



THE JACOB RADER MARCUS CENTER OF THE
AMERICAN JEWISH ARCHIVES

Preserving American Jewish History

MS-603: Rabbi Marc H. Tanenbaum Collection, 1945-1992.

Series E: General Alphabetical Files. 1960-1992

Box 94, Folder 4, Whithed, Marshall, 1982.



Oct 7 [1982]

Dear Georgette,

This is a draft of the speech I was telling you about -- which is to be presented by Dr Steve Zatusni, a former doctoral student and teaching assistant of mine.

This may be of interest to Marc.

Could you please have him xerox if he would like a copy and return this to me for my files.

Note esp the last page, reference to ending of Age of Oil--and thus the oil embargo pressures on U.S. policy--in the future.

The replacement to be information technology. This relates to my own work in that regard, particularly re new towns, wired cities (The Czechs had something similar in mind for their theoretical construct new town of Etarea, which site I analyzed on one of my Czech visits). Such would greatly reduce dependence on physical transport of people to workplace, thus lessening dependence on autos, oil, etc.

A long analysis, to be sure. But something that, thru lessening the international impact of the oil weapon, could be of major significance for U.S. policy and Israel

Best,





TEMPLE UNIVERSITY

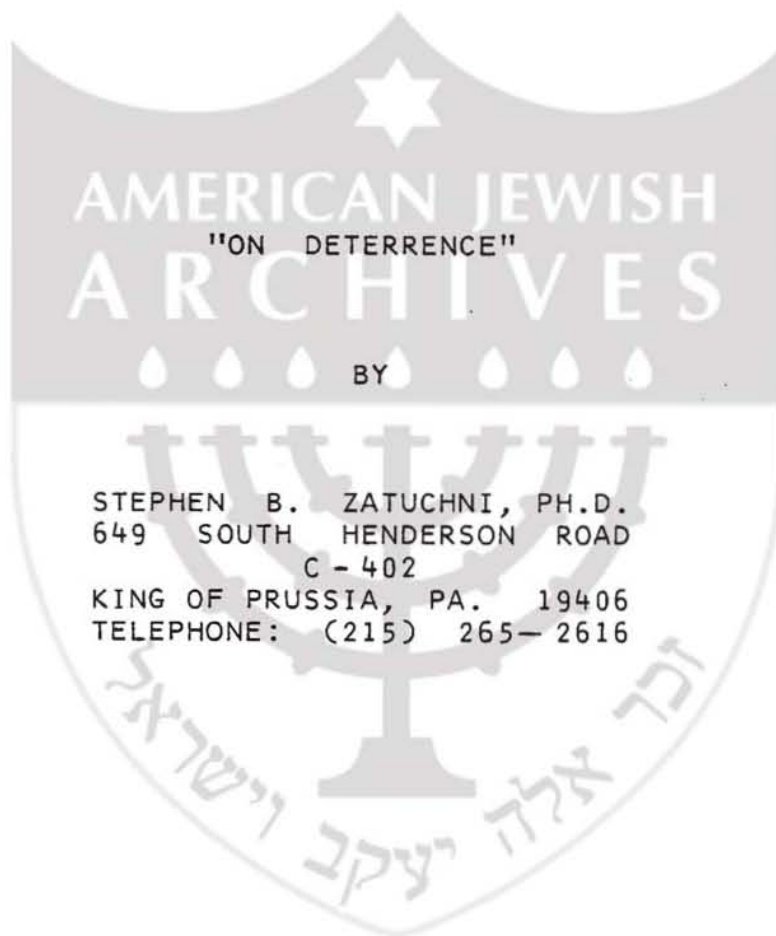
COLLEGE OF LIBERAL ARTS

PHILADELPHIA, PENNSYLVANIA 19122

DEPARTMENT OF POLITICAL SCIENCE



[Handwritten signature]



AMERICAN JEWISH
"ON DETERRENCE"
ARCHIVES

BY

STEPHEN B. ZATUCHNI, PH.D.
649 SOUTH HENDERSON ROAD
C - 402
KING OF PRUSSIA, PA. 19406
TELEPHONE: (215) 265-2616

זכר אלה יעקב וישראל

We are currently in the midst of a national debate about thermonuclear weapons. The Reagan administration seeks funds for improved warheads and delivery vehicles, while the opposition pushes for a nuclear freeze. Both positions ignore the concept of deterrence, which is the espoused military philosophy of the United States.

The arguments instead center upon whether the United States has a "superior," "adequate" or "inferior" strategic arsenal. These adjectives are irrelevant to national security. Their widespread use thus demonstrates the need to explain deterrence.

To deter is to discourage by fear. Since the early 1950s, deterrence has been the means by which the United States ensures its freedom from attack. More precisely, the United States uses deterrence to dissuade the Soviet Union from specific actions by increasing the risks associated with those actions to the extent wherein they exceed any possible benefit.

Deterrence is not defense. Deterrence seeks to avoid war. Defense is concerned with waging war. This distinction is historically demonstrable.

The Crown of Scotland once warned: "No one strikes me with impunity." Colonial flags bore the picture of a rattlesnake and the legend: "Don't tread on me." However, it was not until the advent of atomic weapons and their thermonuclear descendants that the concept of deterrence evolved into both a national doctrine and a strategic theory.

Practically, deterrence relies upon two factors: sufficiency and credibility. Sufficiency refers to the actual military strength of the United States. Credibility is a subjective assessment of strength as perceived by the Soviet Union, and the will of the United States to use that strength. Therefore, a small strategic arsenal controlled by a bellicose President could be a more effective deterrent than a large arsenal controlled by a weak Chief Executive.

An effort to quantify these abstruse concepts has been made by defense theorists and the military. They have determined which "sufficiency criteria" are essential for a successful deterrent posture.

The first sufficiency criterion is that the United States possess

enough weapons systems to inflict "unacceptable damages" upon the Soviet Union. This necessitates a degree of planned "overkill" so that qualitative problems (such as launch failures and trajectory errors) and Soviet defenses can be surmounted. However, it is difficult to predict with certainty what the Soviet Union considers to be "unacceptable damages."

For example, twenty million fatalities might be regarded as a "reasonable price" to pay for global dominion. Therefore, United States deterrent forces have generally been directed at civilian population centers. This increases the risks of war so much that the very existence of the Soviet Union could be jeopardized. The need to target cities is also the reason why civil defense programs are construed as being contributing factors in the overall strategic balance.

The second sufficiency criterion is the ability to inflict unacceptable damages after the United States has withstood a sneak attack, or first strike (euphemistically referred to as "BOOB," Bolt Out Of the Blue). The survivability of deterrent forces enables the United States to launch a second, or retaliatory, strike.

These two criteria combine to produce what former Secretary of Defense Robert S. McNamara called an "assured destruction capability."

"The cornerstone of our strategic policy continues to be to deter nuclear attack upon the United States or its allies. We do this by maintaining a highly reliable ability to inflict unacceptable damage upon any aggressor ... even after absorbing a surprise first strike."

(The Essence of Security: Reflections in Office.
New York: Harper & Row, p. 52)

The final sufficiency criterion is that the United States have enough faith in its second strike ability to assume a "wait and see" attitude." The lack of such confidence is a destabilizing influence.

If the United States did not have faith in its second strike ability, then there would be strong incentive to use our deterrent forces

at the first opportunity, before they could be destroyed. Survivability is thus the core of the launch-on-warning debate. It is also a repudiation of the Reagan administration arguments for improved weapons systems.

Improved weapons systems need not be less vulnerable. The United States would achieve a greater measure of security if, as deterrence dictates, more survivable— as opposed to more powerful— weapons systems were designed. A relatively invulnerable, aging missile is of more deterrent value than a relatively vulnerable, modern missile.

It is therefore appropriate to deduce that the bulk of MX funding be diverted to strengthening existing missile bases. There is also the matter of the destabilizing influence of more powerful weapons systems (infra). Similarly, the procurement of greater quantities of less capable missiles might be desirable because of the resulting enhancement of deterrent force survivability (owing to the greater number of missile locations which must be destroyed in a first strike). However, the import of these observations appears to be irrelevant to the Reagan administration, and "not newsworthy" to the media.

The mere possession of survivable strategic forces is not enough for a successful deterrent posture. This is because the Soviet Union must be aware of the precise threat posed by these weapons systems.

It does not matter if the United States has the absolute capability to obliterate the Soviet Union if the Soviet Union does not believe we have both that capability and the will to use it. The Soviet Union, as every other nation, has no alternative other than to act in accord with its perceptions.

Perceptions constitute the essence of deterrence: credibility. Obviously, then, deterrence is a psychological phenomenon.

The phenomenon is complicated by the fact that a successful deterrent will never be used. If it is used, then it has failed in its purpose of deterring. Thus, there can be no historical example of a completely reliable thermonuclear deterrent. This poses a severe problem for policy-planners, namely: How is it possible to increase the credibility of deterrence?

The accepted answer to the question is to increase the risks which the United States, the deterring nation, would suffer as a direct result of Soviet aggression. Therefore, the United States has deployed substantial

forces in Europe. The rationale is that the United States would be forced to respond massively to avenge the deaths of the hundreds of thousands of American citizens who would be the first victims of Soviet aggression. Unfortunately, the rationale is illogical.

Every nation expects to lose some of its soldiers— the hundreds of thousands of American citizens— in a war. Their deaths would not necessitate the use of United States deterrent forces. Simply put, the United States might well regard the deaths of 100,000 people as "acceptable damages" if the alternative was a direct attack against the United States resulting in at least 20,000,000 deaths.

This is the reason why the nations of Europe could not, during the 1950s, agree upon a multinational deterrent force. It is also why Great Britain and France established their own thermonuclear arsenals, and West Germany allows the stationing of the mononuclear weapons on its soil.

Some theorists have proposed that credibility may be enhanced by policy statements. The proposal does not work. If it did, then frequent United States declarations as to the supreme importance of western Europe would obviate the need for European deterrent forces.

The Reagan administration now argues that deterrence may be improved by achieving strategic superiority. This is why billions of dollars are being spent on United States strategic forces. The reasoning is specious.

If Soviet strategic forces are superior to those of the United States, as the Reagan administration declares when it speaks of a "window of vulnerability," then United States deterrent capability has decreased. This is not the case.

As long as the United States maintains enough weapons systems to absorb a first strike and then inflict unacceptable damages upon the Soviet Union, its deterrent posture is both sufficient and credible. Strategic superiority becomes important only when it is so overwhelming as to allow a devastating, 100% successful first strike.

The achievement of such superiority would require massive funding

over a lengthy period of time. The effort would be highly visible through the use of "spy satellites" and numerous other devices.

If the United States saw such a Soviet effort, then it would have a tremendous, perhaps compelling, incentive to launch its own first strike. The same rationale applies to similar United States efforts. Therefore, the basic dictate of deterrence is applicable, namely: The risk of attempting to achieve strategic superiority far exceeds any possible benefit.

The alleged political benefits of strategic superiority are also demonstrably false. For example, the Berlin Blockade, the Korean War and the Cuban Missile Crisis all occurred when the United States had absolute, unquestioned strategic superiority. The reason for this is simple: none of those or countless other "incidents" were of such momentous proportion that the United States or the Soviet Union was willing to risk its own destruction.

Deterrent forces have the ability to either keep the Soviet Union and the United States at a stalemate, or destroy them both. They are used or not used. There is no middle ground.

Perhaps the only means of improving credibility is to develop more advanced weapons systems. This was due initially to the nature of offensive weapons systems, and now to the pending development of effective defensive weapons systems. Indeed, the importance of weapons systems is such that their nature determines deterrent posture. This theory is historically demonstrable.

During the late 1940s and early 1950s, atomic bombs were relatively crude and few in number. Most of them were deployed on delivery vehicles which were vulnerable to air defenses. (It should be noted that the most promising delivery vehicle of that time, the Northrup "Flying Wing," was cancelled by the Department of Defense, presumably for political reasons. A similar fate awaited the successors to the X-15 project, several years later.) Atomic bombs were thus regarded as only another weapon in the arsenal. Their use was threatened successfully to force a ceasefire, a political stalemate, in the Korean War.

When Intercontinental Ballistic Missiles, ICBMs, and nuclear devices— which use atomic bombs as their "triggers"— were developed, the United States enunciated the deterrence doctrine of "Massive Retaliation."

Early ICBMs were inaccurate. They required several hours to fuel, target and launch. Thus they were useful primarily against static targets such as cities. A city could be attacked only in a general war, and so Massive Retaliation was the only credible deterrent posture— quite literally, "all or nothing."

ICBMs improved. They were propelled by solid fuel, which was already encased in the missile, could be targeted more quickly, and, most important, became reasonably accurate. At the same time, nuclear devices became "cleaner," producing less radioactive fallout. It became possible to launch effective attacks against military targets. Cities could be spared. Thus, "Flexible Response" was proclaimed by the Kennedy administration to be the deterrence doctrine of the United States.

Further improvements across the spectrum of United States deterrent forces combined with practical politics to cause the Nixon administration to enunciate "Realistic Deterrence." These improvements coincided with the ability to wage a highly-limited, theater (or, tactical) nuclear war. A more "flexible," "realistic" response could be offered in strict accord with the level of aggression.

No new deterrence doctrine has since been implemented. This is due to the fact that weapons systems have not yet qualitatively improved beyond the level of Realistic Deterrence. That is changing.

The Reagan administration is now developing the MX and TRIDENT D-5 ICBM and SLBM. These missiles will enhance United States deterrent posture because their basing modes offer greater survivability. However, they may also serve to destabilize the strategic balance between the United States and the Soviet Union to the extent that a thermonuclear exchange becomes probable.

Both the MX and the D-5 are accurate and powerful. Accuracy is a key factor in determining strategic strength. A Soviet missile silo could

be destroyed by even a small warhead if it detonated at pointblank range. The greater the accuracy of the ICBM and its warheads, the less explosive power required. As a rough rule of thumb, halving the aiming error doubles the effective explosive size of the warhead. Thus did Soviet ICBMs once carry massive warheads (equivalent to 20,000,000 tons of TNT, or 20 megatons) in order to compensate for their inaccuracy.

MX and D-5 promise the ability to deliver warheads with a Circular Error Probability (CEP) measured in feet. The CEP is a circle drawn around the target in which 50% of the incoming warheads will detonate.

The most hardened Soviet military targets will be vulnerable to MX and D-5 attack. Underground targets could be attacked with the new, "earth-penetrator" warheads now under development. The earth-penetrators will be capable of driving twelve stories underground before detonation.

Furthermore, MX and D-5 are more powerful than the missiles they will replace. This means that they will carry more warheads, and thus threaten more Soviet targets.

As weapons systems have enhanced deterrent posture, so will they destabilize it. If MX and D-5 are deployed in sufficient quantities to enable planning a first strike, then the Soviet Union will be provided with a tremendous incentive to attack now, before the threat materializes. The public announcements of the Reagan administration bolster Soviet hawks.

In lobbying for increased defense expenditures, the Reagan administration points to a "window of vulnerability." This "window" refers to the mid-1980s, when the relative Soviet strategic advantage is alleged to be greatest. The prudent Soviet strategist will argue that a Soviet first strike should be launched sometime between 1984 and 1987, before the United States opens a Soviet "window of vulnerability."

Other destabilizing influences are evidenced by anti-satellite weapons, and high energy lasers and particle beams. Anti-satellite weapons threaten the sudden destruction of the bulk of Soviet and United States warning and communications satellites. If either country was rendered, quite literally, senseless by the loss of its satellites, then that country would have no viable alternative other than to assume a first strike

had been launched. Similarly, a known capability for either the United States or the Soviet Union to destroy the other's satellites would support an argument for a pre-emptive first strike.

Prototypes of high energy lasers and particle beam weapons are already in operation. United States models have shot down target drones and air-to-air missiles. Projects Miracl (sic) and Chair Heritage will soon offer the United States operational naval weapons to be used against anti-ship missiles. It is probable that the Soviet Union will deploy its own naval laser on a Kirov class ship sometime before the end of 1984.

Strategic lasers are in various stages of development. Both the United States and the Soviet Union have constructed operational prototypes which will be scaled-up for use as a weapon before the end of this decade. A pivotal United States test will take place sometime during the next eighteen months, when a laser will shoot down a Polaris SLBM.

The United States appears to be ahead of the Soviet Union in laser guidance mechanisms and optics. The Soviet Union leads in energy sources and, according to at least one source, operationalizing the weapon.

When lasers and particle beam weapons are deployed, they will offer an effective defense against ballistic missiles. Such a defense will deny a second strike capability. This will negate the fundamental principle of deterrence. The risks of war will be lowered to the point wherein either the United States or the Soviet Union would benefit. It is for this reason that the probability of thermonuclear war has increased tremendously, and will continue to increase.

If the United States or the Soviet Union is ready to deploy an effective ballistic missile defense, then the other nation might have no option other than to attack. Complete, overwhelming superiority would be attained. If the less-advanced nation did not launch a first strike, then the more-advanced nation (that is, the one with the lasers in orbit) would be tempted to strike before its absolute advantage could be negated.

If a thermonuclear war does not occur with the advent of energy weapons, then those weapons will dictate a new deterrence doctrine: Assured

Safety. However, it would be most unwise to assume that the logic of Assured Safety will overcome the illogic of fear.

Nations do not gamble with their survival. Neither the United States nor the Soviet Union will allow the other to achieve a perfect, unilateral defense. Given the hatred and distrust which exists between the two countries, thermonuclear war is probable.

Thus is the quest for safety fraught with danger. The involved technology can not be halted, for knowledge builds upon itself. It appears that the time has come for the United States and the Soviet Union to recognize the common danger and begin cooperating.

If both nations pooled their technology in lasers, particle beam weapons and anti-satellite weapons, neither would achieve overwhelming superiority. Cooperation is infinitely more preferable than destruction.

Stephen B. Zatuchni, Ph.D.
649 South Henderson Road
C - 402
King of Prussia, PA. 19406
Telephone: (215) 265 - 2616

Stephen B. Zatuchni earned his doctorate in Political Science, with formal field specialization in Strategic Studies and International Relations. He was formerly a featured columnist for The (Philadelphia) Bulletin.

PROPOSAL

Stephen B. Zatuchni, Ph.D.
649 South Henderson Road
C-402
King of Prussia, PA. 19406
(215) 265- 2616

Marshall Whithed, Ph.D.
Yardley Commons, #1810
300 South Main Street
Yardley, PA. 19067
(215) 493- 0496

During the past several years, there has arisen a considerable corpus of evidence which indicates that the major, international oil companies play a substantive role in government. For example, it has been demonstrated that world oil supplies have always exceeded world demand, but, oil "shortages" have become "expected."

It therefore became appropriate for research into the mechanisms by which oil exporting nations and the international oil companies exert their influence. Our research commenced with a simulation-modeling of the world energy situation.

This simulation demonstrated the ability of the multinationals to alter government policy to their own ends. These alterations are often not in the best interests of the host countries.

Such manipulations are accomplished primarily because the host countries rely upon the multinationals for their energy data. Indeed, recent events have demonstrated a willingness of the multinationals to "go public."

These events include the appointment of four Bechtel Group employees to the highest levels of United States government. During their tenure, news from the Middle East has been monstrosly (we do not use the word loosely) distorted. Arab investment in the United States has been, literally, classified by the Departments of Commerce and Treasury. Indeed, United States policy toward the oil-exporting nations can be shown to be inimical to United States interests.

This proposed article can also explain how anti-Semitism has become "accepted" by the United States, and provide an understanding of the traditional view which Islamic oil-exporting nations hold of Jews (e.g., In Jordan, it is a capital offense to sell land to a Jew).

Oct 13, 1982

Dear Georgette,

As I noted in our phone conversation today, I and a colleague, and/or I alone, and/or he alone, have prepared a number of outlines and/or revised a number of existent articles for possible publication in Commentary.

Also, tonight, after our phone conversation, I have prepared a nother prospectus (enclosed), which sounds more like what Marc is interested in.

What needs to happen is that Marc and I have to sit down and go over the various proposals and potential articles; with specifics in front of him, THEN he can react and give guidance as to what he thinks might score in Commentary and what not and in his reactions pro and con, enunciate guidance as to what we should be doing.

I have included Dr Zatuschni in various parts of this; he is a former doctoral student of mine; also former teaching assistant; and he has been doing some relevant research in his area. His work compliments my own in various ways. I want to bring some of this work to Marc's attention. As to Commentary, maybe Marc might come to the conclusion Dr Zatuschni and I should write together, independently, not at all, whatever.

My goals in this project are two-fold. First, as you suggested and Marc suggested to you, its a way to get visibility and that might lead to jobs. Obviously, I need a job, to pay the bills and survive. My experiences in this depression have been very discouraging-- in terms of finding something at all, AND ALSO in terms of how low I am stooping in my applications, in terms of things I really don't want to do, and in some instances, applying and candidating for jobs, now, that are completely against my moral principles. For the first time, and as you know I have been thru some hassles in my earlier career, I realize and KNOW the hard way that I can not afford to have moral scruples; that must be sold out in order to get a job and survive. That knowledge isn't doing my psyche any good.

Second goal: One of my strong points (but very disturbing ones) is that I can put together the bigger picture, the long-range implications. I see a lot of things fitting together, I don't like the directions suggested, and I see all around me (including all those good people I met at the D C. conference--I did some projective questioning--) not seeing how things fit together. So also in this Commentary(s) article(s), I would, while meeting the first goal above, also like to wake some useful people up. This/these article(s) could, if properly developed, meet BOTH goals, and I would like to succeed in both.

Zatuschni's style is ~~more~~ ^{less} academic, given his newspaper column bent. Mine is more academic and research oriented -- perhaps too much so for both goals. The combination may be good. I would appreciate Marc's thinking on that. Also yours.

As things are now developing I may not get to NYC this weekend. Am dependent upon others for a very complicated set of travels thru over

next weekend --the people are not dependable, and things are not falling into place.

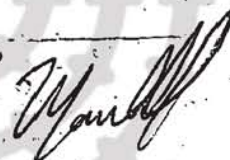
Assuming I do make it, I will call you Sat am when, late am, I get to NYC, and see if we can arrange a time to meet with Marc.

If things don't work out for this weekend, I hope that we can meet some time soon.

Given the situation here, I cannot make trips to NYC unless I have multiple and hopefully productive meetings set up. One of the problems with this Saturday is that the local train to Newark and thus PATH to NYC only runs on weekdays, and to get to NYC on weekends also involves expensive taxi fares to and from the Trenton station. So this Saturday meeting just may not be the most productive allocation of my resources. It is a good and worthy group, trying to do odd things. In more ordinary times I would definitely participate, especially since I am on the Board of Directors. But good works just don't seem affordable now...

Is Marc familiar with this group of the enclosed notes (which please return, xeroxing if you wish). Committee of Concerned Scientists, re Soviet Jewry, scientific level. Since at the time I was doing a lot of Eastern European research and travel, I never formally affiliated, although there was coordination if you know what I mean....

Best,



ARTICLE PROSPECTUS

Marshall H. Whithed, PhD
No. 1810 Yardley Commons
Yardley, PA. 19067
215-493-0496

Stephen E. Zatushni, PhD
649 South Henderson Rd.
C-402
King of Prussia, PA. 19046
215-265-2616

The past decade has witnessed major revolutions in international economics, particularly as relates to energy/oil supply. At the same time, or actually, with a slight, several year, time lag, we have witnessed first tentative beginning signs, and now significant indicators, of an alteration of the traditional American full support for Israel.

The indications of potential American reversal of support for the Israeli state have now become apparent to the public. Many of the underlying causes, or 'causes' which seem to be 'apparent' to key decision-makers, are not so obvious.

A relatively new technique in the social sciences, employed extensively in several policy analysis fields by the authors, highlighted the likelihood of these developments, and the implications for the Israeli state, in the late 1960's well before these events began to transpire in 1973. Whereas these events seem to burst on an unsuspecting world 'out of the blue' and without any anticipation, actually they were forecast with chilling accuracy in 1967-68. Further utilization of the techniques, called simulation analysis, highlighted further developments which now seem to be coming to pass.

In this article the authors explain their work with these new computer analysis techniques. Then they discuss their pioneering work in the late Sixties and early Seventies applying these techniques to issues in the Middle East and highly relevant to international policy in that area.

The heuristic findings and indications of these early sessions for the future of the Middle East are discussed.

Later developments in the Middle East are then analyzed, with especial reference to the issues raised by the simulation modeling analysis work earlier performed.

From this, implications for further developments of international political alignments in the Middle East are presented.

These prognoses may not be viewed as desirable by many of our readers. Regardless of that, the issue is that there are powerful economic/socio/political forces at work which tend to motivate many decision-makers in particular directions. It is our feeling that mere wish-saying for the desired outcomes will not, in the absence of workable plans and motivations, be of use. Rather, the key leverage points to change directions and future outcomes must be found, and operationalized. The research analysis methodologies discussed above by these authors have the potential of pointing in the direction of identifying and orienting the new leverage points necessary to changing the present drift of American realignment in the Middle East. The final part of this article, then, suggests some of these revised directions, and a research plan to further define and refine these .

Oct 17

Dear Georgette/Marc,

My meetings in NYC last Saturday, contrary to my expectations, ran until 3:30 in the afternoon. When I tried to reach you then, which was later by far than the 2 pm we agreed upon, I got your answering machine. Ditto when I called again just before leaving NYC late Saturday.

I am supposed to come to NYC again for a seminar/conference on computers in human services and privacy, confidentiality, and access of information -- Oct 25/26. Also, as an outgrowth of last Saturday's meeting, I am invited to a conference/meeting the evening of Nov 9, and probably some sessions earlier on that day -- again in NYC. In either instance, I could come up a day early, or stay a day later. Hopefully it would be possible to get together with Marc on one of these trips. re the Commentary article????

Please let me know--a quick phone call (Yardley 215-493-0496) or postcard (address in Yardley on envelope). I will also call, if I have not yet heard from you, when am next in NYC.

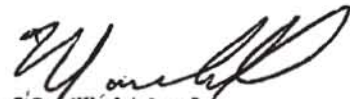
Assuming the possibility that we could not get together this last trip to NYC, I had earlier (last Weds or Thurs) mailed off a prospectus on one possible version of the Commentary article outline. That most closely approximated what you, Georgette, conveyed to me when I called you on my last Weds trip to NYC. Enclosed is another prospectus, based on EAR LIER discussions with a colleague of mine, and his version of an article we could well write. This is the only copy of that, so please xerox and return.

Dr Zatushni and I have also written a draft article (article, not outline) on Techniques of Soviet Expansion: A case Study of Syria, " which I would be glad to send Marc for review if desired. Also, Zatushni has an article "On Deterrence" which I am enclosing, just in case that should be of interest.

The idea is to give Marc a couple of possibilities, so that he can react and provide guidance as to which might be the best way to go.

Please let me know if and when we can get together.

Best,


Marshall Whithed

Committee of Concerned Scientists, Inc.

9 East 40 Street
New York, N.Y. 10016
Tel. (212) 686-8862

CO-CHAIRMEN

Jack Cohen
National Institutes of Health
H. Eugene Stanley
*Massachusetts Institute
of Technology*

Lilli S. Chertoff
Executive Director

VICE-CHAIRMEN

ASTRONOMY

Arno Penzias
*Bell Laboratories
Holmdel, N.J.*

BIOCHEMISTRY

Robert Adelstein
National Institutes of Health

BIOLOGY

Felix Bronner
Univ. of Conn. Health Center

CHEMISTRY

Thomas Spiro
Princeton University

COMPUTER SCIENCES

Jack Minker
University of Maryland

DENTAL SCIENCES

Robert Gerber
Los Angeles, Calif.

ENGINEERING

Marc H. Richman
Brown University

INDUSTRIAL LABS

Mel Pomerantz
IBM Research Center

MATHEMATICS

Richard Ellis
Northwestern University

MEDICAL SCIENCES

Robert Gregerman
*Johns Hopkins Univ.
School of Medicine*
Walter Feder
Maimonides Medical Center, N.Y.

PHYSICS

Bernard R. Cooper
West Virginia Univ.

PSYCHOLOGY & PSYCHIATRY

Dorothy Susskind
Hunter College, CUNY

NATIONAL SPONSORS

Christian Anfinsen
National Institutes of Health
Julius Axelrod
National Institute of Mental Health
Lipman Bers
Columbia University
Jacob Bigelieson
Rochester University
Raoul Bott
Harvard University
Owen Chamberlain
University of California, Berkeley
Leo Goldberg
Kitt Peak National Observatory
Gerhard Herzberg
National Research Council of Canada
Kurt Isselbacher
Massachusetts General Hospital
Arthur Kornberg
Stanford University
Benjamin Lax
*Massachusetts Institute
of Technology*
Stuart Rice
University of Chicago
Harold Scheraga
Cornell University
Sylvan Schweber
Brandeis University
Charles Townes
University of California, Berkeley
George Wald
Harvard University
Oscar Zariski
Harvard University

Affiliation for identification purposes only.

Dear Colleague:

You are cordially invited to attend the Annual Program Meeting of the Committee of Concerned Scientists on Sunday, December 14, 1975 at 1:15 pm.

The meeting will take place at Automation House, 49 East 68th Street (Between Park and Madison Avenues), New York City, N.Y. 10021.

The program for the afternoon is as follows:

Speaker:

William Root
Acting Director
U.S. State Department Office of
Soviet and E. European Science and
Technology Affairs

Topic:

US/USSR Scientific and Technological
Exchange Programs: a description and analysis

Discussant:

Joseph L. Birman
Henry Semat Professor of Physics
City College - CUNY

We hope very much your schedule will permit you to attend. Please complete and return the enclosed card in time for us to plan properly for your attendance.

Sincerely yours,


H. Eugene Stanley
Co-Chairman


Jack Cohen
Co-Chairman

November 14, 1975