News for Employees of the Electronics & Integrated Solutions Operating Group • Vol. II, No. 21 • November 13, 2006

# E&IS NOW

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## BAE Systems Leaders Discuss Leading, Growing Business in a Challenging Environment

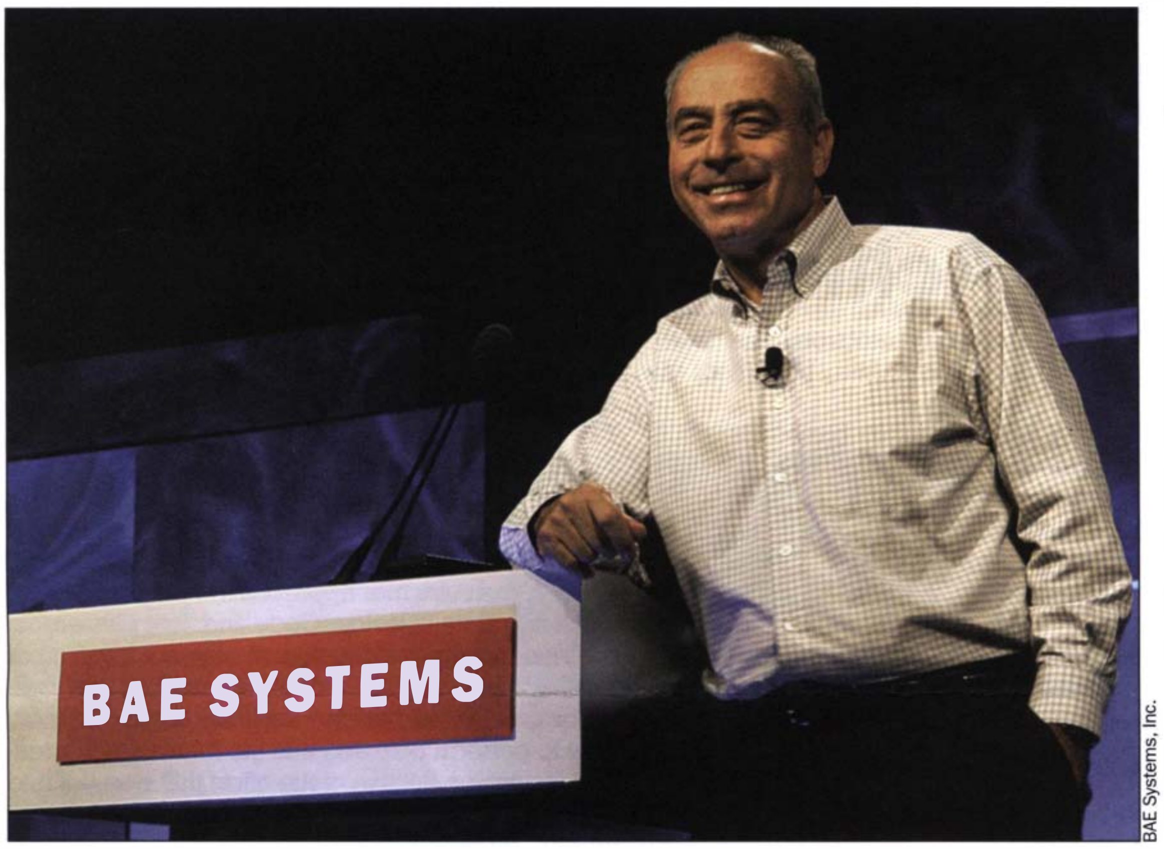
BAE Systems "is having a fantastic year" but the future holds "a more challenging environment." Mark Ronald, president and CEO of BAE Systems Inc. delivered that message at the start of a three day conference for the leaders of the U.S.-based elements of the worldwide company.

Ronald kicked off the annual meeting in Washington D.C. Oct. 31 with a review of the company's performance against the objectives established at the beginning of 2006. While Ronald cautioned the year is not yet over, he said all indications are that BAE Systems Inc. will successfully complete its major financial and business goals.

Ronald, who is retiring at the end of 2006 after seven years at the helm of BAE Systems' North American-based business, invited Walt Havenstein to provide the keynote address on the conference subject of "Leading and Growing in a Challenging Environment." Havenstein will take over as president and CEO of BAE Systems Inc., and as a company chief operating officer and board member at the beginning of 2007.

Havenstein asked the 230 executives in attendance to focus on four areas: Perform First; Greater Emphasis on the End User, Take a Bigger View; and Be Bold. Havenstein also closed the conference on Nov. 2 with his top challenges for the business unit in 2007, as well as his vision of how he intends to lead and his expectations of all 44,000 employees in BAE Systems Inc.

Flowdown material from the conference is being distributed now so that more employees can review the meeting activities and to assist the senior leaders who attended in briefing their organizations. Several of the videos shown or taped at the conference are also running — or scheduled to run — on internal websites over the next several weeks.




**"FANTASTIC!!" Mark Ronald, president and CEO of BAE Systems Inc., and Chief Operating Officer for BAE Systems, provides his assessment of the company's year-to-date success. Ronald reviewed the status of BAE Systems Inc.'s 2006 top objectives Oct 31 in Washington D.C. at the Senior Leadership Conference. About 230 BAE Systems leaders from the U.S., U.K., and several other nations attended the annual conference.**


**IS THIS COOL... OR WHAT??**

**This "lenticular" E&IS bookmark reflects the operating group's Value Profile: "To be the most dependable supplier of innovative solutions." It works every time – and it's guaranteed to become a valued employee keepsake.**

## Manassas Computers Help Study Solar Flares

**High Performance**

MANASSAS, Va. — BAE Systems' radiation-hardened computers and solid-state recorders are helping NASA's Solar Terrestrial Relations Observatory (STEREO) spacecraft to navigate on its mission to study the effects of the sun's solar flares and collect data for understanding how the sun creates space weather.

Two identical STEREO spacecraft were launched from Cape Canaveral, Fla., Oct. 25, on the same rocket. The two satellites will give scientists a three-dimensional view of the sun from different orbits.

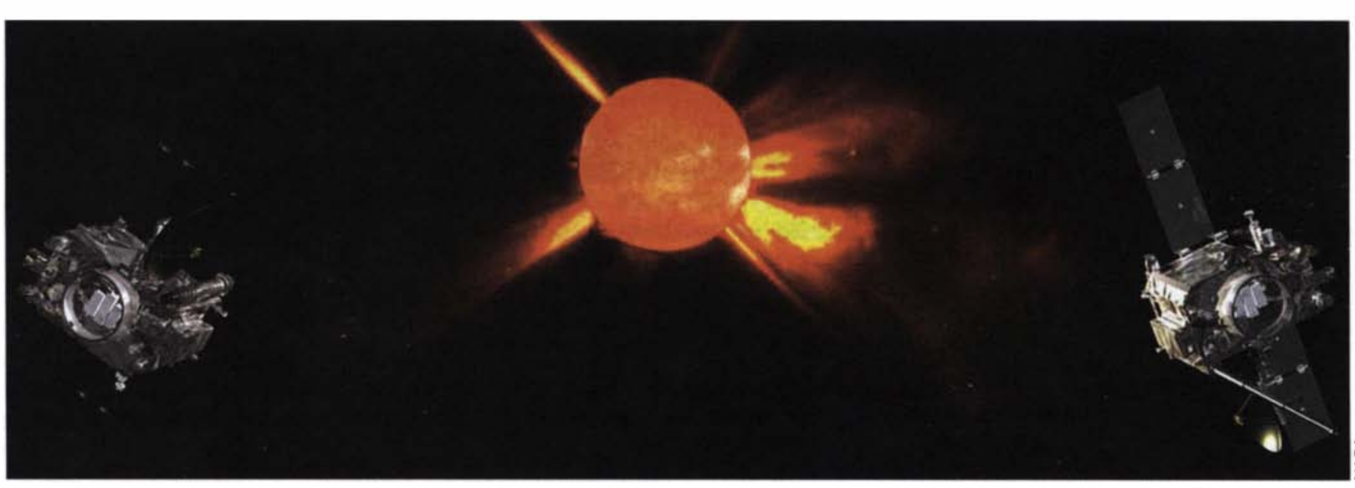
"BAE Systems' radiation-hardened computers and solid-state recorders are essential to the STEREO satellites, providing on-board computing and data storage for the instruments and spacecraft control functions," said George Nossaman, director of Advanced Digital Solutions for BAE Systems in Manassas, Va.

Each of the STEREO spacecraft uses two BAE Systems RAD6000 radiation-hardened flight computers and one solid-state recorder card. Additionally, the Naval Research Laboratory's Sun Earth Connection Coronal and Heliospheric Investigation instruments aboard each STEREO spacecraft employ BAE Systems' RAD750 mission computers, which provide data processing as the instruments study the evolution of solar flares. Both spacecraft will make lunar swing-bys to fling one of them millions of miles ahead of the Earth, and the other one far behind Earth to achieve 3-D viewing angles of both the Earth and sun.

The primary objective is to take 3-D imagery of gigantic coronal mass ejections as they blast off the sun, travel toward Earth, and then wrap themselves around Earth's magnetosphere. Each spacecraft carries 16 instruments.

The program is managed by the NASA Goddard Space Flight Center at Greenbelt, Md., but the spacecraft were developed and built by the Johns Hopkins University Applied Physics Laboratory in Laurel, Md.

**For more about STEREO, visit: www.nasa.gov.**




**BROUGHT TO YOU IN STEREO — E&IS' radiation-hardened computers are aboard NASA's newest mission — a solar flare observation effort.**

# Rochester Team Meets Challenge, Rescues MSDC Program

**TESTING CRITICAL PRODUCTS —** Murray Forbes, Hardware Team Lead (left), and Gareth Davies, Software Engineer, put the finishing touches on the MSDC at Rochester, U.K.

Electronics & Integrated Solutions' (E&IS) Mission Systems Display Computer (MSDC) development team in the U.K. recognized a serious schedule issue on the MSDC development program in late 2005 and acted quickly to fix the problem.

By the end of January 2006, forecasts indicated that the preliminary declaration of design performance (PDDP) would not be complete until the third quarter, said Simon Bowers, MSDC program manager. The problem, if left alone, would prevent the Tornado Sustainment Program from achieving its aircraft clearance activities on schedule. The first flight of the Tornado with the new equipment would be delayed.

The MSDC development team quickly developed a roadmap to submit the PDDP in late July, which would enable the first flight to proceed as scheduled.

"At the outset, the recovery roadmap presented us with one of the biggest challenges our business has faced," said Bowers. "Further adding to the difficulty of this rigorous recovery plan was the transition of the project from Edinburgh to Rochester. The achievement of the PDDP within our target reflects the dedication and hard work of the team."

The PDDP was signed by the customer in July, which allowed the critical first flight milestone to be achieved on schedule.

The members of the MSDC team received a Meerkat Award at the Oct. 5 Quarterly Management Meeting (QMM) in Rochester, U.K., for their "commitment and ability to meet the challenge of recovering a failing program and being able to supply the MSDC for the first flight of the Tornado under the sustainment program, supporting a critical customer commitment."

# F-22, M601 Programs Achieve 2006 Key Dates

### F-22 Delivers DEW

The F-22 business area — part of Electronics & Integrated Solutions' (E&IS) Electronic Warfare line of business — achieved its key business Mission Success milestone in August with a successful delivery of the eighth production Digital Electronic Warfare (DEW) system to Lockheed Martin for the U.S. Air Force's F-22 aircraft.

The F-22 production team completed a major technology insertion of pseudomorphic high electron mobility transistor (PHEMT) technology into the remote array interface unit (RAIU) and integrated array electronics hardware while maintaining full-rate production delivery rates, said Mike Pepin, director of F-22 production.

The F-22 team — which includes approximately 1,000 employees at Nashua, N.H. — delivered eight F-22 DEW, RAIU and array electronic hardware products between May 4 and Aug. 18 to beat the Aug. 25 key date.

The digital EW system exploits breakthroughs in commercial analog-to-digital technology and field-programmable gate arrays.

The system replaces older analog receiver technology with reconfigurable digital receivers, providing cost, power, and weight savings for the F-22.

The PHEMT technology replaces an obsolete technology that was no longer available to support the F-22 program.

### M601 Completes Design Review

National Security Solutions' (NSS) M601 program team met its 2006 Electronics & Integrated Solutions (E&IS) key date by completing its Initial Requirements Review (IRR). The completion of the classified program, a major business milestone for the line of business, established the program's baseline requirements with the customer.

The program team also completed its Incremental Design Review (IDR), a two-day Systems Architecture and Preliminary Design review. The customer approved the program's transition into Detail Design, Code and Test phases.

"This review culminated in the completion of another highly visible milestone meeting our customer's expectations and showing them we know how to perform now and into the future. Each presentation was reflective of the effort that was put into it – Excellent," said Ed Mason, Program Manager for the Model 601 program.

# Commercial Electronics Aftermarket Business Achieves Milestone

**Growing the Business**

The Electronics & Integrated Solutions (E&IS) Commercial Electronics Aftermarket (spares) business in Irving, Texas, achieved a milestone recently when it received more purchase orders direct from the airlines than through Boeing, its primary customer.

"This demonstrates that BAE Systems is making headway by selling our products direct to the airlines," said Kenny Singletary, Aftermarket Sales and Service Center manager at Irving.

The Commercial Electronics Aftermarket business in Irving supports a broad range of Boeing commercial airplanes, including the 737NG, 747, 767 and 777. The business delivers aftermarket repair and warranty support for these airplanes and out-of-production models, including the 707, 727, 757, MD80/90, MD10/11 and DC10 models.

E&IS' Commercial Electronics Aftermarket business supplies more than 4,000 flight, cabin, and airframe electronic spare parts for Boeing aircraft. It has expanded significantly since BAE Systems purchased it in 2004.

Aftermarket customer service managers Maureen Davidson and Cindy Rhodes credit the growth in part to their "hit-the-pavement" approach of directly targeting airlines. The duo visited more than 40 airlines around the world, talked with even more by phone, and attended numerous industry conferences to get the word out about BAE Systems' commercial electronics capabilities.

Their efforts have paid off. Most airlines they have talked with are now ordering spare parts from BAE Systems.

"The airlines want to order parts directly through us because we can offer them substantial cost savings and faster turn times," said Rhodes.

**PICKING UP YOUR SPARE —** Commercial Electronics customer service managers Maureen Davidson (left) and Cindy Rhodes work together to support an airline customer.

Rhodes says airlines often wait more than a month for parts when they go through other sources. BAE Systems can ship in-stock parts within 24 hours. Online advertising also has contributed to the Aftermarket business's direct-from-airline growth.

"We processed $800,000 (£420,00) in quotes the first morning after posting our inventory on the Inventory Locator Service website," said Vickie Charrier, Aftermarket logistics analyst.

"The response from the industry has been extremely positive," said Davidson. "We know what the airline customers expect and we have the flexibility to tailor our products to meet their needs."

The Commercial Electronics Aftermarket group processes 35,000 purchase orders per year and has more than 200 external customers, including Japan Airlines, Lufthansa, Singapore Airlines, GOL Airlines, Southwest Airlines and United Parcel Service.

Singletary says E&IS' Commercial Electronics Aftermarket business is well positioned to receive even more purchase orders from airline customers. The business area is exploring new ways to provide the airlines with provisional spares and "loner" certified units while repairs are being made.

# E&IS Selected to Produce Pod Tester for Air Force

SAN DIEGO — The U.S. Air Force selected BAE Systems to produce electronic attack pod testing equipment for electronic warfare pods deployed on its F-15, F-16, and A-10 aircraft. The testers support fast-turnaround repairs of the pods — the ALQ-131 and ALQ-184. These pods provide self-protection against radio frequency (RF) threats like radar-guided missiles. The countermeasure pods can selectively direct high power jamming against RF emitters, effectively blinding or spoofing an enemy's targeting abilities.

USAF

**PODS TO TEST —** Airmen work to refuel an A-10 Thunderbolt II equipped with E&IS' ALQ-184 electronic attack pod. The U.S. Air Force will use E&IS' Electronic Attack Improved Avionics Intermediate Shop (EA-IAIS) to test ALQ-184 and ALQ-131 pods.

The tester also employs state-of-the-art instruments integrated with advanced electronic warfare technology to conduct RF spectrum analysis and response.

The $3.3 (£1.7) million contract for the Electronic Attack Improved Avionics Intermediate Shop (EA-IAIS) will transition a full-scale development tester to a production-ready station.

The Air Force's Electronic Attack pod sustainment organization at Warner Robins Air Logistics Center, Ga., selected EA-IAIS as a common tester, replacing two obsolete legacy pod testers.

"This award is the result of six years of planning and development effort with the Air Force," said Anthony Porter, E&IS' automatic test systems program manager in San Diego. "The EA-IAIS builds on BAE Systems' proven Improved Avionics Intermediate Shop series of testers to meet the service's goal of a common tester for different platforms."

The transition work will be performed at the National Security Systems line of business' San Diego facility through 2008. The next phase of the program will be production of up to 100 pod testers.

## *Around the OG*

### International First Flight for E&IS Computer

LOS ANGELES — BAE Systems' new 32-bit digital flight control computer recently completed its first flight aboard the Taiwanese Air Force's Indigenous Defense Fighter (IDF) C/D version, also known as the Shiang-Seng Fighter.

**Shiang-Seng Fighter**

The new flight control computer represents a substantial advance in processing power and control capability over the obsolete 16-bit computer it replaces, said Albert Lin, program manager for IDF flight control systems for BAE Systems in Los Angeles.

BAE Systems has worked with Aerospace Industrial Development Corp. (AIDC), builder of the all-weather, multi-role IDF since the program's inception in 1985. The flight control system has been improved in several phases, with the latest development contract awarded in 2002.

"With this system, BAE Systems brings the state-of-the art 32-bit Power-PC based processor to the flight control marketplace," said Lin. "The new computer also integrates easily with the aircraft's air data, avionics, and heads-up display systems."

Taiwan's Air Force plans to put the new computer into service as an upgrade to existing IDF fleets and on new aircraft. The upgraded flight control is part of an overall aircraft system performance upgrade that includes increased range and enhanced radar target acquisition, firepower, and flight control performance.

### Technology Reviews Upcoming

Electronics & Integrated Solutions' (E&IS) Chief Technology Office (CTO) has scheduled Technical Achievement Reviews from Nov. 27 to Dec 21.

These reviews are designed to inform E&IS' technical community about research on sustainable technical discriminators for the operating group. Each briefing — conducted via secure WebEx to maximize accessibility across the operating group — lasts between 15 and 30 minutes.

"There are an enormous number of R&D efforts underway in E&IS," said Dr. Web Dove, Deputy CTO. "These reviews are a key way for engineers, engineering managers and business development representatives to learn about specific technology capabilities elsewhere in the enterprise."

Pre-registration is required to have access to WebEx for the briefings, Dove said. Daily agendas will soon be available on the CTO's Technology Calendar of Events website. For more information, contact Ann Fitz at ann.m.fitz@baesystems.com or at (603) 885-9002.

**To register, employees can visit: https://baesystems2.webex.com/baesystems2/.**

**For the calender: http://www.usa02.na.baesystems.com/technology/tech_calendar/tech_calendar.htm.**

### Correction

The Oct. 30 *E&IS Now* erroneously reported that BAE Systems shareholders unanimously approved disposing of Airbus. Almost, but not quite. Actually, 99.85 percent of the votes were for the resolution.

## *BAE SYSTEMS Briefly*

### Rabaut to Retire; Hudson Selected to Lead L&A

**Tom Rabaut**

**Linda Hudson**

Tom Rabaut, president of BAE Systems Land & Armaments Operating Group, will retire at the end of 2006, BAE Systems announced Oct. 26.

Linda Hudson has been selected to succeed Rabaut as the L&A Operating Group president on Jan. 1, 2007.

Rabaut's career spans more than 30 years in the military and defense industry. One of three operating group leaders within BAE Systems Inc. — the U.S.-based element of the company — he joined BAE Systems in June 2005 after the company's acquisition of United Defense. Rabaut had previously served as CEO and president of United Defense. Hudson will join the company in early December, in preparation for the transition. She comes to BAE Systems from General Dynamics, where she previously served as president of the Armament and Technical Products Company and vice president for Business Development. She has engineering, management and leadership experience as well from Lockheed Martin, Martin Marietta, Ford Aerospace, and Harris Corp.

### U.K. Signs Hawk Production Order

The Ministry of Defence (MoD) in the U.K. signed a production contract for the new Hawk Advanced Jet Trainer Mk128 Oct. 19. BAE Systems will produce 28 Hawk Mk128 aircraft. The jets will used to train future Royal Air Force combat pilots.

BAE Systems has been designing and developing the advanced jet trainer over the past two years, in close coordination with the U.K. MoD.

Mark Parkinson, managing director of the Hawk program for BAE Systems, called the signing "a significant milestone" and a "clear example of how BAE Systems and the MoD can work together to meet the U.K.'s military requirements."

"By training on a significantly more capable aircraft, the U.K.'s front line pilots will be able to further enhance their combat flying skills," he noted.

# Legislative Affairs Seeks to Cultivate Political Capital

**Leveraging Our Values**

Electronics & Integrated Solutions (E&IS) Legislative Affairs function wants to grow BAE Systems' political capital in the U.S. and will empower E&IS' employees for the job.

Legislative Affairs — the small but powerful function synonymous with the operating group's advocacy efforts — held an organizational offsite meeting at Mill Falls in Meredith, N.H., Oct. 18-19.

The meeting brought together E&IS site executives and BAE Systems, Inc. leadership to discuss ways to improve, grow, and better use the company's political capital at all E&IS sites.

"We need to work to leverage all of the assets we have as a company — not just lobbyists — but to give our people, through the site executives, an awareness of how the process works and how to develop local political capital at their sites," said E&IS Vice President of Legislative Affairs Rich Ashooh.

"We want to make sure that we are 'punching our weight,'" said E&IS Legislative Affairs Representative Jeff Rose. "In order to do that, you need political capital. The capital is generated outside of Washington — where we have our facilities, our employees, and our products."

Political capital is defined as the ability to effectively impact the environment where legislation is made. The capital is grown, according to Ashooh, by using all the ingredients available (see sidebar below right).

"With the significant changes in the Congressional landscape, it's even more important to actively manage political capital," Ashooh said.

CAPITAL EXECUTIVES — Marion Van Fosson (left), site representative from E&IS' Johnson City, N.Y., facility, discusses political capital opportunities with Jerry Burke, vice president of Contracts for the Electronic Warfare line of business at the Legislative Affairs meeting at Meredith, N.H., Oct. 19.

One of the goals of the meeting was to make an assessment of the unique aspects of each E&IS facility. The function will work with each site to maximize the resources available at each of these sites, Ashooh said.

"A site's particular environment, resources, skills and strategic business alignment are all aspects of the political capital mix," said Ashooh. "We want to identify and align these assets so BAE Systems can better leverage our sites' ability to grow political capital."

Ashooh said the meeting was useful to get an accurate picture from site executives nation-wide.

"We could have taken a look at the map and made assumptions about what was out there," he said. "But the picture wouldn't have been nearly as accurate as the one we've been able to get from the site executives themselves."

"The meeting was extraordinarily useful," said Gino Manzo, site executive at the Manassas, Va., facility. "It's one thing to be aware and knowledgeable, and another to be more effective. The meeting showed us how to be more effective at our sites and also between our sites. Now we know what's out there to draw from."

Legislative Affairs will now move forward with a plan to incorporate the learning, Ashooh said.

## Armed Services Chairman Visits

Electronics & Integrated Solutions' (E&IS) President Walt Havenstein (left) greets Chairman of the U.S. House Armed Services Committee Duncan Hunter (center) and New Hampshire Congressman Charlie Bass at E&IS' Canal Street facility in Nashua, N.H., Oct. 23.

The congressmen were briefed on E&IS' Common Missile Warning System (CMWS) and addressed employees, thanking them for their efforts to protect U.S. troops around the world.

Havenstein presented the congressmen with "Broken Missile" coins. The coin mementos are given to crews of aircraft that have been shot at and saved with the aid of E&IS' CMWS.

## The Political Capital Mixing Bowl

E&IS Vice President of Legislative Affairs Rich Ashooh is a fan of the "Iron Chef" cable television show. He finds similarities between the super chefs' teams cooking an extraordinary meal with ingredients suddenly revealed to them and company employees gathering and 'cooking up' political capital with the ingredients they have at their sites across the U.S.

At each site, taking inventory of the following ingredients helps the Legislative Affairs function to 'punch its weight' in Washington.

### Environment

- Political Landscape
- Congressional Representation
- Committees & Priorities of Members

### Resources

- People & Jobs
- Products & Programs
- Facility & Location

### Skills

- E&IS Functional Support
- Community Engagement & Relationships
- State & Local Advocacy

### Alignment

- Leverage Opportunity for the Business & Customer
- Utilization of Supplier Base
- Bringing Business Strategy Home

U.K. is excluded because it has different political considerations. For more information about the Legislative Affairs function or Political Capital contact Jeff Rose at (603) 885-4503.