INLAND WATERWAYS AND PIPE LINES
14 MARCH 1946

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The attitude of the people and the government of this country has been traditionally friendly toward our waterways. They were the only means of communication and contact over any appreciable distances in the early days of settlement. Water transport was a going concern before there were any highways, and, as I mentioned the other day, the early population centers were all located on waterways. The advent of the railroad and its demonstrated superiority in the general field of transport caused the demise of the earlier attempts to extend our waterway system. The revival of interest in water transport came about at the time of World War I as a result of several factors:

1. Waterway development was a part of the program for conservation of natural resources.

2. Interest was further stimulated by rising freight rates on the railroads after 1910 and particularly after the outbreak of World War I.

3. There was the belief that the development of waterways would keep rail rates down.

4. The traffic congestions and car shortages on the railroads during the first world war were also a factor.

5. And sectional and local interests hoped to gained by such projects. At the end of World War I those benefitting from the Government's operation upon waterways did not wish the service discontinued, and, accordingly, the Act of 1920 provided that "all boats, barges, tugs and other transportation facilities on the inland, canal, and coastwise waterways" should be "transferred to the Secretary of War, who shall operate or cause to be operated such transportation facilities so that the lines of inland water transportation established by or through the President during the Federal control shall be continued."

The total appropriations for rivers and harbors prior to 1933, amounted to about two billion dollars ($1,941,779,999). If from this total there be deducted the amounts expended for purposes other than navigation improvement (mainly flood control) the expenditures for rivers and harbors becomes $1,534,862,753. The corresponding total for the three years 1933-1935, was $344,297,093, and for the three years ending with 1938 the amount was $672,279,522, making the total to 1939 $2,551,439,378.

Inland Waterways

The inland waterway system of the United States is composed of the coastal systems and the intra-coastal systems, which together make up a total of 29,100 miles. The Atlantic coastal rivers account for a little more than 5,000 miles; the Gulf coastal rivers, i.e. those emptying into the Gulf, which means chiefly the Mississippi River system, account for

17,000 miles, and the Pacific coastal rivers about 1,800 miles, or a total coastal system of a little more than 24,000 miles.

The intra-coastal waterways account for approximately 3,000 miles, to which the Great Lakes system adds about 1,700 miles.

The relative position of this country with respect to waterways is indicated by comparing our 29,000 miles with 4,700 miles in Germany (in 1938) and 68,000 miles approximately in Russia as of that same year. The German inland waterway system played a very important role in her internal commerce. 17 million tons of coal were handled on the Rhine through the Duisburg-Ruhrort area alone in 1937. The total port traffic of the German inland waterways in that year amounted to more than 170 million tons. This compares with approximately 321 million tons on our inland waterway system in 1943 (254 million in 1940).

The mileage of our inland waterways represents approximately 1.5 percent of the total mileage of our combined surface transportation systems and a little less than that proportion of the total when continental air line mileage is included. It would be a mistake, however, to assume that this represented the relative importance of the inland waterways as a segment of the transportation system of the country. The ton-miles of service performed by the inland waterways in 1940 represented nearly 20 percent of the total ton-miles moved by all agencies including airways. This proportion was reduced during the war to 13.5 percent in 1944, suggesting a decline in their importance. This reduced importance in war resulted from characteristics peculiar to our inland waterway systems. Waterways are geographically inflexible. They cannot readily be shifted to meet changes in the location of industries, nor readily altered as to capacity to meet changes in the character of the traffic that might be offered. The movement is slow and for a large and important part of the system is completely shut off five months of the year by cold weather. It is often not worth while to construct manufacturing facilities with a view to water movement if it will be available for only a portion of the year. In a war particularly, transport facilities should be available continuously the year round except when stockpiling is feasible, as with coal and iron ore. Plants are located on watercourses, however, in order to take advantage of the characteristic cheapness of such transport, but in such cases other means of transport generally are also available. There is a good deal that could be said regarding this apparent "cheapness" of water transport.

Another characteristic of our inland waterways which militates against their fuller use in the variation in depth of channel. Channel depths range from 35 ft. at our big ports on the mouths of some of our rivers (New York, Phila.) to as little as 3 & 4 ft. on the upper reaches of the Missouri; and other channels vary between these two extremes. Large boats that can be successfully operated on the lower Mississippi cannot be used on the upper reaches or its tributaries. Barges are used quite extensively but they require some form of propelling agency. Reports of the Board of Engineers for Rivers and Harbors indicate that about 90 percent of the total inland waterway traffic is bulk freight, and approximately 80 percent of the total is moved over the Great Lakes. Some package freight is handled over sections of the Mississippi River

on which the time in transit compares very favorably with that of the railroads; but this business represents a very small fraction of the total tonnage moved. Actually some mail is carried by inland waterway. Before the war there were a total of 195 power boats, covering more than 20,000 miles over 183 routes. But the Great Lakes system has represented the most important part of our inland waterways in volume of traffic handled. The Annual Report of the Office of Defense Transportation for 1942 points out that while Great Lakes traffic increased the total traffic on the rivers and canals in 1942 was slightly less than in 1941. The pre-war southbound movement of steel, general merchandise, and grain for export declined sharply and the movement of war traffic did not get under way until late in the year.

The composition of northbound traffic changed entirely from sugar, coffee, burlap and jute to sulphur, scrap, fluorspar and petroleum but the net result was an increase in tonnage carried northbound. The war changed the traffic pattern on the New York Barge Canal in similar fashion. The prewar traffic was composed largely of petroleum which moved north and west from New York to Buffalo. In 1942 the largest individual movement was still petroleum but it moved eastward from Buffalo to New York, together with shipments of sulphur, molasses and steel.

The total ton-miles of inland waterways traffic including the Great Lakes increased from 140 billion in 1941 to 148.5 billion in 1942. In 1943 the total volume of traffic declined to 141.6 billion ton-miles due to a decline in ore and coal shipments on the Great Lakes. On the rivers there was an increase in the volume of petroleum carried. The downstream traffic was augmented by the movement of approximately 1,000 vessels of various types constructed for the Army, Navy and Coast Guard. There was in that year also a resumption of coastwise operations. Almost the entire fleet of colliers was restored to the coal trade between Hampton Roads and New England, which carried approximately 225,000 tons per week. Tug and barge operations on the West Coast also increased in the movement of petroleum, lumber and agricultural products.

During 1943 there was a considerable increase in the inland waterway fleet. These additions were sponsored by the Office of Defense Transportation and financed by the Defense Plant Corporation.

Early in 1944 it appeared evident that the fleet would still be insufficient to handle the increasing demand for petroleum and alcohol movements. Accordingly the Office of Defense Transportation interceded with the Defense Plant Corporation which authorized the Corps of Engineers, of the Army to enter contracts for the construction of 25 additional tank barges.

In order to conserve the limited supply of tank barges for the movement of essential war freight the Office of Defense Transportation issued its general order #19, effective 9/10/42, establishing a permit system for domestic waterway movement of liquid cargoes in bulk. Under the provisions of this order the Office of Defense Transportation could direct any vessel to be moved to specified points and to load, unload

or transport cargo to such points as it required. All craft carrying petroleum in a general northerly and easterly direction, however, were exempt.

In an effort to conserve rail equipment and make fuller use of the upper Mississippi system an investigation was instituted early in 1943 by the Office of Defense Transportation with a view of diverting from rail to barge approximately 300,000 tons of iron ore moving to Granite City, Ill., but it was found that there would be no appreciable savings in the use of rail equipment by such a transfer because of necessary transshipments, and it was dropped.

The most important segment of the inland waterway system of the country, as already noted, is the Great Lakes system. More than 80 percent of total inland waterway tonnage is handled over the Great Lakes. Moreover, the importance of the Great Lakes movement is not merely because of its volume, but also because of the vital nature of a large proportion of the traffic.

Great Lakes Transport

The principal problems connected with the war, therefore, involved primarily the Great Lakes waterway.

The Lake industry had on its own initiative inaugurated certain actions in 1940 and 1941 to increase the capacity of its fleet.

One of the first measures taken was to set aside the coastal laws so as to permit the forty-two Great Lakes Canadian vessels to transport iron ore between points in the United States. The necessary legislation was passed by Congress early in 1942.

Other measures adopted to increase the carrying capacity of the fleet included: (1) increased loading of ships under an emergency load line regulation; (2) increased speed of ships; (3) reduction in the time of loading and discharge of cargo; and (4) adoption of a seven-day week schedule at all ore loading and unloading docks. The average load per vessel was increased from 9,800 tons in 1940 to 10,100 tons in 1942. The average time consumed loading and discharging cargoes was reduced from 15 hours 10 minutes to 13 hours 39 minutes. The fastest loading time was 1 hour 5 minutes to load 12,600 tons. The Office of Defense Transportation also issued its modification of Order #25 June 1943 to effectuate a Lake commodity priority system prepared by the War Production Board. Under this order the 300 ore-type ships of United States registry were released for the eastbound movement of grain only when the required volume of ore seemed reasonably certain of being transported.

In order to protect the operations and facilitate this movement the Office of Defense Transportation placed a special representative in Chicago to follow the movements of all vessels; and plans were immediately inaugurated to provide additional standby ore-loading facilities at the port of Escanaba. To further protect the ore movement the Office of Defense Transportation issued its modification of Order #9 in May 1943

prohibiting the movement of commodities other than ore, (chiefly coal) via Great Lakes except by permit. This permitted a quicker turn-around of the ore boats enabling them to move the maximum tonnage of ore during the open season. An additional lock, known as the MacArthur Lock was constructed also at the Sault Ste. Marie to provide increased capacity. This lock can accommodate the new large, deep draft vessels.

One other means of increasing the capacity of the Great Lakes system was attempted with some success in 1942 - that was to increase the length of the season of navigation by the use of ice breakers in the spring and fall. This gave some results the first year (1942) though it is difficult to judge just how much of a part was played by the weather which provided an early spring that year. The results nevertheless were gratifying. The best prewar season had been 245 days. This was increased to a record of 250 days in 1942. A five-day differential does not seem very important in a season of over 200 days, but at 300,000 tons of ore per day this meant that nearly 1,500,000 additional tons of ore could be moved down the Lakes. The following year bad weather shortened the season to 227 days. This resulted largely from a late spring so that the navigation did not start until a whole month later than in 1942. In 1944 the season was 234 days. Last year the season was from April 3rd to December 5th or 244 days.

The record volume of more than 184 million tons total traffic was carried on the Great Lakes system in 1944; in that year also the record of 16 million tons of grain was moved down the Lakes; but the maximum movement of iron ore occurred in 1942, the first year of the war when steel production was of paramount importance. The total weight of ore transported that year was over 92 million gross tons. On the strength of this accomplishment the War Production Board set a goal for 1943 of 95 million tons. This was later reduced to 85.5 million tons when it was found that the stocks at the mills would be ample to carry over the winter. The actual movement in 1943 was only 84.4 million tons.

At the same time that this great quantity of iron ore and grain was being moved down the Lakes between 50 and 60 million tons of coal were carried up the Lakes to various destinations. A survey was made to determine the possibility of moving coal for lower Lake Michigan ports by rail to reduce the delays and thereby speed up the turn-around time of the vessels and a more or less regular rail movement was established.

War Department Utilization

Carload freight shipped each month on War Department bills of lading via inland waterways averaged 68,650 tons in 1943; 181,869 tons in 1944, and 115,206 tons in the early part of 1945. This is approximately .05 percent of the total annual War Department tonnage over that three year period.

On the basis of relative mileage which was the criterion used by the Army in distributing its traffic among the railroads the share of War Department traffic enjoyed by the inland waterways should have been much greater than it was (nearly 3 times as great). The reason it was

not much smaller than it was is because of considerable shipments of petroleum by barge that would normally have moved by ocean tanker. The barge movements were undertaken to help alleviate the transportation shortage that developed in the movement to District I (eastern seaboard) as a result of the enemy submarine campaign. The volume of this movement by barge increased from 10 million barrels in 1941 to 47 million barrels in 1944, nearly a five-fold increase.

Army Organization

In order to utilize the inland waterways as much as was feasible, in September, 1942 the Army created the Inland Waterways Section of the Freight Traffic Branch, Traffic Control Division, Transportation Corps. The first task was to build up an adequate file of tariffs, routes and equipment resources of the carriers. Contact of the Waterways Section was with the individual carriers. The local shipping officers requested routing from the Freight Traffic Branch, which might or might not indicate a choice of water transportation. It was the practice of the Waterways Section to scan all routing requests in order to divert shipments which might best be carried by water. By this method a small volume of traffic was not only moved at a substantial saving in freight rates but the burden on motor and rail transport was lessened in some measure. There never was a plan or basis of allocation as between types of transportation established by either the Army or Navy. The location of the points of origin or destination generally governed, together with the urgency of movement.

There has been a general reluctance on the part of many field transportation officers to use water carriage because (1) of its reduced speed and (2) the necessity of arranging for transfer to motor or rail carriers at origin or destination ports. A few shipments could be originated and terminated by the water carrier. The persistent attention given by that section to the problem of utilizing waterway facilities to the greatest extent possible resulted in a greater familiarity on the part of Army traffic officers with the advantages of that transportation agency. A variety of commodities was eventually carried, including such articles as cotton piece goods, shell cases, army vehicles and coffee. But by far the most important item was aviation gasoline for the Army Air Forces, which was largely carried in army-owned tank barges. The tow was furnished by commercial barge lines. The rate was set by the Office of Price Administration; the movement was performed by a number of operators who divided the total on an equitable basis. Use was made by the Army & Navy of all navigable streams, as well as the Great Lakes; however, about one half of Army-Navy waterway traffic was carried on the Mississippi - Illinois - Ohio - Tennessee Rivers.

Pipe Lines

From 8 percent to 12 percent of the total ton-miles of transportation produced by all agencies during the past six years was by pipe line. This represents an important segment of the total transportation service rendered. The extent of the pipe line system in the United States for

the movement of petroleum and kindred products amounts today to approximately 140,000 miles, comprised as follows:

Gathering lines for crude	56,000 miles
Trunk lines for crude	69,000 miles
Trunk lines for products.	15,000 miles

These figures do not agree with the pipe line mileage given you in my first lecture (95,000). Those figures were all as of the beginning of the war about 1939 - before wartime construction changed the picture. Between the two World Wars the pipe line system was greatly enlarged. By 1941 the total extent of lines amounted to 128,377 miles compared with 42,969 miles at the beginning of World War I. This enlargement of the system, however, did not include any increase in transportation capacity to the east coast; in fact, there was an actual reduction in that capacity. It had been found more economical to move oil by pipe line to the Gulf Coast and thence by tanker to the refineries on the eastern seaboard. But some planning was done by the oil industry before Pearl Harbor; and the vulnerability of the eastern seaboard with respect to petroleum supplies in case of loss of tanker service was studied as the war progressed in Europe. A group of east coast oil companies advised the petroleum unit of the Office of Production Management in April 1941 that they stood ready to construct a large pipe line from the east Texas field to the Atlantic seaboard if they could get the necessary priorities on materials and secure the rights of way. In May of that year the American Petroleum Institute was asked to appoint a fact finding committee to make an inventory of all available transportation facilities to the east coast, the extent to which they were being used, and to suggest what might be done to increase the facilities. A report was rendered to Mr. Ickes on 29 May suggesting the most important steps that were later taken to relieve the shortages of petroleum and products which subsequently developed. The report deals with tank ships, pipe lines, barges, tank cars, trucks, and restrictions on consumption. It was evident that heavy reliance would have to be placed on pipe lines.

Studies were continued in the Office of the Petroleum Coordinator with the objective of having all movements of crude and products from the southwest moved in a northeasterly direction as far as possible; that reversals and conversions of existing lines be undertaken to further the movement and existing systems be expanded by extensions and interconnections. A special Carrier Division of Petroleum and other Liquid Transport in the Office of Defense Transportation was created and charged with responsibility for the successful conduct of pipe line transport, and worked continually in close cooperation with the Petroleum Administration for War and the oil industry.

In the east itself many changes were made. A products line originating near Philadelphia and normally serving Pittsburgh was reversed and converted to transport crude oil to the refineries on the seaboard brought to Pittsburgh by tank car and barge. The Federal Government also constructed some pipe lines. During the war the impressive total of 9,930 miles of trunk pipe lines were built by government and industry. Of this the government built 3,680 miles, and industry built 6,250 miles.

In addition, industry reversed 3,317 miles of existing pipe lines, and built 2,096 miles of gathering lines. Industry also converted 436 miles of pipe line from natural gas to petroleum. But to compensate for the tanker losses it was eventually necessary to construct the 1253 miles of 24-inch crude line from east Texas to the Atlantic seaboard as originally recommended by the industry committee, and a parallel 20-inch products line, with a combined capacity of 560,000 bbls. per day. With this increase in facilities total deliveries to the seaboard reached over 1,700,000 bbls. per day and tank cars could be reassigned to the movement into District V (Pacific Coast) as the requirements increased in that area.

Deliveries by pipe line to the eastern seaboard increased from 19,550,000 bbls. in 1941 to 242,659,000 bbls. in 1944, representing 38.7 percent of total deliveries in that area vs. 3.5 percent in 1941 and an increase of 1140 percent. The maintenance of the necessary heavy deliveries of petroleum and its products required continued close cooperation between the Government agencies involved, primarily the Petroleum Administration for War and the Office of Defense Transportation, with all segments of the industry including the transportation agencies.

The War Emergency Pipe Line Corporation - a government corporation, was organized to operate the Big Inch and Little Big Inch lines. The Petroleum Administrator for War was responsible for scheduling the flow through these lines including control over the origin and destination points.

The construction of the Big Inch and Little Big Inch pipe lines had to be cleared with the War Production Board and it was not until the Army and Navy backing for these projects was secured that the War Production Board agreed to allocate the necessary materials. Earlier requests on Supply Priorities and Allocation Board were refused. The construction was financed by the Defense Plant Corporation.

Lines in the east Texas field between Beaumont and Houston as well as between Pittsburgh and the east (Toledo and Chicago, and Buffalo and the seaboard) were reversed to help increase the flow of petroleum into District I.

The volume of petroleum moved through the two big lines from the time of their completion to V-J Day amount to 256,757,000 bbls. for the Big Inch and 105,129,000 bbls. for Little Big Inch. Construction of the Big Inch was begun 3 August 1942 and the first oil was pumped through the completed line 15 August 1943. The portion to Norris City was completed and in operation 13 February 1943. The Little Inch was completed 2 March 1944.

Coordination of the services of all agencies of transport played an important part in the successful movement of petroleum and its products to the seaboard. Before construction of the big pipe lines was begun the railroads bore the brunt of the burden. As the pipe line construction proceeded railroad operations were adjusted to conform by operating from temporary terminals established at points along the line.

Thus, when the Big Inch reached Norris City, Ill., a rail connection and loading station was built, so that the tank car movement was greatly shortened. The turn-around time of cars was correspondingly reduced so that the same number of cars could haul more oil. This operation involved the greatest mass movement of tank cars ever attempted. As many as 1,000 cars were moved eastward in one day from this single terminus. The barges mentioned earlier cooperated with tank cars in supplying petroleum to the products pipe lines that were reversed in direction of flow for this purpose. And when the pipe lines to the eastern seaboard were completed many tank cars were reassigned to hauls from the producing areas in the Southwest to the Pacific Coast.

Gas Pipe Lines

There are about 65,000 miles of trunk lines for gas in operation today. A recent newspaper article put the total for all lines including city mains at 218,440 miles. This figure was reproduced in the Daily News Digest of the Federal Power Commission but was not otherwise corroborated. The largest producing state is Texas, with Louisiana second. The largest consuming state is also Texas with California second. Three-fourths of all gas produced today is natural gas.

Gas constitutes an important fuel, particularly in the steel industry; and the impact of the war on the volume of gas transported by pipe line was very pronounced. Total production of gas increased from 2,476,756 millions of cubic feet in 1939 to 3,349,586 millions of cubic feet in 1943, an increase of 35 percent. Industrial consumption increased during this period from 1,964,278 millions of cubic feet to 2,594,653 millions - 32 percent. At the beginning of the war existing pipe lines were adequate for the transportation of gas for current markets, therefore, few major additions were made in 1942. The following year, however, in order to protect the demand in the big steel centers at Pittsburgh, Pennsylvania, and Youngstown, Ohio, the Tennessee Gas and Transmission Company pipe line was constructed from Corpus Christi, Texas, to Charleston, West Virginia, where connection was made with the Columbia Gas and Electric line leading to the steel cities.

What is ahead for pipe lines? Consideration has been given already to the possibility of moving commodities other than petroleum and gas through pipe lines. The possibility of so transporting coal in powdered form and the development of synthetics may produce other additional uses.

Instead of putting railroads underground at great expense as some are suggesting perhaps pipe lines can be substituted in some degree. But at present the Big Inch and Little Big Inch are "on the block." There is no present use for them.

Coordination

It is not enough either in peace or war for the several agencies of transport to conduct their individual operations efficiently. Each type of transportation has particular attributes which make that type better fitted to perform certain services than others. Airways, railways

and waterways are not capable of conducting store door pick-up and delivery services. The only agency equipped to perform such services is the motor transport industry. Moreover, it is preeminently qualified to handle traffic which moves in small lots over short distances. On the other hand, the railroads and water carriers are well qualified to perform mass transportation over long distances. The airlines offer speed to passengers and small, high value shipments. The best utilization of the transportation system as a whole therefore requires the coordination of the various agencies in effecting complete and expeditious service to meet the varying demands of all classes of the shipping public. The need for coordination is closely linked with the problem of vehicle or car supply, and increases as the general scarcity of equipment develops with the increasing volume of traffic incident to mobilization and war. While coordination in some measure is normal in peacetime the competition which also normally obtains and consequent fear of losing trade to a competitor may prevent the degree of coordination essential in meeting a war emergency.

With respect to rail transport the Interstate Commerce Commission is vested with emergency power to alter the normal routing of traffic so as to relieve or prevent congestion. The commission also has power to require through routes and joint rates between water and rail carriers, but not between rail and motor carriers. The substitution of an alternate route or of one mode of transport for another in an emergency cannot safely be left in the hands of the shippers and individual carriers. Some central authority is needed to secure the allocation of traffic among the available agencies in a manner that will assure the most effective utilization of the transportation system as a whole. As noted already the Interstate Commerce Commission does not have power to require joint rates and through routes between rail and highway carriers, nor does it have control over the conduct of air transport, which is regulated at present by the Civil Aeronautics Board.

The importance of this situation rests in the fact that one government agency is held responsible for maintaining and improving the health and vigor of a particular type of transportation, while another Federal agency is at the same time held responsible for the regulation of substantially all other forms of transport, since the services performed by the air transport industry are in many instances in direct competition with those performed by the surface carriers the situation is created in which one Federal agency in promoting the welfare of its particular type of transport may find its policies in direct conflict with those of another Federal agency which is under obligation to prevent the development of unhealthy conditions in other, competing types of transport. Obviously, a unified, national policy is impossible under these circumstances. Control over all forms of transportation should be placed in the hands of a single agency.

This is particularly essential in time of emergency in connection with the problem of equipment supply. In each of the last two wars no satisfactory progress in obtaining much needed transportation equipment was possible until a central claimant agency was established which could force consideration of the requirements of the industry as a whole in competition with the demands of the armed forces for vehicles of transport

themselves as well as the critical materials from which they must be built. In World War I this unification was secured through the Federal Railroad Administration. In World War II the various branches of the industry were represented by the Office of Defense Transportation.

From the standpoint of National security, it is essential that the country's transportation system, including all the agencies involved, be maintained in a state of high efficiency at all times with due regard for whatever technological improvements will increase its over-all capacity and effectiveness. A sound decision, therefore, is needed as to what governmental policy will be most effective in achieving this end. This country is committed to a system of free private enterprise with controlled competition. (The philosophy of strict "laissez-faire" has been found unworkable in the present world of big business where Adam Smith's "invisible hand" is too apt to find its way into the pocket of the unsuspecting public, or to the other fellow's throat.) Assuming the continuance of a system of controlled competition, the type of control exercised will have an important effect on the relative growth and vigor of the several agencies of transport.

Present regulation is largely compartmentalized, with different sets of controls for different agencies, administered, by separate governmental bodies. Companies operating in one field are not permitted to operate also in another, except supplementary services. In meeting the postwar situation, however, certain hard facts must be faced:

(1) A probable over-supply of total transportation facilities,
(2) The intercompetitive nature of the services rendered.

Compared with the situation at the end of the last war, the present situation offers several advantages. The scheme of cooperative control based on the war powers of the ICC and the ODT which was whole heartedly accepted by all interests, has obviated Federal seizure of transport facilities and avoided the necessity of financial guarantees required at the time of the last war. On the contrary, the present policy has resulted in large net earnings and so minimized the postwar shock, at the same time demonstrating the need and benefit of unified operation. (Now organized Labor has substituted a new shock).

With respect to postwar policy, three further questions are raised:

(1) How far is it desirable to bring transport services under unified control?
(2) What form should unification take?
(3) How far can it be reconciled with the continuance of diversity and freedom in the development of new forms of service?

Important steps in the unification of control were taken when the ICC was given jurisdiction over motor carriers and water carriers by the Motor Carrier Act of 1935 and the Transportation Act of 1940,

respectively. Air transport, however, continues to be controlled by a separate agency, in spite of the growing competition between air services and other forms of transport, and the Maritime Commission has jurisdiction over ocean transport off shore. The development of control in this country has tended strongly to a quasi-judicial character. The rule of reason applied to competitive pricing has constituted the primary basis of regulation but as Daggett says: 1/

> "The use of separate controlling agencies duplicates administrative machinery, and there is a tendency for each agency to become a partisan of the particular form of transportation which it regulates.
>
> "Certainly reasonableness (with respect to rates) and discrimination are concepts which should be defined in the same terms for all carriers. And competitive rights should be adjudicated by a single body- or not at all."

In the case of air transport promotional activity has also formed an important element in the policy of the Civil Aeronautics Board. This is characteristic of the traditional attitude toward an infant industry. With the great growth in the part played by air transport in the general competitive picture, however, the question is raised whether some change should be instituted in the regulation of this industry to provide a more consistent policy with regard to the control of the transportation system as a whole? As long as two different agencies are responsible for the controls set up, it is doubtful if a unified policy can be obtained. The logic of the situation suggests the desirability of uniform control administered by a single federal agency. A unified system of control by one agency would also open the way to answering a further question of primary importance with regard to control policy; namely, the question of integration in the field of transportation. A negative answer only is possible as long as different agencies are responsible for the control policies with respect to different modes of transport. Unification of control would provide a basis from which the decision as to the propriety of integration could be reached on purely economic grounds, i.e., how far can it be reconciled with the continuance of diversity and freedom in the development of new forms of service?

There is great diversity of opinion at present within the industry itself on this point. Some highway users insist that the railroads must be confined to rail transport except for supplementary services but at the same time, have applied for certificates of convenience and necessity to operate air services themselves. A similar position has been taken by inland waterways operators. The airline companies, as well as the Civil Aeronautics Board, insist that air transport be maintained as an independent agency. The railroads, on the other hand, insist that they should be permitted to provide complete, integrated transportation by whatever means is best suited to the service required

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1/ Principles of Inland Transportation, Stuart Daggett - Harper & Bros., Third Edition, p. 84.

in any given case. They want to become transportation companies as opposed to just railroad companies. In this, the railroads are seconded by the Transportation Association of America as to the common carrier phase of the industry. The argument for integration is based first of all on the expected over-supply of transportation facilities after the war: "In the foreseeable future, there will not be enough peacetime traffic to go around and assure security for private investment for even a majority of these thousands of separately incorporated agencies." It is claimed in such a situation of excess capacity, some segments of the industry are bound to suffer. The vital importance of transportation to the economic and social welfare of the country as well as the critical military service performed makes sound policy with respect to transportation a matter of the deepest public concern. By the same token, the Army & Navy share this concern. The transportation policy which is adopted in peacetime, will have a direct effect on the capacity and efficiency of the transport system in time of war. Freedom in the development of new and diverse forms of service must be assured; but promotional activities in behalf of one or more agencies must not be carried to the extent of seriously damaging the capacity of any other form of transport to play its legitimate part in the performance of essential services. Reliance solely on the old shibboleth of competition will not suffice to protect the nation's interest in a well balanced transportation machine. The vital character of the problem requires the most careful consideration. Government ownership has been suggested as a solution. This does not appear feasible, however, for in order to derive the full benefit of unified operation, all transport agencies would have to be acquired; but government ownership and operation in the field of motor transport is generally admitted to be impracticable. On the other hand, government ownership of one means of transport such as the railroads, in competition with other privately-owned agencies would soon engender an intolerable situation aside from the political inefficiencies that would inevitably creep into government operation. Reliance on competition among privately-owned enterprises as at present will continue to foster the current unhealthy duplication of services with a growing proportion of marginal enterprises calling for some kind of assistance. The way out of this dilemma of government ownership with political inefficiency vs. free competition and pauper enterprises according to many students of the subject, is through establishment of a relatively few competing transportation companies which would offer any or all means of transportation to the public as the occasion may require. The advantages urged in support of a policy permitting transportation companies are: that it would eliminate many unprofitable operations. Non-profitable truck hauls would be performed by rail and non-profitable rail movements could be performed by trucks. Similarly with respect to passenger traffic. Many present duplications of services would be obviated. It would put competition on a fair and equal basis as each competitor would be permitted to avail itself of the government aids accorded to highways, waterways, and airways. It would improve the financial strength of the industry by providing a broader base for earnings. It would foster standardization of rolling stock and motive power, and the centralization of shops and other maintenance operations with considerable resultant economies. Adjustments between labor supply and requirements could be more readily effected. Lay-offs resulting from

railway abandonments could be taken up by substitute highway or airway operations. Combined with appropriate rate regulation, transportation conducted by integrated systems it is claimed would be actually on the basis of relative fitness and economy without many of the present competitive wastes and charges of government favoritism.

Present policy is deficient in that an approximate billion dollars is spent each year in providing transport facilities by the Fed. Govt. without any coordination of this activity to provide the most efficient system as a whole. Integration of planning and development is essential to an orderly guidance of Govt's investment program. There should be one National Transport Agency.

The railroads and the shipping interests in Great Britain have been actively interested in air transport from the beginning without government interference. But - it is argued that the surface carriers would gain complete control by undercutting the independent air-line rates until they were driven out of business, much as was done in the case of inland waterway transport, and then adjust rates so as to keep air transport in a secondary position, thus protecting their own vested capital.

The paramount question posed by the integrated transportation company hinges on the fact that by far the greatest investment of private funds is in the railroads. It is claimed by the air and motor transport interests, and others that because the railroads represent the great proportion of the capital that would enter such combinations they would dominate the policies. These policies would be based on the desire to protect the vested interests in the railroads and would therefore, be such as would probably prevent the freest development of the other means of transport. Progress would be retarded in the effort to protect the dominant interests. But this is considered unrealistic in the face of present day statutory control over all phases of transportation including the power to make rates.

The argument for compartmentalized transportation and control, or the "separation theory" as it is sometimes called, rests largely on the conviction that it fosters the freest development of each type of transport which is essential to the continued expansion of our economy. The argument for integration rests on the equally firm conviction that development of an efficient, national transportation system, with the resources necessary to meet a possible future emergency cannot be achieved except through unified operation and control, which in turn must be based on integrated transportation companies.

I have not discussed such matters as the relative cost of transport by different agencies - nor the proposed St. Lawrence Seaway. - But these matters are covered in the Reference given you.

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