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THE WHITE HOUSE
WASHINGTON

June 3, 1991

MEMORANDUM FOR GOVERNOR SUNUNU

FROM: D. ALLAN BROMLEY 
SUBJECT: Meeting with Global Change Scientists

As we discussed, your meeting on June 5 with the scientists from the CATO Institute Conference on Global Warming has been arranged for 2:30 - 3:30 p.m. in the Roosevelt Room.

In order to spark a lively debate and encourage a good exchange of ideas among the participants, we might allow each of the scientists an opportunity to present a few thoughts on his favorite global change topic. This could be followed by some time for questions and discussion. If you would like each of the participants to address a specific aspect of the global warming issue, we could use an agenda such as the following:

Proposed Agenda

- I. Welcome and Introduction - Governor Sununu
- II. Issues in Global Warming: Science and Politics
 - . Critical Issues in Climate Forecasting - Richard Lindzen
 - . The Detection of Greenhouse Warming - Andrew Solow
 - . Interpreting the Global Temperature Effect - Robert Balling
 - . Atmospheric Science and Global Warming - Hugh Ellsaesser
 - . The Political Science of Global Warming - Patrick Michaels
- III. General Discussion

As you know, I will not be in town on June 5 but Dr. Nancy Maynard (x6202) of my staff, who will be attending the CATO Conference, will take care of the arrangements for the participants and provide support for the meeting. She will continue to stay in touch with your staff to finalize details of the meeting.

THE WHITE HOUSE

WASHINGTON

AGENDA

June 5, 1991

- I. Welcome and Introduction - Governor Sununu**
- II. Issues in Global Warming: Science and Politics**
 - . Critical Issues in Climate Forecasting - Richard Lindzen**
 - . The Detection of Greenhouse Warming - Andrew Solow**
 - . Interpreting the Global Temperature Effect - Robert Balling**
 - . Atmospheric Science and Global Warming - Hugh Ellsaesser**
 - . The Political Science of Global Warming - Patrick Michaels**
- III. General Discussion**

June 5, 1991 - Meeting

1. Questions asked by Governor Sununu:

- a. What is happening technologically in this science area which addresses a more conservative approach to global warming?
- b. What science has emerged which validate this more conservative approach?
- c. What are the politics of the issue in the academic community?
- d. How can we make a more aggressive hard sell toward this more conservative view of the global warming issue?
- f. What impact have the dollars spent in global change had and what have these dollars given us?
- g. What can we do to help these people (this community with the alternate approach to global warming) relative to discrimination against them?
- h. How does industry relate to this issue and the scientific funding?
- i. What new science is happening in the field - last 6 months especially?
- j. How do we best deal with the international community and its approach to the US on this issue?
- k. It may be good to put together and distribute a volume which addresses the NAS "Policy Implications" document by describing the actions being taken by the Administration.
(Maybe we should do a press release) We should do it before UNCED.

2. Issues:

- . Small science versus big science
- . USGCRP: community driven (bottom up from the scientists, not top down from government scientists)

- . This group feels that they are discriminated against because of their views on the issue.
 - . harder reviews in the proposal process
 - . harder reviews on their papers
 - . general criticism by the community
- . A debate between scientists on both sides of the issue - on the science and interpretation of existing data
- . A sympathetic hearing on the Hill
- . Go to the coal states for support
- . Do a better job of marketing the alternate approach (beachball) (Sununu and Porter)
- . NRC representation of the scientific community to the federal science establishment- in publications, disconnect between ex. summary and text
- . stability in funding of science

Science:

- . Governor Sununu specifically requested a complete data set for the last 100 years

New things in science discussed by the group - reprints requested:

- . Stommel recent data/conveyor belt theory
- . Paleo data - more water vapor during time of glacial event (therefore, less during warmer?)
- . Increased sulfate/clouds
- . Nighttime warming (melting of polar ice)
- . New Nature paper - Solow detection of gh warming
- . Schlessinger and Jiang - 10 year wait

Update:

- 1. Meeting with Sununu**
 - a. Summary of questions/issues/science discussed in meeting**
 - b. Maynard's rough notes of meeting**
 - c. Agenda made available to Governor Sununu's office prior to meeting**
 - d. Background memo regarding final arrangements for meeting**
- 2. Salmon Listing**
 - a. Memo to Sununu with heads up on next day's announcement**
 - b. Text of announcement made by NMFS**
- 3. Upcoming NRC Public Briefing on "Greenhouse Gas Mitigation Report"**
- 4. Arctic and Antarctic Issues**
- 5. Strategy Task Force Meeting, Wednesday, June 12, 3 p.m.**

Reinstein will go over issues in preparation for June 19 Meeting in Geneva of the 2nd Negotiating Session on Framework Convention on Climate Change

Rough Notes to be cleaned up

Notes from meeting between Governor Sununu and Global Change Scientists from the CATO Institute Global Warming Conference

Date: June 5, 1991, 2:30-4:00 p.m.

Location: Governor Sununu's office

Attendees: Governor Sununu, Roger Porter, Richard Lindzen, Robert Balling, Patrick Michaels, Andrew Solow, Nancy Maynard, J. Thomas Ratchford, Vickie Sutton, Ed Rogers (Hugh Ellsaesser was invited but was unable to attend because he was on the agenda to be one of the 2 debaters in a 2-man debate at the Conference at the very same time)

The meeting started with Governor Sununu noting that he would like to begin by asking 3 questions

- 1. He would like a sense of what is happening technologically in this more rational approach to the global warming question and, also, a sense of what is happening to validate these programs.**
- 2. He asked about the politics of the issue in the academic community**
- 3. He asked about how to make a hard sell more aggressive toward this more conservative view of the global warming issue in this special time in history instead of the present emphasis on the more warming-oriented aspect. He also noted that the world should not be making trillion dollar decisions on 25 cents worth of information.**

He asked for their views on these issues.

He then called on Lindzen since everyone hesitated, saying that, after, all, he was clearly the oldest in the room.

Lindzen noted something that one of his professors had said - that you know you are getting older when you start noticing your female students' mothers instead of your female students.

He then said that the science is getting better.

Sununu asked if the dollars spent had had much impact or given us much?

Lindzen said no, not much. He said that real progress comes from small science projects, not big science programs. He said he felt that it is rare that programmatic science results in great science.

Michaels noted that agency-driven science is the problem and that the agencies sit around and develop programs from the top down instead of getting the ideas from the scientists out in the community. He noted that at this group's meeting in Arizona, comprised of 30 climatologists studying this issue, there were a lot of good discussions about the data and some excellent proposals resulting from that conference. He noted something about the fact that the "mainstream" investigators

generate the need for looking at this issue (implication was to get funding) and that the warming issue is overblown. He also said that it is tough for his community (more skeptical of the warming) to get funded through the peer review system because the dissenting view proposals and papers may not make it through the system. He indicted that they need help or some mechanism to get funding for their work.

Sununu: We want to help establish a mechanism to help these guys.

Michaels commented about the success of the Arizona meeting and the issue of small science versus big science.

Sununu asked Maynard what could we do to help.

Maynard said that, as a start, perhaps it would help to have this side of the issue presented in some kind of public debate on the science of the issue - where both sides were provided an opportunity to debate in public on an equal footing. She added that it would be important to be sure that the debate was a scientific debate (based upon real data) to discuss both the science and interpretation of the science by both sides of the issue.

There was some discussion where Michaels intimated that somehow the NSF peer review system treated this group differently - that their reviews are much more harsh than the rest of the scientific community. He added that he thought some proposals are not even considered. He then discussed how hearings such as the one he had (before Gore) really had a negative impact on this peer review system, making it even more difficult for him in the science community.

Sununu said that we need to help these folks - there was a little confusion about what Michaels had said about what NSF does or does not do to this community and how they treat their proposals. He noted that we must make sure that NSF is not responding to pressure from sources like Gore. He said (to us) that we need to be sure that NSF not treating this group differently in the funding process.

Sununu then asked about how industry was relating to this issue and the scientific funding.

There was a brief discussion about the fact that there is more funding from industry but it again does not go to this faction of the community (this side of the issue) because they want to support the other kind of research. Also there is the problem that if you take industry money there is the problem of it being "dirty money" and your results not being credible because of the source.

Michaels noted that another answer as to what can be done to help them, he can help place the science agenda more in the hands of the working scientists not the agency scientists.

Sununu said that it is critical to support all the perspectives on this issue. He suggested that one of the things that could be done is that they could come with to

him and DAB with notes/letters containing list of their ideas and suggestions about areas where the WH could be of help to them.

Lindzen: The NSF/agencies approach is to understand the phenomenon of global warming with bias that something deleterious is going to happen. The research program is designed around that. This is also the approach of Congress toward this and all other issues.

Sununu: That is the lawyers's approach where you decide on your conclusions and then set out to prove it - as contrasted to that of the scientific approach - find out the facts and then draw conclusions. Congress has always operated this way.

Michaels said that the apocolypse point of view always ends up as the reason for the hearing on global warming and this community of scientists don't get fair treatment in these hearings as a person on the other side of the apocolypse view of the issue. He asked if there were any way to get a more sympathetic hearing on this issue - to air their side of the story.

Sununu said, in fact, he thought that Dingell in the House would be sympathetic to this point of view. It will take a little more work to get this done but he thinks this could be done.

There was a brief discussion about going to the coal states for support on this issue. (S. said it had never occurred to him to do that)

Michaels said that he thought that Boucher (for a reason Michaels does not understand) - a liberal Democrat - is adopting a reasonable approach to global change and that he might be someone to work with on this issue.

Sununu said that this is just the kind of information which would help us out in trying to do something for them.

Sununu then asked what new is happening in the field - that he has been kind of out of the picture for the past 6 months.

Lindzen gave several items of interest:

- . Recently Henry Stommel - probably the greatest oceanographer of our time - has been working on some data on temperature and salinity. The result of his work upsets the entire conveyor belt theory and makes it very unlikely that anything like that could happen.

- . Paleodata - 18 ya shows that there was much more water vapor during the time of the glacial event. Therefore, a warmer world may have less water vapor.

- . The issue of increased sulfate and its effect on the formation of clouds and its effect on the greenhouse influence.

. He noted that if some of these ideas turn out to show that there is not a global warming in the future, there may be no particular need for a policy either.

Michaels noted two other things that could kill the apocolypse of global warming. One of those it that it turns out in the new data analyses being done, results show that any warming which occurs is taking place at night. This effects the theory about melting of the polar ice. (ice is not going to melt at night)

Sununu then noted that, on another issue, we have to deal with the international community and its approach to the issue as well as it s approach to the US. He mentioned that he is going to have dinner tonight with... (UK). He said that one of the hardest things that has been to find is a complete data set regarding the last 100 years - e.g., cloudiness, temperatures, etc. *Hazeltine*

Michaels said that he should use Tom Karl's new data. There are no clouds in in though. He finds no day warming, only night warming. It correlates with Spenser and Cristi's data.

Sununu asked NM to get him that paper and the Tom Karl new data.

Solow noted that he thought that focussing on narrow technical points is not the way to go. In the first plasce people will hear that we are talking about climate change - not that there is a day versus night warming - and this simply reinforces the same issue - that there is a problem - i.e. global warming. In the second place, there is a manuscript now in Nature regarding the detection of greenhouse warming and there is strong agreement with a group of models. They did a transient run with Jim's model. This paper will cause some trouble for us. (NM to get paper)

Balling noted another new blockbuster paper by Schlessinger and Jang which takes the IPCC policy and instead of implementing it in 1990, it is done in the year 2000. It shows that there is no difference whether we start in 90 or 2000. Therefore, we have a 10 year window to get the science right.

Roger Porter said that there are 2 levels of discussions going on about the global warming issue. - 1 is among the scientists and another is among the average citizen. The average citizen puts alot of stock in thing they understand. And we have to do better to make them undertstand this issue better. e.g., I note that here on the agenda you have listed "Issue in Global Warming" not climate change - it sounds scary to the average person.

Then, we have ourselves to blame also - we go around trumpeting that we are spending \$1.2 billion on research on the problem. These people are goint to qeuestion why would we be spending all this money on this if this is not a problem.

What is missing is a useful definition of the other side of the issue. We need meetings, debates, pblications where people can get to understand this issue better.

Michaels said that working these groups successfully is difficult.

Sununu said that what makes them successful is the fact that success in this arena is due to good showmanship. e.g., look at the showmanship in the cold fusion for 6 months.

Michaels said but they are the "respectible ones".

Sununu said that in the 60's, Congress held hearings on a number of environmental issues. There were many people on the other side of the issues but there was one person on the other side . It was Ralph Nader vs the scientists.

The look of quality creates success. If you have credible scientists getting up and giving unprofessional or dramatic statements, Congress and the public is going to believe them

Michaels said that that was what Steve Schneider did.

Lindzen added others like Carl Sagan and his statements about the Kuwait oil fires were a good example.

Porter said if you go out in the public and read the newspapers, you will see that we are characterized at a number of international meetings as the US is dragging its feet and the Administration is unsufficiently sensitive to the environment.

Sununu had to go see the P so he repeated his request for any materials they could send - such as papers, notes, comments, and asked for a list of colleagues who might also be interested in this side of the issue. He said he might be back, if not, he wished them luck and thanked them for coming.

Roger Porter asked how best should we handle the international perception problem that we are digging in our heels.

Michaels said why has it not become common knowledge that we more efficient in our energy use than any other country in the world.

Lindzen said that we have done alot with the efficiency issue and there was a discussion about other countries and efficiency and energy use.

Solow said that he is often asked why the American scientific community is not unified like Europe. There was a brief discussion about that and the fact that it is good to have open, public discussion of issues among scientists as we do in the US.

Solow also asked about the role of NGO's in the international arena and in negotiations. He said that their agenda is different from that of the US but yet they end up representing the US in some ways in the international arena.

Porter said that we have a problem - see if you can come up with a n answer. We have the popular press and this is where Joe Public gets his information. The public is the captive of a group of people who really don't know much about the issue but

do have strong biases. We are always on the defensive and have lost some credibility. When journalists want information, they go to the people with the problem. We need to find ways in which journalists are put into situations where they sit with individuals who are experts and who they don't have an ax to grind.

Michaels said something about how journalists have convinced the public that there is a real problem in global warming - not that we are trying to find out if there is a problem.

Lindzen said that anyone with an interest in opposing the catastrophic view is in a bad position. When the NAS report came out - the body of the report clearly stated that there were unknowns and that we do not know enough to take draconian action based upon what we know. However, we should take actions we would do for other reasons as well as some other cheap things we can do now for global warming purposes which would do a lot for us. The problem was then Frank Press said that "we must act now". There was a big disconnect between the ex. summary and the body of the report. The same applies to the IPCC report. big disconnect between ex. summary and body of the report.

Lindzen also said that when Michaels testified, he noticed that Waxman got upset when there was a discussion about what was really in the report and its conclusions because it began to look like he had been saying things that might have not been true. i.e., his staff or someone had done some spin control on the recommendations and what was really in the book.

Porter said that one of the most important battles of the next decade would be the battle for the public's mind. Look at the Club of Rome phenomenon. Everyone believed it then, it was proven to be a fraud and now it is back (either it or that kind of phenomenon in the issue of global warming??)

He mentioned that scientists need to get out front and write material for the popular press/the public so they can get more than the viewpoint expressed by the outspoken (catastrophic) side of the house (highlighted by the newscasters)

Michaels said that he and the others are very reluctant to write in the popular press about their views on this issue because they get heavily criticized by the rest of the community.

Porter: People believe experts with a pedigree. We need to have respected scientists be more aggressive in the non-apocalyptic point of view.

Lindzen said something about Bob Woodwell early on said that increases in CO₂ would probably cool the earth, now we have the situation where he and others are saying it will warm. Secondly, he noted that he is constantly quoted as saying that as a result of increases in CO₂, the earth will warm. I didn't say exactly that but the press has repeated it that way.

Porter had to leave but urged all to stay and discuss the issues for a while.

Ratchford asked about Lindzen's comments regarding agency science - when he was

discussing the problems relating to the small science issue, was he talking about policy-related research or science-based research.

Lindzen commented that the science community is not very good at explaining priorities in their research. He also noted that one of the big problems is stability in funding. He said that if you had stability in funding of science, even with reduced expenditures, people would be happier. There were a couple of comments about the difficulties of trying to do science and all the time that is spent writing proposals.

Ratchford asked how might the process be improved.

Lindzen said that NSF some years ago tried to cut back on the paperwork involved and to streamline the proposal/funding process. He noted that, after all, the best proposal is a report of what you have done - i.e., your track record. He said that NSF then used a more streamlined system for a while and then had to back off from it because there was so much criticism that those without a track record did not have a fair chance.

Ratchford made some comments about NIH and the way they have recently carried out the funding process.

Lindzen noted that the Mansfield Amendment was the worst thing that ever happened to American science.

Michaels made another comment about the problems for scientists of the top-down setting of priorities in NSF and the agencies in US science (especially in global warming).

Maynard said that she would take strong issue with this because, in fact, the original development of the global change program had come from the community itself a number years ago, through the NAS committees. The original programs and priorities were established by the scientific community through the committees in cooperation with the federal scientists. She said that the system is the most bottom-up system of program development in the federal government - with priorities and programs feeding in from the community through the NRC/NAS into the federal establishment - and the USGCRP then implements those programs.

There followed a discussion of major problems with the NRC and the NAS - and whether they fairly represent the community of scientists. A list of problems with the NAS was enumerated, mostly by Lindzen, including the fact that the NRC has little to do with the NAS, the scientists who serve on the committees, review the reports, write the reports, etc are not necessarily the best individuals to do the job. There are only a small percentage of people on the committees, etc who are NAS members. A lot of the actual work is done by the staff - which has doubled over the past years - and who control the report contents, change the reports, etc. Other problems are that recently especially there has been a large disconnect between the executive summary and the body of the report. This was especially true of the NRC review of EOS and USGCRP (orange book), the "Policy Implications of Global Warming", and a number of others. He noted that this was a real problem - He gave the example

of the Policy Implications document which Frank Press noted in public "called for action" - but, in fact the body of the report, while noting the uncertainties, said that we should take actions for other reasons and take a few other actions which would not cost very much but make some big changes in emissions.

Another example from Lindzen was the orange book - NAS review of USGCRP and EOS. This was pushed through the system with one set of conclusions, but meanwhile, the Space Science Board had already initiated a report on EOS - which is just now about to come out. This is a confusing situation because the SSB may have some conflicting conclusions.

Governor Sununu returned at this point.

Maynard noted that we had found the problem and then explained that what has been described as a top-down operation by the federal agencies is, in fact, instead an excellent example of bottom-up development of a science program starting out in the science community and filtering in through the NRC/NAS Committees into the federal science programs.see above... and that there is continuous communication with the NRC committees, in fact, they are looking over the USGCRP shoulder in a pretty significant way.

Maynard then noted that the problem, however, is that the NRC - while purporting to provide input from the scientific community has been identified as a problem by everyone in the room as being the origin of problems in the scientific community of representation - this group's problem (if there is one). Then, there was more discussion about the NRC/NAS and their problems, including some lawsuit presently going on regarding a study which was significantly altered.

Michaels then discussed the problems of a scientist when he intercepts the conventional wisdom in any field of science. He said that one of the problems is to separate the wackos from the legitimate outliers.

Sununu said that it is important to get science elevated so that it is integrated into the decision-making process. He noted that DAB had been elevated to a Cabinet level position and that he and his office is really playing an important role in this now. He noted also that it is important to get the President down into the bowels of the process within the system so that more science is involved in the decision-making process.

He noted that it would be good to produce a carefully put-together document restating what the NAS document said and what the situation is in the US relative to their statements. Maybe we should have a press release. This should be done prior to the UNCED in June 92.

He noted that repetition is important in getting our message across - we need to say it over and over.

Michaels said that he has just finished such a document.

Sununu said that we really need a critical mass of people to put something like this

together, not just one person.

Lindzen said that George Carrier and one other person did not want to say some of the statements that were published in that document but that, like the other NRC documents, it was a consensus document and, therefore, there were things in there he was not comfortable with.

Michaels said that this was the nature of science being done by committee - it is a problem.

Sununu asked what is it we can do to help

Michaels said you can keep me and the other dissenters from not feeling alone out there.

Sununu said that he was going to dinner that night with Hazeltine and was going to try to convince him that, in planning for the future we need to include a world that allows room for growth. Are there any items which might be of interest to our discussions.

Michaels said please ask him a question for me. Ask him what percentage of the world will have projected temperatures over (4?) degrees (using some model). He will tell you 25 - 30%. Actually, it is less than 5. The problem is that all the maps which are used are (mercator?) projection and it looks a lot larger than it actually is.

Also, ask him what he thinks the consequences of the new data which show all warming to take place at night and in winter.

Sununu then said that we need to do a better job of getting this kind of message across to the news media - like Britt Hume - they like pictures. We need better graphics (Lindzen mentioned that some of the environmental groups have highly skilled graphics folks full time preparing things to give to the media). In fact, we should give them a globe with it marked in color on the globe so the newscaster can show it in understandable form to the viewers. We as a community need to do much more of this. This is what these other guys do.

Michaels talked a bit about the fact that this is exactly what he had done in his talk yesterday and that he used a globe where he had drawn in the amount of the Northern Hemisphere which really truly was impacted by global warming, etc.