



# *Annual Report*

1947

N O R T H W E S T   A I R L I N E S ,   I N C .

J A P A N   •   A L A S K A   •   C A N A D A   •   U N I T E D   S T A T E S





413  
NORTHWEST AIRLINES  
NWA  
NC 95413

TOKYO  
NORTHWEST AIRLINES  
NWA  
MANILA

MINDO

404  
NORTHWEST AIRLINES  
NWA



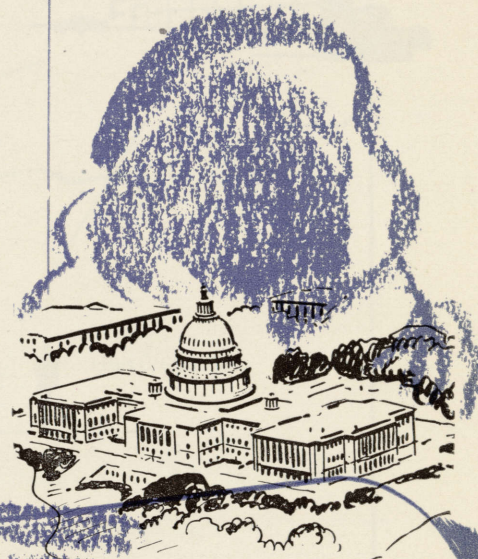
# Foreword

The past year will probably be remembered as one during which the most formidable problems in the history of commercial aviation were presented to company management.

President Truman and the Congress recognized the seriousness of the situation, particularly the important effect that a strong domestic and international air transportation system has on the national economy and security. The President appointed an Air Policy Commission and Congress, a Congressional Aviation Policy Board, both bodies exceedingly able. Exhaustive hearings were held and reports of the two commissions undoubtedly will have far-reaching effects upon the aviation industry. Pertinent excerpts quoted below from these reports will be of interest to our stockholders.

The gravity of the world outlook makes it imperative that effectuation, now, of a strong National Air Policy be vigorously urged and supported.

*Carol Hunter*  
President and General Manager



## “SURVIVAL IN THE AIR AGE”

“The air lines are now passing through one of the most serious crises of their history. This situation is significant for two reasons. If not relieved, it will contribute to the deterioration of the air-line service to the public. The second reason is that as a potential military auxiliary the air lines must be kept strong and healthy.”

“Although some air-line problems of 1947 may differ from those of the prewar period, the over-all situation is the same: The revenue from passengers and cargo, will not support the operations of many of the companies. If they are to continue in operation and start again up the ladder toward self-sufficiency, the Government will have to increase the mail rates.”

Excerpts from President's Air Policy Commission Report

## “NATIONAL AVIATION POLICY”

“The domestic and foreign air commerce of the United States should be fostered and promoted by whatever means appear most practical until it reaches such stature in passenger and cargo capacity as to constitute in crisis an adequate, logistical air arm of the National Defense Establishment.”

“National security requires a financially sound, operationally efficient, and technically modern air-transport industry. It envisions a large, civil air fleet operated in foreign and domestic air commerce with safety and certainty. Such an operating air fleet serves peacetime commerce and industry while remaining available for immediate conversion to military use in an emergency.”

Excerpts from Congressional Aviation Policy Board Report



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Annual meeting of shareholders third Monday in April





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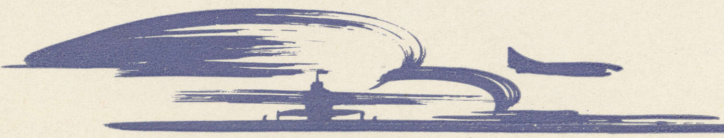
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## *President's Report*

The year 1947 was one of great significance in the company's history. The basic program of route development culminated during 1947 in the award by the Civil Aeronautics Board to Northwest Airlines of an extension of its service to Washington, D. C., from Detroit, via Cleveland and Pittsburgh. Service on this new segment was inaugurated on March 15, 1948.

Since the formation of Northwest Airlines twenty-two years ago (October 1926), its route development program has always involved the seeking of routes which would logically fit into its plans for the establishment of an economically sound domestic and international air transportation system, and the award of the Detroit-Washington route has now enabled the company to round out a well-integrated pattern of air service. The completion of a major part of this program may properly be considered as the outstanding achievement of the year.

Nevertheless, route expansion was but one of the important factors affecting the company in 1947. During the year the entire aviation industry was confronted with numerous serious difficulties which arose primarily out of conditions characteristic of the postwar era. At a time when operating costs were rising very sharply, there was a slackening of public acceptance of air transportation. This was due to a number of unfortunate factors, such as aircraft accidents, unreliable performance, the inadequacies of terminal and other facilities, and, admittedly, a certain amount of deterioration

Five-tier pagoda near  
Imperial Museum in  
Tokyo.





in the very high standard of service for which the airlines were so well known before the war.

In the face of these adverse factors, Northwest, rather than taking merely a defensive position, has recognized the need of taking affirmative action to correct its own shortcomings and to meet and overcome problems arising from external causes. This attitude enabled the company to achieve numerous positive accomplishments in 1947.

Service to Alaska and the Orient was inaugurated after extensive and extremely thorough preparations. The soundness of this venture and its favorable possibilities are clearly evident in spite of the relatively short time in which the service has been in operation.

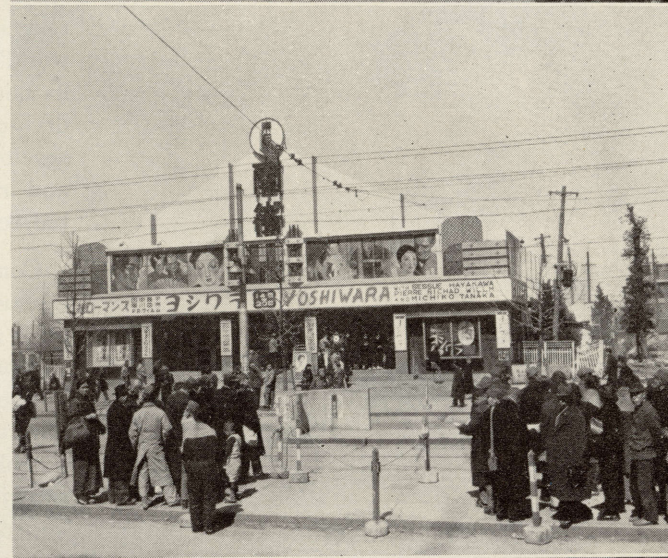
During 1947, in order to meet the need for larger, faster and more efficient aircraft, Northwest Airlines acquired 10 Martin 202 airplanes, and has ordered 15 additional 202 airplanes for delivery in the spring of 1948. In order to put these new aircraft into service, it was necessary to set up a training program to qualify personnel for their use. It has also been necessary to train and qualify personnel for the operation of the additional routes of the company.

The company has been acutely conscious of the basic need for increasing revenues, as well as for controlling costs. Passenger fares have been increased and, with the re-establishment of the 10% round trip discount, are restored to approximately the prewar level.

Waters of a moat reflect Dai-Ichi Building, General Douglas MacArthur's headquarters.



Yoshiwara theater, in suburban Tokyo, where pictures run two months at a billing.



Nippon Gekijo theater, the circular building, adjoins a modern newspaper plant.





Application has been made to the Civil Aeronautics Board for increase in compensation for the transportation of mail sufficient to put the company in a sound earning position.

The company has entered into co-operative arrangements with other airlines and with one of the world's largest steamship lines in order to augment its sales efforts throughout the world. It has also devoted a great deal of time and attention to the development of air cargo business, both domestically and internationally, and expects to derive substantial revenues from this source.

Constantly rising costs have continued to be a serious problem in this company, as they are to other airlines. Every effort has been made to effect economies and to achieve better utilization of all of the company's facilities and personnel. Thus, offsetting the adverse factors, there are many favorable factors, such as — indications of a substantial rise in the volume of traffic, both passenger and cargo; increased mail compensation; a more productive fleet of airplanes; access to important new traffic centers, such as the nation's capital and the two great industrial cities of Cleveland and Pittsburgh; economies effected and the development of an organization with a spirit and deter-

mination constantly to better its service to the public.

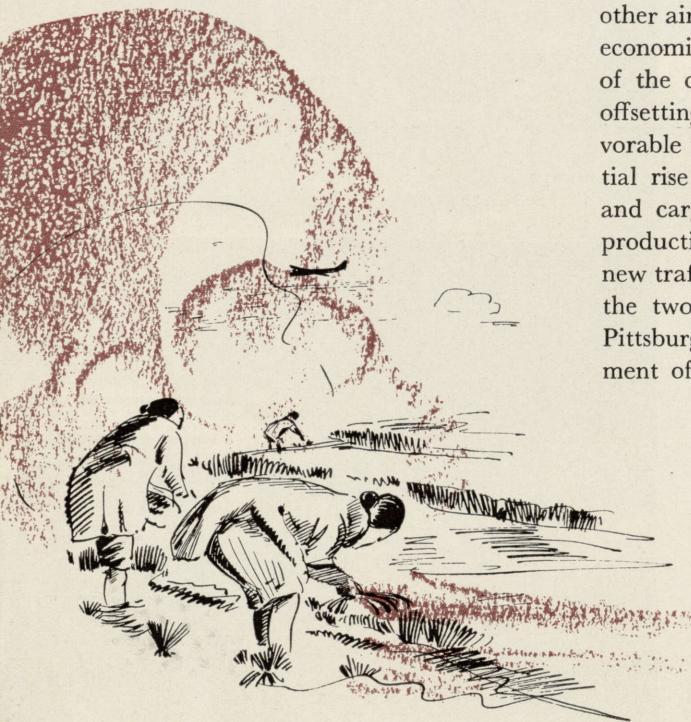
Therefore, on the basis of what transpired in 1947, the year can well be described as a year of continued transition, preparation and building for the future.

## *The Outlook in Prospect*

The company's activities now extend from New York and Washington across the country to Seattle and Portland and beyond to Alaska, Tokyo, Seoul, Shanghai and Manila. Various phases of the entire program will be taken up separately in brief résumé.

## *Alaska Operation*

Service over the first leg of the Alaska operation commenced on a daily basis September 1, 1946, thirty days after the certificate was approved by the President of the United States. Service over the Minneapolis-Anchorage leg was commenced on a thrice weekly basis January 1, 1947, and traffic volumes over both segments have steadily developed to a point where with the aid of the





temporary mail rate of 59c per mile, this operation is now practically on a self-sustaining basis.

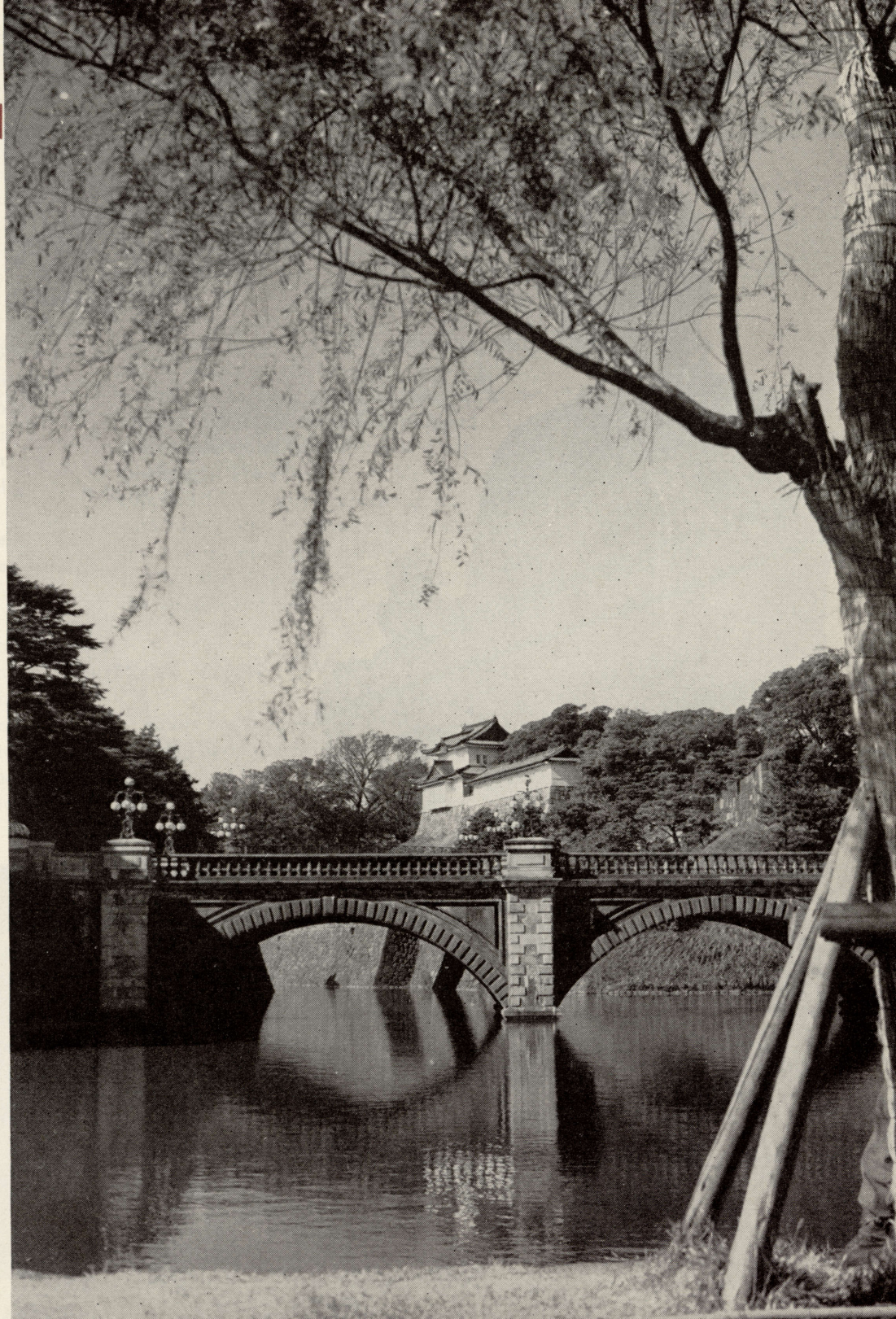
### *Orient Operation*

Scheduled service beyond Anchorage, Alaska to Tokyo, Shanghai and Manila was commenced on a thrice weekly basis July 15, 1947, and this has now been operated long enough to disclose two facts: First, that the initial operations are satisfactory and with the assistance of the temporary mail rate of \$1.75 per mile, the service already approaches a self-sustaining basis; and second, that the long-term prospects are encouraging.

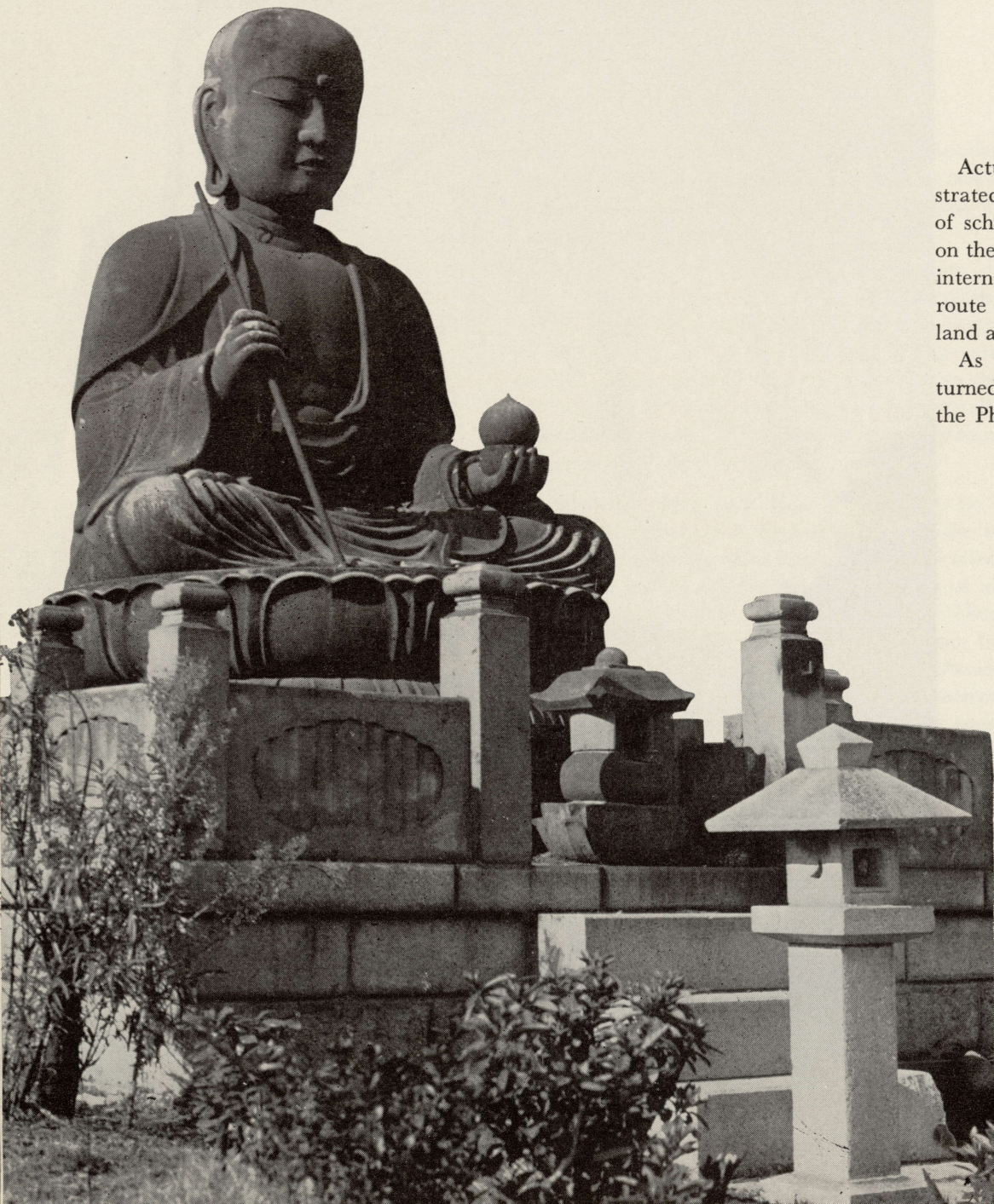
Two factors, however, are important, namely, (1) the speed with which travel restrictions to Japan and other occupied countries are lifted; and (2) the return of stability and rate of economic recovery in the countries of the Far East.

When travel restrictions to and from the Orient are considered, traffic has been developing satisfactorily. Government officials, representatives of UNRRA and other relief organizations, military personnel, educators, doctors, missionaries, businessmen and others whose missions warranted passport issuance have made the journey.

Beyond this stone arch bridge lies the Imperial Palace.







Actual flying of the company's route to the Orient has demonstrated its dependability. Performance records show that 97.79% of scheduled miles have been completed, a record surpassing that on the company's domestic system. In contrast to other transoceanic, international routes, this has become known as the "overland" route due to the number of airports available on both the mainland and the many islands that lie along the "Northwest Passage."

As the operation itself has become routine, attention has been turned more and more to developments within Japan, China and the Philippines.

## *Japan*

Japan looks forward to the easing of travel restrictions and the opening of the country to tourist travel, and also to the signing of a peace treaty shortly thereafter. Both events should serve to bring many businessmen and tourists to their country and the Japanese are making extensive preparations for them. The Japanese Federation of Tourists Association has adopted a five-year plan to rebuild the tourist industry. One of its projects is to develop the number of foreign type hotels, which now total 105. With government aid, the Japanese began improving and electrifying railroads, buying much new rolling stock and

Japanese statue  
broods through  
the years.



revamping the rails and roadbeds. They are laying out new national parks in many districts and estimate that during the first year of unrestricted travel, 36,000 persons will fly to Japan, with another 100,000 coming by boat.

## *China*

China has the immense problem of composing its internal differences and restoring order. Yet it, too, is looking forward to the day when it will be visited by many sightseers and when it can recover its share of international trade.

Many American firms are already assisting in the rehabilitation of China by re-establishing branches in China. Thus, despite unsettled conditions and currency instability, many Chinese are flying via Northwest Airlines between China and the United States in order to carry out diplomatic missions, to take up government posts, to lecture, to attend meetings, or to study in our schools. Also, the flow of American commercial travel between the United States and China is steadily increasing.

## *Philippines*

In the Philippines, economic recovery has progressed farther and at greater speed than is generally realized in the United States. Under President Manuel Roxas, the government is proving itself

strong and competent. Its problems are many but it is demonstrating its ability to master them.

One of the most ambitious projects in the Philippines is an 88 million dollar electrification program which its sponsors believe will revolutionize its industry and attract substantial American investments. The plan is to divide the Republic into 18 power areas supplied from 7 huge generating plants. The project also includes construction of a fertilizer plant to supply Island needs and to make unnecessary present import of nearly 100,000 tons of fertilizer annually. President Roxas has recommended the project and it has the approval of the Philippine Congress.

## *Korea and Okinawa*

Korea has been served by three round trips operating weekly between Tokyo and Seoul. Service between Seoul and Shanghai will commence May 1, 1948.

Flights have also been stopping at Okinawa between Shanghai and Manila, twice weekly each way, in order to carry military personnel, mail and cargo.

## *Orient Offices*

Northwest Airlines has opened city ticket offices in the Orient as follows: Tokyo, Shanghai, Okinawa, Seoul, Manila.





Lower Whangpoo river, from Shanghai waterfront.

Company officials and other observers who have had an opportunity to compare present conditions in the Orient with those of a year ago, report vast improvement and are much encouraged over developments there.

In a further step to promote Orient traffic and to extend its participation in global travel, Northwest Airlines is co-operating with other air and surface carriers. Arrangements have been entered into with Hong Kong Airways and British Overseas Airways Corporation for round-the-world trips with connections in the Orient. An earlier agreement made between the company and the American President Lines by which passengers may journey both by air and sea, at their option, is developing satisfactorily to both of the organizations. The company recently opened European headquarters under a European director at London to facilitate traffic arrangements with the European air carriers.

## *Washington Extension*

Another major route development of the year is service to Washington, D. C. via Cleveland and Pittsburgh. This route was awarded by the Civil Aeronautics Board in October 1947. Plans then were started to inaugurate this service which included establishment of traffic offices in each city to handle sales, ticketing and reservations; hiring, training and qualifying flight and ground per-



Shanghai street scene carries the modern touch.



sonnel; installing radio stations and other ground equipment, and arranging for space and necessary facilities at the three airports. Scheduled service commenced March 15, 1948.

Through this extension these great cities are now linked by one-carrier service to the important communities served by Northwest Airlines' transcontinental domestic system, as well as with Alaska, Japan, Korea, China and the Philippines.

### *New Route Applications Pending*

The company has the following applications for new routes pending before the Civil Aeronautics Board:

- (1) Application for service between the Pacific Northwest terminal points of Seattle-Tacoma and Portland and Honolulu, Territory of Hawaii. Hearing on this application has been completed and the matter has been submitted to the Board for its final decision and approval by the President of the United States.
- (2) Application to serve Buffalo between Detroit and New York.
- (3) Application to serve Cleveland between Detroit and New York.
- (4) Application for authority to operate between Seattle, Washington, and Portland, Oregon.



A busy street scene in Shanghai.



Early morning scene on Soochow Creek.





An aerial view of Manila, looking across the Pasag River.



Market place, Manila.

Hearings have not been held on any of the three applications last named.

## *Aircraft*

Modern equipment is one of the greatest needs of the airlines. Experience with the Martin 202 has been satisfactory. Performance of the plane has exceeded expectations. This 245-mile-an-hour ship, designed for fast, limited-range flights, is serving all stations from the Atlantic seaboard to Billings, Montana, and soon will be flown coast-to-coast. It originally provided seats for 40 passengers, but has been modified to provide 36 seats and additional cargo space.

The Martin 202 is teamed with the Douglas DC-4, which is used on the Alaska and Orient flights, and on non-stop and limited-stop domestic flights. When the full fleet of 25 Martin 202's is in operation, about June 1, all Douglas DC-3's will be retired.

Engineering acceptance of the Martin 202 is matched by public approval of this plane. Questionnaires completed by passengers revealed an almost unanimous endorsement of its salient features — its speed, size, comfort, built-in ramp, large observation windows, loud-speaker system, smoothness in flight. The fact that after ten of these planes were put into service the company ordered fifteen more indicates its confidence in the airplane.



As Northwest Airlines steps up the use of the Martin 202's, it also looks ahead to putting into operation, late this year or early in 1949, another new plane, the double-deck, 75-passenger, 320-mile-an-hour Boeing Stratocruiser. It will be the first domestic airline to fly these giant liners, detailed descriptions of which were given in last year's report.

The Boeing plant has been delayed in its production program. Northwest Airlines' engineers and technical people have followed this situation closely and the company has continued an extensive training program in preparation for the delivery of these planes.

## *Inter-Line Agreements*

With routes and aircraft to insure the best of domestic and international service, Northwest Airlines has effected arrangements with other airlines to reach off-line points. One of these has been completed with the Scandinavian Airlines System, which reaches Scotland, Norway, Sweden and Denmark. Good connections are made at LaGuardia Field, New York, with the Scandinavian planes which bring passengers from, or carry them to, Gander, Prestwick (Glasgow), Oslo, Stockholm and Copenhagen.



The world-famous  
Manila Hotel.



Jones Bridge over the  
Pasig River with Post-  
office Building in fore-  
ground.

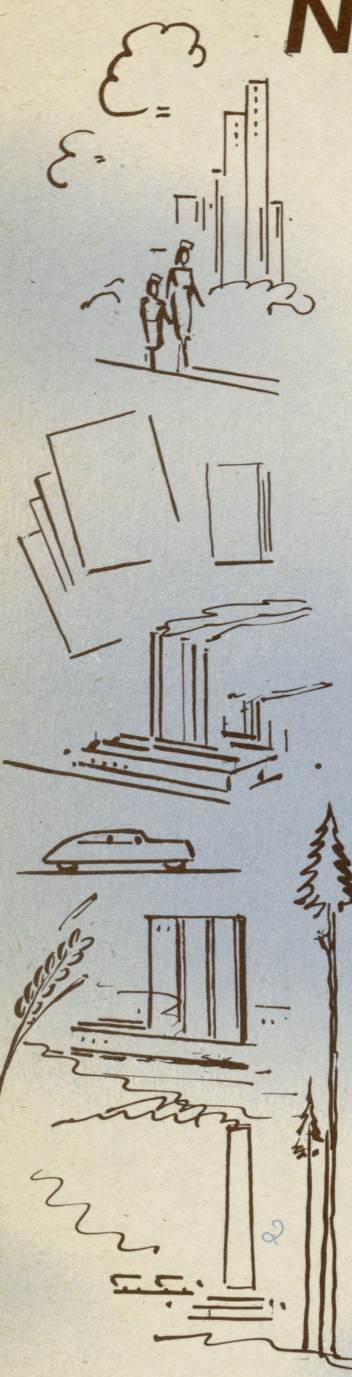


# NWA SERVES LEADING INDUSTRIAL AND AGRICULTURAL AREAS

ALASKA, DOMESTIC ROUTE CITIES	POPULATION MET. AREA	MAJOR BUSINESS ACTIVITIES IN NWA ROUTE TERRITORY
<b>NEW YORK</b> . . . . .	11,676,900	Apparel, printing and publishing, food, iron and steel, textiles
<b>NEWARK</b> . . . . .	443,000	Jewelry, tool and equipment, communications equipment and machinery, electronics, chemicals
<b>DETROIT</b> . . . . .	2,710,000	Automobiles, steel, chemicals, machine tools and accessories, paints and varnishes
<b>WASHINGTON, D.C.</b> . . . . .	1,300,000	Periodicals, newspapers, bakery products, meat products, general commercial printing
<b>PITTSBURGH</b> . . . . .	1,994,000	Aluminum products, air brakes, oil products, bituminous coal, plate glass, steel, electrical equipment
<b>CLEVELAND</b> . . . . .	1,357,000	Iron and steel, iron and steel products, machinery, tools, appliances, motor vehicles and parts, food products
<b>MILWAUKEE</b> . . . . .	860,300	Motor vehicles, tractors, hosiery, footwear, electrical equipment
<b>CHICAGO</b> . . . . .	5,250,000	Iron and steel, metal working, radio and electronics, foods, petroleum refining
<b>MADISON</b> . . . . .	100,000	Meat packing, machine tools, batteries, surgical supplies, metal specialties, state government
<b>LA CROSSE</b> . . . . .	49,600	Air conditioning equipment, electrical equipment, dairy, engraving, rubber
<b>EAU CLAIRE</b> . . . . .	40,000	Rubber, pressure cooker, pulp and paper, motors, brewing
<b>ROCHESTER</b> . . . . .	38,300	Medical, dairy, bakery
<b>MINNEAPOLIS</b> . . . . .	600,800	Food products, machinery, iron and steel products, printing and publishing, apparel
<b>ST. PAUL</b> . . . . .	410,000	Transportation, printing, publishing, state government, advertising specialties, refrigeration equipment
<b>DULUTH-SUPERIOR</b> . . . . .	145,000	Iron and steel, refrigerators, tools, weaving
<b>FARGO</b> . . . . .	51,000	Farm machinery and supplies, wool marketing, meat packing, dairy products, agriculture

ALASKA, DOMESTIC ROUTE CITIES	POPULATION MET. AREA	MAJOR BUSINESS ACTIVITIES IN NWA ROUTE TERRITORY
<b>GRAND FORKS</b> . . . . .	32,000	Mill and elevator, potato sales and products, sugar beets, agriculture
<b>WINNIPEG</b> . . . . .	320,500	Wheat farming, mining, fishing, hydro electric power development
<b>JAMESTOWN</b> . . . . .	11,000	Railroad division point, livestock and horse market, flour milling
<b>BISMARCK</b> . . . . .	22,000	Agriculture, coal mining, state government
<b>ABERDEEN</b> . . . . .	23,000	Railroading, livestock trading, processing
<b>MILES CITY</b> . . . . .	10,450	Livestock, grain, sugar beets, horse market, railroad shops
<b>BILLINGS</b> . . . . .	39,000	Livestock, crude oil production and processing, sugar beets production and processing, wholesaling, tourist
<b>BUTTE</b> . . . . .	55,000	Mining, livestock, meat packing, foundry and metal trades
<b>BOZEMAN</b> . . . . .	12,400	Agriculture, livestock, tourist
<b>HELENA</b> . . . . .	18,500	Railroading, mill work and cabinet making, smelting, state government
<b>MISSOULA</b> . . . . .	30,000	Agriculture, lumber, tourist
<b>GREAT FALLS</b> . . . . .	43,000	Mining, railroading, milling, oil refining
<b>SPOKANE</b> . . . . .	162,000	Agriculture, mining, lumber, light metals, cereal and milling
<b>WENATCHEE</b> . . . . .	13,000	Fruit production and processing, agriculture, mining, lumber, tourist
<b>YAKIMA</b> . . . . .	55,000	Fruit production, packing and processing, agriculture, machinery, lumber, meat packing
<b>PORTLAND</b> . . . . .	534,400	Lumber, pulp and paper, food processing, agriculture, fisheries
<b>SEATTLE</b> . . . . .	603,000	Aircraft manufacturing, shipbuilding and repair, heavy steel fabrication, food processing, textile and apparel manufacturing
<b>TACOMA</b> . . . . .	139,000	Forest products, railroad shops, metals, food products, chemicals
<b>ANCHORAGE, ALASKA</b>	14,000	Railroading, fish canning, air transportation, mining


Chart does not include information relating to points served overseas by Northwest Airlines—Tokyo, Seoul, Shanghai, Okinawa, Manila  
Population figures estimated.





# NORTHWEST *Orient* AIRLINES



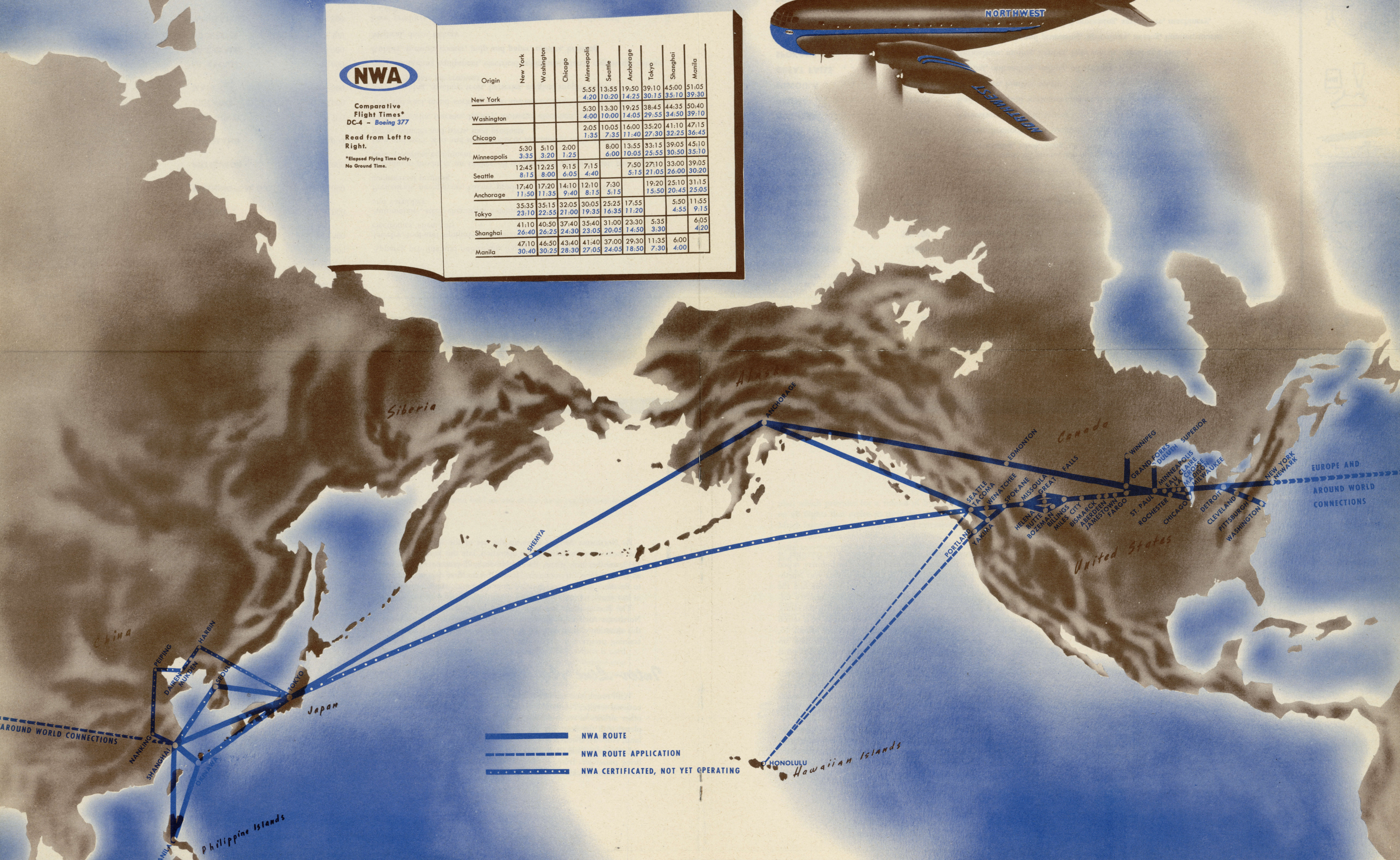


**Comparative Flight Times\***  
DC-4 - Boeing 377

Read from Left to Right.

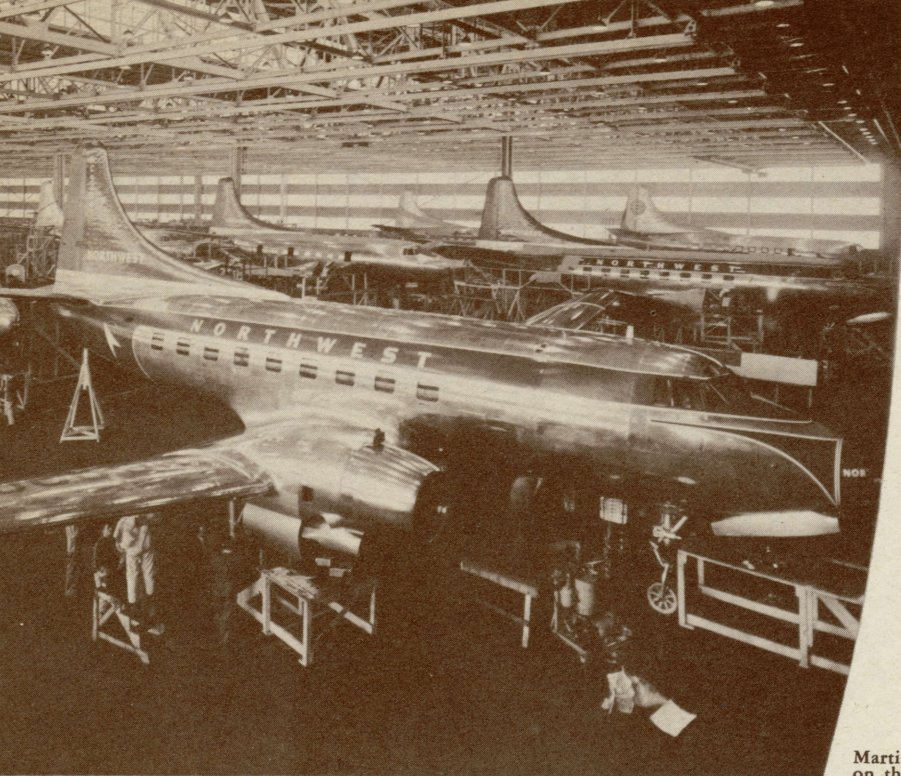
\*Elapsed Flying Time Only. No Ground Time.

Origin	New York	Washington	Chicago	Minneapolis	Seattle	Anchorage	Tokyo	Shanghai	Manila
New York				5:55 4:20	13:55 10:20	19:50 14:25	39:10 30:15	45:00 35:10	51:05 39:30
Washington				5:30 4:00	13:30 10:00	19:25 14:05	38:45 29:55	44:35 34:50	50:40 39:10
Chicago				2:05 1:35	10:05 7:35	16:00 11:40	35:20 27:30	41:10 32:25	47:15 36:45
Minneapolis	5:30 3:35	5:10 3:20	2:00 1:25		8:00 6:00	13:55 10:05	33:15 25:55	39:05 30:50	45:10 35:10
Seattle	12:45 8:15	12:25 8:00	9:15 6:05	7:15 4:40		7:50 5:15	27:10 21:05	33:00 26:00	39:05 30:20
Anchorage	17:40 11:50	17:20 11:35	14:10 9:40	12:10 8:15	7:30 5:15		19:20 15:50	25:10 20:45	31:15 25:05
Tokyo	35:35 23:10	35:15 22:55	32:05 21:00	30:05 19:35	25:25 16:35	17:55 11:20		5:50 4:55	11:55 9:15
Shanghai	41:10 26:40	40:50 26:25	37:40 24:30	35:40 23:05	31:00 20:05	23:30 14:50	5:35 3:30		6:05 4:20
Manila	47:10 30:40	46:50 30:25	43:40 28:30	41:40 27:05	37:00 24:05	29:30 18:50	11:35 7:30	6:00 4:00	

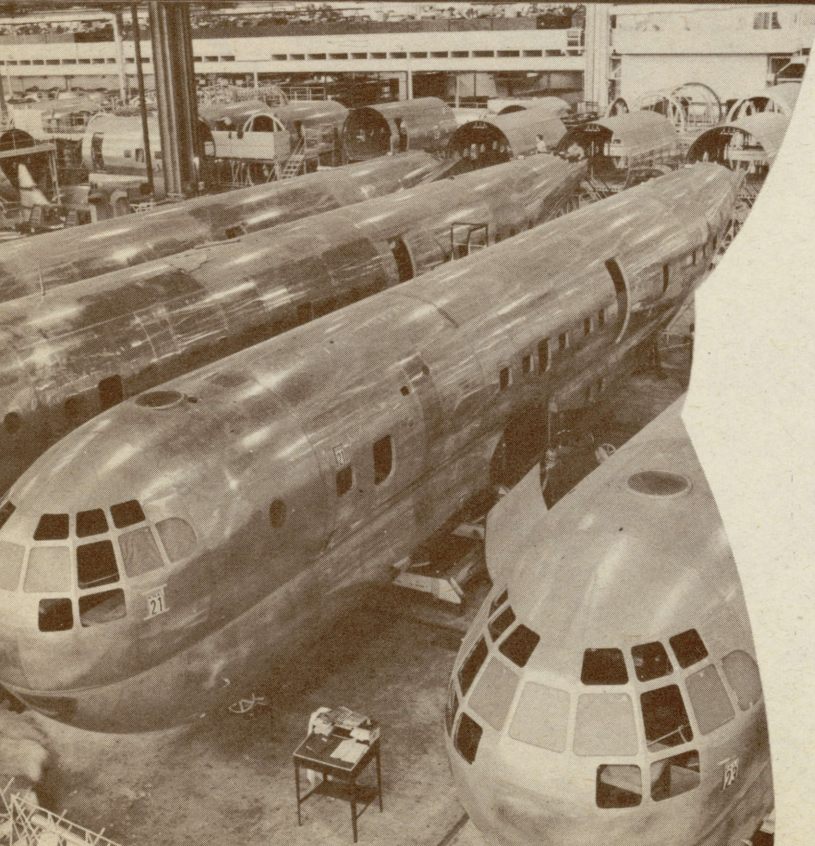


NWA ROUTE  
 NWA ROUTE APPLICATION  
 NWA CERTIFICATED, NOT YET OPERATING





Martin 2-0-2 airplanes on the assembly line.



Boeing Stratocruiser in production for N.W.A.

## Revenues

In spite of expense control, rising costs demand that revenues be increased by higher passenger and mail rates. The industry raised passenger fares 10% in April, 1947. In October of that year Northwest raised its passenger fares another 10% but re-established the 10% round-trip discount. Several months later the industry followed with a 10% increase but did not give round-trip discounts, although years of experience have demonstrated this to be a sound sales policy. We again raised our passenger fares on March 15, 1948, in the amount of 8%. Even after giving effect to these increases, our fares domestically will average only about 5.6 cents per mile.

The company applied for an increase in rate of mail pay, emphasizing the need to maintain strong domestic airlines for national defense—a view stressed in the reports of both President Truman's Air Policy Commission and the Congressional Aviation Policy Board.

In order to overcome the flood of criticisms the airlines have received the past year for delays and poor ground-handling of passengers, Northwest Airlines has exerted every effort to correct the situation. Furthermore, to impress on the public the fact of its determination to find a solution of these problems it has adopted a



plan which provides for a refund of 5% of the fare to passengers on all flights that arrive at their destinations over 30 minutes late. Much favorable public reaction and extensive publicity on this plan has already been received and it has been effective in encouraging company employes to increased efforts, for on-time performance and the speedy handling of passengers and their baggage.

As the airline seeks higher fares and mail pay, it also finds cargo-carrying an important source of revenue. This is no longer just an adjunct to passenger traffic; it has reached a volume where the company plans, at the appropriate time, to use all-freight planes on domestic, Alaska and Orient routes.

During the past year income from freight and express increased substantially, with Alaska and the Orient accounting for more than one-third, despite the fact that the Orient operation did not open until after the middle of the year. Air express income showed an increase of more than \$100,000 over the 1946 figure. Together, the revenue from freight and express exceeded \$1,000,000.

## *Employee Training*

During 1947 the training division of the airline, through the medium of 67 courses offered at several places on the system, carried 2,266 employes on its records in formal training. A complete apprenticeship training program is being established.

Martin 2-0-2



Boeing  
Stratocruiser



Douglas DC-4







Apart from this program the training division's objectives will continue to include thorough indoctrination of new employes, together with training to give them the necessary skills to perform highly efficient work in a minimum of time; training of older employes and supervisors by way of refreshing them in current and accepted methods in learning new procedures, equipment methods, and skills.

Advantages that accrue from more competent personnel benefit both the company and the public through improved service.

## *New Equipment*

Northwest Airlines has installed Instrument Landing System (ILS) equipment on its airplanes and is now authorized for ILS landings over its entire route. It will be possible to complete a large percentage of flights now cancelled by weather, bringing completion of annual schedules to approximately 99%.

The airline has adopted a "visual sales" reservations system by which a passenger may receive flight information within a few seconds. This is made possible by setting up a master station through which all messages clear;

Union Terminal Tower dominates Cleveland scene.



posting reservations on boards at this and other key stations; speeding up messages by means of 3,300 miles of leased telephone lines, 6,900 miles of teletype circuits and 3,400 miles of radio networks.

Other devices under study for the convenience or entertainment of passengers include plane-ground telephone service; plane-ground telegraph service; and motion pictures aboard planes on long flights.

## *Summary*

In summary it should be noted that the expansion of the company's route pattern and the start of the Orient service mark 1947 as an outstanding year in its history. Its route mileage increased to a total of 17,761 miles, 12,448 being foreign and 5,313 domestic. Other events of the year include: start of the "inside" route from the Twin Cities to Anchorage to supplement the "outside" coastal route from Seattle-Tacoma to Anchorage; acquisition and placing in service the Martin 202 airplanes; completion and occupancy of the company's newly constructed \$1,350,000 hangar at the Seattle-Tacoma airport;

Pittsburgh's Golden Horseshoe from the air.

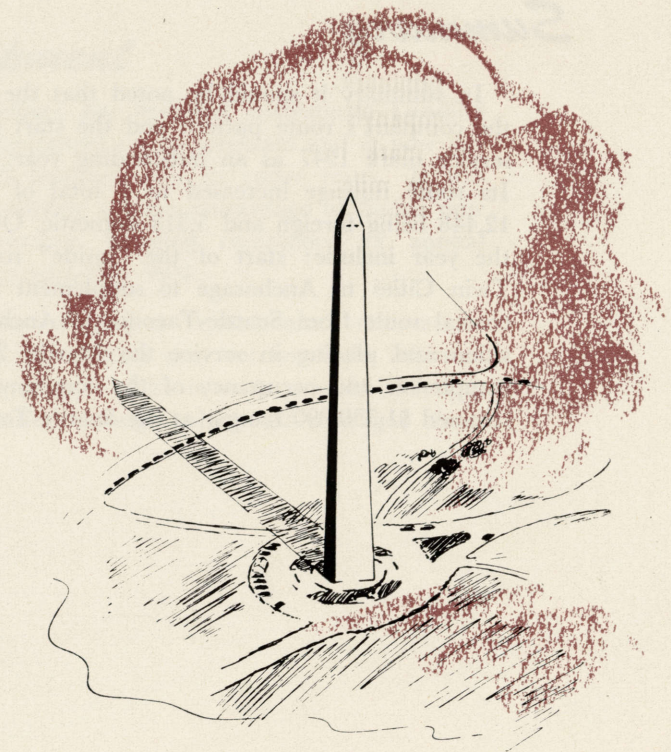






inauguration of service to Eau Claire and LaCrosse, Wisconsin; Aberdeen, South Dakota; Jamestown, North Dakota and Bozeman, Montana; and certification of the route to Washington, D. C.

1947 was indeed a year of important events for the company, as well as a year of preparation for even greater progress in the years ahead.



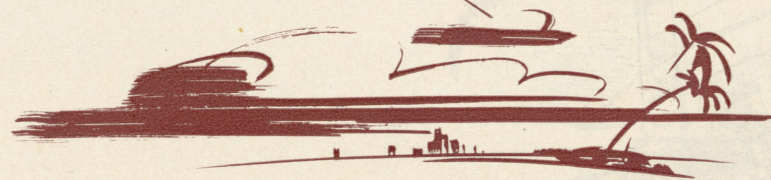
The Nation's Capitol.





# Record of Progress

Calendar Year	Mail Revenue	Passenger Revenue	Express and Freight Revenue	Revenue Passenger Miles	Mail Pound Miles	Total Plane Miles Flown
1947 .....	4,018,340	20,520,631	1,019,497	382,544,382	5,473,873,894	20,824,912
1946 .....	1,254,257	18,062,492	553,875	385,858,473	4,099,317,238	19,704,234
1945 .....	1,649,575	10,060,619	409,613	218,469,773	5,396,757,098	12,870,714
1944 .....	1,500,874	6,073,967	246,030	120,834,296	4,900,802,947	7,523,146
1943 .....	1,353,822	3,139,713	297,941	63,787,683	4,005,180,807	4,584,766
1942 .....	1,850,601	2,410,512	240,800	52,061,159	2,528,042,954	4,931,815
1941 .....	1,955,826	2,526,721	118,885	59,659,145	1,871,311,191	6,353,659
1940 .....	1,769,735	2,151,311	79,531	51,175,254	1,370,076,043	6,079,669
1939 .....	1,763,288	1,324,728	61,186	34,749,246	1,166,518,244	5,399,024
1938 .....	1,286,549	829,554	41,625	21,153,258	1,116,975,430	5,310,015
1937 .....	1,076,293	761,839	33,768	16,685,852	841,274,933	4,462,439
1936 .....	1,050,639	759,981	27,318	16,528,401	671,011,789	3,699,818
1935 .....	629,724	481,528	12,388	10,342,834	315,817,803	2,841,198
1934 .....	251,133	199,074	4,319	4,301,145	44,034,248	1,643,127
1933 .....	762,208	188,966	1,873	4,108,313	82,613,032	1,823,850
1932 .....	884,719	200,984	343	4,127,800	77,867,566	1,639,015
1931 .....	917,635	205,164	575	3,934,093	89,706,330	1,434,555
1930 .....	648,799	119,349	146	2,129,600	"	1,032,340
1929 .....	495,708	121,075	"	1,956,400	"	736,664
1928 .....	195,315	24,890	"	402,400	"	314,496
1927 .....	76,029	\$ 8,663	"	126,000	"	211,667
3 Months, 1926.....	\$ 11,790	—o—	Not Avail.	—o—	Not Avail.	47,397





# FINANCIAL

For the year 1947 your company sustained a net loss of \$1,141,340 after depreciation expense of \$4,496,239, and after tax credits of \$673,889. This loss amounts to \$1.39 for each of the 820,755 shares of common stock of the par value of \$10 per share outstanding at the end of the year.

Total operating revenues of \$26,579,398 are 32.27% above 1946, for an all-time high.

Passenger revenue of \$20,520,631 exceeded the previous year by 13.61%, even though revenue passenger miles flown were 0.86% less. This results from two fare increases on our domestic system and the higher fares charged internationally. During the year approximately 65.45% of all seats on your company's system were filled.

Mail revenue of \$4,018,340 exceeded last year by \$2,732,437, due almost entirely to revenue received for carrying mail in international operations. Mail revenue for the domestic service remained at about the 1946 level. Average domestic mail loads increased substantially and were 251.17 lbs. compared with 206.77 lbs. in 1946.

Express, Freight and Excess Baggage revenues totaled \$1,203,948 and exceeded last year by 73.28%. It is gratifying to note that revenues from these sources have now reached a significant amount.

Charter and other operating revenues of \$786,742, including \$746,178 for non-scheduled revenue flights to the Orient increased \$775,738.

Available ton miles in scheduled service were 73,970,282 compared with 57,664,544 for 1946, while ton miles sold were 42,744,821 compared with 41,181,283 for 1946. Thus, in the year just past your company sold 57.79% of its capacity offered for sale, while in 1946 it sold 71.42%.

# REPORT

Total operating revenue per ton mile sold increased from 48.79 cents in 1946 to 62.18 cents in 1947.

The prices of labor and materials, as well as the general costs of doing business continue to increase. Although revenues increased, reflecting more business at high rates, expenses have risen even more. The average operating cost of making available a ton mile of transportation increased from 34.55 cents in 1946 to 38.21 cents, while the average per ton mile of transportation sold increased from 48.38 cents to 66.12 cents.

On April 21, 1947, your company entered into a bank credit agreement with a group of fourteen banks, whereby such banks agreed to make available an aggregate of \$18,000,000 to be borrowed for the purchase of flight equipment up to April 30, 1949. The amount borrowed is to be repaid in quarterly installments during the following five years. As of the end of 1947 your company had not borrowed under this agreement, however, since then borrowings totaling \$6,100,000 have been made to meet new equipment commitments.

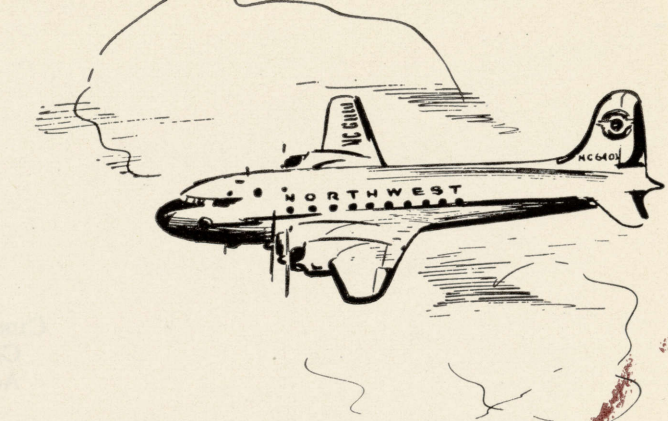
In May, 1947 your company offered to the public 390,000 shares of \$25 par value 4.6% Cumulative Preference stock. As a result your company received net proceeds of \$9,028,538, which were used to pay off bank loans totaling \$5,300,000, for the purchase of additional equipment and for working capital.

During the year the excess of current assets over current liabilities increased \$1,187,880. Net investment in Property, Plant and Equipment increased \$6,360,659, primarily due to the acquisition of aircraft.

Our investment, at cost, in Property, Plant and Equipment totaled \$28,261,607 as compared with \$17,868,939 as of December 31, 1946.

Earned Surplus totaled \$896,252.

Your company is owned by 4,147 holders of Common shares with average holdings of 198 shares and by 2,098 holders of Preference shares with average holdings of 186 shares.





# BALANCE

December

## ASSETS

### CURRENT ASSETS

Cash			\$ 3,492,371
Accounts receivable:			
For transportation (including U. S. Government accounts of \$1,248,561)	\$2,483,967		
Other current accounts	481,274	\$ 2,965,241	
Less reserve		15,000	2,950,241
Unreimbursed costs on contracts with the U. S. Government—\$1,398,878, less advance payments of \$369,379 and reserve of \$840,837—Note A			188,662
Refundable income taxes arising from operating loss carry-back			673,890
Inventories—at lower of cost (first-in, first-out) or replacement market:			
Repair materials and operating supplies	\$ 438,364		
Gasoline and oil	93,840	532,204	
<b>TOTAL CURRENT ASSETS</b>			<b>\$ 7,837,368</b>

### OTHER ASSETS

Recoverable income taxes upon utilization of reserve for contracts with the U. S. Government—estimated—Note A	\$ 205,000		
Sundry related industry investments (at cost—no quoted market) and deposits		74,676	
Allowed claims for prior year unemployment taxes applicable against future unemployment tax liability		63,164	
Advances and other charges to employees less reserve of \$500		13,334	356,174

PROPERTY, PLANT, AND EQUIPMENT—on the basis of cost—Note B	Cost	Reserve	Balance
Land	\$ 40,229		\$ 40,229
Aircraft and reserve equipment	13,962,903	\$6,222,254	7,740,649
Conversion costs on leased aircraft	2,154,294	1,092,450	1,061,844
Buildings on land not owned	1,905,770	226,061	1,679,709
Other buildings and equipment	3,717,870	1,102,368	2,615,502
Improvements to leased property	830,079	394,303	435,776
Cost of aircraft, buildings, and equipment in progress; preliminary costs of new aircraft fleets	1,791,706		1,791,706
Non-operating property	14,307	1,090	13,217
	<u>\$24,417,158</u>	<u>\$9,038,526</u>	<u>\$15,378,632</u>

Cash deposits in connection with acquisition of aircraft and aircraft engines	3,844,449	19,223,081
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### DEFERRED CHARGES

Prepaid insurance and rent	\$ 262,749	
Deferred training in connection with new aircraft fleets	81,057	
Supplies, expenses, etc.	67,053	410,859
		<u>\$27,827,482</u>

# SHEET

31, 1947

## LIABILITIES

### CURRENT LIABILITIES

Accounts payable and accrued expenses:		
Trade accounts	\$ 1,753,775	
New aircraft and aircraft conversion	1,163,817	
Salaries, wages, and vacation compensation	1,279,766	
Air travel deposits—gross	418,200	
Pay roll taxes and taxes withheld from employees	296,052	
Dividends payable February 1, 1948	112,125	
Retirement plan contributions including amounts withheld from employees	40,340	
Savings bond and other deductions from employees	35,514	
Accrued rent	96,008	
Accrued local taxes	77,780	
Income taxes of prior years	8,000	\$ 5,281,377
Unearned transportation revenue—estimated		348,686
<b>TOTAL CURRENT LIABILITIES</b>		<b>\$ 5,630,063</b>

### CAPITAL STOCK AND SURPLUS—Note C

Capital stock:		
4.6% cumulative preference stock, par value \$25 per share; entitled upon liquidation or redemption of from \$26.75 per share at December 31, 1947, to \$25.25 per share after May 1, 1953; convertible into common stock to December 31, 1956, at the rate of one share of common stock for each $\frac{16}{3}$ of the par value of the 4.6% cumulative preference stock: Authorized 600,000 shares; issued and outstanding 390,000 shares	\$ 9,750,000	
Common stock, par value \$10 per share: Authorized 3,000,000 shares; unissued 2,179,195 shares of which 585,000 shares are reserved for the conversion of 4.6% cumulative preference stock, 10,000 shares are reserved for options at \$14 per share, and 20,000 shares are reserved for issuance in connection with future options which may be granted to officers and employees; in treasury 50 shares; outstanding 820,755 shares	8,207,550	
Capital surplus	3,343,617	
	<u>\$21,301,167</u>	
Earned surplus	896,252	22,197,419
CONTINGENT LIABILITIES—Note D		
COMMITMENTS—Note E		<u>\$27,827,482</u>

See accompanying notes to financial statements.





**A COMPARATIVE STATEMENT**  
OF  
*Profit and Loss*

\* The comparative figures for the six months ended December 31, 1946, reflect the most recently audited period following amendment of the by-laws adopting December 31 as the closing date of the company's fiscal year.

	Year Ended December 31, 1947	Six Months Ended December 31, 1946 (*)
Operating revenues:		
Transportation:		
Passenger .....	\$20,520,631	\$10,607,112
Mail .....	4,018,340	687,711
Express, freight, and excess baggage.....	1,203,948	469,102
Charter and other.....	786,742	2,815
Repair and service income, rents, etc.—net.....	49,737	14,119
<b>TOTAL OPERATING REVENUES.....</b>	<b>\$26,579,398</b>	<b>\$11,780,859</b>
Operating expenses:		
Flying operations .....	\$ 6,512,077	\$ 2,543,388
Ground operations.....	4,359,264	2,206,338
Maintenance and repairs.....	5,277,201	2,407,519
Passenger service.....	1,770,163	864,270
Traffic and sales.....	2,706,866	1,135,506
Advertising and publicity.....	593,506	316,037
Administrative and general, pay roll taxes, property taxes, etc.....	2,530,743	956,407
Provision for depreciation and amortization—Note B.....	4,496,239	1,607,691
Provision for doubtful accounts, adjustments, recoveries, etc.....	18,442	( 3,462)
	<u>\$28,264,501</u>	<u>\$12,033,694</u>
<b>OPERATING LOSS .....</b>	<b>( \$ 1,685,103)</b>	<b>( \$ 252,835)</b>
Other income and credits:		
Profit from disposal of depreciable assets.....	85,257	.....
Unemployment tax credits for prior years.....	62,307	.....
Discounts and interest earned.....	38,249	17,105
Insurance refunds (based on three years experience to November 1, 1946).....	.....	200,000
Statutory cancellation of prior year war risk unemployment taxes.....	.....	71,736
Sundry .....	21,041	3,629
	<u>( \$ 1,478,249)</u>	<u>\$ 39,635</u>
Other deductions:		
Route extension and development.....	\$ 123,638	\$ 99,360
Retroactive pay adjustments applicable to prior periods.....	109,955	.....
Interest and loan commitment expense.....	81,928	7,109
Loss on disposition of leasehold improvements and depreciable assets.....	.....	24,075
Sundry .....	21,459	13,911
	<u>\$ 336,980</u>	<u>\$ 144,455</u>
<b>LOSS BEFORE INCOME TAX CREDITS.....</b>	<b>( \$ 1,815,229)</b>	<b>( \$ 104,820)</b>
Income tax credits:		
Taxes recoverable on operating loss carry-back—estimated.....	\$ 673,889	\$ 42,000
Overprovision for prior year.....	.....	7,702
	<u>\$ 673,889</u>	<u>\$ 49,702</u>
<b>NET LOSS .....</b>	<b>( \$ 1,141,340)</b>	<b>( \$ 55,118)</b>

( ) Indicates red figures.

See accompanying notes to financial statements.



*Notes to Financial Statements*

December 31, 1947

NOTE A—Settlement of the company's accounts under its U. S. Government war contracts has progressed to the point where the company has received payment of approximately 98% of its aggregate expenditures made in connection with such contracts. The remaining amounts aggregating approximately \$1,400,000 are in process of examination and negotiation and while it is expected there will be unallowable items and the related income tax questions are still unsettled the company believes that the reserve provided therefor during the periods affected is ample to cover losses and adjustments anticipated at this time.

B—As of July 1, 1947, the company changed its depreciation and amortization policies, without retroactive effect, as to DC4 type aircraft to recognize an increase in the expected useful life thereof occasioned by delays in delivery of new types of aircraft contracted for. This change resulted in a decrease in the depreciation and amortization provisions for the year ended December 31, 1947, in the amount of approximately \$560,000.

C—The company has in effect a bank credit agreement with a group of fourteen banks for a maximum amount of \$18,000,000. This credit is at present on a revolving basis but not later than April 30, 1949, it is to be converted into installment notes which will be payable in twenty equal quarterly amounts. At March 15, 1948, the outstanding liability under the agreement amounted to \$6,100,000. The agreement contains certain restrictions relating to mortgage or other borrowings, dividends on or repurchase of common stock, maintenance of net current assets, commitment limits, ratio of notes under agreement to book value of flight equipment, expenditure for non-current assets outside of the United States, investments or loans, and merger or disposition of substantially all of its assets. The terms of the cumulative preference stock also contain certain restrictions relating to dividends on and repurchase of common stock.

D—The company is defendant in a number of lawsuits involving substantial amounts resulting from (1) claims for overtime compensation to employes on war contract operations at the Saint Paul Modification Center and, (2) accidents on September 18, 1944, and December 8, 1945, resulting in death of, or injury to, military and civilian personnel who were being transported in government-owned airplanes operated by the company under contract. These actions are being defended by the United States Department of Justice; as to (1) the Comptroller General of the United States has ruled that any amounts paid in satisfaction of final judgment and reasonable costs and expenses of litigation as approved by the Army Contracting Officer constitute allowable items of cost under the contracts and as to (2) under the wording of the pertinent Government contracts the company is entitled to reimbursement for any losses or expenses therefrom. Trials of certain of the lawsuits under (1) above have resulted in the rendering of three judgments against the company by the trial court. The Department of Justice has appealed one of these judgments and advises that it is considering appealing the others. Trial of one of the lawsuits arising out of the accident of September 18, 1944, has resulted in the rendering of a judgment for the company by the trial court. Appeal therefrom by the plaintiff is now pending. In a suit brought against the company for injury allegedly suffered on January 6, 1947, by a passenger on board one of the company's aircraft, the company's insurance will cover the amount of any loss therefrom. Another suit has been brought against the company for injury allegedly suffered on June 7, 1947, by a passenger on board one of the company's aircraft. Any loss resulting to the company from the latter suit will not be covered by insurance but it is believed not to be material. In view of the circumstances as outlined, including the amount sought to be recovered in the suit last mentioned, no provision has been made for any portion of the amounts involved.

As a part of its insurance coverage, the company assumes a maximum loss of \$100,000 on each accident or occurrence involving passenger and public liability, property damage and aircraft damage and carries excess coverage on these risks for an aggregate amount of \$6,000,000 for each accident or occurrence.

E—The company's proposed expansion program involves expenditures of approximately \$39,500,000 of which approximately \$15,177,000 had been expended as of December 31, 1947, and of which approximately \$12,459,000 is expected to be expended prior to January 1, 1949.



# Statement of Surplus

Year Ended December 31, 1947

## CAPITAL SURPLUS

Balance at January 1, 1947.....		\$4,065,979
Deductions:		
Excess of cost over par value of 50 shares of common stock repurchased .....	\$ 900	
Expenses incurred in connection with sale of 4.6% cumulative preference stock.....	721,462	722,362
		<u>722,362</u>
Balance at December 31, 1947.....		<u>\$3,343,617</u>

## EARNED SURPLUS

Balance at January 1, 1947.....		\$2,367,737
Deductions:		
Net loss for the year.....	\$1,141,340	
Cash dividends declared on 4.6% cumulative preference stock—86.25 cents per share		
less 1.60 cents accrued at date of sale of preference stock .....	330,145	1,471,485
		<u>1,471,485</u>
Balance at December 31, 1947.....		<u>\$ 896,252</u>

See accompanying notes to financial statements.

## Accountants' Report

Board of Directors  
Northwest Airlines, Inc.  
Saint Paul, Minnesota

We have examined the balance sheet of NORTHWEST AIRLINES, INC., as of December 31, 1947, and the statements of profit and loss and surplus for the year then ended, have reviewed the system of internal control and the accounting procedures of the Company and, without making a detailed audit of the transactions, have examined or tested accounting records of the Company and other supporting evidence, by methods and to the extent we deemed appropriate. Our examination was made in accordance with generally accepted auditing standards and included all procedures which we considered necessary in the circumstances.

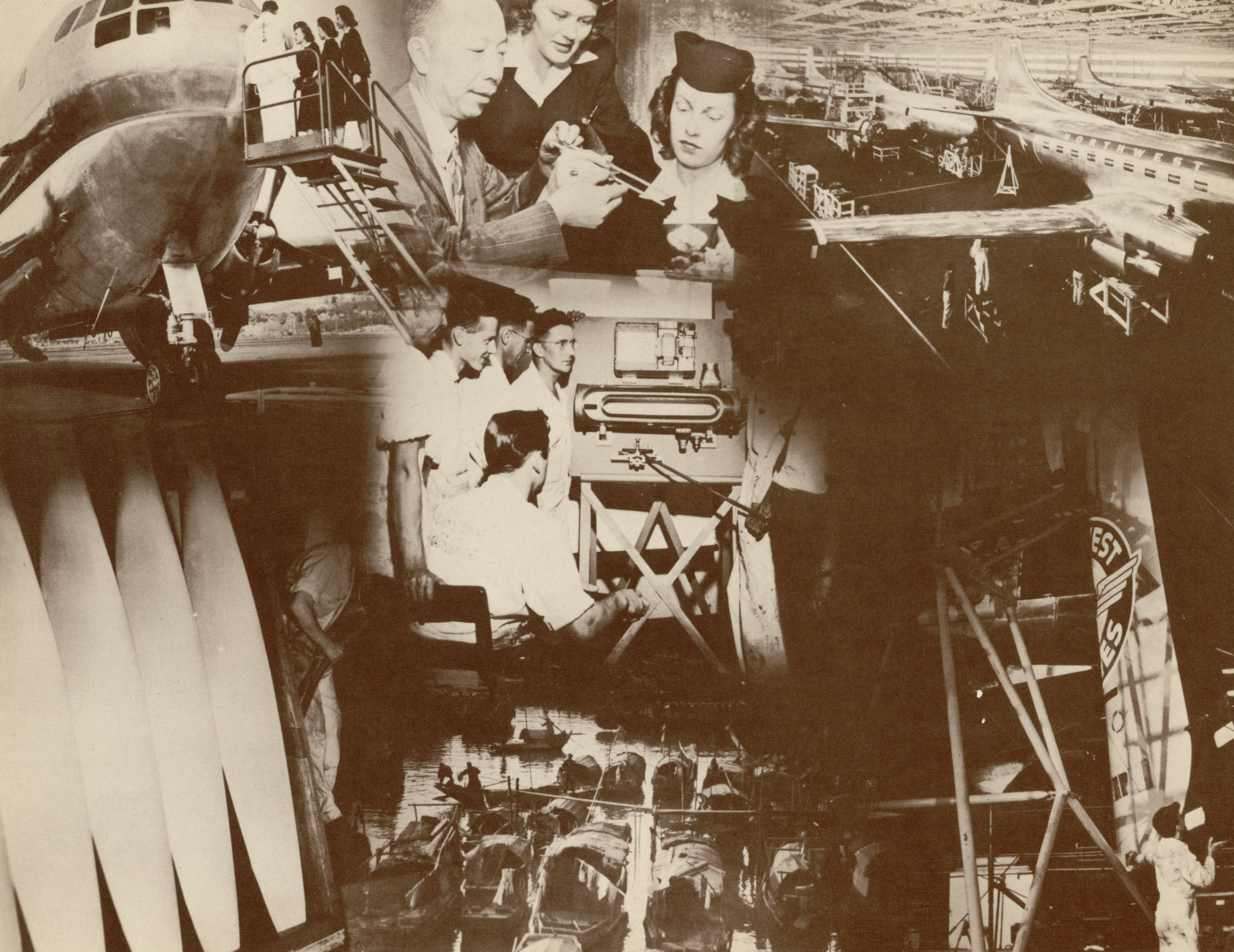
In our opinion, the accompanying balance sheet and related statements of profit and loss and surplus present fairly the position of NORTHWEST AIRLINES, INC. at December 31, 1947, and the results of its operations for the year, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Saint Paul, Minnesota  
March 15, 1948

ERNST & ERNST

Certified Public Accountants









PHILIPPINES • OKINAWA • CHINA • KOREA •