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White House Conference on Global [Change] 4/17/90 [OA 8311] [3]

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WELCOMING REMARKS
WHITE HOUSE CONFERENCE ON GLOBAL CHANGE
J.W. MARRIOTT
APRIL 17, 1990
10:00 A.M.

THANK YOU, SECRETARY BRADY. // MEMBERS OF THE U.S. DELEGATION, MEMBERS OF MY CABINET. CO-CHAIRMEN OF THIS CONFERENCE: MICHAEL BOSKIN. ALLAN BROMLEY. AND MICHAEL DELAND. // I'M PLEASED TO WELCOME THIS INTERNATIONAL FIELD OF DISTINGUISHED HIGH-LEVEL OFFICIALS -- EXPERTS ON THE ENVIRONMENT, ECONOMICS, SCIENCE AND ENERGY -- TO THE WHITE HOUSE CONFERENCE ON GLOBAL CHANGE.

TWO MONTHS AGO, I HAD THE HONOR OF ADDRESSING THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE -- AND LET ME RECOGNIZE IPCC CHAIRMAN BURT BOLIN [Bo-LEEN] WHO IS HERE THIS MORNING. // I SEE THIS CONFERENCE HELPING TO ACCELERATE THE IPCC'S AGENDA AS IT SEARCHES FOR UNDERSTANDING OF SOME VERY CRITICAL QUESTIONS -- BROADENING THE DIALOGUE BY EXPLORING THE LINK BETWEEN SCIENTIFIC RESEARCH AND ECONOMIC ANALYSIS IN THE STUDY OF GLOBAL CHANGE.

AND OF COURSE, THIS CONFERENCE IS ITSELF ANOTHER SIGN OF THE GROWING IMPORTANCE OF THE ENVIRONMENT ON THE INTERNATIONAL AGENDA. // HERE IN THE UNITED STATES, WE'VE MOVED ONE STEP CLOSER TO A GREAT VICTORY FOR THE ENVIRONMENT: STRENGTHENING OUR CLEAN AIR STATUTES -- ALREADY THE WORLD'S TOUGHEST -- WITH A COMPREHENSIVE PACKAGE OF NEW CLEAN AIR INITIATIVES.

TEN MONTHS AGO, WE RENEWED MOMENTUM LOST IN LEGISLATIVE STALEMATE FOR 12 YEARS. AND JUST THIS MONTH, A CLEAN AIR PACKAGE CLEARED THE U.S. SENATE, WITH HOUSE ACTION POSSIBLE IN MAY. // WE'RE MOVING FORWARD ON CLEAN AIR LEGISLATION BECAUSE IT IS IN AMERICA'S INTEREST. BUT, LIKE SO MANY OF THE ENVIRONMENTAL ISSUES THAT CONCERN US -- WE AREN'T THE ONLY BENEFICIARY OF A BETTER ENVIRONMENT. // WHEN IT COMES TO THE ENVIRONMENT, WE ARE LEARNING THAT LOCAL ACTIONS CAN HAVE GLOBAL CONSEQUENCES.

UNDERSTANDING THE EFFECTS OF OUR ACTIONS ON OUR EARTH SYSTEM IS THE FIRST STEP TO A SOUND ENVIRONMENT -- AND THE SUBJECT THAT LED ME TO INVITE ALL OF YOU HERE. I WANT TO SPEAK THIS MORNING ABOUT WHAT WE CAN DO OVER THE COURSE OF THE NEXT TWO DAYS TO ADVANCE OUR UNDERSTANDING OF GLOBAL CHANGE.

THIS CONFERENCE WILL HELP IN THREE WAYS.

FIRST, IT PROVIDES AN OPPORTUNITY TO HELP SORT OUT THE SCIENCE ON THIS COMPLEX ISSUE. // TO START WITH WHAT WE KNOW -- ABOUT THE EARTH, THIS HOME WE SHARE. ABOUT THE FACTORS -- NATURAL AS WELL AS MAN-MADE -- THAT CAUSE OUR ENVIRONMENT TO CHANGE. // AND TO WORK FROM WHAT WE KNOW TOWARD ANSWERS TO THE MANY UNCERTAINTIES THAT ABOUND.

PERHAPS IT'S NOT SURPRISING WHEN THE SUBJECT IS GLOBAL CHANGE THAT THE DEBATE OFTEN GENERATES MORE HEAT THAN LIGHT. // SOME OF YOU MAY HAVE SEEN TWO SCIENTISTS ON A SUNDAY TALK SHOW RECENTLY, DEBATING GLOBAL CHANGE. ONE SCIENTIST ARGUED THAT IF WE KEEP BURNING FOSSIL FUELS AT TODAY'S RATE -- AND I QUOTE -- "BY THE END OF THE THE NEXT CENTURY, EARTH COULD BE NINE DEGREES FARENHEIT WARMER THAN TODAY." THE OTHER SCIENTIST SAW NO EVIDENCE OF RAPID CHANGE, AND WARNED AGAINST A DRASTIC REORDERING OF OUR ECONOMY THAT COULD CAUSE US, IN HIS WORDS, TO "END UP AN IMPOVERISHED NATION AWAITING A WARMING THAT NEVER COMES." //

TWO SCIENTISTS -- TWO DIAMETRICALLY OPPOSED POINTS OF VIEW. WHERE DOES THAT LEAVE US? // WHAT WE NEED ARE FACTS: THE STUFF SCIENCE IS MADE OF. A BETTER UNDERSTANDING OF THE BASIC PROCESSES AT WORK IN OUR WORLD. BETTER EARTH SYSTEM MODELS -- THAT ENABLE US TO CALCULATE THE COMPLEX INTERACTION BETWEEN MAN AND OUR ENVIRONMENT. //

THAT'S WHY I'VE ASKED CONGRESS TO APPROVE A 60% INCREASE IN OUR BUDGET FOR THE GLOBAL CHANGE RESEARCH PROGRAM -- AN AGGRESSIVE RESEARCH PROGRAM FOR WHICH WE'VE BUDGETED MORE THAN $1 BILLION DOLLARS IN 1991 -- TO REDUCE THE UNCERTAINTIES SURROUNDING GLOBAL CHANGE, TO ADVANCE THE SCIENTIFIC UNDERSTANDING WE NEED, IF WE ARE TO MAKE DECISIONS TO MAXIMIZE BENEFITS -- AND MINIMIZE UNINTENDED CONSEQUENCES. //

THE SECOND WAY THIS GATHERING CAN ADVANCE OUR UNDERSTANDING IS TO ADDRESS THE ECONOMIC FACTOR IN ENVIRONMENTAL QUESTIONS. WE KNOW THAT CLEANING UP OUR ENVIRONMENT COSTS MONEY. WE KNOW IT MEANS CHANGES IN THE WAY WE WORK AND LIVE. HERE IN THE U.S. WE'RE ALREADY MAKING THOSE CHANGES: MOVING FORWARD ON CLEAN AIR. PLANTING TREES THROUGH OUR AMERICA THE BEAUTIFUL INITIATIVE, AND WORKING WITH OTHER NATIONS TO FIND WAYS TO HALT DEFORESTATION. PHASING-OUT THE USE OF CFCS. ENCOURAGING CONSERVATION, AND EXPLORING ALTERNATIVE SOURCES OF FUEL AND ENERGY -- AND MARKET-BASED INCENTIVES FOR POLLUTION CONTROL. //

AND YET AS WE MOVE FORWARD, ALL OF US MUST MAKE CERTAIN WE PRESERVE OUR ENVIRONMENTAL WELL-BEING AND OUR ECONOMIC WELFARE. WE KNOW THAT THESE ARE NOT SEPARATE CONCERNS. THEY ARE TWO SIDES OF THE SAME COIN. RECOGNIZING THIS FACT IS IN THE INTEREST OF EVERY NATION HERE TODAY -- IN THE INTERESTS OF THE DEVELOPED WORLD AND THE DEVELOPING WORLD ALIKE.

LET ME FOCUS FOR A MOMENT ON THE DEVELOPING WORLD. IN A CLIMATE OF POVERTY, OR PERSISTENT ECONOMIC STRUGGLE, PROTECTING THE ENVIRONMENT BECOMES A FAR MORE DIFFICULT CHALLENGE. COLD STATISTICS DON'T BEGIN TO CAPTURE THE HARSH REALITIES AT STAKE. DEVELOPMENT DOESN'T MEAN JUST ANOTHER POINT OF GNP -- IT'S MEASURED IN HUMAN LIVES. AN END TO HUNGER. LOWER INFANT MORTALITY -- LONGER LIFE EXPECTANCY. / NOT JUST QUALITY OF LIFE -- BUT LIFE ITSELF. ENVIRONMENTAL POLICIES THAT IGNORE THE ECONOMIC FACTOR -- THE HUMAN FACTOR -- ARE DESTINED TO FAIL.

BUT THERE IS ANOTHER REASON TO CONSIDER THE ECONOMIC FACTOR WHEN THE ISSUE IS THE ENVIRONMENT. // THERE IS NO BETTER ALLY IN SERVICE OF OUR ENVIRONMENT THAN STRONG ECONOMIES. ECONOMIES THAT MAKE POSSIBLE THE INCREASED EFFICIENCIES THAT ENABLE US TO MAKE ENVIRONMENTAL GAINS. ECONOMIES THAT GENERATE THE NEW TECHNOLOGIES THAT HELP US ARREST AND REVERSE THE DAMAGE WE HAVE DONE TO OUR ENVIRONMENT. WE NEED ECONOMIES THAT ALLOW US TO MAKE VITAL INVESTMENTS IN OUR COMMON FUTURE. //

THAT BRINGS ME TO THE THIRD WAY THIS CONFERENCE CONTRIBUTES TO A NET GAIN IN KNOWLEDGE: THE FACT THAT IT PROVIDES US THE OPPORTUNITY TO FORM A PARTNERSHIP -- BETWEEN NATIONS, AND ACROSS THE MANY DISCIPLINES REPRESENTED HERE.

FEW SUBJECTS OFFER A GREATER CHALLENGE TO THE UNDERSTANDING OF MAN THAN GLOBAL CHANGE. AND YET, TOO OFTEN, THE DIFFERENT DISCIPLINES FOCUSING ON THIS QUESTION HAVE WORKED IN ISOLATION -- WITH LITTLE INTERCHANGE OF IDEAS, ANALYSIS, INFORMATION. // THIS CONFERENCE IS A NEW DEPARTURE BECAUSE IT BRINGS TOGETHER ENVIRONMENTALISTS AND ECONOMISTS, EXPERTS ON ENERGY AND SCIENCE -- TO SEARCH FOR COMMON GROUND. TO SHARE THE EXPERTISE EACH DISCIPLINE CAN BRING TO THIS DIFFICULT AND DEMANDING CONCERN.

AND THIS NEW PARTNERSHIP MUST BIND NATIONS AS WELL. THE FACT OF THE MATTER IS, NO ONE NATION -- ACTING ALONE -- CAN SAFEGUARD OUR EARTH ENVIRONMENT. SUCCESS REQUIRES A SENSE OF GLOBAL STEWARDSHIP -- AN UNDERSTANDING THAT IT IS THE EARTH THAT ENDURES -- AND THAT ALL OF US ARE NO MORE THAN TENANTS, IN TEMPORARY POSSESSION OF A SACRED TRUST. //

FOR THE NEXT TWO DAYS, YOU'LL BE GRAPPLING WITH QUESTIONS OF GLOBAL STEWARDSHIP -- QUESTIONS OF GLOBAL CONSEQUENCE. I THANK ALL OF YOU FOR JOINING US HERE -- AND WISH YOU THE BEST IN YOUR DELIBERATIONS. // GOD BLESS YOU ALL.

# # #

THE WHITE HOUSE CONFERENCE ON SCIENCE & ECONOMICS RESEARCH RELATED TO GLOBAL CHANGE

A G E N D A

MONDAY - APRIL 16, 1990

12:00 noon **Early Registration** -*J.W. Marriott Hotel*
1331 Pennsylvania Avenue
Washington, D.C.

7:00 p.m. **Reception for Delegates**
National Air and Space Museum

Hosts: Robert A. Mosbacher, Secretary of Commerce
Richard H. Truly, Administrator of NASA
Martin Harwit, Director, National Air and Space Museum

TUESDAY - APRIL 17, 1990

8:00 a.m. **Continental Breakfast for Delegates**
Capitol Foyer, Ballroom Level

9:30 a.m. **PLENARY SESSION I**
Grand Ballroom

Moderator: Michael J. Boskin, Chairman, Council of Economic Advisors

Welcoming Remarks: Nicholas F. Brady, Secretary of the Treasury

President George Bush

Goals and Expectations for the Conference: D. Allan Bromley, Assistant to the President for Science and Technology

Opening Remarks by Visiting Delegate: Jan Janowski, Deputy Prime Minister of Poland, Director of the State Office for Science and Technology Development

11:00 a.m. **PLENARY SESSION II**
Grand Ballroom

Moderator: Michael R. Deland, Chairman, Council on Environmental Quality

Theme I - The Science and Economics Research Challenge

Theme II - Economics and Global Change: Links to the Policy Process and Science Research

Theme III - Building Partnerships for Science and Economics Research

Presentations:
D. Allan Bromley
Michael J. Boskin
Michael R. Deland

McGroarty/Dooley
April 16, 1990
5:15 pm

PRESIDENTIAL REMARKS: WHITE HOUSE CONFERENCE ON GLOBAL CHANGE
J.W. MARRIOTT
APRIL 17, 1990
10:00 A.M.

Nick Brady

Thank you, [Introductory acknowledgements.] I'm pleased to welcome this international field of distinguished high-level officials -- experts on the environment, economics, science and energy -- to the White House Conference on Global Change.

Two months ago, I had the honor of addressing the Intergovernmental Panel on Climate Change. -- IPCC Chair Bert Bolin is here today. I see this conference helping to accelerate the IPCC's agenda as it searches for understanding of some very critical questions -- broadening the dialogue by exploring the link between scientific research and economic analysis in the study of global change.

And of course, this conference is itself another sign of the growing importance of the environment on the international agenda. // **Here in the United States,** we've moved one step closer to a great victory for the environment: strengthening our Clean Air statutes -- already the world's toughest -- with a comprehensive package of new Clean Air initiatives.

Ten months ago, we renewed momentum lost in legislative stalemate for 12 years. And just this month, a clean air package cleared the U.S. Senate, with House action possible in May. // We're moving forward on Clean Air legislation because it is in America's interest. But, like so many of the environmental

issues that concern us -- we aren't the only beneficiary of a better environment. // When it comes to the environment, we are learning that local actions can have global consequences.

Understanding the effects of our actions on our Earth system is the **first step to a sound environment** -- and the subject that led me to invite all of you here. I want to speak this morning about what we can do over the course of the next two days to advance our understanding of global change.

This conference will help in three ways.

First, it provides an opportunity to help sort out the science on this complex issue. // To start with what we know -- about the Earth, this home we share. About the factors -- natural as well as man-made -- that cause our environment to change. // And to work from what we know toward answers to the many **uncertainties** that abound.

Perhaps it's not surprising when the subject is global change that the debate often generates **more heat than light**. // Some of you may have seen two scientists on a Sunday talk show recently, debating global change. One scientist argued that if we keep burning fossil fuels at today's rate -- and I quote -- "by the end of the the next century, Earth could be nine degrees farenheit warmer than today." The other scientist saw no evidence of rapid change, and warned against a drastic reordering of our economy that could cause us, in his words, to "end up an impoverished nation awaiting a warming that never comes." //

Two scientists -- two diametrically opposed points of view. Where does that leave us? // What we need are facts: the stuff science is made of. A better understanding of the **basic processes** at work in our world. **Better earth system models** -- that enable us to calculate the complex interaction between man and our **environment**. //

That's why I've asked Congress to approve a 60% increase in our budget for the Global Change Research Program -- an aggressive research program for which we've budgeted **more than $1 billion dollars in 1991** -- to **reduce the uncertainties** surrounding global change, to advance the **scientific understanding** we need, if we are to make decisions to maximize benefits -- and minimize unintended consequences. //

The second way this gathering can advance our understanding is to address the economic factor in environmental questions. We know that cleaning up our environment costs money. We know it means changes in the way we work and live. Here in the U.S. we're already making those changes: Moving forward on clean air. Planting trees through our America the Beautiful initiative, and working with other nations to find ways to halt deforestation. Phasing-out the use of CFCs. Encouraging conservation, and exploring alternative sources of fuel and energy -- and market-based incentives for pollution control. //

And yet as we move forward, all of us must make certain we preserve our **environmental well-being and our economic welfare.** We know that these are not separate concerns. They are **two sides**

of the same coin. Recognizing this fact is in the interest of every nation here today -- in the interests of the **developed** world and the **developing** world alike.

Let me focus for a moment on the developing world. In a climate of poverty, or persistent economic struggle, protecting the environment becomes a far more difficult challenge. Cold statistics don't begin to capture the harsh realities at stake. **Development doesn't mean just another point of GNP -- it's measured in human lives. An end to hunger. Lower infant mortality -- longer life expectancy. / Not just quality of life -- but life itself. Environmental policies that ignore the economic factor -- the human factor -- are destined to fail.**

But there is another reason to consider the economic factor when the issue is the environment. // There is no better ally in service of our environment than strong economies. Economies that make possible the increased efficiencies that enable us to make environmental gains. Economies that generate the new technologies that help us arrest and reverse the damage we have done to our environment. **We need economies that allow us to make vital investments in our common future.** //

That brings me to the third way this conference contributes to a net gain in knowledge: the fact that it provides us the opportunity to form a partnership -- between nations, and across the many disciplines represented here.

Few subjects offer a greater challenge to the understanding of man than global change. And yet, too often, the different

disciplines focusing on this question have worked **in isolation** -- with little interchange of ideas, analysis, information. // This conference is a new departure because it **brings together** environmentalists and economists, experts on energy and science -- to search for **common ground. To share the expertise each discipline can bring to this difficult and demanding concern.**

And this new partnership must bind **nations** as well. The fact of the matter is, **no one nation -- acting alone -- can safeguard our Earth environment.** Success requires a sense of **global stewardship -- an understanding that it is the Earth that endures -- and that all of us are no more than tenants, in temporary possession of a sacred trust.** //

For the next two days, you'll be grappling with questions of **global stewardship -- questions of global consequence**. I thank all of you for joining us here -- and wish you the best in your deliberations. // God bless you all.

# # #

I want to ~~acknowledge you~~ recognize + all
the members of our delegation. Conference
Co-Chairmen ~~&~~ Michael Bishin, Wm.
~~Bentley~~ Dr. Bromley + Michael DeLand.

McGroarty/Dooley
April 16, 1990
4:00 pm
[change]

PRESIDENTIAL REMARKS: WHITE HOUSE CONFERENCE ON GLOBAL CHANGE
J.W. MARRIOTT
APRIL 17, 1990
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Thank you. [Introductory acknowledgements.] I'm pleased to welcome this international field of distinguished high-level officials -- experts on the environment, economics, science and energy -- to the White House Conference on Global Change.

Two months ago, I had the honor of addressing the Intergovernmental Panel on Climate Change -- the UN body doing such vital work on this key environmental issue. I see this conference helping to accelerate the IPCC's agenda as it searches for understanding of some very critical questions. // This gathering is the first to focus on the obligation to broaden the dialogue -- the first to explore the link between scientific research and economic analysis in the study of global change.

And of course, this conference is itself another sign of the growing importance of the environment on the international agenda. // **Here in the United States,** we've moved one step closer to a great victory for the environment: strengthening our Clean Air statutes -- already the world's toughest -- with a comprehensive package of new Clean Air initiatives.

Ten months ago, we renewed momentum lost in legislative stalemate for 12 years. / And just this month, a clean air package cleared the U.S. Senate, with overwhelming support. In

the House -- now working on its own version of a clean air bill -- a full floor vote is possible in early May. ///

We're moving forward on Clean Air legislation because it is in America's interest. But, like so many of the environmental issues that concern us -- we aren't the only beneficiary of a better environment. // When it comes to the environment, we are learning that local actions can have global consequences.

Understanding the effects of our actions on our Earth system is the **first step to a sound environment** -- and the subject that led me to invite all of you here. I want to speak this morning about what we can do over the course of the next two days to advance our understanding of global change.

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today." The other scientist -- Patrick Michaels -- saw no evidence of rapid change, and warned against a drastic reordering of our economy that could cause us, in his words, to "end up an impoverished nation awaiting a warming that never comes." //

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based incentives for pollution control. We're proud of all we've done -- but we know we're far from finished.

And yet as we move forward, all of us must make certain we preserve our **environmental well-being and our economic welfare.** We know that these are not separate concerns. They are **two sides of the same coin.** Recognizing this fact is in the interest of every nation here today -- in the interests of the **developed** world and the **developing** world alike.

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But there is another reason to consider the economic factor when the issue is the environment. // There is no better ally in service of our environment than strong economies. Economies that make possible the increased efficiencies that enable us to make environmental gains. Economies that generate the new technologies that help us arrest and reverse the damage we have done to our environment. Whatever the technology -- whether it's CFC substitutes, new refrigerants, reformulated gasoline -- each new venture provides economic opportunities as well as

environmental benefits. **We need economies that allow us to make vital investments in our common future. //**

That brings me to the third way this conference contributes to a net gain in knowledge: the fact that it provides us the opportunity to form a partnership -- between nations, and across the many disciplines represented here.

No subject is so vast as the field of global change. Few subjects offer greater challenge to the understanding of man. And yet, too often, the different disciplines focusing on this question have worked **in isolation** -- with little interchange of ideas, analysis, information. // This conference is a new departure -- because it **brings together,** for the first time at a high level and in a working format, environmentalists and economists, experts from the fields of energy and science -- to search for **common ground. To share the expertise each discipline can bring to this difficult and demanding concern.**

And this new partnership must bind **nations** as well. The fact of the matter is, **no one nation -- acting alone -- can safeguard our Earth environment.** Success requires a sense of **global stewardship -- an understanding that it is the Earth that endures -- and that all of us are no more than tenants, in temporary possession of a sacred trust. //**

For the next two days, you'll be grappling with questions of **global stewardship** -- questions of **global consequence**. I thank all of you for joining us here -- and wish you the best in your deliberations. // God bless you all.

Chair IPCC
Burt Bolin (BO-LEEN) dist. guest
~~Sweden?~~
~~Sullivan?~~
Yeutter

US Delegation?

Reilly
Mosbacher
Lujan
Watkins
→ Brady (intro)
Boskin
Bromley
Deland

Truly
Bloch
Knauss

Steve Olson
966-2609

Jan Janowski?

~~everyone except~~ Yeutter

So they will be there

Pres
Bromley
Jan Jankow

THE WHITE HOUSE CONFERENCE
ON SCIENCE AND ECONOMICS RESEARCH
RELATED TO GLOBAL CHANGE

April 17-18, 1990

Washington, D.C.

THE WHITE HOUSE CONFERENCE
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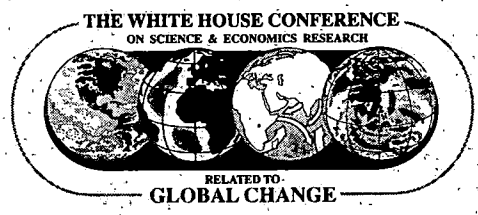

THE WHITE HOUSE CONFERENCE
ON SCIENCE & ECONOMICS RESEARCH
RELATED TO
GLOBAL CHANGE

PRE-CONFERENCE MATERIAL FOR DELEGATES

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THE WHITE HOUSE CONFERENCE
ON SCIENCE & ECONOMICS RESEARCH
RELATED TO
GLOBAL CHANGE

April 5, 1990

Dear Colleague:

On behalf of President Bush, we are honored that you will be coming to the United States April 16-18 to serve as a delegate to the White House Conference on Science and Economics Research Related to Global Change.

By contributing your country's expertise in identifying the critical needs in the fields of science and economics research, you will advance international cooperation and understanding in dealing with the uncertainties of global change.

The United States welcomes a free and open discussion of the science and economics research issues related to global change. As co-chairmen of the Conference, we look forward to joining you in that effort.

Yours Sincerely,

D. Allan Bromley
Assistant to the President
for Science and Technology

Michael J. Boskin
Chairman
Council of Economic Advisers

Michael R. Deland
Chairman
Council on Environmental
Quality

TABLE OF CONTENTS

OVERVIEW OF THE CONFERENCE

GOALS AND OBJECTIVES OF THE CONFERENCE:

President George Bush invited the Heads of State from seventeen nations and the leadership of the E.C. and the OECD to send ministerial-level delegations to the White House Conference on Science and Economics Research Related to Global Change. The Conference is designed to bring together government leaders in science, economics, energy, and the environment concerned with the central research issues of Global Change. The Conference is designed to advance understanding of Global Change phenomena, to enhance international cooperation, and to build the basis for future efforts among nations to integrate more fully science and economics research into the policy process. The Conference adds a new dimension to the international dialogue on Global Change — the proposition that economics, both analysis and research on economic policy and economic consequences, is an essential link between the science of Global Change and policy alternatives. Science and economics research can also serve to identify and develop technologies and policy instruments that relax the tension between growth and Global Change, allowing for greater progress on both fronts. To address these broad goals, the Conference will:

- **Focus on science and economics research** issues relevant to policy on Global Change,
- Address important next steps to substantially **enhance and broaden international understanding** of science and economics research issues that relate to Global Change,
- **Highlight the special role that economics plays** in integrating the science of Global Change with the policy process,
- **Demonstrate linkages between science and economics** research and domestic and international policy processes, and
- Seek to take the initial steps to **implement joint international science and economics research efforts.**

The Conference is conceived as an integral part of the ongoing international process to understand the science of and policy options relating to global environmental issues. The need to improve substantially understanding of both the science and economics of Global Change has been noted by many world leaders. The Conference, therefore, focuses on science and economics research issues as a complement to the ongoing Intergovernmental Panel on Climate Change (IPCC) and other international forums that seek to address the issue of Global Change. It is hoped that the results of the Conference will contribute to the IPCC process and other ongoing international debates and actions.

The Conference focuses on "Global Change," an area of research concerned with understanding the fundamental processes that govern the Earth system functions. Global Change encompasses such diverse and interrelated issues as ozone depletion, greenhouse gases, climate change, food security, water supply, sea level changes, wetlands, deforestation, biodiversity, population change, and energy demand.

The Conference will provide a forum for international leaders to address the complex science and economics research issues central to the policy process, including:

- How well can we predict temperature trends in the decades ahead?
- How "good" are our global scale models, such as models to predict temperature changes?
- How well can we predict the interconnections between global environmental change and the resulting social and economic impacts?
- What are the economic consequences of adapting to or mitigatinGlobal Change?
- How "good" are the models used to assess these economic consequences and their impact on the well-being of humanity?

By addressing such questions, it is hoped that the nations might pledge to enhance joint international research efforts that focus on rapid improvement of both scientific and economic knowledge and development of the necessary infrastructure to implement such efforts.

To address these complex and interrelated issues, President Bush invited heads of state from a small group of nations to send delegations led by ministerial-level officials. The Conference was conceived with the idea that a representative group of countries would be invited to participate. Their selection was based on the simple criteria that the meeting should include countries or organizations of countries that have substantial populations, large land masses, industrialized economies, heavy future energy needs, major research infrastructures, or have provided international leadership on issues related to climate and Global Change. These countries and organizations were selected:

1. Australia
2. Brazil
3. Canada
4. Federal Republic of Germany
5. France
6. India
7. Indonesia
8. Italy
9. Japan
10. Mexico
11. Netherlands
12. Nigeria
13. Norway
14. Poland
15. Soviet Union
16. United Kingdom
17. Zaire
18. European Community
19. OECD

THE EXPECTED RESULTS OF THE CONFERENCE

The Conference will provide an opportunity to address the science and economics research issues related to Global Change in the context of the policy process. To accomplish these goals, the Conference will focus on and seek to promote:

- A substantially *enhanced understanding* of science, economics, and environmental research agenda central to the needs of future Global Change policy development.
- A *substantive understanding of the uncertainties* in both science and economics knowledge of changes in the global environment of the planet.
- *Increased mutual understanding* of and sensitivity to the substance of science and economics research between both of those research communities.
- *Increased sensitivity* by the two research communities to the policy needs evolving in such areas as environmental and energy policy, and vice versa.
- A *solid* and well implemented science and economics *research effort* as a prerequisite for a complement to evolving efforts by nations to address the international policy questions of global environmental changes.
- A communication *network among national leaders* concerned with, and responsible for, the research and policy agenda related to Global Change. More particularly, this Conference provides a "first-ever" opportunity to forge a partnership between the science and economics research communities and the policy-makers.

To provide a vehicle to focus on these vital issues, the Conference will include two Plenary Sessions and several concurrent Working Groups, which will address the three major themes of the Conference:

- The Science and Economics Research Challenge
- Integrating Science and Economics Research in the Policy Process
- Building a Partnership for Science and Economics Research

The Conference is expected to produce a Co-Chairmen's Report, which will outline the deliberations of the Conference and set forth common actions designed to expand research and cooperation among nations.

As President Bush stated in his invitation letter, "It is my hope that the expertise, experience, and data available in our respective countries can be brought together in a more integrated and coherent fashion. By working together, our nations can enhance international cooperation in these vital areas and contribute to the success of the ongoing IPCC process."

PRELIMINARY DELEGATION LIST

Current as of April 4, 1990; 12:00 Noon

BRAZIL

(tentative)

Name	Title
Jose Lutzenberger	Environment Secretary
Jose Goldemberg	Science Secretary

CANADA

(tentative)

Name	Title
Lucien Bouchard	Federal Environment Minister
Derek Burney	Ambassador to the U.S.
Dr. Ann White	Director, Canadian Global Change Program
Dr. Arthur W. May	President, the Natural Science and Engineering Research Council

FEDERAL REPUBLIC OF GERMANY

(confirmed)

Name	Title
Professor Dr. Klaus Töpfer	Federal Minister for Environment, Nature Protection and Nuclear Safety
Dr. Gebhard Ziller	State Secretary, Ministry for Research and Technology
Dr. Wilhelm Knittel	State Secretary, Ministry for Transportation
Baldur Wagner	Assistant Secretary, Federal Chancellery
Dr. Mario Graf von Matuschka	Assistant Secretary, Foreign Ministry
Dr. Horst Glatzel	Deputy Assistant Secretary, Federal Chancellery
Walter Lötz	Deputy Assistant Secretary, Ministry of Economics
Professor Dr. Ansgar Vogel	Deputy Assistant Secretary, Ministry for Environment, Nature Protection, and Nuclear Safety
Dietrich Kupfer	Director, Office of International Cooperation, Ministry for Environment, Nature Protection and Nuclear Safety
Professor Dr. Hartmut Grossl	Scientist, Max Planck Society, Hamburg

FRANCE

(tentative)

Name	Title
Minister Hubert Curien	Minister of Research and Technology
Minister Brice Lalonde	Secretary of State for the Environment
Jean Audouze	Science Advisor to the President
Claude Alegre	Special Advisor to the Minister of Education
Ambassador Jean Ripert	Ministry of Foreign Affairs (Environment)
Yves Martin	Chairman of the Interministry Committee on Greenhouse
Madame Borione	Ministry of Foreign Affairs
Andre LeBeau	General Director of the Meteorological Center
M. Nasse	Ministry of Economy and Budget
Sylvie Faucheux	Professor of Economy at Paris I

INDIA

(tentative)

Name	Title
Ms. Maneka Gandhi	Minister of State for Environment and Forests
Vasant Gowarikar	Secretary of Department of Science and Technology
Mahesh Prasad	Secretary of Ministry of Environment and Forests
Dr. A.P. Mitra	Director General of Council for Science and Industrial Research

INDONESIA

(confirmed)

Name	Title
Prof. Dr. Ing. B.J. Habibie	Minister of State for Research and Technology; Chairman of the Agency for the Assessment and Application of Technology
Prof. Dr. Samaun Samadikun	Chairman of the Indonesian Institute of Science
Prof. Dr. John A. Katili	Deputy Chairman of the National Research Council
Prof. Dr. Gunawan Satari	Permanent Secretary, Ministry of State for Research and Technology
Mr. Poedji Kuntarso, MA	Director General for Foreign Economic Relations; Ministry of Foreign Affairs
Prof. Dr. Rustam Didong	Deputy Chairman (Economics), National Development Planning Agency
Prof. Dr. Harsono Wiryosumarto	Deputy Chairman (Technology Development); Agency for the Assessment and Application of Technology
Prof. Dr. S.B. Joedono	Assistant Minister (Industry, Energy and Mining), Office of the Coordinating Minister for the Economy, Finance, Industry and Development Supervision
Dr. M. Alwi Dahlan	Assistant Ministery (Population), Office of the Minister of State for Population and the Environment
His Excellency Abdulrachman Ramly	Ambassador of the Republic of Indonesia to the United States of America

ITALY

(tentative)

Name	Title
Hon. Adolfo Battaglia	Minister of Industry, Head of Delegation
Prof. Umberto Colombo	Director of the National Agency for Nuclear and Renewable Energies
Prof. Giuseppe Biorci	Vice President of the National Research Council
Prof. Giuseppe Bianchi	Director General for Energy Sources, Ministry of Industry
Prof. Antonio Praturlon	President of the CNR Committee on Geological Sciences
Prof. Roberto Frassetto	CNR Institute of the Dynamics of Great Masses
Prof. Emilio Gerelli	Economic Counselor to the Minister of Environment
Dr. Corrado Clini	Director General for Pollution Prevention, Ministry of Environment
Prof. Guido Visconti	Department of Physics, University of L'Aquila
Dr. Giovanni Sacco	Vice Director General of Treasury, Ministry of Treasury

MEXICO

(tentative)

Name	Title
Lic. Patricio Chirinos	Secretary of Urban Development and Ecology
Dr. Jose Sarukhan	Rector, National Autonomous University
Dr. Herminio Blanco	Undersecretary for Foreign Commerce, Secretariat of Commerce and Industrial Development
Ing. Alberto Escofet	Undersecretary for Energy, Secretariat of Energy, Mines and Parastatal Industries
Lic. Jose Angel Gurria	Undersecretary for International Financial Affairs, Secretariat of the Treasury
Fis. Sergio Reyes	Undersecretary for Ecology
Amb. Alberto Szekely	Legal Counsel, Secretariat of Foreign Affairs
Dr. Julian Adem	Director, Center for Atmospheric Studies, National Autonomous University
Dr. Manuel Ortega	Director General, National Council for Science and Technology
Hector Santana	Staff Aide to Secretary Chirinos

THE NETHERLANDS

(tentative)

Name	Title
Hans Alders	Minister for Housing, Physical Planning and Environment
Dr. B.C.J. Zoeteman	Deputy Director-General for Environment
Dr. Pier Vellinga	Coordinator for National Climate Programs
N.D. Van Egmond	Director for Chemistry and Physics, State Institute for Public Health and Environmental Hygiene
I.G. Roos	Directorate-General for European Cooperation, Ministry of Foreign Affairs
Dr. H.M. Fijnaut	Director of the Royal Dutch Meteorological Institute
Dr. A.P.M. Baede	Head of the Department for Dynamical Meteorology
D.F.W.T. Pietermaat	Environmental Coordinator in the Directorate-General for Energy, Ministry of Economic Affairs
Prof. J.B. Opschoor	Professor of Ecology, Free University, Amsterdam

NORWAY

(confirmed)

Name	Title
Kristin Hille Valla	Minister of Environment
Einar Steensnaes	Minister of Education and Research
Ambassador Kjeld Vibe	Norwegian Ambassador to the United States
Oddmund Graham	Secretary General, Ministry of Environment
Kaare Bryn	Director General, Ministry of Foreign Affairs
Dr. Tore Olsen	Director General, Ministry of Education and Research
Per M. Bakken	Coordinator, Air Pollution, Ministry of Environment
Lorents Lorentsen	Director of Research, Central Bureau of Statistics
Professor Dr. Ivar Isaksen	University of Oslo
Leif Westegaard	Science Officer, Norwegian Embassy in Washington

THE OECD

(tentative)

Name	Title
Robert Cornell	Deputy Secretary-General
William L. Long	Director for Environment
John Ferriter	Deputy Executive Director, International Energy Agency
Andrew Dean	Administrator, Department for Economic Affairs and Statistics
George Kowalski	Head of the Division of Economic Analysis, International Energy Agency

POLAND

(tentative)

Name	Title
Jan Janowski	Deputy Prime Minister; Head of the Office of Scientific and Technological Progress
Andreyewski	Deputy Minister of the Environment
Tadeusz Diem	Deputy Minister of Education
Rybicki	Central Planning Office
Kazimierz Duchowski	Department of Economic Cooperation, Ministry of Foreign Affairs
Wiackowski	Chairman, Parliamentary Commission on Environmental Protection
Stakel	Professor, Polish Academy of Sciences
Sadowski	Institute of Metallurgy and Water Management
Wlodzimierz Bojarski	Senator
Jan Kinast	Polish Ambassador to the United States

SOVIET UNION

(tentative)

Name	Title
Nikolay P. Laverov	Chairman of the USSR State Committee on Science and Technology
Yuriy A. Izrael	Chairman of the State Committee on Hydrometeorology
V.F. Kostin	Deputy Chairman, State Committee for Nature Protection
Aleksander A. Metalnikov	Deputy Chairman, State Committee for Hydrometeorology
A.A. Troitsky	Deputy Chairman, State Planning Committee
V.M. Kotliakov	Director, Institute of Geography, USSR Academy of Sciences
Yu. L. Golubev	Assistant to Chairman, State Committee for Hydrometeorology
Yu. V. Vakajuk	Chief, Division of Global Geophysical Problems, Climate Change and Economic Consequences, State Committee for Hydrometeorology
Yu. V. Pikhanov	State Committee for Hydrometeorology, Department of International Cooperation
Mrs. N. Yu. Vail	State Department Committee for Hydrometeorology, Department of International Cooperation

UNITED KINGDOM

(tentative)

Name	Title
David Trippier RD, JP, MP	Minister for the Environment and Countryside
Sir John Fairclough	Chief Scientific Adviser, the Cabinet Office
Sir Crispin C.C. Tickell, GCMG, KCVO	United Kingdom Permanent Representative to the United Nations
Dr. John T. Houghton CBE	Director-General, Meteorological Office
J.G. Odling-Smee	Deputy Chief Economic Adviser; HM Treasury
Dr. David J. Fisk	Chief Scientist, Department of Environment
Dr. W. David Evans	Chief Scientist, Department of Energy
Dr. Eileen Buttle	Secretary, Natural Environment Research Council

UNITED STATES OF AMERICA

(confirmed)

Name	Title
Nicholas F. Brady ✓	Secretary of the Treasury
Manuel Lujan, Jr. ✓	Secretary of the Interior
Clayton Yeutter ✓	Secretary of Agriculture
Robert A. Mosbacher ✓	Secretary of Commerce
Admiral James D. Watkins (Ret) ✓	Secretary of Energy
William K. Reilly	Administrator, Environmental Protection Agency
Richard H. Truly	Administrator, National Aeronautics and Space Administration
John A. Knauss	Under Secretary of Commerce for Oceans and Atmosphere; and Director, National Oceanic and Atmospheric Administration
Erich Bloch	Director, National Science Foundation
Richard Schmalensee	Member, Council of Economic Advisers

Bolin

7.11.92

ZAIRE

(tentative)

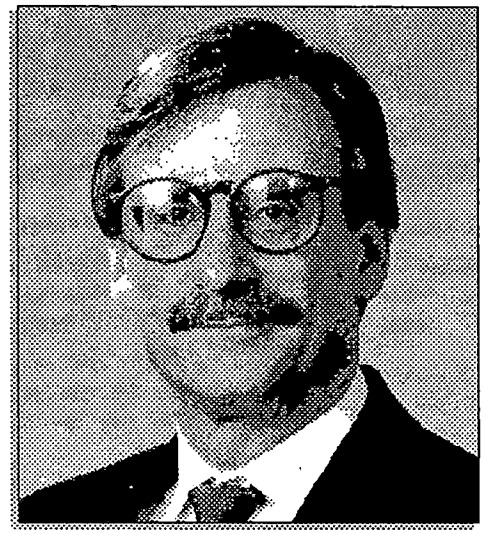
Name	Title
Citoyen Lobo Kanza Kanza	Secretary of State (Deputy Minister); Ministry of Environment and Conservation of Nature

CONFERENCE CO-CHAIRMEN BIOGRAPHIES

MICHAEL J. BOSKIN

D. ALLAN BROMLEY

MICHAEL R. DELAND



Michael J. Boskin
Chairman
President's Council of
Economic Advisers

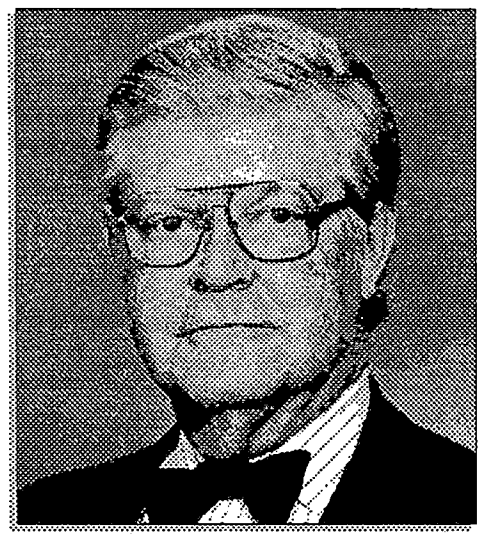
Michael J. Boskin is the Chairman of the President's Council of Economic Advisers. He was appointed to this post by the President on February 2, 1989, following unanimous confirmation by the Senate. As Chairman, he provides economic analysis and advice directly to the President and assists in formulating national economic policies. Dr. Boskin is on leave from Stanford University, where he is the Burnet C. and Mildred Finley Wohlford Professor of Economics, and was the founder and Director of the Center for Economic Policy Research. He is also on leave as a Research Associate of the National Bureau of Economic Research.

Dr. Boskin is the recipient of numerous professional awards and citations, ranging from the Chancellor's Award and the Department Citation as outstanding undergraduate at the University of California in 1967 and the first National Tax Association Outstanding Doctoral Dissertation Award in 1971 to the Abramson Award for Outstanding Research from the National Association of Business Economists in 1987 and Stanford University's Distinguished Teaching Award in 1988. He is the author of more than 80 books and articles in the areas of government spending, tax theory and policy, public debt, Social Security, retirement patterns and behavior, U.S. saving behavior, capital formation, U.S. economic growth, and the economic status of the elderly.

Dr. Boskin received his B.A. degree with highest honors in 1967 from the University of California at Berkeley, where he received his M.A. in 1968 and his Ph.D. in 1971.

Previously, Dr. Boskin had served as a consultant and adviser to the White House, Department of Health and Human Services, Treasury Department, National Science Foundation, and other government agencies, and various congressional committees.

Dr. Boskin is a member of the Economic Education Committee of the American Economic Association. He and his wife Chris moved to Washington, D.C. from California. They both enjoy skiing and tennis.



D. Allan Bromley
Assistant to the President
Science and Technology

D. Allan Bromley is Assistant to the President for Science and Technology and Director of the Office of Science and Technology Policy (OSTP) in the Executive Office of the President. He is on leave from his former position as Henry Ford II Professor of Physics at Yale University, where he was founder and Director of the A.W. Wright Nuclear Structure Laboratory.

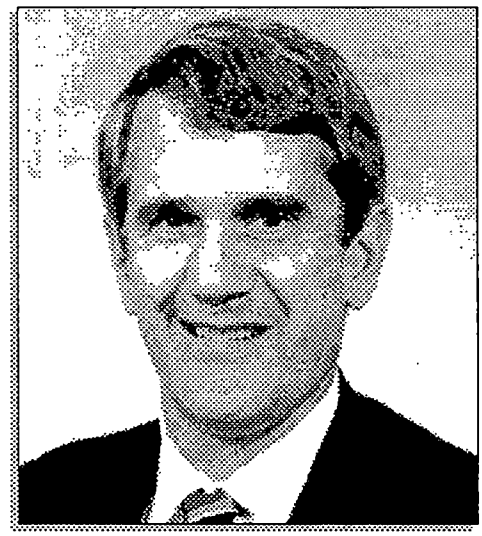
One of the world's leading nuclear physicists, he has carried out pioneering studies on both the structure and dynamics of nuclei and is considered the father of modern heavy ion science, one of the major areas of nuclear science. He has also played major roles in the development of accelerators, of detection systems, and in computer-based data acquisition and analysis systems. An outstanding teacher, over the past two decades his laboratory at Yale graduated more Ph.D.'s in experimental nuclear physics than any other institution worldwide. He has published over 450 papers in science and technology as well as edited eighteen books and has received numerous honors and awards, including the National Medal of Science.

For more than two decades, Dr. Bromley has been a leader in the national and international science and science policy communities. As Chairman of the National Academy's Physics Survey in the early 1970s, he contributed in a central way to charting the future of that science in the subsequent decade. As President of the American Association for the Advancement of Science, the world's largest scientific society, and the International Union of Pure and Applied Physics, the world coordinating body for that science, he has been one of the leading spokesmen for U.S. science and for international scientific cooperation.

Prior to his present appointment, Dr. Bromley served as a member of the White House Science Council throughout the Reagan Administration and as a member of the National Science Board in 1988-1989. As the U. S. chairman for both the Gandhi-Reagan, Indo/U.S. and the Sarney-Reagan, Brazil/U.S. Science and Technology Initiatives, he led four Presidential missions to conduct negotiations for bilateral cooperation in science and technology.

Born in Westmeath, Ontario, Canada, he received the B.Sc. degree with highest honors in 1948 in the Faculty of Engineering at Queen's University, Ontario, Canada. He received the M.Sc. degree from Queen's University in 1950 and the Ph.D. degree from the University of Rochester in 1952, both degrees in nuclear physics. He subsequently has been awarded ten honorary degrees from universities in Canada, France, Germany, Italy, South Africa, and the United States.

Dr. Bromley is married to the Former Patricia J. Brassor, and they have two children, David John and Karen Lynn.



Michael R. Deland
Chairman
White House Council
on Environmental Quality

Michael R. Deland was appointed by President Bush to be Chairman of the White House Council on Environmental Quality on August 1, 1989, following unanimous confirmation by the United States Senate. In this capacity he serves as environmental adviser to the President as well as Director of the Office of Environmental Quality which oversees the development of environmental policy, interagency coordination of environmental quality programs and environmental data acquisition and assessment. In addition, Mr. Deland is responsible for overseeing implementation of the National Environmental Policy Act.

Prior to Mr. Deland's appointment as CEQ Chairman, he was the New England Regional Administrator for the U.S. Environmental Protection Agency (EPA). In that capacity, from 1983 to 1989, he administered the federal government's programs dealing with air and water pollution control, hazardous waste management, drinking water, toxic substances, radiation, and pesticides.

Mr. Deland was counsel at Environmental Research and Technology, Inc., a national firm headquartered in Concord, Massachusetts from 1976 to 1983. While in the private sector, Mr. Deland published numerous papers and articles, including the Regulatory Focus monthly column in *Environment, Science and Technology*. Between 1971 and 1976, Mr. Deland served in EPA's Office of Regional Counsel in New England (Region I) in several capacities, including Chief of the Agency's Legal Review Section and Chief of the Enforcement Branch.

Mr. Deland received his Bachelor of Arts degree from Harvard College in 1963 and served as an officer in the U.S. Navy before obtaining his law degree from Boston College in 1969. He is a member of the Massachusetts Bar and the American Bar Association and its Natural Resources Committee. Mr. Deland was President of the Business Associates Club (Boston) from 1981 to 1982 and is a former Director of the Environmental Lobby of Massachusetts and the Center for Environmental Intern Programs, a national non-profit organization headquartered in Boston.

Mr. Deland has received numerous awards and citations, including the Massachusetts Audubon Society Award for his leadership in cleaning up Boston Harbor and the New England Environment Leadership Award for the New England Environmental Network. In 1987, he was honored as "Environmentalist of the Year" by the Massachusetts Association of Conservation Commissions. In March of 1989, he was awarded the National Wildlife Federation's Special Achievement Award for his role in prompting the cleanup of Boston Harbor, for his efforts at protecting valuable fishing areas from off-shore oil drilling, and for his early endorsement of environmentally-based growth controls on Cape Cod. Mr. Deland resides in Washington with his wife Jane and three children.

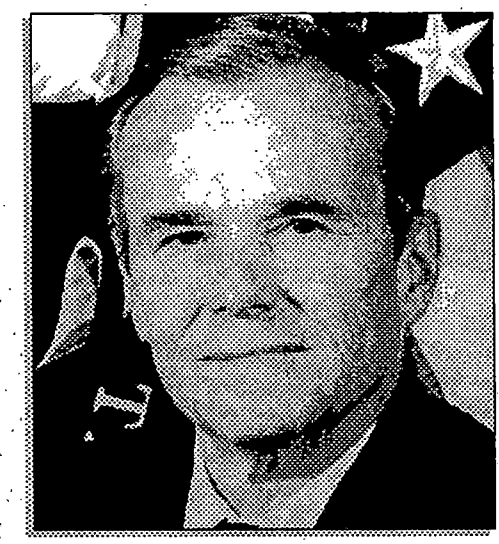
U.S. Delegation Biographies

As part of the Conference handout materials, we are preparing an information/reference booklet which will include:

- one-page narrative biography of each delegate
- an 8" x 10" photograph of each delegate
- the delegate's organization's logo/seal

The biographies, logos and photographs of the U.S. delegation included in this section are representative of the materials we are seeking from each foreign delegation member.

Please provide this information to the White House Conference as soon as possible.



Nicholas F. Brady
Secretary
Department of the Treasury

Nicholas F. Brady became the 68th Secretary of the Treasury on September 15, 1988.

Secretary Brady served in the United States Senate from April 20, 1982 through December 27, 1982. During that time he was a member of The Armed Services Committee and the Banking, Housing and Urban Affairs Committee.

In 1984 President Reagan appointed Secretary Brady Chairman of the President's Commission on Executive, Legislative and Judicial Salaries. He has also served on the President's Commission on Strategic Forces (1983), the National Bipartisan Commission on Central America (1983), the Commission on Security and Economic Assistance (1983), and the Blue Ribbon Commission on Defense Management (1985). Most recently, Secretary Brady chaired the Presidential Task Force on Market Mechanisms (1987).

Secretary Brady's career in the banking industry spans 34 years. He joined Dillon, Read & Co., Inc. in New York in 1954, rising to Chairman of the Board. He has been a Director of the NCR Corporation, the MITRE Corporation, and the H.J. Heinz Company, among others.

He has also served as a trustee of Rockefeller University and a member of the Board of the Economic Club of New York. He is a member of the Council on Foreign Relations, Inc. He is a former trustee of the Boys' Club of Newark.

Mr. Brady was born April 11, 1930 in New York City. He was educated at Yale University (B.A., 1952) and Harvard University (M.B.A., 1954). He and his wife, Katherine, have four children.

Manuel Lujan, Jr.
Secretary
Department of the Interior

POLITICAL

President George Bush selected Manuel Lujan, Jr., who had just completed a 20-year career in the House of Representatives, to be his Secretary of the Interior. He was sworn in on February 3, 1989.

The 46th Secretary of the Interior, Lujan was first elected to the House of Representatives from New Mexico in 1968. When he left the Congress on January 3, 1989, he ranked 15th in seniority among all Republicans and 52nd in seniority among all House members.

A member of the House Interior and Insular Affairs Committee since 1969, Lujan was its second ranking Republican. The Committee has jurisdiction over all activity in the U.S. Department of the Interior as well as the Nuclear Regulatory Commission. Lujan was also the senior Republican on the Energy and Environment Subcommittee.

Lujan was the Vice-Chairman of the House Science, Space and Technology Committee. As senior Republican, Lujan was a member of all subcommittees, including Space Science and Applications which has oversight over NASA.

PERSONAL

Born May 12, 1928 in San Ildefonso, New Mexico. Raised in Santa Fe where Lujan's father, Manuel Lujan, Sr., served three elected terms as Mayor.

A graduate of the College of Santa Fe with a B.A. degree, Lujan also attended St. Mary's College in California.

Prior to entering Congress, the Secretary was a partner in a family insurance and real estate business with three offices in New Mexico. His brother, Edward Lujan, is the managing partner of the business.

Married to the former Jean Couchman of Santa Fe, the Lujans have four children; Terra Everett, Jay, Barbara and Jeff. Secretary and Mrs. Lujan maintain residences in both Washington, D.C. and Albuquerque.

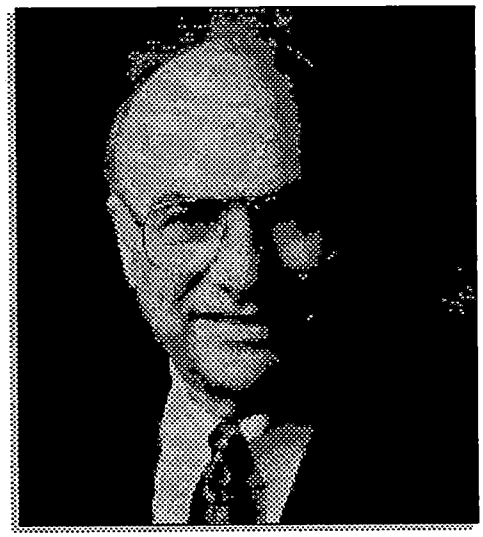
LEGISLATIVE

Economy in Government: Lujan was a Congressional leader in the battle against wasteful government spending. *"The effort to stop inflation boils down to a fight against needless government intervention and spending,"* stated Lujan.

Environmental Protection: Lujan has co-sponsored seven major environmental protection bills including the Clean Air Act of 1970 and the Clean Water Act. More recently, Lujan successfully sponsored legislation setting aside more than 600,000 acres of New Mexico land as wilderness areas, ensuring its beauty and enjoyment for future generations.

Education: Lujan strongly supported student loan programs in the public and private sectors. His work led to New Mexico adopting a student loan program that is a model for other states.

Technology: Lujan believes strongly that scientific research is the key to our future. *"Science and technology can help us meet the challenges of the 21st century,"* said Lujan.



Clayton Yeutter
Secretary
Department of Agriculture

Clayton Yeutter was sworn in as the 23rd United States Secretary of Agriculture on February 8, 1989.

Yeutter's career includes distinguished public and private-sector service in agricultural policy development, law, economics, marketing and trade.

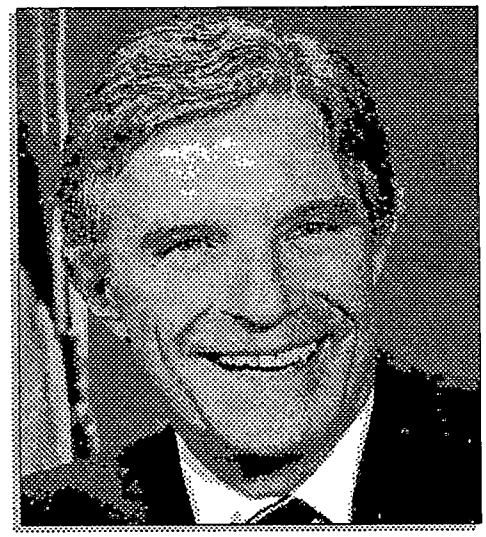
From July 1985 until shortly before his new cabinet appointment, Yeutter served as U.S. Trade Representative. His previous USDA posts include Assistant Secretary for International Affairs and Commodity Programs from March 1974 to June 1975, Assistant Secretary for Marketing and Consumer Service from January 1973 to March 1974 and Administrator of the Consumer and Marketing Service from October 1970 to December 1971.

Yeutter's other career highlights: President and Chief Executive officer, Chicago Mercantile Exchange, July 1978 to June 1985; senior partner, law firm of Nelson, Harding, Yeutter & Leonard, Lincoln, Nebraska, April 1977 to June 1978; Deputy U.S. Special Trade Representative, June 1975 to February 1977; Director, University of Nebraska Mission in Colombia (a large agricultural technical assistance program), September 1968 to October 1970; executive assistant to the governor of Nebraska, January 1966 to September 1968; faculty member, Department of Agricultural Economics, University of Nebraska, January 1960 to January 1966; operator of a 2,500 acre farming-ranching-cattle feeding enterprise in central Nebraska, 1957-1975; and enlistee, later commissioned officer, U.S. Air Force, 1952-1957.

Yeutter was graduated with high distinction from the University of Nebraska in 1952 with a Bachelor of Science degree in animal husbandry. In 1963, he obtained his law degree from the same university, graduating *cum laude* and ranked first in his class. In 1966, he received his Ph.D. in agricultural economics, again from the University of Nebraska, and was named outstanding graduate student in the program.

Yeutter is a former member or chairman of many private and public-sector boards of directors, councils and trusteeships, including: the President's Export Council; the Chicago Association of Commerce and Industry; the Chicago-Tokyo Bank; the U.S. Meat Export Federation; the Chicago Council on Foreign Relations; the Farm Foundation, Oak Brook, Illinois; Tri-Valley Growers, San Francisco, California; and ConAgra, Inc., Omaha, Nebraska.

Yeutter was born in Eustis, Nebraska, December 10, 1931. He and his wife, Jeanne Vierk Yeutter, have four children. He retains ownership of his Nebraska farm, which is currently operated by a tenant. Yeutter's permanent home is in Lincoln, Nebraska, but he currently resides in McLean, Virginia.



Robert A. Mosbacher
Secretary
Department of Commerce

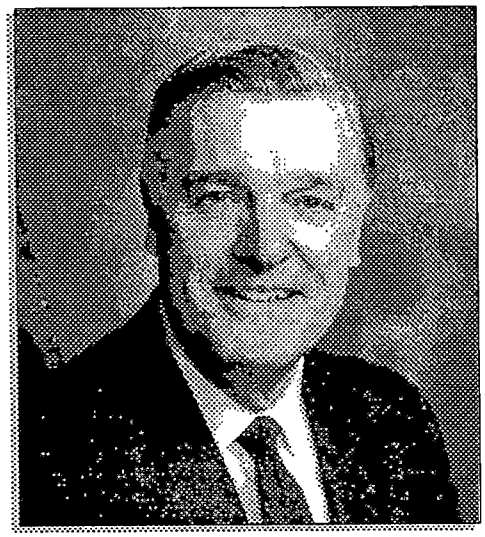
Nominated Secretary of Commerce by President-Elect George Bush on December 6, 1988. He was confirmed 100-0 by the United States Senate on January 31, 1989.

Formerly:

Chief Executive Officer and Chairman of Mosbacher Energy Company
Director of Texas Commerce Bancshares, Houston, Texas
Director, Enron Corporation, Houston, Texas
Director, New York Life Insurance Company, New York
Past Chairman of the National Petroleum Council
Charter member and past Chairman of the All American Wildcatters Association
Member of the Executive Committee and Board of Directors of the American Petroleum Institute
Past Chairman of the Mid-Continent Oil and Gas Association
Twice Past Chairman of the Board of Visitors of the Texas M.D. Anderson Cancer Institute
Former member of Board of Trustees of the Texas Heart Institute
Former National Trustee, Boys Clubs of America Southwest Region
Past Active Trustee of the Aspen Institute for Humanistic Studies
Member of Washington Roundtable and Co-Chair of Houston Roundtable of the Center for Strategic and International Studies
National Finance Chairman for George Bush for President
National Finance Chairman of the Fund for America's Future
Chairman of Victory 88'
Co-Chairman of the Republican National Finance Committee
Member of the Executive Committee for Reagan-Bush
National Finance Chairman for the President Ford Committee in 1976
Won both the North American and World Sailing Championships in the Olympic classes (Dragon and Soling)
Won the Southern Ocean Racing Circuit
Won the Gold Cup twice

Born in White Plains, New York, Mosbacher has lived in Houston, Texas since 1948. He graduated from Washington and Lee University in Lexington, Virginia in 1947.

Mosbacher is married to the former Georgette Paulsin and is the father of four (Diane, Robert Jr., Kathryn and Lisa) and grandfather of five. The Mosbachers reside in Washington, D.C.



James D. Watkins
Secretary
Department of Energy

James David Watkins was nominated by the President to be the sixth Secretary of Energy on January 20, 1989. Admiral Watkins was confirmed by the United States Senate and sworn into office on March 1, 1989.

Admiral Watkins was born in California on March 7, 1927, and claims the city of Pasadena as his home. A 1949 graduate of the U.S. Naval Academy, his tours as flag officer included Chief of Naval Personnel; Commander of the Sixth Fleet; Vice Chief of Naval Operations; and Commander-in-Chief of the Pacific Fleet. Admiral Watkins was selected by President Reagan to become the 22nd Chief of Naval Operations on June 30, 1982. His military decorations include several Distinguished Service and Legion of Merit medals, the Bronze Star with combat "V" and other medals, campaign and service ribbons, and decorations from many foreign nations.

Following his retirement on June 30, 1986, Admiral Watkins devoted his time to issues regarding America's youth, and worked with a number of philanthropic organizations to establish a national program for personal excellence. He also served as a member of advisory boards in both the education and energy fields and has received several honorary doctorates and public service awards.

In October 1987, Admiral Watkins was appointed Chairman of the Presidential Commission on the Human Immunodeficiency Virus (AIDS) Epidemic, submitting the Commission's final report to the President on June 24, 1988.

Admiral Watkins received his master's degree in mechanical engineering in 1958, and is a graduate of the reactor engineering course at the Oak Ridge National Laboratory. He was selected by Admiral Hyman G. Rickover to enter the Navy's nuclear-powered submarine program in 1959, and was qualified as an Engineering Officer of the Watch at one of the Navy's land-based reactor plants. He served for three years in the Atomic Energy Commission as Admiral Rickover's assistant for Naval Nuclear Propulsion and later, in a variety of assignments associated with the management of the nuclear navy. These assignments included Commanding Officer of a nuclear-powered submarine and Executive Officer of the world's first nuclear-powered cruiser.

Admiral Watkins married Sheila Jo McKinney of San Diego, California, in 1950. They have six children: Katherine Watkins Coopersmith, Laura Jo Watkins Kauffmann, Susan, Charles, James Jr., and Edward. Admiral and Mrs. Watkins have eight grandchildren.

William K. Reilly
Administrator
Environmental Protection Agency

William Kane Reilly was sworn in as Administrator of the U.S. Environmental Protection Agency by President Bush on February 8, 1989. The President announced his appointment on December 22, 1988, and officially nominated him on January 20, 1989. The U.S. Senate unanimously confirmed his nomination on February 2, 1989.

Prior to becoming EPA Administrator, Reilly held five environment-related positions during the previous two decades. He was President of World Wildlife Fund-U.S. (1985-1989) and President of the Conservation Foundation (1973-1989). Those two organizations joined in a formal affiliation in 1985 and Reilly became President of both organizations. He was Executive Director of the Task Force on Land Use and Urban Growth from 1972-1973. From 1970 to 1972, he was on the staff of the President's Council on Environmental Quality and, from 1968 to 1970, was Associate Director, Urban Policy Center and the National Urban Coalition. He also served as Chairman of the Natural Resources Council of America, an association of all major conservation groups, from 1981-1983.

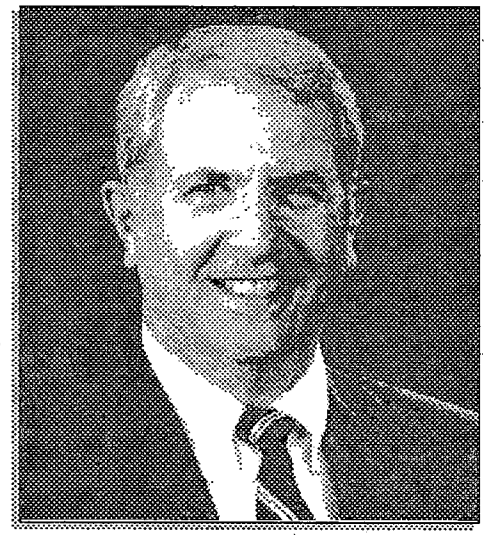
During his presidency of World Wildlife Fund-U.S., Reilly intensified his mission, the protection of the diversity of life on earth. Between 1961 and 1989, the organization supported 1,371 wildlife and endangered habitat projects in 103 countries. At the Conservation Foundation, he continued its long-standing interest in land programs and initiated new programs in environmental dispute resolution, water toxic substances control, and urban conservation and energy. In 1976, Reilly began a program advocating direct cooperation between business leaders and conservationists in resolving polarizing issues in resources and environmental policy, which resulted in several major consensus-building policy dialogues, including the National Groundwater Policy Forum and the National Wetlands Policy Forum.

Reilly has written and lectured extensively on environmental issues, has served on the boards of various private and public sector organizations and received the Horace Albright Medal for his contributions to national parks and the Alfred B. LaGasse Medal for his contributions to environmental progress.

An alumnus of Yale University, Reilly holds a law degree from Harvard University and a master's degree in urban planning from Columbia University. He was born in Decatur, Illinois on January 26, 1940, grew up in Fall River, Massachusetts, and served as a U.S. Army captain (1966 to 1967).

He is married to Elizabeth "Libbie" Bennet Buxton Reilly. They have two daughters, Katherine Buxton Reilly, age 19, and Margaret Mahalah Reilly, age 14. The family resides in Alexandria, Virginia.

NASA



Richard H. Truly
Administrator
National Aeronautics and
Space Administration

Richard H. Truly became the eighth Administrator of NASA on July 1, 1989. One day earlier, he concluded his naval career of more than 30 years, retiring as a Vice Admiral, United States Navy. He is the first astronaut to head the nation's civilian space agency.

Truly became NASA's associate administrator for space flight on February 20, 1986. In this position, he led the painstaking rebuilding of the Space Shuttle program. This was highlighted by NASA's celebrated "return to flight" on September 29, 1988, when Discovery lifted off from Kennedy Space Center, Florida, on the first Shuttle mission in almost three years.

Before returning to NASA, the former Shuttle astronaut served as the first commander of the Naval Space Command, Dahlgren, Virginia, established October 1, 1983. His career in the U.S. Navy began in 1959, when he was commissioned an ensign. This coincided with his graduation from Georgia Institute of Technology, which he attended as a Naval R.O.T.C. midshipman and earned a bachelor's degree in aeronautical engineering.

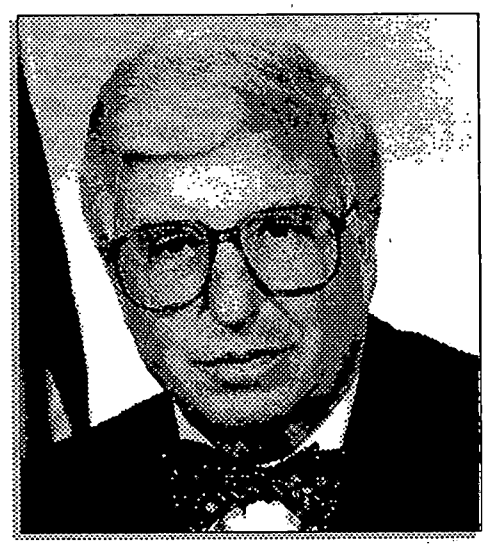
Following flight school, he was designated a naval aviator in 1960. His initial tour of duty, Fighter Squadron 33, was aboard USS Intrepid and USS Enterprise, and he made more than 300 carrier landings. From 1963 to 1965, he was a student and then instructor at the U.S. Air Force Aerospace Research Pilot School, Edwards Air Force Base, California.

In 1965, Truly became one of the first military astronauts selected to the Air Force's Manned Orbiting Laboratory program in Los Angeles, California, and transferred to NASA as an astronaut in August 1969. He served as capsule communicator for all three of the manned Skylab missions in 1973 and the Apollo-Soyuz mission in 1975. As a naval aviator, test pilot, and astronaut, Truly has logged over 7,500 hours in numerous military and civilian jet aircraft.

He was pilot for one of the two-man crews that flew the 747/Space Shuttle Enterprise approach and landing test flights during 1977. He then served as backup pilot for STS-1, the first orbital test of the Shuttle. His first flight in space was November 12-14, 1981, as pilot of Space Shuttle Columbia (STS-2), significant as the first manned spacecraft to be reflown in space. His second flight (STS-9, August 30–September 5, 1983) was as commander of Space Shuttle Challenger, the first night launch and landing in the Shuttle program.

On January 18, 1989, Truly was awarded the Presidential Citizen's Medal by President Reagan. His NASA awards include two NASA Distinguished Service Medals, the NASA Outstanding Leadership Medal, two NASA Exceptional Service Medals, and NASA Space Distinguished Service Medal, the Defense Superior Service Medal, two Legions of Merit, the Navy Distinguished Flying Cross, and the Meritorious Service Medal.

Truly was born in Fayette, Mississippi, on November 12, 1937 and attended school in Fayette and Meridian, Mississippi. He is married to the former Colleen (Cody) Hanner of Milledgeville, Georgia. They have three children: Mike, Dan and Lee, and three grandchildren: Ashley, Courtney and Peter.



John A. Knauss
Under Secretary
Department of Commerce

John A. Knauss, Under Secretary for Oceans and Atmosphere and Administrator of the Department's National Oceanic and Atmospheric Administration (NOAA), took office August 7, 1989.

A noted oceanographer and educator, Knauss was a professor of oceanography at the Graduate School of Oceanography at the University of Rhode Island (URI). He also served as dean of the URI Graduate School of Oceanography from 1962 to 1987, and as the university's provost for marine affairs from 1969 to 1982.

Knauss has been a member of two presidential commissions on marine affairs: the Commission on Marine Science, Resources, and Engineering (the Stratton Commission) in 1967 to 1968 and the National Advisory Committee on Oceans and Atmosphere (NACOA), 1978 to 1985. He served as Chairman of NACOA from 1981 to 1985. He has been President of the Association of Sea Grant Program Instititions, Chairman of the Ocean Science Committee of the National Academy of Sciences/National Research Council, and Chairman of the Marine Division of the National Association of State Universities and Land-Grant Colleges.

He has served as President of the oceanographic section of the American Geophysical Union (AGU), Vice President of the Marine Technology Society (MTS), Vice Chairman of the American Association for the Advancement of Science's (AAAS) Atmospheric and Hydrospheric Sciences Section, and a council member of the American Meteorological Society. He was a co-founder of the Law of the Sea Institute and served on its governing board from 1965 to 1976 and 1981 to 1987. He has been elected a fellow of the AAAS, the AGU, and the MTS.

Knauss graduated from Massachusetts Institute of Technology (B.S., 1946), the University of Michigan (M.S., 1949), and the University of California, Scripps Institution of Oceanography (Ph.D., 1959).

Erich Bloch
Director
National Science Foundation

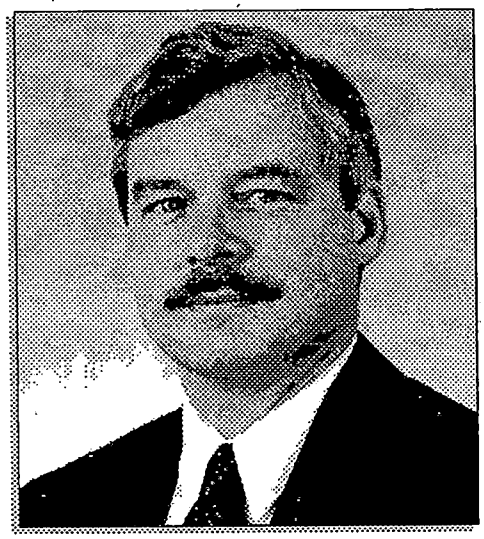
Erich Bloch was confirmed by the Senate to be Director of the National Science Foundation on August 6, 1984. As Director, he is responsible for an agency charged with strengthening the national scientific and engineering research potential and with improving science and engineering education at all levels. The Foundation has an annual budget exceeding $1.7 billion and the annual award of 12,000 to 14,000 grants for research in all fields of natural, social sciences, and engineering.

Before joining NSF, Mr. Bloch was a corporate Vice President for Technical Personnel Development at IBM Corporation, which he joined in 1952 as an electrical engineer. During his career at IBM, Mr. Bloch was the engineering manager of IBM's STRETCH supercomputer system in the late 1950's and early 1960's. In 1962, he headed development of the Solid Logic Technology program, which provided IBM with microelectronic technology for its System/360 computer. Subsequently, Mr. Bloch was appointed a vice president of the company's Data Systems Division and general manager of the East Fishkill facility, which is responsible for the development and manufacture of semiconductor components used in IBM's product line. He was elected an IBM vice president in 1981.

From 1981 to 1984, Mr. Bloch served as Chairman of the Semi-conductor Research Cooperative, a group of leading computer and electronics firms that fund advanced research in universities and shares in the results, and was the IBM representative on the board of the Semiconductor Industry Association.

In February 1985, Mr. Bloch was awarded the National Medal of Technology by President Reagan. The award was made for his part in pioneering developments related to the IBM/360 computer that revolutionized the computer industry. In 1989, Mr. Bloch was the recipient of the IEEE United States Activities Board Award for Distinguished Public Service and the IEEE 1990 Founders Medal. He also received honorary Doctorate of Engineering degrees from the Colorado School of Mines, the University of Notre Dame, and Rensselaer Polytechnic Institute; honorary Doctorate of Science degrees from the University of Massachusetts at Amherst, George Washington University, State University of New York at Buffalo, the University of Rochester, Oberlin College, and Washington College; and an honorary Doctorate of Science and Engineering degree from the Ohio State University.

He is a member of the National Academy of Engineering and is a Fellow of the American Association for the Advancement of Science and of the Institute of Electrical and Electronics Engineers and a member of its Computer Society. He received his education in electrical engineering at the Federal Polytechnic Institute of Zurich, Switzerland, and a Bachelor of Science degree in electrical engineering from the University of Buffalo in 1952.



Richard Schmalensee
Council of Economic Advisers
Office of the President

Richard Schmalensee is a Member of the Council of Economic Advisers. He has primary responsibility for the analysis of microeconomic and regulatory policy. Dr. Schmalensee is on leave from the Massachusetts Institute of Technology (MIT), where he is the Gordon Y. Billard Professor of Economics and Management.

Dr. Schmalensee's research and teaching have focused on industrial organization and on anti-trust and regulatory policy. He has written numerous articles in professional journals and is the author of three books and co-author of three others. He has extensive consulting experience on anti-trust and regulatory matters. He has served on the editorial boards of several economics journals, is co-editor of the *Handbook of Industrial Organization*, and is founding editor of the MIT Press *Regulation of Economic Activity* monograph series. Dr. Schmalensee has also served on various committees of the American Economic Association and the Econometric Society, of which he is a Fellow.

Dr. Schmalensee attended the public schools of Belleville, Illinois and received his B.S. (Economics, Politics and Science; 1965) and Ph.D. (Economics; 1970) degrees from MIT. Prior to joining the MIT faculty in 1977, he taught at the University of California, San Diego. He is married to the former Diane Hawk; they have two sons.

HOTEL/TRANSPORTATION/LOGISTICS

Dr. Franmarie Keel

White House Conference on Global Change
Suite 615
1019 19th Street, N.W.
Washington, D.C. 20036

Phone: (202) 653-5980
Fax: (202) 653-2034
Telex: 249118SDAVISUR
Telemail (OMNET): GLOBAL.CHANGE

HOTEL

The White House Conference is being held at:

The J.W. Marriott Hotel
1331 Pennsylvania Avenue, N.W.
Washington, D.C. 20004
Telephone: 202-393-2000

- The White House Conference has reserved rooms for each official delegation member. **Charges for the hotel room April 16th and 17th, 1990 and for Conference meals served April 17 and 18, 1990, will be paid for by the White House Conference.**

- Hotel room check-in is 3:00 p.m. Conference registration begins at 12:00 noon, Sunday, April 15, for delegates arriving in Washington early. Registration will continue Monday all day and until 12:00 noon on Tuesday, April 17. Special arrangements should be made with White House Conference coordinators for early or late arrivals/departures and check-in.

- To cover any personal incidental expenditures (such as telephone calls, charges at the hotel restaurants and gift shops, and additional room service), each delegation member must present *one* of the following upon registration at the hotel to guarantee incidentals:

    - credit card (American Express, VISA, Master Card, Diners Club, JCV)
    - a letter received by April 14th, 1990 from the delegation's embassy stating embassy will cover its delegation's incidentals prior to delegation's departure from the hotel

TRANSPORTATION

- Delegations will be met by White House Conference personnel at Washington National Airport, Washington Dulles Airport, Baltimore-Washington International Airport, and Andrews Air Force Base and will be escorted to the hotel beginning Sunday, April 15.

- White House Conference personnel meeting flights can be identified by a White House Conference sign. Delegations arriving in Washington domestically will be met at the gate. International arrivals will be met at the exit of the mobil lounge at the entrance to U.S. Immigration and Customs.

- Procedures have been established by the Conference to assist in the facilitation of U.S. Customs.

- Transportation will be provided for delegations' return to those designated airports after the close of the Conference Wednesday, April 18, through Thursday evening, April 19.

- All transportation for official Conference events held outside of the J.W. Marriott Hotel will be provided by the White House Conference.

- **All airline arrival and departure times must be confirmed as soon as possible with the White House Conference at 202/653-5980.**

- **Please inform the White House Conference immediately if flight plans change at departure (i.e. cancelled flight, family emergency, etc.)**

SPECIAL REQUIREMENTS

- Any special room, bed, dietary, or medical requirements should be forwarded to White House Conference coordinators as soon as possible.

MISCELLANEOUS

- Simultaneous interpretation in Russian, Spanish, and French will be provided during the Conference meetings.

- Please note the dinner at the State Department, on Tuesday, April 17, is business attire.

WHITE HOUSE CONFERENCE ON SCIENCE AND ECONOMICS RESEARCH RELATED TO GLOBAL CHANGE

Delegate Travel Accommodation Registration

PLEASE PRINT OR TYPE

Name: _____

Title: _____

Country Delegation: _____

HOTEL ACCOMMODATIONS:

In order to facilitate your registration upon arrival at the Conference site at the J.W. Marriott Hotel, it will be necessary to provide the information requested in this form. The White House Conference provides each delegate with a hotel room from check-in April 16th to check-out on April 18th. The J.W. Marriott Hotel requires guarantee of payment for incidentals, such as telephone, room service, gift shop, laundry, restaurants, etc., with cash, a credit card or a Letter of Guarantee from your Embassy. A Letter of Guarantee should include delegate's name, check-in date, Embassy Financial Officer, and any stipulations, and must be received by April 14, 1990.

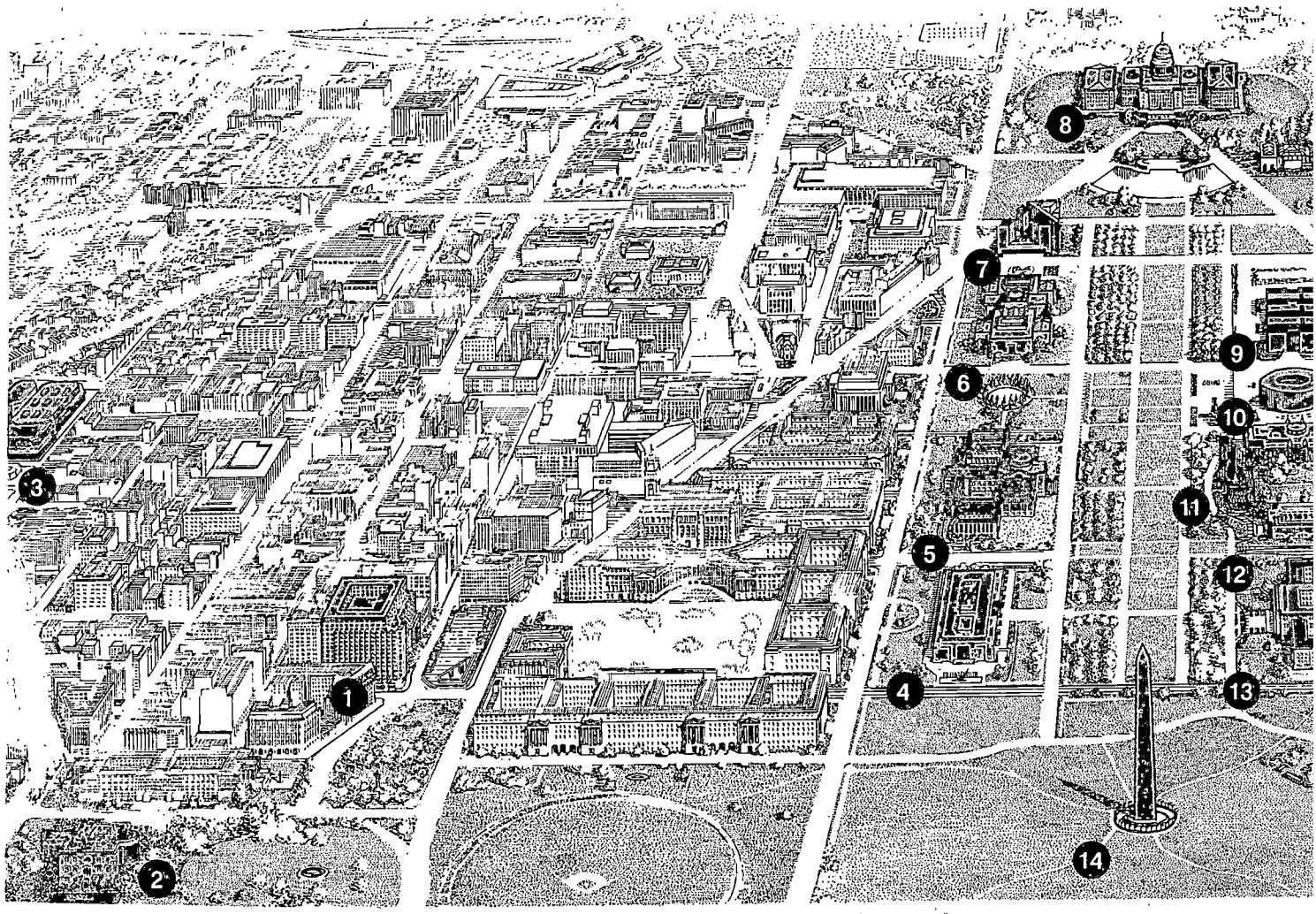
Credit Card # _____ Expiration Date: _____

Type *(American Express, Visa, Master Card, Diners Club, JCV)*: _____

Name as it appears on card: _____

Signature: _____ Date: _____

This should be completed and sent by fax (202-653-2034) to Susan Thoren at the White House Conference in Washington, D.C., or delivered by April 12th to 1019 19th Street NW, Suite 615, Washington D.C. 20036



Rendering by S. Finkenberg, New York.

1. JW Marriott Hotel
2. The White House
3. Convention Center
4. Museum of American History
5. Natural History Museum
6. National Gallery of Art
7. National Gallery of Art East Wing
8. United States Capitol
9. Air and Space Museum
10. Hirshhorn Museum
11. Smithsonian "Castle"
12. Freer Gallery
13. Department of Agriculture
14. Washington Monument

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THE WHITE HOUSE

WASHINGTON

April 13, 1990

MEMORANDUM FOR THE PRESIDENT

THROUGH: CHRISS WINSTON CW

FROM: DAN MCGROARTY DM

SUBJECT: WHITE HOUSE CONFERENCE ON GLOBAL CHANGE: WELCOME

I. SUMMARY

On Tuesday, April 17, at 10:00 a.m. you will address the first plenary session of the White House Conference on Global Change at the J.W. Marriott. About 400-450 people will be in the audience, representing the U.S. and seventeen foreign delegations, the EC and OECD.

Chairman Boskin is the moderator for the session, and Secretary Brady will speak before you. The three co-chairmen of the conference -- Chairmen Boskin and Deland and Director Bromley -- will be there. Also present will be; Governor Sununu, Secretaries Mosbacher, Lujan, Yeutter, Watkins, Administrator Reilley, Erich Bloch (Director of National Science Foundation), and John Knauss (Director of National Oceanic and Atmospheric Administration).

II. DISCUSSION

The remarks (10 min./teleprompter) discuss the three ways this conference will help tackle global change, focusing on the issues of scientific uncertainty and understanding; the relation of science and economics, and the need to form an international partnership of knowledge and investigation on the matter.

# # #

McGroarty/Dooley
April 13, 1990
3:00 pm
[change]

PRESIDENTIAL REMARKS: WHITE HOUSE CONFERENCE ON GLOBAL CHANGE
J.W. MARRIOTT
APRIL 17, 1990
10:00 A.M.

Thank you. [Introductory acknowledgements.] I'm pleased to welcome this international field of distinguished high-level officials -- experts on the environment, economics, science and energy to the White House Conference on Global Change.

Two months ago, I had the honor of addressing the Intergovernmental Panel on Climate Change -- the UN body doing such vital work on this key environmental issue. I see this conference helping to accelerate the IPCC's agenda as it searches for understanding of some very critical questions. //

This gathering is the first to focus on the obligation to broaden the global change dialogue -- the first to explore the link between scientific research and economic analysis in the study of global change. // And of course, this conference is itself another sign of the growing importance of the environment on the international agenda.

Here in the United States, we've moved one step closer to a great victory for the environment: strengthening our Clean Air statutes -- already the world's toughest -- with a comprehensive package of new Clean Air initiatives. Tom Super

Ten months ago, we renewed momentum lost in legislative stalemate for 12 years. / This month, a clean air package cleared the U.S. Senate, with overwhelming support. And just two weeks ago, the House Committee on Energy and Commerce voted out its own version of a clean air bill, 42-1 -- with a full, floor vote in the House possible in early May. //

The hard work isn't over. Both Houses -- and the White House -- still have plenty to say on the shape of the final Clean Air bill. But we certainly hope that the United States will have a new Clean Air Act on the books before the year is out. //

We're moving ahead on Clean Air legislation because it is in America's interest. But, like so many of the environmental issues that concern us -- we aren't the only beneficiary of a better environment. // When it comes to the environment, we are learning that local actions can have global consequences.

Understanding the effects of our actions on our Earth system is the **first step to a sound environment** -- and the subject that led me to invite all of you here. I want to speak this morning about what we can do over the course of the next two days to advance our understanding of the critical question of global change.

This conference will help in three ways.

First, it provides an opportunity to help sort out the science on the complex issue of global change. // To start with what we know -- about the Earth, this home we share. About the factors -- natural as well as man-made -- that cause our

environment to change. // And to work from what we know toward answers to the many **uncertainties** that abound.

Perhaps it's not surprising when the subject is global change that the debate often generates more **heat than light**. // One thing we do know is that we can't afford to bury our heads in the sand. // What we need are **facts:** the stuff science is made of. A better understanding of the **basic processes** and their relationships as they work in our environment. **Better earth system models** -- that enable us to calculate the complex interaction between **man** and our **environment**.

That's why I've asked Congress to approve a 60% increase in our budget for the Global Change Research Program -- an aggressive research program for which we've budgeted **more than $1 billion dollars in 1991** -- to **reduce the uncertainties** surrounding global change, and move us closer to the **scientific understanding we need,** if we are to make decisions to maximize benefits -- and minimize unintended consequences. //

The second way this gathering can advance our understanding is to address the economic factor in environmental questions. We know that cleaning up our environment costs money. We know it means changes in the way we work and live. Here in the U.S., we're already making those changes -- moving forward on clean air. Planting trees -- through our America the Beautiful initiative -- and working with other nations to find ways to halt deforestation. Phasing-out the use of CFCs. Encouraging conservation and exploring alternative sources of fuel and

John Colson

energy, and market-based incentives for pollution control. We're proud of all we've done -- but we know we're far from finished.

And yet as we move forward, all of us must make certain we preserve our **environmental well-being and our economic welfare.** We know that these are not separate concerns. They are **two sides of the same coin.** Recognizing this fact is in the interest of every nation here today -- in the interests of the **developed** world and the **developing** world alike.

Let me focus for a moment on the developing world. In a climate of poverty, or persistent economic struggle, protecting the environment becomes a far more difficult challenge. Cold statistics don't begin to capture the harsh realities at stake. **Development doesn't mean just another point of GNP -- it's measured in human lives. An end to hunger. Longer life expectancy. Lower infant mortality. // Not just quality of life -- but life itself. Environmental policies that ignore the economic factor -- the human factor -- are destined to fail.**

But there is another reason to consider the economic factor when the issue is the environment. Economic policies that ignore the environment will undermine the very basis for both **life** and **growth.** There is no better ally in service of our environment than strong economies. Economies that make possible the increased efficiencies that enable us to make environmental gains. Economies that generate the new technologies that help us arrest and reverse the damage we have done to our environment. Whatever the technology -- whether it's CFC substitutes, new

refrigerants, reformulated gasoline -- each new venture provides economic opportunities as well as environmental benefits. // **We need economies that allow us to make vital investments in our common future.** //

That brings me to the third way this conference contributes to a net gain in knowledge: the fact that it provides us the opportunity to form a partnership -- between nations, and across the many disciplines represented here.

No subject is so vast as the field of global change. Few subjects offer a greater challenge to the understanding of man. And yet, too often, the different disciplines focusing on this question have worked **in isolation** -- with little interchange of ideas, analysis, information.

This conference is a new departure -- a logical next step in the study of global change -- because it **brings together,** for the first time at a high level and in a working format, environmentalists and economists, experts from the fields of energy and science -- to search for **common ground. To provide an opportunity to share the expertise each discipline can bring to this difficult and demanding concern.**

And this new partnership must bind **nations** as well. The fact of the matter is, **no one nation -- acting alone -- can safeguard our Earth environment.** Success requires a sense of **global stewardship -- an understanding that it is the Earth that endures -- and that all of us are no more than tenants, in temporary possession of a sacred trust.** //

For the next two days, you'll be grappling with questions of **global stewardship** -- questions of **global consequence**. I thank all of you for joining us here -- for seeking to advance our current state of understanding on an issue with such profound affect on every nation and every individual for generations to come. // God bless you all.

# # #

Call Martha Brown @ x7000

NBC

PD - Bob Ford from State returned your call:

IPCC was put on under the auspices of 2 UN organizations:
UNEP (UN Enviro Program)
+ WMO (World Meteorological Org.)

IPCC is not itself a UN program — it's more an ad hoc group.

Call him if you have Q's.

— C²

OFFICE OF PRESIDENTIAL ADVANCE

IN-TOWN EVENT CONTACT SHEET

Name	Office	Phone Number
Presidential Advance		456-7565
Presidential Advance Office Fax Number		456-2820
Lucy Muckerman	trip coordinator / WH Advance	456-7565
JOHN GIBBONS	LEAD ADV	0-377-5001 H-256-1987
Melinda Andrews	White House Conference Lead	775-8861-
DEE DACEY	MOHAMMED IHSAN'S ASS'T	6266929
JUSTIN MACARTHER	CONVENTION FLOOR MANAGER	626-6955
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Wyatt Hall	Marriott	626 6918
Meg Zumbo	JWM - CONVENTIONS	626-6916
Paul A. Zalocha	JWM - Catering	626-6924
LEE COX	WHCA	395-6083

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THE WHITE HOUSE
WASHINGTON, D.C.

OFFICE OF THE WHITE HOUSE CONFERENCE
ON
Science and Economics Research Related to Global Change

Facsimile Cover Sheet

TO: Peggy Dooley DATE: 4/13
FAX NUMBER: 456-6218 NO. OF PAGES FOLLOWING: 0
PHONE NUMBER: 456-7725

FROM: Mary McC
ADDRESS: 1019 19th Street, N.W. Washington, DC 20036
FAX NUMBER: (202[redacted] PHONE NUMBER: 653-5980
(202) 724-0621

SUBJECT:

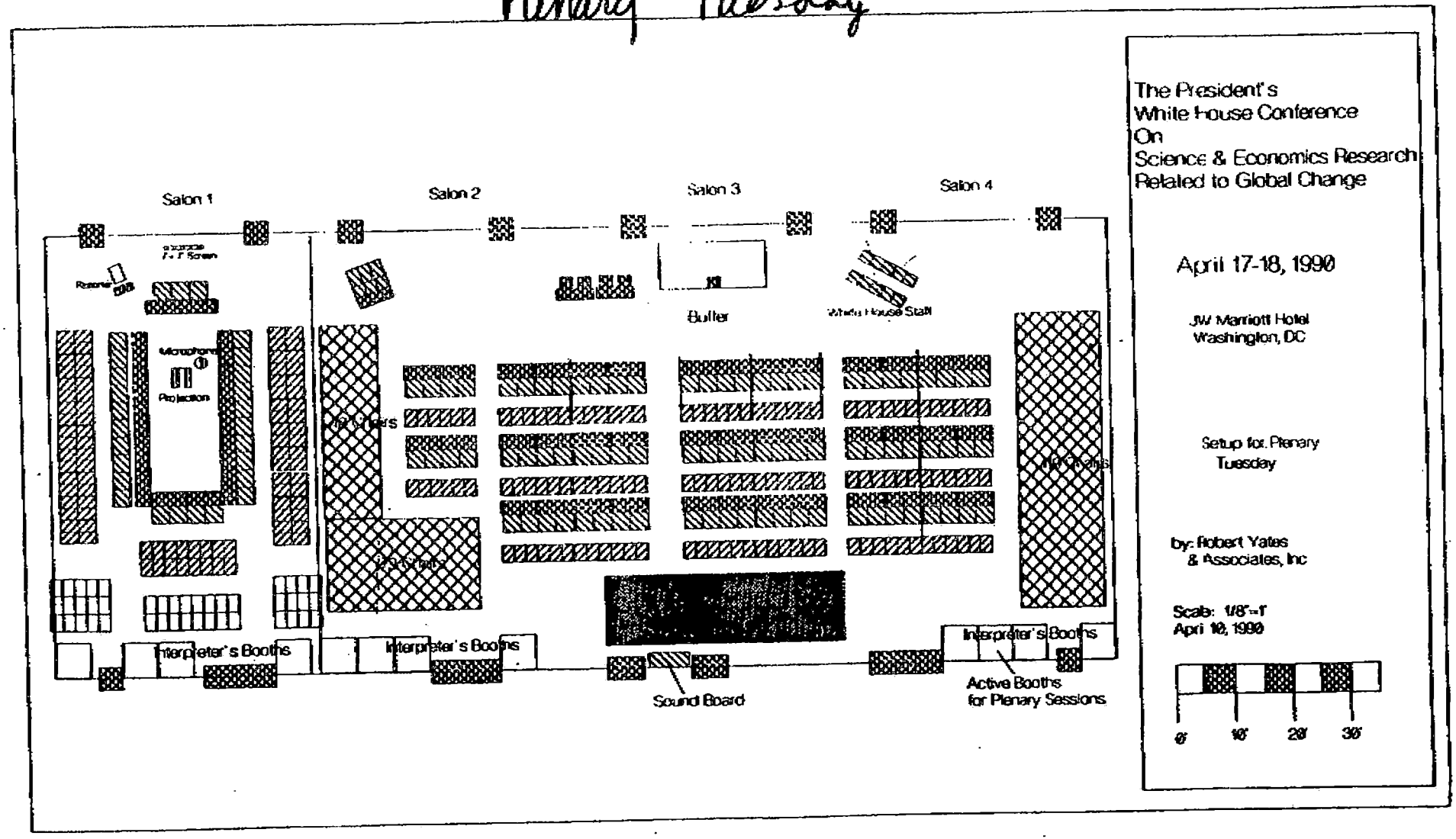
COMMENTS:

In addition to the U.S. names ~~listed~~, Please add:

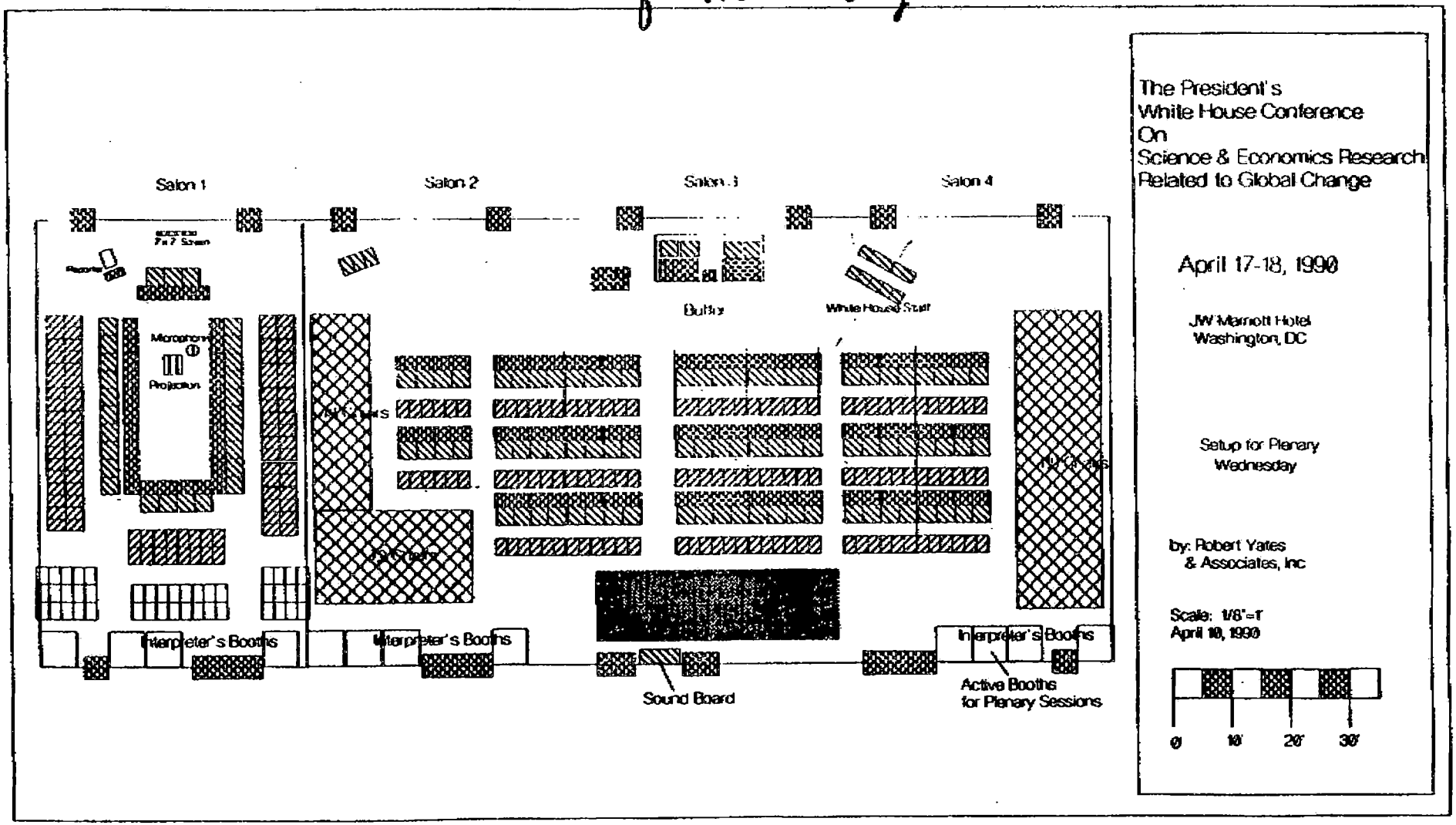
— Richard Schmalensee
Member, Council of Economic Advisors

— Bert Bolin — (title to follow)

Plenary Tuesday



Plenary Wednesday



Heads of Delegation/Minister-level
Reception/Photo-up

Australia	Neal Blewett	Member of Parliment, Minister for Trade Negotiations
Brazil	Jose Lutzenberger	Environment Secretary
	Jose Goldemberg	Science Secretary
Canada	Lucien Bouchard	Federal Environment Minister
	Jak Epp	Federal Energy Minister
France	Hubert Curien	Minister of Research and Technology
	Brice Lalonde	Secretary of State for the Environment
Germany	Professor Dr. Klaus Topfer	Federal Minister for the Environment, Nature Protection and Nuclear Safety
India	Ms. Maneka Gandhi	Minister of State for Environment and Forests
Indonesia	Prof. Dr. Ing. B.J. Habibie	Minister of State for Research and Technology; Chairman of the Agency for the Assessment and Application of Technology
Italy	Hon. Adolfo Battaglia	Minister of Industry, Head of Delegation

Japan	Ishimatsu Kitagawa	Minister of State, Director General of Environment Agency
	Shigeto Nagano	Parliamentary Vice Minister of Science and Technology
Mexico	Lic. Patricio Chirinos	Secretary of Urban Development and Ecology
Netherlands	J.G.M. Alders	Minister, Ministry of Housing, Physical Planning and Environment
Nigeria	Major General Mamman Kontagora	Minister of Works and Housing
	Gordian Ezekwe	Minister of Science and Technology
Norway	Kristin Hille Valla	Minister of Environment
	Einar Steensnaes	Minister of Education and Science
Poland	Jan Janowski	Deputy Prime Minister; Head of the Agency for Science and Technological Progress and Application
U.S.S.R.	Nikolay Pavlovich Laviorov	Chairman of the U.S.S.R. State Committee on Science and Technology
	Juriy Antonievich Israel	Chairman of the U.S.S.R. State Committee on Hydrometeorology
United Kingdom	David Trippier RD, JP, MP	Minister for the Environment and Countryside

RELATED TO
GLOBAL CHANGE

AGENDA

MONDAY - APRIL 16, 1990

12:00 p.m. **Early Registration** - J.W. Marriott Hotel
1331 Pennsylvania Avenue
Washington, D.C.

7:00 p.m. **Reception - National Air and Space Museum (Closed to Media)**

Hosts: Robert A. Mosbacher, Secretary of Commerce
Richard H. Truly, Administrator of NASA
Martin Harwit, Director, National Air and Space Museum

TUESDAY, APRIL 17, 1990

9:30 a.m. **PLENARY SESSION I (Open to Media)**

Moderator: Michael J. Boskin, Chairman, Council of Economic Advisors

Welcoming Remarks: Nicholas F. Brady, Secretary of the Treasury

President George Bush

Goals and Expectations for the Conference: D. Allan Bromley, Assistant to the President for Science and Technology

Opening Remarks by Visiting Delegate: Jan Janowski, Deputy Prime Minister of Poland, Director of the State Office for Science and Technology Development

11:00 a.m. **PLENARY SESSION II (Open to Media)**

Moderator: Michael R. Deland, Chairman, Council on Environmental Quality

Theme I - The Science and Economics Research Challenge

Theme II - Integrating Science and Economics Research in the Policy Process

Theme III - Building Partnerships for Science and Economics Research

Presentations:
D. Allan Bromley
Michael J. Boskin
Michael R. Deland

12:00 **Luncheon (Open to Media)**

Speaker: William K. Reilly, Administrator, Environmental Protection Agency

1:45 p.m. **WORKING GROUP SESSIONS (Closed to Media)**

Working Group Session I

Working Group Session II

6:00 P.M. **Reception at the National Academy of Sciences Building (Closed to Media)**

Host: Frank Press, President of the National Academy of Sciences and
Robert White, President of the National Academy of Engineering

8:00 p.m. **Official Delegate Dinner (Closed to Media)**

Host: Lawrence Eagleburger, Deputy Secretary of State
Address: Bert Bolin, Professor of Meteorology, Stockholm University, Sweden
Chairman, Inter-Government Panel on Climate Change

WEDNESDAY, APRIL 18, 1990

9:00 a.m. **WORKING GROUP SESSIONS (Closed to Media)**

Working Group Session III

Working Group Session IV

12:00 p.m. **Luncheon (Open to Media)**

Speaker: James D. Watkins, Secretary, Department of Energy

1:45 p.m. **CONCLUDING SESSION (Open to Media)**

Moderator: D. Allan Bromley

Review of Co-Chairmen's Report: Michael R. Deland, for the Conference Co-Chairmen

President George Bush

3:00 p.m. **Conference Ends**

-- CEQ/Bookin

5080
5150

McGroarty/Dooley
April 12, 1990
11:00 am
[change]

PRESIDENTIAL REMARKS: WHITE HOUSE CONFERENCE ON GLOBAL CHANGE
J.W. MARRIOTT
APRIL 17, 1990
X:XX A.M.

Thank you. [Introductory acknowledgements.] I'm pleased to welcome this international field of high-level officials -- experts on the environment, economy, science and energy to the White House Conference on Global Change.

Two months ago, I had the honor of addressing the International Panel on Climate Change -- ~~a UN~~ the pre-eminent int. body doing such vital work on this key environmental issue. I see this conference making a key contribution to the process begun by the IPCC. //

Frances Li 647-4069 Off of Global Δ, State

2/5 Dan Reifsnyder Bob Ford 647-2764

This gathering is the first to focus on a new dimension in the global change dialogue -- the first to explore the link between scientific research and economic analysis in the study of global change. // And of course, this conference is itself another sign of the growing importance of the environment on the international agenda.

Maynard

Here in the United States, we've moved one step closer to a great victory for the environment: the passage of a significantly stronger Clean Air Act. Ten months ago, we renewed momentum lost for 12 years. / This month, ~~our~~ a clean air package cleared the U.S. Senate, with overwhelming support. And just

last week, the House Committee on Energy and Commerce voted out its own version of a clean air bill, 42-1 -- and a full, floor vote in the House may come in early May. //

The hard work isn't over. Both Houses -- and the White House -- still have plenty to say on the shape of the final Clean Air bill. But we can say with certainty that the United States will have a new Clean Air Act on the books before the year is out. // We will continue to work w/Congress to develop an environmentally strong + economically sound new CAA.

Let me be clear: We're moving ahead on Clean Air legislation because it is <u>in America's interest</u>. But, like so many of the environmental issues that concern us -- we aren't the only beneficiary of a better environment. // When it comes to the environment, we are learning that <u>local</u> actions have <u>global</u> consequences.

Understanding the effects of our actions on the environment is the **first step to a sound ecology** -- and the subject that led me to invite all of you here. I want to speak this morning about what we can do over the course of the next two days to advance our understanding of the critical question of <u>global change</u>.

This conference will help in three ways.

First, it provides an opportunity to <u>sort out the science</u> on the complex issue of global change. // To start with <u>what we know</u> -- about the Earth, this home we share. About the factors -- natural as well as man-made -- that cause our environment to change. // And to <u>work from what we know</u> toward answers to the many **<u>uncertainties</u>** that abound.

Perhaps it's not surprising when the subject is global change that the debate often generates more **heat** than **light**. // Certainly, the apocalyptic pronouncements we've all heard don't help us make policy. If they're meant to wake us up -- warn us about the urgency of this issue -- well, we already know enough to know we can't afford to bury our heads in the sand.

What we need is **fact:** the stuff science is made of. A better understanding of the **basic processes** at work in our environment -- and how they relate to one another. **Better earth system models** -- that enable us to calculate the complex interaction between **man** and our **environment**.

That's why I've asked Congress to approve a 60% increase in our budget for the Global Change Research Program -- an aggressive research program for which I've budgeted **more than $1 billion dollars in 1991** -- to **reduce the uncertainties** surrounding global change, and move us closer to the **scientific understanding we need.** //

The second way this gathering can advance our understanding is to address the economic factor in environmental questions. We know that cleaning up our environment costs money. We know it means changes in the way we work and live. Here in the U.S., we're already making those changes -- whether it's moving forward on clean air, phasing-out the use of CFCs, or exploring alternative sources of fuel and energy. We're proud of what we've done -- but we know we're far from finished.

And yet as we move forward, all of us must make certain we preserve our **environmental well-being and our economic welfare.** This is in the interest of every nation here today -- in the interests of the **developed** world and the **developing** world alike.

Let me focus for a moment on the developing world. In a climate of poverty, or persistent economic decline, protecting the environment becomes a far more difficult challenge. Cold statistics don't begin to capture the harsh realities at stake. **Development doesn't mean just another point of GNP -- it's meansured in human lives. An end to hunger. Longer life expectancy. Lower infant mortality. // Not just quality of life -- but life itself. Environmental policies that ignore the economic factor -- the human factor -- are destined to fail.**

But there is another reason to consider the economic factor when the issue is the environment. There is no better ally in service of our environment than strong economies. Economies that make possible the increased efficiencies that enable us to make environmental gains. Economies that generate the new technologies that help us arrest and reverse the damage we have done to our environment. //

That brings me to the third way this conference contributes to a net gain in knowledge: the fact that it provides us the opportunity to form a partnership -- between nations, and across the many disciplines represented here.

No subject is so vast as the study of global change -- the **ecology of the Earth.** No subject offers greater challenges to

CI

~~Brady~~ minus Brady + Mosbacher

the understanding of man. Too often, these different disciplines focusing on this question have worked **in isolation** -- with little interchange of ideas, analysis, information.

This conference is a new departure -- a logical next step in the study of global change -- because it **brings together** environmentalists and economists, experts from the fields of energy and science -- to search for **common ground, to create a clearing house through which we share the expertise each discipline can bring to this difficult and demanding concern.**

And this new partnership must bind **nations** as well. The fact of the matter is, **no one nation -- acting alone -- can safeguard our Earth environment.** Success requires a sense of **global stewardship -- an understanding that it is the Earth that endures -- and that all of us are no more than tenants, in temporary possession of a sacred trust.** //

For the next two days, you'll be grappling with questions of global consequence. I thank all of you for joining us here -- for seeking to advance our current state of understanding on an issue with such profound effect on every nation and every individual for generations to come. // God bless you all.

# # #

Mary Nugent 724-0622

124-0601-5

Jim Fox
(~~MJ Jamison~~)

Rick Davis 0620/1/2

Mon. 3

Sununu
Brady
Mosbacher
Lujan
Yeutter
Watkins
Reilly
Erich Bloch - NSF Dir.
John A. Knauss - Undersec Comm Ocean & Atmos + Dir. NOAA

Co-Chairs Boskin
Bromley
Deland

12 names

Co-chairs

(Lange/Cawley)
April 12, 1990
11:25 P.M.
[GLOBAL.DOC]

PRESIDENTIAL ADDRESS: WHITE HOUSE CONFERENCE ON GLOBAL CHANGE
[PLACE]
WEDNESDAY, APRIL 18, 1990
[2:30 P.M.]

[Acknowledgements...]

After all of the work that has taken place here -- in what I know was an atmosphere of lively debate -- I would begin with thanks, and a moment of perspective: for your purpose here is profoundly important to the state of nature, and the fate of mankind.

Your presence offers hope for a new era of environmental cooperation around the world -- and the promise of a quieter, more thoughtful, more careful tenancy of nature's legacy to humanity.

A growing sense of **global stewardship** prompted us to host this conference. It is a sense of stewardship shared by all of you, and by the nations you represent. And it arises out of a natural sense of obligation. An understanding that we owe our existence, all that we know and are, to the miraculous sphere that sustains us.

Such stewardship finds expression in many ways -- from public demonstration, to landmark legislation. But it is also rewarded in many ways, in moments unexpected and unforgettable. To feel the cold rush of water falling from an ancient glacier, to see the glint of light in a panther's eye, to stand in silent witness to the timeless beauty of a heron's flight: Such moments

are among the most precious mankind might know on this abundant earth.

Such moments also have a special power -- a resonance that at once elevates the mind's eye, and yet humbles us as well. Before such beauty the works of humanity seem somehow small. We may build cathedrals, temples and mosques; monuments and mausoleums to great men and high ideals. And still we know we can build no monuments to compare with nature. Our greatest creations cannot equal God's smallest.

Yet as our tools and intellects advance, we've learned of our power to alter the earth. We understand that small actions, taken together, have profound global consequences for the environment we share, and the humanity we share it with. **Global stewardship can only be understood in human terms.**

That is the reason we have held this conference.

Ours is a prosperous planet -- with greater hopes now than ever before that **more** of our people may come to know an unexpected peace, and an unprecedented prosperity.

So we are called upon to ensure that both the earth's integrity -- and mankind's prospects for prosperity, peace, and in some regions, even survival -- are not put at risk by intemperate action.

The minds at work here are among the very best we have -- and the best insurance that our actions are sound. Here, for the first time, we gathered talent from around the world -- scientists, economists, environmentalists, energy ministers,

policy-makers -- to assess the environmental and developmental future of the planet. An **unprecedented** cross-fertilization of disciplines -- and of nations. That alone is reason for hope.

If you have raised more questions than conclusions here, your work has been worthwhile. But if diversity of perspective is expected, unity of purpose is crucial. In an atmosphere of uncertainty, we must foster a climate of good will -- and a stubborn hope, that we might forge solutions without the excessive heat of politics.

Among all of the challenges in our tenancy of the planet, climate change is, of course, foremost in your minds. You are helping us work from what we know, through the uncertainty of both the science and the economics of climate change. But there is one area where we will allow for no uncertainty -- and that is **our commitment to finding solutions that work.**

There are several things that the climate change debate is not about. It is not "Jobs versus Environment" -- the two are inseparably interdependent, as the destructive experience of so many developing nations has shown. We must clearly understand both environmental cause and economic effect. For if we cannot see the forest for the trees, we risk losing both.

Nor is the climate change debate about "Economists versus Environmentalists." Only in the most primitive minds has it been reduced to a rhetorical holy-war between bean-counters and tree-huggers.

But above all, the climate change debate is not about "Research versus Action" -- for we have **never** considered research any substitute for action. We already know enough to act -- and we are.

Over the last two days you've heard from key members of this administration about action the United States is already taking -- our leading investment in climate change research and response strategies, our Clean Air legislation, our comprehensive national energy strategy, our search for alternative and more efficient sources, our re-forestation initiatives, and technical assistance programs to developing nations.

What bears emphasis is that we are **committed** to -- **moving** on -- and out **front** with -- domestic and international policies that are environmentally aggressive, effective, and cost-effective.

And we are deeply committed to an international partnership, through the I.P.C.C. process. We look forward to its Interim Assessment -- and would encourage a framework convention as part of a **comprehensive approach** addressing the system, sources, and sinks as a whole. We hope to host the first negotiating sessions here in the U.S. -- and we've just offered four new proposals at this conference:

[Specific U.S. proposals, T.B.D. noon Wednesday 4/18 per Dr.s Bromley/Maynard. Roughly: To endorse a "Charter for Cooperation in Science and Economics Research Related to Global Change" ; To create "International Institutes for Research on the Science and Economics of Global Change" ; To encourage data

and information transfer through a "Global Change Communications Network" ; and to endorse a "Statement of Principle to develop an internal strategy for cooperation in Scientific and Economic Research in Global Change."]

All of you here today understand climate change as one of many challenges in the call to global stewardship. Ozone depletion, food security, water supply, ocean pollution, wetlands, deforestation, biodiversity, population change, hunger, energy demand -- in short, **all** of the interrelated issues of sustainable development: Each demands our attention. And each has a human dimension we must never forget.

Understand the choices we are making. They affect us all, but in profoundly different ways.

The consequences of reducing carbon dioxide emissions in a wealthy nation like the United States would likely be measured in relatively manageable terms: additional costs incurred, to be sure; job losses, probably temporary; and some effect on G.N.P.

But in too many developing countries, the consequences of such policy will surely be painfully reflected in the hollow eyes of hungry children. In life-threatening competition for already-scarce resources. In political instability -- and man-made limits to prosperity. Security. Survival.

If developed nations ignore the needs of developing nations, it emperils all. We know that a change in G.N.P. of even a few tenths of a percent often means the difference between adequate shelter, food, and health care -- and human castastrophe.

To bear this in mind is no barrier to action. It merely suggests that those who have ascended the economic hill must **think twice before building walls that would prevent others from making the climb.**

It is a reminder that economic limits have serious human costs. And it suggests that the best policies are those of well-managed growth: The only kind of growth that true global stewardship allows -- but only possible if the nations of the world are linked in partnerships of every kind: scientific, economic, technical, agricultural, environmental.

Developing nations will contribute a growing share of the world's emissions in the coming decades. They face the greatest threats from environmental degradation of every kind -- and can least afford the consequences.

But pollution is not, as we once believed, the inevitable by-product of progress. The developed nations of the world will better serve their own interests, and those of the world community, **not** by seeking limits to growth -- which would never survive human nature -- but by catalyzing environmental protection through more **intelligent**, more **informed**, more **efficient** growth.

Here, I must confess to some confusion. Those who value environmental quality most highly, should be the most ardent supporters of strategies that tap the power of free wills and free markets, that turn human nature to environmental advantage. Efficient strategies are the **only** realistic hope that developing

nations might avoid making the mistakes that developed nations have made.

And we have made mistakes. When America made its transition from an agrarian to an industrial economy, we paid a price. What we learned, we learned the hard way. And in some ways, we're **still** fighting our way back. But over the past century we've made tremendous progress -- especially in the last twenty years.

Two decades ago, this nation -- holding to its birth-right of free expression and the value of the dissenting voice -- was home to one protest movement in an era of protests, called Earth Day. It motivated President Nixon to sign into law "a national policy [to] encourage productive and enjoyable harmony between man and his environment." And it set in motion a new sense of conscience, that a few idealists hoped would change the world.

It did. What began as an isolated American movement twenty years ago is now shared by 135 countries on seven continents. And while many thought our experiment in environmental protection would prove impossible -- that you couldn't maintain both a productive economy and protective ecology -- we've learned that economic prosperity and environmental protection go hand in hand.

And we understand no nation can act effectively alone. Unilateral action is futile. But united action? Essential -- and more than merely possible, as the Montreal Protocol proved.

Around the world, America and other nations now extend an offered hand to emerging democracies denied that knowledge emerging in Eastern Europe and in this hemisphere. And only now

do we see the extent of the challenge we share.

In this hemisphere and in Africa, the raging fires of forests burned for compelling but mistaken economic reasons have been visible to astronauts in space. Other nations, in the struggle to support life, have been virtually stripped of the resources that sustain life.

And whether through the tyranny of ignorance, or the ignorance of tyrants, pollution has been unveiled as one of Eastern Europe's cruelest dictators. An oppressor. Not man -- but man-made. In the majestic city of Krakow, statues that survived invasions by Swedish Kings and Austrian emperors, by Hitler and by Stalin -- monuments to great men -- have been defaced by pollution, as their medieval majesty is reduced to shapeless lumps of stone.

If mankind's greatest **creations** cannot equal God's smallest, some may grieve that our greatest **destruction** is turned at times upon ourselves. And we may not see much hope in the faces of the starving, or the faces of ancient monuments. But we <u>can</u> find cause for optimism among the men and women in this room.

Let us act on what we know, and in good faith. The earth cannot, must not be sacrificed to blind material ambition -- nor can the health, the very survival of millions be sacrificed by intemperate policies. Let us work to meet the needs of this generation, while preserving the earth for the next, and all that follow.

# # #

REPORT.410

THE WHITE HOUSE
WASHINGTON, D.C.

The White House Conference on Science and Economics Research Related to Global Change

DRAFT OF CO-CHAIRMEN'S CONFERENCE REPORT

GOALS AND OBJECTIVES OF THE CONFERENCE:

A White House Conference, initiated by President George Bush, on Science and Economics Research Related to Global Change was held in Washington, D.C., April 16-18, 1990. Conference Co-Chairmen were, the Chairman of the President's Council of Economic Advisers, Dr. Michael J. Boskin, the Assistant to the President for Science and Technology, Dr. D. Allan Bromley, and the Chairman of the White House Council on Environmental Quality, Mr. Michael R. Deland. Seventeen nations and the leadership of the E.C. and the OECD sent ministerial-level delegations to the Conference (See Appendix I for a List of Delegates). The Conference sought to add a integrating focus for international thought on Global Change, by introducing the concept of **"Global Stewardship"**, and by adding a new dimension to the international dialogue on Global Change -- **the proposition that economics, both analysis and research on broad economic policy and on economic consequences of policy options, is an essential link between the science of Global Change and policy alternatives.**

GLOBAL STEWARDSHIP

(INSERT GLOBAL STEWARDSHIP TEXT HERE)

THE CONFERENCE AGENDA

To address the substantive Conference goals, the agenda focussed the presentations and discussions on:

- **Science and economics research** issues relevant to policy on global change,
- Important next steps that substantially **enhance and broaden international understanding** of science and economic research issues that relate to global change,
- **The special role that economics plays** in integrating the science of Global Change with the policy process,
- **Demonstrating linkages between science and economics** research results and both domestic and international **policy processes,** and
- **Framing** the initial steps towards **strategies for implementing joint international science and economics research efforts.**

Tuesday
April 10, 1990
9:08 am

The Conference focussed on "Global Change," a scope of research interests that evolved out of the sciences that are concerned with understanding the fundamental processes that govern the way the global Earth system functions. Global Change encompasses such diverse and interrelated issues as ozone depletion, greenhouse gases, climate change, food security, water supply, sea level changes, wetlands, deforestation, biodiversity, population changes, and energy demands.

The Conference was conceived as an integral part of the on-going international process to understand the science of and policy options relating to global environment issues. The need to substantially improve understanding of both the science and economics of global change has been noted by virtually all world leaders. The Conference, therefore, focused on scientific and economic research issues as a complement to the on-going Intergovernmental Panel on Climate Change (IPCC) and other international forums that seek to address the research agenda for Global Change.

The Conference provided a forum of international leaders to address a variety of complex science and economics research issues central to the policy process, for example:

- **How well can we predict temperature trends in the decades ahead?**
- **How "good" are our global-scale models, such as models to predict temperature changes?**
- **How well can we predict the interconnections between global environmental change and the resulting social and economic impacts?**
- **What are the economic costs of adapting to or mitigating global change?**
- **How "good" are the economic models used to compute these costs?**

By having ministerial-level discussions of such questions, it was hoped that nations might join together to enhance cooperative international research programs that focus on rapid improvement of both scientific and economic knowledge.

To address these complex and interrelated issues, ministerial-level delegations were invited to the Conference from a representative group of nations. The Conference was conceived with the idea that a small representative group of countries would participate. Their selection was based on the simple criteria that the meeting should be modest in size and include countries or organizations of countries that have substantial populations, large land masses, industrialized economies or heavy future energy needs, major research infrastructures, or have provided international leadership on issues related to climate and global change. A representative group of countries was selected, including:

1. Australia
2. Brazil
3. Canada
4. Federal Republic of Germany
5. France
6. India
7. Indonesia
8. Italy
9. Japan
10. Mexico
11. Netherlands

12. Nigeria
13. Norway
14. Poland
15. Soviet Union
16. United Kingdom
17. Zaire
18. European Community
19. OECD

CONFERENCE PLENARY AND WORKING GROUP SESSIONS

The Conference Plenary and Working Group Sessions provided an opportunity for delegates to address the critical science and economics research issues related to Global Change. The agenda was designed to provide a forum to:

- Substantially increase collective understanding of the critical scientific, economic, and environmental research agenda central to the needs of future global change policy development.
- Identify the uncertainties in both scientific and economics knowledge critical understanding changes in the global environment of the planet,
- Increase mutual understanding of and sensitivity to scientific and economic research efforts between both of those research communities.
- Increase sensitivity by the two research communities to the policy needs in the environmental and energy arena, and visa versa.
- Foster the concept of the importance of a solid and well implemented scientific and economics research effort, as a pre-requisite for and parallel complement to, the evolving efforts by nations to address the international policy questions of global environmental changes.
- Enhance communications and establish a broader "network" of among national leaders, concerned with and responsible for, the research and policy agenda related to global change. The Conference sought to provide a forum to forge partnerships between the scientific and technical research communities and the policy-makers.

To provide a vehicle to focus on these vital issues, the Conference Program was designed around a balance between several Plenary Sessions and concurrent Working Groups that addressed three major themes:

- **Theme I: The Science and Economics Research Challenge**
- **Theme II: Integrating Science and Economics Research in the Policy Process**
- **Theme III: Building Partnerships for Science and Economics Research**

PLENARY SESSIONS

The program for the Conference was divided into three broad components: (i) One half day of **Opening Plenary Sessions**, (ii) two half days of **Working Groups Sessions**, and (iii) a half day of integrating and **Summary Plenary Sessions.**

OPENING PLENARY SESSIONS

Opening: The Conference was opened with a presentation by Secretary of the Treasury, Nicholas F. Brady. The welcome addressed focussed on .....Include Summary of Brady's Remarks.

Address by President George Bush: The President of the United States, George Bush spoke to the Conference and his central messages was .....Include a Summary of President Bush's Speech. Full Text of the President's Speech is appended in Appendix A.

Remarks by _____, Delegate from _____. The Honorable _____, from _____, provided the Conference with a visiting delegation perspective on the Conference, during which .....Include a Summary of his remarks. Include full text if available in the Appendices.

Central Themes of the Conference: The Three Conference Co-Chairmen gave major addresses on the three Conference Themes, the purpose of which was to outline the central issues of the Conference and to provide a focus on each Theme for the Working Group Sessions. The full text of these three speeches is appended in Appendix B.

Theme I: The Science and Economics Research Challenge. Dr. D. Allan Bromley .... Include a Summary of Bromley's Speech....

Theme II: Integrating Science and Economics Research in the Policy Process. Dr. Michael J. Boskin ..... Include a Summary of Boskin's Speech....

Theme III: Building Partnerships for Science and Economics Research. Mr. Michael R. Deland ..... Include a Summary of Deland Speech...

Visiting Delegations Perspectives on the Themes. Three delegates formed a Panel to discuss the Themes and to give several visiting delegations views on the Themes of the Conference.

- o Foreign Delegate - Include Short Summary Here
- o Foreign Delegate - Include Short Summary Here
- o Foreign Delegate - Include Short Summary Here

(Include full text if available in Appendices)

MAJOR ADDRESSES

There were two major addresses given during the Conference Luncheons.

- o Admin. William Reilly - Include a Summary of that Address
- o Sec. James D. Watkins - Include a Summary of that Address

The full text of both of these address is included in Appendix C.

WORKING GROUP SESSIONS

The Conference agenda was organized so that delegates were divided into three Working Groups (Working Groups A, B, and C), each of which consisted of a mix of ministerial-level delegates from science, economics, and the environment agencies of government, and in some cases from energy agencies. All countries were represented in each Working Group. The list of Working Groups is contained in Appendix D. Four Working Group Sessions met sequentially, two on Tuesday afternoon of April 17 and two on Wednesday morning of April 18. The first sessions were devoted to the three Conference Themes and the fourth was designed as a session to integrate the discussions and to prepare a written summary of the Working Group deliberations as a contribution to the Co-Chairmen's Conference Report. Those reports are summarized herein.

Working Group A: Summary Report of Working Group "A"

Working Group B: Summary Report of Working Group "B"

Working Group C: Summary Report of Working Group "C

SUMMARY PLENARY SESSIONS

SUMMARIES OF CONCLUDING ADDRESSES AND PRESENTATIONS

1.) **Foreign Delegations Summary of Conference:** Three visiting delegates reviewed the results of the Conference from their perspective, a summary of those remarks follow. ...Include the comments here. (Include full text if available in Appendices)

2.) **Working Group Leader Summaries of the Conference:** The three Working Groups gave summaries of their deliberations, a summary of which follows. .....Include it here. (Include full text if available in Appendices)

3.) **Conference Co-Chairmen Summaries of the Conference:** The three Conference Co-Chairmen outlined their summary views on the Conference, a summary of those comments follow. .....Include those here. (Include full text if available in Appendices)

4.) **Closing Remarks by President George Bush:** The President of the United States, George Bush presented his closing remarks to the Conference. .....Include a Summary of President Bush's Speech..... Full Text of the President's Remarks is appended in Appendix A with the Opening Address.

SUMMARIES OF PROPOSALS FOR ACTION OFFERED DURING THE CONFERENCE

The delegates of the Conference concluded that several specific actions, developed during the Conference should be addressed in the period immediately after the Conference. These include:

1.) The Working Groups considered a proposal by the U.S. to endorse the principles contained in a **"Charter for Cooperation in Science and Economics Research Related to Global Change"**, the draft of which is contained in Appendix E. The general consensus of the Conference was .....Include the specific results of discussions on "

including any recommended action steps.

2.) The U.S. proposed an initiative designed to initiate international and jointly sponsored research "centers" that focus research on the science and economics of global change. The purpose of these centers, which might be called **International Institutes for Research on the Science and Economics of Global Change,** is to develop internationally recognized "Center of Excellence" where both resident and visiting scholars address key research topics that contribute research results to the international policy process. A draft of the U.S. proposal is contained in Appendix F. The Working Groups discussed this proposal and concluded ..... Include the results of those discussions here.....

3.) The U.S. proposed an initiative to increase communications among nations engaged in research on global change. The U.S. proposal suggested that nations join together in what might be called a **"Global Change Communications Network".** The proposal suggested that a joint effort be undertaken that builds on the available technology for data and information transfer, electronic mail, and other telecommunications technologies. A draft of the concept is enclosed in Appendix G. The Working Groups discussed this matter and concluded that.....Include the results of those discussions here.

4.) The U.S. proposed that the Conference consider endorsing a **"Statement of Principle" for developing an international Strategy for Cooperation in Scientific and Economic Research in Global Change.** The draft "Statement" is attached in Appendix H. The "Statement of Principles" outlines the basis for developing a strategy among nations for a cooperative international effort to implement joint scientific and economics research programs, including sharing of scientific and economic data, coordinating the development of international global observing systems, and facilitating joint research efforts to substantially improve the capabilities of models to predict controlling global and regional environmental process (i.e. GCM's). The "Statement" outlines the essential ingredients for an overall strategy to implement cooperative research internationally. The focus would be on research efforts that can be substantially enhanced by joint efforts that build on the expertise, experience, and data available of each participating country. The U.S. suggested that if the "Statement of Principles" is endorsed by the Conference, then a Task Team of interested nations would prepare a **Draft Strategy,** within a few months, for consideration by government agencies responsible for implementing Global Change research programs and projects. The proposal suggested that such a Strategy then could lead to what might be called, an "International Global Change Research Program". The proposal suggested that such a more fully coordinated international research effort could substantially assist the on-going policy debate and could support other up-coming international meetings, such as the IPCC and the Second World Climate Conference. The proposal builds upon existing discussions initiated by the International Council of Scientific Unions (ICSU) during its recent Annual Meeting in Lisbon, in October, 1989. The proposal is intended to fully facilitate the implementation of the research programs of the World Climate Research Program (WCRP), the International Geosphere-Biosphere Program (IGBP), and others. The Working Groups considered the proposal and concluded .....Include the results of the Working Group discussions here.

5.) Other proposals - include here.

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PRESIDENT'S TWO SPEECHES
(To be Added at Conference)

APPENDIX B

THREE CO-CHAIRS THEME SPEECHES
(To be Added at Conference)

LUNCHEON SPEECHES
(By Wm. Reilly and James Watkins)
(To be Added at Conference)

APPENDIX D

WORKING GROUPS MEMBERSHIP LISTS
(To be Added at Conference)

CHARTER FOR COOPERATION
in the
Science and Economics Research Related to Global Change"

Government officials of Science, Economics, and the Environment from eighteen nations, the European Community (EC), and the Organization for Economic Cooperation and Development (OECD) gathered in Washington, D.C. on April 16-18, 1990, to attend a White House Conference on Science and Economics Research Related to Global Change. The Conference was designed to address important next steps for substantially enhancing and broadening international understanding of science and economic research related to Global Change. The delegates to the Conference noted that;

WHEREAS:

- Scientific evidence demonstrates that the **Earth and its environment are changing** on time and spacial scales unknown to humankind,
- **Scientific uncertainty remains** as to the contributions made by natural variability in Earth system processes and those made by impacts from anthropogenic sources, hence limiting the ability of science to predict, with acceptable accuracy, the future behavior of the Earth system.
- Gaps in scientific understanding substantially **limit the abilities of nations to determine the economic and societal impacts** of global changes in the environment,
- World leaders are considering unprecedented postures and actions to **address the potential economic and social implications** of these changes, and
- These national and international developments, taken in total, have placed **global environmental issues central on the agenda of international affairs.**

THEREFORE:

The nations gathered at the White House Conference on Science and Economics Research Related to Global Change will seek to:

- Increase and coordinate their science and economics research programs with internationally planned research efforts,
- Work together to develop national science and economic research programs that complement and contribute to a coherent international effort,
- Work to enhance existing international mechanisms for planning and implementing science and economics research programs, and to foster, when necessary and appropriate new mechanisms to foster cooperation among the world's governments and international agencies.
- Work toward full participation of all nations in the formulation, refining, and implementation of the science and economics research agenda,
- Encourage the nations of the world to contribute resources and personnel to the research agenda in measure and kind reflecting national capabilities,

- o Collaborate with other nations in support of education, training, and human resources development that is focussed on the research agenda and that supports full participation by developing countries, and

- o Work toward developing cooperative access to pertinent research facilities and research data and information by all nations and toward developing indigenous research activities relevant to the global environment change research program in all participating nations.

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APPENDIX F

INTERNATIONAL INSTITUTE CONCEPT PAPER

APPENDIX G

GLOBAL CHANGE COMMUNICATIONS NETWORK CONCEPT PAPER

APPENDIX H

STATEMENT OF PRINCIPLES
FOR
IMPLEMENTATION STRATEGIES FOR COOPERATIVE RESEARCH PROGRAMS

LIST OF DELEGATIONS
(To be Added at Conference)

THE WHITE HOUSE

10 April 1990

Dear Ambassador Lake,

Please accept my sincere thanks for your gracious hospitality. It was good to meet you and Paul Spencer and to learn even more about my family's home.

Please stay in touch. I look forward to seeing you soon. Warmest regards.

Sincerely,
Joe Watkins