PROCEEDINGS 1945

PAPERS AND PROCEEDINGS

of the

EIGHTEENTH ANNUAL CONFERENCE

of the

WESTERN FARM ECONOMICS ASSOCIATION

Held at Fort Collins, Colorado, June 27–29, 1945

and of the

SUB-REGIONAL MEETING

Held at Berkeley, California, July 16–17, 1945

Edited by the Vice-President of the Association

TODAY'S OUTLOOK FOR AIR TRANSPORTATION OF PERISHABLES

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Mr. Chairman, members and guests of the Western Farm Economics Association, I consider it a privilege to discuss with you today the subject of aviation and especially as it applies to the air shipment of perishables. The entire subject of aviation is of importance to everyone because of its possible effect upon our personal habits and the economic conditions with which we will be faced in the future.

I have been told that the Western Farm Economics Association was formed in 1927, and conversations with your officers and members have given me a valuable and interesting outline of the nature of your activity. You people are to be congratulated for the constructive thinking and progressive planning which has maintained your active membership for some eighteen years. Judging from the transportation studies you are making, it is safe to assume that aviation will become an increasingly important part of your future programs. In our discussion on this subject today, I know you are particularly interested in the significance of air transportation to the western fruit and vegetable grower and the air cargo rates which you are likely to encounter in the near future. But to understand clearly specific problems, it is first necessary for us to study the overall picture.

Transportation and progress have always gone hand in hand. You do not have one without the other. To California and the western states first came the waterway, then the Pony Express and Overland Coach. On May 10, 1869, the ceremonies at Promonotory Point, Utah, connected the East and the West via the First Transcontinental Railroad. Because of two great transportation media, the waterway and the railway, many of your original settlements have expanded to become important units in the commerce of the world.

Today, before your very eyes you are seeing another great transporation medium, aviation, take its rightful place in adding to the importance of your individual communities. It is difficult for us to comprehend the full significance of the changes which are going on in this world today. We are seeing history in the making, and our children and our children's children will read of today's events for years to come.

It was only forty-two years ago the Wright Brothers made their historic flight at Kitty Hawk, this first flight powered by a twelve horsepower engine extended for a distance of only 120 feet, comparable to the wing spread of a modern airliner. At no time was the plane more than twelve feet off the ground, and the average speed was six miles per hour. Today's commercial airliners cruise at 180 miles per hour, and tomorrow's airliners will operate between 300 and 500 miles per hour.

Several years ago TWA planned a new transport plane to be built by Lockhead Aircraft. However, this unit was turned over to the military before it had an opportunity to be used in commercial service. It will carry three or four times the load of today's commercial transport at approximately twice the speed. When we realize that equipment such as the Constellation and the Boeing Stratacruiser have already made non-stop transcontinental flights in less than seven hours, and when we read the news releases concerning rocket planes, jet propulsion, the use of glider trains; etc., we can more readily understand the tremendous potentialities of the aviation of tomorrow. And in many respects, that tomorrow is not so very far away.

We hear and read a great deal today about conversion—conversion of production from war to peacetime activity—conversion of manpower—redeployment of personnel, but if all of these are to be successful in the postwar period, we must also bring about a conversion in our thinking. The willingness to accept new concepts of our ways of living and our ways of doing business must be developed. Some of these may be revolutionary, and others will come about step by step in an orderly routine manner.

By this I do not mean to convey the thought that we, in air transportation, expect shippers to abandon the methods of doing business to which they have long been accustomed. However, as the air shipments of fruits and vegetables increase in volume, it is possible that newer methods of handling will appear desirable. Just as the reefer car revolutionized the marketing of perishables by extending the trade area for many products; likewise the airplane has similar potentialities.

Air passenger transportation has already approached the revolutionary stage. Seventeen years ago the world was thrilled at Lindbergh's flight across the Atlantic; and yet last year TWA operated 8000 trips across the ocean for the air transport command.

Not so many years ago only a national emergency would have induced the President of the United States to fly, and yet a few weeks ago President Truman made a casual non-stop flight from Washington, D. C., to Seattle. Last week I rode to Los Angeles with an air force officer who remarked, "Just think, only 40 or 50 hours ago I was in Naples, Italy; and now I am nearly home."

All of this simply means that the future of air passenger transportation is assured. The service improvements made in the last ten years have been phenomenal. Passenger fares have been reduced to the point where, if time means anything, you cannot afford not to travel by air. The charge for first-class rail plus lower berth one-way from New York to the West Coast is $124.72. The air fare for the same distance is $124.75.—Three cents difference—and you can readily visualize the saving in time.

But what does this mean to the air cargo picture? It means that the future of air cargo transportation is likewise assured, even though we have many different obstacles to overcome in the handling of cargo than in the

handling of passengers. It has been stated by some that the scheduled air carriers are predominantly interested in passenger service rather than cargo service. This is certainly a misconception. Today's limitations imposed upon us by equipment restrictions have not permitted us to acquire and utilize equipment which is specifically designed for the economic carriage of air cargo. Actually, it is to the shippers' benefit and to our benefit that we *are* in the passenger business. The "know-how" of transport operation which has been accumulated over a period of years will be applied to hasten the development of future air cargo transportation.

The chrome fittings and the hostesses, so necessary in our passenger operation, will not be carried on our cargo flights, nor will their costs be allocated to cargo operation. On the other hand, the thousands of miles of radio and teletype communication circuits, the elaborate flight dispatching and and meteorological systems, the pilot training programs, the maintenance and overhaul bases already established by today's airlines will be immediately available for tomorrow's entry into the volume carriage of air cargo and will assure a consistency of service that cannot be duplicated. We have already paid for the cost of establishment of such facilities, and the additional cost of utilizing them to encompass an air cargo program is negligible.

For the air cargo viewpoint, this means that the established air carriers are in a position, costwise, to offer maximum flexibility of service at minimum rates, whether this be in planeload or less-than-planeload quantities; or point-to-point charter operation.

In considering the application of air cargo to the carriage of perishables, we in TWA want to avoid the pleasant luxury of wishful daydreaming. Although it is the function of my department to promote air cargo sales, in all fairness, we want to make certain that the shippers of perishables have a complete knowledge of the actual facts under today's conditions.

Moreover, as a transportation company, we want to develop an ever growing volume of traffic—not a series of publicity and stunt shipments which will disappear once the novelty of air freight has worn thin.

To a shipper, air cargo is a cold hard business transaction and merely another means of transporting his product from one point to another. To a crate of strawberries there is no glamour in being carried by air. This service must stand on its own merit as a transportation medium that has economical advantages to the user. Air cargo transportation has been expensive transportation when compared to all other forms, and it is only when speed has a dollar and cents value that air cargo can be profitably employed. To illustrate, when nectar peaches are selling for 20 cents per pound here on the west coast, while the price for the same product is 48 cents per pound in eastern markets, you can make a profit by using air freight, even at today's rates.

In discussing rates, it is important to analyze the trends which have been developing. In 1935 air express shipments from the West Coast to New York cost approximately $1.20 per pound. Three years later, in 1938, it was

$1.00 per pound. Last year it would have cost you 84 cents to ship a pound of cherries or grapes to the east coast.

On July 1st of this year, TWA inaugurated an experimental air freight service which we consider supplemental to air express. Rates are on an airport to airport basis and although this program does not provide the same expedited service as air express, it is possible for you to make transcontinental shipments at 38 cents per pound. If we had sufficient planes and personnel available, we could give you planeload point to point service at rates approximating 18 to 20 cents per pound for transcontinental shipments.

Certainly, 38 cents a pound to New York is not a low cost when compared to surface transportation but it is indicative of a declining trend in air cargo rates which has taken place in a period of time when all other costs were going up. It is important to realize, too, that reductions in air cargo charges have materialized while we continued to use the same airplane, the DC-3 model, which has been the workhorse and standby of the airlines. Generally speaking if operating costs remain equal, reductions in transportation charges are made possible by increased payloads, but this has been only a minor factor in the case of the airlines, because the same airplane was being flown. The reductions in charges have resulted from more efficient scheduling, better maintenance methods and a greater utilization of equipment. An airplane does not make money when it is on the ground. A few years ago our planes were working only 8 hours a day while the remaining 16 hours were non-productive maintenance hours. Today, these same planes operate 12 hours a day—which means that every unit averages 2300 miles every 24 hours.

Concerning payloads, few people realize the handicaps under which we are operating. The DC-3 weighs 25,200 lbs. when fully loaded. But of this total weight, the revenue payload on a DC-3 all cargo plane averages only 6500 pounds. To you who have been accustomed to making carload shipments of 30,000 pounds, the capacity of a DC-3 will seem small indeed.

We are anxiously awaiting newer multi-engined equipment which will permit substantially increased payloads because the operation of such equipment will permit volume handling at lower rates. Nothing would give me more pleasure than to be able to stand here and tell you that we will be hauling your peaches, grapes, cherries and lettuce for 5 cents per pound from coast to coast. And perhaps some day this will be possible, but in all honesty, I do not see the possibilities of such rates for some time to come. There is every indication that within the next twelve months you will see less-than-planeload rates in the vicinity of 20 cents per ton mile with planeload rates possibly as low as 15 cents. These rates would result in transportation charges of between 19 and 25 cents per pound for shipments to the east coast.

It is apparent that such charges will not attract the volume movement of

perishables, as a matter of fact only a limited quantity of a few commodities can stand such rates. To these commodities, the speed of air transportation will be of sufficient advantage to offset added transportation costs.

We are not going to run the railroads out of business, nor are we going to run the trucklines out of business. In fact, we aren't going to run anyone out of business. On the contrary, it is quite possible that air cargo will stimulate new markets and actually create new business for all forms of transportation. There are many, many commodities that will never be adaptable for air transportation and which will always move by rail, steamship or truck. On the other hand, it is possible that a substantial air cargo poundage will be derived from commodities that today do not move in any appreciable volume by any form of transportation. Anything perishable, whether it be fruits, vegetables, serums or today's newspapers will always increase its market area if it can be transported a greater distance with the same elapsed time. Further, we are confident that the consumption of premium grade, tree and vine ripened fruits and vegetables will be increased because a fresher and better product will be available when air transportation is used.

Think again of the transcontinental flights of 6 and 7 hours which have been made during the last few months. Using surface transportation, think of an imaginary circle drawn around your community which represents the distance you could ship in 6 or 7 hours. Then compare that circle with one whose radius is San Francisco to New York. On one hand you are covering 2500 miles while on the other you are limited to possibly 500 miles. Doesn't that suggest a worthwhile increase in your market area?

In air transportation you must accustom yourself to thinking of distance in terms of hours, not miles. Even though many thousands of miles separate you from China and Russia, you are closer to Asia by air than you are to the east coast by surface transportation.

As you know, the bulk of perishables moves, coast-to-coast, at a cost of 3 or 4 cents per pound via surface transportation. Since it seems likely that for quite some time, air transportation will cost several times that much, just what are the circumstances which justify air shipment of perishables? To begin with, we must assume that consumers will pay a higher price for better looking, better tasting and more nutritious fruits and vegetables. We know that people will pay an extra 2 cents per pound for fresher strawberries, but the real question is will they pay 10 or 20 cents extra?

A reliable answer to this question is not available at this time. TWA's air freight program purposely permits the shipment of relatively small quantities of perishables, so that growers and retailers may experiment and ascertain the reaction of consumers.

We are aware of the limitations imposed on the retailer by OPA regulation. Recently I attended a meeting of the OPA in Washington at which time this subject was discussed. The OPA officials were sympathetic with

the problem and give indications that in the near future, air transportation costs would be considered in establishing ceilings for airborne products. Nothing official has been done on this subject yet, however.

One justification for paying higher transportation charges lies in the movement of crops which ripen suddenly and cannot be shipped via slower methods of transportation. It is obvious that if only distress prices can be obtained locally, the shipper can afford to absorb some portion of the added cost, provided he can obtain a substantially higher price in eastern markets. But such a conclusion can be deceptive, because in the past, retailers have not been inclined to pay a good price for ripe fruit and vegetables because they always associated abnormally high shrinkage losses with handling of mature fruit. This raises the question of packaging and merchandising. The handling and transporting of mature fruit and vegetables requires better treatment than partially ripened perishables. This is a challenge which must be met. The package itself, is an important feature not only from the protection standpoint, but also in identifying airborne products and in supplying added sales appeal. The importance of this latter item should not be underestimated since consumers have demonstrated a definite preference for packaged products. Fortunately, this overall problem has been recognized and research is now being conducted by several organizations in an effort to supply workable answers.

One other aspect of the merchandising problem of retailing tree and vine ripened products is the necessity of obtaining a rapid turnover of stock. The retailer may find it advisable to restrict the size of his daily purchases to his anticipated sales. This would assure him of always having perishable merchandise at its most attractive stage.

Another important justification for using air transportation is the reduction in shrinkage encountered in transit. It is obvious that far less shrinkage will result from a transportation time of 8 or 10 hours as compared to 8 to 10 days. Speaking of shrinkage, I would like to cite an example of an item which has no relation to fruits and vegetables but which is nevertheless perishable and illustrates the point. We have had some recent experience in the movement of baby chicks. Trade practice falls for shipper to include 10 extra chicks in every 100 shipped in order to cover losses which are expected to occur en route. Several weeks ago we shipped 3000 baby chicks between Kansas City and the east coast and only 12 out of 3000 were dead upon arrival instead of the customary 300. This is a remarkably low loss and well illustrates the point on how shrinkage can be reduced. As a matter of fact, the reduction in losses compensated for the additional transportation charges which were encountered through the use of air.

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In summarizing, let me emphasize four points. First, we know that today's cargo rates are not sufficiently low to attract volume movements.

Second, under wartime transportation conditions, war essential traffic

utilizes the majority of all air transport space and until additional and larger equipment is placed in operation, only comparatively small shipments of perishables are practical. However, it is our opinion, this is no disadvantage since a consistent flow of smaller shipments, moving at regular intervals may be more useful in testing a consumer's market for airborne perishables than an occasional plane load.

Third, there is much to be learned by the shipper, the receiver, and the carrier, in the handling of each individual perishable shipped by air. This can be accomplished only through actual experience of handling. The shippers who pioneer the use of air transportation for perishables will assume a position of leadership in their field. The information and experience gained will provide a firm foundation for future expanded markets.

Fourth, the outlook for lowered rates in the future is very favorable although we must realize that they will continue to be substantially higher than surface transportation.

One other point, and the question may have occurred to you. We are constantly questioned about the possibilities of using military aircraft for cargo transportation. Military aircraft *can* be converted for this use but experience has indicated that the cost of such conversion to peacetime operation far outweighs the apparent advantages. As a matter of fact, conversion costs alone exceed the purchase price of a new airplane. Undoubtedly, there will be a number of individuals who will want to utilize converted military aircraft for contract cargo operation, and we welcome such competition as long as it is required to meet the same high safety standards of flight operation as those established for scheduled air carriers. Regulated competition is good for any industry, and TWA has gone on record as definitely wanting such competition, not only in this country but on all foreign routes. The postwar job of air transportation is far too big for any single organization. To us, the idea of a single monopolistic air carrier representing the United States in either domestic or foreign fields is completely at odds with the spirit of competition which has developed the American way of life.