STATEMENT BY CLAUDE S. BRINEGAR, SECRETARY OF TRANSPORTATION, BEFORE THE HOUSE APPROPRIATIONS SUBCOMMITTEE ON TRANSPORTATION, MARCH 5, 1974.

I appreciate this opportunity to meet with the Committee.

I'm certain that we have no disagreement when I say that the subject for discussion--national transportation policy--is a most difficult one. Please recognize that today's comments on this subject are in the nature of a progress report on the Department of Transportation's continuing efforts to develop a useful statement on transportation policy. Your reaction to these comments, as well as the reaction of others, will be most welcome. We readily admit that our work on this subject is incomplete.

Let's start by shifting our thoughts away from today's transportation problems--and we have our share--to a broader perspective. I'd like to start by focusing on the role of transportation and on the concept of policy.

Transportation is not an end in itself. It is a means to contribute to the economic well-being and quality of life in our nation. Thus, transportation policy is developed to serve national goals.

The desirability of developing a statement of "national transportation policy"--one that would guide us to the solution of today's problems and to the avoidance of tomorrow's--is widely accepted. Agreeing on what that policy should be, however, is a far different matter. Almost any meaningful statement of policy will be seen as a threat by some interests. Moreover, the very concept of a "national transportation policy" is inherently vague and elusive.

But progress toward a useful policy statement is possible--provided we recognize its limitations and stay away from indefinable platitudes.

First, the concept: "policy," in our view, guides the way government at all levels moves from the establishment of attainable goals to specific action programs. Policy development is thus seen as the decision-making process by which we select from available courses those actions which are consistent with the goals and are best suited to the problems at hand. In this perspective, policy is the necessary link in the never-ending process of translating the many and often conflicting national goals into specific action programs. Policy should address large issues that affect all or major parts of the system rather than small pieces of the system.

An oversimplified, and somewhat idealized, view of this process is as follows*:

Step I: Establish national goals of primary importance.

Agree on priorities and levels of effort for:

- National defense
- Relative roles of public and private sectors
- Regional growth and employment
- Energy conservation; safety; environmental protection
- Urban development
- Rural development
- Human development (aged; handicapped; etc.)
- Civil rights
- Etc. Etc.

Step II: Agree on policies to advance these goals.

- The mix of policies will vary as national priorities among the goals vary.

Step III: Develop and implement programs to carry out the policies.

- Specific actions emerge at this step.

"National transportation policy," in this perspective, can be seen as the collection of transportation-related policies that flows from the policy development process. But because a great many existing policies have been developed at different times in response to different problems and

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*In actual practice, of course, the interactions which occur as part of the policy development process are complex and subtle. This simplified description, however, does help to conceptualize the place of "policy" in the business of government.

varying priorities of goals, the total of these policies does not necessarily constitute an integrated national transportation policy. Thus, while it is possible to organize the main elements of these policies into a formal statement, we must stress that such a statement will always be somewhat unsatisfying:

1. Because we have--and, by their very nature, will always have--many vague national goals, the transportation policies needed to support them will often be vague, and, in some cases, may even be contradictory.
2. Transportation is typically an intermediate, or linking, function between other economic or social activities. For this reason a single, absolute goal of, say, "efficient transportation" cannot be the sole objective. Since these other activities are continuously being affected by shifting social, economic, and political forces (e.g., changing environmental objectives), transportation policy must also shift to accommodate these changes.
3. The mixed public-private nature of our economy and the division of governmental responsibilities at Federal, State and local levels make it impossible to identify any one group

as being totally or even mainly responsible for transportation decisions. The independent actions of these multiple decision-makers are incapable of being completely brought under the umbrella of a single "grand design."

4. Policy tends to be confused with programs. Thus, many expect policy statements to deal with specific programs, rather than principles of policy.

5. Significant advances in Federal policy require agreement between the legislative and executive branches.

THE EVOLUTION OF THE CONCEPT OF NATIONAL TRANSPORTATION POLICY

Some historical perspective on prior efforts to state national transportation policy is worthwhile.

The preamble added to the Interstate Commerce Act in 1940 was the first official Federal attempt at a general statement of transportation policy. The words that Congress actually chose for the 1940 preamble appear to be mainly directed at protecting the various regulated carriers from each other:

> It is hereby declared to be the national transportation policy of the Congress to provide for fair and impartial regulation of all modes of transportation subject to the provisions of this Act, so administered as to recognize and preserve the inherent advantages of each; to promote safe, adequate, economical, and efficient service and foster sound economic conditions in transportation and among the several carriers; to encourage the establishment and maintenance of reasonable charges for transportation services, without unjust discriminations, undue preferences or advantages, or unfair or destructive competitive practices; to cooperate with the several States and the duly authorized officials thereof; and to encourage fair wages and equitable working conditions;--all to the end of developing, coordinating, and preserving a national transportation system by water, highway, and rail, as well as other means, adequate to meet the needs of the commerce of the United States, of the Postal Service, and the national defense. All of the provisions of this Act shall be administered and enforced with a view to carrying out the above declaration of policy.

Appendix A provides brief summaries of three of the more notable post-1940 efforts at statements of national transportation policy. These are the 1955 report of the group that was headed by Secretary of Commerce Weeks; the 1961 report of a special study group commissioned by the Senate Commerce Committee, usually called the Doyle Report; and, because of the similarity of our systems, the policy statement that was actually adopted in Canada in 1967. These statements show a generally consistent thread: a reliance on free market competition to allocate resources efficiently, with regulation limited to the minimum needed to protect the public interest. Thus, all advance a broader and more competition-oriented view of policy than the 1940 Interstate Commerce Act preamble.

In a 1962 message to Congress President Kennedy spelled out his suggested transportation policy objectives, which also represented a significant step forward from the Interstate Commerce Act preamble, in the following words:

A Basic National Transportation Policy

> The basic objective of our Nation's transportation system must be to assure the availability of the fast, safe, and economical transportation services needed in a growing and changing economy to move people and goods, without waste or discrimination in response to private and public demands at the lowest cost consistent with health,

> convenience, national security, and other broad public objectives. Investment or capacity should be neither substantially above nor substantially below these requirements--for chronic excess capacity involves misuse of resources, and lack of adequate capacity jeopardizes progress. The resources devoted to provision of transportation service should be used in the most effective and efficient manner possible; and this, in turn, means that users of transport facilities should be provided with incentives to use whatever form of transportation which provides them with the service they desire at the lowest total cost, both public and private.
>
> The basic objective can and must be achieved primarily by continued reliance on unsubsidized privately owned facilities, operating under the incentives of private profit and the checks of competition to the maximum extent practicable. The role of public policy should be to provide a consistent and comprehensive framework of equal competitive opportunity that will achieve this objective at the lowest economic and social cost to the Nation.
>
> This means a more coordinated Federal policy and a less segmented approach. It means equality of opportunity for all forms of transportation and their users and undue preference to none. It means greater reliance on the forces of competition and less reliance on the restraints of regulation. And it means that, to the extent possible, the users of transportation services should bear the full costs of the services they use, whether those services are provided privately or publicly.

Although it was not acted upon by the Congress, this statement is a major improvement over the Interstate Commerce Act preamble. The need for such a broadened view of the Federal role was

clearly evident in the 1966 Declaration of Purpose in the Act that established the Department of Transportation.

Declaration of Purpose

Sec. 2(a). The Congress hereby declares that the general welfare, the economic growth and stability of the Nation and its security require the development of national transportation policies and programs conducive to the provision of fast, safe, efficient, and convenient transportation at the lowest cost consistent therewith and with other national objectives, including the efficient utilization and conservation of the Nation's resources.

(b)(1). The Congress therefore finds that the establishment of a Department of Transportation is necessary in the public interest and to assure the coordinated, effective administration of the transportation programs of the Federal Government; to facilitate the development and improvement of coordinated transportation service, to be provided by private enterprise to the maximum extent feasible; to encourage cooperation of Federal, State, and local government, carriers, labor and other interested parties toward the achievement of national transportation objectives; to stimulate technological advances in transportation; to provide general leadership in the identification and solution of transportation problems; and to develop and recommend to the President and the Congress for approval national transportation policies and programs to accomplish these objectives with full and appropriate consideration of the needs of the public, users, carriers, industry, labor and the national defense.

(2) It is hereby declared to be the national policy that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.

This evolution of national transportation policy clearly shows the changing nature of the concept. In 1940, it was exclusively directed at the economic regulation of transportation. Later attempts to change the policy advanced the notion that greater competition among transportation firms would better serve the public interest, and that governmental activities, such as the financing of transportation investments, also constituted transportation policy. More recently it has become evident that the side effects of transportation--effects upon the usage of energy, the environment, and personal safety, for example--are properly concerns of national transportation policy as well.

President Nixon's recent message on the national transportation system reflected this more complete concept of national transportation policy. The President called for a policy which seeks to improve the economic regulation of transportation, the public promotion of transportation, and the protection of society from the adverse side effects of our transportation system.

LEGISLATIVE NATIONAL TRANSPORTATION POLICY

As a practical matter, the Federal government, through its legislative enactments, is continually making transportation policy. The following partial listing sorts the major actions, especially those of recent years, into the three main policy components: (1) economic regulation of transportation; (2) promotion of transportation investments and operations; and (3) protection against the unwanted "side-effects" of transportation. One of the noteworthy points brought out by this listing is the significant progress in both policy and programs in the areas of promotion and protection that has developed since the 1966 establishment of the Department of Transportation.

Economic Regulation of Transportation

Acts establishing these regulatory agencies:

- Interstate Commerce Commission, which regulates common carrier operations of rail, truck, barge, freight forwarding and pipelines.
- Federal Maritime Commission, which regulates common carrier operations in the waterborne foreign and domestic offshore commerce.
- Civil Aeronautics Board, which regulates common carrier operations by air.

Also:

- Steamship Conference - Dual Rate Act (1961), which authorized use of dual rate contracts with shippers and consignees; authorized regulation of international ocean rates by Federal Maritime Commission.
- Barge Mixing Rule Act (1973), which prevented the imposition of certain regulatory constraints on the inland barge industry.

Promotion of Transportation Investments and Operations

- Federal-Aid Highway Act and Amendments (1956-73), which provided funds for interstate highway system, urban and rural highways; flexible funds for mass transit. (1973 Act).
- Airport and Airway Development Act (1970; 1973), which provided financial assistance to improve and modernize airports and air navigation and traffic control systems; extended concept of user charges for financing Federal aviation expenditures.
- Urban Mass Transportation Act (1964; 1970; 1973), which provided financing of improved mass transportation facilities, equipment, techniques, and methods.

- High Speed Ground Transportation Act (1965; 1972), which authorized research, development, and demonstrations of high speed ground transportation and door-to-door ground transportation.
- Rail Passenger Service Act (1970; 1973), which created a national railroad passenger system (AMTRAK); provided funds for modernization and operation of rail passenger service.
- Emergency Rail Services Act (1970), which authorized financial assistance to railroads undergoing reorganization under Section 77 of the Bankruptcy Act.
- Emergency Rail Facilities Restoration Act (1972), which authorized financial assistance to railroads to restore or replace essential facilities and equipment damaged or destroyed by Hurricane Agnes floods.
- Regional Rail Reorganization Act (1973), which created a process by which the railroad network in the midwest and northeast region may be restructured into a viable and competitive network of rail carriers; authorized financial assistance for modernizing rail facilities in the region.
- Merchant Marine Act (1970), which provided funding for construction of highly productive merchant ships; relieved

St. Lawrence Seaway Development Corporation of the requirement to pay interest to the U.S. Treasury on its debt.

- St. Lawrence Seaway Development Corporation Act (1954), which created government-owned corporation to construct part of the St. Lawrence Seaway by the issuance of revenue bonds; provided for the cost of operations and the repayment of principal to be financed from tolls charged to users.
- Rivers and Harbors Act (1970), which established and funded a multi-agency program to determine the feasibility of lengthening the navigation season on the Great Lakes-St. Lawrence Seaway system.
- Various annual appropriations to:
  - Corps of Engineers for waterway projects.
  - FAA to operate air traffic control systems.
  - Coast Guard for maritime traffic control systems.
  - CAB for feeder airline subsidies.
  - DOT for research and development projects.

Protection Against Unwanted "Side-Effects"

- Section 4(f) of Department of Transportation Act (1966), which prohibited approval of any program or project which requires the use of any land from a public park, recreation

area, wildlife and waterfowl refuge, or historic site unless: (1) there is no feasible and prudent alternative to the use of such land, and (2) all possible planning is included to minimize harm to these areas.

- National Environmental Policy Act (1970), which created the Council on Environmental Quality; required environmental impact statements on proposals for legislation and other major Federal actions having a significant effect on the environment.
- Clean Air Act (1970), which initiated a national research and development program to achieve the prevention and control of air pollution, including the establishment of clean air plans for certain areas; provided technical and financial assistance to State and local governments in connection with the development and execution of air pollution and control programs.
- Noise Control Act (1972), which authorized establishment of Federal noise emission standards, provided for Federal regulation of railroad and motor carrier noise, as well as sonic booms and other aircraft noise.

- Establishment of National Transportation Safety Board (NTSB) (1966), created NTSB to investigate and determine the cause of transportation accidents and review on appeal the suspension, amendment or denial of any certificate or license issued by the Department of Transportation.
- National Traffic and Motor Vehicle Safety Act (1966), which authorized motor vehicle and tire safety standards and research and development to reduce highway traffic injuries and fatalities.
- Highway Safety Act (1966), which provided for a coordinated national highway safety program through financial assistance to the States to accelerate highway traffic safety programs.
- Motor Vehicle Information and Cost Savings Act (1972), which required issuance of bumper standards for new passenger motor vehicles, new methods for determining damage susceptibility and crashworthiness of passenger cars, the development of improved means of diagnosis and repair of damaged vehicles and a study to develop automobile consumer information.
- Federal Railroad Safety Act (1970), which promoted safety in railroad operations and related activities.

- Federal Boat Safety Act (1971), which authorized Coast Guard to set small boat safety regulations; provided financial assistance to States for boating safety programs.
- Ports and Waterways Safety Act (1972), which authorized protection against oil spills by: (1) controlling vessel traffic in our inland waters and territorial seas; (2) regulating the handling and storage of dangerous cargoes on the waterfront; (3) establishing safety requirements for waterfront equipment and facilities; and (4) setting standards for design, construction, maintenance, and operation of tank vessels.
- Bridge-to-Bridge Radiotelephone Act (1971), which requires that a radiotelephone be available at the main control station of certain types of vessels operating on U.S. navigable waters.

HOW DO WE STAND TODAY?

Although the various statutory programs of recent years have produced significant gains in many areas, the nation's transportation system still has its share of problems. How serious are these problems? Where should we place more or less Federal effort and attention in future years? Before moving to spell out specific policy principles to guide these actions, it is worthwhile to pause for an assessment of the present state of the major elements of our transportation system.

Highways

Since the end of World War II the nation's highway system has been increased by 12 percent to a total of 3.7 million miles (split between 3.1 million rural and 0.6 million urban). About 25 percent of this total is now covered, in varying degrees, by the Federal-aid highway program. The heart of the system is the 42,500 mile Interstate and Defense highway system, which is now nearing effective completion (35,000 miles open). Its national coverage can be seen on the map in Figure 1. This system will, when fully complete, carry over 20 percent of all vehicle traffic. On the highways there are over 100 million automobiles, 23 million trucks,

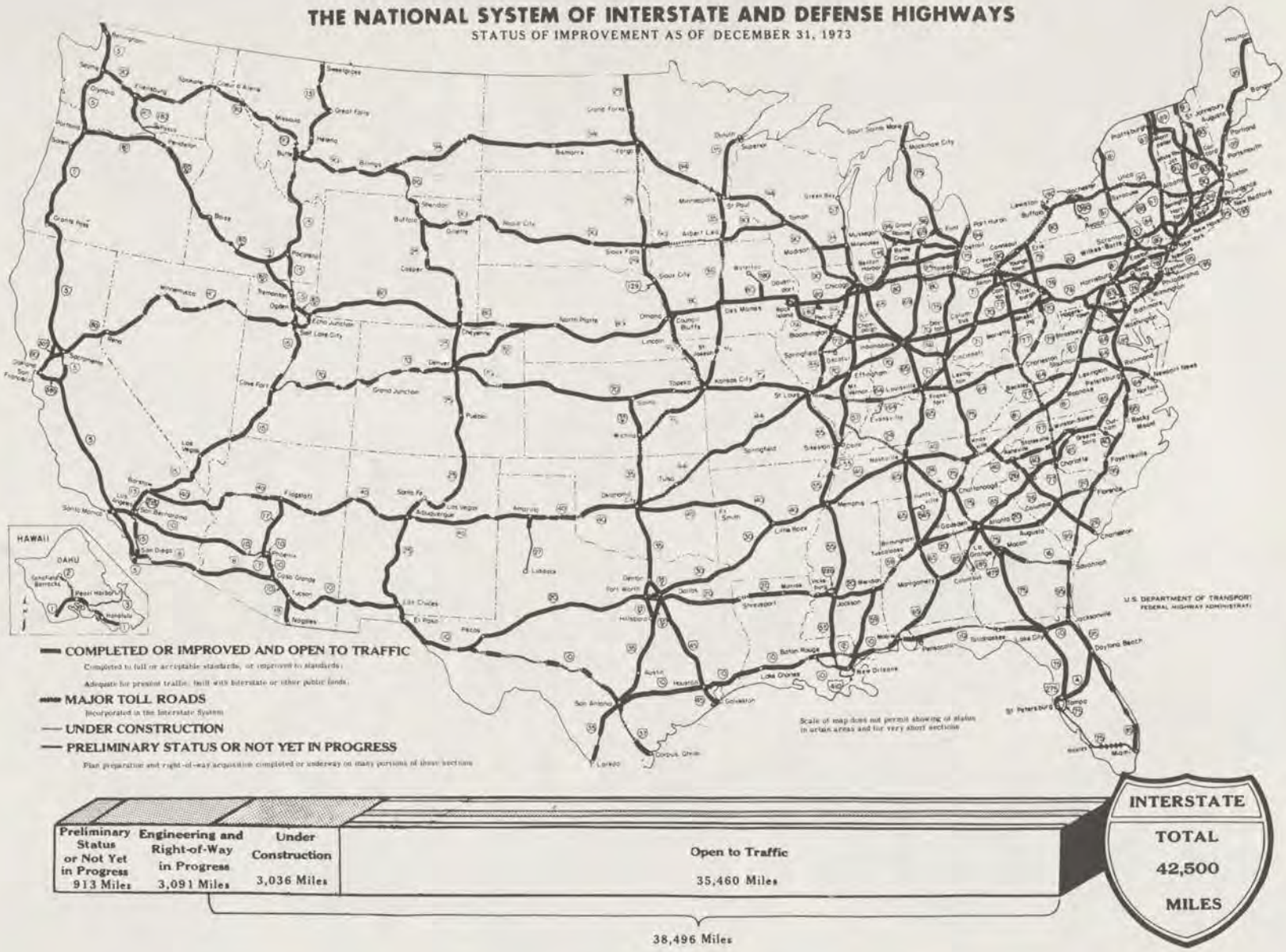

THE NATIONAL SYSTEM OF INTERSTATE AND DEFENSE HIGHWAYS
STATUS OF IMPROVEMENT AS OF DECEMBER 31, 1973
HAWAII
OAHU
COMPLETED OR IMPROVED AND OPEN TO TRAFFIC
Completed to full or acceptable standards, or improved to standards adequate for present traffic, built with Interstate or other public funds.
MAJOR TOLL ROADS
Incorporated in the Interstate System
UNDER CONSTRUCTION
PRELIMINARY STATUS OR NOT YET IN PROGRESS
Plan preparation and right-of-way acquisition completed or underway on many portions of these sections
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Scale of map does not permit showing of duplication in urban areas and for very short sections
Preliminary Status or Not Yet in Progress
913 Miles
Engineering and Right-of-Way in Progress
3,091 Miles
Under Construction
3,036 Miles
Open to Traffic
35,460 Miles
38,496 Miles
INTERSTATE
TOTAL
42,500
MILES

FIGURE 1

and 4 million motorcycles. In addition to about 315,000 school buses and 50,000 city buses, there are 25,000 intercity buses which carry about 400 million passengers annually. The nation's highway system carries 87 percent of the intercity passenger traffic and 23 percent of the total ton miles of freight.

Physical capacity of the total highway system is, with very few exceptions, far beyond its actual usage. Traffic studies by the Federal Highway Administration indicate that approximately 25,000 miles of urban highways and 45,000 miles of rural highways (about 2 percent of the total system) are experiencing some peak-hour congestion during certain periods of the year, with the bulk of the economic losses due to congestion occurring in the urban areas. In our judgment future solutions to the urban congestion problem now lie more in the direction of traffic management and improvements to public transportation (through such actions as peak-hour stretch-outs, incentives to car pooling, exclusive bus lanes, etc.) than in simply adding more highways. There is, however, an on-going need for continued Federal assistance to upgrade the quality of the heavily-traveled highways, including bridges, and to eliminate various road hazards. We believe these future investments involve decisions that can best be made at the state level.

The Users of the Highway System

The motor vehicle--ranging from the family car or recreational vehicle, to the intercity truck or trailer, the local delivery truck, the intercity, intracity and school buses, as well as the myriad of special purpose vehicles--has been for several decades the dominant element not only in the national transportation system, but in the entire national economy and national lifestyle. It, coupled with our vast highway and street network, has given us a freedom of personal movement and our commerce a flexibility unmatched in the world. It also has given us a great many problems.

With respect to the personal auto, the competing demands of safety, energy, environment, and economy will continue to require of government, especially at the Federal level, wisdom and skill in balancing the constraints it places on users and manufacturers in pursuit of public goals. Because the automobile consumes some 30 percent of all liquid petroleum used in this country, it is essential that there be a high-priority effort--both by manufacturers and government regulators--to improve vehicle fuel efficiency.

Further, although various public programs and heightened public concern have, in recent years, combined to help provide a safer driving and passenger environment, deaths, injuries and economic

losses from motor vehicle crashes remain at unacceptable levels. Since 1968, the highway fatality rate has decreased from 5.4 deaths per 100 million vehicle miles to 4.3 in 1973. The absolute number of deaths, however, has continued to stay close to 55,000 annually, a figure that we want to see reduced in the years ahead. As a matter of current interest the lowered speed limits and reduced levels of driving have produced a very sharp drop--nearly 25 percent in traffic deaths--in the early weeks of 1974.

It seems clear that society is now changing its point of view with respect to the automobile and its uses on our highway system. Some of the needed changes will continue to occur naturally as a response to forces such as higher energy prices and supply shortages, but other needed changes will require both political leadership and public consensus. High on the list of changes must be: (1) the acceptance by more people of high-quality public transportation as an alternative to private transportation; (2) the rationalization of sometimes conflicting energy, environmental, and safety goals; and (3) better planning and management in the public portions of the system.

The Federal government's relationship to the commercial vehicle system, apart from its responsibilities in the safety field, lies principally in the economic regulation of common carriage

trucking. Existing policy here is clearly in need of review and revision. The energy crisis has heightened our awareness of the inefficiencies introduced into the system by such matters as enforced excessive route circuity, "gateway" restrictions, commodity and backhaul restrictions, and the lack of close coordination with energy-efficient rail freight service. In addition, regulatory changes are needed to encourage competitive pricing which more accurately reflects the real costs of providing the transport service involved.

In recent years, there has been a rising level of interest in the provision of public transportation in rural areas, particularly, though not solely, for those who are unable, either physically or financially, to use an automobile. The Federal-Aid Highway Act of 1973 provided that highway program funds could be used for purchase of transit equipment for rural service. Our recently proposed Unified Transportation Assistance Program legislation provides additional funds for demonstration programs in rural areas, including use for operating costs. High operating cost is the greatest difficulty in providing transit service in areas of low population density.

Urban Transportation

The efficient transportation of people and freight within our major urban areas poses most difficult problems. Our cities have grown haphazardly, with little thought to future overall size, shape, or needs for transportation. Widespread automobile ownership has encouraged a "sprawl" that is now efficiently served only by the automobile Various Federal programs (e.g., housing, highways, welfare) have encouraged urban growth, but overall urban planning is not yet sufficiently effective. Recently, the requirements of the Clean Air Act, the pressures of the energy shortage, and the problems of peak-hour traffic congestion have combined into a demand for action.

But what kind of action?

Our analyses, as well as our experience in administering the Urban Mass Transportation grant program (from which $3 billion has been given since 1970 to over 150 cities to buy buses and help build or improve rail systems) offer these guidelines:

1. It is extremely important to recognize that each urban area is different. No standardized solution is possible. An approach tailored to each individual case is called for.

2. The major obstacles to improving urban transportation are: (a) the lack of comprehensive local planning broad enough to embrace the entire spectrum of urban issues; (b) the lack of a public decision-making mechanism to resolve them; and (c) the lack of comprehensive management of the public transportation system of each urban area.

3. Except for our largest cities, the urban transportation problem is principally one of peak-hour capacity. During most of the day, the streets and particularly the transit systems are significantly underutilized. Less than 25 percent of the available transit seat miles are actually in use.

4. Large cities with high-density cores face the most serious transportation problems. As a result of this high density and its accompanying congestion, the cost of constructing and operating transportation facilities in these city cores is significantly higher than in other areas.

5. Cities that do not now have rail transit systems should carefully consider all alternatives prior to starting new systems. The solution for most cities is more in the direction of traffic management, special bus systems, incentives for car pools, and peak-hour stretch-outs.

6. Improved public transit can attract a great many new riders, yet the automobile will likely remain the dominant form of transportation for all but the largest cities for a long time. We should recognize this and move to do all we can to make sure that the automobile is energy-efficient and non-polluting and that its role in the city is effectively managed.

By and large, the most serious urban transportation problems are concentrated in major areas with populations in excess of 1 million. These urban areas are shown on the map in Figure 2, including the nine cities that now have fixed rail systems in operation or under construction.

FIXED RAIL TRANSIT SYSTEMS IN MAJOR URBAN POPULATION CENTERS

FIGURE 2

Railroads

The size of the nation's railroad system peaked in 1916, when it had a total of 255,000 route miles in service. Very little track has been laid since then, with the total shrinking slowly, as the economy has changed, to its present level of 204,000 route miles. This system is mainly served by the 73 Class I railroad companies (i.e., annual revenues over $5 million), which carry 95 percent of all rail freight tonnage. Altogether there are 1.7 million freight cars and 27,000 locomotives. The overall system contains considerable trackage that is used so seldom that it is not economically self-sustaining. We estimate the excess at between 10 percent and 20 percent. While there are some bottlenecks (especially in tunnels, bridges, and yards) the capacity of the mainline track system is several times the present level of usage. The mainline routes between principal freight traffic generating centers (which can be compared to the Interstate Highway System) can be seen on the map in Figure 3.

The many problems--structural, regulatory, managerial, labor--affecting the railroad industry are most vividly evident in its poor financial health. The railroads in total earn only 3 percent on invested capital and, as a consequence, lack the financial resources to make needed roadbed improvements and freight-yard consolidations and modernizations, and to

U.S. RAILROAD MAINLINES

(ROUTES BETWEEN PRINCIPAL CITIES)

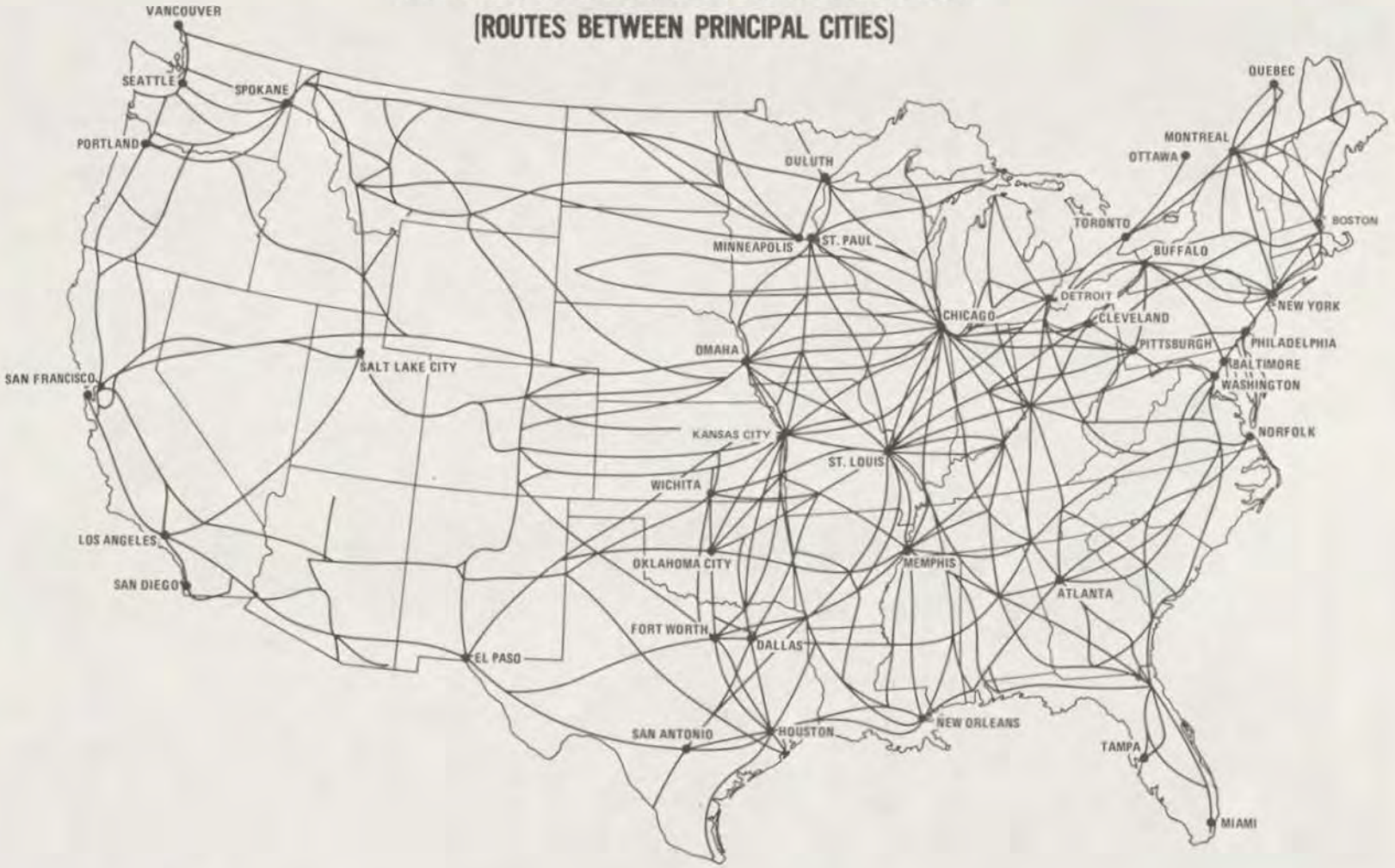


FIGURE 3

acquire adequate amounts of rolling stock. We believe that the needed long-term improvements in rail service will come as a result of reduced regulatory restrictions, interim Federal financial assistance, and, in time, through rail mergers or operating agreements in order to rationalize the interstate rail networks. Through institutional changes and the development of new rail car technology, we would like to see trains become more efficient freight "wholesalers," with close coupling to truck lines which would serve, at least in part, as "retailers." We also favor the development of a coordinated nation-wide freight car management and control system. For most long-haul service, rail freight is an extremely efficient user of energy (surpassed only by pipelines and water-borne freight). It is vital that the various advantages that rail freight offers be permitted to be realized by the nation as a whole.

Intercity rail passenger service is now largely handled by AMTRAK; its routes are shown on the map in Figure 4. Service in 1974 is expected to total about 19 million passengers, up nearly 25 percent from 1973. AMTRAK is now embarked on an ambitious equipment expansion and upgrading program (financed by $500 million in Federal loan guarantees over the past three years), and, under the terms of the Regional Rail Reorganization Act of 1973, we are starting work on upgrading the passenger corridor between Boston and Washington to produce higher speed, higher quality rail passenger service. AMTRAK's major problems are:

INTERCITY RAIL PASSENGER ROUTES
(Amtrak and Others)

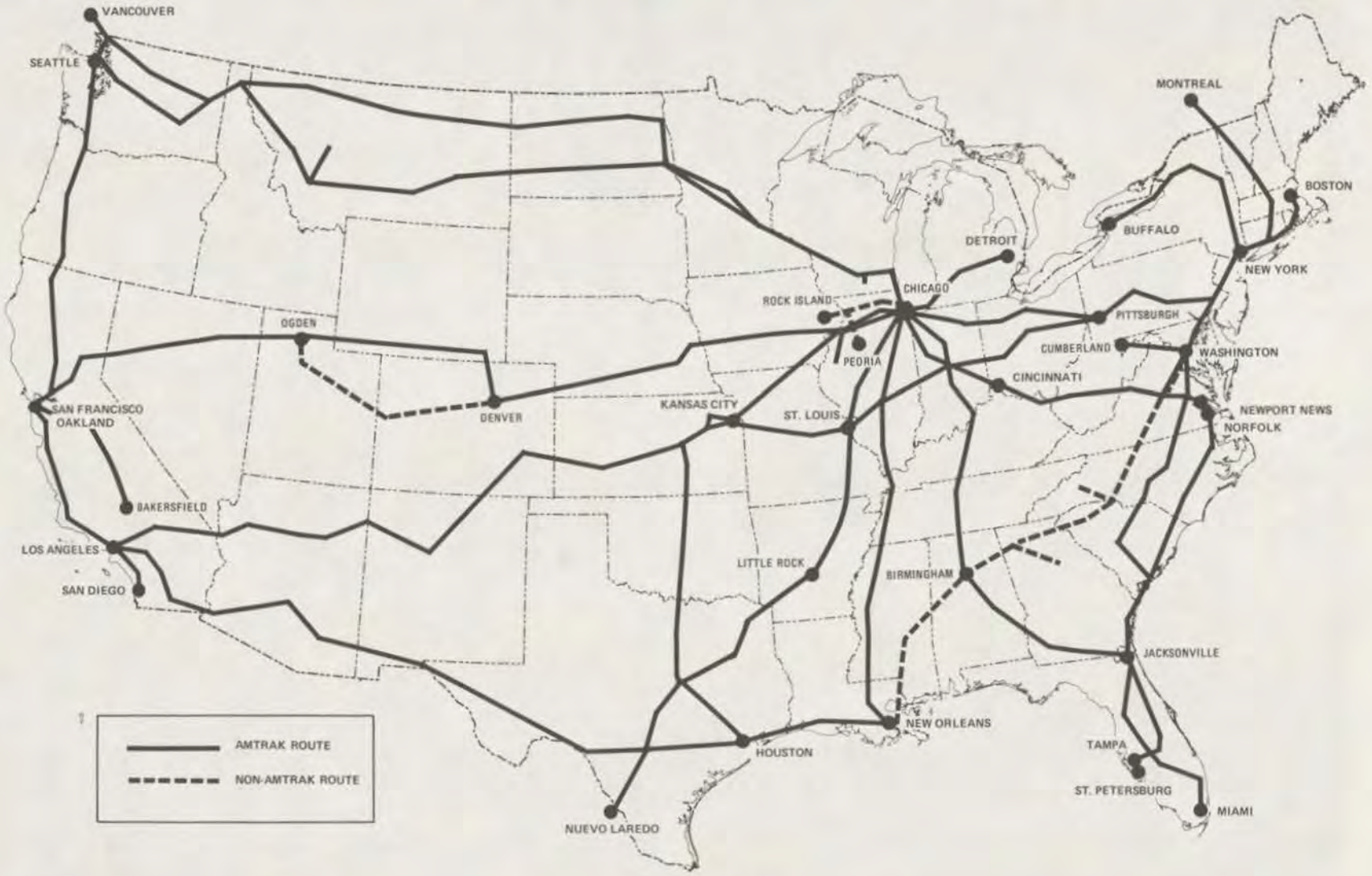


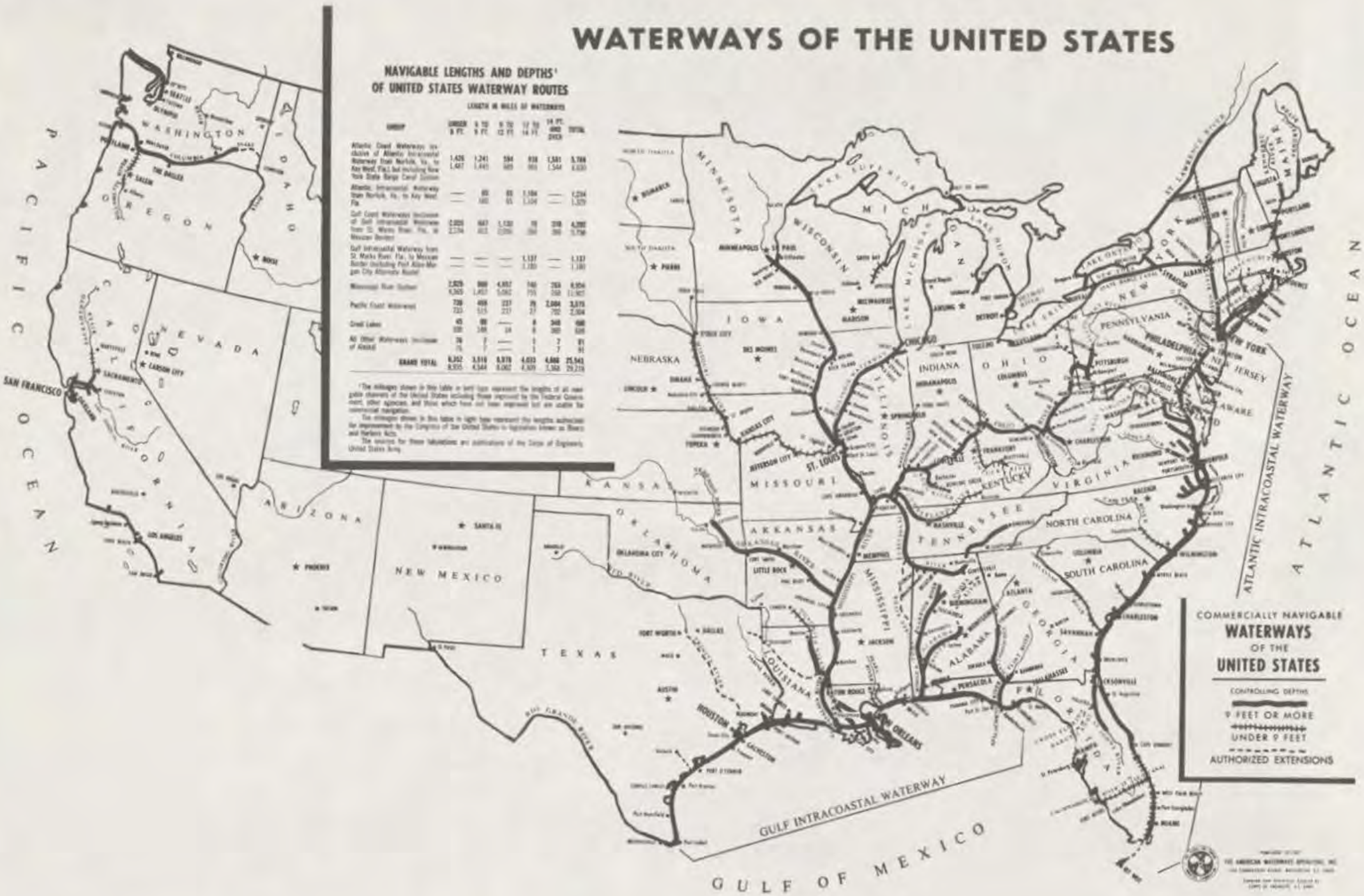
FIGURE 4

(1) its operating losses, which must be financed by the general taxpayer--about $150 million per year, compared with total revenues of $177 million if fiscal year 1973; (2) the substantial cost and time required to improve AMTRAK's small but aged passenger car fleet; (3) its current route structure, which includes several very light density segments; and (4) the still less than satisfactory level of service being afforded many of its users.

Waterways, Ports, and Maritime

The waterway system of the United States consists of about 25,000 miles of navigable rivers, canals, and coastal waterways. The map in Figure 5 shows the main elements of this system. About 16 percent of domestic intercity freight ton miles moves by water, with approximately 100 billion ton miles on the Great Lakes and 200 billion ton miles on the inland waterway system. About 1,800 companies operate about 21,000 barges and over 4,000 towboats on the inland waterways. These operations represent an extremely efficient use of energy.

It appears that most, if not all, high priority opportunities (in a benefit-cost sense) for developing our rivers and coastal areas have already been exploited. The capacity of the present system, except for a few bottlenecks, is many times its present level of usage. The Federal cost of operating the inland waterways is averaging about $80 million. The two key policy issues are: (1) whether, and the extent



NAVIGABLE LENGTHS AND DEPTHS[1] OF UNITED STATES WATERWAY ROUTES

LENGTH IN MILES OF WATERWAYS

GROUP	UNDER 6 FT.	6 TO 9 FT.	9 TO 12 FT.	12 TO 14 FT.	14 FT. AND OVER	TOTAL
Atlantic Coast Waterways (exclusive of Atlantic Intracoastal Waterway from Norfolk, Va., to Key West, Fla.) but including New York State Barge Canal System	1,426 1,447	1,241 1,441	594 [illegible]	938 [illegible]	1,581 1,544	[illegible] [illegible]
Atlantic Intracoastal Waterway from Norfolk, Va., to Key West, Fla.	— —	65 [illegible]	65 65	1,104 1,104	— —	1,234 [illegible]
Gulf Coast Waterways (exclusive of Gulf Intracoastal Waterway from St. Marks River, Fla., to Mexican Border)	[illegible] [illegible]	[illegible] [illegible]	1,130 [illegible]	75 [illegible]	[illegible] [illegible]	[illegible] [illegible]
Gulf Intracoastal Waterway from St. Marks River, Fla., to Mexican Border (including Port Allen-Morgan City Alternate Route)	— —	— —	— —	1,137 1,180	— —	1,137 1,180
Mississippi River System	2,829 4,365	888 1,457	4,857 5,082	740 755	[illegible] [illegible]	[illegible] [illegible]
Pacific Coast Waterways	738 733	498 515	237 237	78 27	2,004 792	3,575 2,304
Great Lakes	45 [illegible]	88 [illegible]	— 14	8 8	348 360	498 [illegible]
All Other Waterways (exclusive of Alaska)	76 75	7 7	— —	1 1	7 7	91 91
GRAND TOTAL	8,352 8,935	3,516 4,544	6,876 8,062	4,033 4,309	4,666 5,368	[illegible] [illegible]

[1] The mileages shown in this table in bold type represent the lengths of all navigable channels of the United States including those improved by the Federal Government, other agencies, and those which have not been improved but are usable for commercial navigation.

The mileages shown in this table in light type represent the lengths authorized for improvement by the Congress of the United States in legislation known as Rivers and Harbors Acts.

The sources for these tabulations are publications of the Corps of Engineers, United States Army.

FIGURE 5

to which, waterway users should reimburse the government for the operation, maintenance, and possible extension of the system in the future, and (2) methods for evaluating the need for proposed inland waterway investments.

Traffic on the St. Lawrence Seaway, although at a record high, has been leveling off in recent years. Future traffic trends are unclear as trade patterns and cargo carrying technologies continue to change, although some growth in overall volumes seems most likely. In the long run, however, successful efforts to increase the Seaway system season, increase the use of containers, and provide uninterrupted shipper/receiver service, combined with a more stable world charter market, should provide for increasing traffic through the St. Lawrence Seaway. Its capacity can easily be raised many-fold.

America's 130 deepwater (25 feet or more) ports (including the Great Lakes) are a vital link between land and sea transportation. Responsibility for transportation to, from and through these ports is divided at the Federal level among: the Corps of Engineers--responsible for channel and harbor projects; the Maritime Administration--responsible for promotion of maritime commerce; and the Department of Transportation--responsible (through the Coast Guard) for safety, navigation, and security in ports plus a general role in the coordination of the transportation system.

The principal port problems are: (1) the need to provide off-loading facilities for very large crude carriers (VLCC's); (2) the dislocations being produced by the rapid shift of general cargo from general cargo ships to container and barge carrying ships; and (3) concern about environmental impacts of port activities on the coastal zone.

There are at present approximately 600 active ocean-going U.S. flag ships aggregating slightly more than 13.5 million deadweight tons. As a result of 1970 legislation, U.S. shipyards now have their greatest volume of business for large ocean-going ships in any peace-time year: 88 ocean-going vessels are under construction or on order valued at more than $3.4 billion. The fleet now contains highly specialized cargo carriers such as containerships, roll-on/roll-off ships, and very large crude carrying tankers.

Air Transportation

Some 12,500 airports serve a general aviation fleet of 140,000 airplanes and a commercial aviation fleet of 2,500. The largest 400 of the airports are equipped with control towers installed and operated by the Federal Aviation Administration; 61 are equipped with automatic radar terminal control systems. These terminal control centers are connected with 20 "enroute" control centers that manage the domestic air space movements of the commercial air fleet and part of the general aviation fleet. These 61 terminal control centers

and the 20 enroute control centers are shown on the map in Figure 6. The FAA also operates about 300 flight service stations to provide weather and other assistance to general aviation. The 26 largest airports (shown by large circles in Figure 6) serve nearly 70 percent of all commercial aviation passenger enplanements. Principal air routes for instrument flight rules (IFR) traffic are shown in Figure 7. A major outstanding issue involves the equitable allocation of the costs of operating the airport and airway system among the users of the system.

The present capacity of the aviation system is generally adequate and excess capacity is available in many parts, although some backup may occasionally occur under certain conditions or at peak traffic periods in a few of the largest airports. We believe that the increased use of widebodied jets, planned improvements in air traffic control systems, and certain operational and scheduling improvements should serve to meet projected increased capacity requirements for at least the next decade. Certain airports may, of course, experience much higher levels of use in relation to their capacity than others. In this connection, improved rail passenger service in the Northeast Corridor could significantly help to relieve pressure on the New York area airports.

We expect few, if any, major additions to the nation's airport capacity (in the sense of new airports) during the next decade, both because of local resistance to new airports and because traffic has to reach very high levels before carriers find it profitable to serve

MAJOR ELEMENTS OF NATIONAL AVIATION SYSTEM (DEC. 31, 1973)

FIGURE 6

DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration

PEAK DAY IFR TRAFFIC FY 1971

Communities Exchanging 10 or More Flights

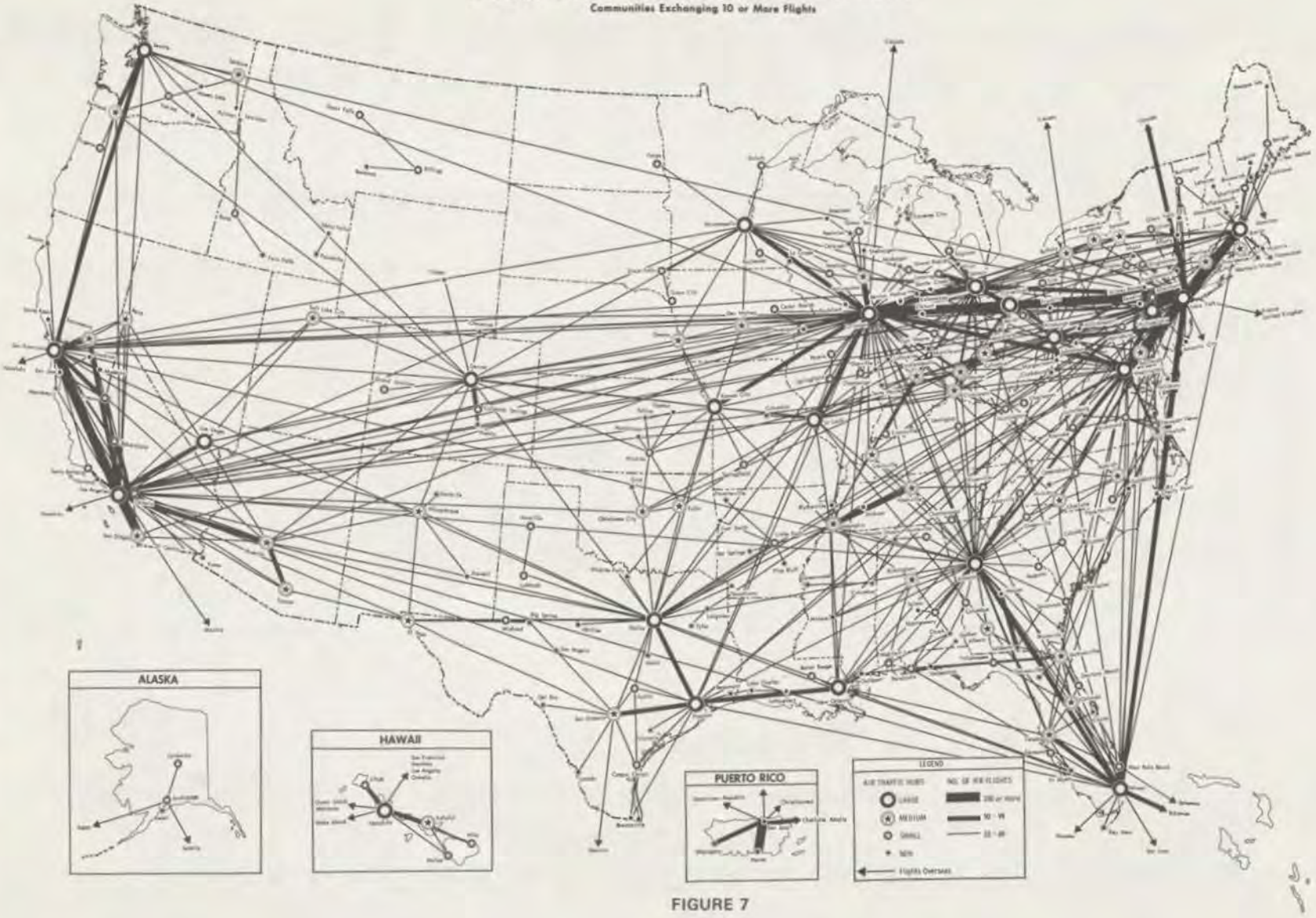


FIGURE 7

more than one airport in the same metropolitan area. It should also be noted that many metropolitan areas have existing airports that currently receive little or no commercial use. The major effort with airports should concentrate on increasing the capacity of existing airports--including ground passenger handling--and examining more carefully the roles of multiple airports which serve a given metropolitan area. In addition, reducing the adverse aviation side effects of noise and pollution must continue to be a major consideration both in handling existing traffic and in planning for future growth.

The United States air carrier industry is a vital element of the nation's intercity transportation system. Although it is mainly a passenger mode, it will likely be increasingly important for highly specialized cargo as well.

With respect to air carrier economics, it appears that the current regulation of air fares causes prices to be too high on some services and too low on others. We believe that air carriers need greater flexibility in setting their fares. There is also need for a thorough review of the route and service structure of the domestic airline industry, including the appropriate roles of the respective classes of carriers. Still another challenge, sharpened by the energy crisis, is the need to make better use of carrier capacity. Maintaining our successful efforts to prevent hijacking and other forms of air piracy is also of paramount concern.

In the international field we are particularly concerned about the discriminatory measures being applied by other governments to U.S. air carriers. In addition, international airline rates have not yet been sufficiently adjusted to reflect costs. Also, issues regarding long-term overseas route structures need a careful study.

Energy Usage in Transportation

Various transportation sectors account for nearly half the nation's usage of liquid petroleum. In the preceding pages we have discussed some of the specific efforts needed to increase transportation's energy efficiency. The following table, which shows average energy efficiency in terms of passenger miles and freight ton miles per gallon, summarizes the key points:

Average Energy Usage and Efficiencies

Passenger Mode	Fuel Usage 1,000 B/D (1973)	Passenger Miles Per Gallon of Fuel (1973)
Rail	10	100 - 150
Bus	70	75 - 150
Automobile	5,000	30
Air	700	15

Freight Mode	Fuel Usage 1,000 B/D (1973)	Freight Ton Miles Per Gallon of Fuel (1973)
Water	120	300
Rail	300	180
Truck	1,450	50

Note: Various other transportation uses (e.g., international carriers, non-freight trucks, recreational) total about 1.5 million B/D.

Thus, strictly from an energy efficiency standpoint, our efforts in the passenger area must be heavily concentrated on (1) increasing automobile fuel efficiency through research and body changes, (2) adding passengers to automobiles (as in car pooling), and (3) shifting usage away from automobiles into rail and bus service. It's important to recognize, however, that other factors can sometimes be of prevailing importance. The air sector, although it represents a relatively inefficient usage of fuel, offers such strong advantages in terms of speed, that it clearly must be supported. Our efforts on improved energy efficiency in air should be concentrated on increasing load factors (which averaged about 50 percent in 1973).

The freight data shows the strong need to promote additional carriage by water and rail, where feasible. However, trucks offer special advantages (such as speed and reliability) and, like air, deserve support. Our efforts in the trucking area should be concentrated on increased efficiency in the energy usage of trucks now on the road (less restrictions on routes and backhauls, etc.).

The most important point brought out by this table is the overwhelming importance of the automobile in the energy picture. Really significant savings in energy usage in transportation will only come from significant improvement in automobile efficiency.

Where We Stand Today: A Summary

In planning our transportation system for future growth, we must separate the need for physical expansion and improvement from the need for better management and utilization of the existing structure.

With the completion of the Interstate highway system, the nation's basic highway structure will be in place. What is needed in the future is better traffic management--especially on the major urban highways--and modernization and upgrading of existing roads to make them safer and to eliminate serious bottlenecks.

The existing physical plant of the railroads has much greater capacity than will be needed for any foreseeable demand for rail freight service. The primary emphasis here should be on rationalizing the rail network, improving the roadbed, and taking steps to ensure more efficient use of the freight car fleet. Rail passenger service should be improved, particularly in the Northeast Corridor.

Our ports and waterways also face no overall capacity restrictions, except for a few special situations involving expansion of lock facilities and the need to develop facilities for deep draft ships.

Urban transit faces large peaking problems in major cities. The solution here calls for better management of demand and more flexible utilization of equipment, as well as selected expansion of fixed facilities.

There is generally adequate capacity in the aviation system, although there may be pressure on capacity at peak periods at a few key airports. Improved air traffic control systems, plus the use of larger aircraft and improved operational scheduling should serve to accommodate this pressure for the coming decade. Beyond these measures, the preferred means of accommodating increasing pressures on airport capacity are diversion of short trips from aviation to other modes and the spread of aviation traffic into additional existing airports, as the market may dictate. Better management and utilization of existing facilities may also be accomplished through the concentration of general aviation at secondary airports in major metropolitan areas and the distribution of traffic away from peak periods.

It should be stressed that the foregoing positions do not reflect an abandonment of Federal responsibility for maintaining adequate capacity in the intercity transportation system, nor do they mean

that the possibility of the emergence of future capacity problems will be ignored. Rather, it means that, since lack of capacity will not be characteristic of the system as a whole during the next decade, the problems or bottlenecks that arise should be dealt with on a specific basis, with any Federal role tailored to the specific problem at hand.

The concentration on better management of transportation facilities for all modes should include a special emphasis on improving the connecting relationships between modes.

From this overview of where we stand today, we can now turn to a summary of the policy principles that we believe should guide our future actions.

POLICY ELEMENTS

It is the Department of Transportation's recommendation that national transportation policy be guided by the principles set out below. These principles should, of course, be regularly reviewed and updated to reflect both changing national goals and priorities, as well as increasing knowledge and understanding.

1. The overriding thrust of Federal policy is to see that the nation has an overall transportation system that reasonably meets its essential needs. To the maximum feasible extent, this system should provide transportation that is efficient, safe, fast, convenient, and limits negative impacts on the environment. While it will never do that to the satisfaction of all, the system should be able to meet this broad objective within reasonable limits.

2. The nation's transportation system should, as much as possible, be provided through the competitive forces of the private sector, or, if the private sector is inappropriate, by State and local governments. Direct Federal financing of transportation investments or operations should be limited to those few cases where there is a clear and widely accepted requirement for concerted action in an area of high national priority, and where the private

sector or State and local governments are obviously incapable of adequately meeting this requirement. The Federal government should ensure that, where privately operated transportation services essential to the national well-being are being threatened by financial or other problems, timely action is taken to solve those problems so as to preclude the need for Federal take-over or "nationalization."

3. When Federal expenditures are used to finance transportation investments or operations, these expenditures should be recovered from the users and other beneficiaries in a manner that is appropriate to the degree of benefits received, unless widely accepted national policy directs otherwise. Examples of present major problem areas include: (a) the current practice of not collecting fees from the users of inland waterways that have been developed and are maintained with Federal funds, (b) the method of charging the various classes of aviation for the use of Federally-financed air traffic control systems, and (c) the lack of a policy concerning the future acceptable level of losses of Amtrak that are to be financed by the general taxpayer.

4. The economic regulation of interstate transportation needs to be thoroughly re-examined to determine which parts are necessary,

as a minimum, to protect the public interest, and those which, through the passage of time, have become more of a burden than a help. We believe that a significant streamlining of this regulatory process is in order, directed to greater reliance on the forces of open-market competition. A particular effort is needed to eliminate restrictions on intermodal competition.

5. It is of national importance that we deal aggressively and equitably with transportation issues involving conservation of scarce energy resources, the provision of safe transportation, protection of the environment, and the availability of satisfactory transportation for the poor, the handicapped, and the elderly. We must recognize that it is most difficult to resolve the conflicting points of view that too often accompany these issues. This uncertainty causes delay, confusion, and excessive reliance on appeals to the courts. A better process for resolving these conflicts is needed.

6. The severe transportation problems now present in our large urban areas, and the relationship of these problems to other urban issues, require a special Federal effort, including some general taxpayer support. This effort should be directed toward

encouraging: (a) the establishment of non-Federal governmental mechanisms that embrace the full urban area and have authority to make and implement all relevant urban plans, (b) the development at the local level of urban plans that properly relate transportation needs to future land-use plans and community development objectives, and (c) the development of plans that are appropriate to the structure and size of the urban area. A corollary to the last point is that we will encourage urban areas to stress public transportation plans directed to using existing transit systems and highways more effectively (especially with high-quality bus systems, expanded jitney and taxi service, incentives to car-pooling, and various devices to stretch out and reduce the rush-hour peaks). We will also very closely examine any proposal for construction of totally new fixed-guideway transit systems to determine whether it is the most reasonable cost-effective solution to that specific urban situation. Federal financial support from the general fund should be considered by the urban areas only as a supplement to State and local efforts.

7. Rural public transportation policy is today in an uncertain state, with numerous isolated rural areas now able to be reached only by private automobile. Would better rural public transportation

today lessen future urban transportation problems? What are the proper transportation modes for rural service? What is the role of local air taxi service? How should rural public transportation that is not self-supporting be financed? These and related questions need widely accepted answers before this element of national transportation policy can be properly stated. Future statements will attempt to develop the needed policies.

8. A major cause of inefficiency in both passenger and freight transportation is the lack of close coordination among the various modes. This problem is compounded by the historical development of separate systems of terminals by each of the modes. A priority program is needed to lift unneeded restraints to intermodal cooperation and to encourage the joint use of terminal and other facilities by all transportation modes.

9. Federal research and development work on transportation should be directed to a limited number of programs with a high potential payoff to the nation as a whole and with little likelihood of being adequately handled without some Federal support. Near-term programs that meet this criteria include: (a) improving the energy efficiency in all transportation systems, but especially automobiles, (b) improving motor vehicle, driver, and highway

safety, (c) improving the air traffic control system to increase the capacity of the airways, (d) improving highway traffic control for automobiles and buses, and (e) increasing the operational efficiency of the national rail freight system.

10. Finally, we must advance the overall level of knowledge about the nation's transportation system, its capabilities, and its problems. We must also raise the technical abilities of planners at all levels to provide solutions to major transportation problems. The Department's National Transportation Report and the university research program are significantly contributing to the needed knowledge base. Additional analytical effort is needed at the Federal level to improve our ability to identify potential problems before they seriously affect overall system capability.

In Conclusion

We well recognize that many aspects of the above policy statement--especially those that are rooted in the concept of the desirability of promoting more freedom of choice and greater economic efficiency--are controversial. Some will praise them; others will damn them. It must be understood that we do not put them forward as final answers (of which there are none), but rather as what appear to us to be the proper future directions for the nation as a whole.

Plainly, government needs to become more adept at managing needed changes. In developing policies to improve the nation's transportation system we must recognize its dynamic, broad-based, and interdependent nature. This means having the courage of our convictions to bring about changes in public policy when new conditions and sound economic analyses call for them.

* * * * *

The following table reflects, by major element, transportation funding made and planned for fiscal years 1973, 1974, and 1975. The table also shows some general indications of the effects of the policies outlined above on future funding levels.

FEDERAL FUNDING IN TRANSPORTATION

	Obligations (in millions of $)			Funding Trends for FY 1976-1980 (assuming constant $'s & wage rates)
	FY 1973	FY 1974	FY 1975	
Ground Transportation:				
Highway improvement				
- Interstate/Rural/Safety/ Other	4,107	3,820	3,925	Remain at relatively constant levels.
- Urban	508	800	875)	Continued growth. Administration's UTAP will create new unified program for urban ground transportation, merging and expanding current urban highway and transit programs.
Mass transit	989	986	1,351)	
Traffic and highway safety	156	160	220	May increase modestly.
Railroads	160	318	267	Slowly decline as AMTRAK reduces losses; offset in the near-term by increases due to northeast and midwest rail restructuring program ($500 million over 3-5 years); significant increase in Federal loan guarantees ($2-4 billion).
Subtotal, ground transportation	5,920	6,084	6,638	

	Obligations (in millions of $)			Funding Trends for FY 1976-1980 (assuming constant $'s & wage rates)
	FY 1973	FY 1974	FY 1975	
Water Transportation:				
Coast Guard (maritime safety, environmental protection, and facilitation)	808	833	903	Gradual increase to handle expanding marine environmental protection and enforcement functions.
Ocean shipping	710	573	549	Not part of DOT.
Waterway/harbor improvement (Corps of Engineers)	490	541	538	Not part of DOT.
Other	4	6	6	
Subtotal, water transportation	2,012	1,953	1,996	

	Obligations (in millions of $)			Funding Trends for FY 1976-1980 (assuming constant $'s & wage rates)
	FY 1973	FY 1974	FY1975	
Air Transportation:				
Airways and airports	1,681	1,990	2,120	Dollar levels will grow slowly, but costs to the general taxpayer should decline as users assume a larger share of the system costs.
Air carrier subsidies	66	67	66	Not part of DOT.
Subtotal, air transportation	1,747	2,057	2,186	

A RECOMMENDED DECLARATION OF NATIONAL TRANSPORTATION POLICY FROM A REPORT TO THE PRESIDENT BY THE PRESIDENTIAL ADVISORY COMMITTEE ON TRANSPORT POLICY AND ORGANIZATION (WEEKS REPORT), (1955)

It is hereby declared to be the national transportation policy of the Congress:

1. To provide for and develop under the free enterprise system of dynamic competition, a strong, efficient and financially sound national transportation industry by water, highway, and rail, as well as other means, which is and will at all times remain fully adequate for national defense, the Postal Service and commerce;

2. To encourage and promote full competition between modes of transportation at charges not less than reasonable minimum charges, or more than reasonable maximum charges, so as to encourage technical innovations, the development of new rate and service techniques, and the increase of operating and managerial efficiency, full use of facilities and equipment, and the highest standards of service, economy, efficiency and benefit to the transportation user and the ultimate consumer, but without unjust discrimination, undue preference or advantage, or undue prejudice, and without excessive or unreasonable charges on noncompetitive traffic;

3. To cooperate with the several States and the duly authorized officials thereof, and to encourage fair wages and equitable working conditions;

4. To reduce economic regulation of the transportation industry to the minimum consistent with the public interest to the end that the inherent economic advantages, including cost and service advantages, of each mode of transportation, may be realized in such a manner so as to reflect its full competitive capabilities; and

5. To require that such minimum economic regulation be fair and impartial, without special restrictions, conditions or limitations on individual modes of transport.

All the provisions of this Act shall be construed, administered and enforced with a view of carrying out the above declaration of policy.

NATIONAL TRANSPORTATION POLICY FROM COMMERCE COMMITTEE REPORT BY THE SPECIAL STUDY GROUP ON TRANSPORTATION POLICIES IN THE UNITED STATES (DOYLE REPORT), (1961):

It is hereby declared to be the national transportation policy to provide for flexible, coordinated, and impartial promotion and regulation of transportation in interstate commerce to the end that the needs of the commerce of the United States, of the postal service, and of national defense be met.

To attain this objective, promotional and regulatory programs in transportation shall:

1. Foster a safe, adequate, and coordinated national transportation system composed of all economically suitable modes operating singly and in combination and having as its nucleus privately owned and operated common carriers.

2. Recognize and fully develop the relative service and cost characteristics of each mode as a component part of a coordinated system.

3. Recognize the public interest in safe and economical transportation at just and reasonable charges therefor.

4. Be so administered in promotional programs as to identify national, regional, and local needs for transportation development and to satisfy these needs in the most economical manner through expenditures which consider the relative economic fitness and the characteristics of the several modes, to the end that the transportation resources of the Nation are efficiently allocated.

5. Be so administered in regulatory actions as to recognize cost relationship in the adjustment of rates and charges, without undue discrimination, preference, or advantages as between users of transportation or unfair competitive practices as between carriers.

6. Foster adjustments in the organization and structure of the transportation system and the component modes thereof, through consolidation and otherwise toward maximizing the efficiency of each.

7. Further coordination and cooperation with the several States and the authorized officials thereof toward the development of

simplified and effective economic and safety regulation of transportation.

8. Give primary consideration to the national public interest in all cases of conflict with other more limited interests of persons or localities.

All actions of Federal agencies in matters affecting transportation shall be carried out in accordance with the above declaration of policy.

CANADIAN NATIONAL TRANSPORTATION POLICY FROM THE NATIONAL TRANSPORTATION ACT OF 1967:

It is hereby declared that an economic, efficient and adequate transportation system making the best use of all available modes of transportation at the lowest total cost is essential to protect the interests of the users of transportation and to maintain the economic well-being and growth of Canada, and that these objectives are most likely to be achieved when all modes of transport are able to compete under conditions ensuring that having due regard to national policy and to legal and constitutional requirements

a. regulation of all modes of transport will not be of such a nature as to restrict the ability of any mode of transport to compete freely with any other modes of transport;

b. each mode of transport, so far as practicable, bears a fair proportion of real costs of the resources, facilities and services provided that mode of transport at public expense;

c. each mode of transport, so far as practicable, receives compensation for the resources, facilities and services that it is required to provide as an imposed public duty; and

d. each mode of transport, so far as practicable, carries traffic to or from any point in Canada under tolls and conditions that do not constitute.

   i. an unfair disadvantage in respect of any such traffic beyond that disadvantage inherent in the location or volume of the traffic, the scale of operation connected therewith or the type of traffic or service involved, or

   ii. an undue obstacle to the interchange of commodities between points in Canada or unreasonable discouragement to the development of primary or secondary industries or to export trade in or from any region of Canada or to the movement of commodities through Canadian ports;

and this Act is enacted in accordance with and for the attainment of so much of these objectives as fall within the purview of subject matters under the jurisdiction of Parliament relating to transportation.