip in Cozumel, Mexico and around noon on Friday he came up from the second dive of the day, handed up his camera, took off his fins, tensed, and then collapsed and he could not be revived. A nurse practioner on board immediately started CPR, which continued for 45 minutes in an ambulance and at the hospital. He had no known health or heart problems and was a very experienced diver, having gone to Cozumel for that purpose at least 20 times and dived all over the world. He was just 64 years old.

David was born and reared in Findlay, Ohio, a town of around 37,000 in NW Ohio, the first child of Pauline and Wilbur D. Sterner. From an early age he loved music, bicycling, swimming, photography, and reading. He spoke in complete sentences at a very early age and liked to take apart and put things together even before he went to school (must have been the engineering bent in him). Photography was a family hobby and he learned how to develop prints in the family darkroom, a skill that helped him acquire a part-time job at the local newspaper during his student years in Findlay. Music was a huge part of his life, and he delighted in pounding the ivories at home on his baby grand piano. With his music interests, living in the New York area was a delight, and he frequently attended local and regional classical concerts.

His parents always encouraged history and museum interests, which may be where David began to gain his widespread interests in the march of civilization. David's knowledge of historical details was surprising and accurate. Since knowing about the past helps us to know the possibilities for the future, and the dangers as well, his keen sense of and knowledge of history caused him to be very concerned about the US and world scene. This concern led to his participation in politics was in line with his egalitarianism, concern for our image abroad, and his democratic principles. Generally, he was circumspect in talking of political issues when in the company of people with very different views, something that he learned about in the home. Friends and family appreciated his thoughtfulness, his handwritten notes of thanks and his habit of sending clippings that might interest them. Friends frequently included him in holiday events, when he was unable to travel to family gatherings. Particularly he was close to his mother's sister, 93, writing weekly letters to her. David Sterner was an exemplary friend and irreplaceable.

For him work was of paramount importance, and from what he said and how he felt as I understood it, I knew him to be an extremely loyal employee and a person who relished his colleagues, wherever he worked over the years. David liked to do a good job, to get things right, and may have been at times a bit impetuous in his efforts to complete a task. I knew him to have a very high-level work ethic, integrity, and honesty. He lacked guile, lacked pettiness and I really appreciate all the people who appreciated his good qualities.

David earned his Bachelor of Science degree in Mathematics from Findlay College in Findlay OH in 1966 and a Masters degree in Chemical Engineering in 1969 from the University of Toledo, Toledo OH. In addition, he took courses at Rutgers University in Planar Silicon Technology, at SUNY Stony Brook in Silicon Device Processing and Polytechnic Institute of NYU in Computer System Reliability and Computer Network Reliability. He was an Eagle Scout and served in the US Air Force.

He started his carreer at RCA, Solid-State Technology Center in Somerville NJ developing custom integrated circuits for the military and then moved to General Instrument Microelectronics Division in Hicksville NY as a Quality Assurance Manager supporting integrated circuits for computer peripheralss. He spent the next 20 years at Standard Microsystems in Hauppauge NY as a QA manager and Manager of Reliability and Compliance developing custom integrated circuits for computers, communications, LAN cards, hubs and switches. For the last 10 years he worked at Honeywell International in Syosset NY as a Sr. Quality Assurance Engineer where he implemented electromagnetic compatibility test procedures for FCC and international EMC.

David served the Long Island IEEE community as Vice Chair for the Electromagnetic Compatibility Society in 2004 and as its Chairman in 2005 and for the last few years as the editor of the Pulse newsletter and he became a Senior Member in 2006.

We offer our condolences to his sister Dr. Mary Sterner Lawson and his younger brother Robert Sterner. In addition, we would like to thank them for providing the information about David's earlier life. All of us, we will miss his smile, his kindness and generosity, his amazing memory for facts and figures on a wide variety of subjects, his thoughtfulness, his support and volunteerism for the many causes of the IEEE Long Island Sections. We will miss you Dave Sterner.

## New LI Chapter of Product Safety Engineering Society

Well, it's official - we've got our new LI Chapter of the IEEE Product Safety Engineering Society. Thanks go out to all members for their support to get this local chapter formed.

The Product Safety Engineering Society (PSES) targets engineers and other professionals interested in safety, particularly in the design, analysis and validation of the safety of electrical products and systems. Our local Long Island chapter was formed to better serve the needs of our Long Island members.

So why do we care and what can the LI PSES chapter do for us anyway? The distinguishing factor of this society is safety. It is an essential design parameter that needs to be integrated with all other design requirements. This also includes principles of functional safety, whereby elements such as electronic hardware and software must function properly and reliably under all conditions. Safety has many meanings, applications, levels and contexts. Generally speaking, we can consider safety as freedom from unacceptable risk of harm. [See Safety Sidebar]

The IEEE membership page describes the PSES fields of interest as the "theory, design, development and implementation of product safety engineering for equipment and devices used in the scientific, engineering, industrial, commercial and residential arenas. The Society will provide a focus for cooperative activities, both internal and external to IEEE, including the promotion and coordination of product safety engineering activities among IEEE entities."

In addition, the IEEE PSES website indicates that this society "addresses safety engineering for equipment and devices used in the scientific, engineering, industrial, commercial and residential arenas. It allows engineers and other technical professionals an opportunity to discuss and disseminate technical information, to enhance professional skills, and to provide outreach to engineers, students and others with an interest in the field."

Locally, our Long Island PSES chapter was formed to better serve the needs of our Long Island members. Benefits include opportunities to meet on a regular basis to discuss mutual problems and solutions, to hold presentations and events and to network together. The PSES also sponsors an on-line safety forum, newsletter and technical awards, as well as an annual Product Safety Engineering Symposium this October in Toronto.

PSES members can also serve as a valuable resource to members of other IEEE societies. The field of safety involves unique expertise, applying knowledge, skills and experience in multidisciplinary and cross-functional teams. Let's all take advantage of what each of us has to offer. Let's get involved.

Thomas Lanzisero tlanzisero@ieee.org

Product Safety Engineering Society
http://ewh.ieee.org/soc/pses/

Product Safety Engineering Symposium
http://ewh.ieee.org/soc/pses/symposium/index.html

PSES newsletters
http://ewh.ieee.org/soc/pses/newsletters.html

On-line Communities (electrical safety forum, etc.)
https://www.ieeecommunities.org/ieee.esafety

IEEE LI Section (stay tuned for more details on our PSES LI Chapter)
http://www.IEEE.LI/pses

## All About Safety

by Thomas Lanzisero, Chairman Product Safety Engineering Society

Safety has many meanings, applications, levels and contexts, and generally speaking, we can consider safety as freedom from unacceptable risk of harm. But let's consider the qualifiers in this statement.

Harm can include unwanted effects or consequences including injury to persons, damage to property or the environment, or interruption in essential commercial operations. This harm may be the result of a variety of factors, independently or in combination or sequence, involving hazardous situations and circumstances.

Risk of harm is based on probability and severity, that is, the likelihood of harm occurring and the severity of its consequences if it occurs. Risk management concepts, techniques and processes handle different aspects of risk, including risk assessment, analysis, evaluation, reduction and control. Hazard identification and risk reduction are key risk management aspects that can be addressed in different ways. For instance, a systematic strategy known as Hazard Based Safety Engineering (HBSE) uses fundamental safety science and risk analytics techniques to address harm and protection mechanisms, using tools such as Fault Tree Analysis (FTA) and Failure Modes and Effects Analysis (FMEA).

Unacceptable risk of harm is a level that is not tolerated. The degree of tolerance varies in accordance with many factors, including specific applications, situations and circumstances of product use, misuse and exposure. Levels of unacceptable risk may be defined, for example, by regulatory bodies, authorities having jurisdiction, standards development bodies, etc., with input from others involved or affected.

Freedom from unacceptable risk of harm is a beneficial condition. But like many other freedoms that we enjoy, this freedom also comes at a cost.

To achieve safety is no small task. It requires comprehensive, systematic review of all potential from hazards and the prioritization of mitigating safeguards throughout the entire product lifecycle, considering all manners of exposure. Safety is relative, posing a challenge for us to balance with other design requirements, factors and constraints. This balance may be addressed, for example, by risk-benefit analysis, cost-benefit analysis or other techniques.

Safety is not without any risk, but with risk reduced to an acceptable level – by design, analysis and validation, including evaluation and testing for certification. It is the practical manifestation of suitable design concepts, applied consciously and conscientiously. Safety is no accident.

## Telephonics' NetCom-V™ Successfully Completes Vehicle Durability Testing

FARMINGDALE, NEW YORK, May 11, 2009 – Telephonics Corporation, a wholly owned subsidiary of the Griffon Corporation (NYSE:GFF); announced today the successful completion of durability testing of the NetCom-VTM network communications gateway system in support of multiple Army and Marine Corps ground vehicle programs. The testing was conducted at the Nevada Automotive Test Center (NATC) facilities in Silver Spring, Nevada.

NetCom-V was integrated into the Combat Tactical Vehicle and evaluated over relevant road courses as taken from tactical wheeled vehicle course and speed profiles. The system was fully operational and connected to multiple audio sources including current force radios as well as its wireless intercommunications component. The system checks included overall performance in rapidly changing terrain conditions, communications intelligibility and ease of use of all controls and functions while on the move. The Graphical User Interface and system remote control capabilities were evaluated to demonstrate the ability to support full integration with existing tactical vehicle controls and displays.

"*Advanced networked communications gateways can support a wide range of vehicle mission applications ranging from a basic intercom to vehicle gateways that extends the digital battlefield. It enables systems designers to implement a higher level of integration that meets the Army and Marine Corps vision for elimination of stovepipe systems",* said Rich Hines, Chief Engineer for Advanced Systems at Telephonics. "*NetCom-V is proving itself to be capable of providing forward-looking system features that address safety, survivability and mission accomplishment,*" Hines added.

Installation of NetCom-V allows for the removal of multiple disparate LRU's on vehicle such as the VIC-3 or TOCNET intercom, separate alarm generators and communications interface units. This provides highly beneficial SWAP characteristics while freeing space for new mission critical equipment.



## Brain Teaser Challenge

by Butch Shadwell

I just got back from the international science and engineering fair in Reno a couple of weeks ago. What an amazing event! This was my third one in a row and it never fails to impress me.

The really impressive part is not that the projects are so technically advanced, though many are, it is that these 1500 kids from all over the globe are so uniformly wonderful. Great looking kids, very polite, articulate, most of whom for which English is not the first language … it is amazing. In my opinion there is no other event that so clearly demonstrates that there is great hope for the human race. And even though every one is a fierce competitor, they consistently look after each other and help each other when they can.

I helped to escort ten kids from my community to the fair. As you can imagine I took a lot of pictures and HD video. Most images and video stored and reproduced digitally, such as JPEG and MPEG, use a lossy type of data compression. This is accomplished through a mathematical transform that converts the image information into coefficients of sinusoids at various frequencies. Can you name this mathematical transform?

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SAVE THE DATE!!!

# LISAT2010

**Friday, May 7, 2010**

**Long Island Systems, Applications & Technology Conference**
**Farmingdale State University**

Sponsored by the
**IEEE Long Island Section**
**Farmingdale State University**
**Institute for Research & Technology Transfer**

## Brain Teaser Challenge Solution

by Butch Shadwell

While attending a conference on weather modeling I got the idea for a BTC involving someone being airborne in a storm, "after a 100 pound woman is airborne, how long does it take her to get from 0 to 30 MPH if she has a constant net horizontal accelerating force from the wind of 100 pounds (force)? Obviously the wind is building during her entire flight. You can ignore wind drag and all other forces for this problem. I am using English units in order to add to the challenge, maybe metric next time."

I didn't think of it at the time, but by making the net driving force equal to her weight, the problem gets very easy. We know that her mass (in slugs) times the acceleration due to gravity (32.2ft/s^2) is equal to 100 pounds of force (F = ma). So her mass, the same number of slugs mentioned above, must accelerate at 32.2ft/s^2 horizontally when a 100 pound force is applied (a = F/m). You were instructed to ignore all other forces. Since v = at and 30 mph is equal to 44ft/s, it takes 1.37 seconds to get to the specified speed. But I bet you already knew that.

### IEEE Quick Facts.

The IEEE has:

- more than 375,000 members including nearly 80,000 student members in more than 160 countries.
- 324 sections in ten geographic regions worldwide.
- 1,784 chapters that unite local members with similar technical interests.
- 1,616 student branches and 452 student branch chapters at colleges and universities in 80 countries.
- 38 societies and 7 technical councils representing the wide range of technical interests.
- 390 affinity groups consisting of Consultants' Network, Graduates of the Last Decade (GOLD), Women in Engineering (WIE), and Life Members (LM).

IEEE memberNet™
Connecting technical interests worldwide.

## Brain Teaser Challenge

by Butch Shadwell

I recently had to spend the night in the hospital. I didn't really feel that sick, but I had had some strange symptoms earlier and they wanted to do some tests to try to understand what had happened. I left the next day having had a very bad night's sleep and a huge barrage of tests. Though they were efficient and thorough, no one really knew what had caused my symptoms two days prior. I think this happens a lot in medicine. That is, they see some symptoms and they do their best to explain them. Then for all their best efforts and the latest technology, no one really knows. I feel blessed that no one suggested treating me for their best guess of what the problem might be.

In an earlier part of my career I did R&D in nuclear medicine, specifically gamma imaging. This is not taking pictures of gamma rays, but rather using gamma rays to take pictures inside of your body. Technetium-99m is a common radionuclide used in such imaging. As it turns out, most of the technetium used in medicine is harvested from a device called a cow as a by-product of another radionuclide called molybdenum-99. Our question this month is how does molybdenum-99 become technetium-99m? Hope you don't glow in the dark.

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## Long Island's Early Electronics History

**by Jesse Taub**

**In our Section's commemoration of the IEEE's 125th Anniversary, we continue to highlight significant contributions made by Long Island companies in their early days. This month we feature Airborne Instruments Laboratory..**

### History Of Airborne Instruments Laboratory (AIL)

**by Jesse Taub**

**Airborne Instruments Laboratory** was founded in September 1945, just at the end of World War II. Its first employees came from the MIT Radiation Lab, Harvard's Radio Research Laboratory and Columbia University. Their expertise was in radar systems, electronic warfare and submarine detection. They quickly developed a reputation for advanced radar and countermeasures systems expertise using the latest technology. Many of the founders were active IRE members at the national and local level. This included John Dyer, Eugene Fubini, Joseph Kearney and Greg Stephenson, who were early Section Chairs of the IEEE Long Island Section.

AIL pioneered in the use of radar for air traffic control and all weather microwave landing systems for aircraft. AIL's radar contributed to the success of the Berlin Airlift of 1948 by helping to control traffic. Most of the early air traffic control systems built in the US were AIL designs. Subsequent landing systems were Flare Scan for the Army and Navy and another version for the Space Shuttle. AIL was also noted for improvements in radar signal processing, MTI and its novel STRETCH System. AIL developed the PPS5 personnel surveillance radar for the Army. It has been effectively used for many years.

One of the early electronic warfare developments was the APR/9 receiver that could intercept radar emissions of the full microwave range. It was used by the Navy for amassing electronic intelligence (ELINT). This was followed by the USD7 which was employed as an ELINT receiver by the Air Force for many years. AIL developed an exciter for the ALQ/99 support jammer that was used in the Navy's EA6B aircraft. This was followed by the development and production of the ALQ/161 self protect jammer used on the Air Force's B1-B. After Sputnik was launched in 1957, AIL was one of the first companies to supply electronic systems for space applications.

Throughout its history, AIL was distinguished by developing many of its own technologies for use in its systems. Some examples were:

- Pioneered in the use of strip line for microwave applications.
- Was a world leader in developing low noise microwave receivers.
- Pioneered in millimeter wave, filters and SAW technologies.
- Invented around the mast rotary joints for height-finding radars.
- Was one of the first companies to develop medical electronic devices.

In 1958, AIL became part of Cutler Hammer. It subsequently was part of Eaton, EDO and now ITT. Many Long Island companies have roots in AIL. Some examples are Miteq and Telephonics. The outstanding work of AIL engineers has been recognized by the IEEE. George Litchford received the Lamme Medal for his air traffic control contributions, William Caputi received the Picard Medal for his innovative contributions to wideband and synthetic aperture radars and 26 of its engineers became IEEE Fellows.

I would like to acknowledge the helpful comments by Rod Lowman during the preparation of this article.

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## Message from Legal Affairs Chairman

It is with great sadness that I write this column. As you may have heard, Dave Sterner, senior editor of the Pulse, passed away this month. He was a good friend and was always supportive of my columns and my input in the Pulse. I will miss him.

On June 1, 2009 the Supreme Court granted review of In Re Bilski. I've talked about this case a lot this year. In Bilski, the patent application was for a process for handling energy trading. The issue was whether such a process is the type of thing worthy of patent protection. The Patent Office said no, the Board of Patent Appeals said no, and the Patent appellate court said no. Now, the applicant has appealed the ruling to the Supreme Court of the United States and the Supreme Court has granted review. You should note that review is frequently not granted by the Supreme Court. Moreover, in the past few years, the cases that have been handled by the Supreme Court have tended to result in decreased value in patent protection.

The IEEE USA Intellectual Property Law Committee ("IPC") had a special conference call in May concerning this matter and a subcommittee was selected, including myself, to come up with our own position. Specifically what should the test be for processes? Assuming the subject matter is new to the world, what types of processes should be excluded from patent protection? Conventionally, abstract concepts, discoveries, rules of nature, etc. are all excluded from patent protection. How does one distinguish a software algorithm from these ideas? The Patent appellate court said the test should be: 1) is the process tied to a machine or 2) does the process cause a transformation of physical subject matter – which may include electronic transformations. Does that test serve our needs? Is there a better test? The IPC, and the special subcommittee, will be debating this issue and perhaps filing our own brief before the Supreme Court, on behalf of the IEEE, advocating our position. Comments and thoughts are welcome.

A quick update on the Patent Reform Act. As we ease into the summer months, the Act appears to have stalled in the House, as they debate some of the provisions. There is a growing feeling that the bill will not pass this year.

**Steven Rubin** srubin@dilworthbarrese.com

## E-2D Advanced Hawkeye Integrated Test Team Recognized for Outstanding Contributions in Aerospace Weapons System Development

**BETHPAGE, N.Y. - June 3, 2009** - The E-2D Advanced Hawkeye Integrated Test Team (ITT) - composed of military, civil service and industry personnel from Naval Air Warfare Center Aircraft Division, prime contractor Northrop Grumman Corporation (NYSE:NOC) and other aerospace industry contractors - has received the Weapons Systems Award from the Order of Daedalians, an organization that has been dedicated to supporting military services and aerospace activities for more than75 years.

A photo accompanying this release is available at:

http://media.globenewswire.com/noc/

The team has been conducting developmental testing on two System Development and Demonstration (SD&D) aircraft at Northrop Grumman's East Coast Manufacturing Center in St. Augustine, Fla., since April 2007. The two aircraft will soon transition to Naval Air Station Patuxent River, Md., to begin the aircraft carrier suitability phase of testing.

"With more than 1,000 hours of flight test completed since August 2007, the E-2D ITT has dedicated itself to working together to ensure the success of the SD&D program," said Jim Culmo, vice president of Airborne Early Warning and Battle Management Command Control Programs for Northrop Grumman's Aerospace Systems sector. "The value of an integrated test team is the different perspectives and experience each team member brings. Through the dedication and hard work of this team, we are continuing to meet, or exceed, all major program and performance milestones."

For over 40 years, Northrop Grumman has provided the U.S. Navy with airborne early warning and control (AEW&C) capabilities. According to the Navy's Advanced Hawkeye program manager, Capt. Shane Gahagan, the completely redesigned systems and capabilities of the E-2D will provide the carrier group with expanded situational and battlespace awareness to support the warfighter on today's and tomorrow's missions.

"This has been the most challenging and rewarding project that I have ever had the privilege of working on," said Marty McCord, Contractor Flight Test director for Northrop Grumman. "There can be nothing more satisfying than working through years of planning and moving into test and having the test aircrew come back and tell you that the E-2D is truly a 'Weapon System Operators' aircraft."

In addition to this award, the E-2D ITT has been recognized as a model Integrated Test Team by Vice Adm. David Architzel, Principal Deputy Assistant Secretary of the Navy (Research, Development and Acquisition). The team has also received recognition as: the U.S. Navy's VX-20 Test Team of the Quarter (second quarter 2008), the Naval Air Warfare Center Aircraft Division Test Team of the Year, 2007 and the 2008 James S. McDonnell Test Team of the Year from the Society of Experimental Flight Test Engineers.

Membership in the Order of Daedalians consists of commissioned, warrant and flight officer military pilots and Women Airforce Service Pilots (WASPS). The Daedalians Weapon Systems Award, as well as the accompanying Colonel Franklin C. Wolfe Memorial Trophy, is presented annually to individuals, groups or organizations (military or civilian) judged to have contributed the most outstanding weapons system development in the aerospace environment. The trophy is named in honor of the late Colonel Franklin C. Wolfe, who served as Assistant Chief and then Chief of the Armament Laboratory of the Army Air Forces Materiel Command from 1939 until his retirement in 1944.

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## Telephonics Receives Contract from EADS CASA of Spain for Maritime Patrol Aircraft by the Mexican Navy

**FARMINGDALE, NEW YORK, April 27, 2009** – Telephonics Corporation, a wholly-owned subsidiary of Griffon Corporation (NYSE: GFF); announced today that they recently received a contract for their APS-143C(V)3 OceanEyeTM Multi-Mode Maritime Surveillance and Imaging Radar from EADS CASA of Spain. This radar equipment will be installed on the Maritime Patrol Aircraft (MPA) to be delivered to, and operated by, the Mexican Navy. This initial contract covers the supply of radar equipment and additional support services for integration on the EADS-CASA CN-235 MPA. With this program the Mexican Navy joins many other navies and coast guards around the world in selecting the APS-143C(V)3 for their maritime surveillance needs.

"The EADS-CASA family of maritime patrol aircraft is well suited for the maritime missions of the end users and we believe that our excellent long-term relationship with CASA will provide their customers with the maritime surveillance capability they need", commented Joseph Battaglia, President, Telephonics Corporation. "The APS-143C(V)3 is the ideal choice for MPA operators. It is pound-for-pound, dollar-for-dollar and feature-for-feature the very best high-performance, long range, multi-mode radar available for these programs. We look forward to serving the Mexican Navy for decades to come on this and many other programs."

## 2009 Call for Nominations: IEEE-USA.

The IEEE-USA Nominations and Appointments (N&A) Committee asks for your help in identifying U.S. IEEE members who may be interested in, and well-qualified for service on IEEE-USA committees and/or in the following IEEE-USA board positions: IEEE-USA President-Elect (2011); IEEE-USA Member-at-Large (2011-2012); IEEE-USA Secretary/Treasurer (2010); IEEE-USA Vice President - Career & Member Services (2010); IEEE-USA Vice President – Communications & Public Awareness; IEEE-USA Vice President - Professional Activities (2010); and IEEE-USA Vice President – Government Relations (2010). The board positions are for leaders who direct IEEE-USA's day-to-day operations, provide leadership for our volunteer committees, oversee financial performance and promote new activities.

Nominees for these board positions must be senior or higher-grade members from IEEE Regions 1-6. We also ask that you submit names for consideration to serve on the IEEE-USA N&A Committee (2010-11). *Eligible nominees include former IEEE-USA vice presidents, IEEE-USA secretary-treasurers, U.S. region directors who have completed their terms or who are serving in their second year of that term, or members who have had experience as an IEEE-USA committee chair*.

Those of you in IEEE leadership positions are in an outstanding position to identify members who are interested in improving IEEE-USA for the future, have strong leadership skills and have exhibited a willingness to invest the time required. We greatly appreciate your help in identifying and nominating them. To nominate candidates please visit our online nominations page at:

http://www.ieeeusa.org/volunteers/elections/onlineform_new.html

and make your nomination no later than *30 May 2009*, so that your nomination can be considered in 2009 for the positions listed above.

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## News from IEEE-USA: House Appropriations Chairman Honored for Science, Engineering, Technology Leadership.

WASHINGTON (8 May 2008) -- Rep. David Obey (D-Wis.), chairman of the House Appropriations Committee, was honored last week for his leadership and commitment toward the United States remaining a global leader in science and innovation. Obey received the George E. Brown Jr. Science, Engineering and Technology Leadership Award in a ceremony on Capitol Hill. IEEE-USA President Gordon Day presented the award on behalf of the Science, Engineering, and Technology Work Group.

Prior to passage of the "American Recovery and Reinvestment Act" in February, Obey spoke on the House floor about investing "in new portions of the economy through science, technology [and] new energy initiatives to try to modernize the economy and make it stronger." He also discussed how electronic health records could make the nation's health care system more efficient and cost effective.

Obey supported these initiatives by providing funding for: competitive construction grants for research science buildings at colleges, universities and other research organizations; a reliable and efficient electricity delivery system – Smart Grid – that includes R&D, pilot projects and federal matching funds to modernize the electricity grid; National Science Foundation grants to put scientists to work and keep promising younger researchers in the pipeline, and for investments in cutting-edge research infrastructure and instrumentation at U.S. universities; and the National Institute of Standards and Technology (NIST) to develop standards for health information technology. Obey, who is serving his 21st term in Congress, also steered $1.6 billion for Department of Energy shovel-ready science infrastructure projects at national laboratory user facilities.

More than 10,000 researchers depend on these facilities for jobs. In presenting the award, IEEE-USA's Day noted that "...the America COMPETES Act, passed in 2007, was probably the most important science and technology legislation in two decades, but it was not until appropriations arrived this year that the provisions of the act became a reality. Congressman Obey's leadership was a big factor in making it happen, and for that the science and technology community is deeply grateful." The George E. Brown Jr. Science, Engineering and Technology Leadership Award is presented annually by the Science, Engineering and Technology Work Group (SETWG) to members of Congress who are effective advocates of federal investment in science and technology. It is named for the late Rep. George E. Brown Jr., a longtime California congressman, who made outstanding contributions to federal support for science and technology over his more than 35-year congressional career. Visit http://www.setcvd.org for more information.

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## Registration Open for First IEEE International Accessing the Future Conference 20 - 21 July

5 May – "Accessing the Future: A Global Collaborative Exploration for Accessibility in the Next Decade" is a first-of-its-kind conference dedicated to identifying the next generation of accessibility challenges and the impact of technology five to 10 years in the future. It will be held 20-21 July in Boston, Mass., USA.

An IEEE international conference organized in partnership with IBM and hosted by Northeastern University, "Accessing the Future" will bring together leaders from government, academia, industry and advocacy groups to define key accessibility standards and future technology roadmaps to build a smarter, more accessible world. Accessibility challenges arise from the increasingly pervasive use of technologies such as 3-D Web, online collaboration, shared medical records, and advanced systems for transportation and communication.

The agenda will include plenary and working sessions centered around conference tracks on universal design and accessibility standards, patient-centered collaborative care, accessible on-line workplaces and communities, and transportation and travel. A poster session is also planned. Deadline for submission of abstracts for posters is 15 May.

For more information, including a list of confirmed keynote speakers, and to register, visit the conference Web site at: http://ewh.ieee.org/conf/accessingthefuture/

## Northrop Grumman Demonstrates More Strong Support for Hiring Returning U.S. Veterans Under Nassau County's New Warriors to Work Program

**BETHPAGE, N.Y. - June 5, 2009** - On the celebration of the 65th anniversary of D-Day, veterans who have been hired by Northrop Grumman Corporation (NYSE:NOC) and other Long Island companies joined Nassau County Executive Tom Suozzi to salute the success of the municipality's new Warriors to Work program and encourage more Long Island businesses to hire returning veterans.

A photo accompanying this release is available at:
http://media.globenewswire.com/noc/

Nassau County's Warriors to Work program, announced in December 2008, is a public-private partnership aimed at providing employment opportunities for our nation's veterans. According to the Bureau of Labor Statistics, in 2008 the national unemployment rate for veterans who have served in the U.S. armed forces since September 2001 was 7.3%. The unemployment rate for non-veterans in 2008 was 5.6%. According to the U.S. Census Bureau, there are approximately 75,000 veterans living in Nassau County.

"The Warriors to Work program has placed several veterans with private employers, including Northrop Grumman, and we thank those employers for their participation, but we need the business community to do more," said Suozzi. "On this 65th anniversary of D-Day as we remember those soldiers who gave their lives for our freedom, we must never forget their commitment and the commitment of those heroes who return home."

"Northrop Grumman's relationship with Nassau County and its Warriors to Work program has enabled us to recruit additional talent to our company beyond our own veterans' recruitment program, Operation Impact (which focuses on hiring disabled veterans from Iraq and Afghanistan). Since one in five of our employees are veterans, we're proud to work with County Executive Suozzi to ensure that more of our returning veterans have opportunities for employment," said Pat McMahon, vice president and deputy, Battle Management and Engagement Systems Division for Northrop Grumman's Aerospace Systems sector.

Suozzi was joined by McMahon and veterans Deborah DeCicco and Joe Fleming. Fleming, a former North Carolina Army National Guardsman started at Northrop Grumman in April 2009 as a software development and integration engineer on the Broad Area Maritime Surveillance Unmanned Aircraft System (BAMS UAS) program.

DeCicco starts her employment at the company on June 8 as a program manager also for BAMS. She is a retired Lt. Col. from the U.S. Army Reserve and last served as Assistant Chief of Deployment Operations. She is also a veteran of the Gulf War.

"I feel great to be joining Northrop Grumman. I know I have found a new 'family,' one who I know appreciates what veterans, like me, have done for their country," DeCicco said. "It makes me feel proud that they recognize the value my experiences as a soldier supporting the global war on terrorism, and the skill set I am bringing to this new job. In the end, it is about making sure our troops have what they need to be safe and perform their mission. For me, there is no better job I could have today."

Suozzi also announced the new assignment of J. Scott Castillo as program coordinator of Warriors to Work. Cpl. Castillo joined the armed forces after 9/11 and served under the U.S. Special Operation Command as a U.S. Army Airborne Ranger with the 1st battalion of the 75th Ranger Regiment and served tours of duty in Afghanistan in 2002 and Iraq in 2003. He also served with the 69th Infantry Regiment.

Suozzi said veterans can call the Nassau County Veterans Service Agency's Warriors to Work hotline at (516) 572-8451 if they are seeking employment and are linked with a participating employer. The County will continue to conduct outreach to veterans in Nassau County including those veterans that are returning from war.

Veterans seeking support under Northrop Grumman's Operation Impact program on Long Island should contact Ada Palatnik at (516) 575-4690 or visit the Operation Impact web site at

http://www.northropgrumman.com/oijobs

# IEEE Visits the Webb Institute

**by Nikolaos Golas, Membership Development Chairman**


On April 14th the IEEE Long Island Section membership team visited the Webb Institute on the shores of the Long Island Sound in Glen Cove, NY.

The visiting membership team included Nick Golas and Frank Jacovino from Membership Development, John Vodopia, Chairman Engineering in Medicine & Biology Society and Anthony Yackovich from the LISAT Conference team.

The Webb Institute is a unique, top-ranked undergraduate institution that offers a combined bachelor of science degree in Naval Architecture and Marine Engineering and it's the only full-tuition scholarship private undergraduate program of its kind in the country.

The Webb Institute was founded in 1889 by William H. Webb, an American shipbuilder. The school attracts the country's best students that would like to pursue an engineering education. The freshman class is usually between 20 to 26 students and is carefully selected from over 100 of the nation's best high school graduates that have a desire to pursue an engineering education. The total student body is within the range of 65 to 90 students. The school has10 full-time teaching faculty and the student to faculty ratio is about 8:1. Admission to Webb includes the award of a full four-year tuition scholarship, which helps to attract highly motivated and highly qualified students. Costs are limited to room, board, books, laptop and software. The Institute has a graduate placement rate of 100% annually. The education is focused on the design of ships and other floating marine vehicles; it also involves more than just ship design. Students receive the educational support to work in a number of different engineering disciplines, and outside the classroom they learn many useful lessons about life and professional activities. The senior thesis is the final requirement in order to earn a Webb degree.

The IEEE team presented at the Henry Auditorium, a lecture titled: *Benefits of IEEE Student Membership*. Some of the topics covered were how the IEEE keeps you technically current, allows you to network locally and internationally, supplies real-time job listings from the IEEE Job Site, provides Awards, Scholarships, and the MemberNet online membership directory and extends you opportunities to volunteer, and give back to society. In addition, for IEEE Student Member the IEEE, in conjunction with Microsoft, is offering a wide selection of development software for **FREE** including Visio, Project, Visual Studio, Expression Web Designer etc. A question and answer followed the lecture with the students asking some very important and pertinent questions.

We would like to thank Simmy Willemann, Jacob Genauer and Prof. John Hennings for inviting us and the faculty members and students that attended the lecture. In addition, we would like to thank Jacob for providing the IEEE team with a very informative tour of the campus. The Webb Institute is in the process of forming an IEEE Student Branch at the school and the IEEE LI Section is eager to help with their needs.

**Frank Jacovino Talks to Students during the Visit to the Webb Institute by the IEEE Team**

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**A monthly column by Nikolaos Golas, Membership Development Chairman**

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**Overview of Smart Grids**
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**Power and Energy programs for the 2009 Advanced Energy Conference**
**given by**

## Jim Smith

**Assistant Vice President - Economic Development**
**Interim Head of the Advanced Energy Center**
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**Jim Smith serves at Stony Brook University as the Assistant Vice President for economic development and interim head of the Advanced Energy Center. Jim holds a B.S. in Electrical Engineering and an M.S. in Industrial Management and has over 20 years experience serving on various industrial advisory boards at SUNY Farmingdale, New York Institute of Technology, Rensselaer Polytechnic Institute, and Stony Brook University. He has presented at many technical and business conferences worldwide, holds eleven United States Patents and multiple Patents overseas in electronic, mechanical, and systems engineering fields.**

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# LISAT2010

*Sixth Annual IEEE Long Island Systems, Applications and Technology Conference*

**Friday, May 7, 2010**

The Institute for Research & Technology Transfer at Farmingdale State College
State University of New York - Farmingdale, NY

## *CALL FOR PAPERS, PRESENTATIONS, EXHIBITORS and STUDENT PAPERS*

The Long Island Systems, Applications and Technology (LISAT) Conference features several parallel professional tracks including topics in Systems, Applications, and Technology, along with an Exhibit Hall. We are currently soliciting submissions for participation in both the Technical Program and the Exhibit Hall, and are interested in papers, presentations, and exhibits that showcase the development and use of technology by local organizations. LISAT 2010 will also provide the opportunity for select student papers to be presented. Undergraduate and graduate students are encouraged to submit papers in an area of their interest or current work.

Preliminary acceptance to the Technical Program will be based on a 300-to-500-word abstract. Authors of accepted abstracts will be required to provide a six (6) page IEEE standard manuscript (in MS Word format) for publication in IEEE *Xplore*, and will be required to make a power point presentation at the conference. Manuscripts are subject to the LISAT Technical Program Committee's peer review and may require revision prior to final acceptance. Important dates for the Technical Program are:

| | |
|---|---|
| Oct 31, 2009: | Abstracts due (300-to-500 words) |
| Nov 15, 2009: | Notification of accepted abstracts |
| Nov 30, 2009: | Biographies of authors and ½-page presentation outlines due |
| Jan 15, 2010: | Manuscripts for publication (MS Word) and copyright releases due |
| Jan 30, 2010: | Notification of final acceptance of manuscripts |
| Feb 15, 2010: | Presenter Registration Fee and two (2) sentence presentation descriptions due |
| Apr 1, 2010: | Power Point slide presentation due |
| May 7, 2010: | LISAT2010 Conference |

All submissions must include the author's full names, affiliations, postal addresses, phone numbers, and email addresses. Submissions should be emailed to the LISAT Technical Program Committee at **LISATprogram@ieee.org** Detailed instructions on submission, manuscript and presentation templates, and information on the conference, is available on the LISAT web site at **http://ewh.ieee.org/conf/lisat**

At least one author of *each* paper/presentation must register for the Conference and will be expected to provide a 20-minute presentation at the conference followed by 5 minutes of Q&A. Longer presentations will be considered. One presenting author will be allowed to register at a discounted rate. A limited number of tutorial and application presentations which will not be published by the IEEE may also be accepted

While LISAT welcomes a wide variety of papers in systems, applications, and technology, some examples of topics of particular interest are: *Homeland Defense, Alternate Energy Sources, Green Building Technologies, Mobile Communications, Microwave Technology, Electromagnetic Compatibility, Mobile Ad Hoc Networking, Network Security, Sensor Fusion, Antenna Systems and Processing, Radio Locationing, Radar Systems and Techniques, and Medical Electronics.*

*For information on* ***Exhibiting*** *at LISAT, please contact: Fred Kruger at* ***f.m.kruger@ieee.org***
***For all other information*** *contact LISAT2010 Conference Chair: Dave Mesecher at* ***d.mesecher@ieee.org*** *or Conference Co-Chair Charles Rubenstein at* ***c.rubenstein@ieee.org***

*LISAT is sponsored by the* **IEEE Long Island Section** *and its Technical Society Chapters and* **IEEE Region 1,** *in cooperation with the* **Institute for Research & Technology Transfer (IRTT)** *at the* **Farmingdale State College (SUNY).**

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