

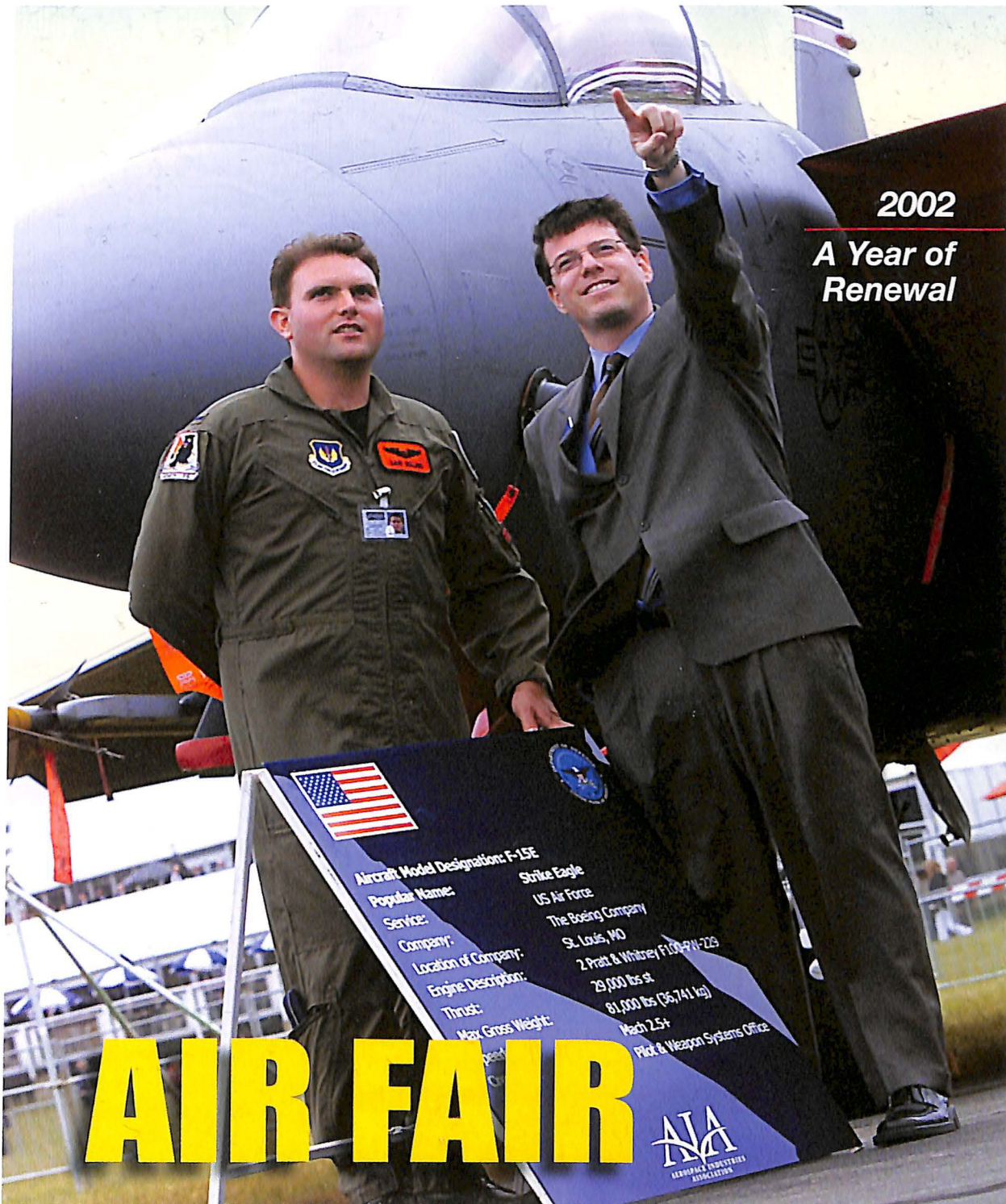
# EXECUTIVE Update

Summer 2002-Spring 2005



# EXECUTIVE REPORT

SUMMER 2002



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AEROSPACE INDUSTRIES  
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On the cover: AIA International Affairs Manager Chris Lombardi and U.S. Air Force F-15E Strike Eagle pilot Lt. David Willard watch a flight demonstration in July over Farnborough International 2002, the biennial air show hosted by the Society of British Aerospace Companies.

See details of association activities on Page 5.





**John W. Douglass**  
AIA President & CEO

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*“As expected, it has been a formidable and demanding year – but a productive time as well. We can now look back and see progress and positive results that have been triggered by our efforts over that period.”*

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Dear Association Member:

This AIA *Executive Report* for the summer quarter is in distribution only days before the one-year anniversary of 9-11, as that day of tragedy and destiny has come to be known.

When the nation began forging its way ahead from the numbing shock of last September's terrorist attacks on New York and Washington, we knew that the ensuing 12 months would be a crucial and dynamic period for aerospace in many, many profound ways.

As expected, it has been a formidable and demanding year – but a productive time as well. We can now look back and see progress and positive results that have been triggered by our efforts over that period.

Scarcely a day has gone by in which the association hasn't been at the forefront of matters vital to our national defense environment, the new homeland security initiatives, and the ongoing need for economic health for the aerospace industry.

### **Bolstering Manufacturers and Airlines**

One important step we've taken is to position AIA as a focal point of industry leadership, information, and ideas in support of the Transportation Security Administration, the proposed Homeland Security agency, and others.

To do that, we've formed our own Homeland Security Working Group as an extension of the association's Industrial Security Committee. Chaired by Northrop Grumman's Director of Electronic Systems Security Patricia Tomaselli, the working group includes representatives from Lockheed Martin, General Dynamics, Raytheon Corporation, and BAE Systems.

Participants are looking at ways to bolster security standards, systems, and processes as well as highlight existing and new aerospace technologies that would be beneficial to homeland security efforts.

In Congress, AIA has promoted and supported several key pieces of legislation over the past year to help improve the economic

health of airlines and manufacturers and strengthen homeland security:

- Through the Aviation and Space Stakeholders Coalition AIA supported immediate financial and legal relief to the nation's air carriers. Congress quickly provided \$5 billion for losses as a result of September 11 and \$10 billion in loan guarantees for longer-term assistance.
- Legislation addressed liability for the terrorist attacks to shield air carriers from crushing suits and extended liability protection to aircraft manufacturers as well.
- War risk insurance was addressed through a 180-day, federally supported insurance and reinsurance program available to air carriers, vendors, agents, and subcontractors. Though manufacturers were not directly covered, a longer-term International Civil Aviation Organization regime would likely provide direct coverage for manufacturers as well as air carriers.
- Last November the president signed the Aviation Security Act, setting standards for improved cockpit safety in aircraft, passenger screening processes in airports, and other measures.
- Congress passed an employee assistance/economic stimulus bill in March. AIA's two priorities were included – 30 percent depreciation on certain assets and extension of the net operating loss carry back period from two years to five years for losses incurred in 2000 and 2001.
- AIA has teamed with the Information Technology Association of America to seek the addition of provisions to the Homeland Security bill to indemnify contractors selling homeland security technologies against third-party liability claims.

As a result of our efforts, we can look ahead and see that some bright spots in the industry, despite the sharp decline in commercial aircraft sales and aerospace employment in the past year.

The FAA forecasts that air travel, which has reversed its steep post-September decline, will have a strong recovery next year. Air travelers

appear to be showing confidence in the measures taken to increase aircraft and airport security – a credit to the efforts of the Transportation Department and homeland security officials.

Also, the Defense Department's FY 2003 budget includes significant increases for procurement and research and development, both of which will benefit the aerospace industry.

### **Serendipitous Support for Commission**

As I've noted before, it was serendipitous that Congress and the Bush Administration months before September 11 had recognized the critical importance of the aerospace industry to the nation's economy and security by authorizing the Commission on the Future of the U.S. Aerospace Industry.

Their actions assured that a strong national forum was in place at just the right time to collect data, comb through issues, and craft positive recommendations to inspire a strong aerospace vision for the future.

Already, some of the core challenges that the commission has identified in interim reports are being acted upon in Washington – fostered by the inspiration and support of leaders on Capitol Hill and in the executive agencies.

In one example, research and development budgets for defense and space systems are up dramatically. That's something the commission in an interim report said is needed.

Also, the federal government is beginning to focus on the need for fixing air traffic control constraints on U.S. commercial air routes. It's a step that will boost vitality for our airlines and aircraft manufacturers at a time when improvement is sorely needed.

Acquisition reform measures are being adopted on the Hill, and the commission has recommended that the Defense Science Board (DSB) assess DoD's policies on acquisitions and mergers in the aerospace industry. Furthermore, the DSB has been asked to study the adequacy of DoD programs to sustain the industrial design base for fixed-wing military aircraft and solid rocket motors for space vehicles. All good efforts.

### **Blakey Nomination Applauded**

The administration's quick and orderly nomination of Marion C. Blakey as the new FAA administrator is to be applauded. It will assure focused management within an organization so important to aviation safety and operations.

This is a critical time for the aviation industry, and we are pleased that the president gave the nomination high priority. With Ms. Blakey's outstanding performance at the National Transportation Safety Board and the National Highway Traffic Safety Administration, we urge Congress to confirm her nomination without delay.

The aerospace industry thanks former Administrator Jane Garvey for her able leadership during one of the most difficult and trying times in the history of aviation. She worked tirelessly for the last five years for greater safety and efficiency in our nation's air transportation system.

### **Workforce Issues Cited**

In its third interim report issued in June, the aerospace commission offered several workforce recommendations:

- Government should reaffirm a goal of stabilizing and growing the U.S. aerospace workforce.
- An interagency Workforce Task Force should be created to respond to workforce and training needs.
- An Aerospace Industry Promotion program is needed for schools and community colleges to attract public attention.
- Tax credits should be considered for employers who invest in apprenticeship programs.
- Long-term government investment is needed to help create and fill aerospace jobs.

The aerospace industry's workforce dilemma affects far more than national security. European competitors are striving – with considerable success – to be the global aerospace leader.



**Hundreds of Gulfstream Aerospace Corporation employees were on hand for the unveiling of the company's first production GV-SP at its plant in Savannah, Georgia, in June. Aircraft 5001 is also the launch airplane for Gulfstream's role as official sponsor of the First Flight Centennial celebration. Gulfstream is a subsidiary of AIA member company General Dynamics Corporation.**

In the United States the number of scientists and engineers in aerospace as a percent of the national population is the lowest since records have been kept. In Europe, however, the percentage is rising.

Last year, for the first time, foreign suppliers had the majority of the U.S. domestic market backlog for new commercial aircraft.

We need a firm government policy that sends a message that our nation won't give up its aerospace leadership. Strengthening the aerospace workforce is the cornerstone of that message.

### Farnborough: Progress in Europe

I recently returned from Farnborough International 2002 where we made progress in toning down aerospace trade tensions between U.S. and European Union trading partners.

Beyond a very successful air show agenda, we met with representatives of the European Association of Aerospace Industries (AECMA) to discuss trade and competitiveness issues. AIA and AECMA agreed to a process whereby both associations can identify trade irritants and work on ways to remove them.

For instance, we saw where we can work on some issues now, such as export controls and regulatory issues. There are

other areas that we need to develop, such as creating common aerospace trade data. At a minimum our dialogue can reduce rancor or make sure that disputes reflect common data on both sides.

We agreed to return home to set up respective work programs that will hone the issues and recommend solutions. Representatives of the associations will continue our dialogue in October at the next AECMA board meeting in Amsterdam.

At the show, AIA sponsored the Defense Department's Operations Center, coordinating the display of dozens of U.S. aircraft and providing logistic support for more than 100 air crews. The U.S. corral was one of the largest and most popular display ramps at Farnborough.

In addition, the association sponsored a well-attended dinner for President Bush's official representative to the aviation exposition – Congressman Bill Young of Florida, chairman of the House Appropriations Subcommittee.

Also, we again co-hosted with the Society of Japanese Aerospace Companies a reception for some 220 key aerospace business contacts.

I'm happy to report also that the AIA trade booth this year served as a marketplace headquarters for more than a dozen

Public relations executives John F. Gulick (left) and David J. Shea (right) present a copy of their book on media relations advice to AIA Chairman Marshall O. Larsen and President John W. Douglass (seated).

The latest edition of the book – *Media Isn't a Four Letter Word, a Guide to Effective Encounters with the Members of the Fourth Estate* – is available from

**Giving Good Advice** AIA or the authors for \$19.95 a copy. Ordering information is available on AIA's Web at [www.aia-aerospace.org](http://www.aia-aerospace.org).

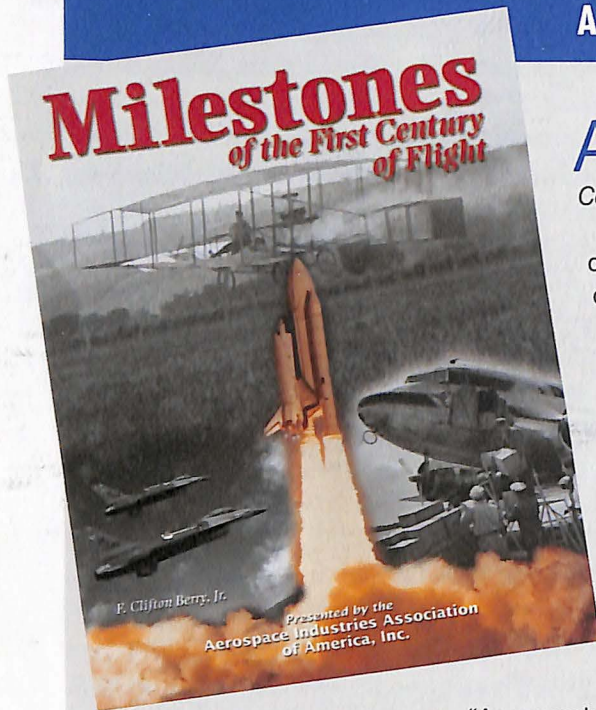
Former U.S. Air Force public affairs officers, Shea and Gulick have since been active in AIA's Communications Council. Shea is director of media relations in Washington for Raytheon Company, a firm he joined in 1988. Gulick, after 10 years in communications with Computer Sciences Corporation, began his own media and public relations practice in Washington this year.

Initially published in 1994 by the Electronic Industries Alliance, the media primer has been revised and updated with perspectives from prominent print and broadcast journalists.

Former White House spokesman Mike McCurry writes in the book's forward: "The authors have captured just about all the good advice there is and packaged it in this easy-to-read, simple-to-understand guide."



## AIA's Milestones Will Appear in December



As part of its observance of the 100th anniversary of the Wright Brothers' first flight, AIA is publishing an attractive volume of the *Milestones of the First Century of Flight*.

Advance copies of the 224-page hardback, coffee-table book can be ordered now for deliveries beginning in December. The commemorative collection of historic photos and text is available at half the cover price of \$34.95 – under \$17.50 per copy, plus tax and shipping. Jacket covers stylized with corporate logos are available.

The book was written by F. Clifton Berry, well-known author of a number of books on aerospace and defense, former editor of aerospace trade magazines, and a pilot.

"Few technological developments have had as great an impact on mankind as flight," noted AIA President and CEO John W. Douglass.

"The 100 singular aerospace achievements of the first century of flight were identified by a panel of aviation experts brought together to celebrate the association's 80th anniversary in 1999," he added. "We are delighted now to have the opportunity to publish them as a commemoration to the Wright Brothers.

"As we embark on the second century of flight," Douglass said, "It is fitting for us to renew the spirit of adventure that began in 1903."

Powered, controlled flight was only 16 years old when AIA was organized in 1919 as a trade association charged with educating the public about aviation. Orville Wright and Glenn Curtiss were charter members.

Ordering information is available through Howell Press at [www.howellpress.com](http://www.howellpress.com) or (800) 868-4512. For questions to AIA, contact Alexis Allen at [alexis@aia-aerospace.org](mailto:alexis@aia-aerospace.org) or (202) 371-8544.

Supplier Management Council (SMC) companies and a few regular members as well. It was a great location for AIA and SMC members to get together for networking and teaming discussions.

Overall, AIA's activities at Farnborough were the most robust and successful at an international air show in recent memory.

### A Very Busy Year

September marks the start of my fifth year as president and CEO of AIA. I don't see how the next year could be busier than the past, taking into account all the activities stemming from 9-11, rolling in the many facets of the U.S. commission on aerospace, and filling in with international trade and domestic legislative matters.

I'm pleased to report that we found time this year to strengthen the House aerospace caucus on Capitol Hill in support of industry issues and to participate in the formation of the Aviation and Space Stakeholders Coalition and focus its forces on some key issues to benefit airlines and manufacturers.

We also continued having regional AIA meetings outside of Washington, strengthening our membership by bringing together a mix of full and associate members in an agenda that reflects regional aerospace business issues. We thank The Boeing Company for welcoming us in Washington State and Northrop Grumman Corporation for being our host in California.

Additionally, I am now serving on five boards dealing with defense and aerospace infrastructure matters – ranging from a task group on B-52 re-engining to a council on acquisition reform.

The fact that we're so often asked to participate in "issue" panels is recognition that the association is at the hub of a very dynamic industry in very challenging times. For AIA and our member companies' business interests, that's time well spent.

A handwritten signature in black ink, appearing to read "John W. Douglass". The signature is stylized and somewhat abstract, with a long horizontal line extending to the right.

John W. Douglass

## New Member **SPOTLIGHT**

## AIA Welcomes Three New Members

Three distinctive and diverse aerospace companies are among the newest members of AIA, including one that's a former member of the association's Supplier Management Council (SMC).

**EDO Corporation**, the ex-SMC member, supplies highly engineered products for governments and industry worldwide, including advanced electronic, electromechanical and information systems, and engineered materials.

The company's defense segment provides integrated, frontline, war fighting equipment, which includes radar countermeasure systems, aircraft weapons storage and release systems, airborne sonar systems, engineering and information technology services, and mine countermeasure systems.

EDO's space and communication segment addresses the needs of the remote sensing, communication, navigation, and electronic warfare industries with ultra-miniature electronics and a broad line of antennas.

The firm's antennas are used in military, space, and commercial markets, including associated structure, radomes, and custom installations.

The company's engineered materials segment supplies piezoelectric and advanced composites for the communication, navigation, chemical, petrochemical, paper, and oil industries for civilian infrastructure and military applications.

Headquartered in New York, EDO employs more than 1,600 workers. For more information, see [www.EDOcorp.com](http://www.EDOcorp.com).

**L-3 Communications Holdings, Inc.**, founded in 1997 by Chairman and CEO Frank C. Lanza and President and CFO Robert V. LaPenta, serves as a leading mezzanine company in the defense electronics and communications industry.

Lanza and LaPenta formed L-3 Communications in conjunction with Lehman Brothers and Lockheed Martin.

L-3 has 18,000 employees and produces secure communication systems, training systems, microwave components, avionics, ocean systems, telemetry, instrumentation, and space and wireless products.

The firm develops, constructs, and installs communication systems for high-performance intelligence collection, imagery processing, and ground, air, sea, and satellite communications.

The company also designs, develops, produces, and integrates communication systems and support

equipment for space, ground, and naval applications as well as provides communication software support services to military and related government intelligence markets.

Customers include the Defense Department, U.S. government intelligence agencies, aerospace and defense prime contractors, and commercial telecommunication and cellular customers.

L-3 is headquartered in New York City. For more information, see [www.L-3com.com](http://www.L-3com.com).

**Silicon Graphics, Inc. (SGI)**, is a leading provider of high-performance computing and complex data and visualization management products, services, and solutions that enable technical and creative customers to gain strategic and competitive advantages in their core businesses.

Headquartered in Mountain View, Calif., SGI sells and services five key market segments: manufacturing, sciences, energy, government and defense, and media. The company's products and services include servers, workstations, visualization systems, storage, displays, and software.

Its services include consulting and education in company products for key industries.

More information on SGI is available on the Web at [www.sgi.com](http://www.sgi.com).



**A Decision Support Center designed by new AIA member Silicon Graphics, Inc., is where data from a tactical battlespace merges with geospatial data for presentation in an immersive environment.**





What the Wright Brothers did for the airplane 100 years ago, the Groen Brothers are doing for the gyroplane today.

The gyroplane is a hybrid aircraft – a cross between traditional airplane technologies and those of a helicopter with off-runway operating capabilities.

AIA member Groen Brothers Aviation is gaining interest in aviation circles with the first modern, commercially viable gyroplane – the Hawk 4.

## Homeland Defender

The Groen Brothers – Chairman Jay Groen and President and CEO David Groen – founded the company in the mid-1980s to pursue their avid belief that markets exist for gyroplanes.

So far, 2002 has been a breakout year for their dream.

The center of the attention is the Hawk 4 Homeland Defender, an advanced version of the Salt Lake City-based company's most current gyroplane.

The Homeland Defender was featured in July at the Homeland Security Expo sponsored on Capitol Hill in Washington by the Senate Small Business Committee. Fifty companies were picked from hundreds of applicants to display products and capabilities that could contribute to new U.S. security needs.

Dressed in U.S. Navy colors, the Hawk 4 was one of two technologies chosen for a special outdoor showcase on the Mall. Members of Congress and staff and military and executive agency representatives inspected the Homeland Defender. In addition, Groen Brothers demonstrated the gyroplane for federal and state officials and media at an airfield near Washington.

Earlier, the Homeland Defender proved its effectiveness as an aerial observation platform during the 2002 Winter Olympics in Utah where it flew 67 observation missions for the security command in 75 hours of maintenance-free flight time.

**Photo Above: Groen Brothers Chairman Jay Groen (right) greets a visitor to the company's Homeland Defender gyroplane on Capitol Hill in July.**

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The Aerostructures Corporation  
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Metal Improvement Company  
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DRS Technologies, Inc.  
Ducommun Incorporated  
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EDO Corporation  
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Hexcel Corporation  
Honeywell  
i2 Technologies  
ITT Industries  
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Kistler Aerospace Corporation  
L-3 Communications Holdings, Inc.  
Lockheed Martin Corporation  
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MatrixOne, Inc.

MD Helicopters, Inc.  
MOOG Inc.  
Northrop Grumman Corporation  
Omega Air, Inc.  
Orbital Sciences Corporation  
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Raytheon Company  
Rockwell Collins  
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Smiths Aerospace Actuation Systems  
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Pratt & Whitney  
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AEROFLEX Inc.  
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Allen Aircraft Products, Inc.  
Ambel Precision Manufacturing Corporation  
American Data & Computer Products, Inc.  
AMI Metals, Inc.  
Arkwin Industries, Inc.  
Arrow Gear Company  
Arrow/Zeus Electronics,  
a division of Arrow Electronics  
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Aventus, Inc.  
Avionics Specialties, Inc.  
Avnet Electronics Marketing  
Banneker Industries Inc.  
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Bill-Jay Machine Tool Corporation  
Brek Manufacturing Company  
BTC Electronic Components, Inc.  
California Screw Products  
Centric Machine & Instrument Corp.  
Chandler/May, Inc.  
Cherokee Nation Distributors  
Cincinnati Machine, A Unova Company  
Circle Seal Controls, Inc.  
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Compass Aerospace Corporation  
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EMS Technologies, Inc.  
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Defense Company  
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Industrial Precision, Inc.  
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M/A-COM, Inc.  
Magnetico, Inc.  
Manugistics (formerly Western Data Systems)  
Manzi Metals, Inc.  
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McCann Aerospace Machining Corporation  
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Millitech, LLC  
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Morris Machine Company, Inc.  
MPC Products Corporation  
Natel Engineering Co., Inc.  
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Neuvant Aerospace  
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OnBoard Software, Inc.  
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Paravant Inc.  
Park Engineering & Mfg. Co., Inc.  
PerkinElmer Fluid Sciences  
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Precision Gear Inc.  
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Primus International  
Production Engineering Corp.  
Pro Fab, Inc.  
Quick-Wright Associates, Inc.  
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RAM Manufacturing Company Inc.  
REMEC Microwave, Inc.  
RTI International Metals, Inc.  
Ryder System Inc.  
Safe Flight Instrument Corporation  
Servotronics, Inc.  
Sparton Corporation  
Spectra Lux Corporation  
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T.A. Carlson & Company  
Texas Composite, Inc.  
Therm, Inc.  
Thermal Solutions, Inc.  
TMX Aerospace  
Trans World Alloys Company  
Transtar Metals, Inc.  
Tru-Circle Aerospace Corporation  
Trylon Machine Company  
Tyco Electronics  
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UFC Aerospace  
Uni-Tek, LLC  
Viking Metallurgical (Firth Rixson)  
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**Mark S. Newman,** Chairman, President & Chief Executive Officer, DRS Technologies, Inc.

**Philip A. Odeen,** Chairman, TRW Inc.

**John J. Quicke,** President & Chief Operating Officer, Atlantic Research Corporation, Sequa Corporation

**Hugh J. Quigley,** President, DynaBil Industries, Inc.

**Thomas W. Rabaut,** President & Chief Executive Officer, United Defense

**W. David Thompson,** President, Spectrum Astro, Inc.

**Gordon L. Williams,** Chairman, Vought Aircraft Industries, Inc.

**George J. Yohrling,** President & Chief Executive Officer, Curtiss-Wright Flight Systems, Inc., Curtiss-Wright Corporation

On the cover:  
Aerospace industry workers go about their jobs in the background as the Commission on the Future of the U.S. Aerospace Industry holds a hearing in the foreground. Seen in the inset at right center are Commissioner Neil deGrasse Tyson, Vice Chairman Whit Peters, and Chairman Bob Walker.





**John W. Douglass**  
AIA President & CEO

Dear Association Member:

The thorough and extensive final report of the Commission on the Future of the U.S. Aerospace Industry has been released publicly and sent to President Bush and congressional leaders for review and action.

Over the course of the past year, I and 11 other commissioners – led by Chairman Bob Walker and supported by commission staff and aviation and aerospace industry stakeholders (including the hardworking staff representing you here at AIA) – have devoted thousands of hours collecting data, listening to expert testimony, arguing issues, preparing interim reports, and determining recommendations for government and industry action.

We examined the industry from several perspectives, including fact-finding missions to Asia, Western Europe, and Russia in which we collected input from 50 international aerospace leaders and assessed our global competition.

In addition, we had input from more than 60 high-ranking U.S. government and industry officials and reports from 100 aerospace stakeholders. AIA, for example, submitted 13 position papers.

And now we have a roadmap with nine very specific, very important recommendations for maintaining America's aerospace leadership, strengths, and competitiveness in the 21st century. (See digest of recommendations on page 4.)

Our work here is finished, right?

Well, no, not exactly.

When the concept for the commission was conceived, there were a number of steps envisioned.

Step one was to get the commission approved on Capitol Hill and at the White House and put in place. Step two was to get a good panel of commissioners. Step three was to conduct an effective and thorough review of the industry and issue critical recommendations for its future.

Now that we've done all this, where do we go from here?

### Implementation Is Next

Step four will be to get the recommendations reviewed, understood, accepted, and implemented. We strategically developed the recommendations for consideration at the decision-maker level in

Washington. These are "big picture" recommendations.

Also, we've left behind some commission resources for following progress of the recommendations and then reporting back to the president and Congress about this time next year on what actually happened with them. In essence, the commission will be kept alive to maintain its momentum, its mission, and its vision.

In that regard, the AIA Top 10 Issues that I will recommend to the Board of Governors for adoption for 2003 will include specific objectives that stem directly from the nine aerospace recommendations of the Commission on Aerospace.

So stay tuned in the next 12 months. There's a lot of commission follow-up work to be done.

### Harmonizing Trade Data

The commission hasn't been the only focus at AIA in recent months. For instance, we've been putting together an initiative for next year that we hope will lead to a better understanding of the competitiveness differences between us and our partners in Europe.

AIA and the European Association of Aerospace Industries (AECMA) are designing a work program to begin harmonizing various categories of export and import trade data between us. The two associations hope the initiative will result in better and more consistent information about our respective industries as well as provide better definitions for resolving trade issues.

For instance, when we compare U.S. figures for imports of aerospace products from Europe, they differ between 20 to 30 percent from AECMA's on exports from Europe to the United States. Conversely, our export numbers to them differ by about the same amount.

When we have disputes, we ought to argue from as common a set of data as possible. The European Union (EU), however, doesn't have a single customs force such as ours. Their data is still collected by individual member states.

We also want to get a better understanding of civil aircraft statistics – orders, backlog, and deliveries – to be certain we are talking about the same things when we analyze data and make recommendations to our government.

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*"...we have a roadmap with nine very specific, very important recommendations for maintaining America's aerospace leadership, strengths, and competitiveness in the 21st century."*

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## Commission Recommendations

Here are thumbnail digests of the nine recommendations issued November 18 by the Commission on the Future of the U.S. Aerospace Industry.

### *The commission recommends that:*

1. The United States boldly pioneer new frontiers in aerospace technology, commerce, and exploration.
2. Transformation of the U.S. air transportation system be a national priority.
3. The United States create a space imperative.
4. The nation adopt a policy that invigorates and sustains the aerospace industrial base.
5. The federal government establish a national aerospace policy and promote aerospace by creating a government-wide management structure.
6. U.S. and multilateral regulations and policies be reformed to enable the movement of products and capital across international borders on a fully competitive basis and establish a level playing field for U.S. industry in the global marketplace.
7. A new business model be designed to promote a healthy and growing U.S. aerospace industry.
8. The nation immediately reverse the decline in and promote the growth of a scientifically and technologically trained U.S. aerospace workforce.
9. The federal government significantly increase its investment in basic aerospace research in order to enhance U.S. national security, enable breakthrough capabilities, and foster an efficient, secure, and safe aerospace transportation system.

Details of the recommendations and more information are available on AIA's Web site at [www.aia-aerospace.org](http://www.aia-aerospace.org) or the commission's at [www.aerospacecommission.gov](http://www.aerospacecommission.gov).

Another area we want to take a look at is research and development data related to aerospace. This has been a bone of contention between us, with the EU often arguing that U.S. commercial products benefit from military research while we argue that the spillover effect is greatly exaggerated. And, after all, European firms also benefit from such research, we counter.

While better data won't automatically resolve trade issues, it might provide a more common set of information on which to carry on debate.

## Aerospace Issues in Congress

It's been a busy fall on Capitol Hill, too. Here's a summary of some key legislative initiatives in which we have a major stake:

- The landmark Trade Promotion Authority Act signed by the president in August supports our member companies in expanding international markets by empowering the administration to negotiate investment access and tariff elimination agreements with other governments. The law provides critical bargaining flexibility by restricting the congressional role to approving or rejecting completed treaties.
- The Enterprise Integration Act, passed by both houses before the election recess, authorizes the National Institute of Standards and Technology to establish pilot programs for common e-business integration and supply chain management techniques in manufacturing. Small and medium-sized AIA companies could benefit.
- The Foreign Relations Authorization Act signed by the president in September makes significant AIA-recommended improvements in the nation's technology export licensing system. It allocates \$14 million to modernize the information management systems and expand State Department defense trade staff. It also begins to streamline the sales process for overseas defense customers.

*Continued on page 6.*



A group of AIA member company representatives have an imposing B-777 as backdrop during a visit to the shop floor of Boeing's Everett, Wash., widebody plant as part of the association's Northwestern Members Meeting hosted by Boeing in August. Other regional meetings conducted for member and associate member companies this year were the Southwest Members Meeting in Los Angeles hosted by Northrop Grumman, the Southcentral Members Meeting in Dallas hosted by Vought Aircraft Industries, and the Southeast Members Meeting in Melbourne, Fla., hosted by Harris Corporation. AIA President and CEO John W. Douglass thanked all the host companies for their support and pointed out that the meetings have helped raise awareness of aerospace strengths and issues within regions, states, and cities.

## Space Council Comments on National Plan

*Space Council members, under the guidance of AIA Director of Space Policy Bruce Mahone and Council Chairman Frank Slazer of Boeing, formulated an extensive set of recommendations for consideration by U.S. space policymakers.*

A comprehensive space transportation plan should be developed and implemented as a principal element in a necessary revision of national space policy, AIA's Space Council recently advised the White House.

It's one of several industry recommendations contained in a 10-page answer sent from the association to the administration in September in response to a request for comments on a White House review of the existing National Space Transportation Policy.

Space Council members, under the guidance of AIA Director of Space Policy Bruce Mahone and Council Chairman Frank Slazer of Boeing, formulated an extensive set of recommendations for consideration by U.S. space policymakers. These include an itemized list of current policies that should be maintained or added and others that need to be modified or eliminated.

The association guidance was delivered to Gil Klinger, director for space policy in the Defense Policy and Arms Control Directorate of the National Security Council.

"A shortcoming of current space transportation policy is the absence of an overar-

ching national plan necessary for the United States to meet future national security, civil, and commercial space objectives," the AIA response noted.

"This plan must go beyond identifying a path to next and future generation launch vehicle design and development," the association counseled, "and extend to issues such as industrial base capabilities, launch infrastructure improvement, and launch site ownership and operation."

AIA's recommendation calls for federal authorities to identify near-term issues accompanied by specific, directed actions to resolve them, along with mid-term and long-term objectives over a 20-year horizon with a roadmap of how they'll be met.

The association's far-reaching space policy review included discussion and recommendations on

such issues as regulation of commercial launch activities by the FAA, government investment in science and technology initiatives, space-related workforce and industrial base needs, national launch infrastructure capabilities, commercial indemnification, international space launch programs, and trade agreements.



**Frank Slazer is director of business development for Boeing's NASA Systems.**

## Aviation Improvements Needed without Delay

Commercial passenger and cargo airline operations in the United States can be spared an aggregate of 64 million hours a year in flight delays if industry and government aviation officials can find ways to achieve early completion of runway and airway infrastructure improvements over the next 10 years.

That costly prediction stems from an economic impact study on civil aviation commissioned by AIA and several other aviation-related organizations and released in September. Conducted by Global Insight, Inc., and the Campbell Hill Aviation Group,

Inc., the study predicts that investment in infrastructure will be returned to the economy at a rate of \$5 for every \$1 invested.

The *National Economic Impact of Civil Aviation* reveals clear linkages between the nation's air transportation system and its economic health. A constrained infrastructure adversely affects manufacturers of commercial and business aircraft, reduces the growth of worldwide air transport, and implies an ultimate undermining of U.S. global competitiveness.

Furthermore, the findings underscore the need for a high-level, multi-agency task

force to develop an integrated plan for transforming and modernizing our air transportation system — as called for by the U.S. Commission on Aerospace.

The association urges the administration and Congress to prioritize FAA and NASA air transportation research and development efforts by tripling NASA aeronautics funding over five years to \$2.8 billion and doubling FAA R&D funding to \$500 million.

More information on AIA's recommendation to improve air travel is available on the association's Web site at:

[www.aia-aerospace.org](http://www.aia-aerospace.org).

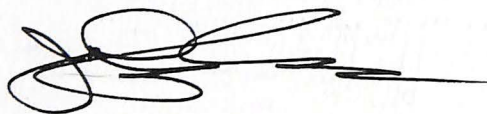
*Continued from page 4.*

- The FY03 Defense Appropriations Act contains major increases in DoD research and development and procurement funding. The research (\$58 billion) and procurement (\$72 billion) budgets exceed FY02 spending by some \$10 billion each.
- AIA has aggressively sought indemnification for contractors of homeland security technologies purchased by federal, state, and local governments to be included in the Homeland Security Act. Congress will resume debate of the measure before Thanksgiving.

Finally, as we near the end of 2002, the bleeding is continuing among the nation's airlines, and that makes it difficult to predict civil aviation sales and manufacturing workforce levels for next year. Our estimates for the first two quarters of this year have been just about right on, but things could get worse before they get better on the civil side.

Fortunately, there's been strength in military sales helping to alleviate the overall sting.

I will have more specific information and estimates of our 2003 sales at the AIA year-end report and forecast luncheon in December.



John W. Douglass



**Embraer President and CEO Maurício Botelho (left) is thanked by National Air and Space Museum Director Gen. J.R. "Jack" Dailey (USMC-retired) for the company's \$500,000 contribution to the Udvar-Hazy Center being built at Washington Dulles Airport. AIA-member Embraer is one of the largest commercial aviation manufacturers in the world. "With this contribution, we honor Brazil's storied and continuing contribution to aviation," Botelho said.**

## **OP-ED** Increasing AIA's Profile

It's been a creditable year for the association in many ways, including the number of opinion columns favorable to aerospace that have appeared in U.S. trade and general circulation publications and on Web pages.

At least 11 opinion pieces have been published, increasing AIA's profile and sending positive messages on key issues to the public, policymakers, and legislators around the country. Most were signed by AIA President and CEO John W. Douglass and placed by the association's Communications Department.

### **Here's a review of the articles:**

- "A Brighter Horizon" – *AeroTech News*, January 25.
- "Act Now to Prevent Delays and Save an Industry" – *Aviation Week & Space Technology*, May 6 (co-authored by Douglass and former NASA Administrator Daniel S. Goldin).
- "U.S. Aerospace Leadership: A Wakeup Call" – *National Aeronautics*, May/June newsletter.
- "Aerospace R&D in the 21st Century" – a guest editorial on the United Technologies Corporation Web site, May 3.
- "Improve Air Transportation Infrastructure" – an op-ed posted on Airport Operators Council International Web site, July 1.
- "U.S. and EU Trade Relations" – an op-ed posted on the *Financial Times* Web site.
- "ETI" – an op-ed placed by The Boeing Company with Knight-Ridder Newswire and published in the *San Diego Union Tribune*, August 1, and the *Peoria Journal Star*, August 25.
- "Expanded Air Transit Critical to Economy" – co-signed with General Aviation Manufacturers Association President Ed Bolen and published in the *Chicago Sun-Times*, August 31.
- "Status of Civil Aeronautics Manufacturing since 9/11" – *Airline Value News*, September.
- "Turbulent Times: State of the Industry since 9/11" – published in *AeroTech News*, September 6.
- "Protect Vital Space Assets" – *Space News*, September 16.

## Launching an AIA Rocket Program

A beehive of pre-launch activity is underway this fall in anticipation of the first national rocket contest for senior high school and junior high school students sponsored by AIA and the National Association of Rocketry to commemorate the 2003 Centennial of Flight.

The Team America Rocketry Challenge will take place next May 10 at Great Meadow in the Virginia countryside west of Washington, D.C. The top 100 teams will meet there to compete in a "blast-off" to determine the national champion. AIA President and CEO John W. Douglass will lead an industry welcome.

Students are challenged to design, build, and fly a model rocket carrying two raw eggs as close as possible to 1,500 feet and return them to Earth...unscrambled.

AIA staff has promoted the contest across the nation through direct mail and Web site announcements and helped create orientation and test launch tip videos and related materials that can be downloaded from AIA's Web site.

"Designing and promoting this unique event has been a challenging but rewarding process," according to J.P. Stevens, AIA's vice president for special projects. "It's been much like preparing for a full-scale industry launch. Inspiring students who might someday actually be astronauts, engineers, or technicians in an industry launch program is very fulfilling."

Hundreds of students, parents, and teachers from as far away as New Hampshire came to see model rocket demonstrations at

Great Meadow in September to learn how to become the first school to win the Challenge.

A grand prize pool of \$59,000 in cash and savings bonds will be shared by the top five teams. In addition, three of the top 10 teams are eligible to win \$2,500 grants, including travel expenses, to launch an advanced rocket with NASA personnel.

Furthermore, each of the top 25 school teams will be invited to send one teacher on an all expenses paid trip to an advanced rocketry workshop with NASA scientists and engineers and tour facilities at NASA's Marshall Space Flight Center.

Some 30 industry and educational organizations are partnered in the Challenge, including the U.S. Air Force and the U.S. Centennial of Flight Commission.



## New Member SPOTLIGHT

### AIA Welcomes Three New Members

Among the newest members of the Association are a young aerospace company with a commercial vision of space and two former Supplier Management Council (SMC) associate member firms which have upgraded to the full membership roster.

**AstroVision International, Inc.**, is a privately-held commercial space company that is developing a satellite system to provide live, true color, 24-hour high definition video imaging of Earth.

Headquartered in Bethesda, Maryland, AstroVision plans to deploy the first of five geostationary AVStar satellites in 2003 to provide imaging coverage of North America. Other satellites will be launched by mid-2006 to achieve global coverage.

Using AVStar, AstroVision will deliver unique real-time coverage of atmospheric and terrestrial events, including extreme weather, such as hurricanes, tornadoes, and lightning as well as major catastrophic events, such as fires and volcanic eruptions.

In addition, the company will provide coverage of celestial events such as solar eclipses, lunar occultations, and meteor fly-bys.

AstroVision, founded in 1997, plans to deliver news, entertainment, and educational content to viewers over the Internet through



**A simulated image of this summer's Hurricane Luis is seen from an AvStar satellite deployed by new AIA-member AstroVision.**

distribution agreements with broadcasters, and directly to corporations, educational institutions, and government agencies.

The company has selected AIA-member Ball Aerospace & Technologies Corp. to build its satellites and integrate instruments onboard the AVStar satellite systems.

**EFW Inc.**, is a full service electronics supplier that has upgraded from AIA's supplier group, to the association's full member status.

Headquartered in Ft. Worth, Texas, EFW specializes in sophisticated hardware and software solutions for upgrade, integration, and enhancement projects.

The company's defense programs cover fixed-wing and rotary-wing aircraft, ground

vehicles, naval vessels, trainers, and simulators as well as command, control, and communication systems.

EFW's other capabilities include design, development, production, and lifecycle support for innovative electronic systems.

A fully-accredited U.S. Defense Department supplier, EFW produces high quality, cost-effective, complex military electronics for General Dynamics, Boeing Helicopters, Boeing Military Aircraft and Missile Systems, Lockheed Martin, United Defense LP, and other U.S. and international defense contractors and users.

**Remmele Engineering, Inc.**, is another firm that recently upgraded its membership from the SMC.

The company provides custom computer-controlled automation systems, precision machining of complex components, and tooling and assembly fixtures for leading manufacturers worldwide.

Remmele has four divisions, six facilities, more than 500 employees, and annual sales exceeding \$100 million.

Founded in 1949 by Fred L. Remmele to provide subcontract machining work and specially designed manufacturing equipment for growing companies, Remmele is headquartered in New Brighton, Minn.





## DuPont: Celebrating 200 Years

Is it possible that a product of AIA-member company DuPont was in use on the Wright Flyer when Orville and Wilbur Wright first flew on December 17, 1903?

It is certainly imaginable because DuPont had already celebrated its 100th anniversary as an American company the year before and at that time was expanding into such new product markets as paints and dyes.

If it were the case – though we may never know for sure – DuPont could claim to be the oldest U.S. aerospace company. Nevertheless, it's clearly one of the oldest American firms – period.

French immigrant E.I. duPont founded the company as an explosives manufacturer in 1802, near Wilmington, Delaware. As it celebrated its 100th anniversary in 1902, DuPont was purchased by three family cousins who over the next 100 years molded it into a science-based company with breakthroughs in many markets, including aerospace electronics and transportation.

For instance, in the 1930s nylon became the world's first true synthetic textile fiber, and its use expanded into aircraft and spacecraft parts and components. In the 1950s and 60s its strong fibers were used in a growing number of military and commercial aviation applications. In the 1970s and 80s, DuPont miniaturized electronic circuits for the Space Shuttle, computers, and cell phones.

Today, the company continues to develop new products, applications, and services for aerospace. For example, DuPont™ KEVLAR® is a reinforcing agent in cockpit doors to help protect crews against forced entry and ballistic threats and in hardened cargo containers for wide-body planes.

DuPont also provides professional services and consulting to help airlines improve workplace safety.

As they say at DuPont: Let's see what the next 200 years will bring.

**Photo Above: One aerospace application for DuPont™ KEVLAR® is in hardened cargo containers for wide-body aircraft.**

## AIA Member Companies

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| <ul style="list-style-type: none"> <li>AAI Corporation</li> <li>Aerojet</li> <li>The Aerostructures Corporation</li> <li>Alliant Techsystems Inc.</li> <li>American Pacific Corporation</li> <li>Analytical Graphics, Inc.</li> <li>Areté Associates</li> <li>Argo-Tech Corporation</li> <li>AstroVision International, Inc.</li> <li>Atlantic Research Corporation</li> <li>Aviall, Inc.</li> <li>BAE SYSTEMS North America, Inc.</li> <li>Ball Aerospace &amp; Technologies Corp.</li> <li>Barnes Aerospace</li> <li>B.H. Aircraft Company, Inc.</li> <li>The Boeing Company</li> <li>Computer Sciences Corporation</li> <li>Cordiem, LLC</li> <li>Crane Aerospace</li> <li>Cubic Corporation</li> <li>Curtiss-Wright Corporation</li> <li>    Curtiss-Wright Flight Systems, Inc.</li> <li>    Metal Improvement Company</li> <li>Dassault Falcon Jet Corporation</li> <li>DRS Technologies, Inc.</li> <li>Ducommun Incorporated</li> <li>DuPont Company</li> <li>EDO Corporation</li> <li>EFW Inc.</li> <li>Embraer Aircraft Holding Inc.</li> </ul> | <ul style="list-style-type: none"> <li>ESIS, Inc.</li> <li>Esterline Technologies</li> <li>Exostar LLC</li> <li>Fairchild Fasteners</li> <li>General Atomics Aeronautical Systems, Inc.</li> <li>General Dynamics Corporation</li> <li>General Electric Company</li> <li>GKN Aerospace Services</li> <li>Goodrich Corporation</li> <li>    Aerostructures &amp; Aviation</li> <li>    Technical Services</li> <li>    Engine and Safety Systems</li> <li>    Electronic Systems</li> <li>    Landing Systems</li> <li>W.L. Gore &amp; Associates</li> <li>Groen Brothers Aviation, Inc.</li> <li>Harris Corporation</li> <li>HEICO Corporation</li> <li>Hexcel Corporation</li> <li>Honeywell</li> <li>i2 Technologies</li> <li>ITT Industries</li> <li>    Defense</li> <li>Kaman Aerospace Corporation</li> <li>Kistler Aerospace Corporation</li> <li>L-3 Communications Holdings, Inc.</li> <li>Lockheed Martin Corporation</li> <li>Martin-Baker America Incorporated</li> <li>MatrixOne, Inc.</li> <li>MD Helicopters, Inc.</li> </ul> | <ul style="list-style-type: none"> <li>MOOG Inc.</li> <li>Northrop Grumman Corporation</li> <li>Omega Air, Inc.</li> <li>Orbital Sciences Corporation</li> <li>    Advanced Systems Division</li> <li>Parker Aerospace</li> <li>The Purdy Corporation</li> <li>Raytheon Company</li> <li>Remmele Engineering, Inc.</li> <li>Rockwell Collins</li> <li>Rolls-Royce North America Inc.</li> <li>Silicon Graphics, Inc.</li> <li>Smiths Aerospace Actuation Systems</li> <li>    Los Angeles</li> <li>Spectrum Astro, Inc.</li> <li>Stellax Aerostructures, Inc.</li> <li>Swales Aerospace</li> <li>Teleflex, Inc./TFX Sermatech</li> <li>    Mal Tool &amp; Engineering</li> <li>Textron Inc.</li> <li>Triumph Group, Inc.</li> <li>TRW Inc.</li> <li>United Defense</li> <li>United Technologies Corporation</li> <li>    Hamilton Sundstrand</li> <li>    Pratt &amp; Whitney</li> <li>    Sikorsky</li> <li>Vought Aircraft Industries, Inc.</li> <li>Woodward Governor Company</li> </ul> |
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## AIA Associate Member Companies

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| <ul style="list-style-type: none"> <li>AAR CORP.</li> <li>The Advanced Products Company</li> <li>Advanced Technical Products, Inc.</li> <li>Aeroflex</li> <li>Air Industries Machining Corporation</li> <li>Allen Aircraft Products, Inc.</li> <li>Ambel Precision Manufacturing Corporation</li> <li>American Data &amp; Computer Products, Inc.</li> <li>AMI Metals, Inc.</li> <li>Arkwin Industries, Inc.</li> <li>Arrow Gear Company</li> <li>Arrow/Zeus Electronics</li> <li>Ausco</li> <li>Auto-Valve Inc.</li> <li>Aventus, Inc.</li> <li>Avionics Specialties, Inc.</li> <li>Avnet Electronics Marketing</li> <li>Banneker Industries, Inc.</li> <li>Berkshire Industries, Inc.</li> <li>Bill-Jay Machine Tool Corporation</li> <li>Brek Manufacturing Company</li> <li>BTC Electronic Components, Inc.</li> <li>California Screw Products</li> <li>Chandler/May, Inc.</li> <li>Cherokee Nation Distributors</li> <li>Cincinnati Machine</li> <li>Circle Seal Controls, Inc.</li> <li>Cohesia Corporation</li> <li>Compass Aerospace Corporation</li> <li>Consolidated-PAC Foundries</li> <li>CPI Aerostructures, Inc.</li> <li>Cristek Interconnects, Inc.</li> <li>The Deutsch Company</li> <li>DynaBil Industries, Inc.</li> <li>Dy 4 Systems Inc.</li> <li>East West Technology</li> <li>Eaton Aerospace</li> <li>Electro-Methods, Inc.</li> <li>EMS Technologies, Inc.</li> <li>Ensign-Bickford Aerospace &amp; Defense Company</li> <li>Faber Enterprises, Inc.</li> <li>F.A.G. Bearings Limited</li> <li>Fastener &amp; Hose Technology</li> <li>The Fero Group</li> <li>Firth Rixson Viking</li> </ul> | <ul style="list-style-type: none"> <li>Fortner Aerospace Manufacturing</li> <li>G.S. Precision, Inc.</li> <li>GenMech Aerospace</li> <li>Greene, Tweed &amp; Company</li> <li>Hamby Corporation</li> <li>Hangsterfer's Laboratories, Inc.</li> <li>Hartwell Corporation</li> <li>Hi-Tech Aero Spares</li> <li>Hitco Carbon Composites</li> <li>Hi-Temp Insulation Inc.</li> <li>Hobart Machined Products Inc.</li> <li>Hughes Bros. Aircrafters, Inc.</li> <li>Hughes-Treitler Mfg. Corp.</li> <li>Industrial Precision, Inc.</li> <li>Integrated Aerospace</li> <li>ISPA, Inc.</li> <li>Jamco Aerospace</li> <li>JCM Engineering</li> <li>John Hassall Corp.</li> <li>Kennebec Tool &amp; Die Co., Inc.</li> <li>Kulite Semiconductor Products, Inc.</li> <li>Lefell Manufacturing Company</li> <li>Lewis &amp; Saunders</li> <li>Lilly Software</li> <li>LMI Aerospace, Inc.</li> <li>M/A-COM, Inc.</li> <li>Magnetico, Inc.</li> <li>Manugistics (Western Data Systems)</li> <li>Manzi Metals, Inc.</li> <li>Marotta Scientific Controls, Inc.</li> <li>McCann Aerospace Machining Corporation</li> <li>Meyer Tool Inc.</li> <li>Millitech, LLC</li> <li>Morris Machine Company, Inc.</li> <li>MPC Products Corporation</li> <li>Natel Engineering Co., Inc.</li> <li>National Machine Group</li> <li>Neuvant Aerospace</li> <li>The Nordam Group, Inc.</li> <li>Norfil Manufacturing, Inc.</li> <li>OnBoard Software</li> <li>Pacific Scientific, Electro Kinetics</li> <li>Paravant Inc.</li> <li>Park Engineering &amp; Mfg. Co., Inc.</li> <li>PC Guardian</li> <li>PerkinElmer Fluid Sciences</li> <li>Plymouth Extruded Shapes</li> </ul> | <ul style="list-style-type: none"> <li>Precision Gear</li> <li>Precision Machine &amp; Manufacturing</li> <li>Precision Machine Works Inc.</li> <li>Precision Tube Bending</li> <li>Primus International</li> <li>PRMS</li> <li>Production Engineering Corp.</li> <li>Pro Fab, Inc.</li> <li>PTI Technologies, Inc.</li> <li>Quick-Wright Associates, Inc.</li> <li>Radant Technologies, Inc.</li> <li>RAM Manufacturing Company, Inc.</li> <li>REMEC Microwave, Inc.</li> <li>RTI International Metals</li> <li>Ryder Systems, Inc.</li> <li>Safe Flight Instrument Corporation</li> <li>Sechan Electronics, Inc.</li> <li>Service Steel Aerospace</li> <li>Servotronics, Inc.</li> <li>Sparton Corporation</li> <li>Spectra Lux Corporation</li> <li>Spirit Electronics, Inc.</li> <li>SpringBoard Technology Corporation</li> <li>STADCO</li> <li>Stein Seal Company</li> <li>Sunshine Metals</li> <li>Sypris Electronics, LLC</li> <li>    (formerly Group Technologies)</li> <li>T.A. Carlson &amp; Company</li> <li>Texas Composite, Inc.</li> <li>Therm, Inc.</li> <li>Thermal Solutions, Inc.</li> <li>TMX Aerospace</li> <li>Trans World Alloys Company</li> <li>Franstar Metals, Inc.</li> <li>Tru-Circle Aerospace Corporation</li> <li>Trylon Machine Company</li> <li>Tyco Printed Circuit Group</li> <li>Tyco Electronics</li> <li>UFC Aerospace Corp.</li> <li>Uni-Tek, LLC</li> <li>Welding Metallurgy, Inc.</li> <li>Williams International</li> <li>Windings, Inc.</li> <li>Xelus, Inc.</li> </ul> |
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# EXECUTIVE REPORT

SPRING 2003



**A Look Ahead  
AEROSPACE 2010**

## IRAQ Technology Triumphs

**AIA**  
AEROSPACE INDUSTRIES  
ASSOCIATION



### Officers

**Vance D. Coffman**,  
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On the cover: At top is a composite design of some advanced military systems used by U.S. forces in Operation Iraqi Freedom and manufactured by AIA member companies.

Included are a U.S. Navy DDG-51 Arleigh Burke class destroyer manufactured by General Dynamics and seen launching a Tomahawk cruise missile built by Raytheon, a U.S. Air Force F-117A Nighthawk built by Lockheed Martin, and a U.S. Army Shadow

Tactical Unmanned Aerial Vehicle built by AAI Corporation.

At bottom left is a Lockheed Martin Global Positioning Satellite and at bottom center is a Sikorsky UH-60L Black Hawk helicopter.

A commercial airliner takes off at bottom right, looking for a smooth cruising altitude for civil aviation in U.S. skies — a central topic of the upcoming Spring Meeting of the AIA Board of Governors at Williamsburg, Virginia.



**John W. Douglass**  
AIA President & CEO

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*The Iraq War demonstrated one more time that America's aerospace and defense equipment is the best in the world, stemming from many years of careful investments in research and development for defense technologies as well as the inventive genius of U.S. aerospace and defense scientists and engineers.*

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Dear Association Member:

Much of the world is in awe over the positive results of Operation Iraqi Freedom carried out marvelously by U.S. and coalition military forces in a few short weeks in late March and April.

From General Tommy Franks, commander-in-chief of the U.S. Central Command, through the ranks of courageous men and women who participated on land, in the air, and at sea, we witnessed the power of the most respected fighting forces in the world.

We salute you each and all. We pray for those who sacrificed their lives and for their families. We offer best wishes for full and speedy recovery to the wounded.

### Technologies in Forefront

There's another aspect of victory in Iraq that shouldn't be overlooked – the dominance of the world's most advanced aerospace and defense weaponry, including training concepts, network centric communications systems, space-based intelligence systems, manned and unmanned aircraft, powerful naval fleets, innovative electronic combat systems, rugged avionics, smart munitions, and a superior supplier support base.

The Iraq War demonstrated one more time that America's aerospace and defense equipment is the best in the world, stemming from many years of careful investments in research and development for defense technologies as well as the inventive genius of U.S. aerospace and defense scientists and engineers.

For every soldier, aviator, and sailor in uniform, there are designers, engineers, technicians, and other critical workers in a thousand plants across America creating and producing the systems our troops depend on.

Our nation's fighting forces are anchored by its aerospace workforce, including that unique segment of workers known as "contractors on the battlefield" who move in lock-step with warfighters, helping maintain and repair equipment and providing a supply chain of parts and services.

As proven earlier in Operation Enduring Freedom in Afghanistan and even more so in Iraq – and with new challenges ahead in the War on Terrorism – America's aerospace

industry continues to be the foundation for the nation's defense and security.

### Saving Private Lynch

Thanks to embedded journalists, we saw firsthand how U.S. warfighters armed with high technology aerospace and defense equipment spearheaded aggressive and successful missions throughout the conflict.

None can forget the harrowing, late-night rescue of Private Jesse Lynch by U.S. forces from an Iraqi hospital. Correspondent Robert Wall of *Aviation Week & Space Technology* magazine, went behind the scenes of the daring rescue to identify the unique equipment that anchored the mission.

His fascinating story – a testament to military courage and aerospace industry technologies – is reprinted on page 5 of this edition of *Executive Report*.

The story shows how it takes an array of dedicated specialists – from khaki-clad special ops forces in Nasiriyah to blue-collar metal benders in North Haven – to bring about peace and security.

### Civil Aviation in Crisis

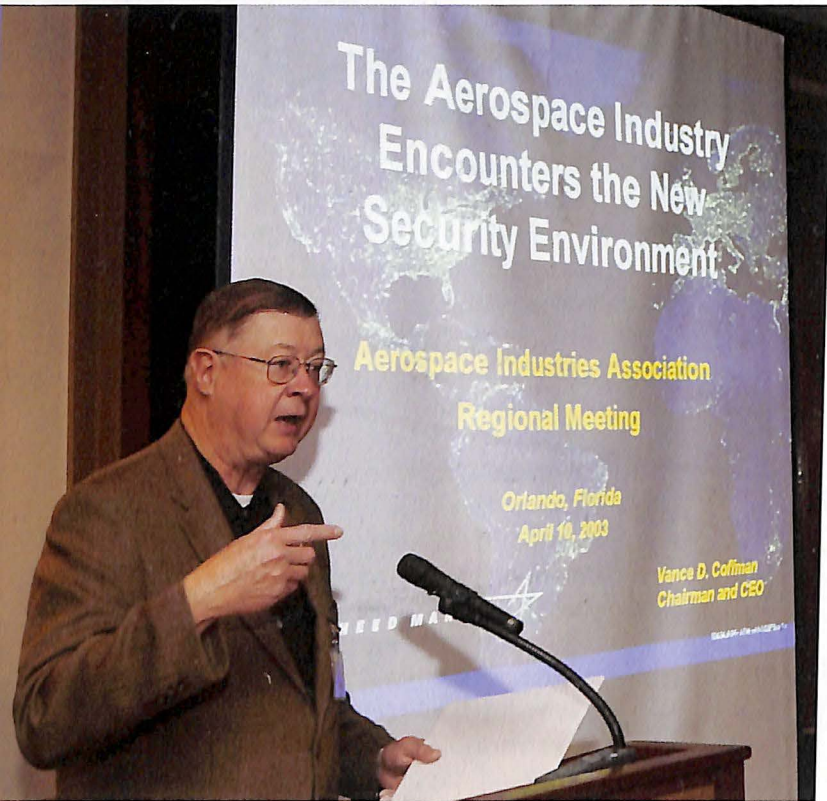
Meanwhile, the positive news about U.S. and coalition success in Operation Iraqi Freedom is tempered by the continuing national airline and civil aviation crisis at home in the wake of the terrorist attacks against the United States.

The airline industry has suffered \$18 billion in losses in 2001 and 2002. With the ongoing action in Iraq, the industry's 2003 losses are expected to grow by an added \$10.7 billion.

Net orders last year for large commercial transport aircraft totaled 407 – down from 545 in 2001 and 1,077 in 2000. Shipments of large commercial aircraft also declined to 682 – down from 851 in 2001 and 796 in 2000.

Hundreds of thousands of airline and manufacturing jobs have been lost, and the continuing crisis threatens the future of thousands of other travel and tourism industry employees.

AIA, however, is playing a leading role in developing an industry consensus in working with the administration and Congress to solve the root issues of this deep and difficult crisis.



## CEO Committee Acts on Aviation Health

A number of aerospace CEOs have come together in a top-level AIA Ad Hoc Committee on the Health of the Civil Aviation Industry. Their aim is to identify issues critical to the health of the industry and develop strategies to address them.

Six areas of major focus identified so far to help return airlines to growth are:

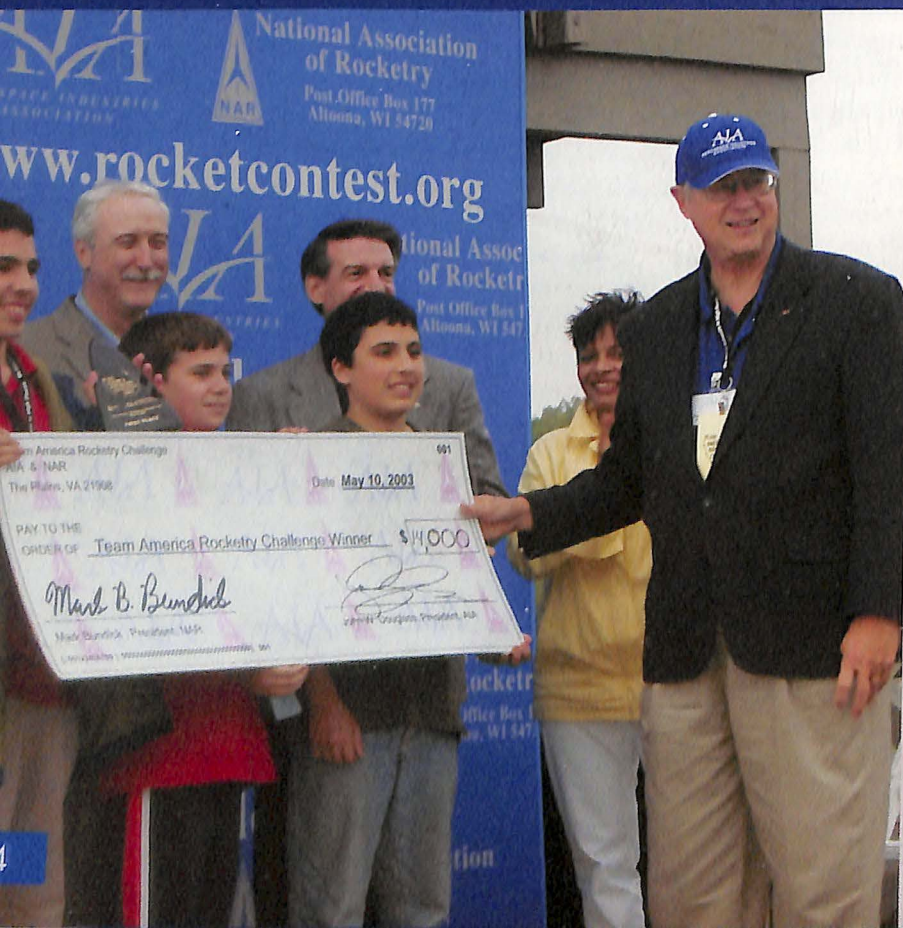
- Security Costs and Productivity
- War Risk Insurance
- Taxes
- Air Traffic Management
- Enabling Technologies and Aeronautical R&D
- Rules-based Trade Agenda

Aviation safety and security are vital to public confidence. AIA is committed to improving both but believes that security is primarily a component of national defense and should be a function paid for by government.

Steps by Congress and the administration to provide relief to the airlines from security fees and unfunded mandates are

**AIA President and CEO John W. Douglass welcomes association members to the Southeast Regional Meeting in Orlando in April.**

## Aerospace is the Place for Students, AIA Finds



Hundreds of high school students, their families, teachers, and sponsors completed a months-long quest on May 10 to determine winners in the first Team America Rocketry Challenge sponsored by AIA and the National Association of Rocketry.

Boonsboro, Md., High School registered a perfect score and shared a \$59,000 prize pool with Washington International School from Washington, D.C.; Vail Christian High School from Edwards, Colo.; Manlius Pebble Hill School from DeWitt, N.Y., and Waccamaw High School from Pawleys Island, S.C.

"Everyone's been saying that kids today aren't interested in space," noted AIA President and CEO John W. Douglass during the closing ceremonies. "But we found that quite the contrary kids are just as interested in space today as they were 30 years ago.

"We started this contest to celebrate the 100th anniversary of powered flight and were overwhelmed with the response from students all over the country. We hope the young people here today have discovered how fascinating science is and decide to study aerospace fields when they go to college. That will be the ultimate measure of the value of this contest," Douglass said.

**AIA President and CEO John Douglass presents a check to members of the Boonsboro, Md., High School team that won the first national Team America Rocketry Challenge. NASA Administrator Sean O'Keefe is seen at center in back row. To his left is Art Stephenson, director of the Marshall Space Flight Center.**

*Rocketry Challenge photos courtesy of Joseph P. Barron.*

welcomed. AIA and the Aviation and Space Stakeholders Coalition the association helped form played leading roles this March in getting an additional \$3 billion in airline aid and extended unemployment benefits to laid-off airline, airport, and aerospace workers.

The AIA committee is also seeking to ensure the availability of affordable war risk insurance and legislation to replace the tax provisions related to foreign sales corporations.

CEOs are also concerned about the lack of coordination among government departments and agencies in aeronautics R&D that's inhibiting technology insertion and affecting efforts to design the next generation air traffic management system.

Although the current decline in demand for air travel has provided relief from the aviation gridlock that the traveling public experienced a few years ago, analysts agree that eventually long-term growth in aviation demand will exceed the capability of the existing air traffic system.

The committee has directed the association staff to give top priority to the development of a unified roadmap that will lead to the implementation of the next generation air traffic management system. That is now part of a broader effort by AIA to develop and implement an integrated U.S. aeronautics technology agenda under a government/industry partnership.



**Author Homer Hickam whose autobiographical novel *Rocket Boys* inspired thousands of students to pursue an interest in space, rockets, and science signs autographs for some of the participants in the finals of the Team America Rocketry Challenge.**

U.S. Senator Michael B. Enzi (R-Wyo.), NASA Administrator Sean O'Keefe, author Homer Hickam, Marshall Space Flight Center Director Art Stephenson, National Air and Space Museum Director Jack Dailey, and astronaut Jay Apt presented the awards.

The top 100 teams came from 36 states and the District of Columbia, and many were sponsored by AIA member companies. Some 900 schools and more than 6,000 students participated.

To execute one of the most dramatic air operations of the war against Iraq – the rescue of Army Pfc. Jessica Lynch from a hospital in Nasiriyah – the Pentagon called on some of its most sophisticated intelligence, surveillance, and reconnaissance tools. The mission began with strike aircraft, including at least a section of two AV8B Harriers from VMA-214, creating a diversion in the city. The Harriers dropped bombs on a nearby Ba'ath party facility, said the pilot of one of the aircraft.

## Aerospace Industry Tools Helped Save Pvt. Lynch

Those Harriers were quickly replaced by two others to provide close air support and monitor the area around the hospital for a possible Iraqi military response. One aircraft provided real-time imagery via a modified Litening-2 targeting pod, which had a data relay capability. The video was downlinked to a ground station and monitored there as well. The imagery was taken at a slant range of about 10 mi. and clearly shows the approach paths to the hospital.

The Harriers arrived in the area before the assault helicopters landed at the hospital and remained for about 40 min. until after the rescue party departed, the pilot of the pod-equipped aircraft said. The Litening-equipped Harrier was carrying a 1,000-lb. laser-guided bomb, with his wingman carrying two 500-lb. laser-guided weapons and two 500-lb. unguided bombs.

The Marines also provided five CH53E helicopters and five CH-46s to insert the Army ground units participating in the raid.

The Harrier wasn't the only surveillance platform supporting the operation. A Navy EP-3 signals intelligence aircraft was operating in the area to monitor communications in case Iraqi forces inside the hospital called for reinforcements.

Special operations forces also had a U.S. Air Force Predator unmanned aircraft loitering overhead, said an official involved in the rescue. The Predator was flying above the Harrier, with an Air Force Special Operations Command AC-130 gunship flying below for fire support.

Operating below the AC-130s were AH1W Cobra attack helicopters for additional close air support, as well as Army special operations MH-6 Little Bird helicopters. The only shooting was inside the hospital, with no casualties among the rescuers. In the immediate aftermath, pilots were only obliquely told about the outcome of the mission. A radio message advised them things had gone well and to watch the news the next day.

*This article is reprinted with permission from Aviation Week & Space Technology magazine. It was written by Military Editor Robert Wall.*



**Pratt & Whitney President Louis R. Chenevert welcomes attendees at the opening of the Wright Flyer Exhibit at the New England Air Museum near Hartford, Conn. Pratt & Whitney sponsored a four-month appearance of the traveling exhibit.**

## Paris Air Show Update

The Defense Department (DoD) is significantly reducing its presence at the Paris Air Show this June, bringing in a half dozen aircraft for static display only. While we would have preferred that the administration demonstrate U.S. military aviation strengths that dominated in Iraq, the limited display will still send a strong signal to the rest of the world about the power of U.S. military aviation and our aerospace industry products.

AIA has been the hub of industry planning on how to react to congressional concerns about participation at Paris as a result of the French position on actions in Iraq, the need for trade discussions between the United States and Europe, and other international issues.

We will keep our channels of communication open, and we intend to talk with European industry leaders during the Paris exposition about what we can do in the near future to relax tensions and solve trade problems.

The political environment, the reduced DoD presence, the economic downturn in the industry, and the need to 'right size' air show participation have cooled enthusiasm for this year's Paris event. As a result, U.S. aerospace companies are scaling back their presence there.

Nonetheless, we see Paris as an opportunity to celebrate the Centennial of Flight. The French share our fascination with flight. In August 1909 Wilbur Wright made a series of successful flights in France in what was termed the "Grand Week of

Aviation." And the French aerospace industry has been a leader in aerospace achievements. Despite this year's smaller show, the spirit of the Centennial of Flight and the long heritage of U.S.-French aerospace partnership will be celebrated there.

## Regional Meetings Are a Hit

We thank Lockheed Martin Corporation's Missiles and Fire Control unit for hosting the Southeast Regional Meeting in Orlando, Fla., in April. It had the largest turnout of any regional meeting.

Vance Coffman, chairman and CEO of Lockheed Martin and chairman of AIA's Board of Governors, discussed his company's outlook on defense and the challenges of global business since 9/11 and through the Iraqi conflict.

Stan Arthur, president of the host Lockheed Martin unit, gave the group an extensive overview of the Missiles and Fire Control business.

AIA's Supplier Management Council (SMC) brought in five new members, and several others plan to upgrade to regular membership as a result of discussions there.

The next regional meeting will be hosted by Computer Sciences Corporation July 10-11 in Falls Church, Va. A Southwest regional meeting will take place September 16-17, hosted by BAE SYSTEMS North America in San Diego.

Finally, our SMC had its annual Spring Meeting in late April on Long Island, N.Y. A large turnout proved that the aerospace industry is continuing to move forward in that area – as it is all across America.

John W. Douglass

## New Member **SPOTLIGHT**

Recent additions to AIA's roster of member companies include two growing aerospace manufacturers who have moved up from the Supplier Management Council and an innovative designer of software for improving product development and manufacturing processes.

**HITCO Carbon Composites** manufactures advanced composite materials for defense, aerospace, and industrial applications.

Its products include solid rocket motor nozzle and aircraft assemblies, military aircraft and automobile racing carbon-carbon brakes, and automotive torque control assemblies and transmissions.

Founded in 1922, HITCO is a leading supplier of composite structural assemblies and high-temperature materials to aerospace and industrial markets.

Headquartered in Los Angeles, the company has more than 150 employees who engineer, fabricate, assemble, and inspect aerospace composites. Sixty workers are degreed and 17 have advanced degrees. The average tenure of the employees is more than 14 years.

HITCO's technical group has extensive experience in concurrently developing complex aerospace composites.

For example, the first C-17 tail cone and Delta IV nozzle assembly were designed, tooled, and delivered in less than 12 months despite design changes and considerable growth in complexity. In addition, HITCO either maintained or reduced its price to its customer.

HITCO is a unit of SGL Carbon Group, a Wiesbaden, Germany, producer of carbon and graphite products.

**RTI International Metals, Inc.**, manufactures and distributes titanium and specialty metal mill products, extruded shapes, and engineered systems and provides environmental engineering services.

Its products are used for aerospace, industrial, military, and consumer



**The Boeing C-17 tailcone assembly showcases HITCO's large composite structure manufacturing and assembly capabilities.**

applications. RTI also offers business management and consulting services to businesses in the metal industry and other related manufacturing fields.

Headquartered in Niles, Ohio, RTI's segments include its Titanium Group and the Fabrication and Distribution Group, totaling 1,200 people at 18 locations in the United States and Europe.

The Titanium Group produces titanium mill products, including alloy plate, alloy sheet, bloom, billet, slab, ingot, welded pipe and tubing, as well as commercially pure titanium strip, coil, and plate. Users include major domestic and international manufacturers of commercial and military aircraft and jet engines.

The Fabrication and Distribution Group manufactures and distributes titanium and specialty metals, extruded shapes, and engineered systems for energy, aerospace, and military markets, including super-plastic forming and water-jet cutting.

**Federation, Inc.**, develops software for manufacturing organizations seeking to improve the product development process.

The new software facilitates a seamless information flow as it is created or revised among partners in the design and manufacturing process as well as online between OEMs and suppliers.

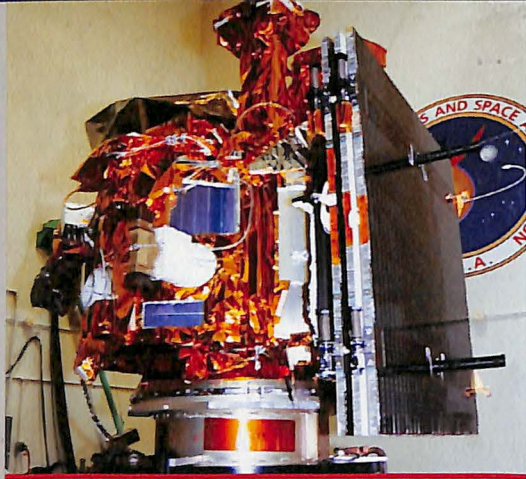
Founded in 1998, Federation is the only company offering a vendor-neutral solution to manufacturers that provides improved collaboration processes, leverages best practices among partners, and provides higher reliability and accessibility of data, faster time-to-market, and improved security.

Federation's unique architecture is more scaleable, reliable, and responsive than other architectural approaches to content management.

Working with Computer Sciences Corporation, one of Federation's partners, Lockheed Martin Corporation was the first customer to contract for implementation of the Federation architecture.

The company is headquartered in Centennial, Colorado.





## Swales Finds Good Climate in Space

**A**IA member company Swales Aerospace is dedicated to "getting ideas off the ground" – as its vision slogan promises.

The first idea lifting off for Swales was the company itself.

Celebrating its 25th anniversary this year, Swales was launched in April 1978 by three engineers whose aim was to "form an engineering company built by engineers for engineers," according to Chief Executive Officer Tom Wilson, one of the founders along with Chairman Tom Swales and Chief Technology Officer Ron Luzier.

Headquartered in Beltsville, Md., Swales has been in space ever since it began by conducting engineering and design analyses for NASA. One of the company's first projects was an analysis of the Hubble Space Telescope program, a mission it continued to support for 23 years.

Today, the employee-owned company provides full-service solutions for small satellite missions and a range of structural/thermal management systems and flight hardware in support of the global satellite industry.

Swales Aerospace has more than 900 engineers, scientists, and technicians working in proximity to its NASA and Defense Department clients in Maryland, Virginia, California, Florida, and Texas.

Representative projects supported by Swales include space shuttle payloads, the Hubble Space Telescope and its servicing missions, the Earth Orbiter-1 spacecraft in the New Millennium Program, and the Mars 2001/2003 – Mars Odyssey and Explorer spacecraft.

Just in time for Swales' anniversary celebration, the company was selected in April to build five satellites in support of NASA's next Medium-Class Explorer Mission, which is expected to provide answers to critical questions about the magnetosphere and related space weather.

As for Swales, the climate in space is just fine.

**Photo above: Swales Aerospace supports NASA's Earth Orbiter-1 spacecraft.**

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EXECUTIVE  
**REPORT**

SUMMER 2003



**SMC MEMBERS CALL ON CONGRESS**

**AIA FOCUS-ELECTION 2004**



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**Frank C. Lanza,** Chairman & Chief Executive Officer, L-3 Communications Holdings, Inc.

**Joseph H. Lubenstein,** President, Kaman Aerospace Corporation

**Michael F. Martin,** President, Aerojet

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**Ronald D. Sugar,** Chief Executive Officer & President, Northrop Grumman Corporation

**William H. Swanson,** Chief Executive Officer & President, Raytheon Company

**David L. Taylor,** President & Chief Executive Officer, Ball Aerospace & Technologies Corporation

**W. David Thompson,** President, Spectrum Astro, Inc.

**On the cover: Three representatives of Supplier Management Council companies meet with AIA President and CEO John W. Douglass (second from left) on the steps of the Capitol during an issues blitz to members of Congress in July. With Douglass are (from left) Robert Sprole, president of Therm, Inc.; Rosemary Brester, president of Hobart Mached Products Inc.; and Douglas R. Roulstone, senior vice president of Thomas James International.**



**John W. Douglass**  
AIA President & CEO

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*"With help from this 'fired up' supplier base of associate members, AIA is increasing its ability to protect America's aerospace industrial base and contributing to the stability and security of our nation."*

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Dear Association Member:

The U.S. presidential election process is beginning anew with a long line of candidates-in-waiting already posturing in preparation for the presidential preference primaries and party caucuses that will start in January.

With an eye on the calendar, AIA's interest in the electoral process also is stirring.

We've begun developing Election 2004 aerospace issues and related background papers in concert with next year's AIA Top Ten Issues. The schedule calls for us to have an extensive working list of election issues ready for Executive Committee review in early September and a final list prepared for approval at the Board of Governors meeting in Phoenix in November.

AIA has a long history of support of the national electoral process. While we don't have a financial PAC that raises money in support of pro-industry candidates, we do a pretty good job of independently educating and influencing decision makers by providing them with unbiased facts about our concerns.

We intend to develop a list of critical issues – all non-partisan in nature – and include suggested actions that the major party candidates can and should endorse.

AIA was very successful in the 2000 presidential election when we teed up our positions early and got them understood and seriously considered by the candidates and their platform committees. We won favorable responses from both major candidates in that campaign, and we set the tone for the whole aerospace manufacturing community.

None of our actions in Election 2004 will be targeted to either major party. But, in the end, when our members vote, they'll be influenced by the response and reaction we get from the candidates.

We urge all member companies to send us draft issues for inclusion in our development process. In addition, all CEOs are welcome to come to the Executive Committee meeting September 10 in Washington and participate in selecting the issues to be included in our campaign.

The association needs to have our aerospace issues staffed out this fall because the political parties will be putting their platforms together in the early spring, and candidates will be staking out their positions by the time of the early primaries. We can't wait until next year to do this.

We will have our Election 2004 campaign approved when we leave the Board of Governors meeting in Phoenix in November.

### **SMC Hits the Hill**

On the subject of political action, the association's Supplier Management Council delivered major, positive grassroots messages in support of aerospace issues on Capitol Hill in early July when nearly 70 representatives of supplier companies called on the offices of 30 members of the House of Representatives and eight members of the Senate.

The men and women of the SMC team sought support for industry legislative matters, including concern with pending "Buy American" provisions, the need for continued export reform, and support for the recommendations of the Commission on the Future of the U.S. Aerospace Industry.

By increasing the AIA profile on Capitol Hill, the associate members' legislative effort will have a lasting, positive effect on important issues facing our aerospace and defense industries.

Also, the SMC endeavor helped stimulate new members for the House Aerospace Caucus and led to the establishment of a permanent SMC legislative working group.

With help from this "fired up" supplier base of associate members AIA is increasing its ability to protect America's aerospace industrial base and contributing to the stability and security of our nation.

The SMC intends to schedule a series of congressional visits on key issues every year.

### **Re-examining Air Shows**

After this summer's Paris Air Show, the Executive Committee asked us to form an association IPT – an improvement process team – on behalf of the aerospace industry to look at where we should go from here on air shows.

Senior leaders in our companies have mixed views on the value of air shows. Some believe they present valuable marketing opportunities while others think that they've become so expensive that the cost outweighs their value.

There seems to be a consensus developing that we ought to scale back as an industry on air shows. One member company has proposed to the Executive Committee that U.S. industry participate in the large European air shows only every other year. That would mean a reorganiza-

tion of the current show schedule rotation by the European sponsoring organizations.

Aerospace industry CEOs in the late 1980s made an effort to scale back participation at the big air shows, but the effort was unsuccessful. With an assurance of anti-trust immunity, the association will re-examine the issue to identify our options and a roadmap for action.

With Farnborough ahead for next year, AIA is going to press U.S. officials to tell us early in the planning cycle what the level of government participation will be. The sooner industry knows the better our planning will be. It's possible that the administration might not want U.S. industry to send the British, our allies in the war on terrorism in Afghanistan and Iraq, the wrong signal.

### **"Buy American" Provisions**

In a major legislative undertaking this summer, AIA has led a coalition of member companies and other associations to ensure that members of Congress are aware of the painful consequences of "Buy American" provisions in the FY 2004 National Defense Authorization Act.

While the phrase "Buy American" gives the impression that this legislation will protect U.S. national and economic security, that's simply not true. The provisions would harm the U.S.

aerospace industry, reverse Defense Department business reforms, and unravel important national programs with allies across the world.

The "Buy American" effort is aimed at increasing the percentage of U.S.-produced content in defense systems and revamping how the Defense Department manages the defense industrial base.

AIA's analysis of the provisions is that they would have a negative impact on the aerospace and defense industry. Conservatively, several hundred U.S. jobs would be furloughed or lost and billions of dollars would be spent to implement the legislation.

The provisions also would mandate that all machine tools used by defense companies under new contracts be made in America beginning four years after enactment of the law – with no exceptions or waivers.

The mandate would cost industry hundreds of millions of dollars for recapitalization. In addition, there are no U.S. manufacturers for many specialized machine tools used by the aerospace industry.

Our industry, like others, depends on suppliers from all over the world for parts and components. Even if the requirement were possible to achieve, the proposed provisions have such strict compliance standards that many commercial compa-

## **A Global Environment Multiple Challenges, United Interests**



AIA Board of Governors Chairman Vance D. Coffman, chairman and chief executive officer of Lockheed Martin Corporation, addressed global issues at the association's spring meeting in Williamsburg, Va. At right is a digest of his remarks.

There are many visions about how we should view "national security" in a world where airliners can be used as weapons and destructive new diseases skip unhindered across oceans and time zones.

One thing is clear: In the post-9/11 world, it isn't realistic for countries to retreat behind national borders. The new security environment is one in which allied action and cooperative efforts against terrorists and other threats are absolutely required. The threat is global – and so must be the response.

Governments must cooperate globally, and they must be able to coordinate their policies and their military and law enforcement actions.

In that context, we are deeply concerned by the specter of a schism between some NATO partners. The Iraq conflict has brought to the

surface tensions that have simmered since the collapse of Communism knocked out one of the pillars underpinning the Atlantic alliance's reason for being.

Now, some question whether NATO will continue to have a vital presence in trans-Atlantic security relations. To my mind, it must – the stakes are too great and the responsibilities of NATO too broad to allow the world's most successful military alliance to retreat into irrelevance.

### **European Defense Funding**

For our industry the shortage of European defense funding means that excess capacity remains a major concern. The European defense industry has traditionally relied upon export markets to support the scale necessary for efficient production.

Continuing reductions in European defense spending emphasize the need within European industry for export markets, but the world market for traditional defense products is actually shrinking. At the same time, the United States experiencing one of its cyclical increases in defense spending that will expand the gap between the United States and Europe.

One danger is that "fortress mentalities" will develop on both sides of the Atlantic with consequences that would probably make the current capabilities gap even worse. Not only would there continue to be insufficient resources, but the resources that would be available would be spent inefficiently.

On both sides of the Atlantic, protectionist impulses remain a political reality. In the United States, Congress is

nies would likely choose not to contract with the Defense Department to avoid the potential liability associated with noncompliance.

We're very hopeful of prevailing in this effort when Congress returns from its summer recess. All of the affected major executive agencies – the Pentagon and the State and Commerce departments – are urging the president to veto the measure if it gets through the conference committee process on the Hill.

### Commission Proposals Implemented

In other legislative action I'm pleased to report that House/Senate conferees on the FY04 FAA Authorization bill implemented a number of AIA-influenced recommendations issued last year by the Commission on the Future of the U.S. Aerospace Industry, including the creation of a joint program office for the future development of air traffic management.

House Transportation and Infrastructure Committee Chairman Don Young (R-Ark.), Senate Aviation Subcommittee Chair Trent Lott (R-Miss.), Senate Commerce Committee Chair John McCain (R-Ariz.), and House Aviation Subcommittee Chair John Mica (R-Fla.) worked diligently to improve America's aerospace and aviation infrastructure through the FAA reauthorization measure.



AIA President and CEO John W. Douglass (center) shares historic aviation highlights with others attending the association's Mid-Atlantic Regional Meeting in July, hosted by Computer Sciences Corporation (CSC) in Falls Church, Va. Douglass looks through a commemorative copy of AIA's *Milestones of the First Century of Flight*, which he presented to CSC officials. Also pictured are (from left) Mike Beebe, executive sponsor of CSC's Global Aerospace and Defense Council; Sandra Carney-Talley, AIA's assistant vice president for policy and planning; Mike Laphen, president and chief operating officer of CSC; and Tony Patti, chairman of the Global Aerospace and Defense Council. The next AIA regional meeting will be hosted by BAE SYSTEMS North America in San Diego in September.

poised to further restrict the flexibility that currently exists in the "Buy American" laws. In Europe, the proposed European "procurement union" and "directed" procurement decisions requiring 100 percent European content reflect a growing "Fortress Europe" mentality.

To argue via these counter-productive protectionist stances that we can be leaders in this industry and not participate in the global marketplace – or that we can protect a home market and still expect to be competitive globally – doesn't hold up in the face of technological, economic, or even political trends.

#### Globalized Markets

And I need hardly add that in the commercial side of our business, we are already in one of the most globalized marketplaces ever seen. To put the matter simply: Governments should set the framework and

standards for the global aerospace marketplace. Companies can then compete and cooperate within that framework.

This is important because one of the challenges the U.S.

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*"The future I envision is one of new partnerships among allies and friends. It's a future where 'united interests' will consistently win out over 'multiple challenges.'"*

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aerospace industry faces is an export licensing system designed for a different era.

AIA has appropriately made export control reform one of its "Top Ten" priorities, and I know that many of you are pleased that the administration has embarked on a broad review of U.S. export control policy.

Another issue that has created tensions in the global marketplace is the World Trade

Organization ruling that the U.S. Foreign Sales Corporation/Extra-Territorial Income Exclusion Act amounts to an illegal subsidy for U.S. exporters.

I am hopeful this issue will be resolved this year through

Congressional action – but if it isn't, tensions surrounding it could continue to affect U.S.-European trade relations.

#### Multiple Challenges

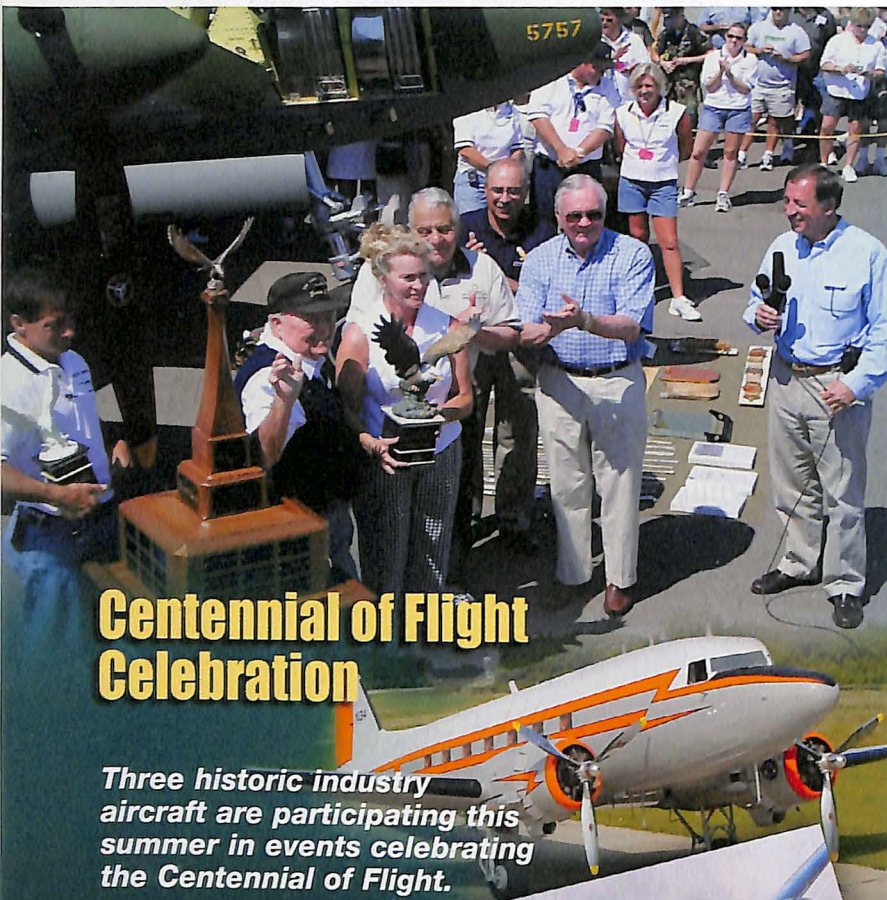
I view the global environment all defense firms find themselves in today as "multiple challenges, united interests." We have challenges in security threats, strains in long-standing relationships, disparities in

resources, and inherent tension between parochial, home-grown constituencies and the need for cross-border security solutions.

When you strip it all away, the fundamental product of our industry is solutions. We aren't simply selling products and services. We are developing highly integrated solutions for the most complex security problems that our nations face.

The future I envision is one of new partnerships among allies and friends. It's a future where "united interests" will consistently win out over "multiple challenges."

Most of all, it's a future where the benefits of open and transparent competition bring best value and best security to our customers and to the peace-loving people who count on our industry and our governments to protect them against the rapidly evolving threats to world security.



## Centennial of Flight Celebration

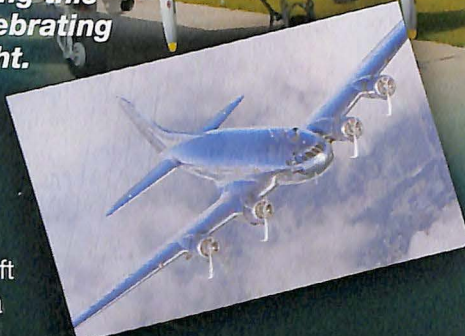
**Three historic industry aircraft are participating this summer in events celebrating the Centennial of Flight.**

"Glacier Girl," (top) a fully-restored Lockheed P-38F, was presented with the Rolls-Royce Aviation Heritage Trophy at the 2003 Dayton Air Show. The aircraft was recovered from inside a glacier in Greenland in 1992.

With it are (from left) J. Roy Shoffner (in cap), owner of "Glacier Girl," and Eddie Lou Shoffner; Don Lopez, National Air and Space Museum (NASM) deputy director; Ken Perich, vice president of market development for Rolls-Royce North America Inc.; former astronaut Neil Armstrong; and James M. Guyette, president and CEO of Rolls-Royce North America Inc.

The last Douglas DC-3 (middle) operated by the FAA will participate in the National Air Tour 2003 in September, recreating a series of tours that took place from 1925 through 1931 to convince a skeptical public that air transportation was safe and reliable. The aircraft is painted in colors of the Civil Aeronautics Administration, an FAA predecessor, and outfitted just as it was 58 years ago, including Pratt & Whitney engines and Hamilton Sundstrand propellers.

A Boeing 307 Stratoliner, (bottom) the first pressurized luxury commercial transport, is bound from The Boeing Company to its permanent home at the National Air and Space Museum. After its cross-country trip the airplane will be prepared for enshrinement in the museum's new Steven F. Udvar-Hazy Center at Dulles International Airport.



The aerospace commission laid out a vision for the future of air transportation in a series of recommendations designed to streamline air traffic management, increase capacity, and strengthen our air transportation infrastructure as a mechanism for economic growth.

Now, Congress has begun the transformation by taking steps to improve air capacity, safety, and security, thus capturing the commission's vision and making it a national priority.

Included in the legislation is an extension of war risk insurance to aircraft manufacturers at the discretion of the Transportation Department, assurances that the Aviation Trust Fund will be fully spent and that capital programs for airport improvement and air traffic control modernization are fully funded, increased funding for the FAA's air traffic control facilities and equipment, and career-enhancing scholarships for the aviation and aerospace workforce.

The full House and Senate will take up the bill in September, and we hope they'll act quickly.

### Aviation Ad Hoc Committee

Meanwhile, AIA's Civil Aviation Ad Hoc Committee is continuing its focus on a search for solutions to America's aviation industry crisis.

The committee recently expressed industry's position to Congress in support of FAA funding reauthorization for 2004. In addition, I met on behalf of the committee with Transportation Secretary Norman Mineta, Undersecretary Jeff Shane, and FAA Administrator Marion Blakey to solicit their ideas and energy in dealing with the health of airlines and aerospace manufacturers.

These senior officials were very responsive to our industry concerns regarding the need for a coordinated and robust research and development program for aeronautics.

Under the leadership of Alan Mulally of The Boeing Company, the Civil Aviation Ad Hoc Committee has gotten well organized to guide industry in pulling together to help the nation work out of its serious airline economic crisis.

### Association Strengths Continue

It's clear in reviewing our recent activities in Washington, that AIA's presence in the legislative process on Capitol Hill and among the executive agencies has never been stronger.

With the combined strengths of our main membership group and our associate members working hand-in-hand, the association is a powerful force on behalf of aerospace.

Membership continues to grow. In recent weeks we've added three full members who are featured in our New Members Spotlight in this *Executive Report*. In addition, our roster of select associate members is now over the 150 mark.

Welcome to all.

John W. Douglass

## New Member **SPOTLIGHT**

**S**trong corporate names, brand identity, and product recognition are hallmarks of the three newest members of AIA.

**Celestica**, a spin-off some seven years ago from IBM Corporation, is a world leader in the delivery of innovative electronics manufacturing services (EMS).

Headquartered in Toronto, the firm operates a highly sophisticated global manufacturing network with operations in Asia, Europe, and the Americas providing services to leading original equipment manufacturers.

A recognized leader in quality, technology, and supply chain management, Celestica provides competitive advantage to its customers by improving time-to-market, scalability, and manufacturing efficiency.

The company has more than 38,000 employees and last year recorded \$8.3 billion in sales.

Integrated electronics manufacturing services provided to OEMs by Celestica include printed circuit assembly, system build to memory, and power solutions.

The company's EMS capabilities are led by quick-to-market supply chain management, global component purchasing power, and industry-leading design, prototyping, and value-added services.

For more information about Celestica, see [www.celestica.com](http://www.celestica.com).

**3M** is a \$16 billion, diversified technology company serving customers in more than 200 countries and headquartered in St. Paul, Minn.

The firm's 70,000 employees use their expertise, technologies, and global strength to lead in major

market segments such as transportation; industrial; display and graphics; electronics and telecommunications; safety, security, and protection services; consumer; office; and health care.



**3M's unique, closed Paint Preparation System eliminates the need for separate mixing cups and filters and is used in the aerospace industry to paint a variety of aircraft parts. The system produces cleaner paint jobs, reduces solvent usage up to 70 percent, and improves operator efficiency.**

3M's brands include icons such as Scotch, Post-it, Scotchgard, Thin-sulate, Scotch-Brite, Filtrete, Dyneon, O-Cel-O, and, of course, 3M.

The 3M Aerospace and Aircraft Maintenance Division is a leading supplier to aerospace original equipment manufacturers and maintenance, repair, and overhaul firms in the commercial, general, and military aviation sectors.

Product categories include ceramics, adhesives, and films and protective tapes for fire protection, heat management, fluid management, paint replacement, leading edge protection, and drag reduction.

3M products for reclosable fastening, bonding, and corrosion protection are designed for interior use and feature flame retardancy.

For more information, visit [www.3M.com](http://www.3M.com).

**PerkinElmer, Inc.**, is a global technology leader providing products and services to customers in health sciences and other advanced technology markets that require innovation, precision, and reliability.

The firm recently upgraded its membership from AIA's associate member ranks.

Headquartered in Boston, PerkinElmer is focused on life and analytical sciences, optoelectronics, and fluid sciences.

The company's Fluid Sciences unit designs and manufactures products that are used on every major commercial and military aircraft and turbine engine built in the world today.

Fluid Sciences is a leading provider of critical sealing and fluid containment products and services for aerospace, semiconductor, and power generation markets as well as engine lubricant testing.

Product applications include turbine engine bleed air and cooling ducting, engine exhaust, and other extreme temperature/pressure conditions.

PerkinElmer's pneumatic systems and components are designed and used in severe and critical operating conditions to optimize performance for the life of the equipment.

For more information about PerkinElmer's Fluid Sciences unit, see [www.fluidscience.perkinelmer.com](http://www.fluidscience.perkinelmer.com).





## EFW Marks a Decade of Success

AIA member company EFW Inc., a full service aerospace electronics supplier, is celebrating its first decade of business growth and contributions to national security.

Headquartered in Ft. Worth, Texas, EFW specializes in sophisticated electronic hardware and software solutions for upgrade, integration, and enhancement projects. The company's defense programs include components for fixed-wing and rotary-wing aircraft, ground vehicles, naval vessels, trainers, and simulators as well as command, control, and communications systems.

"Every day our solutions are at work around the globe," notes EFW President and CEO Tim Taylor. "That's the tangible result of an unwavering 10-year commitment to our corporate mission to develop, produce, and sustain defense and aerospace systems to protect and save lives."

Since its beginning in 1993, EFW has invested in capital, facilities, technology, and people to support, meet or, exceed customer requirements and expectations. The company has 1,100 employees.

"Our quality management system has been certified to ISO 9001 standards for many years," Taylor points out. "But today, we are engaged in improving our quality management system to comply with the latest standards. We expect certification to ISO 9001:2000 and AS 9100 by the end of this year and CMMI - Level 3 in 2004.

"Adoption of these standards has shifted EFW away from traditional inspection and toward process management as a means of controlling our business," Taylor adds. "Our motto for this enterprise-wide change initiative is: 'Integrity of process...integrity of product.'"

A fully-accredited U.S. Defense Department supplier, EFW produces high-quality, cost-effective, complex military electronics for U.S. and international defense contractors and users, including General Dynamics Corporation, Boeing Integrated Defense Systems, Lockheed Martin Corporation, and United Defense.

## AIA Member Companies

AAI Corporation  
Aerojet  
Alliant Techsystems Inc.  
American Pacific Corporation  
Analytical Graphics, Inc.  
Areté Associates  
Argo-Tech Corporation  
AstroVision International, Inc.  
Atlantic Research Corporation  
Aviell, Inc.  
B&E Tool Co. Inc.  
BAE SYSTEMS North America Inc.  
Ball Aerospace & Technologies Corp.  
Barnes Aerospace  
B.H. Aircraft Company, Inc.  
The Boeing Company  
Celestica Corporation  
Computer Sciences Corporation  
Crane Aerospace  
Cubic Corporation  
CurtissWright Corporation  
Curtiss-Wright Flight Systems, Inc.  
Metal Improvement Company  
Dassault Falcon Jet Corporation  
DRS Technologies, Inc.  
Ducommun Incorporated  
DuPont Company  
DY 4 Systems Ltd.  
EDO Corporation  
EFW Inc.  
Embraer Aircraft Holding Inc.  
ESIS, Inc.

Esterline Technologies  
Exostar LLC  
Federation Inc.  
General Atomics Aeronautical Sys., Inc.  
General Dynamics Corporation  
General Electric Company  
GKN Aerospace Services  
Goodrich Corporation  
Airframe Systems  
Electronic Systems  
Engine Systems  
W.L. Gore & Associates  
Harris Corporation  
HEICO Corporation  
Hexcel Corporation  
HITCO Carbon Composites, Inc.  
Honeywell  
ITT Industries  
Defense and Electronics  
JEDCO Inc.  
Kaman Aerospace Corporation  
Kistler Aerospace Corporation  
L-3 Communications Holdings, Inc.  
Lockheed Martin Corporation  
3M Company  
Martin-Baker America Inc.  
MatrixOne, Inc.  
MD Helicopters, Inc.  
MOOG Inc.  
Northrop Grumman Corporation  
Mission Systems  
Space Technology  
Omega Air, Inc.

Orbital Sciences Corporation  
Advanced Systems Division  
Parker Aerospace  
PerkinElmer, Inc.  
Fluid Sciences  
Proficiency Inc.  
The Purdy Corporation  
Raytheon Company  
Remmele Engineering, Inc.  
Rockwell Collins, Inc.  
Rolls-Royce North America Inc.  
RTI International Metals, Inc.  
Silicon Graphics, Inc.  
SM&A  
Smiths Aerospace Actuation Systems  
Los Angeles  
Spectrum Astro, Inc.  
Stellex Aerostructures, Inc.  
Swales Aerospace  
Teleflex, Inc./TFX Sermatech  
Mal Tool & Engineering  
Textron Inc.  
Titan Corporation  
Advanced Systems Division  
Triumph Group, Inc.  
United Defense  
United Technologies Corporation  
Hamilton Sundstrand  
Pratt & Whitney  
Sikorsky  
Vought Aircraft Industries, Inc.  
Woodward Governor Company

## AIA Associate Member Companies

AbelConn, LLC  
Accurate Metal Machining, Inc.  
ADI American Distributors Inc.  
Aeroflex  
Aerospace Fabrications of Georgia, Inc.  
Air Industries Machining Corporation  
Alkin Industries, Inc.  
Allen Aircraft Products, Inc.  
American Data & Computer Products  
AMI Metals, Inc.  
Arkwin Industries, Inc.  
Arrow Gear Company  
Arrow/Zeus Electronics, division of  
Arrow Electronics  
A & S Tribal Industries  
AUSCO, Inc.  
AVChem, Inc.  
Avexus, Inc.  
Avionics Specialties, Inc.  
Amet Electronics Marketing  
Banneker Industries, Inc.  
Berkshire Industries, Inc.  
Bill-Jay Machine Tool Corporation  
BTC Electronic Components, Inc.  
Burton Industries Aerospace Heat Treating  
California Screw Products  
Chandler/May, Inc.  
Cherokee Nation Distributors  
Cincinnati Machine, a UNOVA Co.  
Circle Seal Controls, Inc.  
CMC Electronics, Inc.  
Cohesia Corporation  
Compass Aerospace Corporation  
Composites Atlantic Limited  
Consolidated-PAC Foundries  
Contivo, Inc.  
CPI Aerostructures, Inc.  
Cristek Interconnects, Inc.  
Cytec Engineered Materials  
Dayton T. Brown Inc.  
The Deutsch Company  
DynaBil Industries, Inc.  
East West Technology  
Eaton Aerospace  
Electronic/Fasteners, Inc.  
EMS Technologies, Inc.  
ENSCO, Inc.  
Envision LLC  
Faber Enterprises, Inc.  
Fastener & Hose Technology  
Mid-State Aerospace, Inc.  
The Perco Group  
Fortner Aerospace Manufacturing  
Frontier Electronic Systems Corporation  
GEAR Software

G.S. Precision, Inc.  
GenMech Aerospace Corporation  
Greene, Tweed & Company  
Hagemeyer North America  
Hamby Corporation  
Hangsterfer's Laboratories, Inc.  
Hartwell Corporation  
Hi-Tech Aero Spares  
Hi-Temp Insulation Inc.  
Hobart Machined Products Inc.  
Holaday Circuits, Inc.  
H & S Swanson's Tool Company  
Hughes Bros. Aircrafters, Inc.  
Hughes-Treitler Manufacturing Corp.  
Industrial Metals International LTD  
Industrial Precision, Inc.  
Integrated Aerospace  
Jamco Aerospace  
JCM Engineering Corporation  
John Hassall Inc.  
Kennebec Tool & Die Co., Inc.  
Kulite Semiconductor Products, Inc.  
Lefiell Manufacturing Company  
Lewis and Saunders  
Lilly Software Associates, Inc.  
LMI Aerospace, Inc.  
MA-COM, Inc.  
Magnetico, Inc.  
UNOVA, Inc.  
Manufacturers' Services Ltd.  
Manugistics  
Manzi Metals, Inc.  
Marotta Controls, Inc.  
McCann Aerospace Machining Corp.  
Melador Technologies, Inc.  
Meyer Tool Inc.  
Micro-Coax, Inc.  
Millitech, LLC  
Morris Machine Company, Inc.  
MPC Products Corporation  
Natel Engineering Co., Inc.  
National Machine Group  
National Aviation Products Inc.  
National Machine Company  
Navigant Consulting  
Neuvant Aerospace  
Norfil Manufacturing, Inc.  
Northwest Composites Inc.  
Omni International  
OnBoard Software, Inc.  
Paravant Inc.  
Park Engineering & Mfg. Co., Inc.  
PC Guardian  
PGM of New England, LLC  
Plymouth Extruded Shapes  
Plymouth Tube Company

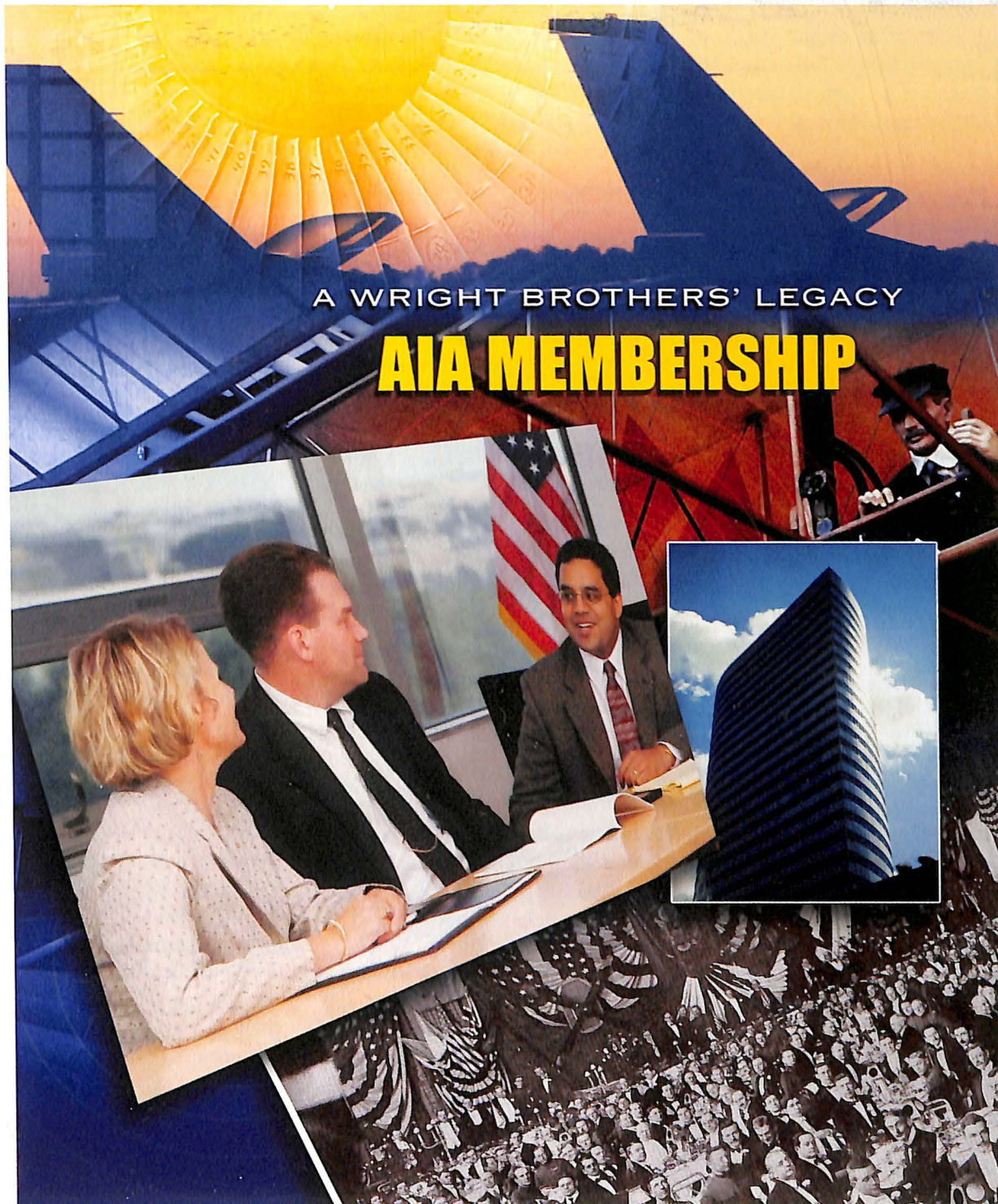
Port Electronics Corporation  
Precision Gear Inc.  
Precision Machine & Manufacturing  
Precision Machine Works Inc.  
Precision Tube Bending  
Primus International  
PRMS Inc.  
Production Engineering Corp.  
Pro Fab, Inc.  
PTI Technologies  
Quick-Wright Associates, Inc.  
Radant Technologies, Inc.  
RAM Manufacturing Company Inc.  
REMEC Microwave, Inc.  
Ryder System Inc.  
Safe Flight Instrument Corporation  
Service Steel Aerospace  
Servotronics, Inc.  
Sparton Corporation  
Spectra Lux Corporation  
Spirit Electronics, Inc.  
STADCO  
Sunshine Metals  
Sypris Electronics, LLC  
Texas Composite, Inc.  
Thayer Aerospace  
Therm, Inc.  
Thermal Solutions, Inc.  
Thomas James International  
TMX Aerospace  
Trylon Machine Company  
Tyco Printed Circuit Group L.P.  
Tyco Electronics  
UFC Aerospace Corp.  
Uni-Tek, LLC  
Vaupell Industrial Plastics  
Viking Metallurgical Corp. (Firth R  
WAER Systems, Inc.  
Welding Metallurgy, Inc.  
Wems Electronics  
West Cobb Engineering & Tool Co.  
Williams International  
Windings, Inc.  
Xelus, Inc.



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Web: aia-aerospace.org

# EXECUTIVE REPORT

FALL 2003



**AIA**  
AEROSPACE INDUSTRIES  
ASSOCIATION



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**Alan R. Mulally,**  
Vice Chairman

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**Alan R. Mulally,** Executive Vice President, The Boeing Company, and President & Chief Executive Officer, Commercial Airplanes

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**Michael F. Martin,** President, Aerojet

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**George E. Mueller,** Chief Executive Officer, Kistler Aerospace Corporation

**John R. Murphey,** Chairman & Chief Executive Officer, Bell Helicopter Textron, Textron Inc.

**Mark S. Newman,** Chairman, President & Chief Executive Officer, DRS Technologies, Inc.

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**Hugh J. Quigley,** President, DynaBil Industries, Inc.

**Thomas W. Rabaut,** President & Chief Executive Officer, United Defense

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**Frederick M. Strader,** President & Chief Executive Officer, AAI Corporation.

**Ronald D. Sugar,** Chairman, Chief Executive Officer & President, Northrop Grumman Corporation

**William H. Swanson,** Chief Executive Officer & President, Raytheon Company

**David L. Taylor,** President & Chief Executive Officer, Ball Aerospace & Technologies Corporation

**W. David Thompson,** President, Spectrum Astro, Inc.

On the cover: AIA was incorporated in 1919 as the Aeronautical Chamber of Commerce with a charter membership of 100. Early members included aviation pioneers Orville Wright and Glen H. Curtiss. Cover images commemorating the association's evolution as a legacy of the Wright Brothers' first flight 100 years ago include (clockwise from lower right) a photo of the association's organizational dinner, an AIA business meeting, a depiction of the Wright Flyer, and the headquarters of the association in the Northrop Grumman tower in Rosslyn, Virginia.



**John W. Douglass**  
AIA President & CEO

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*We've had a year to digest the report of the Commission on Aerospace and start logging progress on its recommendations. And now we have a year to prepare for the next dominant item on the horizon that's going to affect everything about the future of U.S. aerospace – the 2004 election.*

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Dear Association Member:

Election Day 2004 is less than a year away.

Between now and then aerospace faces a major challenge to highlight our crucial issues for the candidates and their platform committees and to win support for reinvigorated aerospace policies that will help make this nation's economy stronger, its security more firm, and our industry healthier.

It's fascinating that three major aviation milestones occur along a narrow timeline of less than two years:

- November 18, 2002 – The final report of the Commission on the Future of the U.S. Aerospace Industry is issued.
- December 17, 2003 – The 100th anniversary of controlled, powered, manned flight is celebrated.
- November 2, 2004 – Voters go the polls to elect the next president and members of the 109th Congress of the United States.

We've had a year to digest the report of the Commission on Aerospace and start logging progress on its recommendations. And now we have a year to prepare for the next dominant item on the horizon that's going to affect everything about the future of U.S. aerospace – the 2004 election.

### Understanding Aerospace Issues

It's very important that whomever wins the election understands aerospace issues, understands that we have a need for a modernized air traffic control system, a need for a new export control regime, that we need to get some new aerospace products into the civil marketplace.

The winner should also understand that we need to continue to grow our aerospace research and development, both for traditional defense and to help our intelligence efforts in the war on terrorism and also to make our commercial products more competitive in the global marketplace.

We know that 2004 is likely to be the last year before the industry starts to grow again plus it's a year to prepare for our future because this election will set the economic tone for the ensuing four years.

The association staff has been getting ready for the election for several months, assessing the issues and preparing draft white papers. When the Board of Governors meeting closes in Phoenix in late November, we will have our Election 2004 campaign finalized and ready to be implemented.

Issues adopted by the Executive Committee that we're refining right now include:

- Develop and Implement a National Plan to Improve the Nation's Aviation System Capability.
- Commit the U.S. Government to Fundamental Reform of the U.S. Export Licensing Process.
- Promote a Significant Increase in Intelligence Funding to Respond to National Intelligence Needs and the War on Terrorism.
- Improve U.S. Military Aerospace Industrial Cooperation with America's Allies.
- Develop a Federal Plan for Revitalizing the U.S. Aerospace Workforce and Sustaining Manufacturing Jobs.
- Further Develop a Safe and Efficient Global Air Transportation System.
- Commit to Replacing the Space Shuttle with a Modern Human Space Transportation System.

Our Election 2004 strategy is targeted to both parties. Our critical issues are all non-partisan and include recommendations that all candidates can and should endorse.

In the 2000 presidential election four years ago, AIA set the tone for the aerospace manufacturing community by winning favorable support from both major party candidates.

Next November, when our members and aerospace workers vote, they'll be influenced again by the response we get from the candidates.

### Aerospace Commission Review

November 2003 marks the one-year anniversary of the issuance of the report and recommendations of the Commission on the Future of the U.S.

Aerospace Industry, a notable panel on which I was pleased to serve as one of President Bush's commissioners on behalf of our association members and others in industry.

In Washington, various commissions and studies come and go, often with little impact. That's not the case with the work and the recommendations of the Commission on Aerospace. I'm proud to say this commission's work has made an impact on the administration and Congress. A lot of good has resulted from commission inspiration in just one year, a lot more is underway, but there's more that needs serious attention.

Look at the considerable success we've had in getting Congress and the administration to address some of the recommendations:

- Congress agreed to creation of a joint program office for developing improvements in air traffic management, a timely and far-sighted action.
- Congress has created a scholarship program for future aerospace workers.

- Congress introduced tax reform legislation this year to create a transition period and new production benefit for U.S. manufacturers who have relied on the Extra Territorial Income tax credit system.
- The House and Senate authorized the Transportation Department to extend war risk insurance to U.S. manufacturers of aircraft and engines.
- The Defense Department and NASA have created the National Aerospace Initiative to harness hypersonic power technologies to improve the efficiency of space explorations.

Yet, there's much more that needs to be done. There are a number of key issues on our short list for Congress and the administration.

For example, export control licensing is still in need of extensive overhaul. A system created during the Cold War stands in the way of the U.S. aerospace industry's continued leadership in global markets. We won't sit down on this issue. It must be resolved.

Also, we need to see more progress in workforce revitalization. Thousands of jobs of aerospace workers have been lost in the wake of the economic downturn for the airline industry. In addition, the workforce is aging. AIA and the Commission on

Aerospace have urged the administration to empanel an interagency task force to develop a strategy for reinvigorating the aging and shrinking U.S. aerospace workforce. Thus far little progress has been made.

These and other issues will be highlighted in our Election 2004 strategy as well as in our ongoing Top Ten Issues for AIA next year. We won't rest on our gains with so much yet to be done.

## Revitalization Executive Order Suggested

In an innovative proposal that could be a means to an end on pending aerospace issues, the association recently recommended that the administration consider issuing an executive order to implement a number of the pending commission recommendations.

It would be good for the president and for industry if he were to announce an aerospace revitalization plan on December 17 – the 100th anniversary of the Wright Brothers' historic flight and the day that marks the beginning of the second century of flight.

We drafted a concept to initiate thinking along that line within the administration, and we got a lot of positive reaction in various places. We are hopeful that the initiative will take hold.

Our initiative shows that AIA and its members are concerned enough with aerospace economic health and the future of our industry to work up broad suggestions and strategies for those who need to take action. We'll continue to be as inventive as we can in this regard.

## Overtime on Capitol Hill

The "Buy American" initiative espoused by some in Congress this fall was an unexpected and dangerous reaction to the war in Iraq. It kept us working overtime on the Hill for several months to explain over and over why it would have been a bad idea.

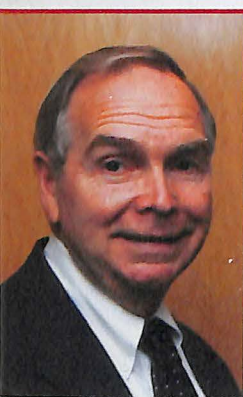
The protectionist proposal purported to help U.S. industry. If approved, however, the mandate would have cost government and industry millions of dollars and substantially reduced our security.

Provisions of the measure, in fact, had such strict compliance standards that many commercial companies would likely have avoided the liability of it all by choosing not to do business with the Defense Department.

And, not surprisingly, the "Buy American" drive elicited warnings of counter action from the European Union that would have undermined our intentions toward strengthening aerospace industrial cooperation with our allies.

Fortunately, our efforts in working closely with the administration and the leadership in Congress resulted in the removal on November 7 of the most potentially harmful components of the House "Buy American" provisions in the FY 2004 Defense Authorization Bill. AIA members and associate member companies engaged in a true team effort to present a united position regarding the negative impact of these provisions on the industry.

*Continued on page 7.*



## Copsey Retiring as Secretary-Treasurer

**G**eorge Copsey, AIA's secretary-treasurer since 1987, will retire December 31.

Copsey joined AIA in May 1966 as a staff accountant. In 1968 he was elected assistant treasurer and three years later was elected treasurer with a working title of controller.

Over the 37 years that Copsey has worked at AIA, he has supported three presidents and observed many changes in the association and industry.

"I've seen the impact of automation and how that has helped us serve our members," he said. "One of the first things we automated was the payroll system in the late 1970s. After that, everything else followed. We've invested heavily in technology and staff training, and that's reduced expenses over time."

AIA President and CEO John W. Douglass said, "George's background and his detailed knowledge of the association's history have been invaluable. His financial insight and experience working with AIA's membership will be greatly missed."

Copsey earned a bachelor of science degree in accounting from Benjamin Franklin University in Washington, D.C., in 1962. After graduation, he worked as an accountant for Federal Services Finance until 1964 when he was drafted into the U.S. Army, serving in Vietnam as a forward observer for the 1st Infantry Division.

After retirement, Copsey plans to explore his family genealogy, relax on his sailboat, travel, and do volunteer work.

**George F. Copsey**  
AIA Secretary-Treasurer



## Bell XV-15 Flies to Museum

**A** Bell Textron Helicopter XV-15 tilt rotor recently became the first artifact to fly onto the grounds of the Smithsonian National Air and Space Museum's new Steven F. Udvar-Hazy Center.

The craft was donated by NASA and the U.S. Army. The museum's new facility opens to the public Dec. 15 adjacent to Washington Dulles International Airport in Virginia.

The XV-15, which made its maiden flight in 1977, was the first successful example of an aircraft that can take off, land, and hover like a helicopter with its rotors in the straight up position and tilt them perpendicular to the wing to fly like a conventional airplane at nearly two times the speed of a helicopter.

The museum has the sole surviving XV-15 of the two built by Bell Helicopter and tested by NASA, the military services, the U.S. Coast Guard, and Bell.

The aircraft will be displayed at the Udvar-Hazy Center as part of the Smithsonian Institution's unparalleled vertical flight collection, which includes the oldest surviving helicopter (a 1924 Berliner), the first helicopter to enter production (Sikorsky XR-4), the first helicopter powered by a turbine engine (Kaman K-225), and the first helicopter to carry a U.S. president (Bell UH-13J, which carried President Eisenhower).

The center's aviation hangar, 10 stories high and the length of three football fields, will ultimately house 200 aircraft. On opening day, some 80 will be in place at ground-level and suspended at two different levels.

The XV-15 has been the most successful of NASA's rotary wing research programs and its technology inspired the V-22 Osprey adapted by the Marine Corps as the primary means of the "vertical envelopment" concept in warfare. The world's first civil tilt rotor is now under development and slated for delivery in 2007.

**The logbook for the experimental XV-15 tilt rotor is passed as the aircraft becomes part of the National Air and Space Museum's (NASM) vertical flight collection at the new Steven F. Udvar-Hazy Center in Northern Virginia. Gathered in front of the tilt rotor after its final flight are (from left) Claude M. Bolton, Jr., assistant secretary of the Army for acquisition, logistics, and technology; pilot Dwayne Williams; Victor Lebacqz, NASA acting associate administrator for aerospace technology; pilot Roy Hopkins; J.R. Dailey, NASM director; and Mike Redenbaugh, Bell Helicopter chief executive officer.**



## Celebration of Flight Five Early AIA Members Honored

*Following are excerpts of remarks by AIA President and Chief Executive Officer John W. Douglass prepared for presentation at an awards ceremony during the association's Fall Meeting in Phoenix.*

**T**o mark the anniversary of the first century of flight and AIA's 84 years of history, AIA is honoring five companies that joined our association in its earliest days and are still with us today.

In 1919 – only 16 years after Orville and Wilbur Wright's first flight, AIA was formed.

Originally named the Aeronautical Chamber of Commerce, our association's charter membership of 100 joined together to "foster, advance, promulgate, and promote aeronautics" and "generally, to do every act and thing that may be necessary and proper for the advancement of American aviation."

AIA's first meeting was held January 7, 1919, at the Waldorf-Astoria in New York City.

The nation was celebrating the successful end of World War I. Attendees at the Future of Aviation banquet were pleased with their role in ramping up production of air power that was so critical to the war effort.

John D. Ryan, the government's director of aircraft production, told the group that "the great manufacturing organizations should not be destroyed or allowed to fall into disuse."

And so AIA and you – the members – are here today, continuing the work started 84 years ago.

As we celebrate the 100th anniversary of flight and honor five of our early members, I thank all of you for your contributions to AIA in our collective effort to keep our industry strong, competitive, and innovative.

**The Boeing Company** — In 1922, the year the Douglas Company joined AIA, company founder Donald Wills Douglas leased an abandoned movie studio near Santa Monica, California, to begin building five world cruisers. Two years later, two of the craft completed a six-month flight around the Earth – the greatest aviation feat up to that time, earning the company its motto: "First Around the World."

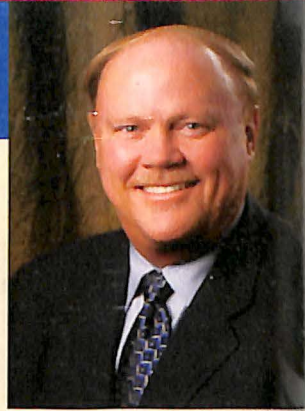
**Curtiss-Wright Corporation** — The Curtiss Aeroplane and Motor Company joined AIA in 1921 as one of AIA's charter members. Headed by aviation pioneer and inventor Glenn Curtiss, the company produced 10,000 aircraft during World War I – more than 100 a week. Jimmy Doolittle piloted an early Curtiss seaplane, the R3C-2, to victory in the 1925 Schneider Trophy race, setting a new standard for sleek lines and speed and beating its nearest competitor by an amazing 32 miles per hour.

**General Electric Company** — General Electric joined AIA in 1924. The company has been an industry leader from the earliest days when in 1918 it competed for a U.S. Army contract for a turbo supercharger that would work in the bitter cold air above 14,000 feet. The credibility of the GE turbo supercharger was proven in the early 1920s when Col. Billy Mitchell used them to help power an early bomber in proving the effectiveness of high-level bombing against surface targets.

**Goodrich Corporation** — Goodrich has been a continuous member of AIA since 1922. From the earliest days of aviation, Goodrich was there. Its tires were on the record-breaking plane piloted by Glenn Curtiss in winning the first international flight competition in France in 1909. And they were there again when Charles Lindbergh's Spirit of St. Louis touched down near Paris after his epic flight in 1927.

**Vought Aircraft Industries** — Chance Vought founded his aircraft company in 1917 and developed it into a firm that would someday design and build aircraft that changed the course of aviation. Vought joined AIA as a charter member in 1921. From the first aircraft to take off from a naval air carrier in 1922 through 75 years of service with the U.S. Navy, Vought aircraft were known for their innovation and durability.

**AIA Board of Governors Vice Chairman for 2004 Robert D. Johnson, president and chief executive officer of Honeywell Aerospace, delivered the keynote address recently to the annual convention of the European Association of Aerospace Industries (AECMA). Here is a digest of his remarks:**



As aviation begins its second century, we find ourselves at a pivotal point in history. Fundamental changes are taking place, and the pace of change is approaching the speed of sound.

The question before us: are we the pilots or are we the passengers on this supersonic journey? Thankfully, neither AECMA nor AIA is content to occupy the passenger seat. These two dynamic and proactive groups are working on solutions to the challenges facing the global aerospace industry. The STAR 21 Report in Europe and the Commission on the Future of the U.S. Aerospace Industry in the United States are two visible examples of our commitment to facing industry's issues and finding solutions.

The positions of AECMA and AIA differ on some fronts. But the two groups have a long history of cooperation and open communications. And we share the

ultimate goal of finding ways to improve, expand, and promote the many benefits that the aerospace industry has to offer.

Aerospace is one of the world's most global industries. It is also one of the most competitive – with companies based in Europe and the United States locked in a battle for the marketplace.

American and European companies compete fiercely against each other. But things aren't entirely as they seem on the surface. Cutthroat competitors on one program can quickly become respected partners, or even customers, on another. Calling one aerospace company "American" and another "European" is a gross over-simplification in an industry as global and diverse as ours.

In the past, international content on aircraft was often motivated by political and marketing considerations. Today, the economic reality is that international sourcing, development, and manufacturing make economic sense in a world becoming smaller and more integrated every day.

While the U.S. and European aerospace industries compete, the truth is that we often compete together. That is why we need to apply the considerable influence of AIA and AECMA to address the significant challenges facing aerospace today.

First, we have to help reinvent the business model for global air transportation. The image of traveling in a commercial aircraft has deteriorated greatly. Flying today is usually perceived as inefficient, inconvenient, and uncomfortable because the system is out of date.

We need the courage to undertake a critical examination of air travel and the value chain from start to finish with our ultimate customer – the airline passenger – in mind.

We are now in the longest and most severe downturn in the history of aviation. After a decade of steady growth, revenue passenger miles declined in 2001 and 2002. The world's airlines lost \$25 billion over the last two years. Production rates are down at Boeing and Airbus 32 percent since 2001.

It may take a few years, but with the improving economy and renewed passenger confidence, commercial air traffic will return to the peak levels we experienced in mid-2001. Experts predict that growing demand will cause carriers to add 24,000 new large aircraft and thousands more smaller regional jets over the next 20 years.

To accommodate this growth, we need to invest in modernizing our aviation infrastructure. In a report last year, the FAA estimated that inefficiencies in the air transportation system cost the U.S. economy \$9.4 billion in 2000, and I suspect that the numbers are comparable here in Europe.

Spending on aerospace infrastructure not only helps our industry and the traveling public, it's a great investment in our

economies. In fact, AIA figures that every dollar invested in infrastructure returns about \$5 in benefit to the economy.

As leading advocates for the safety and efficiency of aviation, we need to make sure that we are considering the interests of all parties, especially airlines and the flying public.

Two years after the September 11 tragedy security is our top priority. As an industry, we need to do everything within our power to make flying as safe and secure as possible.

We need to take the security process apart and rebuild it step-by-step. We need to use the latest technology to screen and track travelers – beginning well before they reach the airport. We need to face the fact that "profiling" isn't always a bad word. And we need to be willing to give up a bit of our personal privacy in exchange for the secure flying experience that we all deserve.

In the commercial and military worlds, AECMA and AIA are in a position to take a leadership role in bringing all the key players together.

One place where this happens naturally is at air shows. We can make better use of our time at air shows by using the collective brainpower present to address the critical issues facing the industry and create action groups with the power and experience to really make a difference.

We have to ask "How many air shows do we really need?" "What should the rotation be?" And, most importantly, "What should the content be?" While everyone has their favorite shows, there is no question in my mind that there are simply too many.

These are exciting and challenging times for the aerospace industry. We will come through this painful recession, and I believe we will be stronger and more focused and better positioned for the future.

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*The STAR 21 Report in Europe and the Commission on the Future of the U.S. Aerospace Industry in the United States are two visible examples of our commitment to facing industry's issues and finding solutions.*

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Thousands of high school students will be smiling, just like this unidentified team was in May, as AIA again hosts the Team America Rocketry Challenge in the spring of 2004. Member company sponsorship availability information is posted on AIA's Web site at [www.aia-aerospace.org](http://www.aia-aerospace.org).

*Continued from page 4.*

## Other Association Strides Underway

In other AIA activities, I'm pleased to report that the association is developing a new five-year research & development (R&D) plan aimed at significantly increasing funding for aeronautics and aerospace in areas critical to our member company interests.

We appreciate the effort that Clay Jones, chairman, president, and chief executive officer of Rockwell Collins, is contributing in chairing the Board of Governor's Ad Hoc Committee for Aerospace R&D Funding. There will be much more to report on this committee's developing work in the months ahead.

Also, the Aerospace Stakeholders Coalition continues to bring its weight to the ongoing important issues in civil aviation. Representatives of the coalition met recently with FAA Administrator Marion C. Blakey to exchange ideas on solutions in air traffic control management, security, safety, and other matters.

We thank BAE SYSTEMS North America for hosting a successful regional meeting of suppliers and member companies this fall in San Diego. Our Supplier Management Council continues to make progress in its "Creative Collaboration" initiative and by adding a stream of new associate members to the association roster.

I'm happy to note that AIA will host the second-ever Team America Rocketry Challenge during 2004, intended to inspire school kids across America to develop an appreciation for math and science skills. It's one small step for the association but a giant leap for the students as we look for ways to replenish the intellectual capital of the aerospace industry in the decades ahead. I hope you and your companies will participate with us in this project.

Finally, I wish a happy 100th anniversary on December 17 to all of us in aerospace. May we forever nurture and advance the untethered opportunities of sky and space delivered to us on fragile wings that day by two visionaries from Ohio.

John W. Douglass

## New Member **SPOTLIGHT**

**Membership at AIA has grown to 84 full members and 156 associate members.**

The two newest additions to the association roster are innovative companies on the cutting edge of today's aerospace industry. One provides inventive computer-based business products and the other uses its expertise to help clients capture new business.

**DY 4 Systems Inc.** provides a diverse mix of commercial-off-the-shelf (COTS) computer modules, system-level products, and integration services to more than 200 blue chip customers around the globe, including such AIA members as BAE SYSTEMS North America, The Boeing Company, General Dynamics Corporation, Raytheon Company, Lockheed Martin Corporation, and Northrop Grumman Corporation.

A business unit of Force Computers, a Solectron company, DY 4 Systems is a leading supplier of products for the defense and aerospace markets with a strong focus on high performance, ruggedized, embedded computing solutions.

Headquartered in Kanata, Ontario, Canada, DY 4 Systems has several operating locations in the United States.

DY 4 Systems products are in operation on the International Space Station, the B-2 stealth bomber, NASA's X-33 prototype of the next space shuttle, the U.S. Air Force Dark Star unmanned aerial vehicle, and other U.S. and international defense and space programs.

**SM&A** was founded in 1982 as Steven Myers & Associates, a proposal services company. Since that time, it has grown into a full-service business capture firm serving the aerospace, defense, information technology, commercial services, electronics, and utilities industries.

More than 300 senior-level SM&A employees and associates provide intellectual capital for today's competitive business climate. With significant repeat blue chip clients, SM&A is a global leader in proposal, consulting, and program support services, providing high-value business capture solutions to organizations pursuing and executing federal, civil, and commercial work.

Headquartered in Newport Beach, Calif., SM&A has delivered more than 730 proposals worth more than \$263 billion to government and business with a "win rate" of 85 percent of dollars awarded.





## Curtiss-Wright: First Names in Flight

**A**IA member company Curtiss-Wright Corporation will forever be linked to the mastery of powered, controlled flight by the Wright Brothers on December 17, 1903, and to the design of some of the world's best early aircraft by aviation pioneer Glenn Curtiss.

As early aviation took hold, the Curtiss Aeroplane and Motor Company formed and went public in 1916 with Curtiss as president. Wright Aeronautical, meanwhile, was incorporated in 1919 with a charter to design and manufacture aero engines. The Wright Brothers were no longer involved – Wilbur had died and Orville had other interests.

Curtiss-Wright Corporation was formed August 9, 1929, from a merger of 12 predecessor companies – some from Curtiss lineage and some from Wright lineage.

Coincidentally, Glenn Curtiss and Orville Wright were founding members of the Aeronautical Chamber of Commerce – the predecessor organization of AIA.

Today, Curtiss-Wright Corporation is a multinational provider of metal treatment, motion control, and flow control systems for aerospace, defense, and other industries.

The company is solidifying its position in several niche markets through a strategy of acquisitions and advanced technologies. Its philosophy to be among the top companies in specific markets has served Curtiss-Wright well, and its revenues are projected to exceed \$700 million this year, up dramatically from 2002.

Curtiss-Wright Controls, Inc., the firm's aviation and defense-oriented business segment, has doubled in size in three years and successfully diversified into defense electronics and avionics.

Success of the Controls unit played a key role in the naming of Curtiss-Wright as one of the 50 fastest growing defense firms in the world by the respected trade journal *Defense News*.

**Curtiss-Wright Controls provides main weapons bay door actuation for Lockheed Martin F-22 Raptors.**

## AIA Member Companies

- AAI Corporation
- Aerojet
- Alliant Techsystems Inc.
- American Pacific Corporation
- Analytical Graphics, Inc.
- Areté Associates
- Argo-Tech Corporation
- AstroVision International, Inc.
- Atlantic Research Corporation
- Aviall, Inc.
- B&E Tool Co. Inc.
- BAE SYSTEMS North America Inc.
- Ball Aerospace & Technologies Corp.
- Barnes Aerospace
- B.H. Aircraft Company, Inc.
- The Boeing Company
- Celestica Corporation
- Computer Sciences Corporation
- Crane Aerospace & Electronics
- Cubic Corporation
- Curtiss-Wright Corporation
- Curtiss-Wright Controls Systems, Inc.
- Metal Improvement Company
- Dassault Falcon Jet Corporation
- DRS Technologies, Inc.
- Ducommun Incorporated
- DuPont Company
- DY 4 Systems Ltd.
- EDO Corporation
- EFW Inc.
- Embraer Aircraft Holding Inc.
- Engineered Support Systems, Inc.
- ESIS, Inc.
- Esterline Technologies
- Exostar LLC
- Federation Inc.
- General Atomics Aeronautical Sys., Inc.
- General Dynamics Corporation
- General Electric Company
- GKN Aerospace Services
- Goodrich Corporation
- Airframe Systems
- Electronic Systems
- Engine Systems
- W.L. Gore & Associates
- Harris Corporation
- HEICO Corporation
- Hexcel Corporation
- HITCO Carbon Composites, Inc.
- Honeywell
- ITT Industries
- Defense and Electronics
- JEDCO Inc.
- Kaman Aerospace Corporation
- Kistler Aerospace Corporation
- L-3 Communications Holdings, Inc.
- Lockheed Martin Corporation
- 3M Company
- Martin-Baker America Inc.
- MatrixOne, Inc.
- MD Helicopters, Inc.
- MOOG Inc.
- National Machine Group
- National Machine Company
- National Aviation Products, Inc.
- Northrop Grumman Corporation
- Mission Systems
- Space Technology
- Omega Air, Inc.
- Orbital Sciences Corporation
- Advanced Systems Division
- Parker Aerospace
- PerkinElmer, Inc.
- Fluid Sciences
- Proficiency Inc.
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- Raytheon Company
- Remmele Engineering, Inc.
- Rockwell Collins, Inc.
- Rolls-Royce North America Inc.
- RTI International Metals, Inc.
- Silicon Graphics, Inc.
- SM&A
- Smiths Aerospace Actuation Systems
- Los Angeles
- Spectrum Astro, Inc.
- Stellax Aerostructures, Inc.
- Swales Aerospace
- Telesflex, Inc./TFX Sermatech
- Mal Tool & Engineering
- Tetron Inc.
- Titan Corporation
- Advanced Systems Division
- Triumph Group, Inc.
- United Defense
- United Technologies Corporation
- Hamilton Sundstrand
- Pratt & Whitney
- Sikorsky
- Vought Aircraft Industries, Inc.
- Woodward Governor Company

## AIA Associate Member Companies

- AbelConn, LLC
- Accurate Metal Machining, Inc.
- ADI American Distributors Inc.
- AEROFLEX Inc.
- Aerospace Fabrications of Georgia, Inc.
- Air Industries Machining Corporation
- Alken Industries, Inc.
- Allen Aircraft Products, Inc.
- American Data & Computer Products
- AMI Metals, Inc.
- Arkwin Industries, Inc.
- Arrow Gear Company
- Arrow/Zeus Electronics
- A & S Tribal Industries
- AUSCO, Inc.
- AVChem, Inc.
- Avexus, Inc.
- Avionics Specialties, Inc.
- Avnet Electronics Marketing
- Banneker Industries, Inc.
- Berkshire Industries, Inc.
- Bill-Jay Machine Tool Corporation
- BTC Electronic Components, Inc.
- Burton Industries Aerospace Heat Treating
- California Screw Products
- Champion Industries, Inc.
- Chandler/May, Inc.
- Cherokee Nation Distributors
- Cincinnati Machine
- Circle Seal Controls, Inc.
- CMC Electronics
- Cohesia Corporation
- Compass Aerospace Corporation
- Composites Atlantic Limited
- Consolidated-PAC Foundries
- Contivo, Inc.
- CPI Aerostructures, Inc.
- Cristek Interconnects, Inc.
- Cytec Engineered Materials
- Dayton T. Brown, Inc.
- The Deutsch Company
- DynaBil Industries, Inc.
- Dynamic Systems, Inc.
- East West Technology
- Eaton Aerospace
- Electronic/Fasteners, Inc.
- EMS Technologies, Inc.
- ENSCO, Inc.
- Envision LLC
- Faber Enterprises, Inc.
- Fastener & Hose Technology, Inc.
- The Ferco Group
- Fortner Aerospace Manufacturing
- Frontier Electronic Systems Corporation
- G.S. Precision, Inc.
- GEAR Software
- GenMech Aerospace Corporation
- Greene, Tweed & Company
- H & S Swanson's Tool Company
- Hagemeyer North America
- Hamby Corporation
- Hangsterfer's Laboratories, Inc.
- Hartwell Corporation
- Hi-Tech Aero Spares
- Hi-Temp Insulation Inc.
- Hobart Machined Products, Inc.
- Holaday Circuits, Inc.
- Hughes Bros. Aircrafters, Inc.
- Hughes-Treitler Manufacturing Corp.
- IBM Corporation
- Industrial Metals International LTD
- Industrial Precision, Inc.
- Integrated Aerospace
- JAMCO Aerospace
- JCM Engineering Corporation
- John Hassall, Inc.
- Kennebec Tool & Die Co., Inc.
- Kulite Semiconductor Products, Inc.
- Lefell Manufacturing Company
- Lewis and Saunders
- Lilly Software Associates, Inc.
- LMI Aerospace, Inc.
- M/A-COM, Inc.
- Magneto, Inc.
- Manufacturers' Services Control U.S. Operations
- Manugistics
- Manzi Metals, Inc.
- Marotta Controls, Inc.
- McCann Aerospace Machining Corp.
- Melador Technologies, Inc.
- Meyer Tool Inc.
- Micro-Coax, Inc.
- Millitech, LLC
- Morris Machine Company, Inc.
- MPC Products Corporation
- Natel Engineering Co., Inc.
- Navigant Consulting, Inc.
- Neuvant Aerospace
- Norfil Manufacturing
- Northwest Composites Inc.
- Omni International
- OnBoard Software, Inc.
- Paramount Machine Company Inc.
- Paravant, Inc.
- Park Engineering & Mfg. Co., Inc.
- Parkway Products, Inc.
- PC Guardian
- PGM of New England, LLC
- Planet Products Corporation
- Plymouth Extruded Shapes
- Port Electronics Corporation
- Precision Gear
- Precision Machine & Manufacturing
- Precision Machine Works Inc.
- Precision Tube Bending
- Primus International
- PRMS Inc.
- Production Engineering Corp.
- Pro Fab, Inc.
- PTI Technologies, Inc.
- Quick-Wright Associates, Inc.
- Radant Technologies, Inc.
- RAM Manufacturing Inc.
- REMEC Microwave, Inc.
- Ryder Systems, Inc.
- Safe Flight Instrument Corporation
- SEAKR Engineering
- Senior Aerospace
- Service Steel Aerospace
- Servotronics, Inc.
- Sparton Corporation
- Spectra Lux Corporation
- Spirit Electronics, Inc.
- STADCO
- Sunshine Metals
- Sypris Electronics, LLC
- Texas Composite, Inc.
- Thayer Aerospace
- Therm, Inc.
- Thermal Solutions, Inc.
- Thomas James International
- TMX Aerospace
- Trylon Machine Company
- Tyco Electronics
- Tyco Printed Circuit Group L.P.
- UFC Aerospace Corp.
- UNI-TEK, LLC
- Vaupell Industrial Plastics
- Viking Metallurgical (Firth Rixson)
- WAER Systems, Inc.
- Welding Metallurgy, Inc.
- Wems Electronics
- West Cobb Engineering & Tool Co.
- Williams International
- Windings, Inc.
- Xelus



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# EXECUTIVE REPORT

WINTER 2003



**AIA**  
AEROSPACE INDUSTRIES  
ASSOCIATION



### Officers

**Vance D. Coffman,**  
Chairman

**Alan R. Mulally,**  
Vice Chairman

**John W. Douglass,**  
President & Chief Executive Officer

**George F. Copsey,**  
Secretary-Treasurer

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**Vance D. Coffman,** Chairman & Chief Executive Officer, Lockheed Martin Corporation

**John W. Douglass,** President & Chief Executive Officer, AIA

**Robert D. Johnson,** President & Chief Executive Officer, Honeywell Aerospace, Honeywell

**Marshall O. Larsen,** President & Chief Operating Officer, Goodrich Corporation

**Ronald F. McKenna,** President, Hamilton Sundstrand, United Technologies Corporation

**Paul David Miller,** Chairman & Chief Executive Officer, Alliant Techsystems Inc.

**Alan R. Mulally,** Executive Vice President, The Boeing Company, and President & Chief Executive Officer, Commercial Airplanes

**Tom Risley,** President & Chief Executive Officer, Vought Aircraft Industries, Inc.

**Mark H. Ronald,** Chief Operating Officer, BAE SYSTEMS plc, and President & Chief Executive Officer, BAE SYSTEMS North America, Inc.

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**Thomas W. Battaglia,** President, GKN Aerospace Services

**Joseph C. Berenato,** Chairman, President & Chief Executive Officer, Ducommun Incorporated

**Richard L. Berg,** President, Smiths Aerospace Actuation Systems, Los Angeles

**David E. Berges,** Chairman & Chief Executive Officer, Hexcel Corporation

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**David L. Calhoun,** President & Chief Executive Officer, GE Aircraft Engines, General Electric Company

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**Nicholas D. Chabreja,** Chairman & Chief Executive Officer, General Dynamics Corporation

**Gerald R. Dinkel,** Vice President & Chief Executive Officer, Cubic Corporation

**Henry J. Driesse,** Senior Vice President, ITT Industries, and President, Defense

**Richard R. Erkeneff,** Chief Executive Officer, AAI Corporation

**Phillip W. Farmer,** Chairman, President & Chief Executive Officer, Harris Corporation

**John R. Gibson,** Chairman, President & Chief Executive Officer, American Pacific Corporation

**Paul L. Graziani,** President & Chief Executive Officer, Analytical Graphics, Inc.

**James M. Guyette,** President & Chief Executive Officer, Rolls-Royce North America Inc.

**Clayton M. Jones,** Chairman, President & Chief Executive Officer, Rockwell Collins

**Kent Kresa,** Chairman & Chief Executive Officer, Northrop Grumman Corporation

**Frank C. Lanza,** Chairman & Chief Executive Officer, L-3 Communications Holdings, Inc.

**Joseph H. Lubenstein,** President, Kaman Aerospace Corporation

**Michael F. Martin,** President, Aerojet

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**Mark S. Newman,** Chairman, President & Chief Executive Officer, DRS Technologies, Inc.

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**Hugh J. Quigley,** President, DynaBil Industries, Inc.

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**Henk Schaeken,** Chairman, President & Chief Executive Officer, MD Helicopters, Inc.

**Gary J. Spulak,** President, Embraer Aircraft Holding Inc.

**David L. Taylor,** President & Chief Executive Officer, Ball Aerospace & Technologies Corporation

**W. David Thompson,** President, Spectrum Astro, Inc.

On the cover: 2003 is the year for Celebrating Flight as the world marks the 100th anniversary of the Wright Brothers' milestone. Clockwise from lower left: actor and aviator John Travolta launches the year-long celebration at a Centennial of Flight Commission event at the Smithsonian's National Air and Space Museum (NASM) in December; an architectural rendering of NASM's new Udvar-Hazy Center scheduled to open next December at Dulles International

Airport; the Wright 1911 Model "B" that will be displayed by AIA and its French sister association GIFAS at the Paris Air Show in June with major support from Northrop Grumman and assistance from Curtiss Wright and BAE SYSTEMS North America; a display panel on aviation achievement from a traveling exhibit created by Parker Aerospace; and students from West Springfield (Virginia) High School preparing for AIA's Team America Rocketry Challenge.



**Vance D. Coffman**  
Chairman  
AIA Board of Governors

The chairman of AIA's Board of Governors for 2003 is Vance D. Coffman, chairman and chief executive officer of Lockheed Martin Corporation.

Lockheed Martin is a company engaged in the research, design, development, manufacture, and integration of advanced technology systems, products, and services.

Nearly 80 percent of Lockheed Martin's business is with the U.S. Defense Department and other federal government agencies. In fact, Lockheed Martin is the largest provider of information technology services, systems integration, and training to the U.S. government.

The company's operating units are organized into several broad business areas:

- **Aeronautics** includes tactical aircraft, airlift, and aeronautical research and development.
- **Space Systems** includes space launch, commercial satellites, government satellites, and strategic missiles.
- **Systems Integration** includes missiles and fire control, naval systems, platform integration, and C4I.
- **Technology Services** includes federal services, energy programs, government and commercial IT, and aeronautical/aerospace services.

Dear Colleague:

As we celebrate the centennial of powered flight, we are reminded of how far we have come from that first brief but heroic flight on December 17, 1903. We have seen an aerospace industry that has allowed people and commerce to span the globe; deter wars or, if called upon, defeat adversaries in battle; and utilize the vast reaches of space for the benefit of all humanity.

These are some of the remarkable achievements of America's aerospace industry. But, if we are to continue to be pioneers in the spirit of Kitty Hawk, we must ensure there is a next generation of men and women to lead us to an equally remarkable bicentennial. Promoting excellence in math, engineering, and science education from elementary school through the post-graduate level, is at the core of our work as good corporate citizens in communities all across America.

What has enabled America to stay at the leading edge of technology is our extraordinary infrastructure of engineering talent and expertise. A strong public education system that brings out the best in our next generation is imperative to the success of every company in this industry if we are to hire and retain the talent we will need to maintain global leadership.

As a world leader, our industry is at a defining moment. The recent report from the Commission on the Future of the U.S. Aerospace Industry provides us with a sound blueprint for ensuring a healthy industry. Critical to a healthy industry is an agenda in Congress and the White House that recognizes that the aerospace industry is a vital national asset, contributing 15 percent of our nation's GDP.

As a nation, we need to invest in technology, people, research, and the industrial base to guarantee that this asset to our economy and security can continue to grow.

America needs to sustain and increase the high-quality engineering and manufacturing jobs the civil and defense aerospace industry generates as well as nurture the irresistible spirit of innovation and invention that only a motivated, well-prepared workforce can provide.

We also need to remove the obstacles to defense procurement of commercial products and to partner with government to remove, where appropriate, the regulatory barriers that impede growth and innovation. In the global civil and defense marketplaces, we must compete under new conditions with robust competitors. That requires a level playing field with open and fair markets as well as a reformed export control regime that recognizes the new business landscape.

Americans today are challenged by those who would crush the ideals of liberty and an open society. As an industry, we have responded to the charter of the new Department of Homeland Security, bringing our talent and resources to bear on this important challenge and helping to strengthen and protect the liberty that Americans and all free people hold dear. America's aerospace industry has risen to these challenges more than once since that first flight in 1903. We cannot afford to have an industry any less prepared today or in the future.

Prosperity, security, and liberty do not come cheap; they never have. It takes hard work, sacrifice, courage, and commitment to keep America strong and a place where future pioneers, no doubt as heroic as Orville and Wilbur Wright, will be free to reach beyond their grasp.

A handwritten signature in black ink that reads "Vance D. Coffman". The signature is fluid and cursive.

Vance D. Coffman



**John W. Douglass**  
AIA President & CEO

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*Despite the difficulties of 2003 we have a lot to observe as we look back on the contributions aerospace has made to humankind and go forward in celebration of flight.*

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Dear Association Member:

Coming into this centennial year of manned flight and the beginning of the second century of aerospace, we knew it would be difficult to enjoy the many planned celebrations care free.

Mixing with anticipation of the festivities is an air of anxiety.

First, we worry for the men and women of the armed forces who are deployed overseas and on combat-ready alert at home in response to tensions in the Middle East and the ongoing war against terrorism.

Another concern in this anniversary year is the fact that our aviation and aerospace industries are locked in a critical economic struggle to recover from the steep drop in commercial passenger traffic and the accompanying decline in orders for new civil aircraft in the wake of the terrorism of late 2001.

Worse yet came the anguish of February 1 with the loss of the Space Shuttle *Columbia* and its crew of seven while returning to Earth after an otherwise successful 16-day mission in space.

Nowhere has the grief been more profound than among the employees and families of NASA and those of aerospace industry firms that partner in America's space program.

We will long remember the brave crew of the *Columbia* in our hearts, our minds, and our prayers. And we offer commitment and support to Administrator Sean O'Keefe and all the NASA team in their resolve to return the nation to space exploration missions.

As we face the loss of *Columbia*, the challenges of the economy, and the tensions of the war on terrorism, let's remember that resilience is what has made the United States the greatest and most respected nation on Earth.

The challenges we face are real, but the spirit of America is real, too. The skills of our leaders are real, the bravery of the men and women in our armed services is without question, and the innovative talents of hard-working aerospace industry workers are genuine.

Despite the difficulties of 2003 we have a lot to observe as we look back on the contributions aerospace has made to humankind and go forward in celebration of flight.

### **Aerospace Commission Has Impact**

We're very excited at this time by the genuine interest from members of Congress and the administration in doing something positive with the recommendations issued late last year by the Commission on the Future of the U.S. Aerospace Industry.

I've already spoken with a number of members individually about the issues and the recommendations, and I expect to meet and speak with quite a few others.

The House Science Committee held a hearing on the report on March 12 at which I had an opportunity to testify. We anticipate that additional hearings will be scheduled in both the House and the Senate during the spring to delve into the issues raised by the commission.

Also, a new aerospace committee has been formed within the National Economic Council over at the White House to extend aerospace policy issues to matters affecting the various sectors of the nation's economy as well as the overall strength of U.S. competitiveness.

In the administration, Commerce Secretary Don Evans and his staff are leading efforts to develop a government framework to implement the commission recommendations.

That effort is paralleled by the Aviation and Space Stakeholders Coalition, which has set up committees to develop plans to put into action the aerospace commission's recommendations. The commission's nine broad recommendations have been broken into 123 detailed proposals organized under six implementation committees.

The committees are dealing with civil aviation, international trade, government business reform, research and development, space, and workforce issues. AIA is co-chairing the international trade committee.

The first government-stakeholders meeting was held in December, and a second implementation meeting is planned for March.

Established as an AIA initiative in late 2001, the coalition started out with a dozen or so organizations but has since grown to more than 80 interest groups that deal with the many diverse segments of aviation and aerospace.

Participants include organizations that represent manufacturers, airlines, commercial and general aviation operators, airport operators, aviation maintenance providers, aircraft parts distributors, unions and professional societies.

### **CEO-level AIA Committees**

Meanwhile, AIA's Board of Governors (BOG) has formed a CEO-level Ad Hoc Committee on the Health of the Civil Aviation sector of industry.

Alan Mulally, president and CEO of Boeing Commercial Airplanes and this year's vice chairman of the BOG, is leading the committee's work, which includes seeking solutions to critical issues vital to

the health of civil aviation, including global competitive trade, aviation infrastructure, and economic well-being.

The committee will deliver a work program for review at the association's semi-annual Board of Governors meeting in May at Williamsburg, Va.

Other member companies represented on the committee include Computer Sciences Corporation, DynaBil Industries, Esterline Technologies, General Electric Company, Parker Aerospace, Honeywell, Rockwell Collins, Goodrich Corporation, United Technologies, and Vought Aircraft Industries.

Additional members are welcome to join at any time.

At the same time that civil aviation is going through its down cycle, commercial space is in a similar situation. The board is considering forming another ad hoc committee to press the issues related to the decline of commercial space business and the need for compensating government adjustments.

## Association in the Forefront

The good news in all of these issues is that AIA has placed itself at the hub of all the activities that are taking place in and between industry and the government to help move us out of the current downturn in market conditions.

The association is also working closely with the Defense Department to work through various issues that have arisen from the buildup in some areas of defense spending.

For example, we've been asked to recommend ways to see that research and development (R&D) dollars are most efficiently distributed across the industrial base. There is some concern that not enough R&D attention is being paid to the future development of subsystems such as aircraft engines, avionics, and materials.

I've been active in this matter at the Pentagon where I've visited with all the acquisition executives to make them aware of the relationships between the defense, civil aviation, and civil space

## AIA Council Leaders Elected

AIA's various councils have elected officers for 2003 from among member company representatives. They are:

**Civil Aviation Council:** Jerry Mack, vice president of safety & technical affairs for commercial programs for The Boeing Company, has been elected chairman of the Civil Aviation Council. He succeeds Bill McCabe, director of aviation and market initiatives for

Dupont. Michael Romanowski, director, product safety, certification, and airworthiness for Sikorsky, was elected vice chairman.

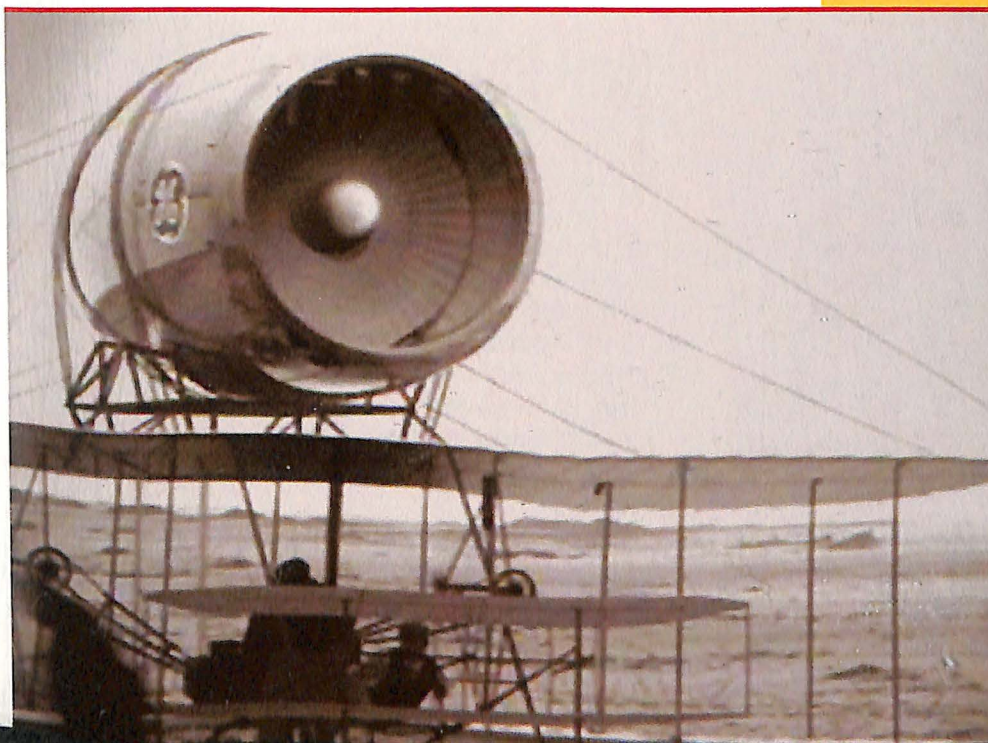
**Communications Council:** Phyllis Piano, vice president of corporate affairs and communications for Raytheon Company, has been elected chair of the Communications Council, replacing Larry McCracken, vice president and deputy of corporate communications for The Boeing Company.

**International Council:** Harry A. Pearce, vice president of international, integrated system sector for Northrop Grumman, has been elected chair of the International Council. He succeeds Robert D. Bauerlein, vice president of international operations in the Government Relations Office of The Boeing Company. Richard G. Kirkland, vice president of corporate international business development for Lockheed Martin, was elected vice chairman.

**Procurement and Finance Council:** James L. Sanford, vice president of contracts and pricing at Northrop Grumman, has been elected chair of the Procurement and Finance Council. He succeeds Eleanor Spector, vice president of contracts at Lockheed Martin Corporation.

**Space Council:** Ray Ernst, senior director of military programs, Washington Operations for Lockheed Martin, has been elected chair of the Space Council, replacing Frank Slazer, director of Space Shuttle business development for The Boeing Company. Don Brownlee, director of Washington Operations for Aerojet, was elected vice chair.

**Technical Operations Council:** Anthony Gentile, vice president of engineering & OEM marketing for Goodrich Corporation, has been elected chairman of the Technical Operations Council. He succeeds Roy Langton, group vice president of engineering & integrity for Parker Hannifin Corporation. Robert Klein, vice president of engineering logistics and technology for Northrop Grumman, was elected vice chairman.



One of the most distinctive and creative celebrations of the Centennial of Flight is a television commercial in which the first takeoff of the Wright Flyer at Kitty Hawk is powered by a modern-day General Electric turbofan jet engine. GE has been responsible for some of the most significant achievements in aviation history, including the first U.S. jet engine, the first mach 3 engine, and most recently the GE 90-115b, the world's most powerful commercial jet engine. Also, General Electric will be the presenting sponsor for the Centennial of Flight celebration at Rockefeller Center in New York City July 28-August 17, including full-scale replicas of historic aircraft from the Wright Flyer through every era of aviation history.

## Top Ten Issues 2003

- Implement the recommendations of the Commission on the Future of the U.S. Aerospace Industry.
- Develop a national plan for revitalization of the aerospace workforce.
- Reduce excess defense infrastructure.
- Promote and support U.S. homeland defense and aviation security.
- Revise federal tax laws to meet the current business climate.
- Promote increased use of commercial contracts and practices.
- Support increased DoD/NASA funding for modernization, space access, and aeronautics.
- Reform U.S. export control policies and practices.
- Support defense acquisition efficiency-sharing incentives.
- Ensure the health of the civil aviation industry to meet the nation's long-term needs.

segments of the aerospace industry so they can more fully understand the implications of the civil crises on the defense industrial base.

On behalf of the association, I've invited all of the acquisition executives to come to Williamsburg this spring for additional discussions with AIA's board and members on industrial base and other defense issues.

We've also invited President George W. Bush to be our guest of honor at the spring meeting as we celebrate there the centennial of man's first flight, which took place a short distance down the coast at Kill Devil Hills on North Carolina's Outer Banks. With a possible war pending, the president's schedule is uncertain, but we hope he can join us.

### 2003 Top Ten Issues

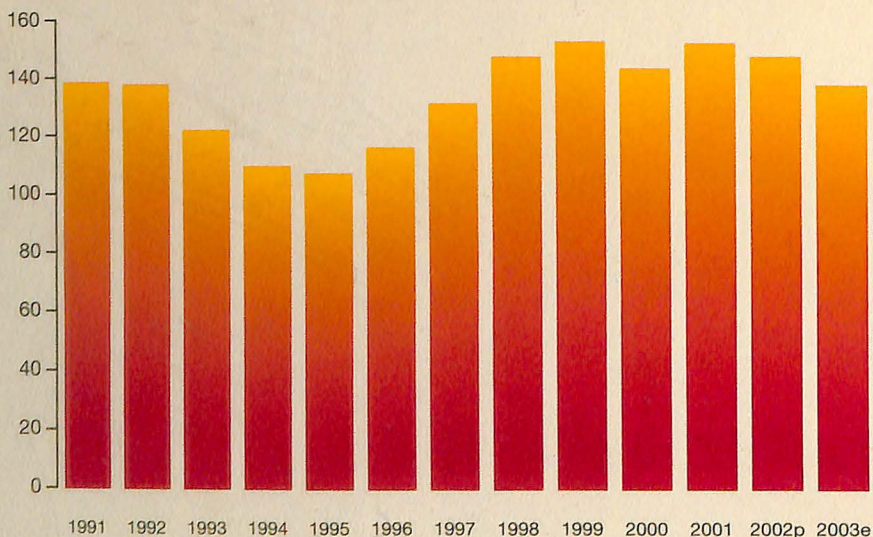
The matters I've written about in this *Executive Report* thus far – implementation of the aerospace commission recommendations, civil aviation and civil space health, research and development funding, defense acquisition policies – are all items in the recently released list of AIA's 2003 Top Ten Issues summarized in this edition.

We've been focusing on the industry's Top Ten Issues for a number of years now, but this is the first year that we selected the 10 in a vote among the association's Executive Committee members.

By doing it this way, we have come up with a list of the most relevant issue targets for action that reflects what's on the minds of aerospace industry leaders today. It seems like a small process adjustment, but it means we're serving our members that much better.

Speaking of members, I want to note that our regular membership roster remains strong in these hard times, and our

### Aerospace Industry Sales in Billions of Dollars



### Sales Trend Is a "Creeping Crisis"

Data from AIA's Aerospace Research Center shows that total U.S. aerospace sales are in decline. Industry sales are projected to be down \$9.7 billion in 2003 to \$138 billion as commercial transport production sharply contracts for the second straight year.

Association President and CEO John Douglass reported on the trends in December at AIA's "2002 Year-end Review and 2003 Forecast" for aerospace industry journalists and communicators.

Douglass described the current sales trends as a "creeping crisis" that will impact economic growth in the future. He called on the aerospace community to support the recommendations of the Commission on the Future of the U.S. Aerospace Industry in helping the industry remain "cutting edge" in the increasingly competitive global market.

## New Member **SPOTLIGHT**

### Three Innovators Become AIA Members

A trio of recent additions to AIA's roster reflect the uniqueness of segments in today's aerospace industry — an e-commerce venture supporting aerospace manufacturers with business solutions, a manufacturer of precision fabrications and components, and a software designer whose products help aerospace firms process and share critical information.

**ESIS Inc.**, founded in 1992, is a full-service e-commerce outsourcing provider for companies and their trading partners.

The firm counts some 17,000 e-commerce partners and more than 200 manufacturers among users of its Web-enabled application, the Harmony Order Management (HOM) system.

The company offers a complete suite of e-commerce application services to enable customers to integrate their data without the

expense of developing new in-house applications and analysis programs.

ESIS processes more than 3.5 million transactions and \$6 billion in purchase orders annually for clients who include The Boeing Company, Honeywell, Bell Helicopter Textron, Textron's Cessna Aircraft, and Embraer.

**Jedco Inc.** had been a member of AIA's Supplier Management Council and upgraded to regular membership last November.

The company manufactures complex precision fabrications and components primarily for gas turbine engine applications.

Headquartered in Grand Rapids, Mich., Jedco employs 150 workers.

**Proficiency Inc.**, headquartered in Marlborough, Mass., enables aerospace and defense companies to reduce product development cycle time and cost by

optimizing product development processes.

The company's Collaboration Gateway product allows for abstraction and sharing of design intelligence between constituents in the product development process without the need to re-work or re-create that intelligence.

The sharing process is seamless, thus preserving design intelligence, reducing error, improving quality, shortening the process, and removing significant product development and warranty cost.

Among Proficiency's clients are Lockheed Martin, The Boeing Company, Northrop Grumman, Los Alamos National Labs, TRW, United Technologies' Hamilton Sundstrand, the U.S. Army, and Goodrich Aerospace.

Supplier Management Council has been growing at a healthy rate. Associate membership has reached a peak of 143 small and medium-sized aerospace suppliers.

We see that group growing toward a level of 200 of the most active, aggressive, and highly qualified suppliers by year's end. Suppliers and their relevance to the entire aerospace economy are important elements of our work in support of all aerospace segments among decisionmakers in Washington.

### AIA Centennial of Flight Festivities

Earlier I commented on the celebration this year of the centennial of flight and the start of the second century of aerospace. AIA is involved in a number of industry festivities.

With major support from Northrop Grumman and assistance from Curtiss Wright and BAE SYSTEMS North America, AIA is working to take the Wright 1911 Model "B" to the Paris Air Show. The re-created airplane is being built by the Wright Experience in Warrenton, Virginia.

It will be a major center of attention and pride for U.S. exhibitors at the show June 15-22. The Wright 1911 Model "B," which was the Wright Brothers' first production aircraft, will be in a display co-hosted by our French sister association and air show organizer, GIFAS. The display will headline 100 years of French-U.S. aerospace cooperation and history.

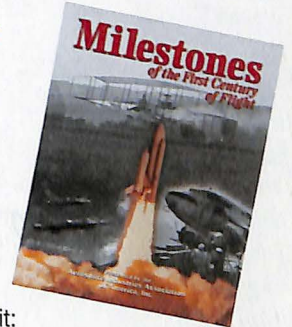
Meanwhile, nearly 900 student teams from across the country are in the Team America Rocketry Challenge that AIA launched in partnership with the National Association of Rocketry.

At the finals in May, the top 100 teams will compete for cash and other prizes by launching multi-stage rockets, which they were challenged to design and build.

### Milestones of the First Century of Flight Online at AIA

To help mark the Celebration of Flight, AIA has launched an interactive database of the 100 milestones of powered flight chosen by a panel of distinguished aviation experts.

The database covers the full spectrum of international aviation and is searchable by date or keyword. To access the database, visit: [www.aia-aerospace.org/pubs/milestones/milestones.cfm](http://www.aia-aerospace.org/pubs/milestones/milestones.cfm)



In addition to being a centennial of flight focal event, a long-term benefit will be stimulation of interest among students to set their sights on careers in aerospace fields. With all the workforce issues we're experiencing in these times, career development is a worthy outcome.

### Come See Us in Virginia

In late February the association moved to new quarters in the Rosslyn section of Arlington, Virginia. We're now in the Northrop Grumman building at 1000 Wilson Boulevard. From the 17th floor we have a spectacular view of Washington and some of our industry's aerospace equipment in service at nearby Reagan National Airport.

I invite you to visit us at our new facilities.

John W. Douglass





## Hexcel — The Strength Within

From the Wright Brothers' dreams of manned flight while working in a Dayton bicycle shop to a spunky band of fraternity brothers "honeycombing" their engineering spirits together at the University of California at Berkeley a half century later, successful aerospace innovations have emerged from unlikely beginnings.

AIA member Hexcel Corporation sprang from a pioneering spirit and persistence in 1948 as California Reinforced Plastics, focused on the development of honeycomb materials for structural application in aircraft. From limited use in military aircraft of the late 1940s, honeycomb has grown to be widely accepted, and today we are surrounded by honeycomb-based products in modern commercial aircraft.

Hexcel, whose name stems from the shape of honeycomb, has moved well beyond its roots by continuously developing advanced composite materials and by acquisition. For more than 40 years Hexcel has been developing pre-impregnated reinforcements (prepregs), which also are lighter and stronger than comparable traditional materials.

Like honeycomb, prepreg found initial use in military and space applications and then migrated to interior and secondary structures in commercial aircraft. In the 1990s carbon-based prepregs were introduced into primary structural applications on the newest commercial aircraft, continuing Hexcel's legacy of improving the operating performance of modern aircraft.

Today, Hexcel is the largest U.S. producer of carbon fibers, the world's largest weaver of structural fabrics, the number one maker of advanced composite materials, such as honeycomb, prepregs, and sandwich panels, and a leading manufacturer of composite parts and structures — products that are the "strength within" today's modern aircraft.

**Photo above: Hexcel Corporation is a leader in honeycomb-based products used in modern commercial aircraft.**

## AIA Member Companies

AAI Corporation  
Aerojet  
The Aerostructures Corporation  
Alliant Techsystems Inc.  
American Pacific Corporation  
Analytical Graphics, Inc.  
Areté Associates  
Argo-Tech Corporation  
AstroVision International, Inc.  
Atlantic Research Corporation  
Aviall, Inc.  
BAE SYSTEMS North America, Inc.  
Ball Aerospace & Technologies Corp.  
Barnes Aerospace  
B.H. Aircraft Company, Inc.  
The Boeing Company  
Computer Sciences Corporation  
Cordiem, LLC  
Crane Aerospace  
Cubic Corporation  
Curtiss-Wright Corporation  
Curtiss-Wright Flight Systems, Inc.  
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Dassault Falcon Jet Corporation  
DRS Technologies, Inc.  
Ducommun Incorporated  
DuPont Company  
EDO Corporation  
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ESIS, Inc.

Esterline Technologies  
Exostar LLC  
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General Electric Company  
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Goodrich Corporation  
Aerostructures & Aviation  
Technical Services  
Engine and Safety Systems  
Electronic Systems  
Landing Systems  
W.L. Gore & Associates  
Groen Brothers Aviation, Inc.  
Harris Corporation  
HEICO Corporation  
Hexcel Corporation  
HITCO Carbon Composites, Inc.  
Honeywell  
i2 Technologies  
ITT Industries  
Defense  
Jedco Inc.  
Kaman Aerospace Corporation  
Kistler Aerospace Corporation  
L-3 Communications Holdings, Inc.  
Lockheed Martin Corporation  
Martin-Baker America Incorporated  
MatrixOne, Inc.  
MD Helicopters, Inc.  
MOOG Inc.

Northrop Grumman Corporation  
Omega Air, Inc.  
Orbital Sciences Corporation  
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The Purdy Corporation  
Raytheon Company  
Remmele Engineering, Inc.  
Rockwell Collins  
Rolls-Royce North America Inc.  
Silicon Graphics, Inc.  
Smiths Aerospace Actuation Systems  
Los Angeles  
Spectrum Astro, Inc.  
Stellax Aerostructures, Inc.  
Swales Aerospace  
Teleflex, Inc./TFX Sermatech  
Mal Tool & Engineering  
Textron Inc.  
Triumph Group, Inc.  
TRW Inc.  
United Defense  
United Technologies Corporation  
Hamilton Sundstrand  
Pratt & Whitney  
Sikorsky  
Vought Aircraft Industries, Inc.  
Woodward Governor Company

## AIA Associate Member Companies

AAR CORP.  
AbelConn, LLC  
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Aeroflex  
Air Industries Machining Corporation  
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Ambel Precision Manufacturing Corp.  
American Data & Computer Products  
AMI Metals, Inc.  
Arkwin Industries, Inc.  
Arrow Gear Company  
Arrow/Zeus Electronics, div. of Arrow Electronics  
AUSCO, Inc.  
Auto-Valve Inc.  
Avexis, Inc.  
Avionics Specialties, Inc.  
Avnet Electronics Marketing  
Banneker Industries, Inc.  
Berkshire Industries, Inc.  
Bill-Jay Machine Tool Corporation  
Brek Manufacturing Company  
BTC Electronic Components, Inc.  
Burton Industries Aerospace Heat Treating  
California Screw Products  
Chandler/May, Inc.  
Cherokee Nation Distributors  
Cincinnati Machine, A UNOVA Co.  
Cirele Seal Controls, Inc.  
Cohesia Corporation  
Compass Aerospace Corporation  
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CPI Aerostructures, Inc.  
Cristek Interconnects, Inc.  
The Deutsch Company  
Dy 4 System Inc.  
Force Computers  
Soletron Microcircuits Ltd.  
DynaBil Industries, Inc.  
East West Technology  
Eaton Aerospace  
Electro-Methods, Inc.  
EMS Technologies, Inc.  
Ensign-Bickford Aerospace & Defense  
Envision, LLC  
Faber Enterprises, Inc.  
F.A.G. Bearings Limited  
Fastener & Hose Technology  
Mid-State Aerospace, Inc.  
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Frontier Electronic Systems Corporation  
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GenMech Aerospace Corporation  
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Hi-Temp Insulation Inc.  
Hobart Machined Products Inc.  
Hughes Bros. Aircrafters, Inc.  
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Industrial Precision, Inc.  
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JCM Engineering Corporation  
John Hassall Inc.  
Kennebec Tool & Die Co., Inc.  
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Lewis and Saunders  
Lilly Software Associates, Inc.  
LMI Aerospace, Inc.  
M/A-COM, Inc.  
Magnetico, Inc.  
Manugistics  
Manzi Metals, Inc.  
Marotta Scientific Controls, Inc.  
McCann Aerospace Machining Corp.  
Meyer Tool Inc.  
Millitech, LLC  
Morris Machine Company, Inc.  
MPC Products Corporation  
Natel Engineering Co., Inc.  
National Machine Group  
National Aviation Products Inc.  
National Machine Company  
Neuvant Aerospace  
Norfil Manufacturing, Inc.  
OnBoard Software, Inc.  
Pacific Scientific, Electro Kinetics  
Paravant Inc.  
Park Engineering & Mfg. Co., Inc.  
PC Guardian  
PerkinElmer Fluid Shapes  
Plymouth Extruded Shapes  
Plymouth Tube Company  
Precision Gear Inc.  
Precision Machine & Manufacturing Co.  
Precision Machine Works Inc.  
Precision Tube Bending  
Primus International  
PRMS Inc.

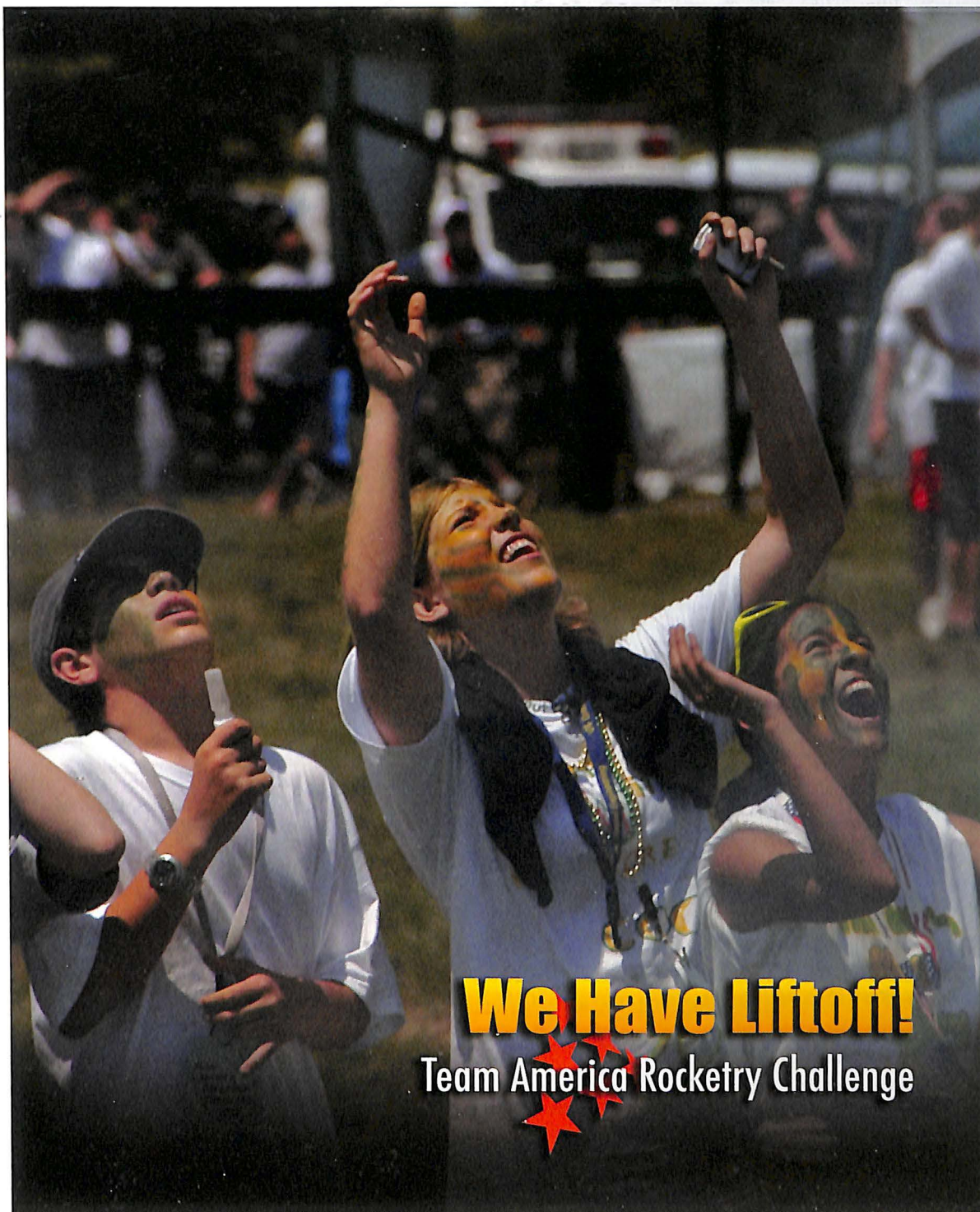
Production Engineering Corp.  
Pro Fab, Inc.  
PTI Technologies  
Quick-Wright Associates, Inc.  
Radant Technologies, Inc.  
RAM Manufacturing Company Inc.  
REMEC Microwave, Inc.  
RTI International Metals, Inc.  
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Servotronics, Inc.  
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Welding Metallurgy, Inc.  
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EXECUTIVE  
**REPORT**

JULY 2004



**We Have Liftoff!**

Team America Rocketry Challenge

**AIA**  
AEROSPACE INDUSTRIES  
ASSOCIATION



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On the cover: The thrill of a successful rocket launch is reflected in the faces (strikingly painted in school colors) and the body language of three students from Fisher Middle School in Los Gatos, Calif., during the 2004 Team America Rocketry Challenge, sponsored by AIA.

Cover and inside photos by Joseph P. Barron.



John W. Douglass  
AIA President & CEO

Dear Association Member:

As summer 2004 arrives, we find ourselves halfway through a pivotal year in which the U.S. economy is trying to warm up, the presidential election campaign is stewing, and the effort to enable a stable government within the complex political and religious framework of Iraq continues to boil — all of which is having an impact on the aerospace industry.

While the political mood is generally tense and polarized in Washington, signs of recovery in the American aerospace and aviation economies are beginning to appear, and there are clear indicators that the U.S. economic engine is picking up steam.

Aerospace manufacturing, for example, is showing trends toward building momentum, and I am convinced that there is an upswing ahead.

Strong first quarter earnings reports show that industry profits have risen 116 percent over year-ago levels on 16 percent higher sales. And new industry orders have risen, too, in the first quarter, coming in at an annual rate of \$157 billion — the highest level since 2000.

Many of our companies are reporting very strong after-market revenues, and military sales are robust, both in research and development programs and procurement.

All of this has reinforced my optimism for the U.S. aerospace industry, which in terms of impact on the national economy, totals about a seventh of the nation's output and about 11 million jobs.

### 7E7 Signals Economic Recovery

Another positive sign is that the decline in civil aviation sales since 9/11 appears to be bottoming out. A notable example is news from The Boeing Company that it has launched its new 7E7 Dreamliner with a firm order for 50 aircraft from All Nippon Airways. The program involves hundreds of U.S. and global suppliers and is a significant step forward for the civil sector of U.S. aerospace.

AIA Board of Governors Chairman Alan Mulally, executive vice president of The Boeing Company and president and CEO of Boeing Commercial Airplanes, spoke about the impending

impact of the 7E7 at the association's recent Spring Meeting in Williamsburg, Va.

He described the 7E7 program as a family of airplanes in the 200- to 300-seat class that will carry passengers on routes between 3,500 and 8,500 nautical miles. With the new aircraft, airlines will be able to offer passengers affordable, comfortable, non-stop, point-to-point travel to many more destinations around the world.

In addition to bringing big-jet ranges to mid-size airplanes, he explained, the 7E7 will fly at Mach 0.85 — as fast as today's fastest commercial airplanes, while using much less fuel. The world's newest jetliner will feature modern composite materials and digital software tools and manufacturing processes that will transform the way an airplane is designed and built while adding measurably to performance and profit.

Production of the Dreamliner will begin in 2006. First flight is expected in 2007 with certification, delivery, and entry into service in 2008

— major milestones that signal additional economic recovery for the U.S. aviation industry.

The aerospace industry, which reduced employment during the latest downturn, saw a small uptick in jobs at the end of the first quarter, though it wasn't extensive enough to be considered a trend, and average weekly hours and overtime hours are up over last year.

### Airline Environment Remains Delicate

U.S. airlines, meanwhile, remain in a delicate but improving environment. The air carrier industry cut its losses from \$11 billion in 2002 to about \$4 billion in 2003 — aided by a partial, one-time reimbursement of \$2.4 billion in security costs. Industry analysts say that travel demand will rebound this summer, coming back in smaller, more measured increments.

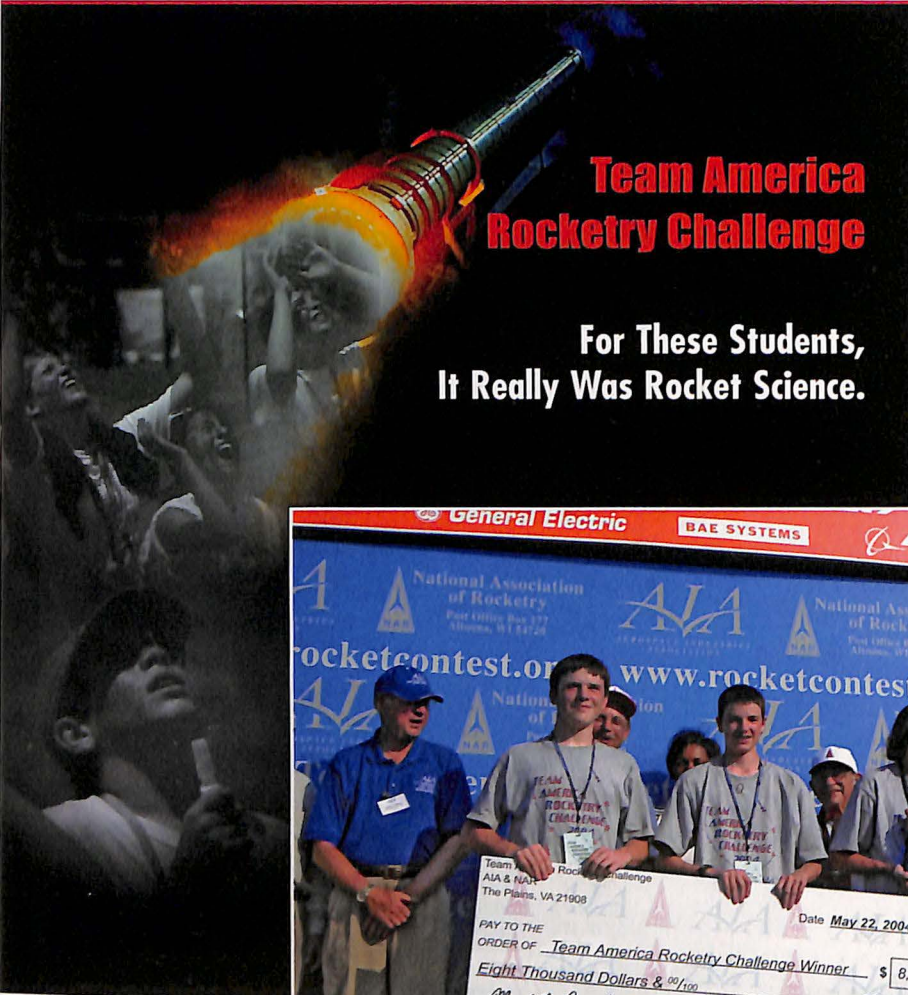
But while volumes are improving, yield remains weak — 18 percent below early 2001 — and it's feared that fast-rising fuel prices will have an adverse effect on the prospect of further growth.

Rising traffic by itself is destined to strain the air transportation system, leading to costly delays

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*...signs of recovery in the American aerospace and aviation economies are beginning to appear, and there are clear indicators that the U.S. economic engine is picking up steam.*

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## Team America Rocketry Challenge

For These Students,  
It Really Was Rocket Science.



A team of ninth graders from Penn Manor High School in Lancaster, Pa., claimed first place in May in the 2004 Team America Rocketry Challenge, sponsored by AIA and directly supported by 20 association member companies.

The Penn Manor team achieved a perfect score when its custom-built rocket soared to 1,250 feet — the exact target altitude — and returned two eggs to Earth unscrambled. Ten top teams shared in a \$60,000 prize pool.

Some 7,000 students on 600 teams from middle schools and high schools across the nation competed in regional fly-offs, with 102 teams and 600 students getting to fly in the finals in front of an estimated 2,000 onlookers.

The contest was originally created to celebrate the 100th anniversary of powered flight and to encourage interest in aerospace design and engineering among students.

AIA President and CEO John W. Douglass said that AIA and the National Association of Rocketry decided to make the contest an annual event after receiving hundreds of requests from students, teachers, and parents.

**The Penn Manor (Pa.) High School rocket team (center) holds the check and trophy they were awarded for notching a first place finish in the national finals of the 2004 Team America Rocketry Challenge. At left is AIA President and CEO John Douglass and at right is author Homer Hickam whose book "Rocket Boy" helped inspire the competition.**

until significant federal investment is directed toward modernizing air traffic management and increasing airport capacity.

Recovery bolsters the need to implement the recommendations of the Commission on the Future of the U.S. Aerospace Industry to transform and modernize the U.S. air transportation system.

An indication of progress in this regard is that the Bush Administration continues to take recommendations of the Aerospace Commission seriously, focusing action on a new air traffic control system through the newly-established Joint Planning and Development Office (JPDO), an inter-agency body chaired by the Federal Aviation Administration.

Success of the JPDO, which is the embodiment of a concept recommended by the commission, is crucial to the long-term growth and health of America's civil aviation industry. AIA strongly supports its efforts and encourages its success.

Meanwhile, there is a growing sense in Congress that the nation needs to modernize its air traffic control management system, and there is a willingness to begin to put resources into

it. We will continue to encourage congressional commitment and investment in this significant issue.

### Civil Aviation Division Reorganized

To help us stay ahead of aviation issues, we have designed and implemented a reorganization of the association's Civil Aviation Division. This action follows an assessment of the division in light of strategic goals developed by the Board of Governors' Committee on Civil Aviation Leadership.

As a result, the Air Traffic Systems Committee has been rechartered as the Air Transportation Systems Committee to recognize a new, strategic focus that provides a forum to develop AIA positions on airspace design, including air-side ground capability.

The rechartered committee is now AIA's focal point for supporting the JPDO in laying out the long-term roadmap for the future of the aviation system in the United States.

"The Team America Rocketry Challenge is a fulfillment of a promise for AIA and our member companies," Douglass pointed out. "Many participants in this competition are only a few years away from college graduation and their first employment or advanced studies in aerospace fields. That is the ultimate measure of the value of this event." U.S. Senator Michael B. Enzi (R-Wyo.), author Homer Hickam, the original "Rocket Boy" who inspired the movie "October Sky," NASA astronauts Jay Apt and Charlie Walker, and NASA associate administrators Craig Steidle and Adena Loston were among dignitaries presenting awards to the top teams.

AIA member companies sponsoring the 2004 challenge were AAI Corporation, Aerojet, Alliant Techsystems Inc., American Pacific Corporation, Analytical Graphics, Inc., BAE SYSTEMS North America, The Boeing Company, Embraer Aircraft Holding, Inc., and General Electric Company.

Others were GKN Aerospace Services, Goodrich Corporation, Harris Corporation, Honeywell, Lockheed Martin Corporation, Northrop Grumman Corporation, Parker Aerospace, Raytheon Company, Rolls Royce North America, Inc., United Technologies Corporation, and Vought Aircraft Industries, Inc.

In addition, the Transport, Propulsion, Rotorcraft, and Civil Aviation Manufacturing and Maintenance committees have been combined into a single Regulatory and Safety Committee. This will improve internal communication while maintaining the ability to interact with FAA offices.

We also have chartered two new committees on Civil Aviation Research and Development (R&D) and Civil Aviation Security. The former is supporting the work of our ad hoc Committee on R&D and the latter is providing guidance for interaction with the federal government and other aviation stakeholders on security issues.

The board's Committee on Civil Aviation Leadership and the CEO-led ad hoc Committee on Rotorcraft will continue to focus on the needs of those sectors of industry and identify enhancements in the association's structure and processes.

### Air Show Cost-Cutting Progress

The Farnborough International Air Show will take place July 19-26 in England. As we approach that event, I'm pleased to report that the association's International Council has made progress in its air show cost-cutting initiatives.



In photo above, an unidentified team of students in the 2004 Team America Rocketry Challenge prepares its rocket for launch while a CNN cameraman records the action. In photo above left, a contrail of smoke marks the launch of one of the more than 100 rockets that went airborne in the national finals.

Last year, more than 40 AIA member company chief executive officers signed a letter calling for dialogue on cost and participation issues with organizers of the four major international air shows — Paris, Farnborough, Dubai, and Singapore.

The council reported to attendees at the Williamsburg meeting in May that organizers of next year's Paris Air Show have agreed to cut two days from the length of the event, reduce trade days from five to four, and negotiate with Paris-area hotels on prices and minimum-stay guarantees.

Further meetings with officials of the four shows are being scheduled for later this year, and the council is planning an industry "best practices" review to find other ways to cut air show costs and increase marketing flexibility.

### Resolving Key Export Issues

In an effort to resolve ongoing, major export issues our industry faces, we met this month with members of the U.S. House of Representatives to discuss barriers that aerospace companies face in competing fairly in some parts of the world.

For example, controlling the export of commercially available aerospace parts and components as military items stifles the

## Science Rocks With Honeywell

AIA member company Honeywell and NASA are touring U.S. middle schools with *FMA Live! Where Science Rocks* — a dynamic ‘rock and roll’ education program geared to students in grades six through eight.

Named for Sir Isaac Newton’s Second Law — force equals mass times acceleration — *FMA Live! Where Science Rocks* uses a diverse troupe of live actors, music, videos, and demonstrations to teach Newton’s Three Laws of Motion and the Universal Law of Gravity in a powerful and memorable way.

The program is the focus of a new national partnership between Honeywell Hometown Solutions, the company’s community relations initiative, and NASA.

The mission of the partnership is to engage middle school students in the wonders of science, technology, and math through innovative education programs that demonstrate the relevance of the natural sciences to children.

*FMA Live! Where Science Rocks* addresses critical science curriculum objectives that enable students to better understand science and help improve their performance.

“Right now, tomorrow’s space explorers are seated in America’s classrooms — asking questions, solving problems, and conducting experiments,” said Dr. Adena Williams Loston, NASA’s associate administrator for education.

“As we work to carry NASA’s new vision forward, outreach initiatives like our partnership with Honeywell for *FMA Live! Where*



**Honeywell Aerospace President and CEO Bob Johnson poses with student participants in *FMA Live! Where Science Rocks* — a unique, dynamic “rock and roll” education program touring the nation under the sponsorship of Honeywell.**

*Science Rocks* help us to work closely with our schools to foster learning environments that will inspire young people to set their sights on venturing to the moon, to Mars, and beyond,” she added.

Honeywell Hometown Solutions is underwriting all the costs of *FMA Live! Where Science Rocks*, which is traveling to 45 middle schools in 25 markets, including Phoenix, Chicago, Minneapolis, Seattle, Detroit, and Washington.

ability of American suppliers to compete successfully with their European counterparts and just doesn’t make sense.

Parts such as bearings, tubes, structural items, and others that are commercially available should not be subject to restrictive State Department licensing regulations as long as the end-user is an allied, friendly nation.

In addition, there are some provisions in the pending fiscal year 2005 defense authorization bill that we seriously oppose, including a ban on defense-related purchases from countries that require offsets.

International procurement agreements already impose disciplines on the use of offsets, and precluding DoD and U.S. defense contractor purchases from foreign sources would likely result in the loss of U.S. sales to those countries rather than a change in their offset requirements.

We are working to resolve these issues when the defense authorization bill reaches conference committee deliberations.

## Moon, Mars, and Beyond

Elsewhere in Washington and around the country, there is a lot of interest in the national space vision President Bush unveiled in January with pledges to resume flying the space shuttle, complete the International Space Station, and return space explorers to the moon and then go on to Mars and beyond.

The President’s Commission on Implementation of U.S. Space Exploration Policy will have issued its final report and recommendations by the time this edition of AIA’s *Executive Report* is printed.

Earlier, the association’s Space Council participated in the commission’s hearings on the need for a national space vision and submitted a set of recommendations that could help manage the vision for space exploration during its anticipated 20- to 30-year lifespan.

In another significant step, AIA has taken the industry lead in developing a new, broad-based group called the Space Exploration Alliance (SEA) in which 13 space advocacy groups and policy organizations have teamed up to support NASA’s new exploration vision.

The first goal of the alliance is to work for congressional support of the Moon, Mars, and Beyond initiative and first-year funding, which the alliance views as a necessary first step for in-depth planning of the exploration program.

In addition to AIA, the organizations include the Aerospace States Association, American Astronautical Society, American Institute of Aeronautics and Astronautics, California Space Authority, Florida Space Authority, The Mars Society, National Coalition of Spaceport States, National Space Society, The Planetary Society, ProSpace, Space Access Society, and Space Frontier Foundation.

During the next three years, *FMA Live! Where Science Rocks* is expected to reach an estimated 125,000 students in more than 150 middle schools in 100 communities.

"As a technology leader, Honeywell depends upon a talented, inspired workforce to bring innovative solutions to our customers and our communities," said Bob Johnson, president and CEO of Honeywell Aerospace.

"It is an honor for us to be partnering with NASA, and we believe our *FMA Live! Where Science Rocks* program will motivate the best young minds in America to pursue careers in science, engineering, and technology."

Employment opportunities in science and technology are expected to increase at a rate almost three times greater than all other occupations; however, enrollment in science and engineering courses at the college level in the United States is on the decline. Research shows that students who are proficient in science, technology, engineering and math are more likely to pursue related subjects in high school and college and then in career fields.

More information on *FMA Live! Where Science Rocks* can be found at [www.fmalive.com](http://www.fmalive.com).

Honeywell is a \$23 billion diversified technology and manufacturing leader, serving customers worldwide with aerospace products and services; control technologies for buildings, homes, and industry; turbochargers; automotive products; specialty chemicals; fibers; and electronic and advanced materials.

For more about Honeywell, visit [www.honeywell.com](http://www.honeywell.com).

Collectively, these groups count almost one million Americans as members or employees of member companies.


## Spotlight on Distinction

In closing, I want to spotlight two special items.

First, I encourage everyone to open AIA's Web site at [www.aia-aerospace.org](http://www.aia-aerospace.org) and read Washington Senator Patty Murray's floor speech on the future of the U.S. aerospace industry and to support her legislation for creation of a congressional Joint Committee on Aerospace.

And, we welcomed eight new members to the AIA fold during the Williamsburg meeting, lifting our roster of full members to 87 and bringing the supplier group to 161 associate members — all-time record levels for both.

As our numbers increase, the voice of the association grows stronger.



John W. Douglass

## New Member SPOTLIGHT

AIA's membership stands at near-record levels with 161 regular member companies and 87 associate member companies.

Here is a look at some of the newest members:

**Electromech Technologies**, located in Wichita, Kan., specializes in the manufacture and overhaul of AC/DC motors, blowers, and actuators for aerospace and military markets.

Electromech components are used on virtually every aircraft flying today and in many military applications, including the Raytheon 1900C, Boeing C-17, Cessna Citation, Lear 45, Sikorsky Black Hawk helicopter, Multiple Launch Rocket System, and Patriot missile launch platform.

For more information, visit [www.electromech.com](http://www.electromech.com).

**Erickson Air-Crane Incorporated**, located in Central Point, Ore., owns, operates, and maintains a fleet of 18 S-64 Aircrane helicopters, the world's largest, most versatile standard category, external load-carrying helicopter in production and use.

The company combines operational experience with engineering and field maintenance to provide unique customer support.

Power-lifting S-64E and S-64F models have external load capacity ratings of 20,000 and 25,000 pounds, respectively.

For more information, visit [www.ericksonaircrane.com](http://www.ericksonaircrane.com).

**Natal Engineering Co., Inc.**, manufactures modules, hybrids, and other products for aerospace, defense, space, and other industries.

Located in Chatsworth, Calif., Natal is a leading electronic manufacturing services provider for high-end microelectronics. The firm uses modern manufacturing process technologies, strong supply chain management, and low-cost automatic assembly.

For more information, visit [www.natal.com](http://www.natal.com).

**Shaw Aero Devices, Inc.**, designs, develops, and manufactures an array of products in fuel, oil and water waste systems, and components, including oil and hydraulic reservoirs and components, fuel filler caps and drain valves, flame arrestors for fuel system safety, fuel shut-off valves, and aircraft lavatory waste drain valves.

Headquartered in Naples, Fla., Shaw Aero test facilities include environmental chambers, flame test stands, and a lightning strike booth.

For more information, visit [www.shawaero.com](http://www.shawaero.com).

**SITA** is a leading provider of global information and telecommunication services for airlines, airports, and aerospace enterprises and in aviation logistics and aircraft applications and systems.

SITA provides network services, including voice, data, Internet access and Web hosting, electronic baggage tracking and cargo management, and other airport and passenger support services.

Headquartered in Geneva, Switzerland, SITA has an office for the Americas in Atlanta.

For more information, visit [www.sita.com](http://www.sita.com).



## ATK Makes Scramjet History

**A**IA-member company ATK (Alliant Technologies) and NASA set a world speed record in March, flying an X-43A hypersonic research aircraft at slightly more than Mach 7.

That's seven times the speed of sound — approximately 5,000 miles per hour.

Designed and built by ATK, the X-43A is the first scramjet-powered vehicle to achieve positive acceleration in flight.

The test shot was part of NASA's Hyper-X program, a research effort to try out propulsion technologies for high-speed flight within the atmosphere and into Earth orbit.

A major objective of the unmanned X-43A flight is shaking out air-breathing, supersonic-combustion, scramjet engine technology.

Unlike the space shuttle that hauls along weighty amounts of liquid oxygen to burn with liquid hydrogen, scramjets use the atmosphere as fuel. That means a scramjet-carrying craft could haul more payload into orbit.

Don Shaffer, senior vice president for ATK's Advanced Propulsion and Space Systems Group, said that "ATK's air-breathing propulsion portfolio makes it a world leader in the development and deployment of combined-cycle engines.

"ATK prides itself on delivering low-cost, highly effective solutions to our customers, and we're out front, leading the way in the development of scramjets and combined-cycle engines," Shaffer added.

ATK GASL in Tullahoma, Tenn., built both the vehicle and the engine, and The Boeing Company Phantom Works designed the thermal protection and propulsion control systems. The booster is a modified Pegasus rocket from Orbital Sciences Corporation.

Headquartered in Edina, Minn., ATK is a \$2.4 billion advanced weapon and space systems company employing 13,200 people in 21 states.

For more information, see [www.atk.com](http://www.atk.com).

**Photo Above: The X-43A, designed and built by AIA member ATK, is seen in historic Mach 7 flight.**

## AIA Member Companies

AAI Corporation  
Aerojet  
ALLFAST Fastening Systems, Inc.  
American Pacific Corporation  
Analytical Graphics, Inc.  
Argo-Tech Corporation  
ATK  
Aviall, Inc.  
B&E Tool Co. Inc.  
BAE SYSTEMS North America  
The Barden Corporation  
Barnes Aerospace  
B.H. Aircraft Company, Inc.  
The Boeing Company  
Celestica Corporation  
Click Bond, Inc.  
Computer Sciences Corporation  
Crane Aerospace & Electronics  
Cubic Corporation  
Curtiss-Wright Corporation  
Curtiss-Wright Controls Systems, Inc.  
Metal Improvement Company  
Dassault Falcon Jet Corporation  
DRS Technologies, Inc.  
Ducommun Incorporated  
DuPont Company  
DY 4 Systems Ltd.  
EDO Corporation  
EFW Inc.  
Electromech Technologies  
Embraer Aircraft Holding Inc.  
Engineered Support Systems, Inc.  
Erickson Air-Crane Incorporated  
ESIS, Inc.

Esterline Technologies  
Exostar LLC  
Federation Inc.  
General Atomics Aeronautical Sys., Inc.  
General Dynamics Corporation  
General Electric Company  
GKN Aerospace Services  
Goodrich Corporation  
Airframe Systems  
Electronic Systems  
Engine Systems  
W.L. Gore & Associates  
Harris Corporation  
HEICO Corporation  
Hexcel Corporation  
HITCO Carbon Composites, Inc.  
Honeywell  
ITT Industries  
Defense and Electronics  
Kaman Aerospace Corporation  
Kistler Aerospace Corporation  
L-3 Communications Holdings, Inc.  
Lockheed Martin Corporation  
3M Company  
Martin-Baker America Inc.  
McKechnie Aerospace Structures  
MOOG Inc.  
Natel Engineering Co. Inc.  
National Machine Group  
National Machine Company  
National Aviation Products, Inc.  
National Technical Systems  
Northrop Grumman Corporation  
Mission Systems  
Space Technology

Omega Air, Inc.  
Oracle  
Orbital Sciences Corporation  
Advanced Systems Division  
Parker Aerospace  
PerkinElmer, Inc.  
Fluid Sciences  
Proficiency Inc.  
The Purdy Corporation  
Raytheon Company  
Remmele Engineering, Inc.  
Rockwell Collins, Inc.  
Rolls-Royce North America Inc.  
RTI International Metals, Inc.  
Shaw Aero Devices, Inc.  
Silicon Graphics, Inc.  
SITA  
SM&A  
Smiths Aerospace Actuation Systems  
Los Angeles  
Stellax Aerostructures, Inc.  
Suntron Corporation  
Swales Aerospace  
Teleflex, Inc.  
Textron Inc.  
Triumph Group, Inc.  
United Defense  
United Technologies Corporation  
Hamilton Sundstrand  
Pratt & Whitney  
Sikorsky  
Vought Aircraft Industries, Inc.  
Woodward Governor Company

## AIA Associate Member Companies

AbelConn, LLC  
Accurate Metal Machining, Inc.  
ADI American Distributors Inc.  
A.E. Petsche Co.  
AEROFLEX  
Aerospace Fabrications of Georgia, Inc.  
Air Industries Machining Corporation  
Alken Industries, Inc.  
Allen Aircraft Products, Inc.  
AMI Metals, Inc.  
Arbortext, Inc.  
Arkwin Industries, Inc.  
Arrow Gear Company  
Arrow/Zeus Electronics,  
div. of Arrow Electronics  
A & S Tribal Industries  
AUSCO, Inc.  
AVChem, Inc.  
Avexus, Inc.  
Avionics Specialties, Inc.  
Avnet Electronics Marketing  
Banneker Industries, Inc.  
Bill-Jay Machine Tool Corporation  
Brush Wellman Inc.  
BTC Electronic Components, Inc.  
Burton Industries Aerospace  
Heat Treating  
California Screw Products  
Capo Industries Inc.  
CC Distributors, Inc.  
Celltron Inc.  
Champion Industries, Inc.  
Chandler/May, Inc.  
Cherokee Nation Distributors  
Cincinnati Machine, a UNOVA Co.  
Circle Seal Controls, Inc.  
CMC Electronics, Inc.  
Coalition Solutions Integrated, Inc.  
Cohesia Corporation  
Compass Aerospace Corporation  
Composites Atlantic Limited  
Contivo, Inc.  
CPI Aerostructures, Inc.  
Cytec Engineered Materials  
Data Conversion Laboratory, Inc.  
Dayton T. Brown Inc.  
The Deutsch Company  
Dimension4, Inc.  
DynaBil Industries, Inc.  
Dynamic Systems, Inc.  
East West Technology  
Eaton Aerospace  
Electronic/Fasteners, Inc.  
Electro-Tec Corp.  
EMS Technologies, Inc.  
ENSCO, Inc.  
Envision LLC  
Exotic Metals Forming Company LLC

Fastener & Hose Technology  
Mid-State Aerospace, Inc.  
Fenn Technologies  
The Fero Group  
Frontier Electronic Systems Corporation  
GEAR Software  
General Technology Corporation  
Greene, Tweed & Company  
G.S. Precision Inc.  
H & S Swanson's Tool Company  
Hagemeyer North America  
Hangsterfer's Laboratories, Inc.  
Hartwell Corporation  
Harvard Custom Manufacturing, Inc.  
Hi-Tech Aero Spares  
Hi-Temp Insulation Inc.  
Hobart Machined Products, Inc.  
Holaday Circuits, Inc.  
Hughes Bros. Aircrafters, Inc.  
Hughes-Treitler Manufacturing Corp.  
iBASEt  
IBM Corporation  
IFS North America  
Industrial Metals International LTD  
Integrated Aerospace  
ISPA, Inc.  
John Hassall, Inc.  
Kennebec Tool & Die Co., Inc.  
Kulite Semiconductor Products, Inc.  
Lattice3D  
Lefehl Manufacturing Company  
Lilly Software Associates, Inc.  
LMI Aerospace, Inc.  
MA-COM, Inc.  
Magnetic, Inc.  
Manufacturers' Services Ltd.  
Manugistics  
Marotta Controls, Inc.  
McCann Aerospace Machining Corp.  
Meyer Tool Inc.  
Micro-Coax, Inc.  
Morris Machine Company, Inc.  
MPC Products Corporation  
Navigant Consulting  
Norfil Manufacturing, Inc.  
Northwest Composites Inc.  
OnBoard Software, Inc.  
O'Neil & Associates, Inc.  
Paramount Machine Company Inc.  
Park Engineering & Mfg. Co., Inc.  
Parkway Products, Inc.  
PC Guardian  
PGM of New England, LLC  
PGP Corporation  
Planet Products Corporation  
Plymouth Extruded Shapes  
Plymouth Tube Company  
Port Electronics Corporation

Precision Aircraft Machining Co., Inc.  
Precision Gear Inc.  
Precision Machine & Manufacturing Co.  
Precision Machine Works Inc.  
Precision Tube Bending  
Primus International  
PTC  
Quick-Wright Associates, Inc.  
Radant Technologies, Inc.  
RAM Manufacturing Company Inc.  
REMEC Microwave, Inc.  
Renaissance Services, Inc.  
Rockwell Scientific Company LLC  
Ryder System, Inc.  
Safe Flight Instrument Corporation  
Sargent  
SEAKR Engineering, Inc.  
Senior Aerospace  
Service Steel Aerospace  
Servotronics, Inc.  
Sparton Corporation  
Spectra Lux Corporation  
Spirit Electronics, Inc.  
Sunbelt Industrial Supply Co. Inc.  
Sun Microsystems  
Sunshine Metals  
Synchronous Aerospace  
Sypris Electronics, LLC  
Tedopres International, Inc.  
Texas Composite, Inc.  
Thayer Aerospace  
Therm, Inc.  
Thermal Solutions, Inc.  
Thomas James International  
TMX Aerospace  
Triad Design Service, Inc.  
Trylon Machine Company  
TTI, Inc.  
Tyco Electronics  
Tyco Printed Circuit Group L.P.  
UFC Aerospace Corp.  
UGS PLM Solutions  
Vaupell Industrial Plastics  
WAER Systems, Inc.  
Welding Metallurgy, Inc.  
Wems Electronics  
West Cobb Engineering & Tool Co., Inc.  
Windings, Inc.  
Xerox Corporation

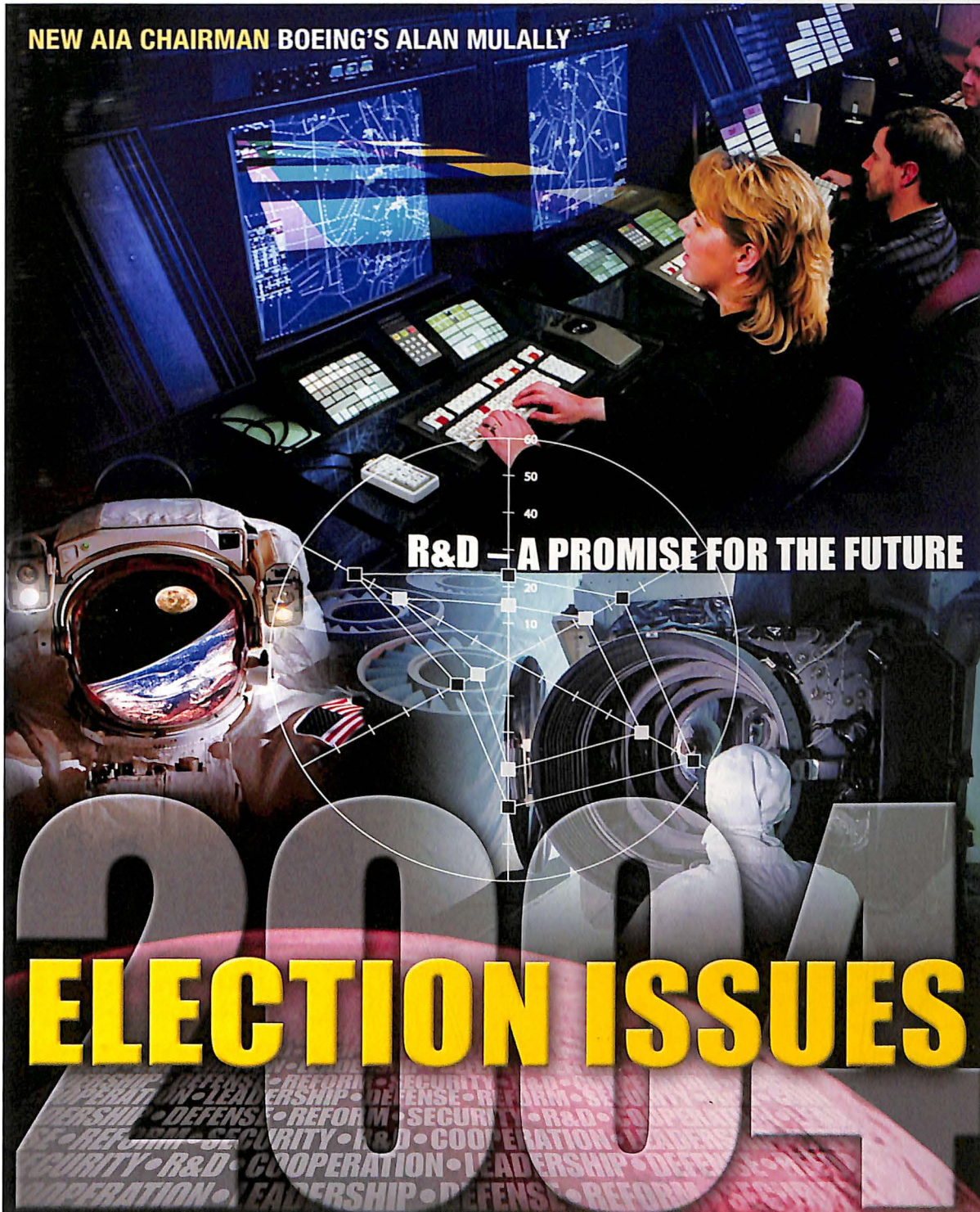


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# EXECUTIVE REPORT

WINTER 2004

NEW AIA CHAIRMAN BOEING'S ALAN MULALLY



**AIA**  
AEROSPACE INDUSTRIES  
ASSOCIATION



## Officers

**Alan R. Mulally,**  
Chairman

**Robert D. Johnson,**  
Vice Chairman

**John W. Douglass,**  
President & Chief Executive Officer

**Ginette C. Colot,**  
Secretary-Treasurer

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**Robert P. Barker,** President, Parker Aerospace & Vice President, Parker Hannifin Corporation

**David L. Calhoun,** President & Chief Executive Officer, GE Aircraft Engines, General Electric Company

**Vance D. Coffman,** Chairman & Chief Executive Officer, Lockheed Martin Corporation

**John W. Douglass,** President & Chief Executive Officer, AIA

**Robert D. Johnson,** President & Chief Executive Officer, Honeywell Aerospace, Honeywell

**Marshall O. Larsen,** Chairman, President & Chief Executive Officer, Goodrich Corporation

**Ronald F. McKenna,** President, Hamilton Sundstrand, United Technologies Corporation

**Alan R. Mulally,** Executive Vice President, The Boeing Company, and President & Chief Executive Officer, Boeing Commercial Airplanes

**Tom D. Risley,** President & Chief Executive Officer, Vought Aircraft Industries, Inc.

**Mark H. Ronald,** Chief Operating Officer, BAE SYSTEMS plc, and President & Chief Executive Officer, BAE SYSTEMS North America

**Ronald D. Sugar,** Chairman, Chief Executive Officer & President, Northrop Grumman Corporation

**William H. Swanson,** Chairman & Chief Executive Officer, Raytheon Corporation

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**David E. Berges,** Chairman & Chief Executive Officer, Hexcel Corporation

**Raymond W. Boushie,** President, Crane Aerospace & Electronics

**Robert T. Brady,** Chairman & Chief Executive Officer, MOOG Inc.

**Nicholas D. Chabraja,** Chairman & Chief Executive Officer, General Dynamics Corporation

**Andrew Crook,** Mil Aero Business Leader, W.L. Gore & Associates, Inc.

**Gerald R. Dinkel,** President & Chief Executive Officer, Cubic Defense Applications, Cubic Corporation

**Henry J. Driesse,** President, ITT Defense, and Senior Vice President, ITT Industries

**James J. Fitzsimmons,** President & Chief Executive Officer, North America East, GKN Aerospace Services

**Paul E. Fulchino,** Chairman, President & Chief Executive Officer, Aviall, Inc.

**Thomas A. Gendron,** President & Chief Operating Officer, Woodward Governor Company

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**Richard C. Ill,** President & Chief Executive Officer, Triumph Group, Inc.

**Clayton M. Jones,** Chairman, President & Chief Executive Officer, Rockwell Collins

**Vincent E. Kearns,** Chairman, B.H. Aircraft Company, Inc.

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**Frank C. Lanza,** Chairman & Chief Executive Officer, L-3 Communications Holdings, Inc.

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**Joseph H. Lubenstein,** President, Kaman Aerospace Corporation

**Michael F. Martin,** President, Aerojet

**William O. McCabe,** Director, DuPont Aviation, DuPont Company

**Brian A. Miller,** Executive Vice President, Martin-Baker America Inc.

**Gregory Milczik,** President, Barnes Aerospace

**Daniel J. Murphy, Jr.,** Chief Executive Officer, Alliant Techsystems Inc.

**Mark S. Newman,** Chairman, President & Chief Executive Officer, DRS Technologies, Inc.

**John Rosanvallon,** President & Chief Executive Officer, Dassault Falcon Jet Corporation

**Andrew A. Sadanowicz,** President & Chief Executive Officer, The Purdy Corporation

**Frederick M. Strader,** President & Chief Executive Officer, AAI Corporation

**David L. Taylor,** President & Chief Executive Officer, Ball Aerospace & Technologies Corp.

**Vicki L. Wessel,** President, Spirit Electronics, Inc.

**Jeffrey D. Wood,** President, Airfoil Technologies International, Teleflex Inc.



**Alan R. Mulally**  
Chairman  
AIA Board of Governors

**Alan R. Mulally, the 2004 chairman of AIA's Board of Governors, is executive vice president of The Boeing Company and president and chief executive officer of Boeing Commercial Airplanes.**

**Mulally is responsible for all of the company's commercial airplane programs and related services. He is the senior executive for The Boeing Company in the Pacific Northwest and a member of the Boeing Executive Council.**

**The Boeing Company is the world's largest aerospace enterprise and the largest manufacturer of satellites, commercial jetliners, and military aircraft. It is also a global market leader in missile defense, human space flight, and launch services. The company employs more than 150,000 people, serves customers in 145 countries, and is the largest exporter in the United States.**

**Boeing's corporate headquarters are in Chicago.**

Dear Colleague

In last year's celebration of 100 years of powered flight, we reflected on the remarkable contributions of aerospace to our world since the Wright Brothers' achievement at Kitty Hawk. A century of accomplishment in civil aviation, defense, and space dramatically improved the quality of life for people throughout the world. As an industry, we connected people and ideas, fueled economic expansion and global commerce, defended freedom and liberty, and stretched the bounds of technology and human imagination. In short, we changed the world and made it a smaller, safer, more prosperous place for all of us.

While our industry has changed dramatically over the years, the same spirit of innovation and achievement still permeates our culture and provides the daily motivation for the tremendously talented men and women of aerospace. It is this very spirit, and these very people, that are taking up the key challenges of the second century of flight. We have fulfilled a tremendous promise; yet we promise so much more.

As a maturing industry, it serves us well to recognize that no longer is our destiny determined by our success in going faster, higher, farther, but more so by a compelling need to continuously improve our efficiency and competitiveness. Whether in commercial aviation, defense, space, or homeland security, we can and must do things better, faster, and more efficiently than ever before. And, we must invest in the infrastructure, resources, initiatives, and technologies that will enable progress toward these objectives.

The agenda we have set for ourselves at AIA recognizes this new reality. As chairman of the Board of Governors for 2004, I am asking all members to commit to working together more closely than ever with the various branches and levels of our federal government, our state and local leaders, our communities, and with each other to bring about meaningful progress on key issues that

will position the U.S. aerospace industry for a second century of leadership and accomplishment.

Late last year, we published our top issues for the 2004 election year. (See pages 4 and 5.) These issues address a range of needs across our industry, including developing a comprehensive roadmap for enhancing the capability of our global aviation system, promoting an increase in U.S. intelligence capability, increasing federal funding for aerospace research and development, and committing to replacing the space shuttle with a modern, next-generation, human-rated space transportation system.

A complete list of these issues along with detailed position papers can be found on the AIA Web site at [www.aia-aerospace.org/issues/election\\_2004/election\\_issues.pdf](http://www.aia-aerospace.org/issues/election_2004/election_issues.pdf). All members are encouraged to understand and promote these issues with the many constituencies that can influence positive outcomes. And there's no better time than an election year to make our issues part of the national consciousness. Progress already is being made on several fronts, including a very favorable position adopted by Transportation Secretary Norm Mineta on the need to modernize and transform our air transportation system.

The U.S. aerospace industry is a vital national asset. Our value to society far exceeds the 15 percent contribution we make to our nation's GDP. We are enablers to peace, prosperity, freedom, and higher standards of living for the world. Generations before us have entrusted us to ensure our future. That is our solemn responsibility. In doing so, we will allow future generations to reflect on our accomplishments with the same pride we reflect on the successes of pioneers like the Wright Brothers.

A handwritten signature in black ink that reads "Alan Mulally". The signature is written in a cursive, flowing style.

Alan R. Mullaly

Dear Association Member:

AIA is asking the administration and Congress to significantly increase aerospace research and development (R&D) funding over the next five years.

Launched in February, our new initiative urges a continuation of DoD's strong levels of R&D funding but with crucial increases for NASA and FAA between now and 2008.

Much has been done to develop a national vision for aerospace, including the moon/Mars initiative, solid defense funding in procurement and R&D, and the administration's roadmap for modernizing the U.S. air traffic management system.

However, NASA and FAA research and development programs in key aeronautics sectors are insufficient, and there is little or no alignment across government agencies to encourage and facilitate joint benefits.

A national commitment to invest in aerospace R&D is a promise for the future of a strong America. Without adequate investment in innovation, America is in danger of losing its position as the global leader in aerospace.



**John W. Douglass**  
AIA President & CEO

The Commission on the Future of the U.S. Aerospace Industry recommended it, AIA strongly believes in it, and we are now seeking a major national aerospace R&D commitment from the administration and Congress to accomplish it.

### **Aerospace Enhancements of Life**

Technological innovation, stimulated through strong, well-planned R&D funding, will sustain our national security, build a much needed modern aviation system, and inspire U.S. leadership in the exploration of space.

Rockwell Chairman Clay Jones, a member of our Board of Governors, did a tremendous job developing a powerful itemized R&D plan for the future of aerospace.

In presenting the plan at an AIA press briefing, Clay summarized the need for R&D investment growth well when he said "the most spectacular enhancements of life in the 21st century will be tied to discoveries made in research and development for aerospace."

Industry recommends \$34 billion in funding increases during the next five years for NASA, including a boost in aeronautics research next year to \$1.7 billion — up from the fiscal 2005 projection of \$900 million, which would be a harmful 11 percent drop from 2004. In addition, we're asking NASA to maintain a continued balance between space and aeronautics budgets.

## **2004 ELECTION ISSUES**

*"...the most  
critical economic,  
national security,  
and technological  
challenges facing  
the aerospace  
industry..."*

### **Develop U.S. Leadership Plan to Improve Capability of the Global Aviation System**

**Issue:** Aviation is a critical component of global transportation. To support the long-term growth of the world economy, we must improve the total capability of the aviation system to design, build, and operate all of its elements, including capacity, safety, security, efficiency, and environmental performance.

**Recommendation:** AIA seeks a commitment from candidates to support:

- Continued air traffic system planning through the Joint Planning and Development Office.
- Sound risk management principles to set safety and security priorities.
- Regulatory reforms to reduce compliance costs.
- A balanced approach to improved aircraft environmental performance and increased R&D funding.

### **Commit the U.S. Government to Fundamental Reform of the U.S. Export Licensing Process**

**Issue:** The U.S. export control system that governs the transfer of military and "dual use" hardware and technology should protect U.S. security and foreign policy interests. It should facilitate industrial cooperation with allies and ensure access by U.S. defense and civil industry to overseas markets and to the best U.S. and international technology and talent.

**Recommendation:** AIA urges candidates to pledge to re-evaluate and reform export licensing in consultation with Congress and industry to devise a system that will more effectively control export of the most advanced technologies but allow the export of equipment and technology already on the commercial market.

The system should be flexible enough to respond to changes in technology and commerce yet effective enough to maintain U.S. military superiority.

Candidates should commit to working toward a new multilateral export control system that would be developed in concert with our closest allies to facilitate international ventures and partnerships while ensuring that agreed-upon controls are effective.

### **Promote Increase in U.S. Intelligence Capability**

**Issue:** The United States faces a growing national security challenge that is asymmetric, complex, global, and elusive. Investment in reconnaissance platforms and the ground systems to process and use the information they provide is inadequate to satisfy the increasing demand for intelligence to meet national security needs.

**Recommendation:** AIA urges candidates to support additional significant investment in intelligence with emphasis on collection systems and related hardware and software to support the war on terrorism.

AIA's plan also calls for an increase in FAA funding of \$3.8 billion over the next five years for civil aeronautics.

Increasing aerospace R&D investment is one of the association's seven Election 2004 issues that we are vigorously pursuing this year on behalf of a stronger, healthier aerospace industry.

You can read more about the R&D crisis and the AIA initiative on the association's Web site at [www.aia-aerospace.org](http://www.aia-aerospace.org).

## A Roadmap for the Future

Elsewhere, a roadmap to the future is clearly emerging and offering opportunity to our companies and to the young people of America, ensuring that there will be good American jobs and a bright future in our global industry.

The emerging vision is very good news, resulting from all the hard work we've invested over the past four years or more in working with the administration and Congress.

In aviation, we've heard firm commitments from the secretary of transportation and the administrator of FAA to revitalize America's air transportation system. In addition, Boeing has committed to launch its 7E7 jetliner of the future, a bold and confident step that will be a pillar of strength for America's aerospace manufacturing leadership.

In defense, the president's research, development, test, and evaluation proposal over the next five years will add nearly \$60 billion above current levels for defense investments in the design and deployment of new systems for national security, including

the Joint Strike Fighter, the F-22, the V-22, and other advancements.

In the third leg of the aerospace triad, we see now that there is also a solid vision for space in the president's commitments to return to the moon by 2020, then go on to Mars, and develop a family of manned space vehicles to replace the shuttle.

We are also pleased to see a robust investment plan for homeland security that will support both our national security and our commercial aviation interests.

Our mission now is to make the vision a reality. We are in the opening days of the second century of aerospace, and now is the time to focus on where this industry and the nation need to go in the coming years.

## Election 2004 Issues

Last fall, AIA's Board of Governors approved a package of seven white papers detailing the most critical economic, national security, and technological challenges facing the aerospace industry.

Sets of the papers have been sent to President Bush and all of the top Democratic Party contenders. We designed the papers to have a bearing on the policy decisions of leaders from both political parties as they develop programs to support the manufacturing economy.

Summaries of the issues are included in this *Executive Report*, and the full papers and



## Improve U.S. Aerospace and Defense Industrial Cooperation With America's Allies

**Issue:** The United States has a major interest in maintaining a positive relationship with its allies in aerospace and defense — particularly European countries — to further economic, security, and foreign policy objectives.

**Recommendation:** The United States, Europe, and Asia will continue to be aerospace competitors as well as partners, suppliers, and customers. AIA encourages candidates to support mature, sustained, cooperative, and rules-based defense and trade relationships between the United States and Europe and the United States and Asia.

## Develop a Federal Plan for Revitalizing The U.S. Aerospace Workforce and Sustaining Manufacturing Jobs

**Issue:** The U.S. aerospace workforce is aging, and we are losing valuable technical talent needed to sustain high-technology jobs. Lack of skilled U.S. workers could have devastating effects on companies' ability to compete globally.

**Recommendation:** AIA urges candidates to work with Congress, trade associations, unions, and other stakeholders to acknowledge that maintaining manufacturing workforce capabilities is a necessity and to demonstrate willingness to help U.S. companies and workers. A coordinated federal plan must address workforce needs.

## Commit to Replacing the Space Shuttle with a Modern, Human-rated Space Transportation System

**Issue:** The space shuttle has served our nation well for over two decades. With more service life extension upgrades, it could continue to operate for years to come. A commitment to a next-generation transportation system is critical to ensure that a vehicle will be ready to replace the shuttle before its operational life expires.

**Recommendation:** The funding, commitment, and national will must support development of a modern space transportation system without raiding other NASA programs critical to the nation.

AIA encourages candidates to support a new vehicle — based on existing, proven technology — deployable before the shuttle is retired.

## Increase Federal Funding for Aerospace Research and Development

**Issue:** The United States is in danger of losing its position as the global leader in aerospace. There is no national space imperative, no integrated national aerospace consensus, and no alignment among agencies to develop R&D programs that will ensure that the United States stays at the forefront of aviation and space exploration.

**Recommendation:** AIA calls on candidates to support:

- \$48 billion increase in aerospace R&D outlined in the president's 2004 budget proposal.
- Additional \$38 billion between 2004 and 2008. Allocate \$34 billion for NASA, including increases for aeronautics, a new human-rated vehicle, and recapitalization of NASA's infrastructure while maintaining steady growth for Earth science and space science. Target \$4 billion for FAA R&D, including air traffic management.
- DoD's strong aerospace R&D funding with increased emphasis on underfunded areas.
- Robust technology insertion efforts.



Photo: Keith W. Wood

**Aerospace reporters in the foreground take notes as AIA President John Douglass and Rockwell Collins Chairman Clay Jones describe the association's new Five-Year R&D Plan for aerospace innovation investments.**

recommendations can be found on AIA's Web site at [www.aia-aerospace.org](http://www.aia-aerospace.org).

The issues briefings capture the challenges that aerospace companies face today.

For example, the public and private sectors must intensify efforts to upgrade air traffic control and space transportation systems while meeting the challenge of government-subsidized foreign competition.

Among other issues, the Election 2004 white papers recommend accelerated modernization of the civil aviation network, streamlined commercial export control procedures, a systematic federal government plan to rejuvenate the workforce, and a reliable, long-term, space transportation program.

AIA staff and member-company executives have begun meeting face-to-face with senior representatives of the presidential candidates to educate them on these issues.

## Leadership and Membership

I welcome Alan Mulally of The Boeing Company to the chairmanship of the Board of Governors for 2004. He has devoted countless hours over the past 18 months to issues affecting the health of the civil aviation sector of our industry and now accepts an even broader leadership role within the association.

Be sure to read Alan's comments on the aerospace industry on Page 3.

Sincere appreciation goes to Vance Coffman of Lockheed Martin Corporation who led us through a difficult 2003 and did it with strength and purpose.

During Vance's term, AIA membership continued growing steadily and now stands at 79. We've set an objective of 100 full members for the first time in the modern history of the association. In fact, when we reach 100, we'll have twice as many members as we had only five years ago.

Our associate member roster also is growing and stands at 162. Supplier Management Vice President Bill Lewandowski and his staff have been developing a corps of elite supplier members, all of whom are helping make our association stronger.

By the way, Bill has won a Laurel Award from *Aviation Week & Space Technology* magazine for his steadfast efforts in boosting the value and recognition of aerospace suppliers. It's a great honor for Bill and a positive reflection on the association.

John W. Douglass

## AIA Council Leaders Elected

AIA's councils have elected their officers for 2004 from among member company representatives. Councils and leadership are:

**Civil Aviation Council:** Gerald Mack, vice president of government and industry technical liaison for Commercial Airplanes of The Boeing Company, has been elected chairman.

**Communications Council:** Lee J. Whitney, vice president of strategy and marketing communications for Lockheed Martin Corporation, has been elected chairman. Rosanne O'Brien, corporate vice president of communications for Northrop Grumman Corporation, is vice chair.

**International Council:** Richard Kirkland, vice president of corporate international business development for Lockheed Martin Corporation, has been elected chairman. Susan Baumgarten, president of Raytheon International, Inc., Raytheon Company, is vice chair.

**Procurement and Finance:** Laurence M. Trowel, general manager of government contracts for GE Aircraft Engines, has been elected chairman. Timothy P. Malishenko, corporate vice president of contracts and pricing for The Boeing Company, is vice chairman.

**Space Council:** Raymond Ernst, director of space transport for Lockheed Martin Corporation, has been elected chairman. Don Brownlee, vice president of Washington Operations for Aerojet, is vice chairman.

**Supplier Management Council:** Vince Hrenak, vice president of supply chain for Raytheon Company, has been elected chairman. William D. Brown, vice president of business development for Kaman Aerospace Corporation, is vice chairman.

**Technical Operational Council:** Robert Klein, vice president of engineering, logistics, and technology at Northrop Grumman Corporation, has been elected chairman. Norman Egbert, vice president of engineering and technology at Rolls-Royce North America Inc., is vice chairman.

**Environmental, Safety, and Health Committee:** Christopher Sheehey, director of environmental, health, and safety services for Goodrich Corporation, has been elected chairman. Jim Wellman, vice president, health, safety, and environment and facilities at Honeywell Aerospace Electronic Systems, is vice chairman.



Accepting AIA's "Big Gun Award" at the association's Board of Governors meeting in Phoenix are (from left) Mark Ronald, BAE SYSTEMS North America; Vance Coffman, Lockheed Martin Corporation; and Marshall Larsen, Goodrich Corporation. Presenting the award at far right is AIA President and CEO John W. Douglass. The award is given annually to the Executive Committee member who recruits the most members that year.

## Two New Staff Join Association

**G**inette C. Colot is the new AIA corporate secretary and treasurer, succeeding George F. Copsy who retired after 37 years of service.

Colot, who is also the association's chief financial officer, has more than 20 years experience in non-profit management, most recently as vice president of administration for Goodwill Industries International.

She also served as chief financial officer and treasurer for the National Fish and Wildlife Foundation, director of finance and administration for the Montgomery County Private Industry Council, and director of accounting services for the American Association of Museums.

Michelle Princi is the association's new director of membership, succeeding Amanda Lapides.

Princi comes to the association from the Vision Council of America where she served as senior manager of divisions and councils and as manager of meetings and conventions.

## New Member **SPOTLIGHT** AIA Welcomes Four New Members

**T**he four newest members of AIA present a unique cross section of aerospace history, cutting-edge technologies, and computerized services innovation.

**The Barden Corporation** was founded in 1942 to make precision ball bearings for the famous Norden bombsight.

The company affiliated in 1991 with the German corporation FAG and now forms the nucleus of that firm's Aircraft and Super Precision Division. The brand name FAG has been abbreviated from Fischer Aktien-Gesellschaft.

Today, the Barden/FAG enterprise continues to manufacture rolling devices to super-precise and super-critical tolerances.

As an ISO 9001 certified company, excellence in manufacturing remains the company's guiding principle as a world leader in the design and manufacture of deep groove and angular contact super precision spindle and instrument bearings.

Applications offered by the Danbury, Conn.-based company, include machine tool, aircraft, special machinery, and medical uses.

For additional information, visit [www.bardenbearings.com](http://www.bardenbearings.com).

**ESIS Inc.**, located in San Diego, offers hosted supply chain solutions for companies and their trading partners.

A leader in the supply chain management field, ESIS counts over 17,000 e-commerce partners and more than 200 major manufacturers as users of its Web-enabled application, the Harmony Order Management System.

The ESIS system is designed to accommodate suppliers of all sizes regardless of

their level of technical expertise. A hallmark of its system is the single sign-on feature, which allows suppliers to receive orders from multiple customers by logging onto one secure Web site.

Founded in 1992, ESIS offers alternate methods of data delivery to meet buying organizations' needs. The company processes some 3.5 million transactions and over \$6 billion in purchase orders for its clients each year.

Visit [www.esisinc.com](http://www.esisinc.com) for more information.

**National Machine Group** is a leading contract manufacturer providing precision machining, assembly, and program management services to various segments of the aerospace industry.

Incorporated in 1967, the company has grown steadily and today employs 300 highly skilled associates working in facilities with more than 150,000 square feet of shop floor capacity.

Offering machining resources that feature over 50 computer numerical control (CNC) machines, a full line assembly department, and a strong resident product engineering capability, National is able to handle nearly any outsource opportunity on a turnkey basis.

The firm's two divisions are National Machine Company and National Aviation Products, Inc. With regional headquarters in Stowe, Ohio, and Tempe, Arizona, the company supports its products after delivery with extensive repair and overhaul services.

For additional information, see [www.nationalmachinecompany.com](http://www.nationalmachinecompany.com).



**National Technical Systems (NTS)** has 40 years experience in aerospace, yet one of its most recent programs has become the pinnacle of its history.

NTS a year ago simulated and tested a landing environment for the Mars exploration rover vehicles, both of which landed safely on the far-away planet.

Headquartered in Calabasas, Calif., the company performs virtually every test required on manned and unmanned systems and supports commercial and military aircraft suppliers with conceptual design, scale model testing, human factors, safety, aging, and other requirements.

Precision cleaning services including launch facilities, ground support test equipment, fuel and liquid oxygen storage facilities, as well as satellite tanks, specialty seals, and high performance flight valves.

For more information, see [www.ntscorp.com](http://www.ntscorp.com).

**Photo Above: New AIA member National Technical Systems simulated and tested a landing environment for Mars rover vehicles, one of which is seen here in an illustration.**





## Crane Aerospace & Electronics — Serving Aviation for More Than 300 Years

Crane Aerospace & Electronics is one of the fastest growing aerospace companies in America. And by one clever measure, the AIA member company is among the oldest as well.

In a full-page advertisement in industry publications last year, Crane Aerospace & Electronics described its experience with this twist:

"We've compressed 297 years of aviation expertise into a 3-year-old aerospace group," the headline stated. The ad listed the six brand-name industry leaders that then made up the group — ELDEC (45 years in business), General Technology (22 years), Hydro-Aire (59 years), Interpoint (33 years), Lear Romac (71 years), and Resistoflex (67 years).

But that was before Crane Aerospace & Electronics added two more leaders to its impressive line-up — well-known electronics manufacturer Signal Technology and P.L. Porter, a leading manufacturer of motion control products for airline seating.

In less than a year, the group's expertise has jumped to eight separate businesses now with more than 350 years of combined aviation expertise — and still growing.

Crane Aerospace & Electronics says it has built an organization that has the experience of industry leaders to give manufacturers and airlines one integrated source for sensing, power, braking, fuel systems, electronics, and more.

One of the largest accomplishments in 2003 occurred when the Lynnwood, Wash., firm was selected to participate on Boeing's Systems Technology Team to help develop and design concepts for the new, innovative B-7E7 jetliner.

"Being selected for the team is very significant to us," said Greg Ward, president of the Aerospace Group. "We are delighted to work with Boeing and other system suppliers."

Crane Aerospace & Electronics is a segment of Crane Co. (NYSE: CR), a diversified manufacturer of engineered industrial products headquartered in Stamford, Conn.

**Photo Above: Crane Aerospace & Electronics is a teammate for development of Boeing's new 7E7 evolutionary airliner.**

## AIA Member Companies

AAI Corporation  
Aerojet  
Alliant Techsystems Inc.  
American Pacific Corporation  
Analytical Graphics, Inc.  
Argo-Tech Corporation  
Aviall, Inc.  
B&E Tool Co. Inc.  
BAE SYSTEMS North America  
Ball Aerospace & Technologies Corp.  
The Barden Corporation  
Barnes Aerospace  
B.H. Aircraft Company, Inc.  
The Boeing Company  
Celestica Corporation  
Computer Sciences Corporation  
Crane Aerospace & Electronics  
Cubic Corporation  
Curtiss-Wright Corporation  
Curtiss-Wright Controls Systems, Inc.  
Metal Improvement Company  
Dassault Falcon Jet Corporation  
DRS Technologies, Inc.  
Ducommun Incorporated  
DuPont Company  
DY 4 Systems Ltd.  
EDO Corporation  
EFW Inc.  
Embraer Aircraft Holding Inc.  
Engineered Support Systems, Inc.  
Erickson Air-Crane Incorporated  
ESIS, Inc.

Esterline Technologies  
Exostar LLC  
Federation Inc.  
General Atomics Aeronautical Sys., Inc.  
General Dynamics Corporation  
General Electric Company  
GKN Aerospace Services  
Goodrich Corporation  
Airframe Systems  
Electronic Systems  
Engine Systems  
W.L. Gore & Associates  
Harris Corporation  
HEICO Corporation  
Hexcel Corporation  
HITCO Carbon Composites, Inc.  
Honeywell  
ITT Industries  
Defense and Electronics  
Kaman Aerospace Corporation  
Kistler Aerospace Corporation  
L-3 Communications Holdings, Inc.  
Lockheed Martin Corporation  
3M Company  
Martin-Baker America Inc.  
MOOG Inc.  
Natel Engineering Co. Inc.  
National Machine Group  
National Machine Company  
National Aviation Products, Inc.  
National Technical Systems

Northrop Grumman Corporation  
Mission Systems  
Space Technology  
Omega Air, Inc.  
Orbital Sciences Corporation  
Advanced Systems Division  
Parker Aerospace  
PerkinElmer, Inc.  
Fluid Sciences  
Proficiency Inc.  
The Purdy Corporation  
Raytheon Company  
Remmele Engineering, Inc.  
Rockwell Collins, Inc.  
Rolls-Royce North America Inc.  
RTI International Metals, Inc.  
Silicon Graphics, Inc.  
SM&A  
Smiths Aerospace Actuation Systems  
Los Angeles  
Stellux Aerostructures, Inc.  
Swales Aerospace  
Teleflex, Inc.  
Textron Inc.  
Triumph Group, Inc.  
United Defense  
United Technologies Corporation  
Hamilton Sundstrand  
Pratt & Whitney  
Sikorsky  
Vought Aircraft Industries, Inc.  
Woodward Governor Company

## AIA Associate Member Companies

AbelConn, LLC  
Accurate Metal Machining, Inc.  
ADI American Distributors Inc.  
A.E. Petsche Co.  
AEROFLEX  
Aerospace Fabrications of Georgia, Inc.  
Air Industries Machining Corporation  
Alken Industries, Inc.  
Allen Aircraft Products, Inc.  
AMI Metals, Inc.  
Arkwil Industries, Inc.  
Arrow Gear Company  
Arrow/Zeus Electronics  
A & S Tribal Industries  
AUSCO, Inc.  
AVChem, Inc.  
Avexus, Inc.  
Avionics Specialties, Inc.  
Avnet Electronics Marketing  
Banneker Industries, Inc.  
Bill-Jay Machine Tool Corporation  
BTC Electronic Components, Inc.  
Burton Industries Aerospace Heat Treating  
California Screw Products  
Capo Industries Inc.  
Champion Industries, Inc.  
Chandler/May, Inc.  
Cherokee Nation Distributors  
Cincinnati Machine  
Circle Seal Controls, Inc.  
CMC Electronics, Inc.  
Coalition Solutions Integrated, Inc.  
Cohesia Corporation  
Compass Aerospace Corporation  
Composites Atlantic Limited  
Contivo, Inc.  
CPI Aerostructures, Inc.  
Cytec Engineered Materials  
Dayton T. Brown, Inc.  
The Deutsch Company  
DynaBil Industries, Inc.  
Dynamic Systems, Inc.  
East West Technology  
Eaton Aerospace  
Electronic/Fasteners, Inc.  
EMS Technologies, Inc.  
ENSCO, Inc.  
Envision LLC  
Exotic Metals Forming Company LLC  
Faber Enterprises, Inc.  
Fastener & Hose Technology  
Mid-State Aerospace, Inc.  
Fenn Technologies  
The Fereo Group  
Frontier Electronic Systems Corporation  
GEAR Software  
Greene, Tweed & Company

H & S Swanson's Tool Company  
Hagemeyer North America  
Hangsterfer's Laboratories, Inc.  
Hartwell Corporation  
Harvard Custom Manufacturing, Inc.  
Hi-Tech Aero Spares  
Hi-Temp Insulation Inc.  
Hobart Machined Products, Inc.  
Holaday Circuits, Inc.  
Hughes Bros. Aircrafters, Inc.  
Hughes-Treitler Manufacturing Corp.  
iBASEt  
IBM Corporation  
IFS North America  
Industrial Metals International LTD  
Industrial Precision, Inc.  
Integrated Aerospace  
ISPA, Inc.  
JAMCO Aerospace  
John Hassall, Inc.  
Kennebec Tool & Die Co., Inc.  
Kulite Semiconductor Products, Inc.  
Lefell Manufacturing Company  
Lilly Software Associates, Inc.  
LMI Aerospace, Inc.  
M/A-COM, Inc.  
Magnetico, Inc.  
Manufacturers' Services Ltd.  
Manugistics  
Marotta Controls, Inc.  
McCann Aerospace Machining Corp.  
Melador Technologies, Inc.  
Meyer Tool Inc.  
Micro-Coax, Inc.  
Morris Machine Company, Inc.  
MPC Products Corporation  
Natel Engineering Co., Inc.  
National Technical Systems  
Navigant Consulting  
Neuvant Aerospace  
Norfil Manufacturing, Inc.  
Northwest Composites Inc.  
Omni International  
OnBoard Software, Inc.  
Paramount Machine Company Inc.  
Park Engineering & Mfg. Co., Inc.  
Parkway Products, Inc.  
PC Guardian  
PGM of New England, LLC  
Planet Products Corporation  
Plymouth Extruded Shapes  
Plymouth Tube Company  
Port Electronics Corporation  
Precision Aircraft Machining Co., Inc.  
Precision Gear Inc.  
Precision Machine & Manufacturing Co.  
Precision Machine Works Inc.

Precision Tube Bending  
Primus International  
PTC  
Quick-Wright Associates, Inc.  
Radant Technologies, Inc.  
RAM Manufacturing Company Inc.  
REMEC Microwave, Inc.  
Rockwell Scientific Company LLC  
Ryder System, Inc.  
Safe Flight Instrument Corporation  
Sargent  
SEAKR Engineering, Inc.  
Senior Aerospace  
Service Steel Aerospace  
Servotronics, Inc.  
Sparton Corporation  
Spectra Lux Corporation  
Spirit Electronics, Inc.  
STADCO  
Sun Microsystems  
Sunshine Metals  
Synchronous Aerospace  
Sypris Electronics, LLC  
Texas Composite, Inc.  
Thayer Aerospace  
Therm, Inc.  
Thermal Solutions, Inc.  
Thomas James International  
TMX Aerospace  
Triad Design Service, Inc.  
Trylon Machine Company  
TTI, Inc.  
Tyco Electronics  
Tyco Printed Circuit Group L.P.  
UFC Aerospace Corp.  
UNI-TEK, LLC  
Vaupell Industrial Plastics  
Viking Metallurgical Corp. (Firth Rixson)  
WAER Systems, Inc.  
Welding Metallurgy, Inc.  
Wems Electronics  
West Cobb Engineering & Tool Co., Inc.  
Windings, Inc.  
Xelus, Inc.



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# Executive REPORT

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President's Message  
An Aerojet Universe



## SpaceVISION

Analytical Graphics, Inc., promotes America's Vision for Space Exploration | page 3

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# President's MESSAGE



John W. Douglass  
AIA President & CEO

Dear Association Member:

**E**lection Day 2004 – when registered American voters will choose their president and a new Congress – is just around the corner. Despite a surplus of campaign rhetoric and political maneuvering at home and the difficulties of the War on Terror abroad, I gauge that the mood of the aerospace industry is upbeat as November 2 nears.

There are a number of reasons for my assessment. For starters, aerospace business is starting to pick up. Defense sales remain strong and, along with that, there's a sturdy defense after-

market. In the first six months of 2004, defense aerospace shipments increased to an annual rate of \$76 billion — a nine percent increase over all of 2003.

And, in another meaningful swing, civil aircraft, general aviation, and civil helicopter sales are showing growth again.

Boeing announced recently that it expects to ship approximately 284 aircraft in 2004, compared to 281 a year ago. General aviation billings increased 17 percent in the first half of 2004 over the same period last year, according to the General Aviation Manufacturers Association. Industry shipped 395 U.S.-manufactured civil helicopters worth \$214 million through June — setting a pace not seen in more than 19 years.

## Aerospace Is Hiring Again

Just as important, the U.S. aerospace industry is hiring again. Manufacturers, whether their business is defense or commercial, are responding to increased demand for their products by hiring additional workers.

Industry employment was up by more than 11,000 jobs at mid-year, reaching 579,800 after spiraling to a 50-year low of 568,700 in February. It marks a reversal of the downward trend that began 14 years ago at the end of the Cold War, and it's excellent news for the aerospace industry and our national economy.

There's good news for the airlines, as well. The level of flying today is about where it was pre-9/11, and that's generating a lot of aftermarket activity — repairs, maintenance, spare parts, all kinds of things that are purchased to support that level of flying and indirectly stimulate the sale of new airplanes.

New this year on the civil aircraft sales front is that Boeing is having a very robust start to its revolutionary 7E7 Dreamliner program. The innovative airliner will allow millions more people

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**Frederick M. Strader**, President & Chief Executive Officer, AAI Corporation

**Vickie L. Wessel**, President, Spirit Electronics, Inc.

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to travel efficiently and safely in America's skies, and that prospect, in turn, will enhance government focus on developing a state-of-the-art air transportation system.

### Looking Back Four Years

It's interesting to reflect on some of the aerospace milestones that have occurred since the last national election in 2000.

At election time four years ago, the U.S. air traffic control system was in gridlock, and U.S. industry had no new civil airplane coming off the drawing board.

Today, we have the 7E7, and it's selling well. We also have a strong multi-agency movement to work together to build the air traffic control system of the future. The administration has made a strong commitment to move in that direction, and a Joint Planning and Development Office has been established by the FAA to select and promote promising ideas and technologies from the Defense Department (DoD), NASA, and other agencies.

Four years ago, DoD was talking about a so-called tactical air train wreck. Nobody could see how the United States could afford to develop the F-18, the Joint Strike Fighter, and the F-22. Today, all of those programs are moving together in a successful way. Furthermore, DoD has embarked on two new aircraft programs — the Navy's maritime patrol aircraft and the Army's aerial common sensor program.

## SpaceVISION

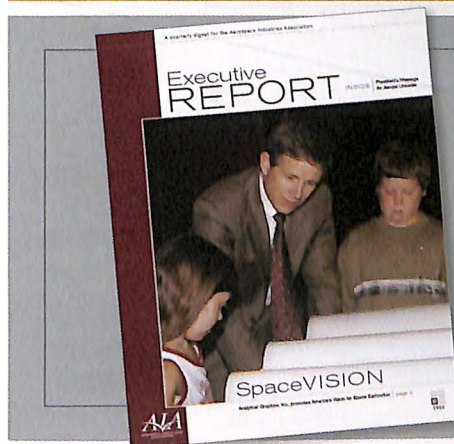
In support for the refocused U.S. space plan, AIA member Analytical Graphics, Inc., (AGI) hosted **Space Exploration Day** at the Maryland Science Center in Baltimore in September. The community outreach event was held on behalf of the Coalition for Space Exploration, an alliance of national aerospace organizations that includes AGI and AIA. The mission of the coalition is to generate public and congressional support for America's new Vision for Space Exploration, a developing series of affordable and achievable NASA mission initiatives.

Featured speakers from the aerospace community included AGI President and Chief Executive Officer Paul Graziani; Glenn Mahone, NASA assistant administrator for public affairs; Dr. James Garvin, NASA's chief scientist for Mars and Lunar Exploration; astronaut Robert Curbeam, Jr.; and Penny Glackman, NASA-educated teacher and National Space Biomedical Research Institute Teacher Academy Project fellow. Among the guests were aerospace professionals, NASA astronauts, government executives, teachers and students, and media.

"Space exploration has historically benefited our country's economy, technology, and national security as well as our innate desire for discovery," noted Graziani in addressing the attendees. "We hope this educational event will encourage public and industry support for the Vision for Space Exploration so the journey continues."

AGI provides commercial, off-the-shelf analysis and visualization software to more than 30,000 aerospace, defense, and intelligence professionals for integrated land, sea, air, and space analysis. The company is headquartered in Exton, Pa., near Philadelphia. For more information, visit [www.agi.com](http://www.agi.com).

To learn more about the Coalition for Space Exploration, go to [www.spacecoalition.com](http://www.spacecoalition.com). **ER**



### On the COVER:

Students and Analytical Graphics President and CEO Paul Graziani view the Waves of Light exhibit, one of many offering a "hands-on" approach to learning at the Maryland Science Center.

Cover photo by Marco Marchegiani

## AIA Member COMPANIES

AAI Corporation

ACTI

Aerojet

Air Liquide – Medal L.P.

Allfast Fastening Systems, Inc.

American Pacific Corporation

Analytical Graphics, Inc.

Argo-Tech Corporation

ATK

Aviall, Inc.

B&E Precision Aircraft Components

BAE SYSTEMS North America

The Barden Corporation

Barnes Aerospace

B.H. Aircraft Company, Inc.

The Boeing Company

Brek Manufacturing Company

Celestica Corporation

Click Bond, Inc.

Cobham Aerospace Systems Group

Computer Sciences Corporation

Crane Aerospace & Electronics

Cubic Corporation

Curtiss-Wright Corporation

*Curtiss-Wright Controls Systems, Inc.  
Metal Improvement Company*

Dassault Falcon Jet Corporation

Doncasters, Inc.

DRS Technologies, Inc.

Ducommun Incorporated

DuPont Company

DY4 Systems

EDO Corporation

EFW Inc.

Electromech Technologies

Embraer Aircraft Holding Inc.

Engineered Support Systems, Inc.

Erickson Air-Crane Incorporated

ESIS, Inc.

Esterline Technologies

Exostar LLC

Federation Inc.

General Atomics Aeronautical  
Systems, Inc.

General Dynamics Corporation

General Electric Company

GKN Aerospace Services

Goodrich Corporation

*Airframe Systems  
Electronic Systems  
Engine Systems*

W.L. Gore & Associates

Harris Corporation

## American aerospace has a vision for the future in space

In space programs four years ago, the nation didn't have a clear vision of what it would do beyond the space shuttle. Today, the president has put forward a national space plan that would build a human-rated space vehicle as a replacement for the shuttle and a program that would eventually take us back to the moon and on to Mars.

All told, there is a vision for the future in space, in military preparedness, and in commercial aviation modernization. American aerospace really is moving forward.

## We Have Vision, Determination

The question now is do we have the vision and the determination to make all of this planning a reality? The answer is that we sure as heck have vision and determination in our industry, and we sure as heck have those qualities at AIA.

Throughout my career as a military leader, I've understood the value of strong and vigorous leadership, and AIA has been blessed with exactly that. It has been the continuous and in-step leadership of our Board of Governors' chairmen, supported by outstanding business leaders on their executive committee, that has set in place

## New Member SPOTLIGHT

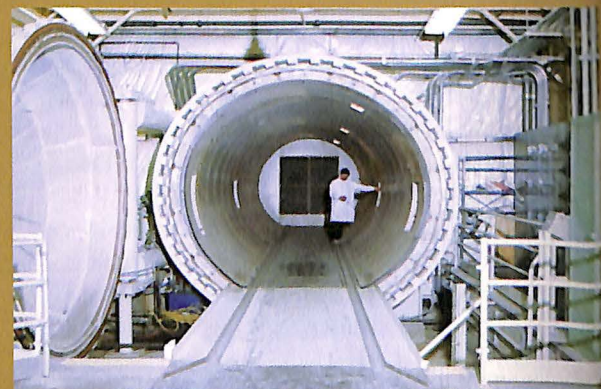
**T**he number of aerospace companies choosing to join forces in AIA continues on a record pace. Total membership is at 267 companies – 94 in the regular member category and 173 associate members.

Here are summaries of four new members:

**ACTI** is an AS 9003-certified composites manufacturing company that serves the aerospace and defense industries. Located in Port Angeles, Wash., the 11-year-old firm is owned by the development companies of two Alaska Native corporations – Koniag Development Corporation and Doyon Limited. ACTI is a certified small, disadvantaged business, an 8(a) company, and a HUBZone business.

A preferred Boeing supplier, ACTI fabricates composite structures and detailed parts for Boeing commercial jetliners, Canadair regional jets, and De Havilland commuter aircraft. ACTI is also an approved Bell Helicopter Textron supplier. Visit [www.acti.aero](http://www.acti.aero) for more information.

**Allfast Fastening Systems, Inc.**, is a major manufacturer of solid and blind rivets and installation tooling for the aircraft industry. Located in City of Industry, Calif., the firm is certified to ISO9001:2000 and AS 9100 Revision A by Lloyd's Register Quality Assurance.



above: An ACTI employee checks the interior of an aircraft fuselage during a fabrication process at the company's Washington state facility.

HEICO Corporation  
Hexcel Corporation  
HITCO Carbon Composites, Inc.  
Honeywell  
ITT Industries  
Defense and Electronics  
Kaman Aerospace Corporation  
Kistler Aerospace Corporation  
L-3 Communications Holdings, Inc.  
Laser Technology, Inc.  
Lockheed Martin Corporation  
3M Company  
Martin-Baker America Inc.

McKechnie Aerospace Structures Group  
MOOG Inc.  
Natel Engineering Co., Inc.  
National Machine Group  
National Machine Company  
National Aviation Products, Inc.  
National Technical Systems  
Northrop Grumman Corporation  
Mission Systems  
Space Technology  
NYLOK Corporation  
Omega Aerial Refueling Services, Inc.

Oracle  
Orbital Sciences Corporation  
Advanced Systems Division  
Parker Aerospace  
PerkinElmer, Inc.  
Fluid Sciences  
Proficiency Inc.  
The Purdy Corporation  
Raytheon Company  
Remmele Engineering, Inc.  
Rockwell Collins  
Rolls-Royce North America Inc.  
RTI International Metals, Inc.

Science Applications International Corporation  
Shaw Aero Devices, Inc.  
Silicon Graphics, Inc.  
SITA  
SM&A  
Smiths Aerospace Actuation Systems  
Los Angeles  
Stellex Aerostructures, Inc.  
Suntron Corporation  
Swales Aerospace  
Teleflex, Inc.  
Textron Inc.

Triumph Group, Inc.  
United Defense  
United Technologies Corporation  
Hamilton Sundstrand  
Pratt & Whitney  
Sikorsky  
Vought Aircraft Industries, Inc.  
Woodward Governor Company

military preparedness, and in commercial aviation modernization.

the aerospace vision at AIA over the past four or five years.

Dan Burnham of Raytheon Company, Karl Krapek of United Technologies Corporation, Marshall Larsen of Goodrich Corporation, Vance Coffman of Lockheed Martin Corporation, and Alan Mulally of The Boeing Company, our 2004 chairman, have been pacesetters in their companies and seamlessly shared the helm of our association in the past five years.

## Candidates Commit to Aerospace

In another election-related action, the association in late September hosted a meeting of the Aviation and Space Stakeholders Coalition to hear representatives of President George W. Bush and challenger Sen. John Kerry discuss their views of the importance of aerospace to the United States.

It was heartening to hear the candidates' representatives recognize the importance of aviation and aerospace to the country. It's

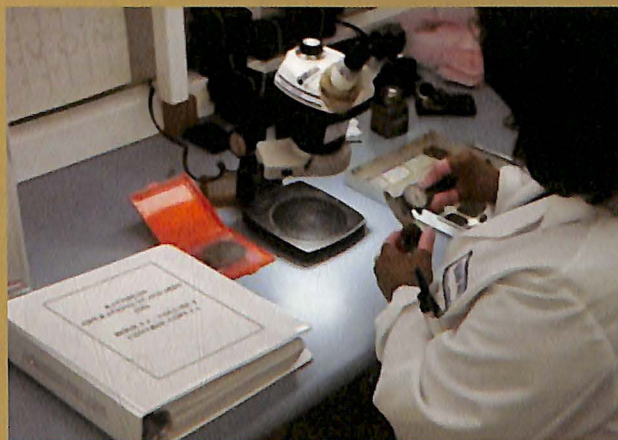
good to see both campaigns recognize the significance of the aerospace industry. We hope they back this up with investments of time and money to support critical programs and improvements.

Several questions from coalition members concerned efforts to improve the air traffic control system — one of AIA's priority issues this campaign season. (See the full list of our Election 2004 Issues on page 7 of this *Executive Report*.)

Without an investment in the next-generation air traffic control system, the

Founded in 1966 as a solid rivet manufacturer, Allfast qualified blind rivets in 1974. The company acquired Voi Shan's blind rivet division in 1987 and Olympic Fastening Systems blind rivet and installation tooling lines in 1989, then added Briles Rivet Corporation in 1999 and Aerospace Rivet Manufacturers in 2002. To learn more about Allfast visit [www.allfastinc.com](http://www.allfastinc.com).

Click Bond, Inc., manufactures fasteners specifically designed for adhesive bonding to structures. Its line of fasteners includes nutplates, studs, cable tie mounts, stand-offs, bushings, insulation mounting systems, and patches. Since 1981 Click Bond has provided a variety of fasteners to the aerospace, marine, defense, and transportation industries. Located in Carson City, Nevada, the company also provides adhesive systems and dispensing tools.



above: A Natel Engineering Co. technician inspects a microelectronics part for accuracy before awarding a certificate of conformance that is shipped with each product.

Click Bond has worked with major manufacturers to develop bonded fastener technology for airliners, military transport aircraft, helicopters, launch vehicles,

satellites, yachts, buses, trucks, racecars, and sporting goods. For more about Click Bond, click on [www.clickbond.com](http://www.clickbond.com).

Natel Engineering Co., Inc., manufactures modules, hybrids, and other products for aerospace, defense, space, and other industries. Founded in 1975, Natel has evolved into a leading electronics manufacturing services provider for high-end microelectronics.

Located in Chatsworth, Calif., the company has an advanced manufacturing facility with modern process technologies,

strong supply chain management, low-cost automatic assembly, and excellent customer service. For more information, visit [www.natelengr.com](http://www.natelengr.com). ER

## AIA Associate Member COMPANIES

A.E. Petsche Company  
 Accurate Metal Machining, Inc.  
 Acromil Corporation  
 ADI American Distributors, Inc.  
 Aerospace Fabrications of Georgia, Inc.  
 Air Cruisers Company  
 Air Industries Machining Corporation  
 Alcoa Fastening Systems  
 Alken Industries Inc.  
 Allen Aircraft Products, Inc.  
 AMETEK Hughes-Treitler  
 Arbortext, Inc.  
 Arkwin Industries, Inc.  
 Arrow Gear Company

Arrow/Zeus Electronics,  
 Division of Arrow Electronics  
 A & S Tribal Industries  
 AUSCO, Inc.  
 AVChem, Inc.  
 Avexus, Inc.  
 Avionics Specialties, Inc.  
 Avnet Electronics Marketing  
 B&B Manufacturing Company, Inc.  
 Banneker Industries, Inc.  
 Brogdon Tool & Die, Inc.  
 Brush Wellman Inc.  
 BTC Electronic Components  
 Burton Industries Aerospace  
 Heat Treating Inc.

CAD Manufacturing, Inc.  
 Capo Industries Inc.  
 CC Distributors, Inc.  
 Celltron Inc.  
 CFI-PAC Foundries  
 Champion Industries, Inc.  
 Chandler/May, Inc.  
 Cherokee Nation Distributors  
 Cincinnati Machine,  
 A Unova Company  
 Circle Seal Controls, Inc.  
 CMC Electronics  
 Coalition Solutions Integrated, Inc.  
 Cohesia Corporation  
 Compass Aerospace Corporation

Composite Solutions Corporation  
 Composites Atlantic Limited  
 Compucraft Industries  
 Corfin Industries, LLC  
 CPI Aerostructures, Inc.  
 Cytec Engineered Materials  
 Data Conversion Laboratory, Inc.  
 Dayton T. Brown Inc.  
 The Deutsch Company  
 Dimension4, Inc.  
 DynaBil Industries, Inc.  
 Dynamic Systems, Inc.  
 East West Technology  
 Eaton Aerospace

National boundaries are fading, new companies hav

nation will see a situation similar to the grid-lock at Chicago's O'Hare International Airport repeated in as many as 25 other airports.

Failure to act could also cost the industry billions of dollars in travel delay expenses. Any investment made in improving the system will be more than paid for by positive impacts on the economy because the aerospace and aviation industries account for about 27 percent of the nation's total import and export activity.

Representatives said both candidates have taken positions to make air traffic control improvements a priority.

At Farnborough this summer we began to see that AIA's air show policy, in which we want to see shorter, less expensive air shows, is beginning to bear fruit.

The size of U.S. industry delegations, particularly from large companies, was only comparable



to Paris in 2003 and less than Farnborough 2002. Likewise, the number of static aircraft displays and flying demonstrations was fewer. The drop in participation was expected, reflecting the industry trend to reduce air show costs in line with a policy set by the association's Board of Governors.

The Society of British Aerospace Companies, sponsor of the Farnborough event, is analyzing how the show might

**top:** AIA President John Douglass enjoys the view from a U.S. Air Force F-16 at the 2004 Farnborough Air Show.

**above:** The Boeing Company President and CEO Harry Stonecipher (at podium) and Boeing Commercial Airplanes President and CEO Alan Mulally introduce the company's 7E7 Dreamliner during its launch announcement earlier this year. Mulally is the 2004 chairman of AIA's Board of Governors.

Electro-Tec Corporation  
Electronic/Fasteners, Inc.  
EMS Technologies, Inc.  
Enginetics Corporation  
ENSCO, Inc.  
Envision, LLC  
Exotic Metals Forming  
Company LLC  
Fastener & Hose Technology, Inc.  
Mid-State Aerospace, Inc.  
Fenn Technologies  
The Ferco Group  
Frontier Electronic Systems  
Corporation  
G.S. Precision, Inc.

Gardner Aerospace  
GEAR Software  
General Technology Corporation  
Greene, Tweed & Co.  
H & S Swanson's Tool Company  
Hagemeyer North America  
Hangsterfer's Laboratories, Inc.  
Harvard Custom Manufacturing  
HDL Research Lab, Inc.  
Heartland Precision Fasteners  
Aerospace Plating Company  
Hi-Tech Aero Spares  
Hi-Temp Insulation Inc.  
Hobart Machined Products Inc.  
Hughes Bros. Aircrafters, Inc.

iBASEt  
IBM Corporation  
IFS North America  
Industrial Metals Intl. Ltd.  
Integrated Aerospace  
ISPA, Inc.  
Jazz Semiconductor  
John Hassall, Inc.  
Kulite Semiconductor Products, Inc.  
L. Gordon Packaging  
Lattice 3D  
Lilly Software Associates, Inc.  
LMI Aerospace, Inc.  
M/A-COM, Inc.  
Magnetico Inc.

Manugistics  
Marotta Controls, Inc.  
McCann Aerospace  
Machining Corporation  
Meyer Tool Inc.  
Micro-Coax, Inc.  
Microsemi Corporation  
Millitech, Inc.  
Morris Machining Co., Inc.  
MPC Products Corporation  
Navigant Consulting, Inc.  
NMC Group, Inc.  
Norfil Manufacturing, Inc.  
Northwest Composites Inc.  
O'Neil & Associates, Inc.

Onamac Industries, Inc.  
OnBoard Software, Inc.  
Pacific Aerospace & Electronics, Inc.  
Paramount Machine Company, Inc.  
Park Engineering & Manufacturing Co. Inc.  
Parkway Products, Inc.  
Parlex Corporation  
PC Guardian  
Perillo Industries, Inc.  
PGM of New England, LLC  
PGP Corporation  
Pinkerton Government Services, Inc.  
Planet Products Corporation  
Plymouth Extruded Shapes  
Plymouth Tube Company

merged, and companies large and small compete and partner across the globe.

be restructured to more closely meet industry requirements and will meet with AIA to further discuss the issue.

I'm happy to note that all AIA-sponsored events, including the ambassador's reception, a dinner for government and senior industry representatives, and a reception for AIA and the Society of Japanese Aerospace Companies, were all well attended.

### Settling the Subsidy Issue

U.S. and European Union trade officials have opened a round of talks on the contentious issue of government support for the aircraft industry, specifically the 1992 Large Civil Aircraft Agreement. The discussions are in response to U.S.

concern about European subsidies and their effect on the marketplace.

The world's aerospace industries will benefit from an orderly restructuring of the 1992 agreement. In the past 12 years since the agreement was signed, globalization has brought a pronounced change to aerospace. National boundaries are fading, new companies have emerged from countless mergers and acquisitions, and companies large and small compete and partner across the globe.

As the United States and European Union governments hold discussions regarding future trade agreements and procedures, we at AIA look forward to an early resolution of this complex issue. The growing global marketplace

for aerospace products needs a rules-based trade structure that allows for a level playing field and open markets.

Finally, AIA has worked hard to make our aerospace industry issues a significant part of the Election 2004 campaign process, and we've had good results and cooperation from the candidates' representatives. The next important step will come when we sit down with the next administration, put our 2005 issues on the table, and ask for action.

John W. Douglass

## AIA Election 2004 ISSUES

For the presidential election campaigns in 2000 and 2004, AIA's Board of Governors identified policy issues that would affect the ability of America's aerospace industry to advance U.S. economic growth and national security. The association has tracked the presidential candidates' positions on each issue, providing a mechanism to follow up on election promises regardless of which candidate wins.

AIA's Election 2004 Issues and research on the candidates' positions are on AIA's Web site at [www.aia-aerospace.org](http://www.aia-aerospace.org).

The association's election advocacy in 2000 had some very positive results, including establishment of the Commis-

sion on the Future of the U.S. Aerospace Industry and a significant increase in federal investment in aerospace research and development.

Unfortunately, Bush Administration promises to work toward export control reform were sidelined by the war on terror, but the association plans a renewed emphasis on this issue in the next administration.

The success of AIA's election issues is attributable to the unique position that AIA holds in the industry. Celebrating its 85th anniversary this year, AIA's nearly 300 member companies represent the gamut of aerospace and defense industries products and technologies.

- Develop a U.S. Leadership Plan to Improve the Capability of the Global Aviation System
- Commit the U.S. Government to Fundamental Reform of the U.S. Export Licensing Process
- Promote Increase in U.S. Intelligence Capability
- Improve U.S. Aerospace and Defense Industrial Cooperation with America's Allies
- Commit to Replacing the Space Shuttle with a Modern Human-rated Space Transportation System
- Develop a Federal Plan for Revitalizing the U.S. Aerospace Workforce and Sustaining Manufacturing Jobs
- Increase Federal Funding for Aerospace Research and Development ER



AIA Associate Member COMPANIES cont.

Port Electronics Corporation

Precision Aircraft Machining Co., Inc.

Precision Gear

Precision Machine & Manufacturing Co.

Precision Machine Works Inc.

Precision Tube Bending

Primus International

Product Manufacturing Corporation

PTC

Quick-Wright Associates, Inc.

Radant Technologies, Inc.

RAM Manufacturing Inc. Company

REMEC Microwave, Inc.

Renaissance Services

Rockwell Scientific Company LLC

Rodelco Electronics Corporation

Safe Flight Instrument Corporation

Sargent

SEAKR Engineering

Sechan Electronics, Inc.

Senior Aerospace

Service Steel Aerospace

Servotronics, Inc.

Space-Lok, Inc.

Sparton Corporation

Spectra Lux Corporation

Spincraft

Spirit Electronics, Inc.

Sun Microsystems

Sunbelt Industrial Supply Co. Inc.

Sunshine Metals

Sypris Electronics, LLC

Tedopres International, Inc.

Texas Composite, Inc.

Thayer Aerospace

Therm, Inc.

Thermal Solutions, Inc.

Thomas James International

TMX Aerospace

Triad Design Service, Inc.

TTI, Inc.

Tyco Printed Circuit Group L.P.

UFC Aerospace

UGS PLM Solutions

Universal Aerospace Co., Inc.

Unlimited Innovations

Vaupell Industrial Plastics

Waer Systems, Inc.

Welding Metallurgy, Inc.

West Cobb Engineering & Tool Co., Inc.

Wems Electronics

Wind River Systems

Windings, Inc.

Xerox Corporation

## Aerojet Hits for CYCLE

In Houston they call Astros pitcher Roger Clemens The Rocket for his baseball prowess. But AIA-member Aerojet has done even better, going four-for-four with its rocket technologies in NASA missions this 2004 "season."

Here's the Aerojet box score:

**Mars Rovers** – Aerojet provided the second-stage engine and third-stage thrusters on the Delta II that launched Spirit and Opportunity to Mars and the rocket engines used by the spacecraft to position the rovers for landing in January.

**Stardust** – Aerojet contributed the rocket engines for the Stardust spacecraft rendezvous with the Wild2 comet. Stardust flew through debris approaching the comet on January 2, capturing particles of dust that will be returned to Earth in January 2006.

**Cassini** – An Aerojet bipropellant rocket engine performed a critical 96-minute burn June 30, allowing Cassini's capture by Saturn's gravity nearly seven years after launch. Other company roles include first- and second-stage liquid rocket launch engines on the Titan IV vehicle and monopropellant engines for orbit adjustment and spacecraft turns.

**Mercury MESSENGER** – MESSENGER launched August 3 to begin the first-ever orbit of Mercury in 2011, aided by an Aerojet propulsion system. Aerojet also provided second-stage liquid engines and a nutation control thruster for the Delta II launch rocket.

Aerojet additionally was involved in every aspect of the recently completed Genesis mission, providing launch vehicle and spacecraft propulsion.

Remarkably, the company has provided propulsion for every NASA Discovery mission launched to date and will be part of upcoming Deep Impact and Dawn missions.

"For all of us at Aerojet, these missions are what define our role in the drama and excitement of supporting U.S. commercial and military space programs," explained Bill Smith, executive director of strategic planning and business development.

For more on Aerojet, visit [www.aerojet.com](http://www.aerojet.com).



above: NASA's MESSENGER (MErcury Surface, Space, ENvironment, GEochemistry and Ranging) probe launched successfully thanks to Aerojet.

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A quarterly digest for the Aerospace Industries Association

# Executive REPORT

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Raytheon Pitches for Sox



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**Ronald D. Sugar**, Chairman, Chief Executive Officer & President, Northrop Grumman Corporation

**William H. Swanson**, Chairman & Chief Executive Officer, Raytheon Company

# President's MESSAGE



**John W. Douglass**  
AIA President & CEO

Dear Association Member:

**A**merican aerospace recorded remarkable economic results in 2004, and that's very good news for our industry, our workforce, our customers, our investors, and the nation's overall economy. I reported in early December at AIA's 40th annual year-end, state-of-the-industry luncheon that preliminary 2004 economic data shows aerospace sales up, orders up, exports up, and employment up as the result of robust defense growth and civil aviation market improvements.

The numbers reveal a healthy aerospace industry that continues to show strength and fortitude despite significant challenges in the last

several years. The downturn after the terrorist attacks of 2001 was relatively modest and, thankfully, short-lived.

When I looked at aerospace at the end of 2003, I thought sales in 2004 would be about \$1 billion better than 2003. As the numbers come in now, we are predicting that industry sales are about \$12 billion better in 2004. And, because our numbers are generally conservative, the final accounting could be as high as \$15 billion better than our forecast when all the dust settles.

Looking ahead to 2005, we see another \$12 billion in solid growth. That means a two-year period of somewhere between \$25 billion and \$30 billion of growth in aerospace and defense sales.

A broad economic report on 2004 with comparative statistical charts is on AIA's Web site at [www.aia-aerospace.org](http://www.aia-aerospace.org).

## Highlights of 2004 Results

Here are a few highlights from my year-end report. Overall sales in 2004 jumped eight percent to \$161 billion, the highest level ever of current-dollar sales. In contrast, sales decreased by \$4.5 billion in 2003.

The healthiest gains came in portions of the industry involved in defense. Military aircraft sales increased 15 percent and missile sales jumped 10 percent. Revenues in the civil aircraft sector, including engines and parts, increased modestly to \$35 billion.

While civil transport revenues are projected to decline 1.1 percent, or about \$200 million, that's in contrast to 2003 when the same category saw a decrease of 26 percent, or \$7.1 billion. For the first time in two years, the number of U.S. commercial

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**David E. Berges**, Chairman & Chief Executive Officer, Hexcel Corporation  
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**Nicholas D. Chabreja**, Chairman & Chief Executive Officer, General Dynamics Corporation  
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**Gerald R. Dinkel**, Vice President & Chief Executive Officer, Cubic Corporation

**Henry J. Driesse**, President, ITT Defense and Senior Vice President, ITT Industries  
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**Thomas A. Gendron**, President & Chief Operating Officer, Woodward Governor Company  
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**Mary L. Howell**, Executive Vice President, Textron, Inc.  
**Richard C. III**, President & Chief Executive Officer, Triumph Group, Inc.

**Clayton M. Jones**, Chairman, President & Chief Executive Officer, Rockwell Collins  
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**Jeffrey D. Wood**, President, Airfoil Technologies International, Teleflex Incorporated

jetliners delivered increased, going up four planes to 285.

Aerospace employment increased in 2004, ending a five-year slide. Since hitting a 50-year low of 568,700 workers last February, industry has added approximately 25,000 jobs in 2004.

Meanwhile, aerospace continued its pattern of producing a foreign trade surplus, which increased \$4.6 billion to reach \$32 billion. In 2003, aerospace posted the highest trade balance of all industry categories, and I expect similar trade-balance numbers when the final 2004 tally arrives.

Also, we predict that aerospace will make at least \$10.1 billion in 2004 profits, the second best year in its history, along with a return on sales of 5.5 percent. This has implications across the board because the future is derived from profits industry invests in new products to carry into the second half of the decade.

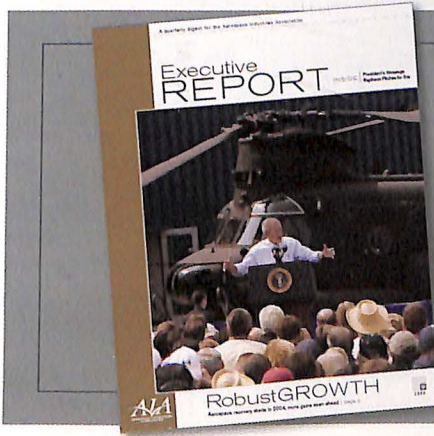
AIA's forecast for 2005 calls for 7.5 percent overall growth in sales as DoD spending increases for the seventh year and commercial transport sales begin to recover in earnest.

**AIA Supports JPDO Plan**

Along with the economic good news, a bright spot on the political landscape was the clear decision in the presidential election in November. That will allow a smooth transition into the second George W. Bush Administration as would



above: AIA President and CEO John Douglass reviews 2004 aerospace industry results and 2005 expectations at the 40th annual "year-end" luncheon attended by more than 300 industry representatives, government communicators, and news media.



**On the COVER:**

Speaking to more than 9,000 aerospace workers at the Boeing helicopter plant near Philadelphia in August, President Bush commended them for manufacturing quality defense systems.

Cover photo courtesy of The Boeing Company

## AIA Member COMPANIES

AAI Corporation  
 ACTI  
 Aerojet  
 Air Liquide  
 Allfast Fastening Systems, Inc.  
 American Pacific Corporation  
 Analytical Graphics, Inc.  
 Argo-Tech Corporation  
 Armor Holdings, Inc.  
*Aerospace and Defense Group*  
 ATK  
 Aviall, Inc.  
 B&E Precision Aircraft Components

BAE SYSTEMS North America  
 Barnes Aerospace  
 B.H. Aircraft Company, Inc.  
 The Boeing Company  
 Brek Manufacturing Co.  
 Celestica Corporation  
 Click Bond, Inc.  
 Cobham Aerospace Systems Group  
 Computer Sciences Corporation  
 Crane Aerospace & Electronics  
 Cubic Corporation  
 Curtiss-Wright Corporation  
*Curtiss-Wright Controls Systems, Inc.*  
*Metal Improvement Company*

Dassault Falcon Jet Corporation  
 Doncasters, Inc.  
 DRS Technologies, Inc.  
 Ducommun Incorporated  
 DuPont Company  
 DY4 Systems  
 Eaton Aerospace  
 Eclipse Aviation  
 EDO Corporation  
 EFW Inc.  
 Electromech Technologies  
 Embraer Aircraft Holding Inc.  
 Erickson Air-Crane Incorporated

ESIS, Inc.  
 Esterline Technologies  
 Exostar LLC  
 Federation Inc.  
 FlightSafety International Inc.  
 General Atomics Aeronautical Systems, Inc.  
 General Dynamics Corporation  
 General Electric Company  
 GKN Aerospace Services  
 Goodrich Corporation  
*Airframe Systems*  
*Electronic Systems*  
*Engine Systems*

## Unless there's a profitable industry model

have happened had Senator Kerry won with a clear victory. A positive transition is important right now because there's lots of work to be done to stay at the crest of this rising wave.

In one particularly vital area, the nation has to find ways to make air travel profitable. Deregulation of ticket pricing brought the American public affordable, reliable, safe, and secure air transportation. The problem is our airlines haven't been able to make sustained profits over any length of time.

Unless there's a profitable industry model out there that endures, the current system can't sustain itself. To help get us there, the nation must move vigorously to modernize its air traffic control system.

A big step in that direction came in December when the Joint Planning and Development Office (JPDO) unveiled its Next Generation Air Transportation System Integrated Plan. It documents limitations of the current system and provides a clear path toward future growth and

## Eclipse Aviation Opens New AIA

**W**hen AIA formed in 1919, its earliest members included notable aviation pioneers Orville Wright and Glen H. Curtiss, as well as representatives of many fledgling U.S. aircraft manufacturing firms spreading their wings in a brand new industry. Also, the association at its founding set a charter membership ceiling at 100 firms and individuals.

Now, for the first time in its 85-year history, AIA has "eclipsed" the age-old ceiling and has gone beyond the 100-member level. It's serendipitous that the 100th member opening the modern era is another young, pioneering aviation manufacturing company founded on dreams of expanding flight to higher technological achievements.

Eclipse Aviation, the Albuquerque, New Mexico-based manufacturer of the revolution-



above: The Eclipse 500 very light jet (VLJ) is scheduled for its first certification test flight by the end of December.

ary Eclipse 500 very light jet (VLJ), became the 100th member in November in a vote of the AIA Executive Committee.

The latest roster count shows 102 regular AIA members and 172 associate members who work through the Supplier Management Council. AIA officials welcomed Eclipse, saying it was fitting

W.L. Gore & Associates  
HEICO Corporation  
Hexcel Corporation  
HITCO Carbon Composites, Inc.  
Honeywell  
IBM Corporation  
ITT Industries  
*Defense and Electronics*  
Kaman Aerospace Corporation  
Kistler Aerospace Corporation  
L-3 Communications Holdings, Inc.  
Laser Technology, Inc.  
LMI Aerospace Inc.  
Lockheed Martin Corporation

3M Company  
Martin-Baker America Inc.  
McKechnie Aerospace  
Structures Group  
MOOG Inc.  
Natel Engineering Co., Inc.  
National Machine Group  
*National Machine Company*  
*National Aviation Products, Inc.*  
National Technical Systems  
Northrop Grumman Corporation  
*Mission Systems*  
*Space Technology*  
NYLOK Corporation

Omega Aerial Refueling Services, Inc.  
Oracle  
Orbital Sciences Corporation  
*Advanced Systems Division*  
Parker Aerospace  
PerkinElmer, Inc.  
*Fluid Sciences*  
Pinkerton Government Services, Inc.  
Proficiency Inc.  
The Purdy Corporation  
Raytheon Company  
Remmele Engineering, Inc.  
Rockwell Collins  
Rolls-Royce North America Inc.

RTI International Metals, Inc.  
Science Applications  
International Corporation  
Shaw Aero Devices, Inc.  
Silicon Graphics, Inc.  
SITA  
SM&A  
Smiths Aerospace Actuation Systems  
*Los Angeles*  
*Clearwater, Fla.*  
Space Exploration  
Technologies Corporation  
Stellax Aerostructures, Inc.  
Suntron Corporation

Swales Aerospace  
Teleflex, Inc.  
Textron Inc.  
The Titan Corporation  
Triumph Group, Inc.  
Turbine Engine Components  
Technologies Corporation  
United Defense  
United Technologies Corporation  
*Hamilton Sundstrand*  
*Pratt & Whitney*  
*Sikorsky*  
Vought Aircraft Industries, Inc.  
Woodward Governor Company

...t there that endures, the current system can't sustain itself.

ways to deal with congestion and delays. AIA is encouraged by the administration's willingness to work with industry to make vital improvements, and we pledge to work with government to see the effort to fruition.

Under the leadership of Transportation Secretary Norman Mineta and FAA Administrator Marion Blakey, the administration is well positioned to realize progress toward improving total aviation

system capabilities — a key recommendation of the Commission on the Future of the U.S. Aerospace Industry.


Only by developing a strong public-private partnership and mobilizing industry resources can we avert the pending crisis documented in the JPDO plan.

The association, together with its industry partners, is already rallying a consensus on how to transition to the new system, including marshalling

needed systems engineering and integration resources. Officials can hold costs to a minimum by using technology developed by the Defense Department and NASA — well worth the investment when taken in the context of the impact of aviation on our economy.

Meanwhile, another civil aviation initiative of crucial importance is ensuring that we protect ourselves from future terrorist events, including developing methods

ERA



to reach such an important membership benchmark with a company that promises to lead the way with flight advancements. "An exciting company like Eclipse will only enhance AIA's ability to support innovation in the aerospace industry," AIA President and CEO John Douglass said. "We're thrilled Eclipse could help us mark this important milestone."

Eclipse Aviation is in the business of designing, certifying, and producing modern, affordable jet aircraft that will revolutionize the transportation market. The company is applying innovative propulsion, manufacturing, and electronics systems to produce aircraft that cost less than a third of today's small jet aircraft.

The Eclipse 500 is dramatically changing the value proposition for

high-performance jet ownership, allowing a broader segment of the population to enjoy the benefits of private jet transportation. The six-person plane, powered by two Pratt & Whitney turbofan engines, is scheduled for FAA certification in March 2006. Eclipse Aviation has received non-refundable deposits for more than 2,100 aircraft. A majority of the orders have come from companies creating air limousine services that will offer private jet travel at fares competitive with conventional full-fare airline ticket prices.

Eclipse Aviation President and CEO Vern Raburn said being a member of AIA was important to ensure the company has the advocacy and support it needs to succeed in the industry. "AIA, with its resources and reputation, is an industry leader among advocacy groups in Washington and across the country," Raburn

said. "Joining was not a difficult decision." Douglass said reaching the important 100-member mark is a signal that AIA will only continue to grow in influence. "It shows we are increasing our political footprint and improving our abilities to represent the industry," he said. **ER**



above: Eclipse Aviation has an order backlog of more than 2,100 Eclipse 500 aircraft, available with a variety of interior layouts.

## AIA Associate Member Companies

Acromil Corporation  
ADI American Distributors Inc.  
A.E. Petsche Co.  
Aerospace and Government Solutions  
*a division of Unlimited Innovations*  
Aerospace Fabrications of Georgia, Inc.  
Air Cruisers Company  
Air Industries Machining Corporation  
Alcoa Fastening Systems  
Alken Industries, Inc.  
Allen Aircraft Products, Inc.  
AMETEK Hughes-Treitler  
Arbortext, Inc.  
Arkwin Industries, Inc.

Arrow/Zeus Electronics  
*a division of Arrow Electronics*  
A & S Tribal Industries  
AUSCO, Inc.  
AVChem, Inc.  
Avexus, Inc.  
Avionics Specialties, Inc.  
Avnet Electronics Marketing  
Banneker Industries, Inc.  
B&B Manufacturing Company, Inc.  
Brogdon Tool & Die, Inc.  
Brush Wellman Inc.  
BTC Electronic Components, Inc.  
Burton Industries Aerospace  
Heat Treating

CAD Manufacturing, Inc.  
California Manufacturing  
Technology Consulting  
Capo Industries Inc.  
C C Distributors, Inc.  
Celltron Inc.  
CFI-PAC Foundries, Inc.  
Chandler/May, Inc.  
Cherokee Nation Distributors  
Cincinnati Machine, a UNOVA Co.  
Circle Seal Controls, Inc.  
CMC Electronics, Inc.  
Coalition Solutions Integrated, Inc.  
Cohesia Corporation

Compass Aerospace Corporation  
Composites Atlantic Limited  
Composite Solutions Corporation  
Compucraft Industries  
CPI Aerostructures, Inc.  
CPI Aerostructures, Inc.  
Cytec Engineered Materials  
Data Conversion Laboratory, Inc.  
Dayton T. Brown Inc.  
Dimension4, Inc.  
DynaBil Industries, Inc.  
East West Technology  
Electronic/Fasteners, Inc.  
Electro-Tec Corp.

## Solid teamwork between AIA's legislative staff and our

to inspect and secure baggage and cargo. The cost of doing that is a national defense responsibility and can't be pushed to industry.

### Industry Facing Global Issues

Turning to global trade concerns, the health of the civil aviation realm requires a speedy and equitable resolution of aviation trade disputes between the United States and the European Union.

For instance, we've made it known to the world that the United States is no longer a party to the 1992 Large Civil Aircraft Agreement. That agreement didn't keep pace with its mission, and the U.S. government, for good reasons, informed Europe that we were withdrawing.

We've sent the issue to the World Trade Organization, and we want to see negotiations take place quickly with a solution of level ground for all American and European aerospace producers.

In military aviation, maintaining momentum in research and development through new programs and a strong emphasis on basic research will be important in the coming year. AIA's five-year federal R&D plan, issued in February 2004, offers a set of technology and funding recommendations as the president and Congress undertake a fresh assessment of national R&D programs.

We expect a fairly large turnover in the senior leadership of the Defense Department's acquisition community. The team that's been in place over the past few years has been a good team, and, as they leave, it will be hard to replace them. Industry's role will be to recommend good people who understand both government and industry.

### Positive Gains in Congress

Solid teamwork between AIA's legislative staff and representatives of our aerospace and defense companies helped secure a



EMS Technologies, Inc.	Greene, Tweed & Company	IFS North America	Meyer Tool Inc.	Paramount Machine Co., Inc.
Enginetics Corporation	G.S. Precision Inc.	Industrial Metals International LTD	Micro-Coax, Inc.	Park Engineering & Mfg. Co., Inc.
ENSCO, Inc.	Hagemeyer North America	Integrated Aerospace	Millitech, Inc.	Parkway Products, Inc.
Envision LLC	Hangsterfer's Laboratories, Inc.	ISPA, Inc.	Microsemi Corporation	Parlex Corporation
Exotic Metals Forming Company LLC	Harvard Custom Manufacturing, Inc.	Jazz Semiconductor	Morris Machine Company, Inc.	PC Guardian
Fastener & Hose Technology	HDL Research Lab, Inc.	Kulite Semiconductor Products, Inc.	MPC Products Corporation	Perillo Industries, Inc. <i>dba Century Electronics</i>
Mid-State Aerospace, Inc.	Heartland Precision Fasteners	LATTICE3D	Navigant Consulting	PGM of New England, LLC
Fenn Technologies	<i>Aerospace Plating Company</i>	L. Gordon Packaging	NMC Group, Inc.	PGP Corporation
The Ferco Group	H & H Technologies	Lilly Software Associates, Inc.	Norfil Manufacturing, Inc.	Plymouth Extruded Shapes <i>Plymouth Tube Company</i>
Frontier Electronic Systems Corporation	Hi-Temp Insulation Inc.	M/A-COM, Inc.	Northwest Composites Inc.	Port Electronics Corporation
Gardner Aerospace	Hobart Machined Products Inc.	Magnetico, Inc.	NYF Corporation	Precision Aircraft Machining Co., Inc.
GEAR Software	H & S Swansons' Tool Company	Manugistics	O'Neil & Associates, Inc.	Precision Gear Inc.
GEFEG US	Hughes Bros. Aircrafters, Inc.	Marotta Controls, Inc.	Onamac Industries, Inc.	
General Technology Corporation	iBASEt	McCann Aerospace Machining Corp.	Pacific Aerospace & Electronics, Inc.	

## Aerospace and defense companies secured many significant congressional gains.

number of significant congressional gains in recent months.

The Defense Authorization Act for fiscal 2005 adopts a balanced and constructive approach on trade issues, including support for defense trade with the United Kingdom and Australia as well as consideration of the impact of offsets on global competitiveness.

Industry also achieved process improvement in defense acquisition policies and in competitive sourcing issues between industry and government-operated depots.

In addition, Congress created manufacturing tax incentives for U.S. companies that replace the Foreign Sales Corporation/Extraterritorial Income statute, making the U.S. tax code compliant with the World Trade Organization.

With the start of the new Congress in 2005, AIA will make a renewed push to educate lawmakers on the benefits of aero-

space and defense trade to our economy and national security.

Our trade balance in dollars is 12:1 in favor of the United States in defense markets and 2:1 in civil sales.

We want to support U.S. aerospace industry access to global markets. Likewise, we'll renew our advocacy to reform the export control process, a campaign promise of the first Bush Administration.

In a key space matter, Congress approved a bill that continues to insure American commercial space launch companies against third-party catastrophic losses. The measure will help the United States compete in an increasingly sophisticated worldwide orbital transportation market.

AIA will continue to urge adequate funding for the nation's new Vision for Space Exploration. Setting a long-term

framework for return to the moon and deeper analysis of the solar system can preserve our position as the world's leading space explorer.

The period before us in space is chock full of opportunity and promise. The president can be proud of the vision he put in place in his first term. Now the challenge is to make that vision a reality.

America's aerospace industry is growing, and we're eager to work with the new Congress and the new administration to make the nation more secure, maintain U.S. global leadership in the exploration of space, develop the next-generation air transportation system, and create jobs.



John W. Douglass

## AIA Big GUN

At left, accepting the 2004 "AIA Big Gun" Award at the association's Fall Board of Governors meeting in Phoenix, Ariz., in November is Raytheon Company Chairman and Chief Executive Officer William H. Swanson (second from right). He is flanked (from left) by AIA President John W. Douglass, Raytheon Vice President for Supply Chain and AIA Supplier Management Council Chairman Vince Hrenak, and AIA Chairman Alan Mulally, executive vice president of The Boeing Company.

During the American Civil War, only six percent of the soldiers were enrolled in the artillery branch of the service, yet the artillery played the pivotal role in most major engagements. From the massed Union batteries at Stones River and Malvern Hill to the intrepid field work of Pelham's horse artillery at Fredericks-

"A battery of field artillery is worth a thousand muskets."  
Union General William Tecumseh Sherman

burg, the "Big Guns" were always a factor – and often the decisive one.

With that in mind, AIA's Douglass – a student of the War Between the States and himself an avid battlefield re-enactor – a few years ago came up with the concept for the "AIA Big Gun" Award. It's a prize awarded each year at the Fall Board of Governors meeting to the Executive Committee member who during that year "played a pivotal role" in winning the most new members to the association's regular and associate member rosters.

The "AIA Big Gun" Award is especially significant in 2004 because it's the year in which the association topped the 100 regular member mark for the first time and achieved more than 170 associate members. **ER**



AIA Associate Member COMPANIES cont.

Precision Machine & Manufacturing Co.  
 Precision Machine Works Inc.  
 Precision Tube Bending  
 Primus International  
 Product Manufacturing Corporation  
 PTC  
 QuEST  
 Quick-Wright Associates, Inc.  
 Radant Technologies, Inc.  
 RAM Manufacturing Company Inc.  
 REMEC Microwave, Inc.  
 Renaissance Services, Inc.  
 Rockwell Scientific Company LLC

Rodelco Electronics Corp.  
 Safe Flight Instrument Corporation  
 Sargent  
 SAS Institute, Inc.  
 SEAKR Engineering, Incorporated  
 Sechan Electronics, Inc.  
 Senior Aerospace  
 Service Steel Aerospace  
 Servotronics, Inc.  
 Space-Lok, Inc.  
 Sparton Corporation  
 Spectra Lux Corporation  
 Spincraft  
 Spirit Electronics, Inc.

Sunbelt Industrial Supply Co. Inc.  
 Sun Microsystems  
 Sunshine Metals  
 Sypris Electronics, LLC  
 Tedopres International, Inc.  
 Texas Composite, Inc.  
 Thayer Aerospace  
 Therm, Inc.  
 Thermal Solutions, Inc.  
 Thomas James International  
 TMX Aerospace  
 Triad Design Service, Inc.  
 TTI, Inc.  
 Tyco Printed Circuit Group L.P.

UFC Aerospace  
 UGS  
 Universal Aerospace Co., Inc.  
 Vaupell Industrial Plastics  
 WAER Systems, Inc.  
 Welding Metallurgy, Inc.  
 Wems Electronics  
 West Cobb Engineering & Tool Co., Inc.  
 Windings, Inc.  
 Wind River Systems  
 Xerox Corporation

# Raytheon Pitches RED SOX News to U.S. Troops in Iraq

In a grand display of local pride, Boston-based AIA member Raytheon Company sponsored a special section of the *Boston Globe* newspaper that was sent to U.S. soldiers in Iraq soon after the hometown Red Sox had won the World Series.

"Raytheon has been based in the Boston area since 1922, so we know what it was to be Red Sox fans through the years of waiting – and to finally win the World Series," said William H. Swanson, Raytheon's chairman and CEO.

"Nevertheless, all this pales next to the appreciation we feel for our men and women in uniform who enable us to enjoy the fruits of liberty – and the beginning of what will

surely be an 86-year baseball dynasty," Swanson added.

The section chronicled the historic Red Sox journey through the years, culminating in the team's World Series championship. Also included was a copy of the *Globe's* sports section from Thursday, Oct. 28, the day after the Red Sox's four-game-to-none sweep of the World Series.

Some 10,000 copies of the Raytheon-sponsored special section were sent to Iraq in response to inquiries from U.S. troops, many of whom are long-time Red Sox fans.

Richard Gilman, publisher of the *Globe*, praised Raytheon's effort in helping send the newspapers to forces overseas, noting that "newspapers continue to be the first draft of history."

Also involved in the project was the Defense Department's *Stars and Stripes*, the daily newspaper for armed forces overseas that distributed the supplement to bases and camps throughout Iraq.

Raytheon Company is an industry leader in defense and government electronics, space, information technology, technical services, and business and special mission aircraft. Headquartered in Waltham, Mass., Raytheon employs more than 78,000 people worldwide. **ER**



above: The Raytheon-sponsored special section on the Red Sox World Series championship in the *Boston Globe* newspaper edition distributed to U.S. troops in Iraq.

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A quarterly digest for the Aerospace Industries Association

# The Top 100-PLUS

**A**IA membership shot past an historic milestone of 100 members in November when the association's Executive Committee approved the addition of 11 new members to the roster of top aerospace companies, bolstering the country's strongest advocacy group of its kind.

John Douglass, AIA president and chief executive officer, said the additions improve the association and will help boost the aerospace industry.

"These new companies represent a strengthening of AIA's abilities to ensure aerospace remains healthy and robust in the future," Douglass said. "We welcome them and look forward to their participation in our advocacy and outreach programs."

The companies offer a range of roles within the aerospace industry from rocket launch vehicles to computer systems. Four of the new members upgraded from associate membership on AIA's Supplier Management Council.

AIA represents the nation's major manufacturers of commercial, military, and business aircraft, helicopters, aircraft engines, missiles, spacecraft, materiel, and related components and equipment.

As this edition of *Executive Report* went to press, membership totaled 102 regular members and 172 associate members, a category of leading industry supplier companies.

Here are highlights of 10 of the 11 new members. The other, Eclipse Aviation, is the actual 100th association member and is featured elsewhere in this *Executive Report*.

**Armor Holdings, Inc., Aerospace and Defense Group** is a diversified manufacturer of branded products for military, law enforcement, and personnel safety markets.

The company's Aerospace and Defense Group is a top supplier of human safety and survival systems to all branches of the U.S. military and major aerospace and defense prime contractors.

Through its Simula division, the group centers on core markets of aerospace safety, vehicle armor, and personnel safety. Primary customers for Aerospace and Defense Group products are the U.S. Army and Marine Corps, The Boeing Company, and Sikorsky Aircraft.

Incorporated in 1996 and headquartered in Jacksonville, Fla., Armor Holdings has been included on *Forbes* magazine's list of "200 Best Small Companies."

[www.armorholdings.com](http://www.armorholdings.com)

**Eaton Aerospace** represents a diverse family of aerospace products and systems, including fluid power, fluid conveyance, electric distribution and controls, actuation systems, and engineered sensors.

Headquartered in Irvine, Calif., Eaton Aerospace maintains business unit manufacturing plants and service centers in various regions of the United States and around the world.

Combining the core technologies of each of its product family groups, Eaton Aerospace can technologically address virtually any fluid power, motion control, electro-mechanical actuation, power and load management, cockpit control and display, and fluid system diagnostic product and service requirement.

[www.aerospace.eaton.com](http://www.aerospace.eaton.com)

**FlightSafety International** boasts the world's largest fleet of flight simulators used in training more than 65,000 pilots and maintenance personnel each year for airlines and airplane manufacturers. Overall, the firm has about 220 simulators at 42 training centers in the United States and abroad.

Headquartered in Flushing, N.Y., FlightSafety has a staff of 1,200 professional instructors and provides training for corporate, commercial, private, and military pilots.

Founded in 1951, the company is dedicated to the principle that aviation safety is best achieved with thorough training.

[www.flightsafety.com](http://www.flightsafety.com)



above: U.S. Army Black Hawk helicopters are equipped with safety system seats from Armor Holdings' Aerospace and Defense Group.

## The Top 100-PLUS cont.

**IBM Corporation** is the world's top provider of computer hardware systems, software, and technology for the aerospace and defense industries.

Some industry-specific areas of focus for the company include program and performance management, integrated production and supply, product lifecycle management, and radio frequency identification.

IBM, headquartered in Armonk, N.Y., points to network centric operations as a key to military transformation in the 21st century and new competitive advantages from supply chain management as two of its information technology fields of expertise for aerospace and defense today.

[www.ibm.com](http://www.ibm.com)

**LMI Aerospace** is a leading supplier of quality components to the aerospace and technology industries.

Founded in 1948, the company today has 13 facilities and more than 800 employees who fabricate, machine, finish, and integrate formed, close tolerance, aluminum and specialty alloy components and sheet metal products for use by aerospace, technology, and commercial industries.

For aerospace, LMI provides airplane structures, including door frames, cockpit window frame assemblies, wing leading edge skins, flap slats, fuselage skins, and interior components. The firm is headquartered in St. Charles, Mo.

[www.lmiaerospace.com](http://www.lmiaerospace.com)

**Pinkerton Government Services** is best known as a specialized security services company for the aerospace industry.

For 32 years Pinkerton has provided innovative, cost-effective solutions to ensure the safety and security of the assets of U.S. government contractor organizations worldwide.

The company, headquartered in Springfield, Va., says its goal is to "enhance the success of our clients and their operations by providing demonstrably superior security, consulting, and investigation services and products with the highest degree of integrity and responsiveness."

[www.pgs-usa.com](http://www.pgs-usa.com)

**Smiths Aerospace, Customer Services Division** provides support for airframe constructors, airline operators, and military forces and is one of the world's leading organizations of its kind.

Activities are directed from headquarters at Cheltenham in the United Kingdom with U.S. service centers located at Clearwater, Fla., Wichita, Kan., Grand Rapids, Mich., and Seattle, Wash.

Customer Services maintains a leading position in avionics systems support and is capable of meeting the needs of the international aerospace industry.

Offerings include actuation products that move landing gear, thrust reversers and flight controls, precision components, including rigid and flexible hose assemblies, and aircraft structures and electronic systems.

[www.smiths-aerospace.com](http://www.smiths-aerospace.com)

**Space Exploration Technologies (SpaceX)** is developing a family of launch vehicles intended to reduce the cost and increase the reliability of access to space ultimately by a factor of 10. The company, which began operations in June 2002, is located in El Segundo, Calif.

The first two SpaceX launch vehicle models, named Falcon I and Falcon V, are mostly reusable rockets capable of placing approximately 650 kg or 4,200 kg, respectively, into low-Earth orbit.

Falcon V is also capable of taking spacecraft to geosynchronous transfer orbit and escape velocity and, the company says, it is the only American rocket with true engine out reliability.

First launch of Falcon I, carrying a U.S. Defense Department communications satellite, is scheduled for early 2005 from the SpaceX complex at Vandenberg Air Force Base.

The maiden flight of Falcon V is scheduled for late 2005, carrying a commercial satellite.

[www.spacex.com](http://www.spacex.com)



above: The SpaceX Falcon low-cost orbital-mission booster is being readied to loft a U.S. Naval Research Laboratory imaging spacecraft into orbit by early 2005.

**The Titan Corporation** is a leading provider of comprehensive information and communications products, solutions, and services for national security.

Serving the Defense Department, intelligence agencies, and other government customers, Titan was founded in 1981 and is headquartered in San Diego, Calif.

Titan's business focuses on homeland security and the War on Terrorism; command, control, communications, computer, intelligence, surveillance, and reconnaissance; transformational programs; and enterprise information technology.

Approximately 12,000 Titan Corporation employees work in more than 300 locations in 12 countries. In the United States, the firm has employees in 41 states and 243 cities.

[www.titan.com](http://www.titan.com)

**Turbine Engine Components Technologies (TECT) Corporation** is a privately-held, custom manufacturing services supplier of semi-finished and finished engine-ready components, including solid and hollow fan blades, compressor blades and vanes, impellers, diffusers, turbine airfoils, rotor shafts and hubs, disks, oversized and precision forgings, and other hardware.

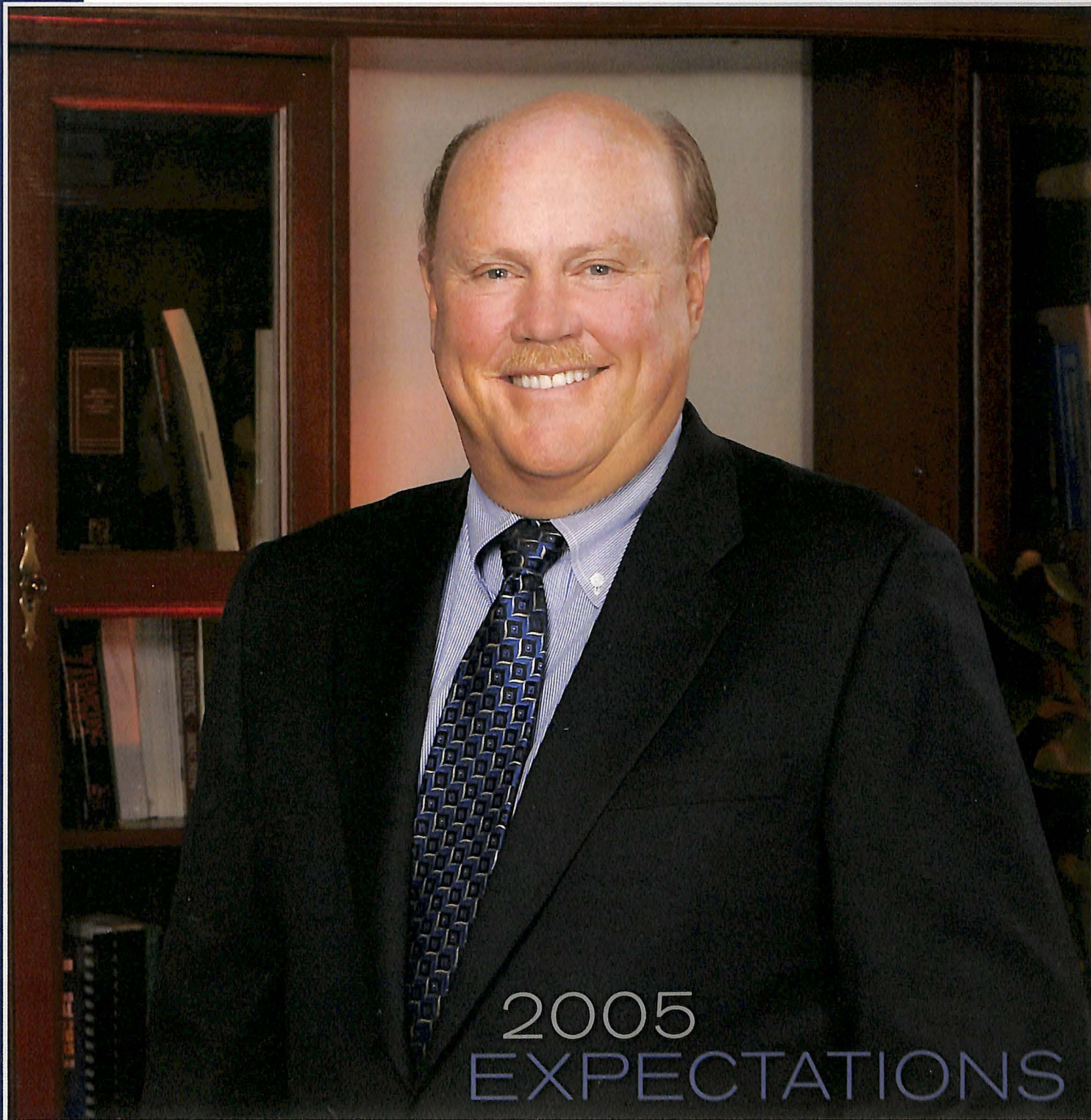
Headquartered in Thomasville, Ga., TECT serves aerospace, power generation, rail, off-highway, automotive, and other industries from its operations in Cleveland, Ohio; Newington, Conn.; Santa Fe Springs, Calif.; Thomasville, Ga.; and Utica, N.Y.

[www.tectcorp.com](http://www.tectcorp.com) ER

# Executive REPORT

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Aerospace Tsunami Aid



## 2005 EXPECTATIONS

AIA Chairman Bob Johnson Looks Ahead | page 4

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Ronald D. Sugar, Vice Chairman

John W. Douglass, President & Chief Executive Officer  
Ginette C. Colot, Secretary-Treasurer

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& Vice President, Parker  
Hannifin Corporation

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& Chief Executive Officer,  
GE Aircraft Engines, General  
Electric Company

John W. Douglass, President  
& Chief Executive Officer,  
Aerospace Industries Association

Robert D. Johnson, Chairman,  
Honeywell Aerospace, Honeywell

Marshall O. Larsen, Chairman,  
President & Chief Executive  
Officer, Goodrich Corporation

Ronald F. McKenna, Chairman,  
Hamilton Sundstrand, United  
Technologies Corporation

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President & Chief Executive Officer,  
Boeing Commercial Airplanes

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President & Chief Executive Officer,  
Vought Aircraft Industries, Inc.

Mark H. Ronald, Chief Operating  
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BAE SYSTEMS North America

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& Chief Executive Officer,  
Lockheed Martin Corporation

Ronald D. Sugar, Chairman, Chief  
Executive Officer & President,  
Northrop Grumman Corporation

William H. Swanson,  
Chairman & Chief Executive  
Officer, Raytheon Company

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President, The Titan Corporation and  
President, Advanced Systems Sector

# President's MESSAGE



John W. Douglass  
AIA President & CEO

Dear Association Member:

**A**erospace is an industry blessed with strong business leaders and companies and employees with generous hearts.

To the first point, I welcome Honeywell Aerospace Chairman Bob Johnson to the helm of AIA's Board of Governors. The association looks forward to working with Bob in the exciting and challenging year ahead. He discusses his expectations in an interview on page 4 of this *Executive Report*.

Also, I express deep appreciation to Alan Mulally, executive vice president of The Boeing Company, for

leadership as AIA chairman in the past year. The association made significant gains on many issues and grew to historic membership levels under Alan's guidance. To our benefit, he will continue to be a member of the Executive Committee and play a significant role in the transition of leadership.

Next, a look at the generous hearts of aerospace.

A major need for world aid suddenly occurred in late December when the horrific Southeast Asia tsunami washed away people, homes, hospitals, schools, and businesses, killing tens of thousands and leaving untold numbers of helpless survivors.

Employees and leaders of AIA member companies didn't hesitate. Within days relief funds were collected, hospital supplies shipped, and technologies, such as clean water treatment

equipment, donated and installed by aerospace firms and workers. A summary of aerospace relief is highlighted in this *AIA Executive Report*.

I commend all who pitched in and extend a sincere "job well done" to every participating AIA member company and their employees.

## Congratulations, Mr. President

In other matters, I've sent congratulations to President George W. Bush on his re-election and to let him know that U.S. aerospace looks forward to working with him on the many important issues facing our industry.

Some of the challenges for the administration and the aerospace industry include maintaining national security, continuing investment in defense research and development, developing the next-generation air transportation system, returning the shuttle to flight, and implementing the nation's vision for space exploration.

U.S. aerospace, I pointed out, is a linchpin in the nation's economy, homeland security,

**Patrick Dempsey**, Vice President, James Group, and President, James Aerospace  
**Gerald R. Dinkel**, President & Chief Executive Officer, Defense Applications Group, Cubic Corporation  
**Henry J. Driesse**, President, IT Defense and Senior Vice President, ITT Industries  
**James J. Fitzsimmons**, President & Chief Executive Officer, North America East, GKN Aerospace Services  
**Thomas A. Gendron**, President & Chief Operating Officer, Woodward Governor Company  
**John R. Gibson**, President & Chief Executive Officer, American Pacific Corporation

**Paul L. Graziani**, President & Chief Executive Officer, Analytical Graphics, Inc.  
**James M. Guyette**, President & Chief Executive Officer, Rolls-Royce North America Inc.  
**Mary L. Howell**, Executive Vice President, Textron Inc.  
**Richard C. III**, President & Chief Executive Officer, Triumph Group, Inc.  
**Clayton M. Jones**, Chairman, President & Chief Executive Officer, Rockwell Collins  
**Larry A. Kring**, Group Vice President, Esterline Technologies  
**Paul R. Kuhn**, Chairman, President & Chief Executive Officer, Kaman Aerospace Corporation

**Howard L. Lance**, Chairman, President & Chief Executive Officer, Harris Corporation  
**Frank C. Lanza**, Chairman & Chief Executive Officer, L-3 Communications Holdings, Inc.  
**Michael S. Lipscomb**, President & Chief Executive Officer, Argo-Tech Corporation  
**Ronald A. Luzier**, Senior Vice President, Chief Technical Officer, Swales Aerospace  
**Michael F. Martin**, President, Aerojet  
**Laurans A. Mendelson**, Chairman, President & Chief Executive Officer, HEICO Corporation  
**Bradley J. Morton**, President, Eaton Aerospace  
**Daniel J. Murphy, Jr.**, Chief Executive Officer, ATK

**Mark S. Newman**, Chairman, President & Chief Executive Officer, DRS Technologies, Inc.  
**Anthony C. Patti**, Chairman, Global Aerospace and Defense Council, Computer Sciences Corporation  
**Thomas W. Rabaut**, President & Chief Executive Officer, United Defense  
**John Rosanvallon**, President & Chief Executive Officer, Dassault Falcon Jet Corporation  
**Andrew A. Sadanowicz**, President & Chief Executive Officer, The Purdy Corporation  
**J.R. Sanders**, Acting President & Vice President of Operations, Omega Aerial Refueling Services, Inc.

**Richard Short**, President, Aerospace and Defense Group, National Technical Systems  
**James M. Smith**, President & Chief Executive Officer, EDO Corporation  
**Gary J. Spulak**, President, Embraer Aircraft Holding Inc.  
**Frederick M. Strader**, President & Chief Executive Officer, AAI Corporation  
**Gregory A. Ward**, President, Crane Aerospace & Electronics  
**Vickie L. Wessel**, President, Spirit Electronics, Inc.  
**John A. Wilander**, Chairman & President, BAE Precision Aircraft Components  
**George J. Yohrling**, President & Chief Executive Officer, Curtiss-Wright Corporation

and national defense, based on \$161 billion in sales and a \$32 billion positive trade balance. The economic impact of the aerospace, defense, and aviation industries contributes nearly 15 percent to our nation's GDP.

Re-elected administrations almost always see personnel changes take place across departments and agencies. The second Bush Administration is no different.

AIA is familiar with the challenges of attracting first-rate talent, and I urge the administration to work with industry in the search for candidates to fill vacant positions — especially key acquisition posts at DoD and NASA.

We've represented aerospace since 1919 and understand the complex issues and management challenges. We can help find experienced, innovative leaders.

### Paradigm, Strategy, Plan

While signing the defense authorization bill last year, President Bush reflected on the importance of preparing to meet the "threats of tomorrow." He said U.S. enemies are resourceful and never stop thinking about new ways to harm the country and that we must never stop thinking about how best to defend our country.

New technologies, it was noted, increase the precision of U.S. weapons, reduce battlefield casualties, and lessen the toll of war on innocent life. They also reduce costs in the long run.

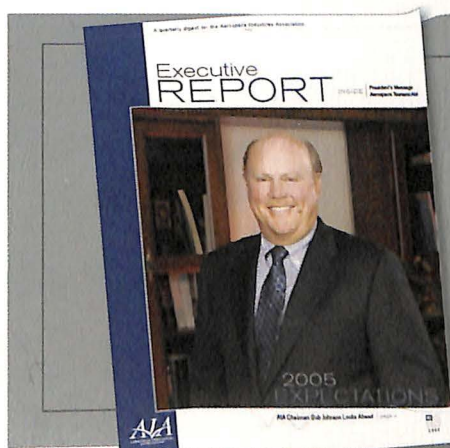
Now, budget realities are forcing a second look at the pace of defense modernization.

## 2005 Top Ten ISSUES

**A**IA's Executive Committee each year identifies the aerospace industry's Top Ten Issues — targets of action on which the association will focus throughout the year.

Here are the 2005 Top Ten Issues. Complete descriptions and action recommendations are available at [www.aia-aerospace.org](http://www.aia-aerospace.org). **ER**

- Advocate U.S. government policies that foster a robust U.S. civil aviation industry.
- Ensure that defense modernization is consistent with national security needs.
- Promote sustained national support for a next-generation, human-rated space vehicle and robotic space exploration program.
- Promote and support U.S. homeland defense and aviation security.
- Ensure that international institutions and national governments adopt policies that do not disadvantage U.S. firms.
- Ensure the competitiveness of the aerospace supply chain to meet industrial base challenges.
- Implement planned comprehensive aviation system capability enhancements.
- Implement balanced defense industrial base policies.
- Reduce U.S. legislative and regulatory trade impediments to U.S. companies competing in the global aerospace marketplace.
- Implement a national plan to revitalize the U.S. aerospace workforce.



### On the COVER

Honeywell Aerospace Chairman Robert D. Johnson, who chairs the AIA Board of Governors in 2005, outlines his objectives for the association on page 4.

*Cover photo courtesy of Honeywell Aerospace*

## AIA Member COMPANIES

AAI Corporation  
 ACTI  
 Advanced Products Corporation  
 Aerofjet  
 Air Liquide-Medal L.P.  
 Allfast Fastening Systems, Inc.  
 American Pacific Corporation  
 Analytical Graphics, Inc.  
 Argo-Tech Corporation  
 Armor Holdings, Inc.  
*Aerospace and Defense Group*  
 ATK  
 Aviall, Inc.  
 B&E Precision Aircraft Components

BAE SYSTEMS North America  
 Barnes Aerospace  
 B.H. Aircraft Company, Inc.  
 The Boeing Company  
 Brek Manufacturing Co.  
 Celestica Corporation  
 Click Bond, Inc.  
 Cobham Aerospace Systems Group  
 Computer Sciences Corporation  
 Crane Aerospace & Electronics  
 Cubic Corporation  
 Curtiss-Wright Corporation  
*Curtiss-Wright Controls Systems, Inc.*  
*Metal Improvement Company*

Dassault Falcon Jet Corporation  
 Doncasters, Inc.  
 DRS Technologies, Inc.  
 Ducommun Incorporated  
 DuPont Company  
 Eaton Aerospace LLC  
 Eclipse Aviation  
 EDO Corporation  
 EFW Inc.  
 Electromech Technologies  
 Embraer Aircraft Holding Inc.  
 Erickson Air-Crane Incorporated  
 ESIS, Inc.

Esterline Technologies  
 Exostar LLC  
 Federation Inc.  
 FlightSafety International Inc.  
 General Atomics Aeronautical Systems, Inc.  
 General Dynamics Corporation  
 General Electric Company  
 GKN Aerospace Services  
 Goodrich Corporation  
*Airframe Systems*  
*Electronic Systems*  
*Engine Systems*  
 W.L. Gore & Associates, Inc.

## U.S. enemies are resourceful and

During my tenure on the National Security Council staff, national security policy was developed through an understanding of three elements: the paradigm, the strategy, and the plan.

The paradigm then was the Cold War, the strategy was deterrence, and the plan was strategic modernization — all well-documented, well-enunciated, and well-understood.

Today, the paradigm is the war on terrorism, and the strategy is pre-emption. The plans and programs we invest in today are the corner-

stones of defense for the next 20 to 30 years or longer. Threats to our security in 2030 are likely to be much different than those we see today.

Industry isn't blind to the financial challenges facing government. We recognize cuts are necessary to improve national fiscal health, and we know the defense industry won't be immune. AIA is urging Congress to look carefully at the president's budget and not eliminate programs supporting our national strategy of pre-emption. This issue will be AIA's biggest challenge in 2005.

## AIA Chairman Johnson Q&A

**H**oneywell Aerospace Chairman Bob Johnson leads AIA's Board of Governors in 2005. Here he gives *Executive Report* his industry outlook.

**As 2005 AIA chairman, what are your objectives?**

I have three objectives for this year, objectives I believe our members will embrace.

First, AIA must have a relentless focus on those programs that deliver value to our members. AIA exists to help keep our industry strong and competitive. One way to do that is to deliver on our Top Ten Issues. (See listing of 2005 Top Ten Issues on page 3.)

A second objective is to provide AIA staff with clear direction and sufficient but aligned resources so that we can achieve solutions to these critical industry issues.



above: Bob Johnson, AIA Board of Governors Chairman.

Third, it is essential to AIA's staff that we, the members, have robust participation in AIA committees, campaigns, and programs. Working together, a great staff and an engaged membership are unbeatable.

**AIA's Top Ten Issues for 2005 are important to the industry. Is there one that you feel a sense of urgency about and why?**

Three have my focus.

One, we absolutely must reduce U.S. government-imposed impediments to trade. We are competing in a fierce global battle, and it makes it difficult to be successful when our government

makes it more difficult.

Two, and related to my first concern, is that we must work hard to defeat efforts by international institutions and foreign governments to disadvantage U.S. companies. Newspapers are full of stories of how handcuffs are being

GEICO Corporation  
General Corporation  
HTCO Carbon Composites, Inc.  
Honeywell  
IBM Corporation  
ITT Industries  
Defense and Electronics  
Lear Corporation  
Lockheed Martin Corporation  
M Company

Martin-Baker America Inc.  
McKechnie Aerospace Structures Group  
MOOG Inc.  
Natel Engineering Co., Inc.  
National Machine Group  
National Machine Company  
National Aviation Products, Inc.  
National Technical Systems  
Northrop Grumman Corporation  
Mission Systems  
Space Technology  
NYLOK Corporation  
Omega Aerial Refueling Services, Inc.

Oracle  
Orbital Sciences Corporation  
Advanced Systems Division  
Parker Aerospace  
PerkinElmer, Inc.  
Fluid Sciences  
Pinkerton Government Services, Inc.  
Proficiency Inc.  
The Purdy Corporation  
Raytheon Company  
Remmele Engineering, Inc.  
Rockwell Collins  
Rolls-Royce North America Inc.  
RTI International Metals, Inc.

Science Applications  
International Corporation  
Shaw Aero Devices, Inc.  
Silicon Graphics, Inc.  
SITA  
SM&A  
Smiths Aerospace Actuation Systems  
Los Angeles  
Space Exploration  
Technologies Corporation  
Stellax Aerostructures, Inc.  
Suntron Corporation  
Swales Aerospace  
Teleflex, Inc.

Textron Inc.  
The Titan Corporation  
Triumph Group, Inc.  
Turbine Engine Components  
Technologies Corporation  
United Defense  
United Technologies Corporation  
Hamilton Sundstrand  
Pratt & Whitney  
Sikorsky  
Vought Aircraft Industries, Inc.  
Woodward Governor Company

must never stop thinking about how best to defend our country.

## 2005 Top Ten Issues

Meanwhile, AIA's Executive Committee has given final approval to a package of Top Ten Issues for 2005, listed on page 3 in this *Executive Report*.

Careful analysis went into the formation of these critical issues, along with significant consideration and discussion among Executive Committee members.

A key 2005 issue already progressing is the U.S. Next-Generation Air Trans-

portation System Integrated Plan, which Transportation Secretary Mineta recently unveiled.

I'm pleased to note that AIA is joining with the Air Traffic Control Association to create an institute to help the new air transportation system become a reality.

The Air Traffic Control System Institute is being established with FAA approval and will be a permanent direct link for stakeholders to provide input to the Joint Plan-

ning and Development Office (JPDO), the government body planning the new system.

Demand for air travel and congestion at major airports will increase dramatically over the next 20 years. Open avenues of communication are vital to ensure that expertise in industry is put to good use in planning the system.

The institute sets up advisory panels to parallel groups within the JPDO, tackling such areas as air traffic systems, security,

put on U.S. companies every day. AIA must stand up and fight for our right to fair and open trade.

Last, AIA must have a strong voice in helping guide implementation of U.S. aerospace policies. These are the policies that we will have to follow, and it is only right that we are involved in their creation.

**What is the biggest challenge to the U.S. supply base from foreign competition?**

A skilled workforce. We need to focus our investments and attention on the teachers and the youth of our country to stimulate science, math, and the excitement of aerospace technology and careers. We can improve our linkages, research funding, and internships with universities. We also need to invest in workforce and productivity improvements and invest in internships and apprentice programs geared to manufacturing and engineering positions for new workers.

**How do aerospace trade disputes affect your company, and how do you see them being resolved?**

We want all of our customers to be successful, and we do everything we can to make that happen. We understand the reasons why countries battle over trade issues, especially in aerospace. Aerospace is more than just an economic activity for a country. It's a source of pride on the world stage. We can't take sides. We can just encourage our government officials in whatever appropriate way we can to understand that, in the end, an open and fair trade environment helps everyone.

**There are indications that Congress will take a hard look at acquisition and ethics practices. Has industry taken the necessary steps to make sure its house is in order?**

As an industry, we have had self-policing practices in place for several years, including ethics compliance

certification and training. We have also had pre-employment surveys and certification activities with government agencies and with the Defense Department to ensure that no conflicts of interest exist. Importantly, we have worked with the more extended supply chain to help educate and implement best practices through AIA's Supplier Management Council.

**How does the export control regime affect Honeywell, a key supplier to U.S. and EU companies?**

The current regime and sluggishness in our export processes can create a competitive disadvantage for U.S. companies. The debates over export control and trade restrictions also are creating additional tension with the EU in terms of the fostering of separate trading blocks. We are all global businesses that require international presence and, oftentimes,

cont. on page 6



## AIA Associate Member COMPANIES

Acromil Corporation  
 ADI American Distributors Inc.  
 A.E. Petsche Co.  
 Aerospace and Government Solutions, a division of Unlimited Innovations, Inc.  
 Aerospace Fabrications of Georgia, Inc.  
 Air Cruisers Company  
 Air Industries Machining Corporation  
 Alcoa Fastening Systems  
 Alken Industries, Inc.  
 Allen Aircraft Products, Inc.  
 AMETEK Hughes-Treitler  
 Arbortext, Inc.

Arkwin Industries, Inc.  
 Arrow/Zeus Electronics, a division of Arrow Electronics  
 A & S Tribal Industries  
 Astronautics Corporation of America  
 AUSCO, Inc.  
 AVChem, Inc.  
 Avexus, Inc.  
 Avionics Specialties, Inc.  
 Avnet Electronics Marketing  
 Banneker Industries, Inc.  
 B&B Manufacturing Company, Inc.  
 Brogdon Tool & Die, Inc.  
 Brush Wellman Inc.  
 BTC Electronic Components, Inc.

Burton Industries  
 Aerospace Heat Treating  
 CAD Manufacturing, Inc.  
 California Manufacturing Technology Consulting  
 Capò Industries Inc.  
 C C Distributors, Inc.  
 Celltron Inc.  
 CFI-PAC Foundries, Inc.  
 Chandler/May, Inc.  
 Cherokee Nation Distributors  
 Cincinnati Machine, a UNOVA Co.  
 Circle Seal Controls, Inc.  
 CMC Electronics, Inc.  
 Coalition Solutions Integrated, Inc.

Cohesia Corporation  
 Compass Aerospace Corporation  
 Composites Atlantic Limited  
 Composite Solutions Corporation  
 Compucraft Industries  
 Corfin Industries, LLC  
 CPI Aerostructures, Inc.  
 Cytec Engineered Materials  
 Data Conversion Laboratory, Inc.  
 Dayton T. Brown Inc.  
 Dimension4, Inc.  
 DynaBil Industries, Inc.  
 East West Technology  
 Electronic/Fasteners, Inc.

We're always looking for more effective ways

and airport infrastructure. The institute would be under the National Center for Advanced Technologies, an existing AIA subsidiary.

### Aiding Chinese Aviation

In an innovative first-of-a-kind endeavor for AIA, the association is supporting a series of training programs for Chinese airline and government officials, an effort that will help improve that country's air transportation system and could help open important new aerospace markets.



above: U.S. Senator Jay Rockefeller of West Virginia accepts an AIA Wings of Liberty award from John W. Douglass, association president and CEO. The award honors congressional leaders for their support of aerospace.

Under a \$500,000 grant from the U.S. Trade and Development Agency, the National Institute for Aerospace Studies and Services, an AIA subsidiary, is working with member companies and the FAA to conduct an array of management and air safety training programs and studies for the Chinese.

Participants will include airline executives, who will take management training courses, as

### Johnson Q&A cont. from page 5

operations. Our policies need to reflect a global competitive environment.

It isn't a secret that the current U.S. export control environment and approval process in Washington run much slower than the increasingly rapid pace of global business. Export control delays create artificial barriers for companies like Honeywell that are competing in a global market. This creates significant disadvantages for U.S. firms relative to European firms.

Honeywell believes that ITAR (International Traffic in Arms Regulations) licensing needs to focus more on protecting technologies critical to U.S. national security and less on the mundane. The U.S. government, especially the State, Defense, and Commerce departments,

should collectively assess those defining technologies critical to U.S. national security and provide some form of expedited export authorization relief for items considered as mundane and outside the definition of critical technologies.

### Why is it important to reverse the decline in NASA and FAA aeronautics research and development?

R&D investment is our future. The technologies, products, and services we all enjoy now as travelers and business people come from R&D investments made in the past. Honeywell's businesses are all experiencing R&D levels that are on a growth curve. R&D spending in the commercial aircraft market is up as plans for new aircraft appear on the horizon.

Electro-Tec Corp.	General Technology Corporation	iBASEt	Marotta Controls, Inc.	Onamac Industries, Inc.
EMS Technologies, Inc.	Greene, Tweed & Company	IFS North America	McCann Aerospace Machining Corp.	Pacific Aerospace & Electronics, Inc.
Engineering Corporation	G.S. Precision Inc.	Industrial Metals International LTD	Meyer Tool Inc.	Paramount Machine Co., Inc.
ENSCO, Inc.	Haas TCM	Integrated Aerospace	Micro-Coax, Inc.	Park Engineering & Mfg. Co., Inc.
Envision LLC	Hagemeyer North America	ISPA, Inc.	Millitech, Inc.	Parkway Products, Inc.
Exotic Metals Forming Company LLC	Hangsterfer's Laboratories, Inc.	Jazz Semiconductor	Microsemi Corporation	PC Guardian
Fastener & Hose Technology	Harvard Custom Manufacturing, Inc.	Kulite Semiconductor Products, Inc.	Morris Machine Company, Inc.	Performance Software Corporation
Mid-State Aerospace, Inc.	HDL Research Lab, Inc.	LATTICE3D	MPC Products Corporation	Perillo Industries, Inc., <i>dba Century Electronics</i>
Form Technologies	Heartland Precision Fasteners <i>Aerospace Plating Company</i>	L. Gordon Packaging	Navigant Consulting	PGM of New England, LLC
The Ferro Group	H & H Technologies	Lilly Software Associates, Inc.	NMC Group, Inc.	PGP Corporation
Frontier Electronic Systems Corporation	Hi-Temp Insulation Inc.	Lockmasters, Inc.	Norfil Manufacturing, Inc.	Plymouth Extruded Shapes <i>Plymouth Tube Company</i>
Hardner Aerospace	Hobart Machined Products Inc.	M/A-COM, Inc.	Northwest Composites Inc.	Port Electronics Corporation
HEAR Software	H & S Swansons' Tool Company	Magnetico, Inc.	NYF Corporation	Precision Aircraft Machining Co., Inc.
HEFEG US	Hughes Bros. Aircrafters, Inc.	Manugistics	O'Neil & Associates, Inc.	

Make the association stronger in order to best deal with the challenges ahead.

As well as government officials responsible for developing airline safety regulations.

These programs will offer positive, strengthened relationships among our member companies and their potential customers in one of the largest markets in the world. The project shows America's interest in ensuring China has a safe and efficient air transportation system and will open opportunities for U.S. manufacturers to showcase aviation-related goods and services in a market estimated to be worth more than \$100 billion.

In addition to management training for Chinese airline executives, the AIA institute will support travel to and participation in FAA courses for Chinese officials responsible for developing airline safety regulations.

### Fine-Tuning AIA

Our Supplier Management Council (SMC) has developed a Code of Ethical Conduct and posted it on the member-only AIA Web site. The supplier guide was designed from codes of conduct established by our regular members. Ethics compliance must come from the top down, and we look forward to members using this valuable tool.

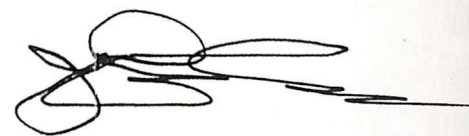
I'm pleased to note that the SMC now reports to my office to increase the scope of responsibility of the supplier group. As membership continues to grow significantly, I'm encouraging the SMC to increase its beneficial relationships with other councils and committees.

In other fine-tuning, we've extended SMC membership respon-

sibilities to Membership Director Michelle Princi.

In other personnel actions, Mike Romanowski has been named vice president of Civil Aviation and J.P. Stevens is now vice president of Space Systems and executive director of the Team America Rocketry Challenge.

We're always looking for more effective ways to make the association stronger in order to best deal with the challenges ahead.



John W. Douglass

DoD and NASA are forecasting growth over the next five-year period. Flat to declining aeronautical R&D investment is troubling because it suggests a less efficient and developed aeronautical industry in the future. While investments in defense can, and often do, flow to other adjacent markets, we can't count on that flow to be sufficient.

And let's not forget that R&D spending in areas such as telecommunications and information technology are supportive of aeronautics and are in decline. In the near term, we need to focus on air space efficiencies, navigational efficiencies, and communication efficiencies. But, regardless of what we do, we must reverse the decline of investing in our future and our children's future.

**One of AIA's priorities is developing a next-generation air transportation system. Is America prepared to make the commitment that this will require?**

We must make this commitment. Our system is at its limit in terms of capacity and technology. Our aircraft, both civil and military, are advancing faster than the system's ability to take advantage of that technology. And make no mistake, other countries are investing in making their system more efficient, which will put competitive pressure on us.

As I mentioned earlier, increased aeronautical R&D will lead to breakthroughs in air space, navigation, and communications. These are the areas that need the most urgent attention.

**Why is AIA important to you and your company?**

Because AIA is the only aerospace voice that speaks for all of us and is respected in Washington and around the world. It brings us together to work on our industry's common problems and opportunities. I know from experience that when key decisionmakers need help, they turn to AIA.

I am convinced that we are a better company and industry today because of the work AIA has done in the past. It is our responsibility to provide a better future for the next generation of aerospace leaders, and AIA is the way to do that. **ER**

# Purdy X-HAWK

**A**IA member company The Purdy Corporation is a partner in developing a new technology helicopter that can maneuver through city streets, conduct rescues next to high-rise office buildings, or move about in the tight spaces of urban warfare.

Purdy, located in Manchester, Conn., will design, develop, and manufacture mechanical power distribution systems for the X-Hawk chopper.

Developed by Israeli helicopter company Urban Aeronautics, the futuristic copter

operates with rotors housed in nacelles mounted fore and aft, allowing vertical lift and horizontal maneuverability. There are no top-mounted rotors.

A prototype X-Hawk recently underwent hover tests, and completed aircraft are expected to be in delivery to customers by 2010.

The Purdy Corporation is a woman-owned, small business founded in 1946. The firm supplies transmissions and rotor components for many of today's leading military and civilian helicopters.

To learn more, visit us on the Web.  
[www.urbanaero.com](http://www.urbanaero.com)  
[www.purdytransmissions.com](http://www.purdytransmissions.com). **ER**



## Aerospace Steps Up to Tsunami RELIEF cont.

**General Electric Company:** more than \$19 million in cash, products, and services, including nearly \$4 million from employees matched by the GE Foundation, plus foundation contributions of \$1 million to the Red Cross and \$100,000 to UNICEF.

**Goodrich Corporation:** \$100,000 from the Goodrich Foundation to the American Red Cross and matching donations from all employees its Partners in Giving plan.

**Harris Corporation:** \$100,000, including a \$50,000 corporate gift and a match of employee gifts up to \$50,000 designated to the American Red Cross, Save the Children, and UNICEF.

**Honeywell:** \$1 million through its Hometown Solutions initiative and more than \$200,000 in employee pledges to rebuild communities and provide necessities for survivors.

**ITT Industries:** \$500,000, plus equipment and supplies valued at over \$2 million. A company team from ITT China and ITT Fluid Technology in New Jersey supplied water purification units to supply daily water for more than 500,000 people.

**L-3 Communications Holdings, Inc.:** donated \$50,000 to AmeriCares and \$50,000 to Save the Children. Also, L-3 divisions raised more than \$100,000 for relief efforts.

**Lockheed Martin Corporation:** a financial commitment through the American Red Cross International Response Fund.

**3M:** \$1.5 million, including \$500,000 to match employee contributions to the American Red Cross, CARE and UNICEF.

**Northrop Grumman Corporation:** up to \$1 million, including \$500,000 through the American Red Cross, Habitat for Humanity International, and AmeriCares, plus \$500,000 to employee matching gifts.

**Oracle:** matching employee donations up to \$5 million and providing technical assistance and emergency systems.

**PerkinElmer Inc.:** \$100,000 to International Red Cross tsunami relief, plus a PerkinElmer Fluid Sciences match of employee contributions to the International Red Cross.

**Raytheon Company:** \$1 million over five years to the American Red Cross for worldwide catastrophic events, a \$50,000 tsunami contribution to the International Red Cross and employee gifts to the Raytheon Employee Disaster Relief Fund.

**Rockwell Collins:** \$50,000 to the American Red Cross International Relief Fund, plus a \$50,000 match to contributions made by its employees worldwide.

**Rolls-Royce North America:** matching employee gifts to the American Red Cross or the Canadian Red Cross.

**Science Applications International Corporation:** \$250,000 to tsunami relief and encouraging employees to make personal contributions.

**Silicon Graphics, Inc.:** matching up to \$25,000 of employee contributions to several relief agencies.

**SITA:** \$100,000 to the International Federation of Red Cross and Red Crescent Societies development of a tsunami early warning system.

**Smiths Aerospace Actuation Systems:** a financial contribution to the relief effort was made through its parent company, Smiths Group.

**The Titan Corporation:** \$75,000 to the Rescue Task Force and encouraging employee contributions. Also, operating sectors made in-kind contributions of decontamination systems to support tsunami relief efforts.

**Textron Inc.:** \$250,000 to the American Red Cross International Fund and a \$250,000 match of employees gifts.

**Triumph Group, Inc.:** matching employee contributions to AmeriCares and Habitat for Humanity International.

**United Defense:** matching employee gifts to the American Red Cross Emergency Response Fund.

**United Technologies Corporation:** matched all employee gifts by Feb. 21 to the American Red Cross International Response Fund, AmeriCares, and Habitat for Humanity International.

**Woodward Governor Company:** matched employee contributions for a total donation of \$80,000 to the American Red Cross. **ER**

AIA Associate Member COMPANIES cont.

Precision Gear Inc.  
 Precision Machine & Manufacturing Co.  
 Precision Machine Works Inc.  
 Precision Tube Bending  
 Primus International  
 Product Manufacturing Corporation  
 PTC  
 QuEST  
 Radant Technologies, Inc.  
 RAM Manufacturing Company Inc.  
 REMEC Microwave, Inc.  
 Renaissance Services, Inc.  
 Rockwell Scientific Company LLC

Rodelco Electronics Corp.  
 Safe Flight Instrument Corporation  
 Sargent  
 SAS Institute, Inc.  
 SEAKR Engineering, Incorporated  
 Sechan Electronics, Inc.  
 Senior Aerospace  
 Service Steel Aerospace  
 Servotronics, Inc.  
 Space-Lok, Inc.  
 Sparton Corporation  
 Spectra Lux Corporation  
 Spincraft  
 Spirit Electronics, Inc.

Sunbelt Industrial Supply Co. Inc.  
 Sun Microsystems  
 Sunshine Metals  
 Sypris Electronics, LLC  
 Tedopres International, Inc.  
 Texas Composite, Inc.  
 Thayer Aerospace  
 Therm, Inc.  
 Thermal Solutions, Inc.  
 Thomas James International  
 TMX Aerospace  
 Triad Design Service, Inc.  
 TTI, Inc.  
 Tyco Printed Circuit Group L.P.

UFC Aerospace  
 UGS  
 Universal Aerospace Co., Inc.  
 Vaupell Industrial Plastics  
 Vishay  
 WAER Systems, Inc.  
 Welding Metallurgy, Inc.  
 Wems Electronics  
 West Cobb Engineering & Tool Co., Inc.  
 Windings, Inc.  
 Wind River Systems  
 Xerox Corporation

# Goodrich: Right Then. Right NOW.

It's 1934. Six-year-old Hollywood pixie Shirley Temple sits atop an aircraft tire, smiling bright-eyed at the still camera. The photo is used in an advertisement for B.F. Goodrich tires.

Seventy years later Goodrich (sans initials B.F.) rereads the photo in a new full-page print ad that tells airlines and others in aerospace that the company no longer makes tires.

Now there's a switch – an ad that tells customers what the company doesn't do.

Cleverly, the core of the message is in the small print: "Tires are our history. Aerospace is our future. We're proud to be one of the top aerospace companies in the world."

The creative technique worked well. In February, the "Shirley Temple" ad received a Gold Award from Air Transport World magazine, a leading airline management publication, as the top corporate image ad among its 2004 advertisers.

"And the credibility of the award is the fact that airline executives – those people that aerospace companies such as Goodrich want to reach – are the judges who make the award selections," explained Jay Donoghue, editorial director for the magazine.

"The ads are ranked on the basis of effectiveness in getting attention and selling the company's products or services," Donoghue explained. "Obviously, the Shirley Temple ad was an imaginative and successful approach."

On a roll, Goodrich also won gold in the maintenance services and supplies category for its "Right Attitude" ad.

Other AIA member companies receiving 2004 ATW advertising achievement awards in various categories include:

**Gold Awards** – Aviation Partners Boeing (airframe/engine conversion), Embraer Aircraft Holding Inc. (airframe), L-3 Communications Holdings, Inc. (safety/security), United Technologies/Pratt & Whitney Canada (engine support services), Rockwell Collins (navigation systems).

**Silver Awards** – Aviation Partners Boeing (airframe/engine conversion), Honeywell (navigation systems), United Technologies/Pratt & Whitney Canada (engine support services), United Technologies/Hamilton Sundstrand (accessories services). **ER**



left: Little Shirley Temple helped Goodrich win an award for the best corporate image ad among Air Transport World magazine's 2004 advertisers.

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A quarterly digest for the Aerospace Industries Association

# Executive REPORT

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Working the Hill



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# President's MESSAGE



**John W. Douglass**  
AIA President & CEO

Dear Association Member:

**A**s AIA members prepare for the annual spring meeting in Williamsburg in late May, it's an opportune time to look at events in Washington that have begun mixing in a way that could signal a change in mood in aerospace and defense.

One common theme at this time is leadership. We're especially concerned over the difficulty the Defense Department is having in attracting qualified people to fill senior positions.

As this *Executive Report* goes to press, some key posts that significantly impact our industry every day are

open with no nominees in sight — secretary of the Air Force, undersecretary of the Air Force, assistant secretary of the Air Force for acquisition, secretary of the Navy, undersecretary of the Army, and deputy undersecretary of defense for acquisition technology and logistics.

I'm heartened that Navy Secretary Gordon England has been nominated by President Bush to be deputy defense secretary. We congratulate Secretary England and urge the administration to move quickly to fill the other senior service and acquisition posts.

I offered President Bush encouragement and support earlier this year in his quest to fill key leadership jobs. AIA is familiar with the challenge

of finding first-rate talent for industry, and our offer to help in identifying candidates still stands.

America's industry is the solution, not the problem. DoD needs to cast a wider net and to tap the vast reservoir of talent in industry across the country. Congress needs to work with DoD to make the confirmation process easier and friendlier, and, last but not least, senior individuals in industry must step forward and offer to serve.

Meanwhile, I congratulate the administration and the U.S. Senate for acting diligently in filling and confirming key leadership positions at NASA and the Department of Homeland Security.

On behalf of AIA member companies, I welcome NASA Administrator Michael Griffin and Homeland Security Secretary Michael Chertoff. We look forward to working with Judge Chertoff to help ensure national security and with Dr. Griffin to accomplish critical U.S. space and aeronautics initiatives.

**Patrick Dempsey**, Vice President, Barnes Group, and President, Barnes Aerospace

**Gerald R. Dinkel**, President & Chief Executive Officer, Defense Applications Group, Cubic Corporation

**Henry J. Driesse**, President, IT Defense, and Senior Vice President, ITT Industries

**James J. Fitzsimmons**, President & Chief Executive Officer, North America East, GKN Aerospace Services

**Thomas A. Gendron**, President & Chief Operating Officer, Woodward Governor Company

**John R. Gibson**, President & Chief Executive Officer, American Pacific Corporation

**Paul L. Graziani**, President & Chief Executive Officer, Analytical Graphics, Inc.

**James M. Guyette**, President & Chief Executive Officer, Rolls-Royce North America Inc.

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**John A. Wilander**, Chairman & President, B&E Precision Aircraft Components

**George J. Yohrling**, President & Chief Executive Officer, Curtiss-Wright Corporation

## Trade Ties That Bind

International trade tensions have increased in recent months. Issues include European Union launch subsidies to Airbus, the potential lifting by Europe of an embargo against the sale of defense systems to China, and growing concern over how the government will respond to aggressive European marketing efforts to access major U.S. defense programs.

On subsidies, AIA has done its best to be an advocate for continuing dialogue between U.S. and European negotiators to avoid a trade war and get this matter settled.

But some of the information Europe is putting out is far off the mark. A report by the Commerce Department shows that the EU's indirect subsidy claim against the United States — the cornerstone of the European case — is simply untrue.

The report also concludes that the EU research and development program is a form of subsidy that develops specific aircraft components and leads to a competitive advantage. U.S. R&D is a longer-term, more basic effort that produces public results open to everyone, including Airbus.

A trade war with Europe, our biggest trading partner with whom we have an annual positive aerospace trade balance of about \$10 billion, would not serve the interest of Europe or the United States. In the end, launch aid has got to stop.

As for Europe lifting its embargo on sensitive military technologies to China, American aerospace

# AIA Roster Continues to STRENGTHEN

**M**embership in the association continues to strengthen in both the regular and associate member categories. In a recent count, the AIA regular member roster was at 104 leading aerospace companies while our associate member lineup was 179 select aerospace suppliers.

Two of our newest regular members are Advanced Products Corporation and EDS.

Advanced Products Corporation (APC) of Los Angeles is a holding company for operating firms in the aerospace and defense composites sector.

APC companies utilize networking opportunities by being under one umbrella and by sharing resources, such as research and development, engineering, and manufacturing processes. As the supplier base to aerospace primes consolidates, APC

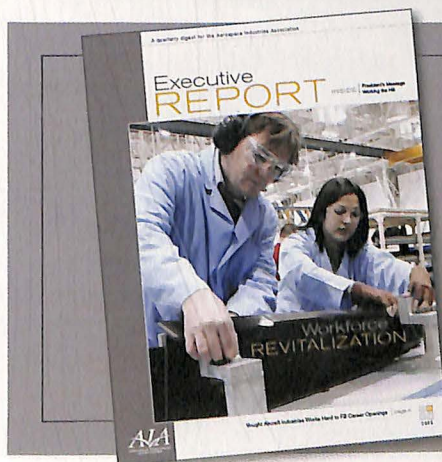
is strengthening the capabilities and quality of products produced by its subsidiary companies by contributing capital, experience, business knowledge, and sales and marketing expertise.

EDS provides a broad assortment of business and technology products and services to help clients improve business performance.

Based in Plano, Texas, EDS has a core portfolio comprised of information technology, applications and business process services, and IT transformation services.

The firm is 95th on the 2005 *Fortune* 500 list of leading companies and is one of the federal government's largest contractors. EDS has about 117,000 employees and supports companies and governments in more than 60 countries.

[www.eds.com](http://www.eds.com) **ER**



## On the COVER

Vought Aircraft Industries will add 3,000 aerospace workers in Texas by 2009 with the aid of a state grant. More than 1,200 have punched in. See page 6.

Cover photo courtesy of Vought Aircraft Industries

## AIA Member COMPANIES

AAI Corporation	BAE SYSTEMS North America	Dassault Falcon Jet Corporation	ESIS, Inc.
ACTI	Barnes Aerospace	Doncasters, Inc.	Esterline Technologies
Advanced Products Corporation	B.H. Aircraft Company, Inc.	DRS Technologies, Inc.	Exostar LLC
Aerojet	The Boeing Company	Ducommun Incorporated	Federation Inc.
Air Liquide-Medal L.P.	Brek Manufacturing Co.	DuPont Company	FlightSafety International Inc.
Allfast Fastening Systems, Inc.	A.M. Castle & Co.	Eaton Aerospace LLC	General Atomics Aeronautical Systems, Inc.
American Pacific Corporation	Celestica Corporation	Eclipse Aviation	General Dynamics Corporation
Analytical Graphics, Inc.	Click Bond, Inc.	EDO Corporation	General Electric Company
Argo-Tech Corporation	Cobham Aerospace Systems Group	EDS	GKN Aerospace Services
Armor Holdings, Inc.	Computer Sciences Corporation	EFW Inc.	Goodrich Corporation
<i>Aerospace &amp; Defense Group</i>	Crane Aerospace & Electronics	Embraer Aircraft Holding Inc.	<i>Airframe Systems</i>
ATK	Cubic Corporation	Emhart Technologies	<i>Electronic Systems</i>
Aviall, Inc.	Curtiss-Wright Corporation	Erickson Air-Crane Incorporated	<i>Engine Systems</i>
B&E Precision Aircraft Components	<i>Curtiss-Wright Controls Systems, Inc.</i>		W.L. Gore & Associates, Inc.
	<i>Metal Improvement Company</i>		

## U.S. investment in aeronautics research and development

leadership opposes such an action until agreement can be reached with the U.S. government on post-embargo transfers to China.

Above all, we want to avoid any congressional reaction to EU actions that would punish U.S. industry.

### AIA Testifies on Air System

On an important home front issue, I testified before the House Aviation Subcommittee on the need for a modernized air traffic management system.

We appreciate the work of Subcommittee Chairman John Mica of Florida in taking a close look at the contributions the multi-agency Joint Planning and Development Office (JPDO) will make to the Next Generation Air Transportation System (NGATS), an integrated future air transportation system that

will cover air traffic control, security, and virtually every other aspect of aviation travel.

Congressional and administration leadership is important to ensure priority involvement among federal agencies in developing a safer and more efficient air traffic management system and long-term federal support for NGATS.

AIA has committed leadership and resources, in conjunction with the Air Traffic Control Association (ATCA), in setting up an industry institute to support a sweeping upgrade of the air transportation system. The institute will recruit, select, and assign private sector experts and technical resources to participate in integrated product teams and perform technical work for the teams and the JPDO.

The institute will include representatives of major aviation stakeholder organizations and will be chaired by the presidents of ATCA and

## AIA's Legislative Team: Getting

**A**braham Lincoln once said, "Whatever you are, be a good one."

Lincoln's advice is taken to heart by AIA's Legislative Affairs Division staff as they strive during each session of Congress to accomplish an important agenda on behalf of the aerospace industry.

Members of the staff are Jon Etherton, legislative affairs vice president; Pat McCartan, director; and John Provenzano, manager.

"The aerospace industry is one of the most dynamic sectors in America today, considering how expansive its issues are in global aviation and space, along with national defense and homeland security concerns," Etherton notes in describing the work of his association team.

"It's never a dull day at AIA," he says. "Just look at the array of issues on our 2005 AIA Top Ten Issues list – everything from defense acquisition to reinvigoration of the aerospace workforce to critical supplier issues," he adds.

"We're fortunate to be teamed in many valuable ways every day with a large group of knowledgeable and experienced government affairs executives in the Washington offices of our member companies represented here," Etherton explains.

"We bring each other a critical synergy that helps raise the visibility of aerospace issues on Capitol Hill and in the Defense Department and other executive departments," he adds. "We try to get the job done together."





Harris Corporation  
HEICO Corporation  
Hexcel Corporation  
HITCO Carbon Composites  
Honeywell  
IBM Corporation  
ITT Industries  
Defense and Electronics  
Laman Aerospace Corporation  
Lester Aerospace Corporation  
3 Communications Holdings, Inc.  
Laser Technology, Inc.  
MI Aerospace Inc.  
Lockheed Martin Corporation

3M Company  
Martin-Baker America Inc.  
McKeechnie Aerospace  
MOOG Inc.  
Natel Engineering Co., Inc.  
National Machine Group  
National Machine Company  
National Aviation Products, Inc.  
National Technical Systems  
Northrop Grumman Corporation  
Mission Systems  
Space Technology  
NYLOK Corporation  
Omega Aerial Refueling Services, Inc.

Oracle USA, Inc.  
Government  
Education & Health  
Aerospace and Defense  
Orbital Sciences Corporation  
Advanced Systems Division  
Parker Aerospace  
PerkinElmer, Inc.  
Fluid Sciences  
Pinkerton Government Services, Inc.  
Proficiency Inc.  
The Purdy Corporation  
Raytheon Company  
Remmele Engineering, Inc.  
Rockwell Collins

Rolls-Royce North America Inc.  
RTI International Metals, Inc.  
Science Applications  
International Corporation  
Shaw Aero Devices, Inc.  
Silicon Graphics, Inc.  
SITA  
SM&A  
Smiths Aerospace Actuation Systems  
Los Angeles  
Space Exploration  
Technologies Corporation  
Stellax Aerostructures, Inc.  
Suntron Corporation

Swales Aerospace  
Teleflex, Inc.  
Airfoil Technologies International  
Textron Inc.  
The Titan Corporation  
Triumph Group, Inc.  
Turbine Engine  
Components Technologies  
United Defense  
United Technologies Corporation  
Hamilton Sundstrand  
Pratt & Whitney  
Sikorsky  
Vought Aircraft Industries, Inc.  
Woodward Governor Company

plummeting, putting our place as the worldwide leader in the industry at serious risk.

the Air Transport Association. It will be governed by a 16-member Institute Management Council. We're searching now for an executive director to manage day-to-day activities.

## Beating the Drum for Aeronautics

Also, the association is pursuing an urgent need for funding to support aeronautics research as an investment in America's technological and competitive future.

U.S. investment in aeronautics research and development is plummeting, putting our place as the worldwide leader in the industry at serious risk. NASA's budget for aeronautics R&D is shrinking at an alarming rate, even while leaders increase their overall investment in the agency.

The budget blueprint for the next five years calls for cutting the aeronautics budget by almost \$200 million, and that's on top of cuts totaling \$639.8 million since 1994. This steady starving of the aeronautics research function will have dire consequences for the U.S. aviation industry.

I gave testimony to the Space and Aeronautics Subcommittee of the House Science Committee in which I urged adoption of a national aeronautics policy to guide federal investment in the future of American aviation.

The policy would confirm the benefits of NASA's aeronautics research in developing the next-generation aircraft, navigational aides, energy conservation, environmental benefits, and vital expansion of air system capacity.

An infusion of federal spending in aeronautics research must occur, I testified, if NASA is to develop aeronautics and air transportation technologies. I asked the committee to direct the administration to financially enable the agency to intensify its efforts in aeronautics, propulsion, and rotorcraft technologies.

## Space Shuttle Fly-Out Plan

These are exciting times for NASA with a new mandate to return man to the moon and keep going all the way to Mars.

In connection with planning for its future, NASA chose AIA to spearhead industry input to the agency's recent Integrated Space Operations Summit.

I reported there on industry's recommendations that the agency complete

# The Washington Job Done TOGETHER

*The Hill*, a highly respected Capitol Hill newspaper, for the fourth year in a row has named an AIA executive — Etherton — to its annual list of leading trade association lobbyists.

"The head of AIA's lobbying shop since April 2002, Etherton understands and can navigate the Pentagon's complicated acquisition policies," the paper wrote in April, adding that the honor is determined "through conversations with members of Congress, key aides, and lobbyists themselves."

It's getting to be an AIA team award — McCartan was named to the "best in class" list by *The Hill* in 2003 and 2004, and AIA

President and CEO John Douglass was on it in 2002.

In a separate honor, Etherton earlier this year was named by the Bush Administration to the Services Acquisition Advisory Panel, a 14-member body mandated by Congress to study government contracting and offer reform recommendations.

Etherton has been with AIA since 1999. Earlier he was a Senate staff member, including 14 years with the Armed Services Committee. Much of his work has involved acquisition and contracting issues.

McCartan came to AIA in early 2002 from the professional service firm KPMG where he managed a marketing communi-

cations group. He earlier worked 10 years on Capitol Hill in various capacities for the U.S. Senate and House, and before that as a legislative analyst for the state of California.

At AIA, McCartan is responsible for legislative issues involving international trade, space, taxation, workforce development, and small business initiatives.

Provenzano joined AIA in mid-2004 from the office of former U.S. Senator Bob Graham of Florida, where he had served on staff for six years. His issues responsibilities include civil aviation and environmental matters. **ER**

## AIA Associate Member COMPANIES

Acromil Corporation  
ADI American Distributors Inc.  
Aerospace and Government Solutions, a division of Unlimited Innovations, Inc.  
Aerospace Fabrications of Georgia, Inc.  
Air Cruisers Company  
Air Industries Machining Corporation  
Alcoa Fastening Systems  
Alken Industries, Inc.  
Allen Aircraft Products, Inc.  
AMETEK Hughes-Treitler  
Arbortext, Inc.  
Arkwin Industries, Inc.

Arrow/Zeus Electronics, a division of Arrow Electronics  
A & S Tribal Industries  
Astronautics Corporation of America  
AVChem, Inc.  
Avexus, Inc.  
Avionics Specialties, Inc.  
Avnet Electronics Marketing  
Banneker Industries, Inc.  
B&B Manufacturing Company, Inc.  
Brogdon Tool & Die, Inc.  
Brush Wellman Inc.  
BTC Electronic Components, Inc.  
Burton Industries  
Aerospace Heat Treating

CAD Manufacturing, Inc.  
California Manufacturing Technology Consulting  
Capo Industries Inc.  
C C Distributors, Inc.  
Celltron Inc.  
CFI-PAC Foundries, Inc.  
Champion Industries, Inc.  
Chandler/May, Inc.  
Cherokee Nation Distributors  
Cincinnati Machine, a UNOVA Co.  
Circle Seal Controls, Inc.  
CMC Electronics, Inc.  
Coalition Solutions Integrated, Inc.

Cohesia Corporation  
Compass Aerospace Corporation  
Composites Atlantic Limited  
Composite Solutions Corporation  
Compucraft Industries  
Corfin Industries, LLC  
CPI Aerostructures, Inc.  
Cytec Engineered Materials  
Data Conversion Laboratory, Inc.  
Dayton T. Brown Inc.  
Designed Metal Connections  
The Deutsch Company  
Dimension4, Inc.  
DynaBil Industries, Inc.

Congressman Vern Ehlers of Michigan has introduced a bill

the shuttle and International Space Station programs in an integrated fashion to lead seamlessly into a new era of space exploration.

NASA must create a fly-out plan to keep skilled technicians with the space shuttle program as it heads toward its 2010 conclusion, I reported on behalf of the study group. The industry panel stressed the importance of NASA working closely with companies involved in all space programs.

Other industry suggestions included planning for sustained technology investment, rewarding incremental technology advancements, and encouraging the use of resources, people, and facilities in partnership with industry.



**T**he aerospace industry is on the verge of a workforce crisis.

Some 600,000 workers employed in the sector are aging and almost 30 percent will be eligible to retire in 2008. AIA and its member companies are taking action, however.

The association has ranked revitalization of the American aerospace workforce as one of the critical issues threatening the industry's well

### Workforce Revitalization

In Congress, meanwhile, the association has put its collective shoulders behind two bills to help revitalize the aerospace workforce.

The House Education and Workforce Committee has written legislation calling for the Labor Department to establish a program for aerospace workforce job training.

And Congressman Vern Ehlers of Michigan has introduced a bill that would create an inter-agency task force on aerospace workforce recruitment, training, and cultivation.

Ehlers' bill would bring together the most talented minds in the federal government to produce a national plan for increasing the number of students who choose aerospace-related scientific or engineering careers. As we all know, there's a significant shortage

## Working for the

being. AIA has pledged to work with government, labor, industry, and academia on a national plan to rejuvenate the U.S. aerospace and national security workforce.

Among AIA members, Vought Aircraft Industries, Inc., is one of the leaders in crafting innovative solutions to the workforce issue. The Dallas-based company last spring applied for and received a \$35 million grant from the Texas Enterprise Fund to help spur job growth. Vought pledged to create 3,000 jobs in Texas by the end of 2009, based on the grant and other economic incentives provided by the state.

Since February 2004, Vought has filled more than 1,200 new jobs through work consolidation and important new contracts, including building airframe assemblies for Sikorsky Black Hawk

Dynamic Systems, Inc.  
East West Technology  
Electronic/Fasteners, Inc.  
Electro-Tec Corp.  
EMS Technologies, Inc.  
Enginetics Corporation  
ENSCO, Inc.  
Exotic Metals Forming Company LLC  
Fenn Technologies  
The Ferco Group  
Frontier Electronic  
Systems Corporation  
Gardner Aerospace  
GEAR Software

General Technology Corporation  
Greene, Tweed & Company  
G.S. Precision Inc.  
Haas TCM  
Hagemeyer North America  
Hangsterfer's Laboratories, Inc.  
Harvard Custom Manufacturing, Inc.  
HDL Research Lab, Inc.  
Heart of Georgia Metal Crafters  
Heartland Precision Fasteners  
Aerospace Plating Company  
Heizer Aerospace  
Hi-Temp Insulation Inc.  
Hobart Machined Products Inc.  
H & S Swansons' Tool Company

Hughes Bros. Aircrafters, Inc.  
iBASE  
IFS North America  
Industrial Metals International LTD  
ISPA, Inc.  
Jabil Circuit, Inc.  
Jazz Semiconductor  
Kulite Semiconductor Products, Inc.  
LATTICE3D  
L. Gordon Packaging  
Lilly Software Associates, Inc.  
Lockmasters Security Institute  
M/A-COM, Inc.  
Magnetico, Inc.

Manugistics  
Marotta Controls, Inc.  
McCann Aerospace Machining Corp.  
Meyer Tool Inc.  
Micro-Coax, Inc.  
Millitech, Inc.  
Microsemi Corporation  
Morris Machine Company, Inc.  
MPC Products Corporation  
Navigant Consulting  
NMC Group, Inc.  
Norfil Manufacturing, Inc.  
Northwest Composites Inc.  
NYF Corporation

O'Neil & Associates, Inc.  
Onamac Industries, Inc.  
Pacific Aerospace & Electronics, Inc.  
Paramount Machine Co., Inc.  
Parkway Products, Inc.  
PC Guardian  
Performance Software Corporation  
Perillo Industries, Inc.,  
dba Century Electronics  
A.E. Petsche Co.  
PGM of New England, LLC  
PGP Corporation  
Planet Product Corporation  
Plymouth Extruded Shapes  
Plymouth Tube Company

ate an inter-agency task force on aerospace workforce.

of younger, technically-skilled professionals in the aerospace industry.

The bill has won a number of co-sponsors, including Reps. Dave Weldon of Florida, Ellen Tauscher of California, Fred Upton of Michigan, Adam Smith of Washington, and Kay Granger of Texas.

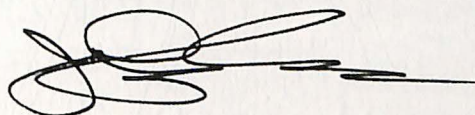
Be sure to read our cover story on page 6 of this *Executive Report* that describes what AIA-member Vought Aircraft Industries is doing to help solve its workforce issues.

### Supplier Management Council Panel

In closing, I'm pleased to note that the association will have a panel of CEOs of associate member companies on the agenda at Williamsburg to discuss issues

and initiatives in the aerospace industry's supplier sector. Our Supplier Management Council continues to evolve as an effective mechanism for smaller companies to interface with the larger companies in industry. Under the guidance of our Executive Committee, AIA's initiatives on supplier issues is expanding and adding benefits for those in industry as well as for the aerospace customer base.

I look forward to seeing many of you in Williamsburg.



John W. Douglass

## Future of AEROSPACE

helicopters and structural components for C-5 Galaxy transport aircraft.

Vought has hired many engineers in Texas and Washington to contribute to the substantial design efforts for fabrication and assembly of the new Boeing 787.

"As a company, we have taken a hard look at our long-term business plan to remain competitive in the global marketplace," said Vought Chairman, President, and Chief Executive Officer Tom Risley. "State economic incentives for job growth, combined with our own investments in technology and innovation, have enabled us to consolidate and modernize our operations in Texas and create additional growth in South Carolina," he said, adding

"Vought is positioned well for the future."

More than 200 additional job openings are posted on Vought's Web site and on the Texas Workforce Commission site at WorkinTexas.com. The company also will employ some 350 people at its new South Carolina facility where it will build fuselage sections for Boeing 787s.

"What Vought and other aerospace companies are doing stands as a hopeful beacon to the development of many new, high-skill jobs in American aerospace," said John W. Douglass, AIA president and chief executive officer. "They are telling our young people that there are exciting opportunities ahead in the aerospace industry here in America." **ER**

## Leaders of Association Councils in PLACE

**A**IA's councils have elected their leaders for 2005 from among member company representatives. Councils and their chairmen and chairwoman are:

### Civil Aviation Council –

Gerald L. Mack, vice president of government and industry technical liaison, Boeing Commercial Airplanes, The Boeing Company.

### Communications Council –

Rosanne O'Brien, corporate vice president of communications, Northrop Grumman Corporation.

### International Council –

Richard Kirkland, vice president of corporate international business development, Lockheed Martin Corporation.

### Procurement & Finance

Council – Timothy P. Malishenko, corporate vice president of contracts and pricing, The Boeing Company.

### Space Council –

Donald H. Brownlee, vice president of Washington operations, Aerojet.

### Supplier Management Council –

Vincent J. Hrenak, vice president of supply chain, Raytheon Company.

### Technical Operations Council –

Norman F. Egbert, vice president of engineering and technology, Rolls-Royce North America Inc. **ER**

AIA Associate Member COMPANIES cont.

Port Electronics Corporation  
 Precision Aircraft Machining Co., Inc.  
 Precision Gear Inc.  
 Precision Machine & Manufacturing Co.  
 Precision Machine Works Inc.  
 Precision Tube Bending  
 Primus International  
 Product Manufacturing Corporation  
 PTC  
 QC Graphics, Inc.  
 QuEST  
 Quick-Wright Associates, Inc.  
 Radant Technologies, Inc.

RAM Manufacturing Company Inc.  
 REMEC Microwave, Inc.  
 Renaissance Services, Inc.  
 Rockwell Scientific Company LLC  
 Rodelco Electronics Corp.  
 Safe Flight Instrument Corporation  
 Sargent  
 SEAKR Engineering, Incorporated  
 Sechan Electronics, Inc.  
 Senior Aerospace  
 Service Steel Aerospace  
 Servotronics, Inc.  
 Space-Lok, Inc.  
 Spartan Corporation

Spectra Lux Corporation  
 Spincraft  
 Spirit Electronics, Inc.  
 Sunbelt Industrial Supply Co. Inc.  
 Sun Microsystems  
 Sypris Electronics, LLC  
 Tedopres International, Inc.  
 Texas Composite, Inc.  
 Thayer Aerospace  
 Therm, Inc.  
 Thermal Solutions, Inc.  
 Thomas James International  
 TMX Aerospace  
 Triad Design Service, Inc.  
 TTI, Inc.

Tyco Printed Circuit Group L.P.  
 UFC Aerospace  
 UGS  
 Universal ID Systems, Ltd  
 Vaupell Industrial Plastics  
 Vishay  
 WAER Systems, Inc.  
 Welding Metallurgy, Inc.  
 Wems Electronics  
 West Cobb Engineering & Tool Co., Inc.  
 Windings, Inc.  
 Wind River Systems  
 Xerox Corporation

# Take This Job and LOVE IT

**W**hen *Time* magazine analyzed employee-ownership concepts three years ago in a business feature, the headline stated: "We're All the Boss."

At AIA member-company W.L. Gore & Associates, one of the spotlighted firms, employee ownership and management has been in place since the privately held enterprise was founded in 1958 to search out product opportunities for fluorocarbon polymers.

Something's special for sure in the Gore business process – for the eighth consecutive year the company is ranked among *Fortune* magazine's "100 Best U.S. Companies" to work for. Best of all, Gore is first among all U.S. mid-sized companies and second among all American firms.

What's more, for the second straight year Gore-United Kingdom is ranked No. 1 among the "100 Best Places to Work in the U.K.," and Gore-Germany is in the top 10 overall and fifth among mid-sized companies on the "50 Best Places to Work in Germany" list. And Gore-Italy ranked in the top 20 among the "35 Best Places to Work in Italy" in 2004.

How did all this happen at the company best known for its GORE-TEX® fabrics?

The *Time* feature explains that Gore "arises from a unique structure with no fixed hierarchy, few titles, and no formal job descriptions. Any associate (not employee) can speak to any other without going through a chain of command."

Louise Brown, a 25-year Gore veteran in 2002, told *Time* that "nobody's afraid to jump



above: Associates at AIA-member company W.L. Gore, a regular on *Fortune* magazine's "Best Company to Work For" list, participate in a process relationship exercise as part of the firm's unique employee management style.

in. Whatever you need to get the job done, people are always ready to do it!"

In aerospace, Gore's electronic products have an array of applications and its cables and cable assemblies, used in more than 70 satellite programs, have gone to Mars in NASA rovers and to the moon in seismographic equipment.

The company's sealants protect aircraft panels, fuel tanks, floorboards, and windshields from moisture and corrosion. Woven into the outer layer of space suits, Gore fibers resist ultraviolet rays and temperature extremes. Its membrane vents help sensitive aerospace equipment withstand rapid changes in altitude and temperature.

Gore's annual revenues top \$1.8 billion and it has 7,000 associates – very happy associates – in 45 locations around the world. **ER**

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A quarterly digest for the Aerospace Industries Association

