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Series: Bromley, D. Allan, Files
Subseries: Administration Files

OA/ID Number: 62026
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Folder Title:
Administration: Publications [1992]

Stack:	Row:	Section:	Shelf:	Position:
	0	0	0	0

TYPE: ACTION DOCUMENT NUMBER: 9202176
ORIGINATOR: 02 STATUS I DIRECTORATE STATUS

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FROM: SPERRY, Roger: CALIFORNIA INSTITUTE OF TECHNOLOGY

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/23/92

SUBJECT: HE IS FORWARDING HIS COMMENTS ON THE SCIENCE AND TECHNOLOGY REPORT.

****

DIRECTORATE ASSIGNED: PATRICK WHITE

STAFF ASSIGNED:

ACTION REQUIRED: AS NECESSARY

STAFF ACTION:

****

SENDER'S DUE DATE:

OSTP DUE DATE: 08/17/92

STAFF DUE DATE

DATE COMPLETED:

DATE COMPLETED/DEPT:

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COPIES TO: D. Allan Bromley

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PHONE: EXT:

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OSTP RECEIVED: 08/03/92 DEPT RECEIVED:

FILE: P-ADMINISTRATION-PUBLICATIONS

CENTRAL FILES:

THE WHITE HOUSE

WASHINGTON

August 31, 1992

Dear Dr. Sperry:

Thank you for your thought-provoking comments in response to the President's Science and Technology Report and Outlook.

Your letter not only articulates concerns expressed by many in academe but goes the important step further by outlining a challenging agenda for the global scientific community.

I appreciate your taking the time to respond to the report and raise these important issues.

Sincerely,

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

Dr. Roger Sperry
California Institute of Technology
Division of Biology 156-29
Pasadena, CA 91125

2176

CALIFORNIA INSTITUTE OF TECHNOLOGY
Division of Biology 156-29 Pasadena, California 91125
FAX: (818) 449-0756

92

July 23, 1992

Dr. D. Allan Bromley
The Assistant to the President for Science and Technology
Office of Science and Technology Policy
The White House, Washington, D.C. 20500

Dear Dr. Bromley:

I started a prompt response to your good invitation to comment on the excellent and very thorough ***PRESIDENT'S SCIENCE AND TECHNOLOGY REPORT***, then was unavoidably sidetracked.

A point that seems to me critically important in regard to policy and further development is a wider recognition of the following simple truism: In the presence of growing population pressures, most any scientific or technological approach to today's mounting social-global ills that enables more people to fare better, will inevitably have the long term result of a further escalation of our collective problems. Until population is stabilized, this "vicious spiral paradox" of our current world predicament means that many seemingly desirable innovations, with obvious short term benefits, just entrap us deeper and deeper in the long run, in a losing no-win prospect.

The answer to this insidious vicious spiral and to "saving the planet" still lies, I think, in science – but not via new energy sources, green revolutions, or such like. The solution needed lies rather in providing a more realistic and sustainable set of value-belief guidelines to live and govern by, with directives that would reorder social policy priorities toward more long term values and a high quality survival for future generations. Implemented worldwide in a new world order, these updated and science-consistent guidelines would act to correct current self-destruct trends in a humane, noncatastrophic manner.

Embracing novel principles of cognitive and emergent top-down causation – spawned in the 1970's cognitive(consciousness) revolution – science now affirms that human values are today the most crucially powerful force shaping events in the civilized world. A revised scientific perception, worldview and way of explaining furnish a deep moral basis for population controls, environmentalism, and other biocentric measures that would preserve and enhance the biosphere instead of destroying it. A premium on evolving **quality**, not quantity, replaces the "go forth and multiply" growth morality that was adequate 2,000 years ago, but

now in today's kind of world is lethal, even evil(?). The "battle to save the planet" becomes very largely a battle over human values.

To avoid the ultimate desecration, the threatening catastrophe of extinction, now becomes the great overriding imperative of our times -- moral, intellectual, economic, scientific and every other way. We have reached a point (if it's not too late already in view of the population momentum and ecologic irreversibilities) where we need to invoke and uphold a new "survival ethic" or sustainable driving moral vision or credo of some kind to supersede the fundamental orthodox moral assumptions of a distant past.

The above may be a type of truism best left unspoken in politics, but wouldn't we be much better off today had all this been openly faced and widely debated publicly and politically twenty years ago? Adequate support is not easily squeezed into a letter and a couple back-up statements are enclosed in case anyone wants to check it out.

With all good wishes,

Sincerely,

Roger Sperry

Roger Sperry

"The world today is in the midst of a profound transformation -- one so far-reaching in it's consequences that past revolutions, political, economic or scientific, will by comparison all be dwarfed."

George Bush 1988

-- (otherwise curtains?)

Enclosures

Reprinted in Zygon: Journal of Religion and Science, (1985), 20(1), 41-57.

Changed Concepts of Brain and Consciousness: Some Value Implications

By Roger Sperry

It is a pleasure and privilege to help contribute to the Isthmus effort to explore convergences of science and religion. I take it that we are here gathered to join together in bonds without acrimony two rather distant and sometimes reluctant partners.

Back in 1980 at a meeting sponsored by the National Council of Churches participants from different faiths and denominations united in a general conclusion that what our world needs today is a new religion—specifically, a new theology of a kind that will promote the values of conservation, renewable energy sources, respect

wiped out in time by the ever-growing demands of expanding human numbers. The short term benefits usually serve to get us more enmeshed in a self-feeding, vicious spiral of mounting population, pollution, increased energy demands, resource depletion, poverty, and other worsening world conditions. One thing reinforces another, and we become more and more helplessly entrapped, deeper and deeper, year by year.

The one solution visible to date for breaking these vicious spirals, in a way that would seem at all reasonable and humane, is to somehow achieve a change worldwide

"Document Control"

TYPE: INFORMATION DOCUMENT NUMBER: 9202603
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

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FROM: KARLE, JEROME: LABORATORY FOR THE STRUCTURE OF MATTER

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 07/10/92

SUBJECT: COMMENTS AND REMARKS ON THE S&T REPORT.

****

DIRECTORATE ASSIGNED: STAFF ASSIGNED:

ACTION REQUIRED: STAFF ACTION:

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SENDER'S DUE DATE:

OSTP DUE DATE: STAFF DUE DATE
DATE COMPLETED: DATE COMPLETED/DEPT:

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COPIES TO: D. Allan Bromley
Bill Wells
ALL ASSOCIATE DIRECTORS

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REMARKS:

OSTP RECEIVED: 07/13/92 DEPT RECEIVED:
FILE: P-ADM-PUBLICATIONS-S&T RPT

CENTRAL FILES:

2603

Dr. Jerome Karle
Laboratory for the Structure of Matter
Naval Research Laboratory
Washington, D.C. 20375-5000

July 10, 1992

Dr. Allan Bromley
The Assistant to the President for Science
and Technology
The White House
Washington, D.C.

Dear Allan:

I have read through the President's Science and Technology Report and Outlook for Congress and found it to be a fine evaluation of the current status of science and technology and its relationship to the social and economic aspects of our country. As I had indicated earlier, I hoped to share some thoughts that came to mind as I read through the report.

Before stating them, I would like to remark that I doubt whether I will mention anything that has not occurred to you, but perhaps in making my remarks, I may reinforce some of your thoughts. Also, I am not sure that everything I say belongs in the report, but I believe that it does impact on science and technology, and our national security.

A major concern is that we do not produce some of the key components of our defense systems, e.g., some important computer chips. Having vulnerable defense systems must be avoided in the future. We must be in a position to control the production of our required technology.

Other security considerations involve the quality of our infrastructure, such as roads, bridges and transportation facilities, and the condition of public utilities. Security also is enhanced by optimization of energy consumption and distribution, the development of renewable energy sources and the introduction of advanced methods for efficient and effective urban transportation.

There is, of course, an important economic component to security. This is a vast subject that can not be done justice in some brief comments. Nevertheless, I offer a comment or two. I believe, strongly, that our best hope for the future is to place a relatively moderate reliance on international trade. We should concentrate on developing a very strong, sustainable economy within the United States. We have the resources and the expertise to overcome the problems that may arise.

There is a societal aspect that not only affects the support of science and technology, but also the quality of future professional practitioners. You noted this in the discussion concerning education. Societal standards and personal behavior certainly affect the quality and success of our educational system. Matters of concern are societal priorities, personal standards, the role of the media, motivation, the development of character and the joy of learning in a quality educational system. So far as motivation is concerned, I believe that many bright young people are lost to science because of the perception that the training entails very hard work and that future job opportunities are limited and of uncertain quality.

You probably considered having an executive summary at the beginning of the report that could highlight some of its major features. I think that it may be worthwhile. It could help make some contact with those people who, because of other pressures, procrastinate in reading the report as a whole.

All best wishes and my thanks for the copy of the report.

Sincerely,

Jerry

Jerome Karle

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TYPE: INFORMATION DOCUMENT NUMBER: 9202603
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

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FROM: KARLE, JEROME: LABORATORY FOR THE STRUCTURE OF MATTER

TO: DR. D.A. BROMLEY

DATE OF CORRESPONDENCE: 07/10/92

SUBJECT: COMMENTS AND REMARKS ON THE S&T REPORT.

Bill Wells
Kurtao probably
merits a reply from us

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DIRECTORATE ASSIGNED:

STAFF ASSIGNED:

ACTION REQUIRED:

STAFF ACTION:

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COPIES TO: D. Allan Bromley
Bill Wells
ALL ASSOCIATE DIRECTORS

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THE WHITE HOUSE

WASHINGTON

August 31, 1992

Dear Jerome Dr. Karle,

Thank you for your remarks concerning the President's Science and Technology Report and Outlook.

I could not agree with you more that national security is broader than defense hardware. That is why the Administration has supported a vigorous program of research activity in a broad spectrum of science and technology endeavors that are designed both to advance our fundamental knowledge of nature and support our economic competitiveness. Our initiatives in the areas of high performance computing and communications, advanced materials and processing, and biotechnology are but a few examples of these efforts.

The Federal Coordinating Council for Science, Engineering and Technology (FCCSET) also manages an initiative in math and science education. Through his America 2000 program, the President has provided strong leadership for the Nation in meeting a very specific set of National Education Goals, including "by the year 2000, U.S. students will be first in the world in science and mathematics." It is up to you and I, as private citizens concerned about education, to work at the local level -- where 94 percent of education funding originates -- to ensure that these goals can be met.

Again, I appreciate your response to the report as well as your reactions to it.

Sincerely,

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

Dr. Jerome Karle
Laboratory for the Structure of Matter
Naval Research Laboratory
Washington, D.C. 20375-5000

"Document Control"

TYPE: INFORMATION DOCUMENT NUMBER: 9207883
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

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FROM: RAVEN, Peter H.: MISSOURI BOTANICAL GARDEN

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 06/30/92

SUBJECT: HE IS FORWARDING HIS COMPLIMENTS ON THE SCIENCE & TECHNOLOGY REPORT.

****

DIRECTORATE ASSIGNED: STAFF ASSIGNED:

ACTION REQUIRED: STAFF ACTION:

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COPIES TO: D. Allan Bromley

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FILE: P-ADMINISTRATION-PUBLICATIONS

CENTRAL FILES:

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Missouri
Botanical
Garden

June 30, 1992

Dr. D. Allan Bromley
Assistant to the President
for Science and Technology
Office of Science and Technology Policy
Old Executive Office Building, Room 358
Washington, D.C. 20500

Dear Allan:

I appreciate very much your sending me a copy of the President's Science and Technology Report and Outlook, recently submitted to Congress. It is an outstanding document that does an excellent job of presenting a very positive program, and one of which I am proud.

Needless to say, I continue to offer my enthusiastic support whenever this might be helpful. I hope that, especially following the President's decarations in Rio de Janiero, we will be able to move ahead with the area of biodiversity.

With all best wishes to you, I am

Cordially,

Peter

Peter H. Raven
Director

PHR:mcs

P.O. Box 299
St. Louis, Missouri 63166-0299
Telephone: (314) 577-5100
Telex: 466224 MOBOT CI
Cable: MOBOTSTL

Director's Office
Fax: (314) 577-9595
Bitnet: PRAVEN @ NAS

"Document Control"

TYPE: INFORMATION DOCUMENT NUMBER: 9207882
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

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FROM: NIERENBERG, William A.: UNIVERSITY OF CALIFORNIA, SAN DIEGO

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 06/29/92

SUBJECT: HE IS FORWARDING HIS COMPLIMENTS ON THE SCIENCE AND TECHNOLOGY REPORT.

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DIRECTORATE ASSIGNED: STAFF ASSIGNED:

ACTION REQUIRED: STAFF ACTION:

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DATE COMPLETED: DATE COMPLETED/DEPT:

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COPIES TO: D. Allan Bromley

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DIRECTOR EMERITUS
SCRIPPS INSTITUTION OF OCEANOGRAPHY

LA JOLLA, CALIFORNIA 92093
MAIL CODE [redacted] 0221
PHONE: (619) 534-6126
CABLE: SIOCEAN
TWX: 910-337-1271
FAX: (619) 534-6023

June 29, 1992

Mr. D. Allan Bromley
The Assistant to the President
for Science and Technology
The White House
Washington, DC 20500

Dear Allan,

I found the President's Science and Technology Report and Outlook one of the best yet. I read it thoroughly.

Sincerely,

William A. Nierenberg

WAN/ba

"Document Control"

TYPE: INFORMATION DOCUMENT NUMBER: 9207914
ORIGINATOR: 02 STATUS C DIRECTORATE STATUS

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FROM: DEHMELT, Hans: UNIVERSITY OF WASHINGTON

TO: DR. D.A. BROMLEY

DATE OF
CORRESPONDENCE: 06/18/92

SUBJECT: HE IS FORWARDING HIS COMMENTS ON THE SCIENCE AND TECHNOLOGY REPORT.

****

DIRECTORATE ASSIGNED:

STAFF ASSIGNED:

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SEATTLE, WASHINGTON 98195

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Department of Physics FM-15
Telephone (206) 543 2770
Voice Mail (206) 324 2018
Fax (206) 324 2018

June 18, 1992

Dr. D. Allan Bromley
The Assistant to the President
for Science and Technology
THE WHITE HOUSE
Washington

Dear Allan,

Thank you for sending me a copy of the President's Science and Technology Report and Outlook. I am certainly not the man to attempt a serious criticism of this most comprehensive and impressive political document. I can merely offer some random thoughts engendered by it.

Science is both Natural Philosophy and Economic Force. I am not sure what aspect deserves more emphasis by a wise administration.

Some cultures set highest value in learning others in athletics. Some political leaders surround themselves with sports figures and movie stars, others prefer philosophers and artists.

The United States is the richest nation in the world in terms of material resources. If the parents in this democracy really wanted their children to have the best education in the humanities and sciences they could certainly get it.

The figure on page 64 of three Petri dishes (unfortunately without a caption, as most of the excellent figures in the book) provides a striking example for the politicians of a population explosion in a limited space.

Future editions of this report would benefit from a computer-created index.

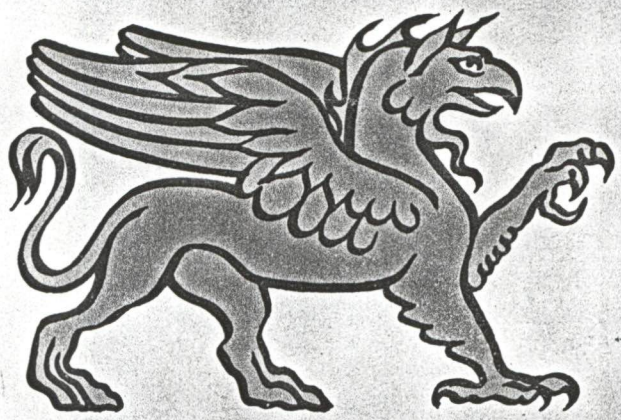
With kind regards, yours sincerely,

Hans Dehmelt

Hans Dehmelt

Enclosure : 4 pages

ALDOUS HUXLEY



Brave New World &
Brave New World
Revisited

(1958)

Introduction by Martin Green

HARPER COLOPHON BOOKS / CN 101 / $3.95

may come to be used in the spirit of totalitarian dictatorship.

The United States is not at present an over-populated country. If, however, the population continues to increase at the present rate (which is higher than that of India's increase, though happily a good deal lower than the rate now current in Mexico or Guatemala), the problem of numbers in relation to available resources might well become troublesome by the beginning of the twenty-first century. For the moment over-population is not a direct threat to the personal freedom of Americans. It remains, however, an indirect threat, a menace at one remove. If over-population should drive the under-developed countries into totalitarianism, and if these new dictatorships should ally themselves with Russia, then the military position of the United States would become less secure and the preparations for defense and retaliation would have to be intensified. But liberty, as we all know, cannot flourish in a country that is permanently on a war footing, or even a near-war footing. Permanent crisis justifies permanent control of everybody and everything by the agencies of the central government. And permanent crisis is what we have to expect in a world in which over-population is producing a state of things, in which dictatorship under Communist auspices becomes almost inevitable.

II. Quantity, Quality, Morality

In the Brave New World of my fantasy eugenics and dysgenics were practiced systematically. In one set of bottles biologically superior ova, fertilized by biologically superior sperm, were given the best possible prenatal treatment and were finally decanted as Betas, Alphas and even Alpha Pluses. In another, much more numerous set of bottles, biologically inferior ova, fertilized by biologically inferior sperm, were subjected to the Bokanovsky Process (ninety-six identical twins out of a single egg) and treated prenatally with alcohol and other protein poisons. The creatures finally decanted were almost subhuman; but they were capable of performing unskilled work and, when properly conditioned, detensioned by free and frequent access to the opposite sex, constantly distracted by gratuitous entertainment and reinforced in their good behavior patterns by daily doses of soma, could be counted on to give no trouble to their superiors.

In this second half of the twentieth century we do nothing systematic about our breeding; but in our random and unregulated way we are not only over-populating our planet, we are also, it would seem, making sure that these greater numbers shall be of biologically poorer quality. In the bad old days children with considerable, or even with slight, hereditary defects rarely survived. Today, thanks to sanitation, modern pharmacology and the social conscience, most of the children born with hereditary defects reach maturity and multiply their kind. Under the conditions now prevailing, every advance in medicine will tend to be offset by a corresponding advance in the survival rate of individuals cursed by some genetic insufficiency. In spite of new wonder drugs and better treatment (indeed, in a certain sense, precisely because of these things), the physical health of the general population will show no improvement, and may even deteri-

orate. And along with a decline of average healthiness there may well go a decline in average intelligence. Indeed, some competent authorities are convinced that such a decline has already taken place and is continuing. "Under conditions that are both soft and unregulated," writes Dr. W.H. Sheldon, "our best stock tends to be outbred by stock that is inferior to it in every respect. . . . It is the fashion in some academic circles to assure students that the alarm over differential birth-rates is unfounded; that these problems are merely economic, or merely educational, or merely religious, or merely cultural or something of the sort. This is Pollyanna optimism. Reproductive delinquency is biological and basic." And he adds that "nobody knows just how far the average IQ in this country [the U.S.A.] has declined since 1916, when Terman attempted to standardize the meaning of IQ 100."

In an underdeveloped and over-populated country, where four-fifths of the people get less than two thousand calories a day and one-fifth enjoys an adequate diet, can democratic institutions arise spontaneously? Or if they should be imposed from outside or from above, can they possibly survive?

And now let us consider the case of the rich, industrialized and democratic society, in which, owing to the random but effective practice of dysgenics, IQ's and physical vigor are on the decline. For how long can such a society maintain its traditions of individual liberty and democratic government? Fifty or a hundred years from now our children will learn the answer to this question.

Meanwhile we find ourselves confronted by a most disturbing moral problem. We know that the pursuit of good ends does not justify the employment of bad means. But what about those situations, now of such frequent occurrence, in which good means have end results which turn out to be bad?

For example, we go to a tropical island and with the aid of DDT we stamp out malaria and, in two or three years, save hundreds of thousands of lives. This is obviously good. But the hundreds of thousands of human beings thus saved, and the millions whom they beget and bring to birth, cannot be

adequately clothed, housed, educated or even fed out of the island's available resources. Quick death by malaria has been abolished; but life made miserable by undernourishment and over-crowding is now the rule, and slow death by outright starvation threatens ever greater numbers.

And what about the congenitally insufficient organisms, whom our medicine and our social services now preserve so that they may propagate their kind? To help the unfortunate is obviously good. But the wholesale transmission to our descendants of the results of unfavorable mutations, and the progressive contamination of the genetic pool from which the members of our species will have to draw, are no less obviously bad. We are on the horns of an ethical dilemma, and to find the middle way will require all our intelligence and all our good will.

TESTIMONY AT HEARING ON HB 1409 IN SENATE IN OLYMPIA
ON FEBRUARY 27, 1992 BY HANS DEHMELT

As I already stressed in my address to the legislature in 1989 I am a 69 year old who is very much interested in continuing his life's work, an exploration of the structure of the electron. I think that I will be able to emulate my many even older productive colleagues that I have met in my work and seen in action at international scientific conferences. Naturally, I hope that my comments will help to convince my representatives to reach a positive decision on HB 1409. Such a decision seems also to be favored by the legal case. Laws banning discrimination against someone because he or she is a member of a certain group are now widely in force. Therefore it is difficult to see how professors, as a group, could be singled out for special treatment and could be excluded from the protection of these laws.

Dear Senator Saling:
In connection with these Hearings it may be relevant that last Fall my younger colleague Prof. Nagourney and I, after long struggles, finally received a 3-year $410 000 research grant for our proposal entitled "Indium mono-ion oscillator". That proposal was based on my 1982 published article "Mono-ion oscillator as potential ultimate laser frequency standard." In appreciation I made a substantial contribution to the NRCC of the Republican Party.
Sincerely yours,

-- HB 1409 DIED IN COMMITTEE --