

**Secretary of
the United States
Department of Transportation
Speech**

January 8, 1995



U.S. Department of Transportation



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Thank you, Dr. Gibbons, for the introduction.

This is the one of the more momentous gatherings of our profession, so I appreciate having this forum.

First, congratulations on your 75th birthday. I am from the baby boom generation, which begins turning 50 this year, and I'll tell you -- 75 doesn't look so old!

This year marks another important milestone for our transportation industry. It's the 40th anniversary of the law creating the Eisenhower Interstate System.

In the 1950s, there were 60 million vehicles. Americans couldn't travel from one state capital to the next very easily. There were traffic jams. Almost 40,000 people a year were killed on the roads (which is about how many die today but with triple the number of vehicles).

So, President Eisenhower asked the nation a question: If we have a congested and unsafe and inadequate system, how can we improve it so that in 10 years it will fit the nation's requirements?

The interstate system was built because this country set a goal. We put manpower and money behind something we wanted for the good of the nation. It was because of that commitment, an obligation our leaders felt they had to the next generation, that we have today the finest interstate system in the world.

Every time this country has set a national goal . . . and the American people have supported it . . . we have moved forward as a country.

When John Kennedy called for America to land a man on the moon in a decade, 'we did.

I believe it's time we set a new goal for our surface transportation. We ought to ask the same question President Eisenhower asked: how do we prepare for the next decade?

In the past 10 years, we've seen a 30 percent increase in traffic. And when my five-year-old daughter starts driving in the next 10 years or so, she'll be seeing 50 percent more cars on our roads. She'll see freeways as parking lots.

And look at what traffic does to us -- today.

It causes stress. Commuting two and three hours a day takes valuable time away from Americans, who could spend it on the job ... or at home with the kids . . . or exercising . . . or reading.

And think about personal safety. How would you like to be in an accident, to be injured, and bleeding -- and waiting for an ambulance to get through the beltway at 4:30 in the afternoon?

And what about costs. Businesses lose \$40 billion a year due to congestion. Here in Washington, congestion adds \$1,500 to the cost of driving. As you know, in this town, we're in a national debate on how to cut taxes -- and where. Well, why don't we start with cutting our hidden \$1,500 congestion tax.

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Now, it's Our turn to commit to building the next frontier in surface transportation. And that frontier will be in the information age.

If tens of millions of Americans can surf the information

super highways, why can't 175 million drive on high-tech highways?

SLIDE ON

SLIDE: NATIONAL GOAL

So, today I am setting a national goal: To build an Intelligent Transportation Infrastructure across the United States, to save time and lives and improve the quality of life for Americans.

Since I am a believer that we do what we measure -- just like we got to the moon because we decided to go to a specific measurable place -- let's set a very tangible target that will focus our attention on where we have the greatest challenge -- cities and suburbs.

SLIDE: MAP

I want 75 of our largest metropolitan areas outfitted with a complete Intelligent Transportation Infrastructure in 10 years.

And let us make a similar commitment to upgrading technology in 450 other communities, our rural roads, and interstates, as the need warrants. We will measure our progress, and report on it annually. I want the U.S. to become the world leader.

I am calling this initiative Operation Timesaver, because it will reduce the travel time of Americans by at least 15 percent, whether they drive a car, or ride a bus train or subway. For Americans who commute one hour a day, that's an extra week of vacation saved every year.

SLIDE OFF

We must do in surface transportation what aviation has done. We've only built one new major airport in this country in a generation (I know it well), yet today we're landing sometimes twice as many planes as in the '60s and '70s, because we pushed the envelope . . . we learned how to manage airspace and landing tolerances . . . we worked to squeeze more capacity . . . and we brought in GPS, and doppler weather radar, and airport surface detection systems. We need to do the same on our roads and highways.

Our goal is ambitious, and it will require that all of us -- local, state, and federal officials and the private sector -- to form a solid partnership.

SLIDES ON

SLIDE: NAMES OF GROUP

I just had lunch with heads of key transportation groups; trade organizations; and city, county, and state associations to challenge them to form a coalition to help our nation achieve this goal. They're here now, and I appreciate their presence and their broad-based support for this effort.

SLIDE OFF

I'm coining a new term today -- Intelligent Transportation infrastructure, or ITI.

Let me use an analogy to explain it. I once had an old stereo system that had speakers from one maker . . . a turntable from another . . . a radio and cassette from another . . . each piece came with its own remote control, which gave me a lot of remote

controls, but no ability to control the system.

That's very different from the entertainment center I have now that has many different pieces all capable of talking to each other . . . smart enough to know when you turn on your radio, to turn off the CD player . . . and all operated by pne remote.

What communities have today are a number of components to control traffic -- be it street lights, toll booths, and operators who dispatch buses -- but like my old stereo system -- they aren't linked. They aren't talking to one another. So we have a lot of remote units, but no control over the whole system.

For months, Dr. Christine Johnson who has spearheaded this effort for me, has worked with numerous groups to identify what components should make up the IT1 in our targeted 75 metropolitan areas. We have concluded nine will be necessary.

There isn't a community in the country that has all nine. Atlanta comes the closest, as it prepares for the Olympics. Many cities have some components, but the components aren't linked.

I'd like now to unveil the nine components:

First, we need smart traffic signal control systems, that sense how heavy traffic is, and adjust automatically according to traffic volume. Tomorrow, I'll be in Lexington, Kentucky, to look at their computerized traffic system, which has reduced stop and go traffic by 40 percent.

Second, we need freeway management systems, where communities meter cars entering freeways with signals on ramps. This is not new technology. We've had it in for years. But

usually the signals aren't linked to any other system, so they don't know if there's been an accident. In Minneapolis, using a linked system, metering has increased freeway speeds by 35 percent, and reduced accidents by a quarter.

Third, we need transit management systems. There are 60,000 buses in this country, and roughly 11,000 now or will soon have GPS receivers in them, that lets a control center know their location, monitor their movements, and adjust schedules accordingly. Denver has taken a lead in this -- with 800 buses tied to satellites. Buses in Baltimore and Milwaukee and soon Portland are being outfitted, and one day maybe all 60,000 will be on line.

Fourth, cities need incident management programs, because 50 to 60 percent of congestion is caused by accidents, or stalled cars, or some other incident. Communities that monitor roads are able to remove stalled vehicles 50 percent faster. A few months ago I was in San Antonio, helping inaugurate their new Transguide System.

Fifth, we need to collect tolls on roads and bridges electronically. Currently, 12 transportation authorities do this, and the results are good. On the Tappan Zee Bridge in New York, they replaced eight toll booths with five electronic lanes, and traffic went from a crawl to 25 miles per hour.

Sixth, are electronic fare payment systems. These, too, have been in use, but now they're becoming the American Express of transportation. You won't be able to leave home without them,

because with the same card, you'll be able to pay for parking at the station, ride the bus or train, or pay for the trip through the toll lane.

Seventh, are railroad-grade crossings. Last week, I was in Fox River Grove, Illinois, where seven children died last October when their school bus was hit by a train. This tragedy ought to be a national wake-up call on the importance of linking systems.

Eighth, are emergency response providers. Houston is installing a new system that will let emergency vehicles control street lights. If a traffic light is about to turn yellow, the emergency driver can hold it on green until he clears the intersection.

Ninth, and finally, communities need traveller information systems. It's not enough to inform system managers. We have to provide information to the users, who make their own decisions.

The public will use up-to-the-minute information. In Seattle and Boston, 30 to 40 percent of travelers adjust their plans based on what they learn from the information centers.

We in the federal government will do our part to make this happen. Last year, I stood before this audience and awarded the national ITS architecture contract. The outlines of that architecture have emerged to the point that priority standards have been identified.

Today, I am announcing the award of five contracts to standards development organizations to begin fast tracking the development of those standards. They are: AASHTO, IEEE, ITE,

ASTM, and SAE.

I know mayors, governors, and police chiefs need to see something to make the kind of decisions we're asking them to make -- they need to see the goods. So within the next month, we'll announce a solicitation for the selection of two or three model sites, for the full deployment of the ITI. They'll serve as examples for the rest of the country.

Finally, we'll make a significant investment in training, on the order made when we built-the interstate system. That is something Administrators Linton and Slater are working on and have committed to. We'll retrain our field people . . . expand their technical capacity . . . so the civil engineers can become electronic and communication experts.

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Now, as a former mayor and state legislator, I know what questions are on your minds.

What will the ITI cost? Who will pay for it? Are we supposed to buy computers and quit filling pot holes?

Let me answer with this observation.

If you had a brand new metropolitan area the size of Washington, with no component of the infrastructure at all -- the cost to install it would be about \$300 million. That's roughly the cost of six or eight miles of urban freeway, or a large bridge.

Fortunately, the reality is that most cities and rural communities already have many of these elements in place. It's

really a matter of connecting them. And it's a matter of buying smarter when we replace or upgrade equipment.

I'm calling on transportation policy makers and implementers to be more strategic in their investments.

SLIDE ON

SLIDE: BAR CHART

Think of this. To stay even with the growth of vehicle miles travelled, we predict today that we would need to build 34 percent more highway capacity. Over the next decade, for 50 cities, that would cost \$150 billion. Currently, we're building less than 60 percent of this.

For the same 50 cities, implementing an ITI, from virtually scratch, would cost \$10 billion. But, it would buy two-thirds of the capacity needed.

\$10 billion dollars vs. \$150 billion. I'd say the choice is clear.

SLIDE OFF

There are federal dollars to help pay for this strategic investment. The federal aid that states receive can be used to build 100 percent of the infrastructure required by the ITI. Many states are already tapping this, and I encourage every state to do the same.

And we must be even more creative by inviting the private sector to play a role.

Road building is not a government monopoly anymore. Those days are over. Missouri and Arizona have found private sector

partners willing to pay for infrastructure in exchange for right of way access.

This is the way of the world. When I was in Indonesia in November, Minister Haryanto told me his goal is to have 40 percent of their infrastructure projects built with private funds. There's no reason we in America should have only 1 percent private sector participation.

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Let me end on this. Our world is changing at an extraordinary pace.

Ten years ago, who would have imagined that Americans would be calling on cellular phones to get real time traffic information and route guidance? Or having information faxed to their homes or to hotel rooms of travellers? Or sent to their internet address?

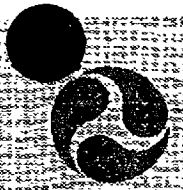
Drivers and passengers of the future will be global communicators. The vehicles of the future, whether cars, planes, or trains, will have state-of-the-art communications system. We must ensure that our roads and highways and transit systems are able to keep pace with them.

But it will happen only if we commit to our national goal -- and to build across the United States the Intelligent Transportation Infrastructure of tomorrow.

Join me in taking on this challenge and making our vision a **reality**. Thank you very much.



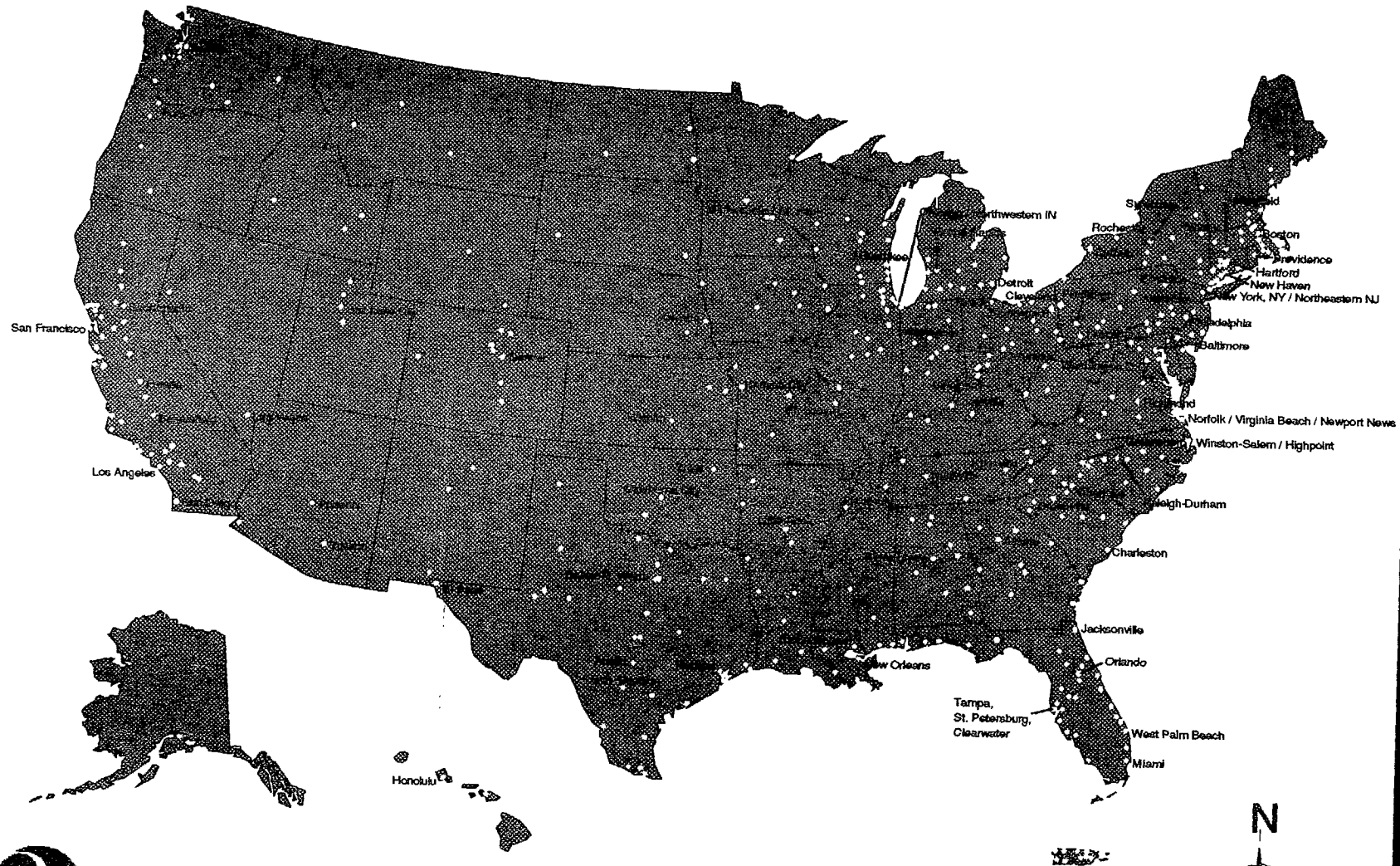
The National Goal



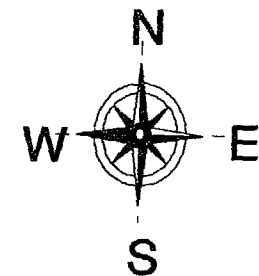
“To implement the Intelligent Transportation Infrastructure (ITI) across the U.S. within a decade to save time and lives and improve the quality of life for all Americans.”

Intelligent Transportation Infrastructure

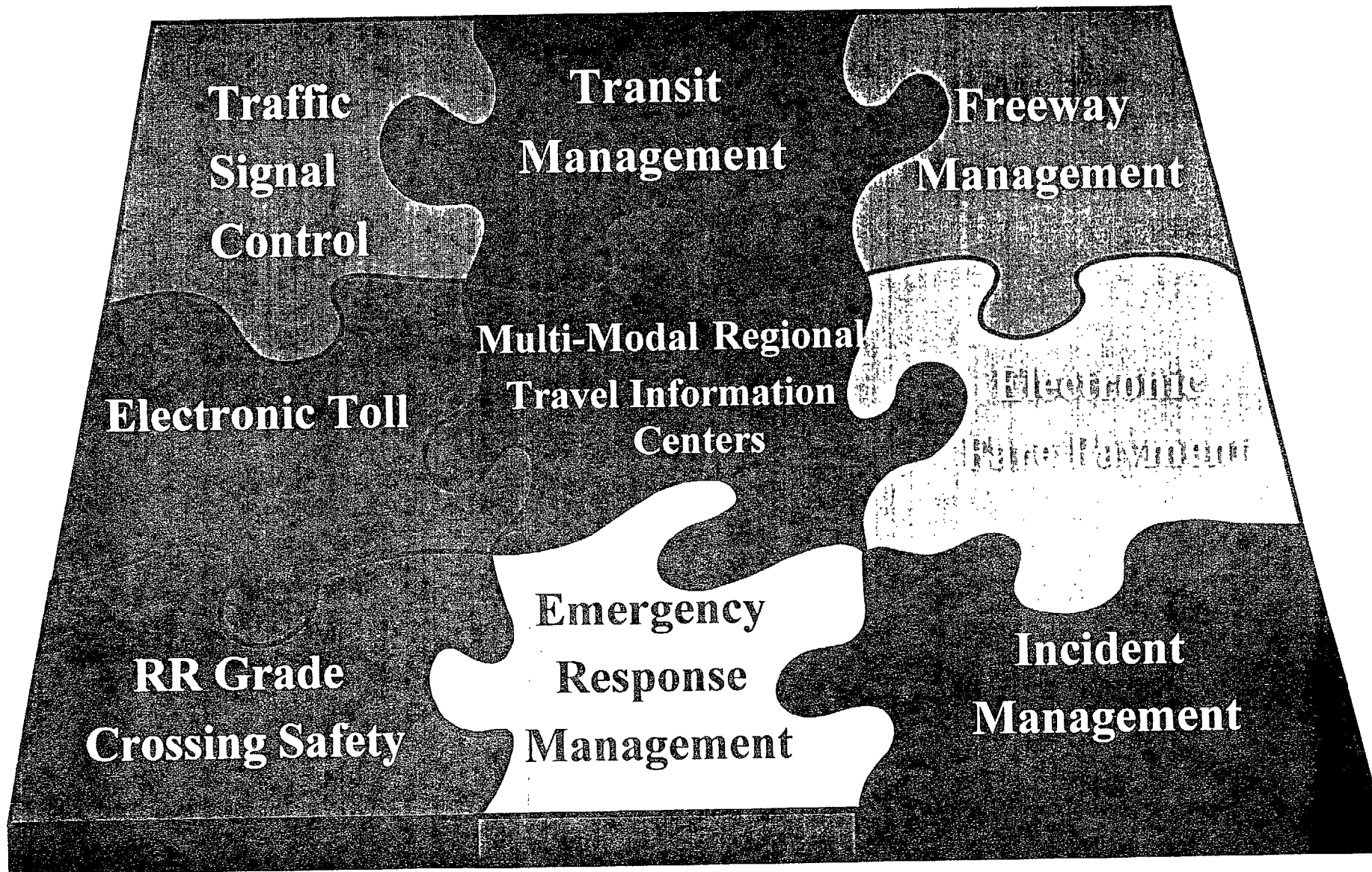
Urbanized Areas



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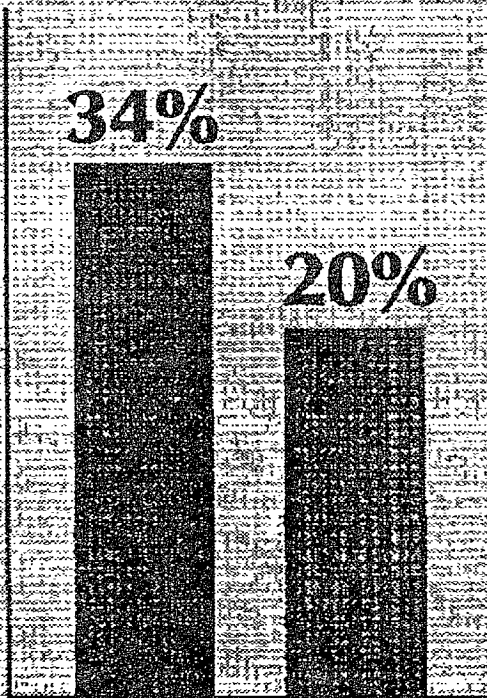


Intelligent Transportation Infrastructure (ITI)



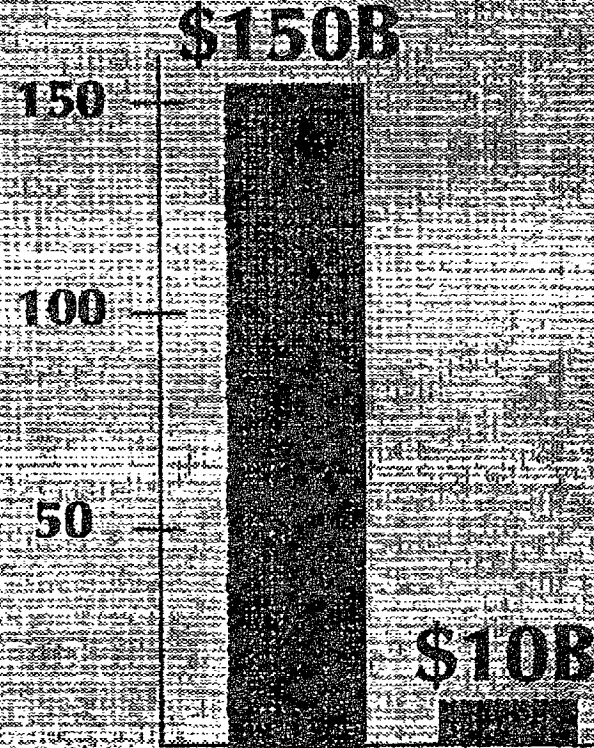
ITI Is a High Payoff Investment

Capacity Increase Over 10 Years



Build Roads **Build ITI**

Cost of Options



Build Roads **Build ITI**



Partners with DOT

- ◆ **ITS America**
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- ◆ **National League of Cities**
- ◆ **National Conference of State Legislatures**
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