July 14, 1959

Dear ===

- 1. Thank you for sending me your June 1959 report which is most interesting and informative. By coincidence, it arrived just as I was drafting a letter to you to inquire concerning the possibility of my applying for a === grant, for a project which I mentioned to you briefly at the === last year, and on which I have done considerable background work during the past year with some modest support from the =======. The problem is a basic one in the field of ==== and is concerned with the dimensions of the stimulus situations in brain behavior.
- 2. It has long been my opinion that there is a need for a ??? of stimulus variables, comparable to those with which we are familiar for personality, to account for factors external to the individual, which affect his performance. People are constrained, ???, required, etc. to do things because of factors in their ???, perhaps even more than because of the kinds of personalities they are. Furthermore, a stimulus situation is complex, and reflects many subtle variables that are not always uniformly or clearly identified, and where affects may often be overloaded. If we are to be able to study brain behavior affectively, we must measure the situations to which people respond as well as the people who respond.
- 3. During the past year I have made an extensive review of relevant literature on this problem, with the help of a graduate assistant supported by the ====== and worked out a tentative research design. The conceptual ???? is in terms of environmental offsets as brain behavior as a set of variables ???? As "environmental traits". At present I am thinking in terms of two main divisions: (1) the life space of the individual, and (2) the immediate task situation. I have progressed to the point of developing a preliminary classification of research variables and data collection plans. The principal methodology for reduction of data will be cluster analysis and later, factor analysis.

- 4. I have in mind working with four kinds of group situations school, hospital, business and industrial and could include a local military organization as well.
- 5. I am planning to make this project my main research interest for the next several years and have an excellent situation here from the standpoint of interested colleagues in related fields, student assistants, and institutional material to carry out such research. In the event you might be interested, it would be helpful to me to know whether a budget of about fifteen thousand dollar (\$15,000) would be feasible to consider.

This has been an eventful year, moving and getting organized; but it is now behind us, and I am looking forward to a productive future in this setting. With best wishes and appreciation,

Cordially,

August 10, 1959

Dear

Right after my return from two weeks at the ====, I decided to expose a virus I had picked up to as much salt water, air and sunshine as ====== could produce, hence, the procrastination.

I should be happy, indeed, to process a research proposal from you and feel that the work you have in mind does certainly fall within the interest of our Board of Directors. While we have had very few grants that exceed \$15,000, I think that it is certainly possible to consider and would not let budgetary considerations control research plan, at least in the beginning.

I shall be on my way to the ==== next week and plan to stop by in ==== to see my sister who is critically ill and felt that it might be possible for me to stop by === on the 19th or 20th of August for a conversation and a nice long discussion of plans. Do you plan to be in ==== at that time?

Best Regards,

Sincerely yours

August 17, 1959

Dear

I would appreciate it if you could make a reservation for me from ======= on Thursday night, the time doesn't matter, having as much time for discussion as we can ??? out of the ????.

I am looking forward to seeing you.

Sincerely

Research proposal to ======. July 1, 1959

These instruments are basically frequency analyzers which provide information concerning the total amount of electrical activity recorded for a single channel, during a ten record epoch, by frequency bands. While I was at the ======, the pressure of directed research requirement prevented further work on development of an improved electronic analyzer.

Yet, it was apparent that the equipment mentioned above was useful only in certain limited research problems and was inadequate to handle multi-channel recordings under longer time periods, needed both for more complex research and diagnostic applications. The diagnostic problems are of particular importance in medicine and psychiatry insomuch as the only method available at present is visual reading of clinical records, which is both unreliable and inaccurate, and resembles the clinical interpretation of projective techniques in psychology.

In my opinion the development of an adequate multi-channel electronic analyzer for electrical signals from the brain and other systems of the human organism is one of the most important needs in these fields today.

Two developments within the past few years have spurred my interest in this problem. One was the demonstration that EEG records could be recorded on magnetic tape with high fidelity by means of frequency modulation techniques. The second was the fact that electronic scientists have developed ??? ??? techniques for

analyzing and interpreting electrical signals obtained by telemetry from rockets and ??? used in ballistic missiles and space programs.

Subsequently, I corresponded and had several conferences with
======================================
company would also be profitable in this research. ====================================

I have also corresponded with the =		was w	hen a
number of related ??? that obtained	with regard to analog		
=======================================			

- 1) Developments of a research analyzer to ????
- 2) Standardization of ???
- 3) ???
- 4) A research program in psycho-physiology to investigate psychological and physiological correlates of electrical signals from the human brain.

Although it is not within my own spheres of interest or competence, it may be noted that such equipment would also have ??? important application to such fields as electrocardiology and other techniques involving electical signals.

With this background, I am very much interested in finding out whether === through any of its scientific divisions and research ???, would be able to assist in the organization, development, and equipping a laboratory in which the research outlined above could be conducted. It is my opinion that if a satisfactory "atlas," for

automatic interpretation of the EEG in relation to psychiatric and neurologic diagnoses, could be devised and keyed to an appropriate analyzer, the demand for this equipment from hospitals and clinics throughout the United States, and in fact the entire world, would be almost unlimited. My specific needs at this time includes,

- 1) technical assistance in designing the principal components of an analyzer for an eight channel EEG record, and

At this time, ======= is moving ahead rapidly in cutting up a doctoral program in psychology and in the construction of several new building, in one of which the new psychology laboratories will be located. It is my plan to locate the EEG laboratory and equipment in one of the new buildings, and I need not emphasize that any assistance to which obtain in this connection would contribute materially to this development and strengthening of our new doctoral program.

September 10, 1959

Dear ===

We were delighted with your recent visit and the opportunity to discuss research plans and areas of mutual interest.

One of the projects on which we are prepared to begin immediately is a critical review of literatures and scientific developments related to the recognition, analysis and interpretation of bioelectric signal from the human organism and activation of human behavior by remote means.

As we visualize the task, it should begin with a general survey of research and interpretation in a number of fields, including neurophysiology, biophysics, anatomy, physiological psychology and neuropsychiatry, as well as electronics, telemetry and communications engineering. At the same time that bibliographic and related activity is initiated, correspondence should be undertaken with all laboratories, companies and agencies working in or carrying out activities related to designated areas of the broad survey problem. Visits to laboratories may be undertaken if needed.

It appears that about mid-way through the study, a conference may be valuable to discuss the material accumulated and the problems formulated, as a guide future research and development. This conference is not budgeted at present, but might be kept in mind for planning purposes. At this time we are not prepared to suggest names of conferees, since we believe that the present list should undergo modification in the survey.

The divisions of the problem fall naturally into five main areas: (1) bioelectric sensors: sources of significant electrical potential and method of pick-up; (2) recording: amplification, electronic tape and other multi-channel recording; (3) analysis: autocorrelators, spectrum analyzers, etc. and coordination with automatic data processing equipment; (4) standardization of data for correlation with biochemical physiological and behavioral indices; (5) technics of activation of the human organism by remote electronic means.

Initially we believe that a comprehensive report could be completed within 12 months, with a total budget of \$3500. One thousand dollars would represent the cost of a part time stenographer-typist. About \$800 is contemplated for consultation, \$500 for travel, and the balance for reference materials, bibliographic assistance and library services.

In the event that you desire more detailed information on any part of this proposal, please let me know.

Cordially

Memorandum:

September 14, 1959

Dear ===

I am sorry that I missed you on Monday night. Apparently, you had gone into the restaurant and I thought you had left the hotel. You would have been a big help to me on my tour of =====.

The letter arrived and I am sure it will suit my purpose. I should have word for you before the end of the week.

Best regards to your charming wife. Tell her I have chuckled again about the ipecac.

Sincerely yours,

September 26, 1959

Dear ===

Thank you for your letter of the September. I have just returned from meeting with the ==== and there is a strong possibility of a development ??? greater importance than that, which I requested in my letter to him of which you received a copy. === requested that this not be discussed until further administrative approval is given. However, his organization has completed the construction of a new seismic analyzer which can handle auto correlation, cross correlation, ???, spectra and other advanced analyzer of wave signals for 32 channels simultaneously. When I finished describing the progress of my research he understood the problem better than I did and outlined the entire analysis. He is investigating the possibility of programing time for us on this machine to analyze tape-recorded EEG records. I believe that we will also be able to review some financial help from them concerning the instrumentation of the tape: cording of EEG records.

This afternoon I spoke in the telephone with ===========

Sincerely yours,

September 21, 1959

Dear ===

As I promised last week, I have obtained permissions to utilize administrative funds for the proposed survey of the literature up to \$3,500.00. I suggest that we hold the funds here until you require them for specific progress, and that we respond to vouchers and receipts sent by you for repayment, at that you make specific requests when funds are needed for purchase of equipment, repayment for labor or for consulting fees. In this way we can avoid the formality of corporate involvement and the time delays that this always entails.

If there are disadvantages to you in the above arrangement I am sufficiently flexible to arrange this expenditure in any way you see fit. Please let me know your wishes in the matter.

I am very much impressed by your account of your conversation with ====. It sounds to me as though his analyzer is the most advanced being considered for employment in behavioral science at the moment. I feel you should pursue this aggressively and let me know how we can assist. If you have the opportunity I would like also to have some information about ==== to use in my conversations with instrument people here.

We are busily making plans for our trip to ===. It appears that we shall depart October 4, return October 31, most of our time will be spent in ===== with a stop at the ====== on October 16. Let me know if you think of any way that I can do something for you in ======.

Sincerely yours,

September 25, 1959

Dear

Thank you for your letter of 21 September. I am very pleased that the proposal to survey the literature on bioelectric phenomena is approved and we will make plans immediately to proceed as far as possible. The financial arrangement you suggest seems to me to be quite adequate. However, if any problems arise I can write to you concerning them.

As I mentioned in my last letter, ==== asked me to keep quiet about the use of the new seismic analyzer until he has cleared it with the other interest parties. As I understand it this project is supported by a number of major oil companies and he has to have some clearance to avoid violation of agreement. As soon as I hear from him again I will let you know and I will keep you as closely informed as possible on this matter.

While you are abroad it would be quite helpful if you could do the following in relation to this project: (a) Get name of individuals or laboratories engaged in interesting work related to our broad objective, (b) Have us placed on as many participant mailing lists as you may be able to do and secure any useful reports or references as you may find, (c) Find out who is regarded as a "leading authority" in each country that you visit.

Finally, it would be helpful if you could send me an advance of four or five hundred dollars made out to === of me as principal investigator, for the purpose of purchasing essentials and organizing the bibliographic ???. Car practice in such matters is to deposit the funds in car business office and to keep a detailed accounting of all expenditures.

I hope you enjoy the trip to Europe and find it as profitable as I expect you will. Our best wished to ===. I hope to have my other proposal in from by the time you return. However, we have been slightly delayed by routine matters incident to starting the new school year.

With best wishes and appreciation.

Cordially

October 2, 1959

Dear

Thank you for your letter of 29 September and the enclosed check which we have deposited with the =======. We have all ready started the work on the project and I hope that we may have some tangible progress to report within a few months.

With best wishes for your trip.

Cordially,

22 December 1959

Dear ===

I have intended for some time to send you a progress report on the study of bioelectronic ????. There have been many pressures in relation to writing it, but the work has proceeded very well. For your information the pressures have related to the initiation of our new Ph.D. program and the completion of the two books on which I have been slaving. ======= is now in the publishers hands and will be released by ==== next summer. ====== is nearing completion and I hope to make my latest ???? to enable its release in Spring 1961.

We have divided the bioelectronic study into 4 phases, organ systems generating electric potentials, recording, analysis, and behavioral correlates, each of these is further ???, of course.

Up to this time we have had a group of 4 professionals ==========, meeting regularly to discuss our current accumulations and digests; we have employed two students to do abstracting and bibliographic searching; and we have conducted an extensive correspondence including the gathering of a stock of relevant ??? and catalogs. We have also purchased a small amount of literatures.

My total expenditures to date are under \$300. We have now reached a point where we are in a position to move more intensively on a number of issues and I have asked ==== to devote a major part of his time to the project, in consideration for which he is to receive \$1,000. This will be a very efficient arrangement and will enable us to have a highly qualified psychologist working continuously and intensively with our student assistants and consulting with me and the working group.

We are planning ====== on the problem and also a mid-year conference, all on our original budget, but the plans for the latter are not yet firm. Our target date for the final report in the end of 1960.

If you wish, I will send you the bills for our further expenses, to be ???? by your office. However, it is ??? more convenient to deposit the funds with ==== and send the bills and invoices to ???. Until I hear from you on this, I will assume that you prefer the former arrangement.

Did you find out anything of value for us in =====. I had been looking forward to some news from your or === and this is probably one of the reasons why I have not written sooner.

I would also like to explain why I have not submitted a proposal for my "situational variables" study. The principal reasons are two: First I decided that your might have more confidence in our performance if we waited until we finished the present small study; Second, I have been anxious to avoid getting overcommitted. Most of my earlier applications for research grants have been coming through and we may face the problem of staffing them adequately unless we proceed carefully. We are treating your present grant as a major area of responsibility, which fits in with a number of collateral interest here of which you know. I have gone ahead with the planning of the situational variables project and hope to get it actually under way within the next year.

Our new staff member ==== are working out splendidly and we hope to add two more of their caliber this year. In short, things are working out very well at === and we are slowly, but surely moving toward our goal ========.

Please extend our warm greetings to === and to the members of your staff.

Should you return to these parts, we would remind you of a standing invitation to visit.

With cordial greetings to you and your family from === and me,

Very Sincerely

December 24, 1959

Dear ===

Thank you for your very informative letter. It sounds to me as though you are making progress and, further, that you are enjoying it. This is always rewarding to me.

==== have had no time at all to draw up a report on our visit === but I should at least have commented on our lack of findings to you. The only work we saw in a relevant area was at the ======= where they are experimenting with ??? blood pressure sending and recording equipment. I am writing them to obtain more information about their equipment for including in your survey and will forward it when it comes. ==== are doing some work on flicker fusion but at a comparatively mundane level. However, I feel that you should open correspondence with === when your work is a little further along. We found that his laboratory has a very advanced and highly portable recording device manufactured in === (see the enclosed ??? of tape which uses a jet ink spray instead of pins, much more trouble free) but we didn't have the name of the manufacturer. That will have to be obtained from further correspondence. From the standpoint of psycho-physiology our visit was not too productive. It was generally rewarding and instructive, however, and enabled us to meet a lot of people that we have heard much about.

Enclosed is our check for another \$500.00. I should thank that the arrangement of letting the ==== hold the receipts for expenses will be perfectly satisfactory for my accounting purposes. However, I will require a statement at the end of the project.

Thanks again for your very fine progress report. It sounds to me as though you are busy and I think you are who to get your work well organized as you grow rather than to become over committed.

May the holiday season and the New Year be happy and productive for you and ===

Sincerely Yours

February 25, 1960

Dear ===

My meeting with the === people was interesting indeed. I am quite sure they are going to initiate some work in this area, and I feel they will have great competence to bring to bare, particularly in the analysis area.

Enclosed is a check in the amount of \$1,000.00 as I promised. In considering our efforts for the next few weeks and the probable level of cost, do you feel that our original calculate of \$3,500.00 is going to be adequate? Give some thought on this end after my return next month we will discuss whether we should formalize this work as a project. I am somewhat concerned with the magnitude of the task and with the need for interim guidance, although, the telephone conversation with you was very helpful.

I am enclosing a copy of the letter from === and as I mentioned to you in our conversation, I would appreciate your advice before I reply. The third enclosure "Report of the Special Committee" is for your information.

Best Regards,

Sincerely Yours

May 24, 1960

Memorandum to ====

Subject: Formalizing a proposal of =====

========

Dear

Our work toward an annotated bibliography and an interpretive survey of work being done in psycho-physiology has progressed fairly well. We can now see the major portion of the problem and run a fair estimate of its costs. It is somewhat expensive than we first contemplated. My first estimate was about \$2,500.00 but more work is being done that must be evaluated more than I realized. It now appears that the final cost will be about \$6,370.00.

I do not believe it is appropriate to handle this kind of effort on a consultant's basis as we had originally intended. Instead, I think it should be established as a research task to be funded separately with perhaps some arrangement for initiating some research which appears to be of value after the survey has been reported next December. As I mentioned in my telephone conversation, sometime in late June === will provide a listing of all of the laboratories and tasks which have come under review by his joint group of physicians, psychologists and engineers. Evaluation of the research will come later.

Attached is the budget. It is requested that the task be initiated prior to July 1.

=====

3 August 1960

MEMORANDUM FOR: THE RECORD
SUBJECT: Approval of Project by ======
ATTENDANCE: Drs. Gottlieb =========
SUMMARY: The proposal to formalize into a project work being done by ==== on a consultant basis was approved. A sum of \$6,370, including \$2,500 already allotted for consulting will be funded through the ======= mechanism. ==== is not witting of Sponsor.
General agreement was expressed that this survey would be very useful when complete. It was felt, however, that three points should be stressed with ==== with the last two being conveyed by him to ========.
(1) This is a project with an end point. Any further proposals by $=====$ stemming from this project, would be reviewed separately on their own merits.
(2) A deadline should be agreed upon for production of the survey probably March 1961.

(3) These funds include money for writing and publication and no further funds would be made available for this purpose.

Dr. Gottlieb and ==== who are meeting with ===== on 4 August, agreed to convey these points.

=====

TSD/Research Branch

DRAFT/==== 17 August 1960

MEMORANDUM FOR: THE RECORD

SUBJECT: MKULTRA, Subproject 119

- 1. The purpose of this subproject is to provide funds for a study conducted by (====) (====) to make a critical review of the literature and scientific developments related to the recording, analysis and interpretation of bioelectric signals from the human organism, and activation human behavior by remote means. When initiated this study was being done on a consultant basis by (====). The reason for converting this into a Subproject is to provide more flexibility in the disbursal of funds for various kinds of assistance and equipment needed.
- 2. As indicated in the attached proposal this study is to provide an annotated bibliography and an interpretive survey of work being done in psychophysiological research and instrumentation. The survey encompasses five main areas:
 - a. Bioelectric sensors: sources of significant electrical potential and methods of pick-up.
 - b. Recording: amplification, electronic tape and other multi-channel recording.
 - c. Analysis: autocorrelators, spectrum analyzers, etc. and coordination with automatic data processing equipment.
 - d. Standardization of data for correlation with biochemical, physiological and behavioral indices.
 - e. Techniques of activation of the human organism by remote electronic means.

3. In lieu of higher overhead rates, title to any permanent equipment purchased by fund granted the ==== shall remain with the ====.
4. The cost of the project will be \$6,370, including \$2,500 already allotted === as a consulting fee, for one year beginning 1 July 1960. This project will be handled as a grant-in-aid from the ====== and the handling of funds disbursed will follow the standard practice set up for that organization. Charges should be made against Allotment 1525-1009-1902.
5. ==== and others ======= who may become associated with the project will be complete unwitting of Sponsor.
====
TSD/Research Branch
APPROVED FOR OBLIGATION
OF FUNDS:
=====
Research Director
Date: 9/9/60

Attached:

Proposal & Budget

========

Distribution: Original Only

2 November 1965

MEMORANDUM FOR: ======= SUBJET: MKULTRA Sub-project 119

- 1. The present balance in the MKULTRA Sub-project 119 Memorandum Account (760.0) appears to be in error. Lack of documentation has prevented this office from making a complete analyses of this account. The ???? balance of the ??? MKULTRA accounts have established on the Finance records based on an analysis performed by your office. The work papers and other pertinent documentation is now on file in your office.
- 2. From the 760.0 account subsidiary ledger and records here in TSD we are unable to determine exactly where a duplication of effort has been made. The records of the program manager indicate that the Sub-project 119 research program has been completed and that the final accounting has been rendered. It is requested that this account be revised and that action be taken, if appropriate, to close this account.

====

Chief, TSD/R&D