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Folder Title:
National Technology Initiative 9/25/92 [OA 5813] [2]


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THE WHITE HOUSE

WASHINGTON

12 SEP 24 1992
September 24, 1992

MEMORANDUM FOR DANIEL B. MCGROARTY

FROM: STEPHEN G. RADEMAKER 
ASSOCIATE COUNSEL TO THE PRESIDENT

SUBJECT: Presidential Remarks: National Technology Initiative

Pursuant to Phil Brady's request, Counsel's Office has reviewed the above-referenced matter and has no objection, subject to the changes indicated on the attached text.

Attachment

cc: Phillip D. Brady

PRESIDENTIAL REMARKS:

(Grady, 9/22/92)
NATIONAL TECHNOLOGY INITIATIVE
CHICAGO, ILLINOIS
FRIDAY, SEPTEMBER 25, 1992

23 SEP 23 10:30
Thank you, Governor Edgar, for that introduction. At a certain convention I attended last month in Houston, an 82-year old American named Ronald Reagan said something very revealing about our country. "Like most Americans," he said, "I live for the future."

It is that spirit which defines America, and it is that spirit which brings us together today.

A few weeks ago in Detroit, I presented my ideas for an Agenda for American Renewal. ^{My} ~~That~~ Agenda is guided by my fundamental belief that the most important challenge we face as Americans -- the defining challenge of the 90s -- is to win the economic competition.

That's what our future plans must be all about. Getting ready to compete in an increasingly interdependent world. Our world is tied together as never before by new technology and new information systems. It is linked in seamless competition by the free flow of capital across borders. And, most importantly, it ^{is} filled with new promise and new opportunity because of the explosion of new freedoms and new markets in places where the light of liberty had never before dared to shine.

Some will tell you that America is in trouble in this new world of opportunity. But I have a simple vision -- and that is to compete, not retreat.

In order to win that economic competition -- in order to win the peace -- we must prepare to compete. We need an integrated

strategy -- not one that places economic policy and foreign policy and domestic policy in three different boxes --because, in fact, they are related. My agenda ties them together, because that's what's required to make America safe and strong.

My strategy is based on opening markets, on preparing our workforce, on sharpening our competitive edge by investing in the future, on creating opportunity by training our workers and fixing our health care system, and on rightsizing government -- by cutting spending and holding the line against taxes.

That strategy is not without controversy. Some want to close access to our markets, and risk future growth in exports. Some in the Congress are today sacrificing our investments in the future to the irresistible appeal of spending on current consumption. Some believe that higher taxes will give us the money to have the government take over America's investment strategy. I want to talk to you today about which strategy will work for America.

Let's be clear about one thing: despite what the pessimists say, we have begun to succeed already in opening markets and becoming more competitive. Just look at our export performance over these past four years. We have increased exports by 40%. We have gained worldwide market share in manufacturing output. In just these last four years, our exports to Japan have grown 12 times faster than our imports. So we can win.

But in order to do so, we must sharpen the competitive edge of American business by investing in knowledge, in new ideas, and in the technologies we will need to compete. That is a key part of my

agenda. This should be no surprise, because knowledge is an historic American strength, and we must build on our strengths.

New knowledge and new technology will give us the chance to increase productivity -- to help the economy grow -- to create jobs. For proof of the relationship between technological success and job creation, we need look no further than here in Illinois. 588,000 jobs in this state are tied to high technology -- that's over 11 percent of Illinois' work force. Illinois is America's number one manufacturer of telecommunications equipment. So winning the race for new ideas, winning the technology race, means jobs for Illinois, and jobs for America.

By every measure, the United States leads the world in the generation of new knowledge. We have produced the most scientific literature, the most new patents, the most Nobel prizes. We cannot keep that lead without investing in new knowledge -- so my budget for this year represents a 35% increase over 1989 in basic research.

But basic research is only half the story. For America to lead, we need to take our ideas from the laboratory to the marketplace -- and do it more quickly. And that is where this Administration is making new strides.

Two years ago, we pulled every Federal agency together to launch a new program to develop the supercomputers of tomorrow -- computers 1000 times more powerful than today's -- within four years. Our vision is a Cray the size of a McIntosh -- a supercomputer you can put on your desktop.

We also proposed a nationwide network -- an information backbone that will transmit 1000 times more information than we can today in one second. This year, we've proposed over \$800 million, a 23% increase, for this High Performance Computing and Communications initiative.

Last year, we launched another crosscutting technology plan -- an investment of over \$1.8 billion in the materials of tomorrow. These new kinds of materials will help us make products that are stronger, lighter, and faster -- everything from cars to airplanes to military equipment. You've heard of "planes, trains, and automobiles" -- we'll be more competitive in all three with the investments we are making today in the development of advanced materials.

And that's not all. We've launched a \$4 billion ^{research} program in biotechnology -- and proposed to knock down the regulatory barriers that might prevent technologies in this area from helping us to cure disease, improve agricultural performance, and clean up the environment.

We've turned some of the expertise at the Federal labs toward the task of cleaning up the legacy of the Cold War -- forty years worth of accumulated environmental problems left from making the weapons that defended freedom around the globe. Winning the peace means protecting the public from ^{environmental} these hazards, and managing dangerous materials in the Federal government's possession more responsibly in the future.

The key to all of these initiatives is partnership. We cannot move ideas and technologies from the laboratory bench to the

commercial marketplace without bringing people together -- business and government, universities and the Federal labs.

That's what this National Technology Initiative, or NTI, is all about. This is the eleventh NTI meeting we've had -- each in a different part of the country; each designed to get the word out that we're going to make it easier to deal with the Federal government as a partner. If you attend the workshops and visit the technology fairs, we hope you'll get a window on today's opportunities, and an early start on tomorrow's successes. ✓

We've brought this cooperation to new heights. A year ago, I directed the Secretaries of Commerce and Energy to increase the number of cooperative research and development agreements signed between our Federal facilities and private partners. These CRADAs ((CRAY-DAHS)), as they are called, help speed the transfer of the most promising technologies to the private sector -- so they can be developed into commercial products and services.

And in the one year since that directive was issued -- we've doubled the number of these agreements. There are now more than 1,400 operating and in place. Computers. Ceramics. Environmental cleanup. We are achieving an unprecedented level of success in taking the best ideas from our labs and turning them into American products and American jobs.

In just a few minutes, we will sign several new breakthrough agreements. The first one involves two Federal labs and three industry partners -- working together to solve several problems at once. The agreement will determine the right mix for burning pelletized trash along with coal to generate electricity. The

results will be less sulfur dioxide emissions into the air, less trash overflowing in our landfills, and more jobs created in here in Illinois producing this new fuel.

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These agreements bring the concept of partnership to life -- providing rules of the road, protection of patents and intellectual property, and other understandings -- so that technology transfer is not ^{just} a concept but a job-producing reality.

This partnership will also take form in our Manufacturing Technology Centers. This Administration has established seven such centers around the country -- in order to help introduce new equipment and improve manufacturing processes for small and medium-sized firms. Just since 1989, more than 6,000 companies have used the services provided by these centers -- and we plan to start up four more next year.

In next year's budget, ² we will launch a new cross-cutting initiative to increase our investment in R&D into new technologies to advance the manufacturing process. Today's factories face a different set of challenges from those a generation ago. In the face of fast changing requirements, more flexibility is needed.

We want to advance the development of systems and software, of robotics and artificial intelligence, to make this flexibility possible for all kinds of companies. And the key is this: we will pursue with the private sector.

I have used the word partnership advisedly today, because it reflects a fundamental belief about the path to successful technology development. Our efforts to transfer technology from the labs, to invest in the most promising technologies of tomorrow, have recognized ~~the fact~~ that the private sector must commercialize these technologies.

We are providing the tools for the private sector to do the job. No investment that is not guided by this technology pull from the market is ultimately going to be successful. *between me and my opponent.*

And on this point, there is a real difference. The other side believes that government experts can pick the best technologies and push them out the door. My opponent's proposal is to create hundreds of ^{government} centers, with money he will not have unless he raises your taxes. It is a prescription to "hurry up and wait." Rather than waiting to build more government buildings, I believe we should work to develop the technology we have right now. Rather than waiting for the bureaucrats and ^{government} planners decide what's best, I believe we should build the kind of partnerships that allow the private sector to help identify and commercialize promising technologies in which we are pursuing leadership today.

Now, it's a political year, and my opponent has made a specialty out of saying things that sound good, but that aren't backed up by his record or his philosophy. And on the subject of

R&D, as on so many other subjects, Governor Clinton has truly earned his reputation as Governor Doublespeak.

Bill Clinton has told America that he would invest in civilian R&D -- and he has said flat out, with a straight face, that we have cut this investment. He must have been smoking something again on that one.

The fact is that this Administration has increased the Federal investment in civilian R&D by 28% just since 1989. We have increased basic research. We have increased applied R&D. We have invested in energy R&D and environmental R&D. Aeronautics and magnetically levitated high speed rail. Computing and communications. Protecting the public health and exploring the frontiers of space.

Now here's the best part. In each and every year that we have sent our budget to the pork-happy partisans on Capitol Hill, they have cut our R&D budget. They have spent it on water projects. They have spent it on providing subsidies to, get this, vacant public housing units. They have funded every pet project from mink research to subsidies for rich rural telephone cooperatives ~~who~~ *that* just happen to give big contributions to Congressmen.

This year, ~~we~~ proposed an increase for the National Science Foundation to advance our plans in both basic and applied research. And even as Governor Clinton called for more investment, and even as his team consults with the Democratic leaders on Capitol Hill every day, that increase was wiped out.

So when Governor Doublespeak looks you in the eye and says he wants to invest in civilian R&D, I say -- we're already doing it. And your ^{Democratic} allies in Congress are not helping.

Governor Clinton says he wants to take every dollar we save in defense R&D and spend it on civilian R&D. In this year's budget, I increased civilian R&D by 8%, and defense R&D by only one percent. Every cent from defense went to civilian. → *makes no sense*

But get this, when we sent the Congress a proposal to transfer \$50 million from weapons research to promote the kind of technology partnerships we're talking about today, they denied the transfer. And last week, when we proposed to transfer another \$186 million from unneeded nuclear weapons materials production to new technologies which will help stop the spread of weapons around the world and help clean up our weapons facilities, Congress denied most of that transfer, too. They wanted to spend the money on pork instead.

So when Governor Doublespeak looks you in the eye and says he's for shifting R&D funds from defense to civilian, you tell him ^{I'm} we're already doing it. But you might ask him to speak to his partners in pork on Capitol Hill.

And here's the best one of all. Bill Clinton says that he's for our proposal to make the R&D tax credit permanent, and for a modified reduction in capital gains taxes. At the exact moment he is looking the American people in the eye and telling them these things, his ^{Democratic} allies on Capitol Hill are blocking their enactment. So when Governor Doublespeak looks you in the eye and says he's for

investment incentives, tell him ~~we've~~^{I've} already proposed and financed them, ~~but~~ let's cut the partisan games and pass the bills.

I'm afraid that Bill Clinton on the subject of technology is like Bill Clinton on any subject -- promise them anything, but keep two fingers crossed behind your back.

Behind my opponent's charges lies the worst kind of cynicism - - saying things he knows to be not true with the straight face of the professional prevaricator.

For the real story on Bill Clinton and technology, let's look at the record.

The most recent report card on technology indicators, published by the Corporation for Enterprise Development, rated Arkansas near the very bottom among states in virtually every technology-related factor. For "technology resources", Arkansas received an "F". And Bill Clinton has allowed Arkansas' incubator program to die on the vine for lack of state funds.

Compare that to Illinois under ^{Republican governors} Jim Thompson and Jim Edgar. Right here at the University of Chicago, they've helped to launch exactly the kind of partnership I'm talking about. The ARCH Development Corporation, a partnership between state and university and private sector, helps to identify and develop the most promising new technologies coming out of this great University and out of our Argonne National Lab. This cooperative venture has helped to launch new companies that are doing everything from improving the use of superconducting liquids to improving the lighting of computer screens.

Jim Thompson and Jim Edgar have started, in partnership with the Federal government and the private sector, five technology centers -- working on everything from advanced cement based materials to magnetic resonance.

When the chips were down in Arkansas, Bill Clinton did not deliver on technology. And when "Promise them Anything" Clinton teams up with ^{the} "Spend it on Anything" Congress, Lord knows what they will deliver.

The fact is that Bill Clinton talks about the future, but his ideas and his support come from the patrons of the past. For these and so many other reasons, it is clear that Bill Clinton is the wrong man for America.

One of the most quintessentially American figures of our time, John Wayne, once said that: "Tomorrow is the most important thing in life."

When the shouting is finished, when the campaign winds down to its end, it will come down to a very personal and serious decision for every American. What kind of tomorrow do you want?

Do you want a tomorrow in which we look forward and take on the competition, or one in which we turn inward in retreat?

Do you want a tomorrow in which we invest in the technologies that can make us more competitive, or in which we allow the patrons of the past to spend our future away?

Do you want a tomorrow in which work and innovation are rewarded, or in which we turn back down the path of higher taxes and more regulation?

Winston Churchill once said about elections: "What it all comes down to is a little man, in a little booth, marking a little "x" on a little piece of paper."

When Americans step into that booth this year, they will face a fundamental choice about the kind of future they want. I have come to Chicago today, ~~to this city that works,~~ to offer my ideas for a future full of promise. A future in which America works, America competes, and America wins.

I ask you to join me in this future. America today faces opportunities that previous generations only dreamed about. Let us seize them.

Thank you, God bless you, and God bless the United States of America.

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D. McG.

(Grady, 9/22/92)

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FRIDAY, SEPTEMBER 25, 1992

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That's what our future plans must be all about. Getting ready to compete in an increasingly interdependent world. Our world is tied together as never before by new technology and new information systems. It is linked in seamless competition by the free flow of capital across borders. And, most importantly, it filled with new promise and new opportunity because of the explosion of new freedoms and new markets in places where the light of liberty had never before dared to shine.

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My strategy is based on opening markets, on preparing our workforce, on sharpening our competitive edge by investing in the future, on creating opportunity by training our workers and fixing our health care system, and on rightsizing government -- by cutting spending and holding the line against taxes.

That strategy is not without controversy. Some want to close access to our markets, and risk future growth in exports. Some in the Congress are today sacrificing our investments in the future to the irresistible appeal of spending on current consumption. Some believe that higher taxes will give us the money to have the government take over America's investment strategy. I want to talk to you today about which strategy will work for America.

Let's be clear about one thing: despite what the pessimists say, we have begun to succeed already in opening markets and becoming more competitive. Just look at our export performance over these past four years. We have increased exports by 40%. We have gained worldwide market share in manufacturing output. In just these last four years, our exports to Japan have grown 12 times faster than our imports. So we can win.

But in order to do so, we must sharpen the competitive edge of American business by investing in knowledge, in new ideas, and in the technologies we will need to compete. That is a key part of my

agenda. This should be no surprise, because knowledge is an historic American strength, and we must build on our strengths.

New knowledge and new technology will give us the chance to increase productivity -- to help the economy grow -- to create jobs. For proof of the relationship between technological success and job creation, we need look no further than here in Illinois. 588,000 jobs in this state are tied to high technology -- that's over 11 percent of Illinois' work force. Illinois is America's number one manufacturer of telecommunications equipment. So winning the race for new ideas, winning the technology race, means jobs for Illinois, and jobs for America.

By every measure, the United States leads the world in the generation of new knowledge. We have produced the most scientific literature, the most new patents, the most Nobel prizes. We cannot keep that lead without investing in new knowledge -- so my budget for this year represents a 35% increase over 1989 in basic research.

But basic research is only half the story. For America to lead, we need to take our ideas from the laboratory to the marketplace -- and do it more quickly. And that is where this Administration is making new strides.

Two years ago, we pulled every Federal agency together to launch a new program to develop the supercomputers of tomorrow -- computers 1000 times more powerful than today's -- within four years. Our vision is a Cray the size of a McIntosh -- a supercomputer you can put on your desktop.

We also proposed a nationwide network -- an information backbone that will transmit 1000 times more information than we can today in one second. This year, we've proposed over \$800 million, a 23% increase, for this High Performance Computing and Communications initiative.

Last year, we launched another crosscutting technology plan -- an investment of over \$1.8 billion in the materials of tomorrow. These new kinds of materials will help us make products that are stronger, lighter, and faster -- everything from cars to airplanes to military equipment. You've heard of "planes, trains, and automobiles" -- we'll be more competitive in all three with the investments we are making today in the development of advanced materials.

And that's not all. We've launched a \$4 billion program in biotechnology -- and proposed to knock down the regulatory barriers that might prevent technologies in this area from helping us to cure disease, improve agricultural performance, and clean up the environment.

We've turned some of the expertise at the Federal labs toward the task of cleaning up the legacy of the Cold War -- forty years worth of accumulated environmental problems left from making the weapons that defended freedom around the globe. Winning the peace means protecting the public from these hazards, and managing dangerous materials in the Federal government's possession more responsibly in the future.

The key to all of these initiatives is partnership. We cannot move ideas and technologies from the laboratory bench to the

commercial marketplace without bringing people together -- business and government, universities and the Federal labs.

That's what this National Technology Initiative, or NTI, is all about. This is the eleventh NTI meeting we've had -- each in a different part of the country; each designed to get the word out that we're going to make it easier to deal with the Federal government as a partner. If you attend the workshops and visit the technology fairs, we hope you'll get a window on today's opportunities, and an early start on tomorrow's successes.

We've brought this cooperation to new heights. A year ago, I directed the Secretaries of Commerce and Energy to increase the number of cooperative research and development agreements signed between our Federal facilities and private partners. These CRADAs ((CRAY-DAHS)), as they are called, help speed the transfer of the most promising technologies to the private sector -- so they can be developed into commercial products and services.

And in the one year since that directive was issued -- we've doubled the number of these agreements. There are now more than 1,400 operating and in place. Computers. Ceramics. Environmental cleanup. We are achieving an unprecedented level of success in taking the best ideas from our labs and turning them into American products and American jobs.

In just a few minutes, we will sign several new breakthrough agreements. The first one involves two Federal labs and three industry partners -- working together to solve several problems at once. The agreement will determine the right mix for burning pelletized trash along with coal to generate electricity. The

results will be less sulfur dioxide emissions into the air, less trash overflowing in our landfills, and more jobs created in here in Illinois producing this new fuel.

A second one -- between Argonne Lab and Motorola -- will help improve circuitry for communications and electronics. A third will bring the Oak Ridge National Lab together with IBM to extend America's leadership in High Performance Computing. The fourth involves a partnership between General Motors and the National Insistute of Standards and Technology to develop new software to solve problems in automated manufacturing equipment.

These agreements bring the concept of partnership to life -- providing rules of the road, protection of patents and intellectual property, and other understandings -- so that technology transfer is not a concept but a job-producing reality.

This partnership will also take form in our Manufacturing Technology Centers. This Administration has established seven such centers around the country -- in order to help introduce new equipment and improve manufacturing processes for small and medium-sized firms. Just since 1989, more than 6,000 companies have used the services provided by these centers -- and we plan to start up four more next year.

In next year's budget, we will launch a new cross-cutting initiative to increase our investment in R&D into new technologies to advance the manufacturing process. Today's factories face a different set of challenges from those a generation ago. In the face of fast changing requirements, more flexibility is needed.

We want to advance the development of systems and software, of robotics and artificial intelligence, to make this flexibility possible for all kinds of companies. And the key is this: we will pursue with the private sector.

I have used the word partnership advisedly today, because it reflects a fundamental belief about the path to successful technology development. Our efforts to transfer technology from the labs, to invest in the most promising technologies of tomorrow, have recognized the fact that the private sector must commercialize these technologies.

We are providing the tools for the private sector to do the job. No investment that is not guided by this technology pull from the market is ultimately going to be successful.

And on this point, there is a real difference. The other side believes that government experts can pick the best technologies and push them out the door. My opponent's proposal is to create hundreds of centers, with money he will not have unless he raises your taxes. It is a prescription to "hurry up and wait." Rather than waiting to build more government buildings, I believe we should work to develop the technology we have right now. Rather than waiting for the bureaucrats and planners decide what's best, I believe we should build the kind of partnerships that allow the private sector to help identify and commercialize promising technologies in which we are pursuing leadership today.

Now, it's a political year, and my opponent has made a specialty out of saying things that sound good, but that aren't backed up by his record or his philosophy. And on the subject of

R&D, as on so many other subjects, Governor Clinton has truly earned his reputation as Governor Doublespeak.

Bill Clinton has told America that he would invest in civilian R&D -- and he has said flat out, with a straight face, that we have cut this investment. He must have been smoking something again on that one.

The fact is that this Administration has increased the Federal investment in civilian R&D by 28% just since 1989. We have increased basic research. We have increased applied R&D. We have invested in energy R&D and environmental R&D. Aeronautics and magnetically levitated high speed rail. Computing and communications. Protecting the public health and exploring the frontiers of space.

Now here's the best part. In each and every year that we have sent our budget to the pork-happy partisans on Capitol Hill, they have cut our R&D budget. They have spent it on water projects. They have spent it on providing subsidies to, get this, vacant public housing units. They have funded every pet project from mink research to subsidies for rich rural telephone cooperatives who just happen to give big contributions to Congressmen.

This year, we proposed an increase for the National Science Foundation to advance our plans in both basic and applied research. And even as Governor Clinton called for more investment, and even as his team consults with the Democratic leaders on Capitol Hill every day, that increase was wiped out.

So when Governor Doublespeak looks you in the eye and says he wants to invest in civilian R&D, I say -- we're already doing it. And your allies in Congress are not helping.

Governor Clinton says he wants to take every dollar we save in defense R&D and spend it on civilian R&D. In this year's budget, I increased civilian R&D by 8%, and defense R&D by only one percent. Every cent from defense went to civilian.

But get this, when we sent the Congress a proposal to transfer \$50 million from weapons research to promote the kind of technology partnerships we're talking about today, they denied the transfer. And last week, when we proposed to transfer another \$186 million from unneeded nuclear weapons materials production to new technologies which will help stop the spread of weapons around the world and help clean up our weapons facilities, Congress denied most of that transfer, too. They wanted to spend the money on pork instead.

So when Governor Doublespeak looks you in the eye and says he's for shifting R&D funds from defense to civilian, you tell him we're already doing it. But you might ask him to speak to his partners in pork on Capitol Hill.

And here's the best one of all. Bill Clinton says that he's for our proposal to make the R&D tax credit permanent, and for a modified reduction in capital gains taxes. At the exact moment he is looking the American people in the eye and telling them these things, his allies on Capitol Hill are blocking their enactment.

So when Governor Doublespeak looks you in the eye and says he's for:

investment incentives, tell him we've already proposed and financed them, but let's cut the partisan games and pass the bills.

I'm afraid that Bill Clinton on the subject of technology is like Bill Clinton on any subject -- promise them anything, but keep two fingers crossed behind your back.

Behind my opponent's charges lies the worst kind of cynicism - - saying things he knows to be not true with the straight face of the professional prevaricator.

For the real story on Bill Clinton and technology, let's look at the record.

The most recent report card on technology indicators, published by the Corporation for Enterprise Development, rated Arkansas near the very bottom among states in virtually every technology-related factor. For "technology resources", Arkansas received an "F". And Bill Clinton has allowed Arkansas' incubator program to die on the vine for lack of state funds.

Compare that to Illinois under Jim Thompson and Jim Edgar. Right here at the University of Chicago, they've helped to launch exactly the kind of partnership I'm talking about. The ARCH Development Corporation, a partnership between state and university and private sector, helps to identify and develop the most promising new technologies coming out of this great University and out of our Argonne National Lab. This cooperative venture has helped to launch new companies that are doing everything from improving the use of superconducting liquids to improving the lighting of computer screens.

Jim Thompson and Jim Edgar have started, in partnership with the Federal government and the private sector, five technology centers -- working on everything from advanced cement based materials to magnetic resonance.

When the chips were down in Arkansas, Bill Clinton did not deliver on technology. And when "Promise them Anything" Clinton teams up with "Spend it on Anything" Congress, Lord knows what they will deliver.

The fact is that Bill Clinton talks about the future, but his ideas and his support come from the patrons of the past. For these and so many other reasons, it is clear that Bill Clinton is the wrong man for America.

One of the most quintessentially American figures of our time, John Wayne, once said that: "Tomorrow is the most important thing in life."

When the shouting is finished, when the campaign winds down to its end, it will come down to a very personal and serious decision for every American. What kind of tomorrow do you want?

Do you want a tomorrow in which we look forward and take on the competition, or one in which we turn inward in retreat?

Do you want a tomorrow in which we invest in the technologies that can make us more competitive, or in which we allow the patrons of the past to spend our future away?

Do you want a tomorrow in which work and innovation are rewarded, or in which we turn back down the path of higher taxes and more regulation?

Winston Churchill once said about elections: "What it all comes down to is a little man, in a little booth, marking a little "x" on a little piece of paper."

When Americans step into that booth this year, they will face a fundamental choice about the kind of future they want. I have come to Chicago today, to this city that works, to offer my ideas for a future full of promise. A future in which America works, America competes, and America wins.

I ask you to join me in this future. America today faces opportunities that previous generations only dreamed about. Let us seize them.

Thank you, God bless you, and God bless the United States of America.

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NATIONAL TECHNOLOGY INITIATIVE
CHICAGO, ILLINOIS
FRIDAY, SEPTEMBER 25, 1992

THANK YOU, GOVERNOR EDGAR, FOR THAT INTRODUCTION. ILLINOIS' MOST FAMOUS SON, AND THE FIRST ILLINOIS REPUBLICAN, ABRAHAM LINCOLN, ONCE SAID THAT: "THE STRUGGLE OF TODAY IS NOT ALTOGETHER FOR TODAY -- IT IS FOR A VAST FUTURE, ALSO."

THAT IS WHY I HAVE COME TO THIS GREAT UNIVERSITY, TO THE CITY IN THE HEART OF THE MOST CONFIDENT NATION ON EARTH, TO TALK TO YOU TODAY. IN LESS THAN SIX WEEKS, YOU FACE A FUNDAMENTAL CHOICE ABOUT THE AMERICA'S FUTURE - - ABOUT THE KIND OF AMERICA WE WILL SEEK TO BUILD, ABOUT THE DIRECTION WE WILL TAKE.

A FEW WEEKS AGO IN DETROIT, I LAID OUT THE DIRECTION IN WHICH I HOPE TO GO -- I CALLED MY PLAN AN AGENDA FOR AMERICAN RENEWAL.

MY STRATEGY IS INTEGRATED -- TYING ECONOMIC POLICY AND FOREIGN POLICY AND DOMESTIC POLICY TOGETHER, BECAUSE, IN FACT, THEY ARE RELATED.

I PUT IT SIMPLY: OUR DEFINING CHALLENGE IN THE 90S IS TO WIN THE ECONOMIC COMPETITION, TO WIN THE PEACE. SO MY AGENDA OUTLINES THE STEPS WE CAN TAKE TODAY TO MAKE AMERICA MORE COMPETITIVE BOTH NOW AND IN THE FUTURE -- AND ONE KEY STEP IS TO INVEST IN TECHNOLOGY.

TODAY I WANT TO TALK TO YOU ABOUT MY PROGRAM FOR INVESTING IN CIVILIAN RESEARCH AND DEVELOPMENT. AND I WANT TO TALK ABOUT HOW WE CAN SPEED THE PROCESS THROUGH WHICH AMERICAN BUSINESSES AND ENTREPRENEURS CAN TURN THE FRUITS OF THAT R&D INTO SUCCESSFUL PRODUCTS AND AMERICAN JOBS.

I INCLUDED INVESTMENT IN CIVILIAN R&D IN MY AGENDA FOR AMERICAN RENEWAL FOR A VERY SPECIFIC REASON. IN THE INFORMATION AGE, WHEN CAPITAL AND IDEAS CAN MOVE AROUND THE WORLD LITERALLY IN SECONDS, INVESTMENTS IN R&D AND IN THE TECHNOLOGIES OF TOMORROW CAN IMPROVE OUR PRODUCTIVITY. THAT IS THE KEY TO INCREASING ECONOMIC GROWTH. AND GROWTH MEANS AN IMPROVED STANDARD OF LIVING FOR THE AMERICAN PEOPLE.

IN THE OLD DAYS, ECONOMISTS WOULD TELL YOU THAT CAPITAL AND LABOR WERE THE TWO INGREDIENTS YOU NEEDED TO MAKE THE ECONOMY PRODUCE. TODAY, IT'S UNIVERSALLY ACCEPTED THAT A THIRD INGREDIENT IS NEEDED: KNOWLEDGE.

WE NEED THE BEST IDEAS IN THE WORLD -- AND WE HAVE ALWAYS HAD THEM. FOR DECADES, AMERICAN SCIENTISTS HAVE PRODUCED THE MOST SCIENTIFIC LITERATURE, THE MOST NEW PATENTS, THE MOST NOBEL PRIZES. AND WE ARE INVESTING IN BASIC RESEARCH TO KEEP THAT LEAD.

BUT TO WIN TODAY'S ECONOMIC COMPETITION, WE NEED PROCESSES THAT CAN SPEED THEIR ROUTE FROM THE LABORATORY TO THE MARKETPLACE. WE NEED INVESTMENTS IN APPLIED R&D. WE NEED CAPITAL TO TURN THE ABSTRACT IDEA INTO THE CONCRETE REALITY. AND WE NEED A WORKFORCE WITH THE BRAINPOWER AND THE SKILLS TO TAKE THESE TECHNOLOGIES AND TURN THEM INTO THE BEST QUALITY PRODUCTS ANYWHERE ON EARTH.

IF WE SUCCEED IN CREATING THESE BUILDING BLOCKS, WE WILL SUCCEED IN CREATING JOBS. JUST LOOK ILLINOIS. 588,000 JOBS IN THIS STATE ARE TIED TO HIGH TECHNOLOGY -- THAT'S OVER 11 PERCENT OF ILLINOIS' WORK FORCE. ILLINOIS IS AMERICA'S NUMBER ONE MANUFACTURER OF TELECOMMUNICATIONS EQUIPMENT.

MY AGENDA STATES THAT WE MUST SHARPEN THE COMPETITIVE EDGE OF AMERICAN BUSINESS, BUT IT RESTS ON THE CORE BELIEF THAT THE SOURCE OF AMERICA'S SUCCESS HAS ALWAYS BEEN THE IMMENSE POWER OF ENTREPRENEURIAL CAPITALISM. AND THAT IS A KEY DIFFERENCE FROM THE VISION OF MY OPPONENT IN THIS ELECTION.

YOU SEE, GOVERNOR CLINTON HAS ALSO BEEN TALKING ABOUT INVESTING IN CIVILIAN R&D DURING THIS ELECTION. BUT MY OPPONENT'S RHETORIC FALLS SHORT IN FOUR KEY RESPECTS.

FIRST, HE PUTS HIS FAITH IN THE ABILITY OF GOVERNMENT TO PICK THE RIGHT INVESTMENTS, TO CONTROL THE RESOURCES, TO DETERMINE WHICH PARTICULAR PRODUCTS AND PROCESSES WILL BE FAVORED BY THE BUREAUCRATS IN WASHINGTON. I WANT TO EMPOWER THE BUSINESSMAN OR THE BUSINESSWOMAN TO DEVELOP A RANGE OF PRODUCTS, PICKED NOT BY THE PLANNER BUT BY THE POWER OF THE MARKETPLACE.

SECOND, WHILE GOVERNOR CLINTON MAY BE CLAIMING HE'S GOING TO MAKE THE RIGHT PLAY, CONGRESS IS INTERCEPTING THE BALL AND RUNNING IT IN THE OPPOSITE DIRECTION. IN EACH OF THE PAST FOUR YEARS, MY R&D BUDGET HAS BEEN CUT BY GOVERNOR CLINTON'S ALLIES IN THE OTHER PARTY -- THE PORK HAPPY PARTISANS ON CAPITOL HILL.

IN FACT, RIGHT NOW, THIS YEAR, THE DEMOCRATIC LEADERS IN THE CONGRESS -- WITH WHOM THE CLINTON CAMPAIGN IS CONSULTING EACH AND EVERY DAY -- HAVE SLASHED MY PROPOSED INCREASE FOR THE NATIONAL SCIENCE FOUNDATION, HEADED BY CHICAGO'S OWN WALTER MASSEY. THEY'VE ZEROED OUT MY PROPOSED INITIATIVE IN MAGNETICALLY-LEVITATED HIGH SPEED RAIL. THEY'VE REDUCED OUR INVESTMENTS IN COMPUTERS, AND ADVANCED MATERIALS AND MANUFACTURING R&D. WHILE THE GOVERNOR TALKS HIGH TECH, HIS ALLIED IN CONGRESS WALK AWAY FROM IT.

AND GOVERNOR CLINTON'S OWN PLAN -- FOR ALL HIS TALK ABOUT RESEARCH -- WOULD GUT THE FOUNDATION OF AMERICA'S SCIENCE AND TECHNOLOGY ENTERPRISE BY CUTTING UNIVERSITY REIMBURSEMENTS FOR R&D BY \$3 BILLION -- ALMOST ONE-THIRD. UNDER HIS PLAN, THE ABILITY OF GREAT UNIVERSITIES LIKE THE UNIVERSITY OF CHICAGO TO CONDUCT WORLD-CLASS RESEARCH WOULD BE COMPROMISED.

THIRD, THE PROMISES OF CANDIDATE CLINTON DON'T MATCH THE RECORD OF GOVERNOR CLINTON. THE MOST RECENT REPORT CARD ON TECHNOLOGY INDICATORS, PUBLISHED BY THE CORPORATION FOR ENTERPRISE DEVELOPMENT, RATED ARKANSAS NEAR THE VERY BOTTOM AMONG STATES IN VIRTUALLY EVERY CATEGORY. FOR "TECHNOLOGY RESOURCES", ARKANSAS RECEIVED AN "F".

HE'S NOT EVEN LINING UP THE FUNDAMENTALS FOR A HIGH TECH WORLD.

AFTER 12 YEARS WITH BILL CLINTON AS GOVERNOR, ARKANSAS RANKS 48TH IN PERCENTAGE OF ADULTS WITH HIGH SCHOOL DIPLOMAS. THREE-QUARTERS OF ARKANSAS' HIGH SCHOOL GRADUATES NEED REMEDIAL EDUCATION WHEN THEY GET TO COLLEGE. SO IT'S ODD FOR BILL CLINTON TO TALK ABOUT HIGH TECH WHEN THE RESIDENTS OF HIS STATE HAVE TO WORRY ABOUT GETTING OUT OF HIGH SCHOOL.

FINALLY, AND MOST IMPORTANTLY, HE PROPOSES TO FINANCE HIS MANY PROMISES WITH A MASSIVE TAX INCREASE THAT WILL SMOTHER THE VERY GROWTH ON WHICH OUR SUCCESS DEPENDS. I HAD A FREUDIAN SLIP THE OTHER DAY AND CALLED GOVERNOR CLINTON "GOVERNOR TAXES."

WELL, BILL CLINTON HAS PROPOSED THE LARGEST TAX INCREASE IN AMERICAN HISTORY, \$150 BILLION, AND THAT'S JUST FOR STARTERS. TO PAY FOR HIS OTHER PROMISES, HE WILL TAX SMALL BUSINESSES -- THE MAIN SOURCE OF JOBS IN OUR ECONOMY AND HEROES OF HIGH TECHNOLOGY. SO LET'S BE CLEAR: BILL CLINTON'S HIGH TAX POLICIES WILL KILL HIGH TECH BUSINESSES.

WHAT IT COMES DOWN TO IS THIS. AMERICA IS AT A CROSSROADS. FOR THE FIRST TIME IN 50 YEARS, OUR COUNTRY IS INVOLVED TODAY IN NO MAJOR CONFLICTS ANYWHERE ON EARTH. WE FACE AN UNPRECEDENTED OPPORTUNITY. AND THERE ARE TWO DIRECTIONS WE CAN TAKE.

THE DIRECTION I PROPOSE, AT ITS HEART, IS FUTURE-ORIENTED, OUTWARD LOOKING. I DO NOT BELIEVE THAT AMERICANS SHOULD FEAR COMPETITION. BECAUSE I BELIEVE WE CAN COMPETE AND WIN. SO I HAVE WORKED TO OPEN MARKETS, TO GET OUR WORK FORCE READY TO COMPETE, AND, BOTH AS A GOVERNMENT AND AS A SOCIETY, TO INVEST IN THE FUTURE.

IN SHORT, I BELIEVE WE SHOULD COMPETE, NOT RETREAT.

AND I BELIEVE WE CAN DO IT WITHOUT A MASSIVE EXPANSION OF THE FEDERAL GOVERNMENT THAT REACHES INTO THE POCKET OF EVERY AMERICAN TAXPAYER.

LET ME TALK ABOUT THE ELEMENTS OF THIS COMPETITION. FIRST, OPEN MARKETS. MY OPPONENT SAYS AMERICA IS IN DECLINE. BUT THE FACT IS THAT WE ARE WINNING NEW MARKETS FOR AMERICAN GOODS AND SERVICES RIGHT NOW. JUST LOOK AT OUR EXPORT PERFORMANCE OVER THESE PAST FOUR YEARS. WE HAVE INCREASED EXPORTS BY 40%. WE HAVE GAINED WORLDWIDE MARKET SHARE IN MANUFACTURING OUTPUT. OUR EXPORTS TO JAPAN HAVE GROWN 12 TIMES FASTER THAN OUR IMPORTS. AND HIGH TECH EXPORTS HAVE LED THE WAY. SINCE 1987, OUR TRADE SURPLUS IN ADVANCED TECHNOLOGY PRODUCTS HAS GROWN BY MORE THAN 80%. SO I HAVE A MESSAGE FOR THE PESSIMISTS: WE CAN COMPETE, AND WE CAN WIN.

FOR US TO CONTINUE TO WIN NEW MARKETS FOR AMERICA, WE NEED A MORE OPEN WORLD TRADING REGIME. SO WE HAVE WORKED TO COMPLETE THE NORTH AMERICAN FREE TRADE AGREEMENT -- NAFTA -- WHICH WILL CREATE ALMOST 200,000 JOBS RIGHT HERE IN THE UNITED STATES. WE HAVE WORKED FOR A SUCCESSFUL CONCLUSION OF THE URUGUAY ROUND. WE HAVE COMPLETED INDIVIDUAL AGREEMENTS WITH JAPAN, KOREA, MEXICO, AND COUNTRIES AROUND THE WORLD TO OPEN MARKETS FOR TECHNOLOGY AND PROTECT AMERICAN INTELLECTUAL PROPERTY -- SO THAT THE INCENTIVE TO GENERATE NEW IDEAS AND CREATE NEW PRODUCTS REMAINS.

NOW, MY OPPONENT HAS WAFFLED ON NAFTA. HE WOULD RISK OUR ABILITY TO EXPAND TRADE BY SUPPORTING ANTI-TRADE LEGISLATION ON CAPITOL HILL. AND HIS TAX ON FOREIGN INVESTMENT IN THE UNITED STATES WILL NOT ONLY LOCK OUT HIGH WAGE, HIGH SKILL JOBS -- IT WILL INVITE RETALIATION THAT WILL UNDERCUT THE GROWTH IN EXPORTS WHICH IS SO KEY TO THE GROWTH IN THE ECONOMY.

LET'S TALK ABOUT EDUCATION -- PREPARING OUR CHILDREN TO MEET THE CHALLENGES OF THE 21ST CENTURY ECONOMY. GOVERNOR CLINTON HAS SAID THAT WE'VE REDUCED INVESTMENT IN EDUCATION. HE IS WRONG. EDUCATION THIS YEAR GOT THE BIGGEST INCREASE IN MY BUDGET -- IT'S UP 41% OVER 1989. AND WE'VE PLACED A PARTICULAR EMPHASIS ON MATH AND SCIENCE EDUCATION, MORE THAN DOUBLING FUNDING, SO THAT THIS YEAR'S BUDGET WILL BE ABLE TO USE FEDERAL ASSETS TO HELP TRAIN OVER 770,000 TEACHERS IN THE MATH AND SCIENCE SKILLS THEY NEED TO TEACH OUR KIDS.

AND LET'S TALK ABOUT INVESTING IN THE FUTURE. WE'VE BEEN WORKING TO PROMOTE THE TECHNOLOGIES THAT WILL MAKE US MORE COMPETITIVE IN THE FUTURE. BUT IT'S TIME TO SET THE RECORD STRAIGHT ON THIS. THE GOVERNOR, UNCHALLENGED BY THESE ENTERPRISING REPORTERS WITH US HERE TODAY FROM THE NATIONAL MEDIA, HAS SAID THAT WE'VE "REDUCED INVESTMENT IN CIVILIAN R&D." THAT IS SIMPLY UNTRUE.

HERE IS THE RECORD. MY BUDGET THIS YEAR WOULD INCREASE CIVILIAN R&D BY 44% OVER 1989 LEVELS. CIVILIAN BASIC RESEARCH IS UP 36%. AND APPLIED CIVILIAN R&D IS UP 49%. SO WHEN THE GOVERNOR TALKS ABOUT INVESTING IN CIVILIAN R&D, THE FACT IS WE'RE ALREADY DOING IT.

LET ME EXPLAIN WHAT WE'RE DOING.

TWO YEARS AGO, WE PULLED EVERY FEDERAL AGENCY TOGETHER TO LAUNCH A NEW PROGRAM TO DEVELOP THE SUPERCOMPUTERS OF TOMORROW -- COMPUTERS 1000 TIMES MORE POWERFUL THAN TODAY'S. OUR VISION IS TO DEVELOP A SUPERCOMPUTER THE SIZE OF A DESKTOP PC -- AND TO DO IT WITHIN FOUR YEARS.

WE ALSO PROPOSED A NATIONWIDE COMMUNICATIONS NETWORK -- AN INFORMATION BACKBONE THAT WILL TRANSMIT 1000 TIMES MORE INFORMATION THAN WE CAN TODAY IN ONE SECOND. THIS YEAR, WE'VE PROPOSED OVER \$800 MILLION, A 23% INCREASE, FOR THIS HIGH PERFORMANCE COMPUTING AND COMMUNICATIONS INITIATIVE.

LAST YEAR, WE LAUNCHED ANOTHER CROSSCUTTING TECHNOLOGY PLAN -- AN INVESTMENT OF OVER \$1.8 BILLION IN THE MATERIALS OF TOMORROW. THESE NEW KINDS OF MATERIALS WILL HELP US MAKE PRODUCTS THAT ARE STRONGER, LIGHTER, AND FASTER -- EVERYTHING FROM CARS TO AIRPLANES TO MILITARY EQUIPMENT.

WE'VE LAUNCHED A \$4 BILLION PROGRAM IN BIOTECHNOLOGY RESEARCH -- AND PROPOSED TO KNOCK DOWN THE REGULATORY BARRIERS THAT MIGHT PREVENT TECHNOLOGIES IN THIS AREA FROM HELPING US TO CURE DISEASE, GROW MORE CROPS, AND CLEAN UP THE ENVIRONMENT.

WE'RE USING TECHNOLOGY TO TACKLE AN UNFORTUNATE LEGACY OF THE COLD WAR -- THE ENVIRONMENTAL PROBLEMS LEFT FROM MAKING WEAPONS THAT DEFENDED FREEDOM AROUND THE GLOBE. WINNING THE PEACE MEANS MANAGING DANGEROUS MATERIALS MORE EFFECTIVELY. TODAY, WE'RE USING THE SCIENTIFIC EXPERTISE OF THE FEDERAL LABS -- WHOSE SCIENTISTS FIRST DEvised THESE BOMBS -- TO FIND NEW TECHNOLOGIES FOR STOPPING WEAPONS PROLIFERATION, AND FOR PROTECTING OUR CHILDREN FROM ENVIRONMENTAL THREATS.

I'M HERE TODAY, HOWEVER, BECAUSE A SUCCESSFUL STRATEGY FOR WINNING THE ECONOMIC COMPETITION REQUIRES MORE THAN JUST INVESTMENT IN R&D -- WHETHER BASIC OR APPLIED. IN A FAST-PACED WORLD OF SHORTER PRODUCT CYCLES AND FASTER COMMUNICATIONS, THE KEY TO VICTORY IS MOVING IDEAS AND TECHNOLOGIES FROM THE LABORATORY BENCH TO THE COMMERCIAL MARKETPLACE FASTER THAN EVER BEFORE.

THAT'S WHAT THIS NATIONAL TECHNOLOGY INITIATIVE, OR NTI, IS ALL ABOUT. THIS IS THE ELEVENTH NTI MEETING WE'VE HAD -- EACH IN A DIFFERENT PART OF THE COUNTRY; EACH DESIGNED TO HELP SPEED THE TRANSFER OF TECHNOLOGY FROM OUR FEDERAL LABS AND UNIVERSITIES TO THE PRIVATE AND COMMERCIAL SECTOR.

WE'RE WORKING TO MAKE IT EASIER TO DEAL WITH THE FEDERAL GOVERNMENT AS A PARTNER. IF YOU ATTEND THE WORKSHOPS AND VISIT THE TECHNOLOGY FAIR, YOU'LL GET A WINDOW ON TODAY'S OPPORTUNITIES, AND AN EARLY START ON TOMORROW'S SUCCESSES.

ONE YEAR AGO, I DIRECTED THE SECRETARIES OF COMMERCE AND ENERGY TO INCREASE THE NUMBER OF COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS SIGNED BETWEEN OUR FEDERAL FACILITIES AND PRIVATE PARTNERS. THESE CRADAS ((CRAY-DUHS)), AS THEY ARE CALLED, HELP SPEED THE TRANSFER OF THE MOST PROMISING TECHNOLOGIES TO THE PRIVATE SECTOR - - SO THEY CAN BE DEVELOPED INTO COMMERCIAL PRODUCTS AND SERVICES.

AND IN THE ONE YEAR SINCE THAT DIRECTIVE WAS ISSUED -- WE'VE DOUBLED THE NUMBER OF THESE AGREEMENTS. THERE ARE NOW MORE THAN 1,400 OPERATING AND IN PLACE. COMPUTERS. CERAMICS. ENVIRONMENTAL CLEANUP. WE ARE ACHIEVING AN UNPRECEDENTED LEVEL OF SUCCESS IN TAKING THE BEST IDEAS FROM OUR LABS AND TURNING THEM INTO AMERICAN PRODUCTS AND AMERICAN JOBS.

TODAY WE ARE SIGNING SEVERAL NEW BREAKTHROUGH AGREEMENTS. ONE INVOLVES TWO FEDERAL LABS AND THREE PRIVATE INDUSTRY PARTNERS -- WORKING TO DETERMINE THE RIGHT MIX FOR BURNING PELLETIZED TRASH ALONG WITH COAL TO GENERATE ELECTRICITY. THE RESULTS WILL BE CLEANER AIR, LESS TRASH IN OUR LANDFILLS, AND MORE JOBS IN ILLINOIS.

A SECOND WILL BRING THE OAK RIDGE NATIONAL LAB TOGETHER WITH IBM TO EXTEND AMERICA'S LEADERSHIP IN HIGH PERFORMANCE COMPUTING. THE THIRD INVOLVES A PARTNERSHIP BETWEEN GENERAL MOTORS AND THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY -- NIST -- TO DEVELOP NEW SOFTWARE TO SOLVE PROBLEMS IN AUTOMATED MANUFACTURING EQUIPMENT.

THESE AGREEMENTS PROVIDE RULES OF THE ROAD, PROTECTION OF PATENTS AND INTELLECTUAL PROPERTY, AND OTHER UNDERSTANDINGS -- SO THAT TECHNOLOGY TRANSFER IS NOT JUST A CONCEPT BUT A JOB-PRODUCING REALITY.

OUR PROGRAM REFLECTS A FUNDAMENTAL BELIEF ABOUT THE PATH TO SUCCESSFUL TECHNOLOGY DEVELOPMENT. OUR EFFORTS TO TRANSFER TECHNOLOGY FROM THE LABS, TO INVEST IN THE MOST PROMISING TECHNOLOGIES OF TOMORROW, HAVE RECOGNIZED THE FACT THAT THE PRIVATE SECTOR MUST COMMERCIALIZE THESE TECHNOLOGIES.

TO HELP IN THAT TASK, TO SPREAD INFORMATION ABOUT BEST PRACTICES AND NEW PROCESSES, MY ADMINISTRATION HAS ALSO ESTABLISHED SEVEN REGIONAL MANUFACTURING TECHNOLOGY CENTERS AROUND THE COUNTRY. THESE WILL INTRODUCE NEW EQUIPMENT AND IMPROVE MANUFACTURING PROCESSES FOR SMALL AND MEDIUM-SIZED FIRMS. SINCE 1989, MORE THAN 6,000 COMPANIES HAVE USED THE SERVICES PROVIDED BY THESE CENTERS -- AND WE PLAN TO START UP FOUR MORE NEXT YEAR.

NOW, MY OPPONENT PROPOSES TO CREATE HUNDREDS OF CENTERS. HE DOESN'T SAY HOW LONG IT WILL TAKE TO BUILD THEM. BUT I CAN TELL YOU THIS: WE DON'T NEED A MASSIVE BUREAUCRACY. WE WANT TO SHARE BEST PRACTICES; NOT NECESSARILY EVERY PRACTICE THAT A GOVERNMENT PLANNER WANTS TO PUSH. THE POINT IS THIS: RATHER THAN WAITING FOR THE BUREAUCRATS AND PLANNERS TO DECIDE WHAT'S BEST, I BELIEVE WE SHOULD FOSTER THE KIND OF PARTNERSHIPS THAT ALLOW THE PRIVATE SECTOR TO HELP IDENTIFY AND COMMERCIALIZE THE MOST PROMISING TECHNOLOGIES -- THOSE IN WHICH WE ARE PURSUING LEADERSHIP TODAY.

IN NEXT YEAR'S BUDGET, WE WILL LAUNCH A NEW CROSS-CUTTING INITIATIVE TO INCREASE OUR INVESTMENT IN R&D INTO NEW TECHNOLOGIES TO ADVANCE THE MANUFACTURING PROCESS. TODAY'S FACTORIES FACE A DIFFERENT SET OF CHALLENGES FROM THOSE A GENERATION AGO. IN THE FACE OF FAST CHANGING REQUIREMENTS, MORE FLEXIBILITY IS NEEDED.

WE WANT TO ADVANCE THE DEVELOPMENT OF SYSTEMS AND SOFTWARE, OF ROBOTICS AND ARTIFICIAL INTELLIGENCE, TO MAKE THIS FLEXIBILITY POSSIBLE FOR ALL KINDS OF COMPANIES. THE GOVERNMENT WILL HELP WITH TECHNOLOGICAL LEAPS -- SO THAT THE AMERICAN FIRMS CAN LEAP AHEAD IN THE MARKETPLACE.

ONE OF THE MOST QUINTESSENTIALLY AMERICAN FIGURES OF OUR TIME, JOHN WAYNE, ONCE SAID THAT: "TOMORROW IS THE MOST IMPORTANT THING IN LIFE."

WHEN THE SHOUTING IS FINISHED, WHEN THE CAMPAIGN WINDS DOWN TO ITS END, IT WILL COME DOWN TO A VERY PERSONAL AND SERIOUS DECISION FOR EVERY AMERICAN. WHAT KIND OF TOMORROW DO YOU WANT?

DO YOU WANT A TOMORROW IN WHICH WE LOOK FORWARD AND TAKE ON THE COMPETITION, OR ONE IN WHICH WE TURN INWARD IN RETREAT?

DO YOU WANT A TOMORROW IN WHICH WE INVEST IN THE TECHNOLOGIES THAT CAN MAKE US MORE COMPETITIVE, OR IN WHICH WE ALLOW THE PATRONS OF THE PAST TO SPEND OUR FUTURE AWAY?

DO YOU WANT A TOMORROW IN WHICH WORK AND INNOVATION ARE REWARDED, OR IN WHICH WE TURN BACK DOWN THE PATH OF HIGHER TAXES AND MORE REGULATION?

WHEN AMERICANS STEP INTO THAT BOOTH THIS YEAR, THEY WILL FACE A FUNDAMENTAL CHOICE ABOUT THE KIND OF FUTURE THEY WANT. I HAVE COME TO CHICAGO TODAY TO OFFER MY IDEAS FOR A FUTURE FULL OF PROMISE. A FUTURE IN WHICH AMERICA WORKS, AMERICA COMPETES, AND AMERICA WINS.

I ASK YOU TO JOIN ME IN THIS FUTURE.

THANK YOU, GOD BLESS YOU, AND GOD BLESS THE UNITED
STATES OF AMERICA.

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Make these 23.

(Grady, 9/25/92)

PRESIDENTIAL REMARKS: NATIONAL TECHNOLOGY INITIATIVE
CHICAGO, ILLINOIS
FRIDAY, SEPTEMBER 25, 1992

10:11

Thank you, Governor Edgar, for that introduction. Illinois' most famous son, and the first Illinois Republican, Abraham Lincoln, once said that: "The struggle of today is not altogether for today -- it is for a vast future, also."

That is why I have come to this great University, to the city in the heart of the most confident nation on earth, to talk to you today. In less than six weeks, you face a fundamental choice about the America's future -- about the kind of America we will seek to build, about the direction we will take.

A few weeks ago in Detroit, I laid out the direction in which I hope to go -- I called my plan an Agenda for American Renewal. My strategy is integrated -- tying economic policy and foreign policy and domestic policy together, because, in fact, they are related.

X I put it simply: our defining challenge in the 90s is to win the economic competition, to win the peace. So my Agenda outlines the steps we can take today to make America more competitive both now and in the future -- and one key step is to invest in technology.

Today I want to talk to you about my program for investing in civilian research and development. And I want to talk about how we can speed the process through which American businesses and entrepreneurs can turn the fruits of that R&D into successful products and American jobs.

I included investment in civilian R&D in my Agenda for American Renewal for a very specific reason. In the information age, when capital and ideas can move around the world literally in seconds, investments in R&D and in the technologies of tomorrow can improve our productivity. That is the key to increasing economic growth. And growth means an improved standard of living for the American people.

In the old days, economists would tell you that capital and labor were the two ingredients you needed to make the economy produce. Today, it's universally accepted that a third ingredient is needed: knowledge.

→ We need the best ideas in the world -- and ^{America has} ~~we have~~ always had them. For decades, American scientists have produced the most scientific literature, the most new patents, the most Nobel prizes. And we are investing in basic research to keep that lead.

→ But to win today's economic competition, we need processes that can speed their ^{route} from the laboratory to the marketplace. We need investments in applied R&D. We need capital to turn the abstract idea into ~~the~~ ^{concrete} results reality. And we need a workforce with the brainpower and the skills to take these technologies and turn them into the best quality products anywhere on earth.

If we succeed in creating these building blocks, we will succeed in creating jobs. Just look at Illinois. 588,000 jobs in this state are tied to high technology -- that's over 11 percent of Illinois' work force. Illinois is America's number one manufacturer of telecommunications equipment.

My Agenda states that we must sharpen the competitive edge of American business, but it rests on the core belief that the source of America's success has always been the immense power of entrepreneurial capitalism. And that is a key difference from the vision of my opponent in this election.

You see, Governor Clinton has also been talking about investing in civilian R&D during this election. But my opponent's rhetoric falls short in four key respects.

First, he puts his faith in the ability of government to pick the right investments, to control the resources, to determine which particular products and processes will be favored by the bureaucrats in Washington. I want to empower the businessman or the businesswoman to develop a range of products, picked not by the planner but by the power of the marketplace.

Second, while Governor Clinton may be claiming he's going to make the right play, Congress is intercepting the ball and running it in the opposite direction. In each of the past four years, my R&D budget has been cut by Governor Clinton's allies in the other party -- the pork happy partisans on Capitol Hill.

In fact, right now, this year, the Democratic leaders in the Congress -- with whom the Clinton campaign is consulting each and every day -- have slashed my proposed increase for the National Science Foundation, headed by Chicago's own Walter Massey. They've zeroed out my proposed initiative in magnetically-levitated high speed rail. They've reduced our investments in computers, and advanced materials and manufacturing R&D. While the Governor talks high tech, his allies in Congress walk away from it.

And Governor Clinton's own plan -- for all his talk about research -- would gut the foundation of America's science and technology enterprise by cutting university reimbursements for R&D by \$3 billion -- almost one-third. Under his plan, the ability of great universities like the University of Chicago to conduct world-class research would be compromised.

Third, the promises of Candidate Clinton don't match the record of Governor Clinton. The most recent report card on technology indicators, published by the Corporation for Enterprise Development, rated Arkansas near the very bottom among states in virtually every category. For "technology resources", Arkansas received an "F".

He's not even lining up the fundamentals for a high tech world.

After 12 years with Bill Clinton as Governor, Arkansas ranks 48th in percentage of adults with high school diplomas. Three-quarters of Arkansas' high school graduates need remedial education when they get to college. So it's odd for Bill Clinton to talk about high tech when the residents of his state have to worry about getting out of high school.

Finally, and most importantly, he proposes to finance his many promises with a massive tax increase that will smother the very growth on which our success depends. I had a Freudian slip the other day and called Governor Clinton "Governor Taxes."

Well, Bill Clinton has proposed the largest tax increase in American history, \$150 billion, and that's just for starters. To pay for his other promises, he will tax small businesses -- the

main source of jobs in our economy and heroes of high technology.
So let's be clear: Bill Clinton's high tax policies will kill high
tech businesses.

What it comes down to is this. America is at a crossroads.
For the first time in 50 years, our country is involved today in no
major conflicts anywhere on earth. We face an unprecedented
opportunity. And there are two directions we can take.

The direction I propose, at its heart, is future-oriented,
outward looking. I do not believe that Americans should fear
competition. Because I believe we can compete and win. So I have
worked to open markets, to get our work force ready to compete,
and, both as a government and as a society, to invest in the
future.

In short, I believe we should compete, not retreat.
And I believe we can do it without a massive expansion of the
Federal government that reaches into the pocket of every American
taxpayer.

Let me talk about the elements of this competition. First,
open markets. My opponent says America is in decline. But the
fact is that we are winning new markets for American goods and
services right now. Just look at our export performance over these
past four years. We have increased exports by 40%. We have gained
worldwide market share in manufacturing output. Our exports to
Japan have grown 12 times faster than our imports. And high tech
exports have led the way. Since 1987, our trade surplus in
advanced technology products has grown by more than 80%. So I have
a message for the pessimists: we can compete, and we can win.

when it comes to new ideas, America
America

Health care?

→

For us to continue to win new markets for America, we need a more open world trading regime. So we have worked to complete the North American Free Trade Agreement -- NAFTA -- which will create almost 200,000 jobs right here in the United States. We have worked for a successful conclusion of the Uruguay round. We have completed individual agreements with Japan, Korea, Mexico, and countries around the world to open markets for technology and protect American intellectual property -- so that the incentive to generate new ideas and create new products remains.

Now, my opponent has waffled on NAFTA. He would risk our ability to expand trade by supporting anti-trade legislation on Capitol Hill. And his tax on foreign investment in the United States will not only lock out high wage, high skill jobs -- it will invite retaliation that will undercut the growth in exports which is so key to the growth in the economy.

Let's talk about education -- preparing our children to meet the challenges of the 21st century economy. Governor Clinton has said that we've reduced investment in education. He is wrong. Education this year got the biggest increase in my budget -- it's up 41% over 1989. And we've placed a particular emphasis on math and science education, more than doubling funding, so that this year's budget will be able to use Federal assets to help train over 770,000 teachers in the math and science skills they need to teach our kids.

And let's talk about investing in the future. We've been working to promote the technologies that will make us more competitive in the future. But it's time to set the record

straight on this. The Governor, unchallenged by these enterprising reporters with us here today from the national media, has said that we've "reduced investment in civilian R&D." That is simply ^{not} untrue.

Here is the record. My budget this year would increase civilian R&D by 44% over 1989 levels. Civilian basic research is up 36%. And applied civilian R&D is up 49%. So when the Governor talks about investing in civilian R&D, the fact is we're already doing it.

Let me explain what we're doing.

Two years ago, we pulled every Federal agency together to launch a new program to develop the supercomputers of tomorrow -- computers 1000 times more powerful than today's. Our vision is to develop a supercomputer the size of a desktop PC -- and to do it within four years.

We also proposed a nationwide communications network -- an information backbone that will transmit 1000 times more information than we can today in one second. This year, we've proposed over \$800 million, a 23% increase, for this High Performance Computing and Communications initiative.

Last year, we launched another crosscutting technology plan -- an investment of over \$1.8 billion in the materials of tomorrow. These new kinds of materials will help us make products that are stronger, lighter, and faster -- everything from cars to airplanes to military equipment.

We've launched a \$4 billion program in biotechnology research -- and proposed to knock down the regulatory barriers that

might prevent technologies in this area from helping us to cure disease, grow more crops, and clean up the environment.

We're using technology to tackle an unfortunate legacy of the Cold War -- the environmental problems left from making weapons that defended freedom around the globe. Winning the peace means managing dangerous materials more effectively. Today, we're using the scientific expertise of the Federal labs -- whose scientists first devised these bombs -- to find new technologies for stopping weapons proliferation, and for protecting our children from environmental threats.

I'm here today, however, because a successful strategy for winning the economic competition requires more than just investment in R&D -- whether basic or applied. In a fast-paced world of shorter product cycles and faster communications, the key to victory is moving ideas and technologies from the laboratory bench to the commercial marketplace faster than ever before.

That's what this National Technology Initiative, or NTI, is all about. This is the eleventh NTI meeting we've had -- each in a different part of the country; each designed to help speed the transfer of technology from our Federal labs and universities to the private and commercial sector.

We're working to make it easier to deal with the Federal government as a partner. If you attend the workshops and visit the technology fair, you'll get a window on today's opportunities, and an early start on tomorrow's successes.

One year ago, I directed the Secretaries of Commerce and Energy to increase the number of cooperative research and

development agreements signed between our Federal facilities and private partners. These CRADAs ((CRAY-duhs)), as they are called, help speed the transfer of the most promising technologies ^{from the gov't} to the private sector -- so they can be developed into commercial products and services.

And in the one year since that directive was issued -- we've doubled the number of these agreements. There are now more than 1,400 operating and in place. Computers. Ceramics. Environmental cleanup. We are achieving an unprecedented level of success in taking the best ideas from our labs and turning them into American products and American jobs.

STBT (Today we are signing (several) new breakthrough agreements.) One involves two Federal labs and three private industry partners -- working to determine the right mix for burning pelletized trash along with coal to generate electricity. The results will be cleaner air, less trash in our landfills, and more jobs in Illinois.

A second will bring the Oak Ridge National Lab together with IBM to extend America's leadership in High Performance Computing. The third involves a partnership between General Motors and the National Institute of Standards and Technology -- NIST -- to develop new software to solve problems in automated manufacturing equipment.

These agreements provide rules of the road, protection of patents and intellectual property, and other understandings -- so that technology transfer is not just a concept but a job-producing reality.

Our program reflects a fundamental belief about the path to successful technology development. Our efforts to transfer technology from the labs, to invest in the most promising technologies of tomorrow, have recognized the fact that the private sector must commercialize these technologies.

To help in that task, to spread information about best practices and new processes, my Administration has also established seven regional Manufacturing Technology Centers around the country. These ^{centers} will introduce new equipment and improve manufacturing processes for small and medium-sized firms. Since 1989, more than 6,000 companies have used the services provided by these centers -- and we plan to start up four more next year.

Now, my opponent proposes to create hundreds of centers. He doesn't say how long it will take to build them. But I can tell you this: we don't need a massive bureaucracy. We want to share best practices; not necessarily every practice that a government planner wants to push. The point is this: rather than waiting for the bureaucrats and planners to decide what's best, I believe we should foster the kind of partnerships that allow the private sector to help identify and commercialize the most promising technologies -- those in which we are pursuing leadership today.

In next year's budget, we will launch a new ~~cross-cutting~~ initiative to increase our investment in R&D into new technologies to advance the manufacturing process. Today's factories face a different set of challenges from those a generation ago. In the face of fast changing requirements, more flexibility is needed.

We want to advance the development of systems and software, of robotics and artificial intelligence, to make this flexibility possible for all kinds of companies. The government will help with technological leaps -- so that the American firms can leap ahead in the marketplace.

One of the most quintessentially American figures of our time, John Wayne, once said that: "Tomorrow is the most important thing in life."

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Do you want a tomorrow in which work and innovation are rewarded, or in which we turn back down the path of higher taxes and more regulation?

When Americans step into that booth this year, they will face a fundamental choice about the kind of future they want. I have come to Chicago today to offer my ideas for a future full of promise. A future in which America works, America competes, and America wins.

I ask you to join me in this future.

Thank you, God bless you, and God bless the United States of America.

(Grady, 9/22/92)
PRESIDENTIAL REMARKS: NATIONAL TECHNOLOGY INITIATIVE
CHICAGO, ILLINOIS
FRIDAY, SEPTEMBER 25, 1992

Thank you, Governor Edgar, for that introduction. Illinois' most famous son, and the first Illinois Republican, Abraham Lincoln, once said that: "The struggle of today is not altogether for today - it is for a vast future, also."

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A few weeks ago in Detroit, I laid out the direction in which I hope to go -- I called my plan an Agenda for American Renewal. My strategy is integrated -- tying economic policy and foreign policy and domestic policy together, because, in fact, they are related.

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capital and ideas can move around the world literally in seconds, investments in R&D and in the technologies of tomorrow can improve our productivity. That is the key to increasing economic growth. And growth means an improved standard of living for the American people.

In the old days, economists would tell you that capital and labor were the two ingredients you needed to make the economy produce. Today, it's universally accepted that a third ingredient is needed: knowledge.

We need the best ideas in the world -- and we have always had them. For decades, American scientists have produced the most scientific literature, the most new patents, the most Nobel prizes. And we are investing in basic research to keep that lead.

But to win today's economic competition, we need processes that can speed their route from the laboratory to the marketplace. We need investments in applied R&D. We need capital to turn the abstract idea into the concrete reality. And we need a workforce with the brainpower and the skills to take these technologies and turn them into the best quality products anywhere on earth.

If we succeed in creating these building blocks, we will succeed in creating jobs. Just look Illinois. 588,000 jobs in this state are tied to high technology -- that's over 11 percent of Illinois' work force. Illinois is America's number one manufacturer of telecommunications equipment.

My Agenda states that we must sharpen the competitive edge of American business, but it rests on the core belief that the source of America's success has always been the immense power of

entrepreneurial capitalism. And that is a key difference from the vision of my opponent in this election.

You see, Governor Clinton has also been talking about investing in civilian R&D during this election. But my opponent's rhetoric falls short in four key respects.

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Second, while Governor Clinton may be claiming he's going to make the right play, Congress is intercepting the ball and running it in the opposite direction. In each of the past four years, my R&D budget has been cut by Governor Clinton's allies in the other party - the pork happy partisans on Capitol Hill.

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Even Governor Clinton is beginning to see that his tax policies are catching up with him.

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For us to continue to win new markets for America, we need a more open world trading regime. So we have worked to complete the North American Free Trade Agreement -- NAFTA -- which will create almost 200,000 jobs right here in the United States. We have worked for a successful conclusion of the Uruguay round. We have completed individual agreements with Japan, Korea, Mexico, and countries around the world to open markets for technology and protect American intellectual property -- so that the incentive to generate new ideas and create new products remains.

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Do you want a tomorrow in which we invest in the technologies that can make us more competitive, or in which we allow the patrons of the past to spend our future away?

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TIME OF TRANSMISSION

TIME OF RECEIPT

**WHITE HOUSE
SITUATION ROOM**

PRECEDENCE: IMMEDIATE
PRIORITY
ROUTINE

RELEASER: Pheney

DTG: 251600Z SEP 92

MESSAGE NO. 188 CLASSIFICATION Unclassified PAGES 1
FROM Ed Walters 7750 111.5
(NAME) (PHONE NUMBER) (ROOM NO.)

MESSAGE DESCRIPTION

TO (AGENCY)	DELIVER TO	DEPT/ROOM NO.	PHONE NUMBER
<u>AFT</u>	<u>Nancy Benson</u>		
	<u>Dan McGroarty</u>		

REMARKS:

September 24, 1992

MEMORANDUM FOR BOB GRADY

FROM: ED WALTERS *EW*SUBJECT: ^{note} SUGGESTIONS FOR NTI SPEECH

My suggestions for the speech. Paragraph references are for full paragraphs (e.g. Page 2, Para. 3 refers to the third full paragraph of page 2).

Page 2, Para. 4. Illinois numbers don't match. S. Morganstein memo cites 585,000 state high-tech jobs, and "Illinois leads the nation in the number of jobs in companies that manufacture telecommunications equipment" which is different from being America's number one manufacturer of telecom. equipment.

Suggest: Change to 585,000; drop telecom. employees statistic.

Page 4, Para. 3: Neither David Tell nor research at RNC have heard of this proposed Clinton cut. Do we have an independent cite for this? Please call me at x7750 to confirm.

Page 5, Para. 1: misplaced "students"

Suggestion: ". . . Arkansas ranks 48th in percentage of adults with high school diplomas."

Page 5, Para. 1: 48th ranking is 1989 figure.

Suggestion: Either: "After 9 years with Bill Clinton . . ."
or: "In 1989, Arkansas ranked 48th . . ."

Page 6, Para. 3: export increase according to USTR: 1988-1991 is 61 percent (1988-1992 annualized is 106 percent).

Suggestion: change to "over 60 percent"

Page 6, Para. 4: ambiguous increase

Suggestion: ". . . over \$800 million, a 23 percent increase over last . . ."

cc: ~~Ed Walters~~

~~Ed Walters~~

Nancy Benson

Dan McGroarty

NATIONAL TECHNOLOGY INITIATIVE
CHICAGO, ILLINOIS
FRIDAY, SEPTEMBER 25, 1992

You too!

THANK YOU, GOVERNOR EDGAR, FOR THAT INTRODUCTION. ILLINOIS' MOST FAMOUS SON, AND THE FIRST ILLINOIS REPUBLICAN, ABRAHAM LINCOLN, ONCE SAID THAT: "THE STRUGGLE OF TODAY IS NOT ALTOGETHER FOR TODAY -- IT IS FOR A VAST FUTURE, ALSO."

THAT IS WHY I HAVE COME TO THIS GREAT UNIVERSITY, TO THE CITY IN THE HEART OF THE MOST CONFIDENT NATION ON EARTH, TO TALK TO YOU TODAY. IN LESS THAN SIX WEEKS, YOU FACE A FUNDAMENTAL CHOICE ABOUT ~~THE~~ AMERICA'S FUTURE - - ABOUT THE KIND OF AMERICA WE WILL SEEK TO BUILD, ABOUT THE DIRECTION WE WILL TAKE.

A FEW WEEKS AGO IN DETROIT, I LAID OUT THE DIRECTION IN WHICH I HOPE TO GO -- I CALLED MY PLAN AN AGENDA FOR AMERICAN RENEWAL.

MY STRATEGY IS INTEGRATED -- TYING ECONOMIC POLICY AND FOREIGN POLICY AND DOMESTIC POLICY TOGETHER, BECAUSE, IN FACT, THEY ARE RELATED.

*Thanks
to Governor
Edgar
Illinois'
Favorite
SON.*

X I PUT IT SIMPLY: OUR DEFINING CHALLENGE IN THE 90S IS TO WIN THE ECONOMIC COMPETITION, TO WIN THE PEACE. SO MY AGENDA OUTLINES THE STEPS WE CAN TAKE TODAY TO MAKE AMERICA MORE COMPETITIVE BOTH NOW AND IN THE FUTURE -- AND ONE KEY STEP IS TO INVEST IN TECHNOLOGY.

TODAY I WANT TO TALK TO YOU ABOUT MY PROGRAM FOR INVESTING IN CIVILIAN RESEARCH AND DEVELOPMENT. AND I WANT TO TALK ABOUT HOW WE CAN SPEED THE PROCESS THROUGH WHICH AMERICAN BUSINESSES AND ENTREPRENEURS CAN TURN THE FRUITS OF THAT R&D INTO SUCCESSFUL PRODUCTS AND AMERICAN JOBS.

I INCLUDED INVESTMENT IN CIVILIAN R&D IN MY AGENDA FOR AMERICAN RENEWAL FOR A VERY SPECIFIC REASON. IN THE INFORMATION AGE, WHEN CAPITAL AND IDEAS CAN MOVE AROUND THE WORLD LITERALLY IN SECONDS, INVESTMENTS IN R&D AND IN THE TECHNOLOGIES OF TOMORROW CAN IMPROVE OUR PRODUCTIVITY. THAT IS THE KEY TO INCREASING ECONOMIC GROWTH. AND GROWTH MEANS AN IMPROVED STANDARD OF LIVING FOR THE AMERICAN PEOPLE.

IN THE OLD DAYS, ECONOMISTS WOULD TELL YOU THAT CAPITAL AND LABOR WERE THE TWO INGREDIENTS YOU NEEDED TO MAKE THE ECONOMY PRODUCE. TODAY, IT'S UNIVERSALLY ACCEPTED THAT A THIRD INGREDIENT IS NEEDED: KNOWLEDGE.

WE NEED THE BEST IDEAS IN THE WORLD -- AND WE HAVE *America has* ALWAYS HAD THEM. FOR DECADES, AMERICAN SCIENTISTS HAVE PRODUCED THE MOST SCIENTIFIC LITERATURE, THE MOST NEW PATENTS, THE MOST NOBEL PRIZES. AND WE ARE INVESTING IN BASIC RESEARCH TO KEEP THAT LEAD.

BUT TO WIN TODAY'S ECONOMIC COMPETITION, WE NEED PROCESSES THAT CAN SPEED THEIR *g* ROUTE FROM THE LABORATORY TO THE MARKETPLACE. WE NEED INVESTMENTS IN APPLIED R&D.

WE NEED CAPITAL TO TURN THE ABSTRACT IDEA INTO *the* CONCRETE *results* REALITY. AND WE NEED A WORKFORCE WITH THE BRAINPOWER AND THE SKILLS TO TAKE THESE TECHNOLOGIES AND TURN THEM INTO THE BEST QUALITY PRODUCTS ANYWHERE ON EARTH.

IF WE SUCCEED IN CREATING THESE BUILDING BLOCKS, WE WILL SUCCEED IN CREATING JOBS. JUST LOOK ^{at} ILLINOIS. 588,000 JOBS IN THIS STATE ARE TIED TO HIGH TECHNOLOGY -- THAT'S OVER 11 PERCENT OF ILLINOIS' WORK FORCE. ~~ILLINOIS IS AMERICA'S NUMBER ONE MANUFACTURER OF TELECOMMUNICATIONS EQUIPMENT.~~

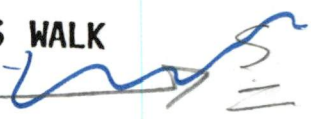
MY AGENDA STATES THAT WE MUST SHARPEN THE COMPETITIVE EDGE OF AMERICAN BUSINESS, BUT IT RESTS ON THE CORE BELIEF THAT THE SOURCE OF AMERICA'S SUCCESS HAS ALWAYS BEEN THE IMMENSE POWER OF ENTREPRENEURIAL CAPITALISM. AND THAT IS A KEY DIFFERENCE FROM THE VISION OF MY OPPONENT IN THIS ELECTION.

YOU SEE, GOVERNOR CLINTON HAS ALSO BEEN TALKING ABOUT INVESTING IN CIVILIAN R&D DURING THIS ELECTION. BUT MY OPPONENT'S RHETORIC FALLS SHORT IN FOUR KEY RESPECTS.

FIRST, HE PUTS HIS FAITH IN THE ABILITY OF GOVERNMENT TO PICK THE RIGHT INVESTMENTS, TO CONTROL THE RESOURCES, TO DETERMINE WHICH PARTICULAR PRODUCTS AND PROCESSES WILL BE FAVORED BY THE BUREAUCRATS IN WASHINGTON. I WANT TO EMPOWER THE BUSINESSMAN OR THE BUSINESSWOMAN TO DEVELOP A RANGE OF PRODUCTS, PICKED NOT BY THE PLANNER BUT BY THE POWER OF THE MARKETPLACE.

SECOND, WHILE GOVERNOR CLINTON MAY BE CLAIMING HE'S GOING TO MAKE THE RIGHT PLAY, CONGRESS IS INTERCEPTING THE BALL AND RUNNING IT IN THE OPPOSITE DIRECTION. IN EACH OF THE PAST FOUR YEARS, MY R&D BUDGET HAS BEEN CUT BY GOVERNOR CLINTON'S ALLIES IN THE OTHER PARTY -- THE PORK HAPPY PARTISANS ON CAPITOL HILL.

IN FACT, RIGHT NOW, THIS YEAR, THE DEMOCRATIC LEADERS IN THE CONGRESS -- WITH WHOM THE CLINTON CAMPAIGN IS CONSULTING EACH AND EVERY DAY -- HAVE SLASHED MY PROPOSED INCREASE FOR THE NATIONAL SCIENCE FOUNDATION, HEADED BY CHICAGO'S OWN WALTER MASSEY. THEY'VE ZEROED OUT MY PROPOSED INITIATIVE IN MAGNETICALLY-LEVITATED HIGH SPEED RAIL. THEY'VE REDUCED OUR INVESTMENTS IN COMPUTERS, AND ADVANCED MATERIALS AND MANUFACTURING R&D. WHILE THE GOVERNOR TALKS HIGH TECH, HIS ALLIED^S IN CONGRESS WALK AWAY FROM IT.



AND GOVERNOR CLINTON'S OWN PLAN -- FOR ALL HIS TALK ABOUT RESEARCH -- WOULD GUT THE FOUNDATION OF AMERICA'S SCIENCE AND TECHNOLOGY ENTERPRISE BY CUTTING UNIVERSITY REIMBURSEMENTS FOR R&D BY \$3 BILLION -- ALMOST ONE-THIRD. UNDER HIS PLAN, THE ABILITY OF GREAT UNIVERSITIES LIKE THE UNIVERSITY OF CHICAGO TO CONDUCT WORLD-CLASS RESEARCH WOULD BE COMPROMISED.

FINALLY, AND MOST IMPORTANTLY, HE PROPOSES TO FINANCE HIS MANY PROMISES WITH A MASSIVE TAX INCREASE THAT WILL SMOTHER THE VERY GROWTH ON WHICH OUR SUCCESS DEPENDS. I HAD A FREUDIAN SLIP THE OTHER DAY AND CALLED GOVERNOR CLINTON "GOVERNOR TAXES."

WELL, BILL CLINTON HAS PROPOSED THE LARGEST TAX INCREASE IN AMERICAN HISTORY, \$150 BILLION, AND THAT'S JUST FOR STARTERS. TO PAY FOR HIS OTHER PROMISES, HE WILL TAX SMALL BUSINESSES -- THE MAIN SOURCE OF JOBS IN OUR ECONOMY AND *the* HEROES OF HIGH TECHNOLOGY. SO LET'S BE CLEAR: BILL CLINTON'S HIGH TAX POLICIES WILL KILL HIGH TECH BUSINESSES.

WHAT IT COMES DOWN TO IS THIS. AMERICA IS AT A CROSSROADS. FOR THE FIRST TIME IN 50 YEARS, OUR COUNTRY IS INVOLVED TODAY IN NO MAJOR CONFLICTS ANYWHERE ON EARTH. WE FACE AN UNPRECEDENTED OPPORTUNITY. AND THERE ARE TWO DIRECTIONS WE CAN TAKE.

THE DIRECTION I PROPOSE, AT ITS HEART, IS FUTURE-ORIENTED, OUTWARD LOOKING. I DO NOT BELIEVE THAT AMERICANS SHOULD FEAR COMPETITION. BECAUSE I BELIEVE WE CAN COMPETE AND WIN. SO I HAVE WORKED TO OPEN MARKETS, TO GET OUR WORK FORCE READY TO COMPETE, AND, BOTH AS A GOVERNMENT AND AS A SOCIETY, TO INVEST IN THE FUTURE.

IN SHORT, I BELIEVE WE SHOULD COMPETE, NOT RETREAT.

AND I BELIEVE WE CAN DO IT WITHOUT A MASSIVE EXPANSION OF THE FEDERAL GOVERNMENT THAT REACHES INTO THE POCKET OF EVERY AMERICAN TAXPAYER.

LET ME TALK ABOUT THE ELEMENTS OF THIS COMPETITION. FIRST, OPEN MARKETS. MY OPPONENT SAYS AMERICA IS IN DECLINE. BUT THE FACT IS THAT WE ARE WINNING NEW MARKETS FOR AMERICAN GOODS AND SERVICES RIGHT NOW. JUST LOOK AT OUR EXPORT PERFORMANCE OVER THESE PAST FOUR YEARS. WE HAVE INCREASED EXPORTS BY 40%. WE HAVE GAINED WORLDWIDE MARKET SHARE IN MANUFACTURING OUTPUT. OUR EXPORTS TO JAPAN HAVE GROWN 12 TIMES FASTER THAN OUR IMPORTS. AND HIGH TECH EXPORTS HAVE LED THE WAY. SINCE 1987, OUR TRADE SURPLUS IN ADVANCED TECHNOLOGY PRODUCTS HAS GROWN BY MORE THAN 80%. SO I HAVE A MESSAGE FOR THE PESSIMISTS: * ^o WE CAN COMPETE, AND ^{America} WE CAN WIN.

* When it comes to new ideas, America

FOR US TO CONTINUE TO WIN NEW MARKETS FOR AMERICA, WE NEED A MORE OPEN WORLD TRADING REGIME. SO WE HAVE WORKED TO COMPLETE THE NORTH AMERICAN FREE TRADE AGREEMENT -- NAFTA -- WHICH WILL CREATE ALMOST 200,000 JOBS RIGHT HERE IN THE UNITED STATES. WE HAVE WORKED FOR A SUCCESSFUL CONCLUSION OF THE URUGUAY ROUND. WE HAVE COMPLETED INDIVIDUAL AGREEMENTS WITH JAPAN, KOREA, MEXICO, AND COUNTRIES AROUND THE WORLD TO OPEN MARKETS FOR TECHNOLOGY AND PROTECT AMERICAN INTELLECTUAL PROPERTY -- SO THAT THE INCENTIVE TO GENERATE NEW IDEAS AND CREATE NEW PRODUCTS REMAINS.

NOW, MY OPPONENT HAS WAFFLED ON NAFTA. HE WOULD RISK OUR ABILITY TO EXPAND TRADE BY SUPPORTING ANTI-TRADE LEGISLATION ON CAPITOL HILL. AND HIS TAX ON FOREIGN INVESTMENT IN THE UNITED STATES WILL NOT ONLY LOCK OUT HIGH WAGE, HIGH SKILL JOBS -- IT WILL INVITE RETALIATION THAT WILL UNDERCUT THE GROWTH IN EXPORTS WHICH IS SO KEY TO THE GROWTH IN THE ECONOMY.

LET'S TALK ABOUT EDUCATION -- PREPARING OUR CHILDREN TO MEET THE CHALLENGES OF THE 21ST CENTURY ECONOMY. GOVERNOR CLINTON HAS SAID THAT WE'VE REDUCED INVESTMENT IN EDUCATION. HE IS WRONG. EDUCATION THIS YEAR GOT THE BIGGEST INCREASE IN MY BUDGET -- IT'S UP 41% OVER 1989.

AND WE'VE PLACED A PARTICULAR EMPHASIS ON MATH AND SCIENCE EDUCATION, ^{BOOSTING IT BY MORE THAN 2/3 SINCE 1989} ~~MORE THAN DOUBLING FUNDING~~, SO THAT THIS YEAR'S BUDGET WILL BE ABLE TO USE FEDERAL ASSETS TO HELP TRAIN OVER 770,000 TEACHERS IN THE MATH AND SCIENCE SKILLS THEY NEED TO TEACH OUR KIDS.

*increase
by 69%
or 2/3*

BOOSTING IT BY MORE THAN 2/3 SINCE 1989

AND LET'S TALK ABOUT INVESTING IN THE FUTURE. WE'VE BEEN WORKING TO PROMOTE THE TECHNOLOGIES THAT WILL MAKE US MORE COMPETITIVE IN THE FUTURE. BUT IT'S TIME TO SET THE RECORD STRAIGHT ON THIS. THE GOVERNOR, UNCHALLENGED BY THESE ENTERPRISING REPORTERS WITH US HERE TODAY FROM THE NATIONAL MEDIA, ^I HAS SAID THAT WE'VE "REDUCED INVESTMENT IN CIVILIAN R&D." THAT IS SIMPLY ^{NOTE} UNTRUE.

HERE IS THE RECORD. MY BUDGET THIS YEAR WOULD INCREASE CIVILIAN R&D BY 44% OVER 1989 LEVELS. CIVILIAN BASIC RESEARCH IS UP 36%. AND APPLIED CIVILIAN R&D IS UP 49%. SO WHEN THE GOVERNOR TALKS ABOUT INVESTING IN CIVILIAN R&D, THE FACT IS WE'RE ALREADY DOING IT.

LET ME EXPLAIN WHAT WE'RE DOING.

TWO YEARS AGO, WE PULLED EVERY FEDERAL AGENCY TOGETHER TO LAUNCH A NEW PROGRAM TO DEVELOP THE SUPERCOMPUTERS OF TOMORROW -- COMPUTERS 1000 TIMES MORE POWERFUL THAN TODAY'S. OUR VISION IS TO ^{see industry} DEVELOP A SUPERCOMPUTER THE SIZE OF A DESKTOP PC -- AND TO DO IT WITHIN FOUR YEARS.

WE ALSO PROPOSED A NATIONWIDE COMMUNICATIONS NETWORK -- AN INFORMATION BACKBONE THAT WILL TRANSMIT 1000 TIMES MORE INFORMATION THAN WE CAN TODAY IN ONE SECOND. THIS YEAR, WE'VE PROPOSED OVER \$800 MILLION, A 23% INCREASE, FOR THIS HIGH PERFORMANCE COMPUTING AND COMMUNICATIONS INITIATIVE.

LAST YEAR, WE LAUNCHED ANOTHER CROSSCUTTING TECHNOLOGY PLAN -- AN INVESTMENT OF OVER \$1.8 BILLION IN THE MATERIALS OF TOMORROW. THESE NEW KINDS OF MATERIALS WILL HELP US MAKE PRODUCTS THAT ARE STRONGER, LIGHTER, AND FASTER -- EVERYTHING FROM CARS TO AIRPLANES TO MILITARY EQUIPMENT.

WE'VE LAUNCHED A \$4 BILLION PROGRAM IN BIOTECHNOLOGY RESEARCH -- AND PROPOSED TO KNOCK DOWN THE REGULATORY BARRIERS THAT MIGHT PREVENT TECHNOLOGIES IN THIS AREA FROM HELPING US TO CURE DISEASE, GROW MORE CROPS, AND CLEAN UP THE ENVIRONMENT.

WE'RE USING TECHNOLOGY TO TACKLE AN UNFORTUNATE LEGACY OF THE COLD WAR -- THE ENVIRONMENTAL PROBLEMS LEFT FROM MAKING WEAPONS THAT DEFENDED FREEDOM AROUND THE GLOBE. WINNING THE PEACE MEANS MANAGING DANGEROUS MATERIALS MORE EFFECTIVELY. TODAY, WE'RE USING THE SCIENTIFIC EXPERTISE OF THE FEDERAL LABS -- WHOSE SCIENTISTS FIRST DEvised THESE BOMBS -- TO FIND NEW TECHNOLOGIES FOR STOPPING WEAPONS PROLIFERATION, AND FOR PROTECTING OUR CHILDREN FROM ENVIRONMENTAL THREATS.

I'M HERE TODAY, HOWEVER, BECAUSE A SUCCESSFUL STRATEGY FOR WINNING THE ECONOMIC COMPETITION REQUIRES MORE THAN JUST INVESTMENT IN R&D -- WHETHER BASIC OR APPLIED. IN A FAST-PACED WORLD OF SHORTER PRODUCT CYCLES AND FASTER COMMUNICATIONS, THE KEY TO VICTORY IS MOVING IDEAS AND TECHNOLOGIES FROM THE LABORATORY BENCH TO THE COMMERCIAL MARKETPLACE FASTER THAN EVER BEFORE.

THAT'S WHAT THIS NATIONAL TECHNOLOGY INITIATIVE, OR NTI, IS ALL ABOUT. THIS IS THE ELEVENTH NTI MEETING WE'VE HAD -- EACH IN A DIFFERENT PART OF THE COUNTRY; EACH DESIGNED TO HELP SPEED THE TRANSFER OF TECHNOLOGY FROM OUR FEDERAL LABS AND UNIVERSITIES TO THE PRIVATE AND COMMERCIAL SECTOR.

WE'RE WORKING TO MAKE IT EASIER TO DEAL WITH THE FEDERAL GOVERNMENT AS A PARTNER. IF YOU ATTEND THE WORKSHOPS AND VISIT THE TECHNOLOGY FAIR, YOU'LL GET A WINDOW ON TODAY'S OPPORTUNITIES, AND AN EARLY START ON TOMORROW'S SUCCESSES.

ONE YEAR AGO, I DIRECTED THE SECRETARIES OF COMMERCE AND ENERGY TO INCREASE THE NUMBER OF COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS SIGNED BETWEEN OUR FEDERAL FACILITIES AND PRIVATE PARTNERS. THESE CRADAS ((CRAY-DUHS)), AS THEY ARE CALLED, HELP SPEED THE TRANSFER OF THE MOST PROMISING TECHNOLOGIES ^{From the government} TO THE PRIVATE SECTOR - - SO THEY CAN BE DEVELOPED INTO COMMERCIAL PRODUCTS AND SERVICES.

AND IN THE ONE YEAR SINCE THAT DIRECTIVE WAS ISSUED -- WE'VE DOUBLED THE NUMBER OF THESE AGREEMENTS. THERE ARE NOW MORE THAN 1,400 OPERATING AND IN PLACE. COMPUTERS. CERAMICS. ENVIRONMENTAL CLEANUP. WE ARE ACHIEVING AN UNPRECEDENTED LEVEL OF SUCCESS IN TAKING THE BEST IDEAS FROM OUR LABS AND TURNING THEM INTO AMERICAN PRODUCTS AND AMERICAN JOBS.

TODAY WE ARE SIGNING SEVERAL NEW BREAKTHROUGH AGREEMENTS. ONE INVOLVES TWO FEDERAL LABS AND THREE PRIVATE INDUSTRY PARTNERS -- WORKING TO DETERMINE THE RIGHT MIX FOR BURNING PELLETIZED TRASH ALONG WITH COAL TO GENERATE ELECTRICITY. THE RESULTS WILL BE CLEANER AIR, LESS TRASH IN OUR LANDFILLS, AND MORE JOBS IN ILLINOIS.

A SECOND WILL BRING THE OAK RIDGE NATIONAL LAB TOGETHER WITH IBM TO EXTEND AMERICA'S LEADERSHIP IN HIGH PERFORMANCE COMPUTING. THE THIRD INVOLVES A PARTNERSHIP BETWEEN GENERAL MOTORS AND THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY -- NIST -- TO DEVELOP NEW SOFTWARE TO SOLVE PROBLEMS IN AUTOMATED MANUFACTURING EQUIPMENT.

THESE AGREEMENTS PROVIDE RULES OF THE ROAD, PROTECTION OF PATENTS AND INTELLECTUAL PROPERTY, AND OTHER UNDERSTANDINGS -- SO THAT TECHNOLOGY TRANSFER IS NOT JUST A CONCEPT BUT A JOB-PRODUCING REALITY.

OUR PROGRAM REFLECTS A FUNDAMENTAL BELIEF ABOUT THE PATH TO SUCCESSFUL TECHNOLOGY DEVELOPMENT. OUR EFFORTS TO TRANSFER TECHNOLOGY FROM THE LABS, TO INVEST IN THE MOST PROMISING TECHNOLOGIES OF TOMORROW, HAVE RECOGNIZED THE FACT THAT THE PRIVATE SECTOR MUST COMMERCIALIZE THESE TECHNOLOGIES.

TO HELP IN THAT TASK, TO SPREAD INFORMATION ABOUT BEST PRACTICES AND NEW PROCESSES, MY ADMINISTRATION HAS ALSO ESTABLISHED SEVEN REGIONAL MANUFACTURING TECHNOLOGY CENTERS AROUND THE COUNTRY. THESE ^{centers} WILL INTRODUCE NEW EQUIPMENT AND IMPROVE MANUFACTURING PROCESSES FOR SMALL AND MEDIUM-SIZED FIRMS. SINCE 1989, MORE THAN 6,000 COMPANIES HAVE USED THE SERVICES PROVIDED BY THESE CENTERS -- AND WE PLAN TO START UP FOUR MORE NEXT YEAR.

NOW, MY OPPONENT PROPOSES TO CREATE HUNDREDS OF CENTERS. HE DOESN'T SAY HOW LONG IT WILL TAKE TO BUILD THEM. BUT I CAN TELL YOU THIS: WE DON'T NEED A MASSIVE BUREAUCRACY. WE WANT TO SHARE BEST PRACTICES; NOT NECESSARILY EVERY PRACTICE THAT A GOVERNMENT PLANNER WANTS TO PUSH. THE POINT IS THIS: RATHER THAN WAITING FOR THE BUREAUCRATS AND PLANNERS TO DECIDE WHAT'S BEST, I BELIEVE WE SHOULD FOSTER THE KIND OF PARTNERSHIPS THAT ALLOW THE PRIVATE SECTOR TO HELP IDENTIFY AND COMMERCIALIZE THE MOST PROMISING TECHNOLOGIES -- THOSE IN WHICH WE ARE PURSUING LEADERSHIP TODAY.

IN NEXT YEAR'S BUDGET, WE WILL LAUNCH A NEW ~~CROSS-~~
~~CUTTING~~ INITIATIVE TO INCREASE OUR INVESTMENT IN R&D INTO
NEW TECHNOLOGIES TO ADVANCE THE MANUFACTURING PROCESS.
TODAY'S FACTORIES FACE A DIFFERENT SET OF CHALLENGES FROM
THOSE A GENERATION AGO. IN THE FACE OF FAST CHANGING
REQUIREMENTS, MORE FLEXIBILITY IS NEEDED.

WE WANT TO ADVANCE THE DEVELOPMENT OF SYSTEMS AND
SOFTWARE, OF ROBOTICS AND ARTIFICIAL INTELLIGENCE, TO
MAKE THIS FLEXIBILITY POSSIBLE FOR ALL KINDS OF
COMPANIES. THE GOVERNMENT WILL HELP WITH TECHNOLOGICAL
LEAPS -- SO THAT THE AMERICAN FIRMS CAN LEAP AHEAD IN
THE MARKETPLACE.

ONE OF THE MOST QUINTESSENTIALLY AMERICAN FIGURES OF
OUR TIME, JOHN WAYNE, ONCE SAID THAT: "TOMORROW IS THE
MOST IMPORTANT THING IN LIFE."

WHEN THE SHOUTING IS FINISHED, WHEN THE CAMPAIGN
WINDS DOWN TO ITS END, IT WILL COME DOWN TO A VERY
PERSONAL AND SERIOUS DECISION FOR EVERY AMERICAN. WHAT
KIND OF TOMORROW DO YOU WANT?

DO YOU WANT A TOMORROW IN WHICH WE LOOK FORWARD AND TAKE ON THE COMPETITION, OR ONE IN WHICH WE TURN INWARD IN RETREAT?

DO YOU WANT A TOMORROW IN WHICH WE INVEST IN THE TECHNOLOGIES THAT CAN MAKE US MORE COMPETITIVE, OR IN WHICH WE ALLOW THE PATRONS OF THE PAST TO SPEND OUR FUTURE AWAY?

DO YOU WANT A TOMORROW IN WHICH WORK AND INNOVATION ARE REWARDED, OR IN WHICH WE TURN BACK DOWN THE PATH OF HIGHER TAXES AND MORE REGULATION?

WHEN AMERICANS STEP INTO THAT BOOTH THIS YEAR, THEY WILL FACE A FUNDAMENTAL CHOICE ABOUT THE KIND OF FUTURE THEY WANT. I HAVE COME TO CHICAGO TODAY TO OFFER MY IDEAS FOR A FUTURE FULL OF PROMISE. A FUTURE IN WHICH AMERICA WORKS, AMERICA COMPETES, AND AMERICA WINS.

I ASK YOU TO JOIN ME IN THIS FUTURE.

THANK YOU, GOD BLESS YOU, AND GOD BLESS THE UNITED
STATES OF AMERICA.

#

URGENT

DTG 251625Z

FAX# 14

PAGES ~~25~~ 20

PRESIDENTIAL SPEECH

DELIVER TO Chicago teleprompter

BY THE MOST EXPEDITIOUS MEANS.

DO NOT DELAY!

FROM AF-1

REMARKS: Nancy Benson
unclass

URGENT

~~Why do you think I'm doing this?~~
~~Why do you think I'm doing this?~~
Why do you think I'm doing this?
Why do you think I'm doing this?
Why do you think I'm doing this?

Chicago Signal
946-8060

1 yr v up?
Has Erik been
to his Dr. lately

THE WHITE HOUSE

Office of the Press Secretary
(Chicago, Illinois)

For Immediate Release

September 25, 1992

REMARKS BY THE PRESIDENT
TO NATIONAL TECHNOLOGY INITIATIVE CONFERENCE

Mandel Hall
University of Chicago
Chicago, Illinois

2:26 P.M. CDT

THE PRESIDENT: Thank you all very much. (Applause.) Thank you. It's a pleasure and honor to be back on this campus. (Applause.) Thank you, Barbara Franklin, our able Secretary of Commerce. And let me say how pleased I am to also have with me two of the other top officials in our government -- the Secretary of Energy Jim Watkins, who has served this country in several roles with great distinction; and, of course, one that's I'm sure well-known to many of the scientists here -- Dr. Allan Bromley, who as the Science Advisor to the President has just worked in so many ways to further the aims of science in this country.

I want to thank Dr. Laumann for his hospitality -- the Provost -- and say that I am glad to be back on the campus. I single out -- and I'm at risk here because I'll leave out others who have served their country -- but I just had the pleasure of shaking hands once again with the former Attorney General, your own Ed Levi, who has served not only in government in the highest levels, but also doing a -- has done such a remarkable job in academia.

George Shultz I single out as a former professor here and a former great Secretary of State. And, of course, his Deputy there, business leader now coming to this faculty, Ken Dam, who I believe will be at the Law School, but another outstanding American.

So you can see that Chicago is still getting a good combination of public service, and then outstanding academic credentials. And I feel honored to be here.

I want to thank the Governor, who is doing a great job for this state, for being at my side. And also salute Susan Solomon, who was named Scientist of the Year by R&D Magazine.

And so here we go. I would remind you that Illinois's most famous son and the first Illinois Republican, Abraham Lincoln, once said that "The struggle of today is not altogether for today -- it's for a vast future also."

And that's why I've come to this great university for this lecture, to the city in the heart of the most confident nation on Earth, to talk to you. In less than six weeks -- there's going to be a little politics in this, too -- (laughter and applause) -- no, but in less than six weeks you face a fundamental choice about the future of our great country -- about the kind of America we'll seek to build, about the direction that we're going to take.

A few weeks ago out in Detroit, I laid out the direction in which I hope to go called -- the plan, I called it the plan for American renewal. My strategy is integrated --

tying economic policy and foreign policy and domestic policy all together, because they, in fact, are related.

I put it simply: Our defining challenge in the '90s is to win the economic competition, to win the peace. So my agenda outlines the steps that we can take today to make America more competitive both now and in the future -- and one key step is to invest in technology.

Today I want to talk to you about my program for investing in civilian research and development. And I want to talk about how we can speed the process through which American businesses and entrepreneurs can turn the fruits of that R&D into successful products and American jobs.

I included investment in civilian R&D in my Agenda for American Renewal for a very specific reason. In the information age, when capital and ideas can move around the world literally in seconds, investments in R&D and in the technologies of tomorrow can improve our productivity. And that is the key, the fundamental key to increasing economic growth. And growth means an improved standard of living for the American people.

In the old days, economists would tell you that capital and labor were the two ingredients that you needed to make the economy produce. Today, it's universally accepted that a third ingredient is needed: knowledge. We need the best ideas in the world -- and America has always had them.

For decades, American scientists have produced the most scientific literature, the most new patents, the most Nobel prizes. And we are investing in basic research to keep that lead.

But to win today's economic competition we must have processes that can speed the route from the laboratory to the market place. We need investments in applied R&D. We need capital to turn the abstract idea into concrete results. And we need a work force with a brainpower and the skills to take these technologies and turn them into the best quality products anywhere on Earth.

If we succeed in creating these building blocks, we will succeed in creating jobs. Just look at Jim Edgar's state, your state, Illinois -- 588,000 jobs in this state are tied to high technology. That's over 11 percent of Illinois's work force. My agenda states that we must sharpen the competitive edge of the American business. But it rests on the core belief, a simple core belief that the success of our -- the source of our success has always been the immense power of entrepreneurial capitalism. And that is a key difference from the vision of -- the differences between me and Governor Clinton in this election.

You see, he has also -- my opponent has also been talking about investing in civilian R&D during this election. But my opponent's rhetoric stops, falls short in four key respects. And I'd just like to ask you to compare.

First, he puts his faith in the ability of the government to pick the right investments -- industrial policy we call it -- to control the resources, to determine which particular product and process will be favored by the bureaucrats in Washington. I want to empower the businessman or the businesswoman. I want them to develop a range of products, picked not by industrial planning, not by the planner, but by the power of the marketplace.

Second, while Governor Clinton may be claiming he's going to make the right play, Congress is intercepting the ball and running it in just exactly the opposite direction. In each of the past four years, my R&D budget has been cut by Bill Clinton's allies in the other party on the Hill -- the pork-

happy partisans, I call them in my more congenial times, up there in Congress. (Laughter.)

In fact, right now -- look, this year, the Democratic leaders in the Congress -- with whom the Clinton campaign is consulting each and every day -- have slashed my proposed increase for the National Science Foundation, headed by your own Walter Massey. They've zeroed out my proposed initiative in magnetically levitated high-speed rail. They've reduced our investment in computers and advanced materials and manufacturing R&D.

And while the Governor talks high-tech, his allies in Congress walk away from it. And Governor Clinton's own plan, for all the talk about research, would gut the foundation of American science and technology enterprise by cutting university reimbursements for R&D by \$3 billion, almost one-third. And under his plan the ability of great universities, like the University of Chicago, to conduct world-class research -- in my view, that would be compromised.

And third, the promises of the candidate don't match the record of Governor Clinton. The most recent report card on technology indicators -- and that was published by the Corporation for Enterprise Development -- rated Arkansas near the bottom among states in virtually every category. For technology resources Arkansas got an F.

Now, he's not even lining up the fundamentals for a high-tech world.

At the end of the 1980s Arkansas ranked 48th in the percentage of adults with high school diplomas. Three-quarters of Arkansas's high school graduates needed remedial education when they get to college. And so it's odd for him to talk about high-tech when the residents of his state have to worry about getting out of high school.

Finally and most importantly, he proposes to finance his many promises with a massive tax increase that will smother the very growth on which our success depends. I had a Freudian slip the other day -- and it was; nobody believes it when I say this Clinton was "Governor Taxes." But he has proposed the largest -- really -- the largest tax increase in American history, \$150 billion. And that's just for openers. To pay for his other promises he'll have to tax small businesses, the main source of jobs in our economy and the heroes of high technology.

So let's be clear: these high-tax policies will kill high-tech's businesses. And even the Governor is beginning to see that these tax policies are catching up.

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The rhetoric certainly sounds better. It uses words like "competition" and "preserving quality." But when you strip away the doublespeak it is the same old thing. And in his plan in any version, employers have to provide the insurance that his national health board says is right or they pay what Governor Clinton calls a mandatory premium. What he calls a mandatory premium you and I call a tax. It is plain and simple.

And worse yet, we all become part of a national health care spending limit set by a government-appointed board. And we all know what that means -- long lines and price controls

that will only kill competition; will only lead to rationed health care.

So the Governor really is in more places than Elvis on this one. (Applause.) And one thing -- and I say this having been there -- one thing about the Oval Office, you have to take positions. Whether it's on war and peace, or whether it's on bills you veto, or whatever it is, you can't conceal them and you don't get to change your mind every time the heat gets turned up.

The direction that I propose, the direction that I propose, at its heart is future oriented and outward looking. I do not believe that Americans should fear competition, because I believe when it comes to new ideas, America can compete and America can win. So I've worked to open markets, to get our work force ready to compete and, both as a government and as a society, to invest in the future.

In short, I believe we should compete, not pull back, not retreat. And I believe we can do it without a massive expansion of the federal government that reaches into the pocket of every American taxpayer.

Let me talk about the elements of this competition. First, open markets. My opponent said America is in decline. He used the analogy somewhere below Germany, but just above Sri Lanka. Well, that is not the way others look at this country; certainly not the way I look at this country. But the fact is that we are winning new markets for American goods and services right now, even though the world economy has been very difficult.

Just look at our export performance over these past four years. We've increased exports by 40 percent. We have gained worldwide market share in manufacturing output. Our exports to Japan have grown 12 times faster than our imports. The average American simply does not understand that. And high-tech exports have led the way. Since 1987, our trade surplus in advanced technology products has grown by more than 80 percent. And so I have a message for the pessimists: we can compete, and we can win.

For us to continue to win new markets for America, we need a more open world trading regime. And so we've worked to complete this famous North American Free Trade Agreement, referred to as NAFTA, which will create almost 200,000 jobs right here in the United States. We've worked for a successful conclusion of the Uruguay Round. Now that one's been hung up, as you know, in the Maastricht agreement, the vote -- particularly the vote in France -- the very recent vote in France on the Maastricht agreements. We're going to keep pushing for that, however.

We've completed individual agreements with Japan, Korea, Mexico, and countries around the world to open markets for technology and protect American intellectual property so that the incentive to generate new ideas and create new products remains.

Now, again, my opponent has waffled on NAFTA. He would risk our ability to expand trade by supporting antitrade legislation on Capitol Hill. And the tax on foreign investment -- believe me, the tax on foreign investment in the United States will not only lock out high-wage, high-skill jobs here, it will invite retaliation that will undercut the growth in exports which is absolutely key to the growth in our economy.

Let's talk about education and preparing to meet our challenges -- our children to meet the challenges of the 21st century. Governor Clinton has said that we've reduced investment in education. And, candidly, again, he is wrong. Education this year got the biggest increase in my budget -- it is up 41 percent over 1989. And we've placed a particular emphasis on math and

science education, boosting it by more than two-thirds since 1989, so that this year's budget's going to be able to use federal assets to train over 770,000 teachers in these math and science skill that are absolutely essential for teaching our kids.

And let's talk about investing in the future. We've been working to promote the technologies that will make us more competitive in the future. But it's time to set the record straight on this -- the Governor said we've reduced investment in civilian R&D. That is simply not true. Here is the record.

My budget this year would increase civilian R&D by 44 percent over 1989 levels; civilian basic research is up 36 percent; and applied civilian R&D is up 49 percent. And so when the Governor talks about investing in civilian R&D, the fact is we are already doing it. And if I weren't doing it, Allan Bromley, sitting over my shoulder, would kill me, absolutely kill me, because he's brought to the fore the need to keep us on the cutting edge when it comes to science and technology.

Now, let me explain what we're doing. Two years ago we pulled every federal agency together to launch a new program to develop the super computers of tomorrow -- computers one thousand times more powerful than today's. And our vision is to see industry develop a super computer the size of a desk-top PC, and to do it within four years.

We also proposed a nationwide communications network -- an information backbone that will transmit one thousand times more information than we can today in one second. And this year, we proposed over \$800 million -- that's a 23-percent increase -- for this high-performance computing and communications initiative.

Last year we launched another cross-cutting technology plan -- an investment of over \$1.8 billion in the materials of tomorrow. Now, these new kinds of materials will help us make products that are stronger, lighter and faster -- everything from cars to airplanes to military equipment. And we've launched a \$4-billion program in biotechnology research, and proposed to knock down the regulatory barriers that might prevent technologies in this area from helping us to cure disease, grow more crops, or clean up the environment.

We're using technology to tackle a really unfortunate legacy of the war -- the Cold War -- the environmental problems left from making weapons that defended freedom around the globe. Winning the peace means managing dangerous materials more effectively. And today we're using the scientific expertise of our marvelous federal labs, whose scientists first devised these bombs, to find new technologies for stopping weapons proliferation and for protecting our children from environmental threats.

I take great pride, great joy as a grandparent that the young people in this country go to bed at night without the same fear of nuclear war that their older brothers or fathers and mothers did. That is a major advancement. And yet we still have problems in the nuclear age. And we cannot turn our back on them. And Jim Watkins, our able Secretary, is contending with these problems daily.

And, look, I'm here today because a successful strategy for winning the economic competition requires more than just the investment in R&D -- whether it's basic or applied. In a fast-paced world of shorter product cycles and faster communications, the key to victory is moving ideas and technologies from the laboratory bench to the commercial marketplace faster than ever before.

And that's what this National Technology Initiative -- or NTI -- is all about. This is the 11th NTI meeting we've had -- each in a different part of the country; each designed to help speed the transfer of technology from our federal labs and universities to the private and commercial sector.

We're working to make it easier to deal with the federal government as a partner. And if you attend the workshops and visit the technology fair, you'll get a window on today's opportunities and an early start on tomorrow's successes.

One year ago, I directed the Secretary of Commerce, now Barbara Franklin; Secretary of Energy Jim Watkins to increase the number of cooperative research and development agreements signed between our federal facilities and the private partners. These CRADAs, as they are called, help speed the transfer of the most promising technologies from the government to the private sector so they can be developed into commercial products and services.

And in the one year since that directive was issued, we've doubled the numbers of these agreements. There are now more than 1,400 operating and in place -- computers, ceramics, environmental cleanup. We are achieving an unprecedented level of success in taking the best ideas from our labs and turning them into American products. And in these days, it's fundamental -- American jobs.

And today we are signing several new breakthrough agreements. One involves two federal labs and three private industry partners working to determine the right mix for burning pelletized trash along with coal to generate electricity. The results will be cleaner air, less trash in our landfills, and more jobs in Illinois.

Second, we'll bring the Oakridge National Lab together with IBM to extend America's leadership in high-performance computing.

The third one involves a partnership between General Motors and the National Institute of Standards and Technology -- NIST -- to develop new software to solve problems in automated manufacturing equipment.

These agreements provide rules of the road, protection of patents and intellectual property and other understandings so that technology transfer is not just a concept, but a job-producing reality.

Our program reflects a fundamental belief about the path to successful technology development. Our efforts transfer technology from the labs to invest in the most promising technologies of tomorrow have recognized the fact that the private sector must commercial -- must be the one to commercialize these technologies.

To help in that task, to spread information about best practices and new processes, my administration has also established seven regional manufacturing tech centers around the country. These centers will introduce new equipment and improve manufacturing processes for small and medium-sized firms. Since 1989, more than 6,000 companies have used the services provided by these centers. And we plan to start up four more of them next year.

Now, again in the politics, my opponent proposes to create hundreds of centers. He doesn't say how long it will take to build them, but I can tell you this: We don't need a massive bureaucracy. We want to share best practices, not necessarily every practice that a government planner wants to push.

And I think the fundamental point is this: rather than waiting for the bureaucrats and planners to decide what's best, I believe that we should foster the kind of partnerships that will allow the private sector to help identify and commercialize the most promising technologies, those in which we are pursuing leadership today.

In next year's budget, we will launch a new initiative to increase our investment in R&D into new technologies to advance the manufacturing process. Today's factories face a different set of challenges from those of a generation ago. In the face of fast changing requirements, more flexibility is needed.

We want to advance the development of systems in software, robotics, artificial intelligence, to make this flexibility possible for all kinds of companies. The government will help with technological leaps so that American firms can leap ahead in the marketplace.

One of the most quintessentially American figures of our time, a scientist -- a research and development scientist, John Wayne -- you remember him -- once said that, "Tomorrow is the most important thing in life."

And when the shouting is finished, and all this campaign winds down to its end, it will come down to a very personal and serious decision for every American: What kind of tomorrow do you want? Do you want a tomorrow in which we look forward and take on the competition, or one where we turn inward to protectionism and pull back? Do you want a tomorrow in which we invest in the technologies that can make us more competitive, or in which we allow the patrons of the past to spend our future away? Do you want a tomorrow in which work and innovation are rewarded, or in which we turn back down the path of higher taxes and more regulation?

When Americans step into that booth this year, they will face a fundamental choice about the kind of future that they want. And I have come today out here to Chicago to offer my ideas for a future full of promise. I am optimistic about the future of this country. Let there be no mistake about it: Regardless of what we have been through, I am absolutely convinced that the young people that many of you in this room teach have an exceptionally bright future ahead, a future in which America works, America competes, and America wins.

And so I thank you for being a part of this future in your own way -- put the politics aside for a moment. I've been told by Allan Bromley and others of the fantastic R&D capability, scientific know-how right here in this room today. And I ask you to visualize the same kind of future I've outlined to you.

And many, many thanks for your attention. And may God bless our great country. Thank you very, very much.

END

2:53 P.M. CDT

MEMORANDUM FOR THE RECORD
SUBJECT: [Illegible]

[Illegible text]

THE WHITE HOUSE

Office of the Press Secretary
(Chicago, Illinois)

For Immediate Release

September 25, 1992

REMARKS BY THE PRESIDENT
TO NATIONAL TECHNOLOGY INITIATIVE CONFERENCE

Mandel Hall
University of Chicago
Chicago, Illinois

2:26 P.M. CDT

THE PRESIDENT: Thank you all very much. (Applause.) Thank you. It's a pleasure and honor to be back on this campus. (Applause.) Thank you, Barbara Franklin, our able Secretary of Commerce. And let me say how pleased I am to also have with me two of the other top officials in our government -- the Secretary of Energy Jim Watkins, who has served this country in several roles with great distinction; and, of course, one that's I'm sure well-known to many of the scientists here -- Dr. Allan Bromley, who as the Science Advisor to the President has just worked in so many ways to further the aims of science in this country.

I want to thank Dr. Laumann for his hospitality -- the Provost -- and say that I am glad to be back on the campus. I single out -- and I'm at risk here because I'll leave out others who have served their country -- but I just had the pleasure of shaking hands once again with the former Attorney General, your own Ed Levi, who has served not only in government in the highest levels, but also doing a -- has done such a remarkable job in academia.

George Shultz I single out as a former professor here and a former great Secretary of State. And, of course, his Deputy there, business leader now coming to this faculty, Ken Dam, who I believe will be at the Law School, but another outstanding American.

So you can see that Chicago is still getting a good combination of public service, and then outstanding academic credentials. And I feel honored to be here.

I want to thank the Governor, who is doing a great job for this state, for being at my side. And also salute Susan Solomon, who was named Scientist of the Year by R&D Magazine.

And so here we go. I would remind you that Illinois's most famous son and the first Illinois Republican, Abraham Lincoln, once said that "The struggle of today is not altogether for today -- it's for a vast future also."

And that's why I've come to this great university for this lecture, to the city in the heart of the most confident nation on Earth, to talk to you. In less than six weeks -- there's going to be a little politics in this, too -- (laughter and applause) -- no, but in less than six weeks you face a fundamental choice about the future of our great country -- about the kind of America we'll seek to build, about the direction that we're going to take.

A few weeks ago out in Detroit, I laid out the direction in which I hope to go called -- the plan, I called it the plan for American renewal. My strategy is integrated --

tying economic policy and foreign policy and domestic policy all together, because they, in fact, are related.

I put it simply: Our defining challenge in the '90s is to win the economic competition, to win the peace. So my agenda outlines the steps that we can take today to make America more competitive both now and in the future -- and one key step is to invest in technology.

Today I want to talk to you about my program for investing in civilian research and development. And I want to talk about how we can speed the process through which American businesses and entrepreneurs can turn the fruits of that R&D into successful products and American jobs.

I included investment in civilian R&D in my Agenda for American Renewal for a very specific reason. In the information age, when capital and ideas can move around the world literally in seconds, investments in R&D and in the technologies of tomorrow can improve our productivity. And that is the key, the fundamental key to increasing economic growth. And growth means an improved standard of living for the American people.

In the old days, economists would tell you that capital and labor were the two ingredients that you needed to make the economy produce. Today, it's universally accepted that a third ingredient is needed: knowledge. We need the best ideas in the world -- and America has always had them.

For decades, American scientists have produced the most scientific literature, the most new patents, the most Nobel prizes. And we are investing in basic research to keep that lead.

But to win today's economic competition we must have processes that can speed the route from the laboratory to the market place. We need investments in applied R&D. We need capital to turn the abstract idea into concrete results. And we need a work force with a brainpower and the skills to take these technologies and turn them into the best quality products anywhere on Earth.

If we succeed in creating these building blocks, we will succeed in creating jobs. Just look at Jim Edgar's state, your state, Illinois -- 588,000 jobs in this state are tied to high technology. That's over 11 percent of Illinois's work force. My agenda states that we must sharpen the competitive edge of the American business. But it rests on the core belief, a simple core belief that the success of our -- the source of our success has always been the immense power of entrepreneurial capitalism. And that is a key difference from the vision of -- the differences between me and Governor Clinton in this election.

You see, he has also -- my opponent has also been talking about investing in civilian R&D during this election. But my opponent's rhetoric stops, falls short in four key respects. And I'd just like to ask you to compare.

First, he puts his faith in the ability of the government to pick the right investments -- industrial policy we call it -- to control the resources, to determine which particular product and process will be favored by the bureaucrats in Washington. I want to empower the businessman or the businesswoman. I want them to develop a range of products, picked not by industrial planning, not by the planner, but by the power of the marketplace.

Second, while Governor Clinton may be claiming he's going to make the right play, Congress is intercepting the ball and running it in just exactly the opposite direction. In each of the past four years, my R&D budget has been cut by Bill Clinton's allies in the other party on the Hill -- the pork-

happy partisans, I call them in my more congenial times, up there in Congress. (Laughter.)

In fact, right now -- look, this year, the Democratic leaders in the Congress -- with whom the Clinton campaign is consulting each and every day -- have slashed my proposed increase for the National Science Foundation, headed by your own Walter Massey. They've zeroed out my proposed initiative in magnetically levitated high-speed rail. They've reduced our investment in computers and advanced materials and manufacturing R&D.

And while the Governor talks high-tech, his allies in Congress walk away from it. And Governor Clinton's own plan, for all the talk about research, would gut the foundation of American science and technology enterprise by cutting university reimbursements for R&D by \$3 billion, almost one-third. And under his plan the ability of great universities, like the University of Chicago, to conduct world-class research -- in my view, that would be compromised.

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Let me talk about the elements of this competition. First, open markets. My opponent said America is in decline. He used the analogy somewhere below Germany, but just above Sri Lanka. Well, that is not the way others look at this country; certainly not the way I look at this country. But the fact is that we are winning new markets for American goods and services right now, even though the world economy has been very difficult.

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And many, many thanks for your attention. And may God bless our great country. Thank you very, very much.

END

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