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

The industry AIA represents is one of the nation's largest. In 1979, sales totaled $45.5 billion, including $38.2 billion in sales of aerospace products and services and $7.3 billion in the non-aerospace category. Within the aerospace sales figure, the two largest elements in 1979 were sales to the Department of Defense and commercial sales, $17.6 billion and $17.3 billion respectively. The third element was NASA sales, $3.3 billion.

The industry's backlog at year-end 1979 was $68.4 billion, including $32 billion in government orders and $36.4 billion in orders from other customers. Industry employment at the end of 1979 was 1,120,000, the highest level since 1969; the figure compares with peak employment in 1968 of slightly more than 1,500,000.

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

AIA's policies and activities are determined by a Board of Governors composed of senior executives of twenty-six member companies and the AIA president, who is the association's senior professional employee and who also serves as its general manager. A key element is the Executive Committee—made up of eight members elected from the Board of Governors—which exercises the powers of the Board between Board meetings.
AIA's primary services to its membership are conducted by eight Councils, Services and Offices whose heads report to the AIA president. Within this structure, AIA's professional staff coordinates and supports the work of an array of committees, subcommittees, task groups and ad hoc groups whose membership is made up of key specialists from AIA member companies. The 1979 activities of the Councils, Services and Offices and their associated working groups are detailed in the following pages.
The Aerospace Operations Service is composed of five committees: Manufacturing, Quality Assurance, Product Support, Spare Parts and Service Publications. Its interests include manufacturing management and processes, quality technology and post delivery product support. Activities are directed toward improving manufacturing techniques by studying the "state-of-art" in these processes, improving the quality of the industry's products, and improving support procedures. Much of the Service's efforts relate to working relationships between government and industry. In 1979, the major activities of the Service included:

**Industry/Joint Services Automatic Test Project**

This major study, underway for the past three years, was completed in 1979 and publication of a final report is scheduled for early 1980. Because of the problem of keeping today's ultrasophisticated weaponry at high levels of operational readiness, a new look was given to the place of automatic testing and automatic test equipment in the weapons system acquisitions and support process, with emphasis on potential benefits to those systems which require a high degree of readiness.

Addressing the whole range of issues related to automatic testing, the Industry/Joint Services Automatic Test Project involved more than 500 persons from a broad spectrum of industry. AIA furnished an executive secretary for the project and, with four other industry associations, provided expertise in system design, software, reliability, training and logistics. The project group conducted an exhaustive and positive study, working with counterparts from the military services, the Department of Defense, several universities and the National Bureau of Standards. The final report outlines technical and management recommendations which, if implemented, would improve the efficiency with which automatic test is used by the services. These recommendations, plus a parallel benefits/analysis study to be included in the final report, could have major positive impact on weapons systems readiness, life cycle cost and manpower. The National Security Industrial Association will assume responsibility for automatic test activities after the final report is submitted to DoD.

**Quality Horizon Study**

AIA's Quality Assurance Committee, as reviewer and advisor, completed its work on the Quality Horizon Study chartered by the Air Force Systems Command in 1978. AFSC desired identification of alternative quality assurance management and contractual techniques which could save Air Force resources while assuring equal if not improved quality. The study was completed in November and copies will be distributed to AIA member companies early in 1980.
Air Force Tech Order

Following up on AIA recommended approaches to a number of support problems impacting Air Force new weapon systems, an ad hoc panel completed a detailed assessment of the validation and verification processing of Air Force Technical Orders (TOs). These processes are used to test and verify established operating and maintenance procedures against the first test and initial operational use.

The panel’s review resulted in recommendations which, if accepted and implemented, are expected to improve the accuracy of technical manuals by allowing later cutoffs for writing and illustrating.
and incorporating late engineering changes. It is also expected to provide for a lesser degree of government verification.

**Air Transport Association Liaison**

AIA members continued joint review efforts, with their counterparts in the Air Transport Association (ATA), directed toward more efficient implementation of airline requirements for manufacturers' product support, supply information, data processing and technical data publications. These efforts have become international in scope through the participation of foreign trade associations.

Early in 1979, AIA product support recommendations for clarification and revision of reference information in the World Airline Suppliers' Guide were presented to ATA. Although this guide is not a contractual document, it plays a prominent role in providing assistance to the manufacturer/supplier by establishing a single outline of policy for airline customers. Favorable consideration has been indicated for these AIA recommendations in the next edition of the guide, to be released in 1980.

**Logistics Support Analysis**

Because of mutual goals and problems, AIA, the Electronic Industries Association (EIA) and the National Security Industrial Association (NSIA) were invited to participate in an interservice working group striving to increase the effectiveness of Logistics Support Analysis (LSA) as prescribed in MIL-STD 1388. The ultimate objective is to develop techniques and procedures for improving LSA implementation. The initial industry effort was a cooperative study with the Air Force on the definition of the analytical process to be included in the revised draft of the military standard. Preliminary findings by AIA members of the group, coordinated with EIA and NSIA, were presented to the Air Force for consideration. The project will continue in 1980.

**Uniform DoD Provisioning Standards**

Work was completed on a CODSIA/DoD program to consolidate and reduce the proliferation of various provisioning documents and specifications. The goal was to develop standard documentation for the selection and ordering of spare parts. Two standards containing recommended changes in format and procedural instructions were developed and have been presented to DoD. Acceptance and incorporation of these recommendations will result in improved economies to industry and improved support for equipment entering the DoD supply system.

**Manufacturing Studies**

Manufacturing studies underway in 1979 and nearing completion include:

- Computer Automated Process Planning Applications
- Computer Automation Directions in Assembly
- Computerized Verification of Machine Control Data
- Digital Imaging Processing
- DoD-MANTEC CAM Program Review
- Standard Computer Readable Communications Format (Phase II).

Among projects approved for action in 1979 was the development of an equipment specification for a new automated wire harness assembly machine. Ten equipment engineering specialists from various member companies are working to merge the latest technologies in wire identifica-
tion, routing forms, terminations (including inser­tion into connectors), harness tying, and electrical/ mechanical testing into one machine for use in all applicable phases of aerospace vehicle and com­ponent production. The specification is expected to spawn a new generation of machines which will improve wire harness productivity and quality while reducing manufacturing costs.

**International Quality Assurance**

Because of the industry’s increasing concern about international activities—stimulated in part by the NATO Rationalization, Standardization and Interoperability program and by various multi­country production programs—the Quality Assurance Committee was deeply involved in the inter­national arena. A series of Allied Quality Assurance Publications (AQAPs) is being developed to help control the NATO approach to quality assurance. There are presently 13 AQAPs in use, ranging from basic quality systems to quality software re­quirements. The Quality Assurance Committee, responding to a DoD proposal that the first of these AQAPs replace the primary U.S. quality standard (MIL-Q-9858A)—so that it could be applied to both domestic and international contracts—advised DoD that the AQAP would not be practicable. The Committee, recognizing both the need and diffi­culty of creating quality publications which apply to many nations, began and will continue efforts to monitor closely the development of international standards. The intent is to protect American in­dustry’s interests while recognizing the importance of international cooperation and the value of re­taining the useful standards now in existence.

**Quality Resources Study**

The 1978 Quality Resources Study, a survey of quality costs compiled annually since 1970, was published, showing industry-wide statistics. The study provides quality management reference points for various quality functions in industry companies. The composition and content of the survey is being reviewed by the Quality Assurance Committee and the new survey will contain sub­stantive improvements.
The Aerospace Procurement Service supports the business management activities of member companies in the fields of accounting and financial management, contract administration, procurement law, industrial relations, industrial security, materiel management, patents, proprietary information and small business. The Procurement and Finance Council and the Industrial Relations, Industrial Security, Materiel Management and Patent Committees, each composed of senior executives of member companies, provide experts to initiate actions seeking to improve business relationships or to resolve problems of mutual concern to government and industry.

Intellectual Property Rights

One of the more important actions in the area of technical data was the development and issuance of Intellectual Property Rights Guidelines for use in the NATO Rationalization, Standardization, Interoperability (RSI) program. Through DoD, AIA was fortunate in having an industry expert in technical data appointed to the NATO Industry Advisory Group (NIAG), which is dealing with this topic. As issued, the guidelines were generally acceptable to American industry.

Absolute Novelty Rule

The European Economic Community (EEC) recently adopted a patent system under which the filing of a patent application might be barred where an invention has been made available or disclosed to the public. This rule, known as the "absolute novelty rule", may preclude the filing of patent applications within the EEC, by either the government or a contractor where an invention is disclosed in technical data furnished to the government.

Technical Data

AIA initiated a proposed revision to the Defense Acquisition Regulation (DAR) which would provide an appropriate time for the government or its contractors to file patent applications in the EEC on inventions made under DoD contracts.

AIA developed a proposed policy dealing with the allocation of rights in technical data first developed and the observance of rights in a contractor's proprietary data used in the performance of a government contract. During 1979, AIA continued to press for the adoption of this policy by all federal agencies.

AFSC Acquisition Initiatives

In April 1979, AIA received a videotape from the Commander, Air Force Systems Command, which outlined AFSC's acquisition initiatives and invited AIA's comments. The matter was discussed by AIA's Board of Governors and an ad hoc task group of governors was appointed to prepare an AIA response. An AIA coordinated paper was delivered to AFSC and personally discussed with the Com-
mander by the chairman and vice chairman of the Board and the AIA president.

Socio-Economic Requirements

The Implementation of Public Law 95-507 placed a tremendous burden on the contractor to find more small and disadvantaged businesses with whom to contract. Each winning offeror must include specific subcontracting plans in each contract and then report periodically on each subcontract plan. AIA is continuing to explain industry’s concerns about the implementing directives to the OFPP and key government agencies, each of which has required more data in reports than prescribed by the law itself.

Profit Limitations

With the demise of the Renegotiation Board, the profit limiting provisions of the Vinson-Tammell Act of 1934 became effective upon all contracts for military aircraft and naval vessels entered into after September 30, 1976. Congressional bills were introduced, some for repeal and others proposing alternatives. Implementation of this archaic law would involve administrative costs many times beyond any possible rebates to the government. AIA urged that compliance be limited to the minimum necessary under the law. The Departments of Defense and Treasury have overlapping responsibilities under the Act. DoD was generally in accord with these recommendations. In 1980, Con-
gress will consider repeal or amendment of the Act. AIA will continue to advise Treasury of industry’s concerns in the event Congress does not act on a timely basis.

Patent Policy

During 1979, AIA continued to press for an equitable federal patent policy applicable to all federal agencies and under which a contractor would retain title to inventions made in the performance of a government contract. The government would obtain a royalty-free license and the public interest would be protected by virtue of appropriate "march-in rights" under which a responsible party may obtain a license under such a patent in the event the contractor fails to commercialize the invention or to reasonably meet public needs. AIA filed statements and testified before Congressional Committees commenting on pending legislation and urging the passage of legislation embodying the policy.

Paperwork Reduction

Follow-up activities concerning federal paperwork reduction and the implementation of recommendations of the Commission on Federal Paperwork continued during 1979.

One objective of Executive Order 12174, Paperwork, was the reduction and control of the federal paperwork burden on the public sector. This included an annual paperwork budget for each agency, a government-wide information locator system to reduce duplication of reporting requirements, special consideration and tailoring of requirements for small organizations, a "sunset" provision (for new reports, two years; existing reports, five years) with OMB approval required for extensions, more extensive public participation and hearings, and Executive Branch support of pending paperwork reduction/control legislation.

Also, bills introduced in Congress to reduce paperwork and to establish single-point control (within OMB) of federal reports management were in committee mark-up at year-end 1979; passage in 1980 is anticipated. These bills provide for all agencies, including the independent regulatory agencies now exempt from the Federal Reports Act of 1942, to be included in the OMB-managed reports approval system. They direct that mandated paperwork impact studies be accomplished prior to enactment of new legislation by the Congress. AIA submitted a letter of support to the Senate Subcommittee on Federal Spending Practices and Open Government, Committee on Governmental Affairs, for inclusion in the record of a hearing held by the Subcommittee. These actions are seen as positive steps toward a long-held objective of the aerospace industry: more effective federal report and paperwork controls.

Office of Federal Procurement Policy

The Office of Federal Procurement Policy (OFPP), as originally chartered by Congress, was to issue a Federal Acquisition Regulation (FAR) to be applicable to all federal agencies. In early 1979, AIA reviewed and commented on many proposed parts and subparts of the FAR. However, after the resignation of the OFPP Administrator and the delay in appointing a successor to that office, very little was accomplished by OFPP on this matter in the last half of the year. At year-end, the OFPP was operating under a revised charter and the future of the FAR was unclear. Under the revised charter, OFPP was to recommend to Con-

In addition to proposed provisions to the FAR, AIA also reviewed and commented on proposed OFPP regulations and policy statements, including organizational conflicts of interest (OCI).

Anti-Inflation Program

During the first year of the Administration’s Anti-Inflation Program, AIA served principally as a medium through which the membership was advised of developments in connection with Pay and Price Standards issued by the Council on Wage and Price Stability (CWPS). However, when the Program entered its second year and revisions were made to the Price Standard, AIA filed comments with the CWPS seeking to make the standard more acceptable to its member companies.

The President appointed a Council of 18 members to review and revise, if necessary, Pay Standards. At year-end, the Council had not issued any proposed revision.

Computer Security System

The Office of Management and Budget (OMB) became concerned with computer “white collar” crime. As a protective measure, OMB proposed that each government agency establish an elaborate industrial security program covering government computer facilities and personnel. The proposed program would also include contractors doing work for government agencies. AIA, speaking through the Council of Defense and Space Industry Associations (CODSIA), expressed concern that there would be a serious diminution of the effectiveness of the defense industrial security program by such a dilution of resources and responsibility. These concerns were presented directly to OMB by AIA and through CODSIA to the General Services Administration (GSA). Industry comments stressed that the DoD program should preempt that of any other agency.

Cost Accounting Standards

The Rules, Regulations and Standards promulgated by the Cost Accounting Standards Board, an agency of the Congress, have the force and effect of law. AIA believes these standards have caused unjustified and unneeded effort which has not been cost effective.

At year-end, the Board was considering promulgation of three direct/indirect cost standards which could be more burdensome than all the other standards combined. AIA advised the chairman of the Cost Accounting Standards Board that the standards should be substantively revised before they go into effect.

AIA’s concerns about the current standards were expressed in many forums, including the Congress. In November, AIA was represented at the Board’s Third Evaluation Conference and urged the revision or removal of many of the standards to reduce unnecessary and unwarranted efforts devoted to complying.

AIA developed and distributed A Compendium of Cost Accounting Standards Impact on the Procurement Process. This was the second revision of a document originally distributed in 1976. The revised compendium is useful to companies and others involved with Cost Accounting Standards.

AIA believes the Board has completed the work for which it was established and should be dissolved, and that the responsibility for keeping the standards current should be given to an Executive
Branch agency which has procurement functions, such as the Office of Federal Procurement Policy.

Cost Principles
Since last substantively revised in 1959, the Cost Principles governing the allowability of costs on contracts with the Department of Defense have continued to grow, making more categories and types of costs either totally unallowable or allow­able within arbitrary limits.

In 1979, AIA continued to urge DoD to revise a number of the individual principles which limit the recognition of costs necessary to the conduct of business. In December, AIA urged that DoD take strong action to reverse the trend of the regulations toward increasing unallowables and to re­move many of the current restrictions. There were indications that DoD is moving in this direction, since it is considering making the cost of certain stock option plans allowable and changing the re­strictions on the allowability of relocation costs.

Critical Materials
During 1979, AIA actively sought solutions to the growing problem of critical materials. Decreasing availability of cobalt continues to plague man­ufacturers because of the total U.S. reliance on imports of this material; more than 70 percent of industry's supply comes from Zaire. AIA advocated that the United States develop its own cobalt re­sources by asking the Congress to closely weigh industry's precarious situation against environ­mental strictures now limiting U.S. cobalt pro­duction.

Titanium sponge is also an item of concern, based on differing forecasts from integrated and non-integrated producers of this material. Lead time for delivery of titanium sponge forgings was 17 months at year's end. AIA monitored the supply of this material based on projected needs of com­mercial aircraft producers in the 1980s. Consider­ation was given to development of an industry policy regarding a future request for release of quantities of these and other materials from the nation's strategic stock piles.

Financial Accounting Standards
The Financial Accounting Standards Board's proposals on reporting "current costs" and "current values" were considered to have special im­plications for AIA member companies, which typically have long-term contracts for products built to customer specifications. AIA commented to the Board on two aspects of the proposals, those concerning the restating of inventories of Work in Process and depreciation of capital assets. Financial Statement No. 33, Financial Report­ing and Changing Prices, was published and at year-end was under review by member companies. It appears that the statement's provisions have accommodated one of industry's major concerns, that of restating of inventories, and have probably accommodated the concern about restating depre­ciation.

Contractor Past Performance Evaluation
AIA held discussions with Air Force Systems Command (AFSC) officials on the development of AFSC policy and implementation procedures for the evaluation/scoring of contractor performance on previous relevant contracts during the source selection process. The AFSC revised its approach from considering past performance as a "major ranked area" in source selection to one in which relevant past performance is evaluated and scored
against each ranked area, item, factor and sub-factor of the proposal. AFSC published revised guidance to its buying divisions. This includes several changes recommended by AIA/CODSIA to lessen the inequities of subjective scoring.

**Government Competition With Industry**

A lengthy effort, led by the Office of Federal Procurement Policy, to implement a policy of preference for the private sector to provide the goods and services required by the federal government was finally successful in early 1979. It was embodied in a revised OMB Circular A 76 and a new document, *A Cost Comparison Handbook*. Many industry recommendations were adopted and the final document was generally equitable; it should provide substantial economies to the government if properly implemented. Effort will continue on major inhibitions to goals of A 76, particularly the Department of Labor’s interpretations of the Service Contract Act. AIA will seek regulatory or, if necessary, legislative remedies to these inequities. Continuing efforts by government employee unions to erode the equitable implementation of the OMB circular will also demand industry attention.

**Government Owned Property**

Contractor accountability for government owned property, as well as the determination of responsibility for the disposal process of surplus material after the completion of the contract, became a significant problem in 1979. The government decided to unilaterally force the responsibility for property disposal into the hands of the contractor without attendant incentives. In addition, the government sought a change in the classification of Special Test Equipment (STE) which would require more contractor bookkeeping, with attendant cost impact, but which would not improve the method of accountability for disposal. Industry attempted, without success to date, to prove that the disposal screening process is not cost effective. Less than two percent of all STE screened is reutilized. The Defense Audit Service also maintained that about half of the STE is improperly classified.

Steps were also taken, with limited success, to reduce the rental cost of government owned facilities, not only in Foreign Military Sales but also in commercial sales.

**Hazardous Materials**

During the year, AIA—working through a multidisciplined and multi-committee organization—sought to establish an industry-wide system for controlling hazardous materials, including chemicals. The group discovered that DoD had an operational system that would meet industry needs. Through an AIA initiative, DoD extended an invitation to AIA member companies to join the DoD system at no charge.

**IR&D/B&P**

Liaison with key federal agencies and offices involved with independent research and development/bid and proposal expense continued through 1979. AIA and CODSIA representatives met several times with Office of Federal Procurement Policy (OFPP) and Department of Defense (DoD) officials, providing material and comment on pertinent FAR drafts as well as on position papers and Congressional briefings prepared by DoD.

At the May meeting of the Board of Governors, an ad hoc committee of governors was appointed to review cost sharing requirements imposed upon contractors by the government. A task force ap-
pointed by the ad hoc committee studied this matter and identified several areas of cost sharing, including IR&D/B&P cost recovery. After approval by the Board of Governors, an AIA paper on cost recovery of IR&D was discussed with DoD officials in December. AIA urged that contractor sharing of IR&D/B&P costs be reduced or eliminated, and that interpretation of potential military relationship (PMR) be broadened.

**Federal Contracts Compliance Program**

In a departure from prior practices, the Office of Federal Contracts Compliance Programs, through AIA, sought industry comments on proposed revisions to the OFCCP regulations. AIA was requested to use the good offices of the Council of Defense and Space Industry Associations (CDSIA) to provide OFCCP with a comprehensive and broad-based industry evaluation of proposed regulation changes prior to their publication for public comment.
The Aerospace Research Center is engaged in research, analyses and studies designed to bring perspective to the issues, problems and policies which affect the industry and the nation. The purpose of these studies is to contribute to a broader understanding of the complex economic, social and political issues which bear on the nation's technological and economic status.

During 1979, the Center continued its participation in projects concerning numerous policy issues important to the industry.

A major effort culminated in the publication of *The Energy Mission—An Aerospace Perspective*. This study reviewed facts critical to the nation's energy policy and highlighted several important programs underway in the aerospace industry to develop new energy technology and to improve conservation and conversion efficiency. It examined some of the difficulties the industry and the nation face in bringing new technologies to market and offered recommendations for improving prospects for a smooth transition to a new era of energy sufficiency. More than 3,000 copies of the document were distributed among government decision makers and industry leaders.

A second study, *U.S. Military Exports, 1970-1978*, was undertaken at the request of the International Council. This research paper, a contribution by the industry to the study of the vital role exports play in achieving U.S. national security and foreign policy goals, addresses the special role of military exports in the overall context of international trade. The study points out that an essential element of any national trade improvement program is a flexible military export policy. It recommends that such a policy be established in the interest of U.S. security and economic development.

At year-end 1979, the Center was engaged in two additional studies, one on innovation and another on productivity. As a follow-up to the President's Domestic Policy Review on industrial innovation, AIA expects to have a policy paper ready for distribution to industry and government executives by spring 1980. The paper will look at the role of federal funding in determining the rate of innovation and the health of the U.S. economy, in light of a strong correlation between R&D-intensity and positive export performance of major industry sectors, in particular aerospace. It will explore the possible impact on future aerospace industry performance in view of declining levels of R&D funding and the comparatively higher levels of effort in several other countries.

The productivity analysis is an investigation into what is happening to U.S. productivity and why, and how the U.S. compares with selected other
industrialized nations. It will also examine the various measures of productivity and the implication of each, their accuracy, and the conditions and possible policies that affect productivity performance. Implications for the aerospace industry will be presented.

The Economic Data Service (EDS) of the Center continued to provide summaries of aerospace activity through periodic publication of industry data developed from both public and private sources. The Center also reported the industry’s consumption of energy to the Department of Energy.

Regular reports include the Semi-Annual Survey of Aerospace Employment, Aerospace Industry Year-End Review and Forecast, quarterly reports of import and export statistics, and the annual Aerospace Facts and Figures, plus statistical series which cover employment, earnings, hours worked, government expenditures and contract awards, and production activity.

During 1979, EDS was active with ISAC 24 (the Aerospace Industry Sector Advisory Committee to the Special Trade Representative) in the development of industry positions on matters pertinent to the implementation of the recently completed multinational trade negotiations.
The Aerospace Technical Council’s responsibility is to keep in focus the realities as well as the uncertainties of high technology systems development and to communicate that perspective to key policy levels. As the industry’s senior technical voice, the Council manages a number of technical divisions, committees and groups.

The Council was active in 1979 in areas including major systems acquisition, critical technologies, energy, standardization, noise abatement and airworthiness. A look ahead to the 1980s resulted in establishment of a new ad hoc group on space and a forecast on airport/airway congestion; the Council also addressed the subject of industrial innovation.

Critical Technology Export

AIA’s Aerospace Technical and International Councils cooperated with DoD and the Department of Commerce in efforts to define critical technologies which should be protected from export. AIA was responsible for reports in three areas: jet engines, commercial aircraft, and materials and structures, the last of which was selected for an expanded analysis. The intent was to develop an approach to implementation that would strike a balance between the need to limit export of critical technology and the need for stimulation of U.S. trade.

Statutory requirements of the new Export Administration Act greatly broaden the scope of the undertaking. Under the requirements of the Act, a preliminary expanded list of critical technologies is due October 1, 1980, indicating a major new effort by industry and government this year.

Space Project

An AIA ad hoc group was organized to respond to issues relating to space, including a variety of legislative initiatives. The group endorsed the proposed Space Industrialization bill while articulating several areas of industry concern, such as lack of compensating provisions for the term of technology investments. The group also evaluated a proposed Office of Technology Assessment study on Technology in Space.

Industrial Innovation

The Administration announced its program to stimulate industrial innovation, based upon the results of the Domestic Policy Review, at a joint House-Senate hearing in October. AIA, which in February had forwarded an industry position on innovation to various government sectors, felt the Administration’s program fell far short of industry’s needs. The program came in for severe criticism on Capitol Hill for its failure to utilize proposals submitted by the Industry Advisory Committee. Congress has expressed support for industry recommendations and appears to be in the mood to
adopt a much more far reaching program to help stimulate industrial innovation.

System Acquisition

The AIA ad hoc group on major systems acquisition policies successfully protested the published implementing documentation for Four Step Source Selection. The Defense Acquisition Regulation was revised to permit minor clarifications and to assure that only proper cost negotiations are conducted.

Two important DoD policy documents on major system acquisition received Aerospace Technical Council review. While considerable improvement was noted over earlier issuance, several concerns remained: insufficient follow-through to achieve timeliness in the acquisition process; continued lack of funding realism in the early acquisition phase; inadequate treatment of the program manager's authority and qualification; and the need for more explicit treatment of government reliance on the private sector. The effort aided in AFSC's modifying the proposal to quantify contractor past performance in source selection in favor of an approach more acceptable to industry.

An AIA letter to the OSD comptroller expressed continuing concern with the trend toward detailed procedural direction which constrains contractor performance by specifying "how" rather than "what," specifically at the lower levels of implementation. One minor accommodation achieved was DoD agreement to annotate all future cost guidance documents with the legend "not for contractual application." The Technical Management Committee also monitored AFSC workshops on draft RFPs and will review draft procedures for possible incorporation in an AFSC supplement to the Defense Acquisition Regulation.

International Standardization

The plenary meeting of TC 20, Aircraft and Space Vehicles, of the International Organization for Standardization (ISO) in Washington, D.C. brought together aerospace standardization organizations from the European nations, the U.S., the Soviet Union and, for the first time, the People's Republic of China. AIA operates the secretariat of TC 20 as part of its attention to the special role of technical standards in the international marketplace.

Key actions of the 23rd Plenary Meeting included approval of a metric policy for new designs, procedure for adopting widely used existing standards as de facto international standards, and adoption of a Master Plan identifying priorities.

National Aerospace Standards

The National Aerospace Standards Committee (NASC) moved forward in its program of preparation and maintenance of National Aerospace Standards, which now number over 2,400 and constitute the third largest body of standards produced in the private sector. Progress was made on the preparation of metric aerospace standards to help assure that the U.S. retains its competitive position in international markets. As a further effort in that direction, AIA established, with its European counterpart AECMA, a mechanism for exchange and review of metric aerospace standards. It is expected that many of these documents will be adopted on both sides of the Atlantic, forming a body of internationally recognized, mutually compatible documents.

In addition to actively preparing standards, the NASC reviewed and commented on some fifty MIL
specifications and standards and twenty standardization program analyses covering aircraft hardware and passive electronic parts. Government adoption and use of National Aerospace Standards, already outstanding, was further enhanced by projects supporting DoD's policy of adopting industry standards.

**FTC Standards Rule**

AIA testified in opposition to a proposed Federal Trade Commission rule to regulate the preparation of industry standards. The FTC rule requirements could compromise the technical integrity of critical aerospace parts and engender significant additional costs throughout the aerospace community. AIA presented a case for exemption of its aerospace standardization activities. Congressional reaction to the FTC's regulatory approach has been negative and it appears likely that Congress will take action to mitigate the adverse impact of the proposed standards rule.

**Electronic Systems and Microelectronics**

During 1979, the Electronic Systems Committee (ESC) reviewed more than 20 military standards, specifications and handbooks relating to electronic systems, equipment and components. In response to emphasis by the military on computer software in avionics systems, a major effort was initiated by ESC on the systems aspects of computer software. ESC also continued active participation in the Tri-Service-AIA-EIA Uniformity Program for the orderly revision of MIL-STD-454.

The Microelectronics Project Group (MEP) compiled its annual "Minimum List of Microcircuits for Document Support/Standardization." The list, prepared for the Defense Electronics Supply Center, represents MEP recommendations of microcircuits which should be made standard for new electronic equipment designs. Other areas of MEP activity included the problems of diminishing manufacturing sources of microcircuits, documentation efforts for the care and handling of electrostatic discharge sensitive devices, documentation for custom LSI and hybrid microcircuit, microprocessor and memory specifications.

**Metrciation**

In its role as secretariat of the American National Metric Council's Aerospace Sector Committee, AIA continued to promote orderly planning for metric conversion as dictated by market requirements. Liaison was established with key members of the Presidentially-appointed U.S. Metric Board and strong participation by aerospace labor unions in the metric planning process was achieved. AIA remains alert to possible forcing factors in metrciation, such as international marketplace requirements and conversion of international air operations. AIA is encouraging appropriate government agencies to undertake studies of the impact of metric conversion in anticipation of significant events.

**Airport/ Airway Congestion**

Under the direction of the Aviation Division, AIA completed a study of airport/airway congestion. A report to be published by the Aerospace Research Center in 1980 will serve as resource material for development of AIA positions and recommendations on this critical issue.

Congestion is seen as a major impediment to growth of the air transportation system in many locations. While en route air traffic congestion can be alleviated significantly by new technological
advances, there are many additional problems in the terminal area. Political, financial, jurisdictional and environmental conflicts may impact severely on expansion of airport landing and gate facilities or provisions for providing ground access to passenger terminals. Industry leadership will be required to find effective solutions to these problems.

Aircraft Noise Abatement

AIA continued to press directly and through ICCAI/A for development of meaningful, realistic, and cost effective standards governing noise produced by aircraft. There was strong representation of AIA/ICCAIA at the May-June 1979 meeting of the ICAO Committee on Aircraft Noise, where the manufacturing industry presented 36 working and background information papers.

Major items of immediate concern are Federal Aviation Administration (FAA) rules on applicability of noise standards to continuing production of older models of aircraft, being reviewed by the Airplane Noise committee, and the newly proposed regulation of helicopter noise now under review by the Helicopter Noise Control Committee. The helicopter noise regulation review is being coordinated with the Helicopter Association of America.

Airworthiness Standards

AIA participated with the FAA in support of U.S. proposals to the International Civil Aviation Organization (ICAO) Airworthiness Committee covering fatigue strength criteria and continuing airworthiness of older airplanes. AIA also provided extensive support to the FAA Special Aviation Fire and Explosion Reduction (SAFER) Advisory Committee in developing recommendations for rulemaking to improve passenger safety in a survivable airplane accident.

AIA continued to be heavily involved in FAA airworthiness and certification rulemaking programs, including the Rotorcraft Regulatory Program, covering certification and operating regulations for rotorcraft, and the Light Transport Airplane Airworthiness Review Program, intended to develop an entirely new set of certification standards for light transport airplanes primarily for the commuter and air taxi industry.

Propulsion System Requirements

In 1979, the AIA Propulsion Committee completed a research project to determine the air transport operating experience with ingestion of birds by turbine engines. This report covers the analysis of 917 cases of bird ingestion in 10 different engine types during 76.2 million engine operating hours. The analysis of the operating data was presented to interested organizations in December 1979 and will be used by FAA to evaluate current engine certification requirements related to foreign object ingestion.

AIA provides the ICCAI/A member of the ICAO Committee on Aircraft Exhaust Emissions (CAEE), which has developed tentative recommendations for engine exhaust emission standards. The Propulsion Committee developed a position that would provide for compatibility between US requirements (EPA/FAA) which are now being considered, and those of ICAO. In 1979, AIA member companies worked individually with the regulatory agencies, but no AIA position was established relative to the proposed requirements.

Materials and Structures

AIA reviewed new military specifications (MIL-PRIME) prepared by the Air Force on landing gear
systems and on aircraft structural integrity, pro-
viding the preparing agency with current user ex-
perience and advice. The specifications review
program also included proposed documents cover-
ing procedures for a reliability stress analysis of
mechanical equipment, sealing compounds, a DoD
standardization program plan on environmental
requirements and related test methods, printed
circuit wiring boards, welding and brazing proc-
eses, and other materials specifications.
AIA structures specialists participated in an
exchange of views and experience with the Air
Force on the application of damage tolerance
technology to current aircraft programs. AIA rep-
resentatives also provided data and assistance to
a government task group investigating problems
concerned with heat treating of heavy aluminum
alloy plate material.
The International Service is a guidance and coordination point for the exporting segment of the aerospace industry. It serves as a medium for the exchange of views between industry and government, thereby assisting in creation of the optimum environment for increasing aerospace exports.

The international arena became more central to the aerospace industry in 1979 as commercial and military marketplaces presented new opportunities and problems. There were several positive results from efforts to improve the industry’s ability to compete equitably overseas. Overall, 1979 was a record aerospace export year as the industry reported a $10 billion aerospace trade surplus while total national trade continued the string of record deficits. Early in the year some 16 nations initiated the international trade agreement of the Tokyo Round of the Multilateral Trade Negotiations (MTN). This included a separate, tariff-free Aircraft Agreement which the industry favored. Beyond this, there was improved understanding in the Congress of some industry trade concerns but little effort in the Administration to ease more than a few of the impediments to trade, both civil and military, which inhibited industry’s trade efforts.

Among the year’s major international activities:

Export Administration Act

Although a new Export Administration Act generally favorable to industry interests was passed late in the year, Congressional debate on the Act made the industry keenly aware of the impact of politics on foreign trade. The Act, the basic ground rule for American exporters, became a focus for debate on East-West issues. Some legislators expressed concern about leakage of high technology to potential adversaries. Key improvements in the new Act, from industry’s point of view, included: a series of provisions to make more equitable to industry the myriad actions government can take to halt trade of industry products to foreign countries; reforms constraining the President’s use of export controls to achieve foreign policy objectives; and the speeding and simplifying of export license application procedures.

NATO RSI

The NATO Rationalization, Standardization and Interoperability program, now in its second year, remained a key issue for the industry. With pressure from NATO country firms to broaden their share of the NATO weapon systems market, and from the NATO military establishment to provide more standard or interoperable equipment within the alliance, DoD proposed three actions which affect U.S. industry: Memoranda of Understanding (MOU) between the U.S. and NATO countries addressing how arms markets in the U.S. and Europe will be opened; expanded weapons co-development between the U.S. and Europe; and a "family
of weapons" concept which would allocate projects between U.S. and European nations.

Some European firms expressed doubts about the MOUs and the family of weapons concept. Air-to-air missiles and anti-tank missiles became the focus of the family of weapons concept, but only air-to-air systems appeared at year-end to be viable for agreement implementation. DoD, although growing increasingly aware of the difficulty of making RSI work in an equitable way, is committed to the concept. AIA will continue to advise DoD on the importance of shaping RSI policies in consultation with industry.

Foreign Military Sales

AIA supported efforts to raise the ceiling for the sale of major military items exported under DoD foreign military sales (FMS) provisions. Although AIA sought a higher figure, the 1979 raise from $25 million to $35 million was a positive step. There was continued disagreement within government about forms and levels of overseas military sales. DoD, while stating it would approve an FMS sale if the foreign country requested it and that some commercial sales would be acceptable, opposed lifting the $25 million ceiling. The General Accounting Office, an arm of the Congress, urged commercial sales rather than mandated FMS sales. Some companies prefer the commercial route rather than the more inflexible government mechanism.

Export Policy Document

In addition to the principal issues noted above, AIA addressed the whole range of international problems in a single policy document, The Need for a Positive Export Policy. Containing sections on U.S. Exports and R&D, the Export-Import Bank, Multilateral Trade Negotiations, Unilateral Restraints, Foreign Arms Sales Ceilings, Human Rights, NATO RSI, Technology Transfer, Export Tax Incentives, Antitrust Laws, and International Operations and Foreign Corrupt Practices, it was widely distributed to member companies as a baseline addressing fundamental problems facing aerospace companies as they try to compete in the increasingly competitive export environment. It will be periodically revised to insure that it is a timely and ready reference for member companies. Drawing on the basic paper, AIA produced a brochure, Foreign Trade and the Troubled U.S. Economy--The Need for a Positive Export Policy. The brochure was widely distributed to the Administration, the Congress and other organizations and associations.

Many of the International Council's issues continue into 1980. Enforcement and implementation will become the focus of attention in the Multilateral Trade Agreement. The debate over critical technology will continue. A new search for an international arrangement to set guidelines for credit financing of international sales will occur, and there will be further efforts to expand the lending authority of the Export-Import Bank. The reorganization of the trade functions of the federal government will be monitored closely. Attention will be devoted to excessive federal regulation.
The Office of Legislative Counsel is responsible for communicating the status of legislative matters affecting the industry. It also causes the industry's views and positions to be appropriately expressed. In 1979, the Legislative Office worked with other AIA staff elements to select industry witnesses to testify on supersonic transport development, Department of Defense profit policies, renegotiation, aircraft noise reduction, the multilateral trade negotiations implementing legislation, and patent changes. AIA position papers were submitted for the records of Congressional hearings on the Space Policy Act, development of a solar power satellite, the Federal Acquisition Reform Act, space industrialization legislation and legislation to reduce federal paperwork.
The Office of Public Affairs communicates the industry's policies, positions, programs and problems to the government, customers and the public. Its primary method of communication is through the press, but it also distributes directly to the public a wide range of materials about the industry. In 1979, emphasis was on the industry's capabilities and performance in commercial aviation, national defense, space exploration and energy.

**Publications**

Two new publications, *Quarterly Digest* and *Key Speeches*, were initiated in 1979. *Quarterly Digest*, an internal newsletter circulated to all members of the association's councils and services, was designed to keep key member company people aware of industry issues beyond their immediate specialty areas. *Key Speeches* is a series of reprints of speeches delivered by senior executives of the industry on a broad range of topics. They are printed in a special format and distributed to decision makers in government, the press and industry.

*Aerospace* magazine, the association's quarterly, continued to be a primary communications tool. During 1979, *Aerospace* carried articles keyed to the interests and problems of the industry. These included a review of the nation's space policy written by Senator Adlai Stevenson; a major article on the benefits of the Landsat satellites; a look back, on the 10th anniversary of man's first landing on the moon, at the 12 American astronauts who walked on the lunar surface; a color photo review of the industry's concepts for future military and commercial aircraft; a special feature commemorating the 25th anniversary of commercial jet air travel; and a cover story featuring the increasingly important role women are playing in the aerospace industry. *Aerospace* also published articles on major issues facing the industry such as the proliferation of paperwork, the facts behind corporate taxes, and the significance of the new international trade agreement.

The arrangement with *Aviation Week & Space Technology* for the commercial distribution of *Aerospace Facts and Figures* continued in 1979. This book, the industry's statistical bible, was circulated in larger numbers than in any previous year.

The 1978 *Directory of Helicopter Operators* was published in 1979. Reflecting the growth of this segment of the industry, a supplemental order was needed to fill continuing requests.

Among other 1979 activities, AIA—in cooperation with the Helicopter Association of America and the National Business Aircraft Association—initiated an industry campaign in support of the first public-use heliport in Washington, D.C. AIA also organized an industry-wide ad hoc committee com-
posed of representatives of the helicopter/engine manufacturers and commercial helicopter operators to review and update the 1968 "Standard Method for Estimating VTOL Operating Expense."

Press activities included a press conference at which a report by the Aerospace Research Center — *The Energy Mission: An Aerospace Perspective* — was discussed. At year-end, AIA President Karl G. Harr, Jr., presented the association’s annual Aerospace Review and Forecast before a luncheon-news conference sponsored by the Aviation/Space Writers Association.

Public Affairs, which had responsibility for representing industry interests at international air shows through an ad hoc Air Shows Committee, advised the AIA Executive Committee that significant progress had been made in making industry concerns known to air show organizers. Improvements, especially at the Paris Air Show, were sufficiently positive to allow disestablishment of the ad hoc committee. Public Affairs staff will continue to monitor the air shows issue.
The Traffic Service provides staff representation of the interests of association members before transportation regulatory commissions, carrier rate and tariff bureaus, and the various government agencies and departments concerned with traffic and transportation matters. Small task forces of limited scope and duration study specific problems and develop programs for action by the Traffic Committee. The Traffic Service and the task forces of the AIA Traffic Committee were active in the following areas during 1979:

**Task Force Activities**

The Export-Import Task Force provided input and recommended actions with respect to the operational factors concerned with the duty-free entry into the U.S. of aircraft parts as contemplated by the Civil Aircraft Agreement. Specifically, the task force actions were concerned with U.S. Customs implementation of the agreement. The task force coordinated its efforts with Customs to assure the formulation of entry regulations which will carry out the intent of the agreement with a minimum of regulatory restraint.

The DoD/NASA Task Force programmed and conducted three industry/government traffic management seminars, and performed initial review and drafted comments on several new or revised government procurement regulations affecting traffic management.

The Air Cargo Task Force, by presentation of papers at meetings of the Traffic Committee and the sponsorship of panel discussions by carrier representatives of the air cargo industry, facilitated for member companies the transition of air cargo transportation from a regulated to a deregulated environment.

The Household Goods Transportation Task Force maintained surveillance of rate and service proposals of carriers and related ICC proceedings. The task force compiled data, provided facts, and made available witnesses as necessary to back up Traffic Service in its handling of household goods cases before carrier bureaus and the Interstate Commerce Commission.

The DoT/Hazardous Materials Task Force performed a similar function as related to the air and surface movement of hazardous materials. Additionally, this task force was responsible for reviewing Department of Transportation rulemaking notices concerned with the transportation of hazardous materials and for preparing position papers for filing in such proceedings.

The Transportability Task Force coordinated the activities of the Traffic Committee with the American Association of Highway and Traffic Officers in efforts to obtain uniformity among the states of procedures for granting permits for the movement of over-dimension shipments on the nation's high-
ways. The task force is also completing an aerospace transportability manual for use by members in planning the movements of extreme dimension aerospace components moving via all forms of transportation, domestically and overseas.

The Surface Deregulation Task Force maintained close surveillance over legislative and regulatory (ICC) proposals and actions to deregulate rail and motor carrier transportation. Members were kept advised of contemplated deregulation proposals at meetings of the Traffic Committee, thus permitting them to determine their positions and to take actions as considered necessary.

The Postal Task Force spearheaded actions taken by the Traffic Committee to obtain a relaxation by the U.S. Postal Service of regulations which for many years have impeded the movement of time-sensitive mail by carriers other than via the Postal Service.

As deregulation of air passenger services progresses considerable interest and activity is being generated with respect to the role of company travel departments and the extent to which they can assist in conserving travel funds. In 1979, the Business Travel Task Force was assigned responsibility to apprise committee members of developments in this area, particularly those related to a forthcoming proceeding before the Civil Aeronautics Board concerning airline ticketing and marketing and the role of commercial travel agencies vis-a-vis company travel departments.

As a permanent sub-committee of the Traffic Committee, the Rates and Classification Subcommittee is responsible for maintaining surveillance over rail and motor tariff bureau proposed rate changes, adjustments, and increases. If a determination is made that AIA action is thereafter required, the sub-committee develops facts and compiles the data necessary to permit Traffic Service to represent AIA interests, either by protest to the rate bureau or by a complaint filed with the Interstate Commerce Commission.

**Regulatory Proceedings**

In 1979, the Traffic Service participated in four new cases before the Interstate Commerce Commission, either as a protestant to carrier-filed increased rates or as an intervenor in various investigations and rulemaking proceedings concerned with the practices and services of regulated common carriers. The issues in the various cases were wide-ranging—from the reasonableness of proposed motor carrier increased rates for the transportation of parts and components for aircraft and missiles, to the fairness of the practices of household goods carriers whose services are employed to transport both the personal effects of aerospace employees and shipments of fragile aerospace devices/components which require
specialized transportation and handling. AIA is also a party to six additional proceedings before the ICC which commenced in prior years.

**Rate Bureau Cases**

During 1979, the Traffic Service filed 22 opposition statements with the bureaus. Sixteen increased rate proposals were defeated with savings to members of $875,618.00. Five of the cases are pending at bureau level.

The remaining case, one of paramount importance to AIA members, concerns a proposal by the railroads to increase freight rates on airplane parts and components by 35 percent. AIA protested the increase and final disposition of the case is pending.