

A Study of
AMERICAN AIRLINES, INC.

Kidder, Peabody & Co.

Kidder, Peabody & Co.

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Research Department

AMERICAN AIRLINES, INC.

SUMMARY:

1. The foresight of the management of American Airlines in completely replacing and expanding its passenger fleet after the war with planes of modern, postwar design, places the company in a singularly strong competitive position among the domestic airlines. This new equipment attracts business from other airlines, as well as creating new traffic that would not have moved at all on the older type of planes. In addition it may have operating costs as much as 20% lower than on the prewar equipment which is still an important factor in the operations of all other major domestic lines. American should hold its competitive advantages over a considerable period of time, as the problem of financing a similar equipment program by the other airlines would be difficult under present conditions.
2. American may have earnings of approximately \$9 million (after taxes, but before interest charges) in 1949, equivalent after interest charges to approximately \$20.00 per share on the preferred stock and \$1.00 per share on the common stock. This will be subject to a continued good safety record, no important reduction in fares, and the absence of a severe business recession. Such net earnings would be equal to nearly twice the highest net income previously reported by the company. Also, they would be about equal to the total combined losses of the three preceding years (1946-48), when operations were made difficult by the institution of the new equipment program. Dividends on the common stock are unlikely this year unless profits are higher than the above estimate.
3. Net capital expenditures in 1949 are likely to be only about one-fourth of estimated annual depreciation charges of \$10,000,000. Retained cash from this source, and the realization of the estimated earnings should improve the company's already strong financial position in a striking way. There should be a continued improvement in the financial position during the next few years, due to the excess of depreciation charges over probable property additions, even if earnings are only equal to dividend payments. Only if traffic increases to the point where additional planes are necessary or if the present freight fleet is replaced with a new type of equipment, are annual expenditures likely to be more than a modest part of annual depreciation charges. Present passenger equipment can handle possibly 15 or 20% more traffic than is estimated for 1949.

4. American's airmail rates are at a non-subsidy level, and are the lowest in the industry. Thus, any improvement in profits in the future are unlikely to be substantially reduced through lower rates for mail pay. Many of the other airlines, particularly the medium-sized and small ones, could have a large part of any improvement in earnings offset by reduced rates for mail pay.
5. With favorable economic conditions, there is reason to believe that both American Airlines and the industry as a whole will enjoy a further large growth in traffic over the next several years. Diversion from rail passenger traffic has been rapid in recent years. The portion of combined air and first-class rail business handled by the airlines has risen from 8.2% in 1939 to 35.8% in 1948. Absorption of one-half of the remainder held by the rails would in itself almost double recent air passenger traffic. An even more important source of new business may be the traffic created by the airlines themselves. With increased reliability, more efficient equipment, and ultimately possible lower fares, the airlines are likely to score further important gains from both of these sources. Collateral benefits from growth in express and freight traffic are also likely. American Airlines, because of its competitive improvements in facilities and financial position, and its outstanding safety record, should participate most fully in this industry uptrend. Only an adverse governmental attitude with respect to route structures would be likely to impair the company's favorable trade status.

KIDDER, PEABODY & CO.

June 28, 1949.

AMERICAN AIRLINES, INC.

I

INTRODUCTION

American, alone among the major airlines of the world, is now exclusively equipped with a modern fleet of passenger planes of postwar design. This position represents the fruition of a program conceived and financed during the past five years.

To achieve the present favorable position, the company had three trying years of operations during which heavy expenses of introducing three completely new types of equipment had to be absorbed. The problems of such an important transition were greatly extended by the unexpectedly slow deliveries of new planes and the prolonged grounding of the DC-6.

As American will have an opportunity to demonstrate the merits of its long-range equipment program for the first time in 1949, the operating results for the year may prove of particular significance not only on the market appraisal of its own securities, but, in addition, on the credit position of other airlines. If American can make a creditable showing this year, the ability of other airlines to finance new equipment purchases may be considerably enhanced.

Barring spectacular air disasters, an unwarranted change in passenger fares or a severe recession in general business activity, American Airlines may have net income in 1949 amounting to nearly twice that of any previous year and also about equal to its combined losses during the preceding three years. The longer term outlook appears to be particularly promising for American as its route structure, excellent management and strong financial standing should place it in a preferred position to participate in the prospects for further important growth in air travel and cargo shipments.

II

NEW EQUIPMENT CONVERSION PERIOD

(1946-1948)

The foundation for the present favorable situation for American was laid during the three trying years of 1946-1948. Seldom has there been such a marked change in the principal productive assets of a corporation in so short a time as in those of the company during this period. Of the gross fixed assets of over \$100,000,000 at the end of 1948, over \$90,000,000 were acquired during these three years. While this large amount of new equipment places American Airlines in a singularly advantageous position at the present time compared with other airlines, the problems accompanying these acquisitions were tremendous and adversely affected American's operating results during the process.

The first phase of the company's postwar equipment program was the expedient of acquiring 50 war surplus DC-4s for use until newly designed equipment could be produced. When the

DC-4s were ordered, it was expected the necessary modifications could be completed by June, 1946, after which date it was planned for them to handle more than 50% of the company's traffic. A training program for personnel was tied into this schedule. However, the companies converting the DC-4 equipment from war type transport planes to civilian type fell behind on their schedules, due in part to the disappointing efficiency of labor and shortages of materials. All modified equipment was not delivered until October, 1946, five months after American had initially scheduled the completion of its personnel training program. Although some modification of the training program was possible, the company had to carry a portion of the direct expenses and of the trained personnel during a period of months before it could be fully utilized. This adversely affected 1946 earnings and the company lost \$375,000, even though revenues were 47% higher than in 1945 when net income was \$4,339,000.

Another factor affecting 1946 operating results, but more particularly 1947, was a similar situation which arose in connection with placing the DC-6s in service. These 50 planes, which were expected to replace the bulk of the DC-4s as the backbone of the post war fleet, were ordered in 1945, with deliveries scheduled to begin shortly after the middle of 1946. Accordingly, American had to gear its training program to this schedule. Again, deliveries did not start for months after the expected date and were then less rapid than anticipated, with the result that the whole program was delayed in relation to the training plans. While the training cost on an entirely new plane such as the DC-6 was greater, the delay in putting it into service was not as serious as on the war experienced DC-4. In addition to the training expense, the utilization of an entirely new plane is low, due to slow turn around, more detailed maintenance inspections, and numerous modifications. The DC-6 introduction expense and an unfortunate series of accidents on other lines, which were followed by the voluntary grounding of the DC-6s in November, severely penalized results for 1947. The adjusted loss was \$3,401,000 in face of an increase in revenues of 20% over 1946 and 73% over 1945.

Earnings in 1948 were affected by the continued grounding of the DC-6 fleet during practically all of the first quarter, plus the introduction of the new Convair fleet of 75 planes. The original delivery schedule for the Convair was set for as early as April, 1947, but later modified to July, 1947, and the training program was tied into this latter date. Deliveries started in January, 1948, and were completed only in March, 1949. The Convair was an entirely new plane, as was the DC-6, and its introduction into service was also very expensive. The adjusted loss for 1948 was \$2,894,000, despite an increase in revenues of 9%.

Due to delivery schedules being spread over a protracted period of months, there had been changes in flight schedules almost each month for over three years as these groups of airplanes were put in service. This resulted in abnormally high direct expense, low efficiency of certain types of personnel, and poor customer and public relations, with some adverse effects on traffic.

Effective April 1, 1949, all DC-3s and DC-4s were retired from passenger service, leaving only the new DC-6s and Convairs in this branch of operations. Both of these latter planes are powered with the same engine. Twelve DC-4s are still used for freight and most of the other DC-4s as well

as all of the DC-3s have been sold. While the training program and certain of these other problems in connection with the Convair are largely over, some of the expense of placing the Convairs in service continues in 1949. However, it is small in relation to the burdens of a similar nature in the preceding three years. Thus, American not only has the modern equipment, but, in addition, has most of the expense of placing such new equipment in service behind it. Other major airlines throughout the world have a portion of both of these problems before them.

III OUTLOOK FOR 1949

The outlook for 1949 is bright, subject to:

- (1) The continued good safety record of American, as well as of the industry as a whole;
- (2) The maintenance of approximately the present rate structure;
- (3) No drastic decline in general business activity.

Even if these factors are operative throughout the year, the limited operating experience with the new equipment, particularly in the case of the Convairs where no well-defined pattern of expense ratios has been established, makes difficult an accurate estimate of earnings.

During the first quarter of 1949, American lost only \$222,500 as compared with an adjusted deficit of \$4,285,000 in the same period a year ago. As the first quarter is normally the poorest quarter of the year, substantial losses are anticipated for it. With this sharp reduction in losses during the first quarter, the system operated at a profit for the first 12-month period in nearly three years. In April, earnings amounted to \$1,062,000 before taxes, lifting the total for the 12 months ended April 30, 1949 to \$2,627,000.

The relatively small loss in the first quarter of 1949 reflected a number of factors:

- (1) There was better than average weather on the East Coast, although extremely severe weather in certain other parts of the country during the winter. With this weather condition and greater experience with instrument landings and the use of pressurized equipment to fly above storms, the company completed over 96% of its scheduled mileage as compared with less than 93% a year earlier.
- (2) Because of the preponderance of new and modern equipment, American attracted business from competitors. Its load factor for the first quarter averaged 62% as compared with an average of 55% for the industry, exclusive of feeder carriers.
- (3) Better scheduling practices and the nearing of the end of its equipment replacement program permitted the company to achieve a higher degree of stability of schedules which in turn encouraged traffic.
- (4) The family fare plan, which was instituted by American and pushed more vigorously than by any of the other airlines, resulted in less variation in load factor by days of the week.
- (5) American benefitted to an increasing extent from the economies of operations of its new equipment. It may be estimated that the operating expenses per average ton mile on DC-6s and Convairs ultimately will be about 20% less than for the DC-4s and DC-3s, and a substantial portion of this saving was realized during the first quarter.

During the best months in the latter part of 1948, American had earnings before taxes of approximately \$1,000,000 per month. April, although seasonally not one of the best months, produced earnings of \$1,062,000 before taxes. If earnings were to average \$1,000,000 during each of the 8 months, May-December in 1949, net income before taxes would amount for the year to about \$9,000,000. Were the average monthly figure for each of these 8 months to be \$1,500,000 net income before taxes for the year would be about \$13,000,000. After normal taxes on income and preferred dividends, the lower figure would leave \$0.65 per share and the higher figure, \$1.00 per share on each of the 6,452,000 shares of common stock now outstanding. The company may have a tax credit carry-forward of \$1,000,000-\$2,000,000.

This range of earnings can be formulated by making certain assumptions as to revenues and expenses for the year. Passenger revenue miles flown during the first four months amounted to 460 million miles, of which 135 million miles were in April. Were the last eight months to average only the April figure, revenue passenger miles for 1949 would be 1,540 million, but with an allowance for seasonal expansion, should reach 1,600 million miles. With an average rate of 5.6 cents per mile on the latter total, passenger revenues would approximate \$90 million, as compared with \$77 million in 1948. Other classes of revenue during the first quarter were at a non-seasonally adjusted annual rate of \$13.5 million; after seasonal considerations, this figure could readily increase to \$15 million, as compared with \$12.4 million in 1948. It is thus estimated, gross revenues could easily reach \$104 million, which would compare with \$89 million in 1948:

Now as to the expense side—expenses including bond interest in 1948 amounted to about \$92 million.

Wages, salaries and related expenses	\$45,397,000
Gasoline and oil	13,634,000
Depreciation	12,137,000
Goods and services bought from others	5,652,000
All other expenses	15,360,000
	<hr/>
Total	\$92,180,000

Many of these expenses at the end of the year were at a higher annual rate than the average for the year. In addition, there was a 5½% increase in wages at the beginning of 1949. The involuntary addition of a flight engineer to the DC-6 crew will add approximately \$1,000,000 to expenses for the year. During the summer, the company has to negotiate a new contract with the pilots, the outcome of which cannot be presently estimated. Gasoline and oil consumption, with the increased use of the fast planes, will be larger in 1949. Also, the company will probably fly about 20% more passenger seat miles in 1949 than in 1948, and there should be a substantial increase in mail and freight volume. This larger volume of operation will increase total dollar expenses. As offsets to these indicated additions to expenses, will be the savings from using the modern equipment for substantially all passenger service in 1949, as compared with only 50% of the volume in 1948. Depreciation charges in 1949 will be about \$2,000,000 less than last year due to the retirement of most of the DC-4s which were depreciated on a three-year basis. There

have been some reductions in the unit costs of gasoline and other items purchased in recent months and more may come during the course of the year.

The degree of variation in these many factors of expense cannot be accurately determined at this time. However, it is believed that the company may be able to keep the total within the range of total 1948 expenses, or about \$92 million. In that event, and on the basis of gross revenues of \$104 million, net income before taxes would be about \$12,000,000 for 1949.

The indicated breakeven level for the current year can be computed as follows. The above estimate of revenue passenger miles of 1,600 million against available seat miles of close to 2,500 million signifies a passenger load factor for 1949 of about 64%. The realization of our estimated gross revenues, with expenses permitting earnings before taxes of \$9,000,000, would indicate a breakeven passenger load factor of 58%, while a reduction in expenses to give earnings of \$12,000,000 would indicate a breakeven point of about 55%. The breakeven point on this basis during the past three years has been as follows:

	Passenger Load Factor	
	Indicated Breakeven Level	Realized Load Factor
1946	82%	82%
1947	74%	70%
1948	62%	60%

Each percentage point variation in the breakeven point in 1949 from those estimated would affect earnings by about \$1,400,000 before taxes, or \$0.13 per common share after taxes.

Our net conclusion is that earnings of \$0.75-\$1.00 per share are possible in 1949. Net income of \$1.00 per share on the common stock would be equivalent to \$19.65 per share on each share of the 400,000 shares of preferred stock outstanding. On the same basis, combined interest and preferred dividend requirements would be earned 3.5 times.

SAFETY RECORD

While the airlines have improved their safety record to the point in recent years where it has been better than the average for passenger automobiles and taxi cabs, the spectacular character of airline accidents still has a marked effect on traffic for months after each accident. Thus, any estimates of earnings are on the assumption that there will be no accidents of sufficient importance to affect the passenger business materially during the rest of the year.

The three crashes of large planes on Memorial Day and immediately following in 1947, none of which was American, were in a large part responsible for a decline in the load factor on American's DC-4 from 78% in May, 1947, to 64% in July. In October, 1947, when a DC-6 of another carrier crashed with total fatality and American had a non-fatal DC-6 accident, the load factor of American's DC-6 dropped from 79% in September to 63% immediately prior to the time the DC-6 was voluntarily grounded early in November. The loss of a DC-6 by another airline in Pennsylvania in June, 1948, drastically affected the seasonal pattern of traffic on American throughout practically the entire summer—particularly on its DC-6s where the load factor dropped to 53% in July.

Below is shown the safety record of the domestic scheduled airlines, together with certain comparisons with other forms of transportation:

	Scheduled Domestic Airlines			
	Number of Passenger Fatalities	Fatalities per 100 million passenger miles		
		Passenger Automobiles and Taxicabs	Railroad Passenger Trains	Busses
1934	17	9.05		
1935	15	4.78		
1936	44	10.10		
1937	40	8.39		
1938	25	4.48		
1939	9	1.20		
1940	35	3.05		
1941	35	2.35	4.0	0.14
1942	55	3.71	2.7	0.17
1943	22	1.34	2.7	0.31
1944	48	2.12	2.9	0.26
1945	76	2.23	2.9	0.16
1946	75	1.24	2.5	0.18
1947	199	3.21	2.3	0.16
1948	83	1.41	—	—

Airline fatalities dropped from an average of 7.36 per 100 million passenger miles during the five years 1934-38 to 2.33 during the five years ended 1943, and 2.04 for the most recent five years. During 1948, there was further improvement, with a figure only 70% of the average for the five years, 1944-48. More experienced personnel, better flying equipment, improved landing facilities, such as instrument landing systems, ground control approach and landing fields, have all contributed to safer operations.

American has had an outstanding safety record and particularly during the past three years. During this period, it has flown more passengers more miles without a fatality than any other airline in the history of the industry. Over 4,500,000,000 passenger miles have been flown since March 3, 1946 without a fatal accident and this mileage is more than half of the total flown throughout the twenty-one year history of the company. The forced landing of a Convair at Memphis on June 22 resulted in no fatalities.

Only six railroads operated as many passenger miles exclusive of commutation traffic during the three years ended March 31, 1949 as American Airlines. Merely to emphasize the magnitude of this record and in no way to detract from the splendid safety record of the railroads, it is interesting to note that of these six railroads only three* had as favorable safety records in

	Thirty-six Months Ended Mar. 31, 1949		
	No. Rev. Passenger Miles**	Fatalities***	Revenue Passenger Miles Without Fatality or Per Fatality
American Airlines	4,292,000,000	0	4,292,000,000
Railroad A	7,781,000,000	0	7,781,000,000
Railroad B	17,996,000,000	0	17,996,000,000
Railroad C	7,449,000,000	0	7,449,000,000
Railroad D	21,092,000,000	37	570,000,000
Railroad E	9,826,000,000	9	1,092,000,000
Railroad F	6,737,000,000	5	1,347,000,000

** Including commutation service for railroads, as commutation fatalities are not reported separately.

*** Fatal train accidents for railroads.

relation to the scope of operation as American. This performance of American is all the more remarkable in view of the attendant problems involved in absorbing three completely different types of airplanes into its fleet during the period.

RATE STRUCTURE FOR PASSENGERS (1949)

As American was dependent on passenger business for 86% of its revenues in 1948, any consequential change in fares would have an important bearing on operating results for 1949. Probable changes in rates for mail, express or freight are unlikely to affect such results drastically.

Currently there are five different rates for airline passenger travel in this country. American uses only the first three. The first is the straight rate of about six cents per mile for one-way flights at any time on any equipment. The second is a 5% discount for round trip fares. The third is the "family" plan, initiated by American and subsequently copied by most of the other lines, which permits one member of a family paying full fare to include additional members at half fare on flights originating during Monday, Tuesday or Wednesday, when traffic historically had been lighter than during the remaining four days of the week. About 9% of American's passenger revenues and 11% of its passenger miles is "family" plan business. Inasmuch as the average family carried is 2.1 persons, it is obvious that about half of this business is at full fare and about half at the reduced fare. The fourth rate schedule, which was abandoned by all lines except Eastern, Delta and National on certain routes when base fares were raised in September, 1948, was a surcharge of 10% for flights on DC-6s and Constellations. The fifth rate classification is the so-called "coach fare" on special flights originating late at night, which do not include meals and certain other service. The rate for these flights is about four cents per mile or 33% less than the base rate.

The theory advanced for the cut rate service "coach fare" is that by operating short-haul flights at night when the equipment would otherwise be idle, expenses per unit would be lower. It is also thought that on high density routes, restriction of frequency of flights with multiple stops would enable the carrier to obtain a higher load factor than would otherwise be possible. The small comforts eliminated do not constitute more than a small fraction of costs of operating a scheduled common carrier airline. By operating flights during non-desirable traffic hours, it was thought that a minimum of standard fare traffic would be diverted and any revenues above out-of-pocket expenses would be a gain to the company. Actually, coach service has already begun to spread over certain routes at times of the day that violate the above principles. Long-haul flights have been instituted which cannot be operated with layover equipment and which complete a part of the journey during daylight hours in direct competition to standard fare flights. Also, on transcontinental flights the late night departure is popular even for regular fare passengers.

There is doubt by some members of the industry that the cut rate operators can cover their direct expenses for this service with a four cent fare. So far, these reduced rates have been offered only on the slower planes which have high unit costs. If there is a basis for lower fares at all, it would be on the newer, faster equipment with lower unit costs. For instance, by a high density seating arrangement, it would be possible to carry 76 passengers on a DC-6.

Whether the "coach fare" business is profitable or not, once it starts to divert full fare business to any marked extent, airlines not now offering such reduced fares would be forced to do so in order to protect their traffic.

American does not offer this "coach" service at the present time. Although American has been a leading advocate of low fares, neither its operating results nor those of the industry as a whole suggest the possibility of profitable operation at any materially reduced rates over its entire system without substantial technological developments. Once introduced, the low fare service would tend to cover all routes and services and would gradually extend to daylight operation. Any service which cannot cover fully allocated expenses could not be developed on a large scale without seriously endangering financial solvency of the industry. American is actively studying means of reducing fares substantially. It is hoped that some day technical changes will develop which will enable service over American's system at substantially lower fares and still more than cover allocated expenses.

Nevertheless, if the "coach fare" practice should spread to a point where American was losing appreciable traffic to competitors, it would have no alternative but to protect its position. As its operating costs on its DC-6s and Convairs appear to be appreciably lower than those of competitors operating DC-4s and DC-3s, American would suffer less from lower base fares than others. Furthermore, American is in a better financial position to stand a period of profitless operations should the industry have to reorient its position on fares.

The C.A.B. recently denied certain operators this low cost service on certain runs and it has the whole "coach fare" development under investigation.

ECONOMIC CONDITION

A third factor in 1949 operations is the general business picture. A mild recession in business activity might on net balance have little effect on earnings prospects. With less robust business conditions, certain expenses might be reduced and the problem of controlling others lessened. Pressure for salary and wage adjustments should be less with declining costs of living and the efficiency of employees should be somewhat greater. However, a sharp decrease in business activity would probably affect gross revenues to a much greater extent than expenses, and earnings would suffer.

IV

FINANCIAL POSITION

The current financial position of American Airlines stands to improve materially during 1949, even if net income is negligible. If our estimate of earnings is realized, the improvement would be particularly striking. Judging from the first quarter report, depreciation charges for the year should amount to approximately \$10,000,000. Capital expenditures for 1949 are unlikely to be in excess of \$5,000,000, including \$2,500,000 as the final payment on the purchase price of the company's 75 Convairs. However, the proceeds from the sale of DC-3s and DC-4s during the year should offset at least \$2,500,000 of these capital expenditures. Thus, there should remain cash from depreciation charges of over \$7,500,000.

To the extent that net income exceeds preferred dividend stock payments, working capital should also benefit from this source. Should the company realize net income of as much as \$1.00 per share on the common stock, the aggregate cash flow from this source and from depreciation would be approximately \$14,000,000. The company had earned surplus as of December 31, 1948 of only \$4,587,000 as compared with a requirement of \$10,641,000 before payment of dividends on the common stock can be made under the terms of the company's outstanding debentures and preferred stock. Hence no common dividend is likely in 1949 unless earnings are substantially higher than estimated. The bulk of the cash inflow should be added to working capital, which by the year-end may be equal to over 60% of funded debt. It should be emphasized that even if earnings prove to be disappointing but still exceed preferred dividend requirements, the improvement in the financial position would nevertheless be impressive.

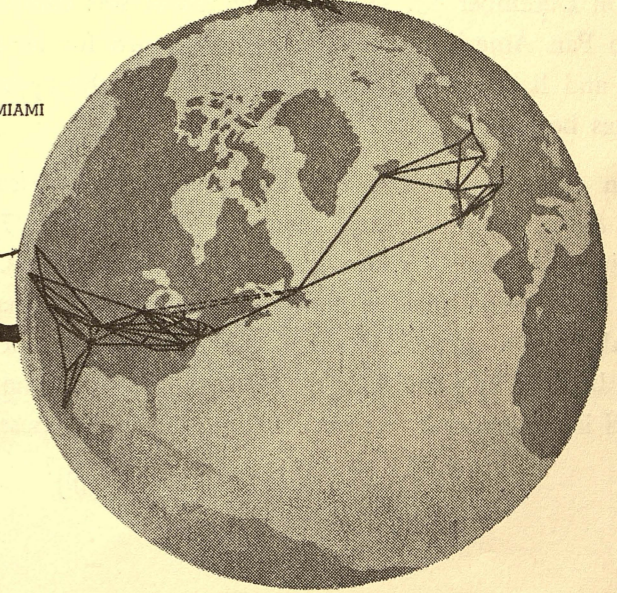
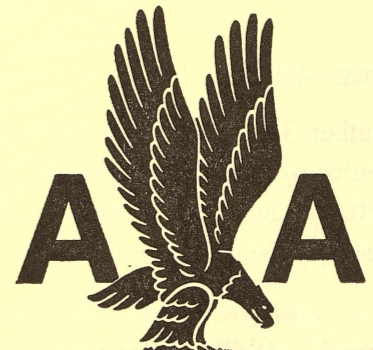
BALANCE SHEET AND CAPITALIZATION

Below is shown a summary of the company's consolidated balance sheet, including capitalization as of December 31, 1948:

CURRENT	(000's)
Cash and short-term Government Securities	\$15,552
Receivables	12,113
Inventories of materials and supplies	1,663
Total Current Assets	29,328
Air travel plan subscribers' deposits	4,978
Other current liabilities	13,657
Total Current Liabilities	18,635
Net Current Assets	10,693
 MISCELLANEOUS ASSETS	
Investment in American Overseas Airlines, Inc.	13,170
Other investments, special deposits and deferred charges	4,389
Total Miscellaneous Assets	17,559
FIXED ASSETS (less depreciation reserve of \$31,535,000)	70,239
Total Assets less Current Liabilities	98,491
Unearned transportation revenue	1,292
	97,199
3% Debentures due 1966 (Sinking fund payment \$1,350,000 annually beginning June 1, 1951)	40,000
	57,199
Preferred Stock (\$100 Par) 3½% Convertible into 4.76 shares Common	40,000
Net Assets for Common (6,452,000 shares*)	\$17,199

* There is an option outstanding to purchase 250,000 shares of common stock at \$11.70 per share until June 1, 1950.

The **AMERICAN AIRLINES** System



Further improvement in the financial position of the company should take place beyond 1949, assuming earnings are at least equal to dividend payments. Annual depreciation charges should not be materially less than \$10,000,000 per year for some years, as the company is depreciating its DC-6s and Convairs to the extent of 90% of their cost over a seven-year period. With capital expenditures other than for new planes likely to average only about \$2,000,000 per year, the cash flow from depreciation should be considerable.

The degree to which there is an improvement in the financial position over a period of years from retained depreciation may depend in a large measure on when additions are made to the fleet. The present passenger fleet is believed capable of handling 15%-20% more traffic than is anticipated on the average during the current year. Thus, even with good general business conditions in 1950, no additions to the passenger fleet may be necessary. However, as the longer term outlook is for further important growth in air travel, additional passenger equipment should ultimately be needed. The position of the company in respect to its freight equipment is markedly different in that this fleet, consisting of 12 DC-4s (in use) is relatively high-cost to operate. Since the freight business holds interesting growth prospects, the company may replace or augment its fleet with more economical all-cargo planes at some time in the future. As, for instance, the freight version of the DC-6 costs from \$750,000 to \$1,000,000 each, such a program could entail a considerable outlay.

AMERICAN OVERSEAS AIRLINES, INC.

As of December 31, 1948, American Airlines had an investment in American Overseas of \$13,170,000, consisting of approximately 62% of the common stock (1,083,154 shares) carried at \$11,670,000, and \$1,500,000 of long-term subordinated notes. In addition, American had a commitment to lend American Overseas an additional \$1,500,000 if such funds were required.

On December 13, 1948, an agreement was completed to sell the assets of American Overseas to Pan American Airways, Inc. in return for its stock and the assumption of all commitments and liabilities. This sale is subject to the approval of the Civil Aeronautics Board and hearings began on May 16.

In the event this sale is consummated, American ultimately would receive cash for its A. O. A. subordinated notes, and also approximately 739,000 shares of Pan American common stock in exchange for the stock of American Overseas. At the current price of around \$8 per share, these shares of Pan American would have a market value of nearly \$6,000,000. In its Annual Report, American stated that if and when it received the stock of Pan American, it would be held in a voting trust until some future time when it would be sold and the proceeds utilized in its domestic business. There is also the possibility that this stock might be distributed

directly to American Airlines' own stockholders. Should this stock be acquired and subsequently sold at prices at all in keeping with current market, the proceeds would help finance a portion of the cost of any new planes for freight or passenger service that might be required in the future.

If the sale of American Overseas is not consummated, American Airlines' commitment to loan that company an additional \$1,500,000 would continue. American Airlines' proportionate interest in the operating results of American Overseas is now not determinable as the C. A. B. has not as yet established final airmail rates retroactive to January 1, 1946. The company anticipates that establishment of such final rates will result in a net profit for the entire period from the date of acquisition by the company, July, 1945. On the basis of the temporary rate for mail prevailing during 1948, American Overseas in its annual report showed net income of \$990,000,* in which American would have an equity of about 62%, or \$614,000.

V

LONGER TERM OUTLOOK

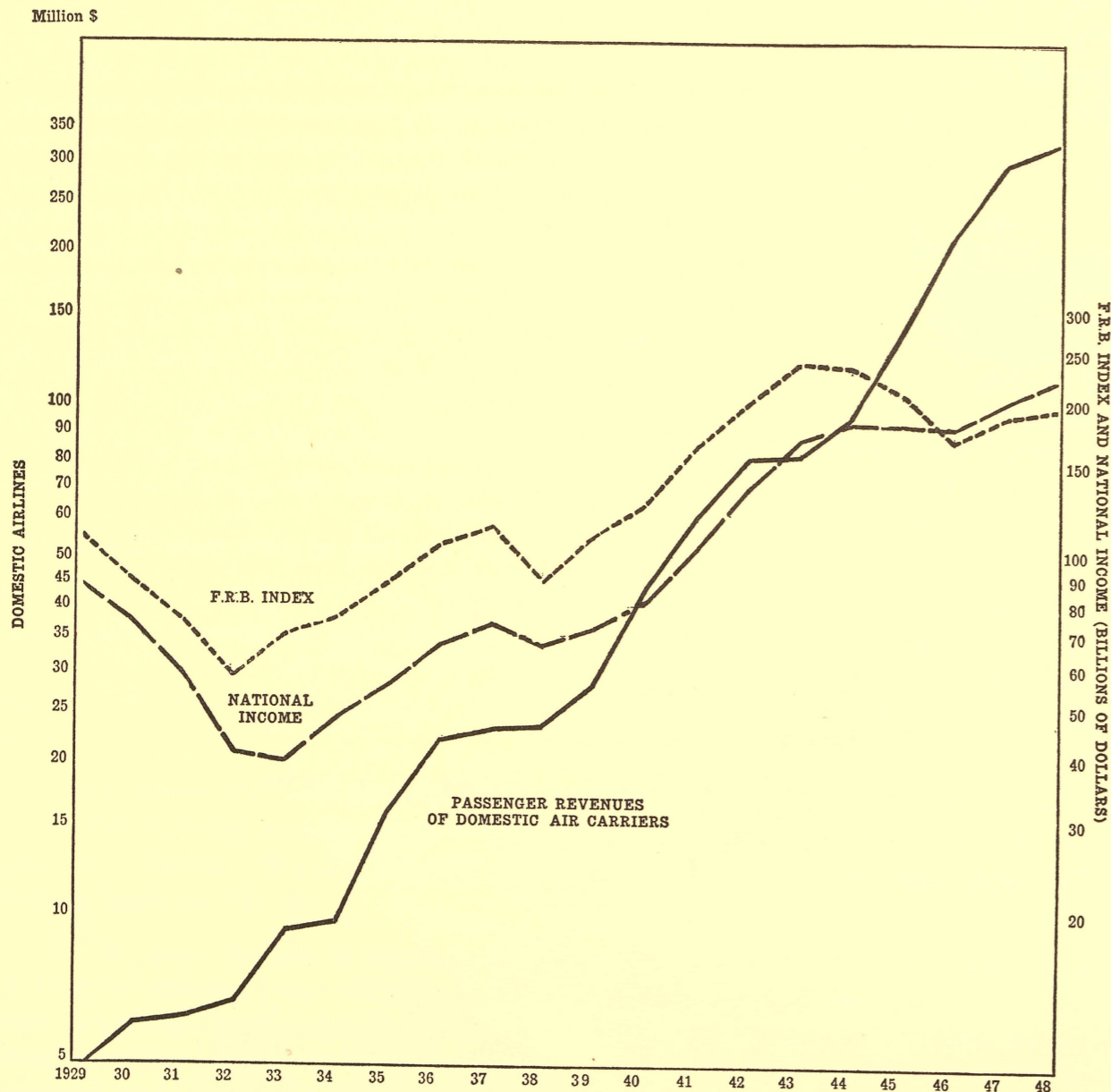
The longer term outlook for American Airlines and the industry as a whole is for further important growth over a period of years. Among the factors that will have a bearing on the degree and timing of such growth are the following:

- (1) General business conditions.
- (2) Passenger traffic prospects.
- (3) Passenger rate structure.
- (4) Changes in route structure.
- (5) The development of mail, express and freight business.
- (6) Management.

* Giving effect to a further retroactive temporary rate revision issued by C. A. B. in April, 1949, net income was reduced to \$867,000.

1. GENERAL BUSINESS CONDITIONS

The airline industry in the past has had a sufficiently strong growth trend to carry it through the periods of business depressions without serious interruptions in its expansion, as the chart below indicates.



In appraising the consequence of lower business activity in the future, too much reliance probably should not be placed on the experience of the industry in relation to the earlier depression

years. In 1948, the industry operated approximately fifty times as many revenue passenger miles as in 1932 and over twelve times as many as in 1938. As compared with passenger revenues of \$336 million in 1948, the figure for 1938 was \$23 million, and for 1932, only \$5 million. With the present importance of airlines in the nation's transportation economy, it would seem doubtful that they could avoid the loss of traffic during a period of low general business activity.

2. PASSENGER TRAFFIC PROSPECTS

Until new equipment is designed and other facilities brought into being for air freight service, the airline industry probably will be dependent primarily on passenger traffic for its prosperity. Revenues from this source in 1948 accounted for 80.8% of total revenues for the industry and 86.1% for American. Prior to the war, the ratio for the industry was 59% and for American, 70%.

The airline industry has two important sources from which it can hope to gain additional passenger traffic and both hold large potentialities. One is the creation of traffic that would be non-existent if service faster than that provided by trains were not available. It is difficult to appraise the extent of this "created" traffic, but it would appear to be large. Furthermore, the relative newness of the airline industry in its present scope suggests that only a small part of the benefits of this "created" traffic as yet has been realized. With reliable and frequent airplane service throughout the different parts of the country, corporations and commercial enterprises can achieve decentralized operations with centralized management and sales effort that would not be possible with slower transportation. It will increase inter-regional traffic from all sources. The marked improvement in frequency and reliability during the past three years has been over too short a period for most managements to reorient business organizations and practices to take advantage of this new factor.

The other important source from which the airlines can hope to gain passenger traffic is from other forms of transportation. While the airlines have already benefitted materially from diversion of first-class rail travel, continued improvement in reliability and safety should mean additional gains at the expense of the railroads. The airlines are currently doing approximately one-third of the combined Pullman and air travel revenue passenger miles. Consequently, airline volume is now about one-half of first-class rail traffic.

PASSENGER MILES (MILLIONS)

	Pullman	Airline	Total	% Airline of Total
1948	11,015	6,192	17,207	35.8
1947	13,000	6,308	19,308	32.7
1946	20,672	6,068	26,741	22.7
1945	27,276	3,408	30,684	11.1
1944	28,267	2,212	30,479	7.3
1943	25,891	1,671	27,562	6.1
1942	19,072	1,501	20,573	7.3
1941	10,070	1,506	11,577	13.0
1940	8,214	1,158	9,372	12.4
1939	8,485	755	9,241	8.2

If over a period of years the airlines diverted only one-half of the remaining first-class rail revenue passenger business, they would stand to double their present traffic, assuming the same combined volume existed at that time as in 1948. Because of this potentiality, plus some diversion of rail coach and bus traffic, together with the added traffic the airlines themselves are creating, the outlook for passenger traffic over a period of years should be bright.

American, with its outstanding management, strong financial position and its "head start" over its competitors on equipment, should participate fully in the prospective expansion in passenger business. In fact, its "head start" on equipment should give American an advantage over competition for a period of years. Its modern fleet is already partly depreciated while no other domestic airline has even placed orders to equip itself fully with new planes. By the time all competitors are equipped with the more economical planes, American will have its fleet so nearly written off, that it will be in a position to acquire still more desirable planes if they become available. No entirely new transport planes appear to be in prospect in the next few years.

3. PASSENGER RATE STRUCTURE (LONG TERM)

The base domestic airline fare is 6 cents per mile for all "regular" service. Discounts for round trip tickets, family rates, excursion fares and miscellaneous other special services reduced the average to an estimated 5.6 cents per mile in 1948. This rate compares as follows with earlier years:

Average Domestic Passenger Fare Per Mile			
1948 Est.	5.6 cents	1940	5.1 cents
1947	5.0 "	1939	5.1 "
1946	4.5 "	1938	5.2 "
1945	4.5 "	1937	5.6 "
1944	5.4 "	1936	5.7 "
1943	5.3 "	1935	5.7 "
1942	5.3 "	1934	5.9 "
1941	5.0 "	1933	6.1 "
		1932	6.1 "

Against an increase in the cost of living of 69% since 1939, airline fares on the average have risen only 10%; and on the straight fare of 6 cents per mile, only 18%. First-class rail fares (Pullman lower berth) have risen over 37% in the East and 23% in the West during this period. Although the airline base rates per passenger mile are higher than those of the railroads, the more direct routes flown by the airlines enable them to charge approximately the same fare as for first-class railroad accommodations between most cities. In addition, the passenger must pay for his food on the railroad. Between New York and Chicago, the fare is \$44.10 by both air and first-class rail with lower berth and \$52.20 on the extra fare train.

As fares are directly reflected in passenger revenues, any change will have an important bearing on the long-term outlook of airline earnings. Airline fares over a period of years probably will be determined by two forces: first, by the average requirements of the industry as a whole, and second, by rates charged by competitive forms of transportation—principally railroads. In

relation to the industry as a whole, American is in a strong position as its "head start" on equipment should give it costs materially below the average. Thus, rates that merely permit the industry to break even should be sufficient to allow American to operate profitably. Rates that permit the industry to earn a reasonable return on capital should allow American to show an attractive rate of return. This latter line of reasoning would be more specifically the case if air mail pay were related more directly to the service performed.

The second influence on air passenger fares is the rate charged by railroads. If the airlines continue to divert traffic from the railroads at anything in keeping with the trend of recent years, "price cutting" from this source probably will be forthcoming. A number of the railroads have large amounts of capital invested in both equipment and other passenger facilities. Should their load factor decline seriously, they would undoubtedly feel that a larger number of passengers at a lower fare would be to their interest. Prior to the war, it will be recalled that railroads, particularly in the south and west, attempted aggressively to build up the volume of passenger business by low rates. As freight operations keep most of the rail facilities in being, any rate that permits profits above out-of-pocket expenses is to the advantage of the railroad. However, as indicated by the high density of air travel between New York and Washington and Boston, where excellent train service in coaches at relatively low fares is available, the airline industry need not have too much concern about lower first-class rail fares. Such lower rail fares would retard the trend of diversion from the railroads, but because of the tremendous advantage of speed, probably not entirely change it. What would be serious, would be an attempt on the part of airlines to meet such reductions in fares before they reduce their operating expenses to justify the lower fare. Technical changes may permit such lower fares in time.

4. ROUTE STRUCTURE

American Airlines has an excellent route structure despite a policy immediately after the war on the part of the C. A. B. to certificate additional competitive carriers between many of the cities served. The effect of this added competition has been to reduce American's proportion of the total domestic passenger business from over 30% in 1939 to about 22% in 1948*. Traffic between 19 of the 50 most important pairs of cities now is handled by three or more carriers, whereas in 1940 only three of these pairs of cities were served by as many as three carriers and none was served by four. The operating results for the industry as a whole have proven that the sharp increase in competition was unwise and the C. A. B. has recently indicated a disposition to consider

* Domestic Airline Passenger Revenues (000's)								
Year	Industry	American	%	Year	Industry	American	%	
Est. 1948	\$336,662	\$73,756	21.8	1941	\$69,791	\$20,780	29.8	
1947	303,194	68,301	22.6	1940	53,308	15,899	29.9	
1946	272,573	58,716	21.5	1939	34,844	10,713	30.7	
1945	166,520	37,307	22.4	1938	24,861	7,442	29.9	
1944	116,441	29,338	25.2	1937	22,809	6,598	28.9	
1943	87,481	23,356	26.7	1936	22,130	5,553	25.1	
1942	74,758	21,399	28.6	1935	15,924	3,661	23.0	

mergers, consolidations, and equipment inter-change agreements as a method of correcting this over-expansion of routes. A Senate investigation on the problem of the airlines, which is currently being held, is bringing to public attention the degree to which some airlines are being subsidized. Out of this publicity, even if no legislation is passed, may come a more concerted effort on the part of the C. A. B. to eliminate the heavy expenses resulting from excessive competition between certain cities. Thus, there is the possibility that American may regain over a period of time some of the ground lost since the war by C. A. B. actions. Despite this indicated over-expansion and its possible correction, however, there are route applications pending which would accentuate competition. For instance, Eastern has made application to extend its Houston run to Los Angeles and San Francisco. This would divert connecting traffic between the southeastern part of the country and the West Coast from American at Dallas, as well as other business between many eastern points and the Coast. American, in turn, has made application for an interchange of equipment with Delta Airlines to give through service between these parts of the country. C. A. B. decisions on these and other competitive route questions will obviously have an important bearing on the outlook for American.

American is the largest domestic air transport company in the industry; the preceding map indicates its breadth of coverage.

Domestic route mileage as of December 31, 1948 compared as follows with other large carriers:

	Excluding Duplicate Mileage	Including Duplicate Mileage
American Airlines	9,296	18,400
United Air Lines	8,375	15,384
Eastern Air Lines	7,751	12,461
TWA (Domestic only)	7,232	11,580
Northwest Airlines	4,941	11,043
All Others (14 in number)	32,889	42,646
	<u>70,484</u>	<u>111,514</u>

The area within 25 miles of the cities served by American Airlines is estimated to be inhabited by 35% of the population of the United States. It operates between fourteen of the twenty-five most important pairs of cities which originate or terminate about 27% of all domestic revenue passenger miles. It operates between eleven of the twenty-five next most important pairs of cities, which account for an additional 9% of all domestic revenue miles. American Airlines is believed to be preeminent as to the amount of air traffic handled in a majority of twenty-five top city-to-city route combinations which it serves.

5A. AIRMAIL AND PARCEL POST

This class of revenue accounted for 11.6% of the total domestic income of airlines in 1948 as compared with 33% in 1939. For American, the proportion in 1948 was 5.3% against 25% a

decade earlier. American has been one of the few airlines embracing the philosophy that prosperity in air transportation should not be dependent on Government airmail subsidies and since 1942 it has received mail pay rates that with each change were stated by the C. A. B. to be of a non-subsidy character.

For the industry as a whole in 1948, domestic pay per mail ton mile performed was only about 67% of the 1939 figure. The level in 1947 had dropped to less than one-third of 1939, but the poor showing for the industry, and particularly the small marginal carriers, necessitated a sharp upward revision in mail payments to stave off financial difficulties. All members of the industry benefitted in varying degrees from larger payments. However, while the industry on an average received an increase of 80%, American received only about 29%. This increase for American was given by the C. A. B. as part of the readjustment plan for the industry and not as a specific request by American.

In respect to the fairness of 1948 mail pay, it is interesting to note that the rate per pound mile for American was not greatly different than that for passengers. Since mail has the highest priority over other traffic, approximately the same rate on a weight basis is not unjust to either class of traffic. However, some of the other airlines are receiving many times more on a weight basis for mail than for passengers or other classes of revenues, and thus are being heavily subsidized as the following figures indicate:

	1948 Mail Pay per Ton Mile Carried
American	\$ 0.58
Braniff	2.19
Capital	5.55
Chicago & Southern	3.92
Colonial	12.90
Continental	7.56
Delta	3.51
Eastern68
Inland	6.09
Mid-Continent	4.05
National	4.44
Northeast	16.97
Northwest	1.56
TWA88
United91
Western	3.18
Average	<u>\$ 1.28</u>

Domestic volume of air mail carried in 1948 was 98,332,019 pounds, which was approximately 20% greater than in 1947, but 25% less than the peak in the history of the industry reached during

wartime 1945. With growth in air parcel post, increased reliability and expanded service, the airlines should gradually increase their proportion of mail tonnage. Thus, those lines, such as American, which are compensated on a volume basis, would stand to increase revenues from this source if there were no change in rates. However, under present government policy, rates are determined at least in part on the requirements of each airline for profitable operations over an unspecified period of time. The Civil Aeronautics Act of 1938 is vague on certain of these factors and, accordingly, can be interpreted variously by different Board Members and Boards. Under present indicated interpretations, and particularly in view of American's dislike for a heavily subsidized industry, any marked degree of prosperity for the company would be based on profitable operations from other sources than air mail.

5B. AIR EXPRESS AND FREIGHT

These two classes of service combined accounted for 7.3% of total revenues for American in 1948 as compared with an average of 5.8% for the industry. Express for American alone was 2.1% and freight 5.2%. For both American and the industry, the two combined are about twice as important in relation to total revenues as before the war. The express operation is profitable as it is primarily a high revenue type of service carried on in conjunction with the passenger business. While this luxury movement of commodities will undoubtedly grow further, it is likely to remain a small factor in overall profits.

American Airlines is the largest U. S. air freight carrier, with volume considerably larger than any of the carriers handling freight only. About 40% of American's freight is carried in conjunction with passenger operations and this part, like express, is profitable.

The rest of the freight business calls for the operation of separate equipment and at this point of development shows little, if any, profits. American is seriously interested in the freight business, although it is believed that several years will elapse before it will more than contribute to overhead. Important profits from freight operations may have to await three developments: First, new types of fast equipment designed for freight are needed to reduce costs of carrying cargo. Second, a sufficient volume of freight business must be developed with a wide range of shippers in the different parts of the country to give a profitable load factor, particularly from West to East. Third, airport facilities designed for freight rather than passengers may be required to reduce handling costs. It is doubtful whether the railroads could move many classes of freight profitably if they handled it through their passenger terminals. The scope of these developments individually and collectively are such that several years will be required before the full potentialities of air freight can be appraised. Although many prophets state that air freight will soon outweigh passenger traffic in volume, the history of any development of this nature indicates it will be a long, hard struggle. American is approaching the problem with strong determination.

The conclusion is that air mail and parcel post, express, and freight are unlikely to have an overwhelming effect on industry results in the next few years. The present importance of these activities, which collectively account for nearly 20% of total industry revenues and 14% of

American's, rests primarily in the fact that they help considerably in carrying overhead and other expenses of operation.

6. MANAGEMENT

The changing fortunes of the different airlines over a period of years indicates the tremendous importance of management. The industry has grown so fast in recent years, and particularly since the war, that this period in itself is not an entirely satisfactory one on which to base an appraisal of management. This observation appears to be particularly true in the case of American, for it not only had the problems of growth in keeping with the industry as a whole, but, in addition, it had problems resulting from the installation of new flying equipment to a much greater degree than any of the other airlines. Viewed over a long period, the management of American has distinguished itself on many counts, some of which have already been discussed.

The financial progress of American since 1935, the year after air mail contracts were cancelled, has been outstanding. It was by far the weakest financially of the three major airlines which were separate entities at that time. Its total invested capital was less than one-half that of one of these major airlines and only 85% of the other. Furthermore, over 80% of American's invested capital was in the form of debt, whereas neither of the other two lines had any debt. As contrasted with this, American, at the end of 1948, had the largest total invested capital and equity capital of any domestic airline. Moreover, even though it has smaller debt in relation to total invested capital than either of the two major airlines referred to above, its near-term equipment needs have been fully met and paid for and its debt all funded on a long-term basis, with no sinking fund payments due for about two more years. Neither of these other two lines has its equipment program nearly completed nor financial provision for such completion, and both have current maturities to meet on present debt.

The management of American also distinguished itself in the timing and financing of its equipment program. At the end of the war, American realized that future profitable operations could be possible only with complete replacement of equipment. As soon as suitable designs for new equipment were determined, it placed contracts largely at fixed prices for delivery as soon as possible. While security markets were favorable, it sold bonds and convertible preferred stock to finance all of this program. As a consequence of these management decisions, it bought its equipment at prices that proved to be low in relation to those that have prevailed since that time. Were American to replace its fleet, including spare engines and parts, at present estimated prices, the cost would be more than \$30,000,000 over the amounts actually paid.

In 1935, American had the smallest domestic passenger revenues of the transcontinental lines, with its share of the total for the three amounting to 29.9%. By 1948, American's domestic passenger revenues were the largest of the three companies, its proportion of the total for the three had increased to 39.5%, and its volume was 15% more than the one and 49% more than the other company.

Not the least important achievement of the top management of American Airlines has been the development and training of a working team of some 11,000 persons exclusive of those assigned

to American Overseas work. As nearly one-half of this period was under wartime conditions, the rapid expansion of an organization capable of the safety and operating performance shown by the company was a real accomplishment. This large increase in personnel was not out of keeping with the development of the business, as total revenue per employee in 1948 was about \$7400 as compared with \$6200 in 1939. Changes in passenger and mail rates on net balance would not affect the comparison materially.

SUMMARY OF LONGER TERM OUTLOOK

American is in a business that has prospects for further large growth.

It is the best equipped of any airline in the world to participate in this growth.

Furthermore, it has the strongest financial position in relation to equipment requirements of any domestic airline and should thus continue its equipment leadership.

It still has an excellent route structure to participate in further growth even though many C. A. B. actions in the past appear to have discriminated against the strong to the benefit of the weak airlines.

The safety record and operating performance during the three trying years of new equipment installation and rapid expansion would indicate operating skill capable of participating fully in future growth.

American is not dependent on subsidy payments from the government now, and thus will not have any material future growth offset by a reduction in mail payments. Some of the other airlines might lose much of the benefits of growth through reduced mail payments.

Over a period of years, the management has brought the system to its present preeminent position in face of many handicaps as compared with its major competitors. With the many advantages now attained for American, the management should be able to meet the problems of the future to the credit of the company.

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The information contained in this report has been taken from statistical services, trade and other sources. We believe it is accurate, but it must be accepted without responsibility on our part. We make no representation either as to its accuracy or as to the non-existence of other facts which might affect its significance. Any opinions expressed therein reflect our judgment at this date and are subject to change.

At the present time Kidder, Peabody & Co. has a trading position in the debentures of American Airlines; this position may be increased or decreased in the ordinary course of business.

KIDDER, PEABODY & CO.

June 28, 1949

SUMMARY OF OPERATING RESULTS, 1939-48

(\$'000's)

	1948	1947	1946	1945	1944	1943	1942	1941	1940	1939
OPERATING REVENUES										
Passenger	76,862	71,255	58,746	37,317	29,338	23,356	21,513	20,923	15,899	10,713
Mail	4,769	3,172	3,269	5,981	6,685	4,886	3,267	4,270	3,913	3,682
Express	1,881	1,923	2,083	2,417	2,483}	2,581	1,720	756	567	450
Freight	4,623	4,093	2,860	967	47}					
Other	1,151	1,288	1,125	733	691	628	482	350	311	226
Total Operating Revenues	89,286	81,731	68,083	47,416	39,244	31,451	26,982	26,299	20,690	15,071
OPERATING EXPENSES										
Flying Operations	22,015	18,939	14,411	9,506	6,849	5,011	5,019	5,813	N. A.	N. A.
Ground Operations	15,257	14,641	11,836	6,984	5,457	4,647	4,089	3,661	N. A.	N. A.
Maintenance and Repairs	17,522	17,486	14,606	7,327	5,344	3,681	3,309	3,647	N. A.	N. A.
Passenger Service	6,074	6,288	5,191	3,417	2,454	1,882	1,702	1,730	N. A.	N. A.
Traffic and Sales	8,414	9,071	8,424	4,494	3,318	2,785	2,603	2,462	N. A.	N. A.
Advertising and Publicity ...	3,340	2,464	2,156	1,593	1,415	1,125	954	1,052	N. A.	N. A.
Social Security Taxes, Retirement Plan, etc.	1,698	1,809	1,516	1,066	1,096	712	739	520	N. A.	N. A.
General and Administrative ..	4,682	5,121	4,763	2,927	2,628	1,933	1,238	1,084	N. A.	N. A.
Provision for Obsolescence and Depreciation	12,137	9,965	5,849	1,925	1,210	1,211	1,716	2,615	1,940	1,262
Total Operating Expenses	91,141	85,784	68,751	39,240	29,773	22,987	21,369	22,584	18,409	12,754
Net Operating Income or (Loss)	(1,855)	(4,053)	(667)	8,176	9,471	8,464	5,613	3,714	2,281	2,317
Other Income (net)	53	(1,604)	85	(7)	(997)b	(1,750)b	1,013c	129	274	(274)
Interest Expense	(1,092)	(769)	(428)	—	—	—	—	(62)	(130)	(159)
Provision for Income Taxes ..	—	3,025a	635a	(3,830)	(4,078)	(3,522)	(2,774)	(1,308)	(567)	(310)
Net Profit	d2,894	d3,401	d 376	4,339	4,396	3,193	3,852	2,473	1,858	1,574
Net Profit or (Loss) per share:										
Preferred(e)	d7.23	d8.50	d0.94	—	816.07	63.86	77.04	49.46	37.16	—
Common(f)	d0.67	d0.74	d0.17	0.68	0.66	0.52	0.63	0.39	0.48	0.45
Price Range:										
3½% Preferred	68-47	80-50¾	74¾-57½g	—	—	—	—	—	—	—
Common(f)	10-6½	11¾-7	19¾-9	18¾-8¾	9½-5¾	7¾-5¼	5¾-2½	5¾-4	7½-4½	4¾-1½

(a) Credit—Federal "carry-back" tax refund. (b) Including provision for transition to peacetime operations, 1944—\$1,000,000, 1943—\$1,750,000. (c) Including \$834,845 excess of proceeds over book value of flight equipment sold. (d) Deficit. (e) Based on shares outstanding at end of years. (f) Adjusted for 5-for-1 split in 1946 and 2-for-1 split in 1944. (g) Range of prices on New York Stock Exchange.

