
AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.

1974 Annual Report



14

AIA OFFICERS

T. G. POWNALL, *Chairman of the Board*
T. A. WILSON, *Vice Chairman of the Board*
KARL G. HARR, JR., *President*
SAMUEL L. WRIGHT, *Vice President/Secretary*
GEORGE F. COPSEY, *Treasurer*

EXECUTIVE COMMITTEE

T. G. POWNALL, *Martin Marietta Aerospace*
T. A. WILSON, *The Boeing Company*
PAUL THAYER, *The LTV Corporation*
KARL G. HARR, JR., *Aerospace Industries Association*
MARK MORTON, *General Electric Company*
ROBERT ANDERSON, *Rockwell International Corporation*
CARL L. SADLER, *Sundstrand Corporation*
R. D. DELAUER (DR.), *TRW Inc.*

BOARD OF GOVERNORS

JAMES R. DEMPSEY, *Vice President and Group Executive, Avco Corporation*
WILLIAM C. PURPLE, *President, Aerospace-Electronics Group, The Bendix Corporation*
T. A. WILSON, *Chairman and Chief Executive Officer, The Boeing Company*
HARRY H. WETZEL, *President, The Garrett Corporation*
DAVID S. LEWIS, *Chairman and Chief Executive Officer, General Dynamics Corporation*
MARK MORTON, *Vice President and Group Executive, Aerospace Group, General Electric Company*
C. B. McKEOWN, *Executive Vice President, Engineered Systems Co., The B. F. Goodrich Company*
A. E. PUCKETT (DR.), *Executive Vice President and Assistant General Manager, Hughes Aircraft Company*
K. ROBERT HAHN, *Executive Vice President, Lear Siegler, Inc.*
DANIEL J. HAUGHTON, *Chairman of the Board, Lockheed Aircraft Corporation*
PAUL THAYER, *Chairman and Chief Executive Officer, The LTV Corporation*
T. G. POWNALL, *President, Martin Marietta Aerospace*
S. N. McDONNELL, *President and Chief Executive Officer, McDonnell Douglas Corporation*
GERALD J. LYNCH, *Chairman and Chief Executive Officer, Menasco Manufacturing Company*
EDWARD L. MONTGOMERY, *Executive Vice President, Aerospace and Communications Operations, Philco-Ford Corporation*
D. BRAINERD HOLMES (DR.), *Executive Vice President, Raytheon Company*
ROBERT ANDERSON, *President and Chief Executive Officer, Rockwell International Corporation*
B. F. RAYNES, *Chairman and Chief Executive, Rohr Industries, Inc.*
ROBERT E. McDONALD, *President, Sperry Rand Corporation*
CARL L. SADLER, *President, Sundstrand Corporation*
JAMES L. MURRAY, *President, Teledyne CAE*
BARRY J. SHILLITO, *President, Teledyne Ryan Aeronautical*
WILLIAM G. GISEL, *President, Bell Aerospace Company, Textron, Inc.*
R. D. DELAUER (DR.), *Executive Vice President, TRW Inc.*
HARRY J. GRAY, *Chairman, President and Chief Executive Officer, United Aircraft Corporation*
T. J. MURRIN, *President, Public Systems Company, Westinghouse Electric Corporation*
KARL G. HARR, JR., *President, Aerospace Industries Association*

CONTENTS

2	Message to the Membership
4	Aerospace Operations Service
8	Aerospace Procurement Service
13	Aerospace Research Center
14	Aerospace Technical Council
20	International Service
22	Office of Public Affairs
24	Traffic Service
26	Transport Aircraft Council
27	Organizational Chart

Message to the Membership

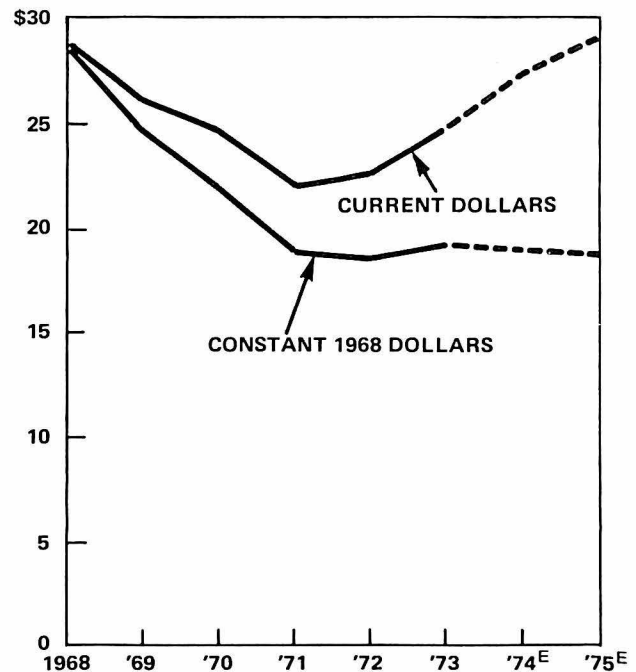


MR. HARR

In the year 1973, the aerospace industry reversed the trend of declining sales which began in 1968 and posted an 8.7 percent increase in sales to a total of \$24.9 billion. Now, in reporting on 1974, a comparable increase was attained despite such interrelated factors as the energy shortage, increases in both labor and material costs, and worsening domestic and foreign economic conditions.

In fact, during 1974 sales rose more than 9 percent to \$27 billion; and, other factors being relatively stable, we can see the possibility of an additional increase of 6.8 percent in 1975 to \$29 billion.

**AEROSPACE INDUSTRY SALES
1968 TO DATE**
(Billions of Dollars)



NOTE: ^E Estimated

This good news must be put in perspective by reporting that these sales figures of the last three years are stated in *current* dollars, and therefore encompass exceptionally high rates of inflation. Translated into 1968 dollars, the declining trend in sales has not stopped but only slowed appreciably. Again, in terms of constant 1968 dollars, sales declines will continue unless the nation is successful in its efforts to stem inflation and arrest the current recessionary movement of our national economy. In other words, it might be said that the aerospace industry is "about level and holding."

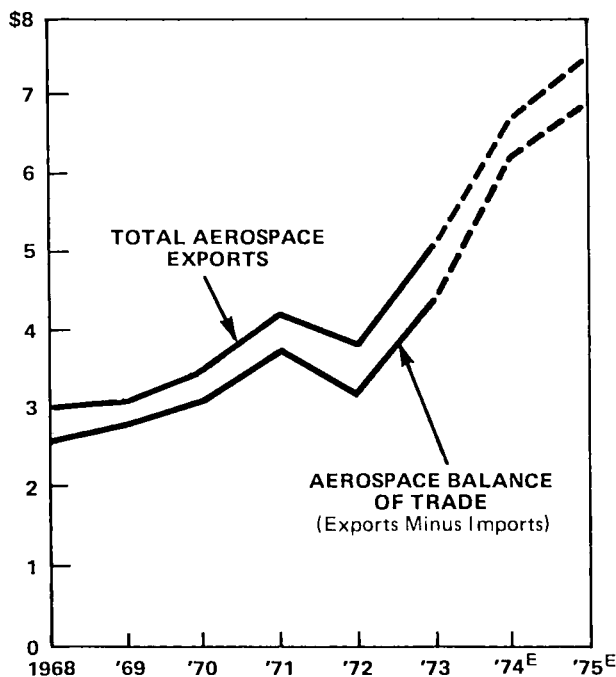
Other aspects of the industry's performance in 1974 bear noting:

- Sales to the Department of Defense, which decreased in 1973, recouped in 1974, and sales to NASA increased for the first time since 1968. As forecast, commercial aerospace sales posted the largest percentage increase, up 22 percent to an all-time high of \$7.5 billion. Sales of non-aerospace products by aerospace firms was a close second in percentage of increase, approaching \$4 billion for the first time.

The latter two categories were the only ones to post percentage increases in terms of constant 1968 dollars.

- New plant and equipment expenditures increased by some 45 percent, continuing a trend begun in 1972.
- Estimated net profits on sales after taxes climbed to 3.4 percent from 2.9 percent in 1973, but aerospace's 3.4 percent still is little more than half the estimated 6 percent profit for all manufacturing corporations.
- The aerospace industry payroll rose slightly over the 1973 level to an estimated 968,000 in 1974.
- Reliable yearend estimates indicated that aerospace industry exports continued their steady upward movement, climbing by about one-third to nearly \$6.9 billion in 1974. However, despite this outstanding contribution, the U.S. suffered an overall trade deficit of \$3.1 billion.
- The backlog of orders for major aerospace companies increased slightly during 1974 to \$32 billion, the \$400 million upswing almost totally in U.S. Government contracts.

U.S. EXPORTS OF AEROSPACE PRODUCTS AND AEROSPACE CONTRIBUTION TO U.S. BALANCE OF TRADE
(Billions of Dollars)



NOTES: Totals are in current dollars
E Estimated

During the year, I testified before Congress or submitted statements on subjects of direct interest to the aerospace industry. These activities were undertaken with the guidance and support of the AIA membership and the Executive Com-

mittee of the Board of Governors. Examples of subjects covered include:

- Trade reform.
- Energy patent policies.
- Extension of Export-Import Bank operations.
- International trade.
- The Renegotiation Act.
- The Service Contract Act.
- The Workmen's Compensation Act.

In addition, the Association's position on a variety of other subjects was presented to appropriate committees and subcommittees of Congress.

AIA continued to be active in the International Coordinating Council of Aerospace Industries Associations (ICCAIA), an organization that gives the manufacturers of civil aircraft a voice in the proceedings of the International Civil Aviation Organization (ICAO).

The one-year extension of my original term as Chairman of ICCAIA expired at the end of 1974 and Dr. E. Gonzalez Garcia, President of the Association Europeenne des Constructeurs de Materiel Aerospacial (AECMA) and ATECMA of Spain, was elected Chairman and David Mundy of Air Industries Association of Canada was confirmed as Vice Chairman.

Although the charter for ICCAIA calls for its Secretariat to move with the chairmanship, the suggestion that AIA retain it was accepted. I believe that this move was proper and logical because it will provide continuity to the relationship with ICAO.

Regular semi-annual AIA membership meetings were held in May and November. At the latter meeting, T. A. Wilson, Chairman and Chief Executive Officer, The Boeing Company, was elected to succeed T. G. Pownall, President, Martin Marietta Aerospace, as Chairman of the Board of Governors on Jan. 1, 1975. S. N. McDonnell, President and Chief Executive Officer, McDonnell Douglas Corporation, was elected Vice Chairman of the Board. A complete list of key personnel for 1974 precedes this message.

During the months between regular meetings, conferences with the members of the Executive Committee of the Board of Governors provided valuable guidance for the Association. And as in the past, strong support by member company experts made possible a continued high level of productive effort.

Highlights and details are covered in the following sections of this 1974 Annual Report.

Respectfully submitted,

KARL G. HARR, JR.
President

Aerospace Operations Service

The Aerospace Operations Service is concerned with the management fields of manufacturing, quality assurance, subcontract and materiel management, and post-delivery product support. Its six committees are augmented by subcommittees, ad hoc groups of specialists, and project task panels of industry experts. They handle tasks related to new and revised government policies, regulations, statutes and procedures, and initiate projects—by industry or government request—to improve industry performance.

The Service was involved in a wide variety of projects during 1974.

Quality Resources Study

An annual update of AIA's continuing survey of quality costs was conducted. It serves as a quality management tool and a reference for various company management functions concerned with quality costs and staffing. Training and guidance was provided member companies to assure that the survey questions would be uniformly interpreted. Resultant data provided valid comparisons with prior years and identified changes and trends in the costs of quality assurance.

Review and Comment on Government Specifications

A major effort was the continuation of the review of the proposed Military Standard on corrective action and disposition system for nonconforming material, with follow-up action after its release on May 1, 1974. Some portion of the standard are not acceptable to either government or industry and efforts are continuing on required changes.

Another project was initiated when comments were requested on a proposed work measurement Military Standard. Work to minimize the impact of detailed contractual requirements on internal management work measurement standards is continuing. In a third activity, many specifications and proposed standards in the field of packaging and material handling were reviewed. AIA also initiated a project on drilling and grinding of high strength steel, in lieu of the proposed specification submitted by the government for comment.

Computer Aided Manufacturing (CAM)

The final report of the *ad hoc* group on CAM was published early in 1974. At year's end, requests for copies continued from member companies and from universities, technical societies, and domestic and foreign industries. Five separate studies were initiated and completed on CAM-related areas: Application of Direct Numerical Control (DNC) and Computerized Numerical Control (CNC); Adaptive Control (AC); Efficient Machine Loading and Scheduling; Design/Manufacturing Interface, and Computer-Aided Planning.

NAS 900 Series Machinery and Equipment Specifications

Effort continued to revise and develop new specifications for the purchase of machines, equipment, and standard tools. Specifications have been completed and published for Direct Numerical Control and work is continuing on the completion of similar specifications for Computer Numerical Control and Adaptive Control equipment. With the completion of the specification for end mills, a related project of definition of the nose configuration of end mill holders has been initiated. Liaison is being maintained with other trade associations in the development and revision of these specifications.



LYLE STONER
Thiokol Corporation
 Chairman, Material Management
 Committee



D. G. GILMORE
LTV Aerospace Corporation
 Chairman, Manufacturing Committee



G. F. CHIDESTER
Hercules Incorporated
 Chairman, Quality Assurance
 Committee



EUGENE T. FERRARO
The Singer Company
 Chairman, Product Support
 Committee



L. C. HUNLEY
Rockwell International Corporation
 Chairman, Spare Parts Committee



JOHN G. BEAN
Hughes Aircraft Company
 Chairman, Service Publications
 Committee

Improved Procurement Quality Assurance

The formal report of an *ad hoc* committee on this subject was published in 1974 and follow-up has been continued on implementation of the recommendations. Results of the study have been used in DOD studies and are of interest to the Air Force in its current task of developing a revision to MIL-Q-9858A. Most of the recommendations on Government Furnished Aerospace Equipment have been or are being implemented by the Aeronautical Systems Division of the Air Force Systems Command.

Shortages and Lead Times

An organized review of cost, shortages, and lead times, established for presentation to the association members in 1973, was continued through 1974. The study is updated every four months and the results are provided to DOD and its components, Department of Commerce, Federal Aviation Administration, and to the Small Business Administration. Using these data, a presentation was given to Chief of Naval Operations and staff, to the Assistant Secretary of Defense (Installations and Logistics) and staff, to the General Accounting Office, and to the Small Business Administration. At the invitation of the Department of Commerce, presentations also were made to the four regional meetings of the National Defense Executive Reserve.

Request for Reinstatement of Priorities for the Production of Commercial Transport Aircraft

An *ad hoc* committee was established to develop an industry position upon which to base a request for the reinstatement of materials priorities. Formal presentations were made to the Federal Aviation Administration and to the Office of Preparedness. Supplementary data subsequently was furnished to FAA for use in developing a position for transmittal to the Department of Transportation. This request is still under study.

Air Transport Association Liaison

Improvements in the buyer-seller interface between airlines and their suppliers have been initiated with the U.S. Air Transport Association (ATA) by three associations of manufacturers. Representing suppliers are member representatives of AIA, the Society of British Aerospace Companies (SBAC) and the French Union Syndicale des Industries Aeronautiques et Spatiales (USIAS). Efforts are concentrated in meeting airline requirements in the areas of manufacturers' supply information, data processing and technical data.

Currently, industry supply support representatives are working with their airline counterparts in completing specification requirements which will provide for the improved exchange via automatic data equipment of supply and purchasing information between the airline customer and their manufacturing suppliers. The benefits of using this interchange system are simplification and standardization of transmitting orders and reduced transaction time through telecommunications, terminals and computers. Service improvements and reductions in

inventory are anticipated results of this system, due for implementation early in 1975.

A related group activity with the British, French and the ATA concerns rewriting wiring diagram requirements in order to provide basic, cost-saving maintenance information in the form of improved schematics, equipment lists and hook-up charts. The final task group draft, completed in 1974, will be incorporated in the next revision of the ATA Specification for Technical Data.

Automated Publication Requirements

The greatest obstacle to complete automation of publication today is the difficulty and expense of merging graphic data, including photographs, with text for output as a finished document. To facilitate the achievement of this capability, the following actions were accomplished during 1974.

A survey of AIA companies was completed by a service publications panel on the application of computer technology to publishing and disseminating technical data to best satisfy the common interest of the AIA members.

Responses from 45 companies that are involved in the publication of a large volume and extensive range of types of publications for commercial and military as well as in-house customers were evaluated. Survey results indicate that approximately 90 percent of the companies have turned or are turning to the utilization of automated capabilities in their publications business. This appears to be the least expensive method for providing the required data not only in volume, but also in multiple mediums such as hard copy and microform.

It is anticipated that the survey information will assist companies in determining the basic requirements for and capabilities of an automated publication system. To facilitate company implementation, the AIA panel also has developed an automated publication systems functional specification guide which is being distributed to members and appropriate computer and service organization representatives.

The need for meeting with the computing industry to discuss what aerospace industry members and their customers require to take advantage of the increased productivity offered by the use of computers in producing technical data was recognized. A symposium on the emerging technology of automated preparation of publications was held in 1974. More than 150 representatives from AIA member companies, airlines publications managers (both domestic and foreign), computing industry and government publications managers attended.

Its objectives were to:

- Guide computing industry forces in determining what industry needs for automated preparation of publications;
- Bring affected groups together to review common problems being experienced now and those anticipated in the future;
- Review status and automated technical data efforts within the aerospace industry, and
- Examine the spectrum of systems being used for the benefit of exchanging ideas and assisting those just beginning to automate their operations.

Symposium discussions indicated to the computer industry that increases in automation would result in greater use of optical character readers. Also, savings can result if standards can be developed to a point where manufacturers and customers can use the same common typestyles and equipment that will accept military/commercial formatted data. However, interface between equipment was demonstrated to be expensive. In view of the many worthwhile ideas for data systems that surfaced as a result of presentations provided, plans are being made for another symposium next year.

Proposed Contract Language for Interim Support of Engineering Changes

Early in 1974, investigation of problems associated with providing adequate spare parts support for engineering changes revealed that existing purchasing and funding procedures do not allow spare parts orders to be placed concurrently with production and retrofit kit buys. Therefore, delays result when spare parts are procured independently after the completion of the regular provisioning cycle. Among complex problems created is the proper incorporation of engineering changes that have been made during the production buys.

Industry has drafted proposed contract language which would allow concurrent spare parts procurement and authorize procurement of new, peculiar spare parts concurrent with the purchase of change kits. Following AIA member company review and approval, presentations to appropriate government officials in 1975 are planned.

World Airlines Technical Operations Glossary—Fifth Edition

A continuing airline/manufacturer program of coordination has been developed jointly by AIA, the Association Europeenne des Constructeurs de Materiel Aerospacial (AECMA), the U. S. Air Transport Association (ATA) and the International Air Transport Association (IATA) to provide for periodic revision of the World Airlines Technical Operations Glossary. The initial edition of this publication was distributed worldwide to airlines and their manufacturing suppliers in 1970. Since that time, operating experience has revealed the need for regular updating of the Glossary as an effective tool in worldwide inter-industry communications. The Glossary fosters the use of common definitions of terms relevant to airlines' operations and their interface with the engineering and product support organizations of the manufacturers.

In the fifth edition, issued in December, particular efforts were made to achieve a high degree of consistency with definitions contained in ATA's specifications for service publications and supply data.

DOD Consolidation of Provisioning Documentation

AIA continued its participation with DOD, in a Council of Defense and Space Industry Associations (CODSIA) project initiated in 1972 to reduce, simplify, or eliminate provisioning contractual documents used by the military services for selecting and ordering spare parts.

Since December 1973 one of the principal CODSIA efforts has been directed toward the development of a proposed Defense Integrated Data System (DIDS). This is a large scale data storage and retrieval system which can provide information concerning items already available in the Defense Supply System and thus facilitate parts selection by encouraging standardization at the design state. In this manner, DIDS supports the current DOD policy of "Design to Cost."

However, AIA-coordinated CODSIA recommendation submitted to DOD early in 1974 indicated that the initial pro-

visioning screening approach introduced considerable complexity into the screening process. Subsequently, a DOD provisioning screening manual, issued in November, incorporated a majority of the CODSIA recommendations as a supplemental effort. Also at the recommendation of CODSIA, a series of nationwide seminars during October and November was conducted by DOD to provide both government and industry participants with detailed instructions and guidance on this new screening process.

Aerospace Procurement Service

The Aerospace Procurement Service supports the business management activities of member companies, in the fields of accounting, finance, contract administration, procurement law, patents, proprietary information, industrial relations and industrial security. One council and three committees of senior company executives provide experts to initiate actions seeking to improve business relationships with and resolve problems of mutual concern to government and industry and to present the views of the aerospace industry on government actions impacting on the supported and related activities.

During 1974, the Service continued efforts to obtain practical and equitable government procurement policies, practices and procedures affecting the business management activities of the aerospace industry.

The year was marked by concentrated efforts in certain areas such as cost accounting standards, cost recovery of Independent Research and Development (IR&D) and Bid and Proposal (B&P) expense, implementation of the Occupational Safety and Health Act, as well as patent law and regulations.

Independent Research and Development and Bid and Proposal

At the beginning of 1974, industry undertook to respond to challenges within Congress as to the value and benefits of Independent Research and Development (IR&D) and Bid and Proposal (B&P) effort.

Troubled by the fact that apparently not all interested parties fully understand the nature of IR&D and B&P efforts, the benefits they produce and why they are essential, the preparation by industry of in depth documentation on this subject was undertaken. With AIA providing staffing and logistics support, the task was performed by a Tri-Association *ad hoc* Committee composed of member company senior executives under the auspices of AIA, Electronic Industries Association (EIA), and National Security Industrial Association (NSIA).

The major thrust of the study was to demonstrate that as basic as IR&D and B&P efforts are to the economic health and to the security of the nation, they are subjected to a continuing challenge by a few critics who contend that the costs for such efforts may be unnecessary and should be eliminated. Also, even though the General Accounting Office (GAO), acting for the Congress, had made many studies on the subject, that office was once more requested to make a comprehensive and exhaustive review.

The course leading to the current request for a GAO study is interesting:

Congress in continuing its surveillance of IR&D and B&P has asked both the GAO and the Department of Defense (DOD) on numerous occasions to furnish information as to the effectiveness of Public Law 91-441 which governs the DOD reimbursement of IR&D and B&P expenditures of its contractors. In April 1972 and April 1973 the GAO issued reports which concluded that DOD was "being reasonably diligent" in implementing the requirements of the law.

Moreover, a year ago, Senator Thomas J. McIntyre (D-N.H.), Chairman of the Research and Development Subcommittee of the Senate Armed Services Committee, gave an excellent review of IR&D/B&P, generally indicating a well-managed activity. These conclusions were bolstered by repeated confirmations by DOD and the National Aeronautics and Space Administration (NASA) that both IR&D and B&P were not only greatly beneficial to their operations, but wholeheartedly endorsed as necessary costs of doing business with the Government.

In September, 1973, however, Senator William Proxmire (D-Wisc.), Chairman of the Senate Subcommittee on Priorities and Economy in Government, again questioned the amounts

being "paid" by DOD for IR&D. While he addressed IR&D primarily, he included B&P costs in his figures. This lumping together of IR&D and B&P costs and then drawing conclusions relating only to IR&D activities is, of course, a misinterpretation of data.

Soon after, the two Senators jointly called for a new GAO investigation, furnishing a list of 22 questions to be asked of DOD and NASA. The thrust of the questions posed to the GAO clearly demonstrated that the vital nature of IR&D/B&P was not understood. Therefore, senior executives of companies with membership in AIA, EIA, and NSIA decided to develop a comprehensive paper documenting the nature, purpose and benefits of these two industrial technical efforts.

The Tri-Association study is a 312-page volume of technical papers on which a summary volume, entitled "A Position Paper on Independent Research and Development and Bid and Proposal Efforts" is based. The Tri-Association Committee responsible for these documents believes they can contribute significantly to the deliberations of those in government who once again may be faced with making decisions, legislative or regulatory, concerning industry-initiated technical efforts.

The larger, more detailed volume cited above contains industry's finding and postures on six parameters of the recurrent issue:

- Economic Considerations Regarding IR&D and B&P Expense.
- Alternative Methods of IR&D and B&P Cost Reimbursement.
- Benefits Derived from IR&D Effort.
- Benefits Derived from B&P Effort.
- U.S. & Foreign Nation Support of Industrial Technical Effort.
- Industry Response to the 22 Questions Posed to the GAO.

Approximately 6000 copies of the Tri-Association study on IR&D/B&P were distributed by the three participating associations with the expectation that the study will aid in better understanding of this complex subject.

It is anticipated that the GAO will issue a final report on IR&D/B&P in April 1975. With this in mind, AIA will be prepared to respond quickly to any additional information which may be required as a result of the report or as a result of any Congressional actions which may be taken during 1975. For these reasons, the Tri-Association *ad hoc* Committee remains in being to respond on behalf of industry regarding IR&D and B&P, technical efforts vital to industry, to the government, and the nation.

Product Liability

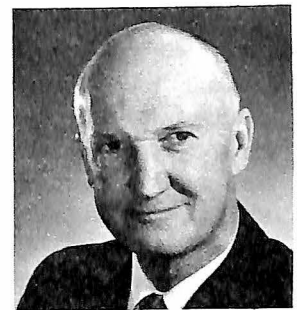
For some time AIA has been seeking to provide appropriate protection to all parties that might be concerned with damages arising from an accident in either domestic or foreign air transportation. AIA has developed a program, including draft legislation, to achieve this goal through which the public could be assured of a fast and fair recovery for damages arising from such an incident.

Because of current legislative programs, as well as a proposed Guatemala Protocol which would amend the Warsaw Convention, further actions to advance AIA's program have been

deferred. It is contemplated, however, that during 1975 AIA will seek acceptance of its program.

Patents

In 1974 Congress continued to express interest in the U.S. Patent System in both domestic and international circles. In the domestic area, the Congress concentrated on expressing Federal Patent Policy in connection with legislation establishing the Energy Research and Development Administration (ERDA), as well as setting priorities for that Administration in connection with non-nuclear programs. In connection with this matter, AIA filed a statement with cognizant Congressional committees expressing views on the proposed Federal Patent Policy, including the mandatory licensing of privately developed and owned patents and proprietary information. The



CLIFFORD C. WALKEY
McDonnell Douglas Corporation
Chairman, Procurement and Finance
Council



WILLARD M. GRAHAM
Northrop Corporation
Chairman, Patent Committee



JOHN V. CLARK
The Boeing Company
Chairman, Industrial Security
Committee



ROBERT C. KRONE
McDonnell Douglas Corporation
Chairman, Industrial Relations
Committee

legislation which issued from the 93rd Congress did not contain provisions on mandatory licensing and the interim patent policies were generally acceptable to the aerospace industry.

Although legislation proposing substantive revisions to the U.S. Patent Laws (Title 35, U.S.C.) was before the 93rd Congress (S. 2504), adjournment was reached without any action being taken.

During 1973 government regulations dealing with the disposition of rights to inventions under government contracts, as well as the exclusive licensing of government-owned patents, were challenged in the federal courts. By the end of 1974 both of these cases were still before the courts. However, as to the disposition of rights to inventions, the right of federal agencies to do so had been sustained by the lower courts. In the case of exclusive licensing, the plaintiffs have prevailed, so that the validity of such government action still is in doubt. Both cases are now on appeal.

Proprietary Information and Technical Data

In 1973 the Department of Defense proposed substantive revisions to the Armed Services Procurement Regulation (ASPR) which would establish the rights acquired by the government or retained by a contractor as to computer software developed or used in the performance of Government contracts. Acting in concert with CODSIA, AIA views were expressed on this important topic. In addition, discussions were held with the ASPR committee on this matter. During 1974 this subject was closely monitored by AIA but no specific action was taken on it by DOD.

Value Engineering

In the fall of 1973 a proposed ASPR revision was issued which most industry Value Engineering (VE) specialists believed would have materially reduced the opportunity for both Government and contractors to participate in VE benefits. AIA, through CODSIA, made presentations and held meetings with the ASPR Committee in 1973 and 1974 which attained a measure of success as reflected in the ASPR revision published in May 1974. The final version encourages earlier initiation of Value Engineering Change Proposals (VECPs), increases the sharing period, and in certain respects, simplifies the procedures and increases the contractors' share. Some objectionable features, such as the finality of government decision on collateral savings without appeal, and a provision that all accepted VECPs become the property of the Government whether or not they contain data developed at private expense, still remain.

At DOD's invitation a suggested subcontract clause on VE is being developed by industry.

Impact of Inflation on Contracts

An unforeseeable rate of inflation, which in turn had a significant adverse impact on contracts of the aerospace industry, was witnessed in 1974. As a result, contracts with both the Department of Defense and the National Aeronautics and Space Administration were affected severely. To seek appropriate and equitable relief from this adverse situation, presen-

tations were made by an *ad hoc* committee of the AIA Board of Governors to top officials of both DOD and NASA. These presentations outlined the impact of inflation and suggested appropriate avenues of relief. The problems raised by AIA were recognized and at year's end actions to afford equitable relief were under consideration.

Industrial Relations and Security

Legislation going far beyond the recommendations of the National Commission on State Workmen's Compensation Laws and which would, for all practical purposes, replace state programs with a Federal Workmen's Compensation Law was introduced in the Senate (S. 2008). AIA submitted a statement to the Labor Subcommittee supporting continuing state efforts in the field, and opposing a sweeping federal system. The 93rd Congress closed without taking action on S. 2008.

Interim increases in the salary tests for exemption of executive, administrative and professional employees from the overtime pay provisions of the Fair Labor Standards Act of 1938 were proposed by the Wage and Hour Division of the Department of Labor. The proposed increases, based on the Consumer Price Index, would be followed by a six-month study of salary levels in the prescribed occupations. AIA filed a letter opposing the interim increases until the salary test study was concluded, the use of the Consumer Price Index as a measure for salary tests, and the 50 percent increase for high salary exempt employees.

The Occupational Safety and Health Administration (OSHA) published an advanced notice of rule-making regarding ground-fault circuit protection. AIA submitted a letter recommending that all dry work areas in office, plant and warehouse buildings which contain structural steel, machinery and equipment be excluded from any standard. The inclusion of these areas in the standard is not justified on work injury experience or cost required for compliance. To date, no final standard has been promulgated.

AIA submitted a statement and testified at OSHA public hearing on Mechanical Power Presses, supporting the revocation of the "hands-out-of-die" requirement that was designed to eliminate the need for employees to place their hands within the point of operation. **The final standard revoked this requirement as it is not technologically possible in the near future and the costs associated with attaining "no-hands-in-die" are prohibitive.**

The Occupational Safety and Health Review Commission published a proposed rule-making to permit the holding of informal proceedings for the adjudication of contests brought before the Commission. While expedited hearings and reduced costs are commendable, AIA submitted a recommendation that management not be deprived of any of its substantive procedural rights and remedies.

The National Institute of Occupational Safety and Health (NIOSH) has approximately 40 criteria documents for toxic substances in progress for later submission to OSHA to use as the basis of proposed health standards. AIA sent letters to NIOSH and OSHA opposing the use of fractional parts of Threshold Limit Values of toxic substances as trigger levels, urging medical examinations for certain exposures within sixty

days of assignment rather than prior to assignment, and recommending that specific requirements relative to sampling frequency and pattern as well as analytical techniques be left to the professional judgment of employers.

Working with CODSIA, AIA presented views and recommendations on eight proposed changes to the Industrial Security Manual covering the Communications Security Supplement; processing of export license applications; expediting SECRET critical express-type shipments; reducing frequency of cognizant security office inspections and contractor self-inspections; Automatic Data Processing security requirements; defensive security briefings; approval of certain visit requests for periods up to one year and renewal of such visits, and hand carrying classified material aboard commercial aircraft.

During 1974, close liaison with the senior policy and administration officials of the Defense Industrial Security Program continued. A meeting was held with these officials and the Security Chiefs of the 11 Defense Contract Administration Service Regions to discuss industrial security regulations from the viewpoints of policy, administration, field operations and industry.

Sixteen facilities of member companies were among the 47 winners of the 1974 James S. Cogswell Industrial Security Achievement Award for superior performance in carrying out security obligations on defense contracts. About 12,000 industrial firms having DOD security clearances to perform on classified contracts were considered for the award.

Warranties and Consequential Damages

The 1974 edition of the ASPR contained provisions on warranties and government assumption of liability for damages to its property resulting from defects in products procured from the contractor by the government. The revised provisions which represent DOD action on all issues in these matters over the past several years reflect AIA's efforts, through CODSIA, to seek the promulgation of more workable and equitable contract terms and conditions. For example, the revised regulations provide more complete and realistic treatment of subcontractor flowdown, liability to third party transferees such as foreign governments, and service contracts. It is intended that after experience with the new ASPR, AIA will review recommendations which were not accepted and, if appropriate, reapproach the ASPR Committee on such matters.

The Federal Procurement Regulation (FPR) staff is developing coverage on these subjects for use by other government procuring agencies. AIA is supporting the CODSIA effort to provide assistance at each step in the process.

Cost Accounting Standards

At the close of 1974, eight standards, which have the force and effect of law, had been established by the Cost Accounting Standards Board (CAS Board). Three others were close to promulgation and at least a dozen more are either in development or identified for study.

AIA participated through CODSIA in providing comments on proposed standards throughout the process. Of special interest, a proposed Standard on Depreciation was the subject of discussion before the Board, and three comprehensive letters

were submitted on various drafts. One draft was withdrawn, and later a second proposed standard was published in the *Federal Register*. The redraft evoked considerable unfavorable attention because it would require a contractor to prepare and maintain records justifying the service lives of assets and the methods of depreciation. Ultimately, there would be a long term lengthening of the period of cost recovery. In addition, the proposed standard would be a return to a policy formerly used by the IRS which engendered many disputes and was discarded.

During the year AIA representatives met with the CAS Board on several occasions. One recommendation accepted by the Board, namely, that there be post promulgation evaluation of standards, led to a decision by the CAS Board to have a 1975 Evaluation Conference.

The CAS Board continues to appear receptive to some suggestions to changes in the content of standards but rejects opinions that standards have complicated the government contracting process; that standards are costly to develop, implement, and administer; and, finally, that as yet there have not been demonstrated benefits.

The complexity of the Standards process was demonstrated by DOD-proposed changes to the ASPR to implement Cost Accounting Standards. The CODSIA response, in which AIA participated, suggested ways that the process could be made simpler. However, there is no foreseeable way of preventing the process from being probably the most complex in the history of government procurement. Thus, when new Cost Accounting Standards are promulgated, or a contractor makes voluntary changes to accounting practices, or a demonstrated noncompliance is ascertained, contract price changes to hundreds of contracts may have to be negotiated and the contracts revised accordingly.

As more standards are established, increased difficulties can reasonably be expected. AIA will maintain a high level of effort in this field, seeking to eliminate or reduce additional burdens that might otherwise be imposed.

Government Furnished Facilities and Property

A Logistics Management Institute (LMI) study resulted in a recommendation that "Rent Across the Board" be charged by the government for government facilities in the possession of contractors. AIA successfully persuaded DOD that such a policy would not be in the best interest of that Department or the defense contracting community. The LMI concept was abandoned.

AIA, through CODSIA, also developed a position on a DOD proposal to require an additional control over government property involving double entry financial bookkeeping. At the end of 1974 there were indications that The Office of The Secretary of Defense soon may determine that the proposed control would be both needless and expensive.

In 1973, NASA proposed a new "Equipment Visibility System" designed to obtain more detailed records on existing equipment to increase the reutilization of such assets. As first proposed, the system would have placed onerous burdens on contractors. However, working with NASA, a much more acceptable system was developed and published in October

1974. AIA will continue to monitor and take appropriate action in this matter as experience is gained.

Commission on Government Procurement

The Commission on Government Procurement developed 149 recommendations relating to the federal procurement process. Each of these was assigned to an Executive Agency for the preparation of a proposed Administration position and recommendations. The activities of the task groups of the cognizant agencies have been closely monitored, and where

appropriate, AIA comments have been filed on proposed Administration positions, either directly or through CODSIA. In many cases, the P&F Council or the Patent Committee, has acted in conjunction with other AIA Councils or Services in commenting on proposed Administration positions.

A major recommendation of the Commission on Government Procurement was the establishment of an Office of Federal Procurement Policy (OFPP). This recommendation was enacted into law and at the year's end the Administrator of the OFPP had been nominated to the Senate.

Aerospace Research Center

The Aerospace Research Center provides a special focal point and expertise within the Association through which the aerospace industry can comprehensively examine current and emerging issues of major importance. It conducts research, analyses and advanced studies designed to bring perspective and understanding to the issues, problems and policies which affect the aerospace industry and which, due to its broad involvement in our society, affect the nation itself. The Aerospace Research Center brings to bear the judgment, knowledge and depth of experience available within the industry, as well as the expertise of others prominent in government, academia and other professional communities. The Center is dedicated to expanding knowledge and improving understanding of the aerospace industry.

Beginning with an overview paper on the energy crisis and continuing forward to an in-depth analysis of the financial profile of the aerospace industry, the Aerospace Research Center brought to a close the most diversified year since its inception four-and-one-half years ago. During 1974 the Center also became increasingly involved in meeting AIA needs for support materials, congressional testimony and speeches given by the AIA President.

Part of the increased responsibility assumed by the Center stemmed from an administrative shift involving both the Economic Data Service and the Library which were fully integrated into the Center during 1974. Accordingly, *Aerospace Facts and Figures*, the Year End Review and Forecast, the Semi-annual Employment Survey, Highlights of the Federal Budget and similar publications became an important part of the Center's effort. An expanded analysis of the Federal Budget also was published.

Investigation began on a number of areas of interest to the AIA membership. A working draft focusing on the next decade of developments affecting the aerospace industry was completed. Originally planned for publication in 1974, the paper was withheld pending further study of possible long-term effects of the energy shortage, worldwide inflation and recession. Much of the material contained in the manuscript, however, was used to support other Research Center studies during the year. The study on the financial profile of the aerospace industry was released as an internal document for AIA member companies. Work also was initiated on a study of technology transfer. A final draft of this paper will be completed in 1975. In addition, the Center prepared numerous materials for public dissemination and/or membership use, including a bi-weekly series of status reports on energy crisis developments during the first four months of 1974.

The Center was involved in the preparation of support papers on materiel priorities for commercial transport aircraft and AIA presentations dealing with government competition with industry. Regarding this latter point, the Aerospace Research Center published *Trends in Government Contracting* late in 1974. A study also was conducted on U.S. and foreign support of industrial technical effort. The product was included in the tri-association publication, *Technical Papers on Independent Research and Development and Bid and Proposal Efforts*.

Presently, the Center has underway a study of productivity and capacity, and a broad perspective study on research and development intensity in the aerospace industry. During 1974, the Center participated in an extensive survey on industrial innovation conducted jointly by the National Science Foundation and the American Society of Association Executives. Workshops designed to assess the results of the survey have been scheduled for 1975. The Center will be an active participant.

The Aerospace Research Center's library continued to review and update its holdings and to develop an improved cataloging system for its entire collection. The project, designed to increase the overall effectiveness of the Research Center, began late in 1974 and will be completed in 1975.

Aerospace Technical Council

The Aerospace Technical Council is the industry's top level technical advisory body through which broad technical and management problems affecting both government and industry are reviewed and solutions are sought.

Industry interface and communication with senior technical management officials in the government continued as the prime focus of ATCouncil attention and responsibility during 1974.

Its objective remained one of assuring that the aerospace industry viewpoint and perspective in the technical/engineering management areas is made known and receives appropriate consideration during the formulation of government policy. Exchanges of industry-government viewpoints on broad technical and management policies were accomplished at Council level through counterpart meetings with government officials. Industry technical positions were discussed with Government agencies at Council, Division and technical committee levels.

Through its Executive Committee, the Council provided policy guidance to and management overview of the activities of its Technical Specifications Division, Airworthiness Requirements Division, and nine technical working committees. It accomplished its counterpart discussions with government officials as functions of the Executive Committee and Technical Management Policy Group, often with representatives of the Procurement and Finance Council (P&FC) or other appropriate AIA councils or services. Some projects were conducted by task groups of Council members when the subject area and Government interface levels were found to warrant direct Council level attention. Most projects were conducted at the level of task groups of the technical working committees.

At the Council level, project effort continued in coordination with the P&FC in such areas as providing policy guidance to the Department of Defense (DOD) for administration of Independent Research & Development/Bid and Proposal (IR&D/B&P), the implementation of Part C of the Report of the Commission on Government Procurement, and the DOD Source Selection and Evaluation proposals. There also was follow-up to last year's study on "Design-to-Cost", working closely with high level personnel in DOD to develop policy for implementing this new philosophy. Other current Council level activities involve the Army proposal for Contractor Performance Evaluation, the development of policies and procedures to provide for review of Requests for Proposals (RFPs) by prospective contractors prior to formal solicitation, support of the Executive Committee of the Board in an evaluation of the impact of "buy-in" on competitive procurement and, after a review of the Air Force "Management System Indicators" program, a survey to determine the impact of this proposal.

The Council also has been actively involved in the internal AIA study to assess the impact of government competition with industry and is engaged in following the development of the Energy Research and Development Administration to be able to participate in the generation of policies and procedures. It also supported the P&FC in a successful effort to have some of the undesirable provisions in the legislation regarding patents modified.

In its counterpart meetings, the Council met with government officials on several occasions to discuss industry concerns on such subjects as: utilization of industry in the national technology program, federal R&D allocations and trends, role of the congressional Office of Technology Assessment, IR&D, review of RFPs, and "Design-to-Cost."



ROBERT L. JOHNSON
McDonnell Douglas Corporation
 Chairman, Technical Management
 Policy Group



GORDON E. HOLBROOK
General Motors Corporation
 Chairman, Airworthiness
 Requirements Division



HERMAN PUSIN
Martin Marietta Corporation
 Chairman, Technical Specifications
 Division



STEPHEN C. KAPERAROS
TRW Inc.
 Chairman, Technical Management
 Committee



GEORGE T. CASTLE
McDonnell Douglas Corporation
 Chairman, Transport Airworthiness
 Requirements Committee



FORREST COOPER, JR.
General Electric Company
 Chairman, Electronic Systems
 Committee



DONALD A. HICKS
Northrop Corporation
 Chairman, Aerospace Technical
 Council



KEN W. TRUHN
The Bendix Corporation
 Chairman, Standardization
 Management Policy Group



JOSEPH F. GRASS, III
The Boeing Company
 Chairman, Rotorcraft Airworthiness
 Requirements Committee



FREDERICK A. BRUTON
General Dynamics Corporation
 Chairman, National Aerospace
 Standards Committee



MEAD K. ROBUCK
LTV Aerospace Corporation
 Chairman, Flight Test Operations
 Committee



DONALD S. BLAKE
Avco Corporation
 Chairman, Propulsion Committee



DONALD W. BAHR
General Electric Company
 Chairman, Aircraft Noise and
 Emission Control Committee



JOHN E. WHERRY
The Boeing Company
 Chairman, Materials and Structures
 Committee

Airworthiness Standards

Federal Aviation Administration (FAA) invitations to comment on proposals to establish new or revised aircraft airworthiness standards continued to receive attention. Proposals commented on during the year were widely varied and included such subjects as means to prevent aircraft fuel system explosions, ground proximity warning systems, passenger emergency exit capacities, and criteria for replenishing and maintaining aircraft oxygen systems. Also, the Council's views were presented to the FAA on the subjects of use of reduced thrust for takeoff, rapid decompression effects on wide-body jet airplanes, and the composition of aircraft cabin interior materials.

A major undertaking during the year was the Council's participation in the FAA's Biennial Airworthiness Review Program. In response to a public notice, the Council submitted more than 100 proposed changes to the airworthiness rules and subsequently considered the compilation of more than 1,000 proposals received by FAA. Council representatives made significant contributions to the FAA sponsored Airworthiness Review Conference in December 1974. FAA will issue regulatory proposals to update the airworthiness rules in mid-1975.

International Airworthiness Requirements

The Council continued to review and comment on draft airworthiness standards for transport aircraft prepared by the Association Europeenne des Constructeurs de Materiel Aero-spatial (AECMA), in conjunction with the civil airworthiness authorities of France, Germany, The Netherlands, The United Kingdom, Italy, Sweden and Belgium. Council and AECMA representatives met in Washington, D. C., in December and exchanged views on the European effort to develop joint airworthiness requirements. Coordination of AECMA draft proposals with AIA was discussed and will continue as in the past.

Communication continued on International Civil Aviation Organization (ICAO) airworthiness matters with other members of the International Coordinating Council of Aerospace Industries Association (ICCAIA) preparatory to the next ICAO airworthiness committee meeting scheduled for 1976.

Aircraft Noise and Emission Control

The Council responded to FAA's notice of proposed rule-making on civil aircraft fleet noise (retrofit), a rule with a potential cost of one-half billion dollars. The AIA response, while not supporting or opposing the proposal, provided production scheduling considerations, discussed costs and means of paying for a nacelle retrofit program. Council representatives continued to consider possible changes that could be made to the aircraft noise certification standards of the United States and ICAO. Positions are being developed on ICAO noise standards for coordination with ICCAIA members in preparation for the January 1975 meeting of ICAO's Committee on Aircraft Noise.

Acquisition Management Systems & Data Requirements

The Council participated in two Council of Defense and Space Industry Associations (CODSIA) projects which were

concerned with requirements for acquisition management systems and associated management and product data.

One project involved the review of a proposed new DOD Directive which would define DOD policy on the controls to be imposed upon the generation and application on contracts of management systems and associated data. The industry review of successive drafts of this Directive was instrumental in the development of a policy document which now appears to encompass most of the principles considered essential for reducing proliferation and unnecessary costs long associated with such contractual requirements.

The other project involved the review of a position paper prepared by an interagency group representing DOD, General Services Administration (GSA), Department of Transportation (DOT), the National Aeronautics and Space Administration (NASA), and the Atomic Energy Commission (AEC), which responded to two interrelated recommendations of the Commission on Government Procurement. One is concerned with establishing government-wide criteria for management systems prescribed for use by government contractors, and the other with the analysis of the pricing of associated data. A Council project group first worked informally with the interagency group in the development of successive drafts of the position paper and the proposed implementation, then later participated in the CODSIA effort to review the final paper presented to industry by the GSA.

The industry objectives in both projects were the same, i.e. to advocate more recognition of and reliance upon the contractor's management systems for satisfying the government's need for management information, and the need to limit data requirements to an essential minimum, properly time-phased, utilizing the contractor's format.

Engineering Disciplines and Requirements

Contractual requirements for the engineering disciplines and design and test specifications and standards were the subjects of several continuing Council projects.

The concern of the DOD over excessive operational and maintenance costs of defense systems has been responsible for the current increased emphasis by the services on reliability, maintainability and testing requirements. Industry review of several requirements documents in these areas sought to keep them in consonance with other current requirements for engineering tradeoffs and design-to-cost, and achieving optimum systems and cost effectiveness.

Review of human engineering requirements documents resulted in industry recommendations that the several service-peculiar handbooks be consolidated into a single handbook suitable for tri-service use. It also was recommended that the handbook should include the material now contained in the tri-service human engineering standard, to become guidelines for design rather than contractually applicable requirements.

Contractual requirements found in new military standards for space vehicle testing and for evaluating system reliability and maintainability were found to be excessive, leading to unwarranted cost. Council effort is being directed toward reduction of such requirements, with more dependence upon contractor-recommended test programs.

Engineering and Configuration Management

Several projects of the Council have been concerned with policy documents, regulations, specifications and standards which define contractual requirements for engineering and configuration management. Industry review of these documents sought to assure that they would contain principles and policy which would support and complement DOD Directive 5000.1.

These projects include review of the recently published new DOD joint agency regulation on configuration management, review of the proposed revision to the DOD specification and standards covering engineering drafting practices and requirements, coordinating several American National Standards Institute (ANSI) drafting standards, and reviewing the USAF regulation and revised standard on engineering management.

Application of Military Specifications & Standards in Systems Acquisition Process

Current DOD policy expressed at top management levels reflects concern about unnecessary costs in the system acquisition process attributable to mis-application of specifications, standards, exhibits, manuals, and other such prescribing documentation. ATCouncil project groups have contributed to several DOD studies which have verified that there have been mis-applications or over-applications which have been the source of unnecessary acquisition costs. Such findings were brought out in the Air Force's Project ACE (Acquisition Cost Evaluation) Report, the Army's AMARC (Army Materiel Acquisition Review Committee) Study, the Navy NMARC (Navy-Marine Corps Acquisition Review Committee) Study, and the so-called "General Trogdon" Study.

The findings of such studies have led to a DOD-directed Defense Science Board Study which is an independent analysis of this problem. Participating ATCouncil project groups have emphasized and provided examples of inconsistencies between current top-level policy and continuing practices at the lower implementation level in DOD. Industry recommendations were made to avoid such mis-applications at the operating level. These include education and orientation of DOD personnel responsible for including such requirements in RFPs and work statements, effective screening of RFP and contractual requirements by independent boards, coordinating such requirements with industry, and a more effective program for controlling the development and issuance of such documentation for general application.

Another related factor is the need for a strong DOD program to ensure timely specification revisions to keep them up-to-date with changing technology and such DOD policies as "Design-to-Cost" and "Fly-Before-You-Buy." AIA is monitoring DOD plans for a revitalized Defense standardization program and has offered assistance of AIA committees in the implementation of such a program.

Defense Specification Management

The implementation of the Defense Materiel Specification and Standards Board (DMSSB) and its panels for materials, electronics and metric conversion was monitored throughout

the year in discussions with DOD representatives. AIA has designated one contact to DMSSB and each of three panels to assist in formalizing a strong industry interface which will ensure continuity of AIA committees' awareness of, and opportunity to participate in, standardization and specification policy developments to whatever extent Board policy allows. An AIA recommendation that a strong industry interface be established by the Board and its panels is under consideration and various possible interface arrangements are being explored.

The DMSSB has initiated broad studies and actions including:

- How can control be exercised on the application and tailoring of specifications and standards to the actual needs of each procurement of end item system and equipment?
- How can the present large and complicated specification tree (more than 40,000 documents involved) be modernized, updated, and simplified to improve the cost effectiveness of weapon system acquisition?
- How can emphasis be shifted from duplicative standardization efforts of various military components and associations/societies to a unified system of fully coordinated standards which are responsive to DMSSB policy and needs of government and industry on a timely basis?
- Making maximum use of commercial standards and practices for military materiel.
- Coordinating military operational requirements and design objectives among the Military Departments to reduce duplication and minimize cost.

International Standardization

The current trend toward universal use of the metric system assures that international standards will be developed only in that system, and that U.S. standards based on a non-metric system, will not gain international acceptance. A 1972 study concluded that AIA representation to the Technical Committee on Aircraft and Space Vehicles (TC-20) of the International Organization for Standardization (ISO) needed strengthening so that AIA views would be better received in the international arena.

Since the 1972 study, AIA representation has been aligned with the ISO/TC-20 organization, achieving a larger and more effective U.S. delegation to international meetings. Areas of active U.S. participation include electrical requirements, rivets, threaded fasteners, environmental testing, noise, cargo, and fluid pipelines and fittings. With active participation, the U.S. delegation has been more successful in having its views prevail in recent ISO meetings.

Metric Conversion

Two significant factors in pacing the aerospace industry's conversion to metric measurement do not exist—a national policy and customer requirements. Nevertheless, both appear imminent in 1975 in the form of national legislation from Congress and an affirmative metric policy statement from the Department of Defense.

These potential developments have prompted acceptance on the part of AIA of a leadership role in the formation of an

Aerospace Sector Committee of the American National Metric Council, a private sector body formed to coordinate metric activities in the industrial and commercial segments of the United States. The Aerospace Sector Committee will formulate a metric conversion program coordinated with government, customers, manufacturing and supplier industry requirements.

AIA has participated on a limited scale in current government and industry actions in the development of metric standards in order to assure that aerospace requirements are being considered and incorporated. Typical of these efforts are the development of metric threads, fasteners and O-rings. A plan on schedule, cost and priority of needed metric hardware standards also has been developed.

National Aerospace Standards

National Aerospace Standards (NAS) are a series of voluntary industry documents covering a wide variety of aerospace requirements not included in current government, national or other industry documents. The series consists of nearly 1,300 standards and specifications defining mechanical and electrical hardware, structural fasteners, large numerically controlled machine tools, cargo pallets and airport planning.

During 1974, 23 new standards covering specialized fasteners and other mechanical hardware were published. In addition, revisions to 60 existing standards were made.

The Department of Defense has adopted 165 NAS hardware standards as acceptable industry standards for DOD use, and has listed these in Military Bulletin 147—"Specifications and Standards of Non-Government Organizations Released for Flight Vehicle Construction,"—and in the Department of Defense Index of Specifications and Standards (DODISS).

Material and Process Specifications

Industry review of government material and process specifications provides government agencies preparing these documents with current user experience and advice and results in acceptable and usable documents of minimum cost impact.

Specification reviews during 1974 covered such materials and process items as aluminum, titanium and other metal alloys; structural sandwich and composite materials; joining processes such as welding and adhesive bonding; finishes, coatings and elastomers. A review of published documents indicates a high degree of acceptance of the industry recommendations.

A plan for the management of overlapping interests in materials and process specification development has been proposed to the recently established Materials Panel of the Defense Materiel Specifications and Standards Board. Recommendations were made to the panel on control of specification proliferation and updating; means of generating a materials data base for design and specification purposes, and development of a system for expeditious substitutions of materials to alleviate shortages.

Structural Design Criteria

Industry specialists have been working with military service representatives to improve the structural integrity and service life of military aircraft through updated design and test criteria.

Typical of these efforts are:

- Specialists in structures and fracture mechanics held several meetings with Air Force structures representatives on a proposed new Air Force specification on Airplane Damage Tolerance Design Requirements. Through discussion and compromise, realistic requirements were set which were acceptable to industry and the Air Force.
- Recommendations have been submitted on proposed specifications and revisions covering fasteners, design allowables, aircraft ground loads, environmental test procedures and pressure control systems.
- Industry experience and recommendations regarding expedited use of advanced composite technology in the design and production of aircraft and space vehicles have been provided to the Air Force.

Microcircuits

A long-time goal of AIA was achieved by a DOD policy change to allow release of a preferred microcircuits list for military application. This list of fully qualified devices, Military Standard-1562, will provide control of proliferation which has generated 15,000 integrated circuit Federal Stock Numbers, increasing at the rate of 280 per month (One device had been assigned 22 different Federal Stock Numbers under 45 different manufacturer part numbers). The Defense Electronics Supply Center estimates that the five-year cost avoidance that will accrue as a result of this strong standardization action will be more than \$500 million. The impact on reliability and consequential maintenance costs of military systems would add substantial dollars to this figure.

The favorable impact of this preferred list on availability and lead times for parts delivery is expected to be helpful to systems producers.

Electrical Connectors

AIA-EIA-SAE (Electronic Industries Association and Society of Automotive Engineers) joint recommendations on standardization of high density connectors were approved by the Defense Materiel Specifications & Standards Board/Electronics Panel and later by the full DMSSB, after careful consideration of the positions of each military service and the DSA. The Director of Defense Research and Engineering (DDR&E) and Assistant Secretary of Defense for Installations and Logistics (I&L) have directed early implementation of this standardization agreement, which will provide cost avoidance of more than \$12 million. More important, this successful action is a milestone test case of DMSSB ability to make a decision, unfavorable to desires of one of the military services, and achieve full implementation of the decision. This also has been a successful test case for three associations' ability to reach a hard standardization decision and stand behind that decision.

Propulsion

During 1973, a commitment was negotiated with the Joint Logistic Commanders (Army Materiel Command, Naval Materiel Command, Air Force Systems and Logistics Commands) that

industry would be solicited to review the joint military requirement for turbojet and turbofan engines. A request to review this requirement, which establishes development and test programs as well as procurement, was received in 1974.

The massive and detailed requirements now established are of grave concern. Since 1960 the number of test requirements and test hours have increased by a factor of 4 or 5 in addition to low cycle fatigue testing equal to twice the design life of components and the full design life of the complete engine. The time and costs incurred by such requirements, together with the technological restrictions placed on the contractor, lead to the conclusion that these requirements are not in consonance with current DOD philosophies such as "Design-to-Cost." Therefore an AIA position is being developed, not on technical details and/or requirements, but on the broader issues of technical management/policy within the organization of these Joint Logistic Commanders. This position will be presented to the military in 1975 as a first step in the development of a definitive policy for development test and procurement programs.

AIA representatives have worked closely with the FAA in a program to review the causes and possible cures for in-flight shutdown of civil transport powerplants. In the case of performance-related shutdown problems it appears that an approach favorable to the manufacturer will be negotiated early in 1975. There was significant representation to the propulsion related portion of the first biennial Federal Aviation Regulations (FAR) review held in Washington in December.

AIA rocket propulsion activity remains as the authoritative source of information on chemical propellants. Through correspondence and joint meetings assistance has been provided to Air Force Rocket Propulsion Laboratories, the Army Materiel Command, the Interagency Propulsion Committee and the

Chemical Propulsion Information Agency. Liaison has been maintained with propellant manufacturers and the American Society for Testing Materials (ASTM).

Flight Test and Operations

Activity initiated in 1973 culminated in the June 1974 delivery to the ASPR Committee of a CODSIA position developed under the leadership of AIA. This position offered a complete revision of the Joint Instruction (Army, Navy, Air Force, Defense Contract Administration Service) which governs contractor operation of aircraft (usually bailed) for which the government has assumed ground and flight risk.

The industry proposal would provide the contractor with management flexibility commensurate with his responsibility to perform under the statement of work and/or the test program as defined by the contract, and would largely return to the contractors those prerogatives which have been usurped by the Military services under the current instruction. DOD briefings were conducted in September with some acceptance of industry proposals indicated. A response from the government is anticipated early in 1975, at which time negotiation of the full-time position of industry can begin.

The numerous DOD and individual Service requirements related to Development Test and Evaluation (DT&E) and Operational Test and Evaluation (OT&E) are under critical review to determine the value of a consolidated industry position expressing the need for a definitive uniform policy within DOD.

Serious consideration is being given to the development of an industry standard on "Flight Operations/Flight Safety." However, allocation of resources has been deferred pending resolution of the issue of Contractor Flight Operations with DOD.

International Service



J. B. L. PIERCE
The Boeing Company
Chairman, International Committee

The International Service is a guidance and coordination point for the exporting segment of the aerospace industry. Operating through the International Committee, its primary activity is serving as a medium for the exchange of views between industry and government agencies, to assist in creating, within the national interest, the optimum environment for increasing aerospace exports.

As generally predicted, aerospace exports reached new highs in 1974, totalling \$6.8 billion, of which \$2.5 billion represented the export of civil transport aircraft, plus \$2.6 billion worth of civil aircraft engines, parts, accessories and general aviation aircraft, including helicopters. The remaining \$1.7 billion represented exports of military aerospace products—aircraft, missiles, engines and support equipment.

The economic significance of these aerospace exports was heightened in light of the negative national trade balance experienced in 1974. Estimates by the Department of Commerce indicate that total aerospace exports for 1975 may go as high as \$7.5 billion.

While setting export records in 1974, the aerospace industry also experienced growing concern for concurrent decreases in government assistance in trade matters. For example, internal government economy moves reduced support levels for export activities in the following areas: Department of Commerce overseas promotional activities, such as trade fairs; Department of Defense staff levels in offices processing export licenses; more extensive reviews of advanced technology exports across a broad front, causing delays; more stringent reviews of nations and products involved and a reduction and potential elimination of Grant Aid programs.

Under review by Executive Branch agencies in 1974 was a recommendation by the Office of Management and Budget (OMB) involving restrictions on the Export-Import Bank, elimination of the Domestic International Sales Corporation and the Western Hemisphere Trade Corporation, and cancellation of U.S. government-sponsored programs which support export expansion. Commerce Department activities, such as those at the Paris Air Show and other trade shows, were subject to reduction. The Eximbank, which is vital to commercial aerospace sales, may be subject to lending at drastically reduced levels and competitively unfavorable terms. Export sales of technical know-how in the space field were severely restricted.

At the end of 1974, with passage of the Trade Reform Act, there appeared to be a better environment in the preparations for the forthcoming trade negotiations to be conducted in Geneva under the General Agreement on Tariffs and Trade (GATT), which are scheduled to get under way by mid-1975. The President has received the authority to negotiate without unnecessary restrictions. These negotiations will be lengthy, comprehensive, and the resulting agreements will have great long-term impact on our economy and the ability to conduct international trade.

AIA in 1974 nominated nine of the 18 aerospace industry executives who were designated by the Commerce Department and the Office of the Special Representative for Trade Negotiations to serve on the Industry Sector Advisory Committee. Hopefully, this new method of providing knowledgeable industry experts to support government negotiations will attain better results for both the United States and the aerospace industry.

Foreign Military Sales

The International Committee and the Procurement and Finance Council jointly conducted an analysis of industry's

problems concerning the allowability of costs and profit on foreign military sales. In November 1974, AIA wrote to the Deputy Secretary of Defense outlining the major problems of foreign military sales and recommended that the Department of Defense conduct a review for the purpose of updating policies and practices on such procurements. Offering assistance in the form of personnel or information, AIA's proposal included a supporting statement for the review.

Export Financing

Economic conditions in 1974, particularly the tight money situation, resulted in the need for too many last-minute export credit financing transactions for commercial aerospace products. However, responsive and effective action by the Eximbank, assisted by a number of commercial banks, saved a score of aircraft sales that might have been lost due to restricted availability of funds. Nonetheless, the year saw legislative threats to curtail Eximbank operations, including the export credit financing of commercial jet aircraft.

In addition to the leading role played by Eximbank in aerospace export credits, the industry was materially assisted in financing by such other sources as the Private Export Funding Corporation, the Foreign Credit Insurance Association, private banking and investment institutions and large commercial banks.

Other 1974 legislation of interest to aerospace included the Military Sales Act provisions of the Foreign Assistance Act. The Department of Defense requested \$555 million for credits and guarantees to accommodate \$872 million in sales. Congress approved \$405 million for credit sales and DOD, therefore, will be required to guarantee from commercial sources the balance of credit sought for Fiscal Year 1975.

New Agreement Restricts Financing

During 1974, the United States and five other nations reached an agreement to virtually end export credits to each other, to Arab oil-producing countries, and to Venezuela, as a general rule. This agreement among oil-consuming countries was designed to show that they do not have funds to give easy credit.

The export credit agreement covers two major points: the countries agreed not to grant government export credits to each other or "certain other wealthy countries;" they pledged not to give export credits to any country at less than 7.5 percent interest. In addition, interest subsidies for credit exceeding three years would not receive official national support.

An apparent key to the agreement's importance is how the six interpret the "General Rule." Conceivably, officials say, Eximbank financing of U.S. aircraft, or at least transport jets, may be an exception to the rule. At the end of the year, Eximbank sources indicated that the Treasury and the Bank had not decided on the nature of the exceptions.

Export Control of Aerospace Products

Aerospace products and licensing agreements received extremely close scrutiny during 1974 by the various govern-

ment agencies before export authorization was granted. This was the case for both commercial and military aerospace product lines. The national concern towards the export of technology, plus economic and financial problems, strongly affected the export control environment.

In an attempt to offset this trend, the International Committee increased its dialogue with the State Department's Office of Munitions Control. At the request of the Commerce Department's Office of Export Administration, and in cooperation with AIA's Manufacturing Committee, the International Committee nominated seven aerospace industry executives with specialized technical capabilities, to serve as Aerospace Advisors on Export Control on a broad range of commercial aerospace products. This was done to assist the Department in preparing for the meeting with the Coordinating Committee of the NATO nations to reduce the list of restricted commodities.

In discussions with officials of the State Department, DOD, and the military services, the International Committee objected to the rather drastic personnel cuts in the government offices which handle the industry's export license applications. Further appeals may be required to diminish costly delays in licensing now being experienced.

R&D Recoupment

The Council on International Economic Policy in mid-1974 recommended to Executive Branch agencies that recoupment be sought on government-owned and financed technologies and products when these are proposed for sale to non-U.S. government buyers.

This policy would:

- Be designed to achieve a return on Government investment, and not to limit arbitrarily transfers of technology to foreign nations.
- Entail proportionate (i.e., *pro-rata*) cost recovery on product sales.
- Allow a fair market recovery on technology sales, such to be predicated on a satisfactory interagency determination of fair market pricing policy and procedures.
- Allow reasonable agency flexibility and discretion in implementation, and permit exceptions because of national security, foreign policy, and overriding public interest.

The President directed that necessary follow-up action be taken to implement this policy. Therefore, DOD was requested to chair an interagency working group to determine appropriate fair market pricing policy and procedures, keeping in mind the objectives of the recoupment policy. The Department of Justice was requested to lead another interagency group, working in close conjunction with the DOD group, to determine the need for new legislation, and to draw up any that is required.

During October, the International Committee was advised by DOD officials that the policy of waiving R&D recoupment would be continued in cases where foreign competition is a factor.

Office of Public Affairs



H. WALTON CLOKE
Rockwell International Corporation
Chairman, Public Affairs Council

The mission of the Office of Public Affairs is to inform the public about the goals and accomplishments of the aerospace industry in support of national security, space exploration, technological leadership, civil aviation, commerce, international trade and other national goals.

Throughout 1974 the Office of Public Affairs concentrated its efforts on established programs in those areas directed by the Public Affairs Council.

Major emphasis was placed on the importance of high technology in domestic and international affairs and to this industry in its role of developer and supplier to the Department of Defense, NASA and the air transportation industry.

Publications; Media Services

Aerospace Magazine: Published quarterly, again with a number of articles by outside authorities such as Mr. Paul R. Ignatius, President and Chief Executive Officer of The Air Transport Association, on the impact of air transportation on travel, commerce and the economy; Mr. Arnold Frutkin, Assistant Administrator of NASA for International Affairs, on international cooperation in space; Dr. Malcolm Currie, Director for Defense Research and Engineering, on defense in perspective; Dr. Myron S. Malkin, Director of the Space Shuttle Program, NASA, on the progress of the development of the shuttle; Mr. Thomas V. Falkie, Director of the Bureau of Mines, Department of the Interior, on mineral shortages and the aerospace industry.

Aerospace Perspectives: Spaced throughout the year, AIA issued six Perspectives on these subjects: "The Limitless Horizons of Space," by NASA Administrator, Dr. Fletcher; "What Can't a Helicopter Do?"; "Export Financing Faces Limits," by Chairman Casey of Eximbank; "Technology in World Affairs—and Ours," a speech by AIA's President, and "Helping Solve Earth's Problems," outlining the accomplishments of ERTS-1, the pioneering earth resources technology satellite.

General Media: AIA disseminated six relatively short messages to print media throughout the U.S. during the year: "Air Transportation: A Necessity—Not a Luxury"; "Trends in Federal Dollar Outlays"; "Aerospace and the U.S. Balance of Trade"; "Avoiding an Illogical Posture," quoting Secretary of Commerce Dent in support of high technology; "Around the World—Then and Now," about the 50th anniversary of the first around-the-world flight by three Douglas World Cruisers, and "Why an Eye in the Sky?," delineating the accomplishments of ERTS-1 and the expected benefits of ERTS-2.

Studies: Publication assistance was provided for two major studies:

- "Independent Research & Development and Bid and Proposal Efforts," launched early in the year with a special news media briefing, was given extensive distribution. At year's end this major study still was in constant demand.
- "Trends in Government Contracting—Growth of Intramural Activity" was published late in the year and underwent specialized distribution throughout industry and to government agencies.

Aerospace Facts and Figures, 1974/1975: This highly regarded reference work was published, as usual, under sponsorship and sales arrangement with *Aviation Week & Space Technology* magazine, a McGraw-Hill publication.

Helicopter Directories: Both the Directory of Helicopter Operators and the Directory of Heliports and Helistops were issued during the year. These are the most complete publications in their fields. In the future, these directories will be published alternately from year to year.

Other helicopter-oriented publications included the annual "VTOL Aircraft Designation Chart; Directory of Helicopter Awards, 1944-1974," and the Federation Aeronautique Internationale Directory of Helicopter Records.

Aerospace Industries Association 1973 Annual Report: This report was published early in 1974.

News Releases and Queries: A number of news releases on matters of primary concern to the industry were issued throughout the year.

After a one-year lapse, the Aviation/Space Writers Association resumed its mid-December "Aerospace Industry Year-end Review and Forecast" luncheon featuring President Harr. Beyond this well-attended conference, the year-end news release and accompanying economic data were given extensive distribution. Clippings indicate wide use of this information.

Throughout the year, frequent news media queries and interviews were handled by members of the staff.

Audio-Visual Activities: With the help of member companies and civil agencies two television news featurettes were produced and distributed:

- "Police Helicopters and Public Safety," released early in the year, marked the 25th anniversary of the first use of police helicopters by New York City.
- "Around the World in Fifty Years," released in September, coincided with the 50th anniversary of the conclusion of the world's first circumnavigation of the globe by aircraft of the U.S. Army Air Service.

Vertical Lift: AIA continues to support U.S. pre-eminence in the vertical lift aircraft field. During 1974, for the first time, the demand for U.S. helicopters exceeded the supply. Since 1960 there has been an average annual increase of 12 percent in the number of civil helicopters in use; since 1970 the production of commercial helicopters has shown an average annual increase of 11 percent, and since 1961 the dollar value of helicopters exported has increased annually at a rate of 16 percent and numerically by 12 percent. In 1974, heliports in the U.S. increased 31 percent to 3122 and hospital heliports increased 26.8 percent to 487.

A Public Affairs staff member was named chairman of the Helicopter Association of America's Heliport Research and Development Council and secretary of the HAA/Industry public relations advisory committee. Staff services continued to be extended to The American Trauma Society, the National Aeronautic Association, the Aviation Advisory Committee of the Metropolitan Washington Council of Governments, the Federal City section of The American Helicopter Society, the AVCO/AWA Helicopter Heroism Award committee and The Whirly-Girls, international organization of women helicopter pilots. A men's auxiliary to the latter organization was formed in order to lend increased support to the scholarship program for training women helicopter pilots.

Education Services

Efforts continue to aid those actively involved in aerospace education at all curriculum levels. They have been well received. This section of the Public Affairs staff handles educational correspondence; conducts surveys through the Public Affairs Council as to company interests and involve-

ment in aerospace, career, and economic education; communicates and cooperates with both aerospace and non-aerospace organizations involved in or providing educational services, and continues to analyze the potential educational resources of AIA staff and member companies.

The Service created and produced the monthly *Journal of Aerospace Education* for dissemination via the National Aeronautic Association. It also began preparing an annual *Directory of Aerospace Education*, a unique guide to sources of assistance and materials in aerospace education which will be published early in 1975.

In order to increase the flow of information and materials to educators, arrangements were made to provide *Journal* subscribers the *Directory, Aerospace* magazine, *Aerospace Perspectives*, *NASA's Report to Educators*, one copy of each new educational publication from NASA and the FAA, and other appropriate educational publications from the aerospace community. A number of member companies have noted the value of the *Journal* and have purchased multiple subscriptions for local teachers and libraries in plant communities.

AIA is assisting in the organization of a National Council on Aerospace Education. The Council, which will include representatives from all major organizations in the field, will serve as a national forum for aerospace education and as the editorial advisory board of the *Journal*. Active support also has been given to the 100 Aerospace Education Resource Centers now in operation at colleges throughout the nation.

AIA's Associate Director for Education Services represented the U.S. at the annual meeting of the International Aerospace Education Committee in Paris and was elected Vice President of the Committee. He will continue as the U.S. representative in 1975.

Activities of President Harr

In the public affairs area, Mr. Harr made a number of formal appearances, attended and participated in several major Council and Committee meetings.

Speaking engagements included the Bridgeport, Conn., Chamber of Commerce; a meeting of institutional portfolio managers and aerospace analysts in New York; the FAA's Aviation Review Conference; the World Affairs Council of Orange County at Newport Beach, Calif.; the World Affairs Council and Chamber of Commerce at Pittsburgh, Pa.; the Puget Sound Chambers of Commerce (14) at Seattle, Wash.; the Industrial College of The Armed Forces at Ft. McNair, Washington, D.C., and the Aviation/Space Writers Association (year-end review and forecast) at Washington, D.C. He also served as a session chairman of the World Aerospace Conference sponsored at San Francisco by the *Financial Times of London* and the U.S. Ziff-Davis Publications *Aerospace Daily* and *Aviation Daily*.

Meetings

The Public Affairs Council met at Washington, D.C., early in April and again at San Diego early in October. Two new activities for 1975 will be a slide presentation for member company and general public use, and a modest paid-space advertising program to be conducted on a trial basis. The PAC Executive Committee met several times throughout the year.

Traffic Service



E. LEE MOUNGER
Martin Marietta Corporation
Chairman, Traffic Committee

Traffic Service is responsible for obtaining for the aerospace industry economical and efficient transportation facilities and service. Within its area of activity the Service represents the Association before transportation regulatory agencies, boards, associations of carriers and the courts.

A major responsibility of Traffic Service is to take action which will assure that the determinations of carriers and their regulatory agencies—primarily the Interstate Commerce Commission (ICC), the Civil Aeronautics Board (CAB), and the numerous surface carrier rate bureaus—are consistent with the best interests of AIA member companies. Such determinations generally affect the rates and services of carriers.

In 1974, by means of the coordinated efforts of the Traffic Committee, Traffic Service handled 20 such cases before carrier rate bureaus, 13 before the ICC, and seven which were concerned with proceedings before the CAB. The Service also represented the interests of members in two court cases.

Eleven of the foregoing cases were concluded during the year with decisions favorable to the positions advocated by AIA. Total savings of \$1,269,135 resulted from the successful conclusion of those cases. Thirty such cases still were being actively handled at year's end.

Throughout the year the Traffic Committee also initiated or participated in 13 projects concerned with the rules, regulations and practices of Federal administrative agencies. Although specific dollar savings cannot be identified as a result of those actions, the results obtained facilitated member companies' relationships with those agencies and thus contributed to greater economy, improved efficiency and increased productivity. Eleven such projects continue in an active status.

The following are representative examples of the actions taken in the foregoing areas.

Litigation

- In a Memorandum Order dated March 4, 1974, the Federal District Court in Fort Worth, Texas, referred to the ICC for a determination of technical issues, a suit which had been instituted by a motor carrier seeking to assess extremely high freight charges on shipments of aircraft components and parts. The carrier took the position that the "end use" of the parts in aircraft justified unreasonably high freight charges irrespective of the actual transportation characteristics of the commodities and the fact that they were similar to other articles not used in aircraft. AIA was a participant in the court case and continued its participation before the ICC. A decision is pending.
- AIA appeared before the ICC in opposition to a proposal of motor carriers of household goods to assess penalty charges against shippers who are unable to accomplish the payment of freight charges within seven days. AIA challenged the Commission's authority to impose such sanctions and pleaded the unreasonableness of the seven-day credit period in view of prevailing deteriorated mail service and existing commercial credit practices. An initial adverse decision of the ICC is now on appeal in the Federal District Court of the District of Columbia.
- In a proceeding before the ICC, AIA was successful in preventing the nation's railroads from obtaining a reversal of a long-standing ICC policy which required carriers to assess freight charges on the basis of the sizes of cars ordered by shippers rather than on the basis of

the higher freight rates which attach to larger cars arbitrarily provided by carriers.

- In a proceeding before the CAB, the Administrative Law Judge in a recommended order held in favor of the adoption of air carrier liability rules patterned after those suggested by AIA. The revised rules, if adopted by the Board, will simplify claim settlement procedures of air carriers and bring them into line with the more reasonable provisions which now apply to surface carriers.

Government Administrative Agency Projects

- AIA, in cooperation with the Army, Navy, Air Force, National Aeronautics and Space Administration and Department of Transportation, conducted a seminar on government requirements for the preparation by contractors of transportation plans as a part of major systems procurement programs. Commercial carriers also participated in seminar presentations and discussions which were concerned with transportation and the procurement cycle, requests for proposals (RFP) and their contents, RFP responses, transportation input, detailed operating procedures to be followed in arrang-

ing for the transportation of extreme dimension shipments and articles of a hazardous nature.

- As an intervenor in several rule-making proceedings of the Hazardous Materials Board of DOT, and as a participant in several discussion sessions with representatives of that office, the Traffic Committee contributed recommendations for facilitating the movement and safe transportation of articles of a hazardous nature. The Committee was particularly active in the promotion of handling, shipping, and labeling practices which foster the safe transportation of hazardous materials by air.

Task Force Activities

In addition to the foregoing types of activities, the Traffic Committee, by specifically assigning responsibilities to designated *ad hoc* task forces, actively pursued projects concerned with the development and promotion of air cargo transportation, the safe and economical transportation of personnel, the simplification and more reasonable application of regulations of the U.S. Customs Service, and the more productive use of energy and the conservation of the nation's energy resources.

Transport Aircraft Council



E. H. BOULLIOUN
The Boeing Company
Chairman, Transport Aircraft Council



LUIN L. LEISHER
The Boeing Company
Chairman, Commercial Transport Aircraft Committee

The Transport Aircraft Council coordinates and presents transport aircraft and engine manufacturers' views with respect to commercial air transport matters; it plans and gives direction to AIA actions designed to assure that the most effective and efficient potential of civil air transport aircraft is realized.

The Commercial Transport Aircraft Committee assists the Council by representing the manufacturers in day-to-day activities and by maintaining an overall Association Civil Transport Aviation Plan.

The Transport Aircraft Council serves as the focal point within AIA for matters related to civil transport aviation, including liaison with other organizations involved with this segment of the industry.

The Commercial Transport Aircraft Committee, which was organized during 1973, maintains an AIA Civil Transport Aviation Plan. The purpose of the Plan is to integrate the relevant activities of all AIA committees and councils and is directed toward the sound growth of air commerce, both nationally and internationally.

During 1974, industry comments were provided on a number of Advisory Circular revisions covering various aspects of airport design standards proposed by FAA; on the FAA's New England Region Aviation System Ten-Year Plan, FY1975-1984; on the FAA's airport pavement program proposal; on the National Health Resources Advisory Committee Report on Airport/Community Emergency Medical Preparedness; and on NASA's STOL Operating Experiments Program proposal.

The Committee also reviewed a proposed revision to the International Civil Aviation Organization's Annex 14 covering airport construction. In addition, the industry participated in a number of FAA consultative planning conferences.

The Council and Committee continued to provide support to the U.S. aviation Industry Working Group and its international counterparts, the International Industry Working Group Coordinating Committee and the International Industry Working Group. The industry is providing technical support to the Industry Working Group's project to develop a commercial transport aviation document entitled "Short Haul Aircraft Characteristics, Trends and Growth Projections" which complements the CTOL (Conventional Take-off and Landing) Transport Aircraft Characteristics document distributed in 1974. These publications are important references for airport planners, communities and operators on an international basis.

The most significant activities of the Committee were three industry initiative projects which were undertaken in response to a need identified during the development of the aforementioned AIA Civil Transport Aviation Program Plan. These projects, which will continue in 1975, are:

- An assessment of current and near term (10-year) foreign competition in the field of commercial transport aircraft. This analysis when completed will include assessments of the USSR, Europe and Japan.
- A quantification of the attributes of commercial air transportation which compares auto, train, bus and air transportation for passenger intercity travel within the United States.
- An examination of U.S. governmental jurisdiction in decisions regarding airport capacity, expansion and access.

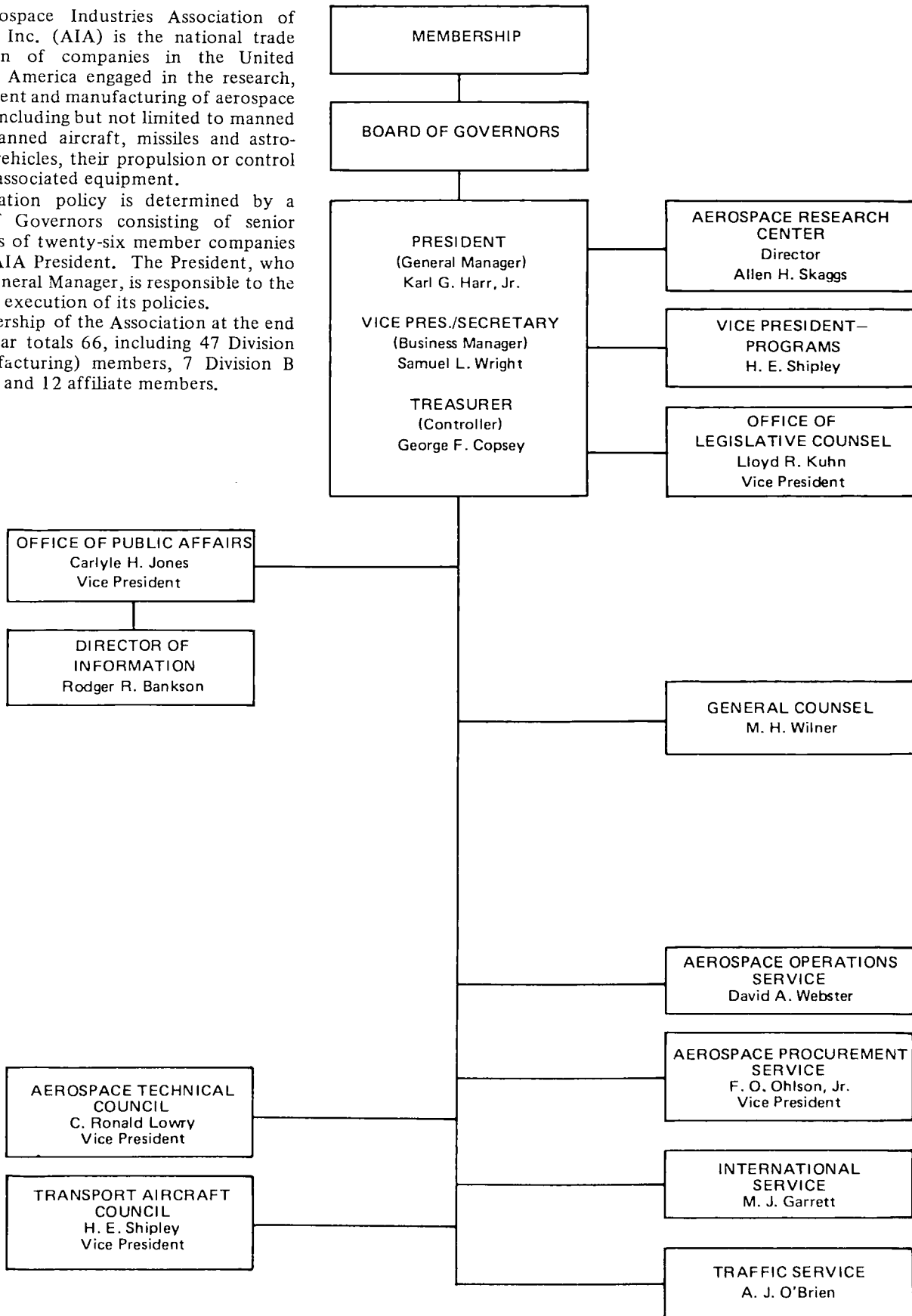
ORGANIZATIONAL CHART

(January 1, 1974)

The Aerospace Industries Association of America, Inc. (AIA) is the national trade association of companies in the United States of America engaged in the research, development and manufacturing of aerospace systems, including but not limited to manned and unmanned aircraft, missiles and astronomical vehicles, their propulsion or control units, or associated equipment.

Association policy is determined by a Board of Governors consisting of senior executives of twenty-six member companies and the AIA President. The President, who is also General Manager, is responsible to the Board for execution of its policies.

Membership of the Association at the end of the year totals 66, including 47 Division A (manufacturing) members, 7 Division B members, and 12 affiliate members.



AIA MEMBERSHIP

MANUFACTURING MEMBERS

ABEX CORPORATION
AEROJET-GENERAL CORPORATION
AERONCA, INC.
AVCO CORPORATION
THE BENDIX CORPORATION
THE BOEING COMPANY
CCI CORPORATION
CHANDLER EVANS INC.
Control Systems Division of Colt Industries Inc.
E-SYSTEMS, INC.
THE GARRETT CORPORATION
GATES LEARJET CORPORATION
GENERAL DYNAMICS CORPORATION
GENERAL ELECTRIC COMPANY
Aerospace Group
Aircraft Engine Group
GENERAL MOTORS CORPORATION
Detroit Diesel Allison Division
THE B. F. GOODRICH COMPANY
Engineered Systems Co.
GOODYEAR AEROSPACE CORPORATION
HEATH TECNA CORPORATION
HERCULES INCORPORATED
HONEYWELL INC.
HUGHES AIRCRAFT COMPANY
IBM CORPORATION
Federal Systems Division
ITT AEROSPACE, ELECTRONICS, COMPONENTS
AND ENERGY GROUP
ITT Aerospace/Optical Division
ITT Avionics Division
ITT Defense Communications Division
KAISER AEROSPACE AND ELECTRONICS
CORPORATION
LEAR SIEGLER, INC.
LOCKHEED AIRCRAFT CORPORATION
LTV AEROSPACE CORPORATION
MARTIN MARIETTA AEROSPACE
McDONNELL DOUGLAS CORPORATION
MENASCO MANUFACTURING COMPANY
NORTHROP CORPORATION
PHILCO-FORD CORPORATION
PNEUMO CORPORATION
RAYTHEON COMPANY
RCA CORPORATION
ROCKWELL INTERNATIONAL CORPORATION
ROHR INDUSTRIES, INC.
THE SINGER COMPANY
Aerospace and Marine Systems Group
SPERRY RAND CORPORATION

SUNDSTRAND CORPORATION
TELEDYNE CAE
TELEDYNE RYAN AERONAUTICAL
TEXTRON, INC.
Bell Aerospace Company
Bell Helicopter Company
Dalmo Victor Company
Hydraulic Research Spectrolab and Manufacturing
Corporation
THIOKOL CORPORATION
TRE CORPORATION
TRW INC.
UNITED AIRCRAFT CORPORATION
WESTINGHOUSE ELECTRIC CORPORATION
Public Systems Company

DIVISION B MEMBERS

AVIQUIPO, INC.
FRANK B. HALL AND COMPANY
Parker Aviation Division
MANUFACTURERS AIRCRAFT ASSOCIATION, INC.
BRUKNER, CLAYTON J.
CONDON, CYRIL HYDE
FALES, HERBERT G.

HONORARY LIFE MEMBER

LOENING, GROVER

DIVISION OF AFFILIATE MEMBERS

AIR CARRIER SERVICE CORP.
ASSOCIATED AEROSPACE ACTIVITIES, INC.
AVIATION WEEK & SPACE TECHNOLOGY
BRITISH AIRCRAFT CORP. (U.S.A.), INC.
COMMERCE OVERSEAS CORPORATION
COOPERS & LYBRAND
EASTERN AIRCRAFT CORP.
INFORMATION HANDLING SERVICES, INC.
NATIONAL CREDIT OFFICE, INC.
TEXACO, INC.
TRANSAERO, INC.
U.S. AVIATION UNDERWRITERS, INC.



AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1725 DE SALES STREET, N. W., WASHINGTON, D. C. 20036