Report

TO

THE PRESIDENT

BY THE

EMERGENCY BOARD

APPOINTED BY EXECUTIVE ORDER 10749 DATED JANUARY 21, 1958, PURSUANT TO SECTION 10 OF THE RAILWAY LABOR ACT, AS AMENDED

To Investigate an unadjusted dispute between Eastern Air Lines, Inc., a carrier, and certain of its employees represented by the Flight Engineers' International Association, EAL Chapter, a labor organization.

NMB CASE A-5612 (E-148)

WASHINGTON, D. C.
JULY 21, 1958

(No. 120)

LETTER OF TRANSMITTAL

WASHINGTON, D. C., *July 21, 1958.*

THE PRESIDENT,
THE WHITE HOUSE, *Washington, D. C.*

MR. PRESIDENT: The Emergency Board created by you on January 21, 1958, by Executive Order 10749, pursuant to section 10 of the Railway Labor Act, as amended, to investigate an unadjusted dispute between Eastern Air Lines, Inc., and certain of its employees represented by the Flight Engineers International Association, Eastern Air Lines Chapter, a labor organization, has the honor to submit herewith its report and recommendations based upon its investigation of the issues in dispute.

Respectfully submitted.

DAVID L. COLE, *Chairman.*

SAUL WALLEN, *Member.*

DUDLEY E. WHITING, *Member.*

TABLE OF CONTENTS

I. HISTORY OF THE EMERGENCY BOARD

This Emergency Board, designated by the National Mediation Board as Emergency Board 120, was created January 21, 1958, pursuant to the terms of section 10 of the Railway Labor Act by Executive order of the President.

In due course the President appointed the following as members of the Board: David L. Cole of Paterson, N. J., Chairman; Saul Wallen of Boston, Mass., member; and Dudley E. Whiting of Detroit, Mich., member. The Board convened in New York, N. Y., on February 10, 1958. Hearings were held for a total of 27 days between that date and May 29, 1958, in New York, Miami, Fla., and Washington, D. C. The company was represented at these hearings by W. Glen Harlan and William G. Bell, counsel, and George Smith, vice president. The association was represented by Bernard Cushman, Eli Oliver, and Winfield M. Homer, Labor Bureau of the Middle West. The record of the proceedings consists of 3,877 pages of testimony and agrument and includes 410 exhibits. Before the close of the hearings the President approved or ordered five 30-day extensions of the time limit stated in the Executive order, the last extension being until July 27, 1958.

At the conclusion of the hearings the Board met with the parties jointly and separately in Washington, D. C., in an effort to bring about a settlement of the dispute by mutual agreement. These efforts were not successful.

BACKGROUND OF THE DISPUTE

The parties to this dispute are Eastern Air Lines, Inc., and the flight engineers in its employ, represented by the Flight Engineers International Association, EAL Chapter. The last agreement between these parties was executed July 27, 1954, effective June 1, 1954. It was to expire by its terms on April 1, 1957, renewing itself without change for an additional year, unless written notice of intended change was served at least 30 days prior to April 1, in any year.

On February 26, 1957, the association served a notice of change and the company did likewise. On March 8, the association advised the company that "in the near future" it would communicate with management to establish a mutually agreeable time and place to begin negotiations. On March 26, the company wrote the union

asking when the union would be ready to start negotiations. The union's reply on April 16 enclosed its proposals and stated its desire at that time to limit negotiations to the contents of the Miami crew schedule manual rather than the terms of a new agreement.

On June 5, the union asked, by telephone, that a specific date be set to commerce negotiations and on the 13th the company, by letter, indicated its availability beginning July 10. Negotiations were held on July 10, 11, and 14. These were exploratory in nature and the next date set was for August 19. This was postponed by the union, however, on the basis that it would communicate with the company to seek a new date, which it did on September 6. Because company officials were involved in negotiations with other unions at the time, no new date was fixed until October 21. Meetings were held on October 21, 22, and 23, and then became deadlocked, at which time the National Mediation Board was notified and mediation was requested. The Board assigned a mediator who met with the parties on November 18. Mediation efforts continued with little progress, and on December 13, the mediator made a proffer of arbitration. The company accepted but the union rejected this proffer. On January 14, 1958, the union notified the company of its intention to withdraw the services of the flight engineers on or after January 17 if no agreement was reached by that time. The next day the National Mediation Board proffered emergency mediation under section 5 first (B) of the Railway Labor Act and asked the association to postpone its strike date. On January 16, the union telegraphed the Board stating its willingness to meet with Board Member Leverett Edwards as mediator on January 17, but asserting that it did not consider its willingness to meet as a surrender of its "right to take strike action at any time after midnight, January 16, that we deem necessary."

Board Member Edwards held meetings with the parties jointly and separately for 3 days, beginning January 17. These proved futile and on January 21, 1958, the President issued an Executive order creating an Emergency Board. The personnel thereof was announced on January 27.

Eastern Air Lines is certified and authorized by the Civil Aeronautics Board to operate its airplanes in the eastern half of the United States. It is predominantly a north-south carrier, serving points as far north as Montreal and Ottawa; as far west as Chicago, St. Louis, Memphis, and San Antonio, and as far south as Miami, as well as the cities intermediate to these points. It also operates service between New York and San Juan, Puerto

Rico; between Miami and San Juan; between New York and Bermuda; between Washington and Bermuda and between New York, New Orleans, and Mexico City.

As of February 1, 1958, Eastern's fleet consisted of a total of 192 aircraft. Of these, 17 were leased aircraft and 3 were operated on interchange arrangements with other carriers. One hundred and nine of these planes were four-engine aircraft, with a maximum certified gross weight at takeoff of more than 80,000 pounds. Under a Civil Aeronautics Board regulation issued in 1948, it is required that these aircraft be manned by a pilot, a copilot and a crew member holding a flight engineer's certificate. As of December 31, 1957, Eastern had in its employ 554 flight engineers, 241 of whom were based in Miami and 185 of whom were based in New York. Currently, there are approximately 600 such men in its employ.

The company has on order a substantial number of turbojet and turboprop aircraft. Eastern has committeed itself to accept delivery of 20 DC–8 aircraft at a rate of one to two a month from January 1960 to February 1961, inclusive. In addition, it has an option to purchase six more of these aircraft for delivery in the fall and winter of 1961–2. This aircraft will have four turbine engines, will fly at altitudes of between 25,000 and 40,000 feet and will have an anticipated cruising speed of approximately 550 miles per hour. It will be used on the company's long-distance routes.

Eastern also has contracted to purchase 40 Lockheed Electra airplanes. This is an intermediate range aircraft, with four turbine engines which drive propellers. It will fly at altitudes up to 25,000 feet at speeds of approximately 375 miles per hour. Delivery of these aircraft is expected beginning September 1958. The company has an option to purchase 30 additional airplanes of this type.

The Eastern Airlines Chapter of the Flight Engineers International Association is the collective bargaining representative of the class or craft of employees of Eastern known as flight engineers and student flight engineers, duly certified as such by the National Mediation Board pursuant to the provisions of the Railway Labor Act. As previously noted, some 600 of these men are currently in Eastern's employ.

Part 40.5 of the Civil Air Regulations gives the following definition of the term "flight engineer":

> A flight engineer is an individual holding a valid flight engineer certificate issued by the administrator and whose primary assigned duty during flight is to assist the pilots in the mechanical operation of an airplane.

473799—58——2

II. RELATIONSHIP OF THE FLIGHT ENGINEER AND PILOT DISPUTES

Emergency Board No. 120 was created by the President on January 21, 1958, to investigate and report on the labor dispute between Eastern Air Lines, Inc., and its employees represented by the Flight Engineers International Association. A week later Emergency Board No. 121 was created with reference to the dispute between this carrier and its employees represented by the Air Line Pilots Association. These two boards were appointed pursuant to section 10 of the Railway Labor Act, which means that the dispute had not responded to the mediation processes of the National Mediation Board and that the National Mediation Board had notified the President that in its judgment each of these disputes threatened "substantially to interrupt interstate commerce to a degree such as to deprive a section of the country of essential transportation service."

The same three individuals were appointed as the members of each board, for the reason that in the judgment of the President, based on the advice of the National Mediation Board, the two disputes are closely interrelated. It became apparent immediately that these disputes could not be approached independently of one another. While among the items in dispute in each case are the wages and working conditions to apply to existing piston-powered airplane, as well as to the turboprop and turbine jet equipment, which will shortly come into use on this airline, the underlying issue which has prevented the parties in each instance from making any material progress toward settlement is that relating to the flight crew complement. Both labor organizations insist on requiring higher qualifications for the flight engineer than those stipulated by the Civil Aeronautics Board. The FEIA urges that in addition to the flight engineer's certificate certain other requirements be imposed which could be met only by a highly qualified mechanic. ALPA, on the other hand, requests that the third crew member, in addition to having the present flight engineer's certificate, be a pilot-qualified individual. This the FEIA regards as an effort on ALPA's part to remove the present mechanic-type flight engineers from their jobs and to replace them with pilot engineers.

This disagreement has obviously been the obstacle which has retarded settlement discussions. Each organization has put the carrier on notice that its members will not operate the airline, or at least not the turbine-powered equipment shortly to be received, unless its position is recognized. In the negotiations and mediation prior to the appointment of these two emergency boards, contrary

to custom, little constructive attention was paid to the various pay and working conditions items.

For almost 20 years the pilots and the carrier had invariably worked out their differences through discussion, without resorting even to mediation, but in this instance it has been necessary to employ all the techniques provided by law, and the dispute is still very much alive. The relationship between the carrier and FEIA is briefer, and mediation, strike, and strike threats have been experienced, but in the past the parties had come to grips with the problems with which they were confronted. In this case this was prevented by the overriding influence of the crew complement question.

There is another reason why the considerations affecting these two cases cannot be separated. Each group of employees has made different requests concerning pay and a variety of other working conditions and benefits. They all work in the same cockpit under identical conditions and on similar schedules. Their complex pay formulas are the same and their safety and well-being are closely linked. The crew complement dispute has aroused a great deal of friction and antagonism between the two organizations and each is inclined to bargain with the employer with a careful eye on what the other is doing or is apt to achieve. This strong element of rivalry is something which must be reckoned with realistically. If the special wishes of either are indulged this is likely to lead to a greater degree of dissension than now exists, and this should be carefully avoided if at all possible.

Considering the background and the factors which must determine the nature of the respective collective bargaining agreements between each of these labor organizations and this carrier, these two labor disputes are inseparable particularly in light of the common crew complement issue.

We are under instructions from the President to recommend, after investigation, a basis for settling each of these disputes. It is our judgment that we can effectively do so only if we bear in mind that the crew complement dispute is primarily between the two groups of employees or their respective labor organizations, and, furthermore, that if an intolerable condition is to be avoided on this airline there must be a very close relationship between the terms upon which all other issues are settled.

It was proposed at the outset of these proceedings that the two cases be consolidated and heard as one. The carrier and ALPA favored this but FEIA rejected the suggestion. Nevertheless, each of the employee groups sat in on the hearings in the other's case, and the FEIA, in presenting its rebuttal after the intervening

pilot case was heard, directed most of its efforts at that point to contradicting or disputing points and evidence offered on behalf of the pilots. This simply bore out our view that as a practical matter the two cases are inseparable.

III. THE CREW COMPLEMENT ISSUE

PROCEDURAL OBJECTIONS RAISED BY THE FEIA

Two procedural or legal objections were raised by FEIA in connection with ALPA's position on the crew complement issue. The first is that FEIA has been duly designated and certified by the National Mediation Board to represent the craft or class of flight engineers on Eastern Air Lines, and that, pursuant to section 2 "Ninth" of the Railway Labor Act, it is the duty of this carrier to treat only with the FEIA as the certified representative of the craft or class for the purpose of the act. The second is that matters of the qualifications of employees, insofar as they bear on safety, are reserved by law to the Civil Aeronautics Board, and that emergency boards must recognize that such matters are outside their jurisdiction.

In deciding, despite these objections, to go into a complete investigation of the facts pertaining to the crew complement issue, and to make recommendations which we believe will serve as a reasonable basis for settlement, we are strongly influenced by the terms of our appointment by the President. He found that each of these disputes threatened substantially to interrupt essential interstate commerce, and he therefore invoked the emergency board provisions of the aw and issued to the boards the instructions indicated. We believe it is our duty to make a thorough investigation and to report and recommend, in keeping with these instructions, on any aspect of the parties' relationship which has prevented settlement of the pending labor dispute. We were convinced at the very threshold of these proceedings that if we failed to inquire into the essential facts and conditions which have led to this impasse we could not discharge our duty.

After all, we are not a forum in the nature of a court. We make no binding decisions or rulings. We may merely report and recommend. We do not have the right to change or replace the representative certified by the National Mediation Board and there are no illusions as to this. Nor do we have the right to supplant the Civil Aeronautics Board as the body which promulgates minimum standards for the safe and efficient operation of air carriers. The certification of the bargaining representative and the stipulation of the requirement that in certain circumstances there be a third

flight crew member who must have certain minimum qualifications are facts which we accept as unalterable by us.

This, however, does not relieve us of the duty to ascertain why these labor disputes are still unresolved and to report to the President, as well as to the parties and the public, how we believe they should reasonably be settled. If the parties thereafter voluntarily choose to follow our recommendations, this is certainly their privilege.

The Certification of the FEIA by the National Mediation Board

Returning to the matter of the certification of the FEIA by the National Mediation Board, as we see the problem before us, the issue relates solely to the qualifications which the third crew member should have, and not to the labor organization which should represent him. Third crew members chose the FEIA as their bargaining agent and that organization is certified as the bargaining representative of the craft or class of flight engineers on Eastern Air Lines. That status is not in issue here. Sharply in issue, however, is the question whether in the turbojet and turboprop aircraft about to be placed into service by Eastern, the third crew member should be qualified solely as an engineer with a mechanical background or whether he should possess, in addition, training in skills and techniques of pilots so as to be able to assist in the performance of certain additional duties.

Flight engineers were not required before 1948. At that time the requirement was introduced largely through the efforts of the pilots. When, on October 5, 1948, the Civil Aeronautics Board reaffirmed its regulation concerning the need for a third crew member it explained that it was doing so because of the increasing complexity of the pilots' duties, and that considerations of safety made it necessary to provide the pilots with assistance or relief. The CAB put it in these words:

> Despite the automatic devices which are available and installed in such aircraft, they have so many items calling for the pilot's attention and are so complex in operation that the pilot's ability to acomplish all duties imposed on them may at times be exceeded if provision is not made for a flight engineer. The flight engineer will contribute substantially to reduction of pilot fatigue and resultant accident-provoking sequences. In particular, the flight engineer can relieve the pilots of burdensome mechanical duties which, if required to be performed when the aircraft is being flown on instruments, when there are difficult navigational problems, when radio communications are erratic, or when the pilots are attempting to follow complicated traffic control procedures, and accomplish instrument approaches, would be exceptionally onerous.

There can be no doubt that on domestic airlines the function of the flight engineer was intended to be that of an assistant to the

pilot. The regulation was strongly opposed by the domestic air carriers as unnecessary, but the proponents, principally the pilots, prevailed. They prevailed on the basis of safety, for the proceedings leading to this new requirement followed closely a series of accidents on the new types of large four-engine airplanes.

An air transportation carrier has the legal and moral obligation to conduct a safe and efficient operation. (See Civil Aeronautics Act of 1938, as amended, sec. 404 (a), 406 (b), and 601 (b)). It has been formally recognized by the FEIA that it is, therefore, within the area of management's discretion to determine what should be the qualifications of the flight crew members, subject to the minimum standards established by the Civil Aeronautics Board. This the representatives of the FEIA acknowledged in 1952 in the proceedings before Emergency Board No. 103 which investigated a dispute between that organization and United Air Lines, and that board made reference to this fact at pages 13 and 14 of its report. Since this is so, why should there be interposed a technical objection to discussions between the carrier and its pilots with regard to the qualifications of any part of the flight crew? The pilots are consulted on many operating and safety problems, and this certainly falls within that area. Even in the exercise of its discretion, a management is expected to be well-informed and reasonable. In the airlines industry management has frequently consulted with committees of its flight crew members on many matters normally in the province of management discretion, such as the design of new aircraft, cockpit layouts, company procedures in operating aircraft, schedules, and the like. To hold that it may not listen to the views of its pilots on the subject of the qualifications of all personnel involved in the operation of the aircraft in flight would be not only unrealistic but would represent a break with past practice. This is especially true in this industry which involves not only the safety of company property but also the safety of passengers and of the flight crews themselves. Furthermore, if we remember that the regulation that flight engineers be employed stemmed largely from the efforts of the pilots in the first instance it would be artificial in the extreme to hold that management is barred from consulting with them about the qualifications of such personnel.

Moreover, it is not uncommon industrial practice for a skilled craft which has helpers to have a strong voice in respect to the qualifications of their helpers. Normally, they are represented by the same union so that the question as presented here does not arise at all. Still, considering the safety angle, and efficiency as well, it is difficult to accept the proposition that this skilled craft

must remain silent with respect to the kind of assistants it should have.

In a tangential way the objection that the ALPA is interfering with the FEIA's jurisdiction has been repeatedly raised by the FEIA within the AFL–CIO, with which both it and the ALPA are affiliated. In 1955 United Air Lines decided that it would thenceforth use or hire as flight engineers only men who also had pilot qualifications. The pilots supported the airline in this decision and a strike of the flight engineers resulted. The FEIA filed complaints against ALPA for not respecting its picket line and for flying airplanes during the strike. At first, the AFL supported the FEIA complaints but after investigating the matter more deeply its major officers served as mediators and worked out an agreement which recognized the right of the management to require that flight engineers must also have pilot qualifications. Their principal concern revolved about the job protection to be given to flight engineers then employed and how they should be offered, with the help and at the expense of the carrier, the opportunity to acquire training as pilots.

Again, early in 1957, FEIA complained that ALPA was interfering with its established bargaining rights on United Air Lines. Vice President George M. Harrison, who is one of the most thoroughly experienced and highly respected trade unionists of the country, was appointed to look into the matter. He met with representatives of the two organizations in May 1957, and then reported to the Executive Council:

> I think we should immediately dispose of the jurisdictional dispute. Based upon information submitted at the hearing in Washington, D. C., on May 9, by both parties, it is my conclusion there has been no violation of the jurisdictional rights of the Flight Engineers International Association by the Air Line Pilots Association. All facts in this case clearly indicate that the Air Line Pilots Association has only admitted to membership licensed airline pilots and the Air Line Pilots Association has not made any move to raid the established collective bargaining relationships now held by the Flight Engineers International Association.

It is particularly of significance that at his hearing Mr. Harrison tried to direct the efforts of the two organizations toward merger. ALPA was willing to enter into such discussions at once, but FEIA has declined to do so.

Finally, there was a further proceeding of this kind in February 1958. The FEIA had filed charges with President Meany of the AFL–CIO that ALPA was "cooperating with the employers by encouraging its members to obtain flight engineer's licenses in order to weaken the bargaining position of FEIA on airlines all over the country" and was "informing its members that this

program has the support of the AFL–CIO leadership." A committee of three AFL–CIO vice presidents, each the president of an international union, was appointed to hear the dispute. Its report, dated February 11, 1958, dealt briefly with the jurisdictional complaint and mainly with the general flight crew complement question. As to the former, the committee said:

> Regarding the charges filed against ALPA by the FEIA, the committee recommends that the Air Line Pilots be instructed to recognize the jurisdiction of the Flight Engineers and refrain from attempting to enlist flight engineers into membership in the ALPA.

Bearing in mind the framework of this hearing (a jurisdictional complaint by FEIA against ALPA), the comments of this committee on the flight crew complement matter are of great significance. It said:

> The job for the third crew member, or flight engineers, on airline aircraft in excess of 80,000 pounds arose from a governmental regulation adopted in 1948. The pilots and captains of the Airlines contended that this regulation was necessary—creating the third crew member—on the grounds that larger, faster, and more complex aircraft required that pilots be relieved of some of their duties. When this regulation became effective some airlines assigned a third pilot to the position; other airlines employed mechanics and some airlines used both pilots and mechanics. The third crew member is now represented by the IAM.
>
> This committee feels that the close relationship of the flight crew, *which is now faced with the introduction of an entire new series of larger and faster aircraft, powered with turbine engines, makes it imperative that the flight crew must belong only to one organization.* The committee recognizes that the captain or pilot in command of an airline aircraft has the full responsibility for its safe operation and that this responsibility which is placed directly on him by virtue of his being licensed by the Federal Government and which he cannot delegate to his employer or anyone else also *makes it necessary that the flight crew be coordinated into one organization.*
>
> The committee, after hearing the arguments of both the FEIA and ALPA, can find no trade union reason why the merger of these two organizations should not become a reality. [Emphasis added.]

In considering a jurisdictional complaint, if the AFL–CIO deemed it necessary to go into the whole subject of crew complement, one can readily understand that we as an emergency board, created and instructed to investigate the dispute and to find a reasonable basis for settlement, cannot possibly avoid following a similar course.

The Exclusive Right of the Civil Aeronautics Board to Regulate Matters of Safety

The second objection raised by FEIA is that the subject of the qualifications of flight engineers is a matter involving safety solely to the Civil Aeronautics Board. Some of the points already made are equally applicable to this objection. In addition, it is

noteworthy that the Civil Aeronautics Board merely stipulates the minimum standards to be observed by air carriers. This may be seen in section 601 (a) and 604 (a) of the above-mentioned Civil Aeronautics Act. The CAB has so stated several times as, for example, in the brief which it filed in the proceedings in the United States Circuit Court of Appeals for the Second Circuit in the case between American Airlines and ALPA in 1955. It is a well-known fact that it is entirely within the province of an air carrier or of a carrier acting in concert with its pilots or other employees to establish and maintain standards of operation above and beyond the minimum required by governmental regulations.

Both the FEIA and the ALPA have not hesitated in their current disputes with Eastern Air Lines to propose standards for flight engineers beyond those stipulated by the CAB. The CAB requires simply that such employees have valid flight engineer certificates. FEIA now has a provision in its agreement going beyond this requirement. It now proposes in addition that the carrier agree to use flight engineers even if the CAB should rescind its regulation requiring that such employees be part of the crew on certain types of aircraft. ALPA, on the other hand, wants the carrier to agree that flight engineers will also have pilot qualifications in addition to the certificate now called for by the regulations. Both these requests are cognizable, in keeping with established practice in the air transportation industry, despite the fact that each would impose higher qualifications than those which the CAB has established as the minimum for flight engineers.

It should also be mentioned that the CAB has no jurisdiction over labor disputes, and that to the extent that such a dispute creates difficulties which may have an impact on safety in operations some agency other than the CAB must take a hand in correcting the problem. This supports the view that a specially appointed emergency board should reasonably be expected to inquire into such matters.

We believe, therefore, that we should investigate as fully as necessary the merits of this dispute, in keeping with the instructions given us by the President when he created these two emergency boards.

POSITION OF THE PARTIES

Position of the Flight Engineers International Association

The flight engineers, speaking through the officers of the FEIA, request that hereafter all occupants of the third seat in the cockpit be required to have airframe and engine (A and E) licenses in addition to the flight engineer's certificate now stipulated by the

Civil Air Regulations; that an employee with these qualifications be included in the crews of all aircraft over 80,000 pounds whether required by the regulations or not, including all such aircraft under operational control of the carrier, or flown on its routes with its consent, or bearing an Eastern Air Lines trip number; that all flight engineers assigned be selected solely from the seniority list provided for in the FEIA agreement; and that, as a condition of continued employment, all flight engineers pay to FEIA, through a voluntary checkoff, such dues and assessments as are uniformly required of FEIA members, although it shall not be necessary for them to apply for membership or to be members.

The FEIA seeks to justify these requests on several grounds. It points out that the CAB has, since 1948, required a separate certificate for flight engineers; that the existence of a separate flight engineer craft was recognized by the American Federation of Labor when it issued a charter to the FEIA to represent such employees; and that the National Mediation Board recognized the existence of such a craft by certifying the FEIA on this airline, as well as on several others, as the bargaining representatives of the class or craft of flight engineer. It maintains that the mechanical tasks performed by the flight engineers contribute to both safety and efficiency; that the kind of preventive maintenance possible with a flight engineer possessing a thorough mechanical training and background cannot be provided by a pilot-flight engineer or by a flight engineer who does not have the ability to obtain the A and E license. As to its requests for the "agency shop" (the name given to the form of union security by which employees need not be members but must pay the dues and assessments paid by members), FEIA argues that the considerations which have led to the wide extension of union shop agreements in American industry are equally applicable and merit the granting of this request together with its corollary, the voluntary checkoff.

Position of the Air Line Pilots' Association

The pilots' requests are entirely incompatible with those of the flight engineers' organization. ALPA requests that every flight deck station on the turboprop and turbojet aircraft be manned by pilots; that all new pilots be required within 12 months of active service to have the flight engineer certificate; that all existing pilots be offered the opportunity to obtain such a certificate; and that before being promoted to captain all pilots hereafter be required to obtain the certificate necessary for the manning of all flight deck stations, including that of flight engineer.

The grounds relied on by the pilots in support of these requests may be stated briefly. The new turbine-powered airplanes will fly

faster and at greater altitudes than the present piston equipment, and will present operating problems which will call for the utmost in flight crew coordination. Maximum crew coordination will not be possible with one crew member not pilot-oriented, and particularly so where there is job rivalry of the magnitude and with the emotional content which has been developed by the FEIA. The nature of turbine-powered aircraft is such that piloting functions will be considerably enhanced, while mechanical functions in flight will be substantially diminished because of the introduction of automatic devices and the elimination of numerous items which now need attention on piston airplanes. The presence of three crew members, all capable of flying the airplane, will serve as a means of relieving tension and will provide greater assurance of safety. The pilots emphasize the fact that the job of flight engineer resulted from proceedings which the pilots instituted, and that flight engineers were placed aboard aircraft to relieve the pilots of certain details which they have always handled as part of their piloting duties. They therefore strongly object to the attempt of the flight engineers to extend to the turbine powered aircraft the concept that the flight engineer's job is a separate craft or occupation, contending that this would be a challenge to the legal and traditional authority of the pilot in command. The pilots maintain that this would impair the level of efficiency and safety that will be essential under the conditions to be faced.

Position of the Carrier

The position of the carrier in this controversy is a difficult one. Officially, its representatives have maintained a hand-off, neutral policy. It realizes, however, that neither FEIA nor ALPA are willing, in the face of all developments, to permit matters to remain in status quo. At the hearings the carrier offered evidence that its experience with mechanic flight engineers on piston equipment has not shown better or more efficient results than on aircraft which it operates with all-pilot crews. It also offered some evidence as to the changes that may be expected with the advent of the turbine-powered equipment. Except in these regards, it took no position in the dispute over the merits of mechanical versus pilot-trained flight engineers.

BOARD'S DISCUSSION

This issue was debated at great length and in minute detail throughout these proceedings. Literally, hundreds of exhibits were offered in evidence and there were hundreds of thousands of words of testimony. The items covered ranged from simple expositions of industrial relations or trade union principles to the

most intricate and technical discussions of the detailed changes that will be met in the turbine-powered equipment. We believe we will be of greatest service to the parties to this dispute as well as to the public if we select from this mass of material those elements which are most pertinent to the underlying considerations which should determine this dispute in a reasonable and socially responsible manner.

The Interest of the Public

First, we must bear in mind that we are dealing with a public utility with which both the Government and the public are deeply concerned. We are not governed to the same degree as in ordinary industrial labor disputes by the factors of business competition and economics. This industry is by law entitled to be subsidized by Government if despite honest, economical, and efficient management it becomes necessary to do so to maintain and continue the development of air transportation of the character and quality required for commerce and the national defense. Eastern Air Lines has been off subsidy for over 20 years, being one of the first airlines able to operate at a profit without financial help from the Government. But the deep interest of the public grows out of the possibility that Government may be called upon to extend financial aid to any air transportation company.

It is also hardly necessary to mention the grave concern over problems of safety. The present debates in Congress over the steps to be taken to meet the growing hazards of air traffic, following on the heels of a series of tragic collisions, is but one evidence of this concern. The overriding public interest must be kept clearly in mind in order to place this dispute in the proper perspective. This is not simply a private dispute between two unions, or between a union and an employer. Public interest must play a major part in its settlement.

The Carriers' Responsibility

Second, we must consider that each air carrier by explicit provision of law has the primary responsibility for the airworthiness of its airplanes and for the safety of its operations. This is in addition to its moral responsibility to provide safe operations and to its legal liability to passengers who may be injured. The Civil Air Regulations specify certain minimum qualifications for crew members but the carrier is made responsible for providing adequate ground and flight training facilities. Furthermore, the CAB and all parts of the air transportation industry understand that the regulations of the CAB are merely minimums which carriers of their own choice, or as a result of discussion or negotiation with

groups of employees, may exceed. In this very case both FEIA and ALPA are asking the carrier to do so with respect to the qualifications of flight engineers. A settlement of this dispute must be reached, then, within the framework of the carriers' legal responsibility for providing safe transportation and as between alternative courses the carrier has the responsibility for making the choice, but it should be governed in making this choice largely by considerations of safety.

The Functional Relationship of Flight Engineers and Pilots

Next, we should not overlook facts which have tended to become obscured in the heated arguments between FEIA and ALPA in recent years. These are that the principal function of the flight engineers is to assist the pilot members of the crew in the mechanical operation of aircraft during flight; that the responsibility for command of the airplane and crew resides in the captain who is "responsible for the safety of the passengers, crew members, cargo and airplane," and that this responsibility is not dependent on the possession by the captain of a certificate required of any of his crew members. The role of the flight engineer as an assistant to the pilot is an undeniable and basic fact arising out of the history of his calling. Because of a series of accidents in 1946 and 1947, CAB promulgated the regulation that a flight engineer be carried "to assist the pilot members of the crew in the mechanical operation of aircraft during flight." On airplanes on which flight engineers are not required (two-engine airplanes and all airplanes of less than 80,000 pounds) the selfsame duties are still performed by the pilots. As the Air Transport Association observed in a communication to the CAB in 1954 on behalf of all the major domestic Airlines including Eastern Air Lines:

> The duties that the airlines have given the flight engineer *in flight* are only those which an aircraft pilot, not holding a flight engineer certificate, has handled normally for years. In the airlines' opinion, the pilot's capabilities for performing the flight engineer's duties in flight are so basic as to be unquestioned.

At the same time it should be borne in mind that on some airlines there has been an additional historical reason for the use of flight engineers. Pan American World Airways, for example, carried "flying mechanics" prior to the CAB's flight engineer regulation on many flights operated into stations in remote areas with minimal ground maintenance facilities. They were originally classified by the National Mediation Board with the class or craft of ground mechanics. At such stations, if ground repairs were required, the flight engineer was able to direct the lesser skilled local mechanics in the proper methods and to sign off or certify

the aircraft as airworthy. Thus, on that line and perhaps on others with route patterns with comparable characteristics, the flight engineer may have an additional and important function over and above that of merely assisting the pilot members of the crew in the mechanical operation of the aircraft during flight.

However, it is a fact that on the present piston-powered aircraft of Eastern Air Lines the flight engineer is not called upon to perform this function. He assists the pilots in the mechanical operation of the aircraft in flight, monitoring instruments, dials, and gauges for signs of malfunction or incipient malfunction of engines and systems. He reports such signs of malfunction to the captain and to lead mechanics on the ground whose crews thereafter accomplish the repairs and assume responsibility for the airworthiness of the results. It is this function of certifying airworthiness which requires A and E licenses. An examination of the job description of the flight engineer on Eastern Air Lines reveals no duty which requires any license other than the flight engineer's.

Experience on Piston-Powered Aircraft

Next, it should be recalled that on piston aircraft there appears to be little difference in terms of safety as between pilot-qualified and mechanic-qualified flight engineers. Airlines employing pilot-qualified third crew members such as Panagra, Capitol, Delta and Braniff have had satisfactory experiences and excellent safety records and show no inclination to replace them with mechanic-qualified men. At the same time Pan-American, American, TWA and Eastern which have flown their piston equipment with mechanic-qualified third crew members have also operated with good results in terms of safety and efficiency. In fact, the first three of these carriers recently concluded agreements calling for or continuing the A and E license requirement for flight engineers.

It is worthy of mention, however, that two airlines, United and Continental, which formerly used mechanic-engineers are now in the process of converting to pilot-engineers. It is also worth noting that Eastern found in a study of its 1957 operations that its two-engine airplanes operated only by two pilots appeared to have had better mechanical functioning than its larger equipment on which a flight engineer was carried. This was reflected in a comparision of flight hours per engine failure, engine hours per unscheduled removal, and overhaul costs per flying hour, and this despite more frequent takeoffs with the two-engine equipment. We must hasten to add that we do not regard this as conclusive proof of the superiority of pilot-flight engineers by any means. There are variables in the two types of operation which affect the engines, as for example the longer periods of climb to

which the larger airplanes are subjected. It must be said, however, that this evidence raises considerable doubt as to whether flight engineers with a mechanical background necessarily provide a type of service which cannot be obtained through the use of pilot-qualified flight engineers.

On the facts disclosed by our investigation we nevertheless must find that the safety objective sought by the CAB when it promulgated its requirement in 1948 that a flight engineer be carried on four-engine aircraft of over 80,000 pounds maximum gross weight has been substantially achieved by the use on piston aircraft of either the pilot-qualified or the mechanic-qualified flight engineer. The choices as between the two made by airlines managements may have been dictated in some cases by the nature of their routes and the contribution a mechanic-qualified engineer can make in the matter of ground maintenance at points where fully qualified ground crews are lacking. In other cases the choice appears to have been dictated by the belief held by management that pilot-qualified engineers contribute to better balanced and therefore more efficient and safer crews.

As opposed to the foregoing conclusion that on piston aircraft the requirements of safety are equally met by the use of either type of flight engineer we must append one qualification. This relates to the friction which has been engendered between the two crafts and their respective organizations. We believe this to be a matter of real concern because of its tendency to preclude the degree of cooperation which is vital in operations as critical as that of flying airplanes in the air transportation industry.

The Impact of Turbine-Powered Aircraft

We are now about to enter into a period of great change in air transportation. Eastern Air Lines within a few months will receive some 40 Electra turboprop airplanes, and thereafter a number of DC-8 turbojet airplanes. This equipment will be used on the carrier's longer routes and its piston aircraft will gradually be relegated to the shorter runs. It is for this reason that the crew complement question has become critical. If the past practice of using mechanic-engineers is to be modified in favor of pilot-engineers, the time to decide to do so is now. It is important, therefore, to inquire whether the new type of operation will present problems sufficiently different from those heretofore carried on to merit the change advocated by the pilots, or, contrariwise, the change proposed by the flight engineers in favor of more stringent mechanical qualifications.

The new aircraft will be bigger, will fly higher and faster, and will have a radically different kind of power plant. As modern

equipment recently designed and engineered, it will have improved systems and many automatic devices not present on current airplanes. Obviously, the turboprops will represent less change in methods of operation than the pure jets. The Electras will fly at the 22,000-25,000-foot level, and will be perhaps 40 miles per hour faster on Eastern's routes than its present DC-7 B's. This piston equipment operates at the 18,000-22,000-foot level. The Electra will have propellers. While there will be a number of changes incorporated into the flight panel and elsewhere, there is now available a good deal of information concerning the operation of turboprop airplanes by virtue of several years' experience with the Viscount.

A far greater degree of change and uncertainty will be experienced with turbojet airplanes. Such aircraft has not been used in commercial air transportation by any American air carrier. It will fly at altitudes of 25,000 to 40,000 feet, at speeds well over 500 miles per hour; it will weigh at takeoff between 265,000 and 295,000 pounds, as compared with 125,000 pounds for the DC-7B. It will consume its fuel at the rate of 13,000 pounds per hour, and it will use up fuel at a greatly accelerated rate at altitudes below its indicated cruise level. Once committed to come in for a landing, it will be practically imperative that it proceed to do so. Because of its speed and other characteristics, careful flight planning will be required and, upon meeting unanticipated weather or other conditions, prompt and accurate flight replanning will be necessary. Runways will provide less tolerance, and air temperature at takeoff will make material differences to the pilot in the handling of the airplane. Most of the flying done by this kind of aircraft will be on instruments, and for some years to come, until plans to improve air traffic control are perfected, the utmost in vigilance will be needed to avoid collisions. Not only will there be the hazards of a gradually enlarging volume of air traffic, which has been going on for years and has caused several tragic collisions as well as innumerable near-misses, but the introduction into the stream of traffic of this new, much faster equipment, with its rapid rate of climb and descent, will aggravate the problems of air traffic. The pilots will have a heavy load of communications work to do, plus a good deal of paperwork, and at the altitude and speed of this aircraft navigation will impose more care on the pilots because of the greater effect of slight deviations and of the declining accuracy of navigational aids at higher altitudes. They will have to be more certain about wind conditions aloft, and meteorological problems will assume increasing importance.

At altitudes above 25,000 feet the danger of sudden decompression becomes acute, and mental inertness, if not complete un-

consciousness, could follow within seconds. Until a good deal of experience has been had, it will therefore be prudent and necessary to have oxygen masks readily available for the pilots. Some experts believe that at least one pilot should be compelled to wear an oxygen mask constantly while flying above 25,000 feet. This will obviously add to the discomfort and to the burdens of the pilots.

It is evident that the piloting duties and difficulties will be greatly enlarged in the operation of the jet airplanes. Split-second decisions and maneuvers will have to be made, and all functions will be carried on at a greatly accelerated pace. The fatigue factor will then become increasingly important, and the need for relief more pressing. It would seem that in such operations it would be foolhardy not to have two pilots in their seats actively functioning as pilots at all times. This points up the value of having another person in the cockpit, capable of serving them in a relief capacity.

In more direct terms, how will the jet airplane affect the issue of mechanic versus pilot flight engineer?

The outstanding effect may be seen in the placement of all flight control items, together with others previously within the control of the flight engineer, in the pilots' panel. This is especially significant when it is coupled with the automation and simplification of features heretofore manipulated or operated by the flight engineer.

We see evidence of this trend in the specific changes made, concerning which a great deal of evidence was offered. We note, for example, the elimination of propellers, temperature control in the cylinder heads, cowl flaps, ignition system, engine analyzer and similar items, and the simplification of the lubricating system and the heating, de-icing and pressurization features. These and other similar changes will tend to decrease the duties and responsibilities of the flight engineers. At the same time, the pilots will find on their panel fuel and fire controls, and other items will be readily accessible to them. Added to this is the fact that many of the systems and features will be automatic with alternates available in case of malfunction. An illustration of this will be the four generators; when one fails warning will be given and the remaining generators will be able to carry the load.

All in all, we note a great dimunution in the importance of the mechanical functions of the flight engineer's job by the simplification or elimination of various items and the simple technique of going to an alternate if something fails. It is difficult to find any items which can or will be repaired in flight. At the same time, it is significant that the controls of various working systems are

being transferred to the pilots, which, added to the flying difficulties resulting from the great rise in speed and altitude, at the very time that traffic congestion is becoming increasingly troublesome, will certainly tend to enlarge the piloting burdens and responsibilities.

The reason for CAB's regulation requiring the use of a flight engineer was that it was deemed wise in the interest of safety to provide help to the pilots in the operation of large, four-engine airplanes. At the time, those airplanes were piston-powered and certain duties incident to such operations were delegated to the third crew member subject to the control and direction of the pilot in command. The captain throughout was clothed with authority over, and responsibility for, the entire crew. In Lockheed airplanes and in Boeing 377's, because of the configuration of the cockpit, there are more duties for the flight engineer to perform. On Douglas equipment there has been no separate flight engineer station, so that the nature and manner of his work has been different from that on the Boeing and Lockheed aircraft.

The question now is whether the work and responsibilities of the flight engineer on the jet aircraft will be sufficiently different vis a vis the pilot as to warrant a reexamination of the basic qualifications of his job. The experience of the Air Force furnishes some light. Military jet aircraft have been flying for a number of years, including the KC-135 tanker, the military prototype of the Boeing 707 which will be used in passenger service. The Air Force is, of course, very much safety-conscious, and it does not face the same competitive business problems which the commercial airlines have. Nevertheless, its B-47 and B-52 bombers have no station for a flight engineer, and the KC–135 is also operated without a flight engineer. Earlier bomber types carried flight engineers. It would certainly seem that this indicates something regarding the essentiality or indispensibility of the mechanical type of crew member in the operation of large modern jet airplanes.

It is not disputed in this case that the pilots will need help on the jet transport equipment. Their changing, more precise, and critical duties outlined above demonstrates this. The question is simply what type of help the third crew member can best provide. To furnish them with a mechanic whose capacity to provide the kind of assistance they need is very limited, in the light of the problems they face, does not appeal to reason. What the pilots need is someone who can relieve them of some of their innumerable and important flying duties, with the purpose not only of making their workload more tolerable, but, more important, of promoting safety. There are many uncertainties at present about how the jet

aircraft will perform. It is certain that with their great speed and altitude they will introduce additional problems of a piloting nature while curtailing those of the mechanical type.

If one is to err in establishing the qualifications of the third crew member, it should be on the side of caution. These will be airplanes carrying more than 120 passengers, and they will be large, complex and very expensive pieces of equipment, costing over $5 million. Both the carrier and the pilot in command, the captain, are morally and legally responsible for these lives and for this property.

We know that the mechanical function will be substantially less than in present piston airplanes. If something fails, alternates are available. If certain things fail the only course will be to land the airplane. It is not anticipated that mechanical repairs of any major kind will be able to be made in flight. To suggest, therefore, that the third crew member, placed on the airplane by Government decree for the explicit purpose of helping the pilots by relieving them of some of their tasks, have his qualifications stepped up at this time by requiring a higher degree of mechanical training and experience is completely unwarranted and unrealistic.

The obvious need is for a crew member who can perform some of the myriad of duties that will be carried on by the pilots. These include navigation, communications, alert observation, flight planning, varieties of paperwork, and primarily the ability to operate the airplane at least to the extent of landing it in case of emergency. If he can occupy the co-pilot's seat periodically, so that the pilot may from time to time relax, this in itself would make a contribution toward the maintenance of pilot alertness and hence to efficiency and safety.

The principle justification, as we see it, for the FEIA's proposal that flight engineers should hereafter have the A and E licenses or be discharged is the desire to make an irrevocable, separate craft of this job. There will be no functional basis for such licenses on the turbojets, and this job was not so conceived when it was created. This would not only withhold the more valuable and usable abilities and qualifications outlined in the preceding paragraph, but would tend to aggravate the jurisdictional conflict between the pilots and the flight engineers. The dissension already caused by this conflict is most unfortunate, and in our judgment tends to prevent this kind of cooperation and coordination which is absolutely essential in the cockpit of an airplane. Any interference with complete coordination of the flight crew in the new turbojet aircraft, however slight, will be completely intolerable and unpardonable.

The very reverse is desperately needed. The crew must work as nearly as possible as one man. They must think alike, they must instinctively understand any problem that arises and must be so similarly oriented that they will immediately respond to the moves or desires of the pilot in command.

The rational answer is that in addition to the mechanical qualifications called for by the flight engineer's certificate, the third crew member should also have such piloting qualifications as will enable him to be of genuine help to the pilots.

We observed earlier in this report that the determination of the qualifications of flight crew members is basically a matter for the management of the airline, subject to the minimum standards established by Government. The recommendation we shall make to Eastern Air Lines would in our judgment be a reasonable exercise of this management function.

Protection of Job Equities

The antagonism between the FEIA and the ALPA grows out of two underlying fears of the flight engineers: (1) That the pilots seek to oust them from their jobs, and (2) that ALPA wants to take over and "submerge" FEIA to the detriment of its members.

Whatever may have been ALPA's intention at one time, it is now willing to discuss merger under the auspices of the officers of the AFL-CIO and in accordance with such terms and conditions as they may deem proper. All we care to say on this subject is that the avoidance of unnecessary and harmful jurisdictional disputes is an important policy of the federation, and that, consonant with its constitution, it encourages the voluntary amalgamation of unions with conflicting interests or overlapping jurisdictions. The fear of submersion which FEIA has stated is not unique. Other small organizations have had similar fears, yet ways have been found to safeguard their interests through contractual or constitutional provisions which have given assured rights to the smaller group that it will be adequately represented on governing bodies and negotiating committees.

The primary fear is that relating to job protection. There is uncertainty as to what will be the impact of the new turboprop and turbojet equipment on employment.

We recognize this as a valid fear. Flight engineers who have entered this field of employment, some as much as 10 years ago, perhaps leaving other kinds of employment to do so, have an equitable right to be protected in their present job.

If our recommendation is accepted that the flight engineers on turbojet aircraft be required to have certain minimum pilot qualifications, we shall suggest that the present seniority rights and

job rights of incumbent flight engineers be continued on all piston equipment and also on the turboprop equipment. Logically, perhaps, our major recommendation should cover turboprop as well as turbojet airplanes, but we do not intend that it should. The turboprop equipment will in many important respects be operated at altitudes and speeds little different from those of the newer piston-powered airplanes. It cannot be denied that the power plant will not be of the reciprocating engine type and that some of the systems and features of turbojets will be included in the turboprops. Nevertheless, in recognition of the equity which the flight engineers have built up in their jobs, and frankly as a means of overcoming their fears and in meeting the difficult problems of the transitional period, we propose that turboprop equipment be classified with piston equipment for the purpose of providing jobs for incumbent flight engineers in accordance with the seniority rights they now have on their own seniority list.

But, and this is exceedingly important, under the program we recommend, the jobs for flight engineers will not be restricted to piston and turboprop airplanes. For those who can and are willing to do so, we propose that sufficient pilot training be offered at the carrier's expense to qualify them for jobs on any aircraft, including the turbojets. Those who would desire to move up the seniority ladder as pilots could then do so, preserving and accruing for a reasonably satisfactory period (sufficient to protect them against the impact of furloughs as pilots) their seniority rights on the present flight engineers' roster. They would thus have job opportunities as pilots *in addition* to those as flight engineers.

For those flight engineers who are unable to qualify fully as pilots for physical or other reasons and yet desire to be qualified for places in the crews of turbojets, the possibility is suggested that they be given sufficient training to develop the sense of airmanship which is characteristic of pilots and which would enable them in an emergency to fly the given airplane. This would mean the minimum of a commercial pilot license and an instrument rating. They would be able at least to fly and land the airplane in an emergency. But for the history of the past 10 years, our recommendation would be that all flight engineers on jet aircraft be fully qualified pilots, but the coordination and orientation within the flight crew which we consider vital in crews on jet airplanes could at least be approached and reasonably approximated by this means, with due regard to safety, and at the same time the impact of the changed policy would be cushioned so far as present flight engineers are concerned.

A flight engineer taking such pilot training will presumably do so on his own time, although at company expense. If he elects to

serve as a copilot thereafter, either because he desires to be trained fully as a pilot in accordance with the carrier's requirements or because he wants to determine whether he will choose to progress as a pilot, his seniority on the flight engineer list should continue to accrue for a period of time sufficient to enable him to be assured that he has not lost his job protection in the event he becomes subject to furlough as a junior copilot. By the same token, in order that there be mutual benefits for both groups of employees, and that the basic policy we propose be advanced, there should be similar rights and protection for pilots who elect to be trained as flight engineers. Their seniority on the pilot roster would then be maintained and seniority would continue to accrue to them on that list for a period of time sufficient to provide them with protection similar to that recommended for flight engineers.

By this means, the accrued seniority of each group on their own list would afford them protection against displacement by members of the other group who come into their occupation, and the normal desire to broaden their qualifications and training would not be restrained by the fear that in doing so they may forfeit their seniority on their original list and thereby endanger their employment rights.

The fear which this program is designed to meet is principally that of the flight engineers. It will be seen that the seniority roster of the flight engineers would continue in effect, and all assignments to flight engineer positions would continue to be made from this list. As to piston and turboprop equipment there would be no change in their qualifications. Flight engineers who desire to serve in the flight crews of turbojets would likewise be selected from the flight engineers' seniority list but only those who have the pilot training described above would be qualified to serve in such crews.

This will make it necessary that appropriate and coordinated seniority provisions be added to the collective bargaining agreements of both FEIA and ALPA. The welfare and interest of their respective constituents demands this, and the common desire of all to cooperate with their carrier for the sake of efficiency and safety dictates that this be done, as we view the situation. It will present difficulties, but if the value and fairness of such an agreement is recognized it can readily be accomplished through joint consultation, perhaps in the initial stages under the auspices or with the help of the officers of the AFL–CIO. These officials have frequently proferred their help to achieve harmony along constructive lines between these two labor organizations, and there are good grounds for saying that they are still ready, indeed eager, to do so now.

Under such a program those who have been fearful and suspicious can be completely disabused. The purpose will be primarily to conduct the operation of turbojet aircraft on the most cautious and safe basis, in the paramount interest of the public. At the same time, all the legitimate job equities and interests of incumbent employees will be satisfactorily protected.

FINDINGS

By way of summary as to the crew complement issue, we find that:

1. The basic purpose of the CAB in issuing its 1948 regulation by virtue of which flight engineers are required on large four-engine aircraft was to promote safety by providing pilots with help capable of relieving them of some of their manifold duties, largely of a mechanical nature, associated with that type of equipment.

2. These functions performed by flight engineers on large piston-powered aircraft were prior to said regulation performed solely by the two pilots who constituted the flight crew, and, at the present time, on all two-engine and on four-engine equipment of less than 80,000 pounds these functions are still performed solely by such two-pilot crews.

3. On all flights the pilot in command, the captain, is legally and traditionally responsible for the safety of the passengers, crew members, cargo and airplane, and, consequently, is entitled to have a strong voice as to the qualifications of those serving under him in the flight crew. Aside from this special condition applying to air transportation, it is customary in American industry for craftsmen to be invited to express views concerning the nature and qualifications of those who assist them.

4. The legal and moral responsibility of the air carrier for the airworthiness of its equipment and the safety of its operations has led to accord that the carrier is the ultimate judge of the essential qualifications of flight crew members; in exercising this judgment the carrier must meet the minimum standards imposed by law and is expected to act reasonably, which implies that it will consult the pilots, who have a similar responsibility in flight, as to what constitutes such essential qualifications.

5. In the operation of piston equipment in the past 10 years some airlines have used flight engineers of the mechanic type while others have used pilot-qualified flight engineers; in terms of safety and efficiency the two kinds of operation have been equally satisfactory.

6. The requests of FEIA to make the aircraft and engine (A and E) licenses mandatory, to require that such employees be carried on all aircraft irrespective of what the CAB may rule, and to establish the agency shop and voluntary checkoff are designed primarily to exclude pilot-qualified flight engineers from such positions, not only on present equipment but on the future turbine-powered aircraft as well, and, in the light of the facts submitted to us, are not justified.

7. The changed nature of operations to be faced in turbojet equipment calls for a careful reexamination of the necessary and desirable qualifications of the flight engineer on such airplanes.

8. Bearing in mind that the purpose of requiring flight engineers to be included in flight crews is to promote the safety and efficiency of operating by having them assist the pilots by relieving them of some of their many

duties, we are convinced that on Eastern Air Lines it would be better to require that the flight engineer on the turbojet airplane have the basic qualifications of a pilot and that he be able in an emergency to take over some of the flying duties of the pilots.

9. Our principal reasons for arriving at these conclusions are:

(*a*) Safety is paramount, and it is wiser to employ too much caution than too little.

(*b*) The introduction into air traffic of these very large, fast, high-flying, and rapidly climbing and descending airplanes, will aggravate the already critical problems of traffic density and control, and will materially increase the burdens of the pilots.

(*c*) A number of items within the control of the flight engineer on piston aircraft will either be eliminated or transferred to the pilots' panel, and in addition most of the systems will be much more automatic and in case of malfunction will have alternates available.

(*d*) Under the job description of flight engineers on Eastern Air Lines there is no duty which calls for the A or E license, and it will be even less likely that turbojet flight engineers will have any functions which will call for such qualifications.

(*e*) The uncertainties associated with airplanes which will fly at altitudes of 25,000 to 40,000 feet, at speeds well in excess of 500 miles per hour, and which will consume their fuel at a greatly accelerated rate at the lower levels induce one to believe that the entire flight crew should be pilot-oriented and coordinated so that necessary action can be swiftly taken and the pilots engaged in active flying duties may be relieved of some of their related tasks, as, e.g., communications, navigation, paperwork, flight planning and replanning, as well as that there be available a third crew member capable of flying and landing the airplane in an emergency.

(*f*) The Air Force operates its modern, large jet aircraft without mechanic-flight engineers, although they were used on prior models; the KC–135 tanker, which is the prototype of the Boeing 707 passenger air transport, is also operated by the Air Force without a mechanic flight engineer.

(*g*) While other airlines differ as to the desirability of pilot or mechanic flight engineers, depending apparently on the practices they have followed in their piston-operations and their particular problems, some requiring pilot qualications and others mechanic qualifications, two domestic trunk airlines which formerly used the mechanic type are now transferring to pilot flight engineers.

10. The turboprop aircraft, however, will fly at altitudes and speeds only moderately in excess of those of modern piston equipment, and for purposes of the qualifications of flight engineers can safely be classed with the piston rather than the turbojet airplanes; on Eastern Air Lines this means that there will be positions for 170 incumbent flight engineers with their present qualifications on its first 40 Electras, as well as the positions remaining available on piston aircraft; in addition it is expected that a substantial number of the present flight engineers will be able to qualify for turbojet operations.

11. The issue before us relates to the qualifications of the third flight crew member, over and beyond the flight engineer certificate now required by regulations, and not to the labor organization which shall represent them as bargaining representatives; we are, therefore, not intruding ourselves into

the jurisdictions reserved by law to the National Mediation Board or the Civil Aeronautics Board.

12. Although the AFL–CIO has held that changing operating conditions make it "imperative that the flight crew must belong only to one organization" and, again, that it is "necessary that the flight crew be coordinated into one organization," and despite the concern expressed by the FEIA that this would "submerge" its organization, we do not deem it proper for us to make any recommendation on this subject, leaving that to the two organizations and their parent federation, the AFL–CIO.

13. The overriding public interest in safety and efficiency, taken together with the pressing need of terminating the current interunion friction and replacing it with harmony and coordination, dictate that means be promptly devised to meet the operating problems to be faced when the turbojets come into use and at the same time to afford flight engineers now employed by Eastern Air Lines reasonable and necessary job protection and opportunities.

IV. THE ECONOMIC ISSUES

Some general observations should be made before discussing the several specific items in dispute which fall into this category. Under this heading we include those contract provisions which, if changed, would increase the amount of money paid by the carrier and received by the employees. All such items have a direct labor cost impact and, in determining whether or not they are appropriate, consideration must be given to the aggregate effect of the changes to be made. Thus, in establishing the amount of wage increase, we must take into account the substantial amount of the cost and benefits involved in the recommendation we are making in respect to the retirement program. In other words, they are all part of the "wage package," the size of which should be determined by reference to the criteria normally applied in wage determination as general guides.

This must be done in the light of the competitive position of the employer, which means that the patterns or precedents set by the labor organization in recent negotiations with other domestic airlines must be taken into account as general indicators of the nature and extent of the modifications to be made in this case. The basic law under which the air transportation industry is regulated stipulates as the controlling standard honest, economical, and efficient management. It is difficult to see how this standard can be met if the management does not pay close attention to the wage and other labor cost features of the operations of other domestic air carriers.

Moreover, in making such changes one must be careful not to distort the general wage structure of this carrier nor to create what have commonly been called "intraplant inequities." There are traditional wage relationships between groups of employees in all enterprises and in this one that relationship has been well

established by virtue of free collective bargaining over more than a decade. These considerations, together with the fact that the flight engineer and the pilot work in close coordination, the former assisting the latter in flying the same airplane under identical conditions, make it important to maintain the traditional wage relationship established by the parties themselves, in the absence of a showing of compelling reasons for a change in that relationship.

Underlying our findings and recommendations on the economic items in dispute, therefore, will be the carrier's legal duty to operate in an honest, efficient, and economical manner and the necessity of giving parallel treatment to the flight engineers and the pilots. This necessarily involves reference to the wage movements on other airlines, to the wage movement to be recommended for the pilot group, and to changes in such general criteria as the cost of living and the general level of productivity as guides to our judgment in formulating recommendations for a fair settlement of the economic issues here in dispute.

Pay and Retroactivity

The parties' present agreement contains a system of base and incentive pay for flight engineers of the type that is commonly paid to flight crews. Set forth below are the present rates of pay for each component of the pay scale, together with the corresponding requests made by the union:

1. Base Pay

	Present	Proposed
1st year	$500 per month	$200 per month.
2d year	$560 per month	$225 per month.
3d year	$200 per month	$250 per month.
4th year	$235 per month	$275 per month.
5th year	$270 per month	$300 per month.
6th year	$300 per month	$325 per month.
7th year	$325 per month	$350 per month.
8th year	$350 per month	$375 per month.
9th year	$350 per month	$400 per month.
10th year	$350 per month	$425 per month.

The proposed reduction in base pay in the first two years of service is coupled with an association request to place flight engineers in their first and second years of service on incentive pay in which case their minimum pay would be in the amounts proposed plus a requested monthly guarantee of 70 hours flight pay.

2. Hourly Pay

Hourly pay is paid on the basis of flight hours varying with the time and equipment flown. Standard speeds have been agreed to for the various types of equipment. The present and proposed hourly rates and pegged speeds are as follows:

Hourly Speed Bracket	Hourly rate			
	Present		Proposed	
	Day	Night	Day	Night
250 u. t. b. n. i. 275 m. p. h.	$2.70	$4.05	$3.40	$5.10
275 u. t. b. n. i. 300 m. p. h.	2.90	4.35	3.60	5.40
300 u. t. b. n. i. 325 m. p. h.	3.10	4.65	3.80	5.70
325 u. t. b. n. i. 350 m. p. h.	3.30	4.95	4.00	6.00

The present and proposed pegged speeds for aircraft to be used in determining the proper hourly equipment pay bracket are:

	Present	Proposed
250 m. p. h.	L–749, DC–6	DC–6.
275 m. p. h.	L–1049, L–1049 C, L–1049 G, DC–6B.	L–749, L–1049, DC–6B.
300 m. p. h.	DC–7, DC–7B, DC–7C	L–1049–C, L–1049–G, L–1049–H.
325 m. p. h.		DC–7, DC–7B, DC–7C.

3. Mileage Pay

The present and proposed schedule for mileage pay is set forth below:

	Present	Proposed
0–17,000 miles	0.5 cent per mile	0.8 cent per mile.
17,000–22,000 miles	1 cent per mile	1.6 cents per mile.
Over 22,000 miles	1.5 cents per mile	
22,000–27,000 miles		2.4 cents per mile.
Over 27,000 miles		3.2 cents per mile.

Miles flown are determined by multiplying the hours flown block to block on the basis of scheduled or actual hours, whichever is greater, by the pegged speed of the equipment. The present and proposed pegged speeds are as follows:

Equipment	Pegged speed	
	Present	Proposed
L–749	260	275
DC–6	260	260
L–1049	275	300
DC–6 B	275	275
L–1049 C	300	315
L–1049 G	300	315
DC–7	325	335
DC–7B	325	335
DC–7C	325	335

4. Gross Weight Pay

Gross weight pay is presently 1 cent per hour for each 1,000 pounds of maximum certificated gross weight. The association proposed this be increased to 1.3 cents.

The union's proposals, it should be noted, were intended only to apply to aircraft now in service. It advanced no proposals to cover flying on the Electra turboprop and DC–8 turbojet aircraft. At the hearing it signified its willingness to negotiate if a proposal dealing with these aircraft was advanced by the company and stated that its current position was "that the principles embodied in the current wage scale with respect particularly to the extension of weights and speeds should be applied to the new planes."

The company proposed that the present pay system be discarded and that a new system be installed which would retain the present base pay feature and provide incentive pay based on a schedule of hourly rates for all pay hours varying with type of equipment flown and number of hours flown.

In order to determine whether an increase is justified and if so, to what extent, we discuss below the significant comparisons usually made in wage determinations to "bracket in" the area within which a wage recommendation should reasonably be made.

First, we have compared the absolute pay yields of 8 year flight engineers on Eastern Air Lines flying 80 hours, half day, half night, with the pay yields of flight engineers on other airlines. For the purpose of this comparison we have ruled out United, T. W. A., and Northwest, which are now engaged in negotiations or in emergency board proceedings for new agreements. We have also excluded Delta, Braniff, and Capital which employ pilot-qualified engineers on their piston equipment and whose wage scales are lower than those of mechanic-qualified engineers because they are in training for careers as pilots. We have also excluded Pan-American, which is solely an international carrier

with a basically different route structure from Eastern. This leaves American, National, and Western, all of which have recently concluded new agreements with their flight engineers.

The difference between the present earnings of Eastern Air Lines' eighth-year flight engineers, flying 80 hours, half day and half night, and similar earnings under the new contracts of those in the employ of these three companies on the same equipment in percentage terms is as follows:

Airline	Pay yields exceed Eastern by—		
	DC-6B	DC-7B	L-1049-G
	Percent	*Percent*	*Percent*
American	5.7	4.4	----------
National	7.0	7.3	9.1
Western	8.0	----------	----------

If we examine the problem from the point of view of the wage movements which have taken place on these airlines during their recently concluded negotiations, we find that they have negotiated increases in the following percentage amounts:

Percentage increase in earnings yielded by current over their previous agreements

Airline	DC-6B	DC-7B	1049H
	Percent	*Percent*	*Percent*
American	7.3	7.3	----------
National	8.7	10.1	8.7
Western	11.2	----------	----------

Other standards by which the general area of wage adjustments are governed are changes in the cost of living and the sharing of productivity. As a general matter the productivity factor has been valued at 2 per cent per annum compounded. This is, however, not a precise measure, but rather a general guide. The problem is complicated in the case of flight crews because there is in a sense a built-in productivity feature in the pay formula. As airplanes grow in size and speed the formula automatically provides more compensation.

The current agreement between the parties was made effective June 1, 1954, and was due to expire April 1957. On June 1, 1954, the BLS Consumers' Price Index stood at 115.2. On April 1, 1957, it was 119.4. On June 1, 1958, it was 123.5, or 7.3 per cent

above the 1954 level. To restore the purchasing power of the flight engineer's earning on April 1, 1957, to the same level as June 1, 1954, would require an increase of 3.7 per cent. To compensate him for the growth in the productivity of the economy in that period would require 6.1 per cent increase, assuming no credit is given for increased earnings by application of the pay formula. To compensate the flight engineer for the erosion of his wage between June 1, 1954, and June 1, 1958, a 7.3 per cent increase would be required. The estimated rise in productivity in this period in which he claims a right to share was 8.2 per cent additional.

The continuation of firmly grounded and established differentials between occupations is one of the objectives of a sound wage policy. Flight engineers and copilots have both been on the increment pay system for some years. Through collective bargaining a recognized relationship between pilot and copilot earnings on the one hand and flight engineer earnings on the other has been developed. This inter-job relationship should be kept constant, unless there is a showing of a change in the conditions of either job that would justify a revision of that relationship.

The flight engineers' last agreement was effective on June 1, 1954. The pilots' last agreement was concluded on April 15, 1955. At that time the eighth-year captain's earnings on an L-749 (85 hours, half day, half night) was 164 per cent of flight engineer earnings on the same equipment. The eighth-year copilot earned 102 per cent of the flight engineers' pay. On the L-1049 the corresponding percentages were 170 per cent and 104 per cent. Any wage increase recommended should seek to keep these relationships constant.

As against these factors pointing in the direction and extent of a possible wage increase, there is one deterrent factor. This is the sharp decline in profits experienced by Eastern in the last half of 1957 and the first half of 1958. On the largest air passenger volume produced by any airline in the industry and the highest sales revenue in its history, the company showed a profit of only 1.7 cents per sales dollar in 1957. Net profit from operations fell by more than 50 per cent under the previous year. The indications are that this decline will continue in 1958. In the meantime routes awarded to other carriers will have the effect of shrinking Eastern's market.

While this company's current financial condition is excellent, it is experiencing a period of difficulty which will be compounded by the purchase of new equipment and heavy cost of training personnel to man it. While these considerations by no means

override the equities that favor a significant wage increase for flight engineers, they at the same time must be weighed with all the other considerations in determining its extent.

Based on the foregoing, it is our judgment that the increase in the pay scale recommended below, when considered along with the changes in the retirement and other benefits we shall recommend will result in greater earnings for Eastern's flight engineers to a degree sufficient to maintain the prior relationship between their earnings and those of their colleagues on comparable airlines, to offset the rise in the cost of living and to accord them a share in the improvement of the general level of productivity since June 1, 1954. At the same time it will maintain the relationship between flight engineer and pilot pay previously existing on Eastern Air Lines.

Our recommendations set forth the changes in the components of the existing pay formula which will yield this increase and which, at the same time, will preserve the advantage of incentive inherent in the increment pay system the parties have established. We have considered and rejected the carrier's proposal for a change in the nature of the pay system because of our conviction that it represents the kind of alteration in the parties' established wage structure which they should explore more fully in direct collective bargaining before proposing it in a proceeding such as this. For reasons discussed earlier, there was little direct negotiation on the merits of the issues here in dispute prior to the creation of this Board.

We shall recommend changes in the pay formula to include the Electra and DC–8 aircraft. The Electra will shortly be in service and the DC–8 will be flying during the latter months of the agreement if the parties adopt our recommendation on duration. Our recommendations will yield earnings on the Electra for a ninth-year flight engineer flying 85 hours, half day, half night, that will be $1,123.18 a month. On the DC–8 the flight engineer will earn $1,352.26 a month or 24 per cent more than on the DC7-B.

Another change in the pay formula we recommend is that a ninth-year longevity base pay bracket be adopted. Longevity brackets for flight engineers with more than 8 years of service are now in force on American and Western Airlines as a result of their recent settlements and have been a feature of the base pay schedules of Delta and Braniff.

We shall recommend that the association's request that flight engineers in the first and second year of service be placed under the increment pay system be denied. During the first 12 months of service the flight engineer is a probationary employee and a

large part of his time is spent in training. In his second year of service, the flight engineer usually lacks the seniority to bid a regular trip. He is used for reserve flying and during this period he is likely to fly less than 60 hours a month. If he were on the increment pay system he would be subject to the monthly flight pay guarantee of 60 hours, half day and half night, in a period when his seniority is not likely to be sufficient to achieve that level of flying. We find no basis for recommending the imposition of such an additional cost item on the carrier.

The pay yields of the present and the recommended wage scale components to a fifth- and a ninth-year flight engineer, flying 85 hours half day and half night according to type of equipment flown are as follows:

TABLE A.—*Present and recommended pay yields for flight engineers (5th and 9th years—85 hours, half day and half night)*

Equipment	5th year flight engineer		9th year flight engineer	
	Present	Recommended	Present	Recommended
L–749	$784. 33	$835. 33	$864. 33	$935. 33
L–1049	835. 76	886. 76	915. 76	986. 76
L–1049C	876. 13	927. 13	956. 13	1, 027. 13
DC–7B	922. 46	979. 83	1, 002. 46	1, 079. 83
Electra	----------	----------	----------	1, 123. 18
DC–8	----------	----------	----------	1, 352. 26

Our recommendations on the pay issue will include changes in the components of the present increment pay formula designed to produce the foregoing yields.

5. Monthly Pay Guarantee

The Association seeks a minimum monthly flight pay guarantee, in addition to base pay, equal to 70 hours of flying pay, half day and half night, based on the equipment the flight engineer is currently flying. At present this flight pay guarantee is 60 hours in domestic operations and 70 hours in overseas operations. The association regards this disparity between the guarantee on domestic and overseas operations as an intracompany inequity. It sees no basis for a distinction between domestic and overseas operations in the matter of a monthly guarantee.

The company opposes this request on several grounds. First, it points out that the yield of a 70-hour, half-day, half-night guarantee would be so close to a 75- or 80-hour yield for all-day flying as to weaken the incentive to fly more hours. This would mean,

in effect, a reversion to the type of flat salary arrangement which the increment pay system was supposed to supplant. Next it presented data to show that the 60-hour guarantee rule is a feature of the contracts of the flight engineers with all domestic carriers.

The monthly pay guarantee was designed to insure those flight engineers to whom an opportunity to earn flight pay is not made available reasonably adequate compensation for their availability to fill the company's operating needs. At the same time it was not intended to be a substitute for incentive pay nor to undermine the desire of flight engineers to maximize earnings by bidding for runs which would provide them with more flying.

The 70-hour guarantee sought by the association would not in this case protect any significant number of men who are available for flying but are not used. There was no evidence that there is underutilization of a significant number of flight engineers with more than 2 year's service. At the same time the 70-hour guarantee sought would bring earnings yielded by the guarantee so close to the level of earnings yielded by some trips that the incentive to bid them would be destroyed. The association argues that in such cases management could always assign men. But this overlooks the fact that voluntary bidding is the basis for the entire structure of work assignments in the industry and that it is to no one's interest to impair that structure.

Finally, we note that the established pattern in the domestic industry, as well as for other flight personnel on this property, is a 60-hour monthly guarantee. We do not know the genesis of the higher guarantee for foreign operations but can see nothing to be gained from extending it to domestic operations at this time.

We recommend that this request be withdrawn.

6. Student Flight Engineer Pay

The proposal of the association is for an increase in pay for student flight engineers from the present $330 per month to $430 per month. The company offered to increase this rate to $350 per month.

On the evidence presented, Eastern's rate is fairly well in line with that paid by other airlines and its offer is above the student rates paid by other domestic airlines. Students do not remain such from year to year but progress to regular jobs with increased pay. The company is the best judge of the student pay needed to attract desirable employees and its offer appears to be reasonable under the circumstances. We recommend adoption of the company proposal.

7. Operational Duty Pay

The association requests operational duty pay in the amount of $2 per hour. At present there is no provision for this type of compensation in the agreement.

The association would define operational duty time as those hours beginning with the time a flight engineer reports and ending 15 minutes after a domestic flight terminates or 1 hour after an overseas flight terminates at the domicile, less intervening block to block time. It asks that this number of hours, which represents time spent in awaiting clearances or in performing flight engineer duties on the ground such as preflight inspection, reporting malfunctions or incipient malfunctions to lead mechanics, debriefing and the like to be compensated for at the rate of $2 per hour. The rationale is that on two flights between the same points, one a nonstop and the other a multistop, the work done by the flight engineer varies but the earnings are the same and operational duty pay will compensate for this extra work. The argument was also made that operational duty pay would spur management to schedule trips so as to avoid excessive amounts of ground duty time in relation to flight time.

The company opposes this request on the basis that the present basis of compensation—a combination of base pay and flight pay —was intended to reward the flight engineer for all work performed, as was the flat salary which flight engineers were originally paid.

We are prompted to recommend withdrawal of this request largely because it would require additional compensation for work already compensated for in the present base plus incentive pay formula. Such compensation should be considered in the light of the equities favoring a general wage increase. We believe that these equities will be satisfied by our recommendations for an increase in rates of pay and an improvement in retirement benefits and that additional compensation for operational duty would therefore not be justified.

While flight engineers may, by contract and regulation, be scheduled to fly no more than 85 hours a month, the agreement sets 170 hours as the monthly maximum they may be required to be on duty, whether in flight or on the ground. The engineer who by virtue of his seniority bids a nonstop trip instead of a multistop trip between the same points is thereby enabled to improve his working conditions by completing the same number of trips in a shorter time. He benefits by the fact that he is able to fly more trips and thus increase his earnings to a maximum of 85 hours of flying. The junior man who bids the multistop trips with

their greater on-duty time would be given monetary compensation, if the operational duty pay concept were adopted, in lieu of the benefit flowing from the seniority principle. This would have the effect of negating the value of seniority by awarding the senior man the better trips and the junior man compensation in lieu thereof.

The company made certain proposals for additions to section IV–B designed to insure that an individual will not be penalized by exceptional circumstances which might create an extraordinarily large portion of duty time in relation to flight time. Its proposal is based on the assumption that a flight engineer's duty time should not on the average be more than 2½ times as long as his flight time. The company's proposal would give an average of 1-hour flight pay for every 2½ hours of on-duty time up to a maximum of 78 hours of flight time plus flight time credit per month, which approximates optimum flight engineer utilization.

Insofar as the flight engineers' request seeks to eliminate excessive duty time in relation to flight time, it would appear to have merit. We do not believe operational duty pay is suited for this purpose. The proposal of the company appears to be appropriate.

We shall recommend a modification of the company's proposal which will embody the principle that flight pay and credit will be given for specified ratios of duty time to flight time, up to a maximum total of 78 hours of actual flight time and such credited time.

8. Foreign, Overseas, and Offshore Pay

The parties' present agreement calls for compensation in addition to the other rates of compensation in the amount of $1.05 per hour for each hour flown in its foreign and overseas operations. The flight engineers ask that this rate be increased to $2 per hour.

Eastern's foreign and overseas operations are between New York and Bermuda, Washington and Bermuda, New York and San Juan, and Miami and San Juan. National Airlines operates between New York and Havana and Miami and Havana. The copilots now receive $1.05 per hour for foreign and overseas flying. There was ample evidence in the pilots' case that a rate of $1.30 per hour for foreign and overseas flying was in line with that paid by other airlines. We are so recommending in their case. It would be inappropriate to recommend otherwise for the flight engineer under these circumstances, inasmuch as he flies on the same trips, and there has customarily been parity between these crew members in this respect. We therefore recommnd that the rate of compensation for foreign and overseas flying be increased to $1.30 per hour.

We shall deny the union's request for an increase in the rate for offshore flying. Eastern's airplanes fly off shore between Wilmington, N. C., and West Palm Beach and over the Gulf of Mexico. An increase in compensation for such flying from the present 55 cents per hour to $1 per hour was requested. National and Northeast fly the same route off the east coast. Their flight-engineer agreements contain no provision for this type of compensation. Nor is there an inequity in the present rate in relation to the compensation for offshore flying paid other flight crew members. We recommend that this request be withdrawn.

9. Special Assignment Pay

Special assignment is "any assignment to duty covered by this agreement other than those flight assignments which are subject to bid." This might include such tasks as instructing, helping write manuals, or serving as check flight engineers.

In the present contract flight engineers on special assignment are paid at a rate "not less than the normal pay to which * * * [they are] * * * entitled in accordance with this Section III * * * [Rates of Pay]." The association requests the addition of a subsection to section III–C of the agreement which would credit a flight engineer on special assignment with "a minimum of 2.8 hours flying pay credit based on the trip his seniority would entitle him to if he were flying the line."

It appears that the "normal pay" for a flight engineer is computed by averaging the yield of 85 hours flying on an L–749, an L–1049, and an L–1049C. The union's complaint is that this formula is anachronistic in that, (*a*) it fails to reflect the yield from higher paying equipment now part of the fleet, and (*b*) it fails to reflect the earnings that would have accrued to a flight engineer on special assignment if he had exercised his seniority to bid a trip and to fly it.

The company's rejoinder is that the present basis of payment is sufficiently attractive to yield ample volunteers for special assignments from among the best-qualified men. In addition, it contends that under its class I and class II bidding system it is impossible to determine what trips the flight engineer would have been entitled to fly.

The selection of a flight engineer for a special assignment usually involves placing him at a task calling for a higher order of responsibility than is required of a man on routine flying. This fact should be reflected in his compensation and is achieved in part by computing his pay on the basis of 85 hours, whereas his actual flying time would, in all likelihood, have been less. The association's proposal, which would tie these earnings to the trip his

seniority would entitle him to if he were flying the line, suffers from the handicap of dependence on the workings of the class I and II bidding systems in force on Eastern. These systems make the reconstruction of the trips a man would have flown had he held a bid an unwieldy if not an impossible task.

We recognize that the present method of computing special assignment pay can result in compensating a flight engineer on special assignment at a lower figure than he might earn on the line. In order to correct this inequity we recommend that special assignment pay be computed on the basis of the yield of a composite of L–1049, L–1049C, and DC–7 earnings at 85 hours half day, half night, and that the association's request for a minimum of 2.8 hours flying pay credit for flight engineers on special assignment be withdrawn.

Section III–E of the current agreement grants flight engineers flight pay when assigned to ground school or flight school at the company's request for the purpose of qualifying on new types of equipment. This is computed on the basis of their average flight pay earnings for the three calendar months immediately preceding such assignment, exclusive of sick leave or leaves of absence. The association asks that such pay be granted also when flight engineers are assigned to recurrent training and that for all such assignments it be computed at the same rate as pay for special assignment.

The present school pay provisions are designed to yield to a flight engineer assigned to ground or flight school the same pay as he would have earned had he been flying. The association's proposal to pay him as if he were on special assignment would compensate him at a higher rate based on more hours than he would be likely to fly during a period when he is being trained at company expense for a better job. The present system of computing school pay gives a reasonable approximation of a flight engineer's current earnings and we recommend that it be continued.

10. Pay for Deadhead Time

At present, flight engineers are credited with deadhead time when deadheading at the company's request on a flight to or from protecting any flight to the extent of one-half hour flight pay credit for each hour of deadhead time based on the equipment used on the flight protected. Such time is credited for both pay and flight time limitation purposes.

The flight engineers propose that deadhead time should be considered flight time and credited to the extent of 1 hour flight pay credit for each hour of deadhead time for both pay and flight time limitation purposes. The argument is made that when he dead-

heads to protect a flight, a man's time is made available to the company and is not subject to his control. It should be paid for at the employee's normal rate, not a cut rate. The company opposes this request.

The evidence is that the hour-for-hour credit sought by the association is prevalent neither in the domestic industry nor in other agreements on this property, and that, on the other hand, the half-hour credit is the universal rule. While flight engineers are entitled to compensation for time spent deadheading, it must be remembered that they receive base pay in part for their availability for such circumstances and that they are not engaged in productive operations while deadheading. We find that compensation on the basis of base pay plus one-half hour's credit for pay and flight time limitation purposes for each hour of deadheading, accomplishes the purpose of compensating flight engineers for deadheading at a reasonable level.

The company offered to add a provision to the present clause on this subject which would make deadheading by surface transportation subject to the same rule as deadheading by airplane. This is only fair; it will compensate flight engineers for a type of deadheading not now paid for. We recommend that the association's proposal for deadhead pay be withdrawn and that a provision be adopted to give deadhead time credit for pay and flight time limitation purposes, when deadheading is by surface transportation, on the basis of the fastest published flight schedule between the airports involved.

The union also asks for a provision to obligate the company to provide positive reservations on the first available flight when a flight engineer deadheads to his domicile. The contention is that whereas the company manages to assure positive reservations for a man deadheading to cover a trip because it wishes to be sure the trip is covered, it provides the flight engineer returning from a trip only with a seat on a "space-available" basis. The claim is that this has resulted in cases in which the flight engineer has not been able to get back the same day, especially in peak travel seasons. When forced to lay over because of a lack of transportation the flight engineer receives expenses but no pay.

The company explained that flight engineers deadheading to their domiciles are given C–2 passes which give them priority over other pass riders but not over revenue passengers. Or they may make jump seat reservations on a first-come first-served basis. It justifies this practice by stressing that its primary obligation is to its pasengers and contends that at worst flight engineers deadheading home may be relegated to one-or two-stop trips instead of taking nonstops. The company also pointed to the prac-

tice of the industry which universally follows the same policy in this matter as Eastern. It furnished an empty seat report for December 1957 on nonstop flights to establish that the condition complained of occurs rarely.

We find that the problem involved is not of such magnitude as to justify the imposition of a positive reservation policy for flight engineers deadheading to their domiciles and recomend that the request involved be withdrawn.

The company proposed a substitution for the present provision for deadhead pay. This proposal would continue the present rate of half-time flight pay compensation for deadheading but would convert it to a flat payment of 0.015 cent per mile. This figure is an average mileage payment for flight pay to deadheading flight engineers in the months of April and September and is presented by the company as typical. The purpose of the proposal was to provide the present level of benefits for this item while simplifying the administration of the contract and eliminating the difficulty of determining which flight is being protected.

We recommend that this request be withdrawn. While it might have the effect of simplifying the administration of the deadhead pay provision, we are not certain that the figure proposed is typical of either the past level of average hourly payments for deadheading or of future levels.

11. Pay for Work on Other Than Regularly Scheduled Trip or Equipment

Among the association's proposals is a request for protection against losses of pay when a flight engineer is drafted on a trip which would pay less than the trip which his seniority would entitle him to fly; when equipment is substituted and the assigned flight engineer is not qualified, not required, or would earn less; and when a flight engineer is displaced from a trip by a man on special assignment and he flies no other trip.

We recommend the withdrawal of these proposals. We do so because we believe they rest on the erroneous assumption that a man's seniority entitles him to a guarantee of the earnings that his bid would yield regardless of the normal contingencies encountered in the operation of an airline. The fact is, however, that the seniority structure and bid system created by the parties was designed to give flight engineers an order of priority on flights which the parties knew were subject to the normal hazards of draft, of equipment substitution and of displacement by a man on special assignment. And the 60-hour guarantee for domestic flying and the 70-hour guarantee for overseas flying were intended to limit the impact of these contingencies on the individual flight engineer.

If there were significant evidence that drafts, equipment substitution, or displacement by men on special assignment cause a substantial hardship on flight engineers by reducing their hours or earnings to a level consistently below that which they would have achieved had these contingencies not been encountered, a basis might exist for a different ruling. But there is no such evidence. Drafts are confined largely to the men in the first 2 years of service who are on flat salary. Equipment substitutions tend to average out; that is, a flight engineer who had been scheduled for a lower paying piece of equipment as frequently finds that a higher paying airplane has been substituted as the other way around. Finally, the replacement of a line engineer by a man on special asignment arises out of the normal operation of the seniority rules inasmuch as the latter is almost always senior and the former foregoes a particular flight by virtue of yielding to that seniority.

The association's aim here is a guarantee of earnings on each trip at the level of the earnings of the trip the engineer bid. But the class I and class II bidding the parties here employ, and the flight pay guarantees they have established were aimed at providing the engineers with a maximum of earning opportunities, based on their seniority, within the framework of the normal operating contingencies likely to be encountered and the monthly guarantee was aimed at protecting them from the effects of grossly abnormal departures from these conditions. We have been shown no conditions of abuse as to warrant a revision of this underlying principle.

12. Pay for Night Hours

Section II–C of the present agreement defines day flying as all flying time between 6 a.m. and 6 p.m. and night flying as all flying between 6 p.m. and 6 a.m. Night flying is paid for at an hourly rate component which is 50 per cent greater than the hourly rate component for day flying. Section III–A 2. a. (3) says that this definition shall be used in computing additional pay for night hours.

The association's witness testified without contradiction that in actual practice compensation for night flying is paid for as follows: If a flight scheduled to terminate before 6 p.m. actually terminates after 6 p.m. the flight engineer gets night hourly pay for the time after 6 p.m. If it is scheduled to terminate at 6 a.m. but it actually terminates later, he gets day hourly pay for the hours after 6 a.m. If, however, a flight is scheduled to terminate after 6 p.m. but actually terminates before that hour, the company pays for the scheduled time after 6 p.m. but at the day rate.

The union's objective in its proposed amendment to section III–A 2. a. (3) is apparently twofold. One is that if a flight originates and is scheduled to be completed during the night hours but extends into the day hours, the flight engineer should be paid for the day hours at the night rate. The other is that if a flight started in the day hours is scheduled to terminate in the night hours, but beats the schedule and terminates in the day hours, the flight engineer should be paid, under the "actual or scheduled, whichever is greater" principle for the scheduled time at the night rate.

The night hourly rate was designed to compensate in large part for the hazards of night flying which, even with today's improved airway aids, is more hazaradous than day flying. The parties have established the 6 p.m. to 6 a.m. demarcation of night flying for certainty of pay calculation. We declined to apply the principle of actual or scheduled, whichever is greater, to the substitution of equipment request and the considerations there stated are applicable here. We are also rejecting its application to pay for night hours upon a similar request by the pilots. We recommend that this proposal be withdrawn.

13. Travel Expenses

At present section VI of the parties' agreement provides payment of an expense allowance to a flight engineer while engaged in operations away from his base station in the amount of 40 cents per hour for each hour while away from this station except if the period of time away from base is less than 3 hours. The association asks that this sum be increased to 70 cents per hour and that it be paid also to a flight engineer assigned to company training school or any temporary duty or assignment away from his base station.

The company asserts that because the method of payment is in an hourly sum, it has no relation to actual expenses incurred by flight engineers. It constitutes a windfall for the man on a turn-around trip or one with a short layover. It may undercompensate the man with a long layover. It proposed as an alternative a new method of expense reimbursement in the form of fixed maximum allowances for meals, lodging, and transportation to and from lodging places at layover points.

The principle underlying the expense reimbursement method is prevalent on most domestic airlines while the flat hourly reimbursement method in force here is the exception. However, it has been in effect here for all crew members for many years and has very nearly become a prerequisite for those on whose trips there is little or no expense. Adoption of the company's proposal

would affect those persons adversely and while in principle it has merit, in practice it would be regarded as a reduction in a freely negotiated benefit of long standing. Hence, we will recommend withdrawal of the company's proposal.

We likewise recommend withdrawal of the union's proposal to increase this allowance across the board by 75 percent. Neither an appraisal of the actual level of expense incurred nor practice in the industry supports that request.

In place of both these proposals, we recommend, similarly to the recommendation we are making in the pilot case, a continuation of the present provisions for the 40 cents per hour allowance, with an additional allowance of $3 to flight engineers who have layovers away from their base stations of ten hours or more. We recommend that where the company furnishes hotel space to flight engineers on foreign and overseas operations at its expense, this extra allowance not be paid. We recommend, also, that flight engineers assigned to training away from base be paid, in addition to the present allowance, the sum of $3 for each 24-hour period unless the company provides sleeping accommodations.

This recommendation has the virtue, we believe, of compensating men on trips with long layovers for the extra expenses actually incurred as a result of such layovers without adding to the already adequate allowance paid those flying turn-around or short layover trips.

V. RETIREMENT PLAN

The FEIA has requested a number of revisions of the existing retirement program, which has been in effect uniformly for all Eastern employees since 1947. To avoid protracted discussion, it is sufficient to say that in essence the flight engineers desire a variable annuity plan added to the present fixed benefit plan, similar to that sought by the pilots. They have such a plan on Pan American where the program, previously worked out between ALPA and the airline, was made applicable to the flight engineers. But they do not have such a plan on any domestic airline.

We have discussed earlier in this report the inescapable need of correlating the wages, working conditions and to some extent the qualifications of pilots and flight engineers on Eastern. This was the strongest factor influencing almost all the recommendations made on items common to the two groups. We are convinced that this is essential to develop a balanced structure, to avoid intracompany inequities, and to prevent a widening of the breach between the pilots and the flight engineers. It is solely because of these considerations that we shall recommend that the variable annuity

("B Fund") program we are proposing for the pilots be given to the flight engineers as well.

This will extend to Eastern's flight engineers a substantial benefit not enjoyed by the flight engineers on any other domestic airline. It was partly because we intended to do so that we recommended wage increases for the flight engineers in somewhat lower percentages than they have received under some other recent contracts. It should be emphasized, however, that if we add together the recommended wage increases and the 3½ per cent represented by this B Fund, Eastern's flight engineers are receiving many improvements equal to, or above, the best attained by their colleagues anywhere.

The reasons for recommending the B Fund are set forth in our report as Emergency Board No. 121, and need not be repeated here.

VI. VACATIONS

Length of Vacation

The existing provisions for vacation time for flight engineers are one day for each month of service if in the service of the company less than one year as of May 1 in any year and if such service is one year or more as of that date, according to the following table:

1st through—	
9 years of active service	14
10 years of active service	16
11 years of active service	17
12 years of active service	19
13 years of active service	20
14 years or more of active service	21

The union proposes 2½ days for each month of service prior to May 1 in any year if service with the company is less than 1 year as of that date and 30 days if service is 1 year or more as of that date.

The company proposes to retain the 1 day per month for those with less than 1 year of service as of May 1, and the following table for those with 1 year or more of service as of that date:

1st through—	
9 years of active service	15
10 years of active service	16
11 years of active service	17
12 years of active service	19
13 years of active service	21

The proposal of the company is identical with the vacation provisions of its agreement covering its pilots and is comparable to

vacation provisions for flight engineers on other domestic airlines. There is no evidence to justify a request for 30 days vacation after only 1 year of service, and the overwhelming practice in American industry is to progressively increase vacation time as a reward for length of service. Accordingly, we recommend adoption of the company proposal.

Vacation Pay

Presently vacation pay consists of an average of daily flight pay earnings for the preceding calendar year plus a pro rata share of current monthly base pay for each day of vacation.

The union proposes base pay plus flying pay for all trips which would have been normally flown during the vacation period and 85 hours of specified flying pay for an unassigned flight engineer. The company proposes retention of the present pay plan which is the same as the provisions of its agreement covering pilots.

The union contends that flight engineers normally progress to higher rated equipment by length of service and a substantial pay loss is suffered in many cases by the computation of vacation pay on the basis of earnings in a prior year.

It is quite customary to base vacation pay on average earnings over some representative period in cases where earnings vary. Here it appears that class II bidding privileges complicate the ascertainment of the trips a flight engineer would have flown during his vacation. The only evidence presented by the union on this subject shows the provisions of three airlines where flight engineers hold a regular run and are paid on the basis of the regular schedule. That is much different from the situation created by class II bidding here. Even so, in two of those agreements provision is made for a 6-month daily average under some circumstances. The present method has been the basis for calculating vacation pay for pilots since the inception of incentive flight pay plans, and the fact that vacation pay may not quite equal current pay is an inherent part of the system. Under the circumstances we recommend continuation of the present method of calculating vacation pay.

Vacation Period

Presently the agreement provides for preference in vacation periods in the order of seniority at the station where based "taking into consideration the requirements of the service." The union proposes elimination of the quoted phrase. It also proposes the insertion of a new provision as follows:

> The company shall publish a bid listing the number of available spots for each vacation period. This number will be the maximum that can be spared during each period. No leave of absence shall be granted (except emergencies or military leaves) during a period for which a vacation has been bid but

not awarded. The company will post on flight engineers' bulletin board a list of vacation awards at the start of vacation season. This list may be amended to increase or decrease the number of available spots during any period, at least thirty (30) days prior to beginning of each vacation period.

That proposal appears to conflict with the provisions of section V–c, regarding notice of vacation period and variance of vacation assignments in case of emergency, which the union does not propose to change. There is no evidence that the company has acted unreasonably under the present provisions nor is there evidence of any hardship to any employee, so no real need has been shown for such inflexible procedures. The company has as great a variety of equipment as any other domestic airline and not all flight engineers are qualified on all types of equipment, so there must be some flexibility in vacation assignments and changes therein to meet the needs of the service. Employees of public transportation systems must recognize that requirements of the service are paramount to thir personal desires. Under the circumstances we recommend the withdrawal of these proposals.

Vacations—Miscellaneous

Presently the agreement provides that upon termination of employment a flight engineer shall be paid for a vacation earned but not previously taken. The union proposes to add to that provision, "plus 2.5 days vacation for each month of service after May 1, up to and including the month of the termination." There is no justification in this record for awarding such a premium to one who quits or is discharged. We recommend that it be withdrawn.

The union also requested a provision that a flight engineer, at his option, have 48 hours free from duty before beginning his regular annual vacation period. Such a provision is now contained in the agreement between the company and its pilots and the company made a conditional offer to include it in the flight engineer agreement. We recommend that it be adopted.

VII. MISCELLANEOUS ISSUES

Leaves of Absence

1. The association proposed the elimination, from the provision governing military service leaves of absence, of certain exceptions for temporary employees and probationary employees. Its desire to eliminate the exception for temporary employees is based on its contention that the company has no right to employ flight engineers on a temporary basis. That exception in a military leave provision simply follows the form of the statute governing the matter and is not determinative of the right of the company to

hire employees on a temporary basis, so no valid reason for its removal has been shown.

The proposal to eliminate an exception relating to probationary employees is related to the proposal to eliminate the probationary period, which is discussed elsewhere in this report. Since we shall recommend withdrawal of that proposal, we also recommend withdrawal of this proposal.

2. The association also proposed a new provision that on leaves of less than 30 days for association business a flight engineer be paid not less than base pay plus the flight pay guarantee. Such a provision is not customary in this industry. The company has agreed with its pilots that on leaves for such purpose it will compute a base pay deduction on the basis of 1 day available for each 2.7 hours of flight time accomplished in that month. For the reasons stated elsewhere the company should extend the same benefit to this association and we recommend that the proposal be amended accordingly and that as so amended it be adopted.

Training

The association has proposed new contract provisions which in brief are as follows:

1. A mutually agreed uniform ground school training and flight checkout program for all student engineers, regardless of previous background, subject to change only by agreement.

2. One week refresher training for each flight engineer annually, on equipment of his choice, prior to his proficiency check.

3. If a flight engineer fails his proficieny check he will be given at least 2 days additional taining before another check.

4. If the second test is failed he may be removed from ground school pay and paid the guarantee and will not be removed from the payroll so long as qualified on one type of company aircraft.

There is no reasonable basis for such request. It is agreed that the company's initial training program is far superior to that required by the CAB regulations. Prior background, training and experience obviously are pertinent factors in the training of new employees for any job. The proposal would require the same training for one previously employed as a flight engineer for another airline as for one with no prior work experience. That demonstrates the unreasonableness of the first request.

The other requests appear to be wholly unnecessary as only five flight engineers have failed to pass a proficiency check from 1947 to date and all of those were given training and became requalified. After failing a proficiency check the regulations do not permit an employee to work as a flight engineer so there is no reason why he should be paid. Employees surely have some

responsibility to maintain their ~~ability~~ and their license to work and cannot rightly expect the company to pay them for time they are unable to work due to their failure to remain proficinent in the job they regularly perform. Other domestic airlines have no such provisions in their agreements with the association.

The association also proposed an amendment to the existing provision relating to new equipment which would require adequate training of flight engineers before the equipment is placed in service. Insofar as the intent is to require training which the association deems adequate, it is improper. The company is primarily responsible for the safe operation of its planes and is properly responsible for the training of the employees to operate them. No other domestic airline has restricted the exercise of that responsibility in agreements with the association and no valid reason appears to require this company to do so. We recommend that the proposals be withdrawn.

Free Transportation

The present agreement provides for space available transportation to the extent permitted by law to association representatives on business deemed essential by the company and the association. Other transportation for flight engineers and their dependents is governed by company policy applicable to all employees. The union proposes contract provisions for space available transportation without restriction as to routes, equipment or mileage, from 30 days before to 30 days after vacation and 12,000 miles during other periods. The company offered a provision granting the same privileges afforded all employees by company regulations.

The evidence shows that pass privileges are regulated by CAB and it is not customary in the industry to include provisions for same in labor agreements. The company policy appears to be fairly comparable with the policies of other domestic airlines so we recommend adoption of the company proposal.

No Strike or Lockout

The present agreement provides that the company will not lock out employees and the association will not cause, call or sanction a strike, sitdown or slowdown over "any dispute or disputes within the jurisdiction of the System Board of Adjustment." The union proposes that such provision be eliminated. It contends that the provisions of the Railway Labor Act make such a clause unnecessary and it should be eliminated because the jurisdiction of the System Board of Adjustment is uncertain. The company contends that the provision is useful because it spells out for the layman the rights of the parties and its deletion would tend to indicate

to those unfamiliar with the law that strikes or lockouts over such disputes are permissible.

Section XVIII–D of the agreement states the jurisdiction of the Board of Adjustment unambiguously, but even if ambiguous the remedy would be to amend that section, not eliminate the no strike or lockout clause. In a public transportation industry every moral suasion to prevent interruption of service over disputes is proper. The elimination of this clause from the agreement might well have the opposite effect so we recommend that the proposal be withdrawn.

Probationary Period

The ageement provides that a flight engineer will be on probation for the first 12 months of his employment and may be discharged at the option of the company. The union proposes to eliminate such probationary period. The only reason it advances is that it thinks they should be discharged only for cause.

The purpose of such a period is to give the employer an opportunity to judge the qualities of a new employee in action. In passenger transportation such an opportunity is essential. The agreement between the company and its pilots contains the same provision and similar provisions are contained in contacts of all other domestic airlines with both pilots and flight engineers. Accordingly we recommend that the proposal be withdrawn.

System and Base Scheduling

The agreement presently provides that the company shall make every effort consistent with efficient operation to:

> (*d*) Establish a systemwide flight engineer scheduling policy and an orderly system of scheduling for each base. The base scheduling system, so established, will be published and furnished to each flight engineer at the base.

The union proposes three amendments: (1) That the policy shall be agreed upon and become a part of the agreement, (2) that the base scheduling system shall become the crew scheduling manual, and (3) it shall be furnished to each flight engineer at each base.

Scheduling is a complex task requiring discretion and must be subject to change as the variables upon which it depends change. Such scheduling involves not only flight engineers but pilots and flight attendants. It is wholly unrealistic to freeze scheduling policy or to require that it be subject to agreement by the representatives of one of those groups of employees directly involved. There is no evidence that the company has exercised its responsibility arbitrarily. On the contrary, it has received union suggestions and appears to have accepted all that were feasible.

Under the circumstances we think that management should be required to enter into meaningful consultation with the bargaining representative but that in the event of deadlock final responsibility should be left with the management. We recommend that the proposal be withdrawn.

Hours of Service

The association proposed a new provision for a flight engineer, at his option, to have four 48-hour periods free of all duty each month. Only one domestic airline has any comparable provision and it is not optional. Moreover on that airline the flight engineers bid and work a regular trip combination. Here reserve bidding seriously complicates the scheduling of free time and to provide it at the employees' option would create an impossible situation.

The ageement pesently provides a monthly maximum on duty time of 170 hours and the evidence indicates that most flight engineers are far below that maximum. In fact they have much more free time than ground personnel. The fact that their free time is not concentrated in 48-hour periods is due to the nature of the public transportation business, limitations on flight time and the extremely liberal bidding rights provided by the agreement, whereby an employee can almost schedule his own time.

The primary basis for this proposal advanced by the association is the 5-day week principle. Since these employees generally have much more time free from duty than is available under that theory, there is no problem of overwork or need for additional rest. Public transportation must be provided on all days of the week and month and operating employees must be deemed to have taken that into acount when seeking jobs in the industry. Thus it is not reasonable, after they have such jobs, to attempt to apply the standards of other industries to hours of service. Under all of the circumstances shown, we recommend that this proposal be withdrawn.

The present agreement provides for a flight time limitation credit of 2.8 hours for each day of vacation, assignment to transition flying and ground school. The association proposed the inclusion of leaves of absence, special assignment and recurrent training. The flight time limitation was imposed in the interest of safety to prevent an employee from being required to work excessive hours in flight. Credit against that limitation while an employee is not working, or unpaid and not productive would prevent employees from obtaining a full month's earnings when off work a few days, which is a right they now have at their election, and would put undue limitation upon the company in its utilization of available flight engineers. Such a provision is

not customary in the industry. Under such circumstances, we recommend that this proposal be withdrawn.

The association also proposed a provision for 10 duty-free hours before and 16 duty-free hours after any ground or flight school and 48 duty-free hours after 5 continuous days of school. The company proposed 8 hours free from duty before and after school with an option of 24 hours free from duty after a school assignment of 5 or more consecutive days. The 8-hour proposal of the company accords with the rest period provisions of the contract and with similar provisions for other groups of its employees. No reason has been advanced for 10 and 16 hours except that such was the amount requested. The 48-hour request was based upon the 5-day week principle which has been discussed in connection with another proposal. The 24-hour proposal of the company accords with the CAB regulations. Accordingly we recommend adoption of the proposal by the company.

Duration of Agreement and Retroactivity

We recommend that an agreement be entered into by the parties to run until April 1, 1960. We believe that an agreement of this duration is needed to permit the parties to meet the problems that will confront them with the advent of the turboprop and turbojet aircraft. A shorter agreement would confront the parties with an unsettling period of negotiations for a new agreement very soon after the agreement here in issue would be concluded.

As to retroactivity, we recommend that retroactive pay resulting from the changes recommended in section III-A 1, 2, B and F be retroactive to April 1, 1957, and that in order to avoid the costs of computing back pay on an individual basis, such retroactive pay be 7 per cent of the earnings of each flight engineer for the period April 1, 1957, to the effective date of the new agreement.

RECOMMENDATIONS

We recommend:

As to the Crew Complement Issue

1. That the carrier in the exercise of its management responsibilities modify the qualifications for the position of flight engineers in the following respects:

   (*a*) That flight engineers who will serve on piston and turboprop equipment be permitted to do so without having pilot qualifications.

   (*b*) That flight engineers who will serve on turbojet equipment be required to have pilot qualifications to the extent of a commercial license and instrument rating and the ability to fly and land the airplane in case of emergency.

2. That assignments to flight engineer jobs be made from the flight engineers' seniority list in accordance with the applicable contract provisions, subject to the ability of the individual to meet the required qualifications.

3. That flight engineers who elect to take pilot training be placed on the pilots' seniority list in accordance with the applicable provisions of the pilots' agreement and that they remain nevertheless on the flight engineers' seniority list and continue to accrue seniority thereon for a period sufficient to enable them to complete their pilot training and for a reasonable period thereafter in which to determine whether they desire to be pilots or return to the occupation of flight engineer.

4. That pilots who elect to take flight engineer training be placed on the flight engineers' seniority list in accordance with the applicable provisions of the flight engineers' agreement and that they remain nevertheless on the pilots' seniority list and continue to accrue seniority thereon for a period sufficient to enable them to complete their flight engineer training and for a reasonable period thereafter in which to determine whether they desire to be flight engineers or return to the occupation of pilot.

5. That flight engineers who desire to obtain basic pilot qualifications, either for advancement as pilots or to flight engineer positions on turbojet equipment, be permitted to do so at company expense but on their own time, and that, since Eastern Air Line's turbojet airplanes will not be received before the spring of 1960, they be permitted to elect to commence such training at any time up to January 1959.

6. That the flight engineers acting through the Flight Engineers International Association promptly enter into discussions with the pilots acting through the Air Line Pilots Association for the purpose of agreeing on the accommodation of their respective contract seniority provisions to the recommendations herein made and of jointly approaching the carrier to work out the necessary revisions of their said agreements.

7. That the flight engineers' requests for stepping up the qualifications for their jobs, the agency shop, the checkoff, for provisions requiring the use of flight engineers under circumstances in which they may not be required under present contract provisions, and any other requests inconsistent with the above recommendations, be withdrawn.

As to the Economic Issues

8. That the appropriate provisions of Section III, Rates of Pay, be amended to provide the following:

(*a*) BASE PAY:

	Per month		*Per month*
1st year	$525	6th year	$300
2d year	595	7th year	325
3d year	210	8th year	350
4th year	235	9th year	370
5th year	270		

(*b*) HOURLY PAY:

	Day per hour	Night per hour
250 m. p. h. up to 275 m. p. h.	$3. 02	$4. 53
275 m. p. h. up to 300 m. p. h.	3. 22	4. 83
300 m. p. h. up to 400 m. p. h.	3. 42	5. 13
400 m. p. h. up to and over	3. 62	5. 43

(*c*) HOURLY SPEEDS:

The present hourly speeds shall remain unchanged. The hourly speed for the Lockheed Electra shall be 370 m.p.h.; for the DC–8, 470 m.p.h.

(*d*) MILEAGE PAY:

0–17,000 miles flown	0.6
17,000–22,000 miles flown	1.0
Over 22,000	1.5

(*e*) MILEAGE PEGGED SPEEDS:

The present mileage pegged speeds shall remain unchanged except that the pegged speed for the DC–7B shall be increased 330 m.p.h. The pegged speed for the Lockheed Electra shall be 370 m.p.h.; for the DC–8, 470 m.p.h.

(*f*) GROSS WEIGHT PAY:

One cent per flying hour for each 1,000 pounds of the maximum certificated gross weight of the aircraft up to 150,000 pounds; one-half cent per flying hour for each 1,000 pounds in excess thereof.

9. That the association's request for changes in sections III–A–3 and 4 dealing with monthly guarantee be withdrawn.

10. That section III–B be amended to provide that student flight engineers be paid $350 per month.

11. That the association's request for operational duty pay at the rate of $2 per hour be withdrawn; that the company's proposals for additions to section IV–B be withdrawn and that section IV–A be amended by the addition of the following provisions:

(*a*) for the purposes of this section a flight engineer's on-duty period shall begin 1 hour prior to the actual departure time of the first flight of his scheduled flight assignment or at his required reporting time, whichever is later, and shall end upon the termination ("in-time") of such flight or flights scheduled for said on-duty period; provided that such on-duty period shall continue until broken by a minimum rest period of eight (8) hours where suitable sleeping accommodations are provided at or near by the airport or ten (10) hours at stations where such accommodations are not so available, or ten (10) hours at the flight engineer's base station.

(*b*) For the purpose of this section a flight engineer's away-from-base period shall begin at the start of an on-duty period originating at his base station and shall end upon the termination of the first on-duty period scheduled to terminate thereafter at such base station.

(*c*) A flight engineer who is scheduled to be and actually is on scheduled duty in accordance with the currently effective base bid sheets for more than four (4) hours but not more than eight (8) hours in any one on-duty period shall be credited, for purposes of pay and flight time limitations with a minimum of three (3) hours of flying for the trip or trips which he is scheduled to fly and flies; and when the flying pay time is less than the three (3) hours the difference between the flying time and the three (3) hours shall be computed as an extension of the final portion of the last trip flown during such on-duty period. A flight engineer who is scheduled to be and actually is on scheduled duty in accordance with the currently effective base bid sheets for more than eight (8) hours in any on-duty period shall be credited, for purposes of pay and flight time limitations, with a minimum of one (1) hour of flying for each two and one-half (2½) hours of such on-duty time prorated, and when

the flying pay time is less than the time so credited the difference between the flying pay time and the time so credited shall be computed as an extension of the final portion of the last trip flown during such on-duty period.

(*d*) A flight engineer who is scheduled to be and actually is engaged in a scheduled away-from-base period in accordance with the current effective base bid sheets shall be credited, for purposes of pay and flight time limitations, with a minimum of one (1) hour of flying for each four (4) hours of such away-from-base period during which he is so engaged. Credit for periods of less than four (4) hours shall be prorated. When the flying pay time is less than the time so credited the difference between the flying pay time and the time so credited shall be computed as an extension of the final portion of the last trip flown in the flight engineer's away-from-base period.

(*e*) The credits provided in paragraphs B and C of this section are not cumulative, but only the greater credit shall be applied.

(*f*) Flight engineers shall post their total flying time at the end of each away-from-base period, posting the total of schedule or actual, stop-to-stop, whichever is greater, and eighty-five (85) hours of such posted time will constitute the maximum monthly allowable hours.

12. That section III–F be amended to provide $1.30 for each hour flown in the company's foreign and overseas operation.

13. That the association's request for an increase in the hourly rate for offshore flying be withdrawn.

14. That the association's request for an amendment to section III–C to provide a minimum of 2.8 hours flying pay credit for flight engineers on special assignment be withdrawn and that special assignment pay be computed on the basis of the yield of a composite of L–1049, L–1049 C, and DC–7 earnings at 85 hours, half day, half night.

15. That the association's request that section III–E be amended to provide that flight engineers assigned to ground or flight school or recurrent training be paid as if they were on special assignment be withdrawn.

16. That the associations' request that section IV–D 1 be amended to provide that deadhead time be considered flight time and credited to the extent of 1 hour flight pay credit for each hour of deadhead time be withdrawn; that this section be amended to provide deadhead time credit for pay and flight time limitation purposes when deadheading by surface transportation on the basis of the fastest published flight schedules between the airports involved; that the association's request for a provision to obligate the company to provide positive reservations when a flight engineer deadheads to his domicile be withdrawn; and that the company's request for a change in the present system of compensation for deadheading be withdrawn.

17. That the association's proposals for amendments to the agreement which would grant pay for work on other than regularly scheduled trips or equipment be withdrawn.

18. That the association's proposals to amend sections II–C and III–A–2a (3) be withdrawn.

19. That the company withdraw its proposal for a new method of expense reimbursement; that the association withdraw its request for an increase in the hourly allowance for travel expenses to 70 cents; and that the parties agree to continue the present provisions for the 40-cent-per-hour allowance with an additional allowance of $3 to flight engineers who have layovers away from their domicile base stations of ten (10) hours or more, except on

foreign and overseas operations where the company furnishes hotel space; and, that flight engineers assigned to training away from base be paid, in addition to the present allowance, the sum of $3 for each 24-hour period unless the company provides sleeping accommodations.

As to the Retirement Plan Issue

20. That the carrier modify its existing retirement program in the following respects:

(*a*) By adding a variable annuity (B Fund) plan similar in general to such plans now in effect for pilots on domestic trunk airlines.

(*b*) By providing for contributions to this fund by the carrier of 3½ percent and by the employees of 2½ percent of annual earnings.

(*c*) By providing for vesting upon physical disability of the employee to serve in his current capacity.

(*d*) By affording employees the option of making larger contributions to the B Fund, at stipulated times and in stipulated amounts.

As to the Vacation Issue

21. That the following vacation schedule be adopted:

1st through—	*Days*
9 years of active service	15
10 years of active service	16
11 years of active service	17
12 years of active service	19
13 years of active service	21

22. That the association's proposal for a change in the method of calculating vacation pay be withdrawn.

23. That the association withdraw its request for changes in section V–B dealing with the method of allotting preference for the periods of taking vacations.

24. That the association withdraw its request for a change in the present section V–F.

25. That the parties agree to incorporate into the agreement the provision offered by the company that a flight engineer, at his option, have 48 hours free from duty before beginning his regular annual vacation period.

As to Miscellaneous Issues

26. That the association withdraw its request for the elimination of certain exceptions for temporary and probationary employees from section X–E of the present agreement.

27. That the parties incorporate into the agreement a provision that on leaves of less than 30 days for association business a base pay deduction will be made on the basis of 1 day available for each 2.7 hours of flight time accomplished in the month.

28. That the association withdraw its requests to amend section XIV dealing with training.

29. That the parties incorporate into the agreement a provision granting flight engineers the free transportation privileges now granted all employees under company policy.

30. That the association withdraw its proposal to eliminate section 19–I from the agreement.

31. That the association withdraw its proposal that the present probationary period be eliminated.

32. That the association withdraw its proposals for changes in section XI–K.

33. That the association withdraw its proposal that the agreement be amended to grant a flight engineer, at his option, four 48-hour periods each month free of all duty.

34. That the association withdraw its request that leaves of absence, special assignment and recurrent training be credited against flight time limitations at the rate of 2.8 hours for each day so spent.

35. That the parties amend the agreement to include the company's proposal that a flight engineer have 8 hours free from duty before and after school and 24 hours free from duty after a school assignment of 5 or more consecutive days.

36. That the parties conclude an agreement to become effective on the first day of the month following its execution, except that revised working conditions shall become effective within a reasonable time, and to run until April 1, 1960.

37. That sections III–A–1 and 2, B and F be made retroactive to April 1, 1957, and that retroactive pay be computed and paid on the basis of 7 percent of the earnings of each flight engineer from the period April 1, 1957, to the effective date of a new agreement.

38. That the company send a copy of this report to each flight engineer in its employ.

Respectfully submitted.

DAVID L. COLE, *Chairman.*
SAUL WALLEN, *Member.*
DUDLEY E. WHITING, *Member.*

U. S. GOVERNMENT PRINTING OFFICE: 1958