Report of Ernst & (and) Ernst on Survey of Separation of Compensatory Mail Pay from Total Mail Payments to Domestic Airlines

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REPORT OF ERNST & ERNST ON SURVEY OF SEPARATION OF COMPENSATORY MAIL PAY FROM TOTAL MAIL PAYMENTS TO DOMESTIC AIRLINES

PART I—DISCUSSION

A. PURPOSE

In a document entitled “Invitation to Bid on a Contract to Make a Survey Covering Certain Aspects of Separation of Air Mail Pay from Subsidy Paid to Domestic Airlines” which was released by the United States Senate Committee on Interstate and Foreign Commerce under date of September 7, 1950, the purpose of a proposed broad survey of airline operations was stated to be

“a survey or audit of airline operations to ascertain pertinent facts upon which to base rules to govern the separation of compensatory mail pay from Federal subsidy payments which go to airlines to insure satisfactory service.” This document stated further “The Committee has already held hearings and made a preliminary study on separation of air mail pay from subsidy. An interim report covering that study is attached as guidance for prospective bidders to indicate the scope and nature of the work to be done. The study related the subsidy requirement to the losses incurred for the communities served. In the Interim Report this was done by first estimating the total subsidy required by the carrier as an operating whole and then this subsidy was prorated to the stations found to have been served at a loss.”

In the contract covering our engagement, we were directed, as a specific objective of our survey,

“to carry out, through comprehensive engineering and accounting studies and analyses, the program presented by the Interim Report.”

B. SCOPE

Provisions of the contract called for the relation of “subsidy” to the communities served, as outlined in the Interim Report, and certain data were prescribed by the Committee to be followed by us in relating “subsidy” requirements to the stations found to have been served at a loss during the year ended December 31, 1949, by the 16 domestic trunk and 17 local service airlines which were engaged in the carriage of mail on September 1, 1950.

While domestic carriers only were included, the following “stub end” stations situated beyond the borders of the continental limits of United States were, for purposes of the survey, considered as domestic stations: American Airlines, Inc.—Mexico City and Toronto; Colonial Airlines, Inc.—Montreal and Ottawa; Eastern Air Lines, Inc.—San Juan; National Airlines, Inc.—Havana; Northeast Airlines, Inc.—Montreal; Northwest Airlines, Inc.—Winnipeg and Honolulu; Western Airlines, Inc.—Lethbridge; and United Air Lines, Inc.—Honolulu and Vancouver.

C. PRESCRIBED ASSUMPTIONS AND CONTRACTUAL REQUIREMENTS

The Senate Committee furnished certain data for use in the survey, including ton mile mail rates which were to be regarded as compensatory

1 Part I has been shortened in certain minor respects and the detailed Appendix and several exhibits are omitted.

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rates for each carrier, minimum weight of mail loads for certain carriers, average investment of each carrier for the year 1949 and a percentage rate of return to apply against such prescribed average investment.

Aside from the contractual requirements to use the community approach and the aforementioned data relating to compensatory mail rates, minimum mail loads, subsidy, carriers’ investment and rate of return, the methods and procedures to be followed in accomplishing the objectives of the survey were matters for our judgment and decision.

In view of the assumptions prescribed in performance of this survey, it should be recognized that “Compensatory Mail Pay” and “Subsidy” in our report are used in a somewhat qualified sense, since the amounts associated therewith can only be regarded as reasonable approximations, determined as outlined in the following paragraph (C-1). They should not be considered precise determinations of fair compensation for services performed in the carriage of mail and of “subsidies” paid to the respective carriers.

1. Definition of “Compensatory Air Mail Pay” and “Subsidy.” “Compensatory air mail pay” as used in this report represents amounts resulting from application of the rates prescribed by the Senate Committee against the ton miles of mail handled, after certain adjustments made to reflect the minimum weight of mail loads likewise prescribed.

“Subsidy,” as used herein, represents the difference between the actual amount of mail pay earned for the year (including retroactive adjustments) under either temporary or final rates established by the CAB and the computed amount of “Compensatory Mail Pay” resulting from use of the aforementioned mail rates and minimum mail load formulae. Retroactive mail payments made up to and including September 15, 1950, applicable to the year 1949, have been included in the mail payments shown for each carrier.

2. Mail Rates and Minimum Loads. The compensatory mail rates and minimum mail loads prescribed for use in the survey are as follows:

- 60 cents per ton mile—American, Eastern, TWA, United.
- 70 cents per ton mile—Braniff, Capital, Chicago & Southern, Delta, National, Northwest, and Western.
- $1.00 per ton mile—Colonial, Continental, Inland, Mid-Continent, Northeast and all other local service carriers, but, in computing the weight of mail carried, these five smaller trunk and all local service carriers may deem any mail discharged or received to or from any station served weighing less than 100 pounds to weigh 100 pounds.

3. Amount of Investment. The amount of investment of each carrier and the rate of return used were provided by the Civil Aeronautics Board through the Senate Committee. The amount of investment of each carrier was furnished to the Committee by the Board with the following comment:

“The tabulation sets forth the average total assets in the beginning and ending balance sheets for the year 1949 on the basis reported to the Board by the air carriers with certain basic adjustments for items which are substantially nontransport or are not related to the air transport operations of the individual air carrier. The reported balance sheet figures include assets related to both domestic and international operations in the case of TWA, Braniff, Chicago and Southern, Northwest and Colonial Airlines. The domestic portion of the investment for these five carriers was estimated on the basis of total domestic expenses to total system expenses.”

4. Rate of Return. The rate of return used for all carriers was 7% and is based on contents of a communication addressed to the Senate Committee by the Civil Aeronautics Board, the pertinent excerpt being as follows:

“In respect to the rate of return, the Board has commonly used 7% in relation to retroactive periods.”

5. Field Surveys. To develop a profit and loss statement for each of
the communities served by each carrier, field surveys were prescribed for purposes of determining and recommending the most feasible method of:

(a) apportioning all classes of commercial revenues and compensatory mail pay in an equitable manner among all stations served by each air carrier;
(b) identifying all distinguishable elements of ground and flight expenses, including capital investment, fairly among the stations served;
(c) allocating all remaining ground and flight expenses, including capital investment, and return on investment, fairly among the stations served.

Field surveys were intended, also, to devise techniques for determination in the future, in so far as practicable, of station profit and loss by type of service rendered, particularly as to all direct costs by each type of traffic or service. The resulting data would indicate the percentage ratio of (1) direct expense of mail service and (2) the direct expense of combined commercial services to total system expenses.

6. Revision of CAB "Uniform System of Accounts." As part of the engagement, the CAB Manual, "Uniform System of Accounts," was to be reviewed and recommendations made for any revisions which would facilitate the periodic preparation of station profit and loss statements in connection with future allocation of subsidies, and to make recommendations for the use of formulae and procedures to govern the preparation of station profit and loss statements in the future.

D. PERFORMANCE OF SURVEY

1. General. The headquarters of each of the selected thirty-three domestic trunk and local service carriers were visited at the outset of the survey. Conferences were held with top executives of each to acquaint them with the purpose and scope of the program both at headquarters and in the field, and to obtain their co-operation in accomplishing the desired objectives.

Meetings took place with the Chairman of the CAB and members of his staff, with officials of the Post Office Department and, by invitation of the Air Transport Association, we participated in two stated meetings of the financial officers of the carriers held under A.T.A. sponsorship.

2. Extent of Headquarters and Station Field Surveys. Analyses of the functions and number of personnel engaged in each type of service and other operations were conducted at headquarters organizations of 20 carriers. Eighty stations, located in twenty different cities and operated by twenty-five carriers, were the subject of field review. These stations handled approximately 50% of the entire passenger and cargo volume of certificated domestic carriers for the year 1949 and, from this comprehensive group, with their varying characteristics of organization, operating problems and density and volume of traffic, we believe that a representative cross-section of all domestic stations has been obtained.

E. FIELD SURVEYS

Field surveys were conducted for the purpose of identifying expenses directly applicable to station operations, as well as the performance of each type of transportation service at stations. These surveys were also utilized to select proper methods of allocating indirect expenses and to develop recommendations as to future procedures for identifying direct expenses and allocating "subsidy" among the stations served by each carrier.

1. Headquarters and Station Analyses. As an approach to these problems, studies were made at selected stations of the functions performed, during which methods of operations and related problems were discussed with station managers and employees. Time studies were conducted for the purpose of utilizing that technique, to its practical limits, to identify direct labor costs. Headquarters offices of 20 carriers were visited by our engineers. Pay roll records were analyzed to determine the number of employees en-
gaged in each function and, where practicable, the amount of time applicable to each type of service in each functional group.

It was found that the volume of passengers, mail, and cargo fluctuated throughout a twenty-four hour period and from day to day throughout an entire week. This condition is aptly illustrated in Nos. 360, 361 and 362 of Public Counsel's exhibits filed in the "Big Four" Rate Proceeding and Efficiency Investigation (Docket Nos. 2849 and 3663), wherein is indicated the variability of passenger ton miles and mail ton miles for each day of the selected weeks, for test purposes.

To obtain an all-inclusive result at stations, it would be necessary to observe conditions prevailing within a mobile work force continuously during a volume cycle of at least one week. To secure the desired information on a sufficiently broad scale, a means was needed to identify functions performed, segregated as to local and system-wide service, and a form was designed for recording the time spent by station personnel in performance of each function associated with each type of service. To insure broad and sufficient coverage of station operations, each carrier was asked to obtain from all stations served by them the information called for on this form as to the time spent by all employees in each function in each type of service for a period of one week. Station managers were also requested to indicate the number of employees engaged exclusively in each type of service. Completed forms were received from 751 stations (city ticket offices and airport stations in the same community being considered as one in this count) of the total of 928. The information thus collected constitutes comprehensive coverage of station conditions prevailing throughout the entire domestic air transportation system.

Our engineers also conducted field surveys at the 80 stations. Inasmuch as these stations handled approximately 50% of the entire passenger, mail and cargo volume of certificated domestic carriers for the year 1949, the results obtained may justifiably be considered representative of all stations. During the course of the surveys at these 80 stations the validity of the data already reported by the carriers themselves was verified, and the degree of correction required was found to be negligible.

From analysis of data acquired from station and headquarters surveys, it was disclosed that relatively few employees were engaged exclusively in the interests of mail service. In operations involving direct handling and accounting for mail, the functions in most instances were on a commingled basis in the interest of all types of service.

2. Results of Station Questionnaire. With respect to the forms received from the 751 stations to which reference has been made, a consolidation of data reported, for station functions only, for the period of one week, and verified to a negligible error factor by actual check at the 80 stations visited by us, reveals the following breakdown of station services by time, and their ratio to the total hours involved:

<table>
<thead>
<tr>
<th>Service</th>
<th>Number of Hours</th>
<th>Per cent to Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mail service</td>
<td>27,647</td>
<td>3.3%</td>
</tr>
<tr>
<td>Express service</td>
<td>25,586</td>
<td>3.0</td>
</tr>
<tr>
<td>Freight service</td>
<td>39,626</td>
<td>4.7</td>
</tr>
<tr>
<td>Passenger service</td>
<td>82,769</td>
<td>9.9</td>
</tr>
<tr>
<td>Traffic and sales function, mainly applicable to passenger service</td>
<td>175,628</td>
<td>20.9%</td>
</tr>
<tr>
<td>All other station functions</td>
<td>436,100</td>
<td>52.0</td>
</tr>
<tr>
<td></td>
<td>401,395</td>
<td>48.0</td>
</tr>
<tr>
<td></td>
<td>837,495</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
It will be observed that only 3.3% of the total hours of approximately 20,900 station employees (837,495 hours ÷ 40 hours per week) were directly applicable to mail service. 48.7% of the total hours of station employees were reported as being identifiable with passenger, express and freight services.

The results shown cover local station operations only and, when all other pay roll hours (none of which is identifiable with type of service) are included, the total hours directly applicable to mail service represent only approximately 1 1/2% of the total pay roll hours. Conversion of this time into dollars indicated that approximately 1.3% of pay roll costs were identifiable with mail service. In terms of the ratio of direct cost applicable to mail service to the over-all total costs of the carriers represented in the summary, only approximately .6% could be regarded as being applicable to this service.

In analyzing the total expenses of all trunk carriers for the year 1949, it was found that not more than 15% of the total expenses of these carriers could be identified with specific types of service, and that more than 80% of this percentage is related to passenger service.

F. STATION PROFIT AND LOSS STATEMENTS FOR THE YEAR 1949

An inherent characteristic of air transportation is that revenues are created and expenses incurred in the interest of serving all communities certified to a carrier, and in this process stations become interdependent. It was found that in developing a profit and loss statement for each station served, the interdependency of stations raised the question as to which stations should be credited with revenues earned and which charged with expenses incurred, a problem not susceptible to precise mathematical solution.

Based on data available from carriers' records and upon our own judgment in processing data relating to carriers' revenues and expense, there is presented in the Appendix (not reprinted) the results obtained for the year ended December 31, 1949, with respect to that phase of the engagement involving development of a profit and loss statement for each community served and in relating the "subsidy" paid to the losses incurred at each station. The year ended December 31, 1949 represented the most recent calendar year period for which carriers' data were available. Exhibits "B" and "C" present summaries of over-all results of all carriers, segregated as to trunk and local service carriers.

1. Reconciliation of Adjusted Net Profit or Loss Before Taxes on Income with Carrier's Reported Net Profit or Loss to the Civil Aeronautics Board. These schedules (Exhibit C) are provided to indicate the various adjustments which were made by us to each carrier's profit or loss, as reported to CAB, in determining the carrier's profit or loss before "subsidy" and provision for taxes on income.

In reviewing carriers' records covering the year 1949, out-of-period or abnormal items not attributable to furnishing air transportation were noted and adjustments made to reflect properly the operating results for the year under review. The amount of income taxes charged against operating results for the year has been added to the amount of net profit reported on CAB Form 41, because it was necessary, for purposes of the survey, to reflect the amount of profit before taxes on income. Interest expense incurred on the use of borrowed capital and on other interest bearing obligations has been added to the reported amount of net profit, inasmuch as the amount of investment used in this survey included borrowed capital. Consequently, the amount of interest expense incurred has been eliminated from the computation of adjusted net profit to avoid duplication. To be consistent, dividends and interest received have been eliminated from reported net profit, since the
amount of capital investment in other companies, as previously mentioned, had been deducted by CAB before furnishing the amount of average investment of each carrier.

With respect to taxes on income, the effective rate of tax against each carrier's reported profit for the year 1949 varied considerably, due to the effect of loss carryover provisions in the Federal Revenue Act and because taxable net income determined pursuant to the Federal Revenue Code varied from net profit determined under CAB regulations. It was not practicable to attempt to reconcile these differences and recompute the amount of tax for each carrier for purposes of the survey. Instead, an assumed uniform rate of 40% has been used to cover Federal and State taxes on income.

Under this assumption, the prescribed net return of 7% on investment would be the equivalent of 11\(\frac{2}{3}\)% before provision for a tax deduction of 40%. Consequently, a rate of 11\(\frac{2}{3}\)% has been used and applied against the amount of investment furnished by the CAB to arrive at the amount of return to which a carrier would be entitled for the year. Such amount is indicated in the reconciliation schedule as “Provision for Return on Investment.” In cases where a carrier was in operation for less than a full year appropriate adjustments were made in the amount used.

The sum resulting from addition of the amount representing return on investment to the amount of adjusted net loss before “subsidy” (or the subtraction thereof where an adjusted net profit before “subsidy” was indicated) represents the additional amount of income that would be required by a carrier to show a return of 11\(\frac{2}{3}\)% on investment before applicable income taxes at the assumed rate of 40%.

2. Summary of Station Profit and Loss Statements and Allocated Mail Pay “Subsidy.” These schedules (Exhibit B) for each carrier show net profit or loss before “subsidy” and before taxes on income as to each station served by the respective carriers, together with amounts covering operating revenues, operating expenses and non-operating income or expense allocated to each station. The total amount appearing in the column “Net Profit or (Loss)” on this schedule is the same amount as that indicated on the previously mentioned “Statement of Reconciliation” schedule for the carrier under the title “Adjusted Net Profit or (Loss) Before Subsidy and Before Provision for Taxes on Income” (Col. 8, Exhibit C).

The total amount shown as provision for return on investment in this schedule has been allocated among stations on the basis of the ratio of total operating expenses allocated to each station to the aggregate total of operating expenses for all stations. We consider this method to be the most practicable and soundest available for this purpose.

The result of adding the amount representing provision for return on investment to the amount shown as loss before “subsidy” produces the amount representing a station’s need for additional income from additional mail pay or from other sources (shown in parentheses). Where a profit before “subsidy” is indicated, the amount of such profit has been deducted from the amount representing provision for return on investment, since profits earned obviously reduce the amount of a station’s need for sufficient income to yield a gross return of 11\(\frac{2}{3}\)% on the amount of investment.

In those cases where parentheses do not enclose the amounts shown in the “Standard Need” column, such amounts represent the excess profit earned over the amount required to yield the prescribed rate of return.

In considering the need of a carrier as a single entity, without regard to each station, those stations which would produce a profit in excess of the amount required to yield the prescribed rate of return, would, in the final result of the carrier, reduce the amount of need. Therefore, in dealing with individual stations in this survey the total amount of excess profit of those stations showing such condition has been allocated among the stations show-
### SUMMARY OF STATION PROFIT AND LOSS STATEMENTS AND ALLOCATED MAIL PAY "SUBSIDY"

#### ALL AIR LINES

For the year ended December 31, 1949

<table>
<thead>
<tr>
<th>Operating Revenues</th>
<th>Operating Expenses</th>
<th>Net Operating Income or (Loss)</th>
<th>Non-Operating Income or (Expense)</th>
<th>Net Profit or (Loss)</th>
<th>Provision for 11-66-2/S Return on Investment</th>
<th>Standard Seed</th>
<th>Allocated &quot;Subsidy&quot;</th>
<th>Variance Between Standard Seed and &quot;Subsidy&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domestic Trunk Lines</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Airlines, Inc.</td>
<td>$103,140,036</td>
<td>$93,772,755</td>
<td>$9,427,281</td>
<td>$135,735</td>
<td>$9,291,526</td>
<td>$9,753,785</td>
<td>$462,256</td>
<td>$465,857</td>
</tr>
<tr>
<td>Braniff Airways, Inc.</td>
<td>23,099,098</td>
<td>14,050,713</td>
<td>1,059,374</td>
<td>108,891</td>
<td>984,463</td>
<td>1,002,760</td>
<td>1,987,603</td>
<td>1,970,492</td>
</tr>
<tr>
<td>Capital Airlines, Inc.</td>
<td>25,024,286</td>
<td>2,184,888</td>
<td>2,184,888</td>
<td>69,206</td>
<td>2,554,094</td>
<td>954,958</td>
<td>3,508,662</td>
<td>3,820,713</td>
</tr>
<tr>
<td>Chicago &amp; Southern Airlines, Inc.</td>
<td>7,147,616</td>
<td>7,783,577</td>
<td>635,911</td>
<td>30,916</td>
<td>666,827</td>
<td>4,30,883</td>
<td>1,096,910</td>
<td>1,436,084</td>
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<tr>
<td>Colonial Airlines, Inc.</td>
<td>3,043,333</td>
<td>4,220,236</td>
<td>815,805</td>
<td>167,608</td>
<td>224,870</td>
<td>2,087,899</td>
<td>1,046,079</td>
<td>1,818,874</td>
</tr>
<tr>
<td>Continental Air Lines, Inc.</td>
<td>4,152,450</td>
<td>5,558,728</td>
<td>1,406,278</td>
<td>75,214</td>
<td>1,331,264</td>
<td>390,404</td>
<td>1,722,728</td>
<td>1,568,823</td>
</tr>
<tr>
<td>Delta Air Lines, Inc.</td>
<td>15,065,111</td>
<td>15,109,172</td>
<td>1,044,041</td>
<td>207,473</td>
<td>836,888</td>
<td>1,135,464</td>
<td>1,972,436</td>
<td>1,738,982</td>
</tr>
<tr>
<td>Eastern Airlines, Inc.</td>
<td>69,406,973</td>
<td>65,841,364</td>
<td>3,585,009</td>
<td>365,204</td>
<td>3,950,233</td>
<td>4,636,076</td>
<td>685,843</td>
<td>219,404</td>
</tr>
<tr>
<td>Inland Air Lines, Inc.</td>
<td>1,277,829</td>
<td>2,192,030</td>
<td>421,403</td>
<td>35,501</td>
<td>416,904</td>
<td>55,243</td>
<td>70,030</td>
<td>59,405</td>
</tr>
<tr>
<td>Mid-Continent Airlines, Inc.</td>
<td>6,417,025</td>
<td>6,775,567</td>
<td>1,511,559</td>
<td>1,511,559</td>
<td>1,511,559</td>
<td>1,511,559</td>
<td>1,511,559</td>
<td>1,511,559</td>
</tr>
<tr>
<td>National Airlines, Inc.</td>
<td>12,600,321</td>
<td>14,103,016</td>
<td>1,651,811</td>
<td>6,395</td>
<td>1,644,416</td>
<td>716,236</td>
<td>2,391,002</td>
<td>1,395,594</td>
</tr>
<tr>
<td>Northwest Airlines, Inc.</td>
<td>26,091,566</td>
<td>28,456,620</td>
<td>2,364,996</td>
<td>402,196</td>
<td>1,962,804</td>
<td>2,880,710</td>
<td>4,843,550</td>
<td>1,183,918</td>
</tr>
<tr>
<td>Transcontinental &amp; Western Air, Inc.</td>
<td>62,638,100</td>
<td>63,219,210</td>
<td>1,419,251</td>
<td>697,780</td>
<td>721,471</td>
<td>4,622,989</td>
<td>3,903,517</td>
<td>4,482,030</td>
</tr>
<tr>
<td>United Airlines, Inc.</td>
<td>90,634,485</td>
<td>85,213,630</td>
<td>5,420,856</td>
<td>799,093</td>
<td>4,661,763</td>
<td>8,928,488</td>
<td>4,266,725</td>
<td>799,675</td>
</tr>
<tr>
<td>Western Airlines, Inc.</td>
<td>7,311,129</td>
<td>8,411,380</td>
<td>1,100,251</td>
<td>52,125</td>
<td>1,152,376</td>
<td>881,718</td>
<td>2,034,094</td>
<td>1,568,667</td>
</tr>
</tbody>
</table>

#### Domestic feeder Lines

<table>
<thead>
<tr>
<th>Airline</th>
<th>Operating Revenues</th>
<th>Operating Expenses</th>
<th>Net Operating Income or (Loss)</th>
<th>Non-Operating Income or (Expense)</th>
<th>Net Profit or (Loss)</th>
<th>Provision for 11-66-2/S Return on Investment</th>
<th>Standard Seed</th>
<th>Allocated &quot;Subsidy&quot;</th>
<th>Variance Between Standard Seed and &quot;Subsidy&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>All American Airways, Inc.</td>
<td>$70,065</td>
<td>$2,025,528</td>
<td>$1,714,875</td>
<td>$72,513</td>
<td>$1,787,388</td>
<td>$150,336</td>
<td>$1,537,724</td>
<td>$1,276,044</td>
<td>$260,690</td>
</tr>
<tr>
<td>Hawaiian Air Lines, Inc.</td>
<td>5,569</td>
<td>3,470</td>
<td>27,713</td>
<td>2,363</td>
<td>29,076</td>
<td>30,465</td>
<td>10,967</td>
<td>13,337</td>
<td></td>
</tr>
<tr>
<td>Central Airlines, Inc.</td>
<td>24,000</td>
<td>14,050,713</td>
<td>1,059,374</td>
<td>108,891</td>
<td>984,463</td>
<td>1,002,760</td>
<td>1,987,603</td>
<td>1,970,492</td>
<td>147,111</td>
</tr>
<tr>
<td>Challenger Airlines Co.</td>
<td>546,319</td>
<td>1,266,469</td>
<td>920,130</td>
<td>30,712</td>
<td>950,842</td>
<td>22,233</td>
<td>973,176</td>
<td>907,585</td>
<td>65,591</td>
</tr>
<tr>
<td>Empire Air Lines, Inc.</td>
<td>386,439</td>
<td>900,799</td>
<td>524,305</td>
<td>20,169</td>
<td>544,488</td>
<td>42,199</td>
<td>580,737</td>
<td>662,135</td>
<td>81,398</td>
</tr>
<tr>
<td>Mid-West Airlines, Inc.</td>
<td>11,928</td>
<td>88,897</td>
<td>75,965</td>
<td>877</td>
<td>76,088</td>
<td>2,972</td>
<td>79,060</td>
<td>56,115</td>
<td>22,943</td>
</tr>
<tr>
<td>Menahah Air Lines, Inc.</td>
<td>541,495</td>
<td>1,533,288</td>
<td>1,033,703</td>
<td>21,012</td>
<td>1,012,691</td>
<td>61,620</td>
<td>1,074,415</td>
<td>1,036,600</td>
<td>37,815</td>
</tr>
<tr>
<td>Piedmont Airlines, Inc.</td>
<td>1,310,575</td>
<td>2,348,929</td>
<td>1,038,354</td>
<td>72,201</td>
<td>1,110,555</td>
<td>87,661</td>
<td>1,198,216</td>
<td>1,016,641</td>
<td>181,575</td>
</tr>
<tr>
<td>Pioneer Airlines, Inc.</td>
<td>1,818,017</td>
<td>3,011,136</td>
<td>1,213,119</td>
<td>44,622</td>
<td>1,257,801</td>
<td>103,167</td>
<td>1,360,729</td>
<td>1,484,900</td>
<td>124,252</td>
</tr>
<tr>
<td>Robinson Airlines Corp.</td>
<td>502,390</td>
<td>1,095,331</td>
<td>992,941</td>
<td>71,470</td>
<td>664,411</td>
<td>71,573</td>
<td>735,984</td>
<td>695,598</td>
<td>160,326</td>
</tr>
</tbody>
</table>
### Summary of Station Profit and Loss Statements and Allocated Mail Pay "Subsidy"

**For the year ended December 31, 1949**

<table>
<thead>
<tr>
<th>Domestic Feeder Lines (Continued)</th>
<th>Operating Revenues</th>
<th>Operating Expenses</th>
<th>Net Operating Income (Loss)</th>
<th>Subsidy</th>
<th>Standard Need</th>
<th>Variance Between</th>
<th>Allocated &quot;Subsidy&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/Southern Airways, Inc.</td>
<td>$148,351</td>
<td>806,036</td>
<td>($657,685)</td>
<td>($38,390)</td>
<td>($696,075)</td>
<td>25,662</td>
<td>$722,736</td>
</tr>
<tr>
<td>Southwest Airways Co.</td>
<td>1,241,388</td>
<td>2,263,878</td>
<td>($1,022,690)</td>
<td>3,115</td>
<td>1,019,545</td>
<td>114,154</td>
<td>1,133,699</td>
</tr>
<tr>
<td>Trans-Texas Airways</td>
<td>688,937</td>
<td>2,310,879</td>
<td>($1,621,942)</td>
<td>170,236</td>
<td>1,792,178</td>
<td>74,908</td>
<td>1,867,086</td>
</tr>
<tr>
<td>10/TURNER AIRLINES CORP.</td>
<td>9,885</td>
<td>42,497</td>
<td>33,612</td>
<td>3,252</td>
<td>36,864</td>
<td>2,252</td>
<td>39,116</td>
</tr>
<tr>
<td>East Coast Airlines, Inc.</td>
<td>580,481</td>
<td>1,264,091</td>
<td>687,420</td>
<td>41,256</td>
<td>724,666</td>
<td>79,182</td>
<td>803,848</td>
</tr>
<tr>
<td>11/N. W. Wiggins Airways, Inc.</td>
<td>6,516</td>
<td>44,547</td>
<td>38,031</td>
<td>16,225</td>
<td>54,256</td>
<td>5,912</td>
<td>60,168</td>
</tr>
<tr>
<td>Wisconsin Central Airlines, Inc.</td>
<td>344,853</td>
<td>1,377,831</td>
<td>992,978</td>
<td>1,968</td>
<td>994,946</td>
<td>64,795</td>
<td>1,059,741</td>
</tr>
<tr>
<td><strong>Total Domestic Feeder Lines</strong></td>
<td><strong>8,879,342</strong></td>
<td><strong>21,155,544</strong></td>
<td><strong>($12,276,202)</strong></td>
<td><strong>($601,302)</strong></td>
<td><strong>($12,877,504)</strong></td>
<td><strong>921,956</strong></td>
<td><strong>($13,799,460)</strong></td>
</tr>
<tr>
<td><strong>Total Domestic Trunk &amp; Feeder Lines</strong></td>
<td><strong>458,574,058</strong></td>
<td><strong>1,655,422,023</strong></td>
<td><strong>($6,847,966)</strong></td>
<td><strong>($1,352,431)</strong></td>
<td><strong>($8,200,396)</strong></td>
<td><strong>38,779,162</strong></td>
<td><strong>($6,179,358)</strong></td>
</tr>
</tbody>
</table>

- Indicates carriers operating under final air mail rate
- Amount needed to recover actual loss incurred and, in addition, to provide a net profit after taxes and income equivalent to 7% of carrier's average investment
- After prorata distribution of station profits in excess of provision for return on investment
- Allocation of amount of difference between actual mail pay received and computed mail pay at assumed compensatory rates
- Difference between redistributed standard need (or standard need wherever applicable) and allocated "subsidy"

The excesses and deficiencies indicated in the "Variance between Standard Need and "Subsidy" columns should not be interpreted as over or underpayments since the Civil Aeronautics Board necessarily evaluates other conditions not reflected in the actual one year figures in the development of rates for carriers, such as adjustments in equipment investment and in depreciation rates, the relative efficiency, average rate of return on investment over several years, etc.
ing a need on the basis of the ratio of each station's need to the aggregate total need of all stations in a need condition.

The amounts shown in the column entitled "Redistributed Standard Need" reflect the remaining need of each station after the excess profits of profitable stations were allocated among the stations showing financial need.

As previously mentioned, "subsidy" requirements were to be related to losses incurred at stations, and "subsidy" paid to each carrier was to be prorated among the stations found to have been served at a loss after provision had been made for return on investment. In accordance with this requirement, the amount representing "subsidy" for each carrier has been allocated among the carrier's stations in the ratio of the standard need (or redistributed standard need wherever applicable) of each station to the aggregate total standard need of all stations. The results of this procedure are indicated in the column headed "Allocated 'Subsidy.'"

The difference between the amounts of allocated "subsidy" and standard need (or redistributed standard need wherever applicable) are shown in the last column on the schedule entitled "Variance Between (Redistributed) Standard Need and 'Subsidy.'" The amounts in this column indicate the extent to which the allocated mail pay "subsidy" was inadequate, or more than adequate, in covering each station's need. Particular attention is directed to the footnote on the schedule which refers to amounts shown in this column.

3. Summaries of Operating Revenues and Operating Expenses. These schedules for each carrier are provided to show supporting details of the operating revenues and operating expenses shown in total only on the schedule "Summary of Station Profit and Loss Statements and Allocated Mail Pay 'Subsidy'" of each carrier. An explanation of the methods and procedures used in allocating each type of revenue and expense among stations is contained elsewhere in this report.

4. Geographical Summary of Operating Revenues and Expenses and Comparison of Stations' Needs with Allocated "Subsidy." These schedules show consolidated data for each community served arranged in alphabetical sequence according to States.

With respect to data shown on the schedules covering communities served, caution should be exercised in making comparison of results shown for each carrier serving the same community. Attention is directed to the footnote on these schedules indicating that certain carriers operated under final mail rates prescribed by CAB. Those carriers not so indicated, it is understood, have mail rate cases pending, the final results of which may materially change the amounts shown in the "Allocated Subsidy" column if applied on a retroactive basis. In making comparisons attention is also directed to comments appearing hereinafter regarding lack of uniformity among carriers in compilation of statistical data used in allocating revenue among stations.

While it is obvious that the amounts shown in the "Allocated Subsidy" column for carriers operating under final rates and for those operating under temporary rates are not comparable, we wish to point out that the procedure used in allocating "subsidy," previously described herein, can be employed in allocating further payments (made after September 15, 1950) to those carriers operating under temporary rates. Any further adjustments in mail payments applicable to the year 1949 can easily be distributed to the various stations served in the exact proportion that the original tentative "subsidy" was allocated. Such additional payments would not change the amounts shown in the "Redistributed Standard Need" column of the schedules.
<table>
<thead>
<tr>
<th>Net Profit or (Loss) as of Schedule B-C, Form 4</th>
<th>Adjusted Net Profit or (Loss) before &quot;Subsidy&quot; &amp; before Provision for Taxes of Income</th>
<th>Adjusted Net Profit or (Loss) before &quot;Subsidy&quot; &amp; before Provision for Taxes of Income</th>
<th>Adjusted Net Profit or (Loss) before &quot;Subsidy&quot; &amp; before Provision for Taxes of Income</th>
<th>Adjusted Net Profit or (Loss) before &quot;Subsidy&quot; &amp; before Provision for Taxes of Income</th>
<th>Adjusted Net Profit or (Loss) before &quot;Subsidy&quot; &amp; before Provision for Taxes of Income</th>
<th>Adjusted Net Profit or (Loss) before &quot;Subsidy&quot; &amp; before Provision for Taxes of Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Truck Lines</td>
<td>$12,476,426</td>
<td>$16,064,742</td>
<td>$3,025,286</td>
<td>$25,373,008</td>
<td>$59,326,265</td>
<td>$27,551,799</td>
</tr>
<tr>
<td>Domestic Feeder Lines</td>
<td>$12,476,426</td>
<td>$16,064,742</td>
<td>$3,025,286</td>
<td>$25,373,008</td>
<td>$59,326,265</td>
<td>$27,551,799</td>
</tr>
</tbody>
</table>


**BEFORE TAXES ON INCOME WITH CARRIERS REPORTED NET PROFIT OR LOSS**

**EXHIBIT C**

**STANDARD DEED**

**BEFORE "SUBSIDY" AND BEFORE PROVISION FOR TAXES OF INCOME**


**DOMESTIC TRUCK LINES**

<table>
<thead>
<tr>
<th>Carrier</th>
<th>Adjusted Net Profit or (Loss)</th>
<th>Adjusted Net Profit or (Loss)</th>
<th>Adjusted Net Profit or (Loss)</th>
<th>Adjusted Net Profit or (Loss)</th>
<th>Adjusted Net Profit or (Loss)</th>
<th>Adjusted Net Profit or (Loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. &amp; M. Airlines Co.</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>B. &amp; M. Lines, Inc.</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>C. &amp; N. Airlines Co.</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>D. &amp; N. Lines, Inc.</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>E. &amp; M. Lines, Inc.</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

**DOMESTIC FEEDER LINES**

<table>
<thead>
<tr>
<th>Carrier</th>
<th>Adjusted Net Profit or (Loss)</th>
<th>Adjusted Net Profit or (Loss)</th>
<th>Adjusted Net Profit or (Loss)</th>
<th>Adjusted Net Profit or (Loss)</th>
<th>Adjusted Net Profit or (Loss)</th>
<th>Adjusted Net Profit or (Loss)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F. &amp; G. Lines, Inc.</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>G. &amp; H. Lines, Inc.</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>H. &amp; J. Lines, Inc.</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

**FEDERAL**

**TOTAL DOMESTIC FEEDER LINES $12,476,426 $16,064,742 $3,025,286 $25,373,008 $59,326,265 $27,551,799 $21,734,264 $(8,300,396) $38,379,162 $(46,479,558)**
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JOURNAL OF AIR LAW AND COMMERCE

G. TREATMENT OF REVENUES AND EXPENSES

1. General

In the course of allocating the various types of revenues and expenses to stations, certain problems were encountered with respect to variability of information available and in the method of its treatment by the different carriers. This statement should in no sense be construed as criticism of any carrier’s accounting methods, but as indicative of the extent to which judgment and considerations of practicability were called for in the methods of allocation employed. The advantages of more uniform treatment and methods of reporting revenue and expense items by all carriers have been amply evidenced in the course of this study.

The CAB Manual, “Uniform System of Accounts,” and the requirements of reporting on CAB Form 41 were not designed for purposes of determining the profitability or unprofitability of stations; consequently, the compilation of data readily to permit making such determination has not been a primary objective of a carrier’s accounting system. It is, therefore, understandable that certain data which would have been of assistance in this survey as applied to the year 1949 were not available, or were not prepared in such form as to be helpful in obtaining uniformity in results.

Which of the communities served should be credited with the revenues earned, or charged with the expenses incurred, cannot be precisely determined because of the interdependency of stations. As a result, methods of allocation must be employed in developing profit or loss for each station served.

The methods used in allocating revenues and expenses in this survey are regarded as being the most practicable for use under the circumstances encountered, with due consideration to the significance of the amounts involved in the allocation process. Based on consolidation of the respective amounts of revenue for all carriers the relative significance of each is indicated by the following ratios:

<table>
<thead>
<tr>
<th>Type of Revenue</th>
<th>Amount of Revenue</th>
<th>Revenue Ton Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger</td>
<td>85.88%</td>
<td>78.44%</td>
</tr>
<tr>
<td>Other non-mail</td>
<td>8.10</td>
<td>16.55</td>
</tr>
<tr>
<td>Total non-mail</td>
<td>93.98%</td>
<td>94.99%</td>
</tr>
<tr>
<td>Mail at assumed compensatory rates</td>
<td>6.02</td>
<td>5.01</td>
</tr>
<tr>
<td>Total</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

With respect to operating expenses, the schedule of consolidation shows:

<table>
<thead>
<tr>
<th>DIRECT EXPENSES</th>
<th>Per Cent to Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft landing and takeoff</td>
<td>9.90%</td>
</tr>
<tr>
<td>Other</td>
<td>17.22</td>
</tr>
</tbody>
</table>

27.12%

<table>
<thead>
<tr>
<th>ALLOCATED EXPENSES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft cruise</td>
<td>49.24</td>
</tr>
<tr>
<td>Ground operations</td>
<td>2.98</td>
</tr>
<tr>
<td>Aircraft control</td>
<td>2.65</td>
</tr>
<tr>
<td>Passenger service</td>
<td>6.63</td>
</tr>
<tr>
<td>Traffic, sales, advertising and publicity</td>
<td>6.16</td>
</tr>
<tr>
<td>General and administrative</td>
<td>5.22</td>
</tr>
<tr>
<td></td>
<td>100.00%</td>
</tr>
</tbody>
</table>
Revenues have been treated under the following classifications: (a) Passenger, (b) Excess baggage, (c) Mail, (d) Express and freight, and (e) Other.

a. Passenger Revenue. In considering possible methods of allocating passenger revenue to communities, it was found that there existed a lack of uniformity among carriers in the methods of reporting gross ticket sales at stations, as in many instances station reports included the value of transportation to be performed by other carriers, the value of round-trip transactions and the value of transportation which may have originated subsequently at some other point on the carrier's system. Also, in some cases, it was found that the carriers' reported value of gross ticket sales for the year was substantially greater or less than the value of the transportation service actually rendered and taken into the revenue accounts of the respective carriers. Many tests demonstrated that the use of gross ticket sales for purposes of assigning revenue to communities served should be eliminated from consideration.

Further studies indicated that assignment of revenue to communities served on the basis of the value of the transportation service there originating, and subsequently rendered, would appear to be appropriate for purposes of this survey. For their own requirements, most carriers regularly prepare what is known as an “O” and “D” (origin and destination) report covering passenger movements. However, in the preparation of this report, there was found to be a lack of uniformity among carriers in the treatment of transfers to connecting flights of the same carrier. In reporting the number of passengers handled in the origin and destination reports used in the survey, American, Eastern and Piedmont treated a transferred on-line passenger as an originating passenger at the station of transfer. In reporting the number of passengers handled in the origin and destination reports used in the survey, American, Eastern and Piedmont treated a transferred on-line passenger as an originating passenger at the station of transfer. In the case of all other carriers included in this survey, the “O” and “D” report did not include the station of transfer where an on-line transfer was made.

When a passenger transferred to an airplane of another carrier at a junction point, however, such passenger was recognized by all carriers as a deplaning passenger of one carrier and an enplaning passenger of the other carrier at the station of transfer. In such cases the respective carriers then took revenue into account based on the respective value of the ticket stubs lifted by each carrier.

Our analysis was approached on the premise that if the number of passengers enplaned and deplaned at a station were in balance as to miles flown, there would be no need to split revenue between stations. Tests were made to determine the degree of balance in passenger revenue generated out of a station and the passenger revenue generated into a station. In one test, passenger statistics from the September, 1948, and March, 1949, CAB traffic surveys were used. By comparing the number of enplaned with the number of deplaned passengers at each station, it was found, in the case of the Sep-
tember, 1948, period, that 89.6% of all passenger miles flown could be attributed to stations where the number of enplaned and deplaned passengers differed by less than 10%. For the March, 1949, period 86.3% of all passenger miles were attributable to stations with less than 10% difference between passengers enplaned and deplaned.

Another test compared the dollar volume of passenger revenue when credited to stations under two methods—(1) by station of origin only, and (2) by a 50-50 split between station of origin and station of destination. This test, applied to stations served by Delta, Eastern, National and Piedmont, showed that 87.4% of the total passenger revenue of these carriers could be attributed to stations where the variance between enplaned and deplaned passengers was less than 10%—thus:

<table>
<thead>
<tr>
<th>Within Following Number of Per cent</th>
<th></th>
<th>Per cent to Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range of Variance—Less Than:</td>
<td>Stations (Cumulative)</td>
<td>to Total (Cumulative)</td>
</tr>
<tr>
<td>1%</td>
<td>18</td>
<td>11.3</td>
</tr>
<tr>
<td>2</td>
<td>43</td>
<td>27.0</td>
</tr>
<tr>
<td>3</td>
<td>63</td>
<td>39.6</td>
</tr>
<tr>
<td>4</td>
<td>84</td>
<td>52.9</td>
</tr>
<tr>
<td>5</td>
<td>96</td>
<td>60.4</td>
</tr>
<tr>
<td>6</td>
<td>110</td>
<td>69.2</td>
</tr>
<tr>
<td>7</td>
<td>119</td>
<td>74.9</td>
</tr>
<tr>
<td>8</td>
<td>127</td>
<td>79.9</td>
</tr>
<tr>
<td>9</td>
<td>135</td>
<td>84.9</td>
</tr>
<tr>
<td>10</td>
<td>139</td>
<td>87.4</td>
</tr>
<tr>
<td>Over 10%</td>
<td>20</td>
<td>12.6</td>
</tr>
<tr>
<td>Total</td>
<td>159</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Based on these tests, and from opinions expressed by many of the carriers, it was concluded that use of a method whereby stations of origin would be given credit for revenue attributable to enplaned passengers would be sufficiently accurate for use in connection with developing profit and loss statements for the year 1949.

In developing the amount of passenger revenue to be assigned to each station, available statistics covering origin and destination of enplaned passengers for each month of the year were consolidated to obtain a yearly total of passengers carried between each pair of stations. The value of a full fare one-way ticket between each pair of stations was then applied to the number of passengers carried between these stations. The resulting amount represented tentative revenue assigned to each station of origin. To reflect the effect of reduced rate transportation, such as round-trips, family plan and coach and excursion trips against the value of full fare one-way transportation, the tentative amount was reduced by a factor which represented the percentage rate necessary to reduce the tentative amount to the actual passenger revenue reported on Schedule B, CAB Form 41. The reduced figure then became the amount allocated to each station.

In some instances, a carrier's statistics were not available for each of the twelve months. In such cases, it was necessary to develop the average fare of a one-way trip from each station of origin, using whatever period for which origin and destination statistics were available. The developed average for each station was then extended by the total number of passengers enplaned at each station for the year and the resulting amounts reduced by applying a factor representing the percentage rate of deviation between the tentative and the reported amount of passenger revenue.

Where origin and destination statistics were available for coach transportation, they were used separately in allocating revenues. In cases where this was not possible the amount of revenue allocated was based on use of first-class fares only.
b. Excess Baggage Revenue. No instances were found where carriers compiled statistics covering the movement of excess baggage between pairs of stations. For purposes of this survey, revenues derived from this source have been allocated to the respective stations in the ratio of each station’s share of allocated passenger revenue.

c. Mail Revenue. Under the Committee’s directive, the amount of mail revenues to be used in the course of developing profit and loss statements of each station was to be the amount resulting from application of a prescribed formula against the ton-miles of mail flown during the year. With respect to those carriers subject to application of minimum load conditions, no practicable method was found to adjust the weight of each load enplaned or deplaned to a minimum of 100 pounds. To make such adjustments for each load would have required careful analysis of every manifest covering the movement of mail between each pair of stations on each flight made during the year 1949, obviously an impossible task in the time available.

To accomplish the intent of the Committee however, of giving special consideration to the small volume of mail carried by the smaller trunk line and all local service carriers, in computing an amount to be regarded as “Compensatory Mail Pay” the actual average mail load carried during the year was enlarged to a 100 pound average load and the “Compensatory Mail Pay” computed accordingly. In this process, a tentative “Compensatory Mail Pay” amount was computed by extending the actual mail ton-miles carried by the rate of $1.00 per ton-mile. The product of this computation was then divided by the actual average load and the resulting amount multiplied by 100 pounds. Thus, an adjusted “Compensatory Mail Pay” (Column 6, Exhibit C) amount was derived for carriage of an assumed average load of 100 pounds on each flight throughout the year.

In considering methods for allocating the amount of “Compensatory Mail Pay” among stations served by each carrier, it was found that very few carriers had statistics available covering the carriage of mail between each pair of stations similar to the type of statistics available covering the carriage of passengers. In view of this lack of origin and destination data covering carriage of mail, it was necessary to assume an average length of haul for purposes of allocating the total amount of “Compensatory Mail Pay” among stations served.

However, in this connection it was found that there was a considerably higher degree of directional unbalance in the movement of mail than was indicated from the tests made on the movement of passengers. This degree of unbalance in the movement of mail prompted the conclusion that weight of both enplaned and deplaned mail at each station, whenever available, should be used in the course of allocation.

While use of the ratio of the sum of pounds enplaned and deplaned at each station to the aggregate total pounds enplaned and deplaned was regarded as the most appropriate method for purposes of allocation, it was found that the number of pounds deplaned at stations was available only for the following carriers: American, Capital, Colonial, Delta, Eastern, National, Northwest, Piedmont, Pioneer, Southern, Trans-Texas, and Wiggins. Under such circumstances it was necessary to use the number of pounds enplaned only for all other carriers.

d. Express and Freight Revenue. Few carriers prepared statistics during the year 1949 covering the carriage of express and freight between pairs of stations. In reviewing methods for allocating the revenues derived from these sources, it was found that there was also considerable unbalance in the tonnage enplaned and deplaned at each station in these categories. It was
concluded that both enplaned and deplaned traffic should be used in connection with the allocation of express and freight revenues. However, the same situation was found with respect to availability of the number of pounds deplaned as was found with respect to mail and, in instances where deplaned pounds were not available, it was necessary to use the number of pounds enplaned only in the allocation process.

e. Other Revenue. Other types of revenue, such as charter service, non-transport revenue and incidental income, have been, wherever practicable, assigned to stations on the basis of the facts disclosed by an analysis of the accounts involved. Where the accounts did not readily disclose the desired information, nonscheduled transport revenue was allocated, based on the ratio of nonscheduled departures at each station. Other transportation revenue was allocated on the basis of the amount of passenger revenue credited to each station. Incidental revenues were allocated to the various stations on the basis of the amounts of general and administrative expense allocated to each station.

Particularly difficult problems arose in the allocation of revenues derived from charter service. In some instances, this service was performed between pairs of stations not regularly served by the carrier. Under such circumstances, the amount of revenue was credited to the on-line station at which the flight was negotiated or to the station at which the airplane was based prior to performing the charter service. The opinions of the respective carriers were generally used as a basis for allocation of this type of revenue.

3. Expenses

In dealing with operating expenses of each carrier, it was disclosed at the outset of our survey that serious problems would be faced in identification and segregation of expenses directly associated with operation of an airline station. Amounts reported quarterly by each carrier to the CAB, purporting to represent the direct costs of operating stations, in most instances have been of little value for purposes of segregating direct costs in the development of profit and loss statements for the year 1949. In many instances, some of the expenses reported in Schedule B-4, CAB Form 41, as station expenses were, by their nature, involved with matters beyond the scope of station activities when a station is viewed as an independent unit. The varying conditions of operation, volume, geographical location and organizational set-up among carriers’ stations created difficulties with respect to isolation of those expenses which were exclusively beneficial to a station as distinguished from those applicable to regional or system-wide activities.

From observations at many stations during the course of our field surveys and from discussions with carriers, it was determined that costs associated with certain functions performed at stations should be treated as system-wide costs, even though the carrier may have regarded them as direct station expenses in reporting quarterly to the Civil Aeronautics Board.

The following types of expenses incurred at stations, wherever it was practicable to do so, were treated as system-wide expenses:

- Fueling
- Cleaning aircraft
- On-line mechanical work
- Pre-flight checks
- Meteorology
- Dispatching
- Aircraft communications
- Flight attendants
- Food service
- Flight interruptions

Depreciation of ground property and equipment was transferred to the respective functional accounts when its was possible to identify the func-
tional activity using the equipment. When it was impracticable to obtain such information, such depreciation was transferred to the maintenance function as the major portion was applicable to maintenance base and on-line maintenance activities.

The yearly amounts relating to pay roll taxes and employees' welfare insurance were allocated among the various functional activities before the cost of such activities were charged directly or allocated to the various stations.

It is evident, therefore, that, to facilitate charging direct expenses to stations and allocating system-wide expenses, a regrouping of all expenses was desirable for purposes of this report. According, expenses have been grouped hereinafter as follows:

a. Aircraft Operations
b. Direct Expenses
   (1) Aircraft landing and take-off (stop costs)
   (2) Other direct costs at stations
c. Allocated
   (1) Aircraft operations (cruise costs)
   (2) Ground operations
   (3) Aircraft control
   (4) Passenger service
   (5) Traffic and sales
   (6) Advertising and publicity
   (7) General and administrative

It would not be feasible to outline in detail in this report the many changes which were made in classification of expenses of each of the thirty-three carriers. It is believed sufficient to mention that every effort was made to identify and accumulate direct expenses of each station on as sound a basis as was practicable. Complete details of the changes made are shown in the work sheets turned over to the Committee.

a. Aircraft Operations

The functional activity "Aircraft Operations," for purposes of this survey, included direct flying operations, direct maintenance, depreciation of flight equipment, indirect maintenance and depreciation on maintenance equipment, plus pay roll taxes and employees' welfare insurance applicable to the amount of labor included in the respective functional accounts. Through this grouping it was possible to obtain the total cost of flying aircraft, exclusive of aircraft control activities.

In dealing with the problem of allocating costs incurred in aircraft operations among stations, various methods were carefully reviewed or tested; it was concluded that the most practicable approach to this problem was to segregate the costs associated with landing and take-off and those associated with the cruise between stops. Inasmuch as landings are made to generate revenue in or out of a station it was felt that each station should be charged with the average cost of making a stop.

b. Direct Expenses

(1) Aircraft Landing and Take-off Costs (stop costs). A formula was devised for computing the cost of making a landing and take-off during the year 1949 for each type of equipment. It was impracticable to obtain and analyze detailed flight data as to average altitudes flown, rate of descent
and climb, maneuver time, fuel consumption, etc., from each of the thirty-three carriers, and to develop separate costs for each. The matter was discussed, however, with eight of the trunk line carriers and with a representative of all of the local service carriers. As a result, basic data covering flight specifications during descent and climb were obtained for the type of equipment indicated from the following trunk line carriers: American—DC-3, CV-240, DC-4, DC-6; Capital—DC-3, DC-4, L-49; Colonial—DC-3, DC-4; Delta—D-C3, DC-4, DC-6; Eastern—DC-3, DC-4, L-49; National—DC-4, DC-6, LOD; Northeast—DC-3, CV-240, DC-4; and Northwest—202, B-377.

It was considered adequate for this survey to use the composite flight specifications of the above carriers and, with respect to the time elements indicated therein, these figures were extended by an average hourly cost of operating each type of aircraft. Such hourly costs were developed by using the aggregate costs of direct flying (exclusive of fuel and oil), direct maintenance, depreciation of flight equipment and indirect maintenance of all carriers included in the survey. Fuel and oil consumption indicated by the composite specifications mentioned was costed specifically by using average consumption during descent, ascent and cruise, priced at an average cost per gallon. Complete details of the computations used in developing the cost of making a landing and take-off of each major type of equipment are shown in Exhibit "E" (not reprinted).

For purposes of simplicity in application, the derived unit costs shown in these summaries were adjusted to the nearest even dollar, thereby resulting in the following unit costs, which were applied to the number of departures made from each station for the entire year:

<table>
<thead>
<tr>
<th>Trunk Line Carriers</th>
<th>Local Service Carriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-3</td>
<td>$10.00</td>
</tr>
<tr>
<td>LODESTAR</td>
<td>12.00</td>
</tr>
<tr>
<td>CV-240</td>
<td>29.00</td>
</tr>
<tr>
<td>202</td>
<td>29.00</td>
</tr>
<tr>
<td>DC-4</td>
<td>50.00</td>
</tr>
<tr>
<td>DC-6</td>
<td>85.00</td>
</tr>
<tr>
<td>CONSTELLATION</td>
<td>81.00</td>
</tr>
<tr>
<td>B-377</td>
<td>150.00</td>
</tr>
<tr>
<td>DC-3</td>
<td>$7.00</td>
</tr>
<tr>
<td>ALL OTHER</td>
<td>3.00</td>
</tr>
</tbody>
</table>

(Local service carrier stop-costs are lower because of a number of factors peculiar to their route patterns and procedures. Complete details were not available from each of the several local service carriers using airplanes lighter and smaller than DC-3’s. However, certain analyses were made of pertinent data of two carriers and as a result an average cost of $3.00 was developed and applied for all equipment types in the lighter class.)

It should be recognized that elimination of stops would not result in savings equal to the unit stop costs shown, inasmuch as these amounts contain elements of continuing fixed costs. This point is emphasized to avoid application of such costs for purposes other than those intended in the survey. The scope of the survey contemplated allocation of costs among the stations served during the year 1949, and the unit costs shown were developed to assist in allocating a portion of flight costs in this manner.

(2) Other Direct Costs at Stations. For convenience in presentation, all direct station costs other than those associated with landings and take-offs were grouped into one total in the schedule “Summary of Operating Expenses.” This category includes those expenses which had originally
been charged to the CAB functional accounts "Ground Operations," "Ground and Indirect Maintenance," "Passenger Service," "Traffic and Sales" and "Depreciation—Ground Property and Equipment," together with related payroll taxes and welfare costs, less those costs which were transferred to the categories of aircraft operations and aircraft control.

The major portion of the remaining costs were those associated with activities of:

- Local reservations
- Mail handling
- Ticketing
- Cargo handling
- Soliciting
- Landing fees
- Passenger handling
- Local rentals
- Soliciting
- Landing fees
- Passenger handling
- Local rentals

Local and system-wide expenses in each of the CAB functional accounts have been segregated based on results of field studies conducted at stations and by analyses of carriers' expense accounts.

c. Allocated Expenses

(1) Aircraft Operations (cruise costs). In allocating costs incurred in aircraft operations, such costs were segregated as to landing and take-off, and cruise. Unit costs attributable to making landings and take-offs have previously been described, and the total amount charged to stations of each carrier for this activity is shown under the heading "Aircraft Landing and Take-off" on the individual schedules "Summary of Operations Expenses." The amount so charged has been deducted from the total cost incurred in aircraft operations and the remainder allocated among stations. Thus, the total amount shown under the heading "Aircraft Operations" on the schedule "Summary of Operating Expenses" represents the remaining amount of aircraft operations expenses after costs assignable to landings and take-offs have been deducted.

In view of the significance of the remaining amount in relation to total costs of each carrier, special study was given to the problem of allocating this portion of aircraft operations expenses among stations. Consideration was given to use of both available revenue ton miles and actual revenue ton miles. Based on these studies and upon consideration of data available from carriers, it was concluded that use of revenue ton miles associated with each type of revenue assigned to stations would be the most appropriate basis for this purpose.

In studying the problem of allocating this type of expense, consideration was given to the use of available revenue ton miles for each flight, and the proration of such available revenue ton miles among stations, based on the composite load factors realized for flights serving each station. It does not appear possible to identify the ton miles available to each station as a basis for charging each station for cruise costs, due to inherent characteristics of air transportation involving space reservation for use at intermediate points and other matters which would influence the load factors generated at each station.

While it was impracticable to apply the principle of using available ton miles for each flight made by each carrier for the year 1949, tests were made whereby this principle was applied to over-all results of two carriers. The results of these tests showed that terminal stations would appear more profitable, and intermediate stations show greater losses, than when revenue ton miles were used as the basis of allocation of cruise costs.

In developing revenue ton miles for each station a factor was used for each type of revenue for each carrier, determined by dividing the carrier's
total revenue for each type of service into the reported corresponding revenue ton miles. The result represented the number of revenue ton miles carried for each dollar of revenue of each type of service. The factors developed were then multiplied by the respective amounts of revenue assigned to each station for passengers, mail, express, freight, excess baggage and nonscheduled transportation service. The resulting ton miles for each type of service were then accumulated and the ratio of the aggregate total for each station to the aggregate total ton miles reported by the carrier was used to allocate the portion of aircraft operations expense attributable to aircraft cruise.

(2) **Ground Operations.** Expenses associated with ground operations have been, as previously indicated, segregated between those purely local in character and those beneficial to system-wide activities. Local expenses have been included in the category “Other Direct Expenses” and have been charged directly to each station. The remaining ground operations expenses attributable to system-wide activities have been segregated as to those applicable to aircraft control and those associated with fueling, cleaning and pre-flight checks of aircraft. The latter expenses have been considered as system-wide, regardless of the location at which incurred, as they are associated with flight activities.

The basis of allocating fueling, cleaning and pre-flight expenses of each carrier was the number of departures made from each station. Where more than one type of equipment was used by a carrier, a formula was used to reflect recognition of the relative work loads created by each type.

This weighting formula was based on the average pay load weight of each type of aircraft, as furnished by the carriers:

<table>
<thead>
<tr>
<th>Aircraft</th>
<th>Pay Load Weight</th>
<th>Other Aircraft</th>
<th>Pay Load Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC-3</td>
<td>2.40 tons</td>
<td>Lodestar</td>
<td>1.50 tons</td>
</tr>
<tr>
<td>DC-4</td>
<td>6.25 tons</td>
<td>Constellation</td>
<td>8.70 tons</td>
</tr>
<tr>
<td>DC-6</td>
<td>7.00 tons</td>
<td>202</td>
<td>4.00 tons</td>
</tr>
<tr>
<td>CV-240</td>
<td>4.00 tons</td>
<td>B-377</td>
<td>9.40 tons</td>
</tr>
</tbody>
</table>

In application, the number of departures made by each type of aircraft was multiplied by the respective weights shown in the table. The results for each station were then divided by the aggregate total for all types of aircraft at all stations. The ratio of each station's total to the aggregate total of all stations was then used to allocate this type of expense.

(3) **Aircraft Control.** Expenses associated with aircraft communications, meteorology and dispatching have been segregated from the CAB functional classification “Ground Operations” and set up as a separate classification under system-wide expenses. This was done for purposes of allocating these expenses on a different basis than that used for other system-wide ground operations costs.

During discussions with personnel of various carriers during our field surveys at stations, it was indicated that expenses associated with aircraft control activities were closely related to the number of departures made from each station. Consequently, allocation of these expenses has been made based on the ratio of the number of aircraft departures of all types from each station to the total number of departures made from all stations.

(4) **Passenger Service.** Expenses reported to the Civil Aeronautics Board under the functional classification “Passenger Service” were, in most instances, taken in their original form, but for purposes of the survey were considered as system-wide expenses as they are associated with flight attendants, food, etc. The total amount of such expenses was allocated to
stations on the basis of the ratio of the amount of passenger revenue allocated to each station to the total amount of passenger revenue reported by the carrier.

(5) Traffic and Sales. Local expenses associated with traffic and sales activities were segregated and included under the category of "Other Direct Expenses." The remaining portion of the functional account to which traffic and sales expenses were charged consisted mainly of headquarters and regional office activities.

Wherever practicable to do so, such expenses were segregated as to type of service, i.e., passenger, mail, cargo and joint service. In instances where such segregation was possible, the amounts applicable to each service were allocated on the basis of the ratio of the amount of the respective type of revenue assigned to each station to the total amount of such revenue. The amount associated with joint service was allocated by using the total amount of transportation revenue as the common denominator.

(6) Advertising and Publicity. Expenses reported to the CAB as "Advertising and Publicity" were used as reported, except that no part of such expenses has been considered as being local in character even though some carriers have reported relatively small amounts as being charged to stations. The nature of these activities is such as to promote the interest of all types of service rendered by a carrier and, consequently, expenses associated with each activity are not susceptible to identification specifically by type of service. The ratio of total transportation revenue allocated to each station to the aggregate total reported has been used as the basis of allocation of this expense.

(7) General and Administrative. A portion of certain expenses originally charged to the general and administrative category by carriers, such as payroll taxes and employees' welfare insurance, has been allocated to the respective functional accounts in the ratio of the amount of wages and salaries in each. The remaining amount has been allocated to stations on the basis of the ratio of the total amount of expenses allocated to stations to the total expenses of the carrier, exclusive of the amount of general and administrative expense to be allocated.

H. International "Stub Ends" of Domestic Carriers

Operating results of all of the international "stub end" stations (Section B, supra) have been included in this study, with the exception of the Honolulu station of Northwest Airlines, Inc. In this connection, it was found impracticable to analyze and reprocess all accounting entries made by this carrier for the year 1949 involving allocation of expenses between domestic and international services.

Unlike other carriers whose stub end stations were included in the survey, the international operation of Northwest Airlines, Inc., includes both the Honolulu segment and the Orient segment. In reviewing the carrier's allocation of expenses between domestic and international operations, it was found impracticable to analyze all accounting entries made to a series of expense pools in order to segregate revenues and expenses applicable to the Honolulu segment from those applicable to the entire international operation. No problems of this kind were encountered with respect to treatment of the Winnipeg, Canada, station of this carrier, as for internal accounting purposes and in reporting to the CAB this station had already been considered as a domestic station.
PART II—RECOMMENDATIONS RELATING TO PROCEDURES APPLICABLE TO FUTURE SEPARATION OF “SUBSIDY” REQUIREMENTS FROM COMPENSATORY MAIL RATE AND ALLOCATION OF PROFIT AND LOSS BY STATIONS SERVED

I. GENERAL

Certain problems encountered in developing the station profit and loss statements included in the Appendix disclosed the need for greater uniformity in reporting expenses and certain statistical data if future “subsidy” requirements of carriers are to be related to losses as computed for the individual stations.

Our recommendations comprise minor refinements in the classification of accounts and in statistical procedures to permit a ready and more accurate allocation of profit or loss by stations whenever it is found desirable to localize the “subsidy” requirements of any or all carriers. In addition, the principles of allocation outlined herein reflecting the results of operations of carriers geographically can assist materially in making economic studies of route patterns and segments.

To the extent practicable, our recommendations also provide for segregation of certain direct costs applicable to each type of service. However, our comprehensive study confirmed the original contention emphasized in our “Report Covering Preliminary Study of the Problems Involved in Separation of Subsidy from Mail Payments,” issued January 18, 1950. In this “Pilot Study” we stated that, because of the relatively high proportion of costs applicable jointly to all types of air transportation services, it was impracticable and unnecessary to effect complete specific cost separation by each type of service for the purpose of developing compensatory rates, or for separating “subsidy” from mail payments made to carriers.

By segregating the limited amount of direct costs applicable to passenger and mail service, as proposed herein, data would be provided to assist in the determination of uniform compensatory mail rates for all carriers. In our opinion, such rates should bear a relationship to the established first class passenger fare and, by making available the specific direct costs applicable to mail and passenger service, appropriate rate differentials which should exist between mail rates and passenger fares may be developed.

Inasmuch as passenger revenues comprise more than 85% of the total revenue of the carriers included in the survey, it would seem appropriate that only those cost variations which are recognized in the passenger rate structure need be covered in the compensatory mail rate structure, which applies to approximately only 6% of the total revenue. If the passenger rate structure be eventually refined to recognize the higher cost of short haul (because of enplaning, deplaning, added cost of landings, etc.) by the introduction of a fixed charge to cover those expenses not related to miles traveled, such refinement should also be reflected in the compensatory mail rate structure. This would automatically be provided for if the compensatory mail rate followed the passenger rate pattern, adjusted only by a differential excluding specific passenger expenses and substituting therefor exclusive mail service expenses.

J. REVISION OF THE UNIFORM SYSTEM OF ACCOUNTS

Consideration of changes that might prove desirable in the CAB Manual, “Uniform System of Accounts for Air Carriers,” involved study of the

various purposes for which a carrier's revenues and expenses should be segregated.

A proper classification of accounts should have certain objective purposes in segregation, such as:

1. Internal organization accountability for revenues and expenses.
2. Type of activity
3. Location
4. Natural division
5. Managerial control
6. Ease in classification
7. Ease and equity in allocation

Some of the above reasons for segregation are purely internal and for a carrier's own needs, while others are influenced by requirements imposed by governmental regulation. The preparation of profit and loss statements to serve as the basis for future allocation of "subsidy" to the stations served at a loss and the segregation of direct expenses as to types of service create additional purposes for which the present classification of accounts was not intended.

In considering what, if any, changes might be needed to accomplish these latter objectives, it was concluded that it is inadvisable to revise existing functional and objective revenue and expense account groupings, as such revisions to meet the needs of added requirements weaken the effectiveness of the classification for other purposes.

It is our opinion that the new objectives created, calling for the development of compensatory mail rates and the allocation of "subsidy" to communities served can best be accomplished by the introduction of supplementary account numbers applicable to certain revenue and expense accounts as suffixes to existing account numbers.

It is common practice for many carriers to use sub-classifications in connection with the existing objective expense account classifications, and we recommend that certain of the more frequently used sub-classifications be incorporated into the existing CAB classifications, as follows:

29—Ground Service Employees
   Flight servicing employees
   Building Janitors and porters
   Sky Caps
32—Ticketing and Reservations
   Employees
   Ticketing employees
   Reservations employees
35—Other Employees
   Clerical
44—Rentals
   Flight equipment
   Buildings
   Landing Fees
45—Aircraft Engine Fuels and Oils
   Aircraft engine fuels
   Aircraft engine oils

In treating a station as a cost center for accounting purposes, it becomes necessary to segregate and accumulate those expenses performed at this station, under the assumption that it is an independent unit in the carrier's system. The test in determining those expenses directly applicable to local activities is whether or not they would be wholly eliminated were the station to be discontinued.

Expenses incurred at a station which do not meet this elimination test would be beneficial to activities beyond the scope of local operations and should, therefore, be identified with regional or system-wide activities. All expenses incurred in flying operations and at headquarters, maintenance base and regional office locations should be considered as indirect expenses in relation to station activities.

With respect to treatment of the limited group of expenses directly applicable to types of service, only those incurred exclusively by types of
service as a practical matter can be considered in this category. The recommended supplementary classification of expense accounts consists of an additional digit suffixed to the existing CAB account numbers where practicable.

For purposes of reclassifying as system-wide expenses certain expenses which are incurred at stations, we suggest the use of the following suffixes:

7—Flying Operations
8—Flight Equipment Maintenance and Servicing
9—Aircraft Control

By use of the above accounts certain expenses now charged to CAB functional accounts "Ground Operations" and "Ground and Indirect Maintenance" and "Depreciation-Ground Property and Equipment" can be identified system-wide in the profit and loss allocation to stations.

To classify expenses which are directly identifiable with a type of service, the following suffixes are recommended:

1. Passenger
2. Mail Service
3. Cargo Service (Express and freight)

Using the preceding suffixes in connection with identification of expenses directly applicable to each type of service will more readily permit accumulation of such expenses in development of compensatory rates, etc.

K. Compilation of Revenue Statistics and Allocation of Revenues

1. Passenger Revenue. Origin and destination statistics covering the number of passengers carried between each pair of stations served by each carrier should be prepared monthly. Carriers providing coach service should prepare separate statistics covering the carriage of passengers in such type of service in addition to those prepared covering first-class service. Separate revenue accounts should be maintained for first-class and coach service.

The basis of reporting the number of passengers carried in each type of service shall be the ticket stubs from enplaned passengers. From analysis of such stubs the station at which a passenger first enplanes on a flight of a carrier shall be considered as the station of origin. The station at which a passenger ultimately terminates a journey on the same carrier's system shall be considered as the station of destination.

Passengers making routine transfers from one flight to another of the same carrier (on-line transfer) shall not be considered as enplaning passengers at the station of transfer. In connection with transfers of this type, regulations covering the reporting procedure to be followed should specify the period of elapsed time between flights before a passenger is considered as a lay-over passenger. Where the elapsed time between flights is greater than that indicated in the regulations, the passenger shall be considered as an enplaning passenger at the transfer point.

Whenever the occasion arises to determine operating results of stations, the respective statistics covering the number of first-class and coach passengers carried between each pair of stations should be priced at the value of a one-way ticket and extended to obtain the total amount of revenue generated between each pair of stations. The resulting amounts should then be added, both as to amounts shown for stations of origin and for stations of destination. By this procedure the computed amount of revenue for each station of origin would be identified with the respective stations of destination served from a station of origin. Likewise, the amount of computed rev-
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enue for each station of destination would be identified with the respective
stations of origin.

The sum of the total amounts of revenue generated out of and into a
station should then be averaged. The resulting amount would represent the
tentative amount of revenue (subject to adjustment mentioned later herein)
for which the station would be credited. By following the same procedure
for all stations the total tentative amount of revenue would be obtained.
Averaging the amounts of revenue generated out of and into a station has
the same effect as an equal split of revenue between the station of origin
and the station of destination if such split were made on each individual
ticket.

As mentioned in the preceding paragraph, revenues derived from appli-
cation of the foregoing procedures are subject to adjustment in order to
reflect various types of reduction in the value of one-way tickets used in com-
puting the tentative amount of revenue. These reductions are associated
with round-trip, family plan and excursion tickets.

To reflect these adjustments and to determine the amount of revenue
assignable to each station, the tentative amount developed for each station
should be reduced by the percentage of difference between the amount of
revenue taken into account and the tentative amount previously described.
Based on use of this method in developing profit and loss statements for the
year 1949, the ratio of difference for most carriers should normally not
exceed 5% of first-class passenger revenue. The adjustment necessary in
the tentative amount of coach passenger revenue should be negligible.

2. Mail Revenue. The relative insignificance of mail revenue when
compared to the total revenue of most carriers, particularly when using
the prescribed compensatory rates, would not appear to warrant the effort
and expense of preparing origin and destination statistical reports for the
allocation of this type of revenue among stations. In instances where carriers
regularly prepare such reports for other purposes, their use is suggested
in lieu of the procedure recommended herein.

For those carriers which do not prepare origin and destination statistics
covering the carriage of mail, it is recommended that the pounds enplaned
and deplaned at each station be reported and accumulated monthly. In addi-
tion to accumulating the pounds enplaned and deplaned from mail manifests,
provisions should be made by all carriers to permit substitution of a mini-
mum in place of the actual weight of each load enplaned and deplaned in
view of the possible application of minimum weight provisions in future
computation of “compensatory mail pay.”

The ratio of the pounds enplaned and deplaned at each station to the
aggregate total of pounds enplaned and deplaned shall be the basis for
allocating “compensatory mail pay” among stations. For carriers regularly
preparing origin and destination statistical reports, the allocation of revenue
is recommended in the ratio of revenue ton miles generated in and out of all
stations.

Procedures applicable to preparation of monthly statements for the
United States Post Office Department should be simplified, as the amount of
detail now required appears burdensome, and further study of these pro-
cedures is recommended.

3. Express Revenue. The statement regarding the relative insignifi-
cance of mail revenue to total revenue of most carriers is equally applicable
to express revenue. Consequently, for carriers which do not regularly pre-
pare origin and destination statistics covering the carriage of express, it is
recommended that the pounds enplaned and deplaned shall be the basis for allocating the total amount of express revenue among stations.

For carriers regularly preparing origin and destination statistical reports, it is recommended that the allocation of revenue be based on the ratio of revenue ton miles in and out of each station, as developed from the statistical report, to the aggregate total revenue ton miles in and out of all stations.

4. **Freight Revenue.** Recommendations made in connection with treatment of express revenue likewise apply in allocating freight revenue among stations. However, as freight revenues become more significant in relation to total revenues, carriers should give consideration to development of origin and destination statistics for purposes of allocating this type of revenue among stations.

5. **Excess Baggage Revenue.** Excess baggage revenue is a relatively insignificant portion of the total revenue of carriers. This being the case, it is recommended that allocation of excess baggage revenue be based on the ratio of the amount of passenger revenue credited to each station to the aggregate total of passenger revenue.

6. **Revenue from Non-Scheduled Transport Services.** Revenues from charter service are not susceptible to treatment by means of allocation. Carriers' records covering this type of revenue should provide for identification of the stations to which credit shall be given in developing station profit and loss statements in the future.

7. **Other Transportation Revenue.** Wherever practicable, revenues from sources not previously mentioned should be identified, at the time of making entry, with stations benefitting from such revenues. Where it is impossible to make such identification, the amounts involved should be allocated on the basis of the ratio of other revenues credited to each station to the aggregate total of other revenues.

8. **Incidental Revenues-Net.** In recording amounts classified as incidental revenues, identification should be made with the stations benefitting from such income or expense or the functional account to which such income or expense should be charged or credited. The relative significance of the amounts involved should be weighed in determining their treatment.

L. **PROCEDURES FOR RECLASSIFICATION OF EXPENSES**

The procedures outlined as to the supplementary classification of accounts will permit a carrier to segregate and reclassify those expenses incurred at a station location which are associated with flying operations and aircraft control activities from the expenses charged to stations under the CAB functional account “Ground Operations” (No. 6100). Likewise, depreciation on aircraft control equipment and expenses related to flight equipment maintenance and servicing can be segregated from station expenses charged to functional accounts “Depreciation—Ground Property and Equipment” (No. 6900) and “Ground and Indirect Maintenance” (No. 6200).

The amounts identified in this manner should be removed from the summary of each station’s expenses and, for purposes of allocation, transferred to other classifications. The amount of those expenses identified with flying operations and flight equipment maintenance and servicing should then be added to the total amount of aircraft operations expenses included under the 5000 series of the CAB functional account classification. Those identi-
fied with aircraft control should be set up on the expense analysis work sheet under the category “Aircraft Control.”

Local and system-wide expenses charged to stations under the CAB functional accounts “Passenger Service” (No. 6300) and “Traffic and Sales” (No. 6400) can be segregated, based on review of each of the objective accounts used in connection with these functions.

The total amounts charged to CAB functional account “General and Administrative” (No. 6600) under the objective account classifications “Insurance—Employee Welfare” (No. 57) and “Taxes—Payroll” (No. 68) should be allocated among the revised grouping of functional accounts on the basis of the relative amount of pay roll expense in each account. In this process special consideration should be given to situations where the amount of actual pay roll in any functional account is greatly in excess of the statutory limits against which pay roll taxes and insurance are assessed.

The amount remaining in the CAB functional account “Depreciation—Ground Property and Equipment” (not applicable to local station equipment and flight maintenance and servicing equipment) should be identified with the various other functional accounts by reference to the location of the equipment, or be allocated on some appropriate basis developed by the carrier.

After the above procedures have been followed in reclassifying expenses in each functional account and after direct expenses for stations have been removed therefrom, the remaining amounts in each account would be applicable to system-wide and regional activities, and would be subject to allocation among stations.

M. ALLOCATION OF SYSTEM-WIDE EXPENSES AMONG STATIONS

For purposes of allocating system-wide expenses (including those applicable to regional activities) among stations served, the following bases of allocation are recommended:

1. Aircraft Operations
   The total amount of expenses applicable to aircraft operations, including those transferred in accordance with the procedure outlined, should be allocated to stations on two bases.
   The first basis would consist of developing the average unit cost of making a landing and takeoff for each type of equipment used, and applying such unit costs to the number of actual departures made from each station by the respective types of equipment.
   The second basis would consist of prorating the remaining cost applicable to the cruise of all types of aircraft among the stations in the ratio of the total revenue ton miles of each station to the aggregate total revenue ton miles. (The number of revenue ton miles to be credited to each station for purposes of allocating aircraft cruise costs can be developed in accordance with the formula set forth in Section G 3 c(1) of this report.)

2. Aircraft Control
   The ratio of the total number of actual departures of all types from each station to the aggregate total number of departures.

3. Ground Operations
   The ratio of the weighted value of total departures made from each station to the aggregate weighted value of departures. (The weighting formula shall be based on the relative pay load weight of each type of aircraft.)
4. **Passenger Service**
The ratio of the amount of passenger revenue credited to each station to the aggregate total amount of passenger revenue.

5. **Traffic and Sales**
The ratio of the amount of transportation revenue credited to each station to the aggregate total amount of transportation revenue.

6. **Advertising and Publicity**
The ratio of the amount of transportation revenue credited to each station to the aggregate total amount of transportation revenue.

7. **General and Administrative**
The ratio of total expenses allocated and charged directly to stations to the aggregate total amount of operating expenses, exclusive of the amount of general and administrative to be allocated.

N. **ACCUMULATION OF DIRECT COSTS APPLICABLE TO EACH TYPE OF SERVICE**

Identification of the direct costs applicable to passenger, mail and cargo services by means of supplementary account codes at the time of assigning CAB account classification to vouchers, pay rolls, etc., will readily permit the accumulation of such costs for any accounting period. As indicated herein, the total amounts accumulated for passenger and mail services can be used in developing a compensatory mail rate.

O. **SUMMARY AND CONCLUSIONS**

From the procedures outlined in our report, profit or loss statements by stations of respective domestic carriers can be developed, to cover any specific accounting period, for the purpose of allocation of "subsidy" in proportion to the stations reflecting insufficient revenues to cover their "standard need" (the sum of their justifiably incurred expenses and the allocated portion of a reasonable return on their investment).

When uniform compensatory mail rates are established, following the recommended pattern, it is probable that some domestic carriers will not require additional payments. In such instances, with no "subsidy" in existence, the need for reflecting profit or loss by stations for distribution of "subsidy" will, of course, disappear. However, we wish to re-emphasize that procedures outlined in our report, reflecting geographical results of carriers, should prove of real worth in obtaining the "simple, dependable and understandable picture of the over-all problem and the domestic airline program" outlined by the Chairman of the Committee in his Interim Report of May 5, 1950, to the Senate Appropriations Committee.

As we have pointed out, the allocation of the over-all profit or loss of each carrier to the stations served, in relation to the revenues created at each station, is not, in itself, an exact determination, because of the interdependence of the stations and the consequent allocation of many of the operating costs which are of an indirect character for each airline system as a whole.

We feel, however, that the "standard need" requirements by stations of the respective carriers for the year 1949, as reflected in the Appendix, could serve as a reasonably accurate pattern for allocation of "subsidies" which may be appropriated in subsequent years, as long as the general route pattern, flight schedules, relative volumes of services rendered, etc., of the individual carriers remain substantially unchanged. Thus, it would seem
that the development of geographical allocation of profit and loss for the purposes of prorating "subsidies," to the extent they may exist in the future, could be done on a selective basis, developing new patterns of allocation only when material changes demand them, provided the carriers consistently conform to the procedures recommended in accumulating the necessary data.

It is our contention that the compensatory rates as finally determined by CAB should be such as to provide an incentive to the carriers toward efficient operation, yet such as to compensate them equitably for the services rendered. Since passenger and mail are the primary services, and are rendered jointly (passengers contributing more than 85% of the total revenue and mail approximately 6%), we believe that the compensation paid for both services should be related, varied only to cover the cost differential existing because of the exclusive passenger or exclusive mail costs involved. Therefore, starting with the first class passenger fare as a basis, a discount percentage should be developed to cover the approximate net amount of exclusive passenger costs, less additional mail handling costs. This percentage deduction from the passenger rate would reflect the uniform compensatory mail rate applicable to all domestic carriers. A reasonable minimum poundage of mail should be determined; the use of 100 pounds per trip would, in effect, be equivalent to the minimum passenger poundage envisaged under the half fare rate.

If passenger rate structures are refined in the future to recognize the increased cost of short hauls, or, conversely, to recognize the economies of long hauls, such refinement would automatically carry through to the mail compensatory rate if the latter is related thereto.

The compensatory rates prescribed for development of the statistics shown in the Appendix would not be subject to too much adjustment to conform to a more refined rate developed in accordance with our suggestions. Thus, the substitution of refined rates in place of those used in our study would not materially affect the basis for proration of the "subsidy."