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NTIC [National Technology Initiative Conference] 9/25/92 [OA 7581] [2]

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DOE

NEWS

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FOR THE NTI
EVENT... FYI
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NEWS MEDIA CONTACT:
Steven Fried, 202/586-5806

FOR IMMEDIATE RELEASE
September 18, 1992

DEPARTMENT OF ENERGY LABS SURPASS 1992 GOAL OF DOUBLING COOPERATIVE RESEARCH AGREEMENTS

The Department of Energy (DOE) laboratories already have surpassed the 1992 goal set by Secretary James D. Watkins of doubling cooperative research and development agreements (CRADAs) expected to lead to commercial uses of new technology.

Admiral Watkins set the goal six months ago, soon after President Bush launched the National Technology Initiative (NTI) to increase business participation in federal technology development programs. At that time, CRADAs between DOE labs and research partners, principally private businesses, numbered 98. Today, the count is 216 approved CRADAs with four more in final stages of negotiation.

"This was a challenging goal when we set it," Admiral Watkins said, "and I salute the DOE lab directors and the technology commercialization managers in both the laboratories and private companies who have put together this growing list of ambitious cooperative research projects.

(MORE)

R-92-247

(2)

"When President Bush launched the National Technology Initiative last Feb. 12, he said that moving the fruits of taxpayer sponsored research out of our federal laboratories into commercial use was a key to improving U.S. business competitiveness and economic growth. Since then, the ten federal agencies and 700 government laboratories committed to this effort have achieved an unprecedented level of cooperative research with private industry. I am confident that this commitment of resources to technology commercialization will pay dividends to generations of Americans in the decades ahead."

CRADAs are one form of cooperative research arrangements between federal and non-government partners. Other forms range from simple consultation to large research consortia, such as the \$260 million U.S. Advanced Battery Consortium (U.S. ABC). The U.S. ABC, announced by President Bush last year, has as its goal the development of batteries that will enable widespread use of electric cars by the year 2000.

CRADAs provide for contributions of money, equipment and researchers to cooperative projects by both government and non-government partners.

Funding data on the newest DOE CRADAs is still being compiled, but it is estimated that about 85 percent of the agreements represent a total research and development investment of more than \$320 million. A little more than 60 percent of this amount is being invested by non-government partners.

Non-government partners in cooperative research with DOE labs include many of the Nation's largest manufacturing and high technology companies, but about 25 percent of the research ventures involve small businesses.

To raise business awareness of cooperative research opportunities, the administration's NTI has held 10 regional conferences attended by more than 3,500 R&D leaders this year. A fall series of five conferences will begin with a Sept. 25 meeting at the University of Chicago.

-DOE-

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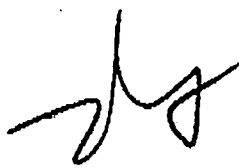
TO: GRADY

FROM: Tull

PAGES: Six (6)

SUBJ: Science + Technology

Call if you need more.
NOTE the CED 1992 report card.
Arkansas got an "F" in technology
resources.



Science and Technology

1992 Presidential Campaign

As part of his economic *Plan for America's Future*, Clinton says he would make permanent the research and development tax credit, saying this would encourage firms to invest in their own long-term prosperity. By expanding the "civilian R&D budget" a dollar for each dollar the defense R&D budget is reduced, and creating "a new federal agency to support and coordinate research in developing new, critical, civilian technologies and moving these ideas to the marketplace," Clinton says he can turn the "defense-technology economy" into a "civilian-technology economy" and preserve the high-wage, high-value skills of thousands of our best scientists, engineers, and workers. A model for what he has in mind can be found in the Arkansas Science and Technology Authority, a state agency that oversees the funding of various high-tech and R&D ventures, public and private, in Arkansas.

In a major economic policy speech at the Wharton School in April 1992, Clinton furthered his call for a MITI-like government funded, public-private agency that would "support research in the few dozen strategic technologies that scientists have already identified as the basis for launching growth industries over the coming decades...." In a self-contradictory explanation, he said, "We can easily do this without inhibiting the *competition* that drives innovation. We can promote more *collaboration* not only between government and business but among firms, just as we have done in defense" (emphasis added). Further, he advocates establishing a fund administered by the National Science Foundation to help scientists and engineers and technicians on defense master critical civilian technologies, such as bio-technology, synthetic materials, renewable energy resources" and "environmental technologies." To help them make the transition, Clinton would set up a program of "small conversion loans" and a service modeled on the agricultural extension service to assist them.

Some troubling problems with this idea merit mention. Clinton ignores the fact that defense industries were not competing in the marketplace (but only for government contracts). He also ignores the simple, but anti-free-market problem of having scientists determine which technologies deserve investing. Apparently, in a Clintonesque economy, private and corporate investors would no longer decide how to meet market demands or on what to risk their future economic prosperity; rather government subsidized scientists would decide which technologies deserved government-coordinated funding.

Clinton has said he supports such "Big Science" projects as the superconducting super collider and the space station, as well as individually researched "small science." "I am a strong supporter of increasing federal funding for research and development. I have pledged that for every dollar we reduce the defense budget on research and development, we will increase the civilian R&D budget by the same amount, making available vast new resources for scientific research. I do believe that the Supercollider [sic] deserves continued federal financing and that we need a continued commitment to

a strong civilian space program. But a Clinton administration will also fund smaller research projects that offer potential commercial and scientific benefits," Clinton says. He also says he supports efforts to colonize the moon and send a manned mission to Mars.¹

Science and Technology in Arkansas

The Arkansas Science and Technology Authority (ASTA) was created by Act 859 of the 1983 General Assembly "to provide leadership, direction, incentives and technical assistance to enable this state and its people to gain the advantages and benefits of advanced science and technology." ASTA spent its first year planning and taking a statewide inventory of technological and scientific resources in Arkansas. Since then, ASTA has funded many basic and applied research and development projects at several of the state universities and at some high-tech companies. It has also established a small business incubator program designed to provide seed capital and technical assistance to promising commercial high-tech proposals. The record of this program, as of early 1992, is mixed. By September 1991, having spent almost \$3 million, the program had assisted 488 business and created "hundreds of jobs."² (ASTA's own 1988 annual report could only claim 81 jobs created by its programs.) However, chronic state budget shortfalls in the late 1980s made appropriations for the incubator program uncertain. On more than one occasion, the originally appropriated funds were cut. (In August 1986, Clinton reduced outlays to ASTA.³)

Clinton himself said in July 1991, that among the successes of ASTA efforts to attract high-tech industries to Arkansas, particularly biotech firms, there had been "some false starts and some things that didn't work out."⁴ In 1988, ASTA began a small business innovation research assistance program to help Arkansas researchers gain federal grants. The same year, ASTA undertook a new technology transfer program designed to link researchers and businesses in commercial partnerships in order to develop promising technology. In 1991, ASTA undertook a new project: industrial networking, which appears to be a euphemism for consortium. With other public and private funding, ASTA developed a model for groups of small to medium sized companies so they could assist one another with marketing and with sharing technical ideas.⁵

ASTA is advised by the Science and Technology Commission, which is appointed by the governor. Clinton proposed that ASTA receive initial funding of \$250,000 and, in his 1983 economic development package, proposed a doubling of appropriations over the next budget biennium. In his 1985 major economic development legislative package, Clinton asked for \$1.9 million in appropriations for ASTA's business incubator program. ASTA also helped develop the R&D Tax Credit (33 percent of contributions up to 50 percent of net tax liability) in 1985 "to stimulate technology transfer through university/industry cooperation on applied research projects." The credits also leverage private contributions to university research projects. In 1986, severe budget revenue shortfalls led to over \$3 million being cut from ASTA's budget. Nevertheless, ASTA funded eighteen basic research programs

and two business incubators, the first of which was located at the University of Arkansas at Fayetteville.

After Clinton became chairman of the National Governor's Association in the summer of 1986, Arkansas was chosen as a participant in a joint NGA-National Science Foundation study on improving American competitiveness. ASTA also approved its first seed capital loan of \$150,000 to ARTECH, a firm that designs and produces automated manufacturing equipment. In recognition of these efforts, the Small Business High Technology Institute named Arkansas the outstanding western state for financial programs assisting technology-based small business firms. In the 1987 legislative session, one state representative threatened that the incubator program might be eliminated "if you don't do better in the next two years."⁶ ASTA broke ground on its second incubator program, this one at Arkansas State University in Jonesboro. The facility opened in March 1988. Another incubator was created with a \$138,000 grant to the rural town of Salem.⁷ In 1988, yet another business incubator was funded, this one at the University of Arkansas at Monticello; the grant was \$250,000. In 1989, ASTA received authority to undertake a new project which was recommended by the Clinton-appointed Commission on Arkansas' Future. ASTA pledged to match National Science Foundation funding up to \$600,000 to establish "Centers for Applied Technology," which are aimed at providing "a collaborative environment for scientists to work on research areas of economic significance to the state." A second new program allowed ASTA to grant scientists up to \$50,000 for work on developing products evolving from basic research for further industrial application. In return for its investment, ASTA receives a royalty on net sales revenues for 10 years. By fall 1991, funding for the incubators was in jeopardy due to overall state revenue shortfalls.

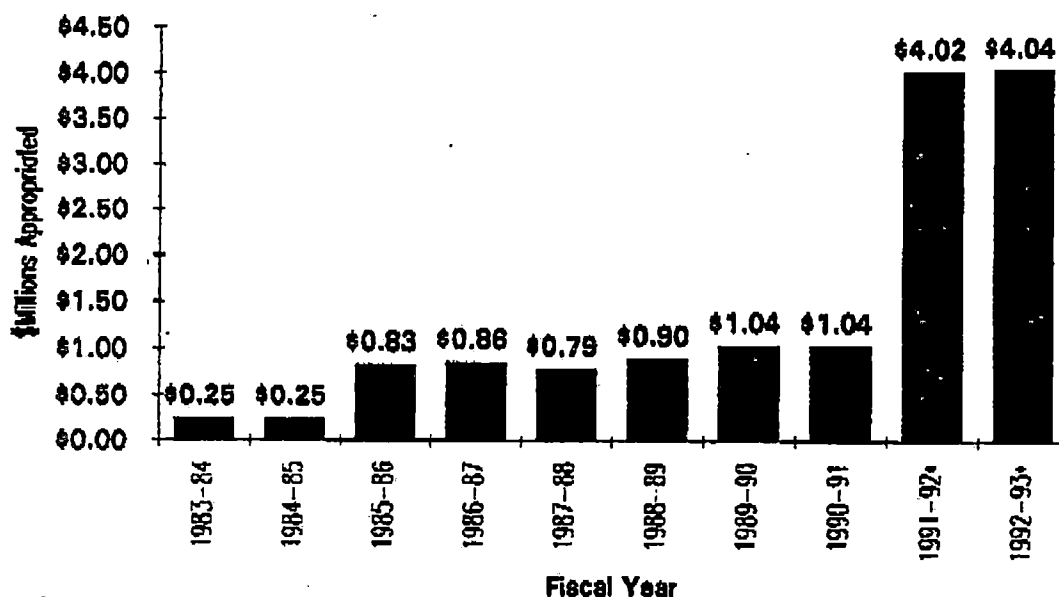
According to a November 7, 1985 *Arkansas Gazette* report, the law firm of Wright, Lindsey and Jennings represents ASTA. This is the firm where Clinton was "employed" while out of office in 1981-82 and the "Lindsey" in the firm's name refers to Bruce Lindsey, a top presidential campaign adviser and close personal friend.

An abandoned barite mine shaft near Hot Springs was selected in 1988 as the site for the gamma ray and neutrino detector project, a joint federal-state-private project to study the effects of subatomic particles which are emitted from stars and constantly bombard the earth. And Clinton has supported the federal-state venture to build a superconducting super collider in Texas. Initially, ASTA and Clinton supported Mississippi's bid to secure the project. Once Texas was chosen, ASTA immediately moved to take advantage and seek quick funding of the project as a way to exploit the construction employment bonanza that would follow: "If it was a long, drawn-out construction project, then it would less likely require resources from outside the Dallas-Fort Worth area," said ASTA Director John Aheln. Arkansas also benefited in 1989 from the federal Food and Drug Administration's National Biotechnology Cooperative, which used the National Center for Toxicological Research near Little Rock. The NCTR was previously a primary laboratory for developing biological warfare weapons. More recently, the FDA has used it to test drugs. The genesis of the cooperative was the 1986 federal Technology Transfer Act which opened federal labs to such public-private joint ventures. The first major company to participate in the Biotech Corridor,

as it has come to be known, was Transgenic Sciences, Inc., a Massachusetts firm trying to develop the first "transgenic animal." In 1990, TSI moved to another nearby lab as NCTR came under fire for financial mismanagement.

The chart below shows funding levels for the Arkansas Science and Technology Commission since 1983. Further research is continuing on Arkansas science and technology issues.

Arkansas Science & Tech Commission Funding



* Mandatory overall budget reductions may necessitate cuts in this fiscal year.

The 1992 Corporation for Enterprise Development's Report Card ranks Arkansas among the very bottom among states in technology-related factors. In the category of "Technology Resources," Arkansas was given an "F" (Arkansas also received an "F" in 1990). In the specific areas within this category Arkansas received the following ranks (earlier Report Card ranks are in parentheses):

- PhD Scientists/Engineers in Workforce 50th ('91-39, '90-39, '89-39, '88-39, '87-50)
- Science/Engineering Graduate Students 49th ('91-50, '90-50, '89-50, '88-49, '87-46)
- Patents Issued 47th ('91-48, '90-48, '89-46, '88-49, '87-48)
- University R&D 48th ('91-48, '90-48, '89-48, '88-49, '87-49)
- Federal R&D 48th ('91-27, '90-48, '89-48, '88-49, '87-50)

In the 1990 and 1991 Report Cards, Arkansas got "As" in the "State Technology and Innovation Policies" category, ranking 7th (13th in 1989; 7th in '88).

That reflects new policy and legislation passed by the 1989 legislature (see below) which, given the above rankings, apparently have not had much impact on the state's overall science/technology environment.

A January 1989 report by the Commission on Arkansas' Future recommended that the Arkansas Science and Technology Authority funding for basic and applied research be expanded. Recommending what is in essence a state-level "industrial policy," the report also urged that ASTA be given funding to expand this mission and include "assisting private businesses in new product design and development when it can be shown that those products have the potential of creating jobs here in the state." The 1991 legislature, upon recommendation of the Clinton administration, nearly quadrupled appropriations for the state science and technology commission, which funds ASTA.

Prior to this recent invigoration, Clinton's technology program was approved in full by the 1989 legislative session. It included expanded funding for the small business innovation research assistance program, basic and applied research and technology development program grants to colleges and universities, research centers for technological excellence (three were proposed), and business incubators, designed to stimulate the development of technology-based businesses in the state.

The business incubator program has met with limited results. Six months into FY91, after the ASTA incubator program had been appropriated and grant proposals submitted, the agency had not determined who would receive funds, mainly because funds had not been released to the agency. Budget reductions eliminated the appropriated funds and the governor was to be asked directly for a restoration of the money. It was expected that \$600,000 would be asked for, already a 40 percent reduction from the original \$1 million appropriation.⁸ With Clinton's out-of-state campaigning, no decision has yet been made and the issue did not come up during the February 1992 special legislative session. So, unless Clinton can reprogram funds from other projects, the ASTA incubator program will go unfunded until the 1993 legislature can consider it.

A final note on a tangential issue: In February 1983, Clinton filed comments with federal Judge Harold Greene, who was presiding over the AT&T divestiture, calling the break-up of the monopoly phone company "one of the worst ideas ever to be approved by our federal government."⁹

June 1992

Endnotes

¹ AP, 2/26/92.

² ASTA annual reports

³ Arkansas Gazette, 8/30/86.

⁴ Arkansas Gazette, 7/2/91.

⁵ Arkansas Gazette, 3/13/91.

⁶ Arkansas Gazette, 2/10/87

⁷ Arkansas Gazette, 3/7/87.

⁸ *Arkansas Democrat-Gazette*, "Business incubators waiting; state money remains unhatched," November 2, 1991.

⁹ Arkansas Gazette, 2/14/83.



U.S. DEPARTMENT OF COMMERCE

Date: 19 September 1992

To: Dennis Ross
Robert Zoellick ✓
Charles Kolb

From: Curtis Chin *CC*
Special Assistant
to the Secretary of Commerce

Subject:

Wendell Willkie II, general counsel and acting deputy secretary, asked that the enclosed copy of a memo from Secretary Franklin to White House Chief of Staff Baker be delivered to you.

tel: 377-2355

9/21
Copy to Bob Grady
FYE for Fr. dy
RBZ
(Pls return a copy)

THE SECRETARY OF COMMERCE
WASHINGTON, D.C. 20230

September 19, 1992

MEMORANDUM FOR JAMES A. BAKER III

SUBJECT: TECHNOLOGY

I strongly urge that the President make a major speech on technology in which he lays out his vision for ensuring that America remains the world's high technology leader and clearly defines his differences with his opponent.

This Administration has much of which to be proud in our record for promoting high technology and devising innovative approaches for transfer of technology developed in federal laboratories. The Bush Administration record is so good that the President's opponent adopted many of the programs and policies already in place at the Department of Commerce when he announced his technology program. I have enclosed several things to illustrate this point.

I understand the President is planning to speak at the September 25 National Technology Initiative (NTI) conference in Chicago. This is an excellent forum in which he can deliver such a speech. We at Commerce are ready to help in any way we can. Preston Moore is my designated "point person."


Barbara Hackman Franklin

Enclosures: Technology Accomplishments Memo
Manufacturing Technology Centers Fact Sheet
DoC Programs Fact Sheet
Cooperative R&D Agreement Memo & Chart



UNITED STATES DEPARTMENT OF COMMERCE
Office of the Secretary
Washington, D.C. 20230

Sept. 14, 1992

MEMORANDUM FOR KATHY SHANAHAN
OFFICE OF CABINET AFFAIRS

FROM: CAROLE TRIMBLE *[Signature]*
COUNSELLOR TO THE SECRETARY AND
ACTING CHIEF OF STAFF

SUBJECT: TECHNOLOGY ACCOMPLISHMENTS

Declaring that "U.S. manufacturing strength has trickled away," Governor Clinton on Sept. 8th in Connecticut announced a plan to assist U.S. manufacturing. In doing so, Clinton tacitly endorsed many of the programs already underway or in development under the Bush Administration.

In particular, Clinton's call for 170 "manufacturing extension centers" repackages, expands and appropriates concepts now in place as part of the President's efforts -- including the ongoing Manufacturing Technology Center (MTC) initiative -- to promote jobs and economic growth through technology.

At present, seven regional MTCs established by the Department of Commerce (DoC) help small and medium-sized firms implement advanced manufacturing technologies. Since 1989, the MTCs have helped companies introduce new equipment and improve business practices and manufacturing processes. To date, more than 6,000 U.S. firms have participated in MTC activities focused on reducing inventories, eliminating waste and developing and marketing new products. Companies helped estimate the benefits at nearly \$200 million.

In focusing public attention on ongoing efforts to promote jobs and economic growth by assisting U.S. manufacturers, the President may wish to address this issue as part of a visit to a Manufacturing Technology Center. MTCs are located in California, Kansas, Michigan, Minnesota, New York, Ohio and South Carolina. (Attached are a fact sheet on the MTCs as well as a fact sheet describing DoC efforts to promote jobs and economic growth through technology.)

A clear distinction, however, exists between the President's and Clinton's philosophy and approach in funding such manufacturing centers. The President has put in place a creative partnership between business and government -- and it's working. (The MTCs are developed and funded by both industry and government, and must be self-sustaining within six years.)

DoC is already working to expand this "Manufacturing Excellence Partnership" concept. Our FY 1994 budget calls for an increase of \$7.1 million to fund four additional MTCs and to initiate a single-state pilot demonstration of a manufacturing extension network.

In contrast, the Administration's critics envision a big budget, government-run program with estimated annual costs ranging from \$135 million to \$500 million. These funds would come from "money saved from military cuts."

President Bush has been working aggressively through programs such as the MTCs to ensure that U.S. manufacturers have the resources to compete against the global competition. The President's jobs training proposals and support for industry-led advanced technology R&D programs are also designed to help U.S. businesses. More so than any other U.S. leader, President Bush has also fought to aid American manufacturers by opening markets and promoting world-class U.S. exports.

Other longstanding policy proposals and actions of the President which would help U.S. businesses, particularly high tech firms, include the following:

- easing antitrust laws and government regulations so that companies can more easily form alliances for research, development and production
- reforming our export control system
- enforcing sanctions against foreigners that violate trade agreements
- enacting a new targeted investment tax credit
- lowering the capital gains tax rate
- making the tax credit for R&D expenditures permanent

Clearly, as we continue to move toward the 21st century, government -- in partnership with business -- must ensure an environment that promotes jobs and economic growth. We must ensure that American workers remain No. 1 in productivity and American companies continue as leaders in technology. In a changed world, commerce is now America's front line. Government can lend a helping hand to industry, but it must also know when to get out of the way and let business do business.

MTCs: TECHNOLOGY ACCESS FOR GROWING BUSINESSES

WHAT ARE MTCs? MTCs—Manufacturing Technology Centers—are joint NIST and locally funded organizations serving as bridges between industry and sources of modern manufacturing technology (such as universities, federal government facilities, vendors, and professional organizations). Congress established the MTC program to help the nation's 350,000 small and medium-sized manufacturers improve their productivity and technological performance. By law, NIST is responsible for the creation and support of regional centers to transfer advanced manufacturing technology to these firms. Each center must be affiliated with a U.S.-based, non-profit institution or organization. The emphasis is on helping companies help themselves move up the technology ladder. Activities conducted by MTCs include in-depth assessments of manufacturing operations and technology needs, specialized employee training, and direct help with the introduction of modern manufacturing equipment. The centers do not conduct research.

WHERE ARE THE MTCs? Seven centers have been established to date: the Great Lakes Manufacturing Center in Cleveland, Ohio; the Northeast Manufacturing Technology Center in Albany, N.Y.; the Southeast Manufacturing Technology Center in Columbia, S.C.; the Midwest Manufacturing Technology Center in Ann Arbor, Mich.; the Mid-America Manufacturing Technology Center in Overland Park, Kan.; the California Manufacturing Technology Center in Torrance, Calif.; and the Upper Midwest Manufacturing Technology Center in Minneapolis, Minn.

HOW ARE MTCs CHOSEN? A National Research Council committee reviews proposals for technical content and management approach. NIST then evaluates the strengths and weaknesses of each proposal, including: (1) identification of target firms in the proposed region; (2) technology resources; (3) technology delivery mechanisms; and (4) management and financial plan. Final selections are made by the NIST director.

HOW ARE MTCs FUNDED? NIST provides financial support for MTCs for the first 6 years, after which the centers must be self-supporting. Typically, NIST will provide up to \$1.5 million for the start-up year and up to \$3 million each for the second and third years of operation, and the sponsor contributes matching funds. NIST funding gradually tapers off in years 4, 5, and 6, while the sponsor's contributions increase proportionately.

HAS THE PROGRAM BEEN SUCCESSFUL? Since 1989, more than 6,000 U.S. firms have participated in MTC activities. Hundreds of small and medium-sized companies have benefited from in-depth assessments of their business operations—from factory-floor layout to invoice handling procedures—and thousands have participated in workshops and seminars. Many collaborations have resulted in the licensing of federal technologies, the designing of new processes, and the introduction of new products into the market.

FOR FURTHER INFORMATION: Write or call the MTC Program Office, B212 Chemistry Bldg., NIST, Gaithersburg, Md. 20899, 301/975-3414.

Promoting Jobs and Economic Growth through Technology

Superior technology is essential to new American jobs and economic growth. Americans are only 5 percent of the world's people, yet so productive that we make 25 percent of the world's goods and services. By offering unparalleled services and creating the next generation of world-class products, a dynamic America will lead the way into the 21st century. The U.S. Department of Commerce (DoC) works closely with American business to enhance U.S. competitiveness. The results from this creative partnership with business are significant:

STIMULATING R&D INVESTMENT

- **Advanced Technology Program (ATP)**

Begun in 1990, the ATP supports industry-led development of generic, pre-competitive technologies. Some 120 companies and institutions already participate in the program, which has fostered more than \$300 million in research that industry might be reluctant to undertake entirely on its own.

ATP research is resulting in major industry cost savings and in licensing and spin-off technologies in areas such as mass data storage systems and computer access technologies.

- **Intellectual Property Protection**

A strong patent and trademark system encourages innovation and fosters a strong technology base for the advancement of U.S. industry and the American standard of living.

DoC has issued more than five million patents through the U.S. Patent and Trademark Office and has helped negotiate over a dozen international science and technology agreements while vigorously protecting U.S. intellectual property rights.

- **Science and Technology Information**

In an increasingly competitive world, up-to-date information on technology and investment needs is essential to entrepreneurs and business people.

DoC brings together government and business leaders through roundtables and other forums to address such issues as access to credit for investment in new technologies. DoC also provides a focal point for distribution of federal research and development information.

BUILDING TECHNOLOGY PARTNERSHIPS

- **Joint Research and Development**

Through Cooperative Research and Development Agreements (CRADAs) between industry and government, DoC labs and facilities address key technical questions – in areas ranging from precision machining of new materials to personal communications systems.

DoC labs have signed more than 240 CRADAs in 90 different technology areas since 1988; more than 40 percent of these have been with small businesses.

- **National Technology Initiative (NTI)**

In cooperation with several federal agencies and the business community, DoC recently launched a series of technology conferences throughout the country. These successful conferences inform businesses about the wealth of resources available in 700 federal laboratories – on areas ranging from energy, environment and aerospace to biology and defense. They also help companies learn about private sector partnering in technology ventures.

More than 3,500 participants attended the first 10 NTI meetings; four more are scheduled.

DRIVING MANUFACTURING EXCELLENCE

- **Manufacturing Technology Centers (MTCs)**

Seven regional MTCs established by DoC help small and medium-sized firms implement advanced manufacturing technologies.

Since 1989, the MTCs have helped 3,500 firms reduce inventories, eliminate waste, and develop and market new products. Companies helped estimate the benefits at nearly \$200 million.

- **Shared Flexible Computer Integrated Manufacturing Centers and Teaching Factories**

On-site training in "advanced manufacturing" systems is currently provided at 15 centers established with DoC help. Access to and training in the use of such systems is crucial to job creation and growth in this high-skill, high-wage sector.

Fifteen more centers are planned.

- **International Cooperation on Manufacturing**

DoC is supporting negotiations to spur world cooperation on R&D in technology and is helping U.S. industry gain international cooperation in development of intelligent manufacturing systems. DoC programs also provide opportunities for U.S. manufacturers to gain practical work experience in the production facilities of other countries.

Such efforts promote the integration of world commerce and technology, and contribute to a more efficient and dynamic U.S. economy.

INCREASING QUALITY & PRODUCTIVITY

- **Malcolm Baldrige National Quality Award**

The Baldrige Quality Award program has helped spur a Total Quality Management revolution in American business -- enhancing U.S. competitiveness in world-class goods and services.

To date, more than 650,000 copies of the award criteria have been distributed. These principles are forming the basis for a new focus on quality by American businesses, government agencies and not-for-profit organizations.

- **Laboratories and Laboratory-Based Services**

DoC laboratories provide the technology building blocks needed by industry to bring quality products to market quickly and at minimum cost.

Results from DoC labs have broad applications, ranging from time, weight or length measurements to such specialized areas as electronics, robot control systems and advanced materials.

EXPANDING MARKET OPPORTUNITIES

- **Free and Open Markets**

America's world-class products and services can compete most effectively in a free and fair trading system. DoC has actively supported trade agreements to open markets for U.S. high technology products, including semiconductors, super computers and telecommunications equipment. DoC also is promoting exports of America's state-of-the-art environmental technologies.

Licensing requirements on technology exports have been eased, effectively deregulating \$3 billion in annual U.S. exports in computers, machine tools and telecommunications equipment.

- **Telecommunications Policy Reform**

Telecommunications are vital to the Information Age. DoC programs provide the basis for government telecommunications policy, including the reform of management of the radio spectrum and development of advanced video and television standards.

DoC also has promoted change in U.S. policy to allow U.S. companies to provide international satellite telecommunications services on a competitive basis. And DoC is working to spur business development of personal communications services and broadband digital networks.

- **Metric Conversion**

Converting to the metric measurement system will help make American business consistent with its major trade competitors.

DoC is the lead agency in promoting metric conversion -- both in the federal government and in the private sector. DoC has distributed 25,000 metric information packets to the private sector.



UNITED STATES DEPARTMENT OF COMMERCE
Office of the Secretary
Washington, D.C. 20230

Sept. 9, 1992

MEMORANDUM FOR EDE HOLIDAY
ASSISTANT TO THE PRESIDENT
AND SECRETARY OF THE CABINET

FROM CAROLE TRIMBLE *CT*
COUNSELLOR TO THE SECRETARY
AND ACTING CHIEF OF STAFF

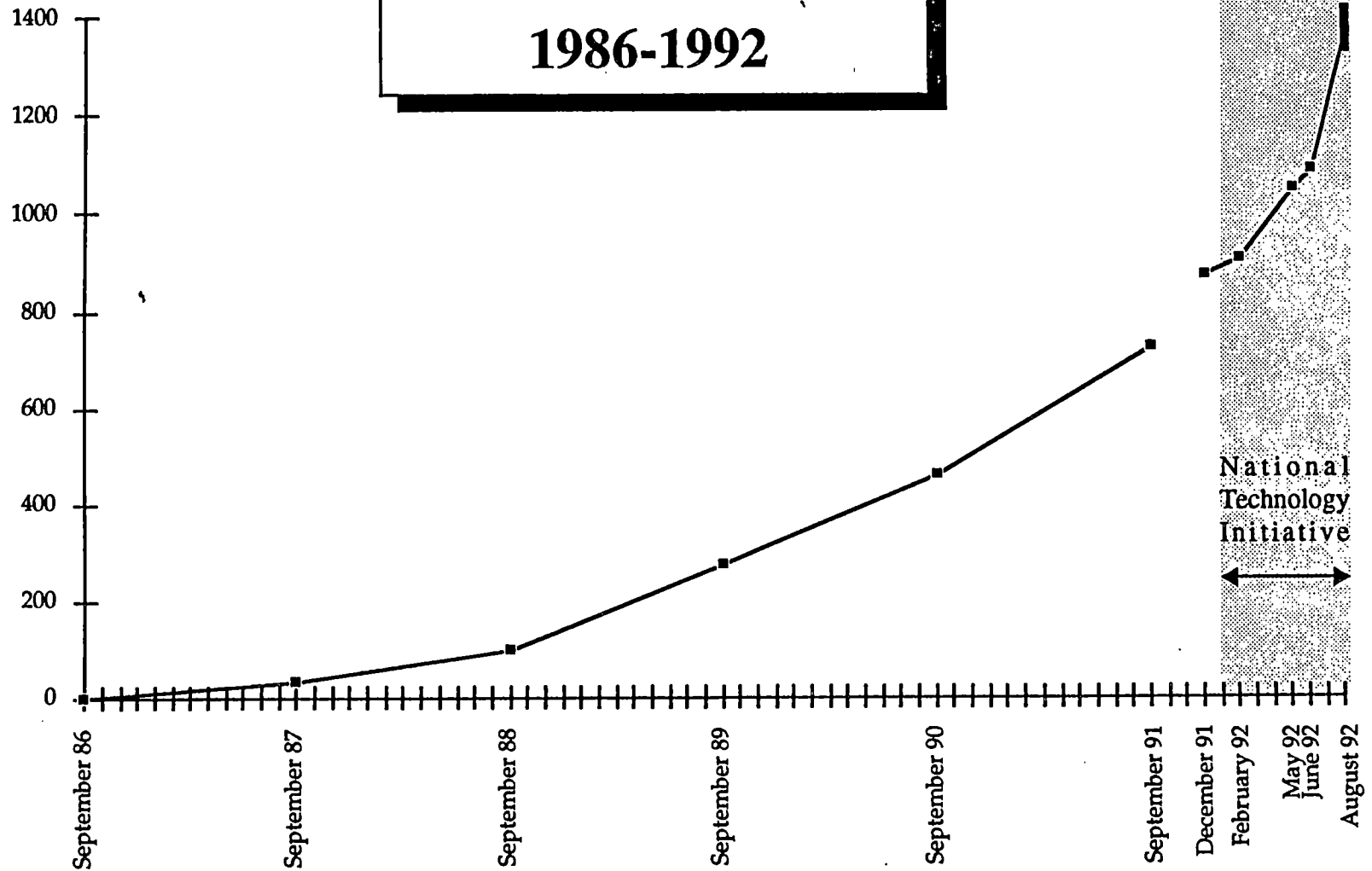
SUBJECT: CHICAGO NATIONAL TECHNOLOGY INITIATIVE

Given the strong possibility that President Bush will be attending the National Technology Initiative (NTI) conference in Chicago on September 25, I thought you might be interested in the most recent figures documenting the tremendous impact that the NTI is having on spurring a creative partnership between government and industry.

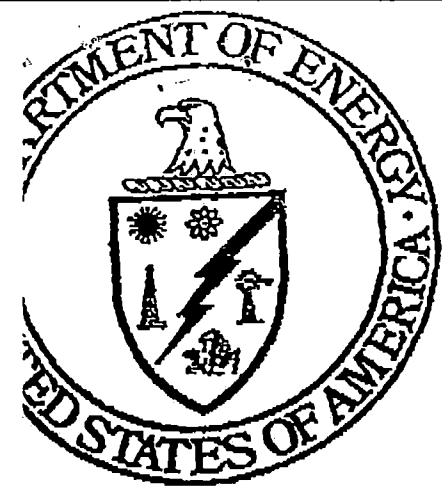
According to August 1992 figures, since President Bush launched the NTI in January, the number of Cooperative Research and Development Agreements, or "CRADAs," that federal agencies have entered into with the private sector has jumped dramatically to about 1400. This new information should be of note to media who are interested in "hard figures" to substantiate the impact of the President's "market pull" approach to technology.

As you know, the National Technology Initiative conference should provide the President with a significant opportunity to elaborate on how his policies and programs -- ranging from the Advanced Technology Program to Manufacturing Technology Centers -- promote jobs and economic growth. To date, more than 3,500 participants have attended the first 10 NTI conferences, which focus on informing businesses about the wealth of resources available in 700 federal laboratories on areas ranging from energy, environment and aerospace to biology and defense.

CRADA Growth 1986-1992



NOTES: The majority of Department of Energy laboratories were not covered under the Federal Technology Transfer Act until 1989. Figures for 1986 through September 1991 reflect active CRADAs only. Figures from December 1991 through June 1992 are based on numbers for all CRADAs, active and inactive as reported by *Cooperative Technology RD&D Report*. CRADA numbers for August 1991 are all CRADAs as reported by each federal agency.



U.S. Department of Energy

Office of the Secretary

FAX Transmittal Sheet

DATE: _____

TO: BOB GRADY

FAX NUMBER: _____

PHONE NUMBER: _____

COMMENTS: Bob - This is a first step by our wonderful tech transfer people - it lays out the President's early efforts in this area. We have one CRADA signing included, but I think having multiple signings in front of the President would be impressive - others talk - he acted years ago and there are the fruits of his actions.

FROM: POLLY GAULT
FAX NUMBER: 202-586-7644
PHONE NUMBER: 202-586-6210
Number of pages with cover: _____

I am working on a paragraph to thank them for meeting all his requests.


TALKING POINTS FOR SENIOR LEVEL PRESENTATION AT CHICAGO NTI

- o America's greatness is based upon many things, including the spirit of the American people, the capacity to dream, the courage to risk, the skill to achieve, and the determination to excel.
- o It has been said that we should reinvent America as if this were some startlingly new concept. Part of our nation's formula for greatness is that we are constantly reinventing our country. This has not been through a process of radical change and social experimentation; it has been by enhancing what we have achieved and extending the achievements to more of our citizens and to the world.
- o Today, more so than ever before, we have an unprecedented opportunity to renew America and help reshape the future for ourselves and for the rest of the world.
 - We have won the cold war and can channel our energies now toward perfecting as well as protecting the planet
 - We remain a beacon for those who strive for freedom and democracy
 - We have a standard of living that others aspire to
 - We are, and will remain, the world's primary source of innovation, new technology, and inspiration
- o Among the fortifying foundations of our society are:
 - A significant public investment in basic and applied research and development to meet national needs and to strengthen our technological base and enhance the U. S. economy;
 - An aggressive public investment in scientific and engineering education at all levels so that not only will we have a workforce trained for the high tech jobs of tomorrow but we will have a society creating and applying technology for a safer, cleaner, and more productive and economically stable world in the twenty-first century; and

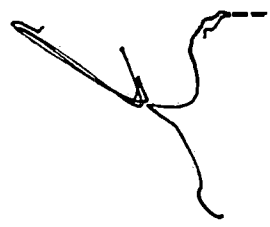
-- An effective process for partnership between industry, the universities and the federal laboratories to enable the transfer of promising technologies from the scientist's bench to the merchant's shelves and the joint development of new technologies meeting federal and marketplace needs. This partnership process is creating jobs here at home, increasing exports abroad, and improving the quality of life worldwide.

o Today's National Technology Initiative meeting reflects the success of this Administration, and that of the preceding Administration, in tearing down the walls between the federal laboratories and American entrepreneurs. Over the last dozen years there have been a number of landmark developments:

-- In 1980 the basic legislation empowering federal laboratory and private sector partnerships for technology innovation came into law;

 -- In 1980 and 1984 laws were ~~passed~~^{passed} that enabled patent and copyright protection to be afforded those who invested their savings to make their dreams reality;

-- In 1986 the Federal Technology Transfer Act was passed that not only permitted but encouraged, as a matter of prudent public policy, cost shared cooperative research between federal laboratories and private industry;

 and I am extremely proud of the National Competitiveness Technology Transfer Act of 1989 which brought fully into the partnership process the Department of Energy. The scientific and technological capabilities that won the cold war, the crown jewels of the Federal Laboratory system, were empowered to work with industry by this Administration.

o Together we have made tremendous progress over the past dozen years. There has been great change in both how the Federal Government views business and how it works with business.

-- Unlike some others, this Administration does not view business as an adversary but rather as a partner.

- Government does not create long term jobs, business does;
 - Government does not create wealth--it consumes it;
 - A strong and vibrant economy brings everyone together and everyone forward;
 - Working cooperatively saves time, it saves money, and--I firmly believe--it saves lives and it protects, preserves and enhances the world's environment.
- Unlike some others who may jump up and down and say do it immediately this way or that, we in this Administration and the last have built today's open, flexible, responsive and effective partnership approach framework incrementally--demonstrating to ourselves, the Congress and the American people that this public-private partnership can be conducted fairly, cost-effectively, and can produce benefits to federal research programs, to our private partners, and to the public at large.
- Today's National Technology Initiative meeting, like the ten that have gone before and those which will come after is intended to achieve at least three things:
- To get the word out that things have changed about working with the government; ~~business~~ ^{industry} can get things done by working with our labs;
 - To bring together prospective partners in industry, the universities and the federal laboratories to share interests, experiences and create partnership dialogue. The workshops and the technology fair provide exciting insights into today's opportunities and tomorrow's successes; and
 - To learn where we can further make progress in improving and further accelerating process, reducing barriers, and removing regulatory impediments.

I can tell you right now that the solutions to some of what we have heard in the first 10 NTI meetings in terms of barriers and impediments we had already identified. We have tried to make the necessary changes. Relief for the public through the removal of these obstacles has been bottled up in Congressional gridlock for a over a year. We know what needs to be fixed--you know what needs to be fixed--and if we can't get this Congress to act lets make sure that the next one does.

Another problem we have with the Congress is their outmoded view of the world. There is more pull from industry for promising technology that some of our research programs can fund. We have asked for some funds to spin-off some technologies, in the public interest, when we have no need for further development of a government need. Given the changes in the world and the reduced nuclear threat, I requested that the Congress permit the Department of Energy to shift \$50 million each in this year and next from weapons research to catching up with some of the other agencies in transferring technology of interest to the private sector. Well they took the \$50 million away for each year but they spent in on pork--not on progress and economic development. We spend public funds for technology transfer we are not giving it to industry. We are spending it in the labs, gaining direct benefit to our own programs. In the case of the Department of Energy, the taxpayers are getting the benefits of about \$1.50 of outside funds for every tax dollar spent on Cooperative Research and Development Agreements (CRADAs). The taxpayers will have a share in future patent royalties and license fees from the sales of products and services developed through these partnerships. Business sees the value of partnerships. This Administration is proving the value of these partnerships. Sadly, the gridlocked Congress and others may talk well about it but their actions are hurting the economic recovery and the American people.

I am also dismayed by the fuzzy thinking on the part of some in congress and some others. There have been suggestions that there ought to be an excessive number of "technology transfer" centers created throughout the country. We need to accelerate the process of partnering now. It would take several years and a ton of money to set up these centers, and to do what? Do these centers have technology? How could they, they don't even exist. Where would they get this technology? From the people you in industry are already talking with from the federal laboratories. Do you need the government to spend another \$2 billion so that you can travel to more places and meet more people who will only send you back to the folks you are meeting here? Do we need to recreate mock up factories and partial laboratories at these hollow shells when we have already opened our world class laboratories up to unprecedented industry access? I find it incredible that the same people who control the gridlocked Congress and prevented us from further accelerating the current effective technology transfer process now want to spend twenty times as much money for something that is not needed and would not effectively contribute to the partnering process. They want to turn the technology transfer opportunities into near term pork projects and not build for future economic strength. I hope you find it incredible and will tell them so in every way possible.

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o Let me share with you some of the accomplishments that we have made working together, despite the resource limitations and roadblocks that have been put in our way.

— Last night, industry honored the 100 best ideas and technology produced in the last year. As an illustration that the partnership process is already working there are 134 organizations represented in these 100 award winning projects. Of these 44 are federal laboratories and 90 are from industry. The Department of Energy's Los Alamos National Laboratory led both industry and the federal labs with 6 of the 100 awards. Among the other Department of Energy laboratories that collectively earned 26% of the awards

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are:

- Argonne National Laboratory
- Brookhaven National Laboratory
- Idaho National Engineering Laboratory
- Lawrence Berkeley Laboratory
- Lawrence Livermore National Laboratory
- National Renewable Energy Laboratory
- Oak Ridge National Laboratory
- Pacific Northwest laboratory
- Pittsburgh Energy Technology Center, and
- Sandia National Laboratories

These are among the DOE centers of excellence which this Administration has empowered to work with industry to enhance U. S. competitiveness, strengthen the economy, and produce high value jobs throughout this country.

And remember, the Department of Energy is only one of the major federal research and development agencies. This National Technology Initiative is jointly led by the Department of Energy, the Department of Commerce, the Department of Transportation, and the National Aeronautics and Space Administration. Many other federal agencies are participating--not only research and development organizations but also agencies like the Small Business Administration that can provide information on financing opportunities.

- o Today's National Technology Initiative meeting provides a forum to illustrate that real partnerships can and are being formed every day.

-- A year ago, there were perhaps 1000 Cooperative Research and Development Agreements (CRADAs) between all the federal laboratories and private sector organizations. Today, it is estimated that the number has more than doubled. In the case of the Department of Energy, the most recently empowered agency, they have more than doubled the number of CRADAs over the last six months, and more than quadrupled the number from a year ago.

-- Industry is taking advantage of federal patents through licenses because of the improvements we have made in the protection of intellectual property and removal of red tape from the process.

-- Industry has expanded access to unique facilities at the laboratory through "user" agreements or industry funded projects. Last April, one of the Department of Energy's weapon production facilities held a ceremony where they removed their security fence from about 20 percent of there area--opening up unique manufacturing capability to industry, the universities, and regional economic development activity.

-- Industry is taking advantage of the potential for synergy between industry and laboratory researchers. In April Secretary Watkins and I visited Tennessee where I witnessed a CRADA being signed by Coors Ceramic Corporation and the Oak Ridge National Laboratory. this was not the start of a relationship but rather one of the significant mileposts along the way. Coors Ceramics had located a plant in Tennessee to be near the laboratory and its advanced materials work.

o Your attendance at this NTI meeting is evidence that you believe that the partnership process is working and are interested in seeing if it can work for your needs.

-- In a few minutes, we will have an opportunity to witness a further extension of the partnership process, not just an agreement between a single laboratory and a single partner but an agreement involving two federal laboratories and three industry partners. This groups brings together all the pieces needed to take a technology developed at the laboratories and bring it to the marketplace so that it can benefit every American community.

-- This CRADA involves the National Renewable Energy Laboratory and the Argonne National Laboratory in partnership with the Reuter company of Minnesota, the XL Disposal Corporation of Illinois, and Otter Tail Power Company of Minnesota.

-- Essentially what this project does is determine the right mix economically for burning pelletized

trash along with coal to generate electricity.

-- The benefits include:

- reduced sulfur dioxide emissions--cleaner air
- reduced trash overflowing land fills--less tax burden on communities
- less coal used in energy production--preserving a vital natural resource
- job creation for the production of refuse-derived fuel pellets.

o In closing, let me leave you with a thank you and a challenge.

-- I thank you for being part of the important national initiative to reexamine for yourselves the opportunities partnering with the federal laboratories present to you.

-- The challenge is one that we all, each and every American, faces together

- continuing the process of renewal
- converting dreams into reality
- achieving greatness in a way that benefits others as well as ourselves.

-- The end of the cold war shows that it does not have to be "us or them". The renewal of America that I see is one where together we all win. What "we" win is a better domestic and world economy, better jobs, better health, better tools to accomplish our work, a better environment in which to enjoy our free time and a safer, healthier, freer, and sounder world for our children and the future yet to come. Working together we can do it. Thank you.

[Assume a break for applause and Secretary Watkins thanks the President and oversees the CRADA signing after which the Presidential party exits]

(Grady, 9/22/92)

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

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. 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

different aspects of the same thing
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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.

real terms
52.3%
Nominal
terms
87-91 ~~55.0%~~ 66.0% Merchandise exp.
We

David Walters
USTR

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NAM

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

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①

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.

② 588,000 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.

③ 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. BA P. 94

④ 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.

⑤ 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.

⑥ 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. BA

⑦ Last year, we launched another crosscutting technology plan -- an investment of over \$1.8 billion in the materials of tomorrow. BA
 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.

⑩ 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. BA

⑫ 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.

13 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.

14 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.

15 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.

16a 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

16a 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.

16b 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.

16c 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.

16d 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.

17 In next year's budget, we will launch a new cross-cutting initiative to increase our investment in R&D into new technologies BA 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.] bring these tech. to market

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.

civilian basic ↑ 37% c. applied 47% total 44%

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.

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BA

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.

David Tell

BA

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

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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 ^{tell} 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.

24 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.

3 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."

22

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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MOTOROLA
FACSIMILE COVER SHEET
1350 I Street NW - Suite 400
Washington, D. C. 20005
(202) 371-6900

ADDRESSEE/COMPANY

FAX NO.

Gary Foster, The White House

456-2983

Rusty Brashear

708 576-7653

George Fisher

708 576-9175

Bob Galvin

708 576-9175

Ed Walters

456-6218

From: Mary Lou Lackey Phone (202) 371-6933 Fax: (202) 842-3578

Number of Pages: 9 (including cover)

Date: 9/23/92

Message:

If any problems are encountered with this transmission, please call
Jill Taylor at (202) 371-6935



MOTOROLA INC.

September 23, 1992

MEMO

To: Gary Foster

cc: Rusty Brashear
George Fisher
Bob Galvin
Roni Haggart

From: Mary Lou Lackey *ml*

Subject: Talking Points for President Bush's September 25 Visit to Motorola

Attached are suggested topics for inclusion into the President's address at Motorola on Friday. We have used the excellent ***Agenda for American Renewal*** as the basis for our outline, then have supplemented it with references to how those programs have and/or will impact Motorola and other U.S. companies. The specific quotes or direct references from the ***Agenda*** are in bold and italicized so that the flow can be readily seen.

As you can see, virtually all of the President's ***Agenda*** has direct relevance for the Motorola visit. However, I would point out three areas where the correlation may be particularly valuable:

I. **Market Access**: Motorola is well known for its record of working cooperatively with the Administration to address barriers to sale of its products in foreign markets -- especially Japan. We are particularly pleased that the area of our operations which the President will be visiting just before his address is where we build a certain type of equipment which we are now able to export to Japan as a result of a 1989 bilateral agreement which the Administration negotiated with Japan. This agreement, which opened the previously closed Japanese market for trunked radio systems, is one of the best success stories of how the Administration has opened markets for competitive U.S. products. We have incorporated references to this in our suggested talking points, but you may also want to get information from David Long, the Telecommunications Director at USTR, on their perspectives on this agreement.

II. **Technology Leadership**: Motorola is an acknowledged leader, and the President's ***Agenda*** closely tracks the recommendations of the private sector Council on Competitiveness, which George Fisher chairs. Our Iridium program, which has generated a tremendous amount of excitement, provides an excellent example of how the technology/competitiveness planks of the President's programs will facilitate and enable U.S. private sector leadership in future technologies, as well as create jobs and stimulate economic development.

III. People/Family Values/Education: Motorola's Premier Employer Council as a tie-in to the people/family values/education elements of the President's platform enable a discussion of the importance of these issues to the future of our country, and also provide an excellent opportunity for us to bring Veronica (Roni) Haggart, Corporate Vice President and Director of Motorola's Government Relations office -- and Co-Chairman of our Premier Employer Task Force -- into a visible role in the Friday visit, demonstrating support for the Bush agenda among female voters. Roni was appointed by President Reagan as a Commissioner of the International Trade Commission prior to joining Motorola. She took the oath of office in 1982 in then Vice President Bush's office with him present. She worked for Clayton Yeutter at the Department of Agriculture during the Nixon/Ford administration.

As I indicated when we spoke last evening, there may be other very significant areas where we could provide Motorola linkages with the technology speech which the President is giving earlier in the day. We would appreciate seeing it as soon as you can make it available.

Please let me know if you or the speech writers have any questions or need clarification on the attached talking points, or if there are other ways that I can be of assistance to you in coordinating this event.

Attachment

**TALKING POINTS FOR
PRESIDENT BUSH'S VISIT TO MOTOROLA
FRIDAY, SEPTEMBER 25, 1992**

It has been a wonderful opportunity to be here today at Motorola -- one of the shining stars of U.S. industry.

Motorola is a technology leader -- and it is using that leading edge technology to create jobs here in Illinois -- Motorola now employs over 15,000 people here in this state.

-- Creating well paying U.S. jobs is exactly the goal of my economic agenda. *For America to be safe and strong we must meet the defining challenge of the 90's: to win the economic competition -- to win the peace. The United States must be a military superpower, an export superpower and an economic superpower.*

I see strong similarities between Motorola's activities and my economic program:

- There is much that U.S. industry can do for itself -- Motorola's status as the first winner of Malcolm Baldrige Quality Award, an award initiated under the Republican Administration while I was Vice President, is evidence of how much this company has and is doing to establish its competitiveness.
- But there is still much that the President and Congress must do to facilitate and enable global competitiveness.
- My programs will help companies of all sizes and in all industries reach their potential and keep America on the forefront of economic leadership.

As I visited Motorola today, I was fascinated by the highly automated factory where sophisticated trunked radio products are built for both for the domestic market and for export to competitive markets around the world. It is products and technologies such as these which have enabled Motorola to be our country's 14th largest exporter.

- But in order to remain competitive, Motorola must be able to have the same free and open access to sell these state-of-the-art products in markets around the world as its competitors have to our open market. Motorola has consistently proven that, given a level playing field, its products can compete in markets around the world. However, Motorola and others in U.S. high technology industries often find that their ability to sell in other markets is restrained.
- *If America is going to be an export and economic superpower, the U.S. President must take a strong stand on the negotiation of trade and economic agreements.*
- That is why my Administration has been so aggressive in negotiating agreements and undertaking other actions to open markets for foreign products.

Multilaterally:

- The recently concluded NAFTA provides important market opening opportunities for U.S. industry throughout North America.
- We will continue to push for successful conclusion of the GATT Uruguay Round.

But my Administration has also recognized the need to address sector specific problems with particular countries and my intent is to use our attractive domestic market as the basis of a muscular free trade policy that will strengthen America's global economic reach. And we have gone to bat for the very products which Motorola builds here in Illinois:

- Motorola is now able to export the trunked radio equipment, which I just saw being built across the street, into Japan as a result of a bilateral agreement which we negotiated in 1989 to open what was a virtually closed Japanese market for this equipment.
 - Prior to the negotiation of this agreement in mid-1989, Motorola had only been able to get licenses for nine of these "third party radio" systems. However, since the implementation of the market-opening agreement, Motorola has added over 100 systems. Motorola's systems now have over 100,000 users and cover 85 Japanese cities -- a coverage comparable to that of its Japanese competitor.
- At the same time, we negotiated an agreement with Japan to open its market for cellular equipment -- where Motorola's products are the world leaders, and which had previously been closed to U.S. technology. Over 7000 Motorola employees are now employed in its cellular design and manufacturing operations -- including 1500 at its new plant just north of here in Libertyville. Many of those jobs are directly attributable to the market opening activities of my Administration.

My Administration (and that of my predecessor) has also recognized the need to ensure that the U.S. semiconductor industry has open access for its products. The semiconductor industry plays a key role as the technology driver for the entire U.S. electronics and high technology industries, just as Motorola's leading-edge semiconductor operations, which employ nearly 20,000 people in Arizona and Texas, provide critical elements in the communications products built here in Illinois.

- This is why we have twice negotiated agreements with Japan to provide access for U.S. semiconductor products.
- This Administration is prepared to take the steps necessary to ensure that the terms of this agreement are met in full as it nears its expiration this fall.

I have relied heavily upon the advice of key industry leaders in developing our trade policies and priorities. I greatly appreciate the meaningful contributions which Bob Galvin, George Fisher and other senior Motorola managers have provided through their leadership of important advisory committees such as the National Advisory

Committee on Semiconductors, the Industry Policy Advisory Committee and the Advisory Committee on Trade and Policy Negotiations.

- We have listened to their advice and that of other industry leaders on the critical importance of maintaining the effectiveness of U.S. trade laws as a necessary complement to the market opening activities which I talked about earlier and it has greatly influenced our trade policies.

Moving to the important subject of technology, to be the world's economic leader tomorrow, we clearly have to invest in R&D and new technologies today.

- Motorola has clearly recognized this -- not only through its own programs to develop leading edge technology but also through the leadership which George Fisher has provided as chairman of the private sector Council on Competitiveness. The Council's excellent research and analysis has been instrumental in defining my technology and competitiveness agenda.
- Just as the private sector Council on Competitiveness has emphasized the need to invest in the critical technologies which drive America's economic future, my Administration has launched a series of programs in High Performance Computing, Biotechnology, Materials, and Advanced Manufacturing that are designed to make federal R & D priorities responsive to private sector needs.
- Over the last four years, we have taken several other steps toward the technology future:
 - We have established seven regional manufacturing sectors to get our best ideas into the hands of small and medium size businesses.
 - We have pooled the strengths of the private and public sectors to form and support consortia such as Sematech, chaired by Bob Galvin, which serves as a model for industry/government cooperation on the development of critical technology required for both defense and commercial applications.
 - My Administration remains committed to continued funding for Sematech to ensure that its important programs continue.

Over the next four years, I plan to build on each of these initiatives.

- With the Cold War over, we no longer need to spend 60% of the federal R & D budget on defense. With economic competitiveness as the new challenge, my Administration will push to reverse this trend and increase the percentage of the federal budget that goes to basic research and to critical technologies that drive industrial innovation.
- Since future military strength relies more and more on leading edge technologies developed in commercial markets, and less on technology developed within the defense arena, I will direct the Department of Defense to pay particular attention to dual use technologies that support military strength and build long term prosperity.

In my second term, I intend to build on our existing programs to put in place a long term strategy for the development of world leading systems for transportation and communications so that the 21st century will be the next American century.

- We have already taken the first steps to develop the infrastructure which is critical to our future with our High Speed Computing Program and with the research funds allocated for Intelligent Vehicle Highway Systems or IVHS.
- I know that Motorola -- again right here in Illinois -- is the leading independent automotive electronics company in America in the area of IVHS. Using funds made possible by last year's Highway Bill, which we enthusiastically supported, Motorola is now a partner in the largest field operational test of IVHS technologies in the world.
- I am enthusiastic about the potential benefits of this project -- reduced traffic congestion, shorter travel times, less energy consumption, a cleaner environment and improved safety -- not to mention the new jobs which it will enable Motorola and others to create for Americans.

I also realize that given the pace of change, we have to come up with new inventions and organize ourselves to deploy new technology without delay.

- Motorola is doing this with its Iridium project -- an exciting new communications system which will combine its state-of-the-art satellite and communications technologies to enable anyone, anywhere, anytime to use a pocket wireless telephone to call or be called by any other telephone anywhere in the world.
- This Iridium project exemplifies the new trends of the commercialism of space and of defense conversion which are so important in our future, and will create over 40,000 new person years of jobs in just five years of operation -- both here in Illinois and elsewhere within the U.S. In fact, the portable telephones for the Iridium system are being developed right here on this campus. I am pleased that Motorola is teaming with other major U.S. companies such as G.E., Raytheon and McDonnell Douglas - Lockheed to construct, design, and launch the system.

However, in order for the private sector to make Iridium and other exciting new concepts come to reality, we need regulatory policies which speed and facilitate their deployment to market. My programs to eliminate unnecessary federal regulation and to "rightsize" the Federal Government are essential for the successful launching of these new programs. Innovative companies like Motorola should be encouraged by the US Government to develop exciting leading edge technologies such as Iridium through private financing and offer them to consumers in a competitive market place. The success of the cellular telephone industry, where Motorola was again an industry pioneer, and which today is growing at an astounding rate of 40% per year, demonstrates the merits of encouraging competition among multiple privately financed systems.

I believe that in the 21st Century our greatest natural resource will be our people, and since the workforce of the 21st Century will be constantly changing, we need to prepare the American people to adapt to and direct the process of change.

- Motorola already shares that conviction. I was pleased to learn of Motorola's Premiere Employer Council which has developed recommendations to assure that Motorola can continue to recruit, retain and promote the best and the brightest workers -- with an increased emphasis on women, minorities, and immigrants -- as we go into the 21st century. Motorola recognizes, as I do, that the winners in the highly competitive global market place of the 21st century will be those companies that take advantage of the increasingly rich diversity in our population. Just last week Motorola's efforts in this regard were recognized by Illinois's own Lynn Martin, my talented Secretary of Labor, when the company was a recipient of the Department's Exemplary Voluntary Efforts (EVE) award for its outstanding employee development programs and commitment to a diversified work force.

Motorola believes that every employee from the most senior managers to the newest hire need a minimum of five days per year of job-related education and training just to stay current with the changes of technology, markets and the management of people.

- Therefore, Motorola invests 3.2 percent of its payroll -- over \$100 Million per year -- in the development of its people and has taken the lead to expand this development effort to include the employees of its suppliers and its customers (This is in addition to the \$100 million which I already mentioned.)

But industry cannot and should not be expected to do it all. We must ensure that our students come to industry prepared to be qualified employees and to adapt to the changing workplace, and I will take aggressive steps to ensure that our educational systems and programs are ready to meet the challenge:

- Our educational establishment is caught in a sort of time warp, a system created for another age when the needs were not the same, children grew up differently, and adults rarely changed jobs. Money alone is not the answer -- the U.S. spends more per pupil than any other country but Switzerland. . . . the answer is a radical overhaul of our educational system. If we want to change our country, we've got to change our schools.

- But we will need the help of our business community -- since they will be relying on the products of our school districts to be competitive -- in order to find the right solutions. In area of K-12 reform Motorola is once again setting the pace with its work with local school districts. Leadership teams consisting of parents, administrators, teachers, and Motorola-developed champions for educational change are being set up to determine what changes will best prepare the districts to deal with the needs of the 21st Century.

We also must sharpen business' competitive edge by encouraging entrepreneurial capitalism.

- That is why I have continued to **strongly support cutting the capital gains tax and indexing it to inflation.**
- I also **support making the R & D tax credit permanent**
- This is critical for a high tech company like Motorola which invests over \$1 Billion per year -- almost 10% of every sales dollar -- in research and development.
- Continued investment in new technologies is essential for the development of new generations of products -- like the exciting new Iridium project mentioned earlier, as well as other new generations of personal communications products which Motorola is now bringing to market. Going beyond today's world of wired telephones and cumbersome computer cables, Motorola's communications of tomorrow will take place, not between phones and faxes, but directly between people. Using a single phone number, it will be possible to reach any person at any time, at any place he or she may be -- truly untethered personal communications spanning the entire globe. Al Sikes, my FCC Chairman, is currently pursuing initiatives that will bring emerging telecommunications technologies, such as new personal communicators being developed right here at Motorola, to the U.S. and world market place.
- These new communications systems are exactly the type of innovation which we can bring about by stimulating capital investment and R & D.
- These and other elements of my program to encourage entrepreneurial capitalism are equally important for companies of all sizes and in all industries.

We can empower America to reach a grand goal: a \$10 trillion economy by the first years of the 21st Century.

- My agenda and platform provide the elements which will enable us to reach this exciting goal.
- We will continue to foster a close and cooperative working relationship between our public and private sectors to make this happen, and Motorola is one of the companies which will help lead the way in the exciting years ahead.

MOTOROLA
FACSIMILE COVER SHEET
1350 I Street NW - Suite 400
Washington, D. C. 20005
(202) 371-6900

ADDRESSEE/COMPANY

FAX NO.

Gary Foster, The White House

456-2983

Rusty Brashear

708 576-7853

George Fisher

708 576-9175

Bob Galvin

708 576-9175

From: Mary Lou Lackey Phone (202) 371-8933 Fax: (202) 842-3578

Number of Pages: 9 (including cover)

Date: 9/23/92

Message:

If any problems are encountered with this transmission, please call
Jill Taylor at (202) 371-8935

September 23, 1992

MEMO

To: Gary Foster

cc: Rusty Brashear
George Fisher
Bob Galvin
Ron Haggart

From: Mary Lou Lackey *ml*

Subject: Talking Points for President Bush's September 25 Visit to Motorola

Attached are suggested topics for inclusion into the President's address at Motorola on Friday. We have used the excellent *Agenda for American Renewal* as the basis for our outline, then have supplemented it with references to how those programs have and/or will impact Motorola and other U.S. companies. The specific quotes or direct references from the *Agenda* are in bold and italicized so that the flow can be readily seen.

As you can see, virtually all of the President's *Agenda* has direct relevance for the Motorola visit. However, I would point out three areas where the correlation may be particularly valuable:

i. Market Access: Motorola is well known for its record of working cooperatively with the Administration to address barriers to sale of its products in foreign markets -- especially Japan. We are particularly pleased that the area of our operations which the President will be visiting just before his address is where we build a certain type of equipment which we are now able to export to Japan as a result of a 1989 bilateral agreement which the Administration negotiated with Japan. This agreement, which opened the previously closed Japanese market for trunked radio systems, is one of the best success stories of how the Administration has opened markets for competitive U.S. products. We have incorporated references to this in our suggested talking points, but you may also want to get information from David Long, the Telecommunications Director at USTR, on their perspectives on this agreement.

ii. Technology Leadership: Motorola is an acknowledged leader, and the President's *Agenda* closely tracks the recommendations of the private sector Council on Competitiveness, which George Fisher chairs. Our Iridium program, which has generated a tremendous amount of excitement, provides an excellent example of how the technology/competitiveness planks of the President's programs will facilitate and enable U.S. private sector leadership in future technologies, as well as create jobs and stimulate economic development.

III. People/Family Values/Education: Motorola's Premier Employer Council as a tie-in to the people/family values/education elements of the President's platform enable a discussion of the importance of these issues to the future of our country, and also provide an excellent opportunity for us to bring Veronica (Roni) Haggart, Corporate Vice President and Director of Motorola's Government Relations office -- and Co-Chairman of our Premier Employer Task Force -- into a visible role in the Friday visit, demonstrating support for the Bush agenda among female voters. Roni was appointed by President Reagan as a Commissioner of the International Trade Commission prior to joining Motorola. She took the oath of office in 1982 in then Vice President Bush's office with him present. She worked for Clayton Yeutter at the Department of Agriculture during the Nixon/Ford administration.

As I indicated when we spoke last evening, there may be other very significant areas where we could provide Motorola linkages with the technology speech which the President is giving earlier in the day. We would appreciate seeing it as soon as you can make it available.

Please let me know if you or the speech writers have any questions or need clarification on the attached talking points, or if there are other ways that I can be of assistance to you in coordinating this event.

Attachment

**TALKING POINTS FOR
PRESIDENT BUSH'S VISIT TO MOTOROLA
FRIDAY, SEPTEMBER 25, 1982**

It has been a wonderful opportunity to be here today at Motorola -- one of the shining stars of U.S. Industry.

Motorola is a technology leader -- and it is using that leading edge technology to create jobs here in Illinois -- Motorola now employs over 15,000 people here in this state.

- Creating well paying U.S. jobs is exactly the goal of my economic agenda. For America to be safe and strong we must meet the defining challenge of the 80's: to win the economic competition -- to win the peace. The United States must be a military superpower, an export superpower and an economic superpower.

I see strong similarities between Motorola's activities and my economic program:

- There is much that U.S. industry can do for itself -- Motorola's status as the first winner of Malcolm Baldrige Quality Award, an award initiated under the Republican Administration while I was Vice President, is evidence of how much this company has and is doing to establish its competitiveness.
- But there is still much that the President and Congress must do to facilitate and enable global competitiveness.
- My programs will help companies of all sizes and in all industries reach their potential and keep America on the forefront of economic leadership.

As I visited Motorola today, I was fascinated by the highly automated factory where sophisticated trunked radio products are built for both for the domestic market and for export to competitive markets around the world. It is products and technologies such as these which have enabled Motorola to be our country's 14th largest exporter.

- But in order to remain competitive, Motorola must be able to have the same free and open access to sell these state-of-the-art products in markets around the world as its competitors have to our open market. Motorola has consistently proven that, given a level playing field, its products can compete in markets around the world. However, Motorola and others in U.S. high technology industries often find that their ability to sell in other markets is restrained.
- If America is going to be an export and economic superpower, the U.S. President must take a strong stand on the negotiation of trade and economic agreements.
- That is why my Administration has been so aggressive in negotiating agreements and undertaking other actions to open markets for foreign products.

Multilaterally:

- The recently concluded NAFTA provides important market opening opportunities for U.S. industry throughout North America.
- We will continue to push for successful conclusion of the GATT Uruguay Round.

But my Administration has also recognized the need to address sector specific problems with particular countries and my intent is to use our attractive domestic market as the basis of a muscular free trade policy that will strengthen America's global economic reach. And we have gone to bat for the very products which Motorola builds here in Illinois:

- Motorola is now able to export the trunked radio equipment, which I just saw being built across the street, into Japan as a result of a bilateral agreement which we negotiated in 1989 to open what was a virtually closed Japanese market for this equipment.
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I have relied heavily upon the advice of key industry leaders in developing our trade policies and priorities. I greatly appreciate the meaningful contributions which Bob Galvin, George Fisher and other senior Motorola managers have provided through their leadership of important advisory committees such as the National Advisory

Committee on Semiconductors, the Industry Policy Advisory Committee and the Advisory Committee on Trade and Policy Negotiations.

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- Motorola has clearly recognized this - not only through its own programs to develop leading edge technology but also through the leadership which George Fisher has provided as chairman of the private sector Council on Competitiveness. The Council's excellent research and analysis has been instrumental in defining my technology and competitiveness agenda.
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Over the next four years, I plan to build on each of these initiatives.

- With the Cold War over, we no longer need to spend 60% of the federal R & D budget on defense. With economic competitiveness as the new challenge, my Administration will push to reverse this trend and increase the percentage of the federal budget that goes to basic research and to critical technologies that drive industrial innovation.
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- That is why I have continued to strongly support cutting the capital gains tax and indexing it to inflation.
- I also support making the R & D tax credit permanent
 - This is critical for a high tech company like Motorola which invests over \$1 Billion per year -- almost 10% of every sales dollar -- in research and development.
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MOTOROLA
FACSIMILE COVER SHEET
1350 I Street NW - Suite 400
Washington, D. C. 20005
(202) 371-6900

ADDRESSEE/COMPANY

FAX NO.

Ed Walters

456-6218

From: Mary Lou Lackey Phone (202) 371-6933 Fax: (202) 842-3578

Number of Pages: 13 (including cover)

Date: 9/23/92

Message:

**If any problems are encountered with this transmission, please call
Jill Taylor at (202) 371-6935**



MOTOROLA INC.

September 24, 1992

MEMO

To: Ed Walters
From: Mary Lou Lackey *mlf*
cc: Rusty Brashear
Roni Haggart
Janiece Webb
Subject: Motorola/Argonne Lab CRADA

The joint Motorola/Argonne National Laboratory press release on the CRADA which is to be signed at the University of Chicago Friday afternoon during the President's visit, is still being finalized. I will get it over to you as soon as it is available.

As I told you, this particular CRADA will positively impact both the manufacturability and performance of all types of radio products -- including the sophisticated trunking equipment which the President will have seen being manufactured at Motorola earlier in the day. We have been working with Argonne for approximately two years on this development of this project and are tremendously excited about its potential.

Motorola currently has CRADA's in place with NIST (on ISDN-related technology), with the Harry Diamond Army Lab (on the solderability of components) and with Sandia National Lab (on a self-cleaning soldering process). We have other potential CRADA's under discussion with Sandia, Los Alamos, Lawrence Berkeley and Rome Air Force Labs.

Like most in the high technology field, Motorola is pleased with the Administration's efforts to facilitate joint public/private cooperation on the research in the federal labs, and believe that continued efforts in this direction are essential to the nation's competitiveness. Attached are the recommendations which the private sector Council on Competitiveness, which is chaired by Motorola's Chairman of the Board George Fisher, made on ways that the President can facilitate this sharing of information in its recent publication "*Gaining New Ground: Technology Priorities for America's Future*".

Thanks for your help on this! Let me know if I can be of further assistance. I am going to Chicago this afternoon, but my administrative assistant Jill knows how to reach me if you need additional information.

Attachments



MOTOROLA INC.

TO: Jill **TELEPHONE:** _____

FAX NUMBER: 202/842-3578

COMPANY LOCATION: _____

FROM: Dale Saaba **TELEPHONE:** 708-576-2346

FAX NUMBER: 708-576-7653

LOCATION: CORPORATE PUBLIC RELATIONS

MESSAGE: _____

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IF ALL PAGES NOT RECEIVED, PLEASE CALL: Dale Saaba

TELEPHONE: 708-576-2346

**CORPORATE PUBLIC RELATIONS
1303 EAST ALCONQUIN ROAD
SCHAUMBURG, IL 60196**

08.24.92 11:23AM *MOTOROLA CORP. P. R. 101

TENTATIVE

JOINT RESEARCH PROJECT ANNOUNCED BY MOTOROLA, ARGONNE LAB

ARGONNE, ILL. - Improved circuitry for communications and electronics could result from a joint research project announced today by Motorola, Inc., Schaumburg, Ill., and the U.S. Department of Energy's (DOE) Argonne National Laboratory near Chicago.

The one-year joint project will develop software for advanced computers to model the behavior of quartz crystals.

"Quartz crystals have many applications," said Michael S. H. Tang, senior staff engineer, Components Products Division, Motorola Paging and Wireless Data Group. "They are used to filter electrical signals and to generate timing sources of signals for all types of radio devices (pagers, cellular phones, two way radios) and computers."

Quartz crystals are currently developed largely by using trial and error or cut-and-try approaches. This requires large amounts of time to be spent fabricating devices -- the behavior of which is unknown prior to completion of the device.

Computer modeling of quartz crystal devices, on the other hand, simplifies the development effort and speeds up the process. Such modeling has the potential to improve the performance of equipment that uses quartz devices while reducing the cost of manufacturing and development of both the quartz devices and products that use them.

Quartz crystal behavior is so complex that no computer program has ever been written to describe it fully, said Rick Stevens (title) of Argonne. "Any program that tried to describe their behavior would run for weeks or months on a conventional computer."

To overcome this problem, the Argonne-Motorola project will create software for a "massively parallel" computer.

Unlike conventional computers, which have one processor and solve problems one step at a time, massively parallel computers have thousands of processors and break problems into segments. These computers solve problems faster because many processors work at the same time.

The joint research agreement is a Cooperative Research and Development Agreement (CRADA), designed to foster cooperative research between industry and government labs. CRADAs offer private firms advantageous rights to patents and other intellectual property for up to five years.

Motorola will contribute \$150,000 worth of services and personnel toward the CRADA, and DOE's Office of Energy Research will contribute \$100,000 toward the effort to Argonne.

Motorola is one of the world's leading providers of electronic equipment, systems and components and services for worldwide markets. Motorola was a winner of the first Malcolm Baldrige National Quality Award in recognition of its superior company-wide management of quality processes.

(Grady/Ferguson/Walters)
September 24, 1992
12:00
MOTOROLA

PRESIDENTIAL REMARKS: MOTOROLA PLANT
FRIDAY, SEPTEMBER 25, 1992
XX:XX AM
SCHAUMBERG, ILLINOIS

(Acknowledgments)

I am delighted to be here with the men and women of
Motorola.

Your skills // your creativity // your hard work are writing
the future of America.

What you're doing here is the perfect put-down for the
professional pessimists -- the doomsayers who say America can't
compete in a changing world.

You've taken the challenges of this new world and done what
America has always done -- reinvented them as opportunities --
for yourselves, for your families, for every American.

A few weeks ago in Detroit, I presented my Agenda for
American Renewal -- an integrated strategy for keeping America
competitive in the new century.

This ^{aft. I will} morning I visited the University of Chicago to expand
on one part of my Agenda -- how to sharpen business's competitive
edge. You see, I believe that we will succeed in the new world
not by making government bigger, but by making private business
better.

The genius that will take our country forward isn't found in
the committee rooms and bureaucratic beehives of Washington, D.C.
It's found right here // in companies like Motorola.

Of course, government has a role -- but it's a role of supporting the private sector, not leading it.

Now, the professional pessimists don't want you to hear it -
- but that's what we've been doing for four years -- laying a
groundwork to help American business compete in the global
economy.

That's why we've been opening markets for American goods --
making America the greatest export superpower the world has ever
seen.

① My opponent isn't sure how he feels about open markets --
sometimes he's for them, sometimes -- especially when he's
talking to the special interests -- he hedges his bets.

But when American jobs are at stake, a President can't
waffle.

② Look at the trunked radio equipment you're building right
here. Before 1989, American manufacturers of this equipment were
effectively cut out of the Japanese market.

David
Long

③ We went to work -- got an agreement -- opened up that market
-- and now your systems cover 85 Japanese cities.

That's what open markets do -- find new customers for the
products you build. New markets abroad mean new jobs right here
in the USA.

Somebody ought to tell my opponent: Americans don't retreat,
we compete. Our products are the best in the world. Give them
the chance // and Americans can outwork, outthink, outcreate
anybody, anytime, anywhere.

We have to keep that edge -- especially in new technologies. My opponent says he wants to do the same. But his answer is a lot different from mine.

He and his advisers like to talk about "industrial policies" -- approaches designed by government bureaucrats. They dictate the terms, pick and choose their favorite technologies, and then -- if you're lucky -- let the private sector have a piece of the action.

Well, they're just flat-out wrong. We need to move power away from the government bureaucrats and closer to the consumer and the producer -- closer to the people who build the products and the people who want to buy them.

That's why we've made it a top priority to move new ideas out of the government research lab and into the marketplace. You see it happening right here at Motorola.

[[Insert on Motorola-Argonne CRADA]

(4) This is just one example of what we're doing all across the country. We've got 1,400 similar agreements up and running. And they're based on a simple philosophy -- when it comes to keeping American business competitive, government can facilitate, it should never dictate.

This may be news to my opponent, but it won't be news to you. We know what made America the envy of the world -- and we know how to keep it that way. We need to open markets, not close them. We need smaller government, not bigger government; more free enterprise, not less of it.

That's what the choice is this fall -- a choice between the architects of the future and the patrons of the past. We'll build that future together -- a future in which America competes, and America wins.

Thank you for this warm Motorola reception, and God bless the United States of America.

#

Now, let me make be clear about spending -- about the wider context in which those dollars are spent. It is essential to my Agenda for American Renewal that we "rightsized" government -- -- slowing its growth, making it flexible, cutting the fat so that it can respond quickly and creatively to a changing world.

So I have asked for a freeze on domestic spending. That means that in increasing funds for research, we must cut funding elsewhere. The federal budget deficit is out of control; the government is too big and it spends too much.

That's the hard truth, and hard truths require tough choices -- and I've made them. I've called for a cap on mandatory spending, excluding Social Security; and I've listed 246 programs and 4000 special projects that we can no longer afford.

The fact is, my opponent can't make the tough choices because the special interests won't let him. In his economic

THE WHITE HOUSE

WASHINGTON

September 23, 1992

MEMORANDUM FOR THE CHIEF OF STAFF
PAUL BATEMAN
DAVID BATES
TONY BENEDI
PHILLIP BRADY
ANN BROCK
MICHAEL BUSCH
NICK CALIO
BILLY DALE
DAVID DEMAREST
BILL FARISH
LAURIE FIRESTONE
MARLIN FITZWATER
CLAYTON FONG
GARY FOSTER
JOHN GAUGHAN
BOYDEN GRAY
KAREN GROOMES
EDE HOLIDAY
CONSTANCE HORNER
TOM HUFFORD
RON KAUFMAN
BOBBIE KILBERG
CECE KREMER
WILLIAM KRISTOL
MICHAEL LUCAS
CHRISTINA MARTIN

TIM MCBRIDE
DAN MCGROARTY
LAURA MELILLO
HENSON MOORE
JANE MOORE
JANET MULLINS
ED MURNANE
ROGER PORTER
PATTY PRESOCK
STEVEN PROVOST
SUSAN PORTER ROSE
DENNIS ROSS
BRENT SCOWCROFT
DORRANCE SMITH
JUDY SMITH
KATHY SUPER
PEGGY SWIFT
MARGARET TUTWILER
DAVID VALDEZ
ROSE ZAMARIA
ROBERT ZOELICK
USSS/PPD OPS
WHCA OPS
MEDICAL UNIT
AIRLIFT OPS
WHTV

FROM: JOHN G. KELLER, JR. *JK*

SUBJECT: TRIP OF THE PRESIDENT TO CHICAGO, ILLINOIS;
AND COLUMBUS, OHIO ON SEPTEMBER 25, 1992

For your use and planning purposes, the attached is a preliminary outline schedule for the Trip of the President to Chicago, Illinois, and Columbus, Ohio on Friday, September 25, 1992.

Please keep in mind the following information has not been finally approved and is subject to change.

Attachments

PRELIMINARY OUTLINE SCHEDULE

Friday, September 25, 1992

GUEST AND STAFF INSTRUCTIONS:

8:15 am **Baggage Call.** Please place all unlocked baggage outside Room 89 1/2, O.E.O.B., at this time.

10:10 am Vans depart West Basement en route Andrews Air Force Base.

10:10 am Those with own transportation and baggage should arrive Andrews Air Force Base, Distinguished Visitor's Lounge, at this time.

10:30 pm Those with own transportation without baggage should arrive Andrews Air Force Base, Distinguished Visitor's Lounge, at this time.

10:55 am MARINE ONE departs White House en route Andrews Air Force Base.

(Flying Time: 10 Minutes)

11:05 am MARINE ONE arrives Andrews Air Force Base.

11:15 am AIR FORCE ONE departs Andrews Air Force Base en route Chicago, Illinois.
(E.D.T.)

(Flying Time: 1 Hour 40 Minutes)
(Interchange: No)
(Time Change: Back 1 Hour)

11:55 am AIR FORCE ONE arrives O'Hare International Airport, Chicago, Illinois.
(C.D.T.)

12:05 pm MARINE ONE departs O'Hare International Airport en route Motorola Inc. Corporate Landing Zone, Schaumburg, Illinois.

(Flying Time: 15 Minutes)

12:20 pm MARINE ONE arrives Motorola Inc. Corporate Landing Zone, Schaumburg, Illinois.

* TOUR MOTOROLA PLANT
- Expanded Pool
(12:25 pm - 12:40 pm)

* MOTOROLA EMPLOYEES AND FAMILIES WELCOME
- Expanded Pool
- Brief Remarks
- Toast Lectern
(12:50 pm - 1:25 pm)

1:30 pm MOTORCADE departs Motorola Inc. en route Motorola Corporate Landing Zone.

(Drive Time: 5 Minutes)

1:35 pm MOTORCADE arrives Motorola Corporate Landing Zone.

1:40 pm MARINE ONE departs Motorola Corporate Landing Zone en route Meigs Field.

(Flying Time: 20 Minutes)

2:00 pm MARINE ONE arrives Meigs Field.

2:05 pm MOTORCADE departs Meigs Field en route University of Chicago.

(Drive Time: 10 Minutes)

2:15 pm MOTORCADE arrives Mandel Hall, University of Chicago.

* ADDRESS NATIONAL TECHNOLOGY INITIATIVE CONFERENCE
- Open Press
- Remarks
- Teleprompter
(2:20 pm - 3:00 pm)

3:05 pm MOTORCADE departs Mandel Hall, University of Chicago en route Drake Hotel.

(Drive Time: 20 Minutes)

3:25 pm MOTORCADE arrives Drake Hotel.

* TBD ENDORSEMENT
- Expanded Pool
- Brief Remarks
(3:30 pm - 3:50 pm)

3:55 pm MOTORCADE departs Drake Hotel en route Hilton Hotel.

(Drive Time: 15 Minutes)

4:10 pm MOTORCADE arrives Hilton Hotel.

* PRIVATE TIME: 1 HOUR 45 MINUTES
(4:15 pm - 6:00 pm)

* VICTORY '92 VIP PHOTO
- Closed Press
(6:05 pm - 6:15 pm)

* DROP BY VICTORY '92 DINNER
- Closed Press
- Brief Remarks
(6:20 pm - 6:45 pm)

* PRESIDENTIAL TRUST DINNER
- Closed Press
- Brief Remarks
(7:00 pm - 8:30 pm)

8:35 pm MOTORCADE departs Hilton Hotel en route Meigs Field.
(Drive Time: 10 Minutes)

8:45 pm MOTORCADE arrives Meigs Field.

8:50 pm MARINE ONE departs Meigs Field en route O'Hare International Airport.
(Flying Time: 15 Minutes)

9:05 pm MARINE ONE arrives O'Hare International Airport.

9:15 pm AIR FORCE ONE departs Chicago, Illinois en route
(C.D.T.) Columbus, Ohio.
(Flying Time: 55 Minutes)
(Interchange: No)
(Time Change: Ahead 1 Hour)

11:10 pm AIR FORCE ONE arrives Port Columbus International
(E.D.T.) Airport, Columbus, Ohio.

11:20 pm MOTORCADE departs Port Columbus International Airport en route Sheraton Hotel.
(Drive Time: 15 Minutes)

11:35 pm MOTORCADE arrives Sheraton Hotel.
RON Columbus, Ohio

THE WHITE HOUSE

WASHINGTON

September 24, 1992

MEMORANDUM FOR THE PRESIDENT

THROUGH: STEVE PROVOST

FROM: BOB GRADY *BG*

SUBJECT: PROPOSED REMARKS FOR NATIONAL TECHNOLOGY
INITIATIVE CONFERENCE

I. SUMMARY

On Friday, September 25, at 2:20 p.m., you will address the National Technology Initiative Conference at the University of Chicago.

II. DISCUSSION

Your remarks (approximately ²⁰~~25~~ minutes / teleprompter) emphasize the importance of government research to private sector technology and restate your commitment to integrating the two. They also refute criticism by Gov. Clinton that your Administration has not supported high-tech R&D.

civilian

Grady Fact Check

David Walters

1

Grady

13,16,17,28

Illinois Governor's Office

2,29,30

Barry Anderson

4,7,8,10,18,21,22,23,25

OSTP

5,6,9,11,12,14,15

David Tell

19,20,24

Bernie Martin

22,23,27

Quotes

31,32

Ferguson Fact Check

David Tell

1

David Long

2,3

4 (cf. 15 from above)

September 19, 1992

MEMORANDUM

TO: KATHY SUPER
JOHN KELLER
STEVE PROVOST

FROM: GARY FOSTER *G7*

SUBJECT: SITE SURVEY FOR CHICAGO, ILLINOIS

Attached is the additional site survey for the President's trip to Chicago, Illinois on Friday, September 25. Once Kathy has the site "scrubbed", implementation can begin. The proposal is for the President to visit Motorola after his NTI address, if it fits into his schedule. After touring the Motorola facilities, the President would make brief remarks (highlights from NTI speech) to gathered employees.

cc: Bob Zoellick
David Bates
Margaret Tutwiler
Tim McBride
Ede Holliday
David Demarest
Karen Grooms
Andrew Carpendale
Speechwriters

September 18, 1992

MEMORANDUM TO: GARY FOSTER
FROM: DOUG DUVALL
SUBJECT: SURVEY REPORT FOR MOTOROLA, INC.
SCHAUMBURG, ILLINOIS
FRIDAY, SEPTEMBER 25, 1992

PROPOSED EVENT SCENARIO:

*or another
L3 by
Chicago U.* The President would travel to Chicago, Illinois and land at O'Hare International Airport, National Guard Station. The President would helicopter to downtown Chicago, landing at Meigs Field. He would motorcade to the University of Chicago where he will make a major address to the National Technology Initiative Conference. The event is sponsored by the Department of Defense, the Department of Commerce and the Department of Energy. The President could state how his agenda will sharpen business' competitive edge by supporting civilian R & D and promoting entrepreneurial capitalism.

After his remarks, the President would helicopter to the headquarters of Motorola, Inc. in Schaumburg, Illinois. The President would land on Motorola's corporate campus and motorcade to a building where he would view first-hand the automated manufacturing process. After this brief tour, the President would address the employees and family members of Motorola. The President could draw upon the same themes of keeping American businesses competitive for the 21st Century. Motorola is continuously moving from a manual to an automated form of manufacturing. Consequently, they have an excellent program of retraining their employees to meet the demands of the high tech industry.

~~After the event, the President would helicopter back to O'Hare International Airport and board Air Force One for departure.~~

PROPOSED EVENT SITE:

Motorola's headquarters is located in Schaumburg, Illinois, approximately 25 minutes from O'Hare. There are approximately 5,000 Motorola employees on this corporate campus and a couple thousand more in the Chicago area. In the center of campus is a field used for sporting activities which could serve as a landing zone. Since the field is centrally located, it would be a very short drive to the other proposed sites.

If time permits, I would recommend the President first be able to witness their automated manufacturing in action. Their largest building is the Land Mobile Products Sector. Here, the President could watch employees (mostly blue collar) operate automated (robotics) equipment. The motorcade could have a secure arrival near the main entrance of the building. Inside, he would be escorted to the manufacturing area. It would be optimal to pool the press coverage for this site since open space is at a minimum.

The President could then motorcade to the other side of the parking lot for the speech to the employees. The event would be held outdoors in a grassy field in order to provide the most room for all the employees. Motorola's Land Mobile Products Sector, a 10 story building with "Motorola" written on its outside in large letters, would be behind the President at a distance. A banner could be also be placed above the President reading something to the effect, "Sharpening Our Competitive Edge...For the 21st Century."

As mentioned, there are over 5,000 employees on campus, but not everyone in the manufacturing sector works the same shift. The morning shift ends at 3:30 pm which is also the approximate time of the event. Also, the site is a good walking distance from the corporate offices so shuttle buses may have to be arranged. Motorola can encourage, but not require their employees to attend the event. Motorola is also seeing if they can get any employees from other plants to attend. All in all, an estimated 2,000 people should be in attendance.

The audience will be comprised of a variety of Motorola employees. Managers, engineers and support staff all work in various buildings within the headquarters complex, and all are eligible for job training.

BACKGROUND ON MOTOROLA, INC.:

Motorola, Inc. is one of the world's leading providers of electronic equipment, systems, components and services for worldwide markets. Products include two-way radios, pagers and telepoint systems, cellular telephones and systems, semiconductors, defense and aerospace electronics, automotive and industrial electronics, data communications and information processing and handling equipment. Motorola has more than

*Add
Agenda
to
American
Review*

100,000 employees worldwide, and is among the United States' 50 largest industrial companies ranked by total sales.

Over 3,000 workers worldwide have been trained in the past 3 years in anticipation of Motorola's factory automation. Motorola's headquarters and other branch offices offer employees an education on how to program robots, solve automation-equipment problems and use advanced technology to design better products. Basic computer literacy classes are for employees to be trained in such areas as Math, English, Reading and problem solving. Hands-on training labs are for all types of employees, from management to administrative staff.

The company was founded by Paul Galvin in 1928. Its first products were car radios, home radios and police radios. Later, Motorola moved from two-way radios to the color television receiver. In recent years, Motorola has concentrated its energies on high-technology markets in commercial, industrial and government fields. Motorola has been building products in the United States that are competitive around the world. Motorola places particular emphasis on product quality, total customer satisfaction, short cycle manufacturing, and training and education of employees at all levels to improve manufacturing, marketing and technical skills. Motorola was a winner of the first Malcolm Baldrige National Quality Award in 1988, in recognition of its superior company-wide management of quality process.

CONTACTS:

Chuck Sengstock, Director, Corporate Public Relations - Motorola
708/576-2346 o 708/498-0872

David Pinsky, Motorola 708/632-2841

Bob Placko, Head of Personnel, Motorola 708/576-5612