UTC SPOTLIGHT CONFERENCE ON

TRANSPORTATION AND ECONOMIC COMPETITIVENESS

Introduction: thanks for invitation to kick off your two day deep dive into the goods movement issues that are so significant to the economic future of the country. Despite my background and my current role in public transportation, this is an issue I've been trying to get more attention on ever since leaving DOT in 2001, and I'm confident that if the leaders in the UTC's are turning their attention to freight, I expect to be hearing about new breakthroughs in our understanding of goods movement and the economy very soon. The field hasn't been at the academic forefront (or the front of mind for transportation planners) for a good long time. I wasn't even aware until recently that Yale, my alma mater, once offered the premier railroading program in the nation.

But for a long time, most of the focus has been on the movement of people—largely in our urban areas, whether by automobile, transit, bicycle or on foot. And I'd argue that as a result, we lost focus on something that is crucial to our economic growth and to our national competitiveness. As President Obama said to a group of business CEO's the other day, it's actually embarrassing to travel and compare our transportation system to other countries. The fact that our economy is rated well below the top ranks by the World Economic Forum can be attributed in large part to the condition of our infrastructure. While our overall economy still ranks 3rd, largely on the basis of our strong laws and transparency, our transportation system is slotted as 16th, just ahead of Belgium. With the investments that are going into place in the European Union and in Asia, it could only be a matter of time for our performance to fall even further. That's something to worry about a lot in terms of our global competitiveness. A strong transportation system supports manufacturing, lowers distribution costs and offsets lower wages as we compete to grow our exports.

Importance of Goods Movement: So I believe it's important that we pay more attention to goods movement as we plan our transportation investments and try to gain support for a continued national program. Given the lack of progress over the past decade, no question but what greater support is needed. I'm heartened by the proposal that USDOT and Secretary Foxx have put forward, the Grow America Act, even though the Congress hasn't exactly welcomed it with open arms. If you have had the opportunity to hear the Secretary describe their program, you would note that he always leads off with the idea that expanded national attention to freight is key to achieving his objectives for the program and for the nation.

I agree that this is a national objective—it's embodied in the Constitution, which singles out "Commerce with foreign nations and among the several states" as one of the primary responsibilities of the national government. Unlike many other governmental activities, goods movement is in fact properly addressed at a national level. Having raw materials and products move efficiently is a matter of end to end movement—not constrained by state or metropolitan boundaries, not looked at in the silos of individual modes, but as a total network, where the benefits of a geographic investment spread to all shippers and all consumers across wide areas. If the national government doesn't pay attention to how the network operates, it's not likely that hard pressed states and local governments will take this on.

Time for Action: The time is at hand when we should be dealing with the issues. In the next few years, as the economy picks up and we build out of the deep recession that began in 2008, we will find that we have a very thin margin of capacity to handle the volumes of freight that will begin to move. We have been able to keep the system fluid in recent years only because economic activity was depressed and demand was low. How long will it be before our systems begin to break down? I think we are already seeing that in the railroad industry. Despite record levels of private sector investment in rebuilding rail infrastructure, serve levels in recent months have sharply deteriorated, reflecting the new demand for shipment of crude oil by rail and the capacity absorbed by that movement. Certainly there are opportunities in all our freight modes to operate more efficiently, and to use technology as a tool, but there is a limit to what an old system can be expected to handle. Now, while volumes are depressed and our financial system is offering record low interest rates is the time when we should be investing. The

International Monetary Fund recently made that case as key to economic recovery, with findings that the economic growth inherent in immediate construction and long term efficiency would rapidly offset debt issued to pay for investment.

Population Growth Looking not too far ahead into the middle of the 21st century, demographers project that our national population will grow by as much as 100 million new Americans. Incidentally, this is well above the anemic growth in most developed countries-like the EU nations or Japan, whose economies are responding to the fact that their population has peaked. While it will need some greater attention to immigration policy, since new arrivals will constitute a lot of the growth, the prospect of more people and their need for food, shelter and goods means that there will be more freight to move. Each of us today accounts for 40 tons of freight a year, and the projections are that total freight demand by mid-century could be double today's volumes.

System Collapse: The choke points in today's systems will become total bottlenecks. We all know the points where today's highway system backs up, and truck movements are a key cause of that congestion, even though it is in the interest of truckers to avoid traffic, some conflict is inescapable. Our railroads have become very efficient movers of goods across long distances, both bulk commodities like coal or grain and higher value cargo that moves largely in double stack rail cars across the country. But the Achilles' heel of railroading is the point where trains must be rerouted to make connections, especially between railroads. Nowhere is this more apparent than in Chicago, the mixing bowl for most of our Class 1 railroads. No matter how fast freight might move across the piers in Los Angeles/Long Beach and onto rail for a transcontinental move, the freight car that arrives in the outskirts of Chicago may not be back on the main line for two or three days, and greater volumes will only make that situation worse.

Our ports are playing catch-up as the world's shipping patterns change. The super tankers of today and the new mega-container ships will be able to move across oceans and use newly expanded lanes in both the Panama and Suez canals, but most of our ports on the East Coast have yet to complete even the basic needs of deeper channels let alone the terminal facilities and feeder connections to move cargo away from the ports.

Our inland waterways are perhaps the least visible, but arguably among the most important elements of our transportation system. We can set aggressive goals for increasing exports as a means of stimulating economic growth but can we move the goods? Agricultural products are among those export commodities where there is an American advantage, and moving those products requires reliable barge service on the Mississippi River and its tributaries. When that system works, it can move truly impressive volumes of grain and other products, but key locks on the system will soon pass into their second century of service There are even a few locks that still operate with wooden gates like you would find on the Chesapeake and Ohio canal over in Georgetown that we preserve as an historic relic. The backup of traffic that occurs when a lock fails or when water levels fall is both monumental and indeed frightening.

So if it is important that we pay more attention to our freight assets, what are we doing about it and what can you do through your research to support good decisions. Three trends that have been developing over the past decade suggest to me that we can make progress—freight legislation, innovative projects, and industry support for appropriate investment.

Legislation: Suggesting that there is any legislative progress runs against the grain in terms of transportation as a whole, but freight has been somewhat of an exception in an otherwise depressing decade and a half. Two presidents and multiple Congresses have yet to enact anything that would measure up against the ISTEA and TEA-21 bills of the 90's, largely as a result of inadequate revenues to support existing surface transportation programs let alone break new ground. The bills in the 90's each benefitted from gas tax increases initially focused on deficit reduction but later converted into transportation revenues. The political will to achieve either of these goals seems to have disappeared soon after the turn of the century—a victim of no-tax pledges and decreasing trust in government decision making. There have been only two bills passed since TEA-21 was enacted in 1998. One, the SAFETEA-

LU bill of 2005, was cobbled together on the basis of fudged revenue estimates and an extraordinary number of Congressional earmarks. Its goal of spending down trust fund balances before a replacement bill came up for consideration was more than achieved. The new practice of "patching" the holes in the trust fund was the hallmark of numerous short term extensions and of the policy-rich but investment-limited MAP-21 bill passed in 2012 and currently being extended while Congress and the President defer to each other on how to finance a long term investment program. Between these two pieces of legislation, we did see the American Recovery Act of 2009 which put some temporary investment levels in place as part of its goal of stimulating the economy.

Each of these bills, while somewhat disappointing, did move the ball on freight issues, in part responding to needs, in part responding to advocacy from a growing number of freight interests, including CAGTC.

- SAFETEA-LU: PNRS, Borders and Corridors, Freight Intermodal Demo, Freight Capacity Building, NCFRP, Multimodal Commissions
- ARRA- Tiger Program
- MAP 21- Consolidated Borders and Corridors, Unfunded PNRS, Abolition of NCFRP on the negative side. More positive however were the freight provisions, even though they stemmed only from EPW and were less than multimodal
    - National Freight Policy
    - Freight Strategic Plan within 3 years
    - Freight Transportation C & P Reports
    - Designation of National Freight (Highways Only) Network
    - Data and Planning Tools
    - Encourage State Freight Plans (in addition to Rail plans) and Freight Advisory Committees
- Administration Initiatives

- NFAC to support MAP-21 Freight Provision Implementation, particularly the Freight Strategic Plan
- Delay on National Freight Network
- Call for PNRS Projects
- Grow America Act
    - 4 year $10B multimodal freight program (½ incentive, ½ discretionary)
    - National Freight Network
    - Freight eligible in new TIGER program
    - Restoration of NCFRP

- Congressional Responses (which must be reintroduced)
    - Senate EPW Bill
        - (6 years at current levels) expecting Senate Finance to find $$
        - Special Freight Investment Program 6 years $6B, formula driven, highway oriented
        - Mandatory freight plans and advisory committees
    - Senate Commerce Committee
        - Looking for multi modal approach
        - Joint Roundtable with industry and both Senate Committees
    - House Transportation and Infrastructure Committee
        - Special working group to examine freight—bipartisan membership from all relevant subcommittees]
        - Unanimous report calling for federal leadership and funding for freight
        - Enactment of WRRDA by near unanimous margins in both Houses

Based on the achievements of the past few years, we are at least position to develop significant freight legislation to enhance the federal role. I won't predict when such a bill will emerge, but am confident that goods movement will be a key component.

Innovative Projects: As with legislation, the quantity of output may not be what we need, but there have been projects of high quality that show what can be done to meet freight needs through partnerships between industry and government.

- The pattern for such partnerships was set in the 1990's through the development of the Alameda Corridor project to provide direct rail access for container movements from the Ports of LA/LB, authorized in Federal legislation but with notable leadership from the local entities.
  - Balance of national benefits in terms of better goods movement and local interest in reducing congestion by taking trucks off of local arteries.
  - Funding through a mix of sources, with key federal role facilitating project finance through guarantees and access to federal sources.
  - Project delivery in relative short time, continuing to deliver benefits even though the industry has undergone economic and technological change.
  - Financial projections met, federal financing paid off early.
- Subsequent innovative projects implemented under the TIGER program (Transportation Investment Generating Economic Recovery) which was authorized as a one-time effort under the 2009 ARRA (American Recovery and Reinvestment Act) but has been continued through annual appropriations ever since and probably into the coming year. Since TIGER funding is totally discretionary and unencumbered as to mode of transportation or type of project, the USDOT has been able to work with new partners to support key investments. Over several rounds of project selection, freight projects have typically received around 25% of the grants. Most projects have involved a mix of funding sources, with the TIGER money serving as the catalyst and the gap-filler to make the project work. Long term investments have brought better intermodal access to

ports from Duluth to Houston, from Bayonne to Oakland. Congested highway corridors key to the movement of freight have been improved. Funds went to several smaller railroads who serve to feed freight into the Class 1 system. And a few really significant projects were initiated, especially from the larger fund provide in ARRA. Some of these included:

- $100 million to the CREATE project to continue its work on streamlining freight movement through Chicago \
- Approximately $100 million each to freight corridors developed by the NS and CSX to improve access between east coast ports and Midwest markets
- And one that I like because I worked on it—the Colton Crossing project in California—a classic example of a local improvement with national implications that had been stalled for decades. Built in 1883 as a ground level crossing where the SP met the SF (today's BNSF and UP), there was a long history of dispute. In the early years, the Southern Pacific would park its locomotives in such a way as to obstruct Santa Fe movements, stationing Sheriff Wyatt Earp in the cab to assure that their trains got priority. When trains backed up, highway movements were also stalled. While cooperation had improved a bit since those days, by bringing railroads and local agencies together, the project to grade separate the railroads and eliminate the bottleneck has been completed. $34 million in TIGER money brought about a plan to produce what was thought to be an unaffordable $200M investment, which turned out to cost less than $100 M and is now generating the predicted national and local benefits to highway users that gave it a strong cost/benefit ratio, even stronger when the costs came down.

Industry Investments: Finally, I see freight improvements as an area where new financing ideas can be made to work and take hold even as the debate continues on how to raise the funds needed for a robust surface transportation program in an era of declining gas tax revenues. Because of the private sector nature of our freight industry, we see a willingness to invest where the transportation providers see an opportunity for more profitable operations. Some interesting examples to point to include

- The Class I railroad industry, which prides itself on its ability to internalize finance for its operational needs. The industry prides itself on the fact that they can produce as high as $25 billion a year to upgrade track, structures, facilities and equipment. In addition to these self-generated funds supporting their rights-of-way, the railroads have as I noted entered into public-private partnerships when elements of their projects produce benefits that are more for the public than for the railroads themselves.
- The railroads often point to the trucking industry with a charge that while rail pays its way, the truckers get a right-of-way courtesy of the public. Reams of data exist with contradictory conclusions about who subsidizes whom on our roadways, but the current position of the trucking industry as expressed by their trade association is that they would support a 10 to 15 cent increase in their diesel fuel tax if that would lead to improved conditions.
- The port industry advocated successfully for full allocation of the already-collected harbor maintenance tax to port improvements. This was authorized in the Water Resources Bill and this week's Omnibus Appropriation bill is delivering the first tranche of funds.
- And finally, as recently as last week, the barge industry successfully moved a 9 cent increase in their diesel fuel tax as a means of increasing investment in the inland waterway projects that are their lifeblood. The legislative machinations that brought this through the House and likely this week the Senate are too complicated to explain quickly, bringing to mind the old statement that the two things you don't want to watch being made are legislation and sausage. But whatever got it done, a fifty percent increase in annual investment comes a lot closer to meeting their needs.

Research Opportunities: So if there are factors supporting new national attention to goods movement (and you'll note I followed the old political adage—never put a promise and a date in the same sentence), what it might mean for University Research Centers, especially those which have an interest in freight? I hope first that you will speak up for renewal of the NCFRP program, which has excelled in producing targeted and useful products for policy makers and practitioners. And in terms of topics, let me suggest four areas that I would find interesting to know more about:

- Freight and the economy—I've spoken about how essential freight movement is to a strong economy, but we can always use better evidence, both of trends in this country and comparisons with our competitors.
- Project analysis—moving from the macro to the micro, I expect that a significant element in federal support will come through competitive discretionary funding, with a significant focus on the costs and benefits of the project at hand. Better handles on how to quantify benefits could be very useful to all of us
- Better understanding of freight dynamics—as the National Freight Advisory Committee pointed out in its recommendations, we need better data not only on what is moving but on how decision making occurs in the supply chain. There's a mismatch between the time horizons of public sector decision makers who build things and the managers of goods movement who can turn around their business models overnight. To do a decent job of planning public investments that will last for decades and through many cycles of supply chain changes, we need new planning tools and metrics.
- Workforce development—another concern raised in the NFAC report is the state of the transportation workforce. This total sector, with more than 4 million jobs ranging from airline pilots and bridge engineers to truck drivers and longshoremen, is facing a potential crisis. Recent research sponsored by USDOT, DOL and VA shows an expectation of a net 100% turnover in sector employment over the next decade, with only 10% of that number coming out of recognized pipelines. To focus only on one area, a recent survey showed that the average truck driver is now 52 years old. If we don't retool our educational and career planning models, we may see the system grind to a halt for lack of employees. Even though these are good jobs at family-level

wages, it's not what we are turning out. NFAC is now examining the implications of these findings on the industry's future, the barriers that are created by regulations and other impediments. We would like to know more.

Thank you for your attention this morning and I wish you well for the discussions over the next two days.