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THE DEVELOPMENT OF THE MILEAGE LIMITATION CONCEPT FOR THE AIRLINE PILOT*

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MILEAGE limitation for airline pilots has been involved, during the past twenty years, in over thirty instances of proposed contracts between pilots and management. On three occasions, it has assumed the proportions of actual disputes which went before special fact-finding boards for hearings, analysis, and recommendations. On each occasion the subject was presented in a different manner: (1) a definite limitation on the miles flown each month, (2) a variable restriction on hours and a fixed limitation on miles flown each month, and (3) a definite set mileage limitation for each airplane to be computed as it was placed into service.

To the airline executive mileage limitation generally means just another method of "featherbedding." To the pilot it is a method of sharing in the increased productivity as a result of flying the heavier, faster airplanes and a means by which he can more definitely insure his continued employment. To various medical groups, it is a matter to be considered seriously because of the safety aspect.

The need for an official limitation of the flight hours for pilots is unquestioned. There is disagreement, however, on where this limitation should be set, and as to whether there exists a need for an additional direct limitation of mileage. As early as 1931, the Secretary of Commerce, under authority of the Air Commerce Act of 1926, limited first pilots to 110 hours per month. Effective October 1, 1934, the maximum flight hours of pilots was limited to 100 per month.¹

Back in 1934, it appeared to be generally conceded that the original monthly maximum of 110 flight hours was too high. The Aero Medical Association of the United States, composed of flight surgeons and

doctors who practice aviation medicine, recommended, in 1931, that the maximum day hours be set at a point somewhere between 90 and 110, and the maximum night hours at a point somewhere between 60 and 75. At its annual meeting in 1933, the same association recommended a maximum of 85 hours per month.\(^2\)

Until early in the 1930's pilots were paid in proportion to miles flown, with a base salary to protect them somewhat against the irregularities in operation arising primarily from weather conditions. A typical formula as established by the Post Office Department in the early days of air transportation follows:

Pilots received a base salary and in addition, pay for the number of miles flown. The base salary on routes where daylight flying was scheduled was $2,000 per annum. On routes where the schedule called for night flying, not to exceed one-third of the mileage, the base pay was $2,400 per annum. On routes where the schedule called for both day and night flying, and night flying exceeded one-third of the mileage, the base pay was $2,600 per annum, and on the routes where the schedule called for all night flying, the base salary was $2,800 per annum.\(^3\)

The figures shown above were starting salaries, and pilots were given raises at the rate of $100 per year over a period of eight years. The highest base pay which could be received was $3,600 per annum. This base pay figure was not exceeded by the airline pilots until 1951 when certain groups of pilots obtained an increase in their base pay to $4,200 per annum.

In addition to the base pay, for day flying, the pilots who flew for the Post Office in the early days of flying were paid 5, 6, or 7 cents a mile for each mile flown with mail or for miles flown on ferry flights. The 5 cent rate was paid between Cleveland and Cheyenne. The 6 cent rate was paid between Cheyenne and Reno, Nevada, and the 7 cent rate was paid between New York and Cleveland, and between Reno and San Francisco. The differences in the rates were in recognition of the hazards encountered in flying the mountainous terrain. For night flying, the mileage rate was doubled, and pilots were paid 10, 12, and 14 cents respectively for the routes outlined above. Under that formula, were it still in existence today, a pilot flying a DC-6 or Constellation during the night hours between New York and Cleveland and flying 85 hours a month would receive $2,975 per month in mileage pay alone, and in addition he would receive approximately $300 per month base pay. Thus his monthly earnings would be $3,275, or to express it in another way, his earnings would be $39,300 per year. Actually under today's contract that pilot is making less than $1,500 per month or less than $18,000 per year. It would appear that under the pay formulas developed in more recent years someone has gained, through increased productivity, at the expense of the pilot. Far-sighted airline management in the early 1930's can be credited with

\(^2\) Ibid, p. 75.
\(^3\) Ibid, p. 34.
the successful conversion of the pilot's pay formula to an hourly basis from a mileage basis.

The method of mileage payment existed in the airline business for some time. Even in 1931 when the mail was being flown by private operators, monthly base pay plus mileage was still the prevailing method of wage payment. However, most companies were no longer paying twice as much per mile for night flying as compared to day flying. The terrain differential still appeared in some pay scales. Some employers, during this period, were even paying their pilots on a flat monthly salary without regard to mileage flown. In most cases these were companies that held no mail contracts.

Between 1927 and 1931 airline management recognized the potentialities of the mileage pay formula as it existed under the Post Office, and through forceful bargaining in a "take-it-or-leave-it" manner (since there was no organized pilot union at that time) started the transition from a mileage to an hourly basis. The defeat of mileage limitation for the airline pilots might well be said to lie in this first major change in the pay formula—over 20 years ago.

By July, 1933, nine companies, employing 282 pilots, were paying their pilots by the flight hour, either for actual flying time or for trip time, that is, the hours which management estimated a trip should take. By the end of 1933, the transition to an hourly basis for paying pilots had begun to snowball, and a number of the larger companies had changed from the mile to the flight hour as the primary unit of wage payment. This resulted in a noticeable increase in flight hours and an equally noticeable decrease in wages per unit of production, that is, the mile. Lack of a strong labor union in this period to resist management's conversion to the new pay formula was again a large factor in management's success.

Hourly pay varied according to the company, terrain differential, and type or airplane flown. Base pay varied with length of service.

Mileage was still the basis for wage payment for 185 pilots in the employ of five companies, all of these being holders of mail contracts. The mileage rates varied from 4 cents for day flying over ordinary terrain to 10 cents for night flying over hazardous terrain. Each company paid a base salary in addition to the mileage pay and this ranged from $12.50 to $250.00 per month, depending upon the company and length of service of the pilot. Seven companies, employing 21 pilots, were paying flat monthly salaries at rates which ranged from $100 to $400 per month.

In July 1933, the monthly mileage being flown by pilots averaged slightly less than 10,000, although there were some isolated cases of

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4 Pilot's salaries averaged only $569.49 in October, 1931. This was somewhat less than the average year around income of mail pilots at the end of 1927 of $600 to $650 per month. See Ibid, pp. 34-35.

5 Ibid, p. 37.


7 Ibid, p. 37.
pilots flying as high as 17,000 miles per month. In the second six months of 1933, a period which reflects the results of the large scale introduction of faster equipment, the average airplane speed on all domestic airlines was 116 miles per hour. In the corresponding months of 1932, the average had been 106 mph. The increase in average speed from 1932 to 1933 was, therefore, nearly 10 percent. In the last six months of 1934 the average rose to 126 mph, an increase of 8 percent over the preceding year, and of 19 percent over 1932. The effect of the introduction of higher speed equipment becomes evident in the increase of average miles flown. Even after compensating for the usual seasonal fluctuations, by the end of 1934, domestic airlines were employing 11 percent fewer pilots than at the end of the previous year as is shown in the following table.

<table>
<thead>
<tr>
<th>pilots employed</th>
<th>hours flown</th>
<th>total miles flown per month</th>
<th>average speed per hour</th>
<th>passenger miles per pilot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1932, December</td>
<td>484</td>
<td>65</td>
<td>6,825</td>
<td>105</td>
</tr>
<tr>
<td>1933, December</td>
<td>463</td>
<td>62</td>
<td>7,297</td>
<td>118</td>
</tr>
<tr>
<td>1934, December</td>
<td>410</td>
<td>63</td>
<td>8,207</td>
<td>130</td>
</tr>
</tbody>
</table>


Further analysis reveals that the higher operating speeds increased the average number of miles flown per pilot during the periods of comparison in 1934 by 13.4 percent over the miles flown in 1932, and at the same time the average number of pilots was 13.5 percent less. This took place with a 55 percent increase in passenger traffic.

The five major airlines started their conversion to an hourly system of pay in March of 1931 and proceeded in the following order: Transcontinental and Western, American Airways, Western Air Express, Eastern Air Transport and United Air Lines. The interesting point to note about these conversions is that all the carriers listed originally had their own scales for pilot pay. Yet, in October 1933, when United changed over to an hourly basis of payment, the five companies jointly announced a new and uniform pay scale for pilots in which the unit of compensation was based on flight hours in addition to the base pay. The hourly rates provided for in this pay formula were as follows:

$4.00 per hour for day flying under 125 miles hourly speed with 20 cents hourly increase to become effective at speeds of 126 miles, 141, 156, 176, and 201 respectively. In addition each pilot received a base rate of $1,600 per annum, increased by $200 per annum for each year of service up to a maximum of $3,600 per year.

The rates placed into effect on October 1, 1933 by the “Big-Five” would not make much difference for the pilot of an airplane flying 100 miles per hour; for here with 10,000 miles per month the operators scale, based on an hourly rate, was only $40.00 per month below that

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8 Ibid, p. 93.
9 Ibid, p. 96.
10 Aviation Week, August 27, 1951, p. 64.
of the pilots' proposal of mileage pay at the rate of 4 cents for each
day mile and 7 cents for each night mile. However, for an airplane
flying 150 miles per hour, the operators' scale was $173.33 per month
less for 10,000 miles of flying per month, and for planes flying 200 miles
per hour, the operators' scale was $240.00 per month less for 10,000
miles than the pay scale which was proposed by the pilots.11

There was one small difference in the uniform pay scale proposed
and placed into effect by the operators in 1933. This was a terrain pay
increment for the pilots of United Air Lines. This increment was
later incorporated as a part of Decision 83, and United today is paying
their pilots a terrain pay differential because of their action in Octo-
ber 1933.

BEGINNING OF ALPA

The birth of the Air Line Pilots Association came as a direct result
of the various carriers converting to an hourly basis of pay without
direct negotiation with the pilot group. Even though in existence dur-
ing the conflict, ALPA was new, still weak, and not completely or-
granized. Despite this situation, the pilots came forth with a counter
proposal to the company wage rates which went into effect October
1, 1933.

The pilots' proposal was based on mileage and was designed to
produce, at operating speeds then current, average earnings compara-
able with those to be expected from the scale announced by the opera-
tors. Actually the rate was only $.004 per hour more than the operators
had offered for the same number of miles.12

The pilots did not ask for more money; they just wanted to be paid
on a mileage basis. To arrive at the salary which the operators had
proposed, the pilots requested a base pay of $1,800 per annum in-
creased $200 per annum for each year of service up to a maximum of
$3,000. The mileage pay request was one which would have paid 4
cents per mile day and 7 cents per mile night over flat terrain, and
5 cents per mile day and 9 cents per mile night over hazardous terrain.
Individual flying would have been limited to 80 hours or 10,000 miles
in any one month. This latter figure was increased to 12,000 miles
per month during the Labor Board Proceedings in 1933.13

Management objected strongly to straight base and mileage pay
for the pilots, fearing it would result in too great a share of the benefits
of faster equipment going to the pilots. Of course the pilots would
have gained, but the unit cost of production to the airlines was de-
creasing at a faster rate than the pilots were gaining as a result of the
more productive airplanes.

11 Exhibit I, "Report of the Fact Finding Committee and Case of the Air Line
Pilots Association," December 14, 1933, p. 5.
12 Ibid, p. 5.
13 With our present airplanes operating in the vicinity of 300 miles per hour,
this would have limited the pilots today to approximately 40 hours of flying
per month.
Primarily for the reason that the operator's scale was proposed simultaneously with the speeding up of plane schedules, a labor dispute developed which threatened to tie up all air transportation. At this point the National Labor Board was summoned to investigate the dispute, and the threatened strike was cancelled.

During the proceedings before the National Labor Board, the pilots contended, that if a limit were not placed on the number of miles flown in any month, the progressive introduction of high speed planes would result in decreasing the number of pilots employed. In principal, at least, doubling the speed of operation cuts in half the number of pilots required for flying a route, unless, of course, more schedules are flown. Increasing the speed by 50 percent reduces the required number of pilots by one-third, and so on in proportion. Management contended that higher speed operation would result in the employment of more pilots because of increased patronage of the speedier service. This statement was based primarily on the fact that United Air Lines had just placed high speed equipment into service and simultaneously had experienced an increase of passenger traffic which made it necessary to employ more pilots.

From the safety aspect, it had been agreed that there should be a limitation of hours to provide for the safety of the passengers, flight personnel, mail, express, and the airplane itself. The limitation had been placed to prevent fatigue, and upon this point the discussion was centered. The main question was whether fatigue was a result of miles flown or hours flown. There was, and still is, disagreement as to the effect of increased operating speeds on pilot's fatigue. The Aero Medical Association has said that fatigue increases with speed. On the other hand, certain flight surgeons have testified, that in their judgment, fatigue was independent of speed. Former President Seymour of American Airways told the National Recovery Administration that:

"Increased speed of equipment has no bearing on the hours a commercial pilot should work in a month. There is no sensation of speed at altitudes where 90 percent of the flying is done; the medical examiners for the Army and Navy will confirm this statement. Fatigue is in proportion to time and not miles."

The Air Line Pilots Association on the same occasion presented the view that:

"Increased speeds are invariably attended by increased hazards and physical strain . . . pilot risk varies directly with the amount of exposure and the unit of exposure is miles and not hours."

It was agreed that as hazards increased, fatigue also increased. Therefore the pilots held that the more take-offs and landings made

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14 Brief, of the Air Line Pilots Association before the National Labor Board, December 13, 1933, pp. 16-17.
16 Ibid, p. 83.
17 Ibid, p. 83.
18 Ibid, p. 83.
with faster airplanes, and the greater distance covered meant increased hazards. For example: a round trip from Washington to Chicago in an airplane cruising at 150 miles per hour (assume no wind) can be flown in eight hours. A pilot in the airplane cruising at 300 miles per hour is able to fly two round trips in eight hours. Thus the pilot in the faster airplane is subjected to more hazards such as weather (he may have to fly through a severe frontal activity four times compared to twice that the pilot of the slower plane would have to fly through it), traffic congestion, instrument approaches, and the general complexity of the airplane itself. The pilots who fly at 300 mph are certainly subjected to more hazards, and following in line with statement previously agreed to, fatigue would then increase.

In November, 1933, the National Labor Board's Fact Finding Committee, after reviewing a great deal of evidence, expressed the following conclusion:

"We know that on water and on land danger increases with speed beyond a certain point. Whether and to what extent this rule applies to travel in the air cannot now be stated with any degree of certainty. Whether there is increased fatigue or a greater physical or mental strain caused by higher speed in the air is debatable. The experience has been too short to warrant any definite expression of opinion on this point. The subject is one which is worthy of scientific study. It is clear, however, to a majority of the Committee, that a substantial increase in speed involves an increased hazard to airline pilots."

It was further pointed out that the pilots flying in the early thirties flew with more regularity and with greater safety than in the preceding pioneering years. The duties of the pilot, however, had become more exacting; their performance required greater technical training, and their burden and personal responsibility had certainly not lessened as passenger travel expanded and larger planes placed more people in the pilot's care. Improved aircraft and aids to navigation had made piloting much safer than formerly, but such aids had not decreased the pilot's hazards completely because now the pilots were expected to fly under much more undesirable weather conditions than in the past. Management expected a much higher percentage of schedules completed.

**DIVIDING THE BENEFITS OF BETTER EQUIPMENT**

One of the basic points for controversy has always been: "How shall the benefits gained from more productive equipment be divided?"

In the early days the passengers benefited from the increased productivity of aircraft and received the lion's share of any gains. For instance, from 1925 to 1933, passenger rates dropped from 15 cents per mile to about 6 cents, a figure which is still in existence today, and the mail

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19 Ibid, p. 84.
20 Brief, of Air Line Pilots Association to National Recovery Administration, August, 1933, p. 9.
subsidy dropped from $1.09 per mile in 1929 to $0.40 per mile in 1933.\textsuperscript{21} Management has always contended that the principal benefits of increased airplane productivity rightfully should go to the consumer in the form of reduced fares, or in the face of rising costs, in the retention of the existing fare structure.

On May 10, 1934 the National Labor Board handed down its important Decision 83. In this the Board attempted to compromise the pilots demands for a mileage basis with the operators' scale which had been uniformly adopted by the "Big-Five" on October 1, 1933, so that both the company and the pilots would share in the benefits accruing from the new equipment and bear the burdens that attended its introduction.\textsuperscript{22}

What the Board awarded in the mileage issue was a pay structure for pilots to be paid for all mileage flown at speeds in excess of 100 miles per hour, this being approximately the speed of the airplanes at that time. The pay scale was as follows:

<table>
<thead>
<tr>
<th>Mileage</th>
<th>Pay per Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 10,000</td>
<td>2 cents</td>
</tr>
<tr>
<td>10,000 to 11,999</td>
<td>1½ cents</td>
</tr>
<tr>
<td>12,000 and over</td>
<td>1 cent</td>
</tr>
</tbody>
</table>

In other words, the more each pilot flew, the less he made per mile, or per hour, no matter how one computed it, since all other increments remained constant other than the mileage one. This was, and still is, exactly opposite to all adopted labor standards which almost universally require a higher rate for each hour worked in excess of a set number in a given period. The airline pilots were paid by this decreasing rate method from 1934 until 1951 when almost half of the airline pilots in the country succeeded in negotiating a reversal of that principal.

The Board limited the total hours of flying per month to 85, and further, the Board established minimum rates of pay which could be paid to airline pilots. Under Decision 83, the rate of base pay was established at $1,600 per annum with an increase of $200 per annum for each year of service up to a maximum of $3,000. Hourly rates of $4.00 for day flying and $6.00 for night flying for speeds under 125 miles per hour, with a 20 cent increase for day flying and a 30 cent increase for night flying to become effective at hourly speeds of 140, 155, 175, and 200 miles per hour respectively were ordered by the Board.

On the controversial item of mileage limitation, the National Labor Board made the following statement:

"Experience has not crystallized sufficiently to put a maximum on the monthly mileage of air pilots."

The Board pointed out that if by scientific determination, a direct limitation of mileage should ever be found to be necessary, the power to prescribe such a limitation should be definitely conferred by statute.

\textsuperscript{21} Ibid, p. 7.
\textsuperscript{22} Decision 83, National Labor Board, Washington, D.C., May 10, 1934.
\textsuperscript{23} Ibid.
AIRLINE PILOT MILEAGE LIMITATION

upon the appropriate administrative agency, but if mileage limitation were desirable purely for regularizing employment, it should be accomplished, as in railroad service, by agreement between the employees and the airlines. Thus the pilots lost their first battle in an effort to obtain mileage limitation.

Following the National Labor Board's Decision 83, the United States Congress, in establishing the Air Mail Act of 1934, required that each carrier awarded a mail contract comply with Decision 83. The Civil Aeronautics Act of 1938 in Section 401-L-1 stated that:

"Every air carrier shall maintain rates of compensation, maximum hours, and other working conditions and relations of all its pilots and copilots who are engaged in interstate air transportation within the continental United States (not including Alaska) so as to conform with Decision numbered 83 made by the National Labor Board on May 10, 1934, notwithstanding any limitation therein as to the period of its effectiveness."25

Section 401-L-3 of the 1938 Act further stated that:

"Nothing herein contained shall be construed as restricting the right of any such pilots or copilots, or other employees, of any such carrier to obtain by collective bargaining higher rates of compensation or more favorable working conditions or relations."

This latter section of the Act has been considered an indication that Congress realized that there were other factors in the offing that would have to be taken into consideration. It should be borne in mind that when the early negotiations were going on between management and the pilots there was no law in existence which guaranteed the collective bargaining rights of air line pilots and copilots. To remedy this, Title II of the Railway Labor Act was signed in 1936 by President Franklin Roosevelt bringing this group of employees under the provision of the Railway Labor Act.26

Generally, the carriers complied with Decision 83, and although the pilots were not completely convinced that they were receiving a fair share of the increased productivity of the DC-3 over its predecessor planes, they did not advance any strong contract proposals to modify the original decision until 1941.

The T.W.A. Situation

At this time, the first new equipment was being introduced on T.W.A. in the form of the Boeing Stratoliner. Not only was the Stratoliner a faster airplane than the DC-3, but it was also considerably heavier. The first version of the Stratoliner weighed 45,000 pounds, compared to slightly over 25,000 for the DC-3. Management contended

24 Hours, Wages, and Working Conditions in Scheduled Air Transportation, p. 118.
25 Section 5 of Decision 83 originally ordered that the award remain in effect for a period of one year.
that the pay scale established in Decision 83 provided sufficient increase for the pilots because of the increased productivity involved. The pilot thinking was that they were not receiving a fair increase for flying the larger faster ship. Collective bargaining and mediation as specified under Title II of the Railway Labor Act failed to produce a settlement, and in one of the few cases where management has accepted arbitration, an award was made on June 23, 1941 which recognized the increased productivity of the pilots. This award gave the pilot $6.50 per flight hour for day flying and $9.60 per hour for night flying. These amounts were further increased in a second arbitration award dated March 26, 1945 which resulted from the introduction of a newer model of the Boeing Stratoliner weighing 54,000 pounds.

With the introduction of the Douglas Skymaster DC-4 and the Lockheed Constellation in the mid-forties, the problem again arose as to what portion of the increased productivity should go to the pilots. The issue at that time was rapidly becoming industry-wide since there were thirteen airlines involved in the four-engine equipment program. Management of the thirteen airlines in question were aware of the fact that there was going to be a strenuous effort on the part of the various pilot groups to increase their salaries, and in an attempt to strengthen their position, formed an "Airlines Negotiating Committee."27 The Air Line Pilots Association objected violently to this procedure, but the CAB declared it legal under the Civil Aeronautics Act of 1938.28

Collective bargaining and mediation between the TWA pilots and their management, as represented by the Airlines Negotiating Committee, failed to resolve the basic issues, and as a result the National Mediation Board proffered arbitration. This was tentatively accepted by management, but it was conditional, predicated on the fact that the award would be applied to the pilots of all thirteen carriers involved. ALPA insisted that the award would apply only to the TWA pilots, and as a result the dispute was not arbitrated. Following this, a strike vote was taken on TWA, and the result was 812 for and 9 against the strike.29

The Mediation Board notified the President of the United States of the proposed strike advising the President that "in their judgment the strike would interrupt interstate commerce to a degree such as to deprive a section of the country of essential transportation." The President then, by virtue of the authority vested in him in Section 10 of the Railway Labor Act, created an Emergency Fact-Finding Board to investigate the dispute and make recommendations for its settlement.

In the presentation of their case to the Board, the pilots first pointed out that they had received no increases in their rates of compensation since Decision 83. It was further stated that in 1934 the country was

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27 This committee was composed of representatives from the thirteen airlines involved, and was an attempt on the part of the carriers to conduct negotiations on an industry-wide basis.
just beginning to recover from its worst depression, and salaries of that
time were no longer sufficient to meet increased living costs.

The representatives of management admitted that its pilots were
entitled to a reasonable share of any increase in productivity which
resulted from the operation of larger and faster aircraft, but they
argued that such reasonable increases in earnings were already possible
under the hourly and mileage increments as established in Decision 83
and embodied in the then current working agreement.\textsuperscript{50} As for the
cost of living increase, the carrier contended that Decision 83 also
automatically met the situation as demonstrated by the increased take
home pay over the years. The DC-3 pilot flying 85 hours under Decision
83 had a take home pay of $789.75 while the Constellation pilot flying
the same number of hours received $904.50.\textsuperscript{51}

The original intent when Decision 83 was established was that the
increased pay from flying the more productive airplanes would not
merely offset the increased cost of living but would be an additional
amount for flying the larger and faster equipment. The members of
the original board apparently assumed that the formula of Decision 83
would be workable only in a static economy, for they specifically out-
lined that higher rates of pay could be negotiated. This principal was
reaffirmed by Congress in the Act of 1938 as mentioned previously.

With the Constellation flying twice as fast as the DC-3 and carrying
up to three times as many passengers, the pilots argued that the pay
differential arrived at by the application of the Decision 83 formula
was not sufficient.\textsuperscript{52} pointing out that the Constellation domestic pilot
pay for a four year captain was $2.07 per ton mile at 65 percent payload,
and the DC-3 pilot cost was $5.25 per ton mile at 65 percent payload.\textsuperscript{53}
This meant a $3.18 saving per ton mile to the company.

As a result of these facts and statistics, the TWA pilots asked for
the following changes in their pay formula. Their hourly pay, referring
back to Decision 83, should be set at a rate of $5.00 for day flying and
$7.50 for night flying at speeds of 200 mph or more. The pilots asked
that the speed brackets be extended in 40 mph brackets with an in-
crease of $0.40 for day flying and $0.60 for night flying for each bracket.
This would produce a day hourly rate of $6.40 and a night hourly
rate of $9.60 for the bracket of 320 mph and over. They requested a
maximum of 80 hours per month with an 85 hour maximum in any
one month if necessary for the DC-4 pilots. For the Constellation pilots
the pilot group asked that a 75 hour per month limitation be placed
with a maximum of 85 hours in any one month if necessary to complete
the schedules.

\textsuperscript{50} Ibid, p. 27.
\textsuperscript{51} Ibid, p. 27.
\textsuperscript{52} The plane's productivity was increased 500 percent, yet the pilot's wages
were to be increased from $789.75 to only $904.50 for flying the Constellations
instead of the DC-3.
\textsuperscript{53} "Report of the Emergency Board and Transcript of Proceedings to In-
vestigate a Dispute Between the Air Line Pilots Association and TWA et al,"
The pilots further asked that their base pay for DC-4 pilots be increased from $133.33 per month in the first year to $300.00 with increases of $25.00 per month each year until a top of $475.00 per month was reached. The top base pay established under Decision 83 and at that time still applicable was $250.00 per month. For Constellation pilots, the pilot group requested a starting base pay of $325.00 and $25.00 increases up to $500.00 per month. This, incidentally, marked the first time that a different base pay had been requested for each type of equipment flown.

For mileage pay on the DC-4, the pilots asked that the mileage pay established in Decision 83 be amended to read 4 cents for each mile under 10,000, 3 cents for the next 2,000, and 2 cents for all remaining miles, these to be computed for all miles flown in excess of 100 mph. The pilots also asked that there be a limit of 22,000 miles per month for all DC-4 pilots.

The mileage pay on Constellations was proposed at 5, 4, and 3 cents, to be computed on the same basis as that for the DC-4 pilots. There was proposed a maximum of 24,000 miles per month for all Constellation pilots.

In their presentation before the Board, the pilots presented the following arguments:

1. The equipment in question was heavier, faster, larger, and more productive from a revenue standpoint, and they were entitled to share in such increased productivity.
2. Its operation involved more responsibility and hence required a "higher and more exacting degree of qualification, skill, and technique."
3. The result of such operation would be the reduction in number of pilots and copilots required "for a given job of flying."
4. The 1941 and 1945 Boeing arbitration awards recognized that pilots should receive higher compensation for flying heavier, faster, and more productive equipment.
5. Pilots may obtain better salaries than outlined in Decision 83 as specified by the Civil Aeronautics Act of 1938.
6. The pilots had had no increase since 1934, other than some minor "fringe" benefits.
7. TWA management decided that more time was needed by pilots in checking weather, routes, and figuring a flight plan due to much greater distances involved; therefore more weather and other variables would be encountered, and so management of TWA required their pilots to report for duty one and one-half hours before departure instead of one as had been accepted practice for years.
8. The railroads historically followed the principle: "The greater the weight, the greater the salary."
9. The rigidity of physical and mental requirements made it certain that a large number of pilots would be grounded before reaching the age of fifty.

Management again replied that Decision 83 more than compensated the pilots for the claims outlined in numbers 1, 2, and 6 above. They further argued that the faster planes produced more employment, not less as claimed by the pilots. The company said that the pay demands were "astronomical" and "absurd," being "fantastic" and on "no possible basis" could they be justified. Increased and improved navigational aids took the greater part of risk out of flying, and so the hazard angle could no longer be used as a justification for higher salaries argued the company. The copilot, who formerly had to handle the baggage, serve meals and act as a passenger attendant, no longer had to perform these duties and was available full time to help the pilot in any manner prescribed by the captain, thus reducing the work load of the pilot. It was also pointed out that the airplanes of 1946 were much better sound-proofed than the earlier planes, and this substantially reduced the fatigue brought on by excessive noise. General improvements in the later airplanes, such as propeller de-icers, automatic mixture controls, carburetor heaters, and many others supposedly made the pilots' job safer and easier. The company finally stated that such increases would possibly require a request for higher mail pay and the pilots' pay demands might not be included as an "allowable cost."

When the Board handed down its recommendations, it did not conform to the pilots demands that they have a separate schedule for each plane for mileage and base pay purposes. It was pointed out that the pilots had not made that request when the Ford Tri-Motor was replaced by the DC-3.

The Board stated that the increased rates and new schedule for each type of plane for domestic and international service would yield earnings far in excess of the pilots' work and responsibilities on the new planes, and would also change the fundamental purpose of the formula as originally established in 1934 in ways that were not justified either by the record or the experience of twelve years under the original formula.

The Board did recommend, however, that the mileage increment as established by Decision 83 be amended since it did not adequately compensate for the higher speeds. The Board recommended that a rate of 1 1/2 cents per mile be substituted for the 1 cent mileage rate for monthly mileages of 12,000 and over flown at speeds in excess of 100 mph.

For hourly rates the Board recommended that the brackets be extended in 25 mph increments starting with 200 mph and extending through 300 mph. In the bracket 200-225 mph, the day rate was to be $5.00 per hour and the night rate was to be $7.50 per hour. 20 cents was to be added to each bracket for day flying and 30 cents to

85 Ibid, p. 29.
86 Ibid, p. 29.
each bracket for night flying. This would yield $5.60 per day flight hour and $8.40 per night flight hour in the 275-300 mph bracket.\textsuperscript{87}

The Railway Labor Act specifies that the recommendations of any Fact-finding Board are not binding, and since the pilot group did not consider the recommendations adequate they prepared for a strike which followed shortly thereafter.

On November 15, 1946, the TWA pilot group and their management signed an arbitration agreement and this action terminated the strike. (The results of this arbitration award were to be binding only upon the TWA pilots and not all the pilots of the thirteen airlines represented on the "Airlines Negotiating Committee.") The Committee had always argued that any awards would be applicable to all thirteen airlines but ALPA argued against this.

On January 22, 1947 an arbitration award was handed down in which the following decisions were included.

1. Pilots flying DC-4 and Constellation type equipment received a $50.00 per month increase in base pay.
2. The hourly pay rates recommended by the Presidential Fact-finding Board were ordered placed into effect.
3. The mileage pay section was amended to read as follows: "The number of miles to be paid for at 2 cents shall equal 10,000 minus the hours flown in the month times 100; the remaining miles to be paid for at 1½ cents."

Example: Assuming 80 hours flying time at 205 mph:

\begin{align*}
\text{Miles flown in month} & = (80 \times 205) & = 16,400 \\
\text{Less miles at hourly speeds of 100 mph} & = (80 \times 100) & = 8,000 \\
\text{Miles to be paid for} & = 8,400 \\
2000 \text{ miles at 2 cents} & = 2000 \times 2 = 4000 \\
10,000 - (80 \times 205) & = 4000 \times 0.02 = 80 \\
6400 \text{ miles at 1.5 cents} & = 6400 \times 0.015 = 96 \\
(8400 - 2000) & = 6400 \\
\text{Total mileage pay for month} & = 136.00 \\
\end{align*}


There was no provision included in the Presidential Fact-Finding Board's recommendations for any mileage limitation and this debatable question was not included in the items to be decided upon by the arbitration board. Thus the pilots might be said to have lost the second round in their efforts to obtain some sort of mileage limitation.

Following the TWA arbitration award negotiations were resumed on other airlines and settlements were accomplished throughout the industry. These settlements included the improvements established by the decision of the arbitration award and in addition the base pay increase on many lines was extended to include \textit{all} first pilots on all types of equipment. Also, a gross weight pay figure appeared in the

\textsuperscript{87} Ibid, p. 42.
pilot's pay formula for the first time. This paid the pilot 1 3/4 cents for each 1,000 pounds certificated gross take-off weight each hour of flight time. This was probably the most notable gain for the pilots in their efforts to receive a bigger share of the gains derived from the larger, faster, and heavier airplanes.

**American Airlines Case**

Shortly after the airline industry had settled their “four-engine” disputes with the pilots a situation was being developed on American Airlines which later led to the mightiest of all efforts on the part of the pilots to obtain a mileage limitation. Immediately following the war the pilots on American Airlines, as on all other airlines, were looking forward to the rapid expansion which was about to take place in the field of air transportation. To them it meant probable promotion to Captain, improved working conditions, and increased job security. The number of pilots working for American Airlines had steadily increased until it reached a peak of 1,291 in 1946.88

At this point the first post war equipment began appearing on American Airlines, and its effect on the number of pilots required can best be illustrated by the following table.

<table>
<thead>
<tr>
<th>TOTAL PILOTS</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON PAYROLL</td>
<td></td>
</tr>
<tr>
<td>1946 March</td>
<td>1,291</td>
</tr>
<tr>
<td></td>
<td>50 passenger 240 mph DC-4 introduced.</td>
</tr>
<tr>
<td>1947 March</td>
<td>1,055</td>
</tr>
<tr>
<td></td>
<td>52 passenger 300 mph DC-6 introduced in April.</td>
</tr>
<tr>
<td>1948 March</td>
<td>828</td>
</tr>
<tr>
<td></td>
<td>40 passenger 286 mph Convair introduced in June. Transition to new equipment complete. 21 passenger 180 mph DC-3 removed from schedule.</td>
</tr>
<tr>
<td>1949 March</td>
<td>740</td>
</tr>
<tr>
<td>Total Decrease</td>
<td>551</td>
</tr>
</tbody>
</table>

This reduction in the number of pilots was equal to 43 percent. The question then arose as to (1) whether the reduction in pilots was due to the new equipment, (2) to a reduction in business, or (3) was the pilot list inflated in 1946? The following table will clearly indicate that there was not a reduction of business in this period.

<table>
<thead>
<tr>
<th>For twelve month period ending</th>
<th>Revenue passenger miles (in millions)</th>
<th>Seat miles (in millions)</th>
<th>Available ton miles (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1946</td>
<td>1,307.9</td>
<td>1,603.2</td>
<td>224.4</td>
</tr>
<tr>
<td>December 1947</td>
<td>1,379.3</td>
<td>1,967.4</td>
<td>259.6</td>
</tr>
<tr>
<td>December 1948</td>
<td>1,383.1</td>
<td>2,149.5</td>
<td>302.7</td>
</tr>
<tr>
<td>December 1949</td>
<td>1,504.8</td>
<td>2,323.9</td>
<td>322.6</td>
</tr>
</tbody>
</table>

Source: CAB Domestic Rates Section.

88 From W. W. Braznell, Director of Flight, American Airlines.
89 Statistics from W. W. Braznell, Director of Flight, American Airlines.
Chart computed by ALPA and filed as a Brief before the American Airlines Fact-finding Board of 1951.
In reply to the question as to whether or not the pilot list was inflated in 1946, the pilots produced the pilot utilization figures for the pilot group for the period. The results are as follows:

<table>
<thead>
<tr>
<th>Month</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 1946</td>
<td>77:00</td>
</tr>
<tr>
<td>December 1947</td>
<td>81:54</td>
</tr>
<tr>
<td>December 1948</td>
<td>81:42</td>
</tr>
<tr>
<td>January 1949</td>
<td>82:18</td>
</tr>
</tbody>
</table>

Source: W. W. Braznell, Director of Flight, American Airlines.

It can clearly be seen that the utilization increased only slightly over five percent during this period, which would indicate that the airline did not have an excess of pilots during the time.

The trend was, of course, as shown by the above tables, that fewer and fewer pilots were being required, and each remaining pilot through the use of the faster equipment was producing more and more, and in return was receiving only a slight increase in pay. In December, 1946, for example, 1,177 pilots were flying 1,307.9 million revenue passenger miles. By December of 1949, only 772 pilots were flying 1,504.8 million passenger miles. This required that pilots fly more trips, and be on duty more days than they had ever been in the past. Longer layovers were required and generally each pilot was required to be on duty many more hours than previously to complete his 85 hour flight time limitation.

The lesser number of pilots forced many men who had been flying first pilot for many years to return to copilot status with a resultant large decrease in earnings. The situation reached the point where, by 1950, the most junior copilot on American Airlines had been with the company 5-5/6 years, and the most senior copilot or junior captain had been with the company 8 full years.40

Primarily because of the statistical data presented above, the pilots felt that they were being unjustly penalized as a result of the introduction of the new equipment, and that they were not fairly sharing from the increased productivity of the post war airplanes. They also recognized that management must also share in the rewards of the faster, heavier equipment. The pilots felt that they could safely fly more than the 13,600 miles per month they had been flying in the DC-3's, but they insisted that the number of increased miles flown in the faster equipment should be controlled and further, that it must not unjustly penalize the pilots.

Decision 83 of the National Labor Board, showed some recognition of the fact that changes would be required at some time in the future. But apparently the Board did not realize the adverse effect that the post war aircraft would have on general pilot working conditions. It will be recalled that Decision 83 stated that, “it would be advisable to adopt a basis of pay under which both the company and the employee would share in the benefits accruing from the new equipment and bear

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the burden that attended its introduction in the beginning." It was with this in mind that the pilot's proposal was designed as one of "mileage increase determination," hereafter referred to as MID.

This was a proposal which would enable not only the carrier to continue its program of reducing flight crew cost per unit produced, but would also aid the pilot group in maintaining minimum pilot standards of working conditions, health, and efficiency, despite vastly increased productivity and the usual deterioration of working conditions as the result of the introduction of faster equipment into schedule.\(^4\)

The pilots established two constant factors to form a basis for the proposal. The first of these was the maximum of 85 hours already federal law, and the second constant was obtained by multiplying the speed of the DC-3 (160 mph) by the 85 hour figure. The resulting figure was 13,600 miles and this was used as a base figure for all future mileage computations. The DC-3 was used because it had been in use since 1936, and pilot standards of job content became more or less standardized around the trip frequency, miles flown, trip distances, and other related pilot working conditions that were peculiar to the utilization of aircraft. \(^42\) It was further pointed out that most all of the rules sections of the pilots' working agreements in effect in 1951 were written on the basis of the utilization of the DC-3 type aircraft.

The pilots then established certain steps to be followed in the application of the Mileage Increase Determination formula. These are listed below:

1. Determination of the base mileage.
   DC-3 — 85 hours of flying at 160 mph
   \[160 \times 85 = 13,600 \text{ miles per month.}\]

2. Determination of the increased miles per hour that would be flown by the faster aircraft.
   Assume a DC-6 at 250 mph
   Subtract 160 mph (DC-3 speed)
   \[90 \text{ mph increase in speed}\]

3. Determine the amount of the increased miles which should accrue to the airline and the amount which should be applied to maintain pilot standards.
   90 mph divided by 2 = 45 miles per hour to each party.

4. Determine the number of increased miles to be flown per month by a pilot in a specific aircraft.
   Increased miles per hour = 45
   \[x \times 85 \text{ hours}\]
   \[3,825 \text{ increased miles per month}\]

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\(^4\) Brief, by Air Line Pilots Association in the Presidential Fact-finding Board proceedings, 1951.

5. Determine the miles per month to be flown by a pilot in a specific aircraft.

- Base mileage per month: 13,600
- Increased mileage per month: 3,825

Pilots' monthly mileage for DC-6 type aircraft: 17,425

6. This can then be expressed in an hourly figure for scheduling purposes.

\[
\frac{17,425}{250 \text{ mph (DC-6 speed)}} = 69.6 \text{ hours}
\]


It may be asked why the pilots did not request a straight mileage limitation similar to the railroads where an engineer is permitted only a fixed number of miles per month. Actually, this was considered quite seriously by the pilots at one time, especially when they discovered early in their research program that the miles flown in a month had increased at an average rate of about 600 miles per month for the past twenty years. There is actually some justification for a fixed limit on the number of miles which a pilot could fly during a month even though this would restrict a pilot's future earnings. Even with a fixed limit on miles a pilot's total productivity could remain the same as it had been in the past since speed and miles flown are not the only measure of productivity of an aircraft in as much as the size and weight could increase to the point where the pilot's salary per ton mile could continually be reduced as larger and faster planes were put into service.

It must be recalled that the basic unit around which the transportation industry revolves is the mile. All cost elements of any transportation enterprise are quoted in terms of miles; deaths from accidents in air transportation are computed on a passenger mile basis; air mail payments are based on a ton mile; why not pilot's pay?

The American Airlines pilots conceded that they could safely fly in excess of 13,600 miles per month and still maintain their basic standards of working conditions, health, and efficiency. Management contended that a full 85 hours should be flown regardless of the number of miles which would result.

Without some correction to their basic contract, any reduction in number of hours worked would also bring about a reduction in pay. The pilots wanted to maintain their present salary and work less hours per month. The pilots' proposal, therefore, contained an adjustment in the pilots' gross weight compensation in order to counteract the reductions in hourly and mileage pay after the MID went into effect.

Application of the MID formula would have resulted in the

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43 Brief, "A comparison of the Pilot's Mileage Increase Determination Proposal and a Flat or Fixed Mileage Limitation, ALPA, 1951, p. 8.
44 Reducing hours without reducing take home pay was not new, for effective November 1, 1950, pilots on Pan-American received $75.00 per month more pay for 10 less flying hours per month. Also, American Airlines had reduced the work week from 48 to 40 hours in 1946 with no loss of pay to over 9,000 employees. This reduction applied to all employees except flight personnel.
American Airlines pilots flying a 1,000 mph jet aircraft 51,000 miles per month or 51 hours. For this he would have received $2,546 per month. Under the old contract he would have been paid $2,815 per month so the pilots were actually negotiating for a pay cut when the formula was applied to the planes of the future.

The management of the various airlines confronted with the MID proposal said that it was just another method of "featherbedding." This was the wrong term to apply because it is not featherbedding when an individual is being paid only for work performed. Actually the pilot groups do not want to "featherbed." For instance, a pilot on a major airline flying DC-3's used to fly 7 round trips a month between Washington and Chicago. With the introduction of DC-6's and Constellations, the pilot is required to fly 15 trips. Under the MID formula, that pilot wanted to split the difference and fly 11, and furthermore he only wanted to be paid for 11 trips. It is true that an individual could make more money on 15 trips, however, he would then have to make more take-offs, more landings, more approaches, and encounter more fatigue producing factors which takes us again to the safety aspect of an excessive number of miles flown.

We all know that as speed increases, visibility decreases and hazards and nervous strain increase. All in all faster equipment means a shortening of active flying life. No one knows exactly what effect continued high altitude flying, even in pressurized cabins, will have on the human body. A pilot does not enjoy the job security in this respect that any other professional man or laborer does. For this reason, would it not be a fitting and proper requirement that management pay the pilot a high salary while he is capable?

In reply to the pilots' proposals, management recognized the increased productivity, but argued that they had received little or no benefit themselves from the introduction of the newer equipment. This argument was based on the following:

The productivity of each of American's employees increased $3,529 during the years 1940-1949. Of this amount $1,492 went to the public in the form of retention or reduction of rates, $1,947 to increased wages and benefits of its employees, and only $72.00 or 2 percent to the company and its stockholders in dividends or net profits.

The Fact-finding Board, in their analysis, mentioned that the pilots were basing their case heavily on the decline in the number of pilots employed by American Airlines since 1946. Contrary to the pilots' viewpoint, the Board considered that the company had an abnormally high number of pilots on the payroll in 1946, brought about by several circumstances. One of these was that the company's military transport

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45 *Aviation Week*, August 27, 1951, p. 65 stated that a pilot on the New York-Washington route with stops at Philadelphia and Baltimore has been known to make 13 instrument approaches in one day.

contract was terminated suddenly, thus making available a large group of pilots, and in addition a large number of veterans had just returned from the armed services.\textsuperscript{47} The company was also involved in a very extensive training program training all of its pilots for the new equipment which was to be delivered shortly thereafter. This, of course, required that for each pilot in training, there be an additional pilot required to fly his trips back on the line. The Board further pointed out that the utilization in 1946 was only 59 hours per month, or 20 percent below that in 1950.\textsuperscript{48}

The Board further stated that since the total number of pilots in the air transportation industry had grown from 308 in 1928 to 6,831 in 1950, the number of pilots employed would continue to be increased. This may have been an error on the Board's part as they apparently felt that the air transportation industry would continue to expand in the future at the same rate as it had in the past twenty years. The increased number of pilots required each year during the first twenty years of the industry's existence will probably not be duplicated. Route mileages will be increased only slightly, if at all. Consequently the only increase in pilots required will be through the addition of schedules as business requires.

The Board stated that the benefits of increased productivity need not necessarily go to labor as evidenced by the views of the Steel Industry Board of 1949 which had been established to resolve the differences between management and labor over wage improvements resulting from the exceptional rise in productivity in the steel industry. That Board said in its summary:

"It is the belief of the Board . . . wage rates in a particular industry should not be tied directly to productivity in that industry, but rather should be related to the general industrial rise in productivity, and that any excess of productivity in any one industry over the general average should provide primarily the means of reducing the prices of the products of that industry."\textsuperscript{49}

With reference to the safety aspect of flying the additional mileage per month, the Board referred to the judgment of the professional risk calculators who make up life insurance rates. It was noted that many occupations, mainly on the railroads, required the payment of higher extra insurance premiums than did the occupation of airline pilot.\textsuperscript{50} The mortality rate of pilots had dropped from a high of 87 per 1,000 in 1929 to 1.1 per 1,000 in 1950. It is true that the actual mortality rate as attributed directly to flying was considerably less, however, due to the short time that the industry has been in existence, there has been

\textsuperscript{48} Ibid., p. 19. This figure does not agree with the utilization figures furnished by the company and referred to earlier in this report. The Board obviously computed utilization in a different manner than the company or the pilots.
\textsuperscript{49} "Report to the President by the Steel Industry Board," September 10, 1949, p. 3. See also, p. 44.
\textsuperscript{50} Supra, note 51, p. 31.
no detailed study and analysis made relating to the possible premature deaths attributed indirectly to flying. It is most important that a study of this sort be made before factual statistics can be presented.

In so far as mileage increase determination was concerned, the Board stated that it was without precedent either in this country or in any other country, and furthermore, the present limitation of 85 hours a month was below the limits set in many other countries.51

The pilots on American Airlines were advised by the Board to not worry about the effect of high speed jet and turbo-prop engines for some time since it was quite probable that there would be no deliveries of that type of equipment on U.S. domestic lines before 1956 or 1957. Furthermore, American's fleet had just recently been modernized, and there would certainly be no more technological layoffs for some time since management could be expected to get some use out of their big investment in post war aircraft. Planes would not get much heavier for some time since there were few airports in the country which could handle planes much heavier than present day equipment.

What was probably the determining factor in the Board's decision was the final point made before issuing its recommendations. This point was:

"On March 13, 1951, the Department of Labor added airline pilots to the list of critically short employees. In such circumstances it is inappropriate to recommend a reduction in the work hours of American workers, particularly of those in a craft which has been declared to be suffering from a critical shortage."52

Referring back to the original MID proposal, one sees that it did call for a reduced number of hours to be worked by each pilot per month. This was undoubtedly the greatest determining factor in the Board's decision of mileage limitation which was as follows:

"It is therefore the suggestion of the Board, that if and when American Airlines places an order for planes with a speed of 325 mph or more, the parties promptly undertake a joint study to ascertain the effect of such equipment on work load and job content, with a view to agreeing upon the facts and reaching a conclusion as to what, if anything, should be done thereupon, with respect to the workload or the monthly flying hours."53

The Board then formally recommended that the request for “mileage increase determination” be withdrawn. Members of the Board admitted that a much more constructive decision could have been arrived at through collective bargaining action between the parties who knew the industry than through a board composed of laymen whose sole contact with the problem was through verbal testimony.

The pilots were disturbed at their failure to secure the recommendations of the Board for a MID. Unrest was apparent in all pilot groups throughout the country. Strikes were imminent, for under the

51 Ibid, p. 32.
52 Ibid, p. 43.
Railway Labor Act, recommendations of a Fact-finding Board are not binding and may be rejected by either party. American Airlines management reluctantly accepted the recommendations although they stated that they did not agree with all sections.

Several concrete recommendations did come out of the proceedings, however. Among these were full paid vacations, pay guarantees and probably the most important was recognition of the fact that the copilot, the "forgotten man" of the industry in the past, should be paid on a scale more nearly equal to that of the first pilot. The Board recommended that the copilot be paid his full copilot base pay, and in addition, 55 percent of the first pilot’s flight pay. This was the first time in the history of the pilot’s pay scale that the copilot had been recommended for the various increments of hourly, weight, and mileage pay which had been paid to the first pilot for years.

Why did the pilots not receive more favorable recommendations from the Board? It has been stated that there was so much confusion and misunderstanding in the preparation of the case that some ALPA representatives did not thoroughly understand the problem and proposals themselves. No one will ever know what the decision would have been had the case been handled differently, or if a change in tactics had been employed after the proceedings had commenced.

The pilots were undergoing severe internal difficulties in their own association at the critical time when strategy was being developed for the mileage limitation fight, thus weakening their front. Originally it had been scheduled to be an "all-out fight." In addition, the threat of government seizure of the industry hung over the heads of the pilot group. This could have tied up settlement for many months as it had in the case of the railroads. Labor would have been denied considerable in financial gains indefinitely.

After consideration of all the factors following the recommendations of the Board, the Executive Board of ALPA advised each pilot group involved that they were released from the MID Mandate issued by the 11th Convention of ALPA in 1950, and further advised each pilot group to settle on the best terms which they could secure.

There began, to say the least, a very critical period for the airline pilots of America. Not only had their association not received the favorable recommendations of the Fact-finding Board, in so far as mileage limitation was concerned, but the Association was on the verge of falling apart because of internal difficulties over the contested removal of their president, D. L. Behncke.

ALPA, through the leadership of Clarence N. Sayen (now President of ALPA), reorganized themselves and carefully analyzed the various pilot employment contracts in existence at that time. Each time they came up with the conclusion that perhaps the MID formula would not have been the best solution to the problem. ALPA leaders further agreed that if they could arrive at some new formula of pay computation where the overall rate would increase as the total number of hours
(or miles) increased rather than decreased, the group could begin from that point and expand their contracts as conditions required. To illustrate the above, a pilot had been paid a base pay of $300 per month regardless of hours flown. If he flew one hour he received $300, or if he flew 85 hours he received the same amount. This, of course, prompted the employer to acquire maximum utilization of 85 hours out of each pilot. In other words, each hour a pilot flew, he actually reduced his overall hourly rate as it applied to his total monthly pay. This was true even though the hourly and weight pay remained constant for each hour flown regardless of the number of hours flown. Mileage pay, however, was such that the first 100 mph were flown free, and all speeds in excess of 100 mph were compensated for at an ever decreasing rate. ALPA leaders then decided that this mileage section was in definite need of amendment, and proposed that it be amended in two ways: (1) to have pilots paid for all miles flown, and (2) to have the pilots paid for mileage flown at an increasing rate for miles flown, rather than at a decreasing rate such as that which had been in existence since Decision 83. This would, in effect, allow the companies to utilize their pilots up to 85 hours as in the past, however, the companies would have to pay an increased rate for all miles flown in excess of a certain number. This would establish a contract principle similar to all wage patterns in existence in industry today which do not limit hours, but merely require the employer to pay a higher rate if he chooses to work an employee beyond a certain point. (This rate in industry is generally time and one-half for all work in excess of a set number of hours, increasing to double time after exceeding another higher established number of hours.)

Increasing the base pay section would have had no effect on increasing the overall hourly rate as hours or miles flown increased, in fact, it would have had exactly the opposite effect. For this reason full attention focused on the mileage pay section.

Eastern Airlines, which historically has had an outstanding pilot-management relationship, recognized the pilots' problem and agreed to negotiate along the lines mentioned above, despite strong opposition from the management of other carriers. A formula was arrived at, since known as the Eastern formula, which provided for a rate of one cent per mile for all miles flown from zero to 17,000 per month; two cents for all miles flown from 17,000 to 22,000 per month; and three cents for all miles flown in excess of 22,000 in any one month. When applied to the Constellation type aircraft with a speed of 250 mph, the pilots will start receiving the two cent rate at approximately the 68 hour point in their monthly schedule. In a normal month the Constellation pilot will not exceed 22,000 miles so will not receive any "three cent miles."

The copilots won a major victory at this point too, for they, for the first time were placed on an hourly, mileage, and weight pay
formula equal to approximately 50 percent of the first pilots' flight pay.\textsuperscript{54}

The TWA pilots and their management negotiated along different lines and as a result of these negotiations, the \textit{TWA formula} was born. This called for the pilots to be paid at a straight 1\(\frac{1}{2}\) cents for all miles flown.

The Eastern and TWA formulas provided the basis for the settlement of almost all pilot employment contracts in the U.S. since 1951. With the recently completed Pan-American contract, the Eastern formula provides the basis for pay computation for over half of the pilots as represented by the Air Line Pilots Association. Individual airline equipment problems may require certain variations to either of the above formulas, and in the future these problems will be handled as they arise.

Although the \textit{Eastern formula} is definitely not a mileage limitation it is a very logical step in the right direction to the solution of one of the problems which has confronted the airline pilots since the birth of their profession, for now management will no longer have the same profit incentive for full 85 hour utilization of its pilots.

\textsuperscript{54} The Fact-finding Board had recommended 55 percent, but this figure was based upon the condition that the first pilots' pay was not to be increased. With the increase of the first pilots, the net amount in dollars and cents was almost equal to what the Board recommended.