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Outside
Support

9/12/97

Jonathan —

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PRESIDENT WILLIAM J. CLINTON
CLIMATE CHANGE EVENT
THE WHITE HOUSE
JULY 24, 1997

Events - July 24
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As we approach the dawn of the 21st century, our great challenge is not only to prepare our children for the world but also to protect the world for our children. This challenge is part of a sacred pact between the generations to ensure that today's progress does not come at tomorrow's expense. And that is why we have no choice but to face up to the full reality of global climate change.

Whenever the security of our people has been threatened, the United States has led the world to action. Climate change poses a threat to all people -- one that is subtle today but which will grow in severity and significance in years to come. The world must act. And the United States must lead. I am determined that we will lead -- responsibly, flexibly, making sure that we promote prosperity as we protect the environment. We have no choice -- and the scientists gathered here today will explain why.

Years ago, scientists could not be sure that human activities would influence our climate. But today, the evidence is in, the science is solid, and what was once theory is now fact: Global warming is for real. On this fundamental issue, the scientific debate is over.

The world's scientists believe that if we do not cut our emissions of greenhouse gases, we will disrupt the global climate. In fact, the overwhelming majority of scientists take their conclusions one step further. They believe there is ample evidence that human activities are disrupting the global climate already today.

Our scientists are issuing clear warnings about what will result if we stick our heads in the sand and refuse to act. If we stay on our current course, average global temperatures may rise 2 to 6 degrees Fahrenheit in next century. To put this in sobering context, the difference in average temperature between the last Ice Age and today is only 9 degrees Fahrenheit.

If we fail to act, scientists expect that our seas will rise 2 feet or more over the next century, and thousands of square miles of Florida, Louisiana, and other coastal areas will be flooded. Infectious diseases will spread to new regions. Severe heat waves will claim the lives of more of our citizens. Our agriculture will suffer, and severe droughts and floods will be more common than ever.

The United States must confront this challenge head-on. As I pointed out recently at a special session of the United Nations, we have only 4 percent of the world's population, and yet we produce more than 20 percent of its greenhouse gases. For the sake of the planet and our own people, we simply must act.

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from ORM

In December, the nations of the world will convene in Kyoto, Japan, to come up with an agreement on how best to achieve meaningful emission reductions worldwide. Working with the American people, this Administration will bring to the Kyoto conference a strong American commitment to realistic and binding limits on our emissions. And let me be clear: Environmental protection and economic growth go hand in hand.

In Kyoto, we will emphasize flexible, market-based approaches. We will embrace research and development efforts that can help provide the technology to meet the new goals. And we will ask all nations -- industrial and developing -- to participate in a common solution.

I know that the nations of the world can work together to defuse the threat of global climate change. I know the science demands it. I know we owe it to our children.

And now, it is my honor to introduce Dr. Sherwood Rowland, the first of the distinguished scientists we will be hearing from today.

WHITE HOUSE STAFFING MEMORANDUM

DATE: 7/23ACTION/CONCURRENCE/COMMENT DUE BY: 7/24 10:00 AMSUBJECT: Climate Change Remarks

	ACTION	FYI		ACTION	FYI
VICE PRESIDENT	☒	☐	McCURRY	☐	☒
BOWLES	☒	☐	McGINTY	☒	☐
McLARTY	☐	☐	NASH	☐	☐
PODESTA	☒	☐	RUFF	☐	☐
MATHEWS	☒	☐	SMITH	☐	☐
RAINES	☐	☐	REED	☐	☐
BAER	☒	☐	SOSNIK	☒	☐
ECHAVESTE	☐	☐	LEWIS	☒	☐
EMANUEL	☒	☐	YELLEN	☒	☐
GIBBONS	☒	☐	STREETT	☐	☐
IBARRA	☐	☐	SPERLING	☒	☐
RADD	☐	☐	TARULLO	☒	☐
MARSHALL	☐	☐	VERVEER	☐	☐
HILLEY	☒	☐	WALDMAN	☒	☐
KLAIN	☒	☐		☐	☐
BERGER	☒	☐		☐	☐
LINDSEY	☐	☐		☐	☐

REMARKS:

Comments to Lowell Weiss

RESPONSE:

Staff Secretary
Ext. 6-2702

Climate Change — June 21, 1997

Recognition of the Threat of Climate Change. The science is very clear about the dangers of climate change.

Definite Resolve. The U.S. is committed to meeting this challenge head-on. That's why the President will address the U.N. Special Session on the Environment next week and underscore our commitment to leading the way on this critical challenge.

Cost and Benefits. The President is committed to leading the American people to appreciate that this challenge will have costs, that we can grow our economy in a way that fulfills our responsibilities to our children, and that the costs will be worth it.

Long-Term Problem Requires Action on Long-Term Solution. Climate change is a long-term problem; we will not solve it by the end of this decade or even in the next. But we must act now. The President supports a pragmatic, market-oriented approach to deal with this threat at the least possible cost. That's why we have proposed multiple periods over which countries would stabilize or reduce their greenhouse gas emissions within strict budgets.

Need a Coordinated, International Response. President Clinton is leading a process to reach a broad global response for the Kyoto Summit next December. We cannot solve this problem alone -- or even solely with the other industrialized countries. As the industrialized countries meet their commitments, the developing countries must also act. In that way, we can put in place a truly global response to the threat -- one that recognizes our common but differentiated responsibilities to the environment.

U.S. Leadership Role. The U.S. recognizes and accepts its leadership role in crafting a global response to the threat of global climate change:

- Just one year ago, the U.S. shaped the international negotiations in Geneva with a call for binding targets.
- The President and the Vice President are committed to investing in the technologies we need needed to address this problem.
- Initiatives like Partnership for a New Generation of Vehicles will help us protect the environment and promote economic growth in the decades to come.
- Under our Climate Challenge, 70 percent of U.S. utilities have voluntarily committed to reduce emissions of greenhouse gases.
- The U.S. is proud of its leadership in financing environmentally sustainable growth. We have pushed hard -- in the face of some resistance - for common environmental guidelines for export credit agencies, e.g. Export-Import Bank. Private capital flows are skyrocketing around the world and it is vital that these investments promote environmentally sustainable growth.

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FD Safety
Tara Waters
Lance M. Mottet
Stephen R. Kuttner

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PRESIDENT WILLIAM J. CLINTON
REMARKS FOR POOL SPRAY
BEFORE CEO MEETING ON CLIMATE CHANGE
THE WHITE HOUSE

CEO-10 F500 Cos

AUGUST 4, 1997

Elm. W. O. & G. Henry Ford
H. T. F. F. F.

Reg approach to climate Δ $\rightarrow$ Sci, tech
Ec / Env $\rightarrow$ ① Realistic binding limits to red. GAs
② Keep Ec. G. -
③ Fast, Mt. Ban. pol. line
④ R + D $\rightarrow$ 400b Mkt for Env. Tech.
⑤ Global $\rightarrow$ all nations part.

HELEN'S 77TH

THE PRESIDENT HAS SEEN
8-4-97

I am pleased to welcome to the White House the chief executives of 10 Fortune 500 corporations -- representing electric utilities, heavy industry, high technology, finance, and the oil and gas business -- to talk about developing a responsible approach to global climate change.

The science tells us that global climate change will have real and disruptive effects.

- 2 -

If we don't take sensible action to reduce greenhouse gases, we and our children will pay a steep price. **We political and corporate leaders must work together so that we can both protect our environment and keep our economy strong.**

I approach the climate change problem with several key principles in mind:

First, we must endorse realistic, binding limits to reduce greenhouse gas emissions.

Second, we can make the necessary reductions while preserving or enhancing economic growth. Our success during the past four years shows that environmental protection and economic growth go hand in hand.

Third, we should emphasize flexible, market-based policies to reduce emissions.

Fourth, we must invest in research and development to promote technologies that reduce greenhouse gases. America should remain a leader in the \$400 billion global market for environmental technologies.

- 5 -

Finally, climate change is a global problem that requires a global solution. All countries must participate.

With the active involvement of business, we can chart a new course on greenhouse gas emissions that the American people and the world community can support.

CEO Meeting on Climate Change -- Company Profiles

Hank Barnett, Bethlehem Steel.

Bethlehem Steel is headquartered in Bethlehem, PA, with major plants in MD, IN, PA, upstate NY, and MS, and a coal mine in West Virginia. In 1996 revenues were about \$4.7 billion. Since 1978 they have reduced their energy use by 40% and have recently restructured. Barnett is the Chair this year of the American Iron and Steel Institute. He is also a member of the President's Trade and Advisory Committee, having been appointed both by President Bush and by President Clinton. On climate change, he is concerned about developing countries and interested in flexibility measures. He is probably not supportive of any binding emissions cap, but may support voluntary activities.

John Browne, British Petroleum

With major production in Alaska and the Gulf of Mexico, BP America, based in Cleveland, is the largest crude oil producer in the United States. The British parent, with holdings in 70 countries and assets of \$67 billion, is the 20th largest company in the world. It has begun to diversify its energy portfolio into the solar power business (investing more than \$100 million to date) -- including manufacture of photovoltaic panels in California. In May, Browne unveiled BP's new approach to climate change in an influential speech at Stanford University in May. After concluding that the science of climate change could not be ignored, Browne launched an action plan closely aligned with the U.S. policy framework. This plan emerged from a year-long internal evaluation of climate science and policy options.

MIKE BAWN-SIN-YOON
Michael Bonsignore, Honeywell

One of the world leaders in energy efficiency equipment, Minneapolis-based Honeywell manufactures everything from residential thermostats to power plant controls, oil exploration and refining equipment and automobile components. Honeywell participates in the Green Lights and Energy Star voluntary programs at EPA. It is active in 95 countries on six continents and had 1996 sales of \$7.3 billion. Climate change mitigation -- as it drives greater energy efficiency -- opens new business opportunities for Honeywell. While it is poised to grow its business with climate policy, it is careful in the political debate to avoid offending its major customers in the automobile, oil and utility industries.

Fred Buckman, PacifiCorp

PacifiCorp is a major energy holding company based in Portland, OR, with electric utility or coal mining operations in seven western states and several foreign countries. Having electric generation capacity that is 80% coal, PacifiCorp is the largest single CO₂ emitter west of the Mississippi River. Recently, it announced plans to purchase UK-based Energy Group, with holdings that include St. Louis-based Peabody Coal, the largest coal mining firm in the free world, second only to China's national coal company. Even with its strong coal base, PacifiCorp committed itself to voluntary reductions in DOE's Climate Challenge program and intends to be constructive on climate change, believing that in a deregulated future where customers can choose an electricity provider, it must demonstrate environmental excellence. PacifiCorp supports emissions trading -- given its positive

experience on acid rain -- and is already engaged in greenhouse gas emissions trading under an Oregon state law. PacifiCorp is a partner in a joint implementation pilot project in Bolivia, as mentioned above, and is convinced of the viability of this policy approach for climate mitigation.

Robert Burt, FMC Corp.

Based in Chicago, FMC is a diversified supplier of chemical products, agricultural chemicals, precious metals, defense systems, automobile components, food machinery, petroleum equipment and specialized machinery, with annual sales of over \$3 billion. Burt chairs the Business Roundtable's Environment Committee and climate change initiative. Burt is unconvinced that we need targets and timetables and has generally been skeptical thus far on climate change.

KUM RAIL

Pete Correll, Georgia-Pacific

Georgia-Pacific, headquartered in Atlanta, is one of the nation's biggest paper and pulp companies, with around \$13 billion in annual revenues. On climate change, Correll is concerned about the impact of climate change policy on its international competitiveness, but is interested in working constructively on a reasonable outcome. Georgia-Pacific has certain opportunities it could take advantage of with regard to reducing emissions, such as forest sequestration and producing energy from biomass waste or crops.

Bob Denham, Salomon Brothers

In 1996, Salomon Brothers of New York increased its revenues by a third to almost \$4 billion. Salomon is actively working to develop financing packages for numerous independent power projects in developing countries. Until recently, Salomon was the owner of the fourth largest independent oil refiner in the United States. Denham just returned from a trip to Asia, where he gained some insights into how the climate issue is perceived there. Denham is very knowledgeable about oil issues as the largest oil trading firm in the world (larger than Exxon) and knows a lot about trading generally, but is not an expert on global warming.

Linn Draper, American Electric Power

Based in Columbus, Ohio, American Electric Power is the one of the nation's largest electric utilities, with facilities and some seven million customers in seven states. AEP's electricity generation resources are 85% coal. Having significant experience in emissions trading of sulphur dioxide, AEP consistently advocates market-based approaches to environmental controls. CEO Linn Draper has shifted the company toward a more positive approach to the environment. On climate change, Draper has been an industry leader. He helped convince others in his industry to enter voluntary commitments in the Energy Department's "Climate Challenge" program, which now has more than 600 companies actively reducing emissions. To demonstrate that international flexibility can work, AEP teamed with the Nature Conservancy and the government of Bolivia in a joint implementation project to protect and enhance an endangered rain forest. Recently, both BP and PacifiCorp joined as partners in this venture.

Ken Lay, Enron

Based in Houston, Enron is a diversified energy company -- with holdings that include one of the world's largest natural gas pipeline (36,000 miles), a wholesale electricity brokerage, an emissions trading brokerage -- and revenues of over \$13 billion. Several recent acquisitions include Portland General Electric Utility in Oregon, Zond Windpower (the largest wind turbine manufacturer) in CA and a joint venture with Amoco in manufacturing photovoltaic panels in Virginia. Internationally, Enron is an independent power producer with projects under development in several countries. Enron's orientation to climate change is to embrace it as a new business opportunity -- for gas, solar, wind and emissions offsets/credits. It advocates free market approaches, such as emissions trading. Enron is a strong supporter of joint implementation, though it has not invested in any pilot projects, because credits are not allowed in the pilot phase.

Paul O'Neill, Alcoa

Headquartered in Pittsburgh, Alcoa is one of the world's leading producer of aluminum and alumina and has sales of \$13.1 billion. Alcoa has been an active participant in two of EPA's voluntary programs: Green Lights (energy efficient lighting) and the Voluntary Aluminum Partnership (reducing chemical emissions from the smelting process). Alcoa has experience in the acid rain emissions trading program -- it opted in as a large industry generator. O'Neill does not want to be an obstructionist on climate change and views the business-as-usual approach of some in industry as unhelpful. He may be somewhat skeptical on aspects of the science. Alcoa is also concerned about potential effects on competitiveness if developing countries are not required to assume any obligations. O'Neill hopes this meeting is the beginning of a process where they can work with us to help shape policy on climate change.

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PRESIDENT WILLIAM J. CLINTON
TALKING POINTS FOR CLOSING STATEMENT
CLIMATE CHANGE EVENT
THE WHITE HOUSE
JULY 24, 1997

17-12-97

THE PRESIDENT HAS SEEN
7-24-97

I want to thank our seven distinguished scientists for joining us today to share their deep understanding of global climate change.

THE PRESIDENT HAS SEEN
7-24-97

I wish every American could hear what we've heard today. We all must recognize that global warming is for real. If we ignore this science, we, our children, and future generations will pay a steep price. We must act -- and the United States must lead.

V.P., Cals, Admin + 1. Appl to, with us! Are you
about probs + solutions → Such urgent

In the months ahead, the Vice President and I, along with members of the Cabinet and others in my Administration, will continue to speak to the American people about this issue. We will be talking not only about problems, but about solutions. We will be seeking input from those in this room and from all concerned about this problem. Working together, I am convinced we will meet this challenge.

Thank you.

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DOCDATE 970903

NAME ERSKINE B. BOWLES

ORG CHIEF OF STAFF

SUBJECT ISSUES UPDATE WITH ATTACHED (A) DRAFT USAF
STATEMENT RE C-5 PROGRAMMED DEPOT MAINTENANCE
SOURCE SELECTION; (B) SPERLING/MCGINTY/TARULLO
MEMO RE CLIMATE CHANGE; (C) REED/COHEN MEMO RE
UPDATE ON NATIONAL TESTING BATTLE; AND (D) NSC
DAILY WRAP-UP (NSC #5949)

ACTION PRCLIN RPI 970903 S

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THE PRESIDENT HAS SEEN

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THE WHITE HOUSE
WASHINGTON

June 24, 1997

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MEMORANDUM FOR THE PRESIDENT

FROM: KATHLEEN A. MCGINTY
GENE B. SPERLING
DANIEL K. TARULLO

SUBJECT: CLIMATE CHANGE

We met yesterday afternoon to discuss climate change. Attention focused on the related subjects of (1) your Thursday speech to the United Nations, and (2) a process for arriving at a position in the international negotiations, set to conclude in December.

Concerning your speech, a consensus emerged that you should address four points:

- the scientific case for action to address global warming is strong;
- the U.S. accepts its responsibility, as part of a global effort, to commit to emissions targets;
- it is important that measures we propose to deal with climate change take account of costs to our economy; and
- we are launching an intensive national discussion on the importance of taking action to counter global warming

A draft is currently under development.

There was discussion of naming someone to take full-time responsibility for our outreach efforts in the months ahead. Erskine asked for suggestions as soon as possible.

As a reminder, this approach will not satisfy most environmental groups or, as you know from Denver, a number of other countries. An acknowledgment of U.S. responsibility and your commitment to targets for emissions reductions will be positive messages. The absence of specific targets will be disappointing to them. In an important sense though, your audience for this speech is the American public. This will be a high-profile launch of our project to engage the American people on this subject.

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THE PRESIDENT HAS SEEN

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THE WHITE HOUSE

WASHINGTON

June 18, 1997

MEMORANDUM FOR THE PRESIDENT

FROM: TODD STERN (D)

SUBJECT: Climate Change

The attached McGinty/Tarullo memo seeks your approval for a course of action on the climate change issue designed to take you through the Denver Summit and the UNGA Special Session on the environment and to lay the groundwork for the December meeting in Kyoto, where negotiations on a new treaty are supposed to conclude.

Decision point. The question for now is how specific a position you should articulate in Denver and New York with respect to emission levels of greenhouse gases. As a matter of substance, most of your Cabinet would support your calling for "stabilizing emissions in the medium term" -- i.e., returning greenhouse gas emissions to 1990 levels by 2005-2020. However, the consensus of your advisors is that such an announcement would not be tenable at this time in view of the strong opposition it would provoke among significant business sectors, labor and Members of Congress, and the lack of public support for concerted action. (Even relatively moderate action, such as returning emissions to 1990 levels by 2010, could have substantial short-term economic costs.)

Consequently, your advisors recommend that you make strong, but non-specific statements about climate change at both the Denver Summit and the UNGA meeting (suggested UNGA language appears at p. 4) and that these events be followed by an intensive effort to educate and persuade the American public about the great importance of this issue in order to build support on the Hill for a strong American position. We would aim to decide our negotiating position for Kyoto by the early fall. This approach will likely subject you and the Vice President to intense criticism from the environmental community, which believes you should make specific emission commitments now. And European leaders such as Blair and Kohl will also criticize our lack of specifics. But the alternative appears worse -- an immediate call for specific reductions that would be sharply attacked by large parts of the business community, rally little public support, and have no chance of endorsement on the Hill.

(Several appendices are attached to the memo. I am sending up Appendix E only -- a draft action plan for engaging the American public. If you want to see any of these other appendices, let me know. Appendix A sets forth four options for specific emission reduction statements, but, as noted, the consensus is that you should not make *any* such specific statement at this time; Appendices B and C review environmental impacts and economic analysis respectively; Appendix D is a more detailed general review of the issue.)

Approve approach ☒

Disapprove ☐

Discuss ☐

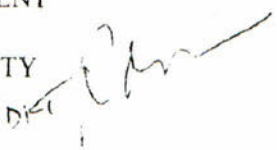
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THE WHITE HOUSE

WASHINGTON

June 18, 1997

MEMORANDUM FOR THE PRESIDENT

FROM: KATHLEEN A. MCGINTY
DANIEL K. TARULLO 

SUBJECT: UPCOMING INTERNATIONAL EVENTS AND CLIMATE CHANGE

I. Action-Forcing Event

Over the next few weeks, you will have two high-profile events that focus attention on U.S. climate change policies: the Denver Summit of the Eight (June 20-22) and the United Nations General Assembly Special Session on Environment and Development (you are speaking on June 26). To date, the United States has called for binding emissions targets, flexibility in meeting those targets and the participation of all countries under the climate treaty, but has not signaled which specific emissions levels would be acceptable. Negotiations are set to conclude this December in Kyoto. Other countries and domestic constituencies are calling on the U.S. to state its views.

Your advisers are evaluating the specifics of a U.S. negotiating position, with some differences among them. However, there is a consensus that, even at the cost of significant criticism from other countries and environmental groups, it would be imprudent to take a specific position on emissions levels in the upcoming events. Instead, you should make a strong statement about the need to address the problem of climate change and begin an intense process of personally communicating with the American public on this issue with the objective of articulating a substantive policy position in the fall.

II. Background

Climate change may be the most significant economic and environmental policy issue to be addressed in the second term. There is now scientific consensus that human activities (primarily the burning of fossil fuels) are having a discernible influence on the global climate and that "climate change is likely to have wide-ranging and mostly adverse impacts on human health". The implication is that greenhouse gas concentrations must be held to responsible levels in the long term to avoid dire consequences. Greenhouse gas concentrations are at now their highest levels in 200,000 years and, absent policy interventions, concentrations at the end of the next century are predicted to be at a 50 million year high. Impacts are predicted to include higher temperatures (global average temperatures are predicted to increase 2-6.5 degrees F. by 2100), sea level rise (threatening low-lying areas), spread of infectious diseases, and more highly variable weather (with increased frequency of severe weather events such as droughts and floods).

The U.S. is the world's largest emitter of greenhouse gases, with roughly 25% of the world's total. Domestic greenhouse gas emissions have been growing by a bit over 1 percent per year, so that today's emissions are about 10 percent higher than in 1990. In many developing countries, emissions growth rates are higher, but per capita and overall emissions levels are lower. The developed countries are responsible for much of the accumulation of greenhouse gases in the atmosphere and currently are the largest emitters. By 2020-2040, however, the developing countries will surpass the developed countries in terms of emitting greenhouse gases. Since global climate is affected by greenhouse gas concentrations in the atmosphere, and since the efforts by any one country to reduce its emissions cannot have much of an effect on global concentrations, a sensible approach would call on all countries to play a role. The U.S. has urged developing countries to accept significant obligations (short of quantitative emissions targets) in the international treaty negotiations. To date, there has been little international support for the U.S. position on developing countries.

In general, market-based policies are believed to be the most efficient means to reduce greenhouse gas emissions, because these policies promote flexibility and minimize economic costs. The U.S. has urged that the climate change treaty promote maximum domestic flexibility in all countries, establish a system where countries with quantitative emissions targets can trade emissions rights, and establish a system of joint implementation, where developed and developing countries can undertake joint efforts to reduce emissions wherever the cost is lower.

In a Principals meeting to consider the U.S. position on emissions levels under the climate treaty, most of the participants indicated support for "stabilizing emissions in the medium term." (In the parlance of the climate change negotiations, "stabilizing" means returning greenhouse gas emissions to 1990 levels and "medium term" means 2005-2020). But many of the agencies and offices represented conditioned their support on success in achieving other elements of the U.S. negotiating position (e.g., international emissions trading, participation of developing countries). Several participants felt that further analytic work was needed, and expressed a desire to see further options developed.

In the view of many members of your Cabinet, calling for emissions to be stabilized at 1990 levels in the medium term and emphasizing the importance of other elements of the U.S. position would allow you to take the high ground. You could commit the U.S. to meaningful emissions reductions, while insisting on other principles we consider vital to an agreement. This would provide flexibility for future development of our position and, given the likely difficulty in convincing developing countries to participate more fully under the climate treaty, also offer a principled basis for walking away from an agreement in Kyoto should we decide it is in our interest to do so.

However, as several of your economic advisers noted, even the seemingly moderate goal of returning emissions levels to 1990 levels by 2010 would entail economic policy interventions greater than any we have undertaken during your Presidency. Even with the kind of flexibility components proposed by the United States, market-based policies designed to reduce greenhouse gas emissions significantly are likely to raise domestic fuel prices by significant amounts and to have particularly adverse effects on the coal industry. The result would be lower economic growth, with the most

serious effects in the earlier years. Thus, emissions control policies impose significant short term economic costs in order to achieve distant (though potentially enormous) environmental benefits.

In the view of some of your advisers, there is strong evidence that total costs could be lowered significantly if policies were put in place to emphasize investment in productivity-enhancing technologies. A number of economic advisors believe that this use has not been established. Some of the technologies envisioned would not have a major impact by 2010, but could have significant impact in the decade that follows. An expanded program of research and policies encouraging innovation could have low costs and achieve broad political support.

The politics of this issue are difficult, at best. For many environmental groups, strong action on climate change is a litmus test of your environmental policy. If you fail to speak decisively on this issue at the Summit or the UN General Assembly Special Session, their criticism will be intense. European leaders such as Blair and Kohl will probably be both ambitious in their proposals and critical of our lack of specifics. On the other hand, much of the business community is strongly opposed to action that would significantly reduce greenhouse gas emissions. Fossil fuel and heavy manufacturing companies are poised to attack any policies that might be supported by environmental groups. Organized labor is increasingly opposed to strong actions, as well, largely in deference to the concerns of the United Mine Workers. Farmers are likely to oppose any policies that would increase energy prices. Southern and western Republicans in Congress are very skeptical about policies to constrain greenhouse gas emissions, as are Midwestern and coal state Democrats. Indeed, Senator Byrd currently has 45 signatures on a resolution requiring developing country obligations before U.S. agreement in Kyoto.

III. Recommendation

Your advisers believe it is necessary to undertake a serious educational effort to convince the American public that climate change is an important long-term issue that requires the United States to institute policy changes. Such an effort should be an interactive process, with you and your Cabinet members taking lead roles in listening to the public, elected officials, and interest groups, and then fashioning an appropriate policy response. Your advisers believe that such a process is necessary to develop a workable political consensus in the country for an effective climate change policy. If this consensus is not achieved, it will be virtually impossible to have an international climate change treaty limiting domestic greenhouse gas emissions ratified by the Senate in the foreseeable future.

Your advisers recommend that you address climate change at both the Denver Summit and the UN General Assembly Special Session. At Denver, as you have done in the past, you should discuss the subject in strong terms, noting that the science is quite clear on the scope of the climate change problem. You also should note that there are extensive differences in the various proposals made to begin the process of achieving a solution. You can sketch out the importance of creating a long-lasting framework for implementing worldwide climate change policies, because this is an issue of vast scope (covering many decades and all the countries on the earth). And you can call on the Eight to work together to ensure that the treaty negotiated at Kyoto is acceptable to all members.

At the UN General Assembly Session, your advisers recommend that you again discuss the statement in strong terms, signaling your resolve to address this issue. They recommend the following language:

There is no more serious issue than climate change, and it is clear that we will need seriously and significantly to reduce our emissions of greenhouse gases beginning with a strong agreement in Kyoto.

We must remember that our goal is to stabilize concentrations of greenhouse gases in the atmosphere at an acceptable level, a task that must begin now, but which will require continuing sustained effort over many decades. So it is important that we set up a system that will work -- that will allow us to reduce our emissions at the lowest possible cost so that we can achieve the maximum protection of the environment. And it is also important that next steps send a strong signal of our intent, so that governments and industries can make significant investments in the new technologies that will be required if we are to achieve our ultimate goal. And finally, although those of us in the developed world who emit the largest quantities of these gases must take the lead, all countries must participate in moving toward the solution.

Your advisers recommend that you then begin to outline your personal involvement in the education campaign that will be necessary to build domestic acceptance for any meaningful emissions constraints. Although gaining consensus across the political spectrum is not possible on this issue, it may be possible to enhance support significantly among centrist constituencies and the public at large. Notwithstanding that you are speaking to a UN audience, you should direct your remarks to the American public.

You could announce specific means to pursue this dialogue, including your plans to host a White House Conference on Climate Change in September to bring together elected officials, business, labor, and environmental and scientific leaders, academics, and representatives of the public to discuss climate change policy. You could announce that this White House conference would be preceded by a series of regional conferences -- each hosted by members of your Cabinet. These high-level conferences would serve to educate the American public and bring forward ideas on how best to address climate change. A core goal of this and other efforts would be to break through to the American people with the message that "Climate change is an important issue for you and your family -- one that Bill Clinton believes we must address in a responsible way." Meanwhile, analytic work on policy alternatives would continue, informed by the public debate. We would aim to arrive at a complete U.S. negotiating position by the early fall.

You should be aware that this approach may lead to intense criticism of you and the Vice President by environmental groups. These groups have been calling on the U.S. to state a specific position on emissions levels, and will consider strong rhetoric and promises to engage personally in the issue to be inadequate. Some commentators will equate your approach with that of President Bush. (Bush refused to agree to any emissions levels in Rio. You reversed that position in April, 1993 and voluntarily committed the U.S. to reducing emissions to 1990 levels by the year 2000). However, your advisers believe that refraining from announcing specific goals until early fall is necessary to

develop the political and public consensus required to undertake any meaningful policy action on climate change. The alternative set of actions (making statements in the next few weeks supporting emissions constraints perceived as strong) would lead to harsh and lasting criticism from business and labor, in the opinion of your advisers. The resulting public and Congressional reaction could be so severely negative that you might be unable to take any significant policy steps on climate change. Moreover, criticism from these sources also could place other policy initiatives (environmental and others) in jeopardy.

Several appendices provide additional information. Appendix A lists five options identified to the Cabinet recently for statements by the President on climate change. Material analyzing the projected environmental impacts of these options is attached as Appendix B. Material summarizing the projected economic impacts of Options 1, 2, 3 and 4 are presented in Appendix C. Additional background material on climate change (including a discussion of domestic policy options) is attached as Appendix D. Finally, Appendix E sets forth possible elements of a strategy for you to engage the American public on this issue in the weeks and months ahead.

IV. Decision

That you approve the course outlined above.

_____ Approve _____ Disapprove _____ Discuss

APPENDIX E
CLIMATE CHANGE:
THE PRESIDENT ENGAGES THE AMERICAN PUBLIC

Overall Goal: Show the American public that President Clinton is determined to combat climate change in a way that deserves broad support.

Overall Strategy: A Three Pronged Approach

- A. President's Vision Set Forth at UNGA Special Session
- B. Build Public Awareness Through POTUS and VPOTUS Events
- C. Outreach to Policy Community

Implementing the Strategy:

A. President's Remarks at UNGA Special Session: Intensive Engagement to Chart Path Forward

Goal: Set President's vision for approaching climate change and begin drawing business, labor and environmentalists into a cooperative process on how best to move forward.

B. Build Public Awareness Through POTUS and VPOTUS Events

Goal: Elevate public understanding of the importance of changing climate and build support for national policy priorities developed cooperatively through an open dialogue with the range of affected constituencies.

Strategy:

i. Presidential Events:

- a. 3 radio addresses by end of September (first possibly on June 28)
- b. Message-of-the-day events; for example:
 - Kick-off of Million Solar Rooftops (Virginia PV plant or sites in SW/West Coast)
 - Visit Chicago's Board of Trade SO₂ Trading Center
 - Visit a GLOBE school site
 - Visit the Denver Clean Car Exhibit at G-8
 - Visit New York Harbor to highlight sea level rise issues
 - Visit National Park where fragile ecosystems are threatened.

ii. **Vice Presidential Events:**

- a. Site visits to technology demonstration projects (e.g. biomass or wind demonstrations in Iowa or Minnesota)
- b. Announce a New Clean Cities participant (Houston, Phoenix, New York City)
- c. Partnership for Advanced Housing Technology (new development at Stapleton Airport in Denver or southern California/Florida in disaster vulnerable areas)
- d. Visit a Federal facility participating in the Federal Energy Management Program

- iii. **Regional and National Workshops:** Conduct three regional conferences leading to a White House Conference. Three to five cabinet members and senior White House staff would participate in each. Conferences conducted in roundtable format, chaired by senior Cabinet members. Each would begin with key presentations, followed by open dialogue. Open to press and encourage live C-Span coverage. Conduct press backgrounders before and after. Involve regional corporate CEO's, academics, environmental & labor leaders, governors, other state & local leaders, religious leaders and members of Congress. All conferences would be comprehensive, but each would have a special focus, tailored to region.

Locations:

- East: New Orleans, Charleston, Miami, or the New Jersey shore. Highlight: Coastal storms damage, infectious disease risk and forest system impacts in southern and eastern states.
- Mid: Columbus, Detroit, Chicago, or Indianapolis. Highlight: Agriculture shifts, coal community impacts, heavy manufacturing impacts and opportunities.
- West: Sacramento, Phoenix, Portland, Seattle or San Francisco. Highlight: Water resource conflicts, public lands impacts, technology response opportunities.
- National: White House/DC, Baltimore, Richmond, New York. Highlight: Comprehensive integration of concerns into a need and pathway for action.

C. Outreach to the Policy Community

Goal: Engage policy community (CEOs and Congress in particular) in design of policies that comprehensively address climate change mitigation and that garner their support.

Strategy:

- i. President and VP should each reserve 10 - 12 slots for climate orientation briefings and meetings with industry leaders between now and Labor Day. Cabinet members should be given key responsibilities for particular sectors/industries. Should schedule in close coordination with National Dialogue meetings. Also encourage Cabinet members to host at least one public meeting and make a major speech.
 - a. Examples for President: meeting with Nobel laureates, meeting with religious leaders, meet with Congressional leaders to stress environmental imperative.
 - b. Examples for Vice President: Dinner with Congressional leaders; Lead a Congressional visit with scientific leaders to the Smithsonian's climate change exhibit.
- ii. **Industry Roundtables:** Series of CEO meetings with POTUS, VP, Cabinet members & other senior staff. Offer our policy inclinations, get feedback and ask for their ideas on what's missing. Examples:
 - a. Invite Norm Augustine, CEO of Lockheed Martin, to bring 10-15 CEOs of major environmental technology firms for meeting.
 - b. Invite John Browne, CEO of BP, to bring 10-15 oil/gas CEOs for meeting.
 - c. Invite R. Linn Draper, CEO of AEP, to bring 10-15 moderate electric utility CEOs for meeting.
 - d. Invite Ken Lay, CEO of Enron, and Dennis Bakke, CEO of AES, to bring 10-15 independent power developers for meeting.
 - e. Invite Michael Bonsignore, CEO of Honeywell, to bring 10-15 energy efficiency technology firms for meeting.
 - f. Invite 10-15 renewable energy CEOs for meeting.
- iii. Disseminate broadly the results of the review by the President's Advisors on Science and Technology (PCAST). The PCAST has been challenged to produce an energy strategy that will meet the "energy and environment needs of the next century" by October.

- iv. Open meeting with the Washington, D.C., policy community on peer-reviewed economic analysis and other information to be used in the regional conferences.

Notional Schedule:

June 24-7:	OSTP South East Regional Workshop (Vanderbilt) - <i>scheduled</i>
June 25:	VP Attends OSTP Impacts Workshop (Nashville) - <i>scheduled</i>
June 26:	President Speaks at UNA Special Session - <i>scheduled</i>
June 27:	President meets with CEO's of Big 3 automakers - <i>scheduled</i>
June 28:	First Presidential radio address to speak to climate change, perhaps with discussion of transportation sector (mtg. with Big 3 on 6/27), including the results of SunRayce 97 (pv powered car race) - <i>TBD</i>
June/July:	VP hosts Congressional Dinner - <i>TBD</i>
Early July:	Public Release of Economic Analysis - <i>TBD</i>
Early July:	Cabinet Orientation - <i>TBD</i>
July 14-16:	OSTP North West Regional Workshop (Seattle) - <i>scheduled</i>
July/August:	Industry Roundtables with President, Vice President, Cabinet and industry leaders - <i>TBD</i>
Late July:	Eastern Regional Meeting - <i>TBD</i>
Mid August:	Mid Regional Meeting - <i>TBD</i>
Late August:	Western Regional Meeting - <i>TBD</i>
Late September:	White House National Conference - <i>TBD</i>
September:	President's Remarks to UNA - <i>TBD</i>
September 3-5:	OSTP New England Regional Meeting (U of NH) - <i>scheduled</i>
Nov. 10-12:	OSTP National Impacts Workshop at NAS - <i>scheduled</i>
October:	PCAST strategy due

July 24 Event



Dag Vega

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Subject: 1997-07-24 CLIMATE CHANGE BRIEFING

THE WHITE HOUSE

Office of the Press Secretary

For Immediate Release

July 24, 1997

PRESS BRIEFING BY
KATIE MCGINTY,
CHAIR OF THE COUNCIL OF ENVIRONMENTAL QUALITY;
DAN ALBRITTON,
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION;
AND JERRY MELILLO,
OFFICE OF SCIENCE AND TECHNOLOGY POLICY

The Briefing Room

12:40 P.M. EDT

MR. LOCKHART: Good afternoon. Before Mike comes down for the regular daily briefing, we've asked some of our colleagues here to come in. As you know, the President begins a series of events today on the issue of global climate change which will lead up to the Kyoto meeting in December. He'll be meeting with some eminent scientists today including some Nobel laureates.

I've asked Katie McGinty, the Chair of the Council of Environmental Quality, to come down , along with Dan Albritton, the Director of the Aeronomy Lab at the National Oceanic and Atmospheric Administration; and Jerry Melillo, the Associate Director for Environment of the Office of Science and Technology Policy.

MS. MCGINTY: Thanks, Joe.

Q How are those Redwoods?

MS. MCGINTY: Good afternoon. Not to change the topic. As Joe has indicated, today the President launches his campaign to engage the American people on the important issue of climate change. Today we will hear from some of the most distinguished scientists in our country, and indeed, in the world, on these issues.

These scientists will tell us in clear and certain terms why it is that we can't stick our hand in the sand on this issue. Infectious diseases -- already we're seeing diseases like malaria and dengue fever at our borders; indeed, Russia has seen an incidence of malaria return. These diseases will only spread as the climate warms.

Rapid increases in deaths from heat stroke -- just two years ago we saw 400 people die in Chicago from a record-breaking heat wave. Increasingly severe storm systems -- and in just the last century, we've seen a 20-percent increase in the severity of storm systems here in the United States. Now, insurance companies will tell you that has meant billions of dollars in losses here in the U.S.

Rapid sea level rise -- we stand to see thousands of square miles of our coastal states -- Florida, Louisiana -- lost to inundation from sea level rise. Indeed, we may lose a third of the Everglades from sea level rise. Severe droughts also can be expected like the ones we saw in 1988 that cut U.S. agricultural production and productivity by a third.

As I've said, these things are not just theoretical. Some things are happening now. The heat waves that have killed people, 1993 outbreak of the Hanta virus in the southwest U.S. followed on the heels of severe droughts and then heavy rains.

What the scientists want to say today is that these kinds of things are exactly in line with the predictions that they would make -- could happen as a consequence of climate change. And these are the kinds of things that can become increasingly severe, common and widespread if, again, we stick our heads in the sand on this issue and just allow ourselves to continue with business as usual.

The President has identified this issue of one of extremely seriously moment for the United States from an environmental perspective, from an economic perspective as we've already seen -- damaging storm systems, for example -- and from a national security perspective because of the global disruption that could come from climate change. Having identified this as a serious issue for the United States and one that is important to our security, the President has also determined that the United States will show leadership here to join all of the countries in the world to taking responsible steps to meet this challenge.

Now, having said that, the President has also said you can do these things dumb and you can do them smart. He is determined that we will pursue this issue as we have all of the environmental challenges we have addressed, and that is in a way that shows the interlinkages between environmental progress and economic progress. There's a \$400-billion market for environmental technologies and services to, in part, address this issue and it will be part of the President's effort that U.S. companies are seizing those opportunities as we take on the climate challenge.

The President will articulate and pursue policies that are flexible, that are market-oriented, and again, that enable us to take this challenge and turn it into economic opportunity. This launches our effort in the coming months. We will continue the effort to engage the American people in general, but also to bring in the business community; leadership from Capitol Hill, from the environmental groups, from state and local government to find and tease out those ideas that will help us again to change this challenge into a very significant opportunity for the United States.

Today is a very important first step in this campaign and I think it will open all of our eyes to the reality of this challenge and to the very serious consequences that would follow if we were to pursue a course of no action on this issue.

To flesh some of that out, let me turn it over to Dan Albritton, one of our leading experts in this issue.

Q Why did you wait so long when this has been an issue now for several years?

MS. MCGINTY: Not to duck it, but why don't we continue with the presentations and come back for questions.

MR. ALBRITTON: Thanks. Katie's outlined the activities that are occurring today and why. From a scientific perspective, the reason that we are here today is basically that the Earth's climate system and humankind are co-involved. By that I mean, our activities, along with natural changes on the planet have the capability of changing the planet on which we live. It also implies that, as inhabitants of the planet, if the climate system were to change to unfavorable states, then we would be impactees.

And so, the issue before decision-makers in governments and industry is, on the one hand, our activities and lifestyle have the potential of changing the planet, and on the other hand, as impactees we would be involved in receiving the impacts of that change.

The complexity of that balance of cost and benefits approaches led governments to ask the expert communities around the world to prepare their very best understanding of the climate system and our role in it and their understanding of the impacts to humankind of the climate system were to change.

Very large reports were prepared and delivered to governments last year. What we will be summarizing today for you in the way of context are the major points associated with our involvement with the climate system both on the front end and on the receiving end.

The scientific community, in addressing the question of how well do we understand the climate system and our role in it, have come up with perhaps five take-away messages. I'll summarize those five for you and my colleague, Jerry Melillo, will comment on the take-away messages associated with the impacts of climate change on humans.

I'll arrange those five points in the order of things that scientists are absolutely confident in down to things that we wish we had more information about. And I'll try to explain why the certainty and the uncertainty are both relevant to those wrestling with approaches and decisions on this.

The first point. There is a natural greenhouse effect on the planet, and we understand its basic principles very, very well, namely, we know that there are trace gases in the atmosphere that absorb part of the heat that would be radiated to space, and thereby have the potential for raising the temperature on the planet. In fact, those greenhouse gases have been part of our atmosphere as long as we've had an atmosphere. In fact, if it weren't for those greenhouse gases that are already naturally in the atmosphere, our planet would have an average temperature of six degrees Fahrenheit, not 60 degrees that we enjoy today. And so, the principles of trapped heat by a small set of gases is the rationale for us having the life on planet as we know.

Well, why is greenhouse then often deemed an issue? The

issue arises is that in the last 100 years -- and this is point number two -- we've begun to change the composition of the atmosphere through our activities. That is we've been adding to, during the industrial era, the natural amount of greenhouse gases that were on the planet.

For example, CO₂ has increased 30 percent since the industrial era. And we know that it's because of the use of fossil fuel to generate energy and thereby develop the lifestyle that we enjoy. Other greenhouse gases are increasing as well. Scientists have impeccable measurements that demonstrate this steady increase of the amount of greenhouse gases since we gained the capability of altering the amount of greenhouse gases.

Third point, and this now is a forecast -- what I've mentioned up until now is what has happened in the past and at the present. The forecast is that, if greenhouse gases were to continue to increase as they have been doing, our best understanding of how the planet is going to respond to that is that the average temperature of the planet will increase perhaps 3.5 degrees Fahrenheit by the end of the next century.

Associated with that would be an increase in sea level, because a warmer ocean and melted glaciers mean more water, more space occupied by the ocean. There will be an increase in sea level of perhaps 20 inches, which would add, of course, to storm surges and other things.

If the planet were to choose to change its temperature about 3.5 degrees, it would be larger than any natural change that's occurred since the last Ice Ages. This puts a scale on the nature of the change, and it would be more rapid than any change that we've seen since the last Ice Age.

The point that perhaps is the most policy-relevant about this is that the CO₂ that we use to get here today is going to be in the atmosphere long after we're gone; namely the resonance time of CO₂ in the atmosphere is longer than the human lifetimes, and therefore, if the planet starts changing climate, the long resonance time of these greenhouse gases means that it will be a very slow process to reverse.

Point number four, have we seen anything yet? Global temperatures have warmed over the last century, and the balance of evidence suggests that part of that warming is due to our activities. For example, we've been taking the temperature of the planet for about 125 years, beginning with seaboard thermometers, and now having the very sophisticated weather thermometers that we have, that data shows that the planet's warmer now. It's warmer by about a half to one degree Fahrenheit, compared to the middle of the last century. And, naturally, as weather and climate do, that warming has been up and down and up and down, but steadily upward over that long period.

Associated with that is an increase in sea level of

about four inches to 10 inches, so there is a consistent picture. Associated with that warming is a retreat of mountain glaciers -- very obvious -- three aspects of the fact that we now live in a warmer world.

The key question is not whether we have a warmer world right now or not; the key is what caused the change. That half to one degree is about the size of what the natural changes have been since the last ice age. And so scientists have had the challenging job of looking for a half a degree needle inside of a half a degree haystack.

In this most recent statement by the World Science Community, they believe now that they see reasons that not all of that change has been natural, and they make that by looking at the pattern of the change compared to the pattern that you would expect from natural behavior or from CO2 behavior. So the world is warmer. We believe, at least in part, it's due to our having added greenhouse gases to the planet.

Fifth point -- and this states more about our level of knowledge -- fifth point is that it's a very complex planet and we do have imperfect knowledge of some of the details. That implies that we can't predict what the climate change will be in a given city or a given state or what the climate will be or a particular summer will be in any particular place.

The understanding of the smaller details of the climate system and the size of computers and our lack of observations in many areas means that our predictions are at the current time either globally or regionally. Now, regionally, though, can be important. For example, scientists are saying that large land masses will warm and dry out faster than smaller land masses or the oceans. And, obviously, that has implications to countries involved in large continents.

Secondly, higher latitudes will warm more than lower latitudes. This has implications for effects and things about farming and where that might shift. It's also fairly clear that the warming will occur largely at night. And this increase in that regime has to do a lot with impacts on animal populations and crops.

The question frequently comes up, what can you say about extremes? Extremes are probably the more difficult things for scientists to predict, but they can say some things. And it's this: that in a warmer world, there's more evaporation; more water in the atmosphere; more variable, in a sense, more tropical, and hence the hydrological cycle -- storms, clouds and so on -- will be a much more active system. It's summer in Washington compared to other times in Washington. This means that the rainfalls are likely in warmer world to be heavier rainfalls. There would be more frequency of hot, dry periods.

The question comes up frequently about hurricanes. The

jury is still out scientifically. It's not clear whether hurricanes will be more intense or more frequent in a warmer world -- a very difficult call.

Finally, what about surprises? Scientists answer, yes, to that. We're entering a warmer regime of climate than we've had experience for. And as nature is inclined to do, it's going to reveal a process to us that we probably don't know now. And so, the probability of either rude or happy surprises in the century ahead are very high. And you only have to remember that we didn't predict the Antarctic ozone hole. It was a regime of chlorine in the atmosphere that we had never experienced. It triggered a process that we didn't know as scientists and we were rudely surprised by that. The climate system has such non-linearities for sure. And there will be surprises, both rude and happy surprises.

In summary, from an understanding of how well scientists understand the climate system and our role in it, there are five points that I've tried to make. Number one -- this is a real issue; it's worth your time in explaining it, the government's time in debating it, industry's time in engaging -- it's a real issue. Secondly, some degree of human-influenced climate change now appears to be inevitable. Third, discernible signs that we are changing the climate are at hand at present. However, exactly what will happen in particular places at particular times will remain difficult to predict. And the fifth point, and probably one of the more important scientific points, is that any human-induced climate change that were to occur would be very, very long and slow in reversing it because of the lifetimes.

Let me quickly add -- and this will underscore what Jerry can summarize for you, too -- this is not the view of one scientist, this is the view of thousands of scientists who were asked to give their current statement of scientific understanding. I believe that those statements made by the entire scientific community are of high value to decision-makers in government and industry and those who acquaint the public with such complex things.

Number one, it's prepared by the expert communities. It is their vast, vast majority viewpoint, and it represents, since it goes from forcings to changes to impacts to options, it represents one-stop shopping on a complex, complex issue. Because of the large impacts associated with climate change, because of large impacts of doing anything to avoid it, a key element, we think, in this process is what we're doing here today, both at the White House and here, and that's dialogue. And that's why both Jerry and I really do appreciate the opportunity to lay out the scientists' viewpoint for these, and there is plenty of time afterwards; if I've hurried through any of these points, please do bring them up again. Thanks.

MR. MELILLO: Good afternoon. I'm going to try to be very brief so that we can get to questions. As Dan outlined, more than 2,500 scientists have come together to produce the Intergovernmental Panel on Climate Change Report that includes one

large component on impacts.

The impacts range across issues of human health, water resources, agriculture and food supply, coastal zone integrity and management, forests and forestry, fisheries and natural areas. And we don't want to minimize the importance of natural areas, because they provide a whole suite of services to us that are absolutely critical for society's maintenance.

Now, very briefly, I want to indicate and underline some of the things that Katie said. The human health issue has been one that has been tremendously interesting to all of us. The prospect of climate change brings with it the prospect of a shift in the distribution of vector-borne diseases, such as malaria. There are model estimates that would suggest that with a doubling of CO₂ and the associated change in climate, we might see in the range of 50 million to 80 million more cases of malaria in a year.

With respect to water resources, water is a critical asset for all nations of the world, and -- disputed one in many regions. General circulation models would suggest significant changes in water availability and soil moisture in particular, which is essential for growing crops, and one model, the general fluid dynamics model at Princeton, would suggest that at four times current levels -- or pre-industrial levels of CO₂, the soil moisture levels in the heartland of the United States could drop by as much as 30 to 50 percent, which would make agriculture in that area very difficult.

For natural systems, there will be many surprises, I'm sure. One of the concerns that ecologists have is that as climate zones shift, so, too, will vegetation distribution shift. However, it will not shift in an orderly fashion. Species will move at varying rates, and there could be long periods of reorganization in the world's vegetation. That could be very difficult for us to deal with and affect adversely some of those services that we count on natural ecosystems providing us, such as the cleansing of water, the stabilizing of landscapes against erosion, and the stabilizing of coastal zones against storm surges.

So I think there are an array of impacts that we can talk about, but as Dan mentioned, there's probably going to be a tremendous amount of regional and temporal texture in the degree of those impacts.

To begin to understand the regional consequences of climate change and to give some vision to what kinds of regional changes we might expect, the administration through the Office of Science and Technology Policy and the U.S. Global Change Research Program, has begun a series of 17 regional workshops on the climate change issue. And in these workshops we attempt to do four things. The first thing that we do is try to get an understanding outside of the climate change issue, either climate variability or climate change, what the current stresses are that regions are facing for their environment, their economics and their social structure.

The second question is, how would climate variability, if it were to increase, or climate change if it were directional, either amplify or dampen these current stresses. The third question is, what kind of information, in addition to the information that the people in these regions already have, what kind of additional information would they need to begin to think more clearly about the climate change issue. And that helps us to set a research agenda, by the way. And finally, what kinds of coping strategies could they think of that would be useful to deal with their current stresses and also have a positive effect on ameliorating the climate change issue.

And I must say we've had four of these 17 workshops, and each one of them has been truly fascinating, with some surprising stresses surfacing to the top of the various lists. For example, in Alaska, one of the greatest concerns is the melting of permafrost with global warming. This has tremendous implications for infrastructure in the state of Alaska. Approximately -- I think it's about 80 percent of the state of Alaska -- is under land by frozen soil. As this soil melts out, you can imagine what it does to building structures and the roads and airports. And we've been told that already, the permafrost in Alaska is warming; in some places in Central Alaska it's actually melting out. This could result in a slumping in those areas of anywhere between five and 10 meters, and present an array of problems, such as difficulty keeping rural airports functioning -- which is the link to civilization for many of these isolated places -- and tremendous difficulty in keeping roads flat so that you can move around this state.

I could go on with examples, but I think I'm going to stop and open it to questions.

Q You want the public to realize that there is a problem. What can the public do? Does the administration want the public to do things such as stop cutting their lawn with a combustion engine, stop barbecuing, eliminate the combustion engine? What do you want people to do?

MS. MCGINTY: Part of this dialogue will be to identify what the best solutions are. But in our mind, it won't involve the kinds of things you've just suggested, it will involve things like energy efficiency. Currently, if you think of energy, for every three units of energy we produce, we basically throw out two of them just through wasteful practices. That's money we're throwing out. It's also the leading contributor to this challenge.

So the idea is, what are the technologies we can employ that will reduce the pollution, and in that instance especially, save us money, improve our efficiency. Those are the kinds of things we know are out there that we want to identify and through this effort put into place.

Q You must have some examples. Can you give us any besides turning our thermostat down?

MS. MCGINTY: Sure. All of this week we have had the leading vice presidents for research of the three automobile companies in Washington. We have launched with them what we call a Partnership for a New Generation of Vehicles. Through this partnership, by the early years of the next century, we will produce a vehicle that achieves 300 percent the fuel efficiency of current vehicles -- 80 miles to the gallon. And we are on our way through that partnership with the Big Three to produce that kind of vehicle.

Q Have you come any closer to setting macro-goals for emissions of greenhouse gases? Because the U.S. has already rejected the European proposal to stabilize at 1990 levels. Where are we moving in terms of that?

MS. MCGINTY: We have outlined the framework for what the next steps on climate should look like. One, the United States has said the current voluntary approach hasn't fully worked. The world community needs to come together around binding emissions limits. We have put that forward.

The United States has also put forward the notion that, again, there are smart ways to do this and dumb ways. The smart way is that we use flexible approaches, we harness market forces, we use market mechanisms to achieve those emissions reductions.

Third, that all countries in the world, not just the developed countries -- and clearly, we in the United States have a responsibility here as do other industrial countries -- but developed and developing countries have to be part of the solution.

Now, what we have not put forward as yet is the exact -- what's called target and timetable -- emissions level and year for achieving that emissions level. We have not yet put forward those numbers in the international arena. This process is designed to enable us to do that by the mid, late fall when these negotiations internationally will reach that point and have to come to terms with that issue.

Q You described -- these two gentlemen described part of their presentation as a forecast of the bad things that would happen. Can you explain to us or can they explain to us how hypothetical this situation is or how concrete it is? And a second part to the question, you presented a very good sort of sky is falling scenario; it would seem that there would have to be some positive aspects of global climate change and I know that some countries think that their agriculture might work out better with climate change. Can you address any of those issues?

MS. MCGINTY: Dan, do you want to take that on?

MR. ALBRITTON: As I've mentioned, representing how the planet will respond is a very challenging scientific job. What the scientists have tried to do is evaluate the effect of their ignorance. The 3.5 degree warming for a doubling of CO₂, which could occur some time in the next century, is in the middle of an uncertainty range which could be as high as six degrees warming, could be as low as 2 degrees warming. And so, with high confidence, the current scientific community is saying that for a doubling of CO₂, which could occur sometime in the next century, the planet will warm somewhere between two degrees Fahrenheit and six degrees Fahrenheit.

They got those two ranges by pushing all of their known ignorance in one direction and pushing all of their known ignorance in the other direction. They are very confident that the planet will respond in that range for a doubling of CO₂.

In terms of the pluses and minuses of that, Jerry can expand upon those points.

MR. MELILLO: When I talked about the fact that there would be texture or place to place variation in response, that was part of what I was alluding to. Indeed, let's take the example of agriculture. The analyses would suggest that indeed, globally, there may be some winners and there may be some losers. As it turns out, the winners are most likely to be in the developed countries, and that is also the place, of course, where there is capital available to be able to respond and to adapt to changes in climate.

Those places where the climate currently is semi-arid, the agriculture is largely dry-land agriculture without the benefit of any kind of irrigation, and those places that are subject to periodic droughts -- and there is a large portion of the tropics that would fall into this category -- might well be the places where there would be real losses in agricultural productivity.

In fact, when the modelers do their analyses, the predictions about agricultural productivity changes under a two-times CO₂ world -- that's both the climate and the fact that the carbon dioxide concentration of the atmosphere has doubled -- would be plus or minus 40 percent, depending upon where you were on the face of the Earth and what your conditions were.

A lot of the minus numbers fall into the tropics where, over the next 100 years, we expect at least a doubling of population. So indeed, there are winners and losers. To predict exactly where they'll be, as Dan pointed out, is currently beyond us, but what we can do is paint a picture of vulnerabilities, and this is clearly a vulnerability.

Q President Clinton made political points against

George Bush because Bush denied global warming. And yet, this is the second term of President Clinton and there is no national theme for fuel conservation, miles per gallon and other things we could be doing. Why is that? Why is it only now?

MS. MCGINTY: We have been at this job since the beginning of the President's first term. The President reversed the policy of the previous administration and signed up to trying to achieve 1990 levels of emissions by the year 2000. We put together a very ambitious program of investments in energy efficiency and renewable energy technologies. We will fall short of that goal not because the President did not articulate it and not because we did not put together a thorough program of action, but because, for example, the Congress has cut by -- on the order of 50 percent the nation's investments in energy efficiency and renewable energy technology.

I just mentioned this Partnership for a New Generation of Vehicles. We've also been at that work for about two years or maybe even a little bit more. We have been moving forward on this agenda consistently since 1993.

Now, there are certain things, however, that now catalyze this work. First is, as Dr. Albritton noted, the science itself has gelled in a significant respect in just the last year and a half or so as the scientists, for the first time, have determined that there is -- to quote them -- "a discernable human impact" on the climate. That's only in the last year or year and a half that that determination has been made, and that has quickened the discussion.

Second, we do now face an international negotiation which will culminate at the end of this year, in December in Kyoto, Japan, 150-plus countries, nations in the world will come together to conclude a treaty on this issue. So we've been at it, but there are certainly things that have quickened the discussion in the last year, year and a half.

Q Is Senator Byrd's resolution consistent with your negotiating position in these talks?

MS. MCGINTY: Well, certainly, the notion that developing countries need to be part of the solution is something that we absolutely agree with. In fact, as I articulated, this has been an essential part of the U.S. position in these negotiations internationally. We are not supported on this point by, for example, many in the European Union and certainly not by many in the developing countries themselves -- the point being that as developed countries take the lead here, as we must, we need developing countries also to pick up the baton and help become part of the solution to this problem.

So we absolutely agree with the resolution in that respect.

Q Can you tell us what you're talking about when you say -- you refer to those who have their heads in the sand -- are you talking about members of Congress, people in industry, other scientists? Who are you talking about?

MS. MCGINTY: The point was that we can't -- it was a general point that the evidence is such that we take a very high risk if we decide to put our hands in the sand on this issue. Now, having said that, on this issue, like any other serious issue, there are the extremes. There are those who will say that this is nonsense, that we should do nothing, that we should let the dice roll here, it's okay that we currently have levels of greenhouse gases in the atmosphere that are higher than any we've seen in the last 200,000 years. What's the big deal? Let's roll the dice, let's see what happens. There are some who will say that.

There are some that will say the sky is falling or the sea level is rising and we have to all run for the hills, and let's take drastic action, 15 percent cuts by tomorrow in our emissions. That would drastically hurt our economy.

The President is saying this is a serious issue; it's an issue on which we will not stick our head in the sand, but it is an issue on which we will take responsible action and action that can very well provide us economic opportunity if we do it right.

Yes, sir.

Q If I can take advantage of you being here to ask a quick question on Saturday's environment summit. Is the President going to go to Tahoe with the commitment that's been requested by the Governors of Nevada and California for the \$300 million? And, secondly, is he going to have an answer for them on the low-intensity burn?

MS. MCGINTY: The President will -- and I don't want to -- I mean, these announcements are for him to make -- however, we have participated in and organized in the region a series of intensive discussions with local and state leaders to say Lake Tahoe is a priceless national jewel; what are the threats to it and what needs to be done to help it. Whether it's water quality, transportation or forest health issues, very real ideas came out of that dialogue. The President will have very real and concrete measures he will announce and to which the federal government will contribute when he is out there.

Q But if I can follow, Governor Miller and Governor Wilson this week said that they didn't want the President coming out there empty-handed, is the word that Governor Wilson used.

MS. MCGINTY: And he will not.

Q He will have some commitment on --

MS. MCGINTY: I will not announce what they are, but let me just say again, we have heard some very real and concrete suggestions as to what we need to do around Lake Tahoe, and the President will have some very real and concrete initiatives that the federal government will undertake to be a positive partner with others in the region in saving and restoring Lake Tahoe.

Q Related to that, Babbitt has endorsed the low-intensity burn in previous conferences earlier in July. Can you give any assurances that that will work and that it will be safe to the residents there?

MS. MCGINTY: Let me just say our forest policy will be dictated by the best science. What the science has told us is that in some respects, the Smokey Bear campaign has been overly successful, and the consequence of stamping out every fire, including naturally-occurring fires has been that we now have a tinderbox in many places of the country.

About a year ago, in the face of that, we made what might be considered a bold determination, but a determination driven by the science that we would increase the use of what's called prescribed burns to begin to thin out some of that tinderbox kindling that has built up over the decades. That will certainly be part of our approach to enhancing and trying to improve forest health in the Lake Tahoe region. The degree of it, the intensity of it will be driven by the science.

Q Doesn't that clash in any way with your endorsement of this Quincy Library Group plan to take trees out before you burn?

MS. MCGINTY: Not at all, and to say that there will be use of some prescribed burn is not to preclude the possibility that there also will be thinning of some trees, taking them out before you do the prescribed burn. You can, and should, do both.

Q What would the administration like to see coming out of Kyoto related to the developing countries? What kind of language should be in that agreement?

MS. MCGINTY: We very much want to see an agreement that shows real participation on the part of developing countries in becoming part of the solution to this challenge. We have suggested ideas along the following lines: It's our position that a new category of countries should be created under the treaty, that instead of just developed and developing countries, maybe we should recognize that Bangladesh, for example, is in a very different place and situation than Singapore is, for example, and that maybe there should be a third category of countries recognizing the economic development that has occurred in some developing countries.

Related to that, that those countries would take on binding obligations probably not equivalent to the obligations of developed countries, but more than the obligations of developing

countries.

Also related to that, that we would think about an automatic graduation process, so that as a country reaches a certain level of economic growth and development, they automatically would flip into the developed country category and take on legally binding obligations.

Q Do you envision specific targets and timetables for that category -- countries at that point?

MS. MCGINTY: For that third category of countries, at that point, yes, absolutely, right.

Q Do you think it's feasible to do a cost benefit analysis -- domestically, the United States -- of putting in limits on carbon or fossil fuel emissions? And will you attempt to do that before setting the targets for the December treaty?

MS. MCGINTY: Well, certainly what we will do and will be essential in figuring out the best approach to this is to do a cost-benefit analysis, if you will, of the various policy approaches we might take. So, for example, if there is a suggestion that comes out of these dialogues that says, one-third of our emissions are due to inefficient buildings. And if we would just invest in X, Y or Z-building technology, we can improve the situation. We will have to do a cost-benefit analysis of how much we want to invest, and if we invest, what's the benefit? Emissions reductions. How close does it get us to meeting an overall objective? We will do that we might pursue a policy initiative.

Q But will you have to analyze the cost of global warming to the U.S. economy or to some other standards here in the United States?

MS. MCGINTY: Whether we'll do it independently or just look at the plethora of literature and scientific information, economic information that is out there -- there are many different people around the country that have models that are analyzing those kinds of things. And I very much expect we will engage some of those folks in looking at that, yes.

Q Could I ask about a scientists comment on the question of the temperature change since the last Ice Age? You mentioned in the last 100 years or so, there had been a one or half degree increase, which is equal to what had changed since the last Ice Age. What was the change then in that period, that previous period since the last Ice Age, as far as you know? Up or down or around or what?

MR. ALBRITTON: The temperature record that we have going back, say, 15,000 years, back to the last Ice Age times is

- based on, first of all, tree rings -- other proxy indicators, but they are accurate to show that over that period the Earth, itself, has changed its temperature over long, slow undulations of about one-half to one degree. And so, in looking backwards on what the size of natural variation can be, we can confidently say, it's in the range of part of a degree Fahrenheit, up to a degree Fahrenheit.

Now, since the industrial period, we have very carefully, of course, measured the temperature change. And since the preindustrial times, that one degree warming can be stated also with high confidence.

The third thing I mentioned was, of course, a forecast that when CO2 doubles, what will be the added temperature from that is the 3.5 degrees Fahrenheit. So there's the scale factor. The planet changes its own temperature on the range of a half a degree to a degree or so. A change of that size we have seen in the last 150 years. We believe part of that is due to greenhouse gases.

Q The original change from the Ice Age to the last century, you don't know whether that was up or down, or does it just sort of vary --

MR. ALBRITTON: It varies. For example, about 600 years ago, the so-called "Little Ice Age," that's when grapes and wine-producing in England ended and the Greenland colonies stopped for the Nordics -- it was a half to three-quarter of a degree below the average. So the natural range the planet swings its own temperature is plus or minus a degree.

Q Twice, you mentioned during your discussions that you were looking for binding agreements. How would you enforce binding agreements, and how realistic are they considering we can't control nuclear weapons, we can't control drugs -- how are we going to enforce any binding agreement?

MS. MCGINTY: Just take the example of other environmental treaties we've had. The Montreal Protocol on the chemicals that deplete the ozone layer, chlorofluorocarbons -- how you make that binding is when countries sign up to it, as the United States signed up to the Montreal Protocol. You come back home and you go to your respective legislature, parliament or diet, and you proscribe legislation that is legally binding and that will enable you to meet that target. So that in the United States, we came back and, under the Clean Air Act, then implemented a set of requirements that basically phased out and ended the production and use of

chlorofluorocarbons in the country. And you would have to do a similar thing here. You would have to come back and whatever the goal was that was agreed to, come back and implement legislation of one kind or another that would get you there.

Q I don't mean to argue, but a lot of countries in

the world don't have legislative processes. There are dictatorships or whatever form of government. And we also do have a problem of the smuggling of CFCs right now, even though that's supposed to be a legally-binding treaty.

MS. MCGINTY: No, I absolutely agree. In every kind of international exercise that you undertake there is always the problem of ensuring that you will have 100 percent compliance. It's always a difficult challenge. We have no reason to expect that this will be any less of a challenge to ensure 100 percent cooperation and compliance. Having said that, though, we do know what the mechanisms are that you put in place, and the President's commitment will be that this country, giving its word, will live up to its word.

Okay, thank you all very much.

END

1:28 P.M. EDT

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