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THE FEEDER AIRLINE STORY

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LIKE many other industries, air transport has changed since the war. Several new aspects have been added – air freight, air coach and feeder airlines.

During the war years most industries promised great things in post-war products and new services, slick new cars and push-button living. Air transport held the promise of world commerce to every town because the ocean of air extends to them all.

Possibly air transport has come nearer to living up to its promises than any other. It is not surprising that this is so because air transport came of age both technically and operationally in the recent war.

Few people realize how much transport flying was done and how important it was to our final victory. This vast usage accelerated the development, making possible great contributions to our national peacetime welfare.

One such contribution is the expansion of our air transport system to bring the benefits of air service to a much larger number of our smaller cities and towns. This aspect, known as the feeder program, is well under way and surprisingly successful.

The Civil Aeronautics Board has issued twenty feeder certificates to date comprising some 28,000 route miles. These certificates have authorized air service to 556 towns of which 336 are new towns receiving first-time service. Thus, some 4½ million new people have been certificated to receive the benefits of air transportation and some 56½ million are to have additional air service. Four additional related local service certificates have been issued – two for the carriage of persons and property only, without mail, and two for helicopter air mail service.

Although the feeder program already has assumed considerable size there still is confused thinking as to its need and purpose. Partly responsible for this is the unfortunate name "feeder," which is a misnomer. Actually, the language does not contain a suitably descriptive word. Only a small part of the traffic generated is feeding to other air carriers – about 15 to 20% of the total number of passengers and from 30 to 40% of the gross passenger revenue. The bulk of the traffic is local or short-haul air transportation.

Thus the feeder airlines' function can be separated from the functions of the trunk airlines which cater primarily to long-haul air transport. This distinction applies in general but becomes somewhat confusing when applied specifically because of a wide twilight zone where there is considerable overlapping of functions.

A number of the permanently certificated airlines commonly referred to as "trunks" handle a large amount of short-haul traffic while some of the feeders, due to their route patterns, overlap into the long-haul field. It is believed the distinction of functions is accurate enough but some reclassification of carriers may be necessary.

Historically, long and short-haul transportation have never mixed very well. Other forms of transport have generally separated them and carried them in separate vehicles. Because of high fixed costs in tracks and stations the railroads have catered to both long and short-haul traffic using separate trains generally for each kind.

When these high fixed costs do not exist it is possible to separate the two kinds of traffic even to the extent of separate operating companies. In the bus business, as an example, this is generally done. Thus the certification of new carriers by the Board to perform this short-haul air transport service follows a sound precedent.

However, the Board was forced into its feeder policy by the action of the trunk lines themselves. Starting as early as shortly before the war they developed resistance to serving the smaller intermediate cities because it interferred too much with the long-haul traffic they were carrying which was their principal business.

Even back in those days the Board was instituting proceedings against various airlines to force them to furnish service to certain smaller points to which they had been certificated either as a stepping stone to encroach on some other carrier's more lucrative route or as a defense to keep another carrier out of what they considered their own bailiwick.

In 1943 and early 1944 the Board conducted an investigation into this problem to determine if the smaller cities should have air transportation and whether it should be furnished by existing or by new carriers. It found that there was a need to expand our air transport system to include a larger number of the smaller cities and towns and that this

service probably could be furnished better by newly certificated local carriers.

At that time there were 199 cities in the United States with 50 thousand people or more, having a total population of some 45 million. There were 1,841 towns between 5 and 50 thousand population with a total of about 30 million. It was reasoned that these people living in the smaller cities and towns actually needed air transportation more as individuals than the people living in the larger cities. They were more isolated and further from their sources of service and supply. If a person lives in a large city he has practically everything he needs in that city. If he lives in a smaller town he will have to travel for many of the things he needs.

Because air transport had played a vital role in winning the last war it became a part of our national policy to encourage its commercial uses in peacetime. This was necessary both for national defense and national welfare. The required volume of air transport could have been gained by establishing additional service over the then existing trunk lines. But I think everyone, even some of the trunk line operators, will agree that the right way to get at least a part of this needed volume was by expanding the service to a larger number of citizens.

The Board met this problem with a surprising amount of courage and statesmanship for a government agency. Granting 28,000 miles of new routes is a bold stroke to say the least. Seldom in our history has a government agency tackled so large an undertaking on its own initiative. Almost every town in the country was considered and almost every possible route was analyzed in the ten regional hearings set up to complete the program.

The characteristics of the newly certificated feeder route patterns vary considerably between carriers. This is all right as an experiment but means that some of the carriers have routes that can be improved. In general the most frequent journey made by a resident of a smaller town is to his trade area center. The logical route for local air service would be to connect a series of towns similarly located to the common trade area center. This gives the "spoke of a wheel" route pattern which can be found rather frequently on the feeder airline map but some of the certificates do not follow this pattern at all.

Another problem was to find and select competent and qualified operators. All experienced air carriers were disqualified because they already were operating trunk lines and the Board wanted its local service experiement separate and independent from the established carriers. A wide assortment of applicants presented themselves, most of them understanding very little of the problems of short-haul air transportation. By and large the selections were good although it would have been too much to expect that all of them would have been so.

But the problems of the Board were more than equaled by those of the applicants who received certificates. Few of them knew what they were letting themselves in for. Most were aviation people with years of experience but few realized the precise organization and exacting procedures necessary for airline operation.

Their first and possibly their greatest difficulty was financing. By the time the certificates were granted the money market had tightened to where equity capital was no longer available. Some of the new carriers were never able to get started at all and those who did, almost without exception, were handicapped in varying degrees by their inadequate financing.

It is always serious to try to run an airline without enough money to do it properly. The public is quick to sense cost cutting and is afraid safety may be affected adversely. However, with a new carrier just getting underway the effect has been most grave. The two or three carriers who were reasonably well-financed and could start their operations properly received a much better traffic response than have the others.

Equipment-wise the feeder applicants had expected that a suitable feeder airplane would be available. Several of the larger aircraft manufacturers were building such craft. But none of these aircraft were ever produced in quantity. Consequently, the feeders have been forced to use the DC-3 which is somewhat more expensive to operate than a newly designed, more modern aircraft would be.

Technical personnel were available in unlimited quantities because of the large numbers released from military duty after the war. But there was a shortage of management and supervisory personnel. The trunk lines themselves, the only source of trained personnel, were doubling and tripling their own organizations at the time. So there was nothing the new carriers could do but select men who were otherwise qualified and let them learn how to run an airline the hard way. As would be expected under these circumstances, many of the feeder companies have done a better job of operating than they have of running a business.

Despite these handicaps they have turned in a remarkable performance. The record already proves the soundness of the feeder concept and justifies the Board's bold action in setting up its feeder program.

The record proves that the smaller cities and towns do need air service. When a convenient and usable service has been provided they have patronized it to a greater extent than do the people who live in the larger cities. Port Angeles, Washington, as an example, a town of 9,409 population, generated 10,910 passengers last year which is 1.16 passengers for each inhabitant. New York City did only 13% as well with 0.15 passengers per inhabitant. If New York generated traffic in proportion to many of the feeder towns there would not be

enough aircraft presently in air transport operation to take care of its traffic alone. But the proportionate need to travel is less in the large cities.

Although Port Angeles is the leading traffic generating point for feeder traffic, many other smaller towns did very well. Monterey, California, generated 1,019 passengers per 1,000 population; Coos Bay, Oregon, 819; Eureka, California, 695; Astoria, Oregon, 491; Fort Bragg, California, 484 and many others, all running many times more traffic in proportion to their size than is generated by any of the larger cities.

It is true that some of the feeder towns have not made so good a showing. As mentioned earlier some of them are on routes that do not take the people to the places they want to go. Also, some towns where the route pattern is correct have had unusable schedules provided so far.

In some cases there is no schedule from the town to the trade area center during the morning hours or vice versa. The same thing is frequently true in the afternoon. Unless these four basic schedules are provided so that a person can go at the beginning of a day to the area of his planned activities for that day and then is able to get home again at the end of the day, he obviously is not being given a usable service and will use some other form of transportation.

On this score no small town can be given the multiplicity of direct schedules to as many places as has New York City, for example. But where a town has been given reasonably direct service at convenient times of day to its trade area center, that town has patronized its air service heavily. This one outlet provides for its greatest local transportation need and at the same time gives a connection at the trade center with the trunk airline network for its long-haul travel needs to more distant places.

The lack of adequate scheduling is a result of the tight money market. The operators know what scheduling they should provide but have not been able to afford enough aircraft to fly them.

The record also proves the soundness of the Board's policy in selecting new operators to provide the feeder service. These operators have shown greater ingenuity and resourcefulness than have the older carriers in meeting their operating problems.

The conversion of the DC-3 is a case in point. By rearranging the interior lay-out and adding a ramp door, this aircraft was made much more operable in any kind of service. Proof of this lies in the fact that most of the trunk lines who are still using DC-3 equipment have made or are making this conversion after having operated them for some fifteen years without having thought of the improvement.

Also, the newly certificated operators developed new procedures which speeded their schedules through stations. The two-minute stop

was laughed at when mentioned in the regional hearings but most of the feeders average less than two minutes per stop in their present operations.

It is remarkable that over a period of nearly three years some 40 million revenue miles have been flown by these newly certificated carriers with no injury to passengers or crew. This record has been helped by Civil Aeronautics Administration supervision and there probably is some element of luck in it. But most responsible are the technical personnel – the pilots, mechanics and the supervisory staffs of the carriers' operating departments.

Along with this ability to operate safely these new carriers have demonstrated their ability to operate economically. It is obvious that frequent stops increase the cost of any operation. Yet some of the feeder operators, landing every fifty-odd miles, are actually flying at less cost per revenue mile than DC-3's have ever been operated before by a certificated air carrier.

The best that was done by a trunk airline using DC-3 equipment in 1940 was 54.29c per revenue mile. When this is corrected to allow for the present value of the dollar (using the present Consumer Price Index of 169.5) it becomes 92.02c per mile. At least six of the feeder operators flew for a less cost during the second quarter of 1949. Two operators were as low as 77c per revenue mile. The average for all the feeders, including three who have been operating for less than a year and still reflect the high shakedown costs of starting, is only 0.01c higher than the best that was ever done before.

It should be pointed out that these feeder operating costs include a very high equipment depreciation. The feeders have written off their operating equipment over a three-year period, the life of their temporary certificate. The DC-3 flight equipment of the trunks has been written off long ago. Also their costs before the war reflected depreciation charges based on a longer write-off period than the three years used by the feeders.

With these low operating costs and the substantial amount of traffic some of the feeders are carrying, their overall mail requirements are falling rapidly. For the month of July, the last month operating data are available, the cents per mile mail pay required to break-even for one of the carriers was in the middle 20's, with three others running less than the middle 30's. The carrier with the lowest cost has been operating for only a year and a half. The lowest mail pay of any of the trunk lines in 1940, corrected for present dollar value, was 19.58c per mile even though that carrier had been operating for some 13 years.

When the Board first formulated its feeder policy it estimated the amount of mail pay required would be approximately 25c per mile. This was based on the pre-war value of the dollar and assumed a newly designed post-war feeder airplane would be used. Without the operat-

ing efficiency of the special plane the feeders are generally coming close to this estimate. The 25c figure corrected to present dollar value is 42.37c. Several of the feeder carriers require less than this to pay a satisfactory return on their investment.

If the income to the federal government, consisting of revenues from postage, transportation taxes and other taxes, could be balanced against the mail payments made to the feeder carriers, the actual cost of the feeder program would not be great. Unfortunately, there is no way of making an actual accounting but evidence submitted to the Senate Committee on Interstate and Foreign Commerce in its recent Airline Industry Investigation indicated that one feeder was receiving $107,674 per month in mail pay and the federal government was receiving $248,823 in revenues connected with its operation.

Some of this revenue would be needed to pay for transporting some of the air mail beyond the lines of the feeder carrier; some for ground handling, Post Office overhead, etc. No one knows exactly how much of the $248,823 is actual revenue to the government but it is considerable.

We hear the estimate frequently that the feeder program will cost about 15 million dollars in mail pay for the fiscal year 1949. We never hear a reference made to the revenues going to the federal government as a result of the feeder program.

If we consider the national defense and national welfare values there seems little doubt that the federal government is getting its money's worth out of the feeder program. The cost is surprisingly small for the value received.

A third important question already has been answered by the record. It is the matter of whether the existing trunk lines or newly certificated carriers can operate the local or feeder services more economically. It has been argued that because trunk lines already had operating stations in the vicinity they could do the additional flying at less cost. This has not been borne out by the record.

Possibly the most complete comparison of these costs was presented recently by one of the feeder operators in its certificate extension proceeding before the Board. One of the transcontinental trunk air carriers serves four towns in common with a feeder and closely parallels the feeder's route for some 350 miles between two important terminals. This circumstance makes it possible to analyze and compare each carrier's operating costs to furnish this local air service.

For the year 1948 the trunk line's station cost for these four towns was $92,151. The feeder's cost was $60,151, yet the feeder scheduled 8,906 flight departures from these towns to 3,974 for the trunk. Also, the feeder carried 20, 238 passengers as compared to the trunk airline's 11,625.

On a per flight departure basis the feeder's station cost ran $6.75 per departure. The trunk carrier's cost was $23.19, some three and one-half times that of the feeder. The feeder's cost per passenger enplaned was $2.97 against the trunk's $7.93.

Another exhibit submitted by the feeder operator in this proceeding compares the total operating costs for the route segment flown by both carriers. These costs were given for the third quarter of 1948. Both carriers were using DC-3 flight equipment on this segment. Using the cost per revenue mile as a measuring stick of relative operating efficiency, the feeder operator flew for 79.89c per mile, the trunk for 115.35c.

On this segment the feeder served eight intermediate towns to the trunk's three, 175,000 population to 57,000, and carried 15,080 passengers to the trunk's 6,206 during the quarter. The feeder's cost per town served was 51.3%, per terminal to terminal flight 69.7%, and per passenger carried 56.3% of the trunk line costs respectively.

The net operating loss for the segment before non-passenger revenue was $89,760 for the feeder, $130,911 for the trunk. Yet the feeder furnished nearly twice the number of scheduled flights, serving 2.66 times as many towns and over three times the population. On the basis of the number of passengers carried the trunk operator's net loss per passenger was 3.54 times that of the feeder.

Under the Civil Aeronautics Act, this net loss, whatever it is, is made up with mail pay provided the operation has been conducted honestly, economically and efficiently. When a trunk carrier operates a local service segment the loss it incurs is reimbursed by a higher mail rate over its entire system. Therefore, the matter of who can perform the local service more economically becomes of great importance.

Although the above is the only complete analysis comparing trunk and feeder operations so far presented to the Board in one of its formal proceedings, similar operating results are being obtained at many other places where common operations are being conducted. In general, the feeders are able to furnish the service at less cost and in addition are providing more and better local service.

Thus, it becomes apparent that if we are going to expand our air transport system to provide this local and feeder service it should be performed by new carriers specializing in short-haul operations.

It can be said that the experimental phase of the feeder program is about over. A variety of routes and operating methods have been tried and the results are now known. Thus, we know what works and what does not. The encouraging thing is that we know short-haul air transport is needed and can be successfully operated.

There is much to be done if we are to receive the greatest good out of the program. Considerable rearranging of routes will be necessary

where the original route layouts do not provide the correct service. There are still many towns that need service and should either be added to present routes or served on new routes still to be laid out.

Also, there are a good many small towns presently receiving service on the trunk line system as a by-product of their long-haul service. These towns can receive better service if they are added to a local service route. The feeder carriers can be strengthened by adding these points to their operation and the trunks can benefit by being relieved of the considerable loss they are presently incurring by trying to furnish this local service while using long-haul operating methods and procedures.

The feeder carriers themselves still have a big job to do in improving their schedules so that people can travel at the right time of day. To date this has been the greatest fault in the feeder program. The investment market is now improving and it should be easier to finance the equipment necessary to fly schedules at convenient times of day.

A good feeder airplane of new design will still be needed, but until it is ready the program can go ahead with what we have. Local air service can and should be continued at most of the towns presently receiving it and the feeder route pattern should be expanded to bring service to a good many other towns of similar size, location and economic status.

When this is done we will have a better country to live in; social and business intercourse will be improved; and our powers of defense will have been strengthened. The actual cost of such a program to the federal government will be very small and will be a very worth while investment in national welfare and national defense.