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Public Utilities Commission of The State of California
Applications Nos. 23053 and 27466
Case No. 4843. 1948

PASSENGER LOADING STANDARDS, 1948 AN ANALYSIS OF THEIR EFFECT UPON RAIL AND MOTOR COACH LINES OF PACIFIC ELECTRIC RAILWAY COMPANY

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Pacific Electric Railway Company
Los Angeles, California
October 13, 1948

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PASSENGER LOADING STANDARDS

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AN ANALYSIS OF PASSENGER LOADING STANDARDS IN THE TRANSIT INDUSTRY

A - DISCUSSION

DEFINITION OF LOADING STANDARDS

Loading standard as applied to transportation of passengers in the transit industry is the relationship between the number of passengers hauled on an individual vehicle and the number of seats available. Commonly, this is referred to as Load Factor which is the direct arithmetical ratio between passengers and seats expressed as a percentage. A load factor of 100 represents a condition where there are 100 passengers for each 100 seats. Load factors in excess of 100 percent indicates more passengers than seats. Usually these standards are established on the basis of a maximum average standee load over a specified period of time based upon the total number of passengers and total number of seats on all vehicles passing the maximum load point within the prescribed period. The measuring interval is ordinarily arbitrary being sometimes 20 minutes, 30 minutes or 60 minutes, depending upon the type of service and the character of loading. It is quite commonly the practice to establish some measure of permissible excess of passengers over seats during the peak traffic periods of the day, and to require that on the average during the off-peak period there be provided at least one seat for each passenger during a time interval usually longer than that applied for peak traffic.

FUNDAMENTAL CONSIDERATIONS

Loading standards have been in the past largely the result of arbitrary consideration with little uniformity in the various classifications of transit operation. It is common knowledge that the subways in large cities, such as New York, lay particular stress in designing their equipment to provide for a maximum area for standing passengers and a minimum number of seats in order that the exceedingly heavy peak hour demands can be met with a reasonable number of vehicles in an expedited service. Standing of passengers has, since the inception of the transit industry, been recognized as an absolute necessity and in those areas where extremely heavy concentration of traffic is found, there has been little question in the minds of passengers as to the necessity of such practice or as to the possibility of their personal rights being infringed upon. During recent years, however, particularly in the west, there has been a growing tendency of passengers toward the thought that the fare they pay entitles them to a seat. This is definitely not the case and could not possibly be introduced as a standard practice. The fare paid by the passenger should be considered as the purchase price of a quantum of service designed to carry him from one point to another. The extent to which standing passengers should be carried is of course dependent upon a number of variables including the type of equipment, the classification of service, the time of

day, the frequency of operation and the financial requirements of the carrier.

In determining what elements should be included in the loading standard formula the first is naturally the extent of human endurance. This element is ordinarily converted into a consideration of what the passenger considers to be the standard of comfort to which he is entitled. Although generally passengers would prefer to travel in a seat, there are some who stand by preference. This class of passenger, however, is very much in the minority. In measuring the extent of his discomfort the average person is inclined to apply different yardsticks, depending upon the nature of the activity in which he is engaged. A shopper will spend several hours on foot traveling to and from the various stores and shopping centers without any thought whatsoever to discomfort and certain classifications of employment require standing all day. On the other hand, a passenger who is required to stand on a transportation vehicle, regardless of how short the interval, is inclined to feel ill-treated and overcharged for the service. Actually there have been instances where irate individuals have proposed the thought that there be a different fare dependent upon whether or not a seat is made available. This, of course, is entirely impractical.

Therefore, in boiling the matter down to the essential elements we must take into consideration the practical aspects of the problem. These aspects can be divided into two classifications. First, the reaction of the passenger as to his comfort and convenience, and secondly, those elements that apply to the ability of the carrier to provide a high standard of service.

LACK OF UNIFORM STANDARDS

To date there have been no uniform standards of loading established for application to the industry generally. In recognition of the importance of proper loading standards the American Transit Association, which is a central source of information for the industry as a whole, has attempted to compile a list of all the various standards applying to different operators throughout the country. The results of that attempt have been disappointing. There is no uniformity. In some instances rules are established by State regulatory authorities, in others by the cities in which the operations are conducted and in others by the companies themselves in recognition of the importance of providing the highest possible standard of service in the interest of their financial status. As between those regulatory authorities who have instituted specific standards there is great variances as to the method applied and the percentages used.

ARBITRARY DECISION HARMFUL

In many instances where regulatory authorities have established standards they have largely been developed upon an arbitrary basis taking into consideration as the primary determinate only the reaction of the public, without giving due consideration to the economical aspects of the problem. Unfortunately, the demands of the public in connection with service standards are not

always consistent with the economical features involved. To apply restrictive standards, based largely upon public desire, can result in very harmful effects upon the carriers.

RELATION TO ECONOMICS OF OPERATION

It can easily be seen without extensive research that from the Company's point of view and in the long run, the interest of the public itself, the establishment of loading standards is directly related to the various factors entering into the economic formula of the carrier. The two controlling elements in that formula are revenues and expenses. With a given revenue potentiality and at a fixed fare level the operating ratio is directly affected by fluctuations in the cost of providing service. The cost of providing service is dependent upon a variety of items making up the various types of operating expenses, including as one of the major costs the payroll of operating personnel. There also is another important factor, in proper provision for depreciation and amortization of investment. It is obvious that to provide service for a given number of passengers the cost of performing that service will be considerably higher both from the point of view of payroll and maintenance when providing a seat per passenger than when providing service at less than a seat per passenger. For each vehicle that can be saved by applying standee factors a saving can be made in the cost of operations, the maintenance of equipment and inasmuch as lesser number of vehicles will be required, in depreciation.

UNIFORM APPLICATION NOT PRACTICAL

It is further evident that no one uniform set of loading standards can be developed that will satisfactorily apply to all types of operation, even if such operations are conducted on a basis of reasonable profit, it being assumed, of course, that standing passengers are inherently required in certain types of urban heavy volume movements. It is important, however, to make this distinction between the two types of carrier; on the one hand the carrier who is operating profitably and on the other hand the carrier who is not. Considering the first classification it might be assumed that different loading standards should be applicable to purely urban lines as distinguished from suburban, interurban and intercity services. There of course must be some determination made as to the maximum reasonable distance a passenger should be required to stand on long haul intercity service. In between that maximum point and 100% load factor is the field in which intermediate standards must be established.

APPLICATION TO PROFITABLE OPERATION

When considering a property that is earning a reasonable profit, different consideration should be applied to the establishment of loading standards than on one that is operating at a loss. In such former instances a reasonable relationship must be established between the comfort and convenience of the passenger and the fare he is required to pay. If the revenue potentialities are such that a profit could be earned when providing a seat per passenger in all cases, then the only control would be the practical restrictions imposed by the physical capacity of street and rail facilities. It is questionable, however, as to whether in any case of urban, suburban or interurban operations

the fares could be raised to the point where a seat could be provided for every passenger on a compensatory basis throughout the entire period of the day. The fare would be prohibitive. Therefore, in establishing the standard a reasonable medium must be selected and the fare fixed to provide a reasonable degree of comfort.

APPLICATION TO NON-PROFITABLE OPERATION

The problem is an entirely different one when considering the establishment of loading standards for application to a transit operation whose services are already conducted at a deficit. In such an instance the fundamental consideration cannot be escaped that the carrier, if required to continue in business, is entitled to a reasonable return on his investment and should not be forced to subsidize the public. If it is determined that the services provided by such a carrier are essential and cannot be dispensed with, then the variables involved in the financial formula must be adjusted to the extent required to provide the carrier with a profit. Loading standards represent one of the important variables in that formula. If the carrier is already applying a standee factor in peak service and incurring a deficit and all other means of economy have been explored and found inadequate, then the loading standard should be decreased. The assumption, of course, throughout this entire analysis is based upon the fact that the service of the carrier in question is indispensable. Under such conditions actually the provision of any measure of seats becomes of secondary importance.

We are all familiar with the effects of the last World War upon the transit industry. The tremendously increased traffic brought about by accelerated war time industry completely over-taxed the available facilities. During that period it was not a question of appropriate loading standards, it was a question of being able to find enough vehicles of any type, regardless of their age, condition or capacity, to meet the requirements of transporting persons. Every effort was exerted to develop means of carrying the largest number of persons possible in each vehicle. In this quest for increased capacity the "Stand-sit" seat was developed wherein modified benches were installed to provide the passenger with a device against which he could lean rather than sit. This only serves to demonstrate the extreme measures that can be taken when the necessity exists. Naturally, it is to the interest of the carrier during peace times to provide the highest standard of service that can be reasonably justified in order that patronage will be satisfied and additional traffic be induced.

AUTOMATIC REGULATION OF LOADING STANDARDS

The fixing of loading standards on a predetermined basis does not necessarily mean that the carrier will actually enjoy the advantages that ordinarily would be expected to accrue. A tendency has been developing on the part of passengers, particularly on suburban and interurban lines, to refuse to board vehicles if no seats are available. This is a condition over which neither the carrier nor the regulatory authorities have control. It is a manifestation of the exercise of personal rights of the individual passenger. It might be said that under such conditions the vehicle should be held until

a standing load does board. Such a practice, however, is not a solution to the problem as it would antagonize the passengers with a corresponding harmful effect upon public relations and a further reduction in traffic volume. In other words, to be trite, you can lead a horse to water but you can't make him drink. This attitude on behalf of the public is one that can probably be corrected only through application of aggressive and effective public relation measures, that will educate the traveling public to the problems of the carriers and create a sympathetic attitude.

LOAD FACTOR APPLIES NOT ONLY TO THE INDIVIDUAL VEHICLE

In applying load standards where they have been carefully developed and can be appropriately placed into effect, consideration must be given not only to the number of persons in an individual vehicle with relation to the number of seats provided, but also to the condition at the points of load concentration along the route. Even though reasonable loading standards might be adhered to by the carrier it would still be possible to provide a highly deficient service by failing to pick up waiting passengers within a reasonable length of time. At a highly concentrated loading area each vehicle departing might carry a load within the restrictions imposed but not provide enough vehicles to adequately diminish the waiting crowd.

TERMINAL VERSUS STREET LOADING

Another consideration is the difference in the character of passenger's reaction between loading at terminal concentration points and at separated points enroute. The tendency for passengers to board a loaded vehicle in street pick-up is much greater than it is at a terminal. Refusal of passengers to board a vehicle when all seats are loaded is much more greatly in evidence at terminals than in street loading.

STANDARDS SHOULD NOT BE PERMANENT

Although under conditions existing as of a specific time the physical aspects of the problem and the economic elements involved may prescribe certain specific loading standards, those standards should not be considered as permanent and as the maximum above which the carrier will never be permitted to go. In view of the fact that the financial formula is directly related to loading standards, it is obvious that as changing conditions alter the financial picture of the carrier, revision of the standards should be considered in the same fashion that revision in the fare structure is ordinarily considered. The two definitely go together.

PASSENGER TURN OVER

In establishing loading standards based upon an arbitrary maximum limit of standing time, the formula should give consideration to the fact that although there may be standing passengers on a given vehicle during a period of time exceeding the limit established, this does not always mean that any one individual passenger has been required to stand in excess of the time limit.

This is particularly true in a service where there is a heavy turnover or inter exchange of passengers enroute. Where such is the case the passenger who has been standing for the longest time will have access to a seat as other passengers disembark so that the average standing time of the individual person may be considerably less than the total time during which the vehicle carries standing passengers.

CURRENT EFFORTS TO STANDARDIZE

In recognition of the importance of loading standards there has been recently initiated a movement toward developing uniform loading standards for application to the transit industry as a whole, throughout the country. It is highly important in proceeding with this development that careful consideration be given to all of the many elements involved and particularly to the equities of the carriers in those instances where operations are conducted at a deficit or at a less than reasonable operating ratio.

B - SPECIFIC APPLICATION

LOS ANGELES METROPOLITAN AREA

Confining the scope of analysis just to the Los Angeles metropolitan area, there are evidences of the need for applying different considerations to the various carriers serving the area when fixing loading standards. The principal mass transit operators in this area are the Pacific Electric Railway Company, Los Angeles Transit Lines and the Los Angeles Motor Coach Lines. The general character of service on a system-wide basis is different on each of these operations and taking any one operation, there are different characteristics applying to the several lines operated by each. The primary difference is that Pacific Electric Railway Company is conducting its operations at a heavy financial loss, whereas, the other two carriers are in a much more favorable earning position.

This being the case, in line with the above discussion, it should not be considered a foregone conclusion that loading standards applied to one carrier should be the same as those applied to another carrier, even though from a practical point of view, all physical conditions involved are equal. Each of these carriers fills a particular need for passenger transportation in the area served and each performs a class of service that is designed to meet that particular need. The essential nature of each of these services has been demonstrated during recent years by the confusion that has existed as a result of work stoppages/ No one of the operations could be dispensed with completely. in connection with labor difficulties.

It would of course, be an ideal condition if each passenger on each route of each carrier could be provided with uniformity in all elements of the transportation he required, including fares, equipment and service, but such is not possible.

Due to conditions that are to a large extent of historical development,

Pacific Electric has been harder hit financially in its fight for survival than other transit operations in this area and many of those in other areas that are primarily engaged in urban transportation.

Although there have been adverse elements at work with respect to the urban operators, there are certain inherent conditions that make urban mass transportation more highly essential than suburban or interurban service. For travel between longer distances, the private automobile has afforded more effective competition than in the field of short haul of the typical urban operator. It may be true that certain individual lines of Pacific Electric are similar in character to other lines of the local carrier, but it must be kept in mind that the semi-urban type of line on Pacific Electric is in the minority as compared with the system total.

There is a band of overlap between the types of service provided by Pacific Electric and Los Angeles Transit Lines wherein the line characteristics are somewhat similar but on both sides of that band each carrier projects into a different field of service and correspondingly into different fields of earning capacity. Taking the two extremes that would include for example, one of the longer lines of Pacific Electric as compared with one of the shorter lines of Los Angeles Transit Lines, we find conditions that are at great variance. On some of the Pacific Electric Lines, there are local operating restrictions which almost entirely preclude the financial advantages of heavy turn-over of passengers. On the other hand, the local lines have unlimited freedom in this respect and the turn-over or interchange of passengers is much greater.

Another aspect of load factor that is given very little, if any, consideration is the average daily number of total passengers carried as related to the total number of seats provided on a mileage basis. Development of such a figure would no doubt be highly interesting and most revealing as to the real problem confronting Pacific Electric. Where heavy volume and large turn-over exists on relatively short lines, it is possible to provide the individual passenger with transportation service at a lower per trip fare than can be provided on longer interurban type lines where the turn-over is very small and the length of haul great. Correspondingly the fares per unit on the longer lines must be higher than on the shorter ones. This does not mean, however, that load standards should be more lenient on the short lines than on the long ones. Actually, the reverse might very well be true and can be logically demonstrated.

In proceeding with this type of analysis, a considerable measure of justification can be developed for applying higher load standards on one of two lines that may operate in parallel through contiguous territory, even though there may be little, if any, difference in the physical characteristics of the service provided, or the distances the passengers are transported.

ANALYSIS OF PACIFIC ELECTRIC'S PROBLEM

A careful analysis has been made of several typical rail and motor coach

lines of Pacific Electric in an effort to develop the effects of prescribed load factors and the results that would be obtained by applying more lenient standards. The Company is now confronted with an extremely serious financial deficit wherein during 1947 it incurred a net operating loss, before interest on bonds, of more than $1,700,000, including freight and passenger service. Passenger operations were conducted at a loss of approximately $2,800,000 and rail service was performed at a loss of $3,400,000.

It is obvious that such a condition cannot be permitted to continue and that remedial measures must be taken at the earliest possible time. Under conditions of loss such as these, it is highly inconsistent that the Company should be required to maintain loading standards that will create an increase in these deficits.

In addition to these losses, the Company is confronted with an increase in payroll that will become effective within a very short time, that will amount to approximately 1½ million dollars annually. There are only a very small number of sources from which that added cost can be obtained and from which relief can be had with respect to the deficit already incurred. Either the revenue has to be increased proportionately or expenses must be reduced. Revenues can be increased materially only through an increase in fares, and there is the grave possibility that the present fare structure may be near the point of diminishing returns. This, then leaves only the possibility of affecting reductions in the costs of operation.

The effect of load factors has a direct bearing upon the extent of operating expenses. Application of more drastic loading standards increases the actual cost of operations through increased payroll, maintenance and service expenses, increases the number of vehicles that must be purchased to perform the service at prices higher than ever before, and will increase materially the provision that should be made for depreciation. Weighing all of the elements involved in this problem, it would appear to be one that logically should be approached from the point of view of relief to the carrier rather than additional financial restrictions.

The Company is now engaged in attempting to lift itself out of the depths of the financial loss into which it has dropped. It is attempting to cover all phases of operation in an effort to do whatever is necessary to bring revenues into proper relationship with expenses, so as to provide it with a reasonable profit. Until this survey has been completed and it is definitely known what the future of the lines of this carrier will be, equitable loading standards cannot be formulated.

Further, in view of the fact that application of improved loading standards means a real and immediate increase in costs, whereas, increased revenues from substitution, from fare increases or from any other source, require a considerable extent of time, application of more drastic standards hits the Company in a most vulnerable spot.

Taking all of these things into consideration, it would appear to be highly equitable and in no way unreasonable to afford the Company the measure

of relief that can be realized immediately through application of more lenient loading standards. After the system-wide survey has been completed and a final program for the future has been placed into effect, then would be the appropriate time to review the matter of loading standards and specify load factors for application to the revised system.

LOADING STANDARDS PRESCRIBED BY DECISION NO. 41152

In Decision No. 41152 the Public Utilities Commission ordered that the loading standards prescribed by recommendation No. 6 in Exhibit 32 be placed into effect within 60 days from the date of the Order. That recommendation in turn referred to the loading standards as specified in Chapter IV of the Exhibit, which covers 74 pages of the report in which each line of the system is analyzed in considerable detail. Although the report does not contain a concise summary of the various load standards or conditions as they apply to individual lines, the Company has carefully analyzed all data contained therein together with other considerations and determined that the loading standards desired by the Commission were primarily summarized on page 14 of Exhibit 32, and specifically as follows:

Off-peak Periods

Provide seats for all passengers passing maximum load points

Peak Periods

Interurban and longer suburban lines - Provide seat per passenger.
City lines - Standees allowed according to following standards for various types of Pacific Electric equipment:

Class	Seating Capacity	Loading Standard
600-700-class rail cars	65	90
100-class rail cars	40	58
5000 (PCC) rail cars	59	90
Various - Motor Coaches	44-45	60

Check Period

30 or 60 minute periods as specified in Chapter IV of Exhibit 32.

Classification of Lines

Interurban Rail Lines

Los Angeles-Pasadena via Oak Knoll
Los Angeles-Pasadena via Short Line
Los Angeles-Baldwin Park
Los Angeles-Arcadia-Monrovia-Azusa-Glendora
Sierra Madre Line
Los Angeles-Long Beach

Los Angeles-San Pedro
Los Angeles-Santa Ana
Los Angeles-Newport Beach
Los Angeles-Glendale-Burbank, from San Fernando Road to end of line.
Venice Short Line.

Interurban Motor Coach Lines

Pasadena-Alhambra-Southern Pacific Station
Los Angeles-Alhambra-Temple City-Arcadia
Los Angeles-Balboa
Los Angeles-Sunland
Los Angeles-Santa Ana, including Whittier Boulevard Local.
Long Beach-Pasadena
Long Beach-Riverside
Pasadena-Pomona
Los Angeles-El Monte-Pomona-San Bernardino-Riverside, including Valley Boulevard Local and Garvey Avenue Local.
Los Angeles-North Hollywood-Van Nuys
Los Angeles-Santa Monica via Beverly Hills
Los Angeles-Redondo Beach
Los Angeles-Beverly-Sunset Boulevard-University

City Rail Lines

Watts-Sierra Vista
Los Angeles-Van Nuys Rail Line
Santa Monica Boulevard Line
Los Angeles-Glendale-Burbank, from Subway Terminal to San Fernando Road.
Hollywood Boulevard Lines
Venice Boulevard-San Vicente Line
Echo Park Avenue Line
Long Beach-San Pedro Line
Los Angeles-Santa Monica via Air Line

City Motor Coach Lines

Garfield Avenue-Highland Park
Arlington-Riverside-San Bernardino-Redlands
Long Beach-Huntington Park
Hollywood-Beverly Hills-University
Western-Franklin
Emery Park
North Hollywood
Van Nuys-Canoga Park
Van Nuys-San Fernando
Van Nuys-Birmingham Hospital
Glendale-Montrose-Verdugo City-La Canada
Hollywood-Ventura Boulevard
North Hollywood-Studio City-Sherman Oaks

LOADING STANDARDS DESIRED BY COMPANY UNDER PETITION TO MODIFY AND AMEND DECISION NO. 41152.

(For application to regular service.)

In recognition of the lack of information applying to the vital elements of loading standard determinations, a careful and extended analysis has been made by Pacific Electric for the purpose of determining within the highest degree of accuracy possible, the real nature of the equities involved inso far as they apply to the operations of this company. Loading standards are in many cases based upon arbitrary considerations of the physical aspects involved and desires of the public. When the financial integrity of the carrier is at stake, these considerations must be supplemented by a more concrete development of facts involved and a relationship must be established between loading standards and the company's financial status. This analysis has been conducted upon that premise and it is felt that the discussion heretofore rendered is substantiated conclusively by the results obtained.

The loading standards which are set forth herein as representing what is considered to be proper and equitable from the company's point of view have not been inflated in the hope or expectation that something less than asked for might be granted. The standards are considered to be the proper and nothing less will adequately meet the exigencies of the financial crisis confronting this company.

The content of the analysis as included in this report is considered as conclusive evidence that the standards applied for are not unreasonable under the circumstances and should be placed into effect immediately and permitted to remain at least until such time as the final re-arrangement of the company's properties and facilities have been placed into effect.

The specific loading standards that are recommended for application to the lines of Pacific Electric Railway Company are as follows:

Off Peak Periods - All Lines

At Maximum Load Points:
Provide on average, seat per passenger.

Peak Periods - All Lines

At Maximum Load Points:
Rail Cars - 150 percent load factor.
Motor Coaches - 150 percent load factor, applied to vehicle capacity minus 5.

Peak Period Time Limits

2 hours morning, 7:00 a.m. - 9:00 a.m.
2 hours evening, 4:00 p.m. - 6:00 p.m.

Modification on Saturdays to meet shift of peak and on individual lines as may be authorized to meet unusual conditions.

Maximum Standing Time

30 minutes after leaving major loading area.

Traffic Check Periods

30 minutes on frequent service.
60 minutes on infrequent service.

Duration and Deviations

To be subject to adjustment upon application to the Public Utilities Commission.

C. DETAILED ANALYSIS

METHOD OF PROCEDURE

In order to obtain the necessary data upon which to base conclusions relative to proper loading standards, detailed traffic checks were made on various rail and motor coach lines and careful schedule and cost analyses computed. The traffic check data was set up on charts which are appended to this report indicating the characteristics of travel and loading at various points along each line. The primary purpose of the detailed analyses has been to determine two things. First, the length of time that passengers would be required to stand if the load factor were increased and the number of vehicles by which the line assignment could be reduced correspondingly. To this analyses estimates were made of the savings that would be possible in operating expenses by reason of more lenient loading standards. The following check provides a general summation of the results obtained and subsequent checks are devoted to the detailed analyses as applied to each individual line studied. Only representative lines were selected for analysis as a basis for establishing the theories involved. It was not considered necessary to carry out detailed studies on each line of the system as the work would be largely repetitious and would probably not alter the general findings.

GENERAL SUMMARY

While the Pacific Electric's objective is to provide the maximum service practicable, there are economic limitations and restrictions depending upon the peak characteristics and volume of traffic demand which must be given careful consideration. Affecting the situation to a major extent is the problem of providing for peak service. Under present operating conditions in excess of 20 per cent of the total daily inbound passenger load during the peak hour and 40 per cent of this maximum hourly load during a 20-minute interval of the peak hour. Approximately 8 per cent of the total daily inbound load is developed in 20 minutes. Similar characteristics prevail for the outbound passenger load.

Simultaneous service demands of this character require the uneconomic use of a large number of vehicles which can only be utilized for a single round trip each during the entire day. It is well recognized that the cost of providing peak service is much greater than that of providing base or normal service where the equipment and man-hours can be economically scheduled. It would thus seem reasonable to expect that this high cost of providing excessive peak demand service should justify some modification of the established loading standards for accepted normal or base service, at least during the extreme peak intervals.

The modified standards should be established and checked, on the basis of the normal scheduled operations so as to avoid conditions of shifting pattern resulting from unusual traffic congestion or accidents, thereby creating loading situations which otherwise would be in conformity with the prescribed standards.

In general it costs in excess of $26.00 per day on an out-of-pocket basis (including depreciation) to operate a motor coach in single round trip service. On a full cost basis the operation would cost at least $37.00 per unit. In every instance studied where the equipment is operated only one single round trip per day, these units were operated at a loss as it is not possible to carry a compensatory load at present average fares, even on an out-of-pocket basis. As an example, the Los Angeles-Alhambra-Temple City Motor Coach Line operation requires 12 coaches which can only be utilized for one round trip per day.

The estimated out-of-pocket cost per unit operated in this service is $26.86 per day, which would require, on the basis of a seat-per-passenger at the maximum load point, a fare of 30 cents instead of present average fare of 18.55 cents. On a full cost basis it would require a fare of 43 cents to be fully compensatory.

For motor coach operation it is recommended that a load factor of 150% of seating capacity be adopted after deducting five seats, during an average half hour interval, which would permit a partial reduction in the number of peak units required and some increase in individual line earnings.

For passenger rail operations it is recommended that a loading standard equivalent to 150% be permitted for a standing time of 30 minutes from the limit of the major loading areas.

In the demand for public transportation the "time element" is the passenger's first consideration and rather than wait for a following vehicle, even if in sight, experience indicates that--if possible to find room, the passenger will crowd into a fully seated and standing load rather than wait.

In general any reduction in equipment assigned to any line resulting from the increase in number of passengers permitted to be carried over a half-hour interval would be made during peak periods and would not affect the base schedules.

Estimated annual reduction in out-of-pocket operating expenses because of reduction in equipment operated based on results of detailed studies of four major coach lines is $390,000, computed as follows:

	Motor Coaches Required	
	Present	Proposed
Alhambra Line	33	26
Valley Boulevard	29	25
L.A.-Whittier	37	29
L.A.-Santa Monica.....	36	27
	135	107
Difference	28 = 20.7%	

The above indicates a 21% reduction in units to be operated. However, applying only a 15% reduction to all system services which would probably be affected by the proposed increase in loading standards, which would compensate

for different seating capacities of coaches, the reduction in equipment would be 50 units. On the basis of an average saving of $26.00 per coach for 300 days, the total saving would amount to $390,000 annually.

It is estimated that an application of the above rail car standards to system operations would permit an immediate daily reduction of at least 33 passenger rail units. On the basis of a minimum out-of-pocket saving of $21.00 per unit for 300 days per year the saving would amount to $207,900 annually, or a total for both rail and motor coach operations of $597,000.

(Continued on Next Page)

L.A.-ALHAMBRA-TEMPLE CITY MOTOR COACH LINE

Load check outbound peak 4:00 P.M. - 6:00 P.M., Thursday, September 2, 1948

(a) - 29 coaches, 1255 seats, provided to carry maximum load (at Sierra Vista) of 1210 passengers.

(b) - Within an additional distance of 1.4 miles, or in an average elapsed time interval of 6 minutes, the total number of passengers on the 29 units had dropped to 900.

(c) - During the entire peak, slight overloads occurred only over three average half-hour intervals as follows (on a basis of seat per passenger):

Location	Time	Pasgrs.	Seats	Units	Pasgr. Over-load	Over-load Per Unit
(1) Lincoln Park-SP Crossing	5:00-5:29 PM	407	390	9	17	2-
(2) Sierra Vista	4:30-4:59 PM	297	296	7	1	-
(3) Sierra Vista	5:00-5:29 PM	381	346	8	35	4+

Because of the extreme peak requirements at the present time, there are 12 coach units which make but one round trip per day in this service, and because of the time operated cannot be utilized for additional trips on this line or any other service.

Out-of-pocket cost (including depreciation) to operate coach in single round trip service is approximately $27.00 per unit per day.

In order to earn only the fare out-of-pocket cost each unit would have to carry a total of 140 passengers per round trip - based on present average one-way fare of 18.55 cents, or 70 passengers per single trip - an equivalent load factor of 155% for a 45 passenger coach.

On the basis of a seat per passenger at maximum load point, an average fare of $26.86/90 - $.30 (30 cents) would have to be obtained, an increase of 62% to break even on an out-of-pocket basis. On a full cost basis an equivalent fare of approximately 43 cents would be required.

On a basis of a permissible loading of 60 passengers per unit (45 capacity) during an average half-hour interval, a reduction of 7 units could be made at an equivalent saving of $188.00 per day during the peak period or $56,400 per annum could be realized on this operation.

COST TO OPERATE COACH - ONE ROUND TRIP PER DAY

Route miles	17.45
Round trip route miles	34.90
Average unit cost - motor coach	$17,500
Annual depreciation - 10-year life	1,750
Number of days peak coach operates (estimate)	300
Average depreciation per day	$5.83
Average equivalent crew pay hours-single peak round trip	9½
Daily rate 9½ hours @ $1.47 (new rate effective Oct.16,1948)	13.97

L.A.-ALHAMBRA-TEMPLE CITY

	Unit Cost	
	Cents Per Mile	Per Day
Equipment Maintenance	2.674	$ 0.93
Operator's Wages		13.97
Tires	1.16	0.40
Fuel and Lubrication	5.73	2.00
Servicing	3.34	1.17
Depreciation		5.83
Taxes	7.30	2.56
(Estimated Costs Based on July 1948 operations)		$26.86

L.A.-VALLEY BOULEVARD LOCAL MOTOR COACH LINE

Load check outbound peak 4:00 P.M. - 6:00 P.M., Wednesday August 4, 1948.

L.A.-El Monte Local Coaches - Limited to Garfield Avenue

(a) 15 coaches, 650 seats provided to carry maximum load (at Garfield Avenue) of 692 passengers. For the entire period passengers stood between Lincoln Park and Garfield Avenue, with a total average running time from Lincoln Park to Garfield Avenue of 15 minutes and a distance of 5.35 miles.

(b) The passenger load dropped very rapidly after leaving Garfield Avenue, and within 5 minutes average running time, the total load was greatly below coach seating capacity.

(c) Overloads on basis of seat per passenger occurred over 6 average half-hour intervals.

Location	Time	Pass-engers	Seats	Units	Passgr. over load	Overload per Unit
(1) Lincoln Park....	4:00 - 4:29 P.M.	135	126	3	9	3
" "	4:30 - 4:59 P.M.	200	173	4	27	7
" "	5:00 - 5:29 P.M.	215	205	5	10	2
" "	5:30 - 5:59 P.M.	122	85	2	37	19
(2) Eastern & Valley	4:30 - 4:59 P.M.	185	173	4	12	3
" "	5:30 - 5:59 P.M.	105	85	2	20	10

(d) One additional coach would be required to provide a seat per passenger arriving at maximum load point.

L.A.-Garfield Local Service

(a) 14 coaches, 589 seats provided to carry maximum load of 664 passengers on arrival at Lincoln Park, an overload of 75 passengers. The equivalent of two additional coaches would be required to provide a seat per passenger arriving at the maximum load point. Attention is directed however, that the load begins to discharge soon after leaving Lincoln Park and is reduced to a seated load by the time of arrival at Eastern Avenue or within a distance of 1.75 miles and an average running time of 5 minutes.

(b) Overloads on basis of seat per passenger occurred over 6 average half-hour intervals.

(c) One additional coach would be required to provide a seat per passenger arriving at maximum load point.

Location	Time	Pass-engers	Seats	Units	Passgr. over load	Overload Per Unit
(1) Lincoln Park....	5:00-5:29 P.M.	205	176	4	29	7/
(2) Eastern & Valley	5:00-5:29 P.M.	210	176	4	34	8/
(3) Fremont & Valley	5:00-5:29 P.M.	205	176	4	29	7/
(4) Garfield & V alley	4:00-4:29 PM	180	175	4	5	1/
" "	4:30-4:59 P.M.	215	211	5	4	1-
" "	5:00-5:29 P.M.	205	176	4	29	.7/

Because of the extreme peak requirements at the present time, there are 7 coach units which make but one round trip per day in the above services, and because of the time operated cannot be utilitzed for additional trips on this line or any other service, To meet full seat-per-passenger requirements at maximum load point would require two additional coaches which would make but one round trip per day.

Out-of-pocket cost (including depreciation) to operate coach in single round trip service is approximately $25.00 per unit per day. In order to earn only the bare out-of-pocket cost, each unit would have to carry a total of 160 passengers per round trip based on present average estimated fare of 16 cents, or 80 passengers per single trip, an equivalent load factor of 178% for a 45-passenger coach. On the basis of a seat-per-passenger at maximum load point, an average fare of $25.12/90 - $ .28 (28 cents) would have to be obtained, an increase of 75% to break even on an out-of-pocket basis. On a full cost basis an equivalent fare of approximately 40 cents would be required.

On a basis of a permissible loading of 60 passengers per unit (45-capacity) during any average half-hour interval, a total reduction of 4 units in the combined services could be made at an equivalent saving of $100.00 per day during the peak period or $30,000 per annum could be realized on this particular operation.

COST TO OPERATE COACH - ONE ROUND TRIP PER DAY

Route miles	11.30)	Average
Round trip route miles	22.60)	
Average unit cost - motor coach	$17,500	
Annual depreciation - 10 year life	1,750	
No. days peak coach operate - (est.)	300	
Average depreciation per day	$5.83	
Average equivalent crew pay hours -single peak R.T.	9½	
Daily rate 9½ hours @ $1.47	$13.97	

	Unit Cost	
	Cents Per Mile	Per Day
Equipment Maintenance	6.53	$1.48
Operator's Wages		13.97
Tires	1.16	.26
Fuel & Lubrication	5.18	1.17
Servicing	3.34	.75
Depreciation		5.83
Taxes	7.34	1.66
(Estimated Costs Based on July, 1948 operations)		$25.12

L.A.-BEVERLY HILLS-SANTA MONICA MOTOR COACH LINE

Load check outbound, peak movement between 4:00 P.M. - 6:00 P.M., Friday, August 6, 1948.

(a) 36 coaches, 1495 seats, provided to carry maximum load (at Fairfax Avenue) of 1,522 passengers.

(b) At Beverly Hills, a distance of 2.7 miles from Fairfax Avenue, an average time interval of 12 minutes, the load had dropped to 1,216 passengers.

(c) During the entire peak, overloads occurred only over three average half-hour intervals as follows (on a basis of seat per passenger):

Location	Time	Passengers	Seats	Units	Passenger Overloads	Overload Per Unit
(1) Western & Olympic	5:30-5:59 PM	300	295	7	5	-
(2) Fairfax & Olympic	4:30-4:59 PM	508	461	11	47	4
(3) " "	5:30-5:59 PM	322	295	7	27	4

At the present time because of the extreme peak requirements there are 17 units operated on this line which make but one round trip per day. Estimated out-of-pocket cost (including depreciation) to operate a coach in single round trip service, is in excess of $27.00 per unit per day. In order to earn ony the bare out-of-pocket cost, each unit would have to carry a total of 166 passengers per round trip, based on present average fare of 16.18 cents, or 83 passengers per single trip, an equivalent load factor of 184% for a 45-passenger coach.

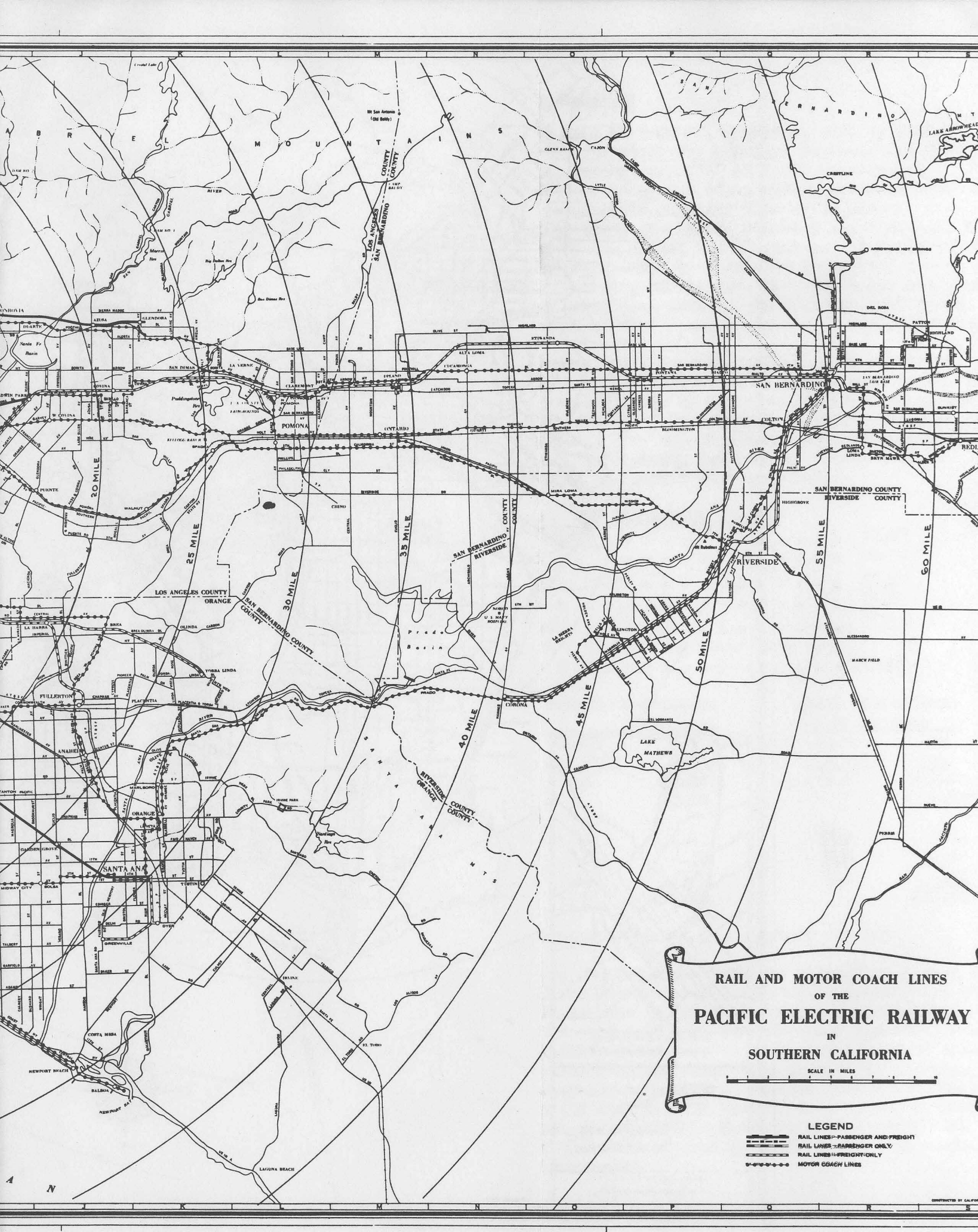
On the basis of a seat per passenger at the maximum load point, an average fare of $27/90 - $ .30 (30 cents) would have to be obtained, an increase of 85% to break even on an out-of-pocket basis. On a full cost basis an equivalent fare of approximately 43 cents would be required.

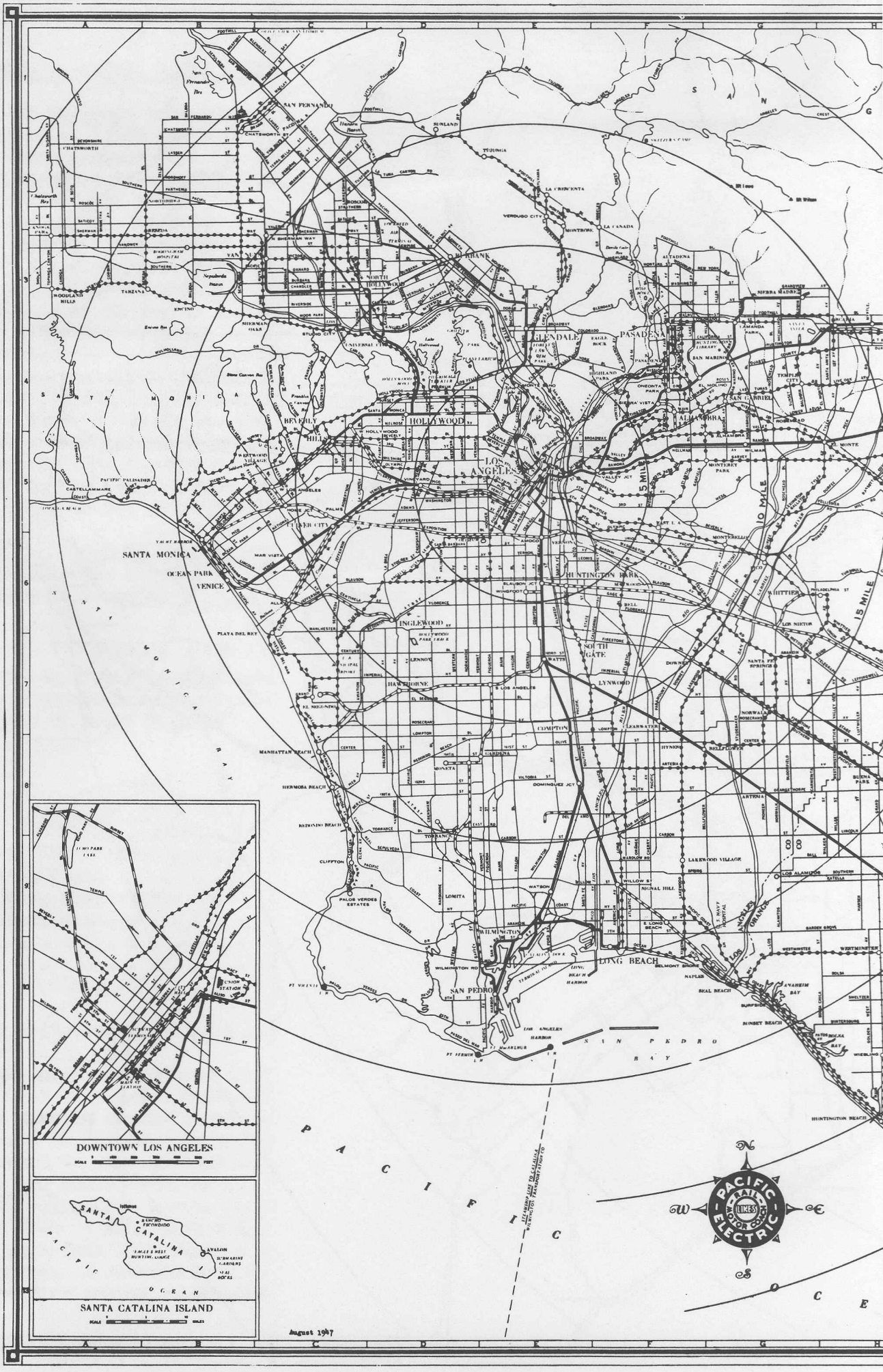
On the basis of a permissible loading of 60 passengers per unit (45-capacity)during any average half-hour interval, a reduction of 9 units could be made at an equivalent saving of $247.00 per day during the peak period or $74,100 per annum could be realized on this particular operation.

COST TO OPRATE COACH - ONE ROUND TRIP PER DAY

Route miles	17.85
Round trip route miles	35.70
Average unit cost - motor coach	$ 17,500
Annual depreciation - 10 year life	1,750
No. days peak coach operate (est.)	300
Average depreciation per day	$5.83
Average equivalent crew hour pay - single peak R.T.	9½
Daily rate 9½ hours @ $1.47	$13.97

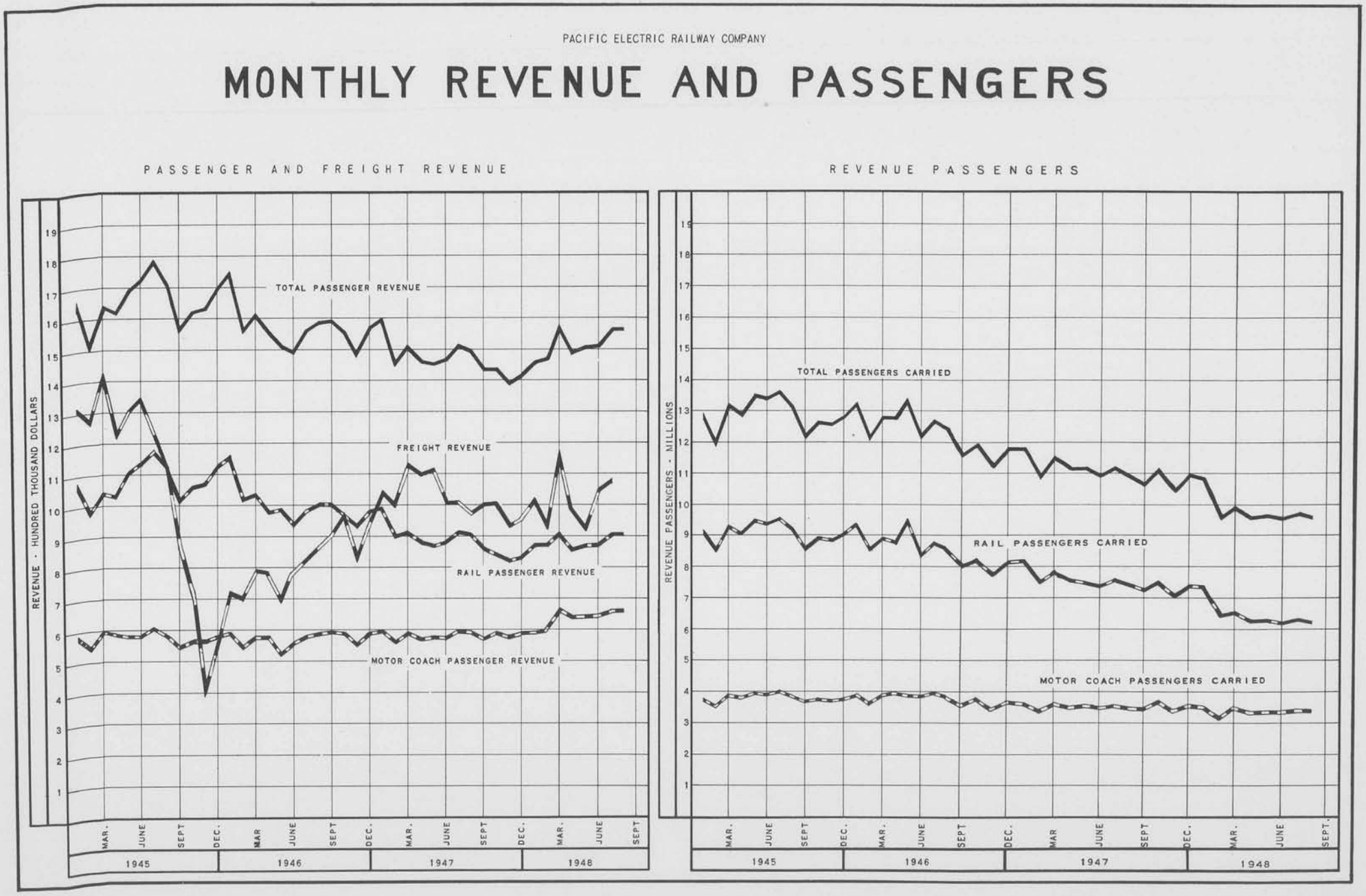
	Unit Cost	
	Cents per mile	per Day
Equipment maintenance	5.98	$2.13
Operator's Wages		13.97
Tires	1.17	.42
Fuel and Lubrication	4.09	1.46
Servicing	3.34	1.19
Depreciation		5.83
Taxes	6.82	2.43
(Estimated Cost Based on July, 1948 Operations)		$27.43


RAIL AND MOTOR COACH LINES
OF THE
PACIFIC ELECTRIC RAILWAY
IN
SOUTHERN CALIFORNIA
SCALE IN MILES
LEGEND
RAIL LINES—PASSENGER AND FREIGHT
RAIL LINES—PASSENGER ONLY
RAIL LINES—FREIGHT ONLY
MOTOR COACH LINES
SAN BERNARDINO
RIVERSIDE
ONTARIO
POMONA
CHINO
CORONA
ANAHEIM
SANTA ANA
FULLERTON
PUENTE
COLTON
REDLANDS
LOS ANGELES COUNTY
ORANGE COUNTY
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
20 MILE
25 MILE
30 MILE
35 MILE
40 MILE
45 MILE
50 MILE
55 MILE
60 MILE
LAKE MATHEWS
MARCH FIELD
SANTA ANA MTS.
SAN BERNARDINO MTS.
ABRIEL MOUNTAINS


SAN FERNANDO
CHATSWORTH
SUNLAND
TUJUNGA
LA CRESCENTA
VERDUGO CITY
MONTROSE
LA CANADA
BURBANK
VAN NUYS
NORTH HOLLYWOOD
WOODLAND HILLS
TARZANA
SHERMAN OAKS
STUDIO CITY
UNIVERSAL CITY
GLENDALE
PASADENA
ALTADENA
SIERRA MADRE
SAN MARINO
SAN GABRIEL
ALHAMBRA
EL MONTE
MONTEREY PARK
BEVERLY HILLS
HOLLYWOOD
LOS ANGELES
SANTA MONICA
OCEAN PARK
VENICE
CULVER CITY
MAR VISTA
PACIFIC PALISADES
CASTELLAMMARE
YACHT HARBOR
PLAYA DEL REY
INGLEWOOD
HAWTHORNE
LOS ANGELES
SOUTH GATE
HUNTINGTON PARK
WHITTIER
LYNWOOD
COMPTON
DOWNEY
NORWALK
MANHATTAN BEACH
HERMOSA BEACH
REDONDO BEACH
TORRANCE
CLIFTON
PALOS VERDES ESTATES
LOMITA
WATSON
DOMINGUEZ JCT
LAKEWOOD VILLAGE
LOS ALAMITOS
SIGNAL HILL
WILMINGTON
LONG BEACH
BELMONT SHORE
NAPLES
SAN PEDRO
SEAL BEACH
ANAHEIM BAY
SURFSIDE
SUNSET BEACH
HUNTINGTON BEACH
WESTMINSTER
SANTA MONICA BAY
SAN PEDRO BAY
PACIFIC OCEAN
5 MILE
10 MILE
15 MILE
DOWNTOWN LOS ANGELES
SCALE
SANTA CATALINA ISLAND
SCALE
PACIFIC ELECTRIC RAILWAY MOTOR COACH LINES
August 1947

PACIFIC ELECTRIC RAILWAY COMPANY

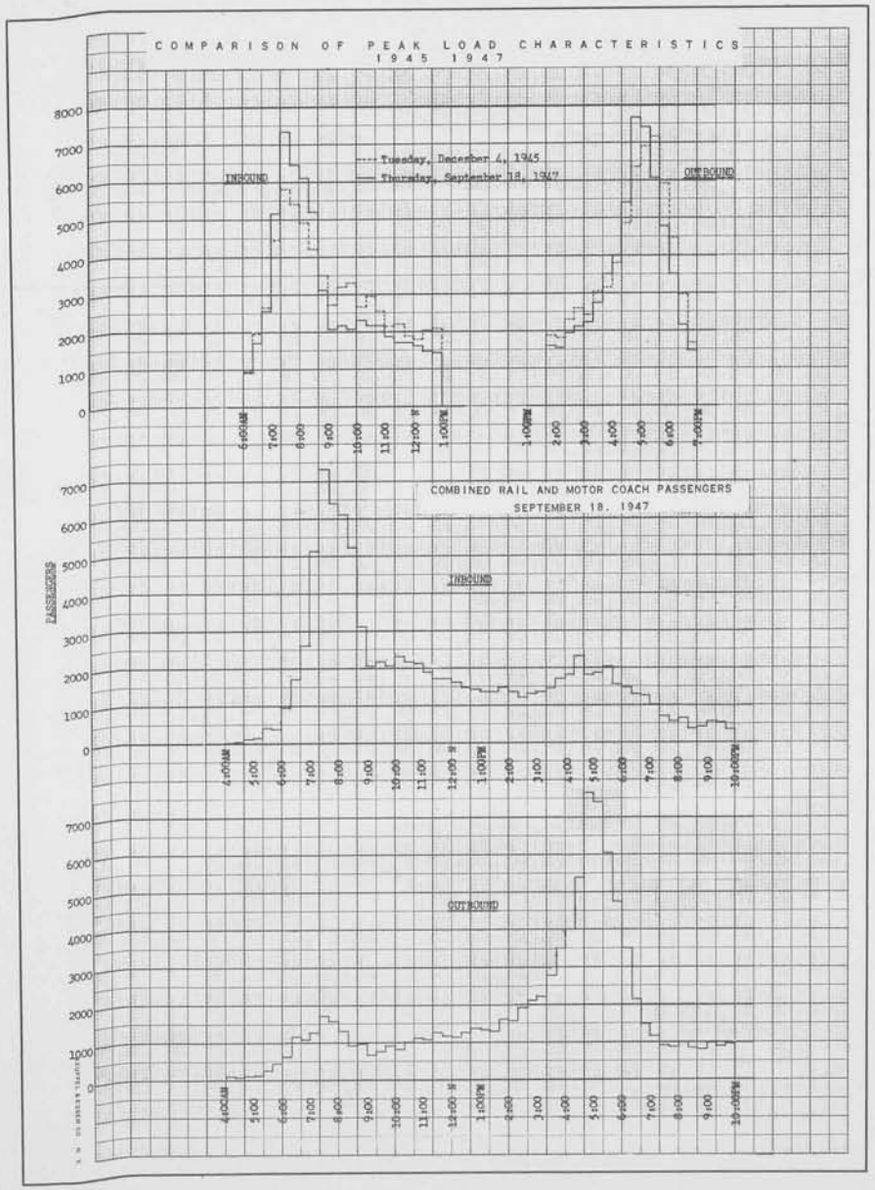
MONTHLY REVENUE AND PASSENGERS

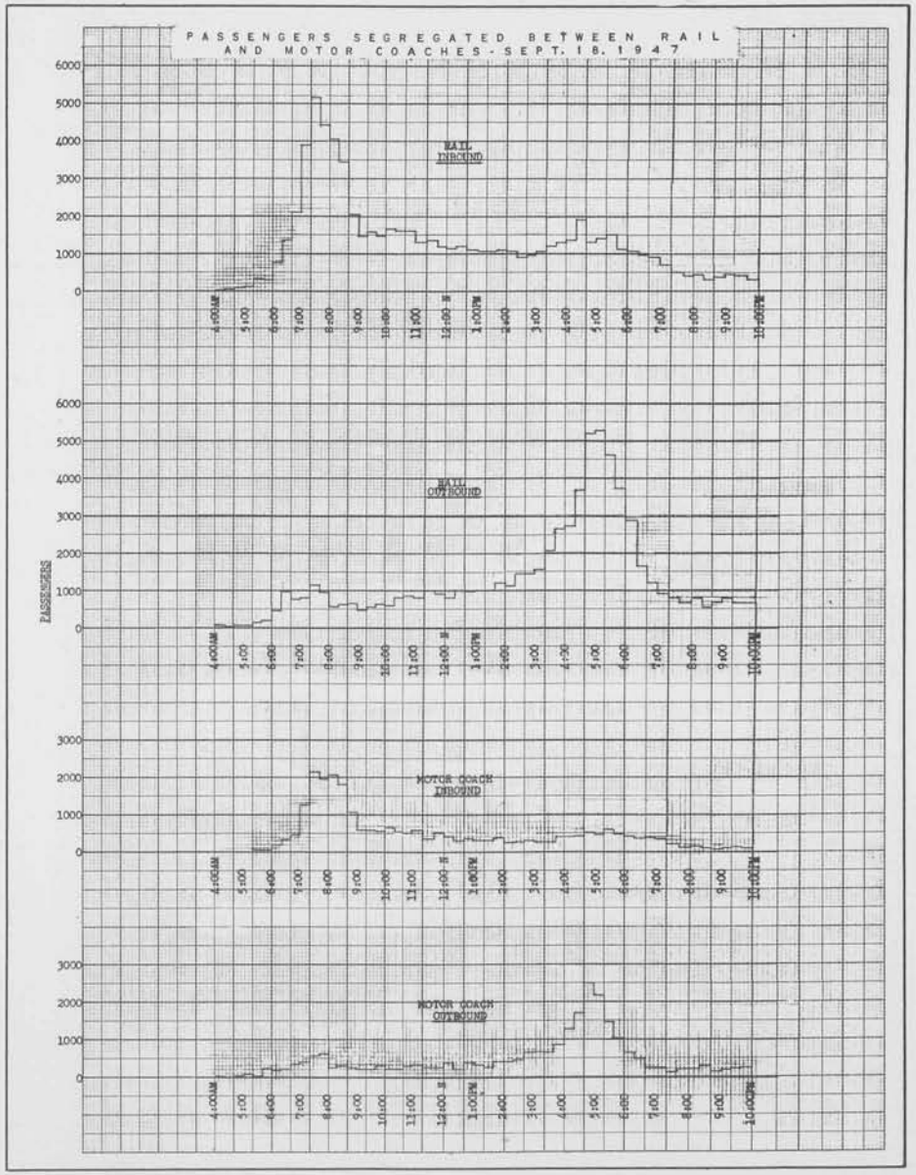


PACIFIC ELECTRIC RAILWAY COMPANY

CHARACTERISTICS OF SYSTEM PASSENGER TRAVEL ENTERING LOS ANGELES DOWNTOWN AREA

CHART NO. 1

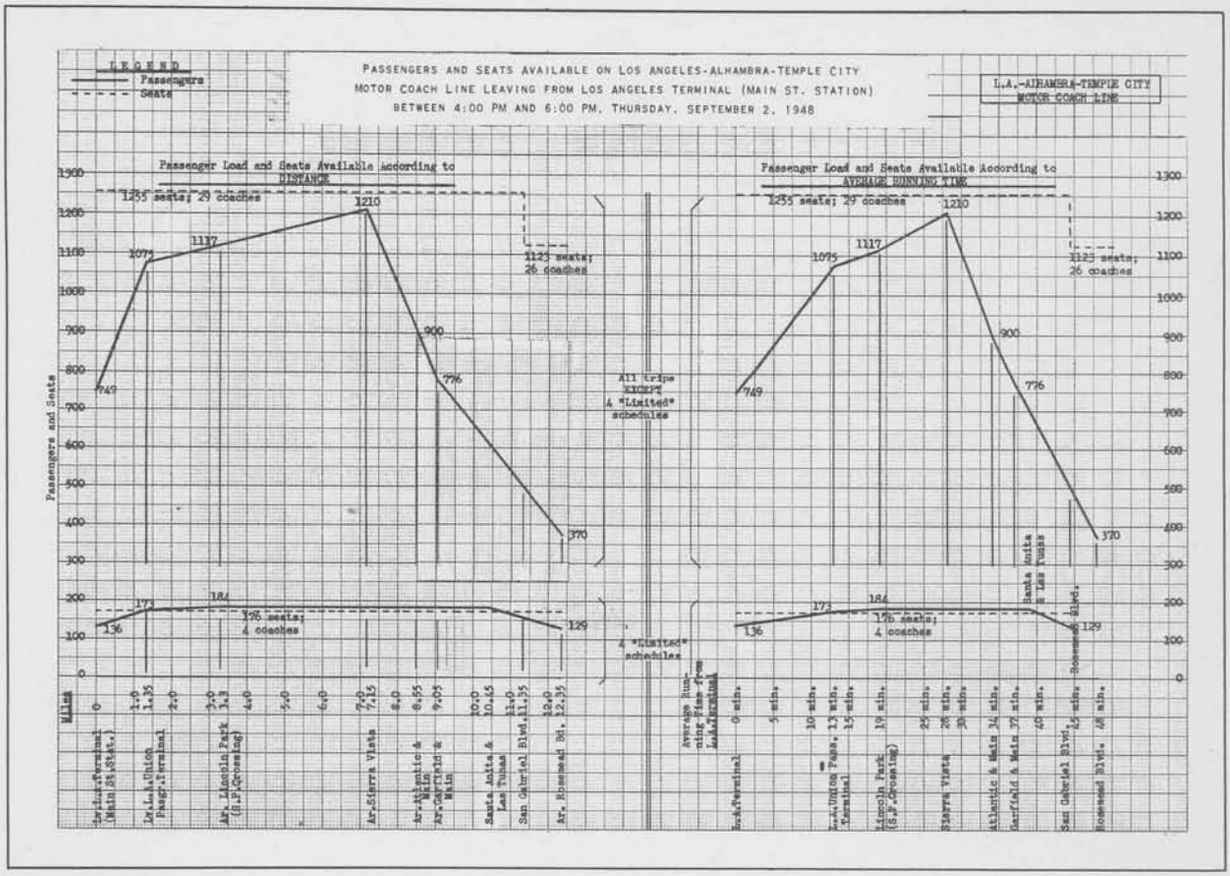


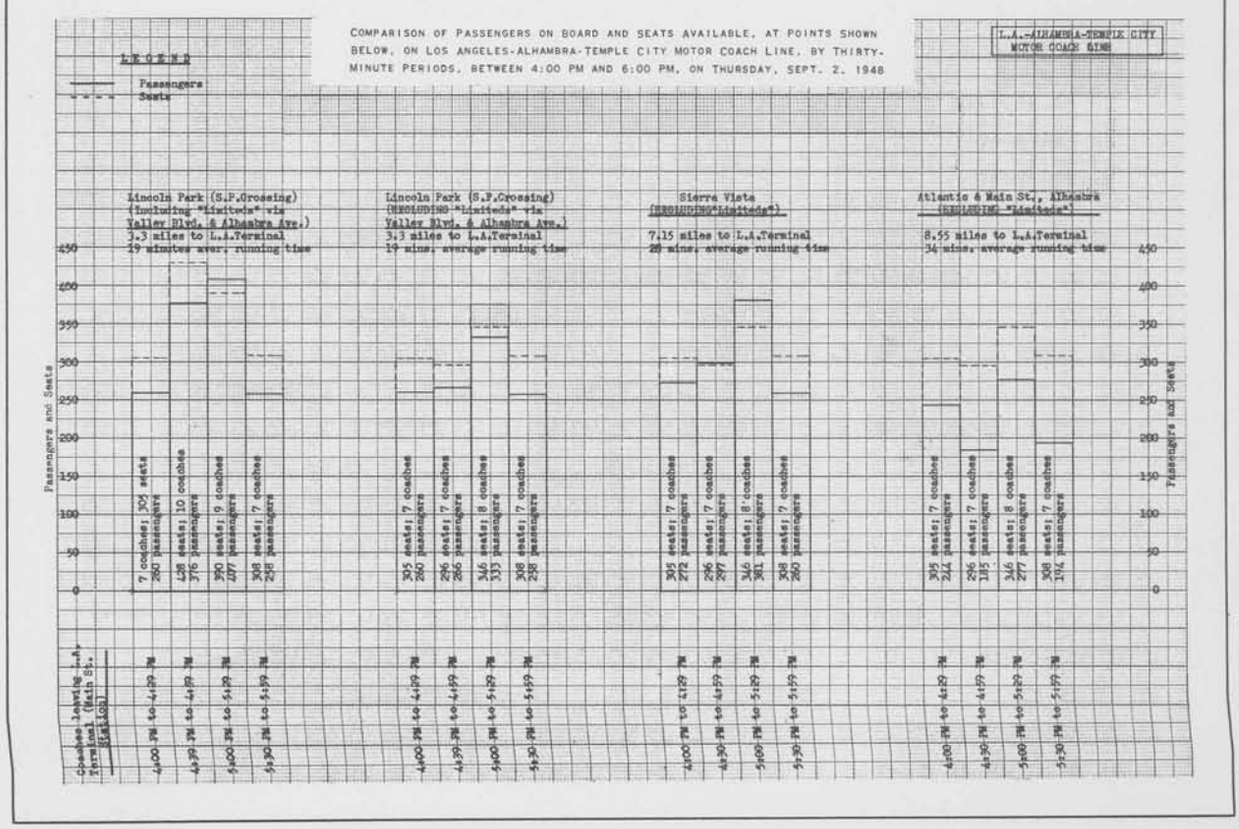


PACIFIC ELECTRIC RAILWAY COMPANY

PASSENGER LOADING CHARACTERISTICS

CHART II

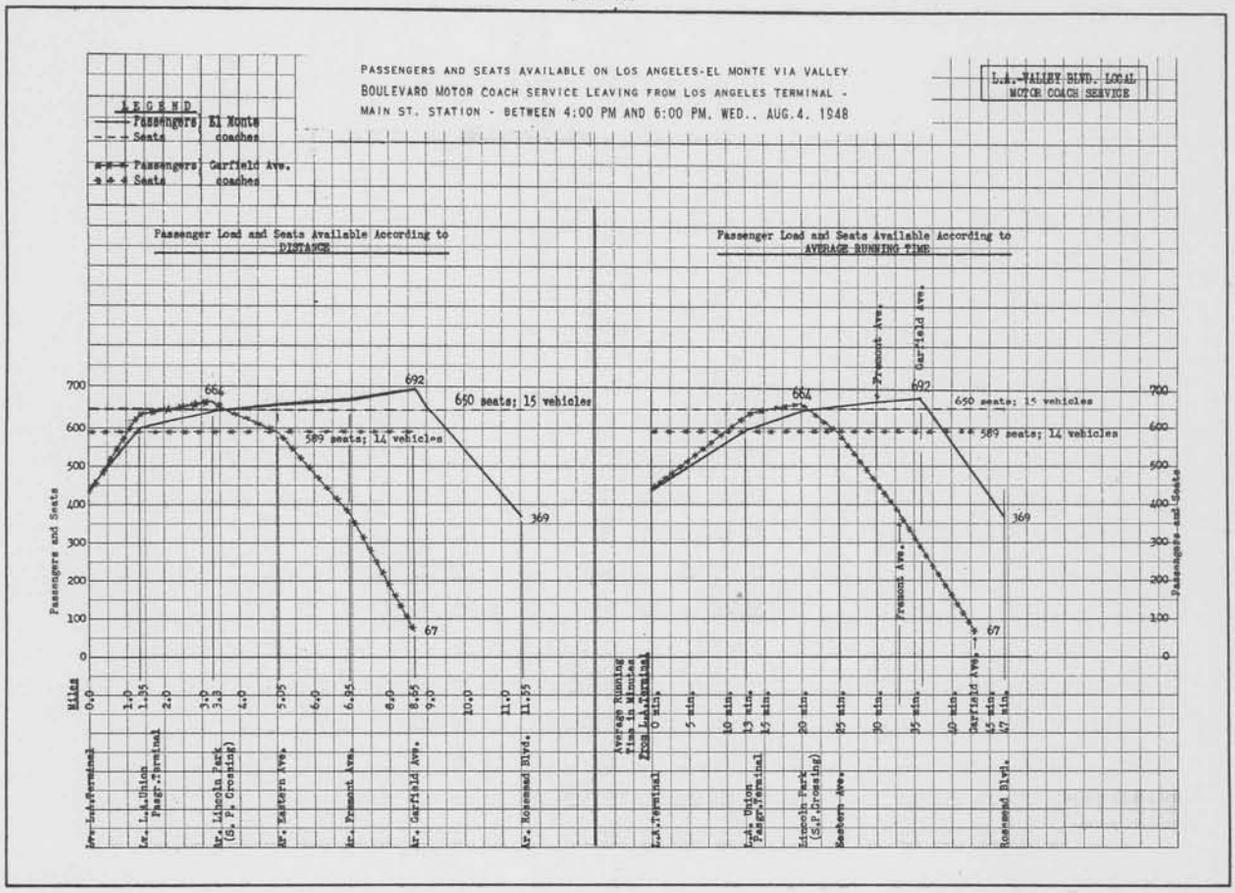


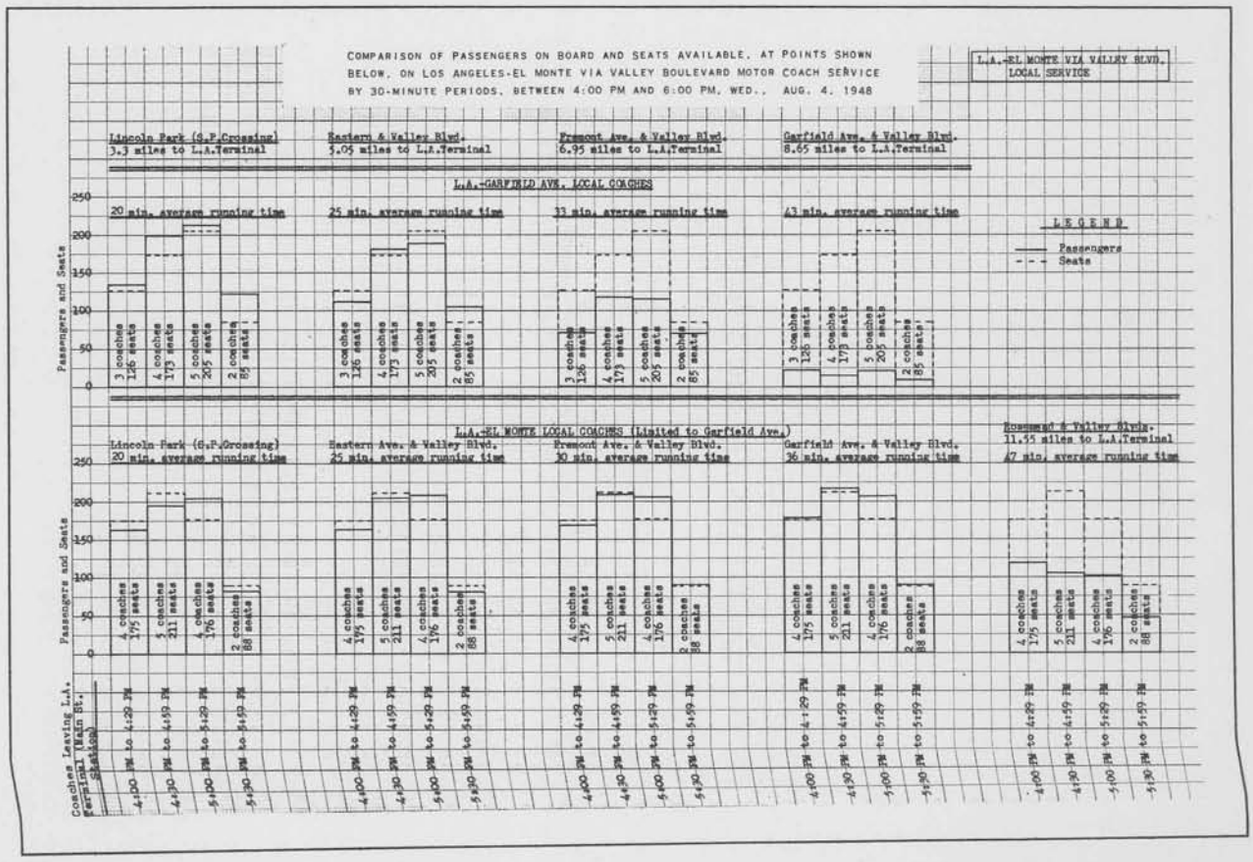


PACIFIC ELECTRIC RAILWAY COMPANY

PASSENGER LOADING CHARACTERISTICS

CHART III

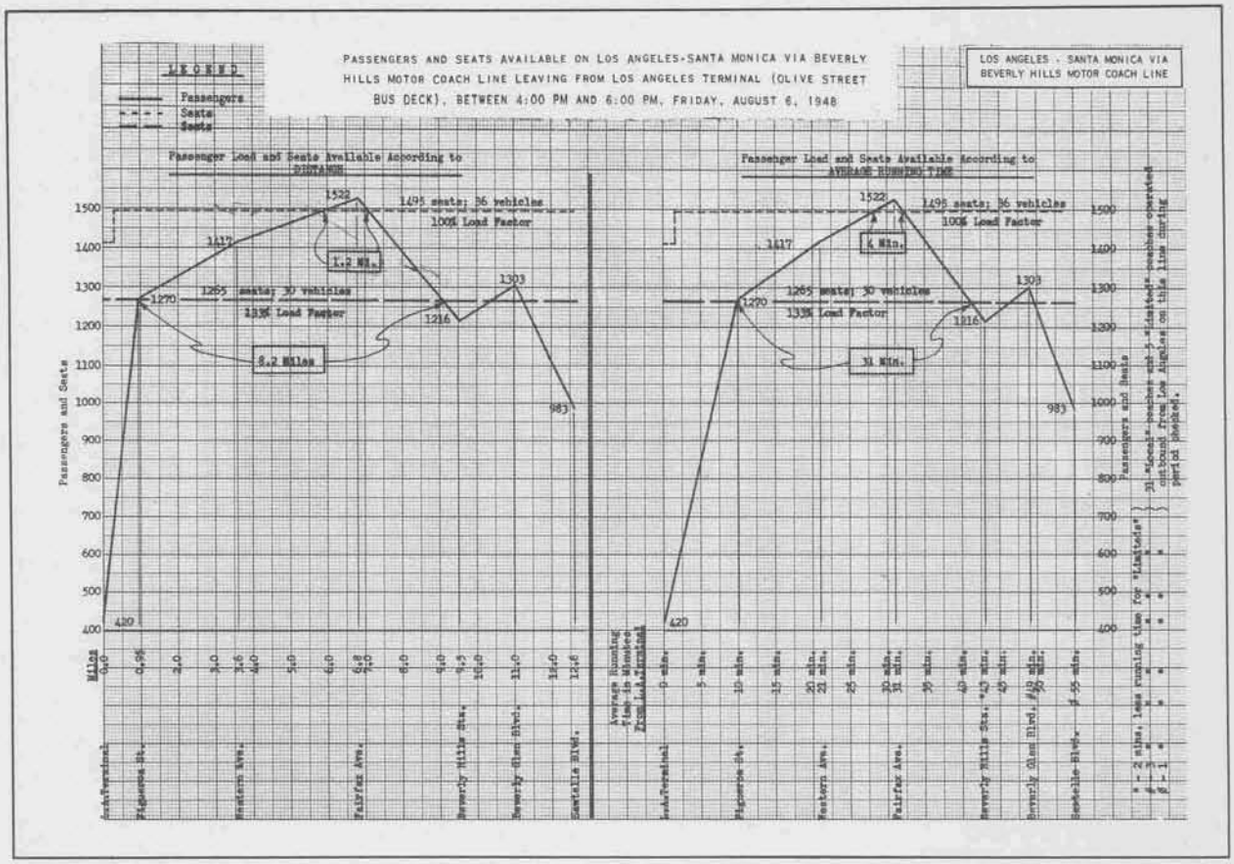


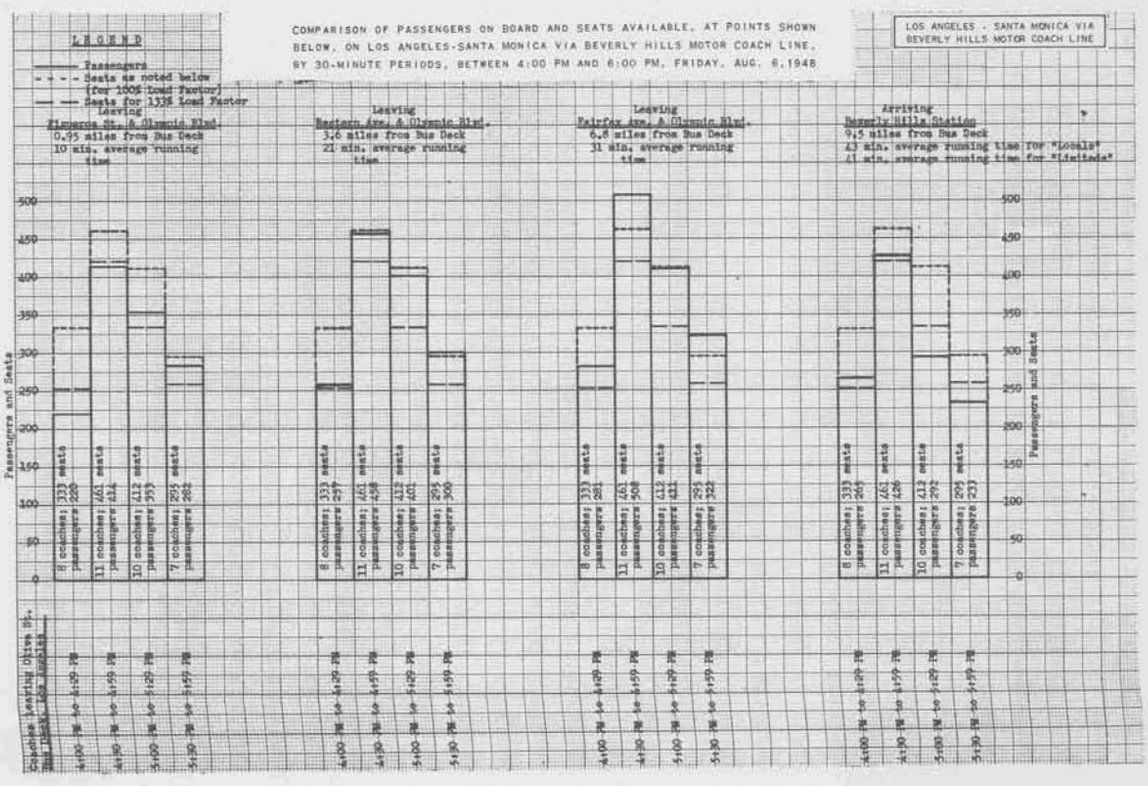


PACIFIC ELECTRIC RAILWAY COMPANY

PASSENGER LOADING CHARACTERISTICS

CHART IV

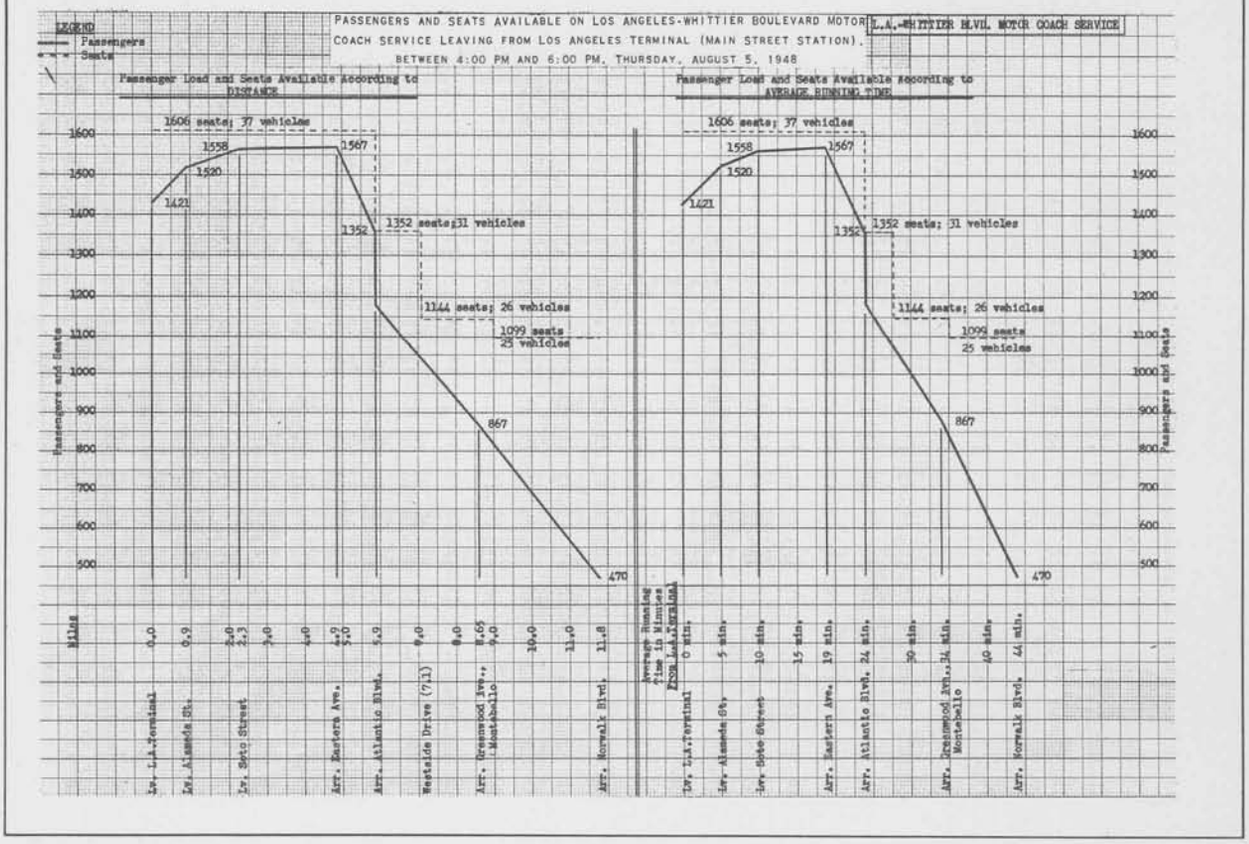


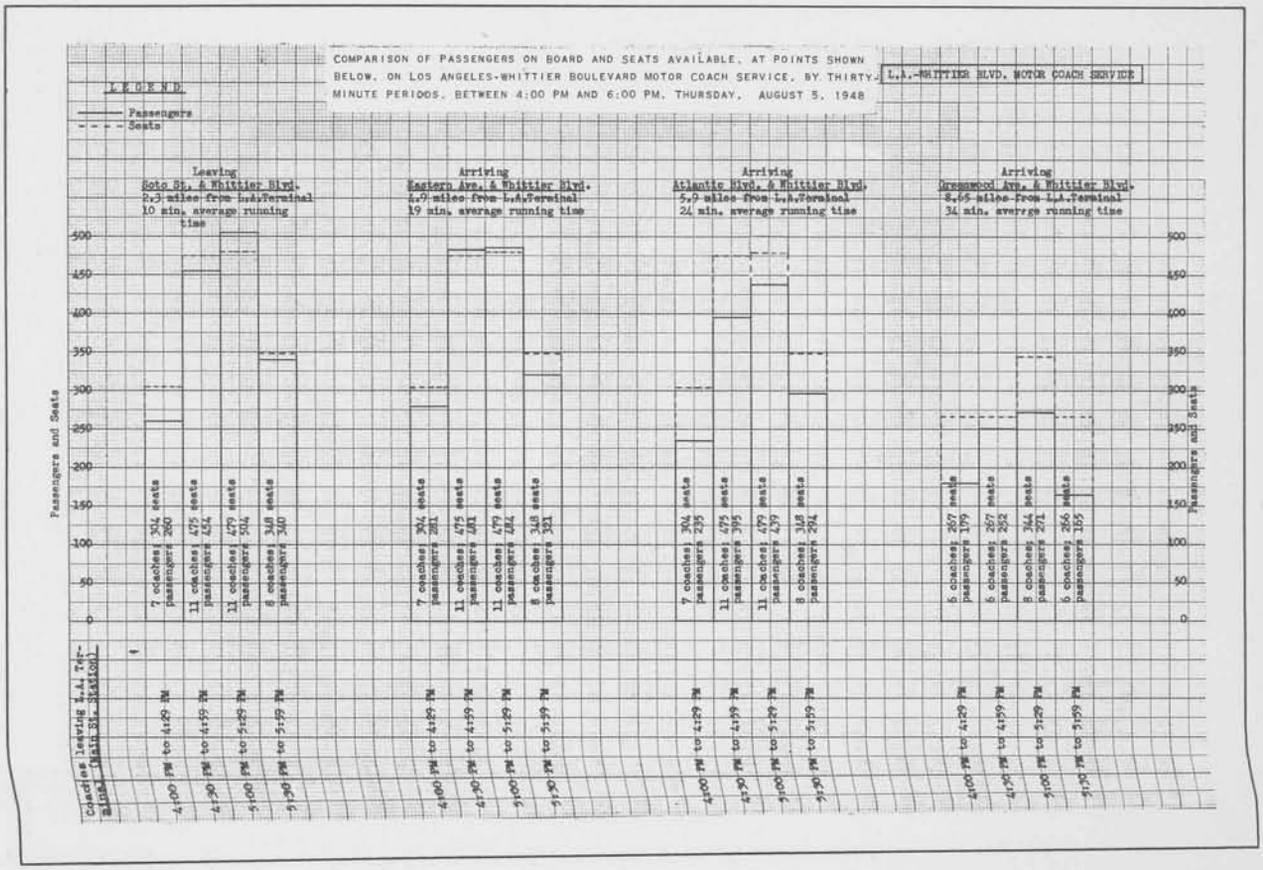


PACIFIC ELECTRIC RAILWAY COMPANY

PASSENGER LOADING CHARACTERISTICS

CHART V

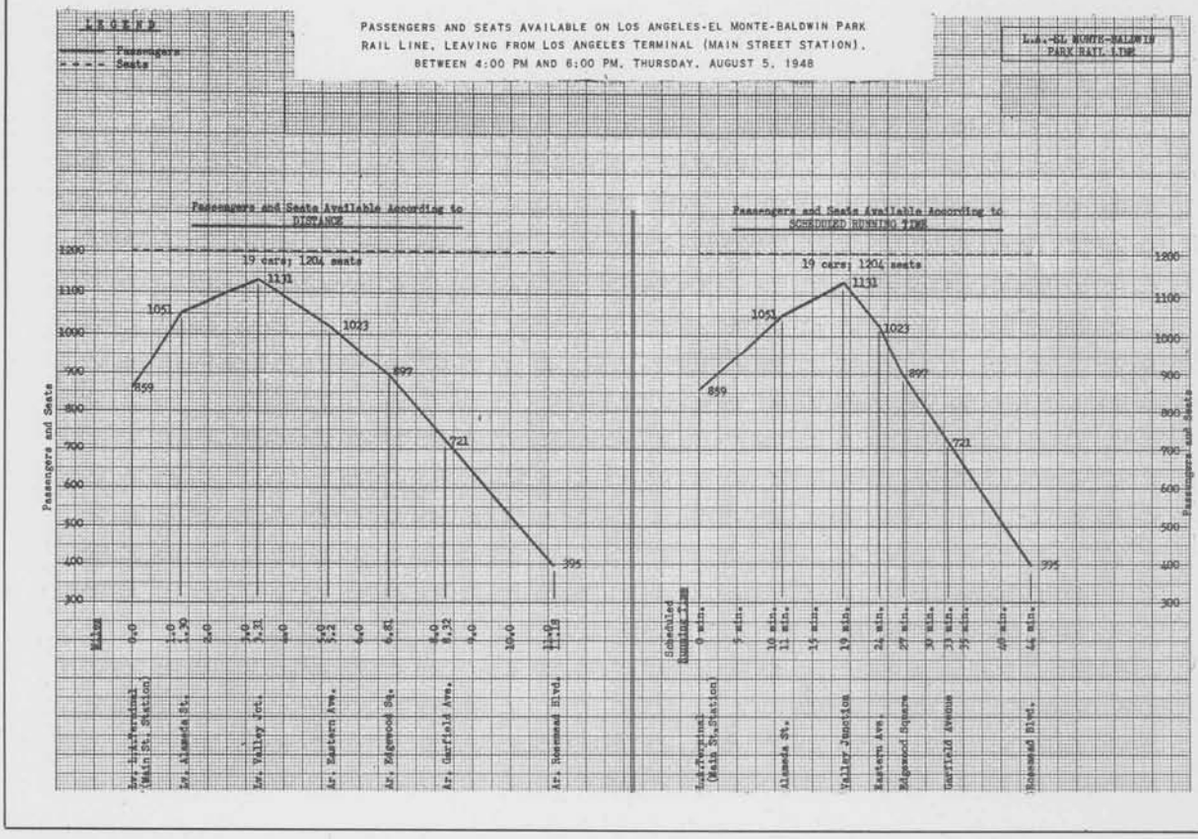


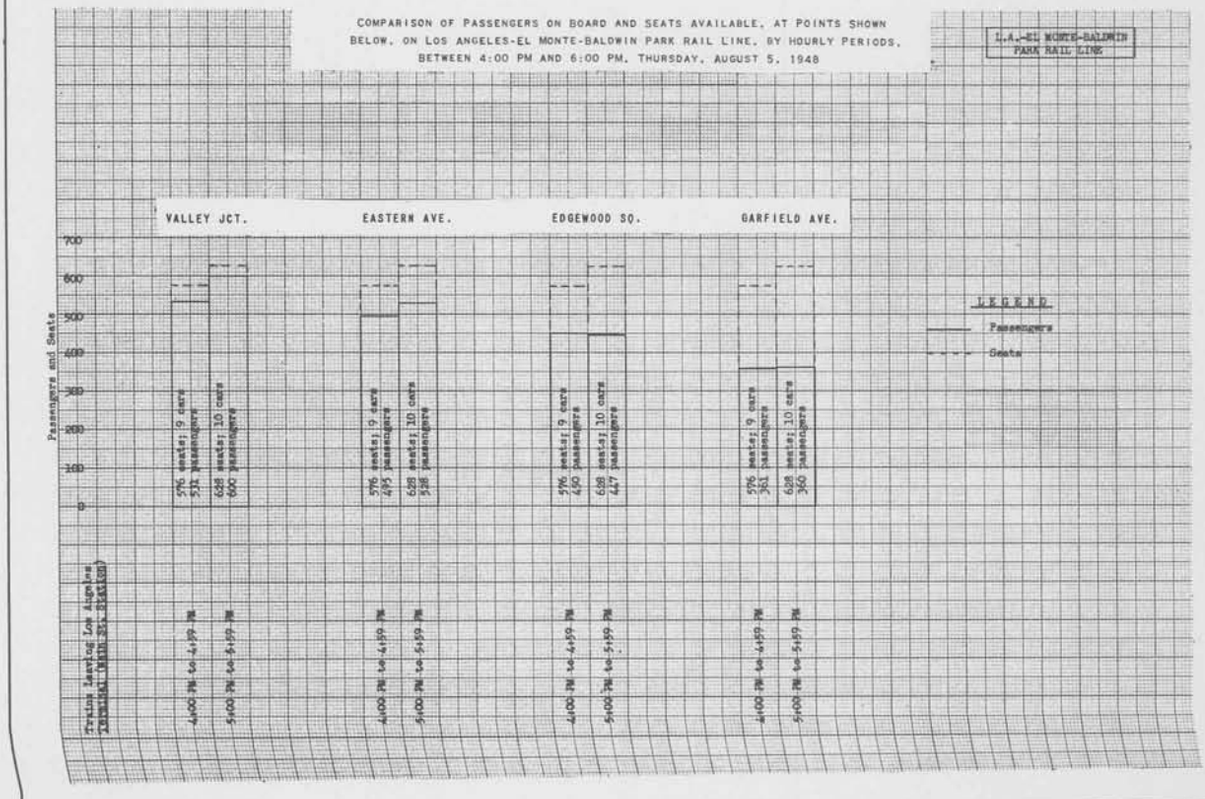


PACIFIC ELECTRIC RAILWAY COMPANY

PASSENGER LOADING CHARACTERISTICS

CHART VI

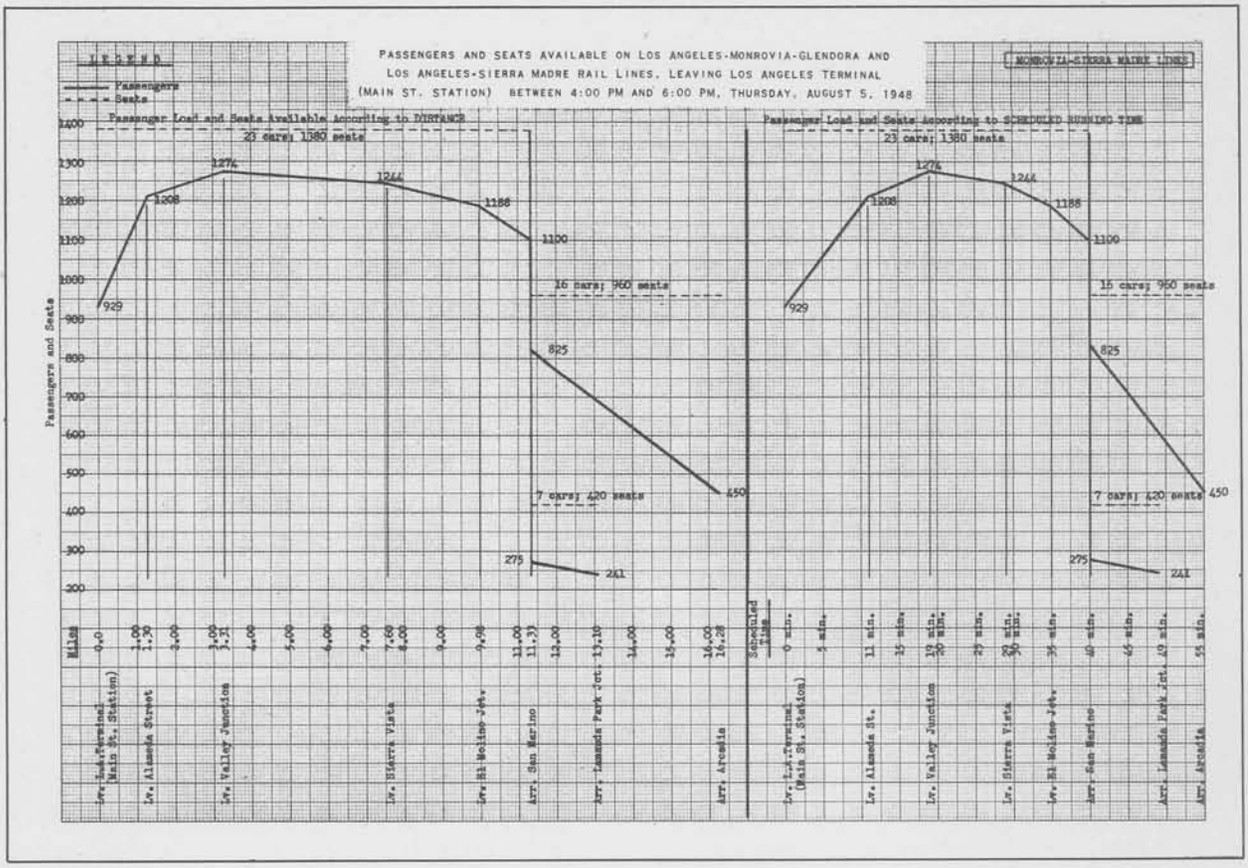


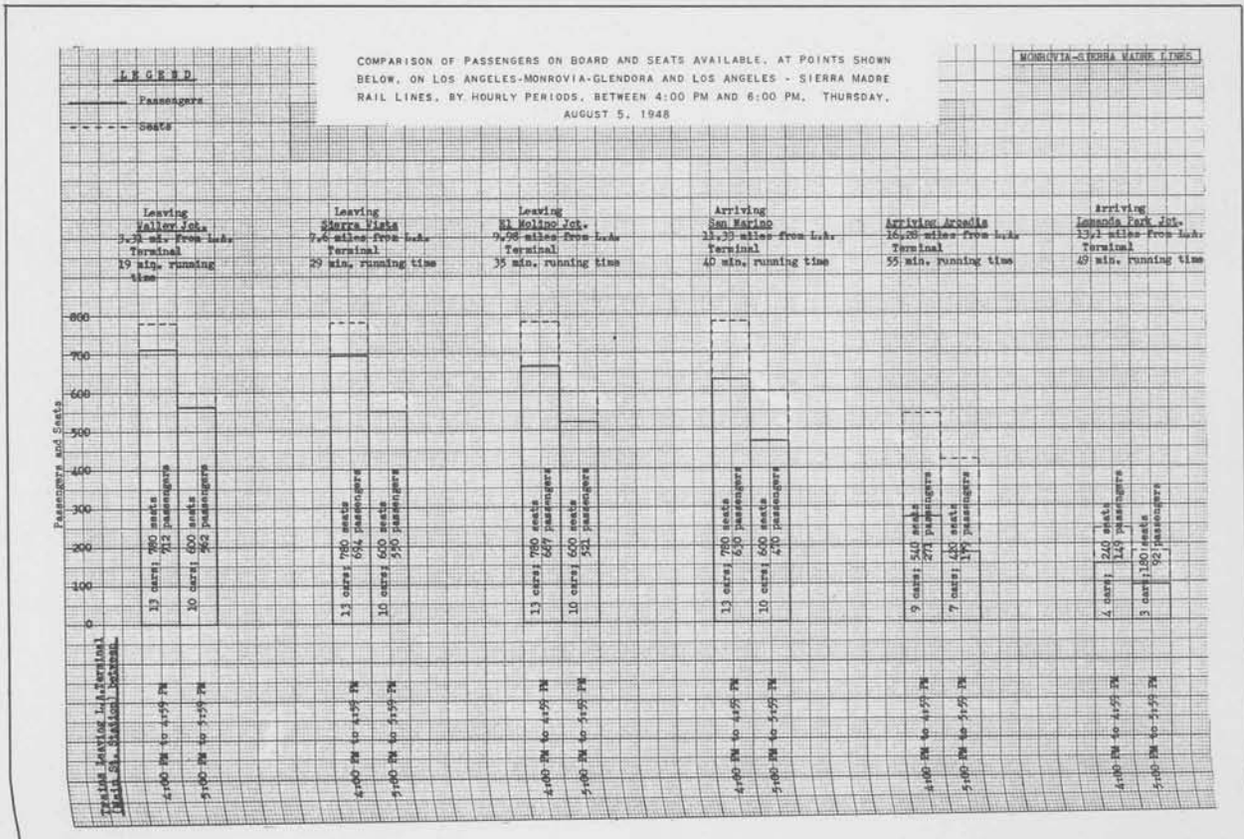


PACIFIC ELECTRIC RAILWAY COMPANY

PASSENGER LOADING CHARACTERISTICS

CHART VII

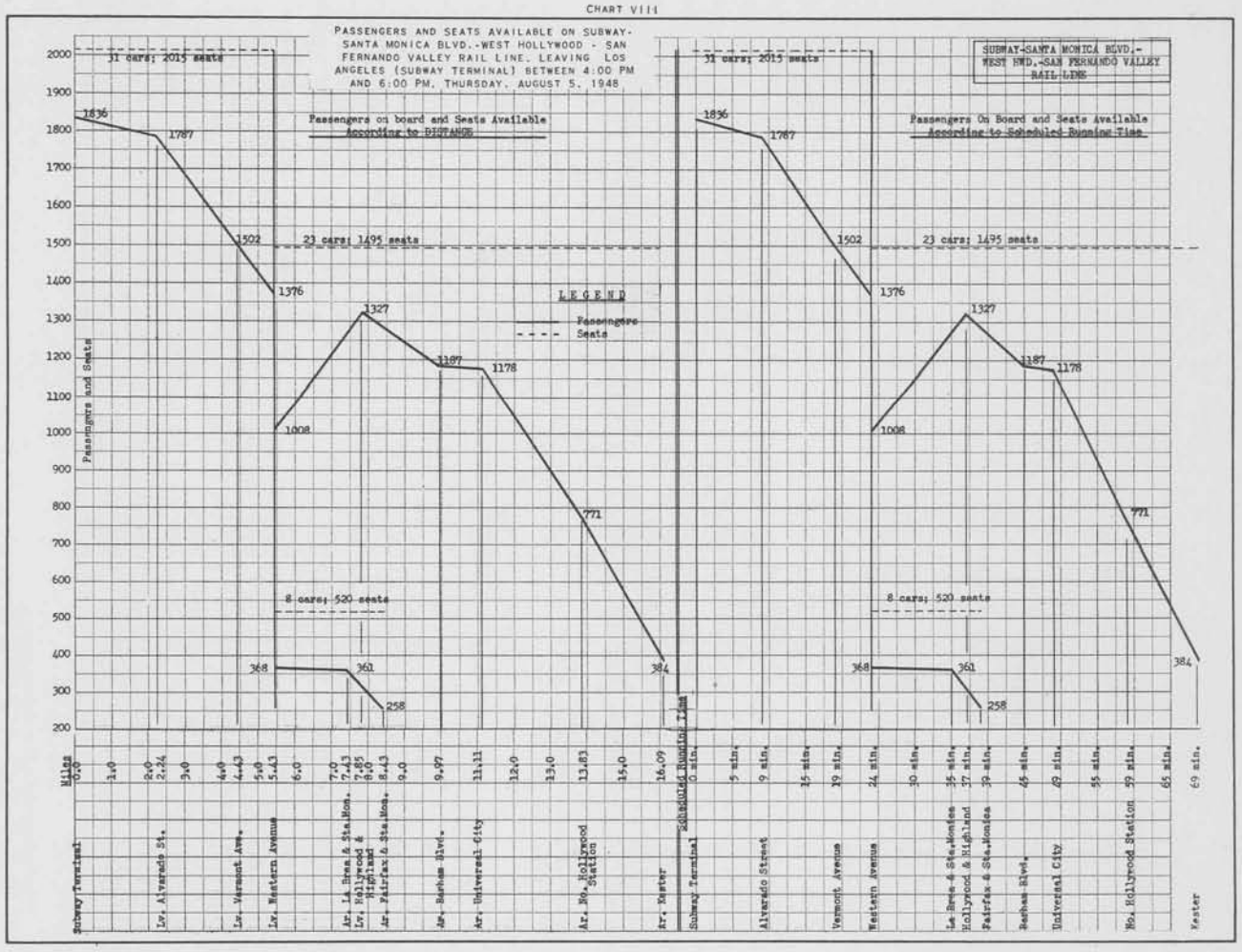


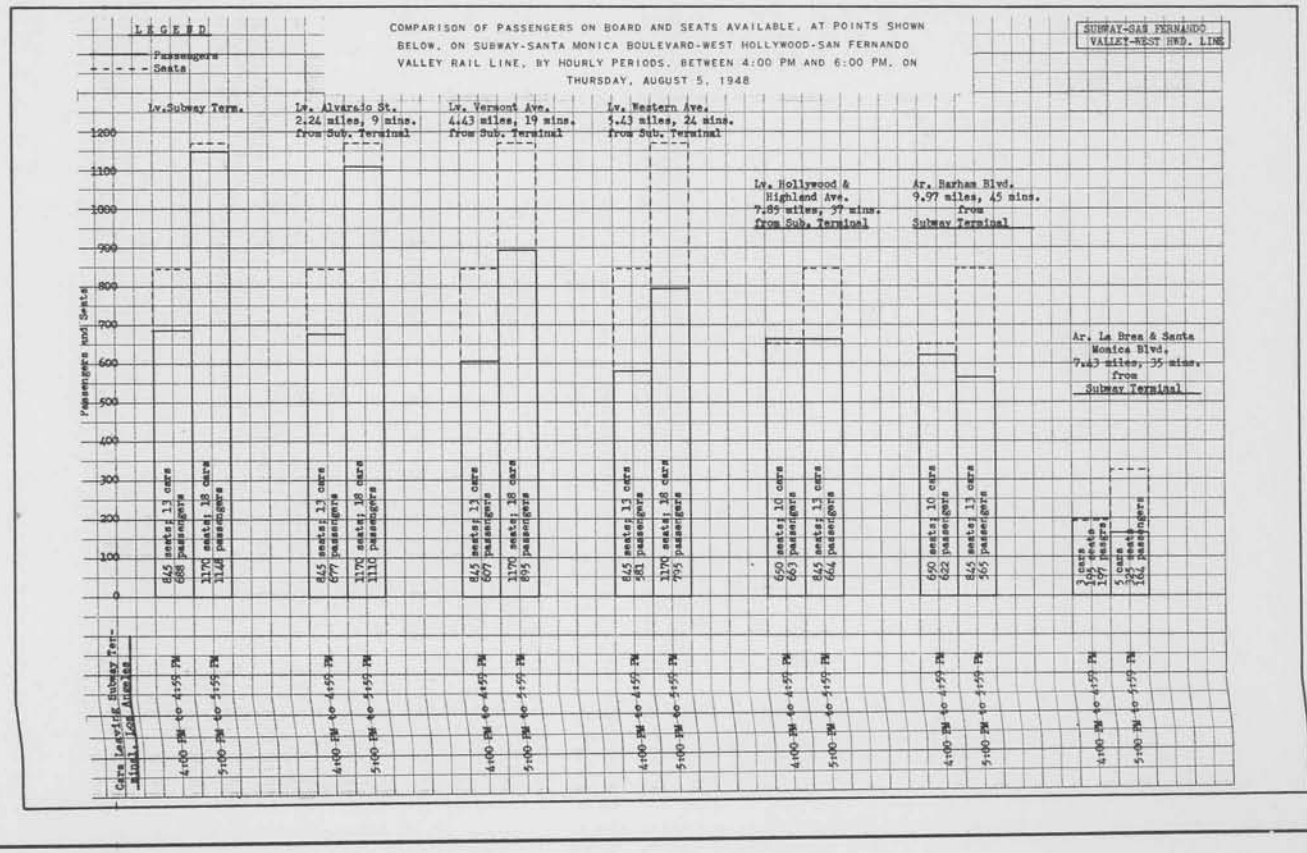


PACIFIC ELECTRIC RAILWAY COMPANY

PASSENGER LOADING CHARACTERISTICS

CHART VIII





Pacific Electric Railway Company

REVENUE PASSENGERS

	1945		
	Rail Pasgrs.	Motor Coach Pasgrs.	Total Pasgrs.
Jan.	9,186,020	3,763,799	12,949,819
Feb.	8,413,713	3,467,453	11,881,166
March	9,374,399	3,923,950	13,298,349
April	8,991,375	3,837,293	12,828,668
May	9,544,163	4,007,474	13,551,637
June	9,394,598	3,930,005	13,324,603
July	9,586,293	4,050,945	13,637,238
Aug.	9,247,119	3,909,816	13,156,935
Sept.	8,482,917	3,602,297	12,085,214
Oct.	8,932,870	3,763,290	12,696,160
Nov.	8,892,156	3,715,856	12,608,012
Dec.	9,057,912	3,777,990	12,835,902
	109,103,535	45,750,168	154,853,703

	1946		
	Rail Pasgrs.	Motor Coach Pasgrs.	Total Pasgrs.
Jan.	9,405,245	3,899,795	13,305,040
Feb.	8,458,602	3,603,738	12,062,340
March	8,961,029	3,905,901	12,866,930
April	8,848,000	3,968,292	12,816,292
May	9,575,529	3,871,013	13,446,542
June	8,272,048	3,827,563	12,099,611
July	8,790,171	3,972,781	12,762,952
Aug.	8,660,045	3,851,768	12,511,813
Sept.	7,946,780	3,521,028	11,467,808
Oct.	8,254,091	3,744,702	11,998,793
Nov.	7,709,886	3,415,912	11,125,798
Dec.	8,200,289	3,659,720	11,860,009
	103,081,715	45,242,213	148,323,928

	1947		
	Rail Pasgrs.	Motor Coach Pasgrs.	Total Pasgrs.
Jan.	8,229,461	3,612,709	11,842,170
Feb.	7,445,690	3,350,839	10,796,529
March	7,913,973	3,615,328	11,529,301
April	7,590,352	3,488,280	11,078,632
May	7,564,292	3,534,331	11,098,623
June	7,396,006	3,473,333	10,869,339
July	7,620,461	3,586,902	11,207,363
Aug.	7,463,986	3,478,666	10,942,652
Sept.	7,172,362	3,408,916	10,581,278
Oct.	7,532,218	3,650,829	11,183,047
Nov.	7,014,127	3,380,201	10,394,328
Dec.	7,426,457	3,558,985	10,985,442
	90,369,385	42,139,319	132,508,704

	1948		
	Rail Pasgrs.	Motor Coach Pasgrs.	Total Pasgrs.
Jan.	7,387,749	3,506,813	10,894,562
Feb.	6,349,041	3,145,632	9,494,673
March	6,496,181	3,482,693	9,978,874
April	6,197,040	3,317,248	9,514,288
May	6,259,342	3,341,881	9,601,223
June	6,160,056	3,330,695	9,490,751
July	6,274,128	3,367,577	9,641,705
Aug.	6,182,215	3,338,775	9,520,990
Sept.	5,928,909	3,351,787	9,280,696
Oct.	5,991,197	3,403,380	9,394,577
Nov.	5,847,322	3,316,381	9,163,703
	69,073,180	36,902,862	105,976,042

"Revenue Passengers" include Fare and Transfer Passengers.

Pacific Electric Railway Company

PASSENGER REVENUE

	1945		
	Rail	Motor Coach	Total
Jan.	$1,080,792	$587,610	$1,668,402
Feb.	964,564	534,868	1,499,432
March	1,044,070	598,962	1,643,032
April	1,025,583	590,054	1,615,637
May	1,108,017	582,210	1,690,227
June	1,135,830	583,546	1,719,376
July	1,179,370	609,416	1,788,786
Aug.	1,124,450	587,839	1,712,289
Sept.	1,011,996	540,561	1,552,557
Oct.	1,061,133	559,917	1,621,050
Nov.	1,071,747	558,785	1,630,532
Dec.	1,125,444	577,516	1,702,960
	$12,932,996	$6,911,284	$19,844,280

	1946		
	Rail	Motor Coach	Total
Jan.	$1,164,164	$585,910	$1,750,074
Feb.	1,012,235	535,787	1,548,022
March	1,038,972	577,354	1,616,326
April	973,406	574,795	1,548,201
May	990,126	515,338	1,505,464
June	932,171	552,753	1,484,924
July	986,986	575,848	1,562,834
Aug.	1,005,032	585,339	1,590,371
Sept.	1,003,403	589,728	1,593,131
Oct.	971,786	586,144	1,557,930
Nov.	925,438	548,515	1,473,953
Dec.	983,608	586,992	1,570,600
	$11,987,327	$6,814,503	$18,801,830

	1947		
	Rail	Motor Coach	Total
Jan.	$ 995,322	$600,157	$1,595,479
Feb.	892,245	556,372	1,448,617
March	914,783	597,113	1,511,896
April	879,739	575,706	1,455,445
May	866,022	580,189	1,446,211
June	877,072	578,329	1,455,401
July	918,308	597,708	1,516,016
Aug.	910,391	592,640	1,503,031
Sept.	854,461	574,830	1,429,291
Oct.	835,186	595,053	1,430,239
Nov.	816,644	569,383	1,386,027
Dec.	824,725	585,516	1,410,241
	$10,584,898	$7,002,996	$17,587,894

	1948		
	Rail	Motor Coach	Total
Jan.	$ 874,121	$ 587,534	$ 1,461,655
Feb.	876,312	595,782	1,472,094
March	909,780	669,157	1,578,937
April	852,019	630,958	1,482,977
May	865,923	637,236	1,503,159
June	865,083	640,843	1,505,926
July	909,617	655,099	1,564,716
Aug.	907,549	656,265	1,563,814
Sept.	849,390	664,058	1,513,448
Oct.	837,069	643,524	1,480,593
Nov.	783,876	613,100	1,396,976
	$9,530,739	$6,993,556	$16,524,295

Pacific Electric Railway Company

FREIGHT REVENUE

	1945	1946	1947	1948
January	$1,314,105	$723,113	$1,046,947	$1,025,367
February	1,259,951	695,119	995,394	919,880
March	1,428,694	795,624	1,137,184	1,183,082
April	1,213,984	786,736	1,093,002	987,938
May	1,306,022	684,042	1,117,131	914,513
June	1,350,429	774,896	998,138	1,051,799
July	1,238,781	817,009	1,012,775	1,079,824
August	1,135,089	857,235	965,431	996,784
September	859,489	898,844	1,006,135	997,651
October	714,151	978,236	1,009,231	1,061,591
November	388,242	816,289	926,834	
December	529,677	922,031	951,607	
Total	$12,738,614	$9,749,174	$12,259,809	$10,218,429

OPERATING STATISTICS

	#52 Alhambra Temple City Arcadia	#75 Los Angeles Beverly Hills Santa Monica	#79 Los Angeles-Redondo	#63 Valley Blvd. Local	#58 LA-Norwalk Whittier Santa Ana
Route Miles (one way)	17.45	17.85	25.70 (avg)	13.95	39.8 (avg)
Route Miles (round trip)	34.90	35.70	51.40	27.90	79.6
Coach Miles Per Day (week day) - BASE	3,111(86.6%)	3,746(68.9%)	2,801(67%)	-	3,920(80.3%)
Coach Miles Per Day by coaches making only 1 or 2 trips out PEAK	481(13.4%)	1,689(31.1%)	1,381(33%)	-	962(19.7%)
TOTAL	3,592	5,435	4,182	-	4,882
Number Coaches Required:					
Base	13	17	8	6	17
Peak	32	48	40	26	40
Number Round Trips (Week Days)	104	126	93	88	128
Number Coaches Making -					
*1 round trip per day	20	18	18	17	15
2 round trips per day	4	9	12	8	14
3 round trips per day	4	4	7	3	5
4 round trips per day	1	8	6	2	9
5 round trips per day	4	4	-	4	2
6 round trips per day	3	3	1	3	4
7 round trips per day	2	-	-	-	-
8 round trips per day	1	1	-	-	-
* - "Single Trip" coaches which made no additional trips on other lines	12	17	13	7	4

PACIFIC ELECTRIC RAILWAY COMPANY

MILEAGE RECORD OF CLASS 950 AND 1000 CARS

RECAPITULATION - JANUARY THROUGH JUNE, 1948

Month:	Class 950	Class 1000	Line Mileage	% to Line Mileage 950	% to Line Mileage 1000	Total Rail Mileage	% to Total Rail Miles 950	% to Total Rail Miles 1000
January	55,737	37,180	823,062	6.77	4.52	1,336,614	4.17	2.78
February	46,457	27,328	606,205	7.66	4.51	1,209,267	3.84	2.25
March	49,683	24,094	737,479	6.74	3.27	1,267,952	3.92	1.90
April	46,499	18,211	705,333	6.59	2.58	1,211,297	3.84	1.50
May	45,427	17,113	606,436	7.49	2.82	1,219,195	3.73	1.40
June	47,327	16,179	531,642	8.90	3.04	1,192,526	3.97	1.36
TOTAL	291,130	140,105	4,010,157	7.26	3.49	7,436,851	3.91	1.88

August 14, 1948

PACIFIC ELECTRIC RAILWAY COMPANY

MILEAGE RECORD OF CLASS 950 AND 1000 CARS - BY LINES

JANUARY TO JUNE, INCLUSIVE, 1948

Line:	Class 950	Class 1000	Line Mileage	% to Line Mileage 950	% to Line Mileage 1000	Total Rail Mileage	% to Total Rail Miles 950	% to Total Rail Miles 1000
Pasadena-Oak Knoll	65	34,956	300,367	.02	11.64	7,436,851	.0009	.47
Pasadena Short Line	97	36,338	259,594	.04	14.00	-	.001	.49
Monrovia-Glendora	-	13,316	402,076	-	3.31	-	-	.18
Sierra Madre	-	79	16,161	-	.49	-	-	.001
Long Beach	-	841	719,638	-	.12	-	-	.01
San Pedro	-	1,087	561,950	-	.19	-	-	.01
Long Beach-San Pedro	-	30,524	128,155	-	23.82	-	-	.41
L.B. Steamship Service	-	50	1,106	-	4.52	-	-	.0007
Santa Monica Air Line	5,836	-	5,836	100.00	-	-	.07	-
Watts-Sierra Vista	-	54	353,953	-	.01	-	-	.0007
Glendale-Burbank	9,514	-	636,048	1.50	-	-	.13	-
Venice Short Line	275,618	22,860	625,273	44.08	3.66	-	3.71	.31
TOTAL	291,130	140,105	4,010,157	7.26	3.49	7,436,851	3.91	1.88

August 13, 1948

Pacific Electric Railway Company

MOTOR COACH INVENTORY AS OF AUGUST 31, 1948

Class	Model	*Type	No. Units	Year of Mfg.	Mfgr.	Unit Seats	Total Seats
220	PG2505	S	1	1941	GMC	14	14
240	23R	T	2	1937	Twin	25	50
310	31R	T	4	1937	Twin	31	124
315	30R	T	3	1940	Twin	31	93
1650	40R	S	13	1937	Twin	41	533
1686	PG3701	S	9	1940	GMC	41	369
1910	35RL Spec.	S	15	1940	Twin	37	555
2000	788-6	S	24	1940	White	41	984
2025	798-6	T	25	1942	White	45	1,125
2050	798-6	T	45	1941	White	45	2,025
2100	41-G	S	25	1940	Twin	41	1,025
(A) 2125	44-D-45	T	5	1946	Twin	44	220
(A) 2220	798	T	41	1946	White	44	1,804
(A) 2261	798	T	29	1947	White	44	1,276
2300	798	T	20	1942	White	45	900
2320	798	T	5	1942	White	44	220
2325	798	T	55	1944	White	44	2,420
2380	798	T	15	1945	White	44	660
2395	798	T	5	1944	White	44	220
2400	798	T	7	1944	White	44	308
(A) 2500	TD4504(Dies)	S	35	1941	GMC	42	1,470
(A) 3000	798	T	25	1948	White	44	1,100
			408		(Avg)	42.88	17,495

*Type - S - Suburban
T - Transit
(A) - Automatic Transmission (135)

Total Number Units - - 408
Total Number Seats - - 17,495
Average Seats Per Unit 42.88

* * * * *

Manufacturer	No. Units	%
White	296	72.55
Twin	67	16.42
GMC	45	11.03
Totals	408	100.00%

Summary of Age of Equipment

Year	No. of Units	%
1937	19	4.66
1940	76	18.63
1941	81	19.85
1942	50	12.25
1944	67	16.42
1945	15	3.68
1946	46	11.27
1947	29	7.11
1948	25	6.13
	408	100.00

Pacific Electric Railway Company

CHECK ON INBOUND PASSENGERS INTO DOWNTOWN AREA

Thursday, September 18, 1947, between 4:01 A.M. and 10:00 P.M. (Weather Clear)

	INBOUND						
	1	2	3	4	5	6	7
Rail Lines:	Total	System Peak Period 7:21 AM to 8:20AM	Line Peak Hour	System Peak 20 Min.	Ratio 20 min. to System Peak	Ratio Peak Hr. to Total Line	Ratio Peak Hr. to Total System
L.A.-Pasa. via O.K.....	2,259	521	521	219	42.03	23.06	23.06
L.A.-Pasa.Short Line...	2,346	581	591	247	42.51	25.19	24.77
L.A.-El M.-Bald. Pk....	2,225	677	681	306	45.20	30.61	30.43
L.A.-Glen. & Sierra Mdr.	2,257	824	824	375	45.51	36.51	36.51
L.A.-Long Beach	5,082	837	847	381	45.52	16.67	16.47
L.A.-San Pedro	4,732	898	1,159	411	45.77	24.49	18.98
L.A.-Santa Ana	2,070	553	625	248	44.85	30.19	26.71
Watts-Sierra Vista(NB).	6,808	711	1,157	378	53.16	16.99	10.44
Watts-Sierra Vista(SB).	4,437	682	816	374	54.84	18.39	15.37
Subway-West Hwd.	2,478	302	377	125	41.39	15.21	12.19
Subway-San Fern.Valley.	3,294	800	800	327	40.88	24.29	24.29
L.A.-Glen.-Burbank	7,637	1,803	1,803	642	35.61	23.61	23.61
Venice Short Line	3,685	1,029	1,029	497	48.30	27.92	27.92
Subway-Hollywood Blvd..	4,978	777	777	300	38.61	15.61	15.61
Hwd.-San Vicente(NB)...	3,436	897	897	349	38.91	26.11	26.11
Hwd.-San Vicente(SB)...	8,473	1,035	1,237	388	37.49	14.60	12.22
Echo Park	3,452	724	724	280	38.67	20.97	20.97
TOTAL RAIL LINES ...	69,649	13,651	14,865	5,847	42.83	21.34	19.60
Motor Coach Lines:							
L.A.-Alh.-Temple City-Arcadia	2,825	849	849	377	44.40	30.05	30.05
L.A.-Balboa	702	225	248	95	42.22	35.33	32.05
L.A.-Sunland	2,199	617	617	272	44.08	28.06	28.06
L.A.-Whittier-Santa Ana	4,070	869	869	302	34.75	21.35	21.35
L.A.-El M.-San Bdno.-Riverside	7,120	1,626	1,663	591	36.35	23.36	22.84
L.A.-Santa Monica and Beverly-Sunset	5,012	874	1,072	441	50.46	21.39	17.44
L.A.-Redondo Beach	2,842	880	976	340	38.64	34.34	30.96
L.A.-Van Nuys via Riverside Drive	642	249	249	150	60.24	38.79	38.79
TOTAL M/C LINES	25,412	6,189	6,543	2,568	41.49	25.75	24.35
GRAND TOTAL	95,061	19,840	21,408	8,415	42.41	22.52	20.87

Pacific Electric Railway Company

CHECK ON OUTBOUND PASSENGERS FROM DOWNTOWN AREA

Thursday, September 18, 1947, between 4:01 A.M. and 10:00 P.M. (Weather Clear)

	OUTBOUND						
	8	9	10	11	12	13	14
Rail Lines:	Total	System Peak Period 4:41 PM to 5:40 PM	Line Peak Hour	System Peak 20 Min.	Ratio 20 min. to System Peak	Ratio Peak Hr. to Total Line	Ratio Peak Hr. to Total System
L.A.-Pasa. via O.K....	2,356	615	615	286	46.50	26.10	26.10
L.A.-Pasa.Short Line..	2,507	542	604	237	43.73	24.09	21.62
L.A.-El M.-Bald.Pk....	2,144	715	806	391	54.69	37.59	33.35
L.A.-Glen. & SierraMdr.	2,119	708	817	350	49.44	38.56	33.41
L.A.-Long Beach	5,339	1,093	1,093	419	38.33	20.47	20.47
L.A.-San Pedro	4,055	809	837	341	42.15	20.64	19.95
L.A.-Santa Ana	1,823	476	518	254	53.36	28.41	26.11
Watts-Sierra Vista(NB)	4,150	664	858	340	51.20	20.67	16.00
Watts-Sierra Vista(SB)	7,412	1,017	1,081	422	41.49	14.58	13.72
Subway-West Hwd.....	2,147	450	450	281	62.44	20.96	20.96
Subway-San Fern.Valley	3,208	863	863	347	40.21	26.90	26.90
L.A.-Glen.-Burbank....	6,806	1,776	1,854	730	41.10	27.24	26.09
Venice Short Line	3,711	1,128	1,128	470	41.67	30.40	30.40
Subway-Hollywood Blvd.	3,860	951	951	346	36.38	24.64	24.64
Hwd.-San Vicente(NB)..	9,640	1,531	1,733	642	41.93	17.98	15.88
Hwd.-San Vicente(SB)..	3,295	953	953	398	41.76	28.92	28.92
Echo Park	3,175	756	756	285	37.70	23.81	23.81
TOTAL RAIL LINES...	67,747	15,047	15,917	6,539	43.46	23.49	22.21
Motor Coach Lines:							
L.A.-Alh.-Temple City-Arcadia	2,648	730	775	307	42.05	29.27	27.57
L.A.-Balboa	780	245	307	146	59.59	39.36	31.41
L.A.-Sunland	2,262	544	630	204	37.50	27.85	24.05
L.A.-Whittier-SantaAna	3,627	862	865	350	40.60	23.85	23.77
L.A.-El M.-San Bdno.-Riverside	7,246	1,681	1,796	680	40.45	24.79	23.20
L.A.-Santa Monica and Beverly-Sunset	4,605	833	833	314	37.70	18.09	18.09
L.A.-Redondo Beach ...	2,913	911	927	361	39.63	31.83	31.27
L.A.-Van Nuys via Riverside Drive	596	237	237	150	63.29	39.76	39.76
TOTAL M/C LINES	24,677	6,043	6,370	2,512	41.57	25.81	24.49
GRAND TOTAL	92,424	21,090	22,287	9,051	42.92	24.11	22.82