

# 1985

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**AEROSPACE  
INDUSTRIES  
ASSOCIATION**

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## **ANNUAL REPORT**

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# AIA OFFICERS AND BOARD

Calendar Year 1985

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*Executive Vice President -- Power, United Technologies Corporation*  
KARL G. HARR, JR.  
*President, Aerospace Industries Association*

# A STATEMENT OF POLICY

The aerospace industry shall continually foster the advancement of those aeronautical, astronautical and related sciences, arts, technologies and industries which shall be consistent with and contribute to the public and private welfare of local communities, this nation, and the international community of which this nation is a part.

Specifically, the continuing goal of the industry shall be: to fulfill its responsibility for the development and improvement of those deterrent and defense capabilities deemed by the government to be requisite for our continued national security; to promote those technological achievements necessary to assure the peaceful conquest of space for the benefit of all mankind; to foster the advancement of economic commercial and private air transport; and to press for and contribute to significant improvements in those scientific, management and manufacturing skills and techniques that will benefit the social, cultural and economic well being of the nation. In pursuing this goal, the industry shall maintain a commitment to high standards of excellence, integrity and reliability.

Fulfillment of these responsibilities imposes requirements on this industry for far-ranging and innovative contributions in science and technology. To this end, the industry shall relentlessly explore those horizons of science most likely to hold the key to future advances, and shall vigorously and efficiently improve the foundations of this nation's industrial creativity, productivity, technology and facilities.

Attainment of such goals requires the most effective possible use of all of the resources of a pioneering and progressive industry, directed by experienced, flexible and imaginative management, and incorporating:

- The highest levels of scientific investigation
- Technological facilities adequate to provide continuity in advanced research, development and production
- Coordinated teams of managers, scientists, technicians and skilled labor
- Economic stability to assure the fullest contributions by each element to national security, prosperity and progress
- Adherence to high quality and reliability in services provided and products delivered
- Commitment to truth, accuracy, fairness and compliance with law in all matters and in all communications with the public, customers, suppliers and employees.

The aerospace industry pledges the fullest application of its resources and abilities to the task of accomplishing these goals.

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# INTRODUCTION

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The Aerospace Industries Association of America, Inc. (AIA) is the national trade association that represents U.S. companies engaged in research, development and manufacture of such aerospace systems as aircraft, missiles, spacecraft and space launch vehicles, and propulsion, guidance, control and accessory systems for the flight vehicles. A secondary area of industry effort, grouped under the heading "related products," embraces a variety of airborne and ground-based equipment essential to the operation of the flight vehicles, plus a broad range of non-aerospace products generally derived from the industry's aerospace technological expertise but intended for applications other than flight.

The industry AIA represents is one of the nation's largest. Its sales in 1985 amounted to \$96.2 billion, including \$80.2 billion in aerospace products and services and \$16 billion in related products. Export sales totaled a record \$18.1 billion and the industry made an important contribution to the U.S. economy with a positive international trade balance of \$12.1 billion.

Orders received during the year totaled \$92.8 billion; they brought the backlog at year-end to \$127 billion, a figure roughly \$7 billion higher than at the end of the previous year. Industry employment at year-end 1985 was 1,337,000, the highest since 1968; the labor force was expected to increase to 1,365,000 by the end of 1986.

Aerospace Industries Association functions on national and international levels, representing its membership in a wide range of technological and other relationships with government agencies and the public. To facilitate its work at the national level, AIA is a member of the Council of Defense and Space Industry Associations (CODSIA), a coordination medium of seven industry associations with mutual interests related to federal government procurement policies. In international activities, AIA cooperates as practical with trade associations in other countries, individually and through the International Coordinating Council of Aerospace Industry Associations (ICCAIA), an informal body of the free world's national aerospace associations. AIA also serves as secretariat for TC 20, the aircraft/space group of the International Organization for Standardization (ISO).

AIA's policies are determined by a Board of Governors composed of 30 senior executives of member companies plus the AIA president, who is the association's senior professional employee and who also

## EXECUTIVE COMMITTEE 1985



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Martin Marietta Aerospace



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Allied Corporation



GEORGE E. SOLOMON  
TRW Inc.

serves as its general manager. A key element is the Executive Committee—made up of members elected from the Board of Governors—which exercises the powers of the Board between Board meetings.

AIA's primary services to its membership are conducted by 10 Councils, Services and Offices whose heads report to the AIA president. Within this structure, AIA's professional staff coordinates and supports the work of an array of committees, sub-committees, task groups, *ad hoc* groups and project groups whose membership is made up of key specialists from AIA member companies.

In 1985, the association concentrated much of its activity on matters related to defense procurement reform; government trade policies affecting the competitive position of U.S. industry in international aerospace markets; and technology advancement toward development of a range of superior aerospace products that could simultaneously effect a major upgrading of U.S. defense/space capabilities and a significant improvement in the U.S. international trade posture.

The 1985 activities of the Councils, Services and Offices and their associated working groups are summarized in the following pages.

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# AEROSPACE OPERATIONS SERVICE

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The Aerospace Operations Service represents the functional and management areas reflected in the charters of the Manufacturing, Quality Assurance and Product Support Committees, their working committees, subcommittees, liaison panels and Manufacturing Technology Advisory Groups (MTAGs). Prime areas of interest and activity include advanced manufacturing technology; improvement of production processes and management toward greater quality and productivity; advanced quality assurance technology and management systems; logistics planning and technology; spare parts acquisition and management; post-delivery product support and services; and technical publications and training.

During 1985, the committees and their working elements maintained active interface and liaison with government and industry management officials and were involved in numerous projects and tasks of interest to the association membership and to the Department of Defense, the National Aeronautics and Space Administration, the Federal Aviation Administration, other government agencies, commercial organizations. Among the service's activities in 1985 were:

## **Manufacturing Conferences**

The Manufacturing Committee held its annual industry-government conference in April, featuring the theme "Computer Integrated Technology—Quality Based." The program included a number of prominent industry and government speakers, who addressed such subjects as DOD Quality Initiatives; Factory Automation; Artificial Intelligence Role in Computer Integrated Manufacturing (CIM); Robotics Role in CIM; Human Resource Planning; Quality Improvement in the Aerospace Industry; the NASA Productivity Quality Award Program; the Air Force Production Base Analysis Program; and DoD Templates Reports.

The Manufacturing Committee sponsored an Industrial Modernization Incentives Program (IMIP) Workshop in October to share contractor lessons learned on issues requiring improvement if IMIP is to succeed. The workshop included presentations on four IMIP activities considered to be outstanding examples of the DoD Director of Industrial Productivity and Quality presented the Defense Department's perspective on IMIP.

## **Manufacturing Committee Reports**

Among Manufacturing Committee project reports completed, published and circulated to member com-





LOUIS G. SPORTELLI  
IBM Corporation  
Chairman, 1984/85/86  
Manufacturing Committee



DON F. BONHARDT  
Bell Aerospace Textron  
Chairman, 1985  
Quality Assurance Committee



HERMAN J. CORREALE  
McDonnell Douglas  
Corporation  
Chairman, 1985  
Product Support Committee



ROLAND L. OLSEWSKI  
Grumman Aerospace  
Corporation  
Chairman, 1985  
Spare Parts Committee



JAMES R. QUINN  
Grumman Aerospace  
Corporation  
Chairman, 1985  
Logistics Operations Committee



TERENCE L. FARRELL  
Westinghouse Electric  
Corporation  
Chairman, 1985  
Manpower, Personnel and  
Training Committee



GEORGE F. TOMLINSON  
Grumman Aerospace  
Corporation  
Chairman, 1985  
Field Support Committee



WILLIAM G. MOSS  
Boeing Commercial  
Airplane Company  
Chairman, 1985  
Service Publications  
Committee

panies during 1985 were *Flexible Manufacturing Systems, Phase III* (MC 84.2); *Robotics, Phase II* (MC 84.12); *Computer Assisted Planning* (MC 84.3); *Survey of Micro and Personal Computer Usage in the Aerospace Industry* (MC 84.13); and *Composites Fabrication Survey* (MC 84.5).

New projects and surveys approved by the Manufacturing Executive Committee and initiated during 1985 for completion in 1986 included *Artificial Intelligence in Manufacturing Operations* (MC 85.1); *Computer Graphic/Solid Geometric Modeling, Phase II* (MC 85.2); *Design and Manufacturing Interfaces* (MC 85.3); *Assessment of the Industrial Modernization Incentive Program* (MC 85.4); *Materials Requirements Planning Implementation Findings Survey* (MC 85.5); *Manufacturing Technology Information Analysis Center Coordination* (MC 85.6); and *Profiling the Aerospace Packaging Engineering Function* (MC 85.12). Final reports will be distributed through Manufacturing Committee members.

#### Quality Conference

The Quality Assurance Committee, in conjunction with the National Security Industrial Association's Quality and Reliability Assurance Committee, held its annual industry-government conference in late September. It featured three panels addressing the theme

"Quality in the Spotlight." DoD and the military services were strongly represented on the panels, in addition to representation from pertinent industry functional areas.

### **Quality Requirements**

In keeping with demands by DoD and the military services to gain more insight into the cost of scrap, rework and repair, a revision was issued to MIL-Q-9858A which provided that ". . . quality cost data maintained by the contractor shall, upon request, be furnished the government representative for use by the government in determining the effectiveness of the contractors' quality program." This is a change from the previous MIL-Q-9858A requirement that these data shall be made available "for on site review by the government representative ". AIA/CODSIA voiced objections to this change since such data is normally compiled and displayed differently by most contractors, depending upon products and numerous other factors, and therefore is readily subject to misconstruction and misinterpretation by personnel not fully familiar with the definition, development and presentation. It was suggested by industry that, if specific data items were to be required concerning certain factors of the contractors operation, they could be spelled out and acquired under the Contract Data Requirements List/Data Item Description Clause of Specific Contracts. By year-end, no discernible effects of the MIL-Q-9858A change had been noted; however, the Defense Logistics Agency (DLA) was monitoring this type of data availability.

### **Supplier Quality Assurance**

The Quality Assurance Committee established a Working Subcommittee on Supplier Quality Assurance to provide surveillance in the area of subcontractor quality control. At its initial meeting the subcommittee identified a number of issues requiring action. Among those issues to be given immediate attention are flow down of requirements; control of distributors; multiple contractor audits and surveys of vendors; and simplification of prime contractor/subcontractor paperwork systems.

As a result of multi-association/government meetings held in August to address microcircuit acquisition issues, a joint industry/government Planning and Implementation Team for Microcircuit Acquisition Issues was established. Participating industry associations include AIA, EIA, NSIA and the Semiconductor Industry Association. Short term objectives of the team are to replace existing specification control drawings with standard drawings developed to a military format; develop mutually acceptable ground rules and recommendations for a third-party surveillance system; and resolve differences between microcircuit manufacturer, original equipment manufacturer and Defense Electronic Systems Center quality test data. In the long term the team will endeavor to expand and adapt the current national standardization and certification system to include microcircuits.

### **Common Specification**

In order to encourage DoD and the military services to standardize on a common specification for the disposition of nonconforming material and cost effective corrective action management systems, AIA/

NSIA developed such a specification and submitted it to the Air Force in January 1985 for consideration. Several industry recommendations were incorporated into a draft of proposed Revision C to MIL-STD-1520, which was circulated for industry review. Industry comments were forwarded to the Air Force in July.

A second draft of the proposed revision issued for review in September largely ignored industry's previous comments. In a joint AIA/NSIA letter, the Air Force was advised of industry's concerns. The gist of the industry position is that the draft is not consonant with the DoD Acquisition Streamlining Initiative or DoD policies on avoiding detailed "how to" specification requirements. The draft also incorporates several "micro-management" requirements that would result in unnecessary expenditure of government and industry resources. The letter requested that revision to the standard be held in abeyance until a joint DoD/AIA/NSIA working group meeting is held to address the issues in detail.

### **Work Measurement**

In December 1984 AIA/CODSIA was invited by DoD to review and comment on a draft of the MIL-STD-1567A implementation guide. Industry considered the draft so inadequate as to require a complete rewrite, which was accomplished by AIA/CODSIA and submitted by a CODSIA letter in March 1985.

Meanwhile, during February, the Commander, Air Force Systems Command invited 35 top contractor executives to attend a two-day conference at the Air Force Contract Management Division Headquarters, Kirtland AFB, New Mexico, to review industry's concerns with this document and its limited potential versus the high cost of implementation. Industry strongly underscored its position, which had previously been expressed a number of times but had not been duly considered.

As a result of that conference, five AIA/CODSIA key delegates subsequently met with the Commanding General in Headquarters AFSC at Andrews AFB in March. General Skantze directed that a new practicable and workable draft implementation guide be prepared by his staff and coordinated with industry and DoD as necessary. The AFSC implementation guide, completed in May, was subsequently approved by other services and submitted to DoD for issuance. By year-end, however, the guide had not been issued.

### **Grassley Amendment**

A Manufacturing Committee representative testified for AIA, at a Senate Judiciary Subcommittee hearing in July, on the Grassley Amendment to the Fiscal Year 1986 DoD authorization bill, which requires that contractors submit to DoD information about labor standards and work measurement on DoD contracts. However, the hearing was held too late to affect the authorization bill provision.

The House/Senate Conference Committee Report expressed concern about the impact of the Grassley Amendment. As a result, conference committee members added a provision to Section 917 (Cost and Price Management in Defense Procurement) directing that DoD evaluate potential impacts of the amendment and advise Congress where adjustments

seem appropriate. AIA is leading a CODSIA effort to submit industry evaluations to DoD for possible use in its report to Congress, which is due by March 1986.

### **Maintenance Support**

DoD concerns with existing and potential difficulties in weapons systems maintenance support resulted in a joint DoD/AIA seminar to explore areas of Department of Defense and contractor activity in developing new support programs. As a result of the seminar, four task group panels were created to interface with the DoD Office of Maintenance Policy. The sectors to be addressed are overseas depot support policy, phased contract support, serial number parts tracking and reduction in test equipment. A follow-up workshop meeting was scheduled for spring 1986 to review the initial reports of these efforts.

### **Manpower, Personnel and Training Requirements**

Military and commercial users of aerospace products look to the industry for help in assuring that trained personnel are in place, in sufficient numbers and on schedule, to operate and maintain new, improved, or existing aerospace systems. Faced with forecasts of a national shortage of technical manpower in the 1990s, both customers and industry planners are turning to the use of advanced technologies to provide solutions to training problems, to reduce costs and to increase training effectiveness.

AIA training interests maintained interface and liaison with DoD, Army, Navy, and Air Force training management counterparts to keep abreast of forthcoming military initiatives for the employment of advanced technology in training systems. Dialog revealed future requirements for greater use of simulators and training devices; anticipated employment of advanced concepts such as embedded training, intelligence, and portable delivery devices; and employment of a "total training system" concept as part of the weapon system acquisition process.

AIA members, in conjunction with the Air Transport Association (ATA), initiated joint meetings to develop some standardization of maintenance training programs. In response to AIA requests, ATA formalized a task panel under its Engineering and Maintenance Council to continue these joint efforts. Initially the panel will publish a guide for manufacturers relevant to requirements of maintenance training programs developed by industry for airline use. The guide and suggested proposals will be reviewed and coordinated by the AIA members. Also, in conjunction with developing a maintenance program, members prepared a draft position paper covering Instructional Systems and Development (ISD) addressing the application of ISD with consideration of both DoD and commercial interests. The objective of the position paper, to be finalized in April 1986, is to provide a comprehensive understanding of ISD, its involvement in training programs and a unified position for members use in their contact with both commercial and military customers.

### **Control of Technical Data Cost**

Public allegations by the Navy Inspector General criticizing the high cost and poor quality of technical publications in the Navy's programs prompted AIA

members to conduct surveys and acquire information on various publication techniques being used by the aerospace industry. The information received was used to prepare a briefing that explains how AIA member companies are controlling cost schedule and quality of technical publications. These initiatives center on automation that allows for preparation of various types of drawings; integration of text and graphics without cutting and pasting; creation of tables of contents and indexes automatically; and electronic delivery of data.

The AIA briefing includes innovative ways of developing publications and maintaining good interface with customers in the areas of quality plans and processes, and the use of new management methods and tools to control programs and to utilize personnel resources to the greater benefit of the customers. Copies were distributed to AIA members and briefing presentations were made to the US Army Materiel Readiness Support Activity and to the Naval Air Systems and Sea Systems Commands.

#### **Automation of Technical Data**

An AIA service publications task group was established in 1973 to investigate the best use of automation in the production and dissemination of technical data. To provide a forum for recognizing changes and helping to develop ideas for continued progress in new technologies, the task group has sponsored a series of biennial seminars. The latest, held in September 1985, represented the sixth biennial technology update. With a theme of "Mature and Emerging Technologies in Automated Technical Data," the program included six sessions of presentations by representatives from aerospace manufacturers, government agencies, airlines, hardware producers and software suppliers on such subjects as Input and Authoring Systems; Storage, Processing and Display Systems; and Printing and Delivery Systems. These topics, plus 35 exhibits of the latest graphic art and publishing equipment, drew an attendance of approximately 330 people representing both domestic and foreign businesses and organizations. It was the general opinion of the attendees that the September seminar, like those in the past, provided a means of improving productivity in the field of automated technical data support.

#### **Electronic Interface Standards**

In conjunction with representatives from the Air Transport Association, an AIA service publications working group was engaged at year-end in development of standards for cost effective electronic interface between aerospace manufacturers and airline customers. Commercial standards work resulted in a proposed new section for ATA Spec-100 covering magnetic tape formats for maintenance type data in text and graphic form. The final specification is expected to be in place by 1987 after testing and evaluation are completed. Additionally, technical teams reporting to the working group are initiating changes to the graphics standard for technical illustration processing and evaluating aerospace mark-up language for handling text. The standards being developed will also be applicable for military use.

#### **Industry/Airlines Liaison Activities**

A product support panel was established to identify

and deal with major critical issues facing the commercial transport industry as a result of deregulation. Ten AIA member companies, accounting for approximately 80 percent of commercial parts sales to the airlines, are represented on the panel. On a global basis, one of the critical issues that concerns original equipment manufacturers (OEMs) is dealing with spare parts provisioning for commercial customers' use and their ability to determine the type and quality of spare parts inventory necessary. It is believed that the product support panel can provide an effective means for developing aerospace manufacturing community positions to be presented to the airline community. At year-end, arrangements were being discussed for an AIA panel presentation during May 1986 to the ATA Materials Management and Purchasing Committees. This presentation was expected to include detailed data supporting the need for economic efficiencies through improvements in provisioning of spare parts items and the refinement of contractual documents dealing with spares acquisition.

### Spares Reprourement

Through its Spare Parts Committee, AIA is leading a Multi-Association/Government Task Group under the sponsorship of the Deputy Assistant Secretary of Defense for Spares Program Management. The primary task of this group is to identify and resolve impediments to competition in the procurement process, with special emphasis on how existing regulations and specifications could be used or modified to improve spares reprourement in the breakout/competition sense.

At its initial meeting in September 1985, the group identified these issues to be addressed: pricing policies, including refund and spares burdening practices; announcements of future buys; reduction of duplicate items; "good news" items that may be publicized; Acquisition Method Coding implementation and data issues such as its management, costs, access, adequacy (provisioning vs reprourement), identification of "most competitive" items, and repositories. Task groups were appointed to address and report on these specific issues.

### Spares Acquisition

A spares *ad hoc* group briefed various government organizations, both military and civilian, on a series of initiatives formulated from an earlier survey of AIA member companies on ways to improve the spares acquisition process. For 1985, the spares group was asked to provide specific examples of activities derived from the implementation of the earlier initiatives. A summary listing of 36 examples was forwarded during February 1985 to the new Deputy Assistant Secretary for Spares Program Management, OASD. Among examples provided,

- Direct electronic access to a contractor's provisioning data base has been provided to a number of customers via CRT terminals installed at customer facilities. This access provided visibility of approximately 9,000 line items for additional sources of supply. In addition, action was taken to add this source data to the customer data base. As a result of this initiative, double procurement of right and left internal fuel cells was elimi-

nated, thus resulting in a \$6 million cost avoidance for the Navy.

- Specific listings and magnetic tapes showing additional manufacturers of spare parts were supplied to appropriate Air Force and Navy procuring agencies, allowing them to compete an estimated additional \$51 million of spares procurement.

This information was used in an OASD briefing of Congressional groups to illustrate industry efforts to cooperate in the acquisition process.

#### **Computer Aided Logistic Support**

A DoD memorandum implementing Computer Aided Logistic Support (CALs) signed by the Deputy Secretary of Defense, was released in September. The memorandum resulted from joint DoD-Industry Task Force recommendations to achieve major improvements in supportable weapon system designs and to improve the accuracy, timeliness and use of logistic technical information. This strategy will convert the current paper-intensive weapon system support process to a largely automated digital delivery mode with substantial progress by the end of this decade. A joint DoD-Industry Task Force CALs Report was released during November.

An AIA panel was established to assist DoD with implementation actions within each service agency and industry. At year-end, the panel was developing concepts related to creating industry incentives for CALs development. Recommended CALs industry incentives will be forwarded to DoD in March 1986. AIA will also be represented on the DoD-Industry Steering Committee to assist DoD with CALs implementation planning in 1986. At year-end, another AIA panel was reviewing a preliminary draft Interim Specification for Automated Exchange of Technical Information.

#### **Contractor Services**

A 1984 General Accounting Office report pinpointed the dependence on civilians for certain essential defense support tasks overseas and noted a lack of means for ensuring that these civilians would remain at their tasks in the event of potential of active hostilities. This prompted DoD efforts to develop a policy provision regarding contractor services overseas during crisis situations. The final draft of this DoD directive was made available to AIA for review and comment early in 1985. AIA recommendations were presented to ODASD (Mobilization Planning). It was the consensus of AIA reviewers that the proposed directive required significant rewrite in that it went too far in restricting contractor rights during a crisis situation; did not clearly define the extension of duty during a crisis; attempted to intervene in the contractor-employee relationship by excluding personnel with military call-up obligations; and did not specifically define in the draft contract clause a "crisis" that would trigger exercise of the contemplated contract action option. The draft was undergoing government review at year's end.

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# AEROSPACE PROCUREMENT SERVICE

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The Aerospace Procurement Service supports the business management activities of member companies in the fields of procurement law, policy and regulations, accounting and financial management, contract administration, materiel management, patents, proprietary information and small and minority business. The Procurement and Finance Council and the Materiel Management and Patent Committees, each composed of senior executives of member companies, provide experts to initiate actions seeking to improve business relationships or to resolve problems of mutual concern to government and industry. The Service was engaged in these major 1985 activities:

## **Lump Sum Wage Payments**

Some progress was made with the Bureau of Labor Statistics (BLS) to resolve problems that arose when the BLS declined to include Lump Sum Wage Payments (LSWP) in its published hourly average earnings indexes. The BLS agreed to publish dual indexes for SIC 3721 (aircraft manufacturing), one with LSWP and the other without such payments. However, there remains a problem with the methodology that BLS proposes to use to construct the index with LSWP: to display LSWP in the SIC 3721 index using the backward or accrual method. AIA opposes this method of attributing LSWP to time periods other than those intended by the respective collective bargaining agreements. Use of the BLS methodology would result in both overstatement and understatement of labor costs during the term of a labor agreement. AIA pointed out the problems to the Commissioner, BLS, and to the Secretary of Labor. A final decision by BLS was pending at year-end.

In the interim, AIA contracted with Data Resources, Inc. (DRI) to develop and publish an average hourly earnings index for SIC 3721 to include LSWP. By year-end, DRI had started to collect appropriate data from member companies of AIA and other aircraft manufacturers. Publication of SIC 3721 data was targeted for early 1986.

## **Cost Accounting Standards**

The Department of Defense established a Cost Accounting Standards (CAS) function under the DAR Council: the CAS Policy Group, which was operational at year-end. At the close of 1985, however, no changes had been proposed and any changes later proposed will be published for public comment prior to implementation. AIA had opposed the DoD





ROBERT M. JACOBS  
McDonnell Douglas Corporation

Chairman, Procurement and  
Finance Council



ROBERT C. PETERSEN  
Rockwell International  
Corporation

Chairman  
Materiel Management Committee



RICHARD G. GEIB  
Grumman Aerospace  
Corporation

Chairman  
Patent Committee

takeover of the CAS function, since it was felt that the entity performing the CAS function, to be credible, must be independent of those government activities involved in the procurement process. Further, there were serious legal questions clouding the issue of DoD's assumption of the CAS function. AIA's position remained unchanged at year-end.

With respect to the reactivation of a legislatively mandated CAS organization, there was no activity in the Congress during 1985. In view of the prospect that DoD will begin to modify and publish new CAS, AIA may have to re-examine its position on a legislatively mandated CAS organization and consider supporting appropriate legislation.

#### **Work Measurement**

Working with Congress and the Department of Defense, AIA is seeking a review of legislation pertaining to work measurement, citing non-relationships between standards of work, "should take" times, bills of labor and bills of materiel. The legislative requirements appear to assume that there are industrial engineering standards available that can be readily applied for each element of work. There is no provision for variances or considerations of the unique features of contracts for specialized defense equipment.

AIA agrees with the delay that S. 1783 (Levin) would provide so Congress can more carefully review the need for this provision. The conference committee report on the DoD authorization bill clearly highlighted the need for more hearings to determine if there is indeed a problem, to more clearly delineate the problem, and to establish whether legislation is needed at all. At year-end, several AIA initiatives were in process on this matter; no further response had been received from any government agency.

#### **Personal Compensation**

The Department of Defense, acting through the FAR process, published for public comment a revi-

sion to the cost principle on *Compensation for Personal Services*, FAR 31.205-6. The revision addressed only a part of the cost principle, that dealing with the determination of reasonableness of compensation on a compensation element basis. AIA had proposed to the DoD a revision to FAR 31.205-6 to have the reasonableness of compensation determined on the basis of total compensation costs. The proposed FAR revision ignored the AIA request and rationale for consideration of compensation on a total compensation basis and continued to examine the reasonableness of compensation costs on a compensation element basis. Through CODSIA, AIA planned to again respond to the government during the public comment period.

A companion case covering the purely accounting issues was also being processed by the DoD; FAR revisions resulting from this case were expected to be published for public comment early in 1986.

### **Foreign Selling Costs**

AIA undertook several initiatives to demonstrate that allowability of foreign selling costs is in the best interests of the government. At the request of the Department of Defense, AIA companies cited specific examples of the economic return/gain to the U.S. government through sale of defense systems to allies. AIA also met with the Congressional Budget Office and sought to have CBO revalidate its 1976 study on this matter. However, Congress once more included a provision in the DoD appropriation bill making foreign selling costs unallowable.

### **Navy Acquisition Initiative**

AIA took the lead in a multi-association case on Navy Instruction 4120.6, issued on November 20, 1985. Essentially, the instruction requires the use of fixed price type contracts, beginning with full scale engineering development (FSED), and requires contractors to purchase their own special tooling and test equipment. The directive is premised on several erroneous assumptions: that defense programs are essentially risk free at time of FSED; that defense contractors should operate the same as commercial enterprises; that it will reduce costs; that it will increase competition; and that defense profits are too high. Not only are the premises either wrong or highly debatable, but the instruction significantly departs from existing regulations, Cost Accounting Standards, and generally accepted contracting precepts. This promises to be a highly controversial issue well into 1986.

### **Dual Sourcing**

The Office of Federal Procurement Policy (OFPP) was required by Public Law 98-577 to submit to Congress a report on the feasibility of dual sourcing for major systems or components. AIA worked with the OFPP staff in the preparation of its report to Congress, pointing out that dual sourcing for its own sake may not always be economically prudent. Field visits to factories were set up for government officials so that they might get a better understanding of the intricacies and difficulties of starting a second source, whether in pre-production or in leader-follower status. Various AIA committees continue to interface

with government on the hazards of competition for its own sake.

### **Renegotiation**

In late 1985, Congress scheduled hearings on renegotiation at which both government and industry were to participate, but only government witnesses were actually called. Had AIA testified, the association would have opposed any attempt to either reinstate the Renegotiation Act of 1951 or enact similar legislation designed to permit retrospective abrogation of defense contracts. The industry position considered renegotiation unjustified economically, inequitable, unwieldy and based on circumstances not relevant to current business environments. Other bodies of government and the public sector agree that the concept of renegotiation is not viable or useful, considering the magnitude and complexity of today's procurement legislation and regulations.

### **Indemnification**

Increased Air Force indemnification (under Public Law 85-804) of contractors for catastrophic losses resulting occurring during performance of government contracts was a year-long AIA initiative in 1985. Efforts by AIA and others resulted in a proposed Air Force Policy on Indemnification that was published in the *Federal Register*. In addition to submitting extensive comments on this policy, AIA complied with an Air Force request for assistance by preparing and providing special clauses defining unusually hazardous risks.

AIA member company representatives met with NASA officials to discuss NASA Inter-Party Waivers for the space station program. Written comments were subsequently submitted.

During 1985, the AIA Indemnification Task Group Chairman testified before Congressional committees on the need for statutory contractor indemnification coverage over and above that provided by Public Law 85-804. Additionally, AIA offered to assist the Department of Justice in its Tort Reform Study to begin in 1986.

### **Defense Financial and Investment Review (DFAIR)**

The Defense Financial and Investment Review (DFAIR) was completed in 1985 and the results were published. Established in 1983, the study reviewed the interrelationships of pricing, financing and profit policies and made recommendations for appropriate integration of the policies. It examined results of governmental application of these policies and contractor financial results on contracts negotiated based on these policies. Both government and private source data—covering the years 1975-1983—were examined and compared to the Profit '76 Study. Financial results of durable goods manufacturers and commercial work performed by defense contractor segments were also compared.

The study concluded, generally, that current contract pricing, financing and profit policies are balanced economically, are protecting taxpayer interests, and are enabling U.S. industry to achieve an equitable return on its investment in defense business. Other government agencies, including GAO and OMB, were reviewing the study at year-end. DoD has made no firm plans for implementation of the find-

ings and recommendations.

The Navy released the results of its independent profit study conducted by RRG Associates. Completed in August 1985, the study was an update of previous studies. The RRG effort indicates returns on defense business are much higher than on commercial activities. There are fundamental differences in the DFAIR and RRG studies. DFAIR analyzed contractor confidential financial data while the RRG study obtained data from corporation's published annual reports and 10-K reports; DFAIR covered 76 companies, compared with 22 in the Navy study; and there was no accounting consistency between the studies over differing periods of time. Additionally, the DFAIR was extensively reviewed by independent CPA firms; the Navy study was reviewed by only one. The issue of profit policy will continue to be a major AIA initiative.

### **Tax Matters**

At year-end, regulations implementing the Economic Recovery Tax Act of 1981 (ERTA) and the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) were still in process within the Treasury Department. AIA was continuing its close liaison with Treasury pending issuance of the regulations.

Tax reform proposals were high on the list of AIA concerns throughout the last half of the year. The House Ways and Means Committee reported a bill that was passed by the House near the end of the first session of the 99th Congress. The bill eliminates the completed contract method of accounting (CCM), the investment tax credit (ITC), the accelerated cost recovery system (ACRS) and also effects the 25 percent research and development tax credit.

With regard to CCM, Ways and Means held a one-day hearing on July 29 and AIA submitted a statement for the record on July 30, pointing out that it was too early to measure the full effect of the changes required by the Tax Equity and Fiscal Responsibility Act (TEFRA) of 1982 and it is therefore untimely to consider further changes. The statement also noted that the changes in CCM would cost those industries that use this method some \$18.4 billion over the next five years.

AIA also testified before the Senate Finance Committee on these issues in October. The Senate will take up tax reform in 1986, and this will be a matter of continuing concern.

### **Technical Data Procurement Reform**

In August, the FAR Councils (Defense Acquisition Regulatory Council and Civil Agency Acquisition Council) released for public comment their proposed regulations for implementing the technical data provisions of the Defense Procurement Reform Act (Public Law 98-525) and the Small Business and Federal Procurement Competition Act of 1983 (Public Law 98-577). The proposed FAR coverage would apply only to civil agencies, while the DoD (DFARS) coverage would be a stand alone document applying only to DoD. An *ad hoc* CODSIA task group on technical data reviewed the FAR draft regulations and submitted detailed comments to the Civil Agency Acquisition Council. The final FAR coverage is not expected to be issued until well into 1986 because of the volume of comments the Council received.

The proposed DFARS coverage is much more

troublesome because it appears to conflict with the statutory requirements in some instances and to overreach the statute in many others. Further, it does not relate to the FAR coverage at all, i.e., it does not use the FAR as a base; rather, it is a self-contained package.

The statutory effective date for the regulations was supposed to be October 18, 1985. However, because of the complexity of the issues involved, DoD issued an interim regulation and extended the time for public comment to January 9, 1986. At year-end, the CODSIA task group was preparing detailed comments on the proposed DFARS and the FAR validation regulations; the validation coverage will appear only in the FAR and will apply to all agencies.

#### **Air Travel Compensation Act**

AIA continued to press for federal recognition of the need to provide appropriate liability protection for the traveling public as well as all those engaged in commercial air transportation. The objective of the AIA effort is to provide prompt compensation for the damaged public, assure full recovery of damages, and simplify the allocation of liability among parties jointly contributing to any catastrophic incident.

To develop an adequate and credible data base to support legislative consideration of the subject AIA contracted with Rand Corporation's Institute for Civil Justice to conduct a study covering domestic airline accident and insurance data involving 2,352 passenger deaths over a 12-year period. The study was scheduled for completion by July 1986, with a preliminary draft available in April 1986. In the meantime, efforts continue to keep Congressional members and staffs apprised of progress and to seek Congressional support. AIA testified at an October hearing of a subcommittee of the House Science and Technology Committee on the overall subject of product liability.

#### **Federal Procurement Policy**

Regulations implementing the Competition in Contracting Act became effective on April 1, 1985. Other regulations implementing various provisions of the Defense Procurement Reform Act (Public Law 98-525) and the Small Business and Federal Procurement Competition Act (Public Law 98-577) were issued throughout the year. The only major provisions still not implemented by final regulations at year-end were those dealing with rights in technical data. One provision of both statutes that will benefit industry is a requirement for publication in the *Federal Register* and a 30-day minimum public comment period.

In addition to commenting on the above regulations, AIA devoted considerable effort to tracking procurement reform provisions attached to the DoD authorization and appropriation bills. Twenty-one procurement provisions were enacted as part of the authorization act (Public Law 99-145). Four more proposed changes attached to the appropriations bill were deleted in conference. At year-end, the first implementing regulations, dealing with allowable cost, had already been published in the *Federal Register* for comment.

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# AEROSPACE RESEARCH CENTER

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The Aerospace Research Center is engaged in research, analyses and studies designed to bring perspective to the issues, problems and policies that affect the industry and the nation. Its studies contribute to a broader understanding of the complex economic, social and political issues that bear on the nation's technological and economic status. The Center frequently plays a key role in development of association position papers on industry-related matters.

AIA's statistical research and publication activities are centered in the Economic Data Service (EDS), an activity of the Research Center that collects and distributes data on the aerospace industry and its relationship to the national economy. The association library is a part of the Research Center. It houses aerospace and aerospace-related books and periodicals; maintains departmental reports; responds to information inquiries from staff, members and the public; performs information searches and some subject research. During 1985, subjects treated by the Center included:

## **Trade Protection**

Working with International Council, Office of Civil Aviation, Legislative Affairs and Public Affairs, the Center staff drafted a paper, *Solving the U.S. Trade Problem: Protectionism or Competitiveness?*, which included an economic perspective on protectionism. The paper was sent to members of Congress and other key officials in Washington.

## **Space Commercialization**

A Center report, *A Current Perspective on Space Commercialization*, looked at the potential of space and at what will be required to facilitate its commercialization. It identified legal/political, financial, national security and international issues, outlined their potential impact, and identified alternatives to existing practice most likely to improve commercialization.

## **Technology Diffusion**

The Center and the Civil Aviation Advisory Group, Aerospace Technical Council, cooperated in a study project leading to October publication of a report, *Technology Diffusion—The Movement of Technology Between Aerospace and Other Industries*. The report looked at the aerospace industry's role in stimulating development of technologies that benefit the entire economy. The study focused on three tech-

nologies in which aerospace played a pioneering role: turbochargers, fiber-reinforced plastics, and computer-aided design and manufacturing. The report concluded that unless technologically pioneering industries are properly understood and valued, their erosion through loss of world market share will have a long-term negative impact on the international strength and competitiveness of the entire U.S. economy.

### **Productivity**

Working with the Aerospace Operations Service, and with the cooperation of the Procurement and Finance, Technical and Human Resources Councils, the Center began a major two-part study of aerospace productivity. Part I concentrates on productivity concepts and measurement for the industry and, where possible, will provide comparisons with other U.S. industries and aerospace industries abroad. Part II will focus on evaluating the productivity performance of the industry and its efforts to improve productivity, and will provide a basis for suggestions of further company/government efforts to improve productivity.

### **Competition in Contracting**

With the Procurement and Finance Council, the Center initiated a summarization and analysis of statistics dealing with competition in defense-related procurements. The objective is to make available data which are more easily comprehensible and provide useful background for their interpretation.

### **Surveys**

Assistance was provided to a number of AIA data gathering and analysis efforts in support of association projects, among them an examination of the profit markup impact of recommendations resulting from the Defense Financial and Investment Review (DFAIR), a Procurement and Finance Council/Patent Committee survey of intellectual property incentive programs, and the annual AIA Employment Survey. The Economic Data Service annually aggregates data for about a dozen aerospace companies reporting energy consumption to the Department of Energy.

### **Statistical Yearbook**

The Economic Data Service (EDS) compiled the 33rd edition of *Aerospace Facts & Figures*, the industry's statistical yearbook. The book presents data and narrative on aircraft production, missile and space programs, air transportation, helicopter usage, research and development, foreign trade, employment and finance, updating time series with 1984 or latest available data. New in the *85/86 Facts & Figures*: a revision of industry sales data from 1967-84 to utilize better sources and reflect the evolving composition of the industry's product mix; revision of DoD budget tables to improve historical continuity and aerospace product coverage; total U.S. R&D funds by source and performer, to provide a national perspective in which to view aerospace R&D data; and inclusion of outlays as well as budget authority in the federal aeronautics R&D tables. There are also new tables providing helicopter production summaries that relate to civil shipments, FMS deliveries, and direct military exports; a new table on the Strategic Defense Initiative budget, plus major data additions in the foreign trade and employment chapters.

### **Statistical Series**

Interim reports of data collected by EDS were released throughout the year in more than two dozen statistical series addressing general industry activity, employment, aircraft production, foreign trade, and DoD and NASA contracts, obligations and outlays. Several reports from other data sources that examine aerospace-related subjects were made available, including selected DoD budget documents provided in limited quantities.

### **Industry Earnings Data**

The Economic Data Service serves as point of coordination within AIA for collection of industry-wide earnings data for aircraft workers, and will publish data after its aggregation by Data Resources, Inc. This effort is aimed at providing an average hourly earnings series representing the industry's true wage costs, at least until the Bureau of Labor Statistics resumes publication of an appropriate earnings series for use in computing changes under contract escalation clauses.



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# AEROSPACE TECHNICAL COUNCIL

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Aerospace Technical Council is the industry's senior technical body, chartered to focus on broad technical policy matters of common interest. Its responsibility is to stay abreast of the ever-changing technological landscape and to offer an authoritative source for technical positions affecting the member companies generally and industry as a whole. The Council directs the activities of two divisions, which manage 14 technical committees and oversee several working project groups. Major Technical Council activities of 1985 included:

## **Aerospace Technology For The 1990s**

Following the release in 1984 of the AIA study, *Aerospace Technology for the 1990s*, the Aerospace Technical Council embarked upon the next phase of a carefully planned program to increase the U.S. market share of aerospace products and to continue U.S. preeminence as a technological leader. These goals will be accomplished by focusing on key, long-range technologies which, when integrated with other emerging technologies into a single, innovative new product, can produce dramatic benefits.

The AIA Board of Governors passed a resolution to foster and support the creation of a 1990s generation of superior aerospace products through a bolder national R&D program focused on key technologies. At year's end, development of technology roadmaps for selected technologies was being considered as well as closer involvement with such government agencies as NASA, OSD, the Office of Science and Technology Policy and the Defense Advanced Research Projects Agency. In addition, the AIA Public Affairs Council was considering ways to develop support for this program in the Legislative and Executive Branches of the U.S. government and among the American public. Results of a successful effort would be more jobs, increased export of aerospace products and a more favorable U.S. trade balance during the 1990s.

## **Collaborative R&D Projects**

As part of the *Aerospace Technology for the 1990s* program, AIA was serving as catalyst in efforts by member companies to explore the feasibility of establishing several R&D collaboration projects within the industry. Even though a fragile opportunity and a slow process, the potential gain is high for companies involved and for the industry as a whole. The first consortium resulting from this Tech Council initiative — on Software Productivity — became operational in September. Three other exploratory working groups — on Composite Materials, High Temperature Test



**JAMES R. BURNETT**  
TRW Inc.

Chairman  
Aerospace Technical Council



**E. O. HARTIG**  
Goodyear Aerospace Corporation

Chairman  
Technical Specifications Division



**ALEK A. MIKOLAJCZAK**  
Rohr Industries

Chairman  
Aviation Division



**PAUL M. MAYO**  
Honeywell Inc.

Technical Management  
Committee



**JOSE R. ELFALAN**  
The Boeing Company

Chairman  
International Standardization  
Advisory Group



**WILLIAM P. BROWN**  
McDonnell Douglas Corporation

Chairman  
Rotorcraft Advisory Group



**GEORGE J. FRANKEL**  
Grumman Corporation

Chairman  
Aerospace Sector Committee



**DAVID N. CRUMP**  
TRW Inc.

Chairman  
Materials and  
Structures Committee



**MARTIN KRUPITSKY**  
Lockheed Corporation

Chairman  
Transport Airworthiness  
Requirements Committee



**JON R. ALLEN**  
General Dynamics Corporation

Chairman  
National Aerospace  
Standards Committee



**HOWARD C. GERLACH**  
Honeywell Inc.

Chairman  
Electronic Systems  
Committee



**GIFFIN A. MARR**  
Textron Inc.

Chairman  
Rotorcraft Airworthiness  
Requirements Committee



**AUSTIN J. MAHER**  
The Singer Company

Chairman  
Embedded Computer  
Software Committee



**EDWARD N. COATES**  
The Boeing Company

Chairman  
Civil Aviation Advisory Group



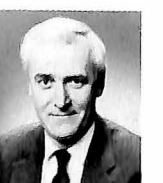
**PHILIP F. OESTRICHER**  
General Dynamics Corporation

Chairman  
Flight Test and  
Operations Committee



**JOHN C. MCCANN**  
United Technologies Corp.

Chairman  
Airplane Noise Control  
Committee



**BARRY C. LATTER**  
The Boeing Company

Chairman  
Propulsion Committee



**RONALD G. SCHLEGEL**  
United Technologies Corporation

Chairman  
Helicopter Noise Control  
Committee

Facility and Optical Information Processing—were actively discussing collaborative possibilities at year-end.

### **Defense Acquisition Streamlining**

AIA continued to work directly with OSD and the individual service advocates to implement the Acquisition Streamlining Initiative. Dr. James P. Wade, Assistant Secretary of Defense for Acquisition and Logistics, directed that implementation of the streamlined acquisition procedures be expedited. The first step was to have the Military Advocates, the Defense Systems Management College and CODSIA arrange a series of nationwide introductory briefings to stimulate interest by both government and industry in the streamlining concept. Indications are that this objective has been achieved.

Additionally, AIA—in conjunction with DoD and assisted by Electronic Industries Association and National Security Industries Association—will sponsor the second national conference on acquisition streamlining, which will feature addresses by Deputy Secretary of Defense William H. Taft, Dr. Wade and Sanford N. McDonnell, Chairman and CEO, McDonnell Douglas Corporation. At the conference, the approved DoDD 4120.21, *Acquisition Streamlining*, OSD policy on this subject, will be made available, as will the proposed regulatory language for the Federal Acquisition Regulation. Panels will highlight government and industry experience in the areas of program management, engineering, quality and contracts.

### **Aircraft Safety Regulatory Program**

Passenger safety and survival in transport airplane cabins continued to receive considerable attention by Congress, aircrew union groups, consumer advocates and manufacturers. During 1985, new Federal Aviation Requirements were issued on fire blocking seat cushions, smoke detectors, fire extinguishers and emergency escape path marking. Rulemaking activity during the year was directed toward improved cabin interior materials, cargo compartment liners and seat strength. FAA rulemaking activity on anti-misting kerosene was terminated as a result of unfavorable results obtained in the full scale crash test at Edwards AFB in December 1984.

FAA launched evaluations in two other related areas. An emergency evacuation conference was held in September with FAA/Industry groups formed to review regulations concerned with certification maintenance and training on evacuation equipment. The second area, resulting from terrorist activity, seeks improved provisions against secreting of explosive devices and weapons on board aircraft.

### **AIA Standardization Plan**

Work continued in 1985 on development of a plan to implement the AIA Board of Governors' policy resolution calling for improved coordination of aerospace industry standardization. A task group of AIA Corporate Standardization Interface (CSI) representatives drafted a preliminary plan, outlining broad objectives and a general approach for their achievement. The stated objectives are to maintain "world class" aerospace standards; to achieve U.S. leadership in international forums; to establish a focal point

for national/international aerospace standardization; and to assure government/industry cooperation.

The outlined approach involves three phases, including an assessment of the adequacy of national and international aerospace standardization activities currently underway, highlighting areas where problems in coordination exist; evaluation of the current communications system, between organizations and within AIA companies, and recommendations for improvements where needed; and establishment of a coordinating mechanism or focal point, the exact structure to be dependent on the findings of the first two steps. Cooperation among industry and government organizations involved in aerospace standardization (AIA, DoD, EIA, SAE, etc.) is deemed essential. AIA member companies approved the overall thrust of the preliminary plan, and at year-end work was under way to develop a more detailed action plan with specific tasks, assignments and targets.

### **Standards Development**

AIA standards development activities included publication of 110 new and revised National Aerospace Standards on numerous types of aerospace fasteners. The National Aerospace Standards Committee (NASC) continued to identify and prioritize typical parts that will be required to support future metric aerospace systems. Development of these parts standards awaited availability of NASC resources.

AIA participated in a fall conference sponsored by the Department of Defense on increasing DoD's use of industry standards. Current government policy calls for agencies to adopt appropriate standards prepared by the private sector into developing government specifications. The AIA standardization program has a long history of cooperation with DoD and the conference heard many favorable comments from industry and government representatives on the success of this type of joint effort.

### **Documentation/Communication System**

With the government moving toward an environment of computerized information flow and planning direct access to industry data through computer modems, the Technical Management Committee held discussions with government principals on the development of policies for communicating newer forms of technical information. A draft paper was prepared to define the scope of the total communication system and the way information flows through an average factory; it makes presumptions regarding government access to industry data, standardization of data to be maintained by industry and government's desire to micromanage, and it postulates a mode for government and industry operation. The paper will be refined through several review cycles to assure that the proposed approach is viable and in accord with member company views.

### **FAA Certification Program Improvement**

In February 1985, a number of company presidents and engineering vice presidents from AIA and the General Aviation Manufacturers Association (GAMA) met with FAA Administrator Donald Engen and the FAA Aircraft Certification Policy Board to discuss simplification of the aircraft type certification process. The meeting resulted from the urging by several chief executive officers that the Administrator

initiate a review of how improvement in the certification process might be accomplished.

The FAA categorized the numerous issues raised and developed an action plan and/or discussion of actions for each of the 12 categories. Many of the issues raised by industry were addressed in an internal evaluation of the Aircraft Certification Directorate conducted by the FAA. At year-end, AIA and GAMA were reviewing the FAA report and planning development of additional comment. Subjects defined in the plan include certification policy and interpretation, appeal route, supplemental and foreign certification, and delegation of authority.

### **DOD Software Coordination**

The Joint Logistics Commanders (JLC) initiated efforts to integrate the computer software standards of the three services and to reduce the number of computer software standards available for contracts. An extended industry review of DOD-STD-2167 on software development was conducted and 5000 comments were submitted. At subsequent workshops, such issues as how-to-design, tiering, detailed coding, and Ada compatibility were addressed and partially resolved. Other issues such as firmware and risk management were not amenable to simple solution for the first edition of the standard. The JLC issued the Software Development Standard in the summer of 1985 with the proviso that work on Revision A would be initiated immediately. In this way several outstanding management concerns could be resolved and the revision completed in June 1987.

The Software Quality Evaluation Standard (DOD-STD-2168) was reviewed by industry and more than 500 comments were submitted. In industry's view, the document incorporates some serious management flaws and is in need of redirection. A CODSIA team was formed and a workshop planned to address industry concerns. The industry review is guided by the need to assure that the software quality evaluation standard balances the requirements of the design engineering team with a high standard of quality, coupled with the management flexibility to use in house quality evaluation processes whenever possible and to tailor the standard to the system at hand.

### **Air Force R&M 2000 Program**

The Air Force Reliability and Maintainability 2000 Program is a management commitment at all Air Force levels to acquire more reliable equipment. The Air Force is developing the concept to state requirements more clearly so that they can be transferred into contractual statements. The concept also includes the idea of "one deep" maintenance, meaning that wherever possible a more reliable item need not be removed to get to a less reliable component. At year-end, a policy paper was being developed on operation stress screening to impose the same screening requirements on procurement items as on the original procured items.

The Air Force published a management brochure and at year-end was compiling an engineers' guidebook. While the brochure is aimed at managers and presents its R&M data in an easily understood format, the guidebook will be more detailed and aimed at engineers to provide a link between the required

management principles and military specifications. AIA representatives interacted with the Air Force on the development of the brochure and will assist the Air Force in development of the engineers' guidebook.

#### **Mil-Prime Reviews**

As the year closed, the Air Force was in process of changing its method of formulating specifications for systems in development, writing system and major development specifications (MIL-PRIMES) to cover a product family with requirements stated in terms of functional needs. Specific operational values are left up to the contractor, but a handbook accompanying the specification will provide the rationale for the requirements, guidance for operational values and lessons learned on previous systems. This process will allow tailoring to specific systems as time goes by, with the development specification evolving into the product specification. The process of change will take a long time but MIL-PRIME specifications have been completed on about 20 topics, such as landing gear systems, aerial refueling systems, electrical power, and aircraft structure. At year-end, there were about 20 more in the review process and additional specifications were being written. Eventually MIL-PRIMES may number about 50, covering almost all major subsystems or divisible parts of aeronautical systems.

#### **Acquisition Study**

The General Accounting Office conducted a study to identify improvements in the characteristics and environment of the program office that would promote a more effective weapon systems acquisition process. The results of the study were briefed to the Aerospace Technical Council Major Systems Acquisition Policy Group, which found the study to be generally congruous with many of industry's concerns. However, in discussions with GAO study members, the AIA group pointed out several inconsistencies in the data and suggested that the study findings should be presented to better evidence greater conviction. While many conclusions were correct and on target, a major failing of the study is the lack of detail on how improvements can be implemented.

#### **Unducted Propfan Certification Rules**

A major advance in aircraft engine design appears to be the unducted propfan or ultrahigh bypass engine, which promises a 40 to 50 percent savings in fuel over existing turbojet and turbofan engines. In 1985, test engines were undergoing ground tests and one engine was scheduled for flight tests within the next two years. Transport manufacturers plan to have airplanes using these engines on the market in the early 1990s.

At year-end, airplane and engine manufacturers were in the initial steps of reviewing certification regulations for airplanes, engines, propellers and noise for their applicability to the unducted propfan engine. Potential problem areas appeared to be noise, vibration and shielding of the fuselage from blade failure. These early efforts, conducted under the aegis of the Aerospace Technical Council's Aviation Division, are intended to ease discussions with FAA and to minimize certification problems as the new engines are brought on line.

#### **Human Engineering Standard**

The Aeronautical Systems Division (ASD) of the

Air Force Systems Command has proposed a human engineering standard, one chapter of which is on anthropometry, the study of the size, shape and motion characteristics of the human body. This handbook deals with populations, dimensions, ranges of movements, and the use of anthropometric data in the design of aeronautical systems for operation and maintenance of human beings. A Technical Management Committee (TMC) review suggests that the document does not accurately portray the necessary data nor provide sufficient current data to a project engineer for the development of a system. The committee found that the document needs to be substantially revamped, since much of the data is out of date; there was also concern that the document adds requirements without adequate provisions for tailoring. TMC will continue to monitor the disposition of industry comments through ASD's technical review cycle.

#### **International Standardization**

The year 1985 was a banner year in international standardization for aerospace. ISO/TC 20, the technical committee of the International Organization for standardization responsible for aircraft and space vehicles, published more than 30 new and revised standards, ranging from design parameters for fasteners to requirements for air cargo equipment. TC 20 was recognized as one of the 10 most productive of ISO's 163 technical committees. If the 1985 pace is maintained, the next five years will see more than double the number of international standardizations available for aerospace applications.

At the 27th plenary meeting of ISO/TC 20, representatives of nine aerospace producing nations met in Ottawa, Canada to make management decisions relating to a 400-item program of work covering a wide range of aerospace technologies. L. M. Mead of Grumman Aerospace Corporation chaired the international session, during which TC 20 reviewed progress and initiated new actions in several areas, including aerospace electronic systems, space applications, and development of a common international practice of identification for standard parts. The TC's policy on development of part standards was fine-tuned with an agreement to concentrate on development of internationally agreed design parameters, or "building blocks", to form the basis for future development of complete product standards. An extensive system of liaison with other international, regional and national organizations involved in aerospace standardization, instituted in 1984, was reviewed and found to be operating successfully. ISO/TC 20, for which AIA serves as international secretariat, will hold its 28th plenary meeting in Moscow in the fall of 1986.

#### **Cabin Air Quality**

At year-end, the National Research Council (NRC) was conducting a study for the Federal Aviation Administration into the quality of air inside airline cabins. The study was directed by Congress (Public Law 98-466) following hearings in which the bill received strong support from flight attendants and public health specialists. In addition to air quality, the study will address procedures for the handling of in-flight fires, smoke and toxic fumes.

NRC convened a public meeting in June 1985 to hear views from various groups having an interest in the study. AIA and the Air Transport Association sup-

ported the position that cabin air quality is adequate and meets all government and industry standards for safety and health. Representatives of flight attendant unions presented the view that air circulation was inadequate, citing respiratory complaints and experiences of flight attendants.

### **Aluminum Dimensions**

The Aluminum Association revised its proposed thickness and width tolerances for aluminum sheet and plate. This proposal was an attempt to resolve the differences between the tolerances called out in English units (ANSI H35.2) and those called out in metric units (ANSI H35.2M). However, the proposed aluminum standard contained tolerances so wide that their use could have caused a significant aircraft weight increase. As a result of an AIA review, a new standard was proposed with a separate tolerance table for those alloys normally used in aerospace. The standard now contains dual tolerance tables, one for commercial items such as aluminum doors and windows and one for aerospace manufacturing.

### **Metal Parts Painting**

California and New York have strict air quality standards that virtually prohibit painting metal parts with current methods. The Materials and Structures Committee has been working to find primer and paint that will meet both DoD specifications and air quality standards. There has been a cooperative effort to test paint and primer with water-reduced coatings and also "exempt" solvents. At year-end, draft specifications for primer and topcoat were being circulated for comment prior to near-future publication.

### **Aerospace Metrication**

A revised format for the Aerospace Sector Committee (ASC) of the American National Metric Council (ANMC) was implemented at the Sector Committee's annual meeting. The new format represents a scaling-down to one ASC national meeting per year. The focus between meetings will be on informational activities to support the AIA posture of "informed readiness" on metric conversion. The new format was developed in response to a survey of the Aerospace Technical Council, which reaffirmed industry's position of metric non-advocacy, favoring a voluntary transition paced by customer requirements. Two major programs with metric requirements are the NASA space station and the U.S. Army Light Helicopter Experimental (LHX) program. The Army adopted a "hard metric" policy for the LHX engine (10,000 engines planned) and at year-end was studying metrication of the airframe.

The Aerospace Sector Committee provides a forum for all sectors of the aerospace community — industry, government, airlines, etc. — to participate in joint planning for aerospace metric transition. AIA provides the secretariat on behalf of the American National Metric Council and prepares and distributes the Parts, Materials and Processes (PMP) Log and the Systems Level Engineering Documentation (SLED) Log. Together, the logs represent a listing of all national metric engineering documents that have been prepared, are in the process of being prepared or should be prepared in order to design hybrid or all metric aerospace products.



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# HUMAN RESOURCES COUNCIL

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The Human Resources Council supports the business management activities of member companies in the fields of human resources management, industrial security, compensation and benefits, occupational safety and health and environmental affairs. The Human Resources Council and the Industrial Security, Compensation Practices and Occupational Safety and Health Committees, each composed of senior executives of member companies, provide experts to initiate actions seeking to improve business relationships and to resolve issues of mutual concern to government and industry. The Council was engaged in these major activities during 1985:

## **Automated Security Clearances**

Three member companies were participating in a pilot program scheduled to begin in January 1986 with the final report published in July 1986. The ensuing program will provide direct access capability between contractor and Defense Investigative Service Clearance Operation (DISCO) computers and allow contractors to expeditiously obtain Secret clearances while eliminating many costly manual operations by both the contractor and DISCO.

## **Computer Security**

The ADP System Security Supplement to the Industrial Security Manual (formerly Section XIII) was scheduled for publication early in 1986. The supplement is a result of over 5 years of cooperative effort by an AIA/DoD Joint Task Group. Since the field of computer security is technically dynamic, the Joint Task Group will continue to oversee and update the supplement as the technology advances.

## **Telecommunications Security**

In 1985, a task group was established by the Industrial Security Committee to provide a permanent forum for the exchange of information among industry, the National Security Agency (NSA) and other governmental departments and agencies concerned with existing and future communications security (COMSEC) telecommunications needs, requirements and technologies; conduct selected surveys of private industry to determine new COMSEC telecommunications needs; work closely with NSA to develop an ongoing AIA/NSA classified and unclassified COMSEC awareness program for industry; establish a policy/procedural review program for industry to comment on government generated guidelines and procedures affecting COMSEC in the private sector; and develop and recommend AIA technology/telecommunications policies and practices affecting the industrial security community.



T. G. WESTERMAN  
Hughes Aircraft Company  
Chairman  
Human Resources Council



RAYMOND O. CAMPBELL  
Hughes Aircraft Company  
Chairman, Occupational Safety  
and Health Committee



DONALD E. DOLL  
IBM Corporation  
Chairman, Industrial  
Security Committee



DAVID L. TATON  
Textron, Inc.  
Chairman, Compensation  
Practices Committee

### Automated Access Control

At year-end, AIA's Security Technology Subcommittee and a CODSIA Task Group was coordinating with DoD's National Industrial Security Advisory Committee (NISAC) contractor/industry needs for new technology to control physical and intellectual access to government classified and company proprietary information/assets. The Security Technology Subcommittee, CODSIA, and the NISAC will be working with the federal government's Inter-agency Advisory Committee on Security Equipment to develop industry-wide standards for approved access control equipment.

### Security Plans and Programs

The Chairman of the Industrial Security Committee, as the sole representative of industry, testified on how to improve security plans and programs before DoD's Security Review Commission, chaired by General Richard G. Stilwell, U.S. Army (Ret.). Most of AIA's recommendations were favorably considered and made part of the Commission's final report, entitled *Keeping the Nation's Secrets*, which was transmitted to the Secretary of Defense in November 1985.

### DoD's Clearance Reduction Program

The Chairman of the Industrial Security Committee provided testimony before the Subcommittee on Investigations of the House Committee on Armed Services on how contractors were administering an across-the-board 10 percent reduction in personnel security clearances. The subcommittee chairman praised AIA for providing the subcommittee with the most comprehensive and understandable information it had received on this complicated subject.

### Walsh-Healey Reform

AIA provided the Subcommittee on Labor of the Senate Committee on Labor and Human Resources with oral and written testimony in support of Walsh-Healey reform. Industry participation led to changes that allow government contractors greater flexibility in setting work schedules, without financial penalty.

### **Comparable Worth**

At year-end, AIA was planning to actively oppose a House-authorized comparable worth study of federal government pay structures when the Senate takes up consideration of the study early in 1986.

### **Productivity**

Human resources management has been closely associated with productivity improvements in plant, office and management activities. The Human Resources Council's Productivity Task Group is part of the AIA-wide productivity effort stemming from the Manufacturing Committee's Panel on Productivity, formed to follow-up on findings of the White House Conference on Productivity. Human Resource contributions in programs that improve employee performance include better quality of hires; motivation and recognition programs; savings sharing plans; health, safety and employee assistance plans; educational assistance plans; improved work place and human resources environment; and participative management programs.

### **Aerospace Surface Coatings**

The newly formed Occupational Safety and Health Committee's Environmental Affairs Task Group prepared an AIA position statement in support of developing low volatile organic compounds (VOC), as a means of meeting National Air Quality Standards rather than installing costly and ineffective control equipment. The AIA position statement was submitted to the Assistant Secretary of Defense (A&L), the Administrator of the Federal Aviation Administration, the Environmental Protection Agency's Administrator for Air and Radiation, and the directors of EPA Regions 2, 4 and 9.

### **Personal Compensation**

Responding to DoD's request for industry comments and suggestions on how to improve DAR 15-205.6, which concerns the allowability of personal compensation, AIA initiated dialogues with a number of DoD agencies; the staff of the House Subcommittee on Legislation and National Security; members of the GAO Audit Team that issued the October 1984 GAO report *Compensation by 12 Aerospace Contractors*; and DAR council members. AIA explained industry's compensation methods and techniques of evaluation, and its use of wage and benefit surveys in determining proper and competitive compensation programs.

AIA proposed to the DAR Council revisions to DAR 15-205.6 that would restore "total compensation" as the reasonableness criterion; preclude disallowance of a compensation plan based on an "individual compensation element"; and recognize the propriety of offsetting costs.

Several task groups were formed under the Compensation Committee to study and provide information on compensation-related topics such as Lump Sum Wage Payments, Employee Relocation Benefits and Costs, Comparable Worth legislation and Forward Pricing parameters. Assistance to various U.S. government auditing agencies in developing appropriate means by which to assess competitive pay practices for the defense industry will continue in 1986.

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# INTERNATIONAL SERVICE

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The International Service is the AIA staff arm that functions with the International Council to provide guidance, coordination and policy recommendations on international issues affecting the commercial and military product segments of the industry.

The Council addressed 30 issues in 1985, dropping five to a monitoring status because of occurrences during the year. The issues embraced four principal categories: export promotion, export controls, defense trade, and export financing.

## Export Promotion

AIA and the Department of Commerce jointly sponsored an aerospace marketing seminar in December on the Pacific Basin, with the focus on Indonesia, Malaysia and Singapore. The third in a series of joint seminars on regions of the world offering potential markets for American aerospace products, the Pacific Basin seminar featured government representatives from U.S. embassies in the three countries, officials in Washington and U.S. businessmen with previous experience in the area. The warm reception given these sessions encouraged AIA and the Department of Commerce to make them a regular feature, with the next seminars likely to spotlight Africa and Latin America.

The International Council also addressed international aspects of two major U.S. programs—NASA's space station and the DoD Strategic Defense Initiative. Together with the Space Committee of the Aerospace Technical Council, the International Council worked with U.S. government agencies to assure U.S. industry a fair share in international cooperative programs, which will involve significant investments in advanced equipment. Meetings were held with NASA, OSD and SDIO personnel aimed at keeping AIA companies informed and conveying industry's problems and concerns to the government groups.

In 1985, Congress unveiled some 300 trade proposals in response to growing public concern. Unfortunately, these bills hewed to protectionist lines, raising serious concerns in AIA about the consequences to U.S. trade of foreign retaliation. The International Council cooperated with other AIA offices in drafting a position paper that set forth the industry's opposition to protectionism. Many members of Congress began to see the dangers inherent in protectionism and modified their positions toward the end of the Congressional year. The Administration, in turn, adopted a stance favoring free and fair trade,



M. EDWARD CARLSON  
Honeywell Inc.

Chairman  
International Council

expressing it in a Presidential veto of a textile bill.

Barter, countertrade and offsets are major elements in U.S. trade. Until the trading nations of the world agree to outlaw such techniques or to put a cap on them, U.S. companies must be free to use them in international trade negotiations. Unilateral actions by the U.S. government to restrict the employment of such measures would leave U.S. companies at a marked disadvantage in the international marketplace. This has been the core of AIA's position, expressed in a range of forums, including the testimony of the AIA President before the International Trade Commission. However, these trade techniques drew increased resistance in 1985. Surveys on barter, counter-trade and offsets conducted under the aegis of the Office of Management and Budget and the International Trade Commission became focal points for the venting of disputes over the merits of these trade methods. At year's end, there were signs that 1986 would see further controversy over barter, countertrade and offsets.

AIA regards upon Foreign Military Sales as a means of cementing defense relations with friendly countries. Such sales also contribute significantly to the U.S. economy. However, in 1985 FMS became increasingly the object of constraints; the government issued more restrictive guidelines for U.S. direct sales to foreign countries. AIA made numerous approaches to the government about these restrictions, stressing the merits of increased emphasis on direct commercial sales. For example, AIA took a strong stance against the use of FMS funds in foreign countries, where such funds should be used for purchases in the United States.

In other areas, AIA initiated efforts in 1985 to expand its contacts with foreign aerospace associations in light of the internationalization of the industry, with the aim that expanded contact might facilitate discussion of many international business issues before they become frozen in political concrete.

### **Export Controls**

In 1985, Congress approved extension of the Export Administration Act. As the single document establishing the profile of U.S. export regulations, the act represents an instrument of major importance to the aerospace industry. Together with groups like the Emergency Committee for American Trade (ECAT), AIA worked to shape this act and the final document represented a product acceptable to the aerospace industry.

AIA's long-sought Technical Advisory Committee (TAC), intended to represent aerospace interests with respect to the work of the informal Coordinating Committee for International Export Controls (NATO members less Iceland and Spain plus Japan), became a reality in 1985. The committee launched a program to address these issues: foreign availability of technology; review and paring of the Commodity Control List (CCL) and the Militarily Critical Technologies List (MCTL); industry interim "transitioning" technologies, i.e., technologies moving from R&D into production; recommendations on export licensing procedures; and exchange of information with other TACs. The committee established subcommittees on aircraft and spacecraft, gas turbine engines, marine matters and

ground vehicles. A number of nominations for the committee remained to be processed by the federal government. Should additional nominations be requested, AIA will solicit its membership.

The International Council worked closely with the Aerospace Technical Council in addressing the subject of technology controls. Specifically, AIA, together with other associations, questioned the scope of U.S. government export controls while supporting constraints on the flow of sensitive technology to potential adversaries. AIA proposed some fundamental criteria to give balance to the effort to control the possible transfer of technology to such adversaries, but industry's recommendations have been largely ignored. Despite Congressional mandates, this list has yet to be fully embraced in the Commodity Control List (CCL), although many of its items are already on the latter list. AIA concluded that the current uncertainties plus the sweep of U.S. controls requires that AIA once again review the basic elements of export controls in order to formulate recommendations for its members.

AIA consulted closely with the U.S. government, in particular the Department of State, in pursuit of more rapid processing of export licensing applications from U.S. business. The association made high-level approaches in the State Department in an effort to augment the number of personnel processing license applications.

## **Defense Trade**

In June 1985, Secretary of Defense Weinberger issued a memorandum to the service secretaries, the Chairman of the Joint Chiefs, the Under Secretaries of Defense, Assistant Secretaries of Defense, and the Directors of Defense agencies, setting forth his emphasis on NATO armaments cooperation. The memorandum emphasizes DoD's efforts over the next four years to enhance NATO's conventional capabilities. In summary, the DoD objectives include: DoD access to and protection of the best technology developed by our allied nations, and comparable allied access to and protection of the best U.S. technology, thereby avoiding unnecessary duplication of developments; deployment and support of common—or at least interoperable—equipment with allies; incentives for allies to make greater investment in modern conventional military equipments; and economies of scale afforded by coordinated research, development, production and logistic support programs.

The role of emerging technologies is less precise. In discussions designed to stimulate NATO cooperation around a select list of promising technologies, the U.S. and its Allies have debated the specific technologies and their funding. The Independent European Program Group (IEPG) including European industries, has suggested a larger list than that put forth by the United States. Moreover, elements in the IEPG are pushing to develop alternatives to U.S. equipment, with some suggesting that by the end of the century Europe will have its own alternative to every piece of American equipment.

The Under Secretary of Defense for Research and Engineering wrote the Chairman of the Independent European Program Group to inform him of the estab-

lishment of a task force of the Defense Science Board (DSB) to "assess ways and means to acquire equipments and systems, on a multinational basis, for improvement of NATO conventional capability to defeat follow-on forces and attacking enemy forces." Stating that any meaningful study of the complex issues involved must include the views and participation of U.S. allies, the Secretary asked IEPG to organize a suitable group from European industry and government to participate in the study. AIA maintained close liaison with elements of the Department of Defense on these issues.

An instrument for U.S. involvement in the NATO activities is the NATO Industrial Advisory Group (NIAG). The U.S. delegation to NIAG centered its 1985 efforts on enhancing the role of NIAG in providing more industrial advice. Some ambivalence among the military services and within DoD on such issues as technology transfer have complicated NIAG's role. Nevertheless, senior officials of the DoD see NIAG serving a constructive purpose in the dialogue between industry and NATO. Moreover, these DoD officials favor industry-to-industry arrangements in cooperative programs.

Concomitantly, the U.S. NIAG delegation sought to improve NATO's methods of distributing documents pertaining to prefeasibility studies for specific projects. A continuing difficulty is the timeliness and adequacy of information for U.S. industry on descriptions of possible future cooperative programs. Approaches were made to the NATO international staff to provide sufficient lead time and to develop a standard procedure that would overcome the problems of late information and the difficulty of distributing classified documents.

AIA consulted with the Office of Munitions Control, Department of State, in the development of new International Traffic In Arms Regulations (ITARs). Issued after five years of preparation, the new ITARS incorporated many of AIA's recommendations. One such measure involved elimination of a requirement for industry to request an advisory opinion from the Department of State for proposals or presentations involving significant military equipment previously approved for export. Advance notification of 30 days will now substitute for the mandatory advisory opinion.

### **Export Financing**

Despite proposals to provide a \$300 million fund to counter foreign subsidies, the Export-Import Bank found itself facing a steep funding cut at year's end. The impetus for the Congressional attitude seemed centered on the amount of funds not expended by the Bank in 1984 due to a decline in aircraft sales. Proposals limiting the Bank to \$1.1 billion in direct credits contrasted with the Bank's previous \$3.8 billion.

On July 1, 1985, the European Community and the United States began operating under a new understanding on the financing of large aircraft sales. The new accord, seen by industry as an interim arrangement, replaces the so-called Commonline and provides improvements in interest rates, the issue of home markets, the length of financing (up to 12 years) and in the use of mixed currencies.

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# OFFICE OF CIVIL AVIATION

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The Office of Civil Aviation coordinates AIA efforts related to problems that have significant effect on the civil aviation community. It works closely with domestic and international agencies and other elements of the aviation community on common interest issues, and serves as a focal point for matters pertaining to manufacture of civil aircraft, including commercial transports, business jets and helicopters.

In 1985, AIA continued its efforts to support national policies aimed at improving U.S. industrial competitiveness in the world market. The Office of Civil Aviation worked closely with the International Council, the Aerospace Technical Council and the Office of Legislative Counsel to further the goals set out in a paper entitled *Trade and R&D Policies: An Aerospace Industries Association Proposal* developed last year. Of particular concern during 1985 were potential legislative actions affecting U.S. trade policy. Sentiment for protectionist legislation of various types was strong on Capitol Hill. AIA worked closely with the Administration and several industry coalitions to defeat such measures. AIA anticipates the need to continue these efforts during 1986.

In other trade-related matters, the Office of Civil Aviation provided advice to the United States Trade Representative and the Departments of Treasury and Commerce on negotiations that led to the establishment of a new *Understanding on Guideline for Officially Supported Export Credits for Large Civil Aircraft*; a proposed agreement on official export credit for small and medium sized aircraft including helicopters; a new EXIM Bank policy on aircraft leasing; and preparations for a new round of negotiations on the General Agreement on Tariffs and Trade.

The Office of Civil Aviation also coordinated AIA activities in many other areas affecting civil aviation, including efforts with the Federal Aviation Administration and the Air Transportation Association on safety-related issues and the documentation of foreign availability of light civil helicopters and other export control factors for the Department of State, Commerce and Defense.



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# OFFICE OF LEGISLATIVE COUNSEL

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The Office of Legislative Counsel is responsible for communicating to AIA members the status of legislative matters directly affecting the industry, while at the same time transmitting industry's views to members of Congress.

In 1985, the Legislative Office worked with AIA staff and member companies to prepare testimony for presentation to Congressional committees on matters of direct interest to the industry, including the revolving door issue, indemnification of government contractors, flextime proposals for federal contractor employees, amendments to the False Claims Act, space commercialization issues, the application of time standards and work measurement criteria to defense contracts, the completed contract method of accounting, the proposed reductions in the number of issued security clearances, aviation product liability and the impact of recently enacted procurement legislation.

In addition, letters or position papers were submitted for the record of Congressional hearings on the Export-Import Bank's direct loan program, the DoD audit process, import surcharges, the role of the aerospace industry as a major exporter of high technology goods and the industrial modernization incentive program.

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# OFFICE OF PUBLIC AFFAIRS

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The Office of Public Affairs is responsible for informing the public of the goals and accomplishments of the aerospace industry in support of national security, space operations, technological leadership, civil aviation, commerce, international trade and other matters. In fulfilling these responsibilities, the Office provides support for the Public Affairs Council, composed of public affairs executives of AIA member companies, and provides support as required for the public affairs activities of member companies' Washington offices. The Office also maintains liaison with public affairs offices of government agencies and trade associations that have responsibilities in aviation and space matters.

## Publications

AIA's principal public affairs outlet, the quarterly publication *Aerospace*, continued to cover diverse subjects concerning industry performance activity and the activities of government agencies involved in aerospace matters. Among major articles published in 1985 were the annual industry review and forecast, a preview of the space year 1986, a summary of the aeronautical research and development goals proposed by the White House Office of Science and Technology Policy, a report on automation in aerospace manufacturing, a comprehensive, illustrated condensation of the DoD publication *Soviet Strategic Defense Programs*, and a summary of NASA's plans for space and aeronautical progress beyond the year 2000.

*Aerospace* also featured signed articles by Brigadier General Robert R. Rankine, Jr., USAF on the Strategic Defense Initiative; by Dr. Allen E. Puckett, Chairman and CEO of Hughes Aircraft Company, on the importance of motivating people in developing a competitive industrial base; and by Thomas G. Pownall, Chairman and CEO of Martin Marietta Corporation, on improving defense procurement. Additionally, *Aerospace* contained summaries of two Aerospace Research Center studies: *Solving the U.S. Trade Problem-Protectionism or Competitiveness?* and *Technology Diffusion, The Movement of Technology Between Aerospace and Other Industries*.

Continued as public affairs projects were the publications *AIA Quarterly Digest*, the *AIA Annual Report* and *Key Speeches*, a reprint service calling attention to speeches of particular importance or special interest made by government officials and industry executives. Key Speeches published in 1985 included one



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LTV Aerospace and  
Defense Company  
Chairman, Public Affairs Council

by Roy A. Anderson, Chairman and CEO of Lockheed Corporation, on improving defense procurement; *U.S. Technology Leadership in the International Marketplace*, by Harry J. Gray, Chairman and CEO, United Technologies Corporation; *Some Perspectives on the Defense/Space Industry*, by AIA president Karl G. Harr, Jr.; *Crisis Without A Cause*, by Malcolm T. Stamper, Vice Chairman, The Boeing Company, a discussion of the need for change in the defense acquisition system; and *The Business of Defense*, by Joseph T. Gorman, President and Chief Operating Officer, TRW Inc. Editorial assistance was provided to the Aerospace Research Center for the 1985/86 edition of *Aerospace Facts and Figures*, the economic reference book of the aerospace industry; the 1984/85 edition of *Facts and Figures* won an award for the best industrial statistical report from the publication *Association Trends*.

At year-end, the Office published the 1985/86 *Directory of Helicopter Operators in the United States, Canada, Mexico and Puerto Rico*, which lists owners/operators and the type and number of helicopters operated, broken down into four segments: Commercial, Business and Private, Civil Government Agencies and Helicopter Flight Schools. Additionally, the Office essentially completed the compilation of the 1985/86 *AIA Directory of VTOL Aircraft*, which lists specifications and status of helicopters and other VTOL aircraft in operation, production or in research and development. At the request of AIA member companies, an industry/operators *ad hoc* committee was appointed to prepare a third revision of the AIA/Helicopter Association International publication *Guide for Presentation of Helicopter Operating Cost Estimates*.

### Special Projects

The Office arranged and coordinated two meetings of the AIA Public Affairs Council, the spring meeting in Washington, D.C and the fall meeting in San Diego, California.

The Office also hosted a number of meetings with Washington representatives of AIA member companies to discuss industry public affairs activities and problems and, at some of the meetings, to introduce key government public affairs officials.

Public Affairs worked closely with Procurement and Finance on coordinating industry comments on a proposed new Federal Acquisition Regulation concerning public relations costs. At year-end, the new FAR had been written but not promulgated.

The Office provided editorial and promotional assistance in the area of procurement activity. In an April special editorial section of *USA Today* devoted to the subject of defense waste, industry views were provided by AIA President Karl G. Harr, Jr. and Roy A. Anderson, Chairman and CEO of Lockheed Corporation. President Harr also participated in a number of interviews with print and electronic media concerning AIA's views on defense procurement.

In a letter to President Reagan, President Harr supported the suggestion by Representative Bill Dickinson (Alabama) that a Presidential Blue Ribbon Commission be formed to recommend improvements in the defense acquisition system and other elements of the Department of Defense operation.

The commission later was formed under the chairmanship of David Packard and a number of industry executives testified; a final report was scheduled for mid-1986.

Public Affairs supported industry participation in two major private sector/government ongoing initiatives. The National Initiative on Technology and the Disabled, chaired by Robert L. Kirk, President and CEO, LTV Aerospace and Defense Company, involves formation of Tech Teams by companies on a voluntary basis and establishment of a national communications system to provide specialized prosthetic assistance to the disabled. The other initiative is the Young Astronaut Program, designed to encourage elementary school students to engage in space-oriented activities that heighten interest in science and engineering.

A December luncheon sponsored by the Mid-East Region of the Aviation/Space Writers Association featured President Harr and his annual industry review and forecast. The luncheon drew more than 300 attendees, including more than 100 Washington editors and correspondents, and resulted in substantial media coverage.

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# TRAFFIC AND TRANSPORTATION SERVICE

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CHARLES G. JACKSON  
Bell Helicopter Textron Inc.

Chairman, Traffic and  
Transportation Committee

The Traffic and Transportation Service is a guidance and coordinating point for the transportation management segment of the aerospace industry. As such, it serves as a medium for exchange of views on government regulation of military and commercial transportation. The service provides staff representation before government agencies and carrier organizations concerned with both domestic and international transportation issues. Providing specific direction for these representations is the responsibility of the Traffic and Transportation Committee, aided by the Rates and Classification Subcommittee and select task groups concerned with export and import regulation, the transportation of hazardous material and toxic waste, business travel, Department of Defense transportation regulations and carrier liability issues.

Of principle concern during 1985 were continuing efforts by U.S. Customs to implement new procedures related to the export of critical technology; changes in import regulations to adapt to greater use of automation; and increased enforcement activity as related to Operation Exodus. The Committee maintained an active dialogue with Customs and other government agencies concerning these issues and conducted a seminar involving Customs officials to acquaint members with the regulatory changes and new Customs programs.

Legislation to retain existing carrier liability standards was supported by the Service working in conjunction with the National Industrial Transportation League and the Shipper's National Freight Claim Council. The legislation, if enacted, will continue to hold surface carriers liable for the proper handling of goods in their possession.

Working through the task group structure, the Committee continued surveillance of regulatory proposals and changes related to the transportation of hazardous materials and toxic waste with new emphasis on EPA regulations covering new small generator requirements.

The Rates and Classification Subcommittee continued its surveillance of carrier rate and rule changes considered detrimental to aerospace interests. The subcommittee is primarily concerned with Interstate Commerce Commission rulemaking proceedings involving surface transportation. When AIA action was warranted, the subcommittee assembled the necessary facts and data to permit appropriate representation.

**AIA KEY TELEPHONE NUMBERS**  
(Area Code 202)

President	429-4611
Vice President/Secretary	429-4620
Treasurer	429-4631
Aerospace Operations Service	429-4621
Aerospace Procurement Service	429-4628
Aerospace Research Center	429-4683
Aerospace Technical Council	429-4685
Civil Aviation	429-4626
Human Resources Council	429-4636
International Service	429-4643
Office of Legislative Counsel	429-4669
Office of Public Affairs	429-4656
Traffic and Transportation Service	429-4652
General Counsel	861-7810
Information	429-4600

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AEROSPACE INDUSTRIES ASSOCIATION  
OF AMERICA, INC.

1725 De Sales Street, N.W., Washington, D.C. 20036

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## MEMBERS

Aerojet General  
Aeronca, Inc.  
Allied-Signal Inc.  
    Bendix Aerospace Sector  
    The Garrett Corporation\*  
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The Boeing Company  
Celion Carbon Fibers  
    A Division of Celanese Corporation  
Colt Industries Inc.  
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    Menasco Inc.  
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E-Systems, Inc.  
Ex-Cell-O Corporation  
FMC Corporation  
Gates Learjet Corporation  
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The BF Goodrich Company  
Goodyear Aerospace Corporation  
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    Abex Corporation  
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    ITT Avionics Division  
    ITT Defense Communications Division  
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Lockheed Corporation  
LTV Aerospace and Defense Company  
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Martin Marietta Aerospace  
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Morton Thiokol, Inc.  
Northrop Corporation  
Parker Hannifin Corporation  
Precision Castparts Corporation  
Raytheon Company  
RCA Corporation  
Rockwell International Corporation  
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The Singer Company  
Sperry Corporation  
Sundstrand Corporation  
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Textron Inc.  
    Avco Textron  
    Bell Aerospace Textron  
    Bell Helicopter Textron  
    HR Textron Inc.  
TRW Inc  
United Technologies Corporation  
Western Gear Corporation  
Westinghouse Electric Corporation  
    Energy & Advanced Technology Group  
Zimmerman Holdings Inc.

## AFFILIATES

Associated Aerospace Activities, Inc.  
British Aerospace Inc.  
Commerce Overseas Corporation  
Eastern Aircraft Corporation  
National Credit Office, Inc.  
U.S. Aviation Underwriters, Inc.

\*Maintaining dual representation  
as a recently merged company.

