

As I said when I opened, I think that local port authorities have turned their backs on safety issues. I think they're more interested in real estate, money and moving containers. And they'd better take a better look at regional safety issues. And what has happened, the state regulatory agencies have moved in. I'm seeing it now in California, I've seen it in Washington, and they will continue to move into these areas. It is to the detriment of the local authority, because you'll get statewide rules and regulations that may not be adaptable to your particular port or area.

### **Recommendations**

We need to develop a land access policy relative to energy productions, and it must include all stakeholders.

Local port authorities ought to stop their infighting, and get together and decide that they are, once and for all, as entities, going to assume the role of local safety facilitators.

There needs to be developed, for each area, a general energy product safety plan, and a philosophy of how we're going to run the port from a safety standpoint.

Please let me remind you again that 85 percent of all container ships coming into our port complex have a hazardous substance on them.

Each port complex must have a port emergency response system. It is not good enough to rely on someone else's equipment. It is not good enough to not have mutual aid.

As you develop long-range plans, energy products issues must be considered, and they must be considered from an operator's standpoint.

Local port authorities must become involved in the pilot issue, the fire issue and the response issue. But above all, people like myself and other people who are operators also have got to stop complaining about all the regulations we have, clean up our operation, and cooperate with the authorities to make all port areas safe.

## **RESPONDENTS**

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### **HIGHWAY PERSPECTIVE**

**David J. Hensing, Deputy Executive Director  
American Association of State Highway and  
Transportation Officials**

Water transportation has been important over the four centuries since European settlement on this continent and obviously dominated transportation of both agricultural commodities and manufactured goods in the early period.

The U.S. has a system of about 3,000 miles of coastal waterways, and some 22,000 miles of inland waterways. 38 of the contiguous 48 states of North America are served by water transportation by one or both of these systems. We have 1,600 terminals on the shallow draft inland waterway system and 188 deep draft U.S. ports on the Atlantic, Gulf, Pacific, and Great Lakes coasts.

Even with the advent of new forms of transportation (railroads, movement of motorized trucks over highways, air cargo), there still is a vital role to be played by water transportation given its unique characteristics of extremely high capacity and low unit costs.

### **AASHTO 2020 Consensus Transportation Program**

About three years ago, at the time of this meeting in 1987, there was a session involving several members of

AASHTO and some others that led to the creation of what we call the AASHTO 2020 Consensus Transportation Program. The stimulus at that time, even though the 1987 Surface Transportation Act had not been passed, was in looking ahead a few years beyond that year's reality.

Underpinning surface transportation debate was that the interstate highway system was in fact anticipated to be completed. It necessitated a more fundamental and a more strategic examination in the relative roles of the federal, state and local government in surface transportation. This strategic examination was basically the stimulus that created this program and allowed the success of the fundamental concept, to take a look at the long range future, to look out to the year 2020. That's the name of the AASHTO program. It was also to engage in substantial outreach and consensus building as part of that effort. Those two characteristics clearly lend themselves to the other modes as well, and so very quickly the program embraced rail, aviation and water transportation.

Principal responsibilities for water transportation were assigned to the Standing Committee on Water Transportation, (one of the five modal standing committees within the Association). The committee created the *Water Transportation Report: A Summary of Issues Affecting the Nation's Water Transportation System* (published in October of 1989).

Some other important information was provided by a special committee of the 2020 process structure called the Modal Technical Advisory Committee or MTAC as we came to call it. It conducted a survey in 1988 and I'll be talking about some of the results of that survey in a moment.

I'd like to establish a little bit of a context here with a couple of generalizations that I think most people in this room would agree with.

### **Decline of Investment in Transportation Infrastructure**

One of those is that national investment in transportation infrastructure generally declined steadily since the early 1960's at least. Dr. David Alan Aschauer estimated "...over the last two decades, non-military public investment, as a fraction of GNP, was only 65% of its average level during the preceding two decades, falling from 3.7 to 2.4%."<sup>1</sup> Given that, another element that I think needs to be acknowledged is the growing cognizance, certainly within our association, of the interdependence of the modes and the need to focus on how they connect one to another and how those interconnections and interfaces can be handled better. We recognized this officially a few years ago when we created a national special committee on intermodal issues, which has been participating in this process as well. Given those general assertions then, let's look at inland waterways.

Of the lock-chambers that are used by in the inland waterway systems about a third of those lock-chambers are twenty years old or less; however, over 40% of them are 50 years old with a median age of about 35 years, sort of a reflection of decline in investment generally.

Looking at the deep-draft ports, which is really the focus of this presentation, we have parallel deterioration in terms of port facilities generally, but this has been compounded and made more complex by some technological changes: the rapid growth of containerization and the advent of very large vessels.

The latest generation of containerships has a capacity of 4,500 TEU's, that's 20-foot equivalent units, and that's over four times the size of a typical containership of the early 1960's. These new ships require up to 50 acres of upland support area compared to about 12 acres for smaller vessels. We have bulk carriers now that handle 100,000 dead weight tons and these are becoming increasingly commonplace in our ports and harbors. These larger vessels need more berthing area, deeper channels, and much more shore-side infrastructure.

The economics of operating these extremely large vessels require shorter port times and fewer port calls which exacerbates the demand on the ports that are called upon, focusing more traffic on a fewer number of ports. These ports are usually in larger metropolitan areas where construction costs and land availability is much more difficult.

### **MTAC Study**

The Modal Transportation Advisory Committee did a needs survey in 1988 on highway facility needs for ports and harbors across the country. In response to that survey, some 32 states plus the District of Columbia responded and, of those, sixteen states indicated substantial needs that had not already been accounted for. Other surveys of estimates of needs supported that process, in total they amounted to about 1,416 lane miles of improved or added facilities that have a total cost nationally of a little bit over 3.06 billion dollars. A third of that need was on the interstate system and two-thirds of that was on non-interstate state highway facilities. Distributed among metropolitan areas as opposed to world port areas, 80 percent of the dollar needs were in the metropolitan areas and only 20 percent in rural in terms of dollar needs; however, in terms of lane mile needs, a very different distribution of 40 percent metropolitan and 60 percent in rural area was the result.

This information, along with a lot of other analysis and evaluation of the entire picture, led to a series of recommendations on a number of topics including disposal of dredge materials, the waterfront development problem -- mentioned by one of the speakers, research development technology, and several others. One of those was on the subject of intermodal connections, the subject of our topic here. It's a very brief recommendation that came out of this and appears in this report. I'd like to take a moment of your time to read it to you in its entirety:

The nation's ports had 1.8 billion long tons (2.08 billion short tons) of cargo annually. Their ability to sustain this activity depends not only on channel depth, berth, length, and on facilities available to handle cargo, but also on the landside connections through the nation's highway and rail networks.

Significant landside access improvement needs have been identified for ports. These needs are concentrated in urban areas and non-interstate highways.

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<sup>1</sup>David Alan Aschauer, *Public Investment and Private Sector Growth: The Economic Benefits of Reducing America's Third Deficit* (Washington, DC: Economic Policy Institute, 1990, p.2.)

Improvements to both highways in rail access to ports is necessary to alleviate traffic congestion and speed the flow of cargo through the ports to its final destination.

Containerization of goods for shipment has placed special demands on port facilities, and supporting transportation facility systems.

Increased investments are required for landside facilities, on-dock rail-lines, and large storage areas, cranes, and so forth to permit rapid movement from ship to intermodal connections.

In the rural areas, large volumes of bulk-products rely on rail and highway access to the ports to permit timely distribution to product users and to allow for efficient movement of export products.

To summarize, the AASHTO intermodal connection recommendations reasoned as follows:

AASHTO urges the federal government to recognize the need for landside access improvements to our nation's ports. The existing funding services are inadequate to meet current highway/port and rail/port connector needs.

An integrated surface transportation program must consider port-landsid access improvements as part of the federal funding program for highway and rail transportation modes.

#### **RAILROAD PERSPECTIVE**

**D. Henry Watts**  
**Executive Vice President - Marketing**  
**Norfolk Southern Corporation**

I would like to try and contribute by enlarging on the issues at hand with some rather specific observations. First about the private industry sector and secondarily about the East Coast.

#### **Private Industry Sector**

Certainly we all know why we're here, and the great economical globalization that has occurred in the last twenty years. We now find ourselves -- Norfolk Southern Corporation (basically an East Coast railroad or Southeastern U.S. and Midwest U.S. railroad) with 20 percent of our overall revenue coming from international traffic.

We have a service to six ports on the East Coast. On the Gulf Coast, we serve the major ports in Mobile and New Orleans. Our principal bulk cargo is coal.

We have a break-bulk commodity pier that we own and operate in Norfolk. In addition, we have vast containerized operations which really are the new kid on the block. I understand the concern about containers getting so much attention, but it's just a little bit like intermodal and the railroad business. That's the growth part of the business and that's the part of the business for us that requires a great deal of attention and nurturing.

I'm often asked the same question (in a different guise) that was posed this morning by our own management; "why do you pay so much attention to container and intermodal businesses, when in fact, it only represents about 15 percent of our revenue stream?" That's because it's a very large growth opportunity.

We serve not only the ports that I mentioned in the Atlantic and the Gulf, but also numerous river terminals at numerous places on the railroads and we serve Great Lakes ports.

#### **Bulk Cargo Business**

Starting with the first of these and talking about private sector investment and landside infrastructure operations, I would start with the bulk business, the one we've been in the longest in the railroad, the export of coal, which is a very important business to us.

In 1990, we loaded about 40 million tons of coal at Lambert's Point, Virginia, which is in the port confines of Hampton Roads. That is a private terminal; we operate it totally. We coordinate the many activities with the port people and with various agents within the port complex. We also interface with the Virginia port authority which operates all the non-bulk businesses except our break-bulk terminal called Lambert's Point, within the general port area.

#### **Coal Support Services**

Coal is a very important business on which we are spending each year in the neighborhood of 100 to 200 million dollars for our coal support services. Everything from infrastructure in terms of upgrading our track, to cars and locomotives required to move the coal and to port structures themselves as it relates to our coal loading pier at Hampton Roads.