CHARLES A LAKIN

CHARLES A LAKIN

(1) 26 MAR 2002 - called Chuck Fahrer at his office (623) 932-3910 & had a nice chat. - about Global Warming - Especially to see if he has IMPRIMIS Vol 31 No 3 MAR 02
He does

CHARLES A. LAKIN

MICHAEL ENTERPRISES
R. P. UPCHURCH
6 EAGLES WAY LANE
LAKE ST. LOUIS, MISSOURI 63367-2240

4 FEB 1997

Dear Church (& Maxine)

Your packet about the magnet school arrived yesterday. A copy of my letter to Thomas is enclosed. I hope this is somewhat close to the mark. Perhaps the best idea is to have the letters each have their own tone/perspective.

Just so you will know I am staying busy I enclose also a copy of our "freedom" document and information on our Upchurch publications. I am now working also on an Upchurch book [UPCHURCH ANCESTORS - EIGHT AMERICAN GENERATIONS] which I hope to finish in 1997.

My energies are divided between family history and land. We now have about 1800 acres with about 1200 under cultivation. Our three share-crop operations will continue with the main effort in 1997 and perhaps beyond. However I now have a hired operator, Tom,

and he and I will have about 500 acre under our direct control in 1997. I am working hard to be the #3 person on this operational team. If things work out well I'll buy trucks for hauling grain in 1998 and a combine in 1999. In the meantime I have divided one 120 acre tract up into building sites (3 acre+) and am offering them for sale. It is all very exciting to me. Sallaine is a great partner in all that I do - but complains that I am acting like a 30 year old. May her complaints continue for a long time.

We recall with pleasure our many years of service in Argentina and the many friends we had/have there.

With All Best wishes from our Home to yours & come to see us.

Sincerely yours
Phil Updyke
[ROBERT PHILLIP UPDYKE]

UPCHURCH
6 EAGLES WAY LANE
LAKE ST. LOUIS, MO 63367

February 4, 1997

President Douglas Thomas
Board of Education
Phoenix Union High School
4502 North Central Avenue
Phoenix, AZ 85012

Dear President Thomas:

Word has reached me at my retirement location in Missouri that there is some danger that the Carl Hayden Agribusiness Magnet may be discontinued. I am amazed that this program which has been so successful and so worthy of emulation is in jeopardy. Having spent 19 1/2 years as a Professor/Scientist/Administrator in The University Of Arizona, College of Agriculture and having spent over 50 years in professional agricultural work, I hasten to write you a few thoughts about why your program deserves support, encouragement and expansion.

Sometimes we forget that all of the food of humans traces back to plants. Only where plant production prospers and is made efficient can the human race turn its attention to sports, the arts and the finer things of life we enjoy. A dozen or so decades ago in America 90% of our American population was devoted to producing on the farm. While our population has shifted to urban areas, the broader agricultural area remains an important part of our economy. Over 20% of our jobs are in one phase or another of the agribusiness enterprise - production, processing, storing, transporting, marketing, etc. Ag has gone to high technology and there are good jobs there for individuals with whatever level of skill they may possess.

During my tour as Associate Dean for Instruction in The University of Arizona, College of Agriculture, it was my pleasure to work with students from your magnet program. I know first hand as to the fine job that has been done in bringing young people along to meaningful positions in society starting from your program.

While Agribusiness is of great importance in America, we must not forget that we must bear a special responsibility for other peoples of the world who are not so fortunate as are we. Our agricultural science must show the way. The ages tell us that from whom much is given much is expected.

President Douglas Thomas
February 4, 1997

It has been my honor to serve as the leader of a number of National organizations, including the Council of Agricultural Science and Technology (CAST). This consortium consists of over a dozen agricultural societies with nearly 100,000 members. Your magnet school serves as the beginning point in grooming individuals to fit into these ranks. If we all do our jobs right, these dedicated professionals will serve as our best bet to avoid starvation in the less blessed parts of the world.

I know this message from afar will seem strange. Perhaps you will consider it as coming from an individual who has a deep interest in the youth of Arizona and of their potential to fill vital roles in the agricultural system of all the tomorrows.

Sincerely yours,

Robert Phillip Upchurch

Robert Phillip Upchurch
Professor Emeritus
Owner of FINE ACRES FARMS
(Montgomery Co., MO) and
Editor of the UPCHURCH BULLETIN
and ENGLANDIA

RPU:s
cc: Dr. Rene Diaz, Superintendent
Center for Educational Services
4502 N. Central Avenue
Phoenix, AZ 85012

Lakin Milling Company
4456 S. DYSART ROAD
AVONDALE, ARIZONA 85323

Jan. 30, 1997

REC'D 3 FEB 1997

Dear Phil:

It's been awhile since I volunteered you to write a letter to the PUHS School Board about the Carl Hayden Agribusiness and Equine Science Magnet. I'll never admit to procrastination, but to those guys every day is a whole new world, and it's hard to get a bead on them!

I think you can get an idea from my letter to them (Enclosed) what the problems are. As you can see, many of them stem from the counseling department. We're told the program costs too much per student, when in fact we're about average for the 14 magnets, and how in hell do we hold per student costs down if the counselors won't fill the classes?

Today a new problem, they just announced they will not offer any subjects at the Ag. center unless there are 20 or more students enrolled. But this is not uniformly applied to all magnet programs, The "more technical " subjects will be allowed with fewer than 20 students. Bio-technology and Vet-tech. aren't technical enough? Those Kids are doing gene splicing and creating new varieties of plants! College level stuff! And how in hell so we fill the classrooms when the counselors run the kids off (see my letter)? I tend to see a conspiracy behind every bush, but I think they want to kill the Ag. center so they can get the land free for their new *"Cesar Chavez" High! Pardon while I throw up!

This note is a bit disorganized, but I'm sure you can glean enough salient facts to write a them a marvelous letter. I expect you to be far more diplomatic than I know how to be.

I'm enclosing: 1. a fact sheet I put together for Gene, but he received it after he wrote his letter 2. Gene's letter. 3. My letter to the Board (a bit blunt)? 4. Some selected comparisons of the Ag Magnet to the others.

Please address your letter as I did mine, with a copy to Dr. Diaz. Forget Flores and Montoya. Also a blind copy to me, please. I'm truly grateful to you, this program is very dear to my heart.

Cordially yours,

Chuck Lakin

P.S. A blurb from you about the importance of Agribusiness to the State and National economy would be in order, as those boobs don't have a clue!

* Isn't that ironic! Cesar is still trying to destroy Agriculture from his grave!

(1)

Lakin Cattle Company

4456 S. DYSART ROAD
AVONDALE, ARIZONA 85323
932-3970

Dear Gene:

Consider these stats from the Carl Hayden Agribusiness Magnet:

Of 24 seniors in the 1996 graduating class (no dropouts):

5 went to the U of A College of Agriculture
8 went to the ASU Agribusiness program.
7 to community colleges with intention of state colleges later.
2 to out of state colleges.
1 to blind school
1 to the Army

That's 91.7% college ~~acceptance,~~ entrance with 54% going directly the College of Ag or ASU Agribusiness school.

I believe you can honestly say to the PUHS Board of Ed. that you consider this program a very important source of highly qualified students for the U of A College of Ag as well as the ASU agribusiness school.

I suggest that you could tell them that it would be a serious blow to the College of Ag as well as the future of Agriculture in Arizona to lose this great program.

Also, I don't think the school board has a clue to the importance of ag to our economy, so a little blurb from you couldn't hurt.

I'm enclosing a copy of my letter to them, it might be useful. As you will see, I've got a fire in my belly over this.

Your letter doesn't need to be long, but coming from you I'm sure it will be effective. Thanks for doing it.

Sincerely,

Chuck

(2)

College of Agriculture
Office of the Vice Provost and Dean

THE UNIVERSITY OF
ARIZONA
TUCSON ARIZONA

Forbes Building, Room 306
Tucson, Arizona 85721
Telephone: (520) 621-7621
FAX: (520) 621-7196

January 21, 1997

President Douglas Thomas and
Members of the Board
Board of Education
Phoenix Union High School
4502 North Central Avenue
Phoenix, AZ 85012

Dear President Thomas:

For a number of years, faculty and administrators from the College of Agriculture have worked closely with the Carl Hayden Agri-Business Magnet High School. Hence, we are familiar with the quality programs of that institution. The students who graduate from that program are an important asset to the labor force of the State of Arizona. In addition, a number of them have been competitive in institutions of higher education, such as the University of Arizona College of Agriculture and Arizona State University. I am aware of the difficulty that your Board is having in siting a new high school in your district. I hope, however, that every consideration will be given to maintaining the excellent program of the Carl Hayden Magnet Program in Agri-Business. If we in the College of Agriculture can be of any help as you and your Board struggle with this dilemma, please contact us at your convenience.

Sincerely yours,

Eugene G. Sander
Vice Provost and Dean

cc: Mr. Albert Flores, Esquire
Mr. Steven Montoya, Esquire

97-I\Thomas

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Lakin Milling Company

4456 S. DYSART ROAD
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932-3970

January 12, 1997

Phoenix Union High School Board of Education
4502 N. Central Ave
Phoenix, Az. 85012

President Doug Thomas and members of the Board:

I was present at the Board meeting of December 19, where the future of the Carl Hayden Agribusiness Magnet was discussed. Sensing that the meeting would be long, I skipped what was to be my opening comment, that my wife had served a five year term on the board back in the 60's, finishing as President. I would not let her run for re-election because the meetings kept her out too late. I went home about 11 PM, and when I heard that the meeting had adjourned after one AM, I realized that nothing had changed in thirty years!

Having served on the Advisory Board of the Agribusiness Center for four years, I know it well, and am enormously impressed with the program. I believe it to be the finest of its kind in Arizona, perhaps anywhere.

Apparently I am not alone in my admiration. It has been recognized by the National Vocational Teacher's Association as the "Outstanding agriculture education program in Arizona," and very recently by no less than Westmarc as runner up for the title of "Best high school educational program in Arizona."

The Agribusiness Center has consistently led the PUHS District in graduation rate and College acceptance. It has been lowest in dropout rate and pregnancies. It is doing College level work in Biotechnology. In fact The University of Arizona College of Agriculture has its doors wide open to any and all graduates. What more can be expected of it? It should be your fondest dream that the rest of the PUHS system could accomplish as much.

And yet there is well founded fear among parents as well as the Advisory Board that certain members of the Administration and the School Board itself would just as soon see this great program terminated.

Indeed, the Agribusiness Center should be the "Crown Jewel" of the PUHS system. It should be displayed as the model for all others to follow. Instead of making it fight for its life, it should be promoted and expanded!

One wonders how it could be at risk. Is it intolerable because the rest of the system looks bad by comparison? Is it a touch of professional jealousy? Or is it just another example of the "dumbing down of America?"

Or is it because the Agriculture Industry itself is so poorly understood? A study published jointly by the U of A and ASU in 1993 places the total value to Arizona's economy at over six billion dollars, and provides 94,300* full-time, part-time, and seasonal jobs. Shouldn't we be training people to participate in the many facets of Agribusiness?

Perhaps the program is somewhat under utilized, and perhaps it misses its desegregation goals somewhat. I believe both of these deficiencies can be laid squarely at the feet of the counselors, who should not be allowed to counsel on any program without thoroughly familiarizing themselves with it. I seriously doubt if any counselor has ever spent time at the Agribusiness Center. I have signed statements from two students who report that their counselor tried to discourage them from entering the program, and displayed very little knowledge of it. It occurs to me that one of your priorities should be to educate the counselors! Last term, 164 students indicated a desire to enter the agribusiness magnet, and three made it past the counselors! This is wrong. It could not happen unless the counselors were hostile to the program.

I understand the Board has voted to allocate $150,000 for the purchase of contiguous land so that the Ag. Center could remain in place. This appears to be an inadequate sum. If your goal is to provide quality education, as you claim, then you can surely find the funds to perpetuate this finest of programs.

Very sincerely yours,

CA Lakin

Charles A. Lakin

cc:
Dr. Rene Diaz, Superintendent
Mr. Albert M. Flores
Mr. Stephen G. Montoya

Diaz: Center for Educational Services
4502 N. Central Ave.
Phoenix, Az. 85012

* Of this number, 6120 (or 6½%) are employed in the horse industry ('90 UofA Impact Study)

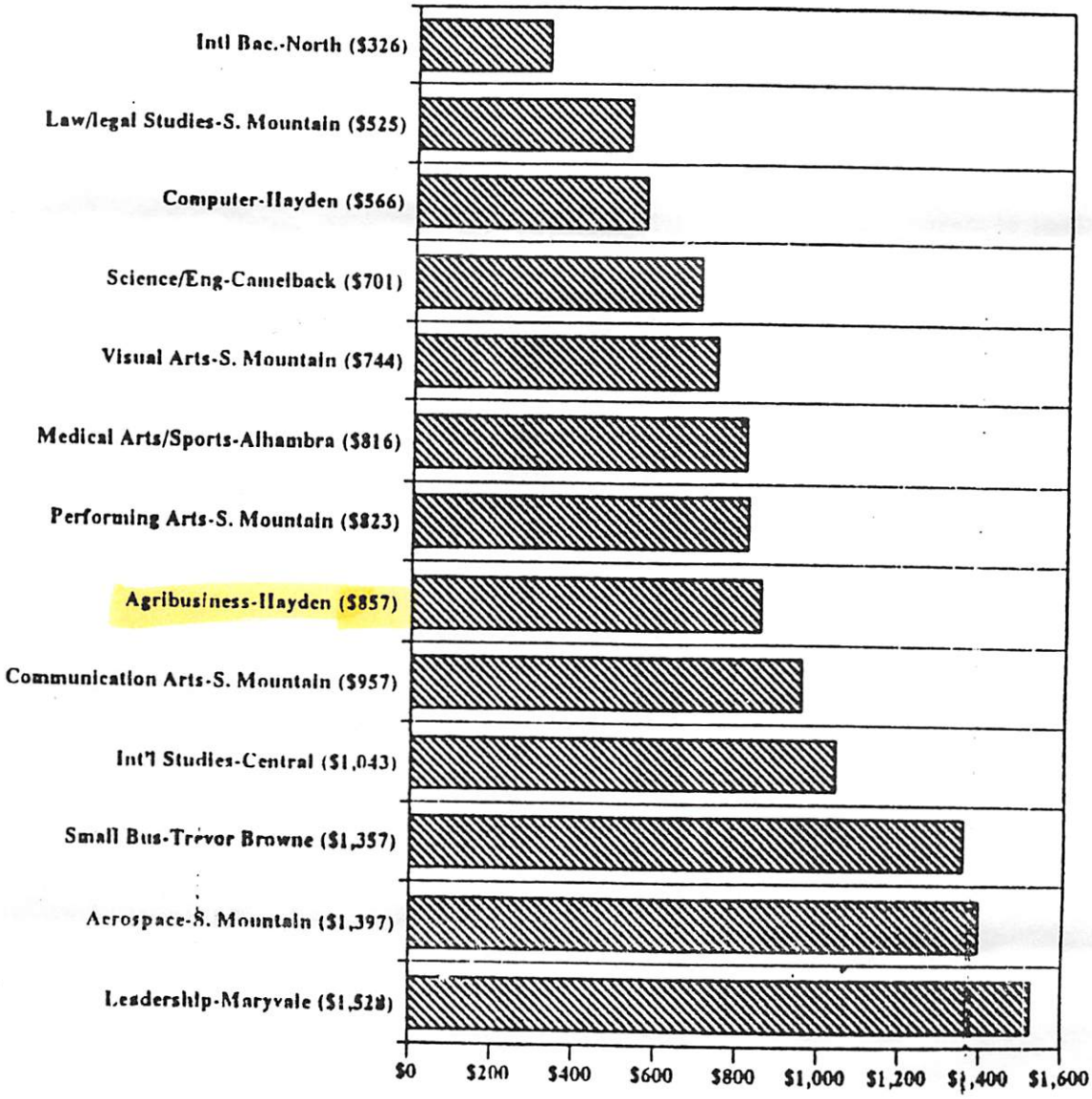
RANKING OF MAGNET PROGRAM COSTS AND BENEFITS*

Magnet Program	AVERAGE RANK	Cost**	Racial Balance	Academic	Consumer Ratings	Staff Ratings
Int'l. Bacc.	4.7	4	11.5	5	1	2
Computer Studies	4.8	1	8	6	8	1
Agribusiness	5.4	11	6	1	3	6
Business	5.8	2	1	4	11	11
Science/Engin.	6.0	5	5	3	13	4
Medical/Sports	6.8	3	2	10	6	13
Law/Legal Studies	7.4	7	10	11	2	7
Leadership	7.4	6	9	8	9	5
Aerospace	8.0	12	3	13	4	8
Communication	8.3	9	11.5	7	5	9
Performing Arts	8.4	13	7	2	10	10
Visual Arts	9.0	10	4	12	7	12
Int'l. Studies	9.0	8	13	9	12	3

* A rank of 1 is assigned to magnets with the most favorable outcome (i.e., least cost or greatest benefit)

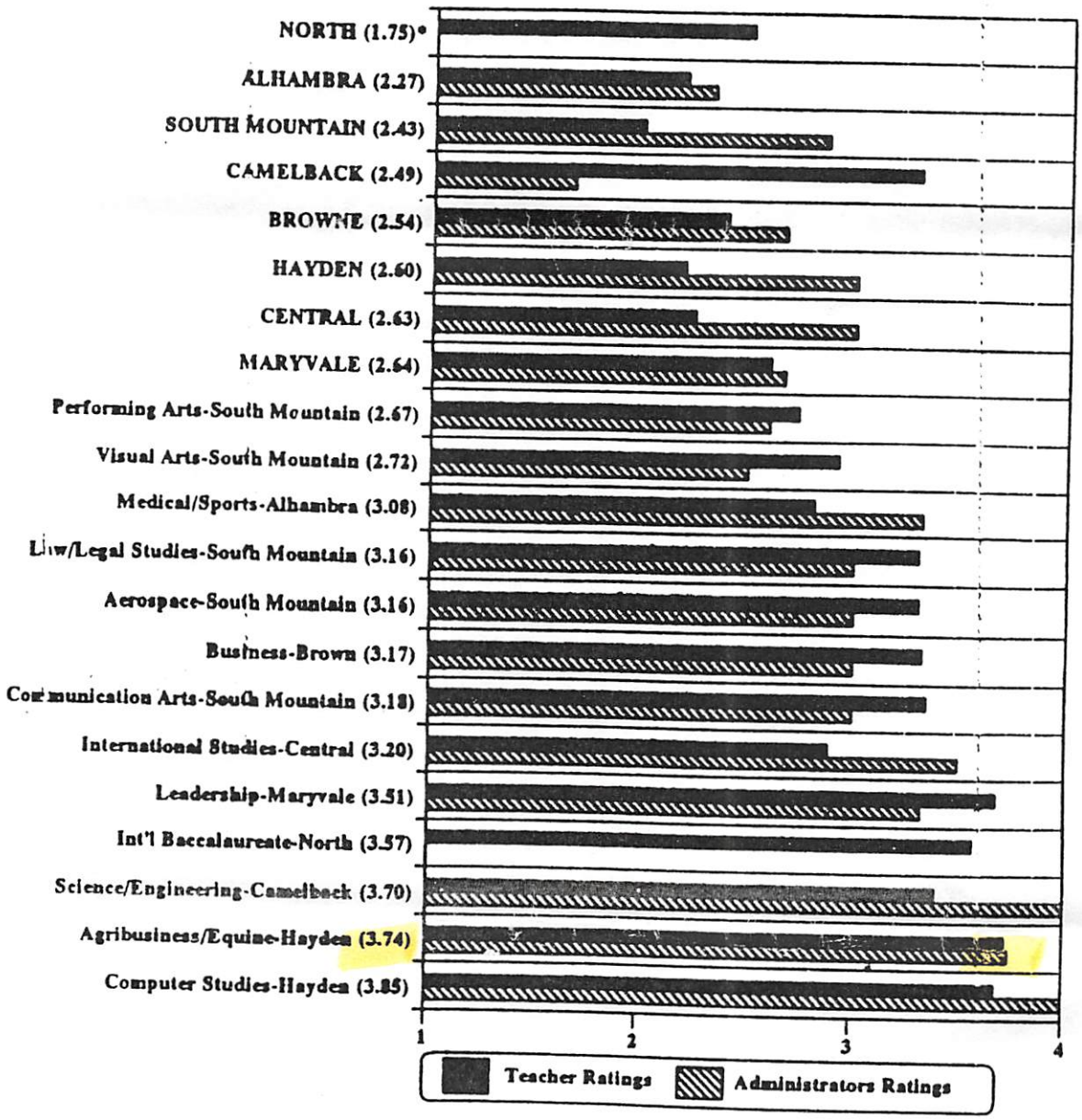
** Costs are estimated for the 1992-93 school year (the last time these comparisons were published)

Exhibit V-2
Magnet Program Cost Comparison Based on Average Cost per Student Per Course



2

Exhibit III-4
Overall Perception of Quality of Program by Teachers and Administrators
How Well Programs Prepare Students for: EMPLOYMENT

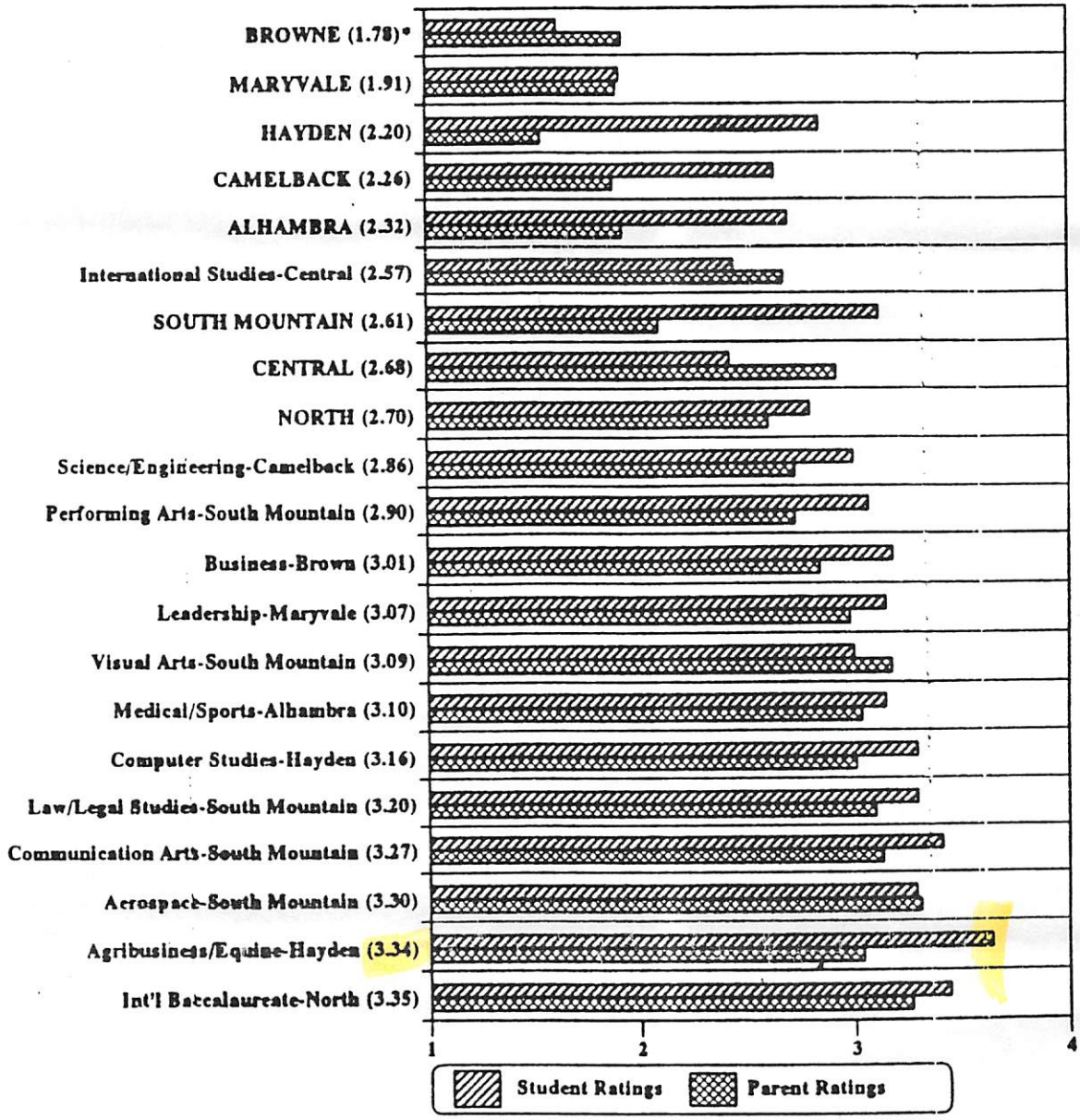


(Teacher respondent sample size ranges from 4 to 7)
(Administrator respondent sample size ranges from 3 to 7)
1 = Poor
4 = Excellent

*Mean reported in parentheses is average of student, parent, teacher, and administrator ratings.

5.

Exhibit III-2
Overall Perception of Quality of Program by Students and Parents
How Well Programs Prepare Students for: EMPLOYMENT



(Student respondent sample size ranges from 6 to 21)
(Parent respondent sample size ranges from 55 to 378)
1 = Poor
4 = Excellent

*Mean reported in parentheses is average of student, parent, teacher, and administrator ratings.

6

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4456 S. DYSART ROAD
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2/28/97

REC'D
6 MAR 1997

Dear Phil:

A belated thank you for the very good letter you composed to the PVHS Board. I have generated a fire-storm of letters to them, but if they've had any effect on them it isn't visible. In fact they've been very quiet lately, and maybe that's a good sign.

I'll keep you posted on progress, if any, and if we need your help, I'll probably be asking again. You do write a very good letter.

The best of luck and health to you + Mrs. Upchurch.

Cordially

Chuck

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Rec'd 31 MAR 2001

Lakin Milling Company

4456 S. DYSART ROAD
AVONDALE, ARIZONA 85323
932-3970

March 26,2001

Dr. Norman Rosenberg
Pacific Northwest National Laboratory
901 D. St. Southwest, Suite 900
Washington, DC 20024-2115

Dear Dr. Rosenberg:

I wrote to you on February 8th, looking for some enlightenment. You suggested in your letter of January 30 that the "writers I follow" might not be privy to "basic, established physical knowledge." Regardless of their writings, the evidence they offer in the form of charts and graphs I find compelling. The sources of their material seem pretty solid, for example NASA and the Goddard Institute for Space Studies, Oak Ridge National Laboratory, George C. Marshall Institute, *Science News* (various writers), *Sky and Telescope,* and many others.

I'm enclosing the April issue of *Environmental & Climate News* for your criticism. I call attention to the charts at the bottom of page 7.

I believe you received a few of the earlier charts I sent for comment. I asked you for some similar evidence to the contrary. I know you have plenty of other things to do, and so do I, but I seek the truth. I promise I will bug you no more if you do not choose to respond to this.

Remember, I have not challenged the efficacy of your proposals, only the urgency of implementing them.

Sincerely yours,

CA Lakin

Charles A. Lakin

CC: Robert Martin
Richard Stuckey
Phil Upchurch

Environment + Climate News The Heartland Institute apr 2001

think California needs about 10,000 megawatts more, about a 20 percent increase). If you want to curb pollution and global warming, you can't have cheap power. If you want to limit dependence on imported oil, you can't just encourage domestic drilling; you've also got to discourage domestic demand, probably through a tax.

"By and large, Americans prefer energy fantasy to energy reality. This is good for the news business. It creates recurring controversies and 'crises.' Unfortunately, it's bad for the country."

Robert J. Samuelson
Newsweek
January 29, 2001

Doing so would help consumers without hurting the environment

BY JAY LEHR

The environmental movement's opposition to opening Alaska's Arctic National Wildlife Refuge (ANWR) to oil exploration ignores the history of ecologically safe oil drilling in Alaska and the considerable benefit that ANWR's vast oil reserves would be to an energy-deprived America, according to a new report from the National Center for Public Policy Research (NCPPR).

President George W. Bush has indicated his interest in opening ANWR to oil operations, in an effort to shore up the country's energy independence.

ration would turn ANWR into a vast landscape of unsightly derricks, roads, and pipelines that would irreparably harm the refuge's scenic attractions. They worry oil drilling poses unacceptable risks to the polar bears, caribou, and other ANWR wildlife.

But according to NCPPR's January 2001 *National Policy Analysis*, "Environmentalists' Opposition to Oil Exploration in the Arctic National Wildlife Refuge is Unfounded," it is possible to drill for oil in ANWR without hurting the refuge's environment.

The report's author, John Carlisle, notes first that only a very small amount of land is needed for oil production. At Prudhoe Bay on Alaska's North Slope, 60 miles west of ANWR, companies are Prudhoe Bay. The Prudhoe Bay caribou herd has grown in size since the 1970s, leaving little reason to fear that caribou at ANWR would be harmed by drilling operations there.

"The fact that not one species of animals on the North Slope has been listed as endangered after years of drilling says a great deal about the safety of allowing oil exploration in ANWR," says Carlisle, director of NCPPR's Environmental Policy Task Force.

"Responsible development of ANWR would reduce foreign oil imports by millions of barrels per day and lessen U.S. dependence on the whims of OPEC," writes Carlisle. "It's time for environmentalists to do the right thing for America and stop opposing ANWR oil exploration."

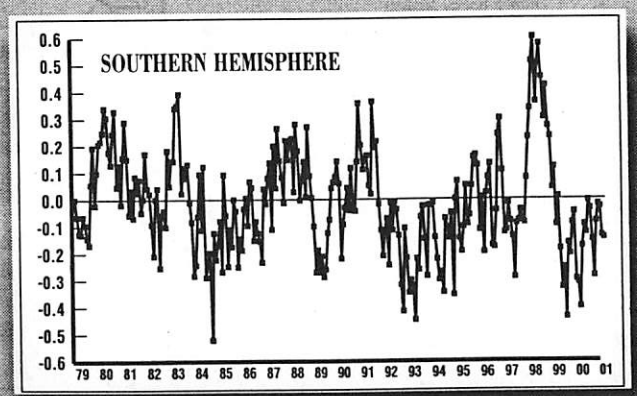
EARTH TRACK

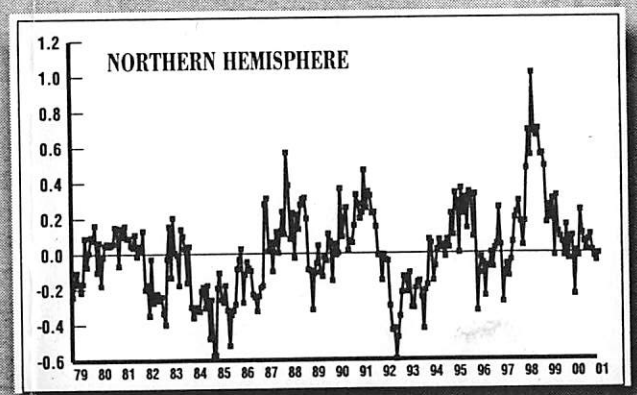
JANUARY 2001

The global average temperature for this month, shown on page 1, was 0.075°C below normal. The Southern Hemisphere's temperature departure, shown below, was 0.144°C below normal; the Northern Hemisphere's, also below, was 0.007°C below normal.

Each month, Earth Track *updates the global averaged monthly satellite measurements of the Earth's temperature. These numbers are important because they are real—not projections, forecasts, or guesses.*

Global satellite measurements are made from a series of orbiting platforms that sense the average temperature in various atmospheric layers. Here, we present the lowest level, which climate models say should be warming. The satellite measurements are considered accurate to within 0.01°C.





CHARLES A LAKIN

From the desk of . . .
Chuck Lakin

REC'D
20 FEB 2001

Dear Phil:

I wrote to Bob Martin, who sent it to Richard Studley, who sent it to Norman Rosenberg, who did the research (Paper #14).

Dr Rosenberg obviously believes we are warming the earth, but not necessarily catastrophically.

In my simple mind the question (vis a vis his paper #14) is this: Does the carbon do more good in the air or in the soil?

Doesn't it eventually get to the soil anyway, through breakdown of dead vegetation?

I don't know where this correspondence will lead, but I hope I have not insulted Dr Rosenberg by questioning ~~the~~ the necessity of proposal. I have not questioned the quality or efficacy of his work, but perhaps the cost/benefit ratio is out of whack.

Thought you might like to see what we've stirred up.

Hope you are both well and happy

Chuck

Lakin Milling Company

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932-3970

February 8, 2001

Dr. Norman Rosenberg
Pacific Northwest National Laboratory
901 D St. Southwest, Suite 900
Washington, DC 20024-2115

Rear Dr. Rosenberg,

Thank you for taking time to attempt the re-education of a wayward fellow CAST member. I'm glad to know that you recognize the media "hype" that surrounds us can be extremist. Unfortunately this is about all the public gets to see. We recently visited the "Biosphere" near Tucson, where they have been trying to prove (so far without success) that people can live in a sealed capsule as they would do on another planet. For some reason they used this venue for a cheap shot at the cattle industry. They had animated miniatures of cattle belching, with disgusting sound effects, warning that the gasses were contributing significantly to global warming. I'm sure millions of people believe that garbage. I looked up the web page you recommended, and there it was, a dissertation on the dangers of belching cattle. I really want to see the science on that. Are we to believe that the millions of Bison that roamed the plains before the arrival of white man were of the belchless variety?

I am trying to cut through the extremism and get to the truth. Right now, I am of the opinion that the cure (e.g. the Kyoto Protocol) would be far more painful to our economy and quality of life than the results of any (man caused) climate change. I am certainly not trying to down-grade the importance of your research on carbon sequestration in soils, it could be a very effective tool if needed.

I don't subscribe to scientific journals. I admit I have been greatly influenced by a few publications I do take, such as: Environment & Climate News (Heartland Institute, Chicago), The Torch (Newsletter of the Society for Environmental Truth, Tucson), and Access to Energy (a plain language newsletter from the Oregon Institute of Science and Medicine).

If you have some charts or graphs of actual measurements that illustrate unusual warming over time, where the measurements were taken, and by whom, I would like to have them. I would send them to the editors of the above publications for their comment.

Please bear with me, I have an open mind and I seek the truth. I hope I'm not becoming a nuisance.

Sincerely yours,

Charles A. Lakin

Cc: Robert Martin
Richard Stuckey
Phil Upchurch

Pacific Northwest National Laboratory
Operated by Battelle for the
U.S. Department of Energy

January 30, 2001

Mr. Charles A. Lakin
Lakin Milling Company
4456 S. Dysart Road
Avondal, AZ 85323

Dear Mr. Lakin,

Richard Stuckey, Executive Vice President of CAST, has sent me copies of the correspondence that began with your letter of December 12 to Dr. Robert Martin and also of your attachments to the letter. Dr. Stuckey asks me to respond to your concerns.

The key issue appears to be that you do not believe that global warming is occurring and that, if it is, it is due to factors other than fossil fuel combustion and the other human activities such as tropical deforestation that release CO_2 and other greenhouse gasses to the atmosphere. Therefore the article in which Dr. Izaurralde and I propose soil carbon sequestration as a partial remedy to the increase of carbon in the atmosphere seems to you to be based on a false premise—i.e. that there is any climate change problem to be dealt with. Additionally, you suggest that since CO_2 is good for plants (which it is; incidentally, I was one of the first to publish on the benefits of elevated CO_2), we should not be trying to control the emissions at all. Perhaps I have not rendered your thinking quite right, but close enough for the purpose of discussion. And, finally, you wonder whether our Issue Paper was subject to peer-review.

First, thermodynamics shows us that the emission of radiatively active gases such as carbon dioxide, methane, nitrous oxide and others into the atmosphere must increase temperature in the lower strata and decrease it higher up. I'm not talking here about the computer models that the writers you follow gleefully attack at every turn, but rather about basic, established physical knowledge. Second, the climate record shows clearly that the lower levels of the atmosphere (where we live) are warming at an unusually rapid rate. These are facts. One might argue, as some of the articles you enclosed do, that the warming is due to factors other than greenhouse gas emissions. I believe that some, but definitely not all, of the warming experienced in this century could be due to solar activity and/or other cyclic phenomena. However, the vast majority of the scientists competent to deal with the evidence assert that greenhouse warming is the predominant

Washington Operations
901 D St. S.W. • Suite 900 • Washington, DC 20024-2115

cause. To go much deeper into the argument here would not be useful. Anyone can pull up an article here or there to prove or disprove anything about climate change. I recommend that you read William K. Stevens' book The Change in the Weather: People, Weather and the Science of Climate (Delacorte, 1999). By the way, you can get a copy of the draft IPCC Third Assessment Science Report, Summary for Policymakers (about which the media have carried much in the last couple of weeks) through the Internet at: http://www.ipcc.ch/

Back to Stevens who is a respected science writer for the New York Times and, as far as I can tell from following his work for a long time, has no particular ax to grind. Stevens avoids the hype that you often see about how catastrophic global warming might be but shows, nonetheless, that global warming will have impacts on agriculture, water resources, forests and ecosystems that could be detrimental and in some regions substantial. Prudence, in my opinion, argues that society should take out insurance against the possibility of climate change by increasing energy efficiency, increasing sequestration of carbon and looking for alternative, non-fossil fuel based energy sources. Our Issue Paper describes one technology that can contribute to mitigation of climate change while providing many other benefits to stewardship of the land.

In your letter you express proper concern about peer-review. Dick Stuckey has described the CAST review process in his letter to you. Since its publication a set of articles covering the subjects in our Issue Paper have been accepted for publication by a standard scientific journal. So I guess our ideas pass muster on this score too. You may want to find out whether the articles you attached to your original letter were also subjected to scientific peer review. I suspect not.

I hope this reply is helpful to you. It's always nice to know that somebody out there is actually reading our stuff.

Sincerely,

Norman J Rosenberg
Senior Staff Scientist

Cc: Richard Stuckey
Robert Martin
Cesar Izaurralde

CHARLES A LAKIN

From the desk of . . .
Chuck Lakin

Rcvd
19 DEC 2000

Dear Phil:

Ive been stewing about this since last summer, when we exchanged letters. Decided to get it off my mind when I received a solicitation for a donation to CAST.

Maybe there's a good explanation for this, but if CAST has gone political on us, another icon has fallen off the shelf!

Merry Christmas!

Chuck

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December 12, 2000

Dr. Bob Martin
Iowa State University
201 Curtis
Ames, Iowa 50011

Copy

Dear Sir:

I am writing to you because Phil Upchurch, whom I knew at the University of Arizona, gave me your name as one that might have answers for me.

I am a life member of CAST, and I read most of the Issue Papers and other publications with great interest. While much of the subject matter is of academic interest only, I have gleaned a lot of useful information. I have always found the publications to be scholarly, and as nearly as I could determine as a layman, based on sound science.

Just for background, my company is in production agriculture, with 1800 acres under irrigation west of Phoenix. We grow no exotic crops, our principle one being alfalfa, from which we manufacture some highly successful pelleted horse feed products.

But I write this because I am disturbed and confused. Last spring when I read Issue Paper Number 14 (April, 2000), I became upset, and can't seem to get over it. This paper dealt with "Storing Carbon in Agricultural Soils to Help Mitigate Global Warming" through carbon sequestration in soils. I am in no position to doubt the authors' theory that significant amounts of carbon can be stored in soils through sequestration.

What disturbs me about this paper is the assumption that "global warming" is a fait accompli, when there is nowhere near a consensus among scientists that it is real. I have read a good bit on the subject, and believe the following:

1. "Global warming" is more of a political issue than a scientific one.
2. Some selected measurements may show some warming, but they are unremarkable when compared to long term cycles, while others show actual cooling.
3. There is no real evidence that man-made CO2 has caused warming. It appears that the "warmers" have relied largely on computer projections, which have not come to pass.
4. It is an established fact that increased atmospheric CO2 increases plant growth, which can increase crop yields worldwide, the benefits of which can outweigh any supposed detriments.
5. There is no justification for the draconian measures proposed by the Koto (KYOTO) Protocol (which would be selectively applied to developed nations only).

6. I consider Issue paper number 14 to be unprofessional, in that the need for such an ambitious plan is based on highly theoretical premises which the authors express as fact. I do not consider it up to the standards I have come to expect from CAST.

I have questions for you: Was this paper peer reviewed? If so, by whom? Does this paper represent the thinking of CAST? If not, where is the disclaimer? Do you have real data to counter the enclosed materials?

Hoping you can ease my mind, I am:

Sincerely yours,

Charles A. Lakin

Cc: Dr Phil Upchurch
Enclosures

THE TORCH NOV 2000 (NEWSLETTER OF THE SOCIETY FOR ENVIRONMENTAL TRUTH)

Global Temperature Report: September 2000

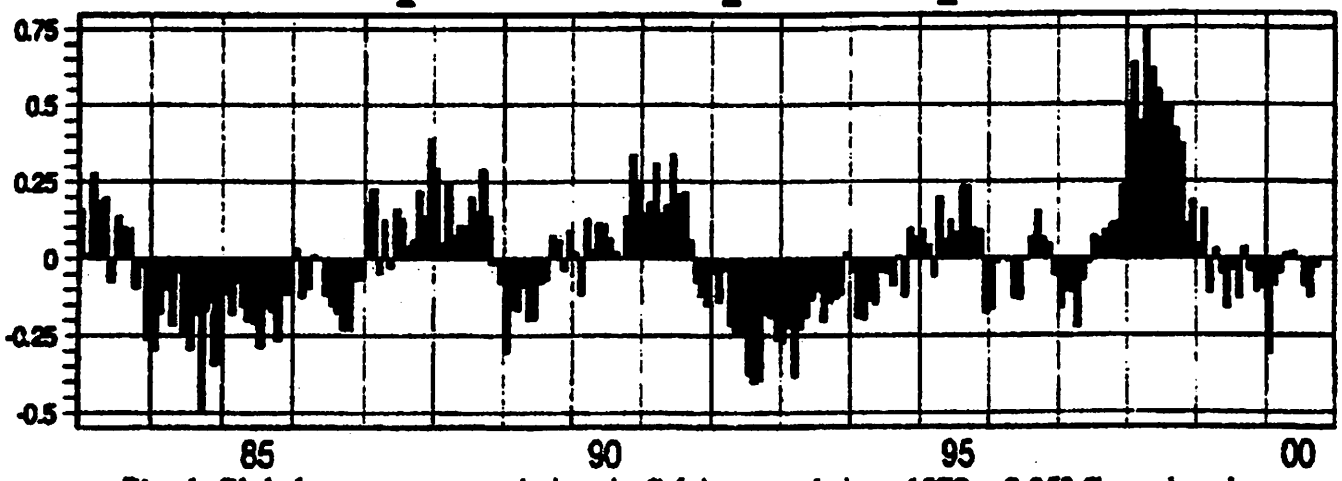


Fig. 1: Global temperature variation, in Celsius; trend since 1979, +0.05° C per decade

Global composite temp.: -0.02° C (about 0.04° Fahrenheit) below 20-year average for September.

Northern Hemisphere: +0.09° C (about 0.16° Fahrenheit) above 20-year average for September.

Southern Hemisphere: -0.14° C (about 0.25° Fahrenheit) below 20-year average for September.

August Temperatures (revised): Global Composite: -0.12° C below 20-year average
Northern Hemisphere: +0.05° C above 20-year average
Southern Hemisphere: -0.30° C below 20-year average
(All temperature variations are based on a 20-year average (1979-1998) for the month reported.)

Notes on data released Oct.10, 2000:

In September the "lower 48" U. S. states again saw warmer than normal temperatures, according to Dr. John Christy, a professor of atmospheric science and director of the Earth System Science Lab at The University of Alabama in Huntsville.

The warm temperatures were especially noticeable over the Southern Plains, he said. "Several 100-year surface temperature records were set in Texas in early September."

Warmer than normal temperatures were also seen in the atmosphere above the Greenland Sea, the North Pacific, East Asia, Australia and the Antarctic.

Cooler than normal temperatures over the tropics and southern oceans more than offset pockets of warm air over North America and other regions, leaving the globe with average temperatures slightly cooler than seasonal norms.

"The conterminous U. S. has experienced an especially long run of above average temperatures," Christy said. "During the past 40 months, North America saw only four months with temperatures cooler than seasonal norms. In the past 29 months only one, July 2000, was cooler than seasonal norms in the U. S.

"Globally, however, we don't see the same warm temperatures. When you look at the entire globe for the past 29 months, it's been about 50/50, with 14 months warmer than normal and 15 months cooler."

DATA CORRECTION

The graph above reflects corrected data for 1999 and 2000. Christy said the global temperature dataset was corrected with NOAA-14 orbital decay data provided by NOAA. Until that data became available, orbital decay values for the NOAA-14 satellite were estimated. The new orbital decay data changed the long-term climate trend by +0.002° C per decade. As satellites circle in low Earth orbit, their orbits are said to "decay" due to interactions with the thin outermost layers of the atmosphere. This decay causes a slight, but measurable, "cooling" which must be corrected out of the dataset. A list of the corrected month-by-month global temperatures for 1999 and 2000 is included in this report. (See page 9.)

As part of an ongoing joint project between UAH, NOAA and NASA, Christy and Dr. Roy Spencer, a NASA space scientist in the National Space Science and Technology Center, use data gathered by microwave sounding units on NOAA satellites to get accurate temperature readings for almost all regions of the Earth. This includes remote desert, ocean and rain forest areas for which reliable climate data are not otherwise available.

The satellite-based instruments measure the temperature of the atmosphere from the surface up to an altitude of about eight kilometers above sea level.

(see more on page 9)

ACESS TO ENERGY FEB. 1998

between 1981 and 1996, with 33 going under after 1988. In 1995 there remained only 162 operating oil refineries in the United States. Improved efficiency from new hydrocarbon cracking technology has managed to keep American refinery output about constant since 1988.

Regulatory costs of operating a refinery are 25% lower in Western Europe and Canada and almost zero in much of the developing world. Is it not wonderful! They refine our oil in exchange for printing press money and in admiration of our environmental superiority.

THE SUN IS HOT

"Mad dogs and Englishmen go out in the noonday sun .... " (*Mad Dogs and Englishmen* by Noel Coward), but most people do not think about the fact that it is warmer when the sun shines and that most natural phenomena fluctuate. Two people who do are Sallie Baliunas and Willie Soon, as evidenced by their article "The Sun Climate Connection" in *Sky & Telescope*, December 1996, and their research.

Figure 2, adapted from their publications, illustrates the close correlation between changes in the surface temperature of the Earth's Northern Hemisphere and variations in the Sun's magnetic activity. (The smooth line is the solar magnetic cycle length. The rough line is the Earth temperature deviation from its mean.) This correlation has been extended to the 11th century by means of measurements of carbon 14 and beryllium 10 in ancient trees and ice cores in comparison with recorded historical events. Increased solar activity is associated with strong magnetic fields that deflect cosmic rays away from the earth and thereby reduce production of these isotopes.

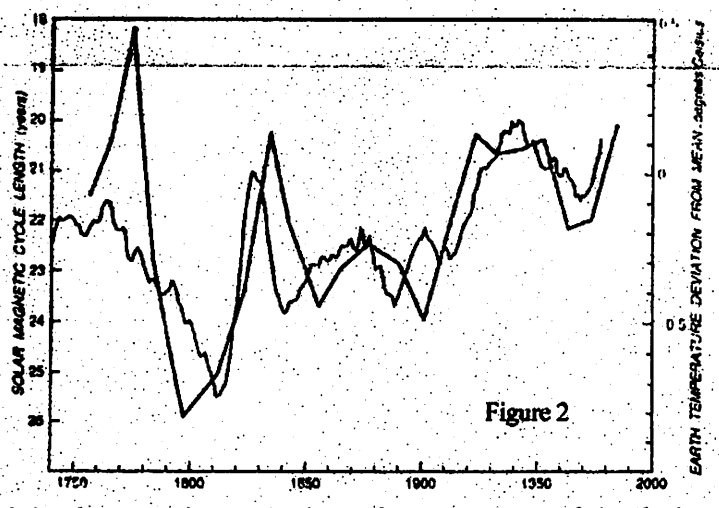


Figure 2

Moreover, Baliunas and Soon and their colleagues and predecessors have made measurements of magnetism and brightness fluctuations of other stars similar to our sun. These measurements show that the sun's fluctuations are not unusual among stars of its type. They conclude that "solar-brightness variations can explain most of the past record of terrestrial global temperature fluctuations."

So, the sun changes in brightness by about one-half of one percent, and our global "betters" use this as an excuse to turn our power off.

The pseudoenvironmentalists ask that we make gods of men – notably of themselves as leaders of the new world order. Alas, it is turning out that the sun (and not men) is setting the temperature of the Earth. They are hedged, however, by their insistence that we also worship plants and animals and mother gaia. From there it is only a short step further to worship of the sun god – under their guidance.

The Aztecs worshiped the sun god. One of their religious dogmas required that a stone at the top of their worship pyramid be kept continually wet with human blood as desired by the sun god. Pseudoenvironmental laws and regulations are already killing enough human beings worldwide to supply materials for the maintenance of many such pyramids. (In a required course for chemistry majors at Oregon State University, my son Zachary is "learning" that the Aztecs and their quaint customs were far superior to present day Americans.)

NUCLEAR POWER IMPROVEMENTS

Nuclear Issues 19, No. 4, pp 1-2, April 1997, available from 8 Ruvigny Mansions, Embankment, Putney, London SW15 1LE, summarizes a report by the World Association of Nuclear Operators about performance indicators of the 436 operating nuclear power plants.

Since 1990, the fraction of maximum energy the plants are capable of supplying to the electrical grid has risen 10%; collective radiation exposure has dropped 30%; accidents resulting in one or more days away from work have dropped 60%; and annual volume of radioactive waste has dropped 50%.

Nuclear Issues in the same issue on page 4 summarizes the 1996 International Atomic Energy Agency report of nuclear power plants subdivided by country, capacity, operating experience, and percentage of total electric power supplied. In percentages, Lithuania leads with 83.4%. Among large producers, France is still overwhelmingly dominant with 76.1% of its electricity supplied by nuclear power.

In 1996, France produced 378.2 TWh(e) of electricity from nuclear power. The only country producing more was the United States, which made 674.8 TWh(e). Others over 100 TWh(e) were Japan at 287.0, Germany at 152.8, and Russia at 108.8.

As nuclear power generation expands worldwide, especially in Asia, not all of the news is good. American nuclear power development remains stalled and hopefully will be able to tread water until we are rid of the Clinton Administration. In Sweden (See *Nuclear Issues* 19, No. 2, pp 1-3 (1997)), voters approved a measure freezing construction of new nuclear power plants, but the envirocrats in the Swedish government are interpreting this to mean that they are authorized to close the 12 plants now operating and currently generating 52.4 % of Sweden's electric power. It is to be hoped that cooler heads will prevail before these people go too far.

Russia reports that electricity from nuclear power is costing about one-half of that generated from coal, oil, and natural gas. This is, of course, the reason that the world's rapidly developing economies are enthusiastically installing more nuclear power plants.

American politicians and bureaucrats expect to continue to consume the technological accomplishments of prior generations while not allowing sensible installation of the best new technology. In decades to come, we will then hear even greater calls for trade barriers so that Americans can live in their own internally produced dark age, while the rest of the world moves forward. Already worldwide competition is lowering the real wages of American workers who are over-taxed, over-regulated, and often work with obsolete machinery because needed replacement capital has been seized by government.

Energy is the currency of technological progress. The May 9, 1997 information release by Business Communications Company, 25 Van Zant Street, Norwalk, CT 06855, gives as the projected annual increases in electric power generating capacity during the next decade: North America - 1.1%, Central and South America - 3.6%, Western Europe - 1.9%, Eastern Europe - 1.0%, Middle East - 5.5%, Africa - 4.2%, Far East and Oceania - 6.9%. They point out that the United States is strong in energy research and development that it can sell to these markets. The ultimate bottom line, however, is that he who has the electricity can support the industry to do and make things of value.

INTERACTIVE PROPAGANDA

Access to Energy has called recycling (except for that which arises spontaneously in the free market such as for silver and copper) "interactive propaganda." Every salesman knows that a sale is more likely if the customer can be convinced to do something with his own hands for or with the salesman. Forced recycling never made sense and, in many cases, was counterproductive – as in paper recycling which raises paper costs while *diminishing* forest quality by undermining the market for scrub trees that need to be removed. Recycling has primarily been a contrived tool whereby the enviro industry gets Americans to mindlessly participate in an enviro project – thereby diminishing resistance

Science Has Spoken: Global Warming Is a Myth

By ARTHUR B. ROBINSON
And ZACHARY W. ROBINSON

Political leaders are gathered in Kyoto, Japan, working away on an international treaty to stop "global warming" by reducing carbon dioxide emissions. The debate over how much to cut emissions has at times been heated—but the entire enterprise is futile or worse. For there is not a shred of persuasive evidence that humans have been responsible for increasing global temperatures. What's more, carbon dioxide emissions have actually been a boon for the environment.

The myth of "global warming" starts with an accurate observation: The amount of carbon dioxide in the atmosphere is rising. It is now about 360 parts per million, vs. 290 at the beginning of the 20th century, Reasonable estimates indicate that it may eventually rise as high as 600 parts per million. This rise probably results from human burning of coal, oil and natural gas, although this is not certain. Earth's oceans and land hold some 50 times as much carbon dioxide as is in the atmosphere, and movement between these reservoirs of carbon dioxide is poorly understood. The observed rise in atmospheric carbon dioxide does correspond with the time of human release and equals about half of the amount released.

Carbon dioxide, water, and a few other substances are "greenhouse gases." For reasons predictable from their physics and chemistry, they tend to admit more solar energy into the atmosphere than they allow to escape. Actually, things are not so simple as this, since these substances interact among themselves and with other aspects of the atmosphere in complex ways that are not well understood. Still, it was reasonable to hypothesize that rising atmospheric carbon dioxide levels might cause atmospheric temperatures to rise. Some people predicted "global warming," which has come to mean extreme greenhouse warming of the atmosphere leading to catastrophic environmental consequences.

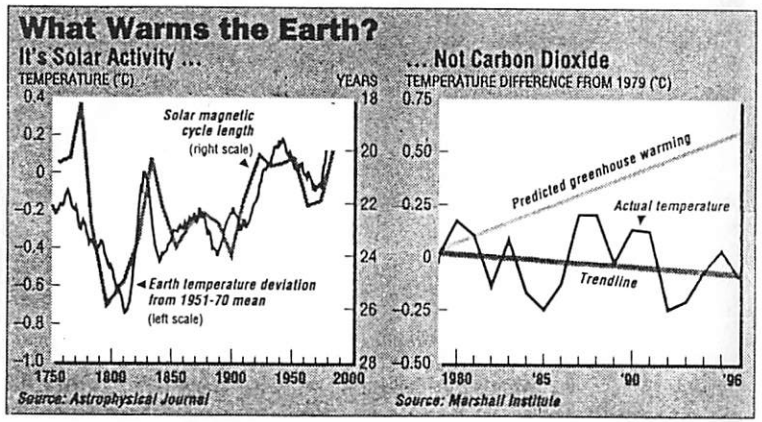
Careful Tests

The global-warming hypothesis, however, is no longer tenable. Scientists have been able to test it carefully, and it does not hold up. During the past 50 years, as atmospheric carbon dioxide levels have risen, scientists have made precise measurements of atmospheric temperature. These measurements have definitively shown that major atmospheric greenhouse warming of the atmosphere is not occurring and is unlikely ever to occur.

The temperature of the atmosphere fluctuates over a wide range, the result of solar activity and other influences. During the past 3,000 years, there have been five extended periods when it was distinctly warmer than today. One of the two coldest periods, known as the Little Ice Age, occurred 300 years ago. Atmospheric temperatures have been rising from that low for the past 300 years, but remain below the 3,000-year average.

Why are temperatures rising? The first chart nearby shows temperatures during the past 250 years, relative to the mean temperature for 1951-70. The same chart shows the length of the solar magnetic cycle during the same period. Close correlation between these two parameters—the shorter the solar cycle (and hence the more active the sun), the higher the temperature—demonstrates, as do other studies, that the gradual warming since the Little Ice Age and the large fluctuations during that warming have been caused by changes in solar activity.

During the 20 years with the highest carbon dioxide levels, temperatures have decreased.



The highest temperatures during this period occurred in about 1940. During the past 20 years, atmospheric temperatures have actually tended to go down, as shown in the second chart, based on very reliable satellite data, which have been confirmed by measurements from weather balloons.

Consider what this means for the global-warming hypothesis. This hypothesis predicts that global temperatures will rise significantly, indeed catastrophically, if atmospheric carbon dioxide rises. Most of the increase in atmospheric carbon dioxide has occurred during the past 50 years, and the increase has continued during the past 20 years. Yet there has been no significant increase in atmospheric temperature during those 50 years, and during the 20 years with the highest carbon dioxide levels, temperatures have decreased.

In science, the ultimate test is the process of experiment. If a hypothesis fails the experimental test, it must be discarded. Therefore, the scientific method requires that the global warming hypothesis be rejected.

Why, then, is there continuing scientific interest in "global warming"? There is a field of inquiry in which scientists are using computers to try to predict the weather—even global weather over very long periods. But global weather is so complicated that current data and computer methods are insufficient to make such predictions. Although it is reasonable to hope that these methods will eventually become useful, for now computer climate models are very unreliable. The second chart shows predicted temperatures for the past 20 years, based on the computer models. It's not surprising that they should have turned out wrong—after all the weatherman still has difficulty predicting local weather even for a few days. Long-term global predictions are beyond current capabilities.

So we needn't worry about human use of hydrocarbons warming the Earth. We also needn't worry about environmental calamities, even if the current, natural warming trend continues: After all the Earth has been much warmer during the past 3,000 years without ill effects.

But we should worry about the effects of the hydrocarbon rationing being proposed at Kyoto. Hydrocarbon use has major environmental benefits. A great deal of research has shown that increases in atmospheric carbon dioxide accelerate the growth rates of plants and also permit plants to grow in drier regions. Animal life, which depends upon plants, also increases.

Standing timber in the United States has already increased by 30% since 1950. There are now 60 tons of timber for every American. Tree-ring studies further confirm this spectacular increase in tree growth rates. It has also been found that mature Amazonian rain forests are increasing in biomass at about two tons per acre per year. A composite of 279 research studies predicts that overall plant growth rates will ultimately double as carbon dioxide increases.

Lush Environment

What mankind is doing is moving hydrocarbons from below ground and turning them into living things. We are living in an increasingly lush environment of plants and animals as a result of the carbon dioxide increase. Our children will enjoy an Earth with twice as much plant and animal life as that with which we now are blessed. This is a wonderful and unexpected gift from the industrial revolution.

Hydrocarbons are needed to feed and lift from poverty vast numbers of people across the globe. This can eventually allow all human beings to live long, prosperous, healthy, productive lives. No other single technological factor is more important to the increase in the quality, length and quantity of human life than the continued, expanded and unrationed use of the Earth's hydrocarbons, of which we have proven reserves to last more than 1,000 years. Global warming is a myth. The reality is that global poverty and death would be the result of Kyoto's rationing of hydrocarbons.

Arthur Robinson and Zachary Robinson are chemists at the Oregon Institute of Science and Medicine.

A bullet through the heart of the global warming scare

BY PATRICK J. MICHAELS, PH.D.

Who says you can't "prove a negative"?

In a recent issue of the refereed scientific journal *Geophysical Research Letters* (*GRL*), several *Environment & Climate News* colleagues published a paper that comes pretty close to showing that the climate models used as the basis for gloom-and-doom projections are simply wrong over the balance of the lower atmosphere.

We obtained this result months ago but have been impatiently sitting on the news so as not to jeopardize publication in *GRL*, which, like most scientific journals, publishes only previously unreleased results. Truth be told, an oversight by a third party led to some of our results appearing on the Internet for a couple of days while our submission was in review for the journal *Science*. They rejected it, and rightly so, given their policy that a submission must "remain a privileged document and . . . not be released to the press or the public before publication."

(We find it somewhat ironic that shortly after our paper was rejected on those grounds, *Science* ran a piece describing some of the contents in the draft version of the yet-to-be-released IPCC Third Assessment Report. Each and every page of the IPCC document was marked "Do not cite. Do not quote." Go figure.)

Still, we understood. So we expanded the study and sent it to *GRL*.

Our paper is a bullet through the heart of the global warming scare, which requires that computer models used as the excuse for the United Nations' climate treaty match reality.

The well-known problem we examine stems from satellite and weather-balloon data for the balance of the lower atmosphere that appear to show very little warming during their period of concurrency, which is the 21-plus years since January 1, 1979. The computer models all indicate there should have been a dramatic warming. Literally billions of our tax dollars have now gone to try to explain away that discrepancy.

Finally, last March, newspapers around the world trumpeted—some on the front page—that new research by federal climatologist Ben Santer had reconciled the difference. Along with several coauthors, he argued in *Science* that computer models could account for the lack of warming after all, mainly because of the cooling influence of the 1991 eruption of the Philippine volcano Mt. Pinatubo.

Two things troubled us: Pinatubo wasn't the only big volcano in recent decades (El Chichón caused a cooling in the early 1980s of about half of the magnitude of Pinatubo), and the paper's data ended precisely at a very hot point—the mega-El Niño of 1998. (To those who think history repeats itself here—you recall correctly that these same guys tried using a different, highly fortuitous dataset a few years ago to prove the models were OK. See sidebar.)

The recent Santer *Science* paper argued that including Mt. Pinatubo's cooling effects made the difference between GCM-predicted temperatures and those measured by the satellites only 0.045°C per decade, which they found to be statistically insignificant. They concluded, therefore, that they had reconciled observed and modeled temperatures.

But when we add in all of the volcanic action (including the cooling from El Chichón) and allow for the fact that El Niños are pretty much random occurrences (in other words, a huge one *happened* to occur in 1998, which *happened* to produce this happy result), the difference between the models and the observed temperatures works out to a whopping 0.162°C per decade, or 360 percent of the amount Santer and colleagues published in *Science*. (See Figure 1.)

Interestingly, this is almost exactly the difference in warming between surface temperatures and those of the rest of the lower atmosphere—proving, as we have maintained for more than half a decade now, that recent warming is confined to the very lowest layers of the atmosphere and, further research confirms, that it is largely confined to the shallow, coldest air masses of winter that no one likes anyway.

In other words, the gloom-and-doom models don't work, which effectively leaves us with no scientifically based projection of twenty-first century climate at all, except the projection that results from observed data and the laws of physics that dictate that human-induced warming should be relatively constant, rather than increasing at an alarming exponentiality.

That leaves us about 0.65°C of warming to "worry" about for the next 50 years. That's the only conclusion we can take from the recent *GRL* paper. The models are wrong and nature has told us the answer.

Will we ever have a climate model that works? We think so, and we think we know how to "make" that happen. As NASA scientist James Hansen recently did, simply adjust the warming radiation down in the models to make them consistent with reality.

But that's called throwing in the towel, sending the champagne to *Environment & Climate News*, and finding something else to do for a living. Not very likely.

According to Nature *magazine, University of Virginia environmental sciences professor Patrick J. Michaels is probably the nation's most popular lecturer on the subject of climate change. Michaels is coauthor of* The Satanic Gases: Clearing the Air About Global Warming.

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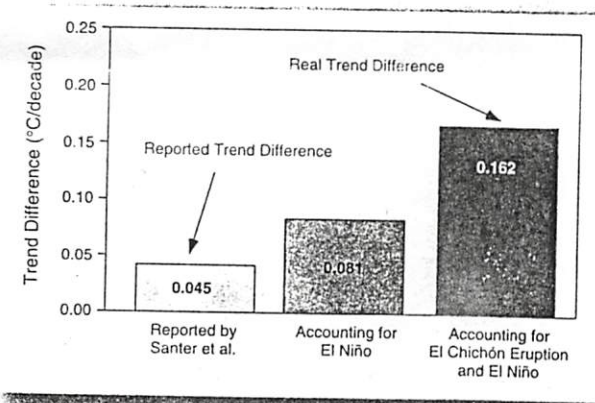

Figure 1. The difference in temperature trends between the satellite observations of global temperature from 1979 to 1998 and the climate model output incorporating the Mt. Pinatubo eruption's interruption was reported by Santer and colleagues as only 0.045°C per decade. But when the effect of ending their study during a strong El Niño is factored in, the temperature difference increases to 0.081°C per decade. And when the other volcanic eruptions that occurred during this time are considered, the difference further increases to 0.162°C per decade—a value 360 percent larger than the one reported by the Santer team in *Science*.

When is it OK to ignore data?

In at least one other instance, data selection highly influenced the conclusion that computer models were correctly simulating global warming. That was in the July 1996 paper by Santer et al. in which they compared lower atmospheric temperatures from 1963 through 1988 and found a statistically strong match.

We examined their result in light of the complete record that was available (1957-1995 at the time of publication) and showed (Figure 1) that the main region of strong warming in fact showed no warming when all the data were used.

Thomas Kuhn, the late, great historian of science, wrote in his classic *The Structure of Scientific Revolutions* that such actions are in fact the norm in science when a "paradigm," or overarching logical framework, is assaulted by inconvenient data.

Maintaining the paradigm, he wrote, is the work of "normal science." In 1962, Kuhn wrote:

Closely examined, whether historically or in the contemporary laboratory, that enterprise [normal science] seems an attempt to force nature into the preformed and relatively inflexible box that the paradigm supplies.

Then:

In science . . . only the anticipated and usual are experienced even under circumstances where the anomaly is later to be observed. Further acquaintance, however, does result in an awareness of something wrong or does relate the effect to something that has gone wrong before.

What this means for climatology: The reigning paradigm is that computer models can simulate the behavior of the atmosphere. When data appear that show they can't, the scientists' natural response is to ignore reality or to convolute the facts in a way that props up the paradigm. Thus the current tendency to either selectively cite data or to ignore inconveniences is, sadly, the real way that science works—until the entire house of cards implodes, which is what the recent *Geophysical Research Letters* paper might have accomplished.

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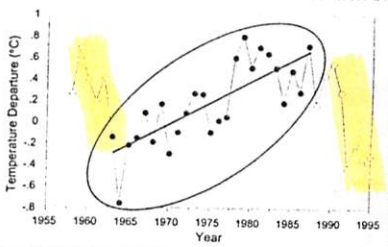

Figure 1. In their 1996 paper, Santer and colleagues used data only from 1963 to 1988 (filled circles)—although data were available from 1958 through 1995. A more complete record provides a clearer picture.

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UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU

8 AUG 2000

CHUCK LAKIN
54 MONTEGO CT.
CORONADO, CA 92118

Dear Chuck,

From your letter of 2 AUG 2000 about the CAST Report I see you still have a very active mind. I see you caught up with our new address. Two enclosed sheets will provide a little more detail on our move.

Like you I am a lifetime member of CAST. I was very active in CAST for over a decade and was President in 1982 when the 10th Anniversary was celebrated at Iowa State. I attended the 25th in Chicago in 1997 and was the senior attending former President. It was all great stuff. CAST was & is a wonderful organization but I have not been active in a real sense for over a decade - other things have claimed my attention. Still, I try to follow some of the big issues. More & more I look at these matters from a

historical perspective - history being a special interest of mine - family & otherwise. I am currently reading a Biography of Henry Agard Wallace which is fascinating - but I digress.

Like you I have the feeling that the concept of Global Warming is more and more becoming accepted without proper attention being given to the opposing view that even if there is such a thing it may be the result of long term cycles. It may be that CAST had an earlier document on the fundamental issue - but my CAST records are deadfiled & hard to resurrect (read - Phil is lazy). You could call CAST Headquarters & see if there was ever such a document.

Since your letter arrived I have re-read Issue Paper #14 twice & provide herewith a marked copy. I have several observations/comments as follows:

① I do feel CAST over the years has been a balanced source of information on Ag Science & Technology. This is the intent of the organization. The process is reinforced by selecting reputable scientists to serve on task forces and by having a "guru" at CAST Headquarters to serve

as a mentor of output. Charlie Blair was the guru for many years and was superb. without being critical of present editorial oversight it is easy to see how CAST could slip from the exceptionally high standard set by Charlie. I suspect this happened on Issue Paper 14.

② Paper 14 may suffer from the fact that there were only two Task Force members. Maybe their personal bias slipped into the text. I'll give some examples below.

③ If you set aside the issue of Global warming the Paper is pretty good as related strictly to the matter of sequestering carbon in soil. Still there is a fundamental issue not touched upon - which I recall from my student days. The amount of organic matter (read carbon) any soil will retain is under an equilibrium based on the average annual temperature. You can see this in the US - soil organic matter increases as you go from Southern to Northern Areas.

④ The increase mentioned on Pg 1 of the Paper (circled in red) is probably real. The highlighted item which follows is where the authors fail to put in a disclaimer. This failure is

repeated on Pg 2 (also highlighted)

(5) I think the paper (the authors) are disingenuous in that they fail to report some of the facts about the Rio and Kyoto conference (See Pg 3). My understanding is that the Rio Document has not been ratified by the U.S. Senate & therefore lacks something in standing. Likewise it is my understanding the Kyoto Accord have not been accepted by the U.S. Senate. My understanding is that, Global warming aside, the KYOTO Protocol is very controversial in that they would apply to Developed Nations (reducing our standard of living) while not applying to the developing nations (where greatly increased CO_2 emissions are expected).

(6) The Implementation section on Pg 6 is fraught with many problems. Some of the cause & effect scenarios are quite uncertain. One can visualize a huge bureaucratic operation to make something happen. The federal government has a very poor reputation on such programs.

(7) Pg 6 - Highlight. Just because elevated soil organic matter may increase water-holding capacity (even that is debatable as related to <u>available</u> soil moisture) does not mean that less water is required for crop production. The authors display some ignorance here.

(8) Pg 7 - Highlight - Here the authors display a bias. The fact is that increased use of pesticides (the right ones) may have favorable effects on ecological systems & water quality: The use of Roundup (Glyphosate) on my soybeans this year is a case in point.

I think the errors in this paper are an exception to the rule for CAST. They are still the best game in town for my money.

While I have enjoyed going on and on in responding to your letter I have to tell myself that my active role in such matters is for the most part behind me. I had a long run and

game it my best shot. At present we are trying to simplify the operation of our 1500 Acre Corn/Sorghum farm and then along with our new Villa should give us more freedom to travel and to just "hang out". We need to learn from you and Maxine just how this is done.

I often think back on our 19½ years in Arizona with much pleasure. We enjoyed our work there and made many friends. But - as you say - How Time Flies - Their inflations have spread to Missouri.

My Best to you & Maxine.

Sincerely yours

Phil Upchurch

(ROBERT PHILLIP UPCHURCH)

CHARLES A LAKIN

REC'D
7 AUG 2000

Chuck and Maxine Lakin
54 Montego Ct.
Coronado, CA 92118

C. A. Lakin
54 Montego Ct.
Coronado,CA 92118

Aug. 2, 2000

Dr. Phil Upchurch
351 Shetland Valley Court
Chesterfield, MO 63005 4840

Dear Phil:

It seems like only yesterday that you retired and went back to Missouri. I guess those dern time flies have been at work again, I wish someone would figure out a way to eradicate the buggers, like we did the screw worms!

I hope you and your loved ones are all well and happy. Maxine and I are keeping cool and busy in Coronado, California until October 1st, then back to the real world (Phoenix that is).

Phil, I am confused about something, and I'm in hopes you can straighten me out.

I am a life member of CAST, and I believe you are (or have been) an officer in the organization. I have always held it in the greatest esteem, and can't believe that it would ever get anywhere near any "junk" science.

Back in April, I received the "Issue Paper" number 14, regarding the storage of carbon in agricultural soils to help mitigate global warming.

Herein lies the rub: I have no doubt that atmospheric CO2 can be influenced by soil management. What bothers me is the appearance that CAST believes man-made CO2 is (ipso facto) warming the atmosphere, with dire consequences to the human race.

I get newsletters and periodicals from several organizations that have me convinced global warming is more of a political issue than a scientific one. I have seen many graphs and charts from seemingly irrefutable sources showing that global temperature fluctuations have been going on forever. There is also much evidence that increased atmospheric CO2 will produce faster tree growth and better crop yields worldwide. If CAST hasn't investigated that, it should.

I have seen nothing but computer projections to support the theory of man made global warming and its catastrophic consequences. Certainly nothing that justifies the draconian measures proposed by the Kyoto Treaty.

Phil, does CAST have information based on real science that supports the doom-sayers? If so I'd like to know about it.

Didn't want to disturb the tranquility of your retirement, but perhaps you can get me straightened out on this without going to a lot of trouble.

Sincerely,

Chuck

Chuck Lakin

From "The Torch", Newsletter of the Society for Environmental Truth. February 2000

Global Temperature Report: January 2000

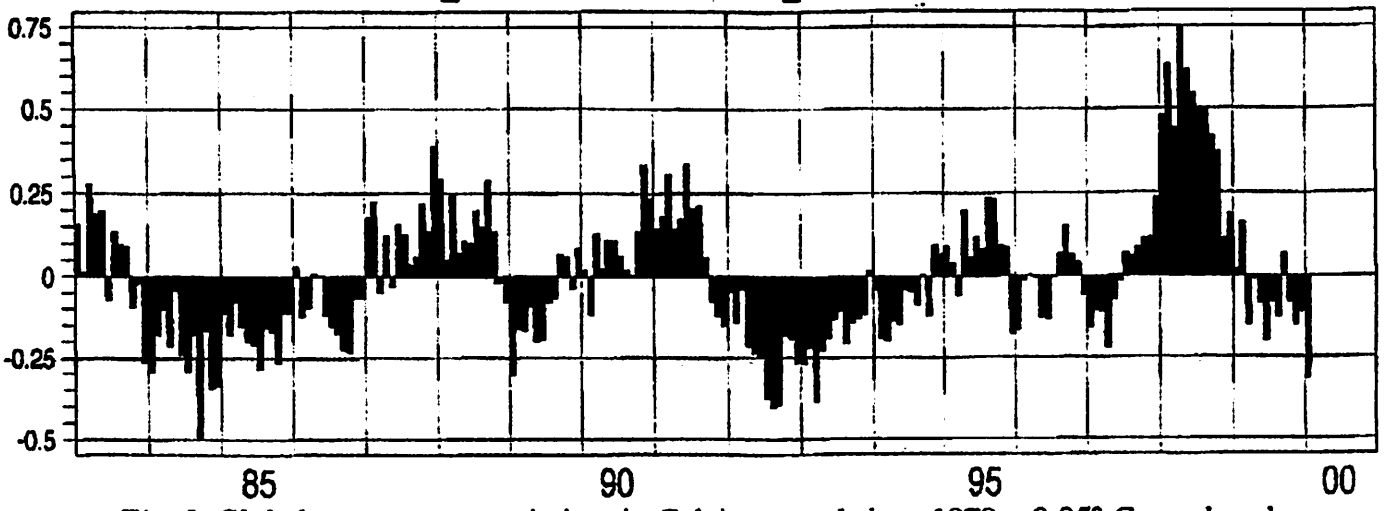


Fig. 1: Global temperature variation, in Celsius; trend since 1979, +0.05° C per decade

Global composite temp.: -0.32° C (about 0.58° Fahrenheit) below 20-year average for January.

Northern Hemisphere: -0.25° C (about 0.45° Fahrenheit) below 20-year average for January.

Southern Hemisphere: -0.40° C (about 0.72° Fahrenheit) below 20-year average for January.

December Temperatures (revised): Global Composite: -0.10° C below 20-year average
Northern Hemisphere: +0.10° C above 20-year average
Southern Hemisphere: -0.30° C below 20-year average

(All temperature variations are based on a 20-year average (1979-1998) for the month reported.)

Notes on data released February 7, 2000:

Compared to seasonal norms, January 2000 was the coldest month since March 1993 says Dr. John Christy, a professor of atmospheric science and director of the Earth System Science Center at the University of Alabama at Huntsville. In contrast to some of the recent satellite measurements, both the northern and southern hemispheres experienced a return to the pre-El Nino falling temperature mode.

As part of an ongoing NASA/UAH joint project, Dr John Christy, a professor of atmospheric science and director of UAH's Earth System Science Center, and Dr. Roy Spencer, a space scientist in the Earth Science Laboratory of the Global Hydrology and Climate Center in NASA's Marshall Space Flight Center, use data gathered by microwave sounding units on NOAA's TIROS-N satellites to get accurate temperature readings for almost all regions of the Earth.

The satellite-based instruments measure the temperature of the atmosphere from the surface up to an altitude of about eight kilometers above sea level.

Once the monthly temperature data is collected and processed, it is placed in a "public" computer file for immediate access by atmospheric scientists in the U.S. and abroad.

Neither Spencer nor Christy receives support or funding from oil, coal or industrial companies or organizations, or from any private or special interest groups.

From: "Access To Energy" November '99

SUN DETERMINES EARTH TEMPERATURE

Little more needs to be added to the mountain of scientific evidence refuting the enviro claims that human activities are warming the planet, but, for political reasons, it is useful to have new experiments.

As the truth exhibited by previous experiments is pounded relentlessly by enviro disinformation campaigns (with unlimited funds provided by politically controlled foundations and your tax dollars), these experiments become clouded by perceived (but not real) uncertainties. It is therefore helpful to have new evidence.

"Eight Centuries of North Atlantic Ocean Atmospheric Variability" by D. E. Black, L. C. Peterson, J. T. Overpeck, A. Kaplan, M. N. Evans, and M. Kashgarian, *Science* **286**, pp 1709-1713 (1999) provides new evidence.

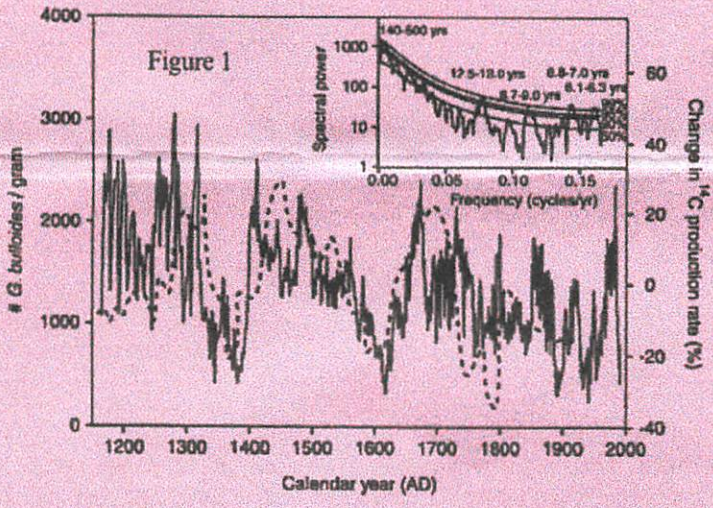


Figure 1, reproduced from their paper, shows solar and temperature changes over the past 800 years by means of two measurements – carbon 14 production and growth of the plankton *Globigerina bulloides* (solid line). The correlation with temperature and solar activity is inverted. When the curves in Figure 1 are lowest, the temperatures and solar activity are highest.

While a detailed understanding of this result requires specialized knowledge, it suffices here to know that the variability shown represents solar and temperature variation. A glance at the temperature curve for the period of the last one and one-half centuries as compared with earlier centuries illustrates that temperature variations have certainly not been unusual during the period of human industrial activity.

In addition to demonstrating past vs. present variability, the curves show the correlation between solar activity and temperature. Carbon 14 (the dotted line) is one way of measuring changing solar activity, while the plankton growth is a way of measuring temperature. Notice that these two curves rise and fall together.

STARK RAVING MAD

• The *Grants Pass Courier*, Grants Pass, Oregon, November 19, proclaims, "Religious Leaders to Spread Word about Global Warming – They'll Press Congregations to Act." "Senior religious leaders from throughout the state announced Thursday in Portland the establishment of an Oregon Interfaith Global Warming Campaign to educate members of congregations on the dangers of climate changes and to persuade elected officials to take hold nationally and internationally.

"The campaign includes a broad spectrum of faith groups and denominations, including Catholics, Orthodox, Protestants, and Jews.

" 'As we approach the new millennium, the faith community in Oregon is called by the Jubilee message in Leviticus 25 to restore the land, re-establish justice, and free the oppressed every 50 years,' said the Rev. Eugene Ross, associate conference minister of the Central Pacific Conference of the United Church of Christ. 'Jubilee asks us to acknowledge that we are only tenants on the Earth and that the climate is God's creation, too.'

"The Campaign will include a statewide training program for representatives of the various denominations and faith groups in Oregon, to prepare them to educate and advocate for responsible actions on the dangers of climate change.

" 'We intend to move the challenge of climate change from the laboratories of science and halls of diplomacy to the pulpits and pews of the American heartland,' said the Rev. John Huenink, central region general presbyter of the Presbytery of the Cascades in Eugene."

One gags at this perversion of the Christian faith and ridiculous application of Leviticus by politicos who probably have never read a single research paper on climate and would not care to do so.

• Not only has manufacturing within the United Sates become economically difficult due to high taxes, onerous regulations, and low relative productivity, but "Why Making Things Is Out of Fashion" by Timothy Aeppel, *The Wall Street Journal*, November 8, 1999, page 1, quotes Ron Nicol as saying "It's just not cool to make things anymore." The article then discusses the rising disdain among America's upper classes for those who produce things or run companies that manufacture products!

Unfortunately, our families, colleagues, and millions of other productive Americans will suffer along with these people when their elitist illusions are finally rewarded.

• A recent mailing from an organization that calls itself the "Union of Concerned Scientists (UCS)" screeches that sport utility vehicles are a threat to the planet because of global warming. The mailing from Executive Director Howard Ris summarizes UCS political activities that will be carried out with your "tax deductible" donations and promises to send one year subscriptions to the UCS magazine and to the UCS newsletter for a donation of $25 or more.

The UCS mailing seems, at first reading, to violate both the laws against the use of tax-deductible donations to influence legislation and laws against the provision of something of value to the donor. On further consideration, they are likely to be violating only the first of these laws, since their publications are probably not "something of value."

GOOD READING

• "U. S. Department of Microsoft" in *The Wall Street Journal*, November 8, 1999, p A50, which concludes, "But let's get to the real bottom line. Washington's crusade against Microsoft has fulfilled its purpose, serving as a great lever to pry open the wallets of Silicon Valley. Where three years ago the technology plutocrats spent their surplus income on racing yachts and Ferraris and charity, now they patriotically send donations to Washington to support the fixer class and its retinue in the style to which it would like to become accustomed. Steve Case of AOL likes to say the future of technology will be decided in the political arena rather than the marketplace. Be careful what you wish for."

• *Firearms – A Handbook for Health Professionals* by D. C. Stolinsky, M.D. and T. W. Wheeler, M.D. published by The Claremont Institute, 250 West First Street, Suite 330, Claremont, CA 91711, on the negative correlation between gun ownership and violent crimes.

• "Antarctica's Lake Vostok" by Martin J. Siegert, *American Scientist* **87**, No. 6, November-December 1999, pp 510-517, giving an account of the fascinating lakes that have been found deep below the Antarctic ice.

ACCESS TO ENERGY

Publisher and editor Dr. Arthur B. Robinson, President and Research Professor, Oregon Institute of Science and Medicine. Subscriptions (first-class mail): individuals $35 for 12 monthly issues (Canada $37, overseas, by air mail only, $40). Corporations $60. US tax-subsidized organizations $150. Order from Access to Energy, Box 1250, Cave Junction, OR 97523. Checks must be in US$ drawn on a US bank. Past issues $3 each. 100 page 21 year index $20. CD-ROM of 21 years of back issues $95. Printed 21 years of issues and index $145. CD-ROM, printed 21 years of issues, and index $195.

THE WALL STREET JOURNAL TUESDAY, JANUARY 18, 2000

Global Warming Is 300-Year-Old News

By ARTHUR B. ROBINSON
And NOAH E. ROBINSON

Opponents of the use of coal, oil and natural gas—the world's primary energy sources—received what looked to be good news last week. A National Research Council panel of 11 members, after reviewing and evaluating existing experimental data over the last 20 years, concluded that there has probably been a rise in the Earth's surface temperature.

Unfortunately for advocates of the Kyoto treaty, *atmospheric* temperatures over the same two decades have not risen. The climate model chosen to support the Kyoto plan—a scheme to sharply reduce energy use—predicts that atmospheric temperature should have risen by one degree to two degrees Fahrenheit over those 20 years. Yet satellites and weather balloons have shown no verifiable atmospheric temperature rise.

Indeed, despite the hype, the NRC findings do little to advance the argument that people have caused global warming. The NRC panel's 85-page report, though concluding that surface temperature has risen a little, is full of inconclusive results. The first sentence of the report's concluding remarks reads: "The various kinds of evidence examined by the panel led it to conclude that the observed disparity between the surface and lower- to mid-tropospheric [atmospheric] temperature trends during this particular 20-year period is *probably at least partially real*." (Italics added.)

The report further says that uncertainties in all of the records—surface, satellite and balloon—are too great to draw conclusions about the relative effects of volcanic eruptions, measurement errors due to localized human activity in urban areas, instrument errors, human release of greenhouse gases and other factors. The report concludes that "major advances" in scientific methods will be necessary before these questions can be resolved.

A Lost Myth

Other findings have also been inconclusive. The Commerce Department announced that U.S. surface temperatures in 1999 were the second-warmest on record. What the department failed to mention is that it has other surface records in which 1999 falls below 1934, and that NASA ranks 1999 as the 14th-warmest-year of the century. In the global atmosphere, satellites show 12 years warmer than 1999 and 8 cooler, while weather balloons show 15 warmer and 27 cooler.

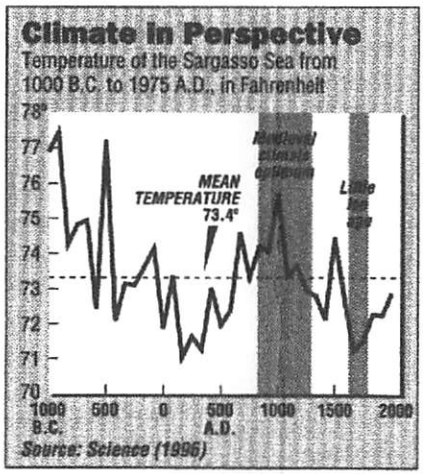
All this is bad news for the antitechnologists. They desperately needed word of their long-awaited "greenhouse signal," due to arrive with the new millennium. Now, in the absence of more solid proof, opposition to their global plans will continue to grow. Already, more than 17,000 American scientists have signed a petition opposing the Kyoto treaty. Treaty supporters, meanwhile, are increasingly relying on their multimillion-dollar media campaign promoting a perception of human-caused global warming.

Kyoto supporters cheer new findings that the Earth's surface temperature is probably rising. But this trend isn't recent and isn't man-made.

That the Earth is warming is, of course, very old news. The current warming trend began about 300 years ago, at the low point of the Little Ice Age. Indeed, receding glaciers and other geographic phenomena caused by this 300-year trend were cited by the NRC committee as support for their belief that the current rise in surface temperatures is probably real.

This rising trend and the fluctuations within it are closely correlated with solar activity. Solar increases during the early 20th century caused a substantial rise in temperatures. This was followed by a cooling cycle. During this latter period, environmentalists spread doomsday scenarios about "global cooling"—a phenomenon, they claimed, caused by hydrocarbon fuels. Over the last 20 years, temperatures leveled and now may be resuming their previous rise. The change has allowed the same environmentalists to spread fears of "global warming"—demonizing, of course, hydrocarbon fuels.

The chart nearby places all of this in historical perspective. Derived from isotopic ratios in the skeletons of marine organisms deposited in a region of the Atlantic Ocean, this record shows temperatures during the past three millennia. Clearly seen are the Little Ice Age and the much warmer period about 1000 years ago known as the Medieval Climate Optimum, so named because the climate was unusually benign. Earth temperatures are now near the 3,000-year average and clearly not unusual.



What will temperatures be during the 21st century and beyond? No one knows. Astronomers are not yet able to predict future solar activity. If current trends continue, however, our environment will be much improved.

Already, plant growth and diversity—from the forests and fields of North America to the rain forests of South America—have shown a marked increase. This is the result of carbon dioxide fertilization, a process that occurs when man moves carbon from below-ground deposits of coal, oil and natural gas, and puts it into the atmosphere where it is then used to make more plants and animals.

Some studies indicate that North American forests are growing so fast that they are storing all of the human-released carbon from North America. Animals, because they eat plants, have increased just as rapidly. When this biological miracle stabilizes—one or two centuries in the future—it is estimated that the plant and animal population of the Earth may have doubled. Farm production is also being increased by carbon dioxide fertilization, and will continue to accelerate.

A warmer planet, with milder weather (as experienced during medieval times) and much more wildlife—how could a true environmentalist wish for more? Worries about flooding in this warmer world are unjustifiable. Floods did not occur 1000 years ago. Scientists have shown that it would take thousands of years for the ice caps to melt, if they melted at all. As warmer temperatures increase snow in the polar regions, sea levels might actually decrease.

Technological Wealth

Meanwhile, short-term efforts to improve the environment, such as the plan by California's South Coast Air Quality Management District to require all public vehicles to be powered by electricity, natural gas, or other clean-burning fuels, will use more hydrocarbon fuels rather than less. Electricity—especially now that nuclear power and hydroelectric dams are considered politically incorrect—will continue to be produced primarily by burning hydrocarbons. The energy delivered to an electric car requires more hydrocarbon fuel per mile than does the direct use of hydrocarbon fuel.

Our scientists and engineers have provided the technological wealth that now finances most of our environmental programs. They will continue to do so unless pseudo-environmentalism torpedoes our economic progress along with the hopes and futures of billions of people in the less developed world.

Arthur Robinson and Noah Robinson are chemists at the Oregon Institute of Science and Medicine.