

TRANSPORTATION SECRETARY ANDREW H. CARD, JR.
NATIONAL TECHNOLOGY INITIATIVE
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SEATTLE, WASHINGTON

What we are doing here today in Seattle is extremely important. This nation far too often has failed to turn its scientific excellence into marketplace winners fast enough. As one expert summed up the situation: "we're Olympic gold medalists in scientific discovery, but also-rans in the race for new markets."

If we as a nation are truly going to succeed in today's competitive global economy, we must first develop new technologies ... figure out how to use them to meet consumer demands ... then market them *and* make them an effective contributor to the world economy.

This is a tall order, but as scientists, inventors, and entrepreneurs, you are used to making the impossible happen.

As Secretary of Transportation, I am especially aware of how transportation technology is critical to our nation's productivity and our economic well being. Nearly one dollar out of five spent in the U.S. annually goes to transportation related products and services -- amounting to about \$800 billion a year.

New marketable technologies are needed as never before to promote everything -- from traffic congestion relief, to fuel efficiency, to environmental quality and improved safety.

We at DOT, of course, have not been sitting idly by.

We have had scientific research and development -- in partnership with the private sector -- as one of our cornerstones since the creation of this agency 25 years ago. And with the passage of the new surface transportation act, which further encourages technological research, DOT will be even more involved with the private sector in commercializing transportation technology.

And let add here, that yesterday, our Federal Transit Administration gave a \$9 million grant to the Transportation Research Board. Its purpose is to launch a private-public initiative that will address the short-term research needs of the transit industry.

DOT does more than give grants, however.

Our labs and technology centers -- such as the FAA's Technical Center in Atlantic City, New Jersey ... the Turner Fairbank Highway Research Center in McLean Virginia ... and the John Volpe National Transportation Systems Center in Cambridge, Massachusetts -- are

today working closely with hundreds of private firms in finding marketable solutions to difficult transportation problems.

The FAA Technical Center especially has been active in bringing in small firms to utilize its labs and technical expertise. One company -- Adams Rite, Inc., of California -- came to the FAA Center to use its wind tunnel and other sophisticated testing equipment to develop a new smoke evacuation valve. Another company will soon be working with FAA scientists in the creation of electrically, conductive asphalt-pavement -- in the hopes of creating runways that will de-ice themselves.

An additional product coming out of our labs -- in this case from the Volpe Center -- is the DOT Aircraft Situation Display, which is outside in the display area. Here, real-time flight data from 20 FAA air traffic control centers and various radars are fed by a satellite communications link to the Situation Display system wherever it's installed.

Another way we assist small businesses in the commercialization of new technology is through our Small Business Innovative Research Program. Here, in Washington State, we are involved in a host of projects -- especially those concerning transportation safety.

Failure Analysis Associates of Redmond, for example, is developing for us a sophisticated inspection technique to assess damage to insulated railroad tank cars. While *Scientech, Inc.*, of Pullman is busy working on a novel means to detect explosive vapors in baggage and other carry-on materials.

The DOT has also been busy working with universities in the Pacific Northwest in the development of advanced transportation technologies.

The University of Washington -- which leads a consortium of 6 schools constituting the Transportation Northwest Regional Center known as *TransNow* -- has been quite active in intermodal transportation. One project the University, *TransNow*, and the Burlington Northern Railroad have teamed up to explore, involves the creation of a computer-based system to facilitate double-stack loading of containers on trains.

One of the brightest hopes we have for reducing congestion and improving safety and efficiency on our nation's highways involves the development of "smart cars on smart highways" or Intelligent Vehicle Highways Systems. And Seattle -- especially with the help of the *Washington State Transportation Center* -- is in the forefront of bringing government and business together to explore and apply IVHS technology.

One project -- called *Traffic Reporter* -- involves the use of some 1100 roadway sensors connected to a single mainframe which can be accessed by personal computer. Its purpose: to show drivers and others a real time display of traffic speed throughout the Seattle freeway system.

Another program -- named *HELP*, for *Heavy Vehicle Electronic License Plate* -- involves the DOT, the Department of Transportation of Washington and sixteen other states, along with industry and other representatives, in the development of a new efficient way to monitor interstate trucking.

Specially equipped trucks traveling from British Columbia southward along I-5 to California, and then eastward along I-10 to Texas, can now drive the entire way without having to stop at weigh stations or ports of entry -- all the information will be collected electronically. What this means for the industry is quite clear: lower transportation costs and quicker deliveries.

IVHS technology is being applied to a variety of other transportation needs here in Seattle and elsewhere. But I won't say any more because *Paul Bouchard* -- the Chairman and CEO of *IVHS Technologies, Inc.* -- will be talking to you this afternoon. I just met with Paul the other week on a key project he was working on --

equipping *Greyhound* buses with special radar units to provide collision-alert warnings to drivers.

Another technology the DOT has been actively promoting for wide-spread commercial use is the Global Positioning System or GPS -- the very same system which was a navigation tool for our forces in Operation Desert Storm. GPS now makes it possible to locate any vehicle, plane, train or ship with an unprecedented degree of accuracy. And as the private sector becomes more familiar with the uses of GPS technology, so too should its commercial applications become more clear.

I could continue to give you more examples of how we at the Department are working on the transfer of technology to the business community, but let me stop here.

In closing, let me remind you that our role -- government's role -- is to help with stimulating and coordinating R&D, conducting demonstrations and developing national standards. It's up to you, however, to successfully carry the ball on commercializing these and all the other technologies represented here today.

I encourage you to take this opportunity seriously and to make the most of it.

And I encourage you to attend the upcoming *Pacific Rim Transportation Technology Conference* being held here -- in Seattle, July 1993. It's going to be a major event and I especially want to thank the city of Seattle for hosting it. Hope to see you there!

Thank you.

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