

*Bergmann, Mrs. Sonja*

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

MEMORANDUM

TO: Miss Trinterud  
From: Dr. Goldstine  
Date: December 1, 1952

This is to notify you that Mrs. Sonja Bergmann began working as a coder for our project on Monday, November 24, 1952 under contract N-7-onr-388, T. O. I. She will be working 25 hour per week at a salary of \$3600 per year.

HEGoldstine

cpb

CC: Dr. Oppenheimer  
Mr. Levy (ONR)

Berggren, R.

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

February 26, 1953

Mr. R. Berggren  
Swedish Meteorological and Hydrological Institute  
Fridhemsgatan 9  
Stockholm, Sweden

Dear Mr. Berggren:

I have received your letter of February 18 in which you state that our salary offer of \$475 per month is inadequate to cover your living and travel expenses. In reply I should like first to make several comments:

- 1) You have evidently misunderstood the phraseology of Professor von Neumann's letter to Dr. Angström to imply that we would pay your travel expenses. This is impossible, I repeat, under our contract with the Office of Naval Research.
- 2) We have inquired carefully into the general salary level which exists in comparable positions in this country, and it would be difficult to depart from this too widely. As an example, the starting salary of an instructor at Princeton University, with a Doctor of Philosophy Degree, is \$3500 per year.
- 3) It may be worthwhile to emphasize that people have come from other countries quite at their own expense in order to have the opportunity to work with the members of our group on the exciting new subject of numerical forecasting. One might take this into account as well as the salary aspects of the position.
- 4) Although I cannot say for certain I have received the impression from the Institute for Advanced Study business office that you have over-estimated the amount of U. S. Income Tax you would have to pay.

In consideration of the above remarks, you will appreciate the difficulties we have in meeting your demands. However, as we certainly do not wish to cause you a material hardship we have given thought to the possibility of arriving at a mutually more satisfactory arrangement. There seems to be one such possibility. We had originally planned to have an American synoptic meteorologist with us in the fall, but this plan has not materialized. If, therefore, you would agree to stay until Christmas, you would be fulfilling two needs, and under these circumstances we feel that we would be justified in paying you an additional \$75 per month, or \$550 altogether. I hope that this plan will meet with your approval. If not, and you find that you cannot stay beyond September 1, we shall have to return to our original offer. Perhaps in that case you will be able to have your travel expenses paid by SMHI or through some other agency.

Yours sincerely,

Jule Charney

CC: Prof. von Neumann, Dr. Oppenheimer, Miss Trinterud, Mr. Levy (OHR)

CO PY

Berggren, K.

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

February 13, 1953

Mr. R. Berggren  
Swedish Meteorological and Hydrological Institute  
Fridhemsgatan 9  
Stockholm, Sweden

Dear Mr. Berggren:

Professor von Neumann, with the approval of Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to offer you a position with the Meteorology Project for the period March 1, 1953 to September 1, 1953 at a salary of \$475 per month.

There is a possibility that we shall later be able to extend the period to January 1, 1954, the date mentioned in Professor von Neumann's letter to Dr. Angström, but we are not able to make a definite commitment now.

We cannot pay for overseas travel, but we can send you an advance in salary to cover your expenses. If you should desire such an advance would you please write or cable to Miss Trinterud at the Institute for Advanced Study stating where you would like the money sent.

We realize that the time March 1st gives you little time for travel preparations. The reason for this early date is that our work urgently requires the services of a synoptic meteorologist, and we have none at present. I assume, however, that Dr. Angström has already informed you of the date.

Mr. Hovmöller has undoubtedly told you the nature of the work we would expect you to do. Very briefly, it would consist of synoptic analysis and a type of synoptic research that involves the use of auxiliary field quantities, such as potential vorticity.

I sincerely hope you will accept our offer and that we can expect to have you with us in March.

Yours very truly,

Jule Charney

CC: Professor von Neumann  
Dr. Oppenheimer  
Miss Trinterud  
Mr. Levy (ONR)  
Mrs. Barnett

COPY

ECP Billing

Dr. Heinz Billing

Göttingen, den 9.1.56

Hugo-Junkers-Str. 7

U. S. A.

Luftpost

To.  
Prof. Dr. H. H. Goldstine  
The Institute for Advanced Study  
Electronic Computer Project  
Princeton, New Jersey  
=====

Dear Prof. Goldstine,

Just coming back from my Christmas-holidays I have found your kind letter and say you my best thanks. I accept your offer with great pleasure and have booked immediately for my wife and for me a place on a ship, that arrives New York at the 5th of March. We hope to get the visa already during this month.

I will write to Mrs. Ruth Barnett to-day and hope, that she can help us to arrange for some living accommodations for my wife and me, while we are at Princeton.

Very truly yours,

/s/ H. Billing

*Blackburn, Jacob*

HEADQUARTERS  
AIR WEATHER SERVICE  
ANDREWS AIR FORCE BASE  
WASHINGTON 25, D. C.

IN REPLY REFER TO:

23 SEP 1952

Dr. Robert Oppenheimer  
The Institute for Advanced Study  
Princeton, New Jersey

Dear Dr. Oppenheimer:

Your letter of September 15, 1952 to the Commanding General, Air Weather Service has been referred to this office.

We appreciate the opportunity that enables the Air Weather Service to actively enter the field of numerical predictions in such a promising manner. In acceptance of your invitation we have selected Major Jacob Blackburn to join the Meteorological Project Group. Unfortunately, Major Blackburn will not be able to report to Princeton prior to January 2, 1953. The period of his tour of duty, which is being scheduled for six months, is subject to change at the discretion of the Project Group.

Major Blackburn has been notified of his selection and will contact your office in regard to housing.

Very truly yours,

*Robert M. Little*

*for*

SVERRE PETERSSEN

Director of Scientific Services

September 15, 1952

Chief, Air Weather Service  
Washington 25, D.C.

Dear Sir:

At a meeting held at the Institute for Advanced Study by the representants of several Government agencies, as well as of the Meteorology Project of the Institute for Advanced Study, on August 5, 1952, the Air Weather Service was represented by Professor S. Petterssen. The agencies in question, as well as the members of the Institute for Advanced Study present, felt the desirability that a trained meteorologist from the Air Weather Service should join the Institute for Advanced Study group in theoretical meteorology, in order to work with that group and to acquire familiarity with the methods of numerical forecasting which are being developed here.

I am therefore taking this opportunity to invite you to send such a representative here, and to assure you that he will be a most welcome member of our organization. It would seem best if his arrival were planned for approximately December 1. Since housing in Princeton is difficult, the Institute, while glad to give what help it can to the visitor in this connection, will not be able to guarantee success. It would therefore be desirable if your representative would get in touch with us as early as convenient to make the arrangements for his stay in Princeton.

Sincerely yours,

Robert Oppenheimer

REPORT TO THE COMMITTEE ON INTERNATIONAL EXCHANGE OF PERSONS

BOLIN, Bert Richard J.

Dr. Jule Charney

Mr. Bolin worked on the numerical prediction of a 2-dimensional compressible, rotational fluid motion. His work was of value to the Meteorology Project and to himself.

Mr. Bolin is now applying the experience gained in his work at the Institute for Advanced Study to set in operation a research group at the Stockholm University Institute of Meteorology which will devote themselves to the study of weather prediction by numerical methods.

4-8-54

Buchanan Carol P.

3/23/49

Recommended  
by Mrs. Belknap  
Study  
attractive  
seems and. Tions  
Business Office?  
Perhaps better  
academic

**INSTITUTE FOR ADVANCED STUDY**  
**OFFICE OF THE DIRECTOR**  
Princeton, New Jersey

**MEMBERSHIP RECORD**

Name in Full Carol Ann Page Date March 23, 1949

Princeton Address 46 Markham Road Telephone No. 3441

Temporary Address \_\_\_\_\_

(Dates) From \_\_\_\_\_ To \_\_\_\_\_

Permanent Address 46 Markham Road, Princeton, N.J.

School \_\_\_\_\_ Office No. \_\_\_\_\_ Ext. \_\_\_\_\_

Status \_\_\_\_\_

Field of Study \_\_\_\_\_

Date of Arrival \_\_\_\_\_ Date of Departure \_\_\_\_\_

Academic Year	Income	Source	Type
<u>1943-1947</u>		<u>Princeton High School</u>	<u>academic course</u>
<u>1947-1949</u>		<u>Vermont Jr. College</u>	<u>business-secretarial course</u>
		<u>Montpelier, Vermont</u>	<u>psychology, sociology</u>
			<u>English composition</u>
			<u>English literature</u>

Remarks: very interested in psychology - typing speed 60 wpm - shorthand 100 wpm -  
interested in English during school years.

TIAA PREMIUM: Institute \_\_\_\_\_ Self \_\_\_\_\_ Policy No. \_\_\_\_\_

Person to be notified in case of accident (please give name of friend or of relative in the United States):  
\_\_\_\_\_  
\_\_\_\_\_



Place of Birth Brooklyn, New York Date of Birth Jan. 4, 1930

Citizenship yes Nationality United States

Married  Single  Name of Spouse \_\_\_\_\_

Names and Ages of Children Accompanying You \_\_\_\_\_

**War Service Record:** Military  Civilian  Length of Service \_\_\_\_\_

Branch or civilian occupation \_\_\_\_\_

Rank or position held \_\_\_\_\_

**Veterans Administration Data:** Application for subsistence filed \_\_\_\_\_

Length of course \_\_\_\_\_ Allowance \_\_\_\_\_ C No. \_\_\_\_\_

Subsistence Discontinued \_\_\_\_\_ Re-entrance filed \_\_\_\_\_

Subsistence Discontinued \_\_\_\_\_ Refiled \_\_\_\_\_ Discontinued \_\_\_\_\_

Remarks: \_\_\_\_\_

References: (professors under whom member has studied re confidential information on member's character and scientific abilities).

<u>Mrs. G.A. Delsasso</u>	<u>Ruth W. Kingsley, Dean of Women</u>
<u>Marcus Road</u>	<u>Vermont Jr. College</u>
<u>Princeton, N.J.</u>	<u>Montpelier, Vermont</u>

Academic Degrees (degree, name of college or university and year conferred):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Honors and Societies

Positions held, or holding, including any graduate scholarships or fellowships:

summer work June-Sept. 1947 and 1948

Princeton Drama Festival -

box office work, clerical, typing, assisting business manager  
in many general capacities

Publications: title, reference in full, where published, volume number, year, and page number:

Alien Registration Number \_\_\_\_\_ Date Issued \_\_\_\_\_

Alien Registration filed at \_\_\_\_\_

Passport Number \_\_\_\_\_ Place Issued \_\_\_\_\_

Date Issued \_\_\_\_\_ Date Expires \_\_\_\_\_

Passport Re-issued at \_\_\_\_\_

Date Re-issued \_\_\_\_\_ Date Expires \_\_\_\_\_

Visa Number \_\_\_\_\_ Type of Visa \_\_\_\_\_

Place of Issue \_\_\_\_\_

Date Issued \_\_\_\_\_ Date Expires \_\_\_\_\_

Visa Re-issued at \_\_\_\_\_

Date Re-issued \_\_\_\_\_ Date Expires \_\_\_\_\_

Port of Entry to the United States \_\_\_\_\_

Date of Entry \_\_\_\_\_ Name of ship or plane \_\_\_\_\_

Name of ship or air line \_\_\_\_\_

Entry Permit Issued \_\_\_\_\_ Expires \_\_\_\_\_

Entry Permit Re-issued \_\_\_\_\_ Expires \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Remarks \_\_\_\_\_

Arrival reported to immigration authorities at Philadelphia \_\_\_\_\_

Departure Reported \_\_\_\_\_ Tax Clearance \_\_\_\_\_

Port of Embarkation \_\_\_\_\_ Date \_\_\_\_\_

Name of ship or plane \_\_\_\_\_ Line \_\_\_\_\_

August 22, 1949

Dear Mr. Kirkman:

The enclosed personnel security questionnaire is for Miss Carol Ann Page, who replaces Miss Akrevoe Kondopria as secretary to Herman Goldstine in our Electronic Computer Project. Dr. Goldstine would like Miss Page to have a Q clearance. Miss Page is already in our employ; and we should appreciate as prompt a clearance as your office can obtain.

Yours sincerely,

Katherine Russell,  
Secretary to the Director

Mr. Robert W. Kirkman  
U. S. Atomic Energy Commission  
P. O. Box 30, Ansonia Station  
New York 23, N. Y.

Personnel

PAGE

August 16, 1949

Miss Carol Page  
Washington Road  
R. D. 3  
Princeton, N. J.

Dear Miss Page,

With the approval of Mrs. Leary I am writing to offer you the position of secretary in the Computer Project at a salary of \$2100 per year, starting on Tuesday, August 16, 1949.

I understand that you accept this offer and will begin work on that date.

Sincerely yours,

Herman H. Goldstine

csp

*copy to Mrs. Leary &  
Mrs. Interland*

June 23, 1949

Mr. Richard Highley  
527 Riverside Drive  
New York, New York

Dear Mr. Highley:

Miss Carol Page has given you as a reference. I understand she worked for the Princeton Drama Festival during the summer.

I would appreciate it if you could give me some estimate of her ability to work.

Sincerely yours,

(Mrs. John D. Leary)  
Aide to the Director

209 Glover-Hadley Hall  
Vermont Jr. College  
Montpelier, Vermont  
May 16, 1949

Mrs. Leary, Personnel  
Institute for Advance Study  
Princeton, New Jersey

Dear Mrs. Leary:

In regard to an omission in my application, I am  
sending you the addresses of my former employers.

The business manager of the Princeton Drama Festival:

Mr. Richard Highley  
527 Riverside Drive  
New York, New York

One of the producers of the Princeton Drama Festival:

Mr. Herbert Kenwith  
3 Weehawken Street  
New York 14, New York

If you should wish to see me again, I will be home  
any time after June 8.

Sincerely yours,



Carol Page

# Memorandum

*JMS*

To Mrs Russell Date 8-23-48

From Mrs M.B. Stephens Re Dr Arthur Burke, Computer

The Burks are leaving Saturday, August 28th. They have been residing at 3F Goodman Road.



Burks, Arthur

# Memorandum

To Mrs Russell ..... Date 6.14.48 .....

From Mrs. M. B. Stephens ..... Re Dr. Arthur Burks, Computer .....

Dr Burks and his family arrived yesterday from the University of Michigan and will be spending the summer at 3F Goodman Road. Dr Burks will be with the Computer project.

UNIVERSITY OF MICHIGAN  
ANN ARBOR

DEPARTMENT OF PHILOSOPHY

May 27, 1947

Mrs. John D. Leary  
Institute for  
Advanced Study  
Princeton, N. J.

Dear Mrs. Leary:

Thank you for your letter of May 4, telling us  
that we can have the apartment at 3F Goodman Road  
this summer. I know we'll enjoy it very much.

We will arrive in Princeton Monday morning, June 14.  
We plan to bring our baby crib with us.

Very truly yours,

Arthur W. Buck

Mrs. S. Swart

3F Goodman

3F Goodman  
June 15

May 4, 1948

Air Mail

Dear Dr. Burks:

May I first apologize for the delay in replying to your request for an apartment at the Institute this summer. The applications have been referred to me but it is only within the last week that we have been able to make definite commitments for the coming months.

With some shifting about we find that we can reserve a two bedroom furnished apartment for you from June 14th to August 31st. The one I have in mind for you is 3A Goodman Road, which is an end unit and, as you know, is near Dr. Goldstine's apartment and also convenient to the Computer Project. We hope that this arrangement will prove as pleasant as it did for you last summer.

The housing area is much more crowded than it was a year ago, and we do not have an extra supply of bedding and linen. I think you should plan on bringing as much of your own household goods as possible. We shall, of course, try to help out with anything extra we may have available. Unfortunately, that does not include a baby's crib! But I know you are familiar with the type furniture we do have.

Please let me know if there are any other details you need. If you will confirm the date of your arrival a little later on we can make final arrangements.

I know that the Goldstines are looking forward to your coming, and it will be a pleasure to have your family with us for the summer.

Yours sincerely,

(Mrs. John D. Leary)  
Aide to Dr. Oppenheimer

Dr. Arthur W. Burks  
Department of Philosophy  
University of Michigan  
Ann Arbor, Michigan

Enclosure - Rent schedule

Copy: Mrs. Stephens

UNIVERSITY OF MICHIGAN  
ANN ARBOR

DEPARTMENT OF PHILOSOPHY

April 13, 1948

Mr. William Bradley  
The Institute for  
Advanced Study  
Princeton, New Jersey

My dear Mr. Bradley:

On February 23 I wrote you at the suggestion of Herman Goldstine concerning a summer apartment for my family and myself. I can give you more definite information concerning our plans now.

My wife, our baby, and I will arrive in Princeton Monday morning, June 14. My mother, who came with us last year, may also come again. We will leave by August 31.

As I said before we will need a furnished place. Last year we lived in 7A Goodman Road and were very much pleased with it. Of course, the exact apartment doesn't matter, but we would like something similar; that is, we greatly prefer a two-story unit, and of these prefer the end units.

I should appreciate hearing from you soon to know what arrangements have been made for us. Thank you very much for your attention in this matter.

Very truly yours,

*Arthur W. Burks*

Arthur W. Burks

*E.t.  
Can we fit this into  
our summer schedule.*

*W.*

UNIVERSITY OF MICHIGAN  
ANN ARBOR

DEPARTMENT OF PHILOSOPHY

February 23, 1948

Mr. William Bradley  
Institute For Advanced Study  
Princeton, New Jersey

My dear Mr. Bradley:

This summer I shall be working with Herman Goldstine on the Electronic Computer Project and will need housing  
XXXXXX  
accomodations for my family and myself. Herman told me to write to you about the matter.

Last year we lived in 7A Goodman Road and were very much pleased with it. Of course, the exact apartment doesn't matter, but we would like something similar; that is, we greatly prefer a two-story unit, and of these prefer the end units.

We will need a furnished place again. My family will consist of myself, my wife, and our baby (seven months in June). My mother, who came with us last year, may also come again. We will arrive about June 15 and will leave about September 1.

Thank you very much for your handling of this request. Please let me know if there is any more information you need.

Very truly yours,

*Arthur W. Burks*

Arthur W. Burks

*If possible  
Goldstine*

*Burks -  
any going away?*

*Pls. circulate*  
*Mrs Barnett*  
*Dr. Goldstone*  
*Pls. return to D.O.*

203 Howard Avenue  
New Haven, Conn.  
March 20, 1955

Dr. J. Robert Oppenheimer  
Institute for Advanced Study  
Princeton, New Jersey

Dear Dr. Oppenheimer:

Thank you very much for your letter of March 18, in which you offer me a position as a mathematician at a salary of \$5,500 per annum. I am happy to accept this offer and hope that Monday, March 28, will be a convenient starting date. I am most grateful for your assistance and for this opportunity.

I should be glad if I could discuss housing with Mrs. Barnett when I am in Princeton, perhaps this coming Friday.

Yours sincerely,

*Chris Calsoyas*

C.D. Calsoyas

THE INSTITUTE FOR ADVANCED STUDY

ELECTRONIC COMPUTER PROJECT

PRINCETON, NEW JERSEY

March 18, 1955

Mr. Chris D. Calsoyas  
203 Howard Avenue  
New Haven, Connecticut

Dear Mr. Calsoyas:

Dr. Goldstine has told me of your interview with him and of your interest in coming to the computer project to work.

I am pleased to be able to offer you a position with the project as a mathematician at a starting salary of \$5,500 per annum. If you are interested in this offer, when would you be able to start work here?

Mrs. Ruth Barnett, our housing administrator, will be most happy to help you arrange living accommodations should you decide to join us.

Very truly yours,

Robert Oppenheimer, Director  
Institute for Advanced Study

HGG/cpb

Made appt. Tuesday 2 pm

He is in Princeton for day only.

If this does not suit you, we can call him

Tues am c/o Prof. Hartley at Palmer.

Otherwise, he will take 1:30 bus from  
town, and expect to wait a few minutes.

Ro saw Calsonas 3/15/55



RO does not think he knows him; but will  
see him after return from Virgins at a  
time that fits in.

Mulltown

8-1260

Prof. Haulter Palmer  
Tues. a.m.

ECP

Calsoyas

February 5, 1955

Dear Mr. Calsoyas:

Thank you for your letter of the 2nd. Dr. Oppenheimer will probably not be back in Princeton until the 21st or 22nd of February; and the following weekend he will be engaged, although this is not at the moment definitely settled. May we let you know on his return, and when his plans are clear? I understand that you can come down on a Saturday, but not during the week; and we will let you know a date that is possible for Dr. Oppenheimer as soon as we can.

Sincerely yours,

Katherine Russell

Mr. C. D. Calsoyas  
Department of Physics  
Yale University  
New Haven 11, Conn.

SLOANE PHYSICS LABORATORY  
YALE UNIVERSITY  
NEW HAVEN 11, CONNECTICUT

February 2, 1955

Miss Katherine Russell  
Office of the Director  
Institute for Advanced Study  
Princeton, New Jersey

Dear Miss Russell:

Thank you for your letter of January 31.  
Since Dr. Oppenheimer will be in Princeton for only  
a few days I do not wish to take any of his time and  
will be glad to see him later in the month. I am  
unable to journey down to Princeton in the middle of  
the week and hope it will be possible to see  
Dr. Oppenheimer on a Saturday or Monday. Would  
Saturday the 19th be a convenient date, or the  
following Saturday?

Yours sincerely,

*C. D. Calsoyas*

C. D. Calsoyas

Visit?

January 31, 1955

do not know

Dear Mr. Calsoyas:

Thank you for your letter of January 28th which has come in Dr. Oppenheimer's absence from Princeton. Dr. Oppenheimer will not return until Thursday night, and he leaves again on the night of the 7th to be away until about the 18th of February. He has a very busy schedule for the few days he will be here, and I wondered if a date later in the month would be convenient for you. I know Dr. Oppenheimer will be glad to see you; but I thought you might want more time than might be possible this Friday. Will you be coming to Princeton in any case? Would you let me know how you feel about timing of your visit?

Sincerely yours,

Katherine Russell

Mr. C. D. Calsoyas  
Department of Physics  
Yale University  
New Haven 11, Conn.

J. B. CONDLIFFE  
223 CALIFORNIA HALL  
UNIVERSITY OF CALIFORNIA  
BERKELEY 4, CALIFORNIA

20 Jan'y 1955

Dear Offenheimer,

I give this note to Chris  
Calsoyas who was once a student of  
mine & took his Ph.D in Economics. He  
had a quite unusual undergraduate career  
& passed his Ph.D with flying colors after  
holding most of the Prize Fellowships we had  
to offer. After teaching at Yale and holding  
positions in E.C.A., he succumbed to  
his passion for mathematics and I  
introduced him to Chadwick at Cairns  
Cambridge which is my college. He is  
just on the verge of completing his Cambridge  
Ph.D. in quantum mechanics under Prof.  
D.R. Hartree. At the moment he is a  
Research Associate at Yale, but he really  
seeks an academic position. In my judgment  
he has an unusually fertile mind and I  
wonder if you would care to look him

over

J. H. CONDIRITE  
125 CALIFORNIA BLDG.  
UNIVERSITY OF MICHIGAN

With best personal wishes

yours sincerely

Handloff

*[Faint, illegible handwritten text, likely bleed-through from the reverse side of the page.]*

SLOANE PHYSICS LABORATORY  
YALE UNIVERSITY  
NEW HAVEN 11, CONNECTICUT

January 28, 1955

Dr. J. Robert Oppenheimer  
Institute of Advanced Study  
Princeton, New Jersey

Dear Dr. Oppenheimer:

When I was in Berkeley last week, Professor J.B. Condliffe was kind enough to give me a letter of introduction to you, which I enclose. I would be glad if I could talk to you at Princeton, on February 5 if it were convenient to you.

Yours sincerely,

*C. D. Calsoyas.*

C.D. Calsoyas

Charney, Elinor

THE INSTITUTE FOR ADVANCED STUDY  
Founded by Mr. Louis Bamberger and Mrs. Felix Fuld  
PRINCETON, NEW JERSEY

19 April 1949

CHARNEY

TO: Miss L. Trinterud  
FROM: J. von Neumann

Please re-instate Mrs. Elinor Charney as a  
computer on Contract N6ori-129, Task Order 1, at a  
salary of \$125.00 per month. Mrs. Charney has  
already been doing work for us for some time, and  
reinstatement should be effective as of April 1, 1949.

John von Neumann

CC: Dr. Goldstein  
Mrs. Leary



E.C.P. Calsoyas, Mrs. Chris

December 9, 1948

Dear Mrs. Calsoyas:

Thank you for your long and thoughtful letter of December 8th.

There are funds available for a limited number of fellowships jointly in the social and physical sciences, and I believe that your husband should probably be considered eligible. The chairman of the committee which awards these fellowships under the joint sponsorship of the Social Science Research Council and the National Research Council is Dean Hugh S. Taylor of the Graduate School at Princeton University. I believe that it would be a constructive step for your husband to apply for such a fellowship.

With every good wish,

Yours sincerely,

Robert Oppenheimer

Mrs. Chris D. Calsoyas  
8510 Greenwood Avenue  
Takoma Park, Maryland

December 8, 1948

Dr. Robert Oppenheimer  
Institute for Advanced Study  
Princeton University  
Princeton, New Jersey

ans  
12/9/48

Dear Dr. Oppenheimer:

You are a person of first eminence in scientific activity today. A recent article in *Fortune* magazine which emphasized the inadequate numbers of Ph.D. scientists now entering the field from universities quoted you in such manner as to make it apparent not only that you are aware of a responsibility for aiding and pointing the direction to promising scientific aspirants, but also a man of such breadth and scope as would understand and be interested in the case I outline.

My husband is at present one of the younger Economists with the Economic Cooperation Administration in Washington. He is spending his nights and weekends completing a dissertation on Russian Industrial Location for a Ph.D. degree in Economics from the University of California. He has published two articles in leading economic journals, is contributing two chapters to a new book edited by Seymour Harris of Harvard, and is completing arrangements to publish his dissertation. While at the University of California he established a brilliant scholastic record and so distinguished himself that he was made Secretary to Dr. Robert Gordon Sproul in the latter's capacity as Chief Adviser to the United States delegation to the International Reparations Commission. Upon his return from these conferences in Europe, my husband became an instructor in economics at Yale University and taught there from September, 1946 to June, 1948, working all the while on his Ph.D. dissertation. He is now about to complete this task and, at 26, is reputed to be one of the most able and promising young economists in university and government circles.

His present dilemma arises out of a study in mathematics which he began in conjunction with work in economics. In order to develop his competence in logical analysis and to acquire the mathematical tools necessary in economics, he undertook, on his own, to work through R. Courant's two volume Differential and Integral Calculus and G. H. Hardy's A Course in Pure Mathematics. This seemed to open up a new world to him and he found himself becoming more and more absorbed in studies in the more exact sciences. He has now become so enamored of the system, exactitude, and rigorous intellectual exercise of the physical sciences that he can no longer conceive of remaining permanently in economics. It has become increasingly difficult for him to devote time and energy to his job and his dissertation when all his interests are elsewhere, and he is now spending every moment he can spare from the aforementioned tasks at a study of Joos' Theoretical Physics, Glasstone's Elements of Physical Chemistry, and Page's Introduction to Theoretical Physics.

It is his plan, as soon as he finishes the dissertation, to devote all his leisure to these and further studies in physics, chemistry, and mathematics. He plans to take a teaching position in economics in a university next year and with the additional free time pursue a full-scale study until he has prepared himself to take comprehensive examinations for admission as an advanced graduate student in one of the physical sciences.

It is my feeling that he is going about things the hard way, that he could advance twice as rapidly if he were receiving instruction on a full-time organized basis, and that he is attaching too much importance to the need to cling to a salaried job to support a wife and infant. Surely there are fellowships and scholarships carrying adequate stipends for such cases.

My husband has not spoken, for obvious reasons, to any associates in economics about his plans. Nor has he felt it possible to consult a person of competence and influence in the physical sciences until he has laid a better groundwork.

I have the temerity to write to you because I confidently believe that my husband could be a first rate scientific mind and that he should have and deserves expert guidance and help now. Could he talk with you in Princeton sometime soon, and, in the meantime, what general course of action would you advise? Do you know of fellowships or scholarships covering such cases for which he could apply?

If we may hear from you it will be very deeply appreciated.

Sincerely yours,

*Beverly M. Calsoyas*

Beverly M. Calsoyas  
(Mrs. Chris D.)

8510 Greenwood Avenue  
Takoma Park, Maryland

THE INSTITUTE FOR ADVANCED STUDY  
PRINCETON, NEW JERSEY

*New file Charney*  
*Schles of Inst Computer*  
*Ta. Fac. Study Comm*

OFFICE OF THE DIRECTOR

14 December 1955

Dear Mr. Maass:

It seems to me that I had best report directly to you the status of Dr. Jule Charney. This will importantly affect, though in ways that are not now completely clear to me, some of the future programs of the Institute.

Dr. Charney is 38 years old. He is a leader in applying new methods of numerical calculation to meteorological problems. He and von Neumann developed methods for the prediction of large storms; he has developed a theory of the Gulf Stream; and he and Phillips have made the promising beginnings of a theory of the general circulation of the atmosphere and dynamic climatology.

Dr. Charney first came to the Institute on von Neumann's invitation in 1948. He has been here ever since as a member—and since von Neumann's departure as Acting Director—of our project in meteorology. This project is supported almost wholly by a Navy contract (Nour 1358(02)); the annual sum is approximately \$75,000. The work of this group uses approximately one third of the effort of the electronic computer. Fast computation is an essential part of the methods developed by Charney. A few years ago von Neumann suggested that we consider giving Charney a permanent, and perhaps a professorial appointment in the School of Mathematics. He pointed to the fact that Charney's work was not only successful, but increasingly well known, and that unless Charney were taken into the Institute family and given assurances of future support, he would probably choose to go elsewhere. Strong opposition to this proposal developed on the part of several of the pure mathematicians, on the ground that they did not think that Charney's field warranted Institute support. At that time, all we could agree on was that embarking on the permanent support of meteorology and associated subjects called for additional endowment, since it was a new departure academically. I so reported to the Trustees. The matter was raised again last year, and I attempted to resolve the differences between those in the School of Mathematics—especially the physicists—who approved the professorial appointment for Charney, and those who were opposed to this course. We were not able to reach agreement, and in the absence of new endowment, or of a clear decision of policy on the part of Faculty and Trustees, the matter was let lapse.

- 2 -

This autumn Charney told me that he had been kept informed of his situation by von Neumann, and that he could not indefinitely postpone making suitable and stable arrangements for his future. The contract on which he is now operating, and the appointment as a member of the Institute, will both lapse with the end of 1956. Last Friday Dr. Charney told me that he expected shortly to have suitable invitations from three universities at which work in theoretical meteorology is being supported: New York University, the Massachusetts Institute of Technology, and the University of California at Los Angeles. He told me further that his colleague Dr. Phillips would go with him to the place of his choice; that he would like to make his decision shortly--not later than January of 1956; and he would feel obligated to tell his associates in the project of his decision in order that they might make their plans for the future. He explained to me that if he had an offer from the Institute, he would still be very much tempted to stay here because of the many advantages, but that he felt he could no longer postpone his decision on the basis of uncertain suggestions about our possible future course. I told him that I would explore the possibility of resolving the matter quickly and affirmatively, and that unless I saw prospects that this could be done I would understand that he would accept one of the forthcoming invitations.

I have now talked separately with all members of the Faculty of the School of Mathematics, including von Neumann, with whom I talked on the telephone. The Faculty of the School is about evenly divided between those who would wish to see us offer Charney a professorship, and attempt subsequently to solve the problem of the permanent support of his project, independent of year to year government subsidies; and those who were firmly opposed to taking this step at this time. It seemed to me clear that positions were so firmly held that nothing resembling unanimity could emerge from collective discussion, and I have therefore concluded that the School will not recommend to the Faculty, and cannot recommend to the Trustees, that we offer Charney a professorial appointment.

Opinions clearly may differ as to the wisdom or folly of this course. Charney and Phillips are the leaders, and the only quasi-permanent scholars of distinction in the meteorology project. They also provide an important, if not the most important field of application of the electronic computer project. Thus, what is happening will have a profound bearing on the Institute's project researches, on our views of the future relations between the computer and the Institute, and to some extent on the decisions which we will be free to take about the scope of our work in the mathematical sciences. It is for this reason that I have written to you at such very great length. I should of course, as always, be glad to discuss this matter with you if you should wish to.

Faithfully yours,

Robert Oppenheimer

Mr. Herbert H. Maass  
100 Park Avenue  
New York, New York

Cooley

cc. Mr. Morgan  
Dr. Charney

18 January 1956

Dear Mr. Cooley:

I am glad to tell you that your salary will be increased to \$5,750 per year as of January 1, 1956, in recognition of your greater responsibilities and of the excellence of your work.

Sincerely yours,

Robert Oppenheimer

Mr. James Cooley  
Electronic Computer Project  
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT

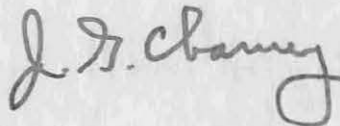
ECP Personnel  
Cooley  
OK by RD  
9/21/54

MEMORANDUM

TO: Mrs. Hobson  
FROM: Dr. Charney  
DATE: September 20, 1954

I am sending you a letter I have written to Mr. James Cooley authorizing an increase in his salary from \$4500 to \$5250 per annum. The increase is recommended because of his seniority and to meet competition for his services.

Would you please let me know whether Dr. Oppenheimer approves. Thank you.



J. G. Charney

JGC/cpb  
Enclosure

Cooley, James W.

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

MEMORANDUM

TO: Miss trinterud  
FROM: Dr. Goldstine  
DATE: January 23, 1953

This is to notify you that Mr. James W. Cooley began working as a coder for our project on Monday, January 19, 1953. He will be working a 32 hour week at a salary of \$3600. The funds for payment of Mr. Cooley's salary should come half from Contract N-7-onr-388, T. O. I, and half from Contract N-6-ori-139, T. O. I.

H.H. Goldstine

HHG/epb



THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

January 15, 1954

Mr. Hewitt Crane  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Hugh:

I am quite happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary to \$7100 per year effective January 1, 1954.

Very truly yours,

Herman H. Goldstine

HHG/cpb

CC: Dr. Oppenheimer  
Mr. Morgan

*Crane, Hewitt*

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

March 17, 1953

Mr. Hewitt Crane  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Hugh:

I am quite happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary by \$350.00 per year effective April 1, 1953.

Very truly yours,

John von Neumann

HHG/cpb

CC: Dr. Oppenheimer  
Miss Trinterud

May 16, 1952

Mr. Hewitt Crane  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Mr. Crane:

I am pleased to inform you that Dr. Oppenheimer  
has authorized me to increase your salary to \$6,500 per  
year effective May 1, 1952.

Very truly yours,

John von Neumann

HHG/cpb

CC: Dr. Oppenheimer ✓  
Miss Trinterud

Crane, Hewitt

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

October 8, 1951

Mr. Hewitt Crane  
Radiomarine Corporation of America  
75 Varich Street  
New York, New York

Dear Mr. Crane:

I am pleased to offer you the position of Design Engineer on our Electronic Computer Project at the salary of \$5,700 per year. I understand that this offer is acceptable to you and that you can start in three to five weeks. I am happy to welcome you to our group and hope you will enjoy your association with us.

Would you be so good as to write me at your convenience so that we may have a complete file.

Very truly yours,

John von Neumann

HHG/cpb

CC: Dr. Oppenheimer  
Miss Trinterud

ECF personnel  
Eberlein

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

December 20, 1956

Dear Dr. Oppenheimer

Mrs. Patricia Eberlein has worked with us since Oct. 1, at an annual salary of \$5000. She holds a Ph.D.; her thesis was on Applied Mathematics; however, she had no experience with automatic computing when she came here. She has acquired this experience in the last three months, faster than expected; I thus recommend to adjust her salary to \$6000., in accordance with our present salary levels.

Hans J. Maehly

Hans J. Maehly

HJM:hg

Dr. Robert Oppenheimer  
Institute for Advanced Study

letter to Mrs. E signed by Ro  
sent 1/2/57

THE INSTITUTE FOR ADVANCED STUDY  
PRINCETON, NEW JERSEY

*Eberlein*  
cc Dr. Maehly  
Mr. Morgan

OFFICE OF THE DIRECTOR

25 September 1956

Dear Mrs. Eberlein:

It is with pleasure that I write formally to offer you an appointment as mathematician in the Electronic Computer Project of the Institute for Advanced Study, effective on October 1, 1956. We can make available to you a salary of \$5,000 a year.

Very sincerely,

Robert Oppenheimer

Mrs. Pat Eberlein  
Electronic Computer Project  
Institute for Advanced Study

cc Dr. Maehly  
Mr. Morgan

25 September 1956

Dear Mrs. Eberlein:

It is with pleasure that I write formally to offer you an appointment as mathematician in the Electronic Computer Project of the Institute for Advanced Study, effective on October 1, 1956. We can make available to you a salary of \$5,000 a year.

Very sincerely,

Robert Oppenheimer

Mrs. Pat Eberlein  
Electronic Computer Project  
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

September 25, 1956

Dear Dr. Oppenheimer:

I am writing to ask your approval to have Mrs. Pat Eberlein work here for ECP starting on October 1. She got her Ph.D. in Applied Mathematics last year from Michigan State University and is now living in Princeton, since her husband is with New York University as a mathematician.

Because the present staff is kept busy preparing the computer as a service center for the University, an additional mathematician is very much needed, in particular to help with the problems of Dr. Tobocman and Dr. Fulton. Mrs. Eberlein is familiar with these kinds of mathematical problems. She has, however, no experience with computers. I suggest, therefore, a starting salary of \$5000 which would be adjusted to \$6000 as soon as she has learned programming and coding, i.e., probably by January 1, 1957.

Yours very truly,

*Hans J. Maehly*

Hans J. Maehly

HJMesg

Dr. Robert Oppenheimer  
Institute for Advanced Study



*Edmonds, Mrs. Laura*

COPY

THE INSTITUTE FOR ADVANCED STUDY

ELECTRONIC COMPUTER PROJECT

PRINCETON, NEW JERSEY

November 17, 1952

Mrs. Laura E. Edmonds  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, N. J.

Dear Mrs. Edmonds:

This is to confirm your temporary appointment as a map-plotter to the Meteorology Project at the Institute for Advanced Study for the period November 17-December 17, 1952 with a salary of \$350 for the month.

Since you will be living away from home we agree to pay you in addition a per diem of \$8.00, plus return travel from Washington, D. C.

Sincerely yours,

Jule Charney

cpb

CC: Dr. Oppenheimer  
Prof. von Neumann  
Miss Trinterud  
Mr. Levy (ONR)

Eliassen Arnt

THE INSTITUTE FOR ADVANCED STUDY  
PRINCETON, NEW JERSEY

December 11, 1952

Dear Dr. Eliassen:

Dr. Charney has told me that he has spoken to you concerning the possibility of your visiting us for a period beginning early in 1954 of one or two academic terms. I would like to officially confirm his invitation and to express my hope that we will have the opportunity to collaborate with you once again.

I have proposed to the School of Mathematics of the Institute for Advanced Study that you be granted the privileges of membership during your visit, and have received its approval. I am enclosing a bulletin of information describing the background of the Institute and the facilities available to members.

At the same time we are able to offer you a position as a member of the Meteorology Group at a salary of \$8,000 per nine-month academic year for the two terms.

I hope you will find this invitation satisfactory and that we can expect to hear from you before long.

Sincerely yours,

John von Neumann

Enclosure

Dr. Arnt Eliassen  
Astrophysical Institute  
University of Oslo  
Blindern, NORWAY

cc: Dr. Oppenheimer ✓  
Miss Trinterud  
Mr. Levy (ONR)  
Miss Underwood  
Dr. Charney

CROSS REFERENCE

FILE: ECP - Personnel - Eliassen, Arnt

RE: von Neumann's letter of approval

SEE: ECP - Personnel - Fjortoft, Ragnar

*Eliassen, Arnt*

# Memorandum

To Mrs Russell

Date 8-23-48

From Mrs M.B. Stephens

Re Dr Arnt Eliassen-Computer

Dr Eliassen is arriving ~~sixth~~today and will be staying at  
6D Cook Road until Friday, August 27, when his family will  
join him and they will move to 3E Goodman Road.

# Memorandum

To MRS. RUSSELL Date 4/9/48

From MRS. DELSASSO Re DR. ARNT ELIASSEN

*✓ ✓ ✓  
Faxed*

If Dr. Oppenheimer approves the text of the letter to Dr. Eliassen, would you please mail the letter? Enclosed you will find copies of Dr. Eliassen's letter and Prof. von Neumann's reply, for your files.

*member?*

THE INSTITUTE FOR ADVANCED STUDY  
*Founded by Mr. Louis Bamberger and Mrs. Felix Fuld*  
PRINCETON, NEW JERSEY

April 9, 1948

Dear Dr. Eliassen,

I have just received your letter of April 3rd, in which you inform me that you would like to have a statement from me on the exact nature of the invitation which we extended to you to join our meteorological group for the next academic year, and on your duties during your stay here.

These duties will consist of participation in the research work of the group at the Institute in theoretical meteorology, and in giving some lectures to the members of the group and others who may be interested in your results on relevant parts of this subject. Your compensation will be \$5,000 for the academic year 1948-49.

I need not tell you that my colleagues and I are looking forward with the greatest expectations to having you here, and to have your participation in our work. I hope that this letter will be of help to you in connection with your application for a visa at the U. S. Consulate in Oslo.

Yours sincerely,

JOHN VON NEUMANN

JVN:LD

Dr. Arnt Eliassen  
Det Norske Meteorologiske Institutt  
Blindern, Oslo  
Norway

CC: Dr. Robert Oppenheimer

COPY

DET NORSKE  
METEOROLOGISKE INSTITUTT

Blindern, 3rd April 1948

AE/MD

Dear Dr. Von Neumann,

Thank you very much for your letter of March 22nd.  
I am glad to hear that you approve of the plan of my  
visiting Chicago and Washington. The date of my departure  
from Oslo has not been definitely decided, but I'll let you  
know as soon as it has been fixed, and I shall be very glad  
to get into touch with you as soon as I arrive in the  
United States.

I have had some difficulty in securing the necessary viza  
from the U. S. Embassy here, and I have been adviced that  
the difficulties would disappear if you would kindly send  
me a letter stating that my work at Princeton would in  
part consist of teaching. This seems necessary since there  
are special provisions for the issuance of viza for  
professors or men of similar occupation.

Yours sincerely,

ARNT ELIASSEN

Dr. John Von Neumann  
The Institute for Advanced Study  
School of Mathematics  
Princeton  
New Jersey  
U. S. A.

THE INSTITUTE FOR ADVANCED STUDY  
*Founded by Mr. Louis Bamberger and Mrs. Felix Fuld*  
PRINCETON, NEW JERSEY

March 8, 1948

Dear Professor Eliassen,

The Director of the Institute for Advanced Study, Dr. J. R. Oppenheimer, has authorized me to offer you a position with the Meteorology Project of the Institute for the academic year 1948-49 at a salary of \$5000 per year.

I understand from Dr. Jule Charney's letter of February 29th that this offer is acceptable to you, and that we may expect to have you with us next year. I would like to add for myself that I am exceedingly glad that you will be here, and that I am looking forward to our collaboration with the greatest expectations.

I would also like to suggest that you communicate without delay with Mr. William Bradley, Superintendent of Buildings and Grounds, Institute for Advanced Study, regarding your housing requirements for next year, since housing conditions in Princeton are straightened and it is advisable to take early steps in this matter. You may also find it advantageous to discuss with him questions concerning your family if they are planning to accompany you.

I would appreciate your letting me know as soon as convenient when you would expect to arrive in this country and what other arrangements you would wish to make in connection with your visit. I mention for your information that our academic year begins on September 20, but you should determine the date of your arrival according to your own convenience and your obligations in Norway.

Yours sincerely,

JVN:LD

Prof. Arnt Eliassen  
Det Norske  
Meteorologiske Institutt  
Blindern (Oslo) Norway

JOHN VON NEUMANN

CC: Dr. Oppenheimer ✓  
Mr. Bradley  
Miss Trinterud

P.S. I would appreciate it if you could, for our official records, confirm the acceptance of this offer.



*Housing*

Copy for Mrs. J. Leary  
Inst. for Ad. Study.

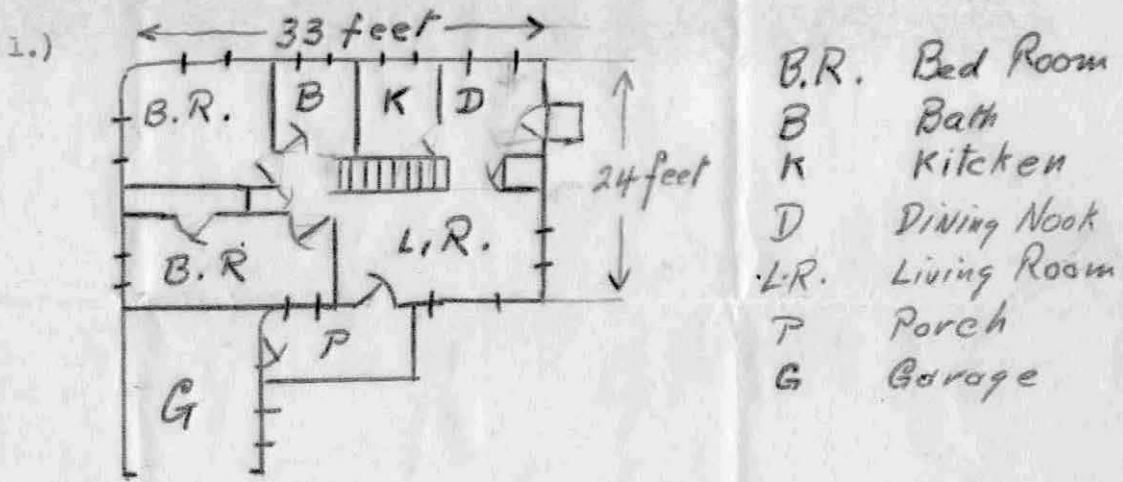
Fine Hall,  
Princeton University,  
Princeton, N.J.  
September 23rd, 1948.

Dr. Arnt Eliassen,  
Meteorology Dept.,  
University of Chicago,  
Chicago, Ill.

Dear Dr. Eliassen:

Mrs. Leary of the Institute of Advanced Study here in Princeton has informed me that you are interested in renting a house for the approaching academic year. She has been very helpful to me in locating an apartment in Boston and in exchange I am willing to rent you my house in Princeton if you should be interested.

The particulars are as follows:



Cinder block construction, one year old.

2.) Full-size basement.

3.) Furnished, including washing machine, laundry tubs, refrigerator, tables, chairs, overstuffed chesterfield suite, bed, etc., but excluding curtains, carpets, dishes, mops and brooms and such (but including lawn-mower, hose, wheelbarrow and such).

4.) Hot air gas furnace and gas stove and gas water heater.

5.) All utilities installed, as city gas, light, water, sewer and telephone.

6.) Located at 16 Dorann Avenue, about 3 miles from the Institute for Advanced Study, so you would probably need a car, or at least a bicycle. The neighborhood is exceptionally pleasant, especially for children, as there is little traffic and many playmates and lots of space.

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

18 May 1949

Dear Mrs. Leary,

I have just talked to Eliassen  
who tells me he plans to leave the Compound  
on August 1, 1949.

  
Herman H. Goldstine

HHG:AK

- 2 -

7.) Yard, 70 feet x 150 feet, mostly lawn, garden and vegetable patch.

8.) Available August 15th for any period of time, not exceeding one year, at \$140.00 permonth.

9.) The monthly bills for electricity and gas for both cooking and heating have ranged from about \$10.00 a month in summer to almost \$40.00 (never higher) a month in winter.

These figures, reflecting the current prosperity from which we are all suffering, have prompted Mrs. Leary to suggest you might prefer to share this house with another party. I am sure that you would not have any difficulty in finding someone who would be glad to do this. The dimensions shown on the plan (24 x 33 feet) are inside dimensions which might help.

10.) The tenant must agree to:

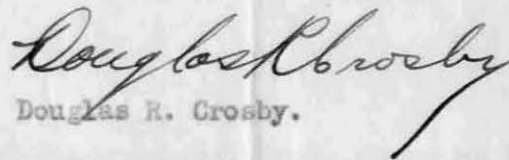
a.) Keep the grass cut and otherwise try to maintain the grounds (all necessary tools are available).

b.) Wax the floors and keep the house clean.

c.) Repair any damage to the property which may have resulted from his negligence or abuse.

We would very much like to have your decision as soon as possible. No move to sell or rent to anyone else will be taken without Mrs. Leary's approval until we hear from you.

Very sincerely yours,

  
Douglas R. Crosby.

- 2 -

7.) Yard, 70 feet x 150 feet, mostly lawn, garden and vegetable patch.

8.) Available August 15th for any period of time, not exceeding one year, at \$140.00 permonth.

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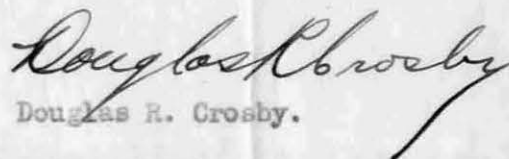
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Very sincerely yours,

  
Douglas R. Crosby.

# Memorandum

To Mrs Leary Date 8-23-48

From Mrs M.B. Stephens Re Dr Arnt Eliassen-Computer

Dr Eliassen is arriving ~~sixth~~ today and will be staying at  
6D Cook Road until Friday, August 27, when his family will  
join him and they will move to 3E Goodman Road.

# Memorandum

To Dr. Goldstine

Date 8/5/48

From Mrs. Leary

Re Dr. Arnt Eliassen

*over*

Dr. Eliassen has taken a house at 16 Dorann Ave. - belonging to D. R. Crosby - for three months. I understand he is coming around middle of August or a little later. The house is expensive and Dr. Eliassen has written he is just taking it until he is more familiar with the living expenses in Princeton. It is a small house (2 bedrooms) but it might be possible that someone from Computer could live with the Eliassens to share the rent. I thought you might have some ideas along this line when Eliassen comes.

THE UNIVERSITY OF CHICAGO  
CHICAGO 37 • ILLINOIS  
DEPARTMENT OF METEOROLOGY

August 3, 1948

Mrs. John D. Leary  
Aide to the Director  
The Institute for Advanced Study  
Office of the Director  
Princeton, N.J.

Dear Mrs. Leary,

Thank you very much for your letter of July 28,  
and for your assistance regarding my housing question.

I wish to inform you that I have written to  
Mr. Crosby and asked him to let me rent his house for  
three months, with a possibility of an extension of the  
rental after I have become more familiar with the living  
expences in Princeton. I have not yet received any  
answer from Mr. Crosby.

Yours sincerely,

*Arnt Eliassen*

Arnt Eliassen



July 28, 1948

Dr. Arnt Eliassen  
Meteorology Dept.  
University of Chicago  
Chicago, Ill.

Dear Dr. Eliassen:

By now you must have Mr. Crosby's letter about his house. It seems rather expensive to me, but we wanted you to have at least the opportunity of considering it.

My only suggestion would be that perhaps the house would be large enough to accommodate another person who might help with the rent.

There is one distinct disadvantage to the house, and that is its location, which is three or four miles from the Institute. It is, however, easily accessible by automobile, and I understood that you were thinking of buying one.

Up to date I have not been able to find anything else for you, but of course there is always the bare chance that something more reasonable will turn up.

Yours sincerely,

(Mrs. John D. Leary)  
Aide to the Director

*Copy: Mrs. Stephens*



DET NORSKE  
METEOROLOGISKE INSTITUTT

TELEGRAMADRESSE: METEOROLOGEN, OSLO

3E Goodman  
MI, Skjema 193. IV, 1946. 5000.  
(Temporarily - to be  
given up if needed)  
BLINDERN, March 18, 1948.

MET. INST. AKT NR.

JOURNAL NR.

Ved svar bes oppgitt så vel dette brevets  
journalnummer som de påførte initialer.

Mrs Margaret B. Stephens  
Housing Administration,  
Institute for Advanced Study,  
Princeton, New Jersey.

Dear Mrs Stephens,

I have thankfully received your letter of March 12th, and I am very glad to hear that you kindly will help me regarding my housing requirements. Enclosed you will find the form which I have filled out.

I mention for your information that I have already written a letter concerning the same matter to Mr William Bradley, at the suggestion of Professor Von Neumann. I wrote to Mr Bradley that I wanted an apartment from September 1st. Since then we have changed our plans a little, so that I think now it would be best for us to hire an apartment from August 15th. I suppose that there will be no difficulty for me to get a single room for some days if I should arrive at Princeton before that date.

Yours sincerely

*Arnt Eliassen*

Arnt Eliassen



DET NORSKE  
METEOROLOGISKE INSTITUTT

TELEGRAMADRESSE: METEOROLOGEN. OSLO

3E Goodman

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Bradley, at the suggestion of Professor Von Neumann.  
I wrote to Mr Bradley that I wanted an apartment from  
September 1st. Since then we have changed our plans a little,  
so that I think now it would be best for us to hire an  
apartment from August 15th. I suppose that there will be  
no difficulty for me to get a single room for some days  
if I should arrive at Princeton before that date.

Yours sincerely

*Arnt Eliassen*

Arnt Eliassen

INSTITUTE FOR ADVANCED STUDY  
APPLICATION FOR ACCOMMODATIONS FOR MEMBERS

DATE March 17, 1948

NAME Arnt Eliassen

PRESENT MAIL ADDRESS Meteorologiske Institutt, Oslo, Norway

\*\*\*\*\* APARTMENT DESIRED \*\*\*\*\*  
(Married couples and families)

Check  
Preference

Three Rooms (Kitchen, Living Room, 1 Bedroom & Shower) Yes

Four " " " " 2 " " " No

Five " " " " 3 " " "or Bath No

Do you wish an apartment furnished Yes or unfurnished No

Number of adults in your family who will be resident Two

Number of minors (state ages) One boy, two years old

For what period of time do you wish the apartment August 15th - end of academic year 1948-49.

Approximate date of your arrival August 15th.

\*\*\*\*\* ROOM DESIRED \*\*\*\*\*  
(Single Members)

If you are not eligible for an apartment would you like a room reserved \_\_\_\_\_

State preference: Institute Dormitory \_\_\_\_\_ Princeton \_\_\_\_\_

For what period of time do you wish a room \_\_\_\_\_

Approximate date of your arrival \_\_\_\_\_

ADD ADDITIONAL INFORMATION IN BRIEF:

Applications should be returned to:

Mrs Margaret B. Stephens  
~~Mrs Margaret B. Stephens~~  
(Housing Administration)  
Institute for Advanced Study  
Princeton, New Jersey



DET NORSKE  
METEOROLOGISKE INSTITUTT

TELEGRAMADRESSE: METEOROLOGEN. OSLO

BLINDERN, 16th March 1948.

MET. INST. AKT NR.

JOURNAL NR.

Ved svar bes oppgitt så vel dette brevets  
journalnummer som de påførte initialer.

AE/MD

Mr. William Bradley,  
Superintendent of Buildings and Grounds,  
Institute of Advanced Study,  
Princeton.

Dr. J. von Neumann, who has offered me a position at the  
Institute for Advanced Study for the academic year 1948-49,  
which I intend to accept, suggests in his letter that you  
probably may be able to help me regarding my housing  
requirements.

I have planned to take my family (wife and two years old son)  
with me. My family will arrive at Princeton about  
September 1st. Intending to have our own housekeeping, we  
need two furnished rooms and a kitchen from that date. I  
mention for your information that my salary will be  
\$ 5000.- a year; you will then have an idea of what kind  
of apartment I will be able to hire.

According to my plans, I will arrive at Princeton before my  
family, roughly about August 15th. I suppose there will be  
no difficulty for me to hire a room at an hotel for the  
first fourteen days.

I am sorry to trouble you, but I would very much appreciate  
if you kindly could try to make these arrangements for me.

Yours sincerely

*Arnt Eliassen*

Arnt Eliassen

THE INSTITUTE FOR ADVANCED STUDY

*Founded by Mr. Louis Bamberger and Mrs. Felix Fuld*

PRINCETON, NEW JERSEY

March 12, 1948

Dear Professor Eliassen,

I have learned from Professor Von Neumann that you are planning on coming to the Institute for the academic year 1948-49. I would like to offer my help in arranging accommodations for you. Since there is still a considerable housing shortage here, early information as to needs and preferences is desirable. For this reason, I am enclosing a form which I would appreciate your filling out and returning to me as soon as possible. I can then start to work on making arrangements for you well in advance of your arrival.

Since I understand that you may wish to bring your family with you, I wish to inform you that we have a number of apartments on the grounds of the Institute which are furnished and of varying size and price. We try to allocate these according to the size of the family. We also have dormitory rooms for the residents who are coming alone and these are furnished and have maid service. We also have a number of furnished rooms in town which is about one and one-half miles from the Institute. There is bus service on a regular basis.

I can give you more detailed information later on, after I learn your preferences, so I will hope to receive a reply to this letter at an early date.

Cordially yours,

Housing Administration

Prof. Arnt Eliassen  
Det Norske  
Meteorologiske Institutt  
Blindern (Oslo) Norway

THE INSTITUTE FOR ADVANCED STUDY

Founded by Mr. Louis Bamberger and Mrs. Felix Fuld

PRINCETON, NEW JERSEY

March 8, 1948

Dear Professor Eliassen,

The Director of the Institute for Advanced Study, Dr. J. R. Oppenheimer, has authorized me to offer you a position with the Meteorology Project of the Institute for the academic year 1948-49 at a salary of \$5000 per year.

I understand from Dr. Jule Charney's letter of February 29th that this offer is acceptable to you, and that we may expect to have you with us next year. I would like to add for myself that I am exceedingly glad that you will be here, and that I am looking forward to our collaboration with the greatest expectations.

I would also like to suggest that you communicate without delay with Mr. William Bradley, Superintendent of Buildings and Grounds, Institute for Advanced Study, regarding your housing requirements for next year, since housing conditions in Princeton are straightened and it is advisable to take early steps in this matter. You may also find it advantageous to discuss with him questions concerning your family if they are planning to accompany you.

I would appreciate your letting me know as soon as convenient when you would expect to arrive in this country and what other arrangements you would wish to make in connection with your visit. I mention for your information that our academic year begins on September 20, but you should determine the date of your arrival according to your own convenience and your obligations in Norway.

Yours sincerely,

JVN:LD

JOHN VON NEUMANN

Prof. Arnt Eliassen  
Det Norske  
Meteorologiske Institutt  
Blindern (Oslo) Norway

CC: Dr. Oppenheimer  
Mr. Bradley ✓  
Miss Trinterud

P.S. I would appreciate it if you could, for our official records, confirm the acceptance of this offer.

Eliassen, Ellen

4 February 1949

Mrs. Ellen Eliassen  
3<sup>rd</sup> Goodman Road  
Princeton, New Jersey

Dear Mrs. Eliassen:

I am pleased to offer you a part-time position as a computer on the Meteorology Project. The salary for this position will be \$125 per month. I understand that you are agreeable to starting work on Monday, February 7, 1949.

Very truly yours,

John von Neumann

CC: Mrs. Leary ✓  
Miss Trinterud



Elsasser, W.M.

THE INSTITUTE FOR ADVANCED STUDY  
SCHOOL OF MATHEMATICS  
PRINCETON, NEW JERSEY

March 13, 1950

Dear Mrs. Russell,

Would you please mention this letter to Dr. Oppenheimer also when you talk to him today. I have discussed this type of arrangement with Dr. Elsasser in a general way with Dr. Oppenheimer before, and he favored it too. The funds are available and will come from our Mathematical contract with ONR.

Sincerely yours,



JOHN VON NEUMANN

JVN:LD

THE INSTITUTE FOR ADVANCED STUDY  
*Founded by Mr. Louis Bamberger and Mrs. Felix Fuld*  
PRINCETON, NEW JERSEY

March 13, 1950

Dear Dr. Elsasser,

This letter is a confirmation of our conversation of last week, offering you a position on the staff of our Mathematical Project this year. The position would begin on April 1st, and run half-time at a monthly stipend of \$535.00 until the end of the academic year at Pennsylvania, which I understand is essentially May 30th. It would then continue beginning June 1st for three months, full-time, at a stipend of \$666.00 per month.

In the sense of our discussions, your work will consist of expanding your research in the electromagnetic turbulence of the earth's core, and furthering its adaptation for high-speed computations. This will, of course, have to consist at first of the investigations of simpler models. I realize that it may not be possible to complete this program during the five months to which I referred above, but I am convinced that your interest in this field is a guaranty of significant progress.

I have reported this arrangement to Dr. Oppenheimer, who approves of it.

I understand from our telephone conversation today that our cooperation on such terms also meets with Dr. Harnwell's approval.

I am, with best personal regards,

Sincerely yours,

JOHN VON NEUMANN

JVN:ID

Dr. W. M. Elsasser  
University of Pennsylvania  
Department of Physics  
Philadelphia, Pennsylvania

CC: Dr. J. R. Oppenheimer ✓  
Miss L. Trinterud

THE INSTITUTE FOR ADVANCED STUDY  
Founded by Mr. Louis Bamberger and Mrs. Felix Fuld  
PRINCETON, NEW JERSEY

SEP  
Elsasser

May 6, 1949

Dear Dr. Elsasser,

I am glad that you called my attention to the difference between my offer to you of April 19 of this year and the one extended to you on June 8 of last year. In both cases we desired to employ you for the three months of the summer on our meteorology project in order to further your work in geophysics. It was my intention to offer you the same terms for this year as we did last year, and it was only inadvertently that a difference between the two offers occurred. I would, therefore, like to correct my offer and to suggest that you join our group for the three summer months, June 15 to September 15, at a salary of \$2,000 for the three months, payable in monthly installments.

Please let me know whether the offer in its present form is acceptable to you, and if this is so, as I hope it will be, please get in touch with Miss Luella Trinterud, of the Business Office of the Institute, who will arrange for the details of your employment.

Sincerely yours,

JOHN VON NEUMANN

JVN:LD

Dr. Walter M. Elsasser  
Department of Physics  
University of Pennsylvania  
Philadelphia 4, Pennsylvania

CC:

Dr. R. Oppenheimer ✓  
Miss Blake  
Mrs. Leary  
Miss Trinterud

THE INSTITUTE FOR ADVANCED STUDY  
Founded by Mr. Louis Bamberger and Mrs. Felix Fuld  
PRINCETON, NEW JERSEY

7  
Contract

19 April 1949

Dr. Walter Elsasser  
Department of Physics  
University of Pennsylvania  
Philadelphia 4, Pennsylvania

Dear Dr. Elsasser:

The Meteorology Contract for 1949-50 has now been formally awarded to the Institute. In connection with this I would like to tell you that it will be a great pleasure to renew with you the arrangements that we made last summer, for the same purpose: To further your work on the theory of terrestrial magnetism and connected phenomena. We could again award you a stipend of \$500 per month for any period up to four months. I would appreciate it if you could let me know whether this offer is acceptable to you.

I am,

Sincerely yours,

John von Neumann

ak

CC: Dr. R. Oppenheimer

THE INSTITUTE FOR ADVANCED STUDY  
Founded by Mr. Louis Bamberger and Mrs. Felix Fuld  
PRINCETON, NEW JERSEY

7  
C. Neumann

19 April 1949

Dr. Walter Elsasser  
Department of Physics  
University of Pennsylvania  
Philadelphia 4, Pennsylvania

Dear Dr. Elsasser:

The Meteorology Contract for 1949-50 has now been formally awarded to the Institute. In connection with this I would like to tell you that it will be a great pleasure to renew with you the arrangements that we made last summer, for the same purpose: To further your work on the theory of terrestrial magnetism and connected phenomena. We could again award you a stipend of \$500 per month for any period up to four months. I would appreciate it if you could let me know whether this offer is acceptable to you.

I am,

Sincerely yours,

John von Neumann

ak

CC: Dr. R. Oppenheimer

THE INSTITUTE FOR ADVANCED STUDY  
Founded by Mr. Louis Bamberger and Mrs. Felix Fuld  
PRINCETON, NEW JERSEY

EEP

June 8, 1948

Dear Dr. Elsasser,

I am glad to inform you that we are in a position to employ you on the Meteorology Project (N6-6ri-139, Task I) of the Institute for Advanced Study, during the summer months, June 15th to September 15, 1948. We have discussed the scientific program of your work for us orally, and I am appending a copy of a letter from Dr. John N. Adkins, of the Office of Naval Research, in which I am outlining the character and program of your employment in accordance with our understanding.

Your salary will be \$2,000 for three months, payable in monthly installments.

Will you please get in touch with Miss Luella Trinterud, of the Accounting Department of the Institute, to arrange for the details of your employment.

Sincerely yours,

JOHN VON NEUMANN

JVN:LD

Dr. Walter M. Elsasser  
121 Westwood Park Drive  
Havertown, Pennsylvania

CC: Miss Luella Trinterud  
Mrs. Eleanor Leary ✓

*Summer Visitor*  
*ECP* ~~1948~~

# Memorandum

To *Mrs. Russell*  
~~MRS. LEARY~~ Date June 2, 1948

From MRS. DELSASSO Re Prof. Walter M. Elsasser

For your information, Professor Walter M. Elsasser's home address is 121 Westwood Park Drive, Havertown, Pa. His telephone at that address is Hilltop 8792-M. As soon as we receive word from ONR regarding his appointment I shall let you know.

*- Room 108A  
Institute  
Ext. 43*

CC: Mrs. Lahey

*I have this on my list.  
Don't return.  
EML*

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

January 15, 1954

Mr. Norman M. Emslie  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Norman:

I am quite happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary to \$6250 per year effective January 1, 1954.

Very truly yours,

Herman H. Goldstine

HHG/cpb

CC: Dr. Oppenheimer  
Mr. Morgan



Emslie, Norman M.

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

May 22, 1953

Mr. Norman M. Emslie  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Mr. Emslie:

I understand that effective July 1, 1953 you will officially take over Mr. Melville's duties as purchasing agent and as head of the shop. In recognition of your increased responsibilities I am happy to tell you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary by \$500.00 per year effective July 1, 1953.

I trust that you will enjoy your new duties there.

Sincerely yours,

John von Neumann

BHG/cpb

CC: Dr. Oppenheimer  
Miss Trinterud

*Emslie, Norman*

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

March 17, 1953

Mr. Norman M. Emslie  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Mr. Emslie:

I am quite happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary by \$250.00 per year effective April 1, 1953.

Very truly yours,

John von Neumann

HHC/cbp

CC: Dr. Oppenheimer  
Miss Trinterud

*Emslie, Norman*

May 16, 1952

Mr. Norman H. Emslie  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Mr. Emslie:

I am pleased to inform you that Dr. Oppenheimer  
has authorized me to increase your salary to \$5,250 per  
year effective May 1, 1952.

Very truly yours,

John von Neumann

RHG/cyb

CC: Dr. Oppenheimer ✓  
Miss Trinterud

Emslie, Norman

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

August 20, 1951

Mr. Norman M. Emslie  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Norman:

I am pleased to inform you that Dr. Oppenheimer  
has authorized me to increase your salary by \$250.00 effective  
September 1, 1951.

Very truly yours,

John von Neumann

HEG/cp

CC: Dr. Oppenheimer  
Miss Trinterud

SCP

January 11, 1951

Mr. Norman M. Emslie  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Mr. Emslie:

I am pleased to inform you that Dr. Oppenheimer  
has authorized us to increase your salary from \$4,500 to  
\$4,750 effective February 1, 1951.

Very truly yours,

John von Neumann

HHG/cp

CC: Miss Trinterud  
Dr. Oppenheimer

UNIVERSITY OF CALIFORNIA

DEPARTMENT OF MATHEMATICS  
NUMERICAL ANALYSIS RESEARCH  
LOS ANGELES 24, CALIFORNIA

October 18, 1956

Dr. J. Robert Oppenheimer, Director  
Institute for Advanced Study  
Princeton, New Jersey

Dear Dr. Oppenheimer:

I am sorry that I was unable to say my farewell personally when I left Princeton.

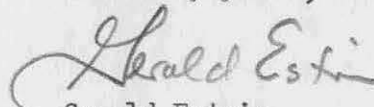
I have joined the faculty of the College of Engineering and am dividing my time between engineering and the mathematics department's numerical analysis group. There is an extremely congenial atmosphere here and I hope to do some productive work as soon as my family is settled.

Apartment hunting was a chore - many real estate owners like children - but. However that phase is over for the coming year and we are in a new apartment dwelling on the border between Mar Vista and Culver City.

Permit me to thank you again for your advice last year and for the several pleasant years we spent at the Institute.

Please convey our best regards to Kitty.

Sincerely yours,

  
Gerald Estrin

GE/ef

*Estrin ECP personnel*

Dr. Estrin stopped in on Wednesday to say goodbye. Was very sorry to have missed RO, as he wanted to tell him personally of the great pleasure and privilege that he has considered his years at the Computer.

Dr. Estrin will be at the College of Engineering,  
U. S. L. A.

February 17, 1956

Dr. Gerald Estrin  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Jerry:

I am quite happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary to \$10,000 per year effective March 1, 1956.

Very truly yours,

Herman H. Goldstine

HHG:ag

cc: Dr. Oppenheimer ✓

Mr. Morgan



*Estrin, Gerald*

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

March 17, 1953

Dr. Gerald Estrin  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Jerry:

I am quite happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary by \$350.00 per year effective April 1, 1953.

Very truly yours,

John von Neumann

HHG/cpb

CC: Dr. Oppenheimer  
Miss Trinterud

May 16, 1952

Dr. Gerald Estrin  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Dr. Estrin:

I am pleased to inform you that Dr. Oppenheimer  
has authorized me to increase your salary to \$6,750 per  
year effective May 1, 1952.

Very truly yours,

John von Neumann

HMG/apb

CC: Dr. Oppenheimer ✓  
Miss Trinterud

Estrin, Gerald

THE INSTITUTE FOR ADVANCED STUDY

ELECTRONIC COMPUTER PROJECT

PRINCETON, NEW JERSEY

7

October 26, 1951

Dr. Gerald Estrin  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Gerry:

I am writing to tell you how much I appreciate the excellent work you have been doing and to tell you that I full well realize how hard you have been pushing.

I am happy to tell you that Dr. Oppenheimer is aware of your contribution to the project and has authorized us to increase your salary by \$500 per year effective November 1, 1951.

May I also at this time extend my congratulations to Mrs. Estrin on her recent appointment. I trust she will find the work stimulating and rewarding.

With kindest regards,

John von Neumann

HHC/cpb

CC: Dr. Oppenheimer  
Miss Trinterud

THE INSTITUTE FOR ADVANCED STUDY

ELECTRONIC COMPUTER PROJECT

PRINCETON, NEW JERSEY

August 20, 1951

Dr. Gerald Estrin  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Gerald:

I am pleased to inform you that Dr. Oppenheimer  
has authorized me to increase your salary by \$500.00 effective  
September 1, 1951.

Very truly yours,

John von Neumann

HEG/op

CC: Dr. Oppenheimer  
Miss Trinterud

ELECTRONIC COMPUTER PROJECT  
INSTITUTE FOR ADVANCED STUDY  
PRINCETON, NEW JERSEY

January 4, 1951

Dr. Gerald Estrin  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Dr. Estrin:

I am pleased to inform you that Dr. Oppenheimer has authorized me to increase your salary from \$5,000 to \$5,250 effective February 1, 1951.

Very truly yours,

John von Neumann

HHC/cp

CC: Miss Trinterud

SCR

June 8, 1950

Mr. Gerald Estrin  
College of Electrical Engineering  
University of Wisconsin  
Madison 6, Wisconsin

Dear Mr. Estrin:

I am writing to make formal the offer made to you for a position on the engineering staff of our Computer Project at a salary of \$5,000 per year. I understand you will be able to start work on September 1, 1950, by which time you will have obtained your doctorate in electrical engineering.

Unfortunately I was out of town while you were in Princeton so that we were unable to meet. However, I look forward to seeing you in the fall, and wish you the best of luck on your exam.

I would appreciate receiving from you a formal acceptance for the records of the Institute comptroller.

Very truly yours,

JOHN VON NEUMANN

HHC/cp

CC: Dr. Oppenheimer  
Miss Trinterud

NAME OF OCCUPANT: ESTRIN GERALD  
LAST NAME FIRST NAME MIDDLE NAME  
9-A Goodman Road  
ADDRESS

THE INSTITUTE FOR ADVANCED STUDY

*The undersigned hereby registers for the use and occupancy of the unit identified above, subject to payment of the following charges:*

1. Monthly Rent \$ 67.50 Util. \$ 10.00 Garage
2. Rent for portion of First Month from 10/1/51 to 10/31/51 Total \$ \_\_\_\_\_
3. Period of Lease  
Extended to:

*The undersigned authorizes deduction of the rent charges from salary or grant as due.*

10/5/51  
DATE

Ruth A Estrin  
SIGNATURE OF OCCUPANT  
Gerald Estrin

NAME OF

OCCUPANT

ESTRIN

GERALD

LAST NAME

FIRST NAME

MIDDLE NAME

9A GOODMAN ROAD

ADDRESS

THE INSTITUTE FOR ADVANCED STUDY

The undersigned hereby registers for the use and occupancy of the unit identified above, subject to payment of the following charges:

- 1. Monthly Rent \$67.50 Util. \$10.00 Garage
- 2. Rent for portion of First Month from 12/15/50 to 12/31/50 Total \$\_\_\_\_\_
- 3. Period of Lease Sept. '51 (?)  
Extended to:

The undersigned authorizes deduction of the rent charges from salary or grant as due.

Dec. 13, 1958

DATE

Mrs. Gerald Estrin

SIGNATURE OF OCCUPANT



# Memorandum

To Business Office Date September 28, 1950

From Mrs. Leary Re The Estrins - 6-D Cook Road

The Estrins are leaving the week of October 1st. They will let you know the exact date. They should be charged for rent at 6-E Cook Road, \$67.50 plus \$10.00 for utilities per month from July 26th to date of departure. They are leaving for some|time, so will you please check on their other outstanding bills., oil, etc.

6 E Cook - stay?

THE UNIVERSITY OF WISCONSIN  
COLLEGE OF ENGINEERING  
MADISON 6



DEPARTMENT OF  
ELECTRICAL ENGINEERING

June 19, 1950

Mrs. John D. Leary,  
Office of the Director,  
The Institute for Advanced Study,  
Princeton, New Jersey.

Dear Mrs. Leary,

Thank you for your letter of June 15, 1950. I am very interested in the Institute housing and hope something becomes available by September 1st.

In the event that you have to seek housing in town I would not like to exceed \$85 per month for a furnished apartment, or \$75 for an unfurnished one. Naturally I say this with no knowledge of rental conditions in Princeton. If this figure is not reasonable, please let me know.

I very much appreciate your help in this matter.

Sincerely yours,

*Gerald Estrin*

Gerald Estrin

j1

Arrived 7/25/50

6 E Cook temporarily -

INSTITUTE FOR ADVANCED STUDY  
APPLICATION FOR INSTITUTE HOUSING

Date June 19, 1950

Name Mr & Mrs. Gerald Estrin

Present Mailing Address Electrical ENG. DEP't ~ Univ. of Wisconsin  
MADISON - WISCONSIN

APARTMENT DESIRED  
(Married couples and families)

ALL APARTMENTS FURNISHED

Three rooms (kitchen, living room, 1 bedroom and shower)	\$62.50	<u>✓</u>	} whichever is available first.
Four rooms (kitchen, living room, 2 bedrooms and shower)	\$67.50	<u>✓</u>	
Five rooms (kitchen, living room, 3 bedrooms and shower or bath)	\$77.50	<u>      </u>	

Number of adults in your family who will be resident 2

Number of minors (state age and sex) 0

Do you wish a telephone yes  
(Party line \$2.85 a month, plus small installation fee)

Do you wish a garage yes  
(\$5.00 a month)

Approximately for what period of time do you wish the apartment permanently  
First Term: September 18th to December 9th.  
Second Term: January 29th to April 29th.

Approximate date of your arrival Sept 1, 1950 [

NOTE:

The Institute housing project is on the Institute grounds about one mile and a half from the town of Princeton; there is hourly bus service to and from town during the day. Tenants are expected to supply their own linen, blankets, silverware, dishes and cooking utensils, also curtains, if desired. The furniture is simple, mostly maple and modern in design.

There will be a utility charge of \$7.50 a month for the 3 room apartments; \$10 a month for the larger apartments. Apartment rental includes water, garbage pick-up and care of grounds. Each apartment is supplied with an electric refrigerator, gas range and is heated either by a furnace or space heater. Occupants are expected to care for their own furnaces. It will be possible for tenants to buy coal from the Institute.

June 15, 1950

Dear Dr. Estrin:

Dr. Goldstine advises me that you are to join the staff of the Electronic Computer Project here in September. He has asked that housing accommodations be reserved for you.

As perhaps you know, we have apartments on the Institute grounds. Unfortunately, these are all reserved at the present time; it may well be, however, that there will be changes and cancellations before September. If you will fill out the enclosed housing application I shall be glad to do the best I can. In the event that we have to get you something in the town of Princeton, approximately what rent would you expect to pay. I am now looking for apartments in town and shall, of course, keep you in mind when I know what you want.

Sincerely yours,

(Mrs. John D. Leary)  
Aide to the Director

Dr. Gerald Estrin  
411 No. Murray Street  
Madison 6, Wisconsin

Enclosure

copy: Dr. Goldstine

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT

MEMORANDUM

TO: Mrs. Leary  
FROM: Dr. Goldstine  
DATE: June 8, 1950

We are planning to hire Dr. Gerald Estrin of the University of Wisconsin on the project. He will come about the first of September and would like to be considered for a place in the housing project if this is possible.

So far as I know he is married and has no children.

  
HHG

HHG/cp

THE INSTITUTE FOR ADVANCED STUDY

ELECTRONIC COMPUTER PROJECT

PRINCETON, NEW JERSEY

January 15, 1954

Mr. Frank E. Fell  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Frank:

I am quite happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary to \$4800 per year effective January 1, 1954.

Very truly yours,

Herman H. Goldstine

HHG/cpb

CC: Dr. Oppenheimer  
Mr. Morgan

Fell, Frank

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

June 19, 1952

Mr. Frank Fell  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Mr. Fell:

I am happy to learn from both Jim and Dick that your status is to be changed from technician to engineering assistant effective June 1, 1952. I am writing to make this change official and to express my appreciation for your work.

I understand that under this new arrangement you will be paid on a yearly basis at a salary of \$4,450.00 per year.

Very truly yours,

John von Neumann

HHG/cpb

CC: Dr. Oppenheimer  
Miss Trinterud

Fell, Frank

COPY

# Memorandum

To Mrs. Russell ..... Date 7-14-48 .....

From Mrs. M.B. Stephens ..... Re Wm. Robinson and Frank Fell-Computer .....

Mr. Robinson, who has been living at 3E Goodman Road, is moving out of the housing project before the end of this month. Mr. Fell is moving within the next week.



THE INSTITUTE FOR ADVANCED STUDY

ELECTRONIC COMPUTER PROJECT

PRINCETON, NEW JERSEY

MEMORANDUM

TO: Mr. Morgan

FROM: Dr. Charney

DATE: June 14, 1954

This is to notify you that Dr. Fjörtoft has agreed, at our request, to continue his work as a member of the Meteorology Project for the month of June 1954, at the same salary he received for the previous nine months, namely \$898.88 per month.

Jule Charney

JC/eb

CC: Mr. Levy (ORR)  
Dr. Oppenheimer  
Prof. von Neumann

REPORT TO THE COMMITTEE ON INTERNATIONAL EXCHANGE OF PERSONS

FJORTOFT, Ragnar

Dr. July Charney

Dr. Fjortoft has been conducting research in dynamical meteorology and numerical weather prediction for extended periods. This work is of considerable value to our project and will probably add to Dr. Fjortoft's insight into the mechanics of rotating, thermally active fluids.

4-8-54

Fjortoft Computer  
Current Personnel

3 November 1953

Memorandum to Miss Trinterud:

In accordance with Dr. Goldstine's memorandum of July 8th, 1953 (copy attached), Dr. Fjortoft would now like to have his \$1,000 travel allowance. Will you therefore please make this payment to him; it should be charged to the I. B. M. Fund. Professor von Neumann and Dr. Oppenheimer have approved of this.

Rosanna W. Jaffin

cc: Professor von Neumann  
Dr. Goldstine

1944-50  
1950-51

OCCUPANT

FJÖRTÖFT RAGNAR

LAST NAME

FIRST NAME

MIDDLE NAME

7m - first off

9 D GOODMAN ROAD

ADDRESS

2CP

### THE INSTITUTE FOR ADVANCED STUDY

*The undersigned hereby registers for the use and occupancy of the unit identified above, subject to payment of the following charges:*

- 1. Monthly Rent \$ 77.50 Util. \$ 7.50 Garage \_\_\_\_\_
- 2. Rent for portion of First Month from 9/15/49 to 9/30/49 Total \$ \_\_\_\_\_
- 3. Period of Lease 9/15/49 - 7/1/50  
 Extended to: 4/18/51 - (July?) Left U.S.A. 4/20/51

*The undersigned authorizes deduction of the rent charges from salary or grant as due.*

9/15/49  
DATE

Ragnar Fjörtöft  
SIGNATURE OF OCCUPANT

→ M - Fjortoft  
(Back of file  
with housing)

April 19, 1951

Business Office:

Dr. Fjortoft and family have been in 4A Maxwell Lane for eight nights - 4/12/51 through 4/19/51. Four people - charge \$1.00 a night for three of them (without our bed linen), \$1.50 a night for one (with our bed linen).

\$4.50 a night - 8 nights ..... \$36.00

Station wagon trip to New York 4/18/51.... \$10.00

EWL

# Memorandum

To Business Office Date December 4, 1950

From Mrs. Leary Re. Dr. Ragnar Fjortoft

Dr. Fjortoft of the Computer Project plans to leave his apartment at 9-D Goodman Road on January 8, 1951. Please follow for bills and rental charges. There may, of course, be some change of date later but this is approximate.

THE UNIVERSITY OF CHICAGO  
CHICAGO 37 • ILLINOIS  
DEPARTMENT OF METEOROLOGY

7-Honoring -  
Fjortoft

Chicago August 25, 1950

Mrs. John Leary  
Assistant Director  
Inst. for Advanced Study  
Princeton, N. J.

Dear Mrs. Leary:

I write this short letter to inform you that  
we are coming back to Princeton at sept. 1. -  
I hope you have had a nice summer.

unmarked  
EWZ

With best regards  
yours  
R. Fjortoft.

Arrived 8/29/50

Frank, Robert M.

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

December 5, 1952

Dr. Robert M. Frank  
Physics Department  
Florida State University  
Tallahassee, Florida

Dear Dr. Frank:

This is to inform you and the National Research Council that Professor von Neumann and I agree to accept you as a member of our research group in theoretical meteorology at the Institute for Advanced Study if you are awarded a National Research Council Fellowship. We also agree to supply you with the necessary research facilities.

If, upon receipt of a N. R. C. fellowship, you should at the same time desire membership at the Institute for Advanced Study, it will be necessary for you to send a separate application to the School of Mathematics of the Institute giving your record and qualifications.

Sincerely yours,

Jule Charney, Group Leader  
Theoretical Meteorology Project

cpb

CC: Prof. von Neumann  
Dr. Oppenheimer



NAME OF

OCCUPANT

Freeman

John

C.

LAST NAME

FIRST NAME

MIDDLE NAME

3 C Goodman Road

ADDRESS

### THE INSTITUTE FOR ADVANCED STUDY

*The undersigned hereby registers for the use and occupancy of the unit identified above, subject to payment of the following charges:*

- 1. Monthly Rent <sup>#</sup> 77.50      Util. <sup>#</sup> 5-10      Garage
- 2. Rent for portion of First Month from 7-1-49  
to 7-31-49      Total \$ 82.50
- 3. Period of Lease  
Extended to:

~~The undersigned authorizes deduction of the rent charges from salary or grant as due.~~

Sept 27, 1949

DATE

John C. Freeman, Jr.

SIGNATURE OF OCCUPANT

Left: June 23, 1950

Freeman, John C

THE INSTITUTE FOR ADVANCED STUDY  
Founded by Mr. Louis Bamberger and Mrs. Felix Fuld  
PRINCETON, NEW JERSEY

December 3, 1948

Dear Dr. Freeman,

I am writing to you to offer you a position at our meteorology project at the salary of \$4800 a year. Since we have met previously, you will know what the character of our project is, and what the type of the work is - we shall expect you to participate in our theoretical work with Dr. Charney, Dr. Hunt, and possibly others who may join us. Drs. Charney and Hunt are the senior members of the group.

As you probably also know, I have discussed the matter with Dr. Wexler, and I understood that he and the Weather Bureau authorities will approve of your transferring here on February 1. I understand that you plan to return to the Weather Bureau ultimately, but that you will want the theoretically oriented experience which you will acquire here.

I have also discussed the housing needs of your family with Dr. Wexler and have taken up the matter with Mrs. John D. Leary, who is in charge of certain housing facilities which are available at the Institute. I have Mrs. Leary's assurance that it will be possible to provide you with a suitable apartment. I would suggest that you write to her immediately, so that we can give you and your family the necessary assurances on this subject with a minimum delay.

Please let me know your decision about this subject.

Hoping that we shall have the pleasure of having you with us,  
I am,

Sincerely yours,

JOHN VON NEUMANN

JVN:LD

Dr. John C. Freeman  
United States Weather Bureau  
Washington, D. C.

CC: Dr. Oppenheimer ✓  
Mrs. Leary  
Dr. Charney  
Dr. Wexler

*Hausing*

January 10, 1949

Dear Mrs. Leary,

Your letter arrived just as I was writing to tell you that a two-bedroom apartment is big enough for our present needs. My sister will not be with us until some time this summer.

Thank you for holding an apartment for us. We will bring one bed and some nursery furniture .

It will be nice to have a furnished apartment, I didn't expect such luck. If it is necessary to carry any furniture into the apartment you can leave out one of the beds.

We will send some of our things ahead so that we can use them soon as possible after we get there.

Thank you again for your ver informative letter.

Yours sincerely ,

*John C. Freeman Jr.*

John C. Freeman Jr.  
6701 45th St.  
Chevy Chase, 15 , Md.

Mrs. John D. Leary  
Aide to the Director  
The Institute for Advanced Study  
Princeton, New Jersey

1/11  
write  
Mrs S

January 7, 1949

Air Mail

Dear Dr. Freeman:

This is to confirm that an apartment in the Institute housing project is being held for your arrival on February 1st.

As perhaps you know, the project is very near the Electronic Computer building. The attached rental schedule will give you details about the housing units; also enclosed is a plan of the apartments. At present we have only a two-bedroom unit available for you; unless there is some change in the membership for the coming term, I do not think we can give you the three bedrooms you have requested.

You did not mention whether you wished the apartment furnished. Our furniture is of the simplest, mostly maple. Will you let me know whether you plan to bring any furniture so that we can plan accordingly.

Anything you wish to send ahead can be addressed to the Institute, and should be plainly marked with your name. Please let me know if you have any questions about the housing which this letter does not answer.

Yours sincerely,

(Mrs. John D. Leary)  
Aide to the Director

Dr. John C. Freeman  
United States Weather Bureau  
Washington, D. C.

Copy: Mrs. Stephens  
Professor von Neumann

6701 Forty-fifth Street  
Chevy Chase 15, Maryland  
December 10, 1948

Mrs. John D. Leary  
The Institute for Advanced Study  
Princeton, New Jersey

Dear Mrs. Leary:

Professor von Neumann has suggested that I write to you about housing for my family. We expect to arrive in Princeton February 1.

My wife and I are expecting a baby any day now so that we will be a family of three when we arrive on Feb. 1. In the near future and perhaps before we leave for Princeton I expect my younger sister to join us. Therefore we will ultimately need three bedrooms and if it is at all possible should like to have a house.

Thank you very much for <sup>your</sup> kindness.

Yours sincerely,

*John C. Freeman, Jr.*  
John C. Freeman, Jr.

JCF:msf

THE INSTITUTE FOR ADVANCED STUDY

*Founded by Mr. Louis Bamberger and Mrs. Felix Fuld*

PRINCETON, NEW JERSEY

December 3, 1948

Dear Dr. Freeman,

I am writing to you to offer you a position at our meteorology project at the salary of \$4800 a year. Since we have met previously, you will know what the character of our project is, and what the type of the work is - we shall expect you to participate in our theoretical work with Dr. Charney, Dr. Hunt, and possibly others who may join us. Drs. Charney and Hunt are the senior members of the group.

As you probably also know, I have discussed the matter with Dr. Wexler, and I understood that he and the Weather Bureau authorities will approve of your transferring here on February 1. I understand that you plan to return to the Weather Bureau ultimately, but that you will want the theoretically oriented experience which you will acquire here.

I have also discussed the housing needs of your family with Dr. Wexler and have taken up the matter with Mrs. John D. Leary, who is in charge of certain housing facilities which are available at the Institute. I have Mrs. Leary's assurance that it will be possible to provide you with a suitable apartment. I would suggest that you write to her immediately, so that we can give you and your family the necessary assurances on this subject with a minimum delay.

Please let me know your decision about this subject.

Hoping that we shall have the pleasure of having you with us,  
I am,

Sincerely yours,

JOHN VON NEUMANN

JVN:LD

Dr. John C. Freeman  
United States Weather Bureau  
Washington, D. C.

CC: Dr. Oppenheimer  
Mrs. Leary ✓  
Dr. Charney  
Dr. Wexler

*Freeman, Mrs. John*

November 11, 1949

Mrs. John C. Freeman  
3 C Goodman Road  
Princeton, New Jersey

Dear Mrs. Freeman:

I understand that you and Dr. Placzek have worked out a mutual agreement whereby you will, at least in the beginning, work for him as a computer on a part time basis. I am, therefore, pleased to offer you such a position on our Mathematical project. The salary for this position will be \$125 per month.

I understand that you are agreeable to starting work on Monday, November 21, 1949, and I am accordingly informing Dr. Placzek of that fact.

Very truly yours,

JOHN VON NEUMANN

HHC/ep

CC Miss Trinterud  
Mrs. Leary

*Terminated 3/50 - no vacation accumulated -  
EAL*



Frei, E. H.

THE INSTITUTE FOR ADVANCED STUDY

ELECTRONIC COMPUTER PROJECT

PRINCETON, NEW JERSEY

7

October 26, 1951

Dr. E. H. Frei  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Dr. Frei:

I am very pleased to be able to tell you that  
Dr. Oppenheimer has authorized me to increase your salary  
by \$500 per year effective November 1, 1951.

Very truly yours,

John von Neumann

HHG/cyb

CC: Dr. Oppenheimer  
Miss Trinterud

Frei, E.H.

Academic year 1950-1951 member in School of Mathematics. File, as a member, filed in former members file.

Effective May 1, 1951, Dr. Frei was employed at the Computer project.

Gambo, K.

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

August 8, 1952

Mr. K. Gambo  
Geophysical Institute Faculty of Science  
Tokyo University  
Tokyo, Japan

Dear Mr. Gambo:

In the absence of the Director of the Institute for Advanced Study, who would normally authorize appointments, Dr. J. von Neumann, Professor at the Institute and Director of the Electronic Computer Project, has authorized me to offer you a position with the Meteorology Project of the Institute for Advanced Study for a period of eleven months beginning November 1, 1952 at a salary of \$6,000 for the period.

I understand from your letter of July 26, 1952 that you would entertain such an offer and that we may expect to have you with us this fall. I would like to say for myself that I shall be very glad to welcome you to our Group and that I look forward with pleasure to our association.

I am leaving for Europe on August 14 and shall not return before November 1. I therefore suggest that you send your reply to this offer to Dr. von Neumann at the Institute for Advanced Study and that at the same time you send a notification of your acceptance to Mrs. Ruth Barnett, the Institute's Housing Director, who will tend to your housing needs in case I am still away when you arrive.

No separate allowance can be made for travel expenses, but it is possible to obtain an advance in salary to cover the cost of your trip. If you should desire such an advance would you please state the exact sum you will require in your letter of acceptance to Dr. von Neumann. This amount will then be sent to you.

Yours sincerely,

Jule Charney, Leader  
Meteorology Group

cpb

CC: Mr. Levy (OHR)  
Dr. Oppenheimer  
Prof. von Neumann

*Computer*

THE INSTITUTE FOR ADVANCED STUDY

ELECTRONIC COMPUTER PROJECT

PRINCETON, NEW JERSEY

February 23, 1954

Mrs. Norma Gilberg  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Mrs. Gilberg:

I am pleased to inform you that with the approval of Dr. Oppenheimer your salary has been raised to \$4250 per annum as of March 1, 1954. This letter will notify the business office to take the necessary action.

Yours sincerely,

Jule Charney

JGC/cpb

CC: Dr. Oppenheimer  
Mr. Morgan  
Mr. Levy (ONR)

Gilberg, Norman

May 16, 1952

Mrs. Norma Gilberg  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Mrs. Gilberg:

I am pleased to inform you that Dr. Oppenheimer  
has authorized me to increase your salary to \$4,000 per  
year effective May 1, 1952.

Very truly yours,

John von Neumann

HHC/cpb

CC: Dr. Oppenheimer ✓  
Miss Trinterud

*Gilchrist*

August 8, 1953

TO WHOM IT MAY CONCERN:

Bruce Gilchrist, a visiting Member of the Institute for Advanced Study for the academic years 1952- 1953 and 1953-1954, would like to visit in Canada. It will be greatly appreciated if every consideration is given Mr. Gilchrist during his visit to Canada. Mr. Gilchrist will return to the United States where he will continue his researches at the Institute for Advanced Study.

(Mrs. Ruth W. Barnett)  
Assistant to the General Manager

*Honorable  
Stanford  
when he will visit  
at the Stanford University*

*08/08*

*Gilchrist*

cc. Mr. Morgan  
Dr. Charney

18 January 1956

Dear Dr. Gilchrist:

I am glad to tell you that your salary will be increased to \$7,200 per year as of January 1, 1956, in recognition of your new responsibility in assuming direction of programming for the Meteorology Project and of the excellence of your work.

Sincerely yours,

Robert Oppenheimer

Dr. Bruce Gilchrist  
Electronic Computer Project  
Institute for Advanced Study

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT

ECP Personnel  
Gilchrist

MEMORANDUM

TO: Mrs. Hobson  
FROM: Mrs. Buchanan  
DATE: April 6, 1954

Enclosed herewith are five copies of a letter about which Dr. Goldstine has spoken to Mrs. Russell. The letter is essentially the same one that Dr. Oppenheimer wrote Dr. Gilchrist on January 4, 1954 with the following exceptions: In the first sentence of the second paragraph the words "...as well as to clarify your status with the British Ministry of Labour and National Service" are deleted. In the second sentence of the second paragraph the word "either" is changed to "this".

One of the enclosed copies is for your files and it would be appreciated if Dr. Oppenheimer would sign all of the other copies and send them along to Dr. Gilchrist.

Thanks very much.

C.P.B.

C. P. Buchanan

Enclosures



THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

April 6, 1954

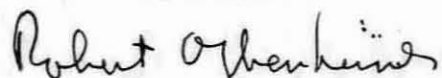
Dr. Bruce Gilchrist  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Dr. Gilchrist:

I am writing to invite you to stay on as a member of the Meteorology Group here at the Institute after your present appointment expires on July 31, 1954. I understand you are willing to continue for at least another year at the end of which time we can reconsider the situation from our mutual points of view.

I understand you will need to make various visa arrangements. Please feel free to make use of this letter as you see fit in this connection. It might be relevant to mention that the work on which you will be engaged is sponsored by the Office of Naval Research of the U. S. Navy and which we regard to be of substantial importance.

Very truly yours,



Robert Oppenheimer, Director  
Institute for Advanced Study

HHG/cpb

ECT Gilchrist

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

January 4, 1954

Dr. Bruce Gilchrist  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Dr. Gilchrist:

I am writing to invite you to stay on as a member of the Meteorology Group here at the Institute after your present appointment expires on July 31, 1954. I understand you are willing to continue for at least another year at the end of which time we can reconsider the situation from our mutual points of view.

I understand you will need to make various visa arrangements as well as to clarify your status with the British Ministry of Labour and National Service. Please feel free to make use of this letter as you see fit in either connection. It might be relevant to mention that the work on which you will be engaged is sponsored by the Office of Naval Research of the U. S. Navy and which we regard to be of substantial importance.

Very truly yours,

Robert Oppenheimer, Director  
Institute for Advanced Study

HHG/cpb

CC: Dr. W. A. Macfarlane, British Attaché  
Washington, D. C.

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

January 4, 1954

Dr. W. A. Macfarlane  
1800 K Street, NW  
British Scientific Attaché  
Washington, D. C.

Dear Dr. Macfarlane:

I am writing in regard to a Dr. Bruce Gilchrist, a British subject, who is in our employ as a mathematician engaged in research in dynamic meteorology. I enclose a carbon of a self-explanatory letter I have sent him. He is a young man who is still liable for national service in Britian. We are quite anxious to have him stay on with us and will appreciate anything you can do to assist us in this connection.

Gilchrist has his Ph.D. from the University of London in theoretical meteorology, and will be 24 years old in August. We regard him as very valuable and would have considerable difficulty in replacing him as his experience in numerical weather prediction is extensive.

If you desire further information on him, please do not hesitate to call upon me.

Very truly yours,

Robert Oppenheimer, Director  
Institute for Advanced Study

RHG/cpb



# UNITED KINGDOM SCIENTIFIC MISSION

1800 K STREET N. W. WASHINGTON 6, D. C.

A UNIT OF THE BRITISH COMMONWEALTH SCIENTIFIC OFFICE

YOUR FILE NO.:

Telephone: EXecutive 2020

OUR FILE NO.: 300-0-1

January 18, 1954

Extension

Professor Robert Oppenheimer,  
Director, Institute for Advanced Study,  
Electronic Computer Project,  
Princeton, N.J.

Dear Professor Oppenheimer,

Your letter of 4th January to Dr. Macfarlane about Dr. Gilchrist has come to me as Dr. Macfarlane is now in England and he will not be returning until the end of the month.

I have taken up the questions of Dr. Gilchrist's visa and liability for National Service and will write again as soon as I have information.

Yours sincerely,

A. C. Locke  
Executive Assistant to Director

ACL/mes

Copy sent to Mrs. Buchanan 1/21/54

ECF Gilchrist

THE INSTITUTE FOR ADVANCED STUDY

ELECTRONIC COMPUTER PROJECT

PRINCETON, NEW JERSEY

MEMORANDUM

TO: Miss Trinterud

FROM: Dr. Charney

DATE: June 5, 1953

This will notify you that, with the approval of Professor von Neumann, Dr. Gilchrist's employment with the Meteorology Project has been extended through the month of July at his former salary rate and thereafter through the year, August 1, 1953 to July 31, 1954, at a salary of \$6000 per annum.

JGCharney

JGC/cpb

CC: Dr. Goldstine  
Mr. Levy (ONR)  
Dr. Oppenheimer  
Prof. von Neumann

*Gilchrist, Bruce*

December 10, 1952

TO WHOM IT MAY CONCERN:

Mr. Bruce Gilchrist, a visiting Member of the Meteorological Group of the Institute for Advanced Study for the academic year 1952-1953, would like to visit in Canada. The Institute for Advanced Study will greatly appreciate every consideration shown Mr. Gilchrist during his visit to Canada. Mr. Gilchrist will return to the United States where he will continue his researches at the Institute for Advanced Study.

(Mrs. Ruth W. Barnett)  
Assistant to the General Manager

*Gilchrist, Bruce*

COPY

THE INSTITUTE FOR ADVANCED STUDY

ELECTRONIC COMPUTER PROJECT

PRINCETON, NEW JERSEY

November 17, 1952

Mr. B. Gilchrist  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Mr. Gilchrist:

As you are now devoting your full time to the meteorology project, we are hereby supplementing your present outside income by the amount of \$220 per month, effective November 1, 1952 and continuing until June 30, 1953.

This letter will notify the business office to take the necessary action.

Yours very truly,

Jule Charney

cpb

CC: Dr. Oppenheimer  
Prof. von Neumann  
Miss Trinterud  
Mr. Levy (ONR)

*Gilchrist, Bruce*

INSTITUTE OF INTERNATIONAL EDUCATION, Inc.  
2 West 45th Street, New York 19, N. Y.

April 18, 1952

Professor John von Neumann  
School of Mathematics  
The Institute of Advanced Study  
Princeton, New Jersey

Dear Professor von Neumann:

Thank you very much for your letter of April 3 concerning the application of Mr. Bruce Gilchrist of the United Kingdom for work in Dynamic Meteorology.

We were aware that Mr. Gilchrist is not a Post-Doctorate candidate and in addition to this is too young to qualify for membership in the Institute of Advanced Study. We are very grateful, therefore, for your offer to admit him for research with the meteorology group. There is little doubt that Mr. Gilchrist will be delighted to accept, and we will let you know definitely as soon as we receive final word from him.

At that time we had not yet received the detailed record of Mr. Gilchrist's academic work. The papers have now been forwarded from London, and we are happy to enclose them herewith to add to his application which you have on file.

It would be appreciated if the yellow form, "Supplementary Information Needed for Foreign Candidate," can be completed and returned to us at your earliest convenience.

Sincerely yours,

/s/ BETTY DRURY  
Head, Placement Coordination Division

cc: Assistant Dean James Thorpe

Copies to: Mrs. Russell ✓  
Dr. Charney

*returned 4-23-52*



GILCHRIST

Statement of University Work.

Name. Bruce Gilchrist.

College. Imperial College of Science and Technology,  
University of London.

Period of Study. October 1948 - present time.

Courses. { Oct. 1948 - June 1950 Mathematics.  
                  { Sept. 1950 - present time Meteorology.

Details:

(1) Mathematics.

- M.7. Problem Class.
- M.8. Mathematical Physics.
- M.9. Theoretical Mechanics.
- M.10. Theoretical Dynamics.
- M.11. Statistics.
- M.12. Numerical Methods.
- M.13. Practical Mathematics.
- M.14. Practical Differential Equations.
- M.16. Pure Mathematics.
- M.17. Advanced dynamics and Elasticity.
- M.18. Hydrodynamics.
- M.19. Thermodynamics, kinetic theory of gases,  
and statistical mechanics.
- M.20. Quantum Mechanics.
- M.21. Electromagnetic theory and Elementary  
Relativity Theory.
- M.22. Foundations of Statistical Theory.
- M.23. Pure Mathematics - theory of functions and  
partial differential equations of mathematical  
physics.
- P.10. Physics for mathematics students.
- M.W.6. Meteorology for mathematics students.

(Fuller details of the above courses are given  
on the attached sheets from the College Calendar)

(2) Meteorology.

1. Thermodynamics and Statics.
2. Dynamical Meteorology and climatology.
3. Atmospheric Radiation.
4. Atmospheric Electricity.
5. Meteorological measurements and instruments.
6. Cloud Physics.
7. Lectures and class-work on synoptic meteorology.
8. Theories of turbulence.

## 9. Atmospheric Waves.

During the time of the mathematics courses my work was under the general supervision of Prof. H. Levy, Professor of Mathematics in the University of London, while such general reading as was required for the particular courses was prescribed by the lecturers concerned.

Since I have been in the Meteorology Department my work has been entirely under the supervision of Dr. E.T. Eady, University Reader in Physical Climatology. Since October 1950, under the supervision of Dr. Eady I have been carrying on research in the field of Dynamical Meteorology. The results of this work will be embodied in a thesis entitled "The Application of the Equations of Motion to the Solution of Climatological Problems" which is to be submitted in June 1952 for the degree of Ph.D. of the University of London.

During the courses at Imperial College no specific readings were required for tutorials as such but students were encouraged to read as much as possible around the work given in lectures. While undertaking the meteorological research my reading has covered most of the relevant work in journals, periodicals etc.

### Examinations and Degrees.

June 1950. ( Associateship of the Royal College of Science.  
( B.Sc. degree of the University of London.  
First Class Honours in Mathematics.

June 1951. Diploma of the Imperial College of Science  
and Technology (D.I.C.)  
for advanced study in Meteorology.

Signed

  
(Bruce Gilchrist)

March 30th. 1952.

  
REGISTRAR

IMPERIAL COLLEGE OF SCIENCE & TECHNOLOGY  
PRINCE CONSORT ROAD,  
SOUTH KENSINGTON, LONDON, S.W.7.

7 APR 1952

order; exact equations; integrating factors. Linear equations of the second order; normal forms. Solution in series.

Partial differential equations of the first and second orders; boundary conditions. Partial differential equations with constant coefficients. Fourier's method. Complex variable applied to Laplace's equation.

Differential geometry of plane curves. Orthogonal systems of curves. Curvature; the intrinsic equation of a curve.

Co-ordinate geometry of three dimensions. The line, plane and sphere. Properties of quadric surfaces. Simple ruled surfaces and surfaces of revolution. Partial differential equations or systems of surfaces.

### M.7. Problem Class.

### M.8. Mathematical Physics.

(i) *Vector Calculus*.—Line and surface integrals, potential functions, gradient, divergence and curl.

(ii) *Electrostatics*.—Inverse square law; Gauss' Theorem, Laplace's and Poisson's equations; equipotentials and lines of force; conductors and dielectrics; method of images. Potential energy; Green's theorem, uniqueness theorems.

(iii) *Magnetostatics*.—Magnetic dipoles; permanent and induced magnetism; magnetic intensity and induction, permeability; terrestrial magnetism, magnetic shells.

(iv) *Electromagnetism*.—Magnetic field of current circuit, Ampere's circuital relation; Faraday's law of induction; coefficients of self and mutual induction. Currents in linear circuits and in continuous media. Maxwell's equations.

### M.9. Theoretical Mechanics.

(i) *Vector Methods*.—Position vectors, line vectors and free vectors; unit vectors; vector addition; scalar and vector products; vector area; scalar derivative of vector function of a scalar (time); vector gradient of scalar function of a vector (position).

(ii) *Kinematics of Two-Dimensional Systems*.—Kinematics of particles and rigid bodies in two dimensions; instantaneous centre.

(iii) *Mass Distributions*.—Centres of mass and moments of inertia of standard configurations; quadratic moments of two-dimensional systems.

(iv) *Two-Dimensional Systems of Forces*.—Concurrent forces; parallel forces; couples; vector moments; equipollent systems of forces; theory of equilibrium of a two-dimensional system of forces.

(v) *Particle Dynamics*.—Newton's laws of motion ; principle of linear momentum for a system of two particles ; kinetic energy ; elementary theory of collisions of fundamental particles.

(vi) *Potential Energy and Equilibrium of Systems of Particles and Fluids*.—Conservative fields of force ; gravitational attraction and potential ; equilibrium theory of fluids ; virtual work ; conservation of energy ; stability of equilibrium.

(vii) *Dynamics of Two-Dimensional Systems*.—Principles of linear and angular momentum ; equations of two-dimensional motion of a dynamical system ; König's theorem on kinetic energy ; impulsive motion.

#### **M.10. Theoretical Dynamics.**

Theory of orbits, including simple applications to astronomy and physics ; dissipative forces ; Lagrange's equations ; theory of vibrations ; principle of least action.

#### **M.11. Statistics.**

Histograms, cumulative curves ; probability paper ; mean, median, mode, standard deviation. Variance, covariance, and correlation coefficient. Laws of probability. Binomial, normal and Poisson distributions. Least squares. Elementary tests of significance.

#### **M.12. Numerical Methods.**

Principles of computation and tabulation of functions. Elements of finite differences. Interpolation formulæ of Lagrange, Gregory-Newton, Bessel, Gauss and Everett. Numerical estimation of differential coefficients by difference methods. Simpson, Milne, Euler-Maclaurin, Gauss and other methods of approximate integration.

Sketching contours ; nomograms ; curve tracing ; Newton's parallelogram. Numerical solution of algebraic and transcendental equations by successive approximation. Simple properties of Bessel and Legendre functions tested numerically. Solution of difference equations, with applications.

#### **M.13. Practical Mathematics.**

Methods of stressing pin and stiff-jointed frameworks ; statical methods for simple frames ; strain-energy methods for redundant frames ; application of the relaxation method.

Development of the relaxation method ; solution of simultaneous linear algebraic equations ; numerical solutions of ordinary differential equations ; numerical solutions of Laplace's and Poisson's partial differential equations.

#### **M.14. Practical Differential Equations.**

Differential equations of first order considered graphically ; the isoclinal system, properties and use ; cusp and envelope loci. Graphical solution of second order equations. Numerical solution of first and second order equations by finite differences. Picard's

method. Successive approximations; convergence; boundary conditions. Higher order equations; systems of simultaneous differential equations; physical and dynamical applications.

Characteristic numbers and characteristic functions of a differential equation of the second order; orthogonal functions, expansion theorems; Rayleigh's principle. Differential equations for loaded strut and whirling shaft. Numerical studies of Fourier, Bessel, Legendre and elliptic-cylinder functions; Green's function.

Practical Fourier analysis, 12 and 24 ordinate methods, probable error of coefficients; harmonic analysers.

Partial differential equations; Laplace's and Poisson's equation in two dimensions; applications to conduction of heat, fluid motion and vibration of continuous media. Periodogram analysis. Practical solution of integral equations.

### M.15. Industrial Statistics.

~~Methods of recording, tabulating and summarising data. Properties of means, variance and covariance. Laws of probability. Theory and practice of control charts. Estimation of tolerances. Arrangement of assembly work. Design and analysis of industrial experiments.~~

### M.16. Pure Mathematics.

(i) Determinants and matrices; advanced calculus; ordinary and partial differential equations.

(ii) Analytical geometry of plane curves; systems of plane curves, envelopes and orthogonal trajectories. Co-ordinate geometry of three dimensions; quadric surfaces.

(iii) The elements of the theory of a complex variable; conformal transformation.

(iv) Analytical geometry of surfaces; one-parameter and two-parameter systems of surfaces and their envelopes; ruled surfaces and developables.

Curves in space; vector representation. Parametric representation of standard surfaces; co-ordinate networks. The first fundamental form—isometric and conformal representation.

The second fundamental form; asymptotic lines, principal curvatures and lines of curvature; specific curvature.

Geodesics: surfaces of constant specific curvature; applications to non-Euclidean geometry and problems of geometry in general.

(v) Functions of a complex variable; complex integration; theory of residues. Expansion of a function, Taylor's, Laurent's and Mittag-Leffler's theorems.

The solution of linear differential equations by Frobenius' method.

(vi) The theory of infinite series and applications.

### M.17. Advanced Dynamics and Elasticity.

(i) Elementary theory of tensors.

(ii) Three-dimensional kinematics; the inertia tensor; vector moment of momentum; kinetic energy; equations of motion; general three-dimensional motion of a rigid body.

(ii) Functions of two real variables. Implicit functions. Uniform convergence. Differentiation and integration of functions of two or more real variables. Double limit problems associated with infinite integrals.

(iii) Functions of a complex variable. The theory of residues. Ronche's theorem. Analytic continuation. Problems of uniform convergence. Conformal representation. The Schwarz-Christoffel transformation; introduction to doubly-periodic functions. The Gamma and Beta functions. Multiform functions; the method of loop integrals.

(iv) Total differential equations; first order partial differential equations. Standard forms linear partial differential equations with constant coefficients and two independent variables.

Transformation of  $\nabla^2 V=0$  in orthogonal curvilinear co-ordinates. Solution of simple boundary problems for  $\nabla^2 V=0$  and the occurrence of Legendre and Bessel functions in problems in mathematical physics.

(v) Use of Fourier Series in solving boundary problems. Formal generalisation to ortho-normal sets of functions. Fourier constants and approximation in the mean. Bessel's inequality. Completeness relation.

(vi) Weierstrass' approximation theorem for polynomials and trigonometrical functions. Fourier series for segmentally continuous  $f'(x)$ . Orthogonal functions generated by ordinary differential equations. Sturm-Liouville theory. Green's Function. Elementary potential theory. Application of conformal transformation.

(vii) The Fourier integral. Integral transforms. Fourier, Laplace and Bessel-Fourier transforms and their application to boundary problems in mathematical physics. Operational methods.

(viii) Second order linear partial differential equations in two independent variables. Elliptic, parabolic and hyperbolic types.

(ix) Canonical forms and characteristics. Riemann's method. Numerical integration of hyperbolic equations with Cauchy boundary conditions.

(x) Extensions to more independent variables. Kirchhoff's and Volterra's solutions of the wave equation.

#### **M.24. Theoretical Dynamics. (For Physics Students.)**

Theory of orbits, including simple applications to astronomy and physics; motion in a resisting medium; resonance; special cases of nonlinear vibrations. ~~Moving axes; precession of spinning bodies; motion relative to the rotating Earth. Generalized co-ordinates; Lagrange's equations and their application to the theory of small linear vibrations and normal modes; Hamilton's equations; principle of least action.~~

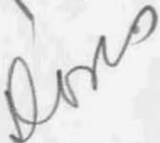
#### **M.25.**

~~This covers a series of colloquia for third year students and research students and consists of lectures and free discussion on fundamental problems in mathematics.~~

Kay:

Prof. von Neumann changed the letter slightly.  
Please destroy other cc given you. I hope the  
P.S. is O.K. with you.

Betty



A handwritten signature in cursive script, appearing to read 'Betty', is written below the typed name. A thin line extends from the top of the signature towards the 'P.S.' in the text above.

THE INSTITUTE FOR ADVANCED STUDY

PRINCETON, NEW JERSEY

April 3, 1952

Dear Miss Drury:

Dr. Oppenheimer has asked me to answer your letter of March 19 concerning Mr. Bruce Gilchrist.

Upon reading your letter, I feel that there exists a possibility of a misunderstanding. Dr. Charney, who is the senior member of our meteorology project, as well as I, had some correspondence in October 1951, as well as in February 1952, with Dr. Eady and Mr. Gilchrist about the latter's proposed visit to United States, and to the Institute for Advanced Study in particular. I inferred from these that Mr. Gilchrist was desirous to study and to work with our meteorology project, and I assured him that he would be very welcome here. The correspondence, and Mr. Gilchrist's application also, indicates that he does not yet have the Ph.D. degree, and I am not sure whether he may not in the future wish to obtain one. Membership in the Institute for Advanced Study is generally a post-doctoral arrangement, or, at any rate, our members, if they do not have the Ph.D., are expected to have "equivalent maturity." I did not, however, conclude from the correspondence that this question was arising. I assumed that Mr. Gilchrist wanted to work with our meteorology group, and this does not necessitate membership in the Institute for Advanced Study. We will, therefore, be very glad to admit him to the meteorology group at the Institute. This will obviate the necessity of raising the question of membership in the Institute, and simplify matters. I assume that this will be satisfactory from your point of view, please let me know if this is not the case.

Sincerely yours,

John von Neumann

JvN:eg

Miss Betty Drury  
Institute of International Education  
1 E. 67th Street  
New York 21, N. Y.

P.S. The attachments of your letter are now in Dr. Oppenheimer's file. Please let me know if you wish them returned.

JvN

cc: Dr. Oppenheimer ✓  
Dr. Charney



No membership; but if  
he gets his fellowship  
he can work in  
Prof. V. W.'s group in  
meteorology.



# INSTITUTE OF INTERNATIONAL EDUCATION

INCORPORATED

~~21 WEST 45TH STREET NEW YORK 19, N. Y. 10036~~ · CABLE ADDRESS "INTERED"

European Office: 173 Boulevard Saint-Germain, Paris (VIe) France

Washington Office: 1530 P Street, N.W., Washington 5, D. C.

1 East 67th Street, New York 21, N. Y. Lehigh 5-3400

March 19, 1952

Dr. Robert Oppenheimer, Director  
Institute for Advanced Study  
Princeton, New Jersey

Dear Dr. Oppenheimer:

We are pleased to present to you the application of Mr. Bruce GILCHRIST of the United Kingdom, a candidate for one of the full grants offered by the Department of State under authority of the United States Information and Educational Exchange Act, Public Law 402 - 80th Congress. We understand that Mr. GILCHRIST has already been accepted by Professor J. von Neumann as a research worker in his department. We should appreciate having formal notification of this student's admission for the academic year 1952-53.

In the statement attached to each candidate's application, you will find a summary of the objectives of the United States Information and Educational Exchange program and the selection criteria under this program. We should like to emphasize that, in recommending candidates for full grants, particular consideration has been given by the U. S. diplomatic missions abroad to leadership qualities as well as academic proficiency.

We have been asked by the Department of State to present students for admission to academic institutions as soon as their papers are received by the Institute, rather than to submit them as a group with applications for scholarships and fellowships. It is hoped that in this manner we may avoid some of the delays which occurred last year.

As you know, we are anxious to receive an early decision on the admission of candidates for awards under the U. S. Information and Educational Exchange program. All students selected for these full grants will be given orientation during summer of 1952, and in order to assure their arrival in time to attend the orientation session beginning in July, transportation arrangements must be made for them very early in the year. Word from you concerning the admissibility of this candidate at the earliest possible moment will enable us to transmit the information rapidly to the Department of State so that the Department of State in turn can notify the United States mission abroad, permitting prompt notification of the candidate.

If you wish to hold the papers of Mr. GILCHRIST for consideration for any scholarship or fellowship you may have available after we have been notified of your decision on his admission, we should be pleased to have you do so. In the meantime, however, notification of the candidate's admissibility is urgently needed.

Thank you for your consideration of this application and for your cooperation with us.

Sincerely yours,

Betty Drury, Head  
Placement Coordination Division

Foreign Student Program  
INSTITUTE OF INTERNATIONAL EDUCATION

857 Fifth Avenue, New York 21, N. Y.

APPLICATION FOR ADMISSION AND/OR AWARD

Candidate: **Mr. Bruce GILCHRIST**

Country: **United Kingdom** Age: **22**

Field of Study: **Dynamical Meteorology**

Future Plans: **Research**

Financial Plan and Request:

1. Candidate's Own Resources: **None**

2. Grants:

a—U.S. Government: **Designated for Full Grant under PL 402 covering tuition, unremit-  
table fees, room, board, and incidental expenses.**

**Designated for Travel Grant under PL 584 covering transportation  
from origin to destination (in U.S.A.) and return.**

b—Other: **None**

3. Hereby submit request for:

a—Minimum: **Admission**

b—Maximum: **See attached program statement**

Comments: **Excerpt from letter from Professor David Brunt, Imperial College of  
Science and Technology:**

**"He is easily the best student we have ever had in this department  
and holds out promise of becoming a brilliant researcher in meteor-  
ology. I feel that he is a young man of such distinction as to  
justify the award to him of facilities for going abroad to pursue  
his studies elsewhere."**

---

IMPORTANT

If this student is accepted, please fill in and return the attached form to the Institute.  
Please note carefully the directions in regard to communication with the candidate.

## IIE-ADMINISTERED PROGRAMS 1952-53 ACADEMIC YEAR

### FULL GRANTS UNDER U.S. INFORMATION AND EDUCATIONAL EXCHANGE PROGRAM

OBJECTIVES OF THE PROGRAM--The U.S. Information and Educational Exchange Act (P.L. 402, 80th Congress) established for the first time an educational exchange program on a worldwide basis as an integral part of U.S. foreign policy. The program is one of the vital elements in the Government's Campaign of Truth. Its objectives in providing fellowships for students are: to break down barriers of misunderstanding about the U.S.; to bring to this country a knowledge of the problems and values of other countries; to provide an opportunity for selected graduate students to supplement the education they have had in their own countries and gain insight into U.S. theories and methods in their field of specialization.

SELECTION OF CANDIDATES--Final selection for grants under the U.S. Information and Educational Exchange Act is made by the Department of State, and for grants under the Fulbright Act (P.L. 584, 79th Congress) by the Board of Foreign Scholarships, after the candidates have been screened by their local "Committee on Study and Training in the U.S." and recommended by the U.S. diplomatic mission in each country. Candidates from countries which have agreements with the U.S. under the Fulbright Act are also recommended for Fulbright travel grants by the U.S. Educational Commission or Foundation in each country.

Consideration is given to professional or academic competence, knowledge of English, and potential value of a proposed project upon a candidate's return to his own country. In accordance with the objectives of the U.S. Information and Educational Exchange Program, an attempt is made to select candidates who possess personal qualifications which will enable them to understand the people of the U.S. and qualities of leadership which will make it possible for them to communicate this understanding most effectively to their own people.

SCOPE OF THE PROGRAM--Sources of grants--For graduate students from 20 countries which have agreements under the Fulbright Act, U.S. Information and Educational Exchange Program grants are combined with round-trip travel grants provided in foreign currencies. In 18 other countries of the Eastern Hemisphere and in Brazil and Mexico, full grants including travel are provided from U.S. Information and Educational Exchange Program funds.

Individual grants--For each candidate selected for a full grant under this program, the U.S. Government is prepared to pay the cost of one academic year in the U.S., including tuition and fees, maintenance stipend, and book allowance, in addition to international and U.S. transportation costs. Monthly maintenance stipends, based on actual costs at the institution where the grantee is enrolled, are provided. A 6-week orientation period prior to the beginning of the academic year is also provided.

WHAT IIE ASKS--Admission--For all candidates for full grants under this program, IIE is attempting to obtain admission at the earliest possible date. Early guarantee of admission is of the utmost importance, to allow for transportation arrangements which will enable grantees to arrive for the orientation opening in July.

Scholarship assistance--If, after IIE has been notified of admission, the institution wishes to consider the candidate for a tuition waiver, scholarship, fellowship, or other award, his application may be retained. If such award is made, his U.S. Government grant will be adjusted accordingly, and the student notified of the change in financial arrangements for him.

January 1952

INSTITUTE OF INTERNATIONAL EDUCATION

FOREIGN STUDENT PROGRAM

TO: INSTITUTION CONSIDERING OR ACCEPTING CANDIDATE FOR PLACEMENT

SUBJECT: PROCEDURE

CORRESPONDENCE WITH  
THE CANDIDATE

For the time being, would you please send to us all communications which you might wish to send to this candidate. We will be glad to obtain and furnish necessary information and transmit material. This request is made in your interest, the candidate's, the Institute's and in the interest of all other agencies and persons who are required to make decisions about this candidate's coming to the U.S.A.

An institution's decision to accept a candidate is usually one of a number of decisions which have to be made before it is finally established that he will be enabled to come to the U.S.A. In some instances, these decisions may be unfavorable. It is obviously essential that, until final decisions are reached, the candidate should not be given even an indirect cause for belief that he is coming to the U.S.A. Experience reveals that direct communication with the candidate by the institution before final decisions are reached very frequently results in his interpreting the communication as a precursor of full acceptance by all concerned. In recognition of this problem, the Institute has found it necessary and desirable to establish clear channels and methods for handling early communications with the candidates and to request that you do not correspond direct with the foreign candidate until you receive a copy of the Terms of Appointment.

TERMS OF APPOINTMENT

As soon as all decisions are made, the Institute will prepare a detailed statement to the student setting forth the terms of appointment, when the appointed candidate shall report, where, etc. The Institute will send a copy to the student through official channels. Direct communication with the appointed candidate may be undertaken when you receive a copy of the Terms of Appointment.

SUPPLEMENTARY INFOR-  
MATION NEEDED FOR  
FOREIGN CANDIDATE

Certain information is needed from the accepting institution for the preparation of the Terms of Appointment. If you accept this candidate, would you please complete and forward the attached yellow form entitled SUPPLEMENTARY INFORMATION NEEDED FOR FOREIGN CANDIDATE.

CHANGE IN VISA  
PROCEDURE

Institutions need no longer provide Certificates of Admission for visa purposes. Candidates who receive U.S. Government grants of any kind will be issued Exchange Visitor visas with the appropriate program designation number of the agency involved. To facilitate operations, candidates coming to the U.S.A. who do not receive a U.S. Government grant will be issued the Institute's program designation number.

CATALOGUES

Routine mailing of catalogues to the candidate's foreign address has been found to be an unsatisfactory method of distribution. The Institute will usually be able to specify an address at which the catalogue will be sure to reach him well before the beginning of the academic year.

DOCUMENTS OF CANDI-  
DATES NOT ACCEPTED  
FOR PLACEMENT

If you do not accept this candidate, would you please return his application material to the Institute. This should be done as promptly as possible so that his documents may be submitted quickly to another institution.

# APPLICATION

for a UNITED STATES GOVERNMENT SMITH-MUNDT GRANT, an  
ENGLISH-SPEAKING UNION - INSTITUTE OF INTERNATIONAL EDUCATION FELLOWSHIP,  
a FULBRIGHT TRAVEL GRANT  
and, in the case of Advanced Research Scholars and Teachers, placement by the  
CONFERENCE BOARD OF ASSOCIATED RESEARCH COUNCILS

Cultural Relations Office, American Embassy  
Room 302, 41 Grosvenor Square  
London W.1

(ALL ANSWERS SHOULD BE TYPEWRITTEN OR WRITTEN IN INK)

1 Mr/Ms/Mrs

Bruce Gilchrist

(FULL NAME—UNDERLINE SURNAME)

2 Present Address I, Hans Crescent,  
London, S.W.1.

3 Permanent Address 296, Wootton Road,  
Gaywood, King's Lynn,  
Norfolk.

4 Date of Birth: Month 8 Day 4  
Place of Birth Pontefract Year 1930  
(Yorkshire)



5 Are you a citizen of the United Kingdom? Yes.  
Evidence of citizenship submitted Birth Certificate.

6 Persons to be notified in case of emergency:  
A. In the United States The British Consul.

(NAME, ADDRESS AND RELATIONSHIP, IF ANY)

B. In home country Mrs C. Gilchrist, 296, Wootton Road,  
Gaywood, King's Lynn, Norfolk.  
(Mother)

(NAME, ADDRESS AND RELATIONSHIP, IF ANY)

7 Names and addresses of any close relatives in the United States (indicate relationships):  
NONE.

8 Professional training and experience:

A. Names of institutions attended. Include any that you are attending at present. Indicate any title, degree or diploma for which you are a candidate at present.

NAME OF INSTITUTION	LOCATION	DATE OF ENTRANCE	DATE OF LEAVING	DEGREE RECEIVED (CLASS)
King Edward VII Grammar School.	King's Lynn	Sept. 1938	July 1948.	Cambridge School Certificate 1946.
				Cambridge Higher Certificate 1948

University (Indicate College or University)	Imperial College of Science and Technology. (University of London)	London	Oct. 1948	B.Sc. (Special Mathematics) First Class 1950.
			Still in residence	

Professional or Technical schools

Present Address	None.
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B. Title of present and previous positions, names of employers and type of work.

TITLE OF POSITION	NAME OF EMPLOYER	TYPE OF WORK	DATES
Present	Research Student	Working at Imperial College on research grant from "The Department of Scientific and Industrial Research.	From time of graduation (June 1950) to present time.
Previous		Research in Dynamical Meteorology.	

C. Military Service

- (a) In the service of what country \_\_\_\_\_
- (b) Branch of what service \_\_\_\_\_
- (c) Rank \_\_\_\_\_ Period of Service \_\_\_\_\_ (DATES)
- (d) Have you completed military service required by your country? **No.**

9 Scholarships or fellowships held:

SOURCE AND SPONSOR	PLACE OF STUDY	DATE
State Scholarship & Norfolk County Major Scholarship (Ministry of Education)	Imperial College	1948-1951

Department of Scientific & Industrial Research maintenance grant for training in research. Imperial College 1951-

10 Names of cultural, scientific and educational societies of which you are a member or in which you have been active:

- Student Associate: Royal Meteorological Society.
- Member: British Astronomical Association.
- Co-opted member: Institute of Navigation sub-committee on "Pressure pattern flying".

11 Principal scientific or scholarly publications:

None.

12 Subject in which you expect to specialize or undertake research in the United States: Dynamical Meteorology.

13 Will you be candidate for a degree? No. If so, what degree?

When do you wish to begin your studies? September Month 1952 Year  
 How long do you plan to stay in the United States? One Year.

SIGNATURE DATE



14 A. Name in order of your preferences the three institutions in the United States where you would prefer to study

Institute of Advanced Study, Princeton, New Jersey.

(Prof. J. von Neumann has indicated his willingness to accept the applicant as a research worker in his department - see attached letter.)

B. Placement will be arranged by the Institute of International Education, or the Conference Board of Associated Research Councils, but if you have secured admission or made arrangements with a university in the United States, please describe these below:

Applicant has secured admission to the Institute of Advanced Study, Princeton, - see attached letter.

15 Have you been awarded, or are you being considered for, a fellowship, scholarship, grant or salary by an institution or foundation in the United Kingdom or United States?

No

If so, give name and address of institution or foundation, nature and amount of award. (List all places to which you have applied.)

16 From what sources, if any, will you receive financial assistance? Give name and address of source and amount you will receive

None.

17 List Names and addresses of four references :

<u>Prof. Sir David Brunt, M.A., Sc.D., Sec.R.S.</u>	} Imperial College of Science and Technology, Exhibition RD, London, S.W.7.
<u>Prof. H. Levy, M.A., D.Sc., F.R.S.E.</u>	
<u>Dr. E.T. Eady, B.A., Ph.D.</u>	
<u>E.F. Cutcliffe Esq., M.B.E., B.A. The Registrar</u>	

18 Do you intend to take any dependents with you? No.

If so, how many? -----

19 Statement of projected plan of study or research while in the United States:

The applicant proposes to investigate methods of numerical weather forecasting using baroclinic analytic model atmospheres.

At first attention will be given to the further study of a baroclinic model upon which some theoretical work has been started at Imperial College. This model, although it assumes a rigid upper boundary and a uniform increase of wind with height, has the advantage that it takes into account insolation and the effect of friction. The model leads to two simultaneous partial differential equations connecting the mean stream function with the mean temperature field. These equations are similar to Poisson's equation and are soluble only by numerical methods. One of the equations has been used to advect vorticity using a  $10^6$  square mesh and a time interval of six hours. This hand integration, which has been carried out by means of a form of direct summation has given encouraging results. In the near future it is hoped to examine the possibility of expressing the initial field values in the form of Fourier series and then mechanically advecting and integrating. A third possibility which is being considered is the use of relaxation methods. It is hoped that the last two methods will eventually be applied to the whole globe as compared with the limited area so far used with the first method.

The applicant would like in the United States to

carry out investigations as to the applicability of these three methods to integration using a high speed, large memory electronic calculator - a facility not available at Imperial College but which, however, the applicant understands would be available at Princeton.

Professor von Neumann and Dr. Charney, who are at present engaged in the proposed field of research at the Institute of Advanced Studies, have already had some success with a simpler barotropic model, and, it is hoped that with their help and advise progress can be made by the applicant toward the solution of more realistic model atmospheres, with a corresponding increase in the accuracy of the resulting forecast.

As the study of analytic model atmospheres is the basis of numerical weather forecasting the applicant would also like to pay short visits to all, if possible, of the following institutions where research in this field is being carried on:

University of California at Los Angeles,

University of Chicago,

Massachusetts Institute of Technology.

It is felt that discussions with the people concerned at these institutions would be of great value to the applicant in the formulation of suitable problems for numerical integration.

20 Statement by applicant (required by the United States Educational Commission in the United Kingdom, administrators of the Fulbright Grants program):

A. I certify that the information given in this application is complete and accurate to the best of my knowledge.

B. I intend to return to the United Kingdom within one year of the date of my arrival in the United States.

DATE

19<sup>th</sup> February 1952

SIGNATURE

*Russell Fildes*

# IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF METEOROLOGY  
HUXLEY BUILDING  
(Opposite Science Museum)

PROF. SIR DAVID BRUNT, M.A. Sc.D., F.R.S.

READERS:

P. A. SHEPPARD, B.Sc., F.Inst.P.

E. T. EADY, B.A., Ph.D.

Telephone - - - Kensington 4861

EXHIBITION ROAD  
SOUTH KENSINGTON  
LONDON - S.W.7

16th November, 1951.

United States Cultural Offices,  
Room 302,  
41 Grosvenor Square,  
London, W.1.

Gentlemen:

With reference to your request for information concerning MR. BRUCE GILCHRIST who has applied for a Smith-Mundt and Fulbright Award, I give below my opinion of this young man.

Mr. Gilchrist came to this Department as a post-graduate student in meteorology in October, 1950, and has been engaged on advanced study of meteorology and a programme of research. He is easily the best student we have ever had in this department and holds out promise of becoming a brilliant researcher in meteorology. I feel that he is a young man of such distinction as to justify the award to him of facilities for going abroad to pursue his studies elsewhere. My opinion of the quality of Gilchrist's work is shared by the other members of my staff and we are all convinced that he would profit greatly by spending sometime at Princeton as he suggests, and that he would certainly produce results in his research which would perform a very definite contribution to our knowledge of the atmosphere.

He is a modest young man, extremely well liked by all members of my staff as well as his fellow students, and a man of the highest character in all ways. I can think of no other student within my experience whom I could recommend with so much confidence for such an

IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY

EXHIBITION ROAD  
SOUTH KENSINGTON  
S.W.7

DEPARTMENT OF METEOROLOGY  
HUXLEY BUILDING  
IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY  
SOUTH KENSINGTON, LONDON, S.W.7

award as the one for which he is now applying, and I  
recommend his application to you as worthy of very sympa-  
thetic consideration.

Yours faithfully,

*David Brunt.*

D. BRUNT

With reference to your request for information concerning Mr. THOMAS GIBBERT who has applied for a Gairdner Award, I give below my opinion of this young man.

Mr. Gibbert came to this department as a post-graduate student in meteorology in October, 1950, and has been engaged on advanced study of meteorology and a programme of research. He is easily the best student we have ever had in this department and holds out promise of becoming a brilliant researcher in meteorology. I feel that he has a very good ear of such distinction as to justify his award to his of facilities for going abroad to pursue his studies elsewhere. My opinion of the quality of Gibbert's work is shared by the other members of my staff and we are all convinced that he would profit greatly if by spending a year or two in the United States, and if he would certainly produce results in his research which would be a very definite contribution to our knowledge of the atmosphere.

He is a modest young man, extremely well liked by all members of my staff as well as the other students, and a man of the highest character in all ways. I can think of no other student within my experience whom I would recommend with so much confidence for such an

MR. BRUCE GILCHRIST

Mr. Bruce Gilchrist came to the Meteorology Department at Imperial College in October 1950 after obtaining a very good first class honours degree in the Department of Mathematics. Since then he has attended lectures and acquired a good general background of Meteorological Physics. At the same time he has been researching under my supervision on the mathematical solution of practical and theoretical problems in dynamical meteorology and climatology. In the course of this work he has developed an interest in methods of computing the weather forecasts using high-speed large-memory electronic computing machines. To acquire the necessary background of knowledge and practical experience he has attended a course at Cambridge, under Dr. Wilkes, on programming for EDSAC and takes an active part in seminars in the mathematics department here concerned with programming for the Imperial College machine.

Mr. Gilchrist is undoubtedly the most gifted student we have had in this department for a very long time. In view of the very small number of scientists, especially in this country, able and eager to advance this new development it is of some concern that he should be enabled to develop his talents. The guidance of Dr. J. von Neumann and Dr. J.G. Charney would be invaluable to him.

*E. T. Eady*

E.T. EADY  
Supervisor  
Reader in Physical  
Climatology

# IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF MATHEMATICS  
HUXLEY BUILDING  
(Opposite Science Museum)

Telephone - - - Kensington 4861  
Head of the Department : Professor H. LEVY

EXHIBITION ROAD  
SOUTH KENSINGTON  
LONDON - - S.W.7

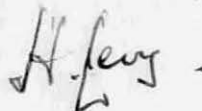
21st November, 1951.

Dear Sir,

With regard to your enquiry concerning Mr. Bruce Gilchrist, who is an applicant for the Smith-Mundt and Fulbright award, I should like to say that Mr. Gilchrist came to this College as an undergraduate student and completed his final examinations in June, 1950, obtaining a very good First Class degree. He was, in fact, fourth among all the candidates who sat and well into the First Class list. He had throughout maintained a corresponding standard so that his final results, which even showed a rising improvement towards the end, were not unexpected.

He is a man of high general ability and good intelligence. Others will speak of his work during the past two years in Meteorology. For myself, all I would wish to say is that I am certain that a period of study abroad would give him precisely the kind of opportunity and the new kind of experience that should enable him to become a good research worker of the right quality.

Yours faithfully,



M.A., D.Sc., F.R.S.E.  
Head of the Department of Mathematics.

The Secretary,  
United States Cultural Offices,  
Room 302,  
41 Grosvenor Square,  
W.1.

# IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY

OFFICE : PRINCE CONSORT ROAD

Telephone — — KENSINGTON 4861

SOUTH KENSINGTON

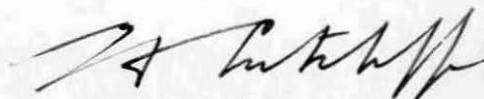
LONDON - S.W.7

YOUR REF.

OUR REF.

Mr. Bruce Gilchrist has been a student of this College from October 1948 until the present time. He took the Associateship course in Mathematics and passed his Final Examinations in 1950, being awarded the B.Sc.(Special) Degree in Mathematics with First Class Honours. From October, 1950, he has been engaged in Advanced Study in Meteorology.

Throughout his time at the College he has born an excellent reputation, and I have much pleasure in recommending him for an award.



Registrar.

23rd November, 1951.





Gillies, Donald B.

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

July 31, 1952

Mr. Donald B. Gillies  
Electronic Digital Computer  
University of Illinois  
Urbana, Illinois

Dear Don:

I am sorry that I have not replied sooner to your letter of July 18, but I have been on my vacation and have only just now got to answering my mail.

I am pleased to offer you a part-time position as a mathematician under Contract No. N-7-cnr-388, T. O. I with the Office of Naval Research at \$1700 per year and I will do whatever I can to help you in making your Ph.D.

I would appreciate hearing from you the approximate date on which you will start.

Regards,

Herman H. Goldstine

HHG/cpb

CC: Dr. Oppenheimer  
Miss Trinterud  
Mr. Levy (GHR)  
Prof. Tucker

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

January 20, 1955

Dr. Joseph Gillis  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, N. J.

Dear Dr. Gillis:

It is my understanding that you would be willing to extend your stay at the Institute to include the months of May, June and July 1955. I am accordingly writing to say that we would be agreeable to this and that we can compensate you at the present rate of your salary.

I should appreciate learning from you if this is agreeable.

Very truly yours,

Robert Oppenheimer, Director  
Institute for Advanced Study

HHG/epb

May 16, 1947

Office of the Business Manager  
Post Office Box 1663  
Santa Fe, New Mexico

Attention: A. E. Dyhre

Dear Sir:

I am in receipt of your letter of May 13th relative to Mrs. Adele K. Goldstine.

Mrs. Goldstine is not an employee of the Institute and accordingly I have no jurisdiction over her. I believe that a slight confusion has arisen inasmuch as it is her husband who is employed here. Therefore, you may deal directly with her in regard to her employment on a consultant basis.

Very truly yours,

Frank Aydelotte  
Director

cc: Dr. H. E. Bradbury

*Dr. Goldstine  
for office*

UNIVERSITY OF CALIFORNIA  
LOS ALAMOS SCIENTIFIC LABORATORY

OFFICE OF THE BUSINESS MANAGER  
P. O. BOX 1663  
SANTA FE, NEW MEXICO

May 13, 1947

Office of the Director  
Institute for Advanced Studies  
Princeton, New Jersey

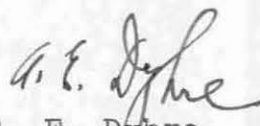
Dear Sir:

The Director of this Laboratory, Dr. N. E. Bradbury, has requested that I contact you relative to your acceptance in allowing Mrs. Adele K. Goldstine, who I understand is employed by your institution, to render services on a consultant basis to this Project.

If such an arrangement is acceptable to you, approval should be acknowledged to the undersigned. Also, stipulate the consultant service fee you will require. When this information is received, a Borrowed Personnel Agreement will be prepared and forwarded for signature by you and by Mrs. Goldstine, after we have secured approval of the Area Manager.

If we may deal directly with Mrs. Goldstine in this regard, may we have your authorization to do so?

Yours very truly,



A. E. Dyhre  
Business Manager

lb

cc: Dr. N. E. Bradbury

# Artificial Nerve Cell Created By Former Maury High Student

NORFOLK — When the human brain is duplicated electronically, much of the credit may go to a Norfolk man who dreamed of the project while still a student at Maury High School.

The success of the first artificial nerve cell, made public this week, already has brought national recognition to its creator, L. D. Harmon.

When grouped together, the cells he has devised can simulate the simple workings of nerve networks in the eye and ear.

Other scientists at Bell Telephone Laboratories where Harmon works say the cells can provide "a new avenue of approach" for scientists investigating the functions of nerve networks.

Harmon himself said, in a telephone interview Thursday, that the invention is still "a long way from the robot of science fiction," but he no longer doubts that such a robot will come to pass.

"The mysteries of the mind are to me the most exciting and interesting in the world," he said. "It may seem weird, but if you think of the brain as a mechanism of some kind, you must also admit you might be able sometime to make a machine like that."

The cells he has designed have been given simple tests to measure their approximation to nature, he said, and "it looks promising so far."

"We will now start to group more and more of them (the cells) together and test their behavior," he said.

The electronic cell delivers a series of electrical impulses when stimulated, just as a living nerve cell does. It also fails to respond under conditions where a biological cell would not respond.

Harmon admits to pondering such questions as what is thought? and what makes intelligence? when he was a child.

"I've been interested in science ever since I can remember," he said. "My hero was Thomas Edison."

He used to do "a lot of ex-

perimenting" on his own, he said, with ham radios and radio controlled airplanes, and the science teachers he had while at Maury and at Blair Junior High School "reinforced desires I already had."

He hasn't forgotten their names: "I remember Miss Gillespie, who taught chemistry, and Miss Hardy and Miss Gillette . . ."

Since graduation from Maury in 1940, Harmon attended several colleges (one of them the Norfolk Extension of Virginia Polytechnic Institute), did a great deal of graduate work and wound up at the Institute for Advance Study in Princeton, N. J.

From 1950-1956, he worked there on the electronic computer project, then went to Bell Labs as a scientist in basic research.

### Two Approaches

Harmon said he is working in two ways to duplicate the functions of the nerves: The first by imitating nature's own design for the nervous system, the second by creating machines that will ac-

complish the same things but may not resemble nature at all in design.

By the second method he already has created a number of "gadgets" that respond to different visual stimuli, he said.

One of them "recognizes" the shapes of line drawings held before it. It can tell a triangle from a circle, a square from a rectangle.

"But these are simple little devices and they're easy to fool," he said. (Turn the triangle on its side and the machine may become "confused.")

How will these things be used? "It's really too soon to say," he said, "but the Brave New World of Aldous Huxley is bound to happen, at least scientifically, if science keeps going on like this."

Harmon will continue working on the project at Bell Labs in New York, where he commutes to his home in Plainfield, N.J.

His parents, Mr. and Mrs. C.P. Harmon, still live in Norfolk at 1128 Lexan Ave.

Harmon  
Computer - personal



**First Step to the Robot?**

Norfolk native L. D. Harmon assembling the electronic nerve cell he invented at Bell Telephone Laboratories.

Norfolk and Portsmouth Retail Jewelers Association

1128 LEXAN AVENUE  
NORFOLK, VA.



TOWARD GREATER VICTORY  
JOIN  
THE MARCH OF DIMES



Bro. Robert Oppenheimer  
Institute of Advanced Study  
Princeton,  
N. J.

*ECP Personnel*  
*Harmon*

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

11 June 1956

Dr. J. Robert Oppenheimer  
Institute For Advanced Study  
Princeton, New Jersey

Dear Dr. Oppenheimer:

I have decided to accept a position with Bell Telephone Laboratories at Murray Hill, New Jersey. Please accept, therefore, my resignation from the engineering staff of the Electronic Computer Project effective 1 July 1956.

Sincerely yours,

*Leon D. Harmon*

Leon D. Harmon

LDH:kp



ECP

Harmon

February 17, 1956

Mr. Leon Harmon  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey †

Dear Leon:

I am quite happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary to \$8,000 per year effective March 1, 1956.

Yours very truly,

Herman H. Goldstine

HHCesg

cc: Dr. Oppenheimer ✓  
M. Morgan

Copy to Dr. Oppenheimer

September 7, 1955

Mr. Leon Harmon  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Leon:

I am happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary to \$6000.00 per year effective September 1, 1955.

Sincerely yours,

Herman H. Goldstine

HHG/cpb

CC: Dr. Oppenheimer  
Mr. Morgan

NOTE: Goldstine reports that as a result of Harmon's experience and continued schooling at N.Y.U. there has been a spectacular increase in his professional competence.

THE INSTITUTE FOR ADVANCED STUDY

ELECTRONIC COMPUTER PROJECT

PRINCETON, NEW JERSEY

January 15, 1954

Mr. Leon Harmon  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Leon:

I am quite happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary to \$5250 per year effective January 1, 1954.

Very truly yours,

Herman H. Goldstine

HHG/cpb

CC: Dr. Oppenheimer  
Mr. Morgan

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

*Harmon, Leon D.*

July 29, 1953

Mr. Leon D. Harmon  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Leon:

I am pleased to inform you that effective July 1, 1953  
your salary has been increased \$500.00 per year on the recom-  
mendation of Mr. Pomerene.

Sincerely,

Herman H. Goldstine

HHG/cpb

CC: Mrs. Jaffin  
Miss Trinterud

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

MEMORANDUM

TO: Miss Trinterud  
FROM: Dr. Goldstine  
DATE: October 4, 1951

I am writing this memorandum to correct an error in the memorandum from Professor von Neumann to Mr. Fleming on September 21, 1951 with regard to the present salary of Mr. Leon Harmon. The relevant sentence in the memorandum should read "Harmon was raised from \$50 per week to \$60 per week".

Accordingly, the sense of the memorandum of September 21 is to raise Harmon's salary from his present level of \$60 per week to \$66 per week.

I am very sorry if this has caused you any inconvenience.

HHG

HHG/cpb

CC: Dr. Oppenheimer  
Mr. Fleming  
Prof. von Neumann

Hildebrandt, Theodore

# Memorandum

To Mrs. Russell ..... Date 8-25-48

From Mrs. H.B. Stephens ..... Re Mr. Theodore Hildebrandt - Computer

Mr. Hildebrandt is leaving 9-1-48. He has been living at 6B Cook Road.

# Memorandum

ECP

To Mrs. Russell ..... Date 6-15-48 .....

From Mrs M.B. Stephens ..... Re Mr Theodore Hildebrandt .....

Mr Hildebrandt is arriving today and will be living at 6B Cook Road for the rest of the summer. He will be with the Computer project.

*Hunt, Gilbert*

# Memorandum

To Mrs Russell ..... Date 6-15-48 .....

From Mrs W.B. Stephens ..... Re Mr Gilbert Hunt, Computer .....

On 6-17-48, Mr and Mrs Hunt are moving from 196A Springdale Road to 364 Nassau Street, Princeton.



Hunt, Joseph H.

Computer Personnel

Mr. Joseph H. Hunt, Jr.  
One Franklin Terrace  
Princeton, N. J.

Phone 1342

Office 36

*Hunt, Mary*

8 November 1948

Mrs. Mary D. Hunt  
364 Nassau Street  
Princeton, New Jersey

Dear Mrs. Hunt:

I am pleased to inform you that the Director of the Institute has authorized an increase in your salary from \$2000 per year to \$2150 per year, effective November 1, 1948.

Very truly yours,

John von Neumann

CC: Dr. Oppenheimer ✓  
Miss Trinterud

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

*Hunt*

26 May 1948

TO: Mrs. J. D. Leary  
FROM: John von Neumann

I am enclosing herewith a letter of appointment to Mrs. Gilbert Hunt for the vacancy created by Miss Joel's leaving. If you are agreeable I would appreciate having you send this letter along to Mrs. Hunt. I would also appreciate your sending one of the copies to Miss Trinterud.

*John von Neuman*

*Starting 6/1/48 - \$2000  
Secretarial position*

26 May 1948

Mrs. Gilbert A. Hunt  
196 A Springdale Road  
Princeton, New Jersey

Dear Mrs. Hunt:

I am pleased to offer you a secretarial position on the Computer Project starting June 1, 1948, at a starting salary of \$2000 per year.

For the records, I would appreciate receiving a reply from you.

Very truly yours,

John von Neumann

CC: Mrs. Leary ✓  
Miss Trinterud ✓

ak

Joel, Elaine

February 14, 1948

To: Miss Trinterud

From: Mrs. Leary

Effective February 9, 1948, Miss Elaine R. Joel should go on the Electronic Computer payroll, and be terminated on ours. Dr. Goldstine was to let you know the exact salary. Mrs. de Montalvo should go on our payroll, full time, beginning that date - half her salary to be charged to School of Mathematics, half to General Administration.

Mr. Bradley has given you Mrs. de Montalvo's overtime hours on Saturday, January 31st and Sunday, February 1st. The Sunday charges should be charged to the Emergency Committee of Atomic Scientists and bill sent to Miss Beth Olds, 1126 East 59th Street, Chicago 37, Illinois.

EWL

Copy: Dr. Goldstine  
Mr. Bradley

# Memorandum

To Dr. Oppenheimer Date 2/24/48

From LTrinterud Re Elaine Joel

As of February 9, 1948      Stenographic work for Dr. Todd      \$2200 yr.

Charged to Contract for Office Naval Research.

*Resigned  
5/28/48*

cc: Mrs. Leary.

February 19, 1948

JOEL

MEMORANDUM

TO: Miss Trinterud  
FROM: H. H. Goldstine

Please charge Miss Elaine Joel's salary to Task Order II, Contract N6ori-139, effective February 9, 1948. She is to be paid at the rate of \$2200 per year.

I would also appreciate having you remove Mrs. de Montalvo's name from our payroll effective February 2.

I understand that both of these arrangements are agreeable to Mrs. Leary.

JOEL

February 14, 1948

To: Miss Trinterud

From: Mrs. Leary

Effective February 9, 1948, Miss Elaine R. Joel should go on the Electronic Computer payroll, and be terminated on ours. Dr. Goldstine was to let you know the exact salary. Mrs. de Montalvo should go on our payroll, full time, beginning that date - half her salary to be charged to School of Mathematics, half to General Administration.

Mr. Bradley has given you Mrs. de Montalvo's overtime hours on Saturday, January 31st and Sunday, February 1st. The Sunday charges should be charged to the Emergency Committee of Atomic Scientists and bill sent to Miss Beth Olds, 1126 East 59th Street, Chicago 37, Illinois.

EWL

Copy: Dr. Goldstine  
✓ Mr. Bradley



ECP Keefe

February 17, 1956

Mr. William T. Keefe, Jr.  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Bill:

I am quite happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary to \$8,000 per year effective March 1, 1956.

Yours very truly,

Herman H. Goldstine

HHG:sg

cc: Dr. Oppenheimer ✓  
Mr. Morgan

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

February 21, 1955

Mr. William Keefe, Jr.  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Mr. Keefe:

I am pleased to inform you that effective March 1,  
1955 your salary will be \$5750 per annum. I am indeed  
happy to learn how well you have been doing in your capacity  
as engineer in charge of the operation of our machine.

Very truly yours,

Robert Oppenheimer, Director  
Institute for Advanced Study

HIG/cpb

CC: Mr. Morgan

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

January 15, 1954

Mr. William Keefe, Jr.  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Bill:

I am quite happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to increase your salary to \$4750 per year effective January 1, 1954.

Very truly yours,

Herman H. Goldstine

HHG/cpb

CC: Dr. Oppenheimer  
Mr. Morgan

*Keefe, Wm.*

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

July 29, 1953

Mr. William Keefe, Jr.  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Bill:

I am pleased to inform you that effective July 1, 1953  
your salary has been increased \$500.00 per year on the recom-  
mendation of Mr. Pomerene.

Sincerely,

Herman H. Goldstine

HHG/cpb

CC: Mrs. Jaffin  
Miss Trinterud

*Keefe, William*

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

January 6, 1953

Mr. William Keefe  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Mr. Keefe:

I am pleased to confirm the arrangement made by  
Mr. Pomerene and yourself in regard to your appointment as  
a junior engineer on the Computer Project at \$4,000 per  
year effective January 1, 1953.

Very truly yours,

Robert Oppenheimer, Director  
Institute for Advanced Study

HMG/cpb

CC: Trinterud  
Goldstine

*Kent, Gordon*

March 17, 1953

Dr. Gordon Kent  
Electronic Computer Project  
Institute for Advanced Study  
Princeton, New Jersey

Dear Gordon:

I am happy to be able to inform you that Dr. Oppenheimer, the Director of the Institute for Advanced Study, has authorized me to grant you an increase in salary for length of service. This increase is to be \$250.00 per year effective April 1, 1953.

Very truly yours,

John von Neumann

MHG/cpb

CC: Dr. Oppenheimer  
Miss Trinterud

"This is the first case of paying a wife's expenses.

Luella has paid travel by auto expenses for a family, would expect to pay a furniture moving bill, and has paid for a man's travel.

von Neumann in his letter has committed us to pay travel and moving expenses, and if we were not to charge it to the contract, the Institute would have to bear the cost. Goldstine thought it was worth trying through the contract. If a disallowance is made, it might be made on the difference between air and cheaper means of travel for the wife. A Navy auditor told Luella he thought the Navy would disallow it; but the army is more ~~generous~~. generous.

THE INSTITUTE FOR ADVANCED STUDY  
PRINCETON, NEW JERSEY

Feb. 28, 1952

Memorandum to Dr. Oppenheimer

Re: Travel on ECP

From LTrinterud

A new employee of the ECP, Gordon Kent, has come from California and I have paid \$184 in air expenses to get him here the first of January. Just now his wife has come, also by air and I have the travel voucher (attached) for payment. Also vonNeumann's letter promising him moving expenses.

I thought I would like your approval of the travel voucher before I pay it in case it should become a disallowance that the Institute would have to accept later.



Kay:

We are holding the original letter until we have JRO's approval. Would appreciate your letting us know as soon as you have his approval.

Betty

ok  
20

approval to Goldstone  
appointment letter  
sent out 12/10/51

Kent Gordon

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

4 December 1951

Mr. Gordon Kent  
1080 College Avenue  
Palo Alto, California

Dear Mr. Kent:

I have just learned from Jim Pomerene that you will be able to take a position with us on the Computer Project as an engineer starting early in January.

I am accordingly writing with the approval of the Director of the Institute for Advanced Study, Dr. Robert Oppenheimer, to make official our offer to you. I understand that you and Jim have agreed on a salary of \$6000 per year and I suggest that we consider you as starting on January 1, 1952. I also am able to tell you that we will pay your traveling expenses from California and will also be able to pay the expenses attendant upon moving your personal household effects to Princeton.

I look forward to seeing you.

Sincerely yours,

John von Neumann

HHG:edb

CC: Dr. Oppenheimer ✓  
Miss Trinterud

December 13, 1951

Dear Mr. Kent:

I am very unhappy to tell you that I was unable to hold the little apartment about which I wrote you earlier in the month. The landlady went ahead and rented it without bothering to notify me. I will, of course, keep looking and let you know of anything that turns up.

It may be necessary simply to rent a room at the start, housing seems to be exceptionally acute this time of the year, but I know that eventually we will find you something.

Please do not hesitate to let me know of anything I can do to help you, and I most certainly will let you know of anything that turns up.

Sincerely yours,

(Mrs. Ruth W. Barnett)

Mr. Gordon Kent  
1080 College Ave.  
Palo Alto, California

1080 College Avenue  
Palo Alto, Cal.

December 10, 1951

Mrs. Ruth W. Barnett  
The Institute For Advanced Study  
Princeton, New Jersey

Dear Mrs. Barnett:

The apartment you described in your letter of December 6th sounds ideal to us. We are looking forward to the job of fixing it up to suit our needs and tastes, and I feel sure that our efforts will be well rewarded. The terms of the lease and the rent are quite satisfactory, so by all means hang onto it for us.

I hope that a deposit will not be necessary to bind the contract; but if it is, please let me know at your convenience.

Let me tell you again that we are very grateful for being relieved of the burdensome task of finding housing.

Sincerely yours,

*Gordon Kent*

Gordon Kent

December 6, 1951

Dear Mr. Kent:

Thank you for your letter of December 2, in prompt reply to my inquiry about your housing needs.

I wanted to let you know that I have located an apartment in Princeton near the shopping center for \$78.00 a month. Oil heat is furnished, the tenant pays for utilities. There are three average size rooms, kitchen and bath. The furniture, though far from modern or elegant, is adequate, but you would probably want to fill in with a few pieces of your own. One of the rooms, used as a bedroom by the present tenant, was formerly a sun porch and would probably be of especial interest to Mrs. Kent. The lease must run until next September but Dr. Goldstine tells me that you will be here on a long term basis. If, between now and September, you managed to locate an apartment you preferred, I am pretty certain you could find a sub-let for this one. I might add that there is a large room and bath in the basement for the use of the tenant and while it would need a great deal of cleaning and "fixing", has fine possibilities as a study or play room. Altogether, I think this a very good buy. The rent is reasonable for Princeton and the location is good.

I would appreciate it very much if you would let me know at your earliest convenience whether or not you care to accept this apartment, as I must notify the landlord very soon, and apartments are difficult to hang onto.

Sincerely yours,

(Mrs. Ruth W. Barnett)

Mr. Gordon Kent  
1080 College Ave.  
Palo Alto, California

1080 College Ave.  
Palo Alto, Cal.

Dec. 2, 1951

Mrs. Ruth W. Barnett  
The Institute For Advanced Study  
Princeton, New Jersey

Dear Mrs. Barnett:

Thankyou for your letter of November 27; needless to say, I am delighted to know that you will be able to look for housing for us before our arrival.

Since we have no family, we will need a modest furnished apartment. Mrs Kent is an artist, and we would like enough space so that she will be able to spread her work out without occupying the entire apartment. I think that either a four room unit or a three room unit with a large living room would be entirely satisfactory. We are indifferent to noisy neighbors; in fact, I am an amatuer musician and am willing to tolerate a good deal of noise in exchange for the privilege of making some myself.

Not knowing what rentals in Princeton are, it is difficult for me to give you a figure that is realistic. I would think that \$85 a month is a reasonable figure.

I expect to arrive in Princeton about Jan. 3. Mrs. Kent will not be coming until February, so it is not absolutely necessary that we have an apartment by the first of the year.

Thankyou very much for your efforts on our behalf.

Sincerely yours,



Gordon Kent

*Permanent*

November 27, 1951

Dear Mr. Kent:

I have been informed that you and Mrs. Kent are planning to arrive at the Electronic Computer Project early in January.

Since the apartments in the Institute Housing Project have long been assigned for the second term it would be of tremendous help to me if you could inform me, at the earliest possible time what your housing needs will be. Apartments in the town of Princeton are, as everywhere, very hard to get and often very expensive. If you would let me know when you plan to arrive and what you plan to pay in rent I will most certainly do the best I can to make suitable housing arrangements for you.

Sincerely yours,

(Mrs. Ruth W. Barnett)

Mr. Gordon Kent  
1080 College Avenue  
Palo Alto, California

ECP  
c/r Kinoshita

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

June 2, 1954

Mr. T. Kinoshita  
Institute for Advanced Study  
Princeton, New Jersey

Dear Mr. Kinoshita:

I am writing with the approval of Professor von Neumann to offer you a position with the computer project as a physicist under the terms of Contract No. DA-36-034-ORD-1330 at a salary of \$400 per month for the month of June 1954 and for the months of July and August 1954 providing that a contract with the Department of Defense is extended for the fiscal year beginning July 1, 1954.

Very truly yours,

Herman H. Goldstine

cpb

CC: Dr. Oppenheimer  
Mr. Morgan



*Kochens, Manfred*

THE INSTITUTE FOR ADVANCED STUDY  
ELECTRONIC COMPUTER PROJECT  
PRINCETON, NEW JERSEY

May 18, 1953

Mr. Manfred Kochen\*  
206 West 83rd Street  
New York 24, New York

Dear Mr. Kochen:

I have heard from Dr. Goldstine of your recent visit to the Institute and of your interest in our mathematical group at the Computer Project.

With the approval of Dr. Robert Oppenheimer, the Director of the Institute for Advanced Study, I am pleased to offer you a position in the mathematical group at a starting salary of \$4,000 per year. I understand that this rate is agreeable to you and that you can start working in the fall.

I would appreciate learning from you the approximate date when you can begin so that we may make the necessary arrangements at this end. I look forward to meeting you when you join us.

Very truly yours,

John von Neumann

HHG.cpb

CC: Dr. Oppenheimer ✓  
Miss Trinterud

\*Will receive his PhD from  
Columbia this spring

Kondopria, Akrova

THE INSTITUTE FOR ADVANCED STUDY  
SCHOOL OF MATHEMATICS  
PRINCETON, NEW JERSEY

May 26, 1948

MEMORANDUM

TO: Mrs. Eleanor Leary

FROM: Professor John von Neumann

Dr. Goldstine has recommended a salary increase of \$100 for Miss Kondopria, which represents an increase from \$2300 to \$2400 per year. If this is agreeable to you, as I understand that it is, I would appreciate your mailing out the enclosed notification to Miss Kondopria.

Sincerely yours,

*John von Neumann*

May 26, 1948

Miss Akrevoe Kondopria  
Institute for Advanced Study  
Princeton, New Jersey

Dear Miss Kondopria:

I am pleased to be able to tell you that Dr. Goldstine has recommended an increase in your salary from \$2300 to \$2400 per year, and the Director's Office has approved the increase, effective July 1, 1948.

Sincerely yours,

JOHN VON NEUMANN

JVN:LD

CC: Miss Trinterud  
Mrs. Leary ✓

# Memorandum

To Dr. Oppenheimer Date 2/24/48

From LTrinterud Re Akrevoe Kondopria

As of June 1, 1946

Secy to Computer Project (HHGoldstine) \$2000 yr plus \$25 mont  
commuting allowance from Philadelphia.

July 1, 1947

"

\$2300 no commuting allowance

Charged to Electronic Computer Project.