

5-79 Memos, Cards etc

16 March 1979

Director
Army Materiel Systems Analysis
Activity
Attn: Ms. Lynne Taylor DRX SY-DS
Aberdeen Proving Ground, MD 21005

Dear Lynne:

During my recent visit, we discussed the possibility of an exercise to "track" Hella Hammid on her vacation. I wonder if you are still interested?

I am enclosing the standard instructions for the group who will be participating. Maybe it is possible that you could send me unedited transcripts in place of the raw tapes? Hella is very excited about her trip and I'm sure she will select interesting sites. Please call me (X4955) if you have any questions.

By the way, I enjoyed my visit and our technical discussions. I look forward to many more of the same.

Kindest regards,

Edwin C. May, Ph.D.
Consultant
Radio Physics Laboratory

ECM:1a1

Enc.

SRI International

333 Ravenswood Ave. • Menlo Park, California 94025 • (415) 326-6200 • Cable: STANRES, Menlo Park • TWX: 910-373-1246

16 March 1979

Dr. A. B. Kahle
J.P.L. #183-501
4800 Oak Grove Dr.
Pasadena, CA 91103

Dear Anne:

Here is the stuff for the Hella experiment. Will you be able to find a tape?

Bev and I enjoyed our visit! You really put on a good show and tell.

I believe we may have pulled Stephan's experiment out of the fire for him. There were two very good map correspondences and, of course, he had not even looked at the data before we got there. Bev is going!

If you have any questions about the experiment give me a call.

See you,

Edwin C. May
Consultant
Radio Physics Laboratory

EMC:lal

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MEMO

TO Geoff Steel

DATE 14 June 1979

FROM Ed May

LOCATION 44

SUBJECT REMOTE VIEWING PROTOCOLS

CC

Two sets of remote viewing protocols have been prepared and sent to our clients for approval. One of these pertains to remote viewing of distant sites, to be described by a viewer in the laboratory, who is blocked from ordinary contact with the site. The second set of protocols reflect our interest in determining the extent to which remote instrumentation might be perturbed by a viewer focusing his attention on it, as a remote viewing target. We have been calling this type of phenomena remote perturbation.

The sponsor has taken the position that remote viewing does not involve a subject in the usual sense, since the person in the lab is merely performing an intellectual activity in describing his mental pictures with regard to a possible remote site. We share the opinion that this is not a human subjects activity as normally construed.

With regard to remote perturbations of instruments resulting from remote viewing, the sponsor feels that this is within the human subjects guidelines. We disagree, and think that this is just another aspect of remote viewing, and therefore does not involve human subjects. Neither we nor our sponsors feel that these activities expose the participants to any risk, but we have included in the remote perturbation protocols all the materials required by the sponsor to fulfill the technical requirements for approval by their human subjects panel. We are doing this because it is required of us, not because we consider it appropriate or necessary.



27 June 1979

U.S. Army Missile R&D Command
Attn: DRDMI-TDK, Dr. Jenkins
Redstone Arsenal, AL 35802

Dear Bill:

Here is the GFSR paper, but as I suggested, a Kendall algorithm FSR works just fine. I have included a Xerox of it as well.

We are using 15-bit, clock derived seeds as the high order 15 bits in a 31 bit integer. As indicated in Lewis, the FSR statistics were as good as the slower, but more general, GFSR routine. I believe we are in good shape just using the FSR. We use

$$X^{31} + X^{13} + X^0$$

as the generating polynomial.

You should get a complete package from me next week.

Regards,

Edwin C. May, Ph.D.
Radio Physics Laboratory

ECM/1a1

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7 March 1979

Commander
US Army Medical Research
and Development Command
Attn: SGRD-HR
LTC Richard W. Severson
Ft. Detrick
Fredrick, MD 21701

Dear Col. Severson

Enclosed please find a copy of the amended SRI International Volunteer
Consent Form for your records.

Sincerely,

Edwin C. May

Edwin C. May, Ph.D.
Radio Physics Laboratory

ECM:lal

Enc.

SRI International

333 Ravenswood Ave. • Menlo Park, CA 94025 • (415) 326-6200 • Cable: SRI INTL MNP • TWX: 910-373-1246

V.I.Sanarov
P.O.Box 16
630071 Novosibirsk-71
USSR

Dr Jacques Vallée
InfoMedia Corp.
430 Sherman Avenue
Palo Alto, CA 94306
USA

May 15, 1979

Dear Mr Vallée,

while thanking you again for the three books you sent me last year (I hope you received my acknowledgement card), I am sorry to delay my answer to your kind letter of May 28, 1978.

Under separate cover I am sending you now a photocopy of two articles by Dmitriev related to UFOs, from "Tekhnika i nauka", 1978, no.9 and from "Aviatsiya i kosmonautika", 1979, no.3. Other articles of your interest will follow soon later.

An article of mine has been just published in "Sovetskaya etnografiya", 1979, no.2, however I have not yet received reprints to send you a copy. I find many similarities between reports on UFO sightings and tales about encounters with not-of-this-world forces (goblins, devils, etc.). I see that your publications deal with such questions too. If it is possible, I would greatly appreciate receiving (by registered mail) your further publications on the subject:

UFOs: the psychic solution

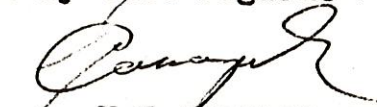
Messengers of deception

UFOs and the fairy faith

The UFO phenomenon as a control system (report at the 1977 UFO Congress).

Hoping to hear from you again, I remain

with my best regards



V.I.Sanarov

(Articles on parapsychology you asked for will follow soon too - sorry, we have at present difficulties with xeroxing facilities).

WORK STATEMENT - FY 79

BASIC CONTENTS

- I. Evaluation of Accuracy/Resolution/Repeatability (Trained Subject).
 - a. Simple shapes/color/picture/word/objects.
 - b. Known/unknown targets (computer controlled, sealed pictures).
 - c. Abstract targeting.
 - coordinates (polar, other).
 - names, maps, other.
 - d. Methods of evaluation and statistical assessment.
 - e. Resolution ability.
 - f. Role of feedback (way to overcome).
 - g. Other factors (target type, effects of repeating natural targets (unknown to subject); improvements with multiple subjects per target, etc.).

- II. Evaluation of Training Procedures.
 - a. Define optimum "screening" tests.
 - b. Evaluate learning trends for experienced ~~and~~ inexperienced subjects.
 - c. Perform for target types in I.

- III. Quantification of Judging and Statistical Evaluation.
 - a. Ranking.
 - b. Dichotomies.
 - c. Methods using target "sub-domains."
 - d. Coding.

IV. Application Feasibility (Specific Targets, Targets of Opportunity, Of High Interest).

a. Communication (local, remote).

--Shielded areas (lab ~~shielded~~^{shielded}, submersable, caves, etc.).

--Long distance and remote areas (LCC, ALLCC's, submersable (int?))
space, etc.).

--Imagery/sensitive equipment/"words."

b. Information access.

--Remote sites (co-ord, visited, both local and long distance).

--Data in areas/facilities.

--Data from witting/unwitting people (any data in general, and specific types).

--Indirect targets (pictures, missing pieces).

--Can a subject describe data perceived by another subject?

--Can a specific target-type be focused on, and described? Can it be located?

c. Event time accuracy.

d. Tracking/location identification.

V. Interference.

a. ELF, other noise.

b. Interference "intent" by another subject during an experiment. Can "interference" intent be sensed?

VI. Varióus Theoretical Models (Brief).

VII. Miscellaneous.

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VI. Various Theoretical Models (Brief).

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WORK STATEMENT - FY 79

BASIC CONTENTS

H.M. (2 A DAY)

I. Evaluation of Accuracy/Resolution/Repeatability (Trained Subject).

- 10 CHOICE TELETYPEWRITER
- a. Simple shapes/color/picture/word/objects.
 - b. Known/unknown targets (computer controlled, sealed pictures).
 - c. Abstract targeting.
 - coordinates (polar, other).
 - names, maps, other.
 - d. Methods of evaluation and statistical assessment.
 - e. Resolution ability.
 - f. Role of feedback (way to overcome).
 - g. Other factors (target type, effects of repeating natural targets (unknown to subject); improvements with multiple subjects per target, etc.).

II. Evaluation of Training Procedures.

- H.H. TRAINING
I.S. SATELLITE COORDS
VERY ABSTRACT TARGETING
- a. Define optimum "screening" tests.
 - b. Evaluate learning trends for experienced ~~and~~ inexperienced subjects.
 - c. Perform for target types in I.

III. Quantification of Judging and Statistical Evaluation.

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Can "interference" intent be sensed?

VI. Various Theoretical Models (Brief).

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MEMORANDUM FOR THE RECORD

SUBJECT : Comments on the Concepts for Advanced Technology
Submitted to CIA by Dr. Jack Sarfatti

REFERENCE: Request
for analysis of Dr. Sarfatti's concepts

Introduction & Summary

1. An elementary description of Dr. Sarfatti's concepts is provided below along with relevant background references and some analysis of the concepts. The description is meant for those with at least an acquaintance with the concepts of modern physics. This description and analysis is completed by the author who is not a theoretician but who has some measure of current knowledge of modern theoretical physics. The author does not believe more analysis is justified. The conclusions are simple. There are some extremely speculative theoretical grounds supporting both the superluminal communications and zero point energy tapping concepts of Dr. Sarfatti. There is no experimental evidence that either is a valid concept or has any practical consequences. In fact, the absence of evidence for superluminal communications in a great many speed-of-light experiments seems to argue strongly against the likelihood of its existence.

*It is not
of the
research
the evidence*

2. Dr. Jack Sarfatti is a theoretical physicist with many ideas he believes are of importance to National Security, energy requirements and other national needs. He has apparently formed an organization, I² Associates, which is attempting to promote his ideas and obtain financial backing to complete R&D to prove or disprove his speculative concepts. This organization has been mailing packages of documents to CIA and other branches of the Federal Government. Example documents which explain Sarfatti's concepts, describe some criticism and praise of the concepts and a "patent" disclosure on the superluminal concept have been sent to the A summary of these document titles is provided in Appendix A. As requested, two concepts will be discussed in this memorandum.

3. One claim of Dr. J. Sarfatti is that he has developed a concept which will allow communication of information faster than the speed-of-light without violation of Einstein's theory of relativity; quoting from the patent disclosure (A-13), "Einstein's theory is not violated but transcended in the same way that Einstein's theory of gravitation transcended Newton's." Dr. Sarfatti further claims he can reduce the concept to actual solid state components upon which a new kind of computer can be based.

4. Another claim of Dr. Sarfatti is that he believes the fluctuations of the zero point electromagnetic energy can be tapped to obtain an unlimited source of energy, thus solving the energy crisis. This concept is only briefly explained in the documents sent to CIA, perhaps because it is obviously not of direct relevance to the Intelligence Community. There is enough information provided that a few comments have been formulated.

Background

The two most profound physical descriptions of our current understanding of physical nature are summarized in quantum mechanics and the general theory of relativity. They are the most profound statements of physical understanding because they most efficiently predict the most number of physical effects with the greatest accuracy. These theories are triumphs of the human intellect but both contain anomalous predictions or interpretations which are counter to common sense experience or philosophically-appealing assumptions. The physics community has long struggled with the apparent anomalous implications of these theories which basically require one to choose between believing the current theories are complete thereby accepting these apparently anomalous predictions or using these apparently anomalous predictions to create doubt in the completeness of the physical theories.

Superluminal Effects

1. The apparently bizarre interpretations of physical reality required by quantum theory were originally used by some to condemn it. A genuine classic description of the latter position was early recognized and published by Einstein, Podolsky and Rosen (EPR) in 1935 in a paper entitled, "Can Quantum Mechanical Descriptions of Physical Reality be Considered Complete?"¹ In this concept paper, as a starting point, several seemingly unavoidable totally acceptable assumptions concerning the framework of any physical theory are made. Quoting from a recent popular discussion of these assumptions:

"One is realism, the doctrine that regularities in observed phenomena are caused by some physical reality whose existence is independent of human observers. The second premise holds that inductive inference is a valid mode of reasoning and can be applied freely so that legitimate conclusions can be drawn from consistent observations. The third premise is called Einstein separability or Einstein locality, and it states that no influence of any kind can propagate faster than the speed of light."²

Given this framework, consequences at variance with quantum mechanics are predicted on the basis of thought experiment. At the time these differences were predicted, it was not possible to test experimentally for their existence.

2. Other thought experiments and interpretations soon came along which help to split more scientists into one of the two previously mentioned camps.^{3,4} From a common sense experience or philosophical viewpoint, the camp opposed to EPR's position which believed in the completeness and correctness of quantum theory had to take the more extreme, if not bizarre, stand. For example, if accepted as the final truth, one consistent acceptable interpretation of quantum theory attributed to Neils Bohr is the denial of the possibility of a detailed description of reality, i.e., insist that at a microscopic level quantum effects dominate; only probabilities can be described; and anything more insightful is beyond the ken of science.⁵ Needless to say, the concept, that fundamentally there are only shadows and no substance to physical reality, is unacceptable to many physicists who found other equally valid and consistent but personally more acceptable interpretations of quantum theory. An alternative interpretation championed by Eugene Wigner and others is to link the action of an observer, i.e., consciousness, in a fundamental way with the physical reality.⁵ Again, giving preeminence to human consciousness is not acceptable to many so yet other interpretations were formulated. A third interpretation consistent with the quantum theory is acceptance of non-local reality. Here quantum theory is interpreted to imply that whenever two systems interact, and subsequently separate, there is a sense in which they remain in contact forever no matter how isolated they may become from conventional interaction. This interpretation is important in this discussion because it seemingly allows an act on one part of a system to be instantaneously sensed by another part over the separation distance.

3. Early on there never appeared to be any experimental means to distinguish between the two major camps of physicists. A breakthrough occurred in 1964 when John S. Bell discovered a theorem based on the assumptions of EPR, which predicted measurable differences from the predictions of quantum theory.⁶ Experimental tests of Bell's findings have been slow in coming, and not all are in agreement; but the weight of evidence seems largely in favor of accepting quantum theory.⁷ Acceptance of quantum theory argues that at least one of the original assumptions of EPR is wrong. It is argued by some, the EPR assumption that is wrong is that reality is local. Non-local reality implies an interconnectedness which appears to allow instantaneous signalling, i.e., superluminal signals, giving credence to Dr. Sarfatti's claims.

4. Things are never that simple, however. Because a complete, unrestricted acceptance of a non-local interpretation of quantum theory and relativity implies a breakdown of causality (i.e., effects happen before their cause), a restricted acceptance of the implications of a non-local reality is found to be more acceptable by most.² The restriction is to accept non-local reality only to the point necessary to be consistent with the microscopic predictions of quantum theory, but when it comes to macroscopic predictions of real information containing signal transmission, deny the applicability of the interpretation. Dr. Sarfatti wishes not to accept such restrictions, but rather embraces the fully extrapolated implications of microscopic quantum theory into the macroscopic world of real observations. The above outlines the speculative bases for superluminal effects.

Zero Point Energy Tapping

1. Because of the general success of quantum theory and relativity for particles with mass such as electrons and protons, the theory was extended to massless particles such as photons or in classical terms, electromagnetic fields. In the rigorous process of completing this formulation, a valid approach is to assume that each wavelength or energy of the electromagnetic spectrum can be treated as a quantized harmonic oscillator. The excited states of the oscillator corresponds to states of the electromagnetic field with various numbers of photons present.⁷ When this description is worked out, it turns out that for the lowest energy oscillator state, when no photons are present, there still is an energy associated with the state. This energy is called the zero point energy and is equal to one half ($1/2$) the energy of the photon. According to a basic prediction of quantum theory called the Heisenberg Uncertainty Principle, this energy can never be precisely defined. There is a fluctuation of this energy about its average. Thus, even though the time average of the electromagnetic field strengths are zero in a vacuum with no photons present, their mean-square average is finite. Because there are an infinite number of these states corresponding to all wavelengths of the electromagnetic spectrum, in principle there is an infinite amount of zero point energy and fluctuations.

2. There are experimental proofs of the validity of this concept. There is a measurable shift in the expected energy of electrons in the $S_{1/2}$ state of a hydrogen atom called the Lamb shift. A rigorous calculation of the effect of the fluctuations of the zero point electromagnetic energy on the electron, accounts for most of the measured Lamb shift.⁷ In general, zero point energy fluctuations are accepted on a sound theoretical and experimental basis.

3. Even though zero point energy seems to exist and it is unlimited in extent, it is the lowest energy state of the universe as we know it. Thus, if disturbed by some tapping procedure, a higher energy

...e of the universe would be created spontaneously. Also the fluctua-
...ns are random and totally unpredictable. We do not know when or
...ere to tap this energy; and even if we did know, we would raise the
...nergy state of the universe, these two considerations argue strongly
against any effective tapping concept.

Conclusions

It would seem there are interpretations of advanced physical theory
i.e., quantum theory and relativity, which are consistent with the
possibility of superluminal communications. In fact, in a restricted
microscopic sense, one might go so far as to say that it is probable
that superluminal signals exist between fundamental microscopic events.
The extrapolation of this interpretation into macroscopic signals is
speculation on top of speculation. Unless an experiment can be devised
to show the correctness of the speculation, it remains only a radical
possibility. It would seem likely the only convincing experiment would
be the demonstration of macroscopic subliminal signals. Similar analysis
applies to zero point energy tapping. For creditability, one would need
a demonstration of a positive energy flow from the zero point energy
fluctuations. These are demanding conclusions; sort of like asking the
results of a researcher to be demonstrated before supporting the research.
The conclusions are nevertheless justified by the speculative nature of
the concepts.

Finally, it is emphasized that even if these speculative concepts
are ultimately judged to be worth developing further, the funding should
not come from Intelligence Community research programs. While one could
make a case for the impact of such research on "National Security," the
research is hardly related to the primary responsibilities of Intelligence
Community organizations. These concepts are genuine basic research and
should be evaluated and funded by those in the federal government charged
with that responsibility.

COMMENTS BY SAREATTI 4125180

- A. REMARKS ON ZERO POINT NOT CORRECT - SEE RESPONSE ENCLOSED
- IDEA IS
 - 1) VACUUM IS DEGENERATE
 - 2) LOCAL PERTURBATION REMOVES DEGENERACY IN
BOUNDED REGION COVERING ZERO POINT FLUCTUATIONS

NOTE AMUSING SYNCHRONICITY - MISSPELLING OF "SUPERLUMINAL"
TO "SUBLIMINAL" - AT END OF MY PSYCHOENERGETICS
PAPER VOL 3 p 356 (1979) SIMILAR TYPO ERROR "SUPERLUMINAL".
IN BOTH CASES THERE IS ONLY ONE ERROR IN SPELLING OF THE WORD
"SUPERLUMINAL" AND IN BOTH CASES IT IS AT CONCLUSION OF RESPECTIVE
PAPERS

- B. STAPP SHOWS SUPERLUMINAL EFFECT MUST SHOW MACRO SCOPIC!
NOT ENOUGH TO RESTRICT TO MICRO SCOPIC.

ENCLOSURE

12.5.1978

SENDER'S ADDRESS

Получатель: Д-р Жак В. Валье
Институт астрономии
Северо-Западного университета
Эванстон, Иллинойс 60201
США

Vallée

Dear Dr.

I would greatly appreciate receiving a reprint/a copy
(on exchange basis for books
of your ~~article~~ books on any subject):

Passport to Magonia,
Challenge to science,
Invisible college, and/or
UFO enigma,
~~PUBLISHED IN~~ . . . which I need badly for
my UFO research
(and any reprints of your UFO articles)

VOL/ISSUE . . . PAGE(S) . . . DATE

and any other reprints of similar nature.

If reprint is unavailable,
please return this card.

Jacques Vallée
Sincerely yours.



А В Ж И А
ПОЧТОВАЯ КАРТОЧКА
130781
НОВОСИБИРСК



Куда Dr Jacques F. Vallée
Dept of Astronomy
Northwestern University
Evanston, IL 60201
USA
Кому *свд*

Адрес отправителя: V.I. Sanarov, P.O. Box 16
630071 Novosibirsk-71
USSR

ППФ Гознака, Цена карточки 4 коп.