



# ANNUAL REPORT

of

THE PRESIDENT OF  
AIRCRAFT INDUSTRIES ASSOCIATION  
OF AMERICA, INC.

## 1953

**AIRCRAFT INDUSTRIES ASSOCIATION  
OF AMERICA, INC.  
Shoreham Building  
Washington 5, D. C.**

**The following is the annual report of Admiral D. C. Ramsey, USN (Ret.), President of the Aircraft Industries Association. The report reviews operations of the fiscal year which commenced on November 1, 1952 and ended on October 31, 1953.**

# REPORT OF THE PRESIDENT

*For the Fiscal Year Ending*

**October 31, 1953**

TO THE BOARD OF GOVERNORS:

The last twelve months have been marked by many changes affecting the aircraft industry, yet it has maintained its schedules and today it is approaching the peak of production under the limited emergency. By the end of the calendar year, it is expected that 1953 output will have totaled some 16,100 aircraft—approximately 12,000 military airplanes and approximately 4,100 civil transports and utility airplanes. In terms of airframe pounds, which is the most realistic measure of production, the industry has produced since the beginning of the emergency *almost twice the quantity it produced in the comparable period of the World War II build-up*. Employment among the airframe, engine and components manufacturers today stands at a level of 750,000, while indirect employment assigned to aircraft industry requirements by some 50,000 subcontractors and suppliers over the country brings the total to over 1,000,000 people.

The change in National Administrations brought no major disruption to aircraft industry scheduling or output during 1953, although there were important alterations in long-range scheduling. The new Administration, however, brought new philosophies and concepts to the air power mobilization program and these are of great interest to the aircraft industry. President Eisenhower has stated that "we are living in an Age of Peril," and our plans must be made accordingly. The production base was narrowed and deepened. Strength-level targets were shifted. Greater emphasis was placed on economy, on cost reduction in both the military and industry and on feasible reductions in lead time. Controls were removed on wages and prices and, except for critical items, on materials. Government mobilization responsibilities were shifted in a broad reorganization; the Munitions Board was disbanded and its responsibilities assigned to a new assistant secretarial post under the Secretary of Defense.

Last spring, important new changes in aircraft programming were

announced by the Secretary of Defense which considerably reduced the 1954 Defense budget. This precipitated considerable controversy in which, of course, the AIA took no part. The decision was a military one and the industry's responsibility is to produce according to the requirements decided upon by the military. Current and projected national defense needs have been under review by the Joint Chiefs of Staff for several months, but the results have not yet been disclosed. Subsequently, another major change in production programming was announced, involving the elimination from production schedules of older type airplanes in order that newer models might be phased in later.

A 25 per cent reduction in monies available for research and development was made by the Defense Department at mid-year, while Congress reduced by \$250 million the budgetary reserves for machine tools and equipment. The former restriction on the obligation of the research and development funds has since been lifted by the Secretary of Defense.

### ***Need for Long-Range Procurement Policy***

As we approach the peak of industry production with the prospect that there will be a downward trend in aircraft industry schedules thereafter, the need for long-range procurement policy and programming becomes more urgent. This need has been repeatedly called to the attention of cognizant authorities within the Department of Defense, the Military Services, the Congress and the public. High military officials and Congressional leaders, recalling the costly mistakes of the past, have gone on record in favor of such policy and programming, yet specific action to accomplish this objective remains to be taken.

Since this Report will presently become a public record, it is deemed appropriate to restate the reasons that make this matter of utmost importance to the future safety of our country.

Rearmament under emergency conditions in the past has been achieved under far more favorable circumstances than we shall ever have reason to expect again. Twice this nation has discarded its air power leadership at the end of war and allowed the aircraft industry to atrophy. Thrice the industry has been called upon to perform almost impossible tasks of expansion and production, always at

tremendous and unnecessary cost, but always time has been in our favor.

This no longer is true. Modern aviation development has brought with it the certainty that we can suffer devastating aerial attack within hours, and the United States will continue to be the logical primary target of the enemies of freedom.

Faced with this reality, it must be recognized at once that a nation's air power can be no stronger than its aircraft industry. A weakened, impoverished industry cannot restore its potency in the time that modern conditions must specify. Nothing can alter the fact that it takes from five to seven years to develop a single combat aircraft from drawing board to production.

Therefore, it is imperative that a national air power policy be adopted and constantly reviewed, and that a long-range program of aircraft research, development and procurement be established and maintained at all times in accordance with existing and prospective conditions. Necessary to such policy and programming are the following:

1. Maintenance of a strong and active program of research and development, irrespective of periodic fluctuations in the international situation. Such a program should use the full competitive values of a resourceful aircraft industry.
2. Maintenance of a sufficiently broad production base within the industry to permit rapid expansion in the event of an emergency.
3. Maintenance of a going rate of production sufficient to hold together an important nucleus of engineering and production teams and to provide the Military Services with the latest and best weapons.
4. Recognition of the vital importance to national security of a healthy, stable private aircraft industry financially strong and unhandicapped by a policy which limits its profits on sales to less than half the national industrial profit average.

All of these conditions are necessary to any effective long-range policy and program. Emphasis is placed on the fourth point, however, because it has major significance in times when the aircraft industry is producing at a high level. If it is to contribute toward

industrial stability in the national interest, then the remedy must be applied before there is any considerable degree of decline in aircraft production.

The peculiar nature of this industry should be recognized in consideration of such a policy. Other industries performing war or emergency service are able to return to starved markets. The aircraft industry has no such advantage. Civilian markets are unable to sustain it. It cannot maintain its facilities, many of which are Government-owned. It cannot hold together its experienced scientific and technical personnel. It loses its attractiveness in the investment market.

On the other hand, if it is allowed to establish and maintain adequate financial reserves and working capital, the industry will be better able to design and develop new models, conduct essential research programs, keep its technical forces and facilities in a state of readiness and stand prepared to answer, on its own, any future call of emergency.

### ***Liaison With Government Agencies***

It is gratifying to report that AIA has enjoyed a most helpful relationship with Government officials having cognizance over its affairs in the Administration. Many important mutual problems, however, await solution but these are being dealt with in an atmosphere of good cooperation.

### ***Patent Policy***

After unsuccessful efforts of the Munitions Board to devise an equitable policy which would respect the proprietary rights of AIA members in contracts with the Military Services, conferences were held with Department of Defense officials and the ground work laid for a re-study of this entire subject under the aegis of the DOD chief counsel. Assurance has been received that the industry will be given full opportunity to represent its case before the final form of Section IX of the Armed Services Procurement Regulation is placed in effect.

### ***Depreciation for Tax Purposes***

The Association has interested itself in proposed legislation which would provide more realistic depreciation of aircraft facilities for tax

purposes, allowing companies to charge off facilities in any period of their own choosing. Both "normal" and "accelerated" amortization standards used by the Internal Revenue Service are considered inadequate in view of the undue risks that accompany any investment in aircraft production facilities. The Association will support Senate Bill S. 298 which provides such liberalization. This bill is still in the Senate Committee on Finance and is expected to be reported out early in 1954.

### ***Taft-Hartley Hearings***

At the invitation of Congressional leaders, the aircraft industry offered testimony before the Senate and House Labor Committees giving its views on proposed changes in the Taft-Hartley Act. The Industrial Relations Committee is currently working on a new draft of industry recommendations to be submitted when Congress reconvenes in January.

### ***Off-Shore Procurement***

At the eastern regional meeting of the Executive Committee, Aircraft Manufacturers Council, in August, the President of AIA was directed to make a study of certain aspects of off-shore procurement of aircraft under the Mutual Security program. This study has been completed and a report will be made at the December meeting of the Board of Governors.

### ***Policy Study by the Air Coordinating Committee***

On September 23, President Eisenhower addressed a letter to Mr. Robert Murray, Under Secretary of Commerce for Transportation, directing that the Air Coordinating Committee, of which Mr. Murray is chairman, conduct a broad study of National Aviation Policy. As the President in his letter referred to studies of this subject conducted five years ago, it was at first assumed by the industry that the new study would embrace topics covered by the Fin letter Commission and the Congressional Aviation Policy Board. It subsequently developed that the study to be undertaken by the ACC will be confined to civil aviation in general with treatment accorded military aviation only in the areas in which there are overlapping interests.

Industry members have been invited to submit suggestions for new

agenda items or to comment specifically on any feature of the survey in which they have a particular interest.

### ***Security Classification***

In May, the Department of Defense drafted proposed changes in the Industrial Security Manual which would require the same restrictions to be placed on the handling of "secret" classified projects as are presently placed on projects classified as "top secret." The aircraft industry, through the Association, voiced objection to such procedure on the ground that application of such measures would be exceedingly costly in time and money and would seriously hinder work in progress. As a result, the Department of Defense has delayed issuance of the amendments and efforts now are being made to obtain a workable solution to the problem.

### ***Wind Tunnel Operation System***

The Association, through its Technical Service, has continued through the year to advocate the fee system, as opposed to the non-fee system, of operation of NACA and AEDC wind tunnels under the Unitary Plan. The industry's position with the Air Force, the NACA and other Government agencies has been that the fee system will improve efficiency and economy, give priority to more important work, encourage competition, encourage more privately-owned facilities and aid the Services in evaluating competing developments.

### ***Guided Missile Committee***

Acting on authority granted by the Board of Governors at its meeting December 12, 1952, the new Guided Missile Committee was formed during the year, and Major General J. F. Phillips, former Commanding General, Cambridge Unit of Research and Development Command, was engaged, upon his retirement, to direct this activity under the AIA Technical Service. Much progress already has been made, and efforts are under way looking toward reconciliation of the differing administrative practices of the several Military Services contracting for such weapons.

### ***Cost Reduction***

The Association and its members have given whole-hearted support to the Government-industry effort to reduce aircraft costs. Many



evidences of success in this continuing program have been reported to the cognizant military authorities. AIA recently published a booklet titled "Economy in Air Power," which set forth the objectives, enumerated many good results and blueprinted the means by which this program will be pursued in future.

### ***Progress Payments***

Considerable misunderstanding arose at the end of the fiscal year from interpretations placed on a directive of the Assistant Secretary of Defense which seemed to provide that progress payments to contractors would be drastically decreased. Subsequent investigation and representations by the AIA lead to the understanding that, while new emphasis is now placed by the Department of Defense on Government guaranteed loans, no hardships will be incurred by aircraft industry contractors and no current contracts calling for such payments will be abrogated. The order, as explained, was intended to militate against excessive inventories.

### ***Fiftieth Anniversary of Powered Flight***

Decision of individual members of the AIA to give financial support to a national celebration of the Fiftieth Anniversary of Powered Flight during the past year resulted in a highly successful program which began on December 17, 1952, and will end on December 17, 1953.

Under the chairmanship of Lieutenant General James H. Doolittle (USAFR), the program was sponsored by a National Committee of distinguished men and women and was operated by a small staff under General Doolittle's direction. Its objective was to stimulate, coordinate and supply basic materials for celebration. Forty-eight state committees were formed, and numerous national and local events have been held within the program; some twelve books have been published on the progress and future of aviation; international newspaper, magazine, radio and television, film and other publicity in vast quantities has resulted. A notable education program was conducted in schools and colleges. The program will reach its peak on December 17, when nation-wide celebrations will be held.

## ***AIA-NAEC Aviation Education Program***

Recognizing the long-felt need for inclusion of aviation education in the schools of the nation, the Board of Governors, at its December, 1952, meeting, adopted a long-range program of cooperation with the National Aviation Education Council to produce materials of instruction suitable for use in schools. A modest budget was voted for this purpose.

Despite the brevity of time in which the program has operated (since February, 1953), the program has already produced two teacher-prepared textbooks for use in elementary schools. They are titled "Look to the Sky" and "Jets." Within days after the first book was distributed to school principals, purchase orders from teachers were received by the thousands. NAEC officials estimate that ultimate distribution may reach 100,000. "Jets" is now ready for distribution.

## ***National Air Museum***

Representation was made to AIA and the Air Transport Association by the Smithsonian Institution that an architectural survey is needed as a guide to Congress in consideration of appropriations for a suitable National Air Museum in Washington to house the relics of aviation, which are now widely scattered. A public law creating the museum was enacted some years ago, but no funds have yet been voted. It was agreed by the two regional Executive Committees, Aircraft Manufacturers Council, in August that AIA should share the \$25,000 cost of the survey equally with ATA, which subsequently acted favorably on the proposal. The survey is currently being made and is expected to be ready for the next session of Congress.

## ***Noise Control Efforts***

Recognizing in-flight noise and noise generated in ground operations as a major problem of this industry, as well as of the airlines and the Military Services, the Association has applied itself to alleviation of this nuisance. Public resentment has been marked and persistent and results from increasing operations, both civil and military. Where the problem formerly was largely localized in the New York area, considerable public pressure has been applied to airports in other metropolitan areas, especially Los Angeles. The AIA Noise Control Committee has continued to exchange information with other

Government and civil organizations, research and development programs have been recommended and sound measurement standards adopted which have been most helpful. The most promising progress has been made by the industry in reducing the noise of ground operations.

For the second year, AIA has given its proportionate financial support to the National Air Transport Coordinating Committee, which concerns itself with the critical aircraft noise situation in the New York area. This Committee has also made progress in sound reduction by applying corrective measures to airline operations, traffic patterns, and preferential runway systems. It has also conducted a public relations program to keep the New York and New Jersey public fully informed. It has gathered valuable data through its complaint centers.

### ***Administrative, Finances, Membership***

A proposed budget for 1954 is being submitted to the Board of Governors within the limit set by the Board as the dues target. Continued increases in aeronautical sales have made it possible to reduce the dues rate 25 per cent.

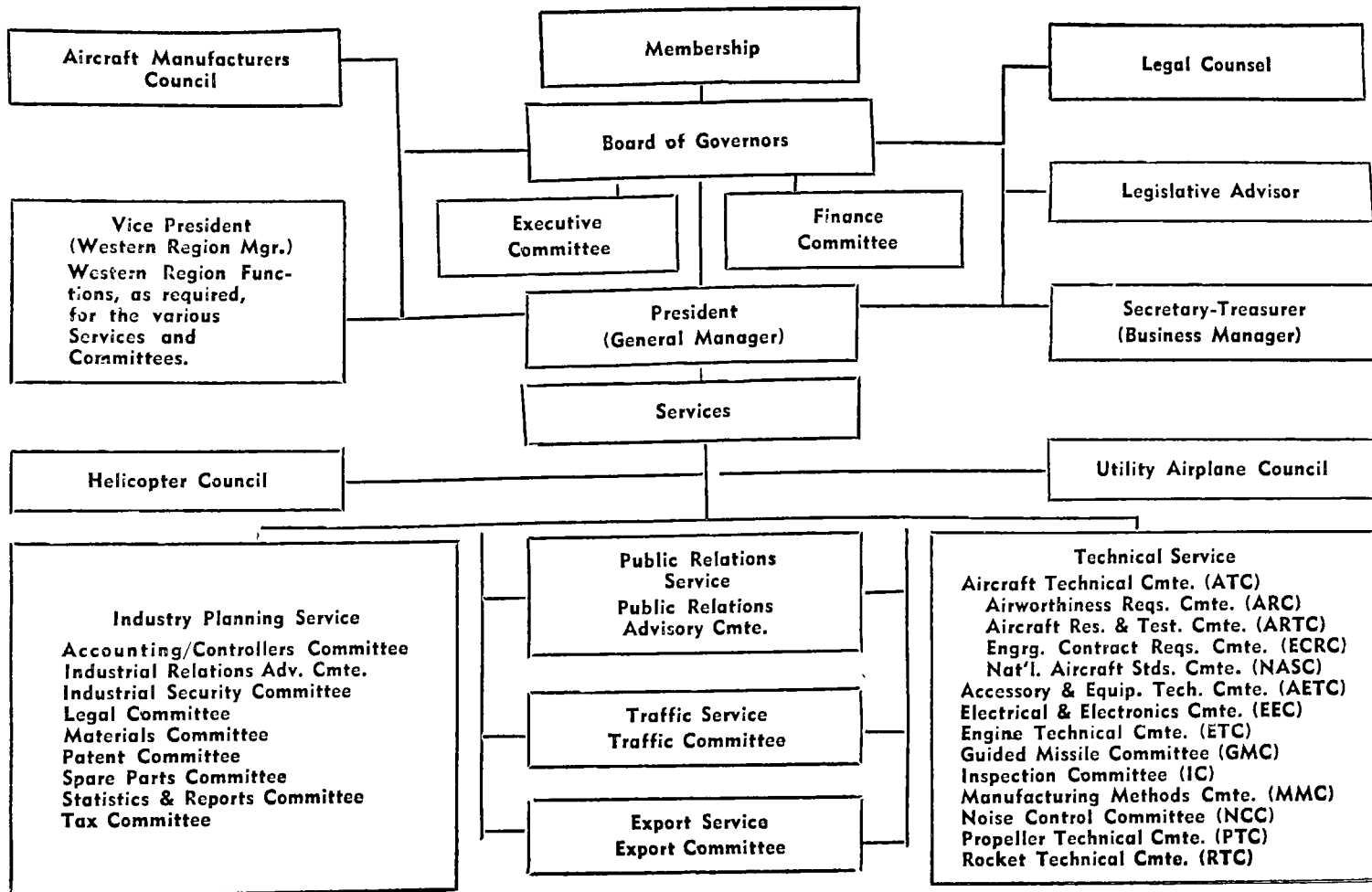
The number of manufacturing members increased by nine during the year, while the number of other members remained the same as the 1952 roll. Of especial importance was the addition of Grumman Aircraft Engineering Corporation as a member of AIA. Membership of this major airframe manufacturer gives AIA virtually complete representation of the American aircraft industry.

The Treasurer will submit his report to the Board of Governors as soon as the financial records of 1953 have been audited.

Respectfully submitted,

D. C. RAMSEY

# AIRCRAFT INDUSTRIES ASSOCIATION OF AMERICA, INC.



# REPORT ON OPERATIONS

## For the Fiscal Year Ended October 31, 1953

### ORGANIZATION AND FUNCTIONS

The Aircraft Industries Association represents virtually the entire front of the aircraft, engine and components manufacturing industry in the United States, as well as a variety of interests in the aircraft maintenance, parts, accessories and equipment fields.

The Association concerns itself with the industry-wide aspects of aircraft research, development and production. It represents the industry's viewpoints and interests to the Government, the Congress, the Military Services, allied and other industries and to the many segments of the public. It is vigilant of legislation and regulations that might affect the aircraft industry. It attempts to work out cooperatively among its members and with cognizant agencies and organizations the common problems that arise through the complexity of associations and operations in the nation's second largest industry.

Through its seven Services and 24 committees (see organization chart on opposite page), the Association provides facilities for handling the multitude of technical, financial, legal, tax, public and industrial relations, patent, traffic and other problems that confront the various segments of the industry and the Military Services. Because of many specialized considerations of promotion, legislation, regulation, etc., the helicopter and utility aircraft interests of the Association are banded under councils, each of which has staff service.

The Aircraft Industries Association is made up of 138 members, 119 of which are voting members and 19 of which are affiliates. The categories of voting membership are composed as follows:

	MEMBERS
DIVISION A—Manufacturers of aircraft, aircraft engines or airframes.	40
DIVISION B—Manufacturers of accessories, parts or materials used in aircraft construction or operation.	49
DIVISION—C This class includes miscellaneous persons and firms interested in aviation. (New applicants of this type are only eligible for "Division of Affiliates" membership.	30

As shown on page 10, the Aircraft Industries Association is organized under a Board of Governors and under regional (Eastern and Western) Executive Committees of the Aircraft Manufacturers Council. Chief executive officer is the President, who also is General Manager, while a Vice-President performs the duties of general manager of the Western Region office at Los Angeles. The seven AIA Services, including the Utility Airplane Council and the Helicopter Council, operate under direction of the President.

Reports of operations of the various Services and Committees are continued in the following pages.

## **PUBLIC RELATIONS SERVICE**

The Public Relations Service operates at the direction of and under programs approved by the Public Relations Advisory Committee. It serves as a spokesman for the Association and is the channel through which the industry's policies, programs, accomplishments and problems are interpreted to the public. In the Washington, New York and Los Angeles offices, it serves as the information center for AIA. It maintains close liaison with the public information sections of Government agencies and the Military Services, with national organizations and with the press, radio-television and other media of public information.

Changing conditions and new problems attendant upon them have kept all phases of activity of the Service at a high level during the last year. In addition to performing its customary functions, the Service has also devoted much time and effort to active cooperation with the national celebration of the Fiftieth Anniversary of Powered Flight and to initiation and conduct of the first year's operation of the AIA-National Aviation Education Council program to produce and distribute materials of instruction on aviation to the schools of the nation.

A few of the subjects interpreted to the public and to special audiences have been the superior quality of American aircraft, the industry's expansion since Korea, production problems, growth in production efficiency, the need for a long-range procurement program, the industry's success in reducing costs, the noise-reduction program, America's domination of the world air transport market, the shortage of engineers, the economic impact of the industry on the nation's economy, materials problems, improvements in aircraft safety,

accomplishments of the helicopter and utility airplane industries, the need for parity with other industries in profits retention, and the importance of research and development.

### ***Public Relations Advisory Committee***

There have been two meetings of the National Public Relations Advisory Committee and two meetings of the regional committees during the year. At each of these, policies and programs were reviewed and industry problems discussed. Subcommittees on Aviation Education, on Industry Economy, on the Fiftieth Anniversary of Powered Flight and on Editorial Review have been particularly active.

### ***Information Service***

Requests for information from the press, Government agencies, the Congress, financial institutions and a miscellany of organizations and individuals, plus dissemination of topical information, have kept all three offices exceedingly busy during the year. These offices have continued to increase their efforts to develop specially-prepared material for radio-television news commentators. A number of appearances were made before important audiences and on radio by the President and Vice-President of AIA. All were widely publicized.

### ***Publications***

Twelve issues of PLANES, the Association's official publication, were distributed in fiscal 1953. Results noted during the year now indicate this to be perhaps the most widely quoted of all industrial publications. The staff also continued to lend aid to the American Legion by supplying information for the LEGION AIR REVIEW, a publication of the National Security Commission.

The thirty-fourth annual edition of the AIRCRAFT YEAR BOOK, the standard reference book of American aviation, was issued in January. Again showing an increase in circulation, this book was dedicated to the Fiftieth Anniversary of Powered Flight. A new AIA reference book, AVIATION FACTS AND FIGURES, was in the hands of the printer at year's end. This book will provide ready reference in the form of statistics, facts and trends covering the

recorded years of aviation industry operation. It is contemplated that this work will become an annual publication of the Association. Like the AIRCRAFT YEAR BOOK, it is published and promoted by Lincoln Press, of Washington, D. C.

A booklet titled "Economy in Air Power," dealing with the industry's constant efforts to reduce costs in the development and production of aircraft, was issued in the fall. This booklet explains the reasons for higher costs of modern aircraft, shows the widespread effort to reduce them and marks the areas in which these efforts will continue.

### ***AIA-NAEC Aviation Education Program***

Marked success attended the first efforts of the Aircraft Industries Association and the National Aviation Education Council to publish and distribute teacher-prepared classroom materials for the nation's schools. Upon recommendation of the Public Relations Advisory Committee, the Board of Governors voted to lend continuing support to this program, originated to answer the long-recognized need for inclusion of aviation subjects in school studies.

Two booklets were published in the first nine months of the program, "Look to the Sky," designed for the lower elementary grades, and "Jets," designed for the upper elementary grades. "Look to the Sky," met with instant reception by the schools, and the books were being purchased in large quantities by schools a few days after they had been distributed. "Jets" was ready for sample distribution at year's end.

### ***Fiftieth Anniversary of Powered Flight***

Public Relations staff has lent important aid to the National Committee for Celebration of the Fiftieth Anniversary of Powered Flight throughout the year. A constant flow of prepared materials, including a work titled "The Aircraft Industry—1903 to 1953," has been provided emphasizing the aircraft industry interest in the Anniversary, and staff aid has been accorded in numerous instances.

### ***Cooperation With Other Services***

The Public Relations Service has worked closely with other services of AIA, providing counsel and assistance where needed and



ceiving valuable aid in return. The Association's legislative liaison executive and the Research and Statistical section of Industry Planning Service have been of especial aid to the public relations program.

### **Cooperation With National Organizations**

The Public Relations Service has continued to work with national organizations interested in aviation and air power. Especially noteworthy in the interest of national security has been the work of the American Legion in its program for adequate air power. AIA has provided much information for this program, and on two occasions, the President of AIA has made significant policy speeches before Legion groups.

## **INDUSTRY PLANNING SERVICE**

The committees served by the Industry Planning Service are: accounting, legal, materials, patents, preservation and packaging, industrial relations, industrial security, spare parts, statistics and tax.

The following is a summary of the activities of these various committees during the past year:

### **Accounting and Controllers Committee**

This committee, which deals with all problems affecting financial management within the industry, continues to be particularly concerned with the procurement policies and procedures of the Department of Defense. During the past year this committee, both directly and through its procurement regulations subcommittee, has worked very closely with the Department of Defense and the military services in the development of directives and regulations that will permit maximum efficiency of operation in the industry. Some of the major activities of this committee have been:

*Accelerated Amortization as a Cost in Contract Pricing (True Depreciation.)* The over-all policy of allowability of accelerated amortization in contract pricing had previously been determined by the Office of Defense Mobilization, through the issuance of DMO No. 11 and Amendment No. 1 thereto (after approximately two years of concentrated efforts by this Committee). During the past year the committee devoted considerable time, in cooperation with the Department

of Defense and the Military Services, to the development of procedures that would carry out this over-all policy.

*Depreciation Charges Under Tax Laws.* The Committee has been concerned with the need for a more equitable set of standards that would be applied to the aircraft industry by the Internal Revenue Service for tax purposes with respect to charges for depreciation, obsolescence, etc. Existing standards are called "normal depreciation charges" and "accelerated amortization." Both of these standards are regarded by the Committee as inadequate in view of the undue risks that accompany any investment in aircraft production facilities.

The Committee proposes that taxpayers should be allowed to use their own experienced judgment regarding the useful life of property, and thus charge it off in any period of their own choosing.

A bill (S. 298) to accomplish this needed change in the tax laws has been introduced in the Senate. This important subject will receive continuing study by this committee as well as other industries.

*Products Liability Insurance Premiums.* As the result of several hearings at which time the insurance executives of this industry presented an explanation of all of the factors and equities involved, the Department of Defense, on December 5, 1952, reversed the DOD Directive of December 8, 1951 which had disallowed premiums for products liability insurance as allowable items of cost.

*Research and Development Contractual Procedures.* The Research and Development Board of the Department of Defense requested AIA assistance in its study of R. & D. contractual practices which have caused dissatisfaction and which may affect willingness of contractors to perform research and development work under contract with the Military Services. Accordingly, suggestions and comments were obtained from the AIA member companies. These comments were coordinated, consolidated and forwarded to the Assistant Secretary of Defense for Research and Development, on August 26, 1953, where they are now being considered.

*CPFF Contract Clauses.* On September 29, 1953, Part 2 of Section VII of the Armed Services Procurement Regulation was published, prescribing clauses for use in cost-reimbursement type contracts. Prior to the publication of this section many meetings were held between representatives of the AIA Procurement Regulations Subcommittee and representatives of the Department of Defense and the three military services. The industry representatives were unsuccessful, insofar

as several of the more important contract clauses are concerned in their attempt to convince the Department of Defense representatives that the proposed clauses were inequitable as well as impractical from an operating standpoint. The committee is now considering what further course of action should be taken under the circumstances.

*Cost Principles.* The use of the CPFF contract cost principles (ASPR Section XV) by the Military Services as a guide during the negotiation of fixed-price contracts has been, over the years, the cause of many industry problems. The Department of Defense is drafting a single set of cost principles to be used in connection with cost-reimbursement type contracts, fixed-price contracts and the settlement of terminated contracts. It is anticipated that this committee, during the coming year, will devote a considerable amount of effort to the study of this proposed regulation before it is put into effect.

*Contract Termination.* The Procurement Regulations Subcommittee has continued to work with the Department of Defense and the three Military Services in the solution of problems which have arisen in connection with the administration of Section VIII of the Armed Services Procurement Regulation regarding the settlement of terminated contracts. A few of the problems which have arisen during the year related to the screening and disposition of excess property, plant clearance, authorization to settle subcontractors' claims without case-by-case approval, conditional termination notices and hold orders, termination clause for letter contracts, and formula settlements.

This section of the ASPR is now being reviewed by the Department of Defense and the three Military Services and will be entirely revised in the very near future. AIA expects to have an opportunity to review and comment upon the new regulation prior to its publication.

The need for a new Contract Settlement Act is also being considered by this Committee. The Act of 1944 has been construed by the Military Services to be inoperative with respect to contracts now being terminated.

*Price Redetermination.* The differing policies of the three Services with respect to the type of price redetermination clauses to be used in fixed-price contracts has received consideration by this Committee

during the last year. In particular, the Committee received for review and submitted comments concerning a draft of proposed incentive type fixed-price contract clauses. The coordination of this project has not been completed.

*Letters of Intent.* The Department of Defense is engaged in revising, for inclusion in the Armed Services Procurement Regulation, the forms for use in so-called letter contracts. The AIA has been advised that, prior to issuance, a draft of these letter contract forms will be furnished to the member companies for review and recommendations.

*Price Escalation Clauses.* At the request of the Department of Defense, this Committee is engaged in the review of a draft of certain types of proposed price escalation clauses for use in fixed-price contracts. Since this request was received only recently, coordination of these clauses will continue into the next year.

*Subcontractors.* This Committee continues to be concerned with the problems of subcontractors, particularly those incident to liability for Government property, financing, contract termination and disposal of inventories. These are continuing problems and are being dealt with as they arise.

*Scrap Control.* In an effort to reduce scrap to a minimum, the Air Force issued AMC Reg. No. 70-30. The member companies of this industry considered that this regulation was not the best approach to the problem and would result in increased costs by requiring records and reports in too much detail. Several discussions were held by AIA staff and representatives of the Committee with officials of the Air Force. AMC Reg. No. 70-30 has been revised in a manner satisfactory to this industry.

*Accountability for Government Property.* The Procurement Regulations Subcommittee has taken action on various problems which have arisen from the application of ASPR Section XIII and its Appendix B. Certain paragraphs of Section XIII have been amended to the satisfaction of this industry through the medium of Government-industry meetings. Other proposed amendments are still under consideration. Since problems in connection with this matter are constantly arising, discussions will continue to be held with the Government personnel concerned.

*Disputes Clause.* Though the situation which grew out of the decision

of the Supreme Court in the Wunderlich case is primarily a problem for the Legal Committee, it has also been of considerable interest to the Accounting and Controllers Committee since it does affect the finality of any agreement with the Government. (See Legal Committee report.)

*Bailments.* The Procurement Regulations Subcommittee has dealt with various matters in connection with the obtaining of property of the Government under bailment contracts. Some of these problems arise out of the delays incident to the making of bailments and also the requirements with respect to contractor liability in case of loss or damage to the property. These are continuing problems, subject to further negotiation with the Military Services, particularly the Air Force.

*Engineering Change Procedures.* The Procurement Regulations Subcommittee has been carrying on discussions with the Air Force for the purpose of facilitating the financial aspects of engineering changes. The problems arising under the existing engineering change procedures are continuing ones and will require further discussion with Air Force personnel.

*Proposed Air Force Efficiency Index.* A request was received by the AIA from the Commanding General of the Air Materiel Command for constructive comments with respect to a proposal for the establishment of some form of index of production efficiency in the aircraft manufacturing industry. The various member companies submitted comments, indicating that such an index would not be practicable. Members of the Accounting and Controllers Committee and the Statistics and Reports Committee reviewed the comments, and the conclusions reached were forwarded to the Air Materiel Command.

*California Personal Property Tax Situation.* Though this problem is of more immediate concern to the member companies located in the State of California, it is very likely to become a problem in other states. H. R. 5937 has recently been introduced in the Congress to permit the several states to tax tangible personal property which is in the possession of the person who produces it, even though title to the property is in the United States. This Committee has been concerned with the national problem. The Legal Committee and the Tax Committee have been concerned with the California problem.

*Other Problems.* During the past year, this Committee has considered

numerous other problems which affect the financial management aspects of the aircraft industry. Some of them are concerned with defense loans, bonds and insurance, war damage insurance, pension and retirement plan costs, compensation of officers, engineering service contracts, retention of contract records, civilian defense costs, security costs, the Buy American Act, assignment of claims, Government-furnished property, Government-furnished aeronautical equipment, and partial payments.

### **Legal Committee**

The membership of this Committee consists of the principal legal officer or counsel of member companies.

*Disputes Clause.* During the past year, one of the major problems of this Committee has been the situation which has resulted from the decision of the United States Supreme Court in the Wunderlich case to the effect that a departmental decision regarding a question of fact is final, even though arbitrary, capricious, or grossly erroneous. The Legal Committee desired revision of the Disputes Clause of the Armed Services Procurement Regulation to overcome the effects of the Wunderlich case decision. Accordingly, the standard Disputes Clause for use in supply contracts with the Department of Defense was amended to the satisfaction of the aircraft industry.

Nevertheless, other industry groups proposed legislation to correct the situation and wanted to go considerably beyond what the aircraft industry considered necessary. The McCarran Bill (S. 24) is pending in the 83rd Congress, having passed the Senate. Hearings by the House Judiciary Committee are contemplated during the next session. A representative of the aircraft industry is prepared to testify in opposition to S. 24 in its present form.

*Cost-Reimbursement Type Contract Clauses.* In cooperation with the Accounting and Controllers Committee, the Legal Committee participated in the coordination of the clauses for use in cost-reimbursement type contracts. Some of the clauses published by the Department of Defense for use in contracts after January 1, 1954, are not considered completely satisfactory to the aircraft manufacturing industry. Consideration is now being given to taking action to seek changes in such clauses or to streamline the procedure for obtaining deviations therefrom.

*Other Problems.* Also in cooperation with the Accounting and Controllers Committee, the Legal Committee has been concerned with problems relating to the legal liability of contractors under bailment agreements, various problems of subcontractors, the retention and disposition of records, the various ramifications of allowing accelerated amortization ("True Depreciation") as a cost in original pricing and under the Renegotiation Act, state personal property taxes, and letter contract problems.

### **Spare Parts Committee**

This Committee's activities relate to spare parts, special tools, test and ground handling equipment, parts catalogs and training aids and training equipment. Close coordination was maintained during the year with the Air Force, the Navy, the Munitions Board and, more recently, with the Offices of Assistant Secretaries of Defense, particularly Supply and Logistics, Properties and Installation, and Applications Engineering.

During the year the Committee concluded action on the following subjects:

*Study of Spare Parts Procedures in Connection with Overhaul and Modification Contracts.* The Committee studied existing procedures and made recommendations for guidance of contractors entering into Air Force maintenance contracts.

*Call Contracts for Engine and Propeller Spare Parts.* The Committee recommended that replenishment spare parts should be contracted for by the Procurement Division of the end-article depot, and that separate call contracts should not be initiated by each prime depot.

*Streamlining Paper Work Flow Between AMC and Contractor.* This subject is under continuing study and considerable progress was made during the past year.

*Mechanical Preparation of Spares Documents.* The Air Force accepted certain industry recommendations for revisions of documentation format to facilitate its preparation on tabulating equipment.

*Bulk Shipment of Low Dollar Items.* After a study recommended by the Air Materiel Command, the industry recommended that certain low-cost items comprising the majority of spare parts sold, should be shipped in bulk for economy purposes, instead of shipping parts

monthly concurrently with end items. The Air Force accepted the recommendations and instituted the change.

*Air Force Serial Numbers.* The Committee advised the Air Force that its serial numbers should be expedited to avoid accumulation of finished spare parts awaiting serial numbers. The Air Force had already made special efforts to reduce the backlog.

*Interim Contractor Selection and Release Procedure.* The industry recommended that an interim procedure be instituted to permit the contractors to select and release special tools, test and ground handling equipment for production or procurement along the lines of the spare parts procedure. The Air Force concurred, and an interim compromise procedure is in effect.

*Contractor Printing of Catalogs and Handbooks.* Based on an Air Force inquiry, the Committee determined that valuable time could be saved in certain instances by contractor printing of catalogs and handbooks. It was recommended that this be on an optional basis.

*Discontinuance of Provisioning Parts Breakdown After Provisioning.* The Committee recommended that the PPB should not be kept up to date after spare parts selection has been accomplished by Air Force or Navy.

*Training Aids Provisioning Document.* The Munitions Board's proposed Case 57 and the Air Force Training Appendix IV were reviewed by the industry and some revisions were recommended. Case 57 has not been issued, but Appendix IV has been issued by the Air Force.

*Engine and Propeller Factory Training School Contracts.* The staff worked with the engine and propeller companies in presenting their views in connection with Air Force proposed changes in the method of contracting and funding of contractor-operated factory training schools. The final result includes negotiated changes which considerably improve the new plan.

The Committee currently has under consideration the following subjects:

*Spare Parts Provisioning Procedures.* A panel is now studying the Navy airframe provisioning documents, and recommendations for revision will be made to the Navy. During the year the Munitions Board Case 55 was dropped.



*Purchase of Vendor Spare Parts from Prime Contractors.* The panel is studying the effect of the Air Force trend toward reliance on the prime contractor for component spare parts and technical data.

*Call Contracts for Spare Parts.* The industry has made various recommendations to the Air Force to permit year-round call contract coverage contractually and financially. While some of these recommendations have been adopted, others have not been acted upon.

*Master Air Force Contract for All Spares, Initial and Replenishment.* At Air Force request, the Committee is studying the possibility of having one master contract covering all spare parts. The objective is to reduce paper work.

*Proposed Air Force Control System—Program of Distribution.* This Committee is complying with the Air Materiel Command request to study a proposed control system by which spare parts would be categorized to indicate expendability, highest level of repair, and approximate unit cost. At the same time, it is looking into Air Force suggestions that production lists be priced.

*Expediting Approval of Change Orders and Payments.* The Committee determined that one of the most important projects it can undertake is to get faster approval of change orders and payments therefor. This is being studied by a panel.

*Special Tools, Test and Ground Handling Equipment.* The Committee recommended to the Air Force and Navy that organizational changes should be made in the services to centralize authority and expedite approvals on support equipment. The services are studying this recommendation. The Committee is also redrafting the Air Force and Navy special tools provisioning documents for recommendation to the services.

*Specification for Design and Data for Special Support Equipment.* The Committee is reviewing MIL-D-8512 and 8513 and will make recommendations for their revision or rescission.

*Preparation of Provisioning Parts Breakdowns and Illustrated Parts Breakdowns.* A panel is developing a method of combining the PPB and the IPB into one document—a long-standing objective which appears to be on the verge of success.

### **Statistics and Reports Committee**

With the past year marked by a volume of new governmental

reporting demands, second only to that existing during the World War II period, the Committee continued to increase its efforts to reduce the reporting burden of the aircraft industry.

Closer contact has also been established within the past twelve months with the various sections of Headquarters of USAF, Air Materiel Command, Bureau of Aeronautics, Bureau of Census and Bureau of Labor Statistics responsible for initiating the reporting requirements levied upon the aircraft industry. In an increasing number of instances, the assistance of the Committee is being requested by these agencies prior to formal submission of a proposed report to the Bureau of the Budget for approval.

*Major Reports Acted Upon.* In addition to the elimination of numerous individual company reporting requirements, and action leading to the discontinuance of such reports as the "Supplement to the Report on Employment, Payrolls and Hours" (BLS 790C-1), APRA 3, APRA 4, BuAer Report on Machine Tool Purchase Orders (NavAer 2627), etc., several of the more important reporting requirements acted upon by the Committee during the past year were:

*BuAer "Financial Report of Contract"* — Committee objections and recommendations contributed in some measure to the disapproval of this proposal by the Bureau of the Budget. The report, if approved, would have required the establishment of new accounting controls within the industry, with an attending reporting burden.

*AMC, "Item Status Report" and "Maintenance and/or Modification of Accrued Costs"* — The Committee position that these two reports on maintenance and modification contracts were duplicatory and unnecessarily burdensome was largely responsible for Bureau of Budget disapproval. Simplified versions, now being developed by AMC, are to take cognizance of the industry objections.

*Aeronautical Manufacturers' Planning Reports (AMPR's)* — Joint Committee efforts with AMC and BuAer during the past year resulted in the development of a revised airframe AMPR report that is more useful to the Military Services, but less of a burden to the industry. A similarly revised engine and propeller AMPR (now under negotiation) should be forthcoming within the next few months.

*“Aviation Facts and Figures.”* Research work was completed during the past year for a 1953 edition of “Aviation Facts and Figures,” a comprehensive statistical reference handbook of pertinent data on many facts of aviation and particularly of statistics relating to the aircraft production industry. Within the limitations imposed by security, the new edition brings up-to-date the data in the 1945 edition, and extends the coverage into areas not covered at that time. Publication by the Public Relations Department has been scheduled for early December, 1953.

*Standard Industrial Classification Manual.* Currently the Committee is participating through the Advisory Council on Federal Reports in the revision of the Standard Industrial Classification Manual — the device which governs the collection, compilation and publication of all statistics by Federal agencies. Responsibility for revision of Major Industry Code 372, “Aircraft and Parts” has been assigned to this Committee.

*Statistics.* In addition to the eighth issue of the “Financial Situation of the Airframe Manufacturing Industry,” the Service continued publication of the series on civil aircraft shipments, labor turnover, and average hours and earnings. Two AIA booklets issued by the Public Relations Department during the year, for which basic research was performed by this department, were “Fifty Years of Aviation Progress” and “Economy in Air Power.”

### **Materials Committee**

During the past year the Materials Committee has worked closely with various Government agencies interested in the materials problems of mobilization, *i.e.*, the Department of Defense; the Air Force, Navy and the Aircraft Production Resources Agency; the Office of Defense Mobilization and the National Production Authority of the Department of Commerce.

The increased production of steel, copper and aluminum from new sources developed since the start of the Korean War, together with the reductions in defense requirements, has considerably eased the materials problems in 1953.

*Titanium.* This Committee is continuing its work with APRA and the Air Force on the development of titanium for aircraft use. New and additional sources have been authorized by the Government to

increase the production of titanium. Due to the present limited availability of the metal, the Office of Defense Mobilization has issued an order covering the control of the general distribution of titanium sponge and titanium metals.

*Defense Materials System.* The new Defense Materials System, which replaced the Controlled Materials Plan, became effective July 1, 1953. The DMS regulations are the Government's basic mechanisms for the control of materials and facilities, by the use of priorities and allocations, for support of the Department of Defense and Atomic Energy Commission programs.

During 1953, the Materials Committee made many suggestions designed to simplify the DMS procedures and reduce the paper work, without destroying the basic requirements which would permit the re-establishment of a full Controlled Materials System in the event of another mobilization build-up. These committee recommendations have been favorably acted upon by the cognizant Government agencies. This subject is under continuing study due to its basic importance during a national emergency.

*Aircraft Production Resources Agency.* The Materials Committee, through Admiral Ramsey, has strongly recommended the continuation of a Joint Services Agency, whose members are completely familiar with aircraft raw material, parts and supply problems, to facilitate and expedite all material matters affecting aircraft production.

*Manual for Preparation of Bills of Material.* Many of the extensive recommendations made by this committee to the Aircraft Production Resources Agency were accepted and will be included in the new Manual for the Preparation of Bills of Material.

*Manufacturing Plan Format.* A manufacturing plan format developed by the Materials Committee calculating more accurately industry material requirements has been accepted by the Department of Defense, upon the recommendation of the Aircraft Production Resources Agency, as the basic instrument by which all aircraft industry raw material requirements computations will be made.

The Materials Committee presently has under consideration the following:

Defense materials system and recommendations for simplification to meet present requirements.

Disposition of idle and Government-owned stocks at contractors' plants.

Titanium, present availability and requirements.

New Bill of Materials Manual, and Inspection Committee recommendation governing standard system for marking alloy steel.

Aircraft Production Resources Agency audits of contractors' materials inventory.

Defense Department uniform policy on leasing machine tools owned by the Military Services.

### **Patent Committee**

The more important activities of this Committee during the past year were:

*Armed Services Procurement Regulation.* The Patent Committee reviewed the contents of the Patent Policy Review Board report and the Munitions Board redraft of the Armed Services Procurement Regulation (Section IX, Patents) and after extensive study, it was determined that these proposals were more unsatisfactory to industry than the existing ASPR Section IX. Industry recommendations were addressed to the Munitions Board and a request was made to the Secretary of Defense for another hearing for representatives of this industry on this matter.

With the abolition of the Munitions Board, all industry recommendations referring to the Munitions Board redraft of ASPR Section IX were taken over for review and action by the Office of the Assistant Secretary of Defense for Supply and Logistics. Subsequently, cognizance of this matter was transferred to the office of the Chief Counsel, DOD. This entire problem is now under review in the Department of Defense, and the results thereof are anxiously awaited by the Patent Committee.

*Peacetime Royalty Adjustment Act.* The wartime Royalty Adjustment Act expired on June 30, 1953, when Congress deleted it from the extension of the President's emergency powers. Under this Act the Government was entitled to reduce royalties involved in items of Government purchase. Peacetime royalty adjustment bills have been introduced in Congress for a number of years to take the place of the wartime Act upon its expiration. During the first session of the 83rd

Congress, S. 1235 and H. R. 2560 were introduced to extend the Royalty Adjustment Act. A statement on behalf of AIA was made before the Senate Judiciary Subcommittee opposing S. 1235.

*Patent Extension Bills.* The Patent Committee filed a statement with the House Patent Subcommittee of the Judiciary Committee on behalf of AIA, opposing the enactment of H. R. 1301, 4944, 1228, 2309 and 3534, or similar bills. These bills provide for the extension of the life of various patents and, therefore, lead to a gradual breakdown in the patents system.

*Atomic Energy Act.* A patent subcommittee prepared a statement on behalf of AIA which was filed with the Joint Congressional Atomic Energy Committee, recommending review of the patent provisions of the Atomic Energy Act.

In addition to the above items, the Patent Committee is currently working on the following matters:

- Possible adverse effects on proprietary rights of the proposed standardization of engineering drawings.

- Use of a copyright clause in production contracts.

- Use of clauses affecting background patent rights in lieu of ASPR clauses.

- Dissemination to foreign governments of information under a Patent Office secrecy order and the handling of such material in Government contracts.

- Payment of royalties.

- Bailment contracts.

- Bilateral agreements for interchange of technical information between U. S. and other countries.

- Patent aspects of Atomic Energy Act of 1946 and its amendments.

### ***Preservation and Packaging***

In accordance with requests received from a number of member companies, a preservation and packaging mailing list was established within the AIA in December, 1952. At that time, a memorandum was sent to the Aircraft Manufacturers Council by Admiral Ramsey, inviting member companies to furnish the names of their representa-

tives responsible for general supervision of preservation and packaging. This would permit forwarding to them all requests directed to AIA for industry opinion on packaging requirements, and would permit the company specialists to submit their recommendations.

During 1953, eleven proposed specifications were coordinated by AIA with the company specialists and as a result many of their comments and recommendations have been incorporated in military packaging specifications. A list of the specifications on which action has been taken follows:

MIL-P-7936 (Aer)	Preparation for Delivery of Naval Aeronautical Equipment: General Requirements for
(Proposed) Military Specification	Containers: Two-Way, Aircraft Control Surfaces (2,000 Limit)
MIL-E-6059	Engines, Aircraft, Reciprocating, Processes for Corrosion Protection, Pre-Oiling and Ground Operation of—(Proposed Revision—A) (Superseding MIL-E-6059)
MIL-P-116B	Preservation, Methods of (Proposed Revision) (Superseding MIL-P-116A and AN-P-13)
MIL-C-4116	Containers: Shipping, Reusable, Wood, Aircraft Engines—Proposed Revision A (Superseding MIL-C-4116 (USAF))
(Proposed) Air Force-Navy Aeronautical Bulletin	Standardization of Preservation and Packaging of Engines
MIL-E-5607	Engine, Aircraft, Gas Turbine, Preparation for Storage and Shipment of, Process for—Proposed Revision A
MIL-E-5595	Engine, Aircraft, Gas Turbine, Corrosion Prevention Pre-Oiling and Ground Operation of, Processes for—Proposed Revision—A Air Force/Forest Products Laboratory Packaging Specifications

MIL-V-8574 (Aer) Volatile Corrosion Inhibitors in Preservation and Packaging: Use of Proposed Specifications for "Domestic" Pack of Aircraft Surfaces

### **Industrial Security Committee**

The activities of this Committee have shown a marked increase during the past year as the Department of Defense has placed more emphasis on security.

*Armed Forces Security Regulations.* The Committee worked with the Department of Defense on these regulations over the past two years. The regulations have been issued and became effective August 15, 1953. This one set of industrial security regulations applies to all military departments, as well as to all contractors from which the Department of Defense procures materials or services.

*Industrial Security Manual for Safeguarding Classified Security Information.* A draft of proposed amendments to this manual was issued by the Department of Defense in May. The proposed change in the method of handling "Secret" material met with objection from this Committee and from member companies. This Committee and AIA staff members have worked together to acquaint the Department of Defense with the tremendous burden the proposed changes would place on the industry. The issuance of the proposed changes has been delayed.

A staff member of AIA was selected by the Air Force to address a world-wide conference of Air Provost Marshals at San Antonio in May. The topic of the address was "Security Problems in the Aircraft Industry."

### **Industrial Relations Committee**

Liaison between this Committee and appropriate Government agencies has resulted in considerable activity in the fields of labor-management relations, wage and hour regulations and selective service regulations. Early in the year, the discontinuance of wage and salary controls resulted in a decrease in the workload of the staff of this Committee and the staff was reduced.

*Taft-Hartley Act.* Last spring, the Committee prepared a brief outlining the aircraft industry's position on the Taft-Hartley Act and



testified before the Senate and House Labor Committees. Recently, in anticipation of further consideration by Congress of this Act, a subcommittee has been working on proposed amendments to the act.

*Wage and Hour Regulations.* Early in the year the Wage and Hour Division of the Department of Labor issued an expanded interpretation of the term "on a salary basis," as contained in Part 541 of the Fair Labor Standards Act. In view of the retroactive and costly effect of this new interpretation AIA and other organization representatives held a meeting with the Wage-Hour representatives on October 22, 1953. Counter proposals were made and indications are that a mutually satisfactory solution to this problem will be reached prior to January 1, 1954, the date upon which the new interpretation is scheduled to take effect.

*Flight Personnel.* In May, the Labor Department, Wage and Hour Division, stated its position that test pilots and flight engineers were not exempt from the overtime payment provisions of the Fair Labor Standards Act. A subcommittee of the Industrial Relations Committee met with the Wage and Hour Administrator in July to exchange views on this subject. After this meeting, the subcommittee prepared a comprehensive study to support their claims that such personnel merit "exempt" status. The study has been completed, and was presented to the Wage and Hour Division on October 14, 1953. No action has been taken as yet.

*Air Force Procedure Regarding Shipping Instructions in a Strike-Bound Plant.* In implementing the Department of Defense Policy on this subject the Air Force regulation stipulated that shipping instructions in effect at the time of a strike would not be acted upon for the duration of the strike, and that any shipment from a struck plant would be made in accordance with "emergency" shipping instructions. Based upon the operating experience of this industry under this regulation the AIA made representations to the Air Force requesting that modifications be made in such a manner as to (1) reflect a policy of strict impartiality on the part of the Government in the event of a strike in a defense plant by permitting a contractor to continue delivery and receipt of materials under shipping instructions in existence before the strike, and (2) define and cover only the procedures for effecting shipments of urgently needed defense material when the contractor is unable, as a result of the strike, to meet the requirements

of these instructions. It is understood that the Air Force are now revising this regulation and have accepted AIA recommendations.

*Manpower.* The past year has seen an easing in the manpower situation as a result of the changes made in the Department of Defense procurement schedules. There is still a shortage of engineers, technical personnel, and certain higher skilled classifications.

Although there has been no change in Selective Service policies in regard to the deferment of engineers, the past year has seen a tightening up by Local Boards and Appeal Boards on requests for deferments where the registrant has been granted two or more deferments.

*Surveys.* As a routine part of staff activities during the past year, surveys have been made in such fields as wages, fringe benefits, and other company policies and practices in the Industrial Relations field.

## **TECHNICAL SERVICE**

The activities of the Technical Service have continued to emphasize joint participation with the Military Services, the Civil Aeronautics Administration, the Civil Aeronautics Board and numerous non-Government organizations in the solution of mutual problems on engineering specifications and civil air regulations. Considerable effort has been devoted, within the Technical Service, to an integration of the activity concerning aircraft, guided missiles, engines, rockets, propellers and equipment to achieve more thorough coverage on research, design, development, manufacturing methods, inspection and testing.

### ***Cost Reduction of Aircraft and Equipment***

In response to a request from the Commanding General, Air Materiel Command, main technical committees of AIA participated in a comprehensive analysis of the military's procurement specifications and their administrative procedures to determine in what respects costs of aeronautical equipment could be significantly reduced without adversely affecting production or quality. The resulting industry report submitted to the Air Force and Bureau of Aeronautics presented important cost-reduction recommendations in the following six areas: (1) product performance and test requirements, (2) administrative procedures and regulations, (3) contractor-furnished data,

(4) materials and process requirements, (5) standardization of parts, and (6) quality control and inspection.

### **Heavy Press Program**

During the past year, the \$389,000,000 heavy (forging and extrusion) press program has been controversial in both Congress and the Military Services. The AIA engineering and manufacturing methods committees' role in this program has been aimed at the compilation of factual technical data from which to determine the sizes of forging and extrusion presses that could be utilized in large airplane structural component fabrication. In addition, extensive effort was devoted to joint discussions with the forging producers to establish design criteria consistent with known and potential fabricating techniques. Joint meetings were also held with the Services to permit definite planning and integrated scheduling of large forgings and extrusions in new prototype designs. Problems relating to press capabilities, die blocks, die-sinking, machining requirements, tolerances and draft angles, lead time, interchangeability of press components and dies, and contractual coverage are still under industry study, although these have been influenced to a degree by the recent cancellation of a large number of the presses.

Maximum utilization of the production capabilities of the Adrian (Mich.) heavy press facilities does not appear to have been realized.

### **Prototype Legislation and Developments**

Although several prototype bills were introduced in Congress during the past year, no AIA or collective manufacturing industry testimony was presented at Congressional hearings. Of the various bills, the Nyrop proposal for a direct Government loan not to exceed \$15,000,000 for development costs of a jet transport, appeared to be of greater merit than the others. In the final analysis, however, the need for any Government subsidy or loan existed because private capital has, until very recently, considered jet transport development to be premature. Since military requirements and commercial airlines' needs have now become more definitive, and since more economical turbine engines are becoming available, it has been possible for some manufacturers to proceed with their respective jet transport projects, including both jet and turbo-prop designs.

The actual time schedule for design, construction and in-line

operation of U. S. jet transports will be affected by the following factors:

- (1) The plans of the air-transport industry to replace or augment existing fleets with the most modern transport types.
- (2) The factor of economy-of-operation which bears closely on the previous factor.
- (3) The readiness of our air-network system and commercial terminals to assimilate jet-powered aircraft.
- (4) The problem of in-flight noise in the vicinity of densely populated areas.

### ***Noise Reduction Effort***

The seriousness of the aircraft-noise problem has been recognized for several years by AIA and its members. From the technical standpoint, common interests of the manufacturers in noise created at their plants by ground operation and testing were handled by the Noise Control Committee. Interest in noise generated at airports was handled by the AIA staff through contact with and participation in activities of the National Aviation Noise Reduction Committee, the National Air Transport Coordinating Committee and other organizations.

### ***Weapon Systems Concept***

During the year, the Air Force has explored the possibilities of the establishment of a new system of procurement which, whenever feasible, would invest single prime contractors with responsibility for the development of complete weapons systems. Opinions of the philosophy apparently have not as yet crystallized, and intensive studies are now being made by the Air Force and the industry to appraise fully the advantages and disadvantages of the new concept.

### ***Operation of the Unitary-Plan Wind Tunnels***

During the year strong representations were made to the Air Force, the NACA and other Government agencies, advocating a fee rather than non-fee system of operation for the industry development tests that will be made at the NACA and AEDC facilities completed

under the Unitary Plan. It is firmly believed that the following useful and fundamentally important purposes would be served by the establishment of a fee-system of operation of the AEDC and NACA test facilities intended for development use by the industry:

- (1) Would provide for proper accounting of development costs.
- (2) Would provide for most economical and efficient operation.
- (3) Would eliminate a very substantial amount of less important or completely useless and expensive work.
- (4) Would further the principle of fair competition in industry.
- (5) Would encourage the acquisition of privately owned facilities and the existence and growth of competent integrated industrial organizations, not dependent on Government.
- (6) Would help remove the Government from competition with available non-Government laboratories and facilities.
- (7) Would make it possible for the Military Services to better judge the relative efficiency and competence of competing companies on developments.

### ***Federal Cataloging Program***

The target date for completion of the Federal Catalog has been announced as December 31, 1954, with adoption by the Services in all functions of supply as the ultimate objective. Industry activity in this area has been somewhat dormant on the assumption that the new system would not affect the aircraft program for some years to come. However, it is anticipated that more concerted effort on industry's part may be expected in the future. During the past year the aircraft industry has gone on record with the Services by pointing out the implications of part numbering changes essential to the new cataloging program. Although the system has merit in industries producing off-the-shelf items, feasibility of its application to aircraft appears doubtful.

### ***Aircraft Technical Committee (ATC)***

The ATC has continued to function as a policy committee on aircraft engineering problems, with primary interest in Government research facilities and planning, and overall Government activities in integrating the specification requirements of the various branches of the Defense Department.

*Military Standardization of Airplane Design Requirements.* In accordance with long standing ATC recommendations, the Air Force and Navy BuAer have initiated a program to consolidate their separate requirements on airplane design. First MIL specification now undergoing industry review pertains to flying qualities for piloted aircraft. Structural criteria and test demonstration requirements are expected to follow.

*Nominations for NACA Committees.* Each year the ATC, together with the ETC and PTC, submit nominations of company engineering specialists who are available and outstandingly qualified for selection by the NACA to fill vacancies on its technical committees and sub-committees. NACA has indicated that such nominations have been of great value in maintaining the high caliber of accomplishments by these committees.

*Military Departments to Unify Preparation of Aircraft Model Specifications.* Through action by Defense Supply Management Agency, the Departments of Army, Navy and Air Force are adopting a common set of instructions for the preparation of model specifications for aircraft. Establishment of Specification MIL-I-6252 as a mandatory document for use throughout the Services will end a major source of aircraft industry confusion caused by differing formats in presentation of requirements.

*Procedures for Engineering Changes in Design Clarified.* In a letter dated April 2, 1953, Major General Bradley, Director of Air Force Procurement, indicated a basic change in the Air Force's policy on responsibility and authority for approving engineering design changes. This latest policy, strongly advocated by industry, states that all proposed Class II (variation) changes may be released for production by the contractor without prior approval by the Air Force.

*Machine Methods for Weight-Data Tabulation.* Considerable interest has been evidenced by the aircraft manufacturers and Military Services in the joint AIA-SAWE program for reworking the AN Weight-Data Forms for application to electronic equipment tabulators. Ultimate objective is to cover both aircraft and guided missile weight-data forms.

*Industry Visit to AEDC Facilities.* On May 18, members of the Aircraft, Engine and Propeller Technical Committees visited the AEDC Test Facilities at Tullahoma. The group visited the engine

test facility, the gas dynamics facility and the propulsion wind tunnel, and a detailed presentation of the construction and operating principles was made in each instance. A better appreciation of the magnitude and capabilities of the equipment was obtained by the visiting representatives who will be responsible for the industry development work to be conducted at Tullahoma.

### ***Aircraft Research and Testing Committee (ARTC)***

The ARTC pursued an active program of close cooperation with other AIA technical committees and the Military Services. As in the past, activity was directed toward minimizing undesirable duplication of effort, in exchanging information and representing the airframe manufacturers on matters of applied research and testing as applied to structures, systems and installations, materials and processes.

While it was not a newcomer to the topics of consideration by the committee, the need for improvement and refinement elevated the subject of castings to the top of the list of active projects receiving attention. The Inspection and Manufacturing Methods Committees participated and liaison was established with the Military Services, industrial research institutions and the foundry industry. Eleven meetings of the subcommittee and panels were held.

Large forgings (under the USAF modified Heavy Press Program), titanium and boron steel maintained continuing high interest, as did synthetic lubricants, and plastic materials for glazing and structures. The significance of high temperatures and loads in structures and systems continued to mount. An AIA Technical Series Report, No. ARTC-6, was published on "A Theoretical Investigation of the Oscillating Control Surface Frequency Response Technique of Flight Flutter Testing."

Although the ARTC activities are national in scope, operations are on a regional basis (Eastern and Western). Eight regional meetings, mostly in members' plants, and one joint meeting in Washington with the Military Services were held. In addition, the Committee participated nationally in two joint Air Force-AIA conferences on transparent materials and adhesives-sandwich construction.

The program of dissemination of information was continued, involving projects sponsored by Air Materiel Command, Wright Air

Development Center, BuAer and the Forest Products Laboratory.

### **Airworthiness Requirements Committee (ARC)**

The separate areas of industry interest, namely, transport, personal aircraft and helicopters, have been dealt with by the corresponding ARC divisions as follows:

#### **ARC Transport Committee**

... Achieved significant improvement in the CAB's Annual Airworthiness Review procedure by changes which will reduce meetings, require better substantiated regulatory changes and limit discussions to major controversial issues.

... Reviewed the CAA's Jet Transport Certification Policy Report and recommended that all certification material be confined to either Civil Air Regulations Part 4b or corresponding Civil Aeronautics Manual material. CAA Administrator, F. B. Lee, is in agreement with industry's position in this matter.

... Recommended that the ACC initiate action to re-evaluate the need for ICAO Annex 8 Airworthiness Standards. Industry considers it desirable to make such a re-evaluation since that Annex has little value to the manufacturers unless it can be used for import and export purposes — the ICAO Convention covers international operation, but not sale of aircraft. The ACC has agreed, and is now making a critical study of Annex 8 with full industry participation.

... Developed airplane flight manuals for existing transport aircraft, using the proposed new performance rules, based on statistical probabilities. Airline trial route applications will follow, thus completing a six year intensive program by CAA, CAB and industry to develop rational and flexible performance rules so that temperature and humidity can be accounted for more easily in operation.

#### **ARC Helicopter Committee**

... Participated in the CAB's Annual Review and agreed with the airlines that a Helicopter Transport Category should be evolved, using CAR Part 6 as a starting point. The ATA Helicopter Committee and the ARC Helicopter Committee will undertake a detailed



analysis of Part 6 to determine appropriate changes for a transport helicopter. The CAA has endorsed action by industry.

... On the basis of satisfactory experience with the CAA's Delegation Option for type certification on CAR 3 aircraft below 6000 lbs. asked for expansion of the system to permit manufacturers' own certification of light helicopters not intended for air-carrier operations.

... Developed recommendations on the CAA-proposed certification flight testing and procedures to accommodate a wide variability in helicopter configurations. The serious problem of limiting-heights for auto-rotational landings after power failure is under continuing study in collaboration with the CAA and CAB.

... Reviewed proposed MIL helicopter procurement specifications on transmission systems, structural criteria, flying qualities and ground test requirements. This important standardization program, recommended by industry, will result in uniform Air Force, Army and Navy design criteria for helicopters, thus facilitating manufacturers' engineering, inspection and production, as well as permitting interchangeability of contractor furnished technical data among the Services.

### ***ARC Personal Aircraft Committee***

... Re-emphasized the industry's concern over lack of a special Cargo Category. With the recent 12,500 lb. weight limit placed on CAR 3 airplanes, future cargo aircraft designs must now comply with all transport-category passenger airworthiness rules.

... Proposed increase of manufacturers' responsibility for conduct of production flight checks and also conformity inspection of prototype designs.

... Requested the CAA and ACC to study the possibility of permitting registration of U. S.-built aircraft by foreign nationals, thus facilitating sale of private aircraft abroad.

... Recommended elimination of CAA Airworthiness Directives in lieu of greater responsibility of manufacturers' Service Bulletins to cover field safety problems.

### ***Accessory and Equipment Technical Committee (AETC)***

*Diversity of Products and Complex Customer Relationship* are

peculiar to this segment of industry. The twenty-six AETC member companies produce several hundred complex precision items and systems. This diversity of products is coupled with the necessity of selling to numerous Government agencies, airframe primes, power plant primes, other equipment manufacturers and, in peace time, allocating considerable capacity to manufacture of industrial products. Differing policies and requirements of these customers have raised many difficult problems.

*Extreme Environmental Requirements* — A major AETC effort has been directed toward cooperation with cognizant Government and industry groups in defining environmental requirements encountered by equipment in high speed aircraft and guided missiles. This has fostered a concerted effort to develop components and equipment to withstand these extreme conditions and, where this is impracticable with present materials and knowledge, to isolate or protect the components from the environment which they cannot withstand.

*Panel Presentations* by key military and industry representatives on effects of certain policies and procedures on equipment manufacturers which proved of interest included :

- ... Weapons System Concept.
- ... Long-Range Equipment Development.
- ... Operational and Maintenance Problems of Naval Aircraft.
- ... Accessory and Equipment Industry in Current and Future Development of Aircraft.
- ... Missile Accessory Problems.
- ... Effects of Air Force Decentralization of Maintenance and Procurement on Component Manufacturers.
- ... Choice of Equipment for Transport Aircraft.

*Powerplant Control Subcommittee* fostered a program of cooperation between powerplant control systems manufacturers and Military Services, NACA, engine manufacturers and aircraft manufacturers. Items under consideration include turbo-prop control requirements, emergency controls, control cooling and power supply requirements for controls.

*Administrative Engineering Panel* continued its work in clarifying and simplifying administrative policies and procedures affecting engi-

neering, such as engineering change procedures; use of materials, processes and parts; replacement of van dykes by microfilm, means of debugging and modernizing equipment in the field, and drawing and data list policies.

### ***Electrical and Electronics Committee (EEC)***

The activities of the EEC were directed toward problems associated with the design of electrical and electronics equipment for operation at higher altitudes under conditions of higher temperatures, extreme vibration and shock and reduced space for installation. Specific EEC action was completed as follows:

... Defined electrical and electronic equipment industry requirements and developed equipment manufacturers' recommendations on military specifications such as General Spec for Design of Electronic Equipment for Guided Missiles; General Spec for Environmental Requirements; Electron Tubes; Radio Noise Interference and Test Requirements, and Aircraft Electric Power.

... Defined equipment industry requirements and issued industry specifications for miniature capacitors and high temperature hook-up wire, and have in final stage of preparation industry specifications for high temperature resistors, precision variable resistors, radio noise filters, metallic rectifiers, miniature screws and turret terminals.

... Cooperated with the Government agencies, industry societies and other associations engaged in electrical and electronics activity; reviewed SAE A-2 decisions on Government specifications and transmitted them to the Military Services with EEC recommendations for appropriate action; sponsored several professional-society projects including standardization of electric motors, precision servo motors and synchros; cooperated with RTMA Electronic Applications (Reliability) Committee, and RTMA Committee on Components.

... Collected and disseminated data on environmental requirements encountered by airborne electronic equipment and fostered development of components to meet those requirements.

... Exchanged information with the Research and Development Board on areas of research needed for electronic equipment development.

## **Engine Technical Committee (ETC)**

The ETC, whose activities during the past year have continued to be directed toward simplification of engineering requirements in military specifications and standards in an effort to reduce overall costs, has been faced with additional requirements and increased costs commensurate with the more complex engines and their components necessary to satisfy demands for more power. These demands have not only been met, but met with better fuel economy, a minimum use of critical materials, and at an actual reduction in cost on the basis of dollars spent per pound of thrust delivered. Besides actively dealing with policy problems relating to military and Government regulations, the ETC has served to guide associated professional societies and committees, and taken action this year on:

- ... Flight Testing as an Extension of Qualification for Engines.
- ... Establishment of a Council on Military Aircraft Propulsion Standards.
- ... Cost Reduction Report.
- ... Requirements for State of the Art Development.
- ... Testing of Boron Steels.

Through its various specialists' subcommittees, the ETC has also been active in recommending or establishing new or revised requirements in the following fields:

- ... Fluid Connection for Fuel and Oil Lines.
- ... Quick Connect and Disconnect Accessories.
- ... Jet Engine Controls.
- ... Evaluation of Spline Wear.
- ... Method of Presentation of Jet and Turbo-Jet Engine Performance Data.
- ... Test Facility Requirements for Turbo-Jet Engines.
- ... Improved Lubricants for Jets and Turbo-Jets.
- ... Preferred Material Gage Sizes.

### **Guided Missile Committee (GMC)**

The establishment of the GMC was authorized by the Board of Governors at Palm Springs, December 12, 1952.

In view of the rather diversified interests and organizations of companies engaged in guided missile work, a fairly extensive survey was conducted to determine the consensus of AIA member companies as to what the composition of the committee should be and how it should operate in connection with the operation of other committees of the AIA.

Following the survey and with the approval of the Executive Committee of AIA, the GMC was organized with membership from those AIA member companies which hold prime contracts for the design and construction of guided missiles. This decision was reached with the realization and belief that maximum use of other AIA technical committees should be made in those areas of guided missile activity engaged in by major component manufacturers.

The GMC held its initial meeting July 20, at Denver, Colo., with representatives from six companies in the east, seven in the west and three in the central states. Rules of organization and procedure were adopted that reflected the views of company management, which had been obtained in the survey referred to above. E. P. Wheaton, Chief, Missiles Design Section, Douglas Aircraft Corporation, was elected committee chairman.

The GMC is working on an acceptable definition of the word "reliability" as it applies to guided missiles and is attempting to form an industry-wide point of view on possible action which may be indicated within the bounds of this general subject.

Following the approval by the Military Services of *MIL Specification for Design and Construction of Guided Missiles*, M-8555, the GMC has been pressing the military to compile and publish an over-all Index of MIL Specifications applicable to guided missiles in lieu of such incomplete separate service documents as are now available to guided missile manufacturers.

### **Inspection Committee (IC)**

By means of meetings, project assignments, informational exchanges and close cooperation with the Military Services, the Inspection Committee directed its activity at reducing the cost and com-

plication of quality control and inspection of military aircraft materiel.

With increasing interest and activity in the committee a subdivision was made setting up separate subcommittees for airframe, engine, propeller, electronics and instrumentation and major accessories to facilitate handling special problems peculiar to given end products.

Committee operation on a regional basis (Eastern and Western) was climaxed at the year's end by a highly successful national meeting with representatives of the Department of Defense and the Military Services. This meeting led to a clearer understanding of significant mutual problems and resulted in initiation of action which should lead to accelerated Department of Defense effort to establish uniform inspection requirements for all Military Services.

As a result of recommendations made several years ago to both Government and industries at large, the committee now has under consideration a proposed Department of Defense specification for a standardized method of identification marking of raw metal products. As originally pointed out by the committee, adoption of such a method will vastly reduce the cost attendant to identification by testing and stocking by consumers. In this connection, initial steps have been taken by the committee to establish an Aircraft Raw Materials Warehousing Plan aimed at reduction of multiplicity of test report information normally required for raw materials at all consuming levels. Identification marking is one of the featured requirements.

The recent reorganization of Air Force field services under the Air Materiel Areas had an appreciable impact on the committee members' day-to-day operations in their respective plants. They worked closely with the Air Materiel Command to facilitate the transition.

### ***Manufacturing Methods Committee (MMC)***

A vigorous program involving fabricating techniques, production methods, jigs, fixtures, machine tools and other equipment used in aircraft manufacturing, was pursued by the MMC. Activities centered primarily on airframe problems.

The Committee engaged in development of industry policy on a number of manufacturing problems and in administration of its three working panels on Conservation, Tooling and Machine Tools. These panels altogether carried 46 full-scale projects.

Policy attention was given the Military Services' Production Reserve Program, stockpiling of machine tools under the National Defense Program, and the all-important subject of aircraft lead time. Facets of some of these and other subjects were assigned to the working panels for study.

The Conservation Panel completed its work on a Conservation Handbook (now being printed), the demand for which in both Government and industry is unusually high. The Tooling Panel worked on standardization of terminology of masters and optional tooling, materials forming tests and tooling components.

The Machine Tool Panel, in cooperation with tool builders, completed development of the aircraft industry's technical requirements for milling machines and embarked upon an extension activity aimed at other long lead-time machines.

Small task groups, apart from the panels, worked with the Aircraft Research and Testing Committee and outside industry groups, including the Military Services, on large forgings (under the USAF modified Heavy Press Program) and improved castings.

### ***National Aircraft Standards Committee (NASC)***

The standardization program of AIA insofar as airframe interests of airplane, rotorcraft and guided missile manufacturers are concerned is vested primarily in the NASC. It is also a responsibility of this committee to review the bulk of Government engineering specifications and drawings, which are contractually binding in design and production, and advise the military of the airframe industry viewpoint regarding changes to these documents.

Two examples of primary importance in which considerable effort has been expended this year are the military requirements for: (1) interchangeability of aircraft component parts, and (2) preparation of production aircraft drawings. In both instances, progress on release of acceptable specifications has been delayed by inter-service differences over cognizance of guided missiles and implementation decisions on Air Force-Navy BuAer documents versus unified specifications for the entire Defense Department.

When the question of active participation by the United States in the international standardization program for aircraft (ISO-T/C 20) was raised this year, NASC restated its position that interest in this

work cannot be artificially stimulated by the participation of aircraft manufacturers, but must originate with the airlines who are most directly concerned. Manufacturers' interest in international standardization stems solely from military requirements which are being handled through military channels in a separate program.

Much standardization work has been done during the year through projects in the fastener field and other hardware, where higher design requirements are obsoleting current products and it is essential that new ones be standardized. In the materials field, producers' capabilities and military requirements continue to be in conflict. Recent efforts to standardize military requirements have not minimized the problem from an aircraft viewpoint. Another example of important NASC accomplishment is the Aircraft Metals Stock List, which is aimed at minimizing warehouse stocks necessary for aircraft production.

During its first year of activity, one of the most promising areas being investigated by the NASC Helicopter Subcommittee is the inadequacy of anti-friction bearing installations in helicopters. A project has been initiated in cooperation with bearing manufacturers and the Services, aimed at obtaining new data for future design.

If the weapons system concept and prime contractor cognizance gain in recognition, an increasing responsibility for standardization will be placed on NASC.

### **Noise Control Committee (NCC)**

This, the third year of committee operation, has been highlighted by fulfillment of original objectives to an appreciable degree.

While exchange of information continues to be an important element of committee operation, it has become apparent that the initial problem created by lack of information has been solved. Valuable channels of exchange exist internally within the committee and between the committee and outside Government and civil organizations.

Aircraft sound measurement standards, under development for more than a year prior to adoption and now having been in use for over a year, have proved in general to be both useful and adequate. From a review now in progress, it appears that they may be reprinted with but minor revision.

Research and development recommendations made earlier have



been adopted with reasonable success. They have been discussed with Government agencies concerned and are being used for guidance wherever possible in current and new projects. In addition, through committee members' contacts, contractually and otherwise, some of the objectives of research and development are being met by sound suppression producers and suppliers.

Infrequent meetings have been held to cross-calibrate members' sound-measurement equipment so that unrestricted test data can be used more widely, thereby minimizing the need to duplicate costly measurements.

Activities of the committee have been centered to a large extent on the technical aspects of mufflers and cells for ground testing operation of jet aircraft and power plants. Because of the growing interest within and outside the aircraft industry in other than ground testing operations, it is possible that some change in the scope of committee operations may be recommended in the near future.

### ***Propeller Technical Committee (PTC)***

The PTC, by its close association with problems relating to engines and powerplant installations, has closely paralleled the activity of the engine manufacturers on policy problems relating to military and civil Government regulations. Some of the specialized fields of activity include:

- ... Propeller Airworthiness Regulations.
- ... Availability of Engines for Propeller Development Testing.
- ... Noise Reduction Program.
- ... NACA Propeller Research Program.
- ... Preferred Material Gage Sizes for Engine and Propeller Usage.

Through its specialist subcommittees, the PTC has continued its cooperation with other Industry and Government groups in establishing recommendations on the following items:

- ... Propeller Radio Noise Interference Requirements.
- ... Alternate Steel Program for use of Boron Series.
- ... Test Requirements for Transonic and Supersonic Propellers.
- ... Revisions to Propeller Procurement Specifications.

## **Rocket Technical Committee (RTC)**

The RTC has, during the past year, continued its practice of visiting industrial plants and Government facilities in conjunction with its regular meetings. Through working to common interests and specific objectives in a field still comparatively new, relationships have been strengthened between member companies and between the Committee and the Military Services. It is anticipated that activities such as are listed below, will serve as a basis for furthering aims at standardization of requirements:

- ... Review of Liquid Propellant Rocket Engine Specifications with recommendations and policy statements to the Military Services.
- ... List of accessory components with which rocket engine companies have had favorable experience.
- ... Preparation of material for expanding information contained in the Handbook on Rocket Engine Design and Installation Criteria.
- ... Recommendations regarding standardization of Symbols and Definitions for use in the rocket industry.
- ... Review of Basic Series Rocket Engine Specifications.

## **TRAFFIC SERVICE**

The function of the Traffic Service is to secure and maintain the lowest lawful rates on aircraft materials, whether the freight charges are paid by the industry or by the Government; compiling and distributing information on the method of billing freight in order to be assured that the lowest lawful rate is applied; advising members in traffic matters to the end that their interests are fully protected; handling all problems presented to individual traffic departments of members where coordinated effort assures the most practical solution.

During the past year the Traffic Service has been particularly concerned by efforts of the carriers, with some support by the Interstate Commerce Commission, looking to increases in rates on higher valued articles—especially articles entering into the construction of aircraft. Legislation introduced into Congress, but not acted upon at the first session, involved many matters of interest to the aircraft industry. The details of activities are as follows:

### ***Released Rates and Actual-Value Rates on Engines.***

On December 22 of last year, the I.C.C. issued a decision in Ex Parte 182, a proceeding in which the railroads attempted to limit their liability on engines to \$2.50 per pound with the provision that substantially higher rates would be charged unless shippers agreed to such released valuation. While the Commission refused to approve these ratings proposed by the railroads, they nevertheless incorporated into their decision a statement which the railroads have since interpreted as an invitation to increase the Classification ratings on radial type or jet type engines. There was docketed before the Classification Committee a proposal to increase the rates on such engines 55 percent. With the engine manufacturers, the Director of Traffic Service appeared before the railroad committee where a presentation was made in opposition to the proposal. Recently, the railroads announced the fact that in view of the careful manner in which engines were prepared for shipment, they would only increase these ratings 22 percent. At a recent meeting with the engine manufacturers and representatives of the Department of Defense, it was agreed that as soon as these rates are published, application for suspension will be filed. The reduction voluntarily agreed to by the railroads means a saving to the Government of more than \$2,500,000 annually in transportation charges. If any increase can be avoided successfully, it will reflect a saving of \$4,200,000.

Last August, in company with representatives of the United Aircraft Corporation and General Electric, also with representatives of the Department of Defense, the Director of Traffic Service appeared before the New England Motor Rate Bureau to oppose a proposal of that Bureau to increase motor carrier rates in New England some 200 per cent. This opposition induced the Bureau to withdraw its proposals.

### ***Rates on Airplane Parts—Dockets 29761 and 30712***

In January, 1952, the complaint case which the AIA instituted before the I.C.C. attacking the rail carload rates on airplane parts, Docket No. 30712, was heard. Briefs were filed, an adverse examiner's report was submitted and exceptions were filed. The case was orally argued in October last year. However, immediately thereafter Division 2 of the Commission stated its determination to with-

hold its decision in this case until the decision in Docket 29761, the Government reparation case, was decided. This was opposed vigorously and the AIA petitioned Division 2 to reconsider it. The Division refused to do so and the matter was appealed to the whole Commission. At the argument on October 23, the Attorney General, who cooperated with AIA, withdrew his prayer for future rates. Division 2 immediately withdrew its public notice of consolidation. It is anticipated a decision in Docket 30712 will be received shortly.

### ***Air Freight Forwarder Investigation***

The function of air freight forwarders is to consolidate small shipments into larger ones and thus secure lower rates. Under the Civil Aeronautics Act, the Civil Aeronautics Board has power either to regulate these forwarders or abstain from regulating them. It is the view of AIA members that they should not be regulated, and that voluntary shipper organizations, formed in a cooperative non-profit manner to effect consolidations, should not be regulated by the Board. This case has been set down for hearing in the early part of next year and the AIA will be represented through its Traffic Service.

### ***Import Duties***

Air Force Procurement Instruction 70-52 contained regulations setting up the conditions under which materials processed in Canada and entering into the construction of aircraft in the United States would be imported free of duty. The idea was conceived that, if the materials were going into the construction of an aircraft which upon completion of manufacture would be sold to the United States, and if the U. S. got the benefit of the cancellation of import duties, a certificate would be made by the Air Force to the effect that the materials belonged to the United States. It was felt that a certificate of this kind could be issued, even though title to the goods at time of importation rested in the manufacturer. Further support was given to the suggested plan in the practice of the Customs officials refusing to question the accuracy of a certificate once issued. Further investigation, however, disclosed that no protection from subsequent bills tendered by the GAO calling for these import duties was assured. On advice of counsel, members of the industry have determined to

pay import duties on all of the materials when title does not rest in the government.

### ***Modification of Carrier Equipment***

Directive 75-5, issued by Air Force Headquarters, seeks to establish an involved procedure for the modification of railway cars or motor carrier vehicles to accommodate shipments of large parts, such as wings, fuselage sections, fins, rudders, elevators, etc. Heretofore the prime contractor has been able to carry on these negotiations directly with carriers in a very satisfactory manner. The new regulations would set up many unnecessary complexities. The Traffic Service has been in negotiation with Air Force Headquarters for withdrawal of this directive.

Some time ago AFH put out a tentative proposal which would provide that prime contractors would be required to observe the Association of American Railroads loading rules. There were many reasons why such a directive should not be issued and in negotiations with the Department of Defense the latter agreed to withhold any instructions of this kind to the prime contractors.

### ***Government Bills of Lading***

The problem of the use of Government bills of lading, which has been a source of trouble since the beginning of World War II, remains with us. Air Force Headquarters in the early part of last year issued a directive designed to discontinue the practice of moving shipments on commercial bills of lading with conversion at a later date to government bills of lading. A conference was held between AIA representatives and the interested parties at Air Force Headquarters in May last year. The result was the withdrawal of this directive until such time as the whole problem could be worked out. The Department of Defense proposed that all less-carload and less-truckload shipments be moved on commercial bills of lading, that the payments of the transportation charges be made by the prime contractor and that these charges constitute a basis for refund on all materials owned by the government. This was quite satisfactory, but this plan has been blocked and the problem still remains unsolved.

### ***Articles of Extraordinary Value—Carrier Liability***

The motor carriers in the early part of this year docketed a pro-

posal under which they would not be responsible for loss or damage to freight beyond the amount of \$3 per pound. In an article which appeared in the June issue of the "Michigan Law Review" and which was prepared by Commissioner Arpaia and Director of the Bureau of Traffic Jensen, both of the Interstate Commerce Commission, the advocacy of limited liability for motor carriers was advanced. These two I.C.C. representatives proposed a limited liability of 25 cents per pound. If this is published in tariff form, it will be stoutly resisted by AIA.

### ***Transportation Legislation***

An organization formed under the name of Transportation Association of America has formulated a plan for the introduction of legislation into Congress which it is anticipated will meet the wishes of the carriers and especially the railroads. Two bills, S. 1461 and H. R. 5052, are designed to accomplish increases in a much quicker manner than obtains today. These measures have come to be known as the quick-rate-increase bills. Another bill introduced at the behest of this organization is H. R. 6740, which would greatly increase the power of the federal government through the I.C.C. over strictly intrastate rates. A fourth measure, H. R. 6739, introduced by this organization, would reduce the time within which the Commission would be accorded the opportunity to act in suspension cases. The present time limit is 7 months; the proposed bill would reduce this to 90 days. AIA members are opposed to all of these measures and authority has been secured to oppose them when they are considered.

The freight forwarders, who are organized to consolidate shipments for transportation by surface carriers, have been working on a plan to prevent the voluntary consolidations accomplished by cooperative shipper organizations. An effort to do this has been manifested in H. R. 4503. The I.C.C. has given the forwarders substantial support. AIA members are vigorously opposed to it and industry views will be made known to Congress as soon as this bill is actively considered.

### ***All-Freight Rates From Southern California to Seattle***

Early this year, the railroads put into effect between Southern California and Seattle reduced rates on what are known as all-commodity groupings. The motor carriers operating in this region

vigorously opposed these rates and requested the Commission to suspend them. The Commission declined, and the rates became effective. However, the Commission instituted a proceeding to determine their reasonableness. These rates accomplish reductions on the many aircraft materials they are now moving from Southern California to Seattle. In October the Director of Traffic Service appeared with the Boeing representative at the hearing in San Francisco and introduced testimony in support of the railroads' efforts to retain these rates. The need for such rates and their reasonableness was shown. Briefs are due December 8.

### ***Closing of Procurement District Offices***

The recent action taken by Air Force Headquarters in closing the various procurement district offices has caused some apprehension in the disposition of traffic officers, many of which were housed in the procurement district offices. The interest in these traffic officers arises particularly in connection with the issuance of government bills of lading, and the continuation of these facilities has been a subject of negotiation between the Traffic Service and AFH. Assurances are given that under the new arrangement the facilities for the issuance of such documents will not be curtailed. In fact, if a change is made, it is anticipated the service will be improved.

### ***Mixed Carload Shipments***

In October last year, the Traffic Service through witnesses from the industry participated in a proceeding before the Interstate Commerce Commission in San Francisco and introduced evidence for the purpose of establishing more reasonable rules and regulations respecting the mixing of carload shipments of materials moving between points east of the Rocky Mountains and the Pacific Coast states. Excellent testimony was introduced by witnesses for the AIA and a favorable report has been submitted by the examiner. Oral argument was had on October 23 last, and a report should be had in the near future. It is difficult to estimate the amount of money which will be saved if success attends the prosecution of this case. It is not unreasonable to suppose that it will save the industry in excess of \$2 million per annum in freight charges.

### ***Damage to Shipments***

The industry is suffering increasing damage to carload shipments

due to rough handling by the railroads. Negotiations have been carried on with the aluminum companies for more effective protection in their loading practices and with the railroads to avoid the excessive impacts in the handling of these cars through their yards.

The Traffic Service has held five regular meetings of the Eastern and Western Regional Traffic Committees. The work of giving technical advice to our members has been carried on as usual. One hundred and thirty-four bulletins have been issued.

## **EXPORT SERVICE**

The Export Committee held four quarterly meetings during the past year. It has become a practice to have U. S. Government and foreign guests join the Committee on many occasions, following executive sessions.

### ***Mutual Security Program***

Export Committee members have kept in close touch with the developments of this program, both with the military agencies of the Government and with the Foreign Operations Administration, which until August 1, operated as the Mutual Security Agency. The Foreign Operations Administration also absorbed the former Technical Assistance Administration, previously under the Department of State. It also absorbed the responsibilities of the Special Representative in Europe, with offices in Paris.

FAO is administering the bilateral technical exchange agreements, an inter-agency Government operation, in which there is an industry advisory committee. The Export Committee is represented on this advisory committee and has been helpful in having included in the basic agreement features which are believed to be of substantial protection to the proprietary rights of those entering into foreign manufacturing licensing agreements. Only two bilateral agreements have been signed as yet, that with Italy on October 3, 1952, and with Great Britain on January 19, 1953. The agreement with France has been under active consideration, but has not as yet been signed.

### ***Off-Shore Procurement***

Off-Shore Procurement covers both the purchases in Europe of materials which can be used to maintain U. S. military equipment in



operation there, and the purchase of European types of equipment, including aircraft such as the British-Hawker-Hunter and the French Mystere.

Several American aircraft equipment manufacturers have negotiated with European manufacturers for the production under license of American types of equipment. This has seemingly met with general approval as a means of strengthening NATO and at the same time reducing the need for dollar support for the defense program. The Export Committee is following these activities closely.

### ***Export-Import Bank and World Bank***

The Committee and industry have kept in close touch with these banks during the past year, but there have been very few loans, made during the period, of assistance to industry. This may be due in part to the change in Administrations and the resulting effort to reduce Government expenditures and liabilities. There have been indications that the Export-Import Bank policy may be more liberal in the immediate future. The Banking and Currency Committee of the Senate has asked industry members and AIA for comment on the Bank's past performance, and has invited recommendations in the premises.

The World Bank has assisted the aircraft industry only in a few cases in recent years. Its operations are more adaptable to general loans, rather than loans covering specific contracts.

### ***Government Export Trade Promotion***

The Export Committee established a subcommittee under the designation "Government Liaison" to encourage the U. S. Department of Commerce and the Foreign Offices of the State Department again to cooperate on foreign trade policy, as was done in the Herbert Hoover Administration and for a few years thereafter. For various reasons, this service has been reduced until the aircraft equipment exporter feels an increased need of Government assistance. It is hoped that through the work of the Commission appointed by the President, headed by Mr. Clarence Randall, recommendations will result which will bring about improvement in this situation.

### ***Foreign Distribution of Aviation Publications***

For the seventh year, the State Department has made its Pouch

Service to the Foreign Offices throughout the world available for the distribution of aviation literature. A new feature was introduced in the summer of 1953 whereby postage must be paid by those using the service, but the security of Pouch delivery is still a substantial advantage.

### **Export Statistics**

Monthly distribution is regularly made of the export statistics compiled by the Census Bureau covering the aircraft industry. For security reasons, this is limited to items which are strictly non-military. However, beginning in May of this year, dollar figures for all export sales of military aircraft (but without designation of the type of equipment or the country of destination) have been made available. It is interesting to note that while 70% to 80% of British aircraft production is exported, and while exports are not more than one-third of aircraft production in the United States, the United States export of such products are running five times the exports of Great Britain, which is the principal U. S. competitor.

A confidential compilation of the utility aircraft being exported from the United States is being compiled by the Export Service for the companies manufacturing such equipment. A summary of this compilation is given to the press.

### **Japan**

Two delegations of Japanese interested in aircraft production have visited the United States during 1953 and a third is expected to arrive in December. The Export Committee has arranged for meetings with each of these. Japan is making substantial strides in reviewing its aircraft manufacturing business and several U. S. manufacturers have negotiated licensing agreements to have their products manufactured in that country. Developments in both Japan and Germany are being followed closely by the Export Committee.

### **General**

There have been no important developments during the year under review with respect to Reciprocal Trade Agreements or the service rendered by the Munitions Control Division of the Department of State for licensing aircraft exports, but satisfactory results are continuing.

## UTILITY AIRPLANE COUNCIL

The Utility Airplane Council is concerned with the field of general utility aviation. The Council draws freely on the various services of the AIA and is active in many inter-associational activities and with various governmental activities. It promotes the whole field of utility aircraft and shoulders the common problems of this segment of the aircraft industry.

### ***Availability of Materials***

The availability of materials has now ceased to be the serious problem it was from 1950 until early this year. But the importance of proper recognition of general civil aviation in governmental planning for mobilization preparedness is still a matter of concern.

The Defense Materials System, which replaced the Controlled Materials Program when controls were removed in July 1953, continues to give priority assistance to civil transport aircraft (carrier aviation) manufacture, but does not include general civil (non-carrier) aviation. Utility Airplane Council members feel that such assistance should continue to be available to the "non-carrier" industry as a matter of principle, even though assistance is not needed to obtain materials at present. All civil aviation performs notable service and has national defense importance.

Another world war would create an immediate demand for large quantities of utility aircraft, not only for military use but also for essential civil need.

The Utility Airplane Council believes that at all times general civil aviation should be included in current and long-range defense planning.

### ***Market and Production***

The market for light aircraft for business, industry and agriculture remains strong. Since materials became amply available in 1952, levels of production have continually increased. The industry delivered 3,058 aircraft in 1952, and 2,302 were produced in 1951. During 1951 production had almost come to a halt because of the failure of the Government to provide an allocation of materials. During the first nine months of 1953 the industry has delivered 3,104 aircraft, more than in all of 1952. Total production for the year will approximate 3,800, almost double 1951.

The utility aircraft and engine industry, both as prime contractors and subcontractors, continues to devote major portions of its facilities to the production of military aircraft, engines and components. Substantial numbers of liaison type aircraft have been delivered to the Military Services. New military trainer aircraft are now being delivered in increasing quantities, and new types of light military jet trainers are in development.

### **Aircraft Utilization**

The use of light utility aircraft for business, industry, agriculture and by commercial and air-taxi operators continues to show steady gain. A CAA survey of 1952 aircraft use recently tabulated discloses the following: business (transportation of businessmen, including business use by farmers and ranchers) 3,124,000 hours—up 5.9% over 1951; commercial agricultural activities (principally crop dusting, spraying, etc.) 707,000 hours—up 3.2%; industrial uses (power and pipeline patrol, aerial survey, etc.) 317,000 hours—up 31.5%; and passenger and cargo carrying for hire (including the growing air taxi use of light aircraft) 703,000 hours—up 6.8%

Hours attributable to general aviation in 1952 total 8,186,000 (three and a half times the airline total), a slight decrease (-3.1%) from 1951. In 1952, as in 1951, the decrease was all in hours attributable to instruction or pleasure and sport. All other aircraft uses showed a net gain in 1952.

Flying hours attributable to pleasure or sport accounted for only 19.8% of the total hours flown in 1952. All of the balance were for purposes connected with business, industry and agriculture, and commercial "for-hire" purposes.

Civil Aeronautics Administration statistics reported 54,037 civil aircraft January 1, 1953. Of these the airline fleet numbers approximately 1500. All of the balance compose the fleet of General Aviation.

The National Business Aircraft Association, a "user" group with whom the Utility Airplane Council maintains a close relationship, estimates that business and industry now "have an investment of \$200 million in aviation" and that "the cost of procuring and operating the business fleet now exceeds \$175 million annually."

Council members have found three significant facts about general aviation: (1) the fleet of general aviation is 35 times larger than the

airline fleet; (2) general aviation (in 1952) flew three and one-half times more hours than did the airlines—8,186,000 as compared to 2,132,437; and (3) the active fleet is utilized 80% for business, industry and agriculture, in ways which the National Security Resources Board has classified as essential, and only 20% for pleasure and sport.

### **Advisory Role**

The Council continues to work in an advisory capacity with many agencies of the Government on normal and defense usages of light aircraft. A member of the Council serves as a member of the Aviation Development Advisory Committee to the Civil Aeronautics Administrator. The Council Manager is a member of the Civil Aviation Defense Advisory Committee to the Joint USAF-CAA Air Defense Planning Board. The Council will take an active role in the study of aviation policy now being undertaken by the Air Coordinating Committee, the primary emphasis of which, ACC Chairman Robert Murray has announced, will be on civil aviation and inter-relationship between civil and military aviation.

The Council's activities are closely coordinated with those of other interested national aviation organizations. It is a recognized source of information, and its advice and counsel are frequently sought in considerations of general aviation and the activities of other segments of the industry. The Council Manager is currently the chairman of the Conference of National Aviation Organizations. The Council is much interested in the growing interest, on the part of prominent educational leaders, in the importance of air age education in school curricula, and the Council Manager is a Director of the National Aviation Education Council.

The Council manager frequently speaks before meetings of national associations, Government groups, university seminars, teacher aviation institute and other audiences.

### **HELICOPTER COUNCIL**

The Council followed its established procedure of holding two official meetings during the fiscal year, scheduled at the call of the Chairman. Policies and objectives were established at the initial meeting and reviewed and revised at mid-year. Staff memoranda, although

held to a minimum, keep members fully informed. Frequent meetings of staff with Council officers and members serve to keep the program up to date.

### **Educational**

During the past fiscal year approximately 9,000 pieces of carefully selected material covering developments and uses of the helicopter in military and civil activities were distributed in response to specific requests from colleges, universities, schools, Governmental agencies, municipal officials, State aviation officials, and planning groups. In addition, hundreds of inquiries from the press—newspaper, magazine, radio and television—were handled and the helicopter has received continuous and beneficial treatment in all media.

Council members and staff have been active participants in numerous gatherings of large groups where the role of the helicopter was discussed. The Air Transportation Institute of American University, for example, introduced the helicopter in its regular subject material when Dr. I. I. Sikorsky inaugurated a series of lectures on rotor craft, with subsequent appearances by other industry spokesmen.

### **Special Activities**

Concentrated effort has been directed toward two major items in 1953:

1. *DEVELOPMENT OF PRACTICAL INTEREST IN THE HELICOPTER AS A TRANSPORT VEHICLE.* The Council as a group has met with a special helicopter committee formed by the Air Transport Association to study and report on the place of the helicopter in airline planning. Staff has maintained continuous contact with the ATA group and progress has been made in establishing potential place of the helicopter in future scheduled airline operations. An interim report of the ATA helicopter committee was extremely favorable to the future of helicopters.
2. *HELIPORTS.* The serious obstacle facing full realization of the helicopter's particular flight characteristics has been the location and construction of heliports in urban centers. To meet this problem, the Council created a special Heliport Committee, under chairmanship of Captain John P. W. Vest, Wash-

ington representative of the Sikorsky Aircraft Division, United Aircraft Corporation, and with special legal guidance by the firm of Pogue and Neal. In the course of this Committee's work, conferences have been held with representatives of the Air Transport Association, New York Airways, the Port of New York Authority, Civil Aeronautics Administration, Air Navigation Development Board, representatives of City planning groups, etc.

The involved nature of this Committee's task and the importance of its findings indicates that, when completed, a special educational campaign will be necessary to gain the fullest benefit from its labors.

Among other special activities of unusual character was a 'helicopter panel' experiment wherein Council members constitute the panel membership. Success of this experiment has created a demand for this type of activity, and arrangements are under way for a Council panel at the annual convention of the American Road Builders Association in January and the 1954 annual Forum of the New York State Department of Commerce, Aviation Division. Other appearances before influential groups are pending.

The close of the fiscal year found the Council and staff involved in the preparation of an extensive presentation (visual and oral) of helicopter procurement and production problems for discussion with the Department of the Army and representatives of the Office of the Secretary of Defense. At the Pentagon conference, arranged for this purpose, the industry story was told by Admiral Ramsey, Don R. Berlin and B. L. Whelan, the latter appearing in his capacity of Council Chairman.

Council staff has maintained close liaison with other aeronautical organizations and agencies where such liaison promised results of mutual benefit. Full cooperation has been given the 50th Anniversary of Powered Flight national committee, and individual company participation has been extensive. Staff has assisted in providing speakers for approximately thirty occasions calling for personal appearances, radio and television participation.

