

United States House Committee on Transportation and Infrastructure
The Panel on 21st Century Freight Transportation

“Overview of the United States’ Freight Transportation System”

Testimony of Frederick W. Smith

Chairman, President and Chief Executive Officer

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Chairman Duncan, Ranking Member Nadler and members of the committee.

Thank you for inviting me to testify before the committee today. I know that you all understand the importance of intermodal transportation in today’s cost- and time-driven economy. But let me put it into the context of my company and its services.

Forty years ago this month, FedEx was a pioneer in intermodal transportation, starting up our hallmark door-to-door air-and-ground business. They thought it was a crazy idea back then.

Today, we continue to explore new intermodal offerings through our group of transportation companies, from air to ground to ocean. Our services span the globe, connecting U.S. businesses to each other and to all major global marketplaces.

FedEx and Intermodality

Intermodality allows transportation services to be offered to American customers in the most efficient way, providing transport products that vary as to speed, price and mode. This distinguished panel represents various modes of transportation available to U.S. shippers – air cargo, trucking, freight rail services, ocean-going vessels and port services.

Our air cargo piece, operated by our FedEx Express subsidiary, is our oldest operation. However, before I go into more detail on air cargo, let me tell you how FedEx has evolved to participate in other modes of transportation here in the U.S.

- Our FedEx Express air-ground system, now a global network, still offers overnight shipping within the U.S. as well as linking the American economy to 99 percent of the world's GDP.
- Our FedEx Ground and FedEx Freight networks use both road and rail to speed products from business-to-business as well as business-to-consumer services, which are essential in these days of Internet shopping.
- Our FedEx Trade Network business provides freight forwarding services around the world, combining air, ground and ocean shipping options tailored to meet the varying needs of our customers.

For intermodality to work, we need infrastructure that allows us to make the most out of the transportation options in a sustainable manner.

- We need the best air traffic control systems, so that more flights can operate safely in the congested air space and at crowded airports around the United States.
- We need well-maintained roads, so that the most direct routes can be operated efficiently, safely and swiftly.
- We need efficient sea and air ports, equipped with modern technology to speed shipments through these potential choke points and onward to the end of their journey.

All of this transportation must be performed in a way that fully utilizes existing and new assets, while protecting our environment and maximizing our natural resources.

FedEx Express and air cargo

In April 1973, FedEx launched a new air cargo service. That night, 389 Federal Express employees used 14 Dassault Falcon jets to deliver 186 packages overnight to 25 U.S. cities.

Our hub-and-spoke distribution system was one uniquely developed to deliver overnight express packages from one point to any other on the network. This capacity was unprecedented. Also, we created an integrated air-ground express network that was a first in the air cargo industry. And we understood at FedEx that information about the package is as important as the package itself, so we also originated the first tracking system to enable people to keep tabs on their shipments.

The company's creation was driven by the automation of society and the increasing use of computers and electronic devices for many different applications. There was a growing need to move small, important shipments randomly throughout the U.S.

Today, we have a fleet of over 660 aircraft including our new Boeing 777 freighter, one of the most efficient freighter aircraft in the world. We serve over 375 airports in the U.S. and abroad. On the ground side of the express service, we operate 47,000 surface vehicles. This includes the latest in all-electric and hybrid trucks, some of which transit the street of Washington each day.

FedEx Express carries an average of 4 million pieces and 12 million pounds of freight each day in our global air express system. Together, our 150,000 team members operate the largest express transportation company in the world, serving more than 220 countries and territories.

In addition to serving regular FedEx customers around the country, we provide air transportation services to the U.S. Postal Service, making us their largest single service supplier.

Aviation creates jobs, and this is certainly true for air cargo. My home town and the FedEx headquarters city of Memphis, Tennessee has recently renamed itself as “America’s Aerotropolis.” An aerotropolis is “aviation plus”: according to the Greater Memphis Chamber of Commerce, it is a city or an economic hub that extends from a large airport into a surrounding area that consists mostly of distribution centers, office buildings, light manufacturing firms, convention centers, and hotels, all linked to the airport via roads, expressways, and rail lines. For the greater Memphis aerotropolis, a primary element is the express and air cargo business of FedEx Express. This is supplemented by our trucking companies, FedEx Ground and FedEx Freight, traversing the three interstate highways which serve the city, plus businesses that are attracted to this combined transportation powerhouse. Memphis also has advantages in having five Class 1 railroads and the fourth largest inland water port. In Memphis, the Chamber of Commerce tells us, 10.2% of the work force is employed as workers in transportation, warehousing and utilities – the highest share among the top 100 Largest Metro Areas in the U.S. So we know transportation, and we know that air cargo services can be the centerpiece of a true intermodal system.

Air cargo pumps the lifeblood of U.S. technology from factory to warehouse to retail outlets to consumers. Within the U.S. and around the world, air cargo moves shipments that are compact, perishable and that have a high unit value – goods that need to be there now. Today’s air cargo moves both the tablets that consumers simply want now and the vaccines that people desperately need now.

International air cargo, including air express, is a \$78-billion business. It transports 35% of the value of goods traded internationally, worth some \$10 trillion, but only 2% of the tons moved. According to the International Air Transport Association (IATA), in 2010, the value of goods transported by air was \$32.78 a pound as compared to \$1.87 a pound by ocean. Air cargo is a critical part of the airline business, which is part of a value chain that globally supports 32 million jobs and \$3.5 trillion of economic activity.

Air cargo connects the U.S. producers to far-flung international marketplaces. While air accounts for just 0.4% of the tonnage of U.S. international trade, air freight makes up more than a quarter of the value of international trade, according to IATA.

Demand for U.S. air cargo services has been accelerated by the demand of Internet shoppers. In 2011, for example, 10 million customers spent \$1.25 billion on-line, conducting an average of 1.9 transactions each and spending an average of nearly \$125 each.

Critical Infrastructure for Air Cargo Services

To offer these air services, we need the infrastructure and public services associated with aviation. One government service that is critical to the safe operation of the U.S. aviation system is air traffic control. Today, the Federal Aviation Administration is responsible for the safe navigation of aircraft within the American airspace. Unfortunately, the basic design elements of the system have not changed significantly since its inception in the 1950's. To meet future demand, maintain safety and avert gridlock, the nation must deploy new technology, modernize procedures, add capacity and increase productivity. This initiative is called "NextGen," denoting the next-generation technology which it will feature.

FedEx Express is excited about the possibilities that the FAA's Next Gen air traffic control system offers U.S. airlines. This GPS-based system will enhance safety, reduce delays, save fuel and reduce emissions.

- For our operations, NextGen means less time sitting on the ground and holding in the air. NextGen technology and procedures can shave minutes off flight times, which translate into money saved.
- For our fleet and our crews, NextGen innovation and improvements can deliver an even higher level of safe operations. NextGen can provide air traffic managers and pilots with the tools to proactively identify and resolve weather and other hazards.
- For our nation, NextGen can make aviation even more environmentally friendly. Direct routing eliminates circuitous flight plans which waste fuel and energy. More precise flight paths and controlled descent will help to limit the numbers of people impacted by aircraft noise, a factor especially important to FedEx Express, so that we can be better neighbors while flying at night.

Another element of aviation infrastructure is airports. Adding runways in the U.S. has become a massively time-consuming effort, averaging 20 years from planning to pavement. However, within the next 10 years, the top twenty airports in the U.S. will become overly congested. While control of traffic in the air will help, new runways and facilities will still be needed and existing ones will need maintenance. The newest runway built in Memphis (dedicated in 2000), for example, is the World Runway, which is 11,100 ft. This allows our Superhub the ability to

dispatch fully loaded, wide-bodied jets that carry up to 25 per cent greater maximum payloads and fly non-stop to points halfway around the globe. Using this runway allows our B-777F's to reach Asian points such as our Guangzhou and Narita operations without stopping. In the end, sufficient tarmac is a *sine qua non* of U.S. air operations.

Finally, although you may not think of it as infrastructure, we need a more flexible and sustainable energy supply – biofuel for aircraft, electricity for delivery vans and natural gas for our long-haul trucks. I include it as “infrastructure” because it is a critical element that supports our industry, and this need extends to all modes, not just aviation. For FedEx, sustainability is a relatively simple concept: to connect the world responsibly and resourcefully. That’s why we focus upon issues like vehicle fuel efficiency, cleaner vehicle technologies, reducing aircraft emissions, and finding alternative sources of cleaner domestic energy, including renewables. For aviation, we want a jet fuel that can be used (without changing infrastructure) that is safe and delivers environmental, economic and operational benefits, such as supply reliability. FedEx Express has a sustainability goal, set forth in 2009, to get 30 percent of its fuel from alternative sources by 2030.

While we and other private sector actors will continue to seek sources of alternative fuels, we believe that the U.S. government has a role to play in encouraging the development of alternative aviation fuels. FedEx participates in the joint private-sector-government taskforce, Commercial Aviation Alternative Fuel Initiative (CAAFI). We strongly support the work of this organization, allowing both private sector actors and appropriate government agencies to come together to meet the goal of developing alternative fuel for U.S. airliners.

Other FedEx modes

Beyond express and air cargo, FedEx now has a portfolio of shipping services to move freight within the U.S. and around the world. Our two surface transportation subsidiaries, FedEx Ground and FedEx Freight, have become national operators, offering small parcel and less-than-truckload shipping options to businesses across the country.

One way we can help freight move around the U.S. is by maximizing our existing infrastructure. In 2011, 67% of all U.S. domestic freight tonnage moved by truck– that is 9.2 billion tons of freight. As transportation service demand has increased over the years, equipment standards for other transportation modes have been necessarily adjusted to accommodate more capacity (such as double-stacked rail containers). It is time to make adjustments to trucking equipment standards as well.

Less-than-truckload (LTL) carriers and many other companies, including both FedEx Freight and FedEx Ground, rely primarily on twin trailers to haul freight. In 1982, Congress fixed a standard of 28 feet for twin trailers that states must allow on their highways. Capacity expansion

opportunities for these types of trailers have not been adjusted for over two decades due to the Federal freeze on truck size and weight under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA).

FedEx strongly supports the proposal to increase the national standard for twin trailers from the existing 28 feet to 33 feet. This would not include an increase in gross vehicle weight, so it would not increase wear-and-tear on the already-taxed intrastate highway system. In fact it could reduce that burden by reducing truck miles and truck trips. The use of 33-foot twin trailers as compared to 28-foot twin trailers would allow a carrier, on any given lane, to grow the volume of shipments carried up to 18% before adding incremental miles. The use of 33-foot twin trailers was recommended by the Transportation Research Board in its Special Report 267 and also by the Energy Security Leadership Council. This solution to our infrastructure issues adds no weight to the current Federal 80,000 lb. limit.

Studies have shown that an increased trailer length to 33 feet will be as safe or even safer than the existing 28-foot length in terms of handling on the road. In pilot testing, our own drivers have told us repeatedly that they find them to be more stable. Plus, safety could be enhanced simply by reducing the trips and mileage driven.

As I've noted, longer trailers will mean fewer truck trips to move the same volume. This can result in a reduction in congestion. At a time when adding more lanes may be problematic given budget cuts, this is a way to help alleviate an acute problem without spending Federal dollars.

Similarly a reduction in truck trips would be environmentally friendly, saving on fuel and emissions from trucking. The EPA SmartWay Transport Partnership Program identified use of more productive vehicles as an effective emissions reduction strategy. Using FedEx Freight metrics as a baseline, we have estimated that, for the LTL industry alone, anywhere from 1.1 million to 3.2 million pounds of carbon could be saved, through a reduction in highway usage of 600 million to 1.8 billion miles and concomitant fuel saved estimated at 102 million to 305 million gallons.

Conclusion

Over the past 40 years, FedEx has remained both a driver and an indicator of the global economy, evolving and adapting to the modern world. FedEx was built upon innovation in transportation services and such innovation will continue to drive the FedEx business strategy culture.