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Record Group/Collection: George H.W. Bush Presidential Records
Collection/Office of Origin: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Global Climate Change Files

OA/ID Number: 62050
Folder ID Number: 62050-001

Folder Title:
Environment - Global Climate Change [1991]

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Withdrawal/Redaction Sheet (George Bush Library)

Doc. No. / Type	Subject/Title	Date	Restriction	Classification
01. Memorandum	To: John Sununu From: Allan Bromley Re: Computer Deal Involving MECCA (Model Evaluation Consortium for Climate Assessment) (1 pp.)	10/7/91	(b) (1)	
02. Resume	Resume of Patrick J. Michaels [social security number redacted] (1 pp.)	n.d.	(b)(6)	

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Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Global Climate Change Files
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Pinksheet Number: MB222
OA/ID Number: 62050-001
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P-2/P-5 Review Case #:

THE WHITE HOUSE
WASHINGTON

October 7, 1991

MEMORANDUM FOR JOHN SUNUNU

FROM: D. ALLAN BROMLEY *Alan*
SUBJECT: Computer Deal Involving Mecca

A Japanese computer company, Fujitsu, is exploring the possibility of donating a supercomputer to the Model Evaluation Consortium for Climate Assessment (MECCA).

MECCA is a consortium of research entities¹ whose goals, according to a brochure, are to study climate change forecasts, quantify the uncertainty in current models used to predict climate change due to greenhouse gases, and bring more precision into future predictions. Their activities will involve modeling experiments and analyses oriented to the needs of policy-makers and the private sector.

MECCA has already contracted with the National Center for Atmospheric Research (NCAR) in Boulder, Colorado for access to a CRAY supercomputer dedicated solely to MECCA. It has been reported that they are paying around \$150,000 a month for this service.

You may recall that a similar proposal, by the Japanese company NEC, to provide a supercomputer to MIT was rejected by MIT after some not-so-friendly persuasion on the part of the Federal government. This was done in part because of the potential adverse effects on the domestic supercomputer industry. Such adverse effects include, but are not limited to, access by foreign competitors to U.S. software developments. Software is, I think, a major factor in the Fujitsu offer; they want to get their hands on some of the new software developed at NCAR.

If you would like, I would be happy to discuss this matter further with you.

¹. PARTICIPANTS: U.S.: University Corporation for Atmospheric Research (UCAR, funded by the National Science Foundation), Electric Power Research Institute (EPRI); Japanese: Central Research Institute of Electric Power Industry; French: Electricite de France; Italy: Commission for Nuclear Energy and Alternative Energy Sources.

THE WHITE HOUSE

Sept 11, 1991

Dear John:

(Sincerely)

Thank you for the
enclosed of interest. The NYT
did its best to bury it - as did
the Post!

Best regards.

Allan

-7826

-7232

☒☒☒☒☒☒☒

CT 06504

Assistant to the President for
Science and Technology
The White House
Washington DC 20500

Dear Allan,

You will recall that the Evans committee on Policy
Implications of Global Warming encompassed a panel on
Adaptation. I am chairman.

The Adaptation report was released on Friday with subsequent
notice in the papers typified by the attached story from the
New York Times.

Also I attach the Preface, Findings and Recommendations of
the report itself. My reason for attaching the Preface is
to show my obituary to Roger Revelle.

Should you or your people want to know more, I am at your
service,

Paul E. Waggoner



John Sumner

THE WHITE HOUSE

WASHINGTON

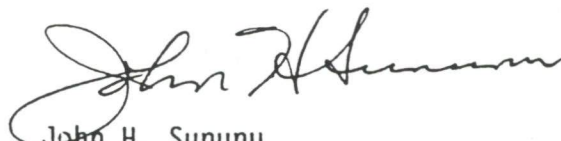
August 20, 1991

Dear David,

Thank you very much for your note. My only suggestion to you on how you might assist us on the global warming issue is to encourage your colleagues in the industry to provide assistance and support to a credible climatologist who understands the complexities of the issue.

We really do need help in getting this important message out.

Sincerely,



John H. Sununu
Chief of Staff

Mr. David W. Loer
General Manager
Minnkota Power Cooperative, Inc.
Box 1318
Grand Forks, North Dakota 58206-1318

bcc: Allan Bromley w/ copy of incoming (FYI)



MINNKOTA POWER
COOPERATIVE, INC.

Box 1318 Grand Forks, ND 58206-1318 Phone: (701) 795-4000

One of the Minnkota Power Systems

July 30, 1991

Mr. John Sununu, Chief of Staff
The White House
1600 Pennsylvania Avenue, N.W.
Washington, DC 20500

Dear Mr. Sununu:

On behalf of the 80,000 customers served by our rural electric power system, I want to thank you for the strong position you have taken on the global warming issue.

Your skepticism regarding carbon dioxide as a cause of global warming is a "breath of fresh air" to those of us who are very concerned about the consequences of adverse action or legislation dealing with this issue.

In our research, we have also found a number of credible climatologists who are not agreeing with the catastrophic global warming theory. We need to find ways for them to be more involved in dealing with this important issue.

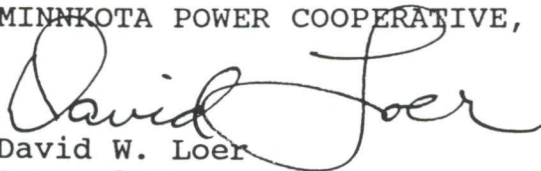
We know there is an extreme amount of pressure on you and other staff in the Administration to convince you that there needs to be limits placed on carbon dioxide emissions. We appreciate your recognizing the severe economic impact of such action.

Minnkota Power Cooperative, Inc., owns and operates only North Dakota coal-fired electric generating plants. Not surprisingly, we are hoping that your position on this issue prevails.

Is there anything that we can do to assist you or your position on the global warming issue? Please call on us--we would like to help.

Yours very truly,

MINNKOTA POWER COOPERATIVE, INC.


David W. Loer
General Manager

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THE WHITE HOUSE
WASHINGTON

June 27, 1991

MEMORANDUM FOR JOHN H. SUNUNU

FROM: D. ALLAN BROMLEY *Dulan*
SUBJECT: GLOBAL CHANGE FRAMEWORK NEGOTIATIONS

I enclose herewith

a) a Department of State cable summarizing the events of the first week of the current Geneva meeting on the above topic;

b) a statement of principals tabled by Robert Reinstein--our negotiator--at the invitation of the UN Secretariat. I understand that Andy Card already has a copy. I consider that Reinstein is doing an excellent job for us.

Enclosures

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AMEMBASSY NEW DELHI
 AMEMBASSY BRUSSELS

UNCLAS GENEVA 07005

FOR DES/EGC-REIFSNYDER, S/P-DAWSON, DOE-EASTON
 EPA/OPPE-MORGENSTERN, OSTP-MAYNARD, WHITE HOUSE-ACARD

E.O. 12356: N/A
 TAGS: SENV, ENRG, ETRD, EFIN, INC, KSCA
 SUBJECT: SECOND SESSION OF INC; WEEK 1
 ENDS WITH AGREEMENT OF WORKING GROUP CHAIRS

REF: A) STATE 18127

1. SUMMARY: THE INTERGOVERNMENTAL NEGOTIATING COMMITTEE (INC) FOR A FRAMEWORK CONVENTION ON CLIMATE CHANGE BEGAN ITS SECOND SESSION ON JUNE 19. THE FIRST WEEK OF THE TWO WEEK SESSION ENDED WITH A COMPROMISE AGREEMENT ON THE CHAIRS FOR THE TWO WORKING GROUPS; MEXICO AND JAPAN WILL CO-CHAIR THE WORKING GROUP ON COMMITMENTS (WG1) WITH MAURITANIA AS THE VICE-CHAIR. CANADA AND VANUATU WILL CO-CHAIR THE WORKING GROUP ON MECHANISMS (WG2) WITH POLAND AS THE VICE-CHAIR. WHILE THIS COMPROMISE WAS BEING REACHED, THE PLENARY WAS ONLY ABLE TO MEET FOR A SHORT TIME. NONETHELESS, A NUMBER OF COUNTRIES DESCRIBED THEIR VIEWS ON A CLIMATE CONVENTION IN INFORMAL PAPERS AND IN INTERVENTIONS. DEVELOPING COUNTRIES EMPHASIZED THE NEED FOR NEW FINANCIAL ASSISTANCE, NON-COMMERCIAL TECHNOLOGY TRANSFER AND FOR OBLIGATIONS TO FALL

PRIMARILY, IF NOT EXCLUSIVELY, ON DEVELOPED COUNTRIES. IN THEIR INTERVENTIONS AND INFORMAL PAPERS, DEVELOPED COUNTRIES EMPHASIZED INSTITUTIONAL AND LEGAL ISSUES.

2. ON THE MARGINS, AN INFORMAL GROUP OF OECD NATIONS MET TO DISCUSS THE U.S. NON-PAPER ON TECHNOLOGY COOPERATION (REFTEL A). A FEW DEVELOPED NATIONS,

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 INCLUDING THE UNITED STATES; ALSO DISCUSSED INFORMALLY THE KEY ISSUES LIKELY TO ARISE IN WG11, ESPECIALLY THE PROPOSALS MADE BY A NUMBER OF COUNTRIES TO ESTABLISH NEW INSTITUTIONS UNDER THE CONVENTION AND THE ROLE OF THE IPCC AFTER A CONVENTION ENTERS INTO FORCE. THE ENTIRE WG11 MET INFORMALLY ON SATURDAY TO DISCUSS A DRAFT WORKPLAN FOR THE REST OF THE SECOND SESSION.

3. THIS CABLE REPORTS ONLY DEVELOPMENTS DURING FIRST THREE DAYS OF SESSION. ANALYSIS AND COMMENT WILL FOLLOW IN CLASSIFIED SEPTEL. END SUMMARY.

WORKING GROUPS

4. IN FEBRUARY, NO AGREEMENT WAS REACHED ON WORKING GROUP CHAIRS WHEN BRAZIL AND JAPAN, RESPECTIVELY SUPPORTED BY THE LATIN AND ASIAN REGIONAL GROUPS, SOUGHT THE CHAIR OF WG1. SHORTLY AFTER THE FIRST SESSION, THE BRAZILIANS DROPPED OUT OF THE RUNNING ONLY TO BE REPLACED BY MEXICO.

5. WITH MEXICO NOW RUNNING INSTEAD OF BRAZIL, THE DEADLOCK BETWEEN THE ASIAN AND THE LATIN REGIONAL GROUPS CONTINUED INTO THE CURRENT SESSION. WHEN NUMEROUS EFFORTS TO FORCE A CHOICE BETWEEN MEXICO AND JAPAN FAILED, INC CHAIRMAN RIFERT FORCED THE ISSUE BY SAYING THAT HE WOULD CALL A VOTE IF THE REGIONAL GROUPS DID NOT AGREE TO SHARE THE TWO CHAIRS. IT WAS GENERALLY AGREED THAT VOTING SO EARLY IN THE PROCESS

COULD MAKE IT EASIER TO RESORT TO VOTING LATER IN MORE SUBSTANTIVE DEBATES. THIS COULD, IN TURN, MAKE WIDESPREAD PARTICIPATION IN ANY RESULTING AGREEMENT LESS LIKELY. VOTING ON WORKING GROUP CHAIRS WOULD ALSO HAVE CREATED ILL-WILL AMONG THE LOSERS FROM THE BEGINNING OF THE NEGOTIATIONS. TO AVOID POISONING THE PROCESS FROM THE OUTSET, A CONSENSUS WAS REACHED ON THE CO-CHAIRS LISTED IN PARAGRAPH ONE ABOVE.

6. BECAUSE OF THESE EFFORTS, THE PLENARY WAS ONLY ABLE TO MEET INTERMITTANTLY: TWO HOURS ON WEDNESDAY, LESS THAN AN HOUR ON THURSDAY, AND ABOUT TWO HOURS ON FRIDAY. DURING THESE RARE PLENARY SESSIONS, SEVERAL COUNTRIES INTERVENED TO INTRODUCE NEW COUNTRY SUBMISSIONS AND EXPLAIN THEIR VIEWS ON WHAT SHOULD BE INCLUDED IN A CLIMATE CONVENTION. (U.S. VIEWS HAD BEEN STATED IN CHANTILLY SESSION AND ELABORATED IN SUBMISSION MADE IN MARCH AND INCLUDED IN WORKING

PAPERS FOR THIS SESSION.)

INDIA

7. THE INDIAN DELEGATE, DAS GUPTA, NOTED THE CONNECTION BETWEEN ENERGY CONSUMPTION AND INDUSTRIALIZATION. HE POINTED TO THE HIGH PER CAPITA EMISSIONS OF DEVELOPED COUNTRIES, NOTING THAT THEIR "OPULENT LIFESTYLES" WERE RESPONSIBLE FOR GLOBAL WARMING AND THAT THEY SHOULD THEREFORE BEAR THE BURDEN OF THE SOLUTION. DEVELOPED COUNTRIES WERE ALL THE MORE OBLIGATED, HE SUGGESTED, BECAUSE THEY ALONE HAD THE WHEREWITHAL TO FUND THE CLEANUP. DEVELOPING COUNTRIES, HE INDICATED, HAD NO RESPONSIBILITY - UNLESS NEW AND ADDITIONAL FINANCIAL RESOURCES WERE

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MADE AVAILABLE WITHOUT ANY CONDITIONS. TECHNOLOGY
WOULD HAVE TO BE TRANSFERRED NON-COMMERCIALY.

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8. DAS GUPTA CONCLUDED BY LISTING THE ELEMENTS THAT INDIA SEES AS CRITICAL TO A CONVENTION, SUCH AS (1) TARGETS AND TIMETABLES FOR DEVELOPED COUNTRIES; (2) DEVELOPING COUNTRIES WOULD CONSIDER FEASIBLE MEASURES ONLY IF THEIR COSTS ARE MET BY NEW AND ADDITIONAL FUNDS; (3) RESEARCH, SYSTEMATIC OBSERVATIONS AND ASSESSMENTS; (4) COOPERATION IN LEGAL, TECHNICAL AND SCIENTIFIC FIELDS; AND (5) A NEW CLIMATE FUND THAT WOULD BE CONTROLLED EQUALLY AND "DEMOCRATICALLY" BY ALL PARTIES TO THE CONVENTION, RATHER THAN BE UNDULY INFLUENCED BY DONOR COUNTRIES. A SECRETARIAT WOULD BE ESTABLISHED TO SUPPORT THE CONFERENCE OF THE PARTIES. FINALLY, DAS GUPTA SUGGESTED THAT THIS INC

SESSION BE USED TO IDENTIFY AREAS IN WHICH DIFFERENCES EXIST BETWEEN COUNTRY APPROACHES.

VANUATU

9. VANUATU ASSERTED THAT ACTION TO ADDRESS CLIMATE CHANGE SHOULD BE BASED ON THE PRECAUTIONARY PRINCIPLE, THE POLLUTER PAYS PRINCIPLE AND THE PRINCIPLE OF INTERGENERATIONAL EQUITY. ALL PARTIES WOULD DEVELOP NATIONAL PLANS THAT INCLUDE COMMITMENTS TO STABILIZE EMISSIONS BY AN AGREED DATE. DEVELOPED

COUNTRIES WOULD FUND A NEW INTERNATIONAL CLIMATE FUND TO ASSIST DEVELOPING COUNTRIES. PARTIES WOULD BE OBLIGATED TO TURN OVER TO AN APPROPRIATE INTERNATIONAL AUTHORITY ANY TECHNOLOGY THAT MIGHT ASSIST OTHERS TO MEET THEIR OBLIGATIONS AND THE RESULTS OF RESEARCH CONDUCTED PURSUANT TO THE CONVENTION. IN ADDITION TO COOPERATIVE RESEARCH, THE VANUATU INFORMAL PAPER ADVOCATED GENERAL PROVISIONS ON EDUCATION, THE ABOLITION OF COUNTERPRODUCTIVE SUBSIDIES, RENEWABLE ENERGY, AND ENERGY CONSERVATION. THE VANUATU OUTLINE FOR A CONVENTION ALSO INCLUDED SECTIONS ON A SECRETARIAT, SUBCOMMITTEES, MONITORING, COMPLIANCE AND DISPUTE SETTLEMENT.

CHINA

10. CHINA ASSOCIATED ITSELF WITH THE VIEWS OF INDIA AND VANUATU. IT ALSO NOTED THE NEED FOR DIFFERENTIATED OBLIGATIONS FOR DEVELOPING COUNTRIES, SUGGESTING THAT THE CRITERIA FOR JUDGING DIFFERENCES SHOULD BE BASED ON "RESPONSIBILITIES AND CAPABILITIES." CHINA FURTHER SUGGESTED THAT "AN APPROPRIATE LEVEL OF ECONOMIC DEVELOPMENT" IS THE PREREQUISITE FOR ADOPTING CONCRETE CONTROL MEASURES TO ADDRESS CLIMATE CHANGE. THE CHINESE PROPOSED A NEW FUNDING MECHANISM FOR THE PURPOSES OF PROVIDING FINANCIAL AND TECHNICAL ASSISTANCE. FINALLY, THE CHINESE SUGGESTED THAT DETAILS OF DIFFERENCES SHOULD BE LEFT UNTIL AGREEMENT ON BROAD PRINCIPLES COULD BE WORKED OUT.

NEW ZEALAND

11. NEW ZEALAND FOCUSED ON MONITORING, ASSESSMENT, COMPLIANCE, AMENDMENT AND OTHER INSTITUTIONAL AND LEGAL ISSUES. FOR EXAMPLE, NEW ZEALAND PROPOSED THE ESTABLISHMENT OF AN ASSESSMENT COMMITTEE TO CARRY OUT MONITORING, ASSESSMENT AND REVIEW FUNCTIONS, AND AN IMPLEMENTATION COMMITTEE TO RECEIVE NATIONAL COMPLIANCE REPORTS AND INVESTIGATE POSSIBLE NON-COMPLIANCE. BOTH COMMITTEES WOULD REPORT TO THE CONFERENCE OF THE PARTIES. NEW ZEALAND ALSO PROPOSED

COMPULSORY, BINDING DISPUTE SETTLEMENT. A PERMANENT SECRETARIAT WOULD BE ESTABLISHED TO SUPPORT THE CONFERENCE OF THE PARTIES. WHILE NOT A NECESSARY COMPONENT OF NEW ZEALAND'S PROPOSAL, THE NZ CONTINUES TO SUPPORT TARGETS AND TIMETABLES.

FRANCE

12. FRANCE PROPOSED AN ARTICLE AND ANNEXES ON NATIONAL STRATEGIES (EFFECTIVELY A FORM OF PLEDGE AND REVIEW). THEY PROPOSE THAT THE CONVENTION SET UP A REQUIREMENT THAT EACH PARTY DRAW UP A POLICY TO COMBAT CLIMATE CHANGE TO BE REVIEWED BY A SCIENTIFIC

COUNCIL OF HIGH LEVEL INDEPENDENT EXPERTS. THE STRATEGY SHOULD INCLUDE COST/BENEFIT STATEMENTS OF MEASURES, EXAMINATIONS OF ENERGY POLICIES, DESCRIPTION OF MEANS OF IMPLEMENTATION, AND AN EVALUATION OF THE RESULTS OBTAINED THROUGH THESE POLICIES. THE SCIENCE COUNCIL WOULD REVIEW THE EFFECTIVENESS AND RELEVANCE OF THE PROPOSED MEASURES, AND COULD RECOMMEND METHODS FOR STRENGTHENING THE STRATEGIES. THE FRENCH SUGGESTED THAT A SIMILAR REPORT COULD BE DRAWN UP TO EVALUATE NATIONAL MEASURES ON ADAPTATION. IN BOTH CASES, ASSISTANCE IN THE PREPARATION OF REPORTS COULD BE PROVIDED BY A

PERMANENT SECRETARIAT. FRANCE NOTED THE NEED FOR FINANCIAL ASSISTANCE AND TECHNOLOGY TRANSFER. FURTHERMORE, WHILE NOTING THE NEED FOR TARGETS AND TIMETABLES, FRANCE SUGGESTED THAT SOME MAY NOT BE ABLE TO UNDERTAKE SUCH COMMITMENTS.

NORWAY

13. THE NORWEGIANS STRESSED THE NEED FOR UNIVERSAL PARTICIPATION, WITH SPECIAL NEEDS OF CERTAIN COUNTRIES BEING HANDLED WITHIN THE CONVENTION RATHER THAN BY NON-PARTICIPATION. NORWAY PROPOSED AN INITIAL ALLOCATION OF EMISSIONS REDUCTION COMMITMENTS BASED ON LEVEL OF DEVELOPMENT. THEY ALSO STRESSED THE NEED TO CONSIDER COST-EFFECTIVENESS IN ESTABLISHING COMMITMENTS, AND A NEED FOR ADDITIONAL RESEARCH TO DEVELOP AN AGREEMENT. THEY RECOMMENDED THE HARMONIZATION OF TAXES, WHILE NOTING THE NEED TO AVOID UNFAIR DISTORTION IN TERMS OF TRADE. THE NORWEGIANS SUGGESTED EMISSIONS TRADING MIGHT BE VIABLE, PERHAPS THROUGH A CLEARING HOUSE THAT COULD ALSO ACT TO FACILITATE THE TRANSFER OF TECHNOLOGIES AND FINANCIAL RESOURCES BETWEEN COUNTRIES. THEY SUGGESTED THAT THIS PORTION OF THE CLEARINGHOUSE MIGHT BE MODELLED AFTER THE GLOBAL ENVIRONMENTAL FACILITY (GEF). THE GEF MIGHT ALSO BE TASKED WITH

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COUNTRY STUDIES TO ASSESS THE INCREMENTAL COSTS
INCURRED BY DEVELOPING COUNTRIES IN RESPONDING TO
CLIMATE CHANGE. THEY ALSO ASSERTED THAT NEW AND

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TECHNOLOGY COOPERATION

ADDITIONAL FINANCIAL RESOURCES ARE NECESSARY, EITHER
THROUGH A NEW MULTILATERAL MECHANISM OR THE GEF. THE
GON SUPPORTED A COMPREHENSIVE APPROACH TO CLIMATE
CHANGE.

SWEDEN

14. SWEDEN PROPOSED DIVIDING COUNTRIES INTO 5 OR 6
CATEGORIES BY LEVEL OF DEVELOPMENT OR OTHER SPECIAL
CIRCUMSTANCES FOR PURPOSES OF ESTABLISHING EMISSIONS
TARGETS, PARTICULARLY FOR CARBON DIOXIDE. WITHIN
FIVE YEARS OF ENTRY INTO FORCE, THE PARTIES IN THE
MOST STRINGENT CATEGORY WOULD IMPLEMENT SPECIFIC
MEASURES TO ACHIEVE EMISSIONS REDUCTIONS IN A NUMBER
OF AREAS. THIS MEASURES WOULD INCLUDE FUEL
EFFICIENCY STANDARDS, PROMOTION OF NON-FOSSIL FUELS

IN TRANSPORTATION, ENERGY EFFICIENCY STANDARDS FOR
APPLIANCES AND EQUIPMENT, TAXATION OF FOSSIL FUELS,
AND REDUCTION OF SUBSIDIES FOR FOSSIL FUELS.

JAPAN

15. JAPAN DESCRIBED A PLEDGE AND REVIEW PROCESS AS A
POSSIBLE BASIS FOR THE OBLIGATIONS IMPOSED UNDER A
CONVENTION. UNDER THE JAPANESE PROPOSAL, EACH

COUNTRY WOULD MAKE A PUBLIC PLEDGE, CONSISTING OF A
STRATEGY TO LIMIT GREENHOUSE GAS EMISSIONS, ALONG
WITH A TARGET OR ESTIMATE FOR THE EMISSIONS LEVEL
THAT WOULD RESULT FROM THE STRATEGY. PLEDGES WOULD
HAVE TO INCLUDE CONCRETE MEASURES TO EACH RELEVANT
SECTOR. A TEAM OF EXPERTS WOULD PERIODICALLY REVIEW
THE PERFORMANCE OF EACH COUNTRY, MAKE RECOMMENDATIONS
FOR IMPROVEMENT AND REPORT TO A PERMANENT REVIEW
COMMITTEE. THE RESULTS OF THE REVIEW WOULD ALSO BE
MADE PUBLIC THROUGH THE CONFERENCE OF THE PARTIES.
DEVELOPING COUNTRIES WOULD BE ALLOWED TO DELAY THEIR
PLEDGE BY ONE YEAR. FINANCIAL AND TECHNOLOGICAL
ASSISTANCE MAY NEED TO BE PROVIDED BOTH TO DO
INDIVIDUAL COUNTRY STUDIES TO DETERMINE A FEASIBLE
PLEDGE FOR DEVELOPING COUNTRIES AND TO ASSIST THEM IN
FULFILLING THAT PLEDGE.

KENYA

16. IN A REFRESHINGLY BRIEF INTERVENTION AND INFORMAL
PAPER, KENYA OUTLINED THE ELEMENTS OF A CONVENTION
WHICH THE GOK CONSIDERS DESIRABLE. THESE ELEMENTS
INCLUDE DIFFERENTIATE TIMEFRAMES FOR EMISSION
CONTROLS FOR DEVELOPED AND DEVELOPING COUNTRIES,
DEVELOPED COUNTRY SUPPORT FOR ENHANCED R&D CAPABILITY
IN DEVELOPING COUNTRIES; A NEW FINANCIAL MECHANISM
ADMINISTERED BY THE PARTIES; TRANSFER OF
ENVIRONMENTALLY SAFE TECHNOLOGY ON A PREFERENTIAL,
NON-COMMERCIAL BASIS; AN EFFECTIVE MECHANISM FOR
COMPLIANCE AND DISPUTE SETTLEMENT; AND AN INTERIM
SECRETARIAT DIRECTED BY THE UN ENVIRONMENT PROGRAMME

(UNEP)

17. AN INFORMAL MEETING OF OECD DELEGATIONS WELCOMED
THE U.S. NON-PAPER ON TECHNOLOGY COOPERATION (REFTEL)
AND GENERALLY EXPRESSED SUPPORT FOR THE CONCEPT.
OTHER DELEGATIONS BASICALLY ELABORATED POINTS IN THE
U.S. NON-PAPER. FOR EXAMPLE, FRANCE, JAPAN AND
AUSTRALIA ARGUED FOR SUB-REGIONAL STUDIES AS A
SUBSTITUTE FOR COUNTRY STUDIES IN SOME CASES.

18. SEVERAL DELEGATIONS, E.G. JAPAN AND FINLAND,
ARTICULATED THE VIEW THAT COUNTRY STUDIES COULD BE
INDEPENDENT OF THE NEGOTIATIONS. STUDIES COULD BEGIN
WITHOUT FORCING THE INC TO ADDRESS THE LONG TERM
STRUCTURE OF TECHNOLOGY COOPERATION IN A CONVENTION.

IF COMPLETED IN SIX MONTHS, STUDIES BEGUN NOW WOULD
PROVIDE USEFUL INFORMATION TO THE INC. MEANWHILE,
NEGOTIATORS COULD CONSIDER ELEMENTS OF TECHNOLOGY
COOPERATION AT A MORE DELIBERATE PACE.

19. SOME DELEGATIONS EMPHASIZED THE NEED TO INCLUDE
DEVELOPING COUNTRIES IN FUTURE DISCUSSIONS OF

TECHNOLOGY COOPERATION AND OF THE COUNTRY STUDY
PROCESS. OTHERS FELT IT WOULD BE BETTER TO APPROACH
POTENTIALLY INTERESTED DEVELOPING COUNTRIES
INDIVIDUALLY. A MEETING WITH DEVELOPING COUNTRIES IS
BEING CONSIDERED.

INSTITUTIONAL ARRANGEMENTS

20. ONCE IT BECAME CLEAR THAT THE ISSUE OF WORKING
GROUP CHAIRS WAS GOING TO BE RESOLVED, A SMALL GROUP
OF OECD COUNTRIES MET INFORMALLY TO DISCUSS THE
ISSUES OF INSTITUTIONAL ARRANGEMENTS EXPECTED TO
ARISE IN WGII. SEVERAL COUNTRIES STRONGLY EMPHASIZED
THAT RESPONDING TO CLIMATE CHANGE WILL REQUIRE NEW
ORGANIZATIONS AND/OR INSTITUTIONS; MOST INFORMAL
PAPERS CONTAINED PROVISIONS TO ESTABLISH PERMANENT
SECRETARIATS AND SUBGROUPS OF THE CONFERENCE OF THE
PARTIES. IT WAS ALSO WIDELY NOTED THAT MANY OF THE
PROPOSALS FOR SCIENTIFIC REVIEW AND/OR
IMPLEMENTATION COMMITTEES UNDER THE CONFERENCE OF THE
PARTIES COULD POSSIBLY IMPINGE ON THE
INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE.

WORKING GROUPS UNDERWAY

21. ONCE THE WORKING GROUP CHAIRS WERE FORMALLY
ADOPTED, WG1 MET BRIEFLY AND AGREED TO BEGIN

DISCUSSING GENERAL OBLIGATIONS NEXT WEEK. THE CHAIRS
WILL ALTERNATE DAILY. THE ISSUE OF LINKING THE
EFFORTS OF WG1 AND WGII WILL BE ADDRESSED THROUGH
REGULAR MEETINGS OF THE CO-CHAIRS OF THE WGS AND INC
BUREAU. WGII ALSO MET TO DISCUSS ORGANIZATION OF ITS
WORK. ITS CO-CHAIRS ANNOUNCED
THAT RATHER THAN DIVIDE THE WORK BY ISSUES THEY WILL
INSTEAD CHAIR EACH MEETING TOGETHER. THE GROUP MET

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TELEGRAM

Department of State

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INFORMALLY ON SATURDAY TO REVIEW A DRAFT WORKPLAN
THAT HAD BEEN PREPARED BY THE INC AND WORKING GROUP
CHAIRS. IN THE INFORMAL MEETING, MANY DELEGATIONS
EXPRESSED STRONG RESERVATION ABOUT DISCUSSING
DEFINITIONS, PRINCIPLES AND PREAMBLE IN WGII (AS
SUGGESTED IN THE DRAFT WORKPLAN) BEFORE THERE IS SOME
AGREEMENT IN WG1 ON COMMITMENTS. ABRAM

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UNITED STATES MISSION TO INTERNATIONAL ORGANIZATIONS
GENEVA, SWITZERLAND

INTERGOVERNMENTAL NEGOTIATING COMMITTEE (INC)
Second Session
Geneva 1991

Number of pages, including coversheet 3

DATE: June 26, 1991

FROM: Robert A. Penstein

TO: Andrew Card

INC Delegation

White House

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TEL: (202) 456-2533

M E S S A G E

Nations were invited to submit lists of principles to the INC secretariat. Using primarily our previous submission to the INC, we drafted and submitted the following principles.

CSTP - Nancy Maynard (202) 395-3719

OES/EGC - Dan Reifsnyder (202) 647-~~0191~~

PRINCIPLES
for a
FRAMEWORK CONVENTION ON CLIMATE CHANGE

Submitted by the United States

The Framework Convention on Climate Change should:

- 1) be global, acknowledging that climate change is a common concern of the international community and that all nations need to participate in any international response, in accordance with the means at their disposal and their capabilities.
- 2) respect national autonomy in accordance with Principle 21 of the Stockholm Declaration, recognizing that nations have different social, economic and other circumstances, including different sets of net greenhouse gas emissions, and need flexibility in the choice of any response options.
- 3) be comprehensive, recognizing that several greenhouse gases, each with different impacts on the environment, arise from numerous human activities and natural processes worldwide; and that strategies to understand and address climate change will be most environmentally effective and economical if they encompass all the greenhouse gases, their sources and sinks.
- 4) be flexible, recognizing that strategies to understand and address climate change will be most environmentally effective and most economical if they are based on, and continually reevaluated in light of, relevant scientific, technical, and economic considerations.
- 5) foster global stewardship, recognizing the interdependence of environmental protection and economic growth, and the need to pursue strategies that advance both goals if we are to protect global resources for present and future generations.
- 6) reflect the long term nature of climate change, building the knowledge, technology and resources needed to achieve sustainable development.

- 2 -

- 7) spur needed technologies through technology cooperation and appropriate incentives for their development and dissemination, including adequate and effective protection of intellectual property rights.
- 8) foster international cooperation, enabling cooperative arrangements for understanding and addressing potential climate change in the most effective and efficient manner.
- 9) recognize and encourage other measures that may be taken, are being taken or have already been taken at the national, regional and international levels that help address the issue of climate change.
- 10) encourage nations to use market mechanisms, as appropriate, to foster expanding free trade and to achieve cost-effective results.
- 11) promote sound science and economics, encouraging appropriate bodies to undertake vigorous research, systematic observation and analysis, including full and open exchange of data among parties and cooperation among all nations.
- 12) take a precautionary approach, reaffirming that lack of full scientific certainty should not be used as a reason for postponing measures that are commensurate with the expected extent and likelihood of any adverse impact of climate change, that reflect the costs and benefits of such measures, and that are directed, as appropriate, towards understanding, limiting, reducing, adapting to or preventing such adverse impacts.
- 13) foster an open process, allowing appropriate input from non-governmental organizations, public access to decision-making deliberations where appropriate, and outreach and education of the interested global citizenry.

THE WHITE HOUSE

WASHINGTON

June 14, 1991

MEMORANDUM FOR JOHN SUNUNU

FROM: D. ALLAN BROMLEY 

SUBJECT: Global Change Mitigation

At the risk of overloading your level of tolerance for paper, I thought that you might like to at least have file copies of the enclosed material.

1. The NAS today released its detailed backup report on this topic. You will recall that Dan Evans' Synthesis Panel emphasized that their short document released earlier reflected some - but not necessarily all - of the more detailed reports. In this case a quick look suggests that there are no hidden bombs and that the short Evans' document in its Chapter 6 contains everything of importance.

2. The material distributed at today's press conference featuring Lee, Marland and Rosenfeld. Lee's statement is all that I would ever suggest you read.

3. For your reference only, a copy of our OSTP 4-10-91 Fact Sheet referring to the Evans Report. It remains valid.

4. The paper "The Global Temperature Record for 1990" by Jones and Wigley. Figures 1, 2 and 3 are interesting.

5. The DOE statement of Peter B. Saba relative to HR 1301. - "The National Energy Strategy Act." I do not believe that this has received OMB clearance as yet but it has interesting sections.

6. Just in case you happen to be in New Hampshire, the program of the 1991 Gordon Conference on Atmospheric Chemistry. The speakers include the best people in the mainstream of current research in the field.

Again my apologies for the sheer bulk of this and you should discard freely. The bottom line is that nothing much new has happened since release of the Evans' report.

PREPUBLICATION MANUSCRIPT

POLICY
IMPLICATIONS OF
GREENHOUSE
WARMING

*Report of the
Mitigation Panel*

NAS
NAE
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PUBLIC BRIEFING

POLICY IMPLICATIONS OF GREENHOUSE WARMING
Report of the Mitigation Panel

Committee on Science, Engineering, and Public Policy

NATIONAL ACADEMY OF SCIENCES
NATIONAL ACADEMY OF ENGINEERING INSTITUTE OF MEDICINE

10:00 a.m. Friday, June 14, 1991
Members' Room, National Academy of Sciences building
2100 C Street, N.W., Washington, D.C.

Participants

Thomas H. Lee (committee chair), professor emeritus, department of electrical engineering and computer science, Massachusetts Institute of Technology, Cambridge

Gregg Marland, scientist, environmental science division, Oak Ridge (Tenn.) National Laboratory

Arthur H. Rosenfeld, professor of physics and director, Center for Building Science, Lawrence Berkeley Laboratory, University of California, Berkeley

4-10-91

FACT SHEET

The recent National Academy of Sciences (NAS) report on climate change is not inconsistent with the Administration's approach to this important issue and is a contribution to our growing understanding of global climate change. The study, "Policy Implications of Greenhouse Warming," summarizes the science and the limitations of our knowledge and recommends a number of actions that could be taken to meet the challenge of climate change. It highlights the uncertainties in modeling and the current inconsistencies between trends in temperature and accumulation of greenhouse gases. In setting a least cost hierarchy, it rejects options requiring great expense.

- o Bush Administration policies, including measures enacted in the Clean Air Act and proposed in the National Energy Strategy, are projected to stabilize U.S. greenhouse gas emissions through the year 2030 at current levels, even accounting for growth in economic activity. The NAS study calls for a 10 to 40 percent reduction in greenhouse gas emissions at a constant 1990 activity level. Using the NAS static assumptions ("no-growth") approach, which does not factor economic growth into the greenhouse emissions calculation, Administration policies will yield greenhouse emissions reductions comfortably within the range advocated by the NAS study.
- o Targets and timetables for the future reduction or limitation of greenhouse gases as an aggregate, or of carbon dioxide alone, are not advocated by the NAS study.
- o Elements of the comprehensive approach, endorsed by the Administration, are highlighted. The study considers climate change in terms of all greenhouse gases (using CO₂ equivalent), not CO₂ alone, and the contribution of CFCs, which are important greenhouse gases.
- o The Administration's policies address all greenhouse gases. Precursors of ozone and nitrogen oxides are controlled in the Clean Air Act. Methane will be reduced by proposed rules on landfill emissions. CO₂ will be reduced by various energy efficiency measures and by the powerful incentives from the Clean Air Act's caps on utility emissions plus the flexibility allowed in achieving those caps. CO₂ will also be reduced by tree planting. CFCs will be phased out by the Clean Air Act's provisions. A tax on production during the phase-out will accelerate these reductions.
- o Efforts to limit deforestation, and modest domestic and international reforestation efforts, are recommended in the NAS report. The Administration has proposed a multi-year reforestation proposal to plant one billion trees per year on 1.5 million acres, and to improve forest management practices. The United States also supports debt-for-nature swaps, and is active in pushing for a global forestry agreement.

DOE RESEARCH SUMMARY

Current Research Sponsored by the
U. S. Department of Energy's
Carbon Dioxide Research Program

No.10
April 1991

THE GLOBAL TEMPERATURE RECORD FOR 1990

Philip D. Jones and Tom M. L. Wigley

Climatic Research Unit, University of East Anglia

Monitoring the current state of the Earth's climate has become increasingly important as political attention has turned to the global warming issue. The last 10 years have brought considerable media attention to the average global mean temperature. The 1980s were a decade of unprecedented warmth, with 1990 the warmest year since comparable records began in the middle of the 19th century.

Estimation of monthly and annual *global* temperature is best achieved by using measurements taken over both land surfaces and marine surfaces around the world. At best, land data cover less than 30% of the Earth's surface, but they may be considered representative of larger areas because temperature data are quite strongly spatially correlated (that is, missing data from areas without measurements may be estimated from nearby stations). Even with both land and marine data, however, gaps in coverage still occur, particularly for some Southern Ocean regions between 40°S and 65°S. These gaps in the combined data set arise because we use only in situ measurements.

More complete coverage could be obtained by incorporating satellite data, which extend back to the late 1970s (e.g., Reynolds 1988; Spencer and Christy 1990), but these data series are short and it is not always clear how to relate the satellite measurements to conventional readings. In time it should be possible to blend satellite data and data on surface temperatures satisfactorily for the whole globe [as Reynolds (1988) has done for sea-surface temperatures]. To detect greenhouse effects, however, long-term records of climate are required, and until the satellite and conventional data have been satisfactorily blended, we must rely on the surface temperature data.

Long-term series of hemispheric and global mean temperatures are fraught with problems related to the homogeneity of the land and marine data. For a complete discussion of the many problems, the reader is referred to earlier papers (see, for example, Jones et al. 1986a, 1986b; Jones et al. 1990; Jones and Wigley 1990; Jones et al. 1991). Many of the problems addressed by these papers are related to the long-term record and are less important when changes in the recent past are considered.

By careful analysis of the raw data and by the use of different techniques, the long-term homogeneity problems can be minimized. We can then estimate annual mean hemispheric and global temperatures back to the late 19th century with considerable reliability. The full record, which extends back to 1854, is less reliable before circa 1890. Figure 1 shows the full time series, from which it is clear that average global temperatures have warmed by about 0.5°C over the past 100 years. The warmth of the recent decade is most striking:

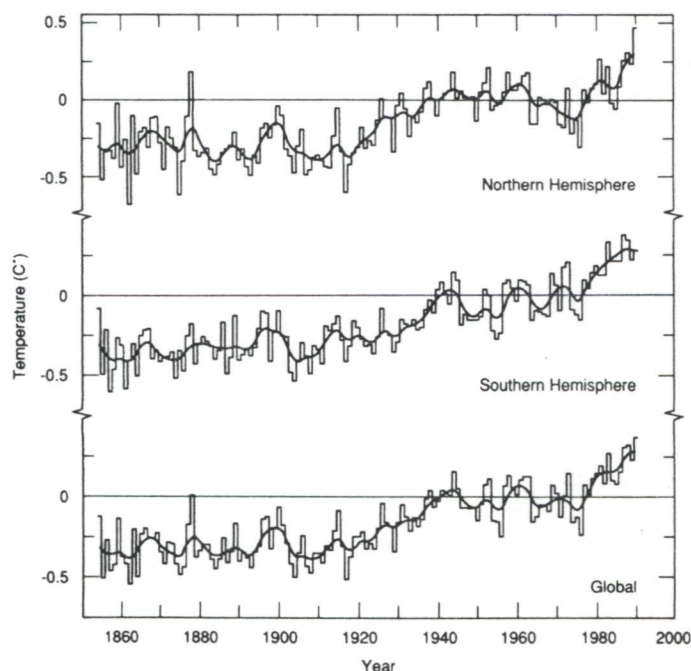


Fig. 1. Hemispheric and global average annual mean temperatures for land-plus-marine regions, 1854–1990. Data are expressed as departures from the 1950–79 average. The smooth curve is a 10-year Gaussian filter designed to highlight variations on decadal time scales.



CDIAC

Carbon Dioxide Information Analysis Center
Oak Ridge National Laboratory

To: Karl Erb / Nancy Maynard

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503

JUN 14 1991

LEGISLATIVE REFERRAL MEMORANDUM

*Please
coordinate
among yourselves.*

LRM #I-816

TO: Legislative Liaison Officer -

AGRIC-CR - Cindy Ayers (all testimony) - 447-9201 - 230
COMMERCE - Michael A. Levitt - 377-3151 - 324
DEFENSE - Samuel T. Brick, Jr. - 697-1305 - 325
INTERIOR - Pam Somers - 208-6706 - 329
JUSTICE - Paul McNulty - 514-2061 - 217
STATE - Will Davis - 647-4463 - 225
TRANSPORTATION - Tom Herlihy - 366-4687 - 226
CEA - Francine Obermiller - 395-5036 - 242
CEQ - Larry Flick - 395-5750 - 256
EPA - Thomas C. Roberts - 382-5414 - 326
NASA - Martin P. Kress - 453-1948 - 219
NSF - Charles H. Herz - 357-9435 - 248
OSTP - Damar Hawkins - 456-6272 - 288

SUBJECT: ENERGY Proposed Testimony RE: HR 1301,
"National Energy Strategy Act"

This testimony deals with the effect of the
National Energy Strategy on Greenhouse Gas
Emissions

DEADLINE: 12 NOON JUN 17 1991

The Office of Management and Budget requests the views of your
agency on the above subject before advising on its relationship to
the program of the President, in accordance with OMB Circular A-19.

Please advise us if this item will affect direct spending or
receipts for purposes of the "Pay-As-You-Go" provisions of Title
XIII of the Omnibus Budget Reconciliation Act of 1990.

Questions should be referred to Holly FITTER (395-6194),
the legislative analyst/attorney in this office or to Norman
HARTNESS (395-6840).

*28 page
att*

THE 1991 ATMOSPHERIC CHEMISTRY GORDON RESEARCH CONFERENCE

THEME: "THE ATMOSPHERIC CHEMISTRY COMPONENTS OF GLOBAL CHANGE"

CO-CHAIRMEN: M.J. Molina, MIT and C.E. Kolb, Aerodyne Research, Inc.

LOCATION: New Hampton School, New Hampton, NH

DATES: June 17-21, 1991

PROGRAM

I. Global Distributions and Trends of Atmospheric Species

Discussion Leader: R.J. Cicerone
Dept. of Geosciences
U. California, Irvine

- a. Distributions and Trends of Greenhouse Gases and Related Tracers -
P.J. Fraser, Div. Atmospheric Research, CSIRO.
- b. Distributions, Trends, and Analysis of Atmospheric Chlorine
Compounds - R.G. Prinn, Dept. of Earth, Atmospheric and
Planetary Sciences, M.I.T.
- c. Distributions and Trends of Tropospheric Ozone - J. Fishman,
NASA Langley Research Center.
- d. Assessment of Instrumentation Requirements for Stable Gas Trends and
Distribution Studies - J.W. Elkins, NOAA Climate Modeling and
Diagnostics Laboratory.

II. Surface Exchange Fluxes of Trace Species

Discussion Leader: B.B. Hicks
NOAA Air Resources Laboratory

- a. Trace Gas Exchange in Tundra and Boreal Forests - R.C. Harriss,
Institute for Study of Earth, Oceans, and Space,
U. New Hampshire.
- b. Trace Gas Exchange in Temperate Forests - S.C. Wofsy, Dept. of Earth
and Planetary Sciences, Harvard U.

THE WHITE HOUSE
WASHINGTON

June 25, 1991

MEMORANDUM FOR JOHN H. SUNUNU

FROM: D. ALLAN BROMLEY *DA*
SUBJECT: GENEVA NEGOTIATING SESSIONS
GLOBAL CHANGE FRAMEWORK

Enclosed is a status report on the above that I thought you might find of interest.

Bob Reinstein of State is, in my opinion, doing an excellent job. Happily, other nations are now advancing our points of view so that we can keep a lower profile while getting what we want and operating behind the scenes.

The chairmen noted in Item 1 from Mexico, Canada, and Vanuatu (representing the island state) are all known to us and are excellent; the latter is a New York-trained lawyer!

The "Organization of Work" evolved by the UN Secretariat group known as INC caused us very real heartburn and its replacement is a major achievement for us.

I shall keep you informed.

Enclosures

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

June 24, 1991

MEMORANDUM FOR D. ALLAN BROMLEY

FROM: NANCY G. MAYNARD 
SUBJECT: INC Framework Convention Negotiations Update

The purpose of this memo is to provide a status report on the second negotiating session of the Framework Convention on Climate Change (Intergovernmental Negotiating Committee - INC) presently underway in Geneva. This session started on June 19, 1991 and is anticipated to continue until June 28, 1991.

Despite the slow pace of events, Reinstein was quite pleased at the general outcome of the meeting so far and gave the following summary of the progress to date:

1. Election of Working Group Chairs

Late on Friday, June 21, the group resolved the issue of working group chairs by electing co-chairs for each of the two working groups.

Working Group I. Commitments. Japan and Mexico

Working Group II. Mechanisms. Canada and Vanuatu.

These choices are viewed very favorably by the US. In particular, the individuals from Mexico, Canada, and Vanuatu are all well-qualified and each is known to be skilled at chairing meetings.

2. Organization of Work

The INC Secretariat-proposed "Organization of Work" (to be used "to assist the Committee and its working groups in organization of their work") which was discussed at the Global Change Strategy Task Force meeting on June 12 was discarded after considerable discussion among the participants. Instead, the working groups will organize their work around the paragraphs agreed to in Chantilly in February at the First Negotiating Session. (Tab A)

3. Technology Cooperation

In preparation for these upcoming negotiating sessions, the US had initiated an interagency consideration of how to approach the issue of technology cooperation (technology transfer). The US prefers the term "technology cooperation" because it suggests a two-way process in which parties identify individual and common interests to share information, knowledge, know-how, equipment, and management skills.

On June 4, DOS sent a cable to a large number of countries outlining some initial US thinking on the subject and requesting that posts gather information and reactions from host governments on (a) how we might define a country study process and (b) inventory climate change related technology cooperation. (Tab B)

The concept has been well-received among a number of countries and the US has earned some good will (from countries and from industry) for informally proposing this concept. There have evidently been some fruitful discussions among countries at the negotiations on the development of this approach to technology transfer.

4. Other comments

So far, the US appears to have been maintaining a low profile, and they report a generally positive attitude towards the US by other delegations.

The environmental newspaper, "Eco", ran a very anti-US article on the first day of the conference which, in turn, generated some negative press. However, that "Eco" story was merely a reflection of that paper, not of the deliberations of the negotiating session.

It is anticipated that once the Working Groups get underway in their discussions of the hard issues this week, that there will be some difficult sessions. Working Group I, "Commitments", will now have to address the tough issues of emissions limitation and reduction, funding, technology transfer, etc.

A reporting cable is due in today which should have more detailed information on both last week's actions as well as what is expected for this week. I will forward that cable to you as soon as it is available.

A. Working Group I: Commitments

6. Working Group I will prepare a text related to:

(a) Appropriate commitments, beyond those required by existing agreements, for limiting and reducing net emissions of carbon dioxide and other greenhouse gases, on the protection, enhancement and increase of sinks and reservoirs, and in support of measures to counter the adverse effects of climate change, taking into account that contributions should be equitably differentiated according to countries' responsibilities and their level of development;

(b) Appropriate commitments on adequate and additional financial resources to enable developing countries to meet incremental costs required to fulfil the commitments referred to above and to facilitate the transfer of technology expeditiously on a fair and most favourable basis;

(c) Commitments addressing the special situation of developing countries, taking into account their development needs, including, inter alia, the problems of small island developing countries, low-lying coastal areas and areas threatened by erosion, flooding, desertification and high urban atmospheric pollution; also taking into account the problems of economies in transition.

B. Working Group II: Mechanisms

7. Working Group II will prepare a text related to:

(a) Legal and institutional mechanisms, including, inter alia, entry into force, withdrawal, compliance and assessment and review;

(b) Legal and institutional mechanisms related to scientific co-operation, monitoring and information;

(c) Legal and institutional mechanisms related to adequate and additional financial resources and technological needs and co-operation, and technology transfer to developing countries corresponding to the commitments agreed to in Working Group I.

III. PROCEDURAL POINTS

8. There will be no more than two meetings held at any one time within the Intergovernmental Negotiating Committee.

9. There will be no inter-sessional meetings of the Intergovernmental Negotiating Committee Working Groups or any subgroups.

10. All drafting is to be done by each Working Group, within the framework of its mandate, subject to any subsequent need for harmonization.

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TELEGRAM

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DRAFTED BY: OES/EGC: SSKINNEY
APPROVED BY: OES/E: RAREINSTEIN
OES/EGC: DAREIFSNYDER
EPA: PSCHWENGELS/TIRPAK/HECHT
DOE: TWILLIAMS
AID: GKAMENS
CEQ: JELKIND
CEA: HGRUENSPECHT
NASA: RWATSON
DOJ: JWIENER
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TAGS: SENL ENRG-ETRD-ETRD-ETRD-KSCA INC

SUBJECT: CLIMATE CHANGE PROMOTING TECHNOLOGY COOPERATION

REF: (A) STATE 145237Z NOTAL

USEC/USOED ALSO FOR EMBASSY

THIS IS AN ACTION CABLE.

1. SUMMARY: IN PREPARATION FOR UPCOMING NEGOTIATING SESSIONS ON CLIMATE CHANGE, DEPARTMENT HAS INITIATED INTER-AGENCY CONSIDERATION OF HOW TO APPROACH THE ISSUE OF TECHNOLOGY COOPERATION, A.K.A. TECHNOLOGY TRANSFER. WE PREFER THE TERM TECHNOLOGY COOPERATION BECAUSE IT SUGGESTS A TWO WAY PROCESS IN WHICH PARTIES IDENTIFY INDIVIDUAL AND COMMON INTERESTS TO SHARE INFORMATION, KNOWLEDGE, KNOW-HOW, EQUIPMENT, AND MANAGEMENT SKILLS.

TECHNOLOGY TRANSFER SUGGESTS A MORE LIMITED, ONE WAY PROCESS IN WHICH ONE GIVES AND THE OTHER RECEIVES. TECHNOLOGY COOPERATION RECOGNIZES THE MUTUALITY OF INTERESTS IMPLICIT IN ANY SUCCESSFUL SHARING OF KNOWLEDGE AND KNOW-HOW.

WE BELIEVE IT WOULD BE HELPFUL TO DEVELOP AMONG DONOR NATIONS A COMMON APPROACH TO THE ISSUE OF TECHNOLOGY COOPERATION. TO DO THIS WE BELIEVE WE NEED TO START BY CONCEPTUALIZING WHAT IS NEEDED IN THE WAY OF COUNTRY STUDIES AND IDENTIFYING CURRENT INTERNATIONAL RESOURCES DEDICATED TO AND/OR AVAILABLE FOR PROMOTING TECHNOLOGY COOPERATION RELATED TO CLIMATE CHANGE. THIS CABLE

OUTLINES SOME INITIAL U.S. THINKING ON THESE SUBJECTS AND REQUESTS POSTS OBTAIN INFORMATION AND REACTIONS FROM MOST GOVERNMENTS ON HOW WE MIGHT DEFINE A COUNTRY STUDY PROCESS AND INVENTORY CLIMATE CHANGE RELATED TECHNOLOGY COOPERATION. POSTS ARE REQUESTED TO PROVIDE RESPONSES TO QUESTIONS POSED IN NON-PAPER BELOW. THERE IS AN ADDITIONAL ACTION REQUEST IN LAST PARAGRAPH. END SUMMARY.

BEGIN FYI FOR POSTS ONLY:

2. INTER-AGENCY INITIATIVE:

THE DEPARTMENT HAS ESTABLISHED A TECHNOLOGY COOPERATION (TC) SUB-GROUP UNDER THE INTER-AGENCY OES POLICY COORDINATING COMMITTEE WORKING GROUP (PCCWG) ON CLIMATE.

THE PURPOSE OF THE SUB-GROUP, AMONG OTHER THINGS, IS TO DEVELOP A BETTER UNDERSTANDING OF WHAT ACTIVITIES SHOULD BE INCLUDED IN THE CLIMATE CHANGE COUNTRY STUDY PROCESS, TO INVENTORY U.S. RESOURCES AND PROGRAMS ADDRESSING RELATED TECHNOLOGY COOPERATION, AND TO IDENTIFY HOW THESE

EXISTING RESOURCES AND ACTIVITIES MIGHT BE USED TO SUPPORT A BETTER COORDINATED AND TARGETED EFFORT. IF APPROPRIATE, WE WOULD LIKE TO INITIATE INFORMAL DISCUSSIONS WITH OTHER INTERESTED INDUSTRIALIZED COUNTRY REPS ON APPROACHES TO TECHNOLOGY COOPERATION ISSUES. THIS MIGHT BE DONE ON THE MARGINS OF THE NEXT SESSION OF THE INTERGOVERNMENTAL NEGOTIATING COMMITTEE (INC) ON CLIMATE CHANGE, WHICH WILL TAKE PLACE IN GENEVA, JUNE 19-29. WE BELIEVE POSTS CAN MAKE AN IMPORTANT CONTRIBUTION TO THE DEVELOPMENT OF THIS COORDINATION INITIATIVE.

END FYI FOR POST ONLY

BEGIN NON-PAPER

1. TOWARD A COMMON APPROACH TO PROMOTE TECHNOLOGY COOPERATION

1. WE BELIEVE IT WOULD BE HELPFUL TO SHARE WITH SELECTED COUNTRIES SOME OF OUR INITIAL THINKING ON THE ISSUE OF TECHNOLOGY COOPERATION IN HOPE THAT THEY MIGHT SHARE SIMILAR INFORMATION AND THINKING WITH US. WE BELIEVE THAT THE EVOLUTION OF A COMMON APPROACH TO THE QUESTION OF TECHNOLOGY COOPERATION AS IT RELATES TO CLIMATE CHANGE WOULD HELP MOVE FORWARD NEGOTIATIONS ON THIS ISSUE, AND WE STAND READY TO WORK WITH COLLEAGUES TO THIS END.

2. WE USE THE TERM TECHNOLOGY COOPERATION RATHER THAN TECHNOLOGY TRANSFER BECAUSE WE BELIEVE THE LATTER TERM

DEFINES THE TECHNOLOGY ISSUE TOO NARROWLY. TECHNOLOGY TRANSFER SUGGESTS A LIMITED, ONE WAY ACTION THROUGH WHICH ONE GIVES AND ANOTHER RECEIVES. BUT THE ISSUE IS MUCH BROADER. THE TERM TECHNOLOGY COOPERATION SEEMS TO DESCRIBE MORE ACCURATELY THE PROCESS BY WHICH TWO OR MORE PARTIES IDENTIFY INDIVIDUAL AND COMMON INTERESTS TO SHARE INFORMATION, KNOWLEDGE, KNOW-HOW, EQUIPMENT, TECHNICAL PROCESSES, AND MANAGEMENT SKILLS. TECHNOLOGY COOPERATION RECOGNIZES THE DYNAMIC PROCESS AND MUTUALITY OF INTERESTS IMPLICIT IN ANY SUCCESSFUL SHARING OF KNOWLEDGE AND KNOW-HOW.

3. BELOW WE OUTLINE SOME INITIAL U.S. THINKING ON THE SUBJECT OF TECHNOLOGY COOPERATION IN THE HOPE OF

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STIMULATING FURTHER THINKING, INFORMATION GATHERING, AND DISCUSSION ON THIS IMPORTANT ISSUE. IF INTEREST WARRANTS, THE U.S. WOULD BE PREPARED TO MEET INFORMALLY ON THE MARGINS OF THE JUNE INC WITH INTERESTED COUNTRIES TO DISCUSS HOW EFFORTS AND RESOURCES CURRENTLY DEDICATED TO CLIMATE CHANGE TECHNOLOGY COOPERATION MIGHT BE BETTER COORDINATED. IF AGREED, WE MIGHT DISCUSS HOW THE COUNTRY STUDY APPROACH FOR CLIMATE CHANGE WILL NEED TO DIFFER FROM PREVIOUS EXPERIENCE, WHAT WILL BE REQUIRED IN THE CLIMATE CHANGE CONTEXT, WHICH DEVELOPING COUNTRIES MIGHT BE BEST SUITED TO HELP DEVELOP A MODEL APPROACH, AND WHAT FINANCIAL ASSISTANCE WITHIN EXISTING RESOURCES MIGHT BE AVAILABLE TO UNDERWRITE SUCH PILOT WORK. HAVING BEGUN AN INVENTORY OF U.S. RESOURCES DEDICATED TO CLIMATE CHANGE TECHNOLOGY COOPERATION, WE WOULD LIKE TO DISCUSS THE UTILITY OF THIS CONCEPT WITH OTHER COUNTRIES AND INVITE THEM TO HELP DEVELOP AN INTERNATIONAL INVENTORY.

II. PRIORITIES

1. U.S. DISCUSSION ON TECHNOLOGY COOPERATION HAS THUS FAR FOCUSED ON FOUR PRIORITIES:

- 1) THE NEED TO CLARIFY AND DEFINE A COUNTRY STUDY PROCESS;
- 2) THE NEED TO INVENTORY EXISTING TECHNOLOGY COOPERATION PROGRAMS AND RESOURCES AT HOME AND ABROAD; 3) THE NEED TO IDENTIFY HOW EXISTING RESOURCES DEVOTED TO TECHNOLOGY COOPERATION MIGHT BE BETTER COORDINATED AND UTILIZED; AND
- 4) THE NEED TO IDENTIFY RESOURCES AND/OR SERVICES THAT MIGHT BE NEEDED FROM EXISTING RESOURCES.

III. COUNTRY CASE STUDIES: THE NEED FOR A PROCESS

1. WE BELIEVE THAT THE FIRST STEP IN ANY TECHNOLOGY COOPERATION INITIATIVE IS TO ESTABLISH WHAT KIND OF COOPERATION, INCLUDING TECHNOLOGY TRANSFER NEEDS, IS REQUIRED. IMPLEMENTATION OF AN EXPANDED, MULTIFACETED COUNTRY STUDY PROCESS CAN BE OF SIGNIFICANT HELP IN THIS REGARD. FIRST, THE STUDIES THEMSELVES ARE A FORM OF "TECHNOLOGY", TRANSFERRING DATA, EXPERTISE AND ANALYTICAL CAPABILITIES TO THE HOST COUNTRIES. THIS WILL ALLOW THEM TO CARRY OUT IMPROVED ANALYSES OF THEIR OWN OPTIONS AND NEEDS IN THE FUTURE. SECONDLY, THE COUNTRY STUDIES WILL DEVELOP A CLEAR, CONSISTENT AND CREDIBLE BASIS FOR

ESTABLISHING TECHNOLOGY IMPLEMENTATION GOALS, OR ACTION PLANS, AND DEFINING THE POLICY, LOCAL IMPLEMENTATION AND INTERNATIONAL COOPERATION WHICH ARE REQUIRED TO ACHIEVE THESE GOALS.

2. WE BELIEVE THAT THE COUNTRY STUDY PROCESS MAY NEED TO BE QUITE DETAILED AND MAY USEFULLY BE BROKEN DOWN INTO THREE MAJOR COMPONENTS: COMPREHENSIVE INVENTORIES OF NET EMISSIONS TAKING A SECTORAL APPROACH; BROAD RESPONSE STRATEGY ANALYSES, AND DETAILED ASSESSMENTS OF IMPLEMENTATION NEEDS FOR SELECTED STRATEGIES:

-- EMISSIONS INVENTORIES ARE RELATIVELY STRAIGHTFORWARD, BUT PROVIDE AN ESSENTIAL BASIS FOR EVALUATING A RANGE OF SCENARIOS OF FUTURE EMISSIONS AND STRATEGIES FOR RESPONSE.

-- RESPONSE STRATEGY ANALYSES NEED TO EVALUATE ON A CONSISTENT BASIS A WIDE RANGE OF POSSIBLE TECHNOLOGY AND POLICY ACTIONS ACROSS DIFFERENT GASES AND SECTORS. THIS ANALYSIS SHOULD PROVIDE A FRAMEWORK FOR DEVELOPING AND

EASTERN EUROPEAN COUNTRIES TO MAKE JUDGEMENTS CONCERNING THE MOST COST EFFECTIVE AND FEASIBLE OPTIONS FOR REDUCING EMISSIONS.

-- IMPLEMENTATION NEEDS ASSESSMENTS WOULD CARRY OUT A DETAILED ASSESSMENT OF WHAT IS REQUIRED TO IMPLEMENT COMPONENTS OF A DESIRED STRATEGY. THESE ASSESSMENTS WOULD FORM THE BASIS OF AN ACTION PLAN. THEY WOULD CLEARLY INCLUDE NEEDED POLICY CHANGES, TECHNOLOGY, TRAINING, TECHNICAL ASSISTANCE, AND OTHER REQUIREMENTS RELATED TO IMPLEMENTATION. THEY MIGHT ALSO IDENTIFY TECHNOLOGY

COOPERATION RESOURCES WHICH COULD BE USEFUL IN IMPLEMENTING A DESIRED STRATEGY.

3. ECONOMIC FEASIBILITY AND COST/BENEFIT FACTORS WOULD BE IMPORTANT CONSIDERATIONS OF BOTH THE STRATEGY ANALYSES AND IMPLEMENTATION NEEDS ASSESSMENTS. THE STRATEGY AND NEEDS ASSESSMENT WOULD PROVIDE INFORMATION ESSENTIAL TO THE DEVELOPMENT OF A NATIONAL ACTION PLAN, AS WELL AS HELP BEGIN TO ASSESS THE RANGE OF POTENTIAL COSTS ASSOCIATED WITH THE ACTION PLAN.

4. THE CONCEPT OF COUNTRY STUDIES FOR EASTERN EUROPEAN AND DEVELOPING COUNTRIES HAS RECEIVED STRONG SUPPORT IN RECENT MEETINGS OF THE INC AND THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), BUT THE CONCEPT REMAINS ILL-DEFINED. SUCH STUDIES PROVED EXTREMELY USEFUL IN THE MONTREAL PROTOCOL PROCESS, AND IT IS ASSUMED THAT AN EXPANDED COUNTRY STUDY APPROACH COULD PLAY AN IMPORTANT ROLE IN THE CLIMATE CHANGE CONTEXT. HOWEVER, THE CONCEPT OF A SINGLE STUDY PER COUNTRY MAY NEED TO BE REPLACED BY THE CONCEPT OF A COUNTRY STUDY PROCESS COMPOSED OF SEVERAL PHASES AIMED AT THE DEVELOPMENT OF NATIONAL ACTION PLANS.

5. LESSONS LEARNED FROM THE MONTREAL PROTOCOL PROCESS:

5A. UNDER THE MONTREAL PROCESS, INDUSTRIALIZED COUNTRIES VOLUNTEERED TO ASSIST ONE OR MORE DEVELOPING COUNTRIES IN ASSESSING THEIR TECHNOLOGY NEEDS AND ASSOCIATED INCREMENTAL COSTS. A WORKSHOP OF PARTICIPATING COUNTRIES SPONSORED BY EPA HELPED ESTABLISH A CONSISTENT APPROACH TO THE STUDIES. THESE STUDIES DEMONSTRATED THAT THE

INCREMENTAL COSTS TO DEVELOPING COUNTRIES OF USING CFC SUBSTITUTES WERE MUCH LESS THAN FIRST IMAGINED.

5B. IN GENERAL, THE MOST SUCCESSFUL COUNTRY STUDIES WERE THOSE IN WHICH THE TARGET COUNTRIES DESIGNED AND CONDUCTED THE STUDIES WITH THE HELP OF SPONSOR COUNTRY STAFF AND/OR CONSULTANTS. THE FIRST STUDIES COMPLETED HELPED INFORM NEGOTIATORS WHEN THEY TURNED TO THE ISSUE OF FINANCIAL ASSISTANCE. UPON COMPLETING THIS STUDY, FOLLOW-UP SEMINARS TO PROVIDE INFORMATION AND OPERATIONAL TRAINING PROVED NECESSARY AND USEFUL. FINALLY, THE MONTREAL COUNTRY STUDIES HELPED ENGAGE THE PRIVATE SECTOR BY ENCOURAGING DIRECT CONTACTS BETWEEN PRIVATE (COMMERCIAL) INTERESTS IN THE HOST AND SPONSOR COUNTRIES FOR DEVISING SOLUTIONS TO SPECIFIC HOST COUNTRY PROBLEMS. THIS LAST ELEMENT HAS LED TO THE IDENTIFICATION OF MANY SPECIFIC FIXES, MANY AT LOW OR NO COST.

5C. THE U.S. ACTED AS THE SPONSOR NATION FOR EGYPT, MEXICO AND BRAZIL. OTHER FIRST YEAR STUDIES WERE KENYA (SWEDEN), VENEZUELA (NO SPONSOR), CHINA (UNDP WITH NORWAY), AND INDIA (U.K.). SUBSEQUENT COUNTRY STUDIES ARE BEING CARRIED OUT IN ARGENTINA, CHILE, ECUADOR, GHANA, MALAYSIA, NIGERIA, THAILAND, TRINIDAD AND TOBAGO, TUNISIA, INDONESIA, AND THE PHILIPPINES.

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6. A COUNTRY STUDY PROCESS FOR CLIMATE CHANGE:

6A. WE SHOULD BUILD ON THE MONTREAL PROTOCOL COUNTRY STUDIES EXPERIENCE, ALTHOUGH WE WILL NEED TO BROADEN THE PROCESS TO ACCOMMODATE THE GREATER COMPLEXITY OF THE

CLIMATE CHANGE ISSUE. FOR CLIMATE CHANGE WE NEED TO SEEK AGREEMENT ABOUT WHAT INFORMATION IS NEEDED AND HOW IT CAN BEST BE OBTAINED. IT WILL BE ESSENTIAL TO HAVE A COMMON APPROACH (ALTHOUGH THE PARTICULAR STUDIES MAY DIFFER ACCORDING TO COUNTRY SPECIFIC CONDITIONS) AND TO MARSHALL AND COORDINATE EXISTING RESOURCES TO SERVE THIS PROCESS. DEVELOPING AN ORDERLY, IF NOT ALWAYS UNIFORM, APPROACH TO THE COUNTRY STUDY QUESTION SHOULD HELP MEMBERS OF THE INTERNATIONAL COMMUNITY AVOID REDUNDANT OR INEFFICIENT ACTION.

6B. IN ORDER TO EFFECTIVELY ASSESS IMPLEMENTATION NEEDS SUCH AS TECHNOLOGY, TECHNICAL ASSISTANCE AND POLICY REQUIREMENTS, COUNTRIES WILL FIRST NEED TO INVENTORY THEIR NET GREENHOUSE GAS EMISSIONS TO GAIN SOME IDEA OF WHICH SECTORS OF THE ECONOMY MIGHT HOLD THE GREATEST POTENTIAL FOR COST EFFECTIVE ACTION. ANALYSES OF POTENTIAL RESPONSE STRATEGIES FOR NET EMISSIONS REDUCTIONS AND ADAPTIVE MEASURES IN THE AREA OF AGRICULTURE, FORESTRY AND SEA-LEVEL RISE, WILL FURTHER STRENGTHEN A COUNTRY'S ABILITY TO ASSESS ITS TECHNOLOGY, TECHNICAL ASSISTANCE, AND POLICY NEEDS. ONCE THESE NEEDS ARE IDENTIFIED, POLICY MAKERS WILL BE ABLE TO SET NATIONAL PRIORITIES THROUGH THE DEVELOPMENT OF NATIONAL ACTION PLANS.

7. NET EMISSIONS INVENTORIES: THE FOUNDATION FOR NEEDS ASSESSMENTS

7A. THE OECD, IN SUPPORT OF THE IPCC, IS DEVELOPING A STANDARD METHODOLOGY FOR CONDUCTING NATIONAL NET GREENHOUSE GAS EMISSIONS INVENTORIES. THIS METHODOLOGY

WILL ASSESS NET EMISSIONS FROM VARIOUS SECTORS: ENERGY, INDUSTRY, AGRICULTURE, FORESTS AND LAND USE. TO THIS END, OVER 100 EXPERTS FROM 44 COUNTRIES, INCLUDING 28 NON-OECD COUNTRIES, MET FEBRUARY 18-21 IN PARIS. DURING THAT MEETING, IT WAS NOTED THAT A NUMBER OF THE ATTENDING COUNTRIES, INCLUDING ARGENTINA, BURKINA FASO, CONGO, COSTA RICA, GAMBIA, MEXICO, NIGERIA, SENEGAL, TANZANIA AND VENEZUELA, WOULD BENEFIT FROM TECHNICAL ASSISTANCE IN BUILDING NET EMISSIONS INVENTORIES.

7B. THE FIFTH PLENARY OF THE IPCC SUBSEQUENTLY ENDORSED A WORK PLAN TO DEVELOP A FIRST DRAFT "GUIDELINE" FOR NATIONAL EMISSIONS INVENTORIES BY MID-1992 USING, AS ONE INPUT, COUNTRY-BY-COUNTRY ANALYSES. THIS INITIATIVE COULD PROVE VALUABLE IN ESTABLISHING AN AGREED UPON FIRST STEP IN THE COUNTRY STUDY PROCESS. EPA HAS PROPOSED A STUDY WITH BRAZIL THAT WILL FOCUS ON DEVELOPING A COMPREHENSIVE AND DETAILED INVENTORY OF NET GREENHOUSE GAS EMISSIONS, USING THE OECD METHODOLOGY AS A TEST OF THE METHODOLOGY AND A MODEL FOR OTHER DEVELOPING COUNTRIES. OTHER BILATERAL PROJECTS MAY BE INITIATED IN FY 92.

8. OTHER IPCC ACTIVITIES

8A. TO COMPLEMENT THE NET EMISSIONS INVENTORY, THE IPCC IS ALSO DEVELOPING AN INVENTORY OF TECHNOLOGICAL RESPONSE OPTIONS. BUILDING ON AN EARLIER ASSESSMENT BY THE WORKING GROUP III ENERGY AND INDUSTRY SUBGROUP (EIS) ON APPROPRIATE ENERGY AND INDUSTRY SECTOR TECHNOLOGIES, THE FIFTH IPCC PLENARY CALLED FOR STANDARDIZED STUDIES TO FOCUS ON THE ECONOMIC AND MARKET FEASIBILITY OF SUCH

MITIGATION TECHNOLOGIES. THE MANNER IN WHICH THESE EIS STUDIES WILL BE CONDUCTED WILL BE DISCUSSED IN MORE DETAIL DURING THE AUGUST 5-8 WGIII MEETING IN GENEVA.

8B. DEVELOPING A UNIFORM APPROACH TO ASSESSING THE APPLICABILITY AND FINANCIAL FEASIBILITY OF ON-THE-SHELF-TECHNOLOGY WILL ENABLE COUNTRIES TO EXPEDITE NATIONAL STUDIES DESIGNED TO IDENTIFY A COST EFFECTIVE RESPONSE STRATEGY. THE NEWLY MANDATED EIS STUDIES SHOULD BE DEVELOPED IN SUCH A WAY AS TO FEED INTO MORE COUNTRY SPECIFIC NEEDS ASSESSMENTS.

8C. MINDFUL OF THE NEED TO IDENTIFY OPPORTUNITIES FOR ADAPTATION AS WELL AS MITIGATION RESPONSES, THE IPCC FIFTH PLENARY ALSO ASKED THE AGRICULTURE AND FORESTRY SUBGROUP OF WORKING GROUP III (A) TO ASSESS AND EVALUATE MANAGEMENT PRACTICES AND SYSTEMS; (B) TO ASSESS AND EVALUATE ADAPTATION MEASURES; AND (C) EVALUATE SOCIO-ECONOMIC IMPACTS OF MITIGATION, ADAPTATION AND NON-ACTION RESPONSES TO CLIMATE CHANGE. THE INFORMATION GATHERED THROUGH THESE EVALUATIONS WILL HELP EXPAND THE FOUNDATION ON WHICH NATIONAL STRATEGIES AND NEEDS ASSESSMENTS CAN BE DEVELOPED. A NUMBER OF REGIONAL AND INTERNATIONAL WORKSHOPS ARE PLANNED TO CONDUCT THIS WORK - THE FIRST TOOK PLACE AT THE END OF APRIL IN BANGKOK.

8D. THE IPCC WORKING GROUP III COASTAL ZONE MANAGEMENT SUBGROUP HAS PROPOSED AN AMBITIOUS AGENDA, IN COOPERATION WITH THE UNEP REGIONAL SEAS PROGRAM, OF CONDUCTING COUNTRY CASE STUDIES TO ASSESS VULNERABILITY TO SEA-LEVEL RISE, AS WELL AS DEVELOP MODEL COMPREHENSIVE NATIONAL COASTAL

MANAGEMENT PLANS. ARGENTINA, BANGLADESH, GAMBIA, KIRIBATI, NICARAGUA AND VENEZUELA EXPRESSED A STRONG INTEREST IN BEING THE SUBJECTS OF SUCH STUDIES. OTHER COASTAL STATES HAVE ALSO EXPRESSED INTEREST IN CASE STUDIES. THE U.S. IS CURRENTLY WORKING WITH 10 COUNTRIES ON SUCH STUDIES. THE COMMON METHODOLOGY USED FOR THESE STUDIES, AND THE RESULTS THAT COME FROM THE STUDIES, WILL SUBSEQUENTLY BE PRESENTED IN THREE INTERNATIONAL WORKSHOPS - ONE IN THE CARIBBEAN WHICH VENEZUELA HAS OFFERED TO HOST, ONE IN THE SOUTH PACIFIC AND ONE IN A HEAVILY POPULATED DELTAIC AREA. CONSIDERATION SHOULD BE GIVEN TO HOW THIS WORK MIGHT BE COORDINATED SO AS TO CONTRIBUTE TO THE DEVELOPMENT OF COUNTRY SPECIFIC TECHNOLOGY AND TECHNICAL ASSISTANCE NEEDS.

9. RESPONSE STRATEGIES AND NEEDS ASSESSMENTS:

9A. THE HEART OF THE COUNTRY STUDY PROCESS SHOULD BE THE IDENTIFICATION BY SECTOR OF TECHNOLOGY NEEDS AND RELATED TECHNICAL ASSISTANCE, TRAINING, AND POLICY MEASURES NEEDED TO SUPPORT THE ACQUISITION OF SUCH TECHNOLOGY. SUCH ASSESSMENTS, HOWEVER, SHOULD BE DONE IN THE CONTEXT OF COUNTRY SPECIFIC RESPONSE STRATEGIES FOCUSED ON THE MOST PROMISING SECTORS FOR ACTION. THE DEVELOPMENT OF SUCH STRATEGIES WILL NEED TO TAKE INTO ACCOUNT THE RELATIVE IMPORTANCE OF DIFFERENT GREENHOUSE GASES AND THEIR MULTI-SECTORAL SOURCES AND SINKS. IN SOME CASES, COUNTRIES MAY FIND IT PRUDENT TO ADDRESS SEVERAL SECTORS AT ONCE; IN OTHER CASES, IT MAY MAKE MORE SENSE TO FOCUS ON ONLY ONE. THE CHOICE AMONG PROJECTS/STRATEGIES WILL DEPEND ON THE NET EMISSIONS BENEFIT AND COST EFFECTIVENESS

THEY MAY PRODUCE.

9B. AS A FIRST STEP, AT THE MARCH IPCC V PLENARY, THE U.S. DELEGATION EXPLORED THE POSSIBILITIES OF INITIATING A FEW COUNTRY STUDIES QUICKLY TO START GAINING FIELD EXPERIENCE FOR METHODOLOGICAL PURPOSES. AFTER DISCUSSIONS WITH OTHER

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INTERESTED AGENCIES, THE U.S. EPA RECENTLY WROTE TO THE MINISTER OF ENVIRONMENT, FORESTRY AND NATURAL RESOURCES IN POLAND TO PROPOSE A MITIGATION STRATEGY STUDY FOR THAT COUNTRY; A SIMILAR PROPOSAL IS BEING MADE TO THE GOVERNMENT OF MEXICO. THE POLISH AND MEXICAN PROPOSALS WILL SEEK TO INTEGRATE A RANGE OF NET EMISSION REDUCTION OPTIONS FOR KEY SECTORS AND GASES AND MORE COMPLETELY ADDRESS ECONOMIC ISSUES IN A DEVELOPING OR EASTERN EUROPEAN COUNTRY CONTEXT.

9C. THESE EPA COUNTRY CASE STUDIES WILL DIFFER FROM PRIOR COUNTRY STUDIES IN THREE WAYS:

--THEY WILL BE INITIATED THROUGH FORMAL GOVERNMENT TO GOVERNMENT CONTACT AND SHOULD ULTIMATELY RESULT IN OFFICIAL COUNTRY STUDIES MADE AVAILABLE TO OTHER COUNTRIES VIA SUBMISSION TO THE IPCC.

--THEY WILL DEVELOP A BASIS FOR ANALYSIS OF A "COMPREHENSIVE STRATEGY" INCLUDING ALL MAJOR GASES AND SOURCE AND SINK CATEGORIES COMPARABLE TO ANALYSES UNDERWAY IN THE U.S.

--THEY WILL USE MORE DETAILED AND SOPHISTICATED ANALYTIC APPROACHES. IN PARTICULAR, ECONOMIC ANALYSIS WOULD FOCUS

ON MARGINAL COSTS OF POLICY OPTIONS RELATIVE TO OTHER LIKELY SCENARIOS AND WOULD INVOLVE A BROAD SET OF MODELS AND COSTING APPROACHES.

9D. WE BELIEVE THESE AND OTHER STUDIES CARRIED OUT OVER THE COMING MONTHS MAY HELP US DEVELOP A BETTER IDEA OF WHAT WILL BE NEEDED TO ASSIST ALL COUNTRIES IN DEVELOPING STRATEGIES FOR RESPONDING TO CLIMATE CHANGE CONCERNS. WE WOULD BE INTERESTED TO KNOW WHETHER YOUR COUNTRY IS UNDERTAKING CLIMATE CHANGE RELATED CASE STUDIES WITH DEVELOPING COUNTRIES. WE BELIEVE IT WOULD BE USEFUL TO COORDINATE ACTIVITIES IN THIS REGARD. WE ALSO BELIEVE IT WOULD BE USEFUL TO DISCUSS HOW STRATEGY STUDIES MIGHT BE FOLLOWED UP WITH NEEDS ASSESSMENTS TO IDENTIFY THE TECHNOLOGY, TECHNICAL ASSISTANCE, TRAINING, AND POLICY MEASURES NEEDED TO IMPLEMENT THE STRATEGY.

10. ROLE OF THE GLOBAL ENVIRONMENT FACILITY (GEF)

10A. INTERNATIONAL ORGANIZATIONS AND FINANCIAL INSTITUTIONS ARE ALSO PREPARING TO CONDUCT STUDIES COUNTRY BY COUNTRY. WE NEED TO CLARIFY THEIR ROLE IN THIS AREA SO THAT IT CAN BE TAKEN INTO ACCOUNT AS WE FURTHER DEVELOP THINKING ON HOW A COUNTRY STUDY PROCESS COULD BE DEFINED.

10B. THE GLOBAL ENVIRONMENTAL FACILITY (GEF) IS A NEWLY-ESTABLISHED PILOT PROGRAM, JOINTLY IMPLEMENTED BY THE WORLD BANK, UNEP AND UNDP, UNDER WHICH GRANTS OR CONCESSIONAL LOANS WILL BE PROVIDED TO DEVELOPING COUNTRIES TO ASSIST THEM IN IMPLEMENTING PROGRAMS THAT HELP PROTECT THE GLOBAL ENVIRONMENT. THE GEF SCIENTIFIC

AND TECHNICAL ADVISORY PANEL IS CURRENTLY WORKING TO ESTABLISH GUIDELINES AND PRIORITIES FOR WHAT TYPE OF PROJECTS WILL BEST ACHIEVE THE FOUR GEF GOALS OF: PROTECTION OF THE OZONE LAYER (SUPPORTED PRIMARILY THROUGH THE MONTREAL PROTOCOL OZONE PROJECTS TRUST FUND); LIMITING EMISSIONS OF GREENHOUSE GASES; PROTECTING OF BIODIVERSITY; AND PROTECTING OF INTERNATIONAL WATERS. AT A MAY 1-2 MEETING WITH GEF PARTICIPANTS, THE SCIENTIFIC AND TECHNICAL ADVISORY PANEL (STAP) CHAIRMAN PROPOSED THAT THE GEF SHOULD HAVE A TARGETED RESEARCH COMPONENT THAT WOULD FACILITATE CURRENT OR FUTURE TECHNICAL ASSISTANCE OR INVESTMENT PROJECTS IN AREAS SUCH AS BIODIVERSITY AND

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CLIMATE CHANGE. WE NEED TO ENCOURAGE THE EARLIEST AND MOST SUBSTANTIAL INVOLVEMENT OF THE STAP IN THE PROCESS OF DEVELOPING A COMMON METHODOLOGY FOR PERFORMING COUNTRY STUDIES.

10C. WHILE THE STAP CRITERIA AND GUIDELINES WILL NOT BE CIRCULATED TO GEF PARTICIPANTS FOR COMMENT UNTIL JULY, THE FIRST TRANCHE OF GEF PROPOSED PROJECTS INCLUDES A USD 2 MILLION GRANT FOR LIMITING EMISSIONS OF GREENHOUSE GASES IN CHINA. IF APPROVED, THE GRANT WOULD PROVIDE FUNDS FOR: ASSESSMENT OF GREENHOUSE GAS NET EMISSIONS AND FORMULATION OF A REDUCTION PLAN; IMPROVING THE QUALITY AND REDUCING THE OVERALL EMISSIONS OF SUPPLIED COAL; AND IMPROVING THE EFFICIENCY OF INDUSTRIAL BOILERS. SHOULD SUCH PROJECTS MEET THE CRITERIA AND PRIORITIES ESTABLISHED BY THE STAP AND APPROVED BY THE GEF PARTICIPANTS, THE GEF COULD PROVIDE FINANCIAL RESOURCES FOR EMISSIONS, TECHNOLOGY AND NEEDS ASSESSMENT, AND FOR FORMULATION OF A RESPONSE STRATEGY.

IV. TECHNOLOGY COOPERATION INVENTORY: IS ONE NEEDED?

1. IN DISCUSSING HOW WE MIGHT FORGE A COUNTRY STUDY PROCESS TO HELP ASSESS TECHNOLOGY COOPERATION NEEDS, WE HAVE BECOME AWARE OF THE CONCURRENT NEED TO INVENTORY CURRENT RESOURCES DEDICATED TO MEETING THESE NEEDS AND DETERMINE HOW THESE RESOURCES CAN BE BETTER UTILIZED. SUCH AN INVENTORY COULD BE HELPFUL IN TWO RESPECTS: 1) IT WOULD ENABLE US TO STRENGTHEN EXISTING INSTITUTIONS AND RESOURCES AND AVOID REDUNDANCY AND WASTE, AND 2) IT WOULD HELP IDENTIFY BILATERAL AND MULTILATERAL PROGRAMS AND MECHANISMS TO BE INCLUDED IN ANY TECHNOLOGY COOPERATION DATABASE THAT MIGHT BE DEVELOPED.

V. INVENTORY OF THE U.S. PUBLIC AND PRIVATE SECTORS

1. TO GET AN IDEA OF EXISTING PUBLIC SECTOR SUPPORT FOR BILATERAL CLIMATE CHANGE ACTIVITIES, WE INVENTORIED RELEVANT ACTIVITIES BEING CARRIED OUT BY NINE FEDERAL AGENCIES OR DEPARTMENTS WITH FIFTEEN DEVELOPING AND EASTERN EUROPEAN COUNTRIES. FUNDED ACTIVITIES RANGE FROM SUPPORT FOR MONITORING PROJECTS TO CASE STUDIES, FORESTRY PROJECTS, AND ENERGY EFFICIENCY TECHNOLOGY PROGRAMS. WE FOUND THAT THREE QUARTERS OF THESE ACTIVITIES ARE DEVOTED TO CLIMATE CHANGE TECHNOLOGY COOPERATION. WE HOPE TO REFINER THIS INVENTORY IN ORDER TO IDENTIFY THOSE

ACTIVITIES WHICH COULD CONTRIBUTE MOST TO A GLOBAL TECHNOLOGY COOPERATION RESPONSE. BY ITSELF, HOWEVER, THE INVENTORY DEMONSTRATES THE IMPORTANCE OF BILATERAL PUBLIC SECTOR TECHNOLOGY COOPERATION.

2. WE WOULD BE INTERESTED IN LEARNING OF OTHER COUNTRIES' ACTIVITIES AND PROGRAMS, ESPECIALLY IN THE AREA OF DEVELOPMENT ASSISTANCE AND ENVIRONMENT.

3. U.S. AID IS PARTICULARLY INTERESTED IN GLOBAL ENERGY EFFICIENCY. IT IS FOCUSING ON TRAINING AND INFORMATION, CAPITAL AVAILABILITY, AND COUNTRY IMPLEMENTATION PROGRAMS. ONE IDEA IS TO ENGAGE THE U.S. PRIVATE SECTOR, THROUGH THE ELECTRIC POWER RESEARCH INSTITUTE (EPRI), AND UTILITIES IN WESTERN EUROPE, JAPAN, CANADA, INDIA, CHINA, AND BRAZIL IN THE DEVELOPMENT OF AN INTERNATIONAL ELECTRIC UTILITY NETWORK TO SPONSOR COLLABORATIVE RESEARCH AND TECHNOLOGY DEVELOPMENT.

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4. IN FORESTRY, AID HAS EXPANDED PROGRAMS OF POLICY RESEARCH, TRAINING AND INSTITUTION STRENGTHENING FOCUSED ON TROPICAL DEFORESTATION RESEARCH AND IN-COUNTRY TROPICAL FOREST ASSISTANCE PROGRAMS. FOREST PROJECTS ARE BEING CONSIDERED IN KEY COUNTRIES INCLUDING PHILIPPINES, INDONESIA, BRAZIL, MEXICO, AND ZAIRE. OTHER POSSIBILITIES BEING EXPLORED IN AGRICULTURE INCLUDE INTERNATIONAL COLLABORATIVE PROGRAMS FOR MONITORING GREENHOUSE GAS EMISSIONS AND SOIL ORGANIC CARBON STOCKS.

5. EPA ALSO PLAYS AN IMPORTANT BILATERAL ROLE. IN ADDITION TO INITIATING WORK ON COUNTRY CASE STUDIES

RELATED TO CLIMATE CHANGE, EPA OPERATES A NUMBER OF TECHNICAL ASSISTANCE PROGRAMS AND INFORMATION CLEARINGHOUSES AND DATABASES RELATED TO CLIMATE CHANGE. FOR EXAMPLE, IN ADDITION TO COUNTRY STUDIES, EPA, IN COOPERATION WITH AID AND THE DEPARTMENT OF ENERGY (DOE), IS BUILDING A COMPUTERIZED INFORMATION SYSTEM CALLED ENVIROTECH. THIS SYSTEM WILL PROVIDE DOMESTIC AND INTERNATIONAL USERS WITH INFORMATION ON MAJOR TECHNOLOGIES, INCLUDING ENERGY EFFICIENCY AND RENEWABLE ENERGY TECHNOLOGIES. THE DEPARTMENT OF COMMERCE (DOC) HAS OPERATIONAL TECHNICAL CAPABILITY AND DATABASES FOR EASTERN EUROPE AND THE PERSIAN GULF REGION THAT COULD BE LINKED WITH EPA'S SYSTEM.

6. DOE PARTICIPATES IN A BROAD RANGE OF COOPERATIVE EFFORTS WITH OTHER COUNTRIES IN THE AREAS OF TECHNOLOGY ASSISTANCE AND TECHNOLOGY RESEARCH AND DEVELOPMENT. OVER 100 SUCH AGREEMENTS ARE NOW IN PLACE. DOE ALSO MANAGES THE COMMITTEE ON RENEWABLE ENERGY, COMMERCE AND TRADE (CORECT) WHICH PUBLISHES AND WIDELY DISSEMINATES TO DEVELOPING COUNTRIES INFORMATION ON RENEWABLE TECHNOLOGY OPTIONS, COSTS AND TECHNOLOGY AND SERVICES. NEW INITIATIVES ARE UNDERWAY WITH EASTERN EUROPEAN COUNTRIES WHICH HAVE A DIRECT BEARING ON CLIMATE CHANGE. FOR INSTANCE, A 10 MILLION PROJECT IS UNDERWAY IN POLAND TO RETROFIT A COAL-FIRED POWERPLANT NEAR KRAKOW. ENERGY EFFICIENCY, RENEWABLE ENERGY, NUCLEAR SAFETY AND OTHER PROGRAMS WILL BE UNDERTAKEN WITH A VARIETY OF EASTERN EUROPEAN COUNTRIES.

7. WE BELIEVE IT MAY ALSO BE IMPORTANT TO ENCOURAGE

DEVELOPMENT OF AN INVENTORY OF PRIVATE SECTOR RESOURCES, GIVEN THE PRIVATE SECTOR'S PRIMARY ROLE IN DEVELOPING AND COMMERCIALIZING CLIMATE-RELATED TECHNOLOGIES AND IN PROVIDING NECESSARY TECHNICAL ASSISTANCE, TRAINING, AND KNOW-HOW. WE BELIEVE IT WOULD BE HELPFUL TO HAVE A CLEARER IDEA OF HOW THE PRIVATE SECTOR IN INDUSTRIALIZED COUNTRIES IS CONTRIBUTING TO TECHNOLOGY COOPERATION RELATED TO CLIMATE CHANGE.

8. FOR EXAMPLE, THIRTEEN MAJOR U.S. CORPORATIONS JOINED TO FORM THE INDUSTRY COOPERATIVE FOR OZONE LAYER PROTECTION (ICOLP). ICOLP JUST INITIATED A NEW COMPUTERIZED DATABASE, OZONET, DESIGNED TO HELP INDUSTRIAL USERS OF CFCs FIND SUBSTITUTES FOR OZONE-DEPLETING CHEMICALS. OZONET WILL BE EASILY ACCESSIBLE FROM MORE THAN 750 CITIES IN 35 COUNTRIES.

9. THE GLOBAL ENVIRONMENT MANAGEMENT INITIATIVE (GEMI), A U.S. CENTER FOR CORPORATE LEADERSHIP AND THINKING ON ENVIRONMENTAL MANAGEMENT, REPRESENTS ANOTHER POTENTIAL FOR THE PRIVATE SECTOR TO CONTRIBUTE KNOW-HOW AND EXPERTISE. MEMBERS OF GEMI HAVE PLEDGED FINANCIAL RESOURCES AND THE HUMAN RESOURCES OF THEIR GLOBALLY RECOGNIZED ENVIRONMENTAL MANAGERS AND STAFF TO FOSTER ENVIRONMENTAL EXCELLENCE BY

BUSINESS WORLDWIDE. WORKING WITH UNEP AND THE INTERNATIONAL CHAMBER OF COMMERCE, GEMI WILL SEEK TO SHARE THE EXPERIENCE AND EXPERTISE OF ITS MEMBER CORPORATIONS IN THE AREA OF ENVIRONMENTAL MANAGEMENT AND CREATE PARTNERSHIPS AROUND THE WORLD ENCOURAGING SIMILAR EFFORTS.

10. AS THE COUNTRY STUDY PROCESS DEVELOPS AND CLIMATE CHANGE TECHNOLOGY NEEDS ARE CLARIFIED, NEW MARKET OPPORTUNITIES WILL EMERGE, THUS ENGAGING THE PRIVATE SECTOR TO AN EVER GREATER EXTENT. THE PRIVATE SECTOR IN A NUMBER OF COUNTRIES CAN BE EXPECTED TO RESPOND TO MARKET INCENTIVES FOR PRODUCT DEVELOPMENT. SEVERAL COMPANIES ARE ALREADY WORKING TO POSITION THEMSELVES FOR NEW MARKETS IN THE AREA OF ENVIRONMENTAL TECHNOLOGY, THUS FACILITATING ITS WIDER DISSEMINATION.

VI. INVENTORY: INTERNATIONAL RESOURCES

1. WE WOULD LIKE TO DEVELOP A CLEARER PICTURE OF INTERNATIONAL RESOURCES DEVOTED TO PROMOTING TECHNOLOGY COOPERATION RELATED TO CLIMATE CHANGE. IT IS CLEAR FROM AN INITIAL SURVEY THAT A GREAT DEAL OF ACTIVITY IS ALREADY UNDERWAY. WE WOULD LIKE TO ENSURE THAT WE ARE AWARE OF ALL MAJOR INTERNATIONAL PROGRAMS AND EFFORTS, SUCH AS THE OECD'S STUDIES, DIRECTED AT CLIMATE CHANGE TECHNOLOGY COOPERATION.

2. AMONG THE INTERNATIONAL RESOURCES WE HAVE IDENTIFIED SO FAR, IT APPEARS THAT CLEARING HOUSES HAVE GARNERED CONSIDERABLE SUPPORT:

-- UNEP IS DEVELOPING AN INTERNATIONAL CLEANER PRODUCTION CLEARING HOUSE (ICPIC), WHICH WILL BE A COMPUTERIZED INFORMATION EXCHANGE SYSTEM BASED ON THE U.S. EPA'S POLLUTION PREVENTION INFORMATION CLEARING HOUSE. (THIS

PROJECT IS BEING CARRIED OUT UNDER THE AUSPICES OF THE CLEANER PRODUCTION PROGRAMME (CPP) LOCATED IN UNEP'S INDUSTRY AND ENERGY OFFICE (IEO) IN PARIS. THE GOAL OF THE CPP IS TO ESTABLISH A NETWORK WHICH WILL ALLOW TRANSFER OF ENVIRONMENTAL PROTECTION TECHNOLOGY THROUGH THE ICPIIC, EXPERT WORKING GROUPS, A NEWSLETTER, AND TRAINING ACTIVITIES.)

-- UNEP ALSO ADMINISTERS A CLEARING HOUSE UNDER THE AUSPICES OF THE MONTREAL PROTOCOL INTERIM MULTILATERAL FUND.

-- THE EUROPEAN COMMISSION SUPPORTS FOR ITS MEMBERS THE NETWORK FOR ENVIRONMENTAL TECHNOLOGY TRANSFER (NETT), WHICH PROVIDES LINKS TO COMMERCIAL COMPANIES AND PRIVATE-LED PUBLIC INSTITUTIONS SPECIALIZING IN ENVIRONMENTAL TECHNOLOGY TRANSFER MATTERS.

-- THE INTERNATIONAL CHAMBER OF COMMERCE IN PARIS IS ENCOURAGING BUSINESS TO SUPPORT TECHNICAL COOPERATION AND SPONSORS THE INTERNATIONAL ENVIRONMENT BUREAU (IEB) IN GENEVA, ANOTHER TECHNOLOGY TRANSFER CLEARING HOUSE.

-- THE INTERNATIONAL ENERGY AGENCY (IEA) HAS PROPOSED DEVELOPING A CLEARING HOUSE BASED ON ITS CENTER FOR THE ANALYSIS AND DISSEMINATION OF DEMONSTRATOR ENERGY TECHNOLOGY (CADDET).

3. WE ARE FAMILIAR WITH JAPAN'S NEW EARTH 21 AND THE CENTER FOR GLOBAL ENVIRONMENTAL TECHNOLOGY IT HAS PROPOSED

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TO SPONSOR WITH UNEP, BUT WE DO NOT HAVE A GOOD IDEA OF

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ASSESS THEIR EFFECTIVENESS?

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WHETHER OTHER OECD COUNTRIES PROPOSE TO TAKE SUCH AN APPROACH TO THE PROBLEM. WE NOTE THAT THE CANADIAN GREEN PLAN INCLUDES SUPPORT FOR DEMONSTRATION PROJECTS, ESTABLISHMENT OF AN INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT, AND PARTICIPATION IN THE BUDAPEST CENTER (REGIONAL ENVIRONMENTAL CENTER FOR CENTRAL AND EASTERN EUROPE), AS WELL AS A MAJOR ENVIRONMENTAL PRODUCTS AND TECHNOLOGY FAIR (GLOBE '92) SIMILAR TO GLOBE '90. THE UK HAS SUPPORTED THE TOUCHE-ROSS TECHNOLOGY TRANSFER STUDY. WE NEED TO IDENTIFY OTHER IMPORTANT BILATERAL INITIATIVES CURRENTLY PROMOTING CLIMATE CHANGE RELATED TECHNOLOGY COOPERATION.

VII. UTILIZING INVENTORIES

1. BY BEGINNING TO INVENTORY OUR OWN TECHNOLOGY COOPERATION RESOURCES AND FAMILIARIZE OURSELVES WITH THE BILATERAL AND MULTILATERAL EFFORTS OF OTHERS, WE HAVE BECOME AWARE OF THE NEED TO CONSIDER HOW SUCH RESOURCES CAN BE BETTER COORDINATED AND UTILIZED. MORE INFORMATION ABOUT EXISTING RESOURCES IS NEEDED. ONCE THIS INFORMATION HAS BEEN GATHERED, A REPRESENTATIVE GROUP OF DEVELOPED AND DEVELOPING COUNTRIES MIGHT JOIN TOGETHER TO ASSESS HOW CURRENT ACTIVITIES AND PROGRAMS CAN BE BETTER COORDINATED AND UTILIZED. PERHAPS WE COULD IDENTIFY WHAT KIND(S) OF CLEARING HOUSE FUNCTION(S) ARE NEEDED AND HOW SUCH MIGHT BE FURTHER DEVELOPED. INFORMATION GATHERED IN THIS PROCESS COULD ALSO BE USED IN THE UNCED CONTEXT.

IN THE COURSE OF ASSESSING CURRENT RESOURCES, WE WOULD HOPE THAT IT WOULD BE POSSIBLE TO DETERMINE WHAT GAPS, IF ANY, EXIST IN THE INTERNATIONAL TECHNOLOGY COOPERATION INFRASTRUCTURE AND THEREBY BE IN A BETTER POSITION TO PROPOSE APPROPRIATE REDIRECTED BILATERAL AND MULTILATERAL RESPONSES.

VIII. QUESTIONS:

1. COUNTRY STUDY PROCESS:

IS YOUR GOVERNMENT FUNDING OR CONSIDERING FUNDING COUNTRY STUDIES FOCUSED ON CLIMATE CHANGE TECHNOLOGY COOPERATION WITH ANY DEVELOPING OR EASTERN EUROPEAN COUNTRIES? IF SO, WHAT ARE THE PRIMARY OBJECTIVES OF THE STUDIES AND WHICH MINISTRIES ARE SUPPORTING THEM? WITH WHICH COUNTRIES ARE THEY BEING (WILL THEY BE) CARRIED OUT?

WOULD YOUR GOVERNMENT BE INTERESTED IN PARTICIPATING IN AN INFORMAL MEETING DURING THE JUNE INC SESSION TO DISCUSS HOW EFFORTS MIGHT BE COORDINATED AND HARMONIZED TO BUILD A COUNTRY STUDY PROCESS?

2. ASSESSING TECHNOLOGY COOPERATION NEEDS:

WHAT MAJOR RESOURCES AND/OR PROGRAMS DOES YOUR GOVERNMENT DEDICATE TO TECHNOLOGY COOPERATION RELATED TO CLIMATE CHANGE? DOES IT HAVE AN INVENTORY OF THESE RESOURCES? HAS YOUR PRIVATE SECTOR TAKEN ANY INITIATIVES IN THIS

AREA? WHAT MAJOR PROGRAMS AND ACTIVITIES RELATED TO CLIMATE CHANGE TECHNOLOGY COOPERATION ARE SUPPORTED BY INTERNATIONAL ORGANIZATIONS IN YOUR COUNTRY? WHAT CLEARING HOUSE OPERATIONS ARE YOU AWARE OF? HOW DO YOU

END OF NON-PAPER

LAST PARA: ACTION ITEMS FOR POSTS ONLY:

POSTS ARE ASKED TO SHARE NON-PAPER PROVIDED ABOVE WITH APPROPRIATE HOST GOVERNMENT OFFICIALS AND REPORT AS QUICKLY AS POSSIBLE ON RESPONSES TO THE QUESTIONS THEREIN. IN ADDITION POSTS ARE ALSO ASKED TO PROVIDE THEIR VIEWS ON THE FOLLOWING ISSUES:

--HAS HOST GOVERNMENT DEVELOPED A POSITION OR STRATEGY FOR DEALING WITH THE ISSUE OF CLIMATE CHANGE TECHNOLOGY COOPERATION? IF SO, PLEASE SUMMARIZE.

--IN POST'S VIEW, HOW AMENABLE WOULD HOST COUNTRY BE TO SEEKING A COMMON APPROACH AMONG INDUSTRIALIZED COUNTRIES TO THE BROAD ISSUE OF TECHNOLOGY COOPERATION RELATED TO CLIMATE CHANGE, BEYOND COORDINATING A COUNTRY STUDY PROCESS RELATED TO CLIMATE CHANGE AND DEVELOPING INVENTORIES?

--IS POST AWARE OF ANY TECH COOPERATION RESOURCES WITHIN THE COUNTRY NOT-MENTIONED BY THE HOST GOVERNMENT?

POST SPECIFIC REQUESTS FOLLOW:

FOR USUN: PLEASE ASSESS AS WELL AS IDENTIFY SIGNIFICANT NEW YORK BASED UN AGENCY PROGRAMS AND RESOURCES RELEVANT TO CLIMATE CHANGE TECHNOLOGY COOPERATION.

FOR PARIS: THANKS FOR YOUR EXCELLENT REPORT ON UNEP/IEO.

FOR GENEVA: PLEASE ASSESS WORK OF THE IEB.

FOR LONDON: HAS THERE BEEN ANY FOLLOW-UP TO THE TOUCHE ROSS STUDY? ARE THERE OTHER UK INITIATIVES OF WHICH WE SHOULD BE AWARE?

FOR UNEP, UNDP, FAO PERMREPS: PLEASE REPORT ON PROGRAMS AND RESOURCES YOUR ORGANIZATION CURRENTLY DEDICATES TO CLIMATE CHANGE TECHNOLOGY COOPERATION? PLEASE PROVIDE YOUR PERSPECTIVE ON THE PROGRAM'S EFFECTIVENESS. ARE SIGNIFICANT NEW INITIATIVES BEING CONSIDERED?

FOR TOKYO: CONTINUED UPDATES ON IMPLEMENTATION PLANS FOR NEW EARTH 21 AND THE PROPOSED TECHNOLOGY INSTITUTE WOULD BE HELPFUL.

PLEASE SLUG CABLE RESPONSES FOR OES/EGC. UNCLASS SUPPORTING DOCUMENTS CAN BE FAXED TO STEPHANIE KINNEY, OES/EGC, RM. 4329A, (202) 647-0191.

NB: THIS CABLE ALSO CLEARED BY: S/P:CLDAWSON,
L/OES:JEDONOGHUE, EB/IDF/ODA:JPRESTON,

EUR/RPE:CPIERANGELO, IO/T:TMARTIN
BAKER

U.S. POSITIONS ON KEY CLIMATE CHANGE ISSUES

2ND INC

U.S. OBJECTIVE FOR NEGOTIATIONS

- The United States wants a framework convention that can be signed at the 1992 U.N. Conference on the Environment and Development by the largest possible number of countries.
- The United States will seek to have the convention contain the views, elements and language provided in the U.S. Submission to the INC dated March 15, 1991.

NATIONAL STRATEGIES

- The United States supports a convention that provides a framework and process for developing and periodically updating national strategies to address climate change that contain specific response measures suited to the unique characteristics of each country.
 - The strategies should address greenhouse gas sources and sinks comprehensively, be suited to the particular social, environmental, and economic situation of each country, and quantify to the degree possible the results of actions committed.
 - The convention should provide a process for the review of these national strategies by the Parties.

COMPREHENSIVE APPROACH

- The United States supports a comprehensive approach to climate change, addressing all sources and sinks.
 - Emphasis placed on any one gas (e.g., carbon dioxide), or specific sources or sinks (e.g., forests, energy use) will limit the effectiveness of a convention and hamper the development of comprehensive national strategies.
- The United States believes all gases should be covered by a convention, including those covered by the Montreal Protocol.
 - Exclusion of those covered by the Montreal Protocol will provide a disincentive for countries to join the Montreal Protocol and control the use of existing supplies of ozone-depleting substances.

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- The inclusion of gases covered by the Montreal Protocol is necessary for scientific and analytical purposes.

TARGETS AND TIMETABLES

- The United States cannot support emissions targets or timetables for achieving them in a framework convention.
 - Emissions targets, being time-limited by definition, have limited effectiveness when dealing with a long-term problem that involves many uncertainties.
 - Insufficient knowledge exists of potential climate change, its impacts, and the environmental, economic, and social impacts of potential response strategies to support establishing targets and timetables.
 - Emissions targets will hamper the use of market-oriented response measures and other innovative approaches which cannot be linked to a fixed target.
 - Given that emissions targets will effect the United States more than many other countries, the United States cannot agree to a convention that significantly disadvantages the U.S. economy in the short term to the benefit of others.
 - A focus on emissions targets will tend to split the Parties along north-south lines.
- Targets and timetables are not necessary for the development of a framework convention or the creation of national strategies to address climate change.
- The United States believes we should take a comprehensive approach that includes all sources and sinks of greenhouse gases and, in the short term, are justified for a variety of reasons.

PROTOCOLS

- The United States believes discussion of specific protocols is premature at this time.
 - The United States believes a framework convention, without explicit links to protocols, will garner the greatest number of signatory countries.

HARMONIZATION OF MEASURES

- The United States questions the practicality of harmonizing response measures as proposed by several countries.
 - Each country will need to determine for itself a strategy to address climate change that takes into account its unique circumstances.

- 3 -

- Harmonization of response measures may compromise the ability of each state to choose the most cost-effective mix of measures.
- While the harmonizing response measures may prove difficult, harmonizing standards and methodologies for assessing needs and developing national strategies may be feasible and desirable.

MARKET MECHANISMS

- The United States supports the development of a convention that provides for a market-oriented approach to controlling greenhouse gases.
 - The experiences of the United States have shown that market-oriented approaches are efficient and cost-beneficial.

FINANCIAL ASSISTANCE

- The United States recognizes that developing countries will require financial and technical assistance to meet obligations under a convention on climate change.
 - It will be necessary to quantify the costs associated with any actions in this area before consideration of additional funds can be justified.
 - The United States believes that existing resources and mechanisms, such as the GEF, must be fully utilized before additional monies can be considered.
 - The United States will not commit to providing new funding that increases the overall budget.
 - The United States interprets "additional" to mean funds for environmental purposes redirected from total resources, rather than an increase in overall development assistance.

TECHNOLOGY COOPERATION

- The United States recognizes the need for technology cooperation with developing countries.
 - The United States supports the development of a process for technology cooperation that encourages the development of action plans and assesses the needs of developing countries to implement them.
- The United States cannot support calls for preferential, noncommercial transfers of technologies to developing countries.

DRAFT - OFFICIAL USE ONLY

- In market economies, governments cannot compel the transfer of privately-owned technologies or dictate the terms of transfer.
- Any arrangements for technology cooperation must respect intellectual property rights and permit reasonable rates of return on investments.

THE PRECAUTIONARY PRINCIPLE

- The United States can support the following language concerning a "Precautionary Principle," as proposed in its submission to the INC:
 - "lack of full scientific certainty should not be used as a reason for postponing measures that are commensurate with the expected extent and likelihood of any adverse impact of climate change, that reflect the costs and benefits of such measures, and that are directed, as appropriate, towards understanding, limiting, reducing, facilitating adaptation to and preventing such adverse impacts."

ENVIRONMENTAL IMPACT ASSESSMENTS

- The United States supports the use of Environmental Impact Assessments in evaluating the non-climate environmental impacts and the costs and benefits of contemplated policies and actions.
 - U.S. law and practice does not now contemplate environmental assessments for response measures and policies that assess the impacts of these measures on climate itself.

THE WHITE HOUSE
WASHINGTON

May 23, 1991

MEMORANDUM TO JOHN H. SUNUNU

FROM: D. ALLAN BROMLEY *Alan*
SUBJECT: ALTERNATIVE PERSPECTIVES ON GLOBAL WARMING

Enclosed herewith is a memorandum prepared by Dr. Maynard of my staff concerning the matter we discussed recently.

We have suggested 5 persons whom we believe could provide the best overview of global warming from the viewpoints featured in the Cato Symposium and have tentatively booked time on June 5 and June 6 when all will be here in Washington at the symposium.

We have not been able to obtain biographical data on Balling or Ellsaesev but will provide them as soon as possible.

The listed participants in the symposium provide a much greater pool from which we could draw and you may wish to add or replace persons on our suggested list.

If either of the suggested times is possible within your calendar then we will proceed to make the necessary arrangements. Unfortunately, I am committed to commencement talks on both June 5 and 6 but Dr. Maynard and Dr. Ratchford will take care of all details.

Please let me know how you would prefer that the participants be invited (by you or by me) and what press coverage (if any) you would wish.

Enclosure

DRAFT

Dear Bob:

I have been a little puzzled by the fact that in a number of your recent talks you have been reported as expressing dismay at what you have viewed as inadequate support of science and technology by the Bush Administration.

It bears noting that in his first budget message for FY 1991 the President requested a 12% increase for civilian R&D and a 4% one for defense R&D. The request for basic research was an 8% increase.

In his most recent budget for FY1992, prepared under the Omnibus Budget Reconciliation Act, he requested a 13% increase in R&D with an 8% increase for basic research. Obviously, because of the cap on domestic discretionary spending it was necessary to delete programs in other areas -- programs with strong constituencies -- in order to make these requested increased for R&D possible.

Indeed, in a recent Op-Ed piece in the Boston Sunday Globe, Frank Press noted that in this latter case, "President Bush has submitted a budget with stronger support for science than any in recent memory." In fact, this focus on science and technology has resulted in R&D being featured in both of the Bush budgets.

While we may all agree that we, as a Nation, are underinvesting in R&D--as an investment in our national future -- I believe that it is only fair to conclude that within the constraints within which the entire government currently is operating, the Bush Administration has treated science and technology very well!

When leaders of the science and engineering communities fail to recognize the case for increased support in subsequent years is, as I am sure you are aware, more difficult to make, rather than less. Your support, as President of the National Academy of Engineering is of particular importance in establishing public -- and Congressional -- opinion.

Perhaps I can convince you to take a more positive view of our support for science and technology.

Sincerely yours,

John H. Sununu

Dr. Robert White, President

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

May 21, 1991

MEMORANDUM FOR D. ALLAN BROMLEY

FROM: NANCY G. MAYNARD 

SUBJECT: Meeting of Scientists with Alternative Perspectives on
Global Warming

As requested, listed below are the names of several key participants in the upcoming meeting, "Global Warming Crises: Science or Politics?" to be held June 5-6, 1991. Background information on each of these participants can be found at Tab A. The conference brochure is attached at Tab B.

There are a number of other attendees who could also provide good information for discussion but, as requested, this is a short list. These people have been chosen from the list of speakers. We could certainly add participants either from the speaker list or from the conference attendees once we determine who will be there during the conference itself.

I have tentatively reserved the Roosevelt Room for the following 2 periods of time:

- . June 5: 1-2 p.m.
- . June 6: 9-10 a.m.

The suggested list of participants:

Richard S. Lindzen, Massachusetts Institute of Technology
Patrick Michaels, University of Virginia
Robert Balling, Arizona State University
Andrew Solow, Woods Hole Oceanographic Institution
Hugh Ellsaesser, Lawrence Livermore National Laboratory

LINDZEN, RICHARD SIEGMUND, b Webster, Mass, Feb 8, 40; m 65; c 2.
DYNAMIC METEOROLOGY, APPLIED MATHEMATICS. *Educ*:
Harvard Univ, AB, 60, SM, 61, PhD(appl math), 64. *Prof Exp*: Res fel
meteorol, Univ Wash, 64 & Univ Oslo, 64-65; res scientist, Nat Ctr
Atmospheric Res, 65-68; prof, Univ Chicago, 68-72; prof meteorol, Harvard
Univ, 72-83, dir, Ctr Earth & Planetary Physics, 80-83; SLOANS PROF
METEOROL, MASS INST TECHNOL, 83- *Concurrent Pos*: Exec mem,
Nat Acad Comt Global Atmospheric Res Prog, 68-; consult, Naval Res Lab,
72-83, Control Data Corp, 77 & NASA, 77-; mem, Nat Acad Assembly Math
& Phys Sci, 78-81. *Honors & Awards*: Meisinger Award, Am Meteorol Asn,
68; Macelwane Award, Am Geophys Union, 69; Charney Award, Am
Meteorol Soc, 85. *Mem*: Nat Acad Sci; fel Am Acad Arts & Sci; fel Am
Meteorol Soc. *Res*: Hydrodynamic stability; climatology; upper atmosphere
dynamics; general atmospheric circulation; tides. *Mailing Add*: Ctr Meteorol
& Phys Oceanog Mass Inst Technol Cambridge MA 02139

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
02. Resume	Resume of Patrick J. Michaels [social security number redacted] (1 pp.)		(b)(6)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Presidential Priorities Files
WHORM Cat.:
File Location: Environment - Global Climate Change [1991]

Date Closed: 4/5/2010	OA/ID Number: 62050-001
FOIA/SYS Case #: 2005-0336-F	Appeal Case #:
Re-review Case #:	Appeal Disposition:
P-2/P-5 Review Case #:	Disposition Date:
AR Case #:	MR Case #:
AR Disposition:	MR Disposition:
AR Disposition Date:	MR Disposition Date:

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P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

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Freedom of Information Act - [5 U.S.C. 552(b)]

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(b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
(b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
(b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
(b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
(b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
(b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
(b)(9) Release would disclose geological or geophysical information

RESUME

Patrick J. Michaels

Route 1, Box 234 B
Waynesboro, Virginia 22980

(b)(6)

EDUCATION

A.B. Biological Sciences, 1971, University of Chicago

S.M. Biology, 1975, University of Chicago

Ph.D. Special Graduate Committee on Ecological Climatology,
1979, University of Wisconsin-Madison

Dissertation: Atmospheric Anomalies and Crop Yields in North America

PROFESSIONAL EXPERIENCE (Abbreviated)

Center for Climatic Research, University of Wisconsin, 1976-1979

Developed and tested a new family of crop yield/climate models for small grains in the United States, India and Mexico.

Department of Environmental Sciences
University of Virginia

Assistant Professor, 1980-1986

Associate Professor, 1986-present

Appointed Virginia State Climatologist by Governor
John Dalton, July, 1980.

PROFESSIONAL SOCIETIES

Sigma Xi, The Scientific Honor Society

American Meteorological Society

(President, Central Virginia Chapter, 1986-87)

(Program Chair, Committee on Applied Climatology)

American Association for the Advancement of Science

American Association of State Climatologists

(President, 1987-88; Executive Board, 1986-89)

COURSES OF INSTRUCTION

EVSC 100A: The Greenhouse Effect and Public Policy

EVSC 447: Climatological Analysis

EVAT 796: Advanced Climatology

ACADEMIC COMMITTEE SERVICE (Major Professor Only)

David Stooksbury (PhD)
Paul J. Knappenberger (MS)
Harry Lins (PhD)

GOVERNMENT ADVISORY SERVICE

Governor's Inquiry--1980 drought
Governor's Inquiry--1981 drought
Virginia Farm Bureau--1983 drought
Virginia Department of Agriculture and Consumer
Services--Avian Influenza, 1983-4
Virginia Air Pollution Control Board--Acid Precipitation, 1984-1987
Governor's Task Force the Disposal of High-Level
Nuclear Waste, 1986.
Governor's Task Force on Drought, 1986
Virginia Office of Economic Development, 1986-7
Virginia Film Office, 1986
Virginia Division of Forestry, 1982-1987
Virginia Water Resources Research Center, 1986
U.S. Environmental Protection Agency Global Change
Initiative, 1987
U.S. Geological Survey, 1988

INVITED LECTURES AND TESTIMONY

Environmental Sciences Departmental Seminar, 1980, 1986
New Mexico State University, 1981
Virginia Farm Bureau, 1981, 1982, 1983
Virginia Small Grains Conference, 1981, 1988
Environmental Sciences Undergraduate Seminar, 1982, 1983, 1987
Sigma Xi, University of Virginia, 1982
Economics Honor Society, J. Madison University, 1983
Colorado State University, Atm. Sci. Dept. Seminar 1983
Virginia Tech Short Course on Viticulture, 1984
American Meteorological Society, Central Virginia Chapter, 1984
National Academy of Sciences, Commission on Life Life Sciences, 1985
Environmental Sciences Undergraduate Seminar, 1985
University of Virginia Institute of Government, 1985
University of Virginia Blandy Experimental Farm, 1986
Virginia Mosquito Control Commission, 1986
Virginia Water Resources Research Center, 1986 (2), 1988
Virginia Air Pollution Control Board, 1986
Virginia Tech Extension Service, 1987, 1988
Cooperative Institute for Research in the Atmosphere, Colorado State University, 1987
Virginia Agricultural Chemical and Soil Fert. Assn. 1988
U.S. Geological Survey, Advisory Committee on Water Data, 1988

University of Delaware, Geography Dept. Seminar 1988
Moderator, U.S. Drought Symposium, The Weather Channel, 1988
U.S. National Climate Program, Panel on Climate Trends, 1988
Lynchburg College Special Lecture, 1988
Sigma Xi, U.S. Department of Energy, 1988
American Society of Chemical Engineers, 1988
South Carolina Water Resources Commission, 1988
Virginia Mathematics and Science Center, 1988
Scripps Institute of Oceanography, 1988
Virginia State Air Pollution Control Board, 1989
Virginia State Feed Association, 1989
U.S. House of Representatives, Subcommittee on Energy and Power, 1989
Brookings Institution, 1989
American Society of Civil Engineers, 1989
Federal Executive Institute Alumni Association, 1989
Executive Board, National Coal Association, 1989
U.S. Senate, Committee on Foreign Relations, 1989
U.S. Department of State, Foreign Service Institute, 1989
Virginia Department of Agriculture and Consumer Services, 1989
National Association of Home Builders, 1989
American Meteorological Society, Committee on Broadcast Meteorology, 1989
Georgia and North Carolina Textile Manufacturing Association, 1989
The Eris Society, Aspen, Colorado, 1989
University of Texas, Conference on Energy Futures, 1989
Western Fuels Association Annual Meeting, 1989
7th International Pittsburg Coal Conference, 1989
U.S. Department of State, Seminar on Current Affairs, 1989
Edison Electric Institute, 1989
Virginia Soil and Water Conservatio Association, 1989
University of Illinois, Annual Energy Conference, 1989
The Keystone Center, Washington DC, 1989
National Governor's Conference, United Nations, 1989
Basin Electric Power Cooperative, Bismark ND, 1989
Bennington College, Bennington in New York Seminar, 1989
Virginia Tech Turkey Days (I), 1989
North Carolina State University MEAS Seminar, 1990
Illinois Power Corporation, 1990
Georgia Southern University, Conference on Global Issues, 1990
Virginia Division of Forestry, 1990
West Richmond Businessmen's Association, 1990
Southeastern Climate Symposium, Charleston SC, 1990
American Meteorological Society, Washington DC, 1990
Virginia Council on the Environment/Virginia Education Association, 1990
American Meteorological Society, Richmond VA, 1990
Department of Environmental Sciences Undergraduate Seminar, 1990
Virginia Mathematics and Science Center, 1990
Missouri Governor's Conference on Natural Resources, 1990

Consumer Alert, National Press Club, 1990
Virginia Emergency Services Conference on Severe Weather, 1990
North Carolina Coal Institute, 1990
The Brookings Institution, 1990
Pacific Research Institute, 1990
Virginia Soil and Water Conservation Association, 1990
American Association of State Climatologists, 1990
Grand Rounds, Western State Hospital, 1990
Penn Ag Industries Annual Meeting, 1990
Kentucky Coal Operators Association, Pikeville KY, 1990
Council of Industrial Boiler Owners, Orlando FL, 1990
Chemical Manufacturers Association, Washington DC, 1990
Maryland Chemical Industry Council, Baltimore MD, 1990
American Water Resources Association, Denver CO, 1990
Hillsdale College, 1990
National Coal Association, Washington DC, 1990

PUBLICATIONS

Senior Author unless otherwise noted

1977. A Predictive Model for Wheat Yield in Sonora, Mexico. University of Wisconsin, Institute for Environmental Studies, Report #73. University of Wisconsin--Madison, 53706. 17pp.

1977. An Aggregated National Model for Wheat Yield in India. University of Wisconsin, Institute for Environmental Studies, Report #74. University of Wisconsin--Madison, 53706. 17pp.

1978. A Predictive Model for Winter Wheat Yield in the U.S. Great Plains. University of Wisconsin, Institute for Environmental Studies, Report #94. University of Wisconsin--Madison, 53706. 44pp.

1979. A Simple Large Area Crop/Climate Model for United States Winter Wheat. American Meteorological Society, 14th Conf. on Agric. and For. Meteor., Amer. Met. Soc., Boston Mass. pp64-67.

1981. The Climatic Sensitivity of 'Green Revolution' Wheat Culture in Sonora, Mexico, Envi. Conserv. Vol.8, 307-312.

1981. Virginia's Climate. University of Virginia News Letter, Vol. 57, no.5, 17-20. (with B.P. Hayden, Senior Author)

1981. Comparison of the Climatic Sensitivity of "Green Revolution" Wheat Culture to that in the United States Great Plains. American Meteorological Society, 15th Conf. on Agric. and For. Meteor., Amer. Met. Soc., Boston, Mass. pp106-109.

1982. The Response of the 'Green Revolution' to Climatic Variability. Cli. Change, Vol. 4., 255-271.

1982. Five Tropical Systems on Similar Tracks. Mon. Wea. Rev., Vol.110., 883-885.

1982. Atmospheric Pressure Patterns, Climatic Change, and Winter Wheat Yields in North America. Geoforum, Vol.13, 263-273.

1982. Determination of the Climatic Component of Southern Pine Beetle Host Susceptibility with Multivariate Statistical Methods. Progress Report, USDA Cooperative Agreement 59/2513/1/3/006/0. 24pp.

1982. Statistical-Dynamic Models for Virginia Corn Yields. Final Report, USDA Cooperative Agreement 58/319T/1/0308. 50pp., and addendum of 13pp.

1983. Weather and the Southern Pine Beetle in Atlantic Coastal and Piedmont Regions. American Meteorological Society, 16th Conf. on Agric. and For. Meteor., Amer.Met. Soc., Boston Mass. pp241-244.

1983. Improved Specification of the Climatic Component of Southern Pine Beetle Host Susceptibility with Multivariate Statistical Methods. Progress Report, USDA/UVa Cooperative Agreement 5-29309. 15pp.

1983. Statistical-Dynamic Models for Virginia Corn Crops. American Meteorological Society, 16th Conf on Agric. and For. Meteor., Amer. Met. Soc., Boston, Mass. pp150-153. (with T.J. Smith, Senior Author)

1983. Temporal and Spatial Changes in Mesoscale Climatic Patterns. American Meteorological Society, 2nd Conf. on Climatic Variations, Amer. Met. Soc., Boston, Mass. p20.

1983. Price, Weather and "Acreage Abandonment" in Western Great Plains Wheat Culture. J. Clim. and Appl. Met., Vol. 22, 1296-1303.

1983. Climate and High Yielding Variety Wheat Yields. Geoforum, Vol. 14, 441-446.

1984. Modification of MOS-Derived Thunderstorm Probabilities over Complex Terrain with Continental Scale Upper Air Data. American Meteorological Society, 10th Conference on Weather Forecasting and Analysis. Amer. Met. Soc., Boston, Mass. pp 160-164.

1984. Estimating the Future Areal Coverage of Pine Beetle Infestations over large areas: An Integrated Approach. Progress Report, USDA IPM on Bark Beetles. 23pp.

1984. Climate and the Southern Pine Beetle in Atlantic Coastal and Piedmont Regions. Forest Science, Vol. 30, 143-156.

1984. Statistical Relations between Summer Thunderstorm Patterns and Continental Mid-Tropospheric Heights. Mon. Wea. Rev., Vol.112,778-789.

1985. Economic and Climatic Factors in "Acreage Abandonment" over Marginal Cropland. Climatic Change,6, 185-202.

1985. An Automated Objective Prediction Package for the Spread of Southern Pine Beetle. 17th Conf. on Agric. and For. Meteor., American Meteorological Society, Boston, Mass., 70-73.

1985. Sea-Breeze Induced Mesoscale Systems and Severe Weather. Progress Report to National Aeronautic and Space Administration. 26pp.

1985. Objective Prediction of Climate-Related Changes in the Distribution of Southern Pine Beetle. IN: Branham, S. J., and R. C. Thatcher, (eds.): Integrated Pest Management Research Symposium: The Proceedings. USDA Southern Forest Experiment Station General Technical Report SO-56, pp 41-52.

1985. SPBCMP: An Automated Prediction Package for Southern Pine Beetle. User's Guide. Southern Forest Experiment Station, Pineville, Louisiana. 34pp. (Philip J. Stenger, Senior Author)

1985. Anomalous Mid-Atmospheric Heights and Persistent Thunderstorm Patterns over Florida. J. Climatol. 5, 529-542.

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1986. Timeliness and Accuracy of a Series of Empirical Crop/Climate Models under Extreme Conditions. Int. Jour. Ecol. and Environ. Stud. 12, 19-34.

1986. Commentary on "The Cumulative Impacts of Human Activities on the Atmosphere." In Cumulative Environmental Effects: A Binational Perspective, National Research Council, Washington DC, 127-129.

1986. Climatological Considerations for Siting a Crystalline Repository for High-Level Nuclear Waste in the Commonwealth of Virginia. Report to the Governor's Task Force on the Crystalline Repository Project. 26pp.

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1988. Origin and Destination of Pollutant-Bearing Airstreams Impacting and Exiting the Commonwealth of Virginia. Final Report to Virginia Air Pollution Control Board. 131pp. Additional Technical Appendix. 1800pp.
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THE VIRGINIA CLIMATE ADVISORY

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- 1980. 4 (1) Degree-days and energy usage in Virginia. 27pp.
- 1980. 4 (2) Modelling soybean/climate relationships. 24pp.
- 1980. 4 (3) History of tropical cyclones in Virginia. 33pp.
- 1981. 4 (4) History of drought in Virginia. 27pp.

- 1981. 5 (1) Satellite climatology. 26pp.
- 1981. 5 (2) Acid rainfall in Virginia. 26pp.
- 1981. 5 (3) Winter severity over Virginia. 26pp.
- 1982. 5 (4) Coastal cyclogenesis. 26pp.

- 1982. 6 (1) History of tornadoes in Virginia. 26pp.
- 1982. 6 (2) Lightning and damaging thunderstorms in Virginia. 26pp.
- 1982. 6 (3) Thunderstorm patterns over Virginia. 26pp.
- 1983. 6 (4) Virginia wind patterns. 26pp.

- 1983. 7 (1) Virginia fog frequency and distribution. 26pp.
- 1983. 7 (2) Origin and distribution of summertime haze over Virginia. 26pp.
- 1983. 7 (3) Mountain temperature regimes. 26pp.
- 1984. 7 (4) The Carbon Dioxide controversy. 26pp.

- 1984. 8 (1) Precipitation and Elevation. 30pp.
- 1984. 8 (2) Improvements for Virginia Thunderstorm Forecasts. 30pp.
- 1984. 8 (3) Vineyard Microclimate. 30pp.
- 1985. 8 (4) Objective Improvement of Local Temperature Forecasts. 30pp.

- 1985. 9 (1) Radar Climatology of Piedmont Thunderstorms. 30pp.
- 1985. 9 (2) Cumulus Clusters. 30pp.
- 1985. 9 (3) Hurricane Gloria. 30pp.
- 1986. 9 (4) Winter History since 1890. 30pp.

- 1986. 10 (1) Climate and High-Level Nuclear Waste Disposal. 30pp.
- 1986. 10 (2) Carbon Dioxide/Climate Revisited. 30pp.
- 1986. 10 (3) Virginia Acid Rain Research. 30pp.
- 1987. 10 (4) Hurricanes, Drought, and Va Agriculture. 30pp.

- 1987. 11 (4) The Ozone Hole and Nuclear Winter. 30pp.
- 1987. 11 (2) Virginia Evaporation Regimes. 30pp.
- 1987. 11 (3) Virginia Snow Phobia. 30pp.

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1988. 11 (4) Updated Climatic History. 30pp.

1988. 12 (1) Historical Floods. 30pp.

1988. 12 (2) Acid Precipitation Trajectories. 30pp.

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1990. 14 (3) Climate of Saudi Arabia. 30pp.

THE SOUTHEASTERN CLIMATE REVIEW

The Southeastern Climate Review is a technical and public service publication of the Southeast Regional Climate Center. Circulation is approximately 4,500.

1989. 1 (1) Background on Climatic Change. 30pp.

1989. 1 (2) Hurricane Camille. 30pp.

1990. 1 (3) Hurricane Hugo. 30pp.

1990. 1 (4) Severe Cold Outbreaks. 30pp.

1990. 2 (1) Drought Preparedness. 30pp/

FINANCIAL SUPPORT (OVER \$15,000)

1981-1985. United States Department of Agriculture, Forest Service. Prediction models for Southern Pine Beetle Outbreaks. \$133,000.

1981-1982. United States Department of Agriculture, Economics Research Service. Statistical-

~~Dynamic Models for Virginia Corn and Soybean Yields. \$25,000.~~

~~1981-1987. United States Department of Commerce, National Oceanic and Atmospheric Administration Sea Grant Program. High Resolution Weather Forecasts for Chesapeake Bay and Estuarine Virginia. \$84,000.~~

1983-1985. National Aeronautic and Space Administration. Sea Breeze-Induced Mesoscale Systems and Severe Weather. \$26,000.

1985-1986. United States Department of Agriculture, Forest Service. Historical fluctuations of Gypsy Moth Populations and Climate. \$18,000.

1986-1987. National Oceanic and Atmospheric Administration. Objective Characterization of the Relationship between Seasonal Wind Regimes and the Recruitment of Croaker Flounder. \$41,000.

1986-1988. Commonwealth of Virginia, State Air Pollution Control Board. Origin and Destination of Pollutant-bearing Airstreams Entering and Exiting the Commonwealth of Virginia. \$140,000.

1989-1990 Southeastern Regional Climate Center. Research Publication for the Southeastern Climate Center. \$76,000

1989-1990. Jet Stream Alterations Induced by Anthropogenerated Sulfur Emissions. Cyprus Minerals Company. \$40,000

LAST UPDATE OF RESUME: December 21, 1990

Andrew R. Solow
Marine Policy Center
Woods Hole Oceanographic Institution
Woods Hole, Massachusetts 02543
(508) 548-1400

Experience:

1987-	Statistician Marine Policy Center Woods Hole Oceanographic Institution
1985-1987	Fellow Marine Policy Center Woods Hole Oceanographic Institution

Education:

1986	PhD, Geostatistics Stanford University
1981	MSc, Geomathematics Stanford University
1977	BA, Economics Harvard University

Honors:

Magna cum laude with highest distinction in Economics,
Harvard University

Phi Beta Kappa, Harvard University

Penzance Independent Study Award, Woods Hole Oceanographic
Institution

President's Award, International Association for
Mathematical Geology

Memberships:

American Statistical Association

Climate Trends Panel, National Climate Program Office

Scientific Working Group, Intergovernmental Panel on
Climate Change

Research interests:

spatial statistics, stochastic modelling, Bayesian
methods, environmental statistics, animal behavior

Publications:

Solow, A.R. 1985. Bootstrapping correlated data. Mathematical Geology, 17, 769-775.

Solow, A.R. 1986. Mapping by simple indicator kriging. Mathematical Geology, 18, 335-352.

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Solow, A.R. and Broadus, J.M. 1988. A simple model of overforecasting. Monthly Weather Review, 116, 1371-1373.

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- Solow, A.R. 1990. Discriminating between models: An application to relative sea level at Brest. Journal of Climate, 3, 792-796.
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- Solow, A.R. 1990. Nonparametric analysis of point process data: The freezing history of Lake Konstanz. Journal of Climate, 4, 116-119. ✓
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Haney, J.C. and Solow, A.R. 1990. Analyzing quantitative relationships between seabirds and marine resource patches. Current Ornithology, to appear.

Solow, A.R. and Broadus, J.M. 1990. Decision-making and the value of information under uncertainty. Proceedings of the WIDER Conference on the Environment and Economic Development, to appear.

Solow, A.R., Polasky, S., and Broadus, J.M. 1991. On the calculus of biological diversity. Journal of Environmental Economics and Management, submitted.

Solow, A.R. 1991. On the equivalence of two common tests for density dependence. Journal of Functional Ecology, submitted.

Solow, A.R. 1991. The use of multidimensional scaling in the analysis of genetic distance data. Systematic Zoology, submitted.

GLOBAL ENVIRONMENTAL CRISES:



Science or Politics?

A Cato Institute Conference
June 5-6, 1991

The Capital Hilton Hotel
16th and K Streets, N.W.
Washington, D.C.

"The notion that global warming is a fact and will be catastrophic is drilled into people to the point where it seems surprising that anyone would question it, and yet, underlying it is very little evidence at all. Nonetheless, there are statements made of such overt unrealism that I feel embarrassed. I feel it discredits science. I think problems will arise when one will need to depend on scientific judgment, and by ruining our credibility now you leave society with a resource of some importance diminished."

—Richard S. Lindzen



Robert H. Nelson
Author



Patrick J. Michaels
University of Virginia



Richard L. Stroup
Montana State University



Robert W. Brocksen
Brocksen and Brand, Inc.



Richard S. Lindzen
Massachusetts Institute
of Technology



Wilbur A. Stager
CONSAD Research
Corporation



Robert C. Balling, Jr.
Arizona State University



Edward C. Krug
Committee for a
Constructive Tomorrow



Fred L. Smith, Jr.
Competitive Enterprise
Institute



Donald H. Stedman
University of Denver



Dennis T. Avery
Center for Global Food
Issues, Hudson Institute



S. Fred Singer
Washington Institute for
Values in Public Policy

CONFERENCE SCHEDULE

WEDNESDAY, JUNE 5

REGISTRATION

8:00 - 9:00 a.m.

PANEL I

9:00 - 10:30 a.m.

10:45 a.m. - 12:30 p.m.

LUNCHEON

12:45 - 2:15 p.m.

PANEL II

2:30 - 3:30 p.m.

PANEL III

3:45 - 5:15 p.m.

RECEPTION

5:30 - 6:30 p.m.

PANEL IV

9:00 - 10:30 a.m.

10:45 a.m. - 12:15 p.m.

LUNCHEON

12:30 - 2:00 p.m.

DEBATE

2:15 - 4:15 p.m.

Congressional Room

GLOBAL WARMING: CATASTROPHIC? MANAGEABLE CHANGE? BENEFICIAL?

"The Political Science of Global Warming"

Patrick J. Michaels, University of Virginia

"Interpreting the Global Temperature Effect"

Robert C. Balling, Jr., Arizona State University

"Will Rising Atmospheric CO₂ Increase Carbon Accumulation in Terrestrial Ecosystems?"

Bert G. Drake, Smithsonian Environmental Research Center

"Critical Issues in Climate Forecasting"

Richard S. Lindzen, Massachusetts Institute of Technology

"CO₂ Emissions Limits: An Economic Cost Analysis for the World"

W. David Montgomery, Charles River Associates

"Global Warming: Unacceptable Climate Change"

Daniel A. Lashof, Natural Resources Defense Council*

"The Detection of Greenhouse Warming"

Andrew Solow, Marine Policy Center, Woods Hole Oceanographic Institution

THE JUDEO-CHRISTIAN ROOTS OF ECOTHEOLOGY

*Robert H. Nelson, author of *Reaching for Heaven on Earth**

STRATOSPHERIC OZONE THINNING

"The Flaws in the Stratospheric Ozone Thinning Hypothesis"

S. Fred Singer, Washington Institute for Values in Public Policy

"The Holes in the Ozone Hole"

Hugh W. Eissaesser, Atmospheric and Geophysical Science Division, Lawrence Livermore National Laboratory

SUSTAINABLE DEVELOPMENT AND THE BRUNDTLAND COMMISSION REPORT

"Political Control versus Sustainable Development"

Richard L. Stroup, Montana State University

"The Road to Sustainable Agriculture"

Dennis T. Avery, Center for Global Food Issues, Hudson Institute

"Our Common Future: Sustainable Development"

speaker to be announced

"A European View of Sustainable Development"

Alain Madelin, Institut Euro 92*

Federal Room

THURSDAY, JUNE 6

REVISITING THE CLEAN AIR ACT

"Acid Rain: Causes, Effects, and Control"

J. Laurence Kulp, Consultant, Environmental and Energy Affairs

"Acid Rain, Forests, and Fish"

Edward C. Krug, Committee for a Constructive Tomorrow

"The Comparative Economics of Acid Deposition Mitigation: Lake Liming"

Robert W. Brocksen, Brocksen and Brand, Inc.

"On-Road Testing: Making the Polluter Pay, Instead of Making America Pay"

Donald H. Stedman, University of Denver

"The Threat of Air Toxics: Real or Imagined?"

John Graham, Harvard School of Public Health

"Are the Clean Air Act and Economic Competitiveness Compatible?"

Wilbur A. Steger, CONSAD Research Corporation

HOW BAD SCIENCE BECOMES PUBLIC POLICY

Fred L. Smith, Jr., Competitive Enterprise Institute

RESOLVED: PRUDENT PUBLIC POLICY DECISIONS TO ENSURE SUSTAINED ECONOMIC GROWTH REQUIRE ACTION TO REDUCE THE RISKS OF RAPID CLIMATE CHANGE DURING THE NEXT DECADE

Patrick J. Michaels, University of Virginia vs. Irving M. Mintzer Center for Global Change*

**speaker not confirmed*

ABOUT THE CONFERENCE

World Environment Day, June 5, is a fitting time for the Cato Institute's Annual Environmental Conference. A Pandora's box of environmental evils has seemingly been loosed upon the earth: catastrophic global warming, massive sea level rise, planetary biodiversity collapse, skin cancer epidemics, oceanic plankton extinctions, air pollution crises, toxic cancer threats, deadly acid rain. Or so it seems. . . .

The only problem with those scenarios of catastrophe is that they may not be true. Even if they are, the economic costs alone of the proposed "cures" may exceed the costs of the threats. Many may find it surprising that respected scientists challenge all of the media-hyped environmental ills. Certainly policymakers and the public are almost totally unaware of the scientific controversy. Concern about global warming, for example, has become a part of the American psyche—despite scientific uncertainty.

Congressional committees rarely seek the views of the dissenting scientists. National legislation and even international treaties proceed as if scientific truth were irrelevant. A "politically correct" scientific view, which supports a "need" to force social change and to transform Western society, now dominates the policy debate.

Environmentalism's traditional values have been abandoned. The principle that the polluter should pay has been replaced by the cynical principle that those with the deepest pockets should pay. No longer should we "think globally, act locally"; that invites public derision. Perhaps most disturbing, even leading scientists quoted in *Science* magazine recently suggested that we have become dangerously addicted to the pursuit of science rather than the development of public policy. Those quoted in the *Science* story criticized the National Acid Precipitation Assessment Program's scientists for too diligently attempting to discover and understand the causes and effects of acid precipitation and warned against overemphasizing the role of science in reaching solutions to the even more complex issue of global climate change.

As the major United Nations World Conference on Environment and Development scheduled for Rio de Janeiro in June 1992 approaches, we are seemingly marching toward a new world order of population control, economic planning, and "sustainable development." The economic, societal, and personal consequences of such changes have been ignored.

Instead of accepting more regulation and possibly jeopardizing our common future, Cato is bringing together those scientists and policy analysts who offer alternative perspectives on environmental crises in the interests of rational and humane decisionmaking. In the tradition of public policy debate we have also invited respected spokespersons for the conventional paradigm to ensure a balanced debate on the crucial issues that are shaping our future.

To explore those issues, the Cato Institute is sponsoring a conference, GLOBAL ENVIRONMENTAL CRISES: SCIENCE OR POLITICS? on Wednesday and Thursday, June 5 and 6, 1991, at the Capital Hilton Hotel in Washington, D.C. For further information, contact Julie Riggs, conference director, Cato Institute, 224 Second Street S.E., Washington, D.C. 20003; telephone (202) 546-0200, fax (202) 546-0728.

GUEST ROOM RESERVATION REQUEST

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GLOBAL ENVIRONMENTAL CRISES Cato Institute, June 5-6, 1991

GLOBAL ENVIRONMENTAL CRISES

CONFERENCE REGISTRATION

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(202) 546-0200 Fax (202) 546-0728

The Capital Hilton
16th and K Streets N.W., Washington D.C. 20036
Attn: Reservations
(202) 393-1000 Fax (202) 393-7992

—Edward C. Krug

“The conventional wisdom among scientists, environmentalists, and politicians has blamed acid rain for the acidification of lakes and the depletion of game fisheries in the Adirondacks. Yet recent research suggests that acid rain has little or nothing to do with these problems. Fossil records in lake sediments reveal that many lakes that are acidic today have been highly acidic for centuries, except for several decades in the late 19th century and early 20th century when they were unnaturally alkaline.”

—Richard L. Stroup

“A system providing each successive generation better health, a cleaner environment and more real income is practicing sustainable development. Market economies, employing technological advances and pushed by the rising demand for environmental quality generated by rising incomes, have delivered these things. Economies where the government controls the means of production have seldom delivered sustainable development. It would be ironic if market economies were steered into collectivism in search of what collective systems of control cannot, by their very nature, deliver.”

About the Cato Institute

Founded in 1977, the Cato Institute is a public policy research foundation dedicated to broadening the parameters of policy debate to allow consideration of more options that are consistent with the traditional American principles of limited government, individual liberty, and peace. Toward that goal, the Institute strives to achieve greater involvement of the intelligent, concerned lay public in questions of policy and the proper role of government.

The Institute is named for *Cato's Letters*, pamphlets that were widely read in the American Colonies in the early 18th century and played a major role in laying the philosophical foundation for the revolution that followed. Since that revolution, civil and economic liberties have been eroded as the number and complexity of social problems have grown. Today virtually no aspect of human life is free from the domination of a governing class of politico-economic interests. A pervasive intolerance for individual rights is shown by government's arbitrary intrusions into private economic transactions and its disregard for civil liberties.

To counter this trend the Cato Institute undertakes an extensive publications program dealing with the complete spectrum of policy issues. Books, monographs, and shorter studies are commissioned to examine the federal budget, social security, regulation, NATO, international trade, and a myriad of other issues. Major policy conferences are held throughout the year, from which papers are published thrice yearly in the *Cato Journal*.

In order to maintain an independent posture, the Cato Institute accepts no government funding. Contributions are received from foundations, corporations, and individuals. The revenue is generated from the sale of publications. The Institute is a nonprofit, tax-exempt educational foundation under 501(c)(3) of the Internal Revenue Code.

Cato Institute
224 Second Street, S.E.
Washington, D.C. 20003

GLOBAL ENVIRONMENTAL CRISES:



Science or Politics?

A Cato Institute Conference
June 5-6, 1991
The Capital Hilton Hotel
16th and K Streets, N.W.
Washington, D.C.

REGISTRATION INFORMATION

THE WHITE HOUSE

WASHINGTON

April 18, 1991

MEMORANDUM TO JOHN H. SUNUNU

FROM:

D. ALLAN BROMLEY

Duan

SUBJECT:

POSSIBLE GROUP FROM WHOM TO OBTAIN
REACTION TO THE NAS/EVANS REPORT

Enclosed herewith is the information that Nancy Maynard was able to dig up for me in terms of listing potential invitees to the session we discussed. I agree with Nancy that the eight persons first listed are the best known and most outspoken.

I am sure that you have already considered the public reaction that may develop from this meeting. The fact that such a meeting is held will immediately become public knowledge and given 8 external attendees I would anticipate verbatim transmission of discussion comments. On the one hand it may be read as "White House draft to right-wing elements to combat Evans report"; but on the other, it could be presented as "White House session builds support, among skeptics, for the Evans report."

I would welcome your thoughts on the list, on how best to invite participants and structure the meeting to obtain the results we want.

I might suggest that I could ask Nancy to organize this to keep it at a relatively low level up to the event itself--but will welcome your comments.

You will find the enclosed reports of interest if you haven't seen them previously. There is some good stuff here!

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
WASHINGTON, D.C. 20506

April 17, 1991

MEMORANDUM FOR D. ALLAN BROMLEY

FROM: NANCY G. MAYNARD *NM*
SUBJECT: Scientific Skeptics on Global Warming

As requested, attached is a list of scientists who have been actively participating in the public debate on global warming from the point of view that perhaps the popular view - "The Popular Vision" - (IPCC science and/or potentially very negative effects) is wrong.

In fact, there was a conference last October of 24 scientists who met develop a research agenda to help examine the lines of evidence that "...suggest the chance of an ecologically or economically disastrous global warming is becoming more remote..." and to explore the "...emerging view of neutral or possibly beneficial change...". The group considered a set of research proposals, built around a central hypothesis: "The Popular Vision is Wrong", and the proposals are summarized in abstract form in Volume II of the Conference document. (Volumes I & II Attached)

I have listed on the following page the individuals who attended that conference. At the top of the page, I listed the handful of vocal critics of "The Popular Vision" who have actively participated in meetings or published articles on the subject over the past few years.

Group I

Richard Lindzen, MIT
Fred Seitz (retired)
Robert Jastrow (retired)
William Nierenberg, (retired)
Patrick Michaels, University of Virginia
Hugh Ellsaesser, Lawrence Livermore
Andy Solow, WHOI
Reginald Newell, MIT

Attendees at Conference: "The Popular Vision is Wrong"

David Aubrey, WHOI
Robert Balling, Arizona State University
Robert Davis, University of Virginia
Bert Drake, Smithsonian Environmental Research Center
Hugh Ellsaesser, Lawrence Livermore
Michael Garstang, University of Virginia
Nathaniel Guttman, National Climatic Data Center
Bruce Hayden, University of Virginia
Sherwood Idso, USDA
George Kukla, Lamont-Doherty Geological Observatory
David Robinson, Rutgers
Andrew Lacis, Goddard Institute of Space Studies
William Rossow, Goddard Institute of Space Studies
Richard Lindzen, MIT
Herman Mayeux, USDA
Hyrum Johnson, USDA
H. Wayne Polley, USDA
Patrick Michaels, University of Virginia
Reginald Newell, MIT
Roger Pielke, Colorado State University
William Reifsnyder, Yale
S. Fred Singer, Air and Space Museum
Vujica Yevjevich, Colorado State University
Gerd Weber, FRG

THE WHITE HOUSE

May 7, 91

Dear John:

Here is the draft list we
discussed. It is in OMIS clearance
but I would certainly welcome all
comments and suggestions

Sincerely
Alan

DRAFT

May 7, 1991

Dear Senator Johnston:

I should like to begin by underscoring the fact that the Administration shares your view that important environmental ramifications of energy sector activities must be considered in the development of energy policies. We would like to continue to work with you on these issues and I welcome the opportunity to share some thoughts on this legislation.

I will limit my discussion in this letter to Section 1003 of the Amendment to S. 341 offered by Senator Wirth because it is this section which sets forth the broad goals and policies of this act. I would like to take this opportunity to provide you with some comments on that section in particular, because, as it is presently written, we would not be able to support the ~~legislation~~ *Amendment*.

From a broad perspective, section 1003 is proposed as a statement of goals for legislation encompassing a wide range of actions on energy issues. However, as presently stated in this section, the goals apply only to climate change. We feel that a comprehensive energy policy must have, at its base, concerns for providing energy at reasonable prices, for reducing dependence on unreliable suppliers, and for providing a safer, healthier environment - including the important issue of possible climate change.

Our main specific concern is that the nearly exclusive focus on carbon dioxide in Section 1003 undercuts established U.S. policy of reliance on an approach to greenhouse issues that considers all greenhouse gases, and their sources and sinks, comprehensively. Any departures from this comprehensive approach, which is widely

DRAFT

recognized to be the most scientifically sound one run the risk of increasing the costs and undermining the effectiveness of greenhouse gas mitigation efforts. For example the exclusion of Montreal Protocol gases under Section 1003(a)(3) appears to rule out consideration of the greenhouse implications of an accelerated phaseout of these gases, or of efforts to bring more countries into the Protocol.

While this Administration strongly supports conclusion of a framework climate convention in June of 1992, we are concerned that Section 1003(a) appears to prejudice the outcome of ongoing negotiations on such a framework climate convention -- possibly undercutting our ability to protect U.S. vital national interests in the negotiating process. The reiteration of this publicly-stated Administration policy regarding conclusion of a framework climate convention by June 1992 in Section 1003(c) is, thus, unnecessary. Moreover, it is important to note that this section should state that the U.S. is working toward an international framework convention on global climate change through the activities of the UN Intergovernmental Negotiating Committee (INC), not through the activities of the Intergovernmental Panel on Climate Change (IPCC). While we also continue to be supportive of the activities of the IPCC, which interacts with and supports the INC, the official negotiating body for the framework convention is the Intergovernmental Negotiating Committee.

Section 1003(b) conspicuously overlooks two policies which we believe must play a crucial role in an environmentally-sound energy policy. Nuclear power is the only available technology which is capable of generating large blocks of electrical power without direct emissions of carbon dioxide, sulfur oxide and nitrogen oxide. Reforestation has the potential to sequester a significant percentage of the nation's carbon dioxide emissions.

DRAFT

The Administration believes that its recently proposed National Energy Strategy is sensitive to the environmental implications of energy policy decisions and reflects the national interest in promoting conservation and efficiency investments that are cost-effective. Full enactment of the NES proposals together with other policies that are already in place, or pending, is projected to stabilize net greenhouse gas emissions at present levels through 2030. We believe that the market-oriented and flexible NES proposals can be successfully implemented and maintained in the face of changing conditions, allowing the country to avoid the painful and costly mistakes of 1970s-type energy policies. We urge the Congress to act on our sound and balanced energy proposals, rather than on alternatives that fail to adequately account for important non-environmental concerns.

I hope that this information is useful to you in your discussions of this very important issue. If there is any way in which we can work further with you to achieve the most successful outcome for the country in this very vital area, please let me know.

With all best wishes.

Sincerely,

D. Allan Bromley
Director

The Honorable J. Bennett Johnston
Chairman
Senate Committee on Energy and Natural Resources
364 Dirksen Senate Building
Washington, D.C. 20510-6150

THE WHITE HOUSE

WASHINGTON

April 8, 1991

MEMORANDUM TO GOVERNOR SUNUNU

FROM: D. ALLAN BROMLEY

Alan

SUBJECT: THE NRC EVANS REPORT

Attached hereto are memoranda prepared by Dr. Nancy Maynard of my staff and by Dr. Howard Gruenspecht of Mike Boskin's staff addressing recommendations from the about-to-be-released Evans report - a copy of which is also enclosed.

As both memoranda emphasize, the Evans report is very parallel to the position of this Administration in a great many of its statements and while it advocates a more activist response to a projected greenhouse effect - beyond the "insurance policy" approach that we have taken thus far. I believe that it will be important for us to be supportive overall when the Evans report is released emphasizing the many points of overlap and agreement.

Enclosure

THE WHITE HOUSE
WASHINGTON

April 8, 1991

MEMORANDUM FOR GOVERNOR SUNUNU

FROM: D. ALLAN BROMLEY

Alan

SUBJECT: OZONE DECREASE

I still am unable to provide you with any very clear insight into the EPA's calculations of cancer cases and deaths resulting from decreased ozone in the northern hemisphere. Several points deserve emphasis however.

1. The NASA data are of high quality and while the early analyses of the 1979-1989 satellite data suggested that there was a 2-3% decrease in the total ozone column north of latitude 30 N, from December through March, (as reported in 1989), more complete analyses now give a range of 5-11% for this decrease. In addition, in 1990 in Antarctica, the spring-time depletion equalled previous measurements, but persisted longer and did not disappear until late December.
2. There is no statistically significant decrease, as yet, in the June-October period when most human exposures occurs.
3. From an impact viewpoint the important variable is the UVB flux at the earth's surface. This is not easily deduced from the raw ozone decrease numbers. Cloud cover and aerosol concentration are important variables.
4. EPA's estimates of UVB fluxes and of consequent cancer deaths are based upon models that EPA constructed for use prior to the Montreal Protocol negotiations. The only series of surface-based measurements of the UVB flux (Scotto et al. Science 239 762 (1988)) shows no UVB increases between 1974-1985 in disagreement with the model predictions but the data are limited in scope and may not be entirely reliable.
5. I arranged to be briefed on these models and their use in the current situation and met, this afternoon, with an EPA group.
6. There are a number of outstanding questions.
 - a) What is the conversion factor between ozone decrease and UVB flux at the earth's surface and what are the uncertainties in this factor?

- b) How does human exposure change as a function of time during the year and how does this correlate with the time behavior of the ozone column? What are the uncertainties here?
- c) What is the conversion factor between UVB exposure and cancer induction (over say a 20 year period)? What are the uncertainties?
- d) What fraction of the induced cancers lead to death (within 20 years say) and what are the uncertainties?

7. Today the EPA group responsible for Reilly's numbers explained the elements of their models and reported that they had done a Monte Carlo simulation to propagate uncertainties through their calculations. The end result - and it was simply not possible to disentangle all the possible sources of uncertainty actually included - was that the end figures quoted by Reilly have at least a 25% uncertainty. I rather suspect, but cannot prove, that it is larger. I talked to Reilly on Friday after our conversation and, I believe, convinced him either to omit specific numbers or qualify them heavily in future talks or releases.
8. While the decrease in northern hemisphere and Antarctic ozone is clearly a matter of concern and while we clearly should take all reasonable steps to phase out CFC's both here and abroad as soon as possible as well as alert our citizens to the already significant dangers of over exposure to solar UVB, our scientific credibility suffers when senior members of the Administration use numbers that imply greater precision and certainty than is the case.

THE WHITE HOUSE

April 5, 91

Dear John:

Within the law, it would appear that the proposed identification of the Snake River Sucker has resulted from a process that has touched all the requisite bases and had the benefit(?) of a whole cadre of experts. I do not believe that the process

is open to attack.

Brother, episode would seem to raise significant questions regarding the underlying regulations, rules and definitions on which the process is based. Although I am certainly no ichthyologist it seems to me that the definitions of "endangered species" are far too broad.

I enclose herewith more data and discussion than you can possibly want!

Sincerely

AM

THE WHITE HOUSE

WASHINGTON

March 22, 1991

MEMORANDUM FOR GOVERNOR SUNUNU

FROM:

D. ALLAN BROMLEY *daB*

EDE HOLIDAY *EH*

SUBJECT:

Preparation for the 1992 U.N. Conference on
Environment and Development

Planning is underway for the 1992 U.N. Conference on Environment and Development (UNCED), which will be held in June, 1992 in Rio de Janeiro. UNCED will mark the twentieth anniversary of the Stockholm Conference, at which a declaration of principles was issued that continues to guide the international approach to environmental issues. The Stockholm Conference also established the UN Environmental Programme to coordinate international work on the environment. The U.S. was primary sponsor of the Stockholm Conference and played a major role in its success.

The UNCED in Rio will address a wide range of environmental issues including climate change, land resources, toxic wastes, oceans and coastal areas, and biological diversity. The 1992 Conference will also consider how to integrate environmental objectives with economic development. The developing countries are expected to focus on the need for additional U.S. funding of international environmental projects and technology transfer.

There is a greater need for White House supervision of the planning process because, five months prior to the U.S. election, UNCED will be addressing many controversial environmental issues that have a political impact. You should also know that, in connection with the UNCED planning process, CEQ is preparing a U.S. National Report which will both review U.S. domestic actions on the environment during the last 20 years and identify current issues. In that connection, CEQ has planned a series of five roundtable meetings throughout the country at which representatives from nongovernmental organizations will publicly comment on the draft report. It is important that the CEQ report, and the process for its formulation, are consistent with the overall policy guidance for the 1992 Conference.

Consequently, as planning for the conference continues, an EPRG Steering Group will be formed to regularly review material and provide guidance to the State Department. OSTP will be involved to monitor climate change issues, should any arise. The Steering Group will be staffed by OMB. We will keep you informed when any significant issues arise that require your attention, or that of the full DPC.

THE WHITE HOUSE
WASHINGTON

March 4, 1991

MEMORANDUM FOR GOVERNOR SUNUNU

FROM: D. ALLAN BROMLEY *Amman*
SUBJECT: Change of Chairmanship of IPCC/RSWG Working Group

As you know, Dr. Frederick Bernthal has chaired the Response Strategies Working Group (RSWG) of the U.N./WMO sponsored Intergovernmental Panel on Climate Change (IPCC) since its first meeting in January of 1989. Dr. Bernthal has left the Department of State to become Deputy Director of the National Science Foundation and is unable to continue as the chair of the RSWG.

The next Plenary meeting of the IPCC will take place March 13-15, 1991. It is important for the U.S. to be represented in the Chair at that meeting. The DPC Global Change Strategy Task Force has therefore proposed that Dr. Bernthal be replaced as the chair of RSWG by Bob Reinstein, the Chief Negotiator for the U.S. on the Framework Convention on Climate Change. He is also the Deputy Assistant Secretary of State for Environment, Health and Natural Resources. As you are aware, Mr. Reinstein was chosen for the position of chief negotiator due to his knowledge of the critical issues involved in climate change and his previous participation in the work of the IPCC.

Unless you have any objections to this course of action, we will proceed with Mr. Reinstein as the Chair of RSWG.

The charge to RSWG by the IPCC was to lay out as fully and fairly as possible a set of response policy options and the factual basis for those options. The RSWG has met several times since 1989 and recently produced a book, Climate Change - The IPCC Response Strategies, which gives a summary of its work (attached).

*Reinstein, in my
view did an excellent
job at the Climate
meeting. DAB.*



CLIMATE CHANGE



World Meteorological Organization/United Nations Environment Program
INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

THE WHITE HOUSE

WASHINGTON

February 26, 1991

MEMORANDUM FOR JOHN H. SUNUNU

FROM: D. ALLAN BROMLEY *Da*

SUBJECT: THE NAPAP STUDY AND ITS USE

I am responding to your request that I look into the NAPAP study and its use in conjunction with the development of the current Clean Air legislation.

The conclusion is clear. The NAPAP study, designed to quantify the impact of acid rain on the biosphere, had already established, at the time of issuance of its 1987 interim report that the impact was substantially less than was being suggested by environmental activists and most of those involved in the issues.

As in the case of global climate change, there has been a strong tendency to focus on anthropogenic fluxes while ignoring natural ones, even when the latter are substantially larger.

One of the early papers to point this out was that by Krug and Frink (Science. 221 520 (1983)--a copy of which I enclose herewith(1). It was referenced in the NAPAP Interim Report, Volume IV, page 8-4. I enclose a part of that report (2). The Krug report is referenced generally and the NAPAP volume does not, in my opinion, touch on the key point of the Krug article, i.e. that change in land use can cause an episodic flux in acidity (positive or negative) followed by a return to a natural acidification level. What is discussed however, e.g., background acidification levels, effects on fish populations, watershed patterns, etc, show effects varying widely and does more to support than to disprove the Krug and Frink hypothesis.

I find Krug's suggestions interesting. If he is correct, then any increased acidification of Adirondack lakes may well be as much the result of a return to a natural state of acidification following a temporary, and abnormal, state of reduced acidification during a period when much of the Adirondack forests had been cut (and a huge amount of debris burned) as to deposition of acidic rain resulting from sulphur dioxide production in Midwest utility plants.

The environmental activists, of course, consider such ideas to be heretical.

Without endorsing such ideas, however, NAPAP in its Interim Report and in several of its Science and Technology Reports (SOS/T) address this question of acidification of surface waters. I include a section of Report No. 11 herewith (3). In the first major conclusion (SOS/T11-2) the report flatly identifies deposition of sulphur and nitrogen compounds from the atmosphere as a prime source of acidification. But on the following page it is noted that the acidification is less than previously believed. Then it is noted that observations are "consistent with" the hypotheses of acidic deposition.

On page SOS/T11-5, the authors note that "Sullivan et al. concluded that the majority of Adirondack lakes...have not experienced historical declines in pH...as a result of acidic deposition." You get the idea.

The controversy surrounding the NAPAP report as it was used in the construction of the Clean Air Act has been recently been brought to public attention through columnist Warren Brooks, of the The Washington Times, and by CBS's "60 Minutes." (I include a copy of the relevant tape herewith and you might find it interesting.)

Information and data from the NAPAP report were available through the release of the interim report in 1987. Subsequent to that release and the release of the final report in September 1990, no preliminary or interim releases of analyses or assessment information were made. As such analyses and data assessments became available, releases could have been made, but a decision was made not to make any preliminary releases because of the sensitivity to activity with respect to the Clean Air Act. Any information released which would have indicated that acid rain was not as serious a problem as we had once believed, would have potentially delayed the passage of the Clean Air Act. As far as I can determine it was a conscious decision on the part of both NAPAP and EPA to delay the release of any preliminary information or analyses.

Prior to various hearings, particularly those on October 5 and October 19, 1989, testimony by Jim Mahoney, the NAPAP Director, was carefully reviewed by EPA. EPA wanted Mahoney to make clear that there were benefits from the reduction of SO₂. Accusations that EPA asked Mahoney to change his testimony "19 times" were made in the press. Mahoney did have at least one meeting with EPA prior to the submission of his testimony to "negotiate" the wording. EPA's concern appears to have been clearly focussed on any possible delay in getting a Clean Air Act.

I have asked Vickie Sutton, of my staff, to prepare a detailed timeline for the NAPAP activities and for the development and passage of the Clean Air legislation. The merged timelines (Clean Air in bold face) are given in later sections of this binder, together with more backup material than you can conceivably want.

The bottom line answer to the question you posed to me originally seems to be that information that would have deemphasized the importance of cutting down on sulphur dioxide emissions was held back to avoid affecting the Clean Air negotiations.

Unhappily, too, while NAPAP was one of the most extensive, and expensive, studies of its kind in history, it was overtaken by events and its impact has been minimal. It is, in fact, an excellent piece of work that arrived too late.

Enclosures

THE WHITE HOUSE

WASHINGTON

January 29, 1991

MEMORANDUM FOR GOVERNOR SUNUNU

FROM: D. ALLAN BROMLEY *Adm*
SUBJECT: SUGGESTED LETTER FOR PRESIDENT TO
HEADS OF DELEGATION
FEBRUARY 4, NEGOTIATING SESSION

In our discussion group we have concluded that the difficulties associated with a video message from the President to this group are such that we would recommend against it. We have also agreed that it might be more appropriate were the President to address a letter to the Heads of Delegations rather than the Heads of State. Only 2 ministers, at present count, will be present--Goldemberg from Brazil and someone from a small African nation.

I enclose herewith a draft of a possible letter from the President to the Heads of Delegations.

I have talked with Dick Truly and Lennard Fisk at NASA and they are entirely agreeable to having Bob Watson act as our monitor on the Framework negotiations. Now all I need is approval of a mechanism that can bring him to OSTP through June 30, 1992 while remaining on NASA staff and payroll. I need your help!

Hope your flu is improving!

Enclosure

THE WHITE HOUSE
DRAFT
WASHINGTON

January 29, 1991

Dear Delegates:

It is with great pleasure that I welcome you to the United States as we gather to begin negotiations on a landmark international agreement on climate change. This agreement will serve as a framework for our future cooperative efforts in our collective role as responsible stewards of this planet.

As we are so painfully reminded by the events of the past weeks, the future of our Earth's integrity, indeed, the future of our planet, requires true partnerships among nations in order to achieve peace, economic growth, and environmental protection for all. Accordingly, we look forward to working with you, recognizing that, together, we face a difficult task of shaping a new international legal regime. I assure you that we are prepared to work openly, diligently and respectfully toward achieving the goal of completing a climate change convention in time for its signature at the United Nations Conference on Environment and Development to be convened in June 1992.

The IPCC has defined our common agenda: accelerating scientific and economic research to help reduce remaining uncertainties; taking action now that responds to our present state of knowledge; and negotiating multilateral agreements that are fair, comprehensive and enforceable. As I said last April at the White House Conference on Science and Economics of Global change, to exercise effective global stewardship, we must advance our knowledge of natural and human systems, and we must create solutions that join economic growth with sound management of our environment.

Through our U.S. Global Change Research Program, we are working aggressively with other nations to improve our understanding of the global ecosystem and the relationship of our economic activities to the natural environment.

In addition, a number of nations are implementing policies to reduce greenhouse gas emissions. I am pleased to provide to you at this conference a copy of the U.S. action plan for climate change - America's Climate Change Strategy. This comprehensive strategy for action is built upon a series of actions which will have broad-ranging benefits - from curbing air pollution, to conserving energy, to restoring forest lands - and which will help curb net greenhouse gas emissions.

DRAFT

I am also pleased to report that the actions which are currently included in America's Climate Change Strategy will result in U.S. greenhouse gas emissions in the year 2000 being equal to or below the 1987 level.

We in the U.S. take the challenge of global stewardship very seriously and feel that these negotiations offer the opportunity for launching a new era of cooperation toward that end. The outcome of our talks will be profoundly important to the state of nature and the fate of humanity. Working together, I am sure that we will be successful.

file

THE WHITE HOUSE

WASHINGTON

January 23, 1991

MEMORANDUM FOR GOVERNOR SUNUNU

FROM: D. ALLAN BROMLEY 
EDE HOLIDAY

SUBJECT: Climate Change Framework Convention Meeting at
9:30 Wednesday morning

A meeting has been scheduled for Wednesday, January 23 at 9:30 A.M. in your office to obtain your approval, in concept, of the DPC paper on Global Climate Change and a brochure highlighting the environmental achievements of the Bush Administration. If you approve, we will distribute these papers to members of the DPC for their written comments and clearance.

Thereafter, we suggest that you meet with a group of advisers on Friday to give final approval to the strategy for the Framework Convention, to approve the final draft of the accomplishments brochure and to consider the more sensitive strategic questions raised by the upcoming negotiations -- questions we did not think it prudent to raise in the DPC paper, such as:

- o Will publishing a brochure highlighting U.S. accomplishments towards stabilizing emissions of greenhouse gases actually undercut the Administration's position that there is insufficient scientific and economic evidence to justify negotiations over targets and timetables?
- o What would have to change in the science, economics or politics of global climate change to warrant reconsidering our opposition to some form of targets and timetables?
- o If the U.S. ultimately acquiesces to some regime of targets and timetables, when should the Administration make this concession -- and how should it be portrayed?
- o What should the U.S. do if other countries do not support the comprehensive approach or if other countries support the comprehensive approach without granting any credit to the U.S. for phasing out CFCs under the Montreal protocol?
- o Should the President address the opening session of the climate change negotiations either in person or by video tape?

Participants in this morning's meeting will include Richard Darman, Boyden Gray, Roger Porter, Bob Grady, Ken Yale, Teresa Gorman and Richard Porter. Bob Grady took the initiative to prepare the draft U.S. accomplishments brochure, with the assistance of OSTP and other agencies.

THE WHITE HOUSE

WASHINGTON

January 14, 1991

MEMORANDUM FOR GOVERNOR SUNUNU

FROM: D. ALLAN BROMLEY *DB*

SUBJECT: Congressional Hearings on Framework Convention

The House Energy and Commerce Subcommittee on Health and Environment requested Energy, State, EPA, and OSTP to testify on a variety of global change issues at a January 31, 1991 hearing. We are working with Fred McClure's office on this matter.

The subcommittee is requesting testimony on the position the U.S. will take next month to the first negotiating session on a framework convention; the nature and severity of climate change due to anthropogenic emissions; how global warming concerns are taken into account in the national energy strategy; current and future commitments, both domestically and internationally, to reduce greenhouse gas emissions, particularly CO₂; and other global climate change issues.

State says it would be inappropriate to testify at a public hearing prior to the February meeting as that could prejudice the U.S. position. This was relayed to Subcommittee majority staff who prepared a follow up letter (attached) insisting that the Administration testify or provide written justification for its refusal. This information was discussed at the White House Global Change Task Force meeting on January 11.

Options to respond include: 1) decline, 2) testify only on those issues that can be discussed in public at this time, or 3) suggest that Congressmen and their staff be briefed in a closed meeting. Whatever is said, a hearing will probably result in bad publicity for the Administration.

If we go to the Hill, it would have to be decided whether to go before the Subcommittee (Rep. Waxman chairs) or the full Committee (Rep. Dingell chairs). It is believed that Rep. Sharp (Energy Subcommittee chair) and Rep. Dingell have an interest in this issue and would not want to cede jurisdiction to Waxman's Subcommittee. In addition, they would probably be less antagonistic of the Administration than Waxman on this issue.

The next steps are to determine what Reps. Dingell and Sharp think about this hearing and try to obtain a closed-door briefing for full Committee members if that seems appropriate. The Global Change Strategy group expressed reservations about testifying, but did not reject the idea and felt that if the decision was made to go to the Hill, that I should represent the Administration. I welcome your comments on this and would be happy to work with Fred McClure to arrange a legislative strategy meeting for you on this issue, if you would like.

2418 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-0524
(202) 226-3878

DISTRICT OFFICE
8425 WEST 30 STREET
SUITE 400
LOS ANGELES, CA 90048-4183
(213) 851-1040

Congress of the United States
House of Representatives
Washington, DC 20515-0524

HENRY A. WAXMAN
24TH DISTRICT, CALIFORNIA

January 10, 1991

COMMITTEES:
ENERGY AND COMMERCE
CHAIRMAN, SUBCOMMITTEE ON
HEALTH AND THE ENVIRONMENT
GOVERNMENT OPERATIONS
SELECT COMMITTEE ON AGING
DEMOCRATIC STEERING AND
POLICY COMMITTEE
PHILIP M. SCHILRO
ADMINISTRATIVE ASSISTANT

The Honorable James A. Baker III
Secretary of State
Office of the Secretary
7th Floor, 2201 C Street
Washington, D.C. 20520

Dear Secretary Baker:

I understand that the White House, the State and Energy Departments, and the Environmental Protection Agency are refusing to send representatives to testify before the Health and the Environment Subcommittee on global climate change on January 31, 1991. This is extremely distressing.

Global climate change is an immensely important problem. Domestically, the Environmental Protection Agency's Science Advisory Board has called global warming the most serious environmental threat to the welfare of the United States. Internationally, the Intergovernmental Panel on Climate Change, a panel established by the United Nations Environment Programme and the World Meteorological Organization, has stated it is "certain" that global warming will occur and predicted a warming of 3 degrees centigrade (5.5 degrees Fahrenheit) by 2100; and over 100 nations, meeting at the Second World Climate Conference, have declared that global warming poses a "risk for survival in low-lying coastal and arid and semi-arid areas of the world" and called for international negotiations to limit emissions of greenhouse gases to begin "without delay."

Because of the problem's tremendous importance, I asked that top Administration officials present the Administration's views on a variety of global warming issues. These included the Administration's views on the nature and severity of global warming; on the appropriate domestic policy responses; and on the importance of international action to address global warming. Perhaps most important, I asked for a description of the U.S. objectives in the international negotiations on global warming to begin on February 4, 1991. I addressed my requests to you; Dr. Bromley, the White House Science Advisor and head of the interagency task force on global warming; Admiral Watkins of the Energy Department; and Administrator Reilly of the Environmental Protection Agency.

My staff was informed by your staff, however, that no representative from the Administration can testify on any matter related to global warming in advance of the February round of international negotiations.

The ostensible reason for the refusal to testify is that the U.S. position on global climate change is "classified" information. My staff was informed that discussing U.S. policy on global warming with a congressional committee of jurisdiction in advance of the international negotiations in February would prejudice the U.S. position. However, we were told that the Administration could testify after the February round of negotiations were completed.

The Administration position is unacceptable. One of the important purposes of the hearing is to provide a forum for the Administration to advise and consult with members of Congress about the position that the U.S. will take in the global warming negotiations. This is appropriate -- indeed, essential -- in light of the worldwide importance of the threat of global warming. Yet the Administration's position is that Congress -- and the public -- should not be informed of the U.S. position until after the fact. The Administration's response indicates that current U.S. policy on global warming will be formulated and executed in secret.

This does a disservice to the country. The global warming issue is complex, controversial, and vital to global welfare. It should be fully debated before Congress and the American people. This should happen before U.S. negotiators sit down with negotiators from other nations and commit the U.S. to a policy position. Unfortunately, the Administration's refusal to appear -- and its insistence that U.S. policy is "classified" -- prevents this debate from occurring.

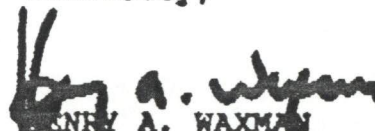
Moreover, my invitations to Administration witnesses asked for a large amount of important information that does not bear upon the upcoming international negotiations. For instance, I asked Dr. Bromley to set forth "the Administration's views on the domestic policies the U.S. should implement to reduce the U.S. contribution to global warming." Yet apparently the Administration is maintaining that its views on domestic policy are also "classified." This is an unjustifiable position.

It is equally unjustifiable to claim that Administrator Reilly cannot accept my invitation to testify about matters such as the science of global warming, the sources of greenhouse gases, and potential domestic mitigation measures. The State Department also claims that it cannot report to Congress on the factual issue of what commitments and actions other nations have taken to address global warming. I cannot comprehend how these matters might be government secrets.

I request that you provide me, in writing, by the end of business on January 14, a full explanation and justification for the refusal to testify on global warming. I am attaching to this letter my letters of invitation to you, Dr. Bromley, Secretary Watkins, and Administrator Reilly. I expect that you will address each request for information raised in each letter and set forth in detail why that information cannot be presented to members of Congress at this time.

With every good wish, I am,

Sincerely,


HENRY A. WAXMAN
Member of Congress

HAW/pbs

cc: Dr. D. Allan Bromley
Admiral James D. Watkins
The Honorable William K. Reilly

THE WHITE HOUSE

WASHINGTON

January 23, 1991

MEMORANDUM FOR GOVERNOR SUNUNU

FROM: D. ALLAN BROMLEY
EDE HOLIDAY

SUBJECT: Climate Change Framework Convention Meeting at
9:30 Wednesday morning

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THE WHITE HOUSE
WASHINGTON

January 22, 1991

MEMORANDUM FOR GOVERNOR SUNUNU

FROM: D. ALLAN BROMLEY

Allan

SUBJECT: RESPONSE TO YOUR REQUEST FOR SPECIFIC POINTS
THAT THE PRESIDENT MIGHT INCLUDE IN A
WELCOMING ADDRESS TO THE FIRST NEGOTIATING
SESSION FOR THE FRAMEWORK CONVENTION ON
CLIMATE CHANGE

o I can well understand that developments in the Gulf may make it impossible for the President to participate in this meeting.

o On three separate public occasions, however, he invited the world's nations to this meeting and his absence may be misunderstood.

o As the following pages indicate, I believe that he can now make a very strong statement about the accomplishments of his Administration. Much has happened since the President spoke to the April White House Conference.

o I include herewith more than you probably want as well as a second copy of the draft of the proposed accomplishments document that I sent you earlier and that was mentioned by Ede at this morning's senior staff meeting.

o I look forward to discussing this material with you tomorrow. I am currently scheduled to see you at 3:15p.m.

BACKGROUND

Over the past year, the U.S. has taken a somewhat cautious approach to the climate change issue - to allow time for gathering enough data and information to insure that the U.S. climate change policy is based upon the strongest scientific and economic knowledge base possible

- o Meanwhile other countries have been willing to commit themselves to specific targets and timetable for greenhouse gas emissions reduction - with little regard for their ability to achieve their commitments or any knowledge of the cost of their actions
- o While our approach toward any specific plan for stabilization has been factually well-justified, it has been poorly-understood and our motives have been badly misconstrued.
- o We now enter the negotiations from a relatively isolated position, because we are now the only developed country which has not committed to some plan to address the greenhouse gas issue

Therefore, to reestablish our the international leadership on this issue for the President and for the Administration, we need to have a clearly-articulated position on this issue - and we need to make it clear that while everyone else has been talking, we have been acting.

Toward this end, the Administration has:

- . Put together a constructive and firm approach for participation in the negotiations
- . Created an innovative, and more scientifically valid approach to the greenhouse gas issue - The Comprehensive Approach - which focusses on the total picture, including both sinks and sources of ghg.
- . Compiled a description of the actions which we have been taken which address the climate change issue but which were taken because they had merit in their own right (e.g., the Clean Air Act, phasing out CFC's, the tree initiative) and the list is startling - taken together, the acitons are unmatched by any other country.

The President now has a comprehensive U.S. STRATEGY for leadership and action he can announce on behalf of the nation which outlines specific steps the U.S. is taking in its approach to the climate change issue

The President can distribute copies of a document - the U.S. "Action Plan" which outlines a startling number of specific, significant actions the U.S. is taking which directly address this issue

- o By the way, to the best of our knowledge, other countries do not have a clue that we may have prepared this document - or are even considering a "plan"
- o While other countries have all been talking - we have been taking action and this "Action Plan" showcases exactly what we have done

The President can now announce that the actions which are currently included in the U.S. Climate Change Strategy will result in U.S. greenhouse gas emissions in the year 2000 being equal to or lower than 1987 levels.

The specific actions which contribute to this result include:

1. Phasing out CFC's and other ozone-depleting compounds which are also strong ghg)
2. Putting a permanent ceiling on sulphur dioxide emissions, at sharply reduced levels
 - . Allowing freedom of choice in meeting the ceilings thereby encouraging energy efficiency and reducing ghg emissions
 - . Under CA Act Emendments, utilities were given flexibility to make reductions by any means - a powerful incentive for energy saving measures
3. Reducing, under CA Act, air pollutants which are either ghg themselves (NOs) or ghg precursors (VOCs, CO, and NOs)
4. Plant a billion trees a year/ other forest improvements
5. Programs to speed adoption of energy efficient technologies/practices in homes and businesses
6. Promoting use of and accelerating research on non-fossil fuel energy sources (solar, nuclear, alternative fuels)

The U.S. and Global Change - Approach to the Framework Convention Negotiations

o The U.S. is prepared to take to the first negotiating sessions of the Framework Convention on Climate Change an innovative approach to the climate change issue - the "Comprehensive Approach"

- . Moves the climate change issue from the narrow focus on one gas (CO₂ - which primarily results from the energy and transportation sectors)

- . All gases are treated on an equal footing based on a scientifically determined "greenhouse potential index" which takes into account not only their intrinsic molecular greenhouse efficiency but also their average residence time in the atmosphere and other considerations.

- . Scientifically more valid approach because considers all of the significant human-influenced trace gases that effect climate

- . Also considers "sinks" of greenhouse gases which are key part of solution to increases in atmospheric concentrations of greenhouse gases

- . Allows countries more flexibility in policy responses to reducing greenhouse gas emissions

- . Recognizes that Third World Countries with their methane and other emissions are also significant contributors to the greenhouse problem

- . Will make possible a market approach in greenhouse situation at minimum cost

- . Avoids the potential problems associated with developing separate protocols for each greenhouse gas

o Accomplishments which this Administration has achieved through actions pursued because they had merit in their own right (e.g., US Global Change Research Program, the Clean Air Act, phasing out CFC's, the tree initiative, etc) are unmatched by any other country.

o Two recent studies have shown that current policy commitments will result in greenhouse gas emissions in the year 2000 being less than or equal to 1987 emissions.

o The actions (general list) which the U.S. is implementing to achieve a variety of non-climate benefits, which have resulted in stabilization of greenhouse gas emissions at the 1987 level include the following:

- o elimination of stratospheric ozone depleting compounds which are also strong greenhouse gases
- o increase of forest greenhouse gas sinks
- o direct control of various greenhouse gases and their precursors which are also air pollutants
- o regulation of utilities and other air pollutant sources so as to strongly encourage energy efficiency
- o promotion of energy efficiency by wide range of other actions
- o increase the use of renewable sources of energy

o Other actions which should be on the list of accomplishments of the U.S. regarding the greenhouse issue:

o The U.S. is also carrying out the world's largest program of R&D

- o To increase our understanding of the science and economics of climate change for sounder knowledge base for making policy decisions

- o To develop and to accelerate the adoption of economically sound and environmentally benign technologies which will be essential if massive increases in GHG emissions from world economic growth are to be avoided

o The US has strong energy efficiency incentives to build on past U.S. energy efficiency performance which compare well with that of other industrial countries

o The U.S. has essentially stabilized its emissions of CO₂ over the last 15 years despite a growth in economic output of about 50%. Most other countries have increased their CO₂ emissions over this period, many substantially

o The U.S. has reduced its emissions of several other greenhouse gases over the last 15-20 years

- o Chlorofluorocarbon (CFC) emissions were substantially reduced, grew somewhat as certain uses grew, and are now being reduced toward zero

- o Carbon monoxide (CO) and volatile organic compounds (VOCs) were reduced substantially

o Current U.S. actions (taken for other reasons) which will contribute to restricting greenhouse gas emissions in the year 2000 by 1987 levels consist of:

o phasing out CFC's and other ozone-depleting compounds which are also greenhouse gases

o Encouraging energy efficiency strongly, and thereby reducing greenhouse gas emissions, by putting a permanent ceiling on sulphur dioxide emissions and giving utilities the flexibility to make reductions by energy saving measures under the recently enacted Clean Air Act Amendments

o Reducing, under the Clean Air Act, air pollutants which are either greenhouse gases themselves (carbon monoxide and nitrogen oxides) or greenhouse gas precursors (volatile organic compounds and nitrogen oxides)

o Initiating a program to plant a billion trees a year on 1.5 million acres and to make other forest improvements

o Implementing a number of programs aimed directly at speeding the adoption of energy efficient technologies and practices

o taking actions to increase the use of non-fossil fuel energy sources, such as hydropower, photovoltaics, and biofuels

o Energy Efficiency Initiatives - more efficient lighting in Federal facilities

o More efficient lighting in commercial buildings

o Promote State efforts to institute utility integrated resource planning for end use energy efficiency

o Encourage State and local governments to adopt DOE interim building standards

o Expand the Energy Analysis and Diagnostic Center Program to increase energy audits

o Use of DOE building standards by HUD in public housing assistance program

o Renewable Energy Initiatives

o Expand hydropower capacity

o Accelerate the transfer of photovoltaic technology to US commercial production

o Increase use of biofuels for transportation

- o U.S. R & D Efforts

- o US Global Change Research Program

- o In FY 91, US is spending \$977 million for global change research 91 to improve knowledge base, especially about climate change

- o In FY 92, US will spend \$1,186 million for g c research

- o Non-Fossil Fuel R & D

- o solar and renewable energy program is a major commitment to exploiting the energy supply potential of photovoltaics, biofuels, energy from municipal solid wastes, low and moderate temperature solar thermal, and wind energy technologies

- o other renewables research includes geothermal research and efforts to resolve institutional and regulatory impediments to hydropower development

- o Nuclear fission program research in institutional/regulatory reform and the development of advanced reactor design

- o Magnetic fusion program is attempting to establish the scientific and technological bases required for fusion energy

- o Clean Coal Technology

- o Energy Conservation

THE WHITE HOUSE

WASHINGTON

January 23, 1991

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FROM: D. ALLAN BROMLEY
EDE HOLIDAY

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THE WHITE HOUSE

WASHINGTON

June 14, 1991

MEMORANDUM FOR GOVERNOR SUNUNU

FROM:

D. ALLAN BROMLEY 

EDE HOLIDAY 

SUBJECT:

Update on Climate Change Negotiations

The Intergovernmental Negotiating Committee will hold their second negotiating session on a framework convention on climate change next week in Geneva. The Global Change Strategy Task Force recently met with Robert Reinstein, the U.S. negotiator, to discuss the upcoming session and U.S. negotiating strategy.

As you know, the first negotiating session was held last February in Chantilly, Virginia and accomplished relatively little. Much of the ten day session next week will continue to be spent on organizational and procedural matters, such as the membership of the two working groups on commitments and mechanisms. The remaining time will be dedicated to reviewing various proposals submitted by participating countries, and a proposed outline of a possible framework convention structure.

The U.S. remains firm in its support for a comprehensive approach to climate change and in its opposition to establishing targets and timetables to accomplish that goal. The U.S. will quickly bracket any language produced in the negotiating session that is objectionable.

In response to the U.S. position, the U.K. has proposed an alternative "phased comprehensive approach" that acknowledges the ultimate goal of including all greenhouse gases, their sources and sinks, in any framework convention, yet seeks to achieve that goal in increments, starting with carbon dioxide. The U.K. proposal also includes the concept of "pledge and review," which the U.S. views as another way of establishing targets and timetables. This threshold issue will likely come up later in the year, since the only way the negotiating session can make progress is to discuss less controversial issues.

You should also know that the Senate Foreign Relations Committee recently adopted a Sense of the Senate amendment (offered by Senator Biden) to the FY 1992 State Department authorization bill regarding a framework convention on climate change. The amendment lists six goals a framework convention should achieve, including the stabilization of net greenhouse gas emissions by the year 2000 and the establishment of "verifiable goals" for net reduction of greenhouse gasses.

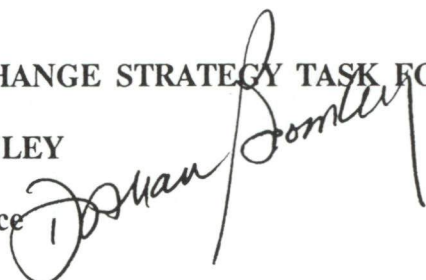
THE WHITE HOUSE
WASHINGTON

November 15, 1991

MEMORANDUM FOR THE GLOBAL CHANGE STRATEGY TASK FORCE

FROM: D. ALLAN BROMLEY

SUBJECT: Strategy Task Force

A handwritten signature in dark ink, appearing to read "D. Allan Bromley", is written over the "FROM:" and "SUBJECT:" lines of the memorandum.

The next meeting of the Global Change Strategy Task Force will take place on Thursday, November 21, 1991, at 4:30 p.m. in Room 324 of the Old Executive Office Building.

The Department of State will provide a detailed discussion of the status of negotiations of the Intergovernmental Negotiating Committee (INC) for a Framework Convention on Climate Change with an emphasis on the upcoming December session. In addition, we will continue our discussions of the policy implications of the new science results from the 1991 International Scientific Assessment of Stratospheric Ozone.