

A New Transportation Agenda for America

in the Aftermath of 11 September 2001

NCIT—National Center for Intermodal Transportation
A Partnership between the University of Denver and Mississippi State University

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I. PREAMBLE

On a typical day in the United States, tens of millions of people are on the move—by automobile, airplane, intercity bus, passenger train, a variety of commuter and transit services, and even ferry boats and cruise liners. On that typical day, the scale of their travel amounts to ten billion passenger-miles. Meanwhile, for every passenger moving on this vast and complex system, a ton of freight is also moving—by truck, train, airplane, barge, cargo ship, and pipeline. Daily ton-miles of freight transport equal roughly the extent of passenger trips and mileage—another ten billion.

On a typical day in the United States, the users of these transportation services take them for granted. They are not inclined to consider the colossal level of public and private investment in infrastructure, equipment, improvements, and upkeep that make these networks function. Nor are they likely to understand that transportation accounts for about 20 percent of the US economy, or that this 20 percent of economic activity makes nearly all of the remainder possible, for without transportation, neither industry nor agriculture could function, tourism would not exist, and retailing could not offer products or attract customers. Transportation is the circulatory system of the nation, bringing people, goods, and services to all its citizens.

On a typical day in the United States, the users of these transportation services do not pay much attention to the fact that, despite its remarkable contributions to American life, transportation systems routinely operate in the face of rather significant and long-standing defects. And these defects have important consequences for all Americans—even on a typical day.

It is only when we Americans, the users of these transportation services, awaken to a day that is atypical do these matters pierce our consciousness. With stunning suddenness, the terrorist attacks of 11 September 2001 brought home to Americans the vulnerabilities of the transport system. When one component of that system shut down, the pre-existing defects afflicting all modes only served to magnify the chaos that ensued.

II. THE LESSONS OF 11 SEPTEMBER 2001

The US transportation system security "umbrella" is more porous than we Americans realized. Unlike people in a number of other nations who have adapted to more stringent security practices in recent years, Americans have been complacent with regard to the threat potential and what is necessary to minimize it—not only in commercial aviation but also in the surface modes as well as in other sectors of the economy and society.

The US is excessively reliant upon a single mode of commercial passenger transportation for intercity travel. When the airline system ceased operations on 11 September, many stranded passengers had no choice but to await the reopening of air service. This level of dependence upon aviation is undesirable in terms of national security and in terms of the ability of the economy to function.

Intercity commercial passenger transportation alternatives are poor or nonexistent outside of a very small number of city pairs (the Northeast Corridor between Boston, New York, and Washington DC, for example).

Intermodal connectivity is poor or nonexistent in many parts of the country. Even if they could secure a seat on a train or a bus, the stranded airline travelers of 11 September often found that they were ten to thirty miles away from the nearest intercity rail or bus terminal and that a taxicab was the only practical way to get to the terminal.

As the nation adjusted to the reality that it was at war, the nature of the potential conflict suggested the possible disruption of the petroleum supplies on which all of the transportation modes are so dependent. Memories of the OPEC and the Iranian embargoes of the

1970s have resurfaced. In spite of assurances from several oil-producing nations and the recent declines in crude prices, Americans once again are reminded of the uncertainty of the oil supply and the risks of dependency upon oil imports from a politically volatile part of the world.

It is important to remember that all of these defects and risks existed prior to 11 September and were well recognized by many experts and professionals.

III. GUIDING PRINCIPLES FOR A NEW TRANSPORTATION AGENDA

The goal of the US should be to overcome these defects and to create a transportation system that promotes efficiency, safety, mobility, economic growth and trade, national security, protection of the natural environment, and enhancement of human welfare. In order to achieve this “sustainable” result, Americans must better utilize the strengths of the individual modes and integrate them into a seamless transportation system. Specifically, four factors must be considered:

CONNECTIONS. All modes must be connected with one another to accomplish the convenient, expeditious, and efficient movement of commodities and people. Connecting points should be proximate to each other and timed to facilitate movements from one mode to another.

CHOICES. The intermodal network should offer choices, allowing its users to select the mode that can most efficiently satisfy their transportation needs.

COORDINATION. The transportation infrastructure must be planned, designed, and built in a way that brings the modal networks sufficiently close together so that connections can be made relatively effortlessly. In addition, transportation providers must coordinate their schedules to reduce dwell time between intermodal movements.

COOPERATION. There must be cooperation and collaboration among transportation providers and governmental agencies at the federal, state, and local levels to ensure that the needs of the users for seamless service are realized.

These four principles serve as an overall framework for thinking about a new transportation agenda. In light of the post-11 September situation, several additional principles deserve attention.

1. Recognize that transportation priorities have changed.

Clearly, significant investments are essential to improve transportation security. But this is only part of the challenge. Until the long-standing defects of the nation's overall transportation system are cured, Americans will be vulnerable to economic damage and mobility disruption if terrorists mount future attacks against any transportation mode or against the nation's energy supply or delivery systems. Future curtailments of the petroleum supply are an ever-present threat. Additionally, several regions of the country are vulnerable to serious and prolonged disruptions of transportation services due to natural disasters, such as earthquakes and hurricanes.

The new transportation priorities will provide a hedge against disruption and, at the same time, serve as an ongoing source of immense value to the economy and to the American quality of life. The new priorities place a premium on national and economic security and will enhance the efficiency, mobility, and economic productivity benefits that the US transportation system provides.

2. Understand that implementing the new transportation agenda will require governmental agencies to reform their structures and operating practices. Under today's arrangements, many projects that would make a meaningful contribution to the new transportation agenda must overcome bewildering turf battles in the US Congress, the US Department of Transportation (USDOT), and state and local governmental agencies before they can be considered on their merits.

During the past forty years, an intermodal revolution has swept the

global freight transportation industry, but its impressive achievements are the result of private-sector initiatives. The efforts of the USDOT to improve intermodal policy and decision making have mainly produced new layers of bureaucracy, yet none of these new bureaucracies have any real authority.

Rail matters are low-priority concerns of the USDOT and in most state transportation agencies. Intercity bus is ignored entirely at all levels of government. Local governments are organized to maintain roads and transit systems. Airport authorities exist as independent fiefdoms. Today's arrangements are inadequate for the tasks and require reform.

3. Create a level of redundancy in the transportation system that will cushion the nation against economic shocks and that will enable essential passenger and freight movements to occur at all times. The US transportation policy has consisted of building the modes in isolation, of believing that highways and airways represent a universal solution, and of emphasizing ever more expensive highway projects, which offer only temporary relief in a losing battle against traffic congestion. It is unreasonable to think that a wholesale substitution of surface modes for either air travel or the private auto is practical for the foreseeable future.

The goal of the new transportation agenda is to supplement the commercial market with efficiently performing alternatives—conventional and high-speed rail for travel markets with high densities of air and auto travel, and bus and conventional rail for travel markets in selected city pairs. The commercial surface modes, rather than aircraft and automobiles, can offer superior performance in terms of overall travel time and consumer cost in short-haul travel markets.

How important is redundancy? The Internet exists because the US military decided that national security concerns required a completely new communications network, one that would interconnect all telecommunications networks and route information around any disabled junction.

4. Recognize that redundancy works only if the modes

are integrated. The ability of a passenger mode to function as a practical option for travelers is degraded severely wherever common terminals do not exist. Amtrak serves no US airport directly. The relatively few urban transit systems that connect airports to city centers often do not provide direct service to downtown bus or rail stations. These conditions hurt the current economic performance of all modes, create an oppressive level of inconvenience for the traveler, and add to the cost of a trip.

5. Change the focus from supply to demand. Currently, the passenger traveler takes what the transportation modes have to offer and suffers from an absence of choice in modes, routings, and fares. Freight transportation services, however, provide greater efficiencies and choices because they are largely customer-driven. What works in freight transportation must be duplicated in passenger transportation services.

6. Acknowledge that freight transportation is equally as vital as passenger transportation. Although recent events have highlighted problems in moving people, remember that for every person moving on the nation's transportation system, a ton of freight is also moving. Freight and passenger modes utilize common infrastructure: highways, railroads, airports, and airways. Despite recent imon of frle50.9102 fc52nt 12 -12 02

viewed both as a short-term economic stimulus but also, and more importantly, as a necessary investm

Regions. Most of the nation's passenger and freight hubs fall within these regions. Consideration should be given to broadening that definition.)

The remaining annual federal government commitment can be paid from general revenues. Direct outlays from this source can be reduced somewhat by the pr

transportation user—and his need for seamless connectivity from origin to destination—rather than from the perspective of the transportation provider.¹

3. RESTRUCTURE THE ROLES OF THE STATES AND MUNICIPALITIES. The majority of state transportation agencies place 90 percent of their emphasis on highways, with transit, aviation, and railroad functions closeted off in minor sub-departments, which are several management layers removed from the real decision makers. Intercity bus transport is largely ignored. Freight issues receive little attention at the state level. City governments focus on street maintenance and local transit services to the exclusion of nearly everything else. State and city agencies require restructuring to reflect an intermodal focus that includes both passenger and freight transportation as does the pattern of relationships between state DOTs and MPOs.

4. IMPLEMENT A NEW VISION FOR COMMERCIAL AVIATION. One goal of the proposed new transportation agenda is that of supplementing the air travel system with the surface modes. Today, the airline industry is beset by ongoing economic problems, which result, in part, from the practice of transporting connecting passengers from nearby feeder cities to hubs at fares that do not cover costs. Smaller, "regional" aircraft are less economical, less efficient, and contribute to airport and airway congestion. Airline managers will derive meaningful economic and service

limousine, and taxi. Transit service to downtown usually requires either a lengthy walk or a shuttle to the nearest direct transit connection. Airport managers have rebuffed most attempts by intercity bus companies to load and unload passengers at the terminal "front door." No direct intercity rail connections exist at any US airport. Airport authorities must embrace the principle of seamless access by public transit and commercial surface transportation. The USDOT should insist that seamless access be a condition of federal funding.

6. DEVELOP A ROLE FOR HIGH-SPEED RAIL. High-speed rail offers the most promising opportunity to create redundancy and to supplement or replace air travel in a number of short-haul markets, such as between urban centers of high population and in areas where highway congestion is serious. Electrified high-speed rail lines also would reduce the reliance upon petroleum fuels. Eleven corridors in thirty-three states—to be developed by states or partnerships among states—have been designated but as yet are unfunded. The USDOT should be given the authority to evaluate high-speed rail projects and set developmental priorities, focusing on the projects that can deliver high ridership.²

7. EXPAND CONVENTIONAL RAIL PASSENGER SERVICE. The primary obstacle to the ability of Amtrak to gain market share in short- and medium-haul markets is the low frequency of its service. In the majority of these city pairs, service is limited to one daily train in each direction. This restricts customer choice to an unacceptable level. The priority for future Amtrak development should be that of increasing train frequency and service quality in its most promising markets. In some short-distance operations, high-performance conventional rail could provide most of the service benefits of high-speed rail but at a much lower developmental cost.

8. SUPPORT A MORE IMPORTANT ROLE FOR INTERCITY BUS.

² Some have suggested that Amtrak be given this role, but the scale of these projects is beyond its capabilities and Amtrak's status as a potential bidder for operating contracts creates an inherent conflict of interest.

The intercity bus offers several advantages. It is flexible; buses can go wherever highways exist. If airlines retreat from the smaller feeder markets, the bus is the most practical alternativ

carriers. Trucks access many urban ports on traffic-clogged streets. Railroads serving the ports are hampered by a proliferation of grade crossings. Rail yards, where containers or trailers are transferred to and from trucks, are plagued by similar problems. Many airport air-cargo facilities are accessible only by truck. Undue reliance is placed upon truck drayage for port-to-rail transfers.

Efficient port and rail yard operations require high-quality access by both rail and truck, and consideration should be given to truck-only, limited access, roadways from dockside and air-cargo centers to the nearest interstate highway. A major effort is required to eliminate the number of at-grade highway-rail crossings—through closure, separation, or more advanced crossing protection technology. A number of freight transfer facilities require more efficient container-handling equipment.

Improving freight intermodal seamlessness will increase the efficiency of the railroads and will help to alleviate highway congestion, which will reduce the pressure to build more highways. The coastal ports and waterways must also be upgraded—with ample capacity and redundancy—to facilitate trade in the 21st century global economy.

11. PROMOTE A NEW PARADIGM FOR CUSTOMER SUPPORT SERVICES. Success of the new intermodal passenger system will depend upon the quality of customer support services. Today's travel agent shops for fares among airlines and for prices among car rental companies. The travel agent of the future will need to offer a broader menu of choices involving, perhaps, three modes per trip, information on dwell times, details on the walking distances from the bus or rail connection to the airport gate, and the like. The Internet will serve as a valuable tool, providing maps portraying the interface between modes at termwa6

her checked baggage until arrival at the final destination. Local transit vehicles will need to be equipped with larger baggage racks, like those found on airport parking lot shuttles.

12. CONTINUE THE EMPHASIS ON RESEARCH, EDUCATION, AND TECHNOLOGY. Technology holds the key to the solution of many of the problems that confront the present transportation system—congestion, pollution, lack of modal choice, and inadequate safety and security. Accordingly, careful attention must be paid to the development and implementation of relevant technologies. The successful deployment of technologies as well as the development of a “sustainable” transportation system also requires professionals with the requisite education and skills.

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NCIT is a USDOT National University Center under the 1998 Transportation Equity Act for the 21st Century (TEA-21). NCIT is one of 33 University Transportation Centers administered by the USDOT Research and Special Programs Administration.

NCIT is a partnership of the University of Denver in Colorado and Mississippi State University and builds upon the activities of the Intermodal Transportation Institute at the University of Denver and the activities of the centers with transportation focuses at Mississippi State University.

NCIT promotes the assessment, planning, and design of the nation's intermodal transportation system and focuses on improving the efficiency and the safety of services for both passengers and freight by identifying ways