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Folder Record

Title: Ken Olsen Collection
Author: Olsen, Kenneth H.
Arrangement: Series I: Letters to/Letters from

Imprint: 1960

Subjects:

Description: One folder

Notes:

Summary: Included among the general correspondence dealing with the day-to-day management of the company are letters to current and prospective customers discussing modifications or customization of equipment for specific applications, for example, addressing magazine mailing labels (for the Harvard Business Review). There is ongoing correspondence (begun in 1959) with Dr. Sidney Weinstein of the Albert Einstein College of Medicine detailing features of the ARC-1 and how the machine would register neuroelectric responses of patients.

The letters listed below are of special interest because they define a particular point in Digital's history and growth:

Jan 8 to Michael Elorreaga, White Sands Missile Range: detailed response to invitation to bid

Jan 18 to Barbera Wertz: confirmation of date to visit Maynard to discuss position dealing with customers

Jan 20 to F.S. Ellis, Elliott Brothers Ltd.: description of PDP-1 with prices and projected applications

Jan 21 to Prof. Alfred E. Susskind, Electrical Engineering Department, MIT: offer to give demonstrations to students or loan equipment for classroom use or thesis work

Jan 26 to Wayne Brobeck: discussion of why DEC does not pay sales commissions

Jan 29 to Air Force Missile Development Center, Holloman Air Force Base, New Mexico: proposal and price quotation

Feb 26 to William Bartic, Remington Rand Univac: declining to bid on a memory stack project because it would concentrate too much output on only one customer

Mar 29: Building Blocks sent as paperweights to all board members

Apr 16 to General Doriot, American Research & Development Corp.: regarding the copying of DEC circuits to a company (Sprague) which Olsen had approached for capital before going to American Research and Development

Jun 13 to Charles Dam, Sorrles-Johnson Co.: stating financial goals, pricing and cost formulas for Digital's products

Jul 13 to C. Daniel Geisler, MIT: request for ARC specifications

Jul 15 to E. Suzuki, Asahi Trading Co., Ltd.: regarding sales of DEC products in Japan

Jul 20 to Irving Berg, Maynard Industries: regarding tenancy at Mill and plans for expansion (company now employs 145); request for more parking space

Sep 8 to William Congleton, American Research & Development Corp.: discussion of DEC in report "Problems of Financing and Managing New Research-based Enterprises in New England" by Albert H. Rubenstein, MIT

Dec 30 to David F. Frick: status of ARC-1 and PDP-1

December 30, 1960

Mr. David F. Frick
303 North Hale
Palatine, Illinois

Dear Mr. Frick:

We were pleased to hear of your interest in the PDP application note on average response computation. These experiments were performed just as a demonstration of the type work which can be done with the PDP-1 computer. Several of our engineers came from the group at Lincoln Laboratory who made the ARC-1 and the TX-0 computers which are used by Professor Rosenblith's group at M.I.T., and so we are naturally very enthusiastic about the future of this type of work.

We are now designing a modernized version of the ARC-1 computer which we are considering selling as a catalog item. The PDP type computer will be most useful when people have the skill and desire to do sophisticated analysis; but for straightforward averaging, a special purpose machine like the ARC will be most useful. If you are not acquainted with the work done at M.I.T. on this subject, I would recommend that you obtain a copy of the book they published titled, Processing Neuroelectric Data, by William M. Siebert, Technical Report 351, dated July 7, 1959. This is a paper covered book but is available from many technical book stores or from M.I.T., and the price is \$4.00.

Mr. C. Daniel Geisler just completed a very long, detailed thesis on this work at M.I.T. which should be available from M.I.T. in the future. He is now doing post-doctoral studies at the University of Chicago and could probably give you more information if you would contact him.

Mr. David F. Frick

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December 30, 1960

If we can help you in any way, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jcv

COPY

December 29, 1960

Mr. Robert L. Forward
Physics Department
University of Maryland
College Park, Maryland

Dear Mr. Forward:

Thank you for your request for a bid on a voltage to digital converter. There are two questions we would like to ask before we suggest a solution to your problem.

How fast will the input voltage vary? We need to know this because the interval during which the signal varies 0.5 per cent is the time during which the complete conversion must be made.

The LGP-30 normally uses binary coded decimal paper tape. The converter would be somewhat simpler if a straight binary code were used and the conversion to decimal done within the computer. Would this be satisfactory to you?

We look forward to hearing from you again.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

December 28, 1960

Mr. Paul Fabricant
Ets Radiophon
148, Avenue Malakoff
Paris 16, FRANCE

Dear Mr. Fabricant:

We are pleased to hear of your interest in representing Digital Equipment Corporation in France. Although we have been asked by several organizations to represent us in France, we have not actively pursued the question because our sales in Europe have been small. We would like to know more about your company so that when we do decide on representation in Europe we will be able to give your company due consideration.

I am enclosing literature on our products. If there is any more information we can give you, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

December 28, 1960

Mr. Arne Lyse
Institute of Radio Techniques
Trondheim, NORWAY

Dear Mr. Lyse:

We were pleased to hear of your interest in our Programmed Data Processor computer. I am enclosing some literature on our computers, and we would be very happy to send you more and answer any questions you may have.

Our PDP-1 seems particularly well suited to academic and research type problems. The prices, f.o.b. Maynard, Massachusetts, are as follows:

| | |
|---------------------------------|------------|
| PDP-1 with 1000 words of memory | \$ 85,000. |
| PDP-1 with 4000 words of memory | 110,000. |
| Additional 4000 word modules | 40,000. |
| 16 inch oscilloscope | 10,300. |
| Magnetic tape control | 20,000. |
| Magnetic tape handler | 15,000. |

Please call on us if we can be of any further help.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv
Enclosures

December 28, 1960

Mr. Charles H. Reed
Union Street
North Marshfield, Massachusetts

Dear Mr. Reed:

We are very pleased to hear of interest in our products. Although we sell between two to three million dollars worth of units per year in this country, our sales abroad have been very small. However, as the need for advanced technology develops in other countries, we expect this market to expand; and so we are actively considering our policies for foreign selling.

I am enclosing several pieces of literature which describe our products, and in the brochure on ten megacycle units you will find 5202 described. This unit was originally called the 202, and in some of our literature it was so named.

We look forward to hearing from you and hearing what services you have to offer.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv
Enclosures

December 28, 1960

Mr. Adolph Manoil
Chandler School for Women
448 Beacon Street
Boston 15, Massachusetts

Dear Mr. Manoil:

In reply to your letter of December 22 requesting technical literature for your new science-research program, we think this is an excellent idea and are most happy to co-operate.

The enclosed material is a sample of the type of technical writing that we do here at DEC, and we hope this will be helpful to you.

Please feel free to contact us if we can be of any further assistance.

Sincerely yours,

DIGITAL EQUIPMENT CORPORATION

Kenneth H. Olsen

KHO/jv
Enclosures

December 23, 1960

Mr. Armen Kashgegian
929 Massachusetts Avenue
Arlington, Massachusetts

Dear Mr. Kashgegian:

We were very pleased with the company picnic that we had at your camp last fall. We would like to know if the ninth of September is available this coming year. If not, our second choice would be the sixteenth of September.

I would also like to reserve the grounds for a Sunday School picnic for Park Street Church, of Boston. The date we would like for the Sunday School picnic would be June 17, 1961; and the second choice would be June 11, 1961.

We would like to also know the price for these two days.

Sincerely yours,

Kenneth H. Olsen

KBO/jv

December 23, 1960

Mr. C. Barowsky
American Industries Company
Olivine Street
Willimansett, Massachusetts

Dear Mr. Barowsky:

We are pleased to hear of your interest in Digital Equipment Corporation, but for the immediate future we are not interested in making ties with other organizations. We feel no limitations to our growth and development as a company, and so see no need for combination.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

December 22, 1960

Dr. Ander Karasz, librarian
M. T. A.
Szamitastechnikai Kospontja
Konyvtara
Budapest V, Nador u. 7.
HUNGARY.

Dear Dr. Karasz:

We are very sorry that we have offended you by sending literature to you with the incorrect name and title. We will be careful that this mistake is not made again, because we indeed meant no lack of respect.

I am enclosing a photostat of the inquiry card from which we obtained the first address. I believe that we made an accurate copy of the address on the card; but we, of course, do not know who filled out the original.

The second address we obtained from Automatic Control magazine which was apparently the result of an inquiry made directly to that magazine. The lists we obtain from them come from an automatic tabulating machine. In order to get the names and addresses onto punched cards for the tabulating machine, they often use gross and inaccurate abbreviations. Because this is a service for which they receive no compensation, we cannot criticize the quality of their work.

American tabulating machines and typewriters do not have the letter "á", and so we will never

Dr. Ander Karass

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December 22, 1960

be able to be completely accurate in typing your name; but I am sure you will understand the reason for this.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv

COPY

December 9, 1960

Mr. Stan Butman
Massachusetts Institute of Technology
Room 312, Graduate House
Cambridge 39, Massachusetts

Dear Mr. Butman:

I was very pleased to interview you on Wednesday and to hear of your interest in Digital Equipment Corporation. We are very interested in hiring productive and creative engineers so that we can maintain our position of leadership in advanced digital technology to the digital field. We would like very much to have the opportunity to have you visit our plant to show you just what we are doing and show you what facilities we have. I am enclosing a map which will help you find our plant if you have the opportunity to visit us.

Richard Best is our chief engineer and the most important man for you to visit, and so I suggest that you give him a call and let him know what is a convenient time for you and see if he is free at that time. The best number to call is our Waltham phone which is TWinbrook 3-1779.

I am enclosing a copy of our own application form which we would like to have you fill out because it has a little more information and is in a form which we find easier to use.

If you have any questions, please feel free to call me at the above number.

Sincerely yours,

Kenneth H. Olsen

KBO/jv
Enclosures

December 9, 1960

Mr. Ralph Alter
5 Ashford Court
Allston 34, Massachusetts

Dear Mr. Alter:

I was very pleased to interview you on Wednesday and to hear of your interest in Digital Equipment Corporation. We are very interested in hiring productive and creative engineers so that we can maintain our position of leadership in advanced digital technology to the digital field. We would like very much to have the opportunity to have you visit at our plant to show you just what we are doing and show you what facilities we have. I am enclosing a map which will help you find our plant if you have the opportunity to visit us.

Richard Best is our chief engineer and the most important man for you to visit, and so I suggest that you give him a call and let him know what is a convenient time for you and see if he is free at that time. The best number to call is our Waltham phone which is TWINbrook 3-1779.

I am enclosing a copy of our own application form which we would like to have you fill out because it has a little more information and is in a form which we find easier to use.

If you have any questions, please feel free to call me at the above number.

Sincerely yours,

Kenneth H. Olsen

KHO:jv

Enclosures

DEC notebook

December 9, 1960

Mr. Richard Otte
97 Bay State Road
Boston, Massachusetts

Dear Mr. Otte:

I was very pleased to interview you on Wednesday and to hear of your interest in Digital Equipment Corporation. We are very interested in hiring productive and creative engineers so that we can maintain our position of leadership in advanced digital technology to the digital field. We would like very much to have the opportunity to have you visit at our plant to show you just what we are doing and show you what facilities we have. I am enclosing a map which will help you find our plant if you have the opportunity to visit us.

Richard Best is our chief engineer and the most important man for you to visit, and so I suggest that you give him a call and let him know what is a convenient time for you and see if he is free at that time. The best number to call is our Waltham phone which is TWINbrook 3-1779.

I am enclosing a copy of our own application form which we would like to have you fill out because it has a little more information and is in a form which we find easier to use.

If you have any questions, please feel free to call me at the above number.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures

December 9, 1960

Mr. John N. Kogan
523 Beacon Street
Boston, Massachusetts

Dear Mr. Kogan:

I was very pleased to interview you on Wednesday and to hear of your interest in Digital Equipment Corporation. We are very interested in hiring productive and creative engineers so that we can maintain our position of leadership in advanced digital technology to the digital field. We would like very much to have the opportunity to have you visit at our plant to show you just what we are doing and show you what facilities we have. I am enclosing a map which will help you find our plant if you have the opportunity to visit us.

Richard Best is our chief engineer and the most important man for you to visit, and so I suggest that you give him a call and let him know what is a convenient time for you and see if he is free at that time. The best number to call is our Waltham phone which is Twinbrook 3-1779.

I am enclosing a copy of our own application form which we would like to have you fill out because it has a little more information and is in a form which we find easier to use.

If you have any questions, please feel free to call me at the above number.

Sincerely yours,

Kenneth H. Olsen

KBO:jv
Enclosures

December 9, 1960

Mr. Charles H. Nehf, Jr.
416 Beacon Street
Boston 15, Massachusetts

Dear Mr. Nehf:

I was very pleased to interview you on Wednesday and to hear of your interest in Digital Equipment Corporation. We are very interested in hiring productive and creative engineers so that we can maintain our position of leadership in advanced digital technology to the digital field. We would like very much to have the opportunity to have you visit at our plant to show you just what we are doing and show you what facilities we have. I am enclosing a map which will help you find our plant if you have the opportunity to visit us.

Richard Best is our chief engineer and the most important man for you to visit, and so I suggest that you give him a call and let him know what is a convenient time for you and see if he is free at that time. The best number to call is our Waltham phone which is TWINbrook 3-1779.

I am enclosing a copy of our own application form which we would like to have you fill out because it has a little more information and is in a form which we find easier to use.

If you have any questions, please feel free to call me at the above number.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

December 9, 1960

Mr. Sydney I. Newburg
3 Ames Street
Cambridge 39, Massachusetts

Dear Mr. Newburg:

I was very pleased to interview you on Wednesday and to hear of your interest in Digital Equipment Corporation. We are very interested in hiring productive and creative engineers so that we can maintain our position of leadership in advanced digital technology to the digital field. We would like very much to have the opportunity to have you visit at our plant to show you just what we are doing and show you what facilities we have. I am enclosing a map which will help you find our plant if you have the opportunity to visit us.

Richard Best is our chief engineer and the most important man for you to visit, and so I suggest that you give him a call and let him know what is a convenient time for you and see if he is free at that time. The best number to call is our Waltham phone which is TWINbrook 3-1779.

I am enclosing a copy of our own application form which we would like to have you fill out because it has a little more information and is in a form which we find easier to use.

If you have any questions, please feel free to call me at the above number.

Sincerely yours,

Kenneth H. Olsen

KHO:jv
Enclosures

December 9, 1960

Mr. William J. Maczko
528 Beacon Street
Boston 15, Massachusetts

Dear Mr. Maczko:

I was very pleased to interview you on Wednesday and to hear of your interest in Digital Equipment Corporation. We are very interested in hiring productive and creative engineers so that we can maintain our position of leadership in advanced digital technology to the digital field. We would like very much to have the opportunity to have you visit at our plant to show you just what we are doing and show you what facilities we have. I am enclosing a map which will help you find our plant if you have the opportunity to visit us.

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I am enclosing a copy of our own application form which we would like to have you fill out because it has a little more information and is in a form which we find easier to use.

If you have any questions, please feel free to call me at the above number.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

December 9, 1960

Mr. Alan W. Ricketts, Jr.
37 Bay State Road
Boston 15, Massachusetts

Dear Mr. Ricketts:

I was very pleased to interview you on Wednesday and to hear of your interest in Digital Equipment Corporation. We are very interested in hiring productive and creative engineers so that we can maintain our position of leadership in advanced digital technology to the digital field. We would like very much to have the opportunity to have you visit our plant to show you just what we are doing and show you what facilities we have. I am enclosing a map which will help you find our plant if you have the opportunity to visit us.

Richard Best is our chief engineer and the most important man for you to visit, and so I suggest that you give him a call and let him know what is a convenient time for you and see if he is free at that time. The best number to call is our Waltham phone which is TWInbrook 3-1779.

I am enclosing a copy of our own application form which we would like to have you fill out because it has a little more information and is in a form which we find easier to use.

If you have any questions, please feel free to call me at the above number.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

December 9, 1960

Mr. Carl A. Karrfalt
23 Maplewood Street
Watertown, Massachusetts

Dear Mr. Karrfalt:

I was very pleased to interview you on Wednesday and to hear of your interest in Digital Equipment Corporation. We are very interested in hiring productive and creative engineers so that we can maintain our position of leadership in advanced digital technology to the digital field. We would like very much to have the opportunity to have you visit our plant to show you just what we are doing and show you what facilities we have. I am enclosing a map which will help you find our plant if you have the opportunity to visit us.

Richard Best is our chief engineer and the most important man for you to visit, and so I suggest that you give him a call and let him know what is a convenient time for you and see if he is free at that time. The best number to call is our Waltham phone which is TWinbrook 3-1779.

I am enclosing a copy of our own application form which we would like to have you fill out because it has a little more information and is in a form which we find easier to use.

If you have any questions, please feel free to call me at the above number.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

December 9, 1960

Mr. Chang Hwi Chi
509 Graduate House
Cambridge 39, Massachusetts

Dear Chang:

I was very pleased to interview you on Wednesday and to hear of your interest in Digital Equipment Corporation. We are very interested in hiring productive and creative engineers so that we can maintain our position of leadership in advanced digital technology to the digital field. We would like very much to have the opportunity to have you visit our plant to show you just what we are doing and show you what facilities we have. I am enclosing a map which will help you find our plant if you have the opportunity to visit us.

Richard Best is our chief engineer and the most important man for you to visit, and so I suggest that you give him a call and let him know what is a convenient time for you and see if he is free at that time. The best number to call is our Waltham phone which is TWInbrook 3-1779.

I am enclosing a copy of our own application form which we would like to have you fill out because it has a little more information and is in a form which we find easier to use.

If you have any questions, please feel free to call me at the above number.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

December 7, 1960

Dr. Sidney Weinstein
Albert Einstein College of Medicine
Yeshiva University
Eastchester Road & Morris Park Avenue
New York 61, New York

Dear Dr. Weinstein:

We are pleased to hear that you will be able to attend the Eastern Joint Computer Conference next week. We do not have passes for this show because they are not necessary to see the exhibits, which are the only really interesting part of the show. In order to attend the sessions, there is a fee of \$9.00 but, in general, they are not worth while unless someone has a particular interest in certain papers.

We look forward to seeing you next week.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

December 7, 1960

Mr. Theodore Blashke, W5-165
Massachusetts Institute of Technology
Instrumentation Laboratory
45 Osborn Street
Cambridge 39, Massachusetts

Dear Ted:

We were pleased to hear of your interest in the PDP computer and we would like to do all we can to tell you about it. Here are several pieces of the literature on our computer. If you want any more, please feel free to ask.

We look forward to seeing you at our plant where we can show you our computer.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

December 9, 1960

Mr. Douglas L. Hogan
34 Moreland Avenue
Lexington 73, Massachusetts

Dear Doug:

It was a little while before I made note of our meeting on Monday, December 19, at 8:30 a.m. If I remembered this time incorrectly, please give me a call and we can put it on our schedule correctly.

We look forward to seeing you at that time.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

December 6, 1960

General Ceramics Corporation
Crows Mill Road
Keasbey, New Jersey

Attention: Sales Department

Gentlemen:

We have been using your ferrite magnetic cores for production of pulse transformers with good success. However, I feel at times we are not completely rational in our choice of core material. We would like to have a copy of your latest sales data on pulse transformer core materials. We are particularly interested in plots of permeability and complex permeability with frequency.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

December 2, 1960

Mr. Kenneth Van Dyck
Van Dyck Associates
Bridge Square
Westport, Connecticut

Dear Mr. Van Dyck:

We have been very pleased with the work done by Bob Pfister for us. I am sure he made a very worth-while contribution to our products. However, when we started the relationship we had a backlog of jobs, but now it appears that we do not have enough to justify several days a month. Most of our design work is for special, one-of-a-kind type jobs for which the customer is not willing to pay for good design and so we have to produce what comes out of our drafting room with the suggestions of our own engineers.

We do, however, appreciate your work and want to keep our connection with you so that we can use you when we do have large jobs or jobs which, because they will be produced many times, can justify the price of good design. For now, we would like to request just two days a month, which usually could be one day here and one day at Westport.

The one day here can be at your convenience; but we, of course, would like to know when it is and, at times, we may request that Bob stay in Westport because the nature of the work might be such that with a short time on the telephone we could save the trouble and expense of a trip up here.

The Eastern Joint Computer Conference is being held in the New Yorker Hotel, New York City, on December 13, 14, and 15. Our computer will be on display there and you might like to see it if you are in town those days.

Sincerely yours,

KHO/jv

Kenneth H. Olsen

December 2, 1960

Mr. K. L. Nyman
Into O/Y
11 Meritullinkatu
Helsinki, FINLAND

Dear Mr. Nyman:

We were pleased to hear of your interest in our Digital Building Blocks. Although we are one of the main suppliers of Digital Building Blocks in this country, we have not aggressively pursued the foreign market and, therefore, we do not have policies worked out for this type of selling. However, we would like to continue correspondence with you on this subject.

I am enclosing catalog sheets on our products. The Building Blocks come in two forms: Test Equipment, which is patched together for laboratory-type applications, and System Building Blocks for permanent or semi-permanent installation. We also make testing systems and a very powerful, high speed digital computer. If you would like more literature or any more information on these products, we would be very pleased to send it to you.

In this country, we sell our Building Blocks (but not our systems or computers) through exclusive sales representatives. The commissions they receive are:

10 per cent on the first \$5,000 of any single order
9 per cent on the next \$5,000 of any single order
8 per cent on the next \$10,000 of any single order
7 per cent on the next \$20,000 of any single order
6 per cent on the next \$60,000 of any single order
5 per cent of the amount which exceeds \$100,000 of any single order.

Mr. K. L. Myman

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December 2, 1960

All orders are shipped f.o.b. Maynard, Massachusetts. There is a quantity discount to the customer printed on the literature. Unless there were reasons for doing otherwise, these are the terms with which we would expect to do business with a foreign sales representative.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv
Enclosures

COPY

December 2, 1960

Mr. Gunnar Thulin
Thule Foto
Varvsgatan 24
Vastervik, Sverige
SWEDEN

Dear Mr. Thulin:

We are pleased to hear of your interest in Digital Equipment Corporation's Building Blocks. We make two lines of building blocks: the Test Equipment, which is patched together, and the System Building Blocks, which are soldered together for permanent and semi-permanent applications.

I am enclosing literature on our products. If there is any further information, or if you would like more copies of this literature, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv
Enclosures

November 28, 1960

The Commissioner of Patents
Washington 25
D. C.

Dear Sir:

Please send one copy each of the patents indicated on the enclosed patent coupons.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures - 59 Patent Coupons

November 23, 1960

Mr. Jay W. Forrester
11 Holden Wood Road
Concord, Massachusetts

Dear Jay:

I think our session last night was very worth while, and my impression is that Jack Brown is almost enthusiastic about the program now as compared to the reluctance he showed after the Board of Directors meeting. I am pleased that we had Best and Gurley in this session because ~~it was very important to have their understanding and agreement.~~

There are two points which I did not bring up last night because they were somewhat irrelevant to the discussion, but I would like to mention them to you. We want to maintain our strong position because of our technical competence. In the building block field, this is expressed in a product which is of higher quality than the competition and also of higher cost, but the cost is not a measure of our technical competence or advantage over the competition. In the computer field, for instance, if there is a need for better quality than what IBN can supply, it is not serious enough that customers are conscious of it. In this case, our technical competence means that we can do it for significantly less money. A big part of the cost of computers is the technical incompetence of other organizations.

This is also true in our memory test systems. We may, on the surface, appear to be five or ten per cent higher than the competition, but really we give a lot more for the money; and so in a sense we are underpricing the competition. We can do this very profitably because of our technical competence.

Much of our discussion was based on the assumption that we are money limited. This is really an ideal case and, when it is true, we indeed want to get something approaching ten per cent per month back on any money we put out; but for the normal case, money will be one more competitive commodity. When the company has a lot of cash and is collecting three per cent per annum on short-term notes, an investment giving one-half per cent per month would look very attractive.

In a system like the one we are discussing, the entrepreneur will have to bid for money at the best price he can get. The man holding the money is going to have to make the painful decisions that all money lenders have of making relatively long-term commitments on current interest rates.

We look forward to meeting with you again in the next two weeks.

Sincerely yours,

KHO/jv

COPY

November 22, 1960

Dr. Antoine Remond
Charge de Recherche
Centre National de la
Recherche Scientifique
131, Boulevard Malesherbes
Paris, FRANCE

Dear Dr. Remond:

We were pleased to hear of your interest in the Programmed Data Processor. I am enclosing several pieces of literature which describe ~~this~~ equipment. If you have any further questions, we would be very happy to answer them.

The prices for the PDP computer are as follows: PDP-1 with 1024 words of memory is \$85,000; PDP-1 with 4096 words of memory is \$110,000; PDP-3 with 4096 words of memory is \$220,000. The 16 inch oscilloscope is \$5,000 extra.

During this last summer we processed some electroencephalographic recordings as a demonstration of our computer. I have attached some oscillogram photographs to this letter which show our results. We are equipment builders and not medical researchers, so we claim no significance to these pictures other than the fact that they demonstrate the usefulness of the computer for this type of work.

Be sure to let us know if there is any other information which we can supply.

Sincerely yours,

KHO/jv
Enclosures

Kenneth H. Olsen

November 22, 1960

Dr. Sidney Weinstein
Albert Einstein School of Medicine
Yeshiva University
Eastchester Road & Morris Park Avenue
New York 61, New York

Dear Dr. Weinstein:

We have been reasonably successful in our experiments with Dan Geisler in demonstrating the use of PDP-1 for processing electroencephalographic recordings; but because the work went a little slower than we expected, we never had anything very dramatic to invite you to see.

Dan spent a little more time on his thesis than what he had expected, and so he made only one set of runs. He felt the results were very good, however, and we feel it shows what can be done with the computer.

One of our engineers is writing a thesis on ARC type computers. This is turning out to be very useful because she is getting the opinions of everybody as to what should be included in an ARC and then will evaluate what each of these features will cost.

We are going to demonstrate our PDP computer at the Eastern Joint Computer Conference, in New York in December at the Hotel New Yorker. If you can come into town during the show, we would like very much to talk with you and to tell you more about our equipment. The show hours are: 11:00 A.M. to 6:00 P.M. on December 13, 9:00 A.M. to 6:00 P.M. on December 14, and 9:00 A.M. to 5:30 P.M. on December 15.

I hope we can see you in December at the show.

Sincerely yours,

KHO/jv

Kenneth H. Olsen

Last copy of response sent 11/23

November 22, 1960

Mr. Ernest K. Kolsrud
Senior Engineer
Aerojet-General Corporation
P. O. Box 460
Frederick, Maryland

Dear Mr. Kolsrud:

This is in reply to your request for information on delay lines. Digital Equipment Corporation manufactures a line of digital building blocks which includes several units that contain delay lines. However, we do not manufacture delay lines as such.

I am enclosing literature on our products; and if you ever have need for units such as these, we would be very pleased to talk to you about them.

Sincerely yours,

Kenneth M. Olsen

KHO/jv
Enclosures

November 15, 1960

The Commissioner of Patents
Washington 25
D. C.

Dear Sir:

Please send one copy each of the patents indicated on the enclosed patent coupons.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures - 60 Patent Coupons

November 14, 1960

Dr. Fouad A. M. Osman
School of Civil Engineering
Hollister Hall
Cornell University
Ithaca, New York

Dear Dr. Osman:

We are pleased to hear of your interest in digital computers for use at Cairo University. We are particularly interested in this application because most of our engineering staff came from M.I.T. where we were responsible for the building of the TX-0 computer which has become a significant influence on the educational point of view of M.I.T.

Our PDP-1 computer originally started out to be a modernized version of the TX-0 computer, but it turned out to be a much more powerful machine.

I am enclosing some literature on our machine, and we would be very pleased to talk to you in detail and to answer any questions you might have. We are planning to demonstrate the PDP-1 at the Eastern Joint Computer Conference in New York City on December 13 - 15. I heartily recommend that you attend this conference if at all possible because it will then give you an opportunity to speak directly with each of the computer manufacturers.

I am enclosing a photocopy of a paper presented at the National Electronics Conference a few weeks ago which tells of the experience that the Electrical Engineering Department at Purdue University had in incorporating computers into their program. I am sure that M.I.T. Electrical Engineering Department would also be helpful in telling you of their experiences.

Dr. Fouad A. R. Osman

-2-

November 14, 1960

If we can be of any further service, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv
Enclosures

cc: Dr. Michael Bakhoun (w/encs)

COPY

November 10, 1960

Mr. Robert Slater
John Hancock Mutual Life
Insurance Company
200 Berkeley Street
Boston 17, Massachusetts

Dear Bob:

I just had a long visit from one of the engineers at Itek Corporation in Waltham. Their original goal as a company was to develop an information retrieval system for large quantities of information. Because of the explosive inflation of their stock, they are forced to spend most of their efforts trying to justify the high price of their stock, and they may never get around to their original goal. However, their ideas sound very good; and if your people haven't looked into the Itek system as a means for storing your vast amounts of information, I would recommend that they look into it.

They record the bulk of their information on small bits of photographic film. There is a certain amount of electronic coding on the edge which is used to sort and file the bits of film. After the appropriate film is found, it is read through electrically and refiled.

I haven't looked into the system in detail enough to have any idea whether or not it will solve your problem, but it is a technique which you should know about.

Sincerely yours,

KHO/jv

Kenneth H. Olsen

November 4, 1960

Mr. James B. Ricketts, Jr.
A C Spark Plug Division
General Motors Corporation
Milwaukee 1, Wisconsin

Dear Jim:

We are pleased to hear of your new interest in our equipment, and we want to do all that is possible to help you in its application. I am enclosing some data sheets on the 4215 that will show you how it can be used.

If you tell us exactly when you need the units we talked about, I am sure we can get them to you in time.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

November 4, 1960

Mr. Louis Silverman
50 Church Street
New York 7, New York

Dear Mr. Silverman:

Thank you for your letter of November 3 requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

November 7, 1960

Cramer Electronics, Inc.
811 Boylston Street
Boston 16, Massachusetts

Attention: Advertising Department

Gentlemen:

Please remove the following names from your mailing list since they are no longer with Digital Equipment Corporation: John C. Clemmer and Thorpe E. Wright.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

November 3, 1960

Mr. Edmond Glaser
Johns Hopkins School of Medicine
Department of Physiology
725 North Wolfe Street
Baltimore, Maryland

Dear Mr. Glaser:

I enjoyed talking with you last night and hearing of your progress in your recording scheme.

The inexpensive paper tape punch which I told you about is manufactured by Precision Specialties, Inc. They claim that it can be operated at 20 lines per second. As I mentioned to you, we have not as yet had any experience with this device, but it is a simple straightforward looking piece of equipment. If you would like to borrow it for a while to experiment with it, we would be very happy to loan it to you so that we can find out if it is any good or not.

Be sure to let us know if there is any way in which we can help you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

cc: Mr. John Heffernan

November 3, 1960

Mr. John Heffernan
Wild & Associates, Inc.
2523 Wilson Boulevard
Arlington, Virginia

Dear John:

While at the Bio-Medical Conference in Washington this week, I met Mr. Edmond Glaser of Johns Hopkins Medical School who had been up to visit us on a problem some time ago. He is working in the Department of Physiology and making a recorder that will record the interval between impulses resulting from activity within a human body. I was very disappointed to find out that he had already bought Packard-Bell plug-in units because Packard-Bell happened to be there in a helpful position when he was ready to make the decision.

If he is successful in his experiments, he expects the program to enlarge significantly; and we want to be sure that he uses our Building Blocks next time. It would be a good idea to keep in touch with him so that when he is ready to expand his project we will supply the Building Blocks.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

November 3, 1960

Mr. William Congleton
Vice President
American Research & Development Corporation
The John Hancock Building
Boston 16, Massachusetts

Dear Bill:

Mr. E. E. Anderson, of Salt Lake City, does have an interesting sounding device but there is more information that would be necessary before we could give you any opinion. Most of our reservations are standard business questions which you would ask them anyway. We would like to know the breakdown of their pricing and to whom and how they expect to sell. We would also like to know what company they were working for when they developed this and whether that company feels any legal claim to the idea. I don't think they mentioned how thoroughly the unit was tested out or even whether or not they had a model.

Technically, we would like to know how fast the unit is and whether its accuracy could be improved above the 1 per cent they presently claim. If it was fast, there would be a number of applications for it, but most analog computation needs an accuracy of about 0.1 per cent.

They seem to be aiming for the analog computer market, which is not our specialty; but if this device was good, there would be applications for it both in analog computation and in other fields.

We can discuss this in more detail on the telephone at your convenience.

Sincerely yours,

KHO/jv

Kenneth H. Olsen

October 11, 1960

Mr. William J. Rybka
Manager of Administration
Astra, Inc.
Box 226
Raleigh, North Carolina

Dear Mr. Rybka:

We were pleased to hear of your continued interest in DEC. I am enclosing several pieces of literature, as you requested.

If you are ever in the Boston area, we would like very much to show you what we are doing.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

October 27, 1960

Dr. Frank Vinal
Radio Corporation of America
Needham 94, Massachusetts

Dear Frank:

I appreciate the trouble you went to to give me your detailed comments on our equipment. Candid criticism is a valuable result of a friendship, and we do appreciate it.

We do take your comments very seriously and we do want to produce the best possible equipment. After a concentrated evaluation of our experiments and experience, we would be willing to commit ourselves to the following specifications at any time you need more equipment of this type.

1. Our Model 52 and 62 Solid State Drivers have amplitudes variable from 0.1 to 1.0 amperes. The turn-on time is variable from less than 0.05 to 1.0 microseconds. There is no interaction between the amplitude and the turn-off and turn-on time. The turn-off time can be adjusted to be equal to the turn-on time and has no interaction on the turn-on time.
2. The band pass of the sense amplifier will be 30 megacycles and will be independent of the number of strobos.
3. The Model 71 Current Voltage Calibrator will be free of ringing and will be precalibrated at the factory so that no meter will be necessary. The best current measuring resistor we can obtain has a tolerance of 0.1 per cent, and so we cannot claim 0.1 per cent accuracy

October 27, 1960

for this system. By linearly adding all variations due to tolerances and temperature change, we feel that the best that we can offer is an accuracy of ± 0.25 per cent for $\pm 20^{\circ}\text{C}$ temperature change. We also believe that this is better than one can measure.

4. We will offer point strobing in addition to our variable strobe width. We propose 0.02 micro-second pulses for point strobing because of the difficulty in looking at narrower pulses with ordinary equipment.
5. We can offer any number of strobes at any number of levels because of the building block nature of the equipment.

We do not plan to change our method of strobing after the sense amplifier. With this system we can measure the tolerances of the over-all system, which from an engineering point of view is very desirable even though from a sales point of view it might be easier to sell a system with which it is impossible to measure the tolerances.

I hope that we have not tried to take advantage of our friendship in trying to sell to you; but on the other hand, I want to be sure that we show due concern in making you satisfied as one of our best customers.

Sincerely yours,

Kenneth E. Olsen

KHO/jv

October 26, 1960

Miss Dorothy E. Rowe
American Research & Development Corp.
The John Hancock Building
Boston 16, Massachusetts

Dear Dorothy:

Enclosed are some papers which I am returning
for your files. We like to look at these things
when they come up, but neither of these is of
interest to us at the present time.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

digital

**EQUIPMENT
CORPORATION**

MAYNARD, MASSACHUSETTS

K. H. OLSEN

This letter was never
sent, one written by
KHO was sent instead.



digital equipment corporation

engineering and manufacturing

MAYNARD, MASSACHUSETTS

TWINOAKS 7-8821

October 25, 1960

Dr. Frank ^{VINAL}~~Vynal~~
Radio Corporation of America
Needham 94, Massachusetts

Dear Frank:

As a result of your telephone conversation with Ken Olsen yesterday afternoon, and the additional knowledge about your needs and what has been proposed, we would like to have the opportunity of working with your people on this type of equipment or any others which you might require in the future. We have completed some experiments which enable us to propose the following specifications on the items which we know of where our initial specification was not satisfactory. This would be done at no change in the proposed price.

1. We will provide our Model 52 and 62 Solid State Drivers which have been under development at DEC for some time. The amplitude is variable from 100 mils to 1000 milliamperes. The turn-on time is variable from less than 50 millimicroseconds to 1 microsecond. The turn-off time can always be made equal to the turn-on time. There is no interaction between the amplitude and the turn-on or turn-off times on these units. Adjusting the turn-off time to be equal to the turn-on time has no effect on the turn-on time.
2. The band pass of the sense amplifier will be 30 megacycles independent of the number of strobes.
3. A Model 71 Current and Voltage Calibrator will be included with this system. This unit will be free of the ringing problems. This new unit is pre-calibrated at the factory and there is no meter included in the system and no further adjustments need be made. The current measuring resistors are 0.1% metal film resistors which will change less than 0.05% for a 20°C temperature change. The supply voltage which generates the reference level will change less than 0.06% for a 20°C temperature change. This voltage is then picked off of a 10 turn helipot with a linearity of 0.05%. All critical resistors are either wire-wound or metal film.

Dr. ^{V, NA1}~~Vynal~~

-2-

October 25, 1960

4. The operator will have a choice of using either a continuously variable strobe width or a point strobing system. The width of the variable strobe is from 70 millimicroseconds up to 10 microsecond duration. The point strobing system will include two twenty millimicrosecond strobes. Any number of extra strobe pulses may be added at an additional cost.
5. The system would include as many as three independent levels which would be associated with the strobing system if your personnel request it.

We would be able to furnish this system with a Tektronix display scope built into the unit as an additional cost of \$650.

We would be able to delivery this unit to you within a three month period, a.r.o.

As you can see, DEC considers our previous relationship and the business which we have obtained from RCA Needham as being very important to us and we hope that this letter will indicate our willingness to work with you.

Sincerely yours,

WW/nd

Walter Weeton

cc: Mr. Joseph Sacco
Mr. William Nofsker

October 26, 1960

Mr. Foster S. Bowden
P. O. Box 29
Wading River, L. I., New York

Dear Mr. Bowden:

Thank you for your post card of October 23 requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation's activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

October 24, 1960

Mr. K. Gase
CERN
Geneva 23, Switzerland

Dear Mr. Gase:

We are pleased to hear of your interest in DEC Building Blocks. I am enclosing several pieces of our literature for your use. If you would like more information, or if we can help you in any way, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

October 24, 1960

Mr. H. Colin Sanders
Applied Physics Laboratory
The Johns Hopkins University
8621 Georgia Avenue
Silver Spring, Maryland

Dear Mr. Sanders:

In reply to your request for schematics of our Building Blocks, I am enclosing two complete notebooks. If there is any other way in which we can be helpful, please feel free to call on us.

We do not usually give out complete books of schematics, and so we would appreciate careful use of this information.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures (2)

October 20, 1960

Mr. J. G. Morris
Senior Scientific Officer
c/o Mr. J. E. Foulden's Office
British Embassy
3100 Massachusetts Avenue, N. W.
Washington 8, D. C.

Dear Mr. Morris:

We are pleased to hear of your interest in our digital plug-in units. I am enclosing several pieces of our literature which describe the units in detail. We have two general types of equipment: Test Equipment, which is made for laboratory use where systems can be quickly and easily assembled and modified, and System Building Blocks for permanent and semi-permanent installations. There are three speed ranges - 500 KC, 5 megacycles, and 10 megacycles.

We try to maintain a large inventory of finished units so that we can fill most orders off the shelf. The longest delivery we are now quoting is three weeks after receipt of order.

If we can be of any further help or if you would like more of our literature, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

October 20, 1960

Mr. Allan Lytel
Director of Publications
Avco Corporation
Electronics & Ordnance Division
Cincinnati, Ohio

Dear Mr. Lytel:

We would like very much to help you in the preparation of the book on digital computers. We have schematics for about ninety units which we are presently producing, but most of these are probably much too complex for a textbook. I am enclosing a copy of the schematic of our five megacycle company flip-flop.

I am also enclosing a collection of our literature. If there is any particular information or any particular schematic which you would like, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KBO/jv
Enclosures

October 20, 1960

Mr. Donald A. Gurnett
State University of Iowa
Department of Physics & Astronomy
Iowa City, Iowa

Dear Mr. Gurnett:

Thank you for your request for information on magnetic core devices. When transistors became practical, we concluded that, with some exceptions, the bistable magnetic core logic element was no longer practical. As a result, we have not included items of this type in our product line.

We are very much interested in your study; and if you would like to compare core techniques with transistor techniques, we would be very glad to co-operate. If you tell us the device you are studying, we would be very pleased to tell you how we would recommend building it with transistors.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

October 17, 1960

Mr. E. A. Ritshaupt
3010 Warren Lane
Costa Mesa, California

Dear Mr. Ritshaupt:

Thank you for your letter of October 10 request-
ing information about Digital Equipment Corporation.

Since no DEC stock is available on the market,
no annual reports to the stockholders describing
the corporation's activities are prepared.

DEC is manufacturing a line of proprietary
products which are described in the literature I am
enclosing.

Thank you again for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

October 14, 1960

Miss Deborah Allen, Consultant Editor
Annual Design Review
Industrial Design
18 East 50th Street
New York 22, N. Y.

Dear Miss Allen:

Thank you for your invitation to submit inquiries to the Annual Design Review. We feel that our Digital Test Equipment and System Building Blocks do have some interesting design features and use of materials, but because the designs were first introduced in 1958 I am afraid that they do not qualify.

We are now getting ready to announce a new design for our Programmed Data Processor which was designed by Robert Pfister of Van Dyck Associates, in Norwalk, Connecticut. We are very proud of this computer because some people feel that, technically, it is better than the high speed computers produced by the giant companies; and now with the professional design help, we feel it is more attractive and functional than any of the others. We would like very much to submit this item to your Design Review for 1961.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

Reminder - 9/1/61

October 14, 1960

Mr. Alfred A. Cross
Eltron Engineering Sales
2345 Whitney Avenue
Hamden 18, Connecticut

Dear Al:

We were pleased to receive your inquiry on the problem at Combustion Engineering Company. We are very much fascinated by this job because we have the feeling that our general techniques will eventually be very useful in this field because of the simplicity with which operations can be done. However, our present line of equipment is probably too expensive for this type application and it does not have the timing range necessary for control operations of this type.

Although we cannot solve this problem now, we would appreciate hearing about this type application when you find out about them so that as we think about our future developments along this line we will have more feeling as to what is needed.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

October 14, 1960

McGraw-Hill Book Co., Inc.
330 West 42nd Street
New York 36, N. Y.

Gentlemen:

I have just received a notice from National Credit Clearance Bureau with respect to your invoice No. 7082821. The history of this invoice is indeed complex, but a letter from you in reply to our correspondence would have been much more helpful than this printed notice.

My understanding of the history of this invoice is as follows: Last spring, I ordered a list of books which included the Electronic Component Handbooks Library. When the order was received, Volume 3 of this Handbook Library was missing. Because the set was not complete, the invoice was paid, less the \$26.80 for this set.

We received no correspondence from you on this, and on August 1 the third volume of the Handbook Library was again ordered. On August 8, we received a complete set of three volumes of the Library. We returned Volumes 1 and 2 with a returned material notice dated August 10, 1960, and paid the new invoice in full which included \$26.80 for three volumes of the Handbook.

Our records show that we now have a total of three volumes, Volumes 1 and 2 received on June 1, 1960, and Volume 3 received on August 8. Our records further show that we paid the \$26.80 as part of invoice No. 7108456 with our check No. 8623 dated September 30, 1960.

Please let me know if your records differ from mine, and I will do all possible to reconcile the differences.

McGraw-Hill

-2-

October 14, 1960

When our present accounts are settled, please cancel my agent's relationship with McGraw-Hill Book Company.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

cc: National Credit Clearance Bureau

COPY

October 12, 1960

The Commissioner of Patents
Washington 25
D. C.

Dear Sir:

Please send one copy each of the patents indicated on the enclosed patent coupons.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures - 24 Patent Coupons

October 7, 1960

**Mr. S. H. Van Wambeck
Seismic Explorations, Incorporated
Post Office Box 6248
Houston 6, Texas**

Dear Mr. Van Wambeck:

We want to thank you for inviting us to bid on your seismograph recording system. This sounds like a very interesting project, and we would like to work with you on it, but I am afraid that we are not in a position to do the most economical job for you. Although we have techniques for doing high speed analog to digital conversion, we have not been able to find ways to take advantage of the economy which should result from the low speed you need.

Electro-Logic, Inc., of Venice, California, has planned to produce converters which would be low priced because they operated only at low speed. Mr. Vincent Van Praag, president of the company, was formerly sales manager of Packard Bell Computer Company, who are one of the big converter manufacturers.

We have friends in Cambridge, Massachusetts, in Adage Company who seem to be doing a good job in analog to digital conversion and also make systems which tie the converters to recording devices.

Epsco, Incorporated, in Cambridge, Massachusetts, and Electronic Associates, in Long Branch, New Jersey, and Packard Bell are the big names in this field.

We would be concerned about operating a paper tape punch at high speed for twenty-four hours a day, day in and day out. We are afraid that the maintenance would be high and the breakdown rate would be intolerable. We are having good

10/10
Orig. ltr. + cc. given to BWS

October 7, 1960

experience with the Tally Register punch which will go to maximum rate of 60 lines per second, but we never used it for the continuous type operation that you desire. Teletype Corporation also make a 60 line per second punch.

I would suggest that you look into magnetic recording. Because the machine is going constantly, there is no need for high speed stop-start operation; and because it is digital, there is no need for precise speed control. If you recorded fifty 7bit words per second and there were 200 lines to the inch of tape, the tape would only have to go one inch per 4 seconds. There are 3600 feet of tape in a reel (and 3600 seconds in an hour) and so one tape would last 4 times 12 hours, or two days. You then, of course, could use the tape over if there was nothing of interest recorded.

If we can ever be of anymore help, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

October 7, 1960

Mr. Robert Pfister
Van Dycke Associates
Bridge Square
Westport, Connecticut

Dear Bob:

We received an invitation to submit designs of our Test Equipment and System Building Blocks to the INDUSTRIAL DESIGN Annual Design Review. Unfortunately, these units have been out for more than a year and still are not truly eligible. However, I think we should send in photographs of the computer console and oscilloscope. We will say that you designed it; and so if you don't like the idea of us turning it in, you better speak up right away.

I am enclosing a clipping from the Wall Street Journal which might interest you.

I visited Bryant Computer Products, in Walled Lake, Michigan, this week and saw the packaging for the disk file which your group did. It looked very nice.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

October 6, 1960

Mr. Frank Mahan
Johns Hopkins University
Applied Physics Laboratory
8621 Georgia Avenue
Silver Spring, Maryland

Dear Mr. Mahan:

We are very concerned over the failures you have experienced in the DEC Building Blocks. We would like to do everything we can to be sure that this will not happen again.

We had a meeting with the engineers from RCA yesterday and told them what we knew about these failures, and they were at a loss to explain them because catastrophic failures are extremely rare. In order to pursue this any further, it will be necessary for us to obtain some transistors which have failed. If it would be possible for you to send some of these transistors to us, we would greatly appreciate it. We will then send them on to RCA who will perform an autopsy from which they should be able to tell exactly what has caused the failure.

We appreciate your co-operation in this matter.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

October 6, 1960

Mr. Harry Kimel
Bendix Aviation Corporation
Systems Division
Ann Arbor, Michigan

Dear Mr. Kimel:

I want to thank you and John Lauder for the time you spent yesterday in telling me about your project. This sounds like a very interesting project, and we want to offer all the co-operation possible in helping you make your evaluation.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

October 6, 1960

Mr. Frank J. Lohan
Manager, Research & Development
Bryant Computer Products Division
Walled Lake, Michigan

Dear Mr. Lohan:

I want to thank you for the time you spent with me on Tuesday telling about your product. It looks like you are doing a good job, and we look forward to working with your drums.

We are interested in your high density drums, and we would like to be kept up to date on your progress in this line.

Sincerely yours,

Kenneth H. Olsen

KHQ/jv

October 6, 1960

Mr. Joseph Forand
Administrative Sales Manager
Bryant Computer Products Division
Walled Lake, Michigan

Dear Mr. Forand:

Thank you for the time spent Tuesday telling me about your products. We are very much interested in your offer of loaning a drum for thirty or sixty days. In this period of time, I am sure we can develop the confidence necessary to make firm plans.

The drum we are interested in would be a 10-inch drum because that would give us 4096 words around the drum, which would just match the field size of our magnetic core memory. We are interested in 3600 r.p.m. because that would closely match the speed of our core memories. The number of heads is not critical at all for our investigation.

Please let me know what we should do to take advantage of your offer to borrow this drum.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

October 6, 1960

Mr. Joseph Smith
Bryant Computer Products Division
Walled Lake, Michigan

Dear Mr. Smith:

I am sorry that I missed you on Tuesday, but your people did a good job and I was very pleased to see their competence and enthusiasm.

I would like to meet you sometime to discuss the ways in which we can co-operate. Perhaps sometime when you are visiting Springfield, Vermont, I might drive up to take the opportunity to meet you and see your facility there. If you are ever closer to Boston, we would be very pleased to have you visit us here in Maynard.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

September 30, 1960

The Commissioner of Patents
Washington 25
D. C.

Dear Sir:

Please send one copy each of the patents indicated on the enclosed patent coupons.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures - 102 Patent Coupons

September 29, 1960

Jston Woods
Post Office Box 186
Glastonbury, Connecticut

Dear Sirs:

Please send your catalog and price list of native
and imported woods to the above address.

Sincerely yours,

Kenneth H. Olsen

KHQ/jv

September 28, 1960

Mr. Herbert W. Campman, Jr.
Engineering Manager
Instrumentation & Control Systems Dept.
Sanders Associates, Inc.
95 Canal Street
Nashua, New Hampshire

Dear Mr. Campman:

I enjoyed talking to you on the airplane last night and to hear of the enthusiasm and the growth plans at Sanders.

In case you get involved in digital control of your servos, I want to be sure that you have our literature, and so I am enclosing a few pieces. If we can ever be of any help in this area or if we can ever demonstrate anything, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

September 28, 1960

Mr. Tudor R. Finch
Bell Telephone Laboratories
Murray Hill, New Jersey

Dear Tudor:

We were pleased to hear from you again and to hear about your interest in Memory Testers. Jon Fadiman is going down Thursday to tell you people what we learned in the testers we have already made.

Lincoln Laboratory is making a 50 megacycle computer that I think would make an interesting paper for the Solid State Conference. That group tends to be very conservative and not tell about things until after they are done, at which time, of course, they are no longer of interest. However, with a little encouragement from you, they might break away from their computer long enough to make an abstract that would get them committed to presenting a paper in February.

The man doing the work, I believe, is Ken Konkle and he works for Bill Papien. Their phone number is Volunteer 2-3370, and Papien's extension is 121.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

September 27, 1960

Mr. Robert Pfister
Van Dycke Associates
Bridge Square
Westport, Connecticut

Dear Bob:

Here is a picture of the IBM computer that has the indicator panel on one end. Ben Gurley doesn't like the idea, but I think we should continue to look into it for a while.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

September 26, 1960

Mr. R. F. Shunneman
Bell Telephone Laboratories
2353 MTS
Whippany, New Jersey

Dear Mr. Shunneman:

It was nice talking with you today at the show. Here are the schematics I told you I would send along. If we can be of any further help, please be sure to call on us again.

Sincerely yours,

KHO:ecp
Enclosures

COPY

September 23, 1960

Mr. Henry W. Hoagland
American Research & Development Corporation
The John Hancock Building
Boston 16, Massachusetts

Dear Harry:

We just received the copy of the letter from Mr. Boas outlining his suggestions. I don't think he understood the intent of our suggestion. We agreed to buy \$50,000 of insurance under the signature plan and independent of that the question was, what is the best way to dispose of the present policies. This is where we would like to have some professional advice. The cash value of these policies is relatively low, but we do want to use them wisely.

We can use this cash value to buy paid-up term insurance which would come to about \$425 worth of insurance for Andy and \$495 for myself. In Andy's case, we can also convert it to nonparticipating extended term insurance for two years and 343 days at the present value of \$9,500. This latter option is not available on my policy.

My guess is that we should take the paid-up policy for myself and the extended \$9,500 policy for Andy, but we should have the opinion of a professional as to what is the best way to use the accrued value.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

September 23, 1960

We now produce 2000 to 3000 per month. I would guess 300 to 500 total would be good sales for Europe. This would include about twelve types of units.

Kenneth H. Olsen

Mr. Homer Myers
Tracerlab

COST ANALYSIS

UNIT: 1971 - Read-Write Switch

| | <u>Cost</u> |
|---------------------------|----------------|
| Resistors: | \$.40 |
| Capacitors: | .28 |
| Diodes: | 8.16 |
| Transistors: | 22.50 |
| Plug: | 1.54 |
| Mfd. Parts: Board | 1.60 |
| Handles | .40 |
| MATERIAL | \$34.88 |
| LABOR | 2.40 |
| O.H. (3.2) | 7.68 |
| <u>MFG. COST =</u> | \$44.96 |

September 20, 1960

Dr. Hans W. Gochwind
Air Force Missile Development Center
Holloman Air Force Base, New Mexico

Dear Dr. Gochwind:

Thank you for your inquiry on magnetic core memories. We do not have a catalog or price list on memories because of the wide variation in characteristics. We would, however, like very much to discuss your needs with you.

The two sizes which we have built are 1024 words by 18 digits and 4096 words by 18 digits. These are designed to be expandable to 36 digits in length. They are the memory systems for our "Programmed Data Processor" computers. These memories work on a five microsecond cycle time, but the 1024 word, 18 digit unit can be made to run faster.

These units are temperature compensated to work in the temperature range normally encountered in the area occupied by people.

In order to set a price on a memory system, we would like to know the size, the speed, and the nature of the signals coming in and going out of the memory. If the information coming into the memory is DC, it is not necessary to build flip-flop registers into the memory system. If the information out can be just pulses, another register can be avoided.

We hope that we can be of assistance to you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

September 19, 1960

Mr. W. Brendecke, Engineer
Motorola, Inc.
Solid State Controls Department
P. O. Box 1417
Scottsdale, Arizona

Dear Mr. Brendecke:

Thank you for your inquiry on magnetic core planes. Digital Equipment Corporation does not manufacture magnetic cores or planes, but we do have products which test them and products which use them. For your reference, I am including some literature on these products.

The three companies most active in supplying cores and core planes are RCA, 64 "A" Street, Needham, Massachusetts; General Ceramics, Keasbey, New Jersey; and Telemeter Magnetics, Inc., 9929 West Jefferson Boulevard, Culver City, California. Ferroxcube Corporation and Lockheed Company also advertise that they do make cores and planes.

If we can ever help you with the products that we do make, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHQ/jv
Enclosures

September 19, 1960

Mr. Sigegi Sugiura, Chief
The 2nd Engineering Section
Engineering Department
Chemical Products Division
HITACHI, LTD.
New Marunouchi Building
4, 1-Chome, Marunochi
Chiyoda-Ku
Tokyo, JAPAN

Dear Mr. Sugiura:

Thank you for your inquiry on ferrites. Digital Equipment Corporation does not manufacture ferrites but does manufacture a line of products which are used for testing ferrite memory cores, memory planes, and memory systems. I am enclosing literature which describes these products.

If we can ever be of service to you, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

September 19, 1960

Mr. Thornell Barnes
Modern Plastics
575 Madison Avenue
New York 22, New York

Dear Mr. Barnes:

I was very surprised to receive this bill for a subscription which I did not give you by telephone. This is not the first time that this means of solicitation has been tried on us, but before this it has been only by exceedingly disreputable organizations.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

September 19, 1960

Mr. Mirek J. Stevenson
Samson Associates, Inc.
Briarcliff Manor, New York

Dear Mr. Stevenson:

Thank you for your recent postcard requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation's activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

September 19, 1960

Mr. William R. Bowler
Traders Graphic
14 Elm Street
Morristown, New Jersey

Dear Mr. Bowler:

Thank you for your recent letter requesting information about Digital Equipment Corporation products. We appreciate your interest, and we hope the enclosed literature will be helpful to you.

Since no DEC stock is available on the market, no annual reports to the stockholders are prepared.

If we can be of any further assistance to you, please feel free to contact us.

Sincerely yours,

Kenneth H. Olsen

KHQ/jv
Enclosures

KHO

September 13, 1960

Mr. Paul James Stoll
Apartment 11-379
Termino
Long Beach 14, California

Dear Paul:

I was pleased to meet you the other night and have the opportunity to talk with you for a little while. I am enclosing a collection of our product literature, which should give you an idea as to what we make.

Our PDP computer is the most exciting thing we are doing right now. It is a very capable computer. Its speed and capability compares with some of the large giants, but it is simple and relatively inexpensive.

If you are interested in our products, we have a sales office in Los Angeles. The address is 8820 Sepulveda Boulevard, Los Angeles 45, California. The man's name is Ted Johnson.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

September 8, 1960

Mr. William Congleton
American Research & Development Corporation
The John Hancock Building
Boston 16, Massachusetts

Dear Bill:

We got a booklet today from Jay Forrester which I am sure you would be interested in if you haven't seen it. The author sent us a copy when it first came out, and so I am sending along the copy Jay gave to us. We were interviewed by the author while he was preparing the booklet, but I'm afraid we never read the thing before.

We were interested to notice that the comments on page 57 were about DEC. I am sending the copy along in case you do not have one.

Sincerely yours,

KHO/jv
Enclosure

PROBLEMS OF FINANCING AND MANAGING NEW RESEARCH-
BASED ENTERPRISES IN NEW ENGLAND, by Albert H.
Rubenstein, M.I.T.

September 7, 1960

Mr. Julius Wolf
Columbia University
Hudson Laboratories
P. O. Box 239
Dobbs Ferry, New York

Dear Julie:

I enjoyed visiting with you a couple of weeks ago and hearing about your challenging project. We don't have any good ideas as to how to significantly simplify your equipment, but I did find the name of a couple of people at Arthur D. Little who are working on cryotrons. They are A. E. Slade and C. R. Smallman. They wrote an article on a "Thin Film Cryotron Catalog Memory" in the August 1960 edition of Automatic Control.

Let us know if we can do anything to help you sell our test equipments.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

September 7, 1960

Harrington & King Perforating Co., Inc.
108 Liberty Street
New York 6, New York

Dear Sirs:

Please send General Catalog No. 75 and stock
list of perforated steel sheets. Thank you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

September 2, 1960

Mr. Joseph Reymann, Jr.
15 Colborne Road, Apt. 16
Brighton 35, Massachusetts

Dear Mr. Reymann:

Thank you for your letter of September 1 requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation's activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHQ/jv
Enclosures

September 1, 1960

Mr. Willard C. Dixon
1029 Montclair Drive
Salt Lake City 6, Utah

Dear Mr. Dixon:

Thank you for your letter requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation's activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

September 1, 1960

Mr. Henry S. Gross, Jr.
Investment Counselor
186 North Canon Drive
Beverly Hills, California

Dear Mr. Gross:

Thank you for your post card requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation's activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely,

Kenneth H. Olsen

KHO/jv
Enclosures

September 1, 1960

Mr. Robert P. Mann
Davis, Skaggs & Co.
111 Sutter Street
San Francisco 4, California

Dear Mr. Mann:

Thank you for your letter requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation's activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

September 1, 1960

**The Commissioner of Patents
Washington 25
D. C.**

Dear Sir:

Please send one copy each of the patents indicated on the enclosed patent coupons.

Sincerely yours,

Kenneth H. Olsen

**KBO/jv
Enclosures - 41 Patent Coupons**

August 9, 1960

The Reverend James L. Chiosso
Electronics Department
Don Bosco Technical School
202 Union Avenue
Paterson, New Jersey

Dear Reverend Chiosso:

Thank you for sending the descriptive information on Don Bosco Technical School. It seems that you are doing a good and worth while job in your field.

We are interested in encouraging the use of our equipment in educational institutions. In the next couple of weeks we plan to come out with our first edition of our booklet on digital logic. We are also trying to make it financially easier for schools to purchase our building blocks.

Our Series 3000 Test Equipment is best for educational purposes because it is lowest in cost and because an expensive oscilloscope is not needed to see the waveforms. A significant part of the cost of a setup of this equipment is in the accessories, which include the mounting panels, patchcords, power supply, and power cord. We have decided to donate these accessory units to worth while educational groups for educational use when they purchase the Test Equipment Building Blocks. If this offer is of interest to you, we would be pleased to talk in detail with you.

Sincerely yours,

KMO/jv

Kenneth H. Olsen

cc: Wild & Associates

August 5, 1960

Mr. Robert Pfister
Van Dyke Associates
Bridge Square
Westport, Connecticut

Dear Bob:

I am enclosing some blueprints of the control island to give you an idea of what it looks like when laid out in full size. As you can see, we modified the dividing lines a little bit to simplify the design.

I am also enclosing some samples of Record Gothic or News Gothic type which looks like the one you recommend. Future is what we have been using. We use Venus extended in some of our advertising but that seems a little too extended. If you are not happy with this Record Gothic, let me know right away and we will stop the order for type.

We have ordered materials for making the 10 test consoles. We are making six light yellow and four light gray.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

August 4, 1960

Dun's Review and Modern Industry
Readers' Service Department
99 Church Street
New York 8, New York

Dear Sirs:

Please send copies of the following Dun's Review reprints:

| <u>Qty.</u> | <u>No.</u> | <u>Title</u> | <u>Price</u> |
|-------------|------------|--------------------------------------|--------------|
| 1 | Q-101 | Industry's Plant: Big Changes Ahead | \$.30 |
| 2 | Q-105 | The Next Decade in Management | .20 |
| 2 | Q-107 | Undeveloped Gold Mines in Purchasing | .20 |
| 1 | Q-104 | The Myth of the Organization Chart | .20 |
| 1 | Q-106 | Industry's War on Wear | .20 |
| 2 | Q-112 | Era of the Dishonest Dollar | <u>.20</u> |
| | | TOTAL | \$1.30 |

We are also interested in receiving two copies of the article titled "How to Set a Profitable Office Work Pace" which appeared in the August 1960 issue of Dun's Review. If there is any charge for this, please bill us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure - Check

August 4, 1960

Plastelene Corporation
14588 Schaefer Road
Detroit 27, Michigan

Dear Sirs:

Please send a copy of your illustrated sign
bulletins to the above address. Thank you.

Sincerely yours,

Kenneth H. Olsen

KBO/jv

August 1, 1960

Product Engineering
Reader Service Department
330 West 42nd Street
New York 36, New York

Dear Sirs:

Please send eight reprints of your June 13, 1960 special report titled "How to Choose the Right Solder Flux." Enclosed is a check for \$2.00 as payment for these reprints.

Thank you.

Sincerely yours,

Kenneth H. Olsen

HSQ/jv
Enclosure

July 29, 1960

Mr. Joseph D. Ryan
J. Barth & Co.
Suite 405
1122 Fourth Avenue
San Diego 1, California

Dear Mr. Ryan:

Thank you for your letter of July 18 requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

July 28, 1960

The Editor
Electronic Industries
Chestnut & 56th Street
Philadelphia 39, Pennsylvania

Dear Sir:

Please send reprints of both parts of your article titled "Switching with Transistors" in the June and July issues of ELECTRONIC INDUSTRIES and a reprint of the article titled "How to Write Instruction Manuals," which appeared in the July 1960 issue.

Thank you for your generous offer to supply these reprints.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

July 22, 1960

Mr. A. Serino
Mail No. A-233
Procurement Engineer
The Martin Company
Denver 1, Colorado

Dear Mr. Serino:

Thank you for your request for information on Digital Equipment Corporation products. We do not have a line of operational amplifiers and so cannot fill your request for literature.

DEC does have a complete line of digital Building Blocks that can efficiently perform most digital tasks. I have taken the liberty to include a collection of brochures on our digital products for your reference.

Sincerely yours,

Barbera W. Stephenson (Mrs.)

BWS/jv
Enclosures

July 21, 1960

The Potter Company
1970 Sheridan Road
Chicago, Illinois

Dear Sirs:

Please send catalog information on your high voltage, low current power supplies. We are particularly interested in power supplies for use with special purpose oscilloscopes.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

July 20, 1960

Mr. Irving Berg
Maynard Industries
Maynard, Massachusetts

Dear Mr. Berg:

We have been pleased with our tenancy at the Assabet Mill. We have found you and the other people in Maynard Industries very pleasant to work with and the space has been comfortable and economical. We have been particularly pleased with the opportunity to expand as needed. We have grown from 75 people a few months ago to 145 at the present time and we plan a gradual controlled growth from now on.

We look forward to taking over the rest of the fourth floor of Building 3 when the General Radio lease comes to an end next spring. However, unless more parking space becomes available, it looks as if we will have to go elsewhere for our expansion space because we have just about saturated the parking space with the people we now have. If you have plans for developing more parking space, we would appreciate hearing about it because it will definitely influence our expansion plans.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv

July 19, 1960

Mr. Martin Sukenick, Executive Vice President
Broadway Bank & Trust Company
Broadway Corner West Broadway at Main Street
Paterson, New Jersey

Dear Mr. Sukenick:

Thank you for your recent letter requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen
President

KHO:ecp
Enclosures: CL

July 18, 1960

Mr. Robert Slater
Vice President
John Hancock Mutual Life
Insurance Company
200 Berkeley Street
Boston 17, Massachusetts

Dear Bob:

Enclosed is a copy of a report that Harlan Anderson made out for me on his trip to John Hancock. He presents no answers but I thought you might be interested in what he learned of the problem. Some of the comments are informal because it was meant for our own use.

He has a number of ideas as to how many tapes can be handled, but most of our company is on vacation now and it will be a little while before we meet with your people again.

Sincerely yours,

KHO/jv
Enclosure

July 18, 1960

Mr. Wayne P. Brobeck
5113 Scarsdale Road
Washington 16, D. C.

Dear Wayne:

Thank you for your sales leads. We'll be sure to follow them up.

Enclosed is a number of copies of the brochure on our PDP computer. The red one we hand out quite freely, but the small one is relatively expensive and we use it to pass on to those who are really interested.

We look forward to seeing you next Monday.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

July 15, 1960

Mr. E. Suzuki
Chief of Machinery Division
Asahi Trading Co., Ltd.
1, 3-Chome Takara-Cho
Chuo-Ku
Tokyo, Japan

Dear Mr. Suzuki:

We are pleased to hear of your interest in representing the products of Digital Equipment Corporation in Japan. We have not as yet decided on a program for selling our products in other countries, and so we are not yet ready to discuss this with you. When we have a program worked out, I will contact you.

Enclosed are several brochures which will let you see the products of DEC.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen
President

KHO:ECP
Enclosures

July 12, 1960

Dear Jim:

We were pleased to hear that the literature we sent was helpful to you. If we can be of any further help, please feel free to call on us.

For some reason or other, very few people found the rubber logic stamps to be useful. As a result, we have discontinued them and have been searching for another technique. We've been experimenting with transparent stamps and with stencils. You are one of the few people who have put any pressure on this project, and as a result, we don't have anything to offer you right now.

If you have any suggestions as to what we can do about this, we would like to hear about it.

Sincerely,

Mr. James Ricketts
7624 North Fairchild Road
Milwaukee 17, Wisconsin

July 12, 1960

Mr. Charles O. Dam
Sorrles-Johnson Corporation
363 Rantoul Street
Beverly, Massachusetts

Dear Chuck:

I just got a sample in the mail of a relay which looks as if it may be competitive with yours. I am enclosing a copy of the brochure, and if you are interested, I can send the sample relay. They sent a questionnaire along with the relay, but because the sample was unsolicited, I probably will not fill it out. I will, however, test it to see what it does.

All my thoughts about Bill Seaver are favorable, although my contacts with him have been little more than social. I would like to have him on the staff here at Digital, because I do feel he is one who gets things done.

I look forward to testing your relays when they become available.

Sincerely yours,

KHO:ecp
Enclosure 1

July 12, 1960

Mr. George Pantle, Head
Instrumentation Group
Servicio De Fisiologia Obstetrica
Facultad De Medicina
Avenida Gral. Flores, 2125
Montevideo, Uruguay

Dear Mr. Pantle:

Thank you for your interest in the products of
Digital Equipment Corporation.

Enclosed are several brochures describing our units
and the high-speed digital computer which we build. If
you can tell us in some detail what operations you wish
to perform, we may be able to make suggestions.

We are now designing a response averaging computer
patterned very much after the ARC-1 computer used at
M.I.T. for averaging electroencephalographic responses.
If you are interested in this type device, we would be
glad to tell you more about it.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures

July 11, 1960

Mr. C. Daniel Geisler
Massachusetts Institute of Technology
Graduate House
Cambridge, Massachusetts

Dear Dan:

Some time ago we had offered to build an ARC computer for Dr. Weinstein, but it looked like he had given up the project. He called me last Thursday to say that they just about had the money for one, and he wanted to confirm our price estimate. I feel that we should start planning the details of the ARC even though we do not as yet have the order.

If it seems reasonable to you, I would like to have you propose a set of specifications for an ARC. I would like to hear what you'd like to see in an ARC, and we can compromise later. A convenient way to define this would be to itemize the knobs and jacks that should be outside the unit. We would also like to know how many samples should be averaged.

The only output which we will sell will be a 5" oscilloscope and the Polaroid camera. There will be jacks for an externally connected XY recorder or perhaps even a strip recorder because they cost less and are more reliable. The input terminals can be either connected directly to the EGG amplifier or the output of the magnetic tape unit.

You could send me some rough notes on this or give me a call and we can start some more detailed thinking on the system. We'd also like to hear how you are progressing on the PDP project.

Sincerely,

KHO:ecp
Enclosures

July 11, 1960

Reverend James L. Chiosso, SDB
Don Bosco Technical School
202 Union Avenue
Paterson, New Jersey

Dear Reverend Chiosso:

Thank you for your interest in Digital Equipment Corporation's building blocks for educational purposes. Several industrial companies have used them for educating their engineers, and we feel that eventually one of the big uses will be in engineering schools.

If you could tell us more about your courses, we would like to make suggestions as to what equipment you might use. We would also appreciate general information on your school.

I'm enclosing several pieces of our literature on these building blocks along with brochures on other equipment we manufacture.

Sincerely yours,

Kenneth M. Olsen

KMO:ecp
Enclosures

CC: Wild & Associates, Inc.
Jack Brown

July 7, 1960

Kilovolt Corporation
Yonkers
New York

Gentlemen:

Please send catalogue information on your high voltage power supplies. We are particularly interested in 10 and 20 KV units for oscilloscope operation.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp

COPY

July 7, 1960

The Commissioner of Patents
Washington 25
D. C.

Dear Sir:

Would you please send copies of the patents indicated on the enclosed patent coupons to the above address.

Enclosed please find 109 patent coupons.

Sincerely,

Kenneth H. Olsen

KHO:ecp
Enclosures: 109 Patent Coupons

 **digital equipment corporation**

MAYNARD, MASSACHUSETTS

TW 2,882

June 30, 1960

Mr. Norman T. Welford
Research Associate
Department of Psychophysiology-Neurophysiology
The Fels Research Institute
Yellow Springs, Ohio

Dear Mr. Welford:

We were pleased to hear of your interest in Digital Equipment Corporation's PDP computer. Enclosed is some printed matter which describes the computer in detail.

One interesting demonstration program we have run on the computer averages analog signals as is done in the MIT ARC-1 computer. With this program we are able to filter out very small signals from overwhelmingly large noise. This summer we plan to analyze neuroelectric signals from a human being to further demonstrate the usefulness of the computer in this type work.

If we can supply any further information, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures

June 30, 1960

Mr. C. Daniel Geisler
M.I.T. Graduate House
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Dan:

I set up an appointment for nine o'clock on Wednesday, July 6, to meet with Bolt, Beranek & Newman, Inc. I tried to get you to check the time before I made the appointment, but was not able to reach you. It's an informal type meeting, and if you can't make it, let us know on Tuesday and we can change the time. If I'm not in on Tuesday, you might talk to Harlan Anderson.

Bolt, Beranek & Newman are located at the intersection of Concord Ave. and Route 2. They're almost behind the Howard Johnsons at the rotary.

We look forward to working with you.

Sincerely,

KHO:ecp

June 30, 1960

Mr. Claude L. Janssen
Worms & Cie
45 Boulevard Haussman
Paris, France

Dear Mr. Janssen:

Thank you for your letter offering to help consider the European market for our products. So many American companies have had good success in developing operations in Europe that we feel we should give this careful consideration. We are now expanding our facilities and our product line, and so we feel that we will have to postpone this consideration for a while. However, we would like to take advantage of your offer to discuss these things at a later date.

I am enclosing several brochures on our products. The Programmed Data Processor is a particularly interesting unit because it is a very fast and capable computer.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures

June 29, 1960

Mr. Jerome R. Cox, Jr.
Research Associate
Central Institute for the Deaf
818 South Kingshighway
St. Louis 10, Missouri

Dear Jerry:

Thank you for your letter offering the use of your analog-digital converter. My first reaction is that we would be pleased to pay royalty on this idea if we produce it.

We are very much interested in response averaging, and we feel there is a big commercial market for it in the future. However, we have not as yet been able to assign a man to the job and it is not clear now when we will. We are also considering analog storage for a cheaper ARC.

When we get around to making a decision, we will carefully consider your offer. I would, however, suggest that you give no one an exclusive license to this and that you do not turn down any opportunities to license it before we get ready.

We appreciate your interest and the opportunity to work with you.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp

June 29, 1960

Mrs. Doris Pompilio
Kleinschmidt R & D
Division of Smith-Corona Marchant, Inc.
89 Lincolnwood Road
Highland Park, Illinois

Dear Mrs. Pompilio:

Thank you for your interest in the products of Digital Equipment Corporation. Enclosed are several general catalogue sheets, as you requested. If you ever want more detailed information on our products or would like to have a sales engineer call, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures

June 29, 1960

Mrs. T. Maigret
Compagnie Generale de Telegraphie Sans Fil
Groupment G - Direction Technique
52, Rue Gaynemer a Issy-les-Moulineux (Seine)
FRANCE

Dear Mrs. Maigret:

Thank you for your interest in the products of Digital Equipment Corporation. I am enclosing several general brochures on this equipment as you requested. If there is any further information you desire, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures

June 29, 1960

Mr. Melvin J. Gardner
Industrial Department
J. Barth & Co.
404 Montgomery Street
San Francisco 4, California

Dear Mel:

It was good to hear from you again. I am sorry I missed our tenth reunion.

We haven't thought out our long-term financing plans as yet, but when we do, we would like to talk with you about them. I am enclosing several pieces of our literature to give you an idea as to what our products are.

For years after we dropped our bullet experiments, Professor Edgerton would, every time we met, ask how we were doing on finding out why the charge occurred on those bullets. He couldn't figure out why I wasn't interested enough to keep the experiments going. I suppose the missile people have figured out these things by now.

Sincerely yours,

KHO:ecp
Enclosures

June 24, 1960

Mr. C. Daniel Geisler
Graduate House
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Dan:

We're enthusiastic about your being able to work with us this summer, and we look forward to interesting results. We are now contacting Bolt, Beranek & Newman to make arrangements for you to work there. When you call next week, we'll let you know what the arrangement is, and we will plan for you to get together with our people so that you will know what we've done so far.

You can bill us weekly or monthly at your option. The bill is simply a statement of the number of hours and the total cost.

Sincerely,

June 24, 1960

Mr. C. J. Huang
University of Houston
Chemical Engineering Department
Houston 4, Texas

Dear Mr. Huang:

Thank you for your interest in Digital Equipment Corporation's PDP computers. We cannot readily figure the component cost on a PDP computer, but a very approximate estimate of the PDP would include about \$60,000 worth of standard DEC Building Blocks and about \$15,000 worth of hardware and other items.

I'm enclosing a couple of brochures on the PDP computers which include our prices for completed machines. If we can give you any further information, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures 3

June 22, 1960

Mr. Robert Slater, Vice President
John Hancock Mutual Life Insurance Company
200 Berkeley Street
Boston 17, Massachusetts

Dear Bob:

Thank you for sending a copy of the Univac III booklet. We are reluctant to do hard selling on our good friends, but we feel we should offer to formally tell you about our Programmed Data Processor because it is very much like the Univac III and may have more to offer.

Our machine has been in existence for half a year and has made a round trip across the country, and is now on loan to our first customer. We can deliver computers in four to six months. We have the facilities and experience to tie computers together so they can talk to each other within the same room or over telephone lines. We even have a line of building blocks that connect the computers to telephone lines.

Our memory cycle is 5 microseconds as compared to 4.5 that Univac claims. Our machines are straight binary. FDP-1 has 18 bits, FDP-3 has 36 bits and Univac III has 24 bits. There are a number of other variations in the machines, but in general they are approximately the same capacity.

Mr. Richard Sears of your company has played with our machine and may have some ideas about it. If any of your people are interested in more information, we would be pleased to talk more with them.

Sincerely,

June 22, 1960

Mr. J. B. Ricketts, Jr.
7624 North Fairchild Road
Milwaukee 17, Wisconsin

Dear Jim:

We were pleased to hear from you again and to hear of your advanced academic work. I'm sending along a group of our data sheets on our standard logic blocks. I have also included a few reprints on our Lincoln Laboratory TX-2 memory circuits.

We like to leave the impression that we have no secrets and that we are free with all our information, but we're forced to admit to you that we are not disclosing our method for driving coincident current memories.

I hope this literature is helpful to you. If there is anything else we can do, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp

MASTER LETTER FILE

June 22, 1960

Mr. Boley A. Andrews
6028 Windsor Drive
Mission, Kansas

Dear Mr. Andrews:

Thank you for your recent letter requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing. Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp

MASTER LETTER FILE

June 22, 1960

Mr. Nathan O. Sokal
Sylvania Electronic Systems
Data Systems Operations
189 B Street
Needham 94, Massachusetts

Dear Mr. Sokal:

Thank you for your recent letter requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth M. Olsen

KBO:ecp
Enclosures

June 23, 1960

Mr. William McE. Miller, Jr.
Apartment 61
417 West 118 Street
New York 27, New York

Dear Mr. Miller:

Thank you for your recent request for financial reports or reports to stockholders.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation activities are prepared.

I am enclosing copies of our current literature describing our line of proprietary products, and I hope these will be of interest to you.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures

June 14, 1960

Mr. Robert Slater, Vice President
John Hancock Mutual Life Insurance Company
200 Berkeley Street
Boston, Massachusetts

Dear Bob:

I checked our reservation with Hood Milk Company today and changed it from ten in the morning to eleven. I was able to get a reservation at the ball field for 1:30 in the afternoon. There will be two other groups on the grounds at the same time, so we'll have to be careful in sharing the facilities.

Miss Burden has retired and Miss Daley has taken her place. She is at the general offices and her phone number is CHARLESTOWN 2-0600.

As soon as we arrive at the grounds, one of us should go to the offices to check what areas are available to us.

Sincerely yours,

Kenneth E. Olsen

KHO:ecp

June 14, 1960

Liberty Mutual Insurance Company
362 North Main Street
Andover, Massachusetts

Dear Sirs:

Enclosed is an estimate for the replacement of a broken window which, I believe, is covered by the comprehensive portion of my insurance policy. My policy number is AS1-210-615537 0 42. The automobile is a 1956 Chevrolet Station Wagon.

The accident occurred on June 5th. Although there were no reliable witnesses, I believe it was the result of a stone thrown by a very young child. The car was parked in the driveway of my home.

If there is any more information needed, I would be pleased to furnish it.

Sincerely yours,

Kenneth H. Olsen

ep
Enclosure 1

June 14, 1960

American Management Association
1515 Broadway
New York 36, New York

Gentlemen:

Enclosed is my application for individual membership in the AMA.

I would also like to have the following individuals enrolled in the divisions listed:

Harlan E. Anderson
Vice President

Finance Division
Marketing Division

Stanley Olsen
Personnel Manager

Personnel Division
Office Management Division

Maynard Sandler
Production Control Manager

Manufacturing Division
Insurance Division

Our check No. 7364 for \$200 to cover membership fees is enclosed.

Sincerely yours,

Kenneth H. Olsen
President

KHO:ecp

Enclosures: Application, check.

June 14, 1960

Scientific Electronics, Inc.
195 Massachusetts Avenue
Cambridge, Massachusetts

Gentlemen:

Please send descriptive information on
your educational electronic laboratory kits.

Thank you.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp

COPY

JUN 15 1960

June 13, 1960

Mr. Charles Dan
Sorrles-Johnson Company
363 Rantoul Street
Beverly, Massachusetts

Dear Chuck:

I enjoyed visiting you the other day. I can appreciate your accomplishments and also sympathize with your problems.

You might be interested in the financial goals which we have concluded are necessary for a company making technical developments. A job shop can have very low overhead and almost no S, G and A, and therefore have completely different financial goals.

We feel that we should make 40% of the gross sales as profit before investment in new products. Half of this we expect to plow into new products. Uncle Sam and the state take more than half of the rest. We give little or no dividends and the rest goes into accounts receivable and inventory.

Profits should also be a significant fraction of the total capital invested in the company. I have no definite ideas what this percentage should be, but it should be at least 30% and can run much higher.

When we first started, we thought these figures were rather high, but now we are convinced that if the customers can't afford our prices, we are in the wrong business, and we better look for a new product.

For our first approximation of price we used this simple formula: Parts + labor + manufacturing overhead x 2.3. The 2.3 usually takes care of the S, G and A and profit. Our overhead runs between 2½ and 4, and so an item that might take one hour of labor at \$1.50 per hour might cost $1.50 \times 5 \times 2.3$, or \$17.25, even if there are no parts involved.

Mr. Charles Dan

- 2 -

June 13, 1960

We often adjust this formula figure to take into account high reject rate expected or low production quantity compared to the amount of engineering going into it. We don't usually give out our financial secrets, but I thought these might be helpful to you.

Your idea of getting a new engineer to get your units ready for production is probably a good idea, but it will have a number of problems. He'll have to be sold on the product and he'll have to have the authority and responsibility which will allow him to drastically change it or even drop it if he feels it's not practical. I don't think you can contract out this type engineering. To do the amount of engineering necessary to get a product into production takes more than a normal amount of incentive and motivation. The man would not only need authority and responsibility, but also probably will have to have the feeling that he will share in the profits.

When you have a relay that I can check for you, send it right to me and I'll let you know what we find out about it.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp

June 8, 1960

Mr. J. F. Pita de Macedo
Rua Fernao Alvares do Oriente
6 r/c dir.
Lisboa 5
Portugal

Dear Mr. Pita de Macedo:

Thank you for your interest in our
Programmed Data Processor. I am enclosing some
literature on this machine to give you an idea of
what it can do. If you have any questions regarding
this system, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures 2

June 8, 1960

Mr. Klaus G. Brokate
(14A) Boeblingen
Noerikeweg 7, Germany

Dear Mr. Brokate:

Thank you for your interest in our
Programmed Data Processor. I am enclosing some
literature on this machine to give you an idea of
what it can do. If you have any questions regarding
this system, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures 2

June 8, 1960

**Mr. P. Stam
W. V. Nollander Signal App.
Hengelo (O)
Netherlands**

Dear Mr. Stam:

**Thank you for your interest in our Programmed
Data Processor.**

**I am enclosing some literature on this machine to
give you an idea of what it can do. If you have
any questions regarding this system, please feel
free to call on us.**

Sincerely yours,

Kenneth H. Olsen

**KHO:jac
Enclosures 2**

June 8, 1960

Professor Dr. A. Walther
Institut für Prakt. Mathematik
Technische Hochschule
Darmstadt, Germany

Dear Professor Walther:

Thank you for your interest in our
Programmed Data Processor. I am enclosing some
literature on this machine to give you an idea of
what it can do. If you have any questions regarding
this system, please feel free to call on us.

Sincerely yours,

Kenneth H. Olson

KHO:ecp
Enclosures 2

June 8, 1960

Mr. F. Hirsch
H. V. Electrologica
2nd Boerhaavestraat 49
Amsterdam, Holland

Dear Mr. Hirsch:

Thank you for your interest in our
Programmed Data Processor.

I am enclosing some literature on this
machine to give you an idea of what it can do. If
you have any questions regarding this system,
please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures 2

June 7, 1960

Mr. Robert Slader
John Hancock Mutual Life Insurance Company
200 Berkeley Street
Boston, Massachusetts

Dear Bob:

Here's an interesting pad of cartoons that we picked up at the Western Joint Computer Conference. This is pretty much the way we think large computing problems will be handled in the future. This particular company has done an uninspired job of tying the hardware together.

Sincerely,

Kenneth H. Olsen

KHO:ecp
Enclosure

June 7, 1960

Mr. Ely Martell
31 Arcadia Avenue
Lowell, Massachusetts

Dear Mr. Martell:

We appreciate the interest you have shown in Digital Equipment Corporation.

We expect the company to expand steadily and to take on new and different work. However, in carefully discussing our needs, we have concluded that for some time we could not justify having any full-time person with your skills and abilities. If our needs change in the future, we would like to consider your application again.

Thank you again for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
CC: Helen LeBlanc

June 6, 1960

Ingersoll-Rand
11 Broadway
New York 4, New York

Dear Sirs:

Please send a copy of Bulletin No. 198.

Thank you.

Sincerely yours,

Kenneth H. Olser

KHO:ecp

COPY

June 3, 1960

Mr. James R. Sabo, Engineer
Electronics Division
Avco Corporation
Crosley Division
Cincinnati 25, Ohio

Dear Mr. Sabo:

Thank you for the detailed information you have given us on your request for a bid for Analog to Digital and Digital to Analog converters.

Digital Equipment Corporation normally maintains a large inventory of building blocks and can turn out systems like the converters in which you are interested in a very short time. However, at the present time we are unusually loaded with orders and cannot offer good service on this project, and so will have to turn down the offer to bid. If you have difficulty finding a supplier for the Digital to Analog Converter, we would consider it further because it is a relatively simple job.

We expect in the near future to again be able to give immediate delivery on building blocks, and very quick delivery on special systems. We hope we can do business with you then.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp

June 2, 1960

Lieutenant D. B. Perryman, Material Officer
U. S. Naval Photographic Interpretation Center
4301 Suitland Road
Washington 25, D. C.

RE: PIC/MAT'L #71
Code 40, File 4200

Dear Lieutenant Perryman:

Thank you for your request for information on Digital Equipment Corporation's digital to analog converters. We do not have a catalogue line of complete converters, but we do manufacture and stock building blocks from which we or our customer can assemble custom converters. The system that you need appears to be readily adaptable to our building blocks, but we need some further information.

What will be the format of the information on the punched paper tape, and will it be straight binary, or will it be binary coded decimal or some other code?

Our stock digital-analog converter puts out zero to -10 volts. This can be adapted to positive polarity or to other levels, but would an output of zero to -10 be satisfactory? What is the input impedance of the Variploppers?

We normally keep a large stock of building blocks on hand, and simple devices like this can be assembled very quickly.

We will look forward to hearing your answers to these questions.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp

May 24, 1960

Electro Precision Corporation
P. O. Box 669
Arkadelphia, Arkansas

Attention: Mr. M. B. Agar, Purchasing Department

Dear Mr. Agar:

We were pleased to hear of your interest in DEC products. I am enclosing a copy of our brochure No. C-1000 which describes inverter module model 1104 and the other modules in that line. I have also included other brochures to let you see the other products which DEC manufactures.

If we can be of any further service to you, please feel free to call on us.

Sincerely,

Kenneth H. Olsen

KHO:ecp

Enclosures - B-1000, B-3000, c-1000, c-4000, f-10, F-1512
F-2101, A-700

May 24, 1960

Dit-Mco, Incorporated
Electronics Division
911 Broadway
Kansas City 5, Missouri

Attention: Mr. W. C. Comer

Dear Mr. Comer:

Thank you for your interest in DEC products.
I am enclosing several brochures which describe the products you are interested in. If we can be of any further service, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures

May 24, 1960

Brooks Research, Incorporated
767 Linden Avenue
Rochester 10, New York

Attention: Mr. Kurt Enslein

Dear Mr. Enslein:

Thank you for your interest in the DEC computers. The PDP-1 is a small, fast, general purpose digital computer which we have programmed to average responses. This program was made as a demonstration of the type application the computer can be used for and has not been put to practical use as yet, but the results do make a rather dramatic demonstration.

The PDP-1 with 1000 words of memory costs about \$85,000, and in addition, you'd want an analog to digital converter to put the information into the computer at about \$2,000, and an oscilloscope to plot the output which would cost about \$3,000.

This machine is general purpose and can do much more than the simple averaging program and would be very good for a mathematically-minded research group.

We also have plans to manufacture a special purpose computer patterned after the ARC-1 computer at MIT. Most of our engineering department came from MIT Lincoln Laboratory and played a big part in the building of the ARC-1. The unit we plan to build will be smaller and less expensive than the ARC-1. Our tentative plans are to code the signals into six binary bits and have room for up to about 2000 averages. The output will be cathode ray oscilloscope with camera and there will be facilities for connecting an external pen recorder.

Brooks Research, Inc.

- 2 -

May 24, 1960

Our plan is to design and manufacture these special response averaging computers as a standard catalogue item. We have all the building blocks for assembling the unit, and we could make them quickly and easily.

I'm enclosing brochures on the PDP and our other equipment. If we can be of any further help, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp
Enclosures

COPY

May 24, 1960

Mr. J. E. Dennis, Buyer
Bendix Aviation Corporation
Systems Division
Ann Arbor, Michigan

Dear Mr. Dennis:

Thank you for your interest in DEC digital building blocks. These units are built to very high commercial standards and will tolerate with wide margins in land base commercial environments, but they have not been designed for airborne use. They have been packaged for convenience and reliability in ground base applications, and are therefore larger than what would normally be desired for airborne use. We have been experimenting with compact military packaging, but we have no immediate plans for producing them.

I am enclosing brochures which describe our units and some of the systems we have made from them for your files. We have three frequency ranges: 0-500 KC, 0-5 MC, and 0-2 MC. The signal levels are the same for each type of equipment, and so the units are directly compatible. We have all the accessories necessary to use the equipment, and have many special types of units so that most systems can be built completely with DEC units.

Our PDP-1 which is a very fast rather sophisticated computer is made from the 5 MC system building blocks. We have trucked this computer to several trade shows in the east and flew it to California. After each trip we plugged it in the wall and it ran. This has given us great confidence in the reliability of our units.

We have very careful quality control on these units. We average a half-hour testing on each unit and send a copy of each test data sheet with each unit.

When you are in the market for ground base building blocks, we would like to demonstrate these units to you.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp

May 24, 1960

Mr. George W. Statser
Federal Aviation Agency
Facilities Material Division
P. O. Box 1082, AC-746
Oklahoma City, Oklahoma

Dear Mr. Statser:

Thank you for your interest in DEC products. We would like to know more about your requirements for digital presentation of average wind speed, gust velocity, and direction. Do you want the digital presentation in visual form for an operator, or do you want it prepared on a form to be processed by a digital computer? We would need to know how many digits of precision desired. We would also like to know how you find or compute average wind speed and gust velocity.

The simplest way to measure direction might be to put a shaft position to digital encoder on your measuring device which would convert the shaft position to digital numbers without need for electronics. Many people make these and any one of the buyer's guides would give you a list of manufacturers.

I'm enclosing a collection of brochures on DEC products to give you a general idea of the building blocks and systems which we manufacture.

We look forward to hearing from you.

Sincerely yours,

Kenneth H. Olsen

Enclosures
KHO:ecp

May 23, 1960

Admiral Spring and Manufacturing Co.
61 East 11th Street
New York 3, New York

Dear Sirs:

Please send prices and descriptive information on your
coil spring assortment kits.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp

COPY

May 20, 1960

Mr. S. H. Stuttman
Kalb, Voorhis & Co.
27 William Street
New York 5, New York

Dear Mr. Stuttman:

We appreciate your interest in Digital Equipment Corporation. DEC is a majority-owned affiliate of American Research & Development Corporation, of Boston, and we have no immediate plans for a public stock offering. A very small portion of the stock is owned by individuals, but none of this is for sale at the moment.

DEC manufactures a line of proprietary products which are described in the enclosed literature.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

May 20, 1960

Spanjer Company
267 Mount Pleasant Avenue
Newark 4, New Jersey

Dear Sirs:

Please send a copy of your stock raised letter catalog
to the above address.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

May 19, 1960

Cahners Publishing Co., Inc.
5 South Wabash Avenue
Chicago 3, Illinois

Dear Sirs:

Please send descriptive information and prices on your
magazines that would be of interest to a manufacturing
company.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

May 17, 1960

Mr. Donald G. Gilbertson
2430 Ocean View Avenue
Los Angeles 57, California

Dear Mr. Gilbertson:

We appreciate the interest you have shown in Digital Equipment Corporation, and we were very interested in talking with you. You have a very interesting background and one that apparently will be very useful for most companies. I just discussed our immediate computer plans with Ben Gurley, who is in charge of the project, and we concluded that we are not now ready to take on more people in that area.

Thank you for visiting us and showing interest in our company.

Sincerely yours,

Kenneth H. Olsen

XHQ/jv

May 16, 1960

Dr. Heinz Zemanek
Mailuferl
Bezimaler Volltransistor - Rechenautomat
Wien 4, Gusshausstrasse 25
AUSTRIA

Dear Dr. Zemanek:

Thank you for your interest in our Programmed
Data Processor. I am enclosing some literature on
this machine to give you an idea of what it can do.
If you have any questions regarding this system,
please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

May 16, 1960

Mr. Luis Palacios Hammeken
The Mexican Light & Power Co., Ltd.
Melchor Ocampo 171
Mexico 17, D. F.

Dear Mr. Hammeken:

Thank you for your interest in our Programmed
Data Processor. I am enclosing some literature on
this machine to give you an idea of what it can do.
If you have any questions regarding this system,
please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

May 13, 1960

Mr. Roger L. Sisson
12612 Bubbling Well Road
Santa Ana, California

Dear Mr. Sisson:

The cathode ray displays a very important part of our PDP computer. There is an instruction which will plot a point at a time on the cathode ray tube, very much like the display on the Whirlwind I computer. With a very fast computer, one can present a lot of information including alphanumeric characters. Our brochure, which I am enclosing, gives you some illustrations of its use.

Now that how to test computers is relatively inexpensive, it is practical for the programmer to sit at the machine when working out his problem, and the oscilloscope becomes a very convenient way to have the machine talk to him.

We have packaged this display so that it can be mounted into a 19 inch rack, and we plan to offer it as a standard product in the near future. In this application, binary inputs for the X and Y coordinates would define the position of the spot.

The prototype computer, which is illustrated in our brochure, used a television type tube; but in the production unit we are using a metal shell radar type tube with a more precise faceplate. The production models are expected deflection time to be about 40 microseconds and intensified time of about 10 microseconds.

We are planning to have a light pen input to our computer, as described by B. M. Gurley and C. E. Woodward in the November 20, 1959, issue of Electronics.

Mr. Roger L. Sisson

-2-

May 13, 1960

If I remember correctly, you left the Whirlwind staff just as I joined it. You might be interested to know that Dick Best, who designed the Whirlwind display, is our Chief Engineer now and Ben Gurley, who designed the TX-0 and TX-2 displays, is in charge of our PDP computer.

If there is any other information we can give you, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

COPY

May 12, 1960

Mr. Toro E. Wikland
Tuab, Teleutredning Ar Ab
Box 474
Solna 4, SWEDEN

Dear Mr. Wikland:

Thank you for your interest in our Programmed
Data Processor. I am enclosing some literature on
this machine to give you an idea of what it can do.
If you have any questions on this system, please
feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

May 12, 1960

Dr. Carl-Erik Froberg
Dept. of Numerical Analysis
Solvegatan 14
Lund, SWEDEN

Dear Dr. Froberg:

Thank you for your interest in our Programmed
Data Processor. I am enclosing some literature on
this machine to give you an idea of what it can do.
If you have any questions on this system, please
feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

May 11, 1960

Mr. Harris W. Kruger
1200 Englewood Street
Philadelphia 11, Pennsylvania

Dear Mr. Kruger:

We are sorry that we have not answered your letter earlier, but it seems that we must have lost your original request. It is our desire to co-operate as much as possible with educational groups.

I am enclosing a collection of our product literature that will give you a good idea as to what type of work we do. Our stock is not publicly owned as yet so we have not had to prepare an annual report.

If you have any specific questions, we would be pleased to answer them.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

May 12, 1960

Council of Industrial Design
28 Haymarket
London, S.W.1, ENGLAND

Dear Sirs:

I am interested in a subscription to "Design" magazine and would appreciate receiving price information. Would you also give me the name and address of your American representative, if you have one.

Thank you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

May 11, 1960

Mr. William J. Bartik
Remington Rand Univac
1900 West Allegheny Avenue
Philadelphia 29, Pennsylvania

Dear Bill:

I was pleased to see your card requesting information on our Memory and Core Testers. I am enclosing some literature to give you an idea what our devices can do. There are three general types - the automatic core sorters, the plane and stack tester, and the memory exercisers. We made a number of variations on those listed in the literature. Right now we are making two very large stack testers that will test both coincident current and linear selection memories.

When you have needs for this type of equipment, please let us know and we would like to discuss them with you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

May 10, 1960

Mr. Gary R. Johnson
Assistant to the Business Manager
The University of Michigan
3012 Administration Building
Ann Arbor, Michigan

Subject: Request for Bid 02948-001/1

Dear Mr. Johnson:

Thank you for the invitation to bid on the Data-Logging System for the Ordnance Tank-Automotive Command of the Department of the Army. We are very interested in this project and plan to submit a bid by May 25, 1960.

The desired delivery date may be a factor in deciding the techniques used in forming this project. Could you tell us on which date you would like the system delivered.

Sincerely yours,

Kenneth E. Olson

KHO/jv

May 10, 1960

Oy Vuoksenniska Ab
Imatra Steel Works
Imatra, FINLAND

Reference: JM/IG dated April 8, 1960

Dear Sir:

We are pleased to hear of your interest in Digital Equipment Corporation computer components. We are enclosing some of our literature to give you an idea as to what they will do.

Our main product line is digital Building Blocks which the customer normally assembles to perform control operations. We also assemble the Building Blocks into systems, as illustrated by the Memory Testers described in the literature.

We have not used the Building Blocks ourselves in a steel mill and so we cannot tell you how they have been used in that application. If you have specific problems, we would be glad to discuss them with you.

These Building Blocks are normally kept in stock and delivery is usually immediate.

Sincerely yours,

Kenneth H. Olsen

KBO/jv
Enclosures

May 10, 1960

Office of the Summer Session
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Sirs:

Please send brochures describing the following
special summer programs

6.51S Switching Circuits

7.89S Modern Research Methods in Biology
and Medicine.

Thank you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

May 10, 1960

Mr. Sal Boscia
Lansdale Division
Philco Corporation
Equipment Division
Church Road
Lansdale, Pennsylvania

Dear Mr. Boscia:

We are pleased to hear of your interest in DEC Building Blocks. We have used Building Blocks extensively in testers used for testing magnetic cores and magnetic core memories. I am enclosing a few pieces of literature to show the types of units we have built using these. We would like very much to work with you on this problem.

I am enclosing literature that will show you what DEC Building Blocks will do. They are useful in programming and counting and other control applications within a tester. We would like to hear what you have in mind and we could tell you more directly how these units can be used.

Sincerely yours,

Kenneth M. Olsen

KMO/jv
Enclosures

cc: Wild Associates

Replycard

May 10, 1960

Mr. David R. Brown
The Mitre Corporation
2673 Peter Street
Honolulu 16, HAWAII

Dear Dave:

I was pleased to see your card requesting literature on our new PDP computer. We started building a modernized TX-0, but as you might expect it grew to become a much more sophisticated machine.

It is a very nice little machine, and we are having excellent utility programs written by Dick Bennett who is now in the consulting business. There is a lot of interest in the machine and we expect it to be a very useful machine.

If Mitre ever needs a machine like this, we would like to show it to you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

Reply card

May 9, 1960

Mr. Paul G. Spens
Stevens Institute of Technology
Davidson Laboratory
Castle Point Station
Hoboken, New Jersey

Dear Mr. Spens:

We are pleased to hear of your interest in our Digital Test Equipment. The banana plugs we use for front panel interconnections are subminiature type which fit into a hole approximately .090 inch. I am enclosing a sample patch cord for you to look at. The middle portion of these plugs is a catalog item from Ucinite Corporation, a division of United Car Fastener.

We are particularly interested in the application of our 3000 Series equipment in engineering education. We would appreciate hearing of any ideas you have along this line. We would like to help as much as we can.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

May 9, 1960

Mr. M. M. McGrew
District Claim Agent
N. P. Railway Company
Fargo, North Dakota

Dear Mr. McGrew:

Thank you for your postcard requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

May 9, 1960

Mr. Lawrence J. Beck
168 Allston Street
Allston, Massachusetts

Dear Mr. Beck:

Thank you for your interest in DEC high speed logic units. I am enclosing a collection of bulletins on our products. Bulletins A-400 and A-710 are not complete as yet, but I will have them sent to you as soon as they are. If we can ever give you any more information, please feel free to call. If you would like to visit us sometime, we would be very pleased to show you our plant and let you see what these high speed units can do.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

May 9, 1960

Procurement Directorate, CCKPS
Laurence G. Hanscom Field
Bedford, Massachusetts

Subject: Bid Invitation No. 19-604-60-201

Gentlemen:

Thank you for sending us the invitation to bid on the fabrication of printed wiring circuit boards. We do not have the facilities for this type work and so we will not return a bid. DEC makes a proprietary line of Building Blocks and assembles special systems which use these Building Blocks. I am enclosing a few pieces of literature to give you a general idea as to our abilities.

When you have complex digital systems to be built, we would appreciate the opportunity to bid on these. The Memory Tester Type 1512 and the Core Tester Type 2101 are examples of the special systems we are prepared to design and build.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

May 6, 1960

Dr. Steward
16 Clarke Street
Lexington, Massachusetts

Dear Dr. Steward:

Dr. Leslie E. Rudolph from Peter Bent Brigham Hospital, who's doing research on infections resulting from surgery, asked if he could make some studies on our people. We cooperated with him, and he sent the enclosed report. I send this along for your interest.

Sincerely yours,

Kenneth H. Olson

KHO:ecp
Enclosure

MASTER LETTER FILE

May 6, 1960

Mr. J. Moreau
Nord Aviation
12 bis, Avenue Bosquet
Paris (7), France

Reference: ATS 1042 JM/JP

Dear Mr. Moreau:

Thank you for your interest in Digital Equipment Corporation's digital building blocks. We are enclosing several pieces of literature on our building blocks and our other products. If you have any further questions, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO:cep
Enclosures

May 6, 1960

Dr. L. P. Houck
9 Lowell Road
Concord, Massachusetts

Dear Dr. Houck:

Dr. Leslie E. Rudolph from Peter Bent Brigham Hospital, who's doing research on infections resulting from surgery, asked if he could make some studies on our people. We cooperated with him, and he sent the enclosed report. I send this along for your interest.

Sincerely yours,

Kenneth H. Olson

KHO:ecp
Enclosure

May 4, 1960

Flight Research, Inc.
P. O. Box 1F
Richmond 1, Virginia

Dear Sirs:

Please send catalog information on your oscilloscope cameras. We are particularly interested in a camera that can be used for photographing a 10-inch oscilloscope. We would like to have a mounting that can be used for both 35 or 70 millimeter film and a Land camera back.

Sincerely yours,

Kenneth H. Olsen

KOH:ecp

May 4, 1960

J. A. Maurer, Inc.
37-01 31st Street
Long Island City
New York

Dear Sirs:

Please send catalog information on your oscilloscope cameras. We are particularly interested in a camera that can be used for photographing a 10-inch oscilloscope. We would like to have a mounting that can be used for both 35 or 70 millimeter film and a Land camera back.

Sincerely yours,

Kenneth H. Olsen

KOH:ecp

May 4, 1960

Aremac Associates
329 West Washington Street
Pasadena, California

Dear Sirs:

Please send catalog information on your oscilloscope cameras. We are particularly interested in a camera that can be used for photographing a 10-inch oscilloscope. We would like to have a mounting that can be used for both 35 or 70 millimeter film and a Land camera back.

Sincerely yours,

Kenneth H. Olsen

KOH:ecp

May 4, 1960

Spellman High Voltage Company
Bronx 69
New York

Dear Sirs:

Please send catalog information on your model P7 transistorized DC high voltage power supply and any other transistorized high voltage supplies that you may have. Are these supplies damaged by a short circuit?

Do you sell the transformers for transistorized high voltage power supplies separately? If you do, we would appreciate receiving information on these.

Sincerely yours,

Kenneth H. Olsen

KHO:ecp

April 26, 1960

Mr. A. Egger
Space Technology Laboratories, Inc.
P. O. Box 95001
Los Angeles 45, California

Dear Mr. Egger:

Thank you for your interest in Digital Equipment Corporation products. We have never been directly involved with the design of a PCM system and so are not well acquainted with the problems. We do, however, have a complete line of digital components that work up to a frequency of ten megacycles and we would be pleased to consider assembling a system with these units to a set of logical specifications.

We once worked out a method for very high speed analog digital conversion that I believe was to be used in a PCM system. This unit did several six or eight bit conversions in a microsecond. We have limited experience in very high precision analog conversions, but we are very much interested in very high speed, relatively low precision units.

I am enclosing some literature on our equipment. If we can give you any further information, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

cc: Mr. T. G. Johnson, DEC, 690 North Sepulveda Boulevard,
El Segundo, California

April 26, 1960

Dr. Sidney Weinstein
Research Associate Professor and
Director of Research
Albert Einstein College of Medicine
Yeshiva University
Eastchester Road & Morris Park Avenue
New York 61, New York

Dear Dr. Weinstein:

I am enclosing a copy of some photographs we took of an averaging program on our PDP computer. We introduced a very low level sine wave and swamped it with a large amount of random noise. The input shown in the first figure after 16 averages you can see the sine wave somewhat in the second picture and after 2000 samples the average looks pretty good. We built a high gain amplifier but we have not as yet hooked it up to a subject to measure actual brain waves.

Our work has been a little slow on this for a while because we have been rather swamped in our other line of business, but we realize that this has the potential of being a good part of our business several months from now and so we have offers out now to several new engineers, and with these we feel we can assign people to the job.

Dan Giesler, in Professor Rosenblith's laboratory, is finishing up his thesis now and is apparently getting very good results. He thinks that the results of his thesis will have immediate clinical value in measuring the threshold of hearing. He has to look at very small signals, however, and needs at least 2000 samples to see results. This has modified our design of an ARC somewhat.

Dr. Sidney Weinstein

-2-

April 26, 1960

We are getting more and more committed to our estimate of \$20,000 to \$30,000 for an ARC as we tell more people about it.

If you are going to take part in the conference at M.I.T. on computers and biophysics next week, we hope that you will be able to stop out and visit us. As soon as we have a little more definite to tell you, we'll pass it on to you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

COPY

April 25, 1960

Mr. Francis P. Hazel, Jr.
4 Mason Street
Lexington, Massachusetts

Dear Frank:

Enclosed is the rough draft for the book on DEC logic. I haven't gone over this but it will give you an idea of what I was thinking of. I think there should be three rough sections:

1. General Philosophy of Logic
2. Application Examples
3. Rules and Limitations.

Information for these three sections is covered here and there in the various pieces of literature but not in enough detail. I am afraid that some of the rules have never been printed and we are the only ones that know about them, and so it is almost an emergency that we get this thing out.

Let me know what you think of this and what other information you need.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

April 26, 1960

Mr. Barbella
Instruments for Industry
101 New South Avenue
Hicksville, L. I., New York

Dear Mr. Barbella:

I am enclosing a sketch of how we would pyramid diodes for a coding device like the one you are interested in.

If you have 384 lines coming in, each digit line would have about 192 inputs. If they were all tied together, one would have $R/191$ where R is the back resistance of the average diode. But it costs so little to pyramid that it is obviously the best thing to do. If a three layer pyramid is used where the 192 is divided into six groups of 32 and each group of 32 is divided into six groups of 5 and one of 2, the total number of diodes needed is 192 plus 32 plus 7, or 232. This is only about a 15 per cent increase. The back resistance then is R .

II

Low voltage diodes are inexpensive and the cost of this device is going to be largely in the assembly and I would recommend that you build this in the device which supplies 384 lines because cabling is going to be a big job otherwise. If we can be of any help, please let us know.

Sincerely yours,

KHO/nd

Kenneth H. Olsen

Enclosure
SA-01126 Sketch

April 26, 1960

Ulano Graphic Art Supplies, Inc.
610 Deane Street
Brooklyn 38, New York

Dear Sirs:

Please send descriptive information on Ulano
silk screen supplies.

Sincerely yours,

Kenneth H. Olsen

KBO/jv

COPY

April 22, 1960

Mr. Barbella
Instruments for Industry
101 New South Avenue
Hicksville, L. I., New York

Dear Mr. Barbella:

We are pleased to hear of your interest in our equipment, and I am enclosing several pieces of literature that will give you an idea as to what we have to offer. Our circuits are rather complex and very powerful and can do many systems in a very simple way. In the literature you will find examples of how this can be done. Our 300 MC line is almost the same as the 5 megacycle line and, in general, the same techniques are used.

I look forward to talking to you again on Monday.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

April 18, 1960

Mr. T. M. Snow
Liaison Engineer
The Rauland Corporation
4245 N. Knox Street
Chicago, Illinois

Dear Mr. Snow:

Thank you for sending information on Rauland cathode ray tubes. We are interested in finding out more about your R6110P sixteen inch tube. I am enclosing a small brochure describing our Programmed Data Processor which features a X-Y cathode ray oscilloscope as one of the output devices. We are using a television type tube in the prototype computer. We now have to develop a faster, more precise unit for the production models. If this oscilloscope works out well, we would like to package it and offer it as a catalog item.

Can you tell us how we should mount these tubes. What insulation is necessary on the front surface? Are plastic insulating sleeves still available for this tube? Can the tube be supported from the front rim?

One of the applications for this oscilloscope is reading information by means of a photocell mounted in a "light pen." For this reason, we would like to have the glass and safety shield as thin as possible. What is the thickness of the glass on the R6110P? Can you recommend a thin material for a safety shield?

Please send a price schedule on the R6110P. We would like to know how soon we could receive a sample. We have not yet decided which is the best phosphor.

Mr. T. M. Snow

-2-

April 18, 1960

Do you have a measure of the spot diameter? Would we have a smaller spot diameter if we went to magnetic focus tube?

Thank you for your helpfulness.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

April 18, 1960

Mr. Samuel D. Hoffman
Research Division
Maltz Greenwald & Company
1441 Broadway
New York 18, New York

Dear Mr. Hoffman:

Thank you for your interest in Digital Equipment Corporation. This company is a majority-owned affiliate of American Research and Development Corporation, of Boston, and we now have no immediate plans for a public stock offering. We do, however, someday plan to make a public offering and I will keep your letter until we are ready to consider it.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv

April 15, 1960

General Georges Doriot
American Research & Development Corporation
The John Hancock Building
Boston 16, Massachusetts

Dear General Doriot:

When we proposed the formation of Digital Equipment Corporation, we planned to initially produce circuits which we had developed at Lincoln Laboratory. Those circuits used the "surface barrier transistor" which was available for several years and the circuits we planned to use had been published for some time and were available to everyone. A few days after we opened shop, Philco lowered prices on their new micro-alloy transistors which were a many fold improvement over the original surface barrier transistor. The improvement was so significant that we made the bold decision to design a whole new line of equipment. This delayed our getting into production and meant many hours of research in the design of a completely new line, but the result was a set of basic circuits which were much better than any of the competition had. For example, our flip-flop does with four transistors what Lincoln Laboratory's flip-flop took twelve to do.

Our basic circuits are, without a doubt, DEC developments with DEC money. Some people would like to believe that everything we do came from M.I.T. and, therefore, is free for them to copy. We were educated at M.I.T. but they have no claim on our work after we had left.

Before I had any contact with AR&D, I had talked with Mr. Peck and Mr. Devey of Sprague about starting a corporation to produce digital components. I could see that they were lacking in business sense and stopped all discussion with them. They now run an autonomous group in

April 15, 1960

Sprague which now reports directly to the Chairman of the Board of Directors, Mr. Robert Sprague. Mr. Peck is head of the group. Mr. Devey is in charge of sales and a Mr. Cushman also takes part of the management. I don't think this autonomous group has been excitingly successful because they lack a product and it is my guess that out of desperation they decided to make a Chinese copy of an apparently successful line of circuits.

We told Peck and Devey in the last few months that these circuits were proprietary developments of DEC, but I am sure that they keep telling themselves and Mr. Robert Sprague that they really are M.I.T. circuits and, therefore, free for anybody to use. They have no reason to believe this.

Sprague has bought test equipment from us in small quantities for the last two years or so and so we thought little of it when they bought one of each of our System Building Blocks last December. They told us they wanted to evaluate them for a large system they were considering. We had no idea that they were going to copy our Building Blocks until we saw their demonstration at the I.R.E. Show. I am still surprised that they are so naive to think that they can produce and sell these units with no technical competence in their engineering department or in their sales department.

It was obvious to everyone at the I.R.E. Show that they made a Chinese copy of our units, and this was the topic of discussion in many groups. Sprague claims because they made some trivial mechanical changes and because they use a more expensive plastic board, the units are different. We sell units with this more expensive plastic board for five dollars more but still consider it the same unit.

We purchased almost \$100,000 worth of transistors from Sprague Company in the last twelve months, but we have cancelled all orders for the time being.

Mr. Georges Doriot

-3-

April 15, 1960

I am enclosing a copy of the letter that I sent to Mr. Sprague and also copies of an interchange between Mr. Gordon and Mr. Sprague.

Sincerely,

Kenneth H. Olsen

KHO/jv
Enclosures

April 12, 1960

Mr. Richard G. Martinez
Procurement Engineer
Mail No. A-101
The Martin Company
Denver 1, Colorado

Dear Mr. Martinez:

Thank you for your interest in Digital Equipment Corporation's products. We do not have core memories as a catalog item but we would like to hear of specific requirements when you have them.

The memory in our Programmed Data Processor, a high speed, general purpose computer, is a five microsecond cycle memory, 18 or 36 digits long with 1000 or 4000 words. This unit has temperature corrected from 40°F to 120°F. We can deliver memories of this type in four or five months. Several of our engineers played key parts in the development of core memories at Lincoln Laboratories.

An excellent bibliography of magnetic circuits and materials is found in June, 1959, I.R.E. TRANSACTIONS on Electronic Computers. R. K. Richards', DIGITAL COMPUTER COMPONENTS AND CIRCUITS, gives a good outline of the subject. There is very worth-while information in Grabbe's HANDBOOK OF AUTOMATION, COMPUTATION AND CONTROL, from Wiley. Lincoln Laboratory has a number of documents which they have been giving to people who request them, particularly those with government contracts.

The other companies to check for memories are Telemeter Magnetics, in Los Angeles, California, and Computer Control, in Wellesley, Massachusetts. For small buffer type memories, General Ceramics, Keasbey, New Jersey; Di-An Controls, Boston, Massachusetts; Epsco, Boston, Massachusetts; and

Rose, in Philadelphia, Pennsylvania. Daystrom Instrument Company, in Archbald, Pennsylvania, has made several large memory systems.

The big suppliers of magnetic cores are Telemeter Magnetics, General Ceramics, and RCA, in Needham, Massachusetts. These three use our Test Equipment and so we know they produce a good product. National Cash Register and Ferroxcube also make some cores.

If we can be of any further help to you, please let us know.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

April 12, 1960

Syntronic Instruments, Inc.
170 Industrial Road
Addison, Illinois

Dear Sirs:

I enjoyed talking to you at the I.R.E. Show in New York about a stator yoke for a transistor driven oscilloscope. We plan to continue work on this but we feel that we will have to solve our immediate problem with a vacuum tube driven yoke and so we would like to have price and delivery on your Y16-PP6P yoke. We plan to use this in driving a 16ADP7 cathode ray tube of which we would like to cover a nine inch square. This means that deflection in each coordinate of about 33 degrees. We would like pin cushion correcting magnets included if this is practical.

This will be a random point-to-point display. We would like to leave full current in the yoke at all times. Accelerating potential will be 10 kilovolts. The plate supply for the driving tubes will be 300 to 400 volts. We feel that this will take about 230 milliamperes, which is a convenient number for the circuits we have.

We specified this yoke because we cannot see the need for a more expensive yoke from the literature we have on hand; but if there are advantages in other yokes, we would appreciate hearing about them.

We will also need a focus coil and we would like to hear your recommendations and the price and delivery.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

April 11, 1960

Mr. Robert Cesari
Blair, Spencer & Buckles
18 Brattle Street
Cambridge 3, Massachusetts

Dear Bob:

I am enclosing a letter that I am going to mail on Wednesday to Mr. Sprague. My thought originally was to ask for a license and Brown Norton drafted up a cold letter which let Sprague know about this. Since then our Board of Directors decided that a license would be unwise, and so I decided we should simply go on record as saying that these circuits were our development and to let them know that we have filed for patents on them.

If you think this letter is unwise, please let me know before Wednesday.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

April 11, 1960

Mr. W. Brown Morton, Jr.
Pennie, Edmonds, Morton, Barrows & Taylor
247 Park Avenue
New York 17, New York

Dear Mr. Morton:

Thank you for the draft of the letter that you suggest we send to Sprague. We discussed this with our Board of Directors, and they concluded that my thought of looking for a license was unwise. This changes the content of the letter we send. I now feel that all we want from the letter is to go on record saying that these designs are the result of DEC's research and development and to tell them that we have filed patents on some of the circuits. I am enclosing a copy of the letter which is dated Wednesday, April 13. I will call you before I mail this to get your approval. If your answer is a simple "yes" or a simple "no" you might leave a message with your secretary and I will not need to bother you.

We appreciate your efforts and I am sorry that our policy was changed since I first talked to you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

April 11, 1960

Dell Electronics Corporation
521 Homestead Avenue
Mt. Vernon, New York

Dear Sirs:

We were interested to see your exhibit at the I.R.E. Show in New York because we have need for high voltage power supplies. We have a copy of your bulletin No. 50-1 and would appreciate price and delivery information on the units described there. We are particularly interested in Model 10-1-1 and Model 15-1-1.

Is the output voltage of these units proportional to the primary voltage? We would like to regulate the output by shunting the output with a Victoreen regulator tube, but we would rather put the series resistance in series with the primary rather than in series with the secondary. Does this seem reasonable to you?

Are these units damaged when the secondaries are short circuited and what is the peak current during short circuit.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

April 11, 1960

Mr. Walter K. Gutman
Shields & Company
44 Wall Street
New York 5, New York

Dear Mr. Gutman:

Thank you for sending copies of your very interesting weekly newsletter. We are very pleased to read your very optimistic comments on Digital Equipment Corporation.

We are sorry that you were not able to visit us the day of the snowstorm after the AR&D Stockholders' Meeting. If you are ever in this area, we would like very much to have you visit us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

April 8, 1960

Board of Selectman
Town of Bedford
Bedford, Massachusetts

Dear Sirs:

Enclosed is my completed Jury Service Questionnaire. If jury service would make it impossible for me to carry out my normal employment responsibilities for more than a very small number of days, I would like to be excused because I feel that it will impose undue hardship and unusual inconvenience. I am the president and chief executive officer of a small, new corporation that has not yet matured to the point where it can tolerate the absence of one of its principals for an extended period of time. My absence would affect the productivity of the company, the bulk of which is devoted to national defense, and may affect the livelihood of a number of our employees.

Sincerely yours,

Kenneth M. Olsen

KHO/jv
Enclosure

April 7, 1960

Mr. Abdun Nabi
Epsco, Incorporated
275 Massachusetts Avenue
Cambridge 39, Massachusetts

Dear Mr. Nabi:

We appreciate your interest in our 10 megacycle line of Building Blocks. We have sold a large number of these units in the last few months but we have not yet printed our literature. I am enclosing a collection of our literature on the 5 megacycle line which is very close to the 10 megacycle. The 10 megacycle line is somewhat limited in the types of units available.

Please let us know if you have any questions or if you would like to see a demonstration of this equipment.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

April 5, 1960

Kip Electronics Corporation
Stanford
Connecticut

Dear Sirs:

We are interested in miniature indicator tubes, particularly the thyratron type which will stay on after it is once fired. Your type KP-145A appears to be approximately what we are looking for, but our file of Kip literature is very old and we would like to know what you recommend now. We would also like to know prices and delivery of these units.

Sincerely yours,

Kenneth H. Olsen

KEO/jv

April 1, 1960

Mr. Bernard M. Gordon, President
Epsco, Incorporated
275 Massachusetts Avenue
Cambridge 39, Massachusetts

Dear Bernie:

We were pleased to see your letter to Mr. Sprague and we would like very much to hear any reaction you get from him. I think you expressed the problem very well.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

April 1, 1960

**Rauland Corporation
4245 N. Knox Street
Chicago, Illinois**

Dear Sirs:

Digital Equipment Corporation is building a precision oscilloscope for displaying digital information. We are interested in precision large screen cathode ray tubes with shallow deflection angles to make transistor drive efficient. The local Raytheon sales office suggested that you had a metal envelope tube with a fairly flat 22 inch face. We would appreciate receiving information on this tube and any other tubes that you have available.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

April 1, 1960

Prentice-Hall, Inc.
Englewood Cliffs
New Jersey

Ref: PRESIDENT'S GUIDE

Dear Sirs:

We have just received your literature advertising the 1960 edition of PRESIDENT'S GUIDE. A copy of this book was purchased by Digital Equipment Corporation in 1959 and, since this is a loose-leaf book, I was under the impression that it would be updated regularly. To date, we have not received any revisions or insertions. Would you please advise me if we are on the updating subscription list or if there have been any revisions that we should have in our copy of the PRESIDENT'S GUIDE.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

American Insulator Corporation
New Freedom
Pennsylvania

Dear Sirs:

Digital Equipment Corporation has a need for masks and escutcheons for TV type cathode ray tubes. We found your name listed in the Electronic Industries Directory as being a supplier of these parts. We would appreciate receiving information on the masks and plates you have available. We are particularly interested in the 16ADP7 tube.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

American Machine & Foundry Company
General Engineering Laboratories
11 Spruce Place
Greenwich, Connecticut

Dear Sirs:

Digital Equipment Corporation is designing a digital response averaging device that will remove the random noise from electroencephalographs by averaging many responses. This will be very much like the ARC-1 computer built at M.I.T. and used by Professor Rosenblith's group in studying neuroelectric data. Part of this device will be a single channel, high gain encephalograph amplifier. If you have amplifiers of this type, we would like to receive prices and catalog information on them.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

Anton Machine Works
1226 Flushing Avenue
Brooklyn 37, New York

Dear Sirs:

Digital Equipment Corporation has a need for masks and escutcheons for TV type cathode ray tubes. We found your name listed in the Electronic Industries Directory as being a supplier of these parts. We would appreciate receiving information on the masks and plates you have available. We are particularly interested in the 16ADP7 tube.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

Croname, Inc.
6283 Howard Street
Chicago 48, Illinois

Dear Sirs:

Digital Equipment Corporation has a need for masks and escutcheons for TV type cathode ray tubes. We found your name listed in the Electronic Industries Directory as being a supplier of these parts. We would appreciate receiving information on the masks and plates you have available. We are particularly interested in the 16ADP7 tube.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

Johnson & Hoffman Mfg. Corp.
31 East 2 Street
Mineola, New York

Dear Sirs:

Digital Equipment Corporation has a need for masks and escutcheons for TV type cathode ray tubes. We found your name listed in the Electronic Industries Directory as being a supplier of these parts. We would appreciate receiving information on the masks and plates you have available. We are particularly interested in the 16ADP7 tube.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

Pyramid Screen Corporation
181 Harvard Street
Brookline 46, Massachusetts

Dear Sirs:

Digital Equipment Corporation has a need for masks and escutcheons for TV type cathode ray tubes. We found your name listed in the Electronic Industries Directory as being a supplier of these parts. We would appreciate receiving information on the masks and plates you have available. We are particularly interested in the 16ADP7 tube.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

Southern Plastics Company
408 Pendleton Street
Columbia, South Carolina

Dear Sirs:

Digital Equipment Corporation has a need for masks and escutcheons for TV type cathode ray tubes. We found your name listed in the Electronic Industries Directory as being a supplier of these parts. We would appreciate receiving information on the masks and plates you have available. We are particularly interested in the 16ADP7 tube.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

Waldom Electronics, Inc.
4625 West 53 Street
Chicago 32, Illinois

Dear Sirs:

Digital Equipment Corporation has a need for masks and escutcheons for TV type cathode ray tubes. We found your name listed in the Electronic Industries Directory as being a supplier of these parts. We would appreciate receiving information on the masks and plates you have available. We are particularly interested in the 16ADP7 tube.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

Metallic Plastics Corporation
27-10 44 Dr.
Long Island City, New York

Dear Sirs:

Digital Equipment Corporation has a need for faceplates and escutcheons for TV type cathode ray tubes. We found your name listed in the Electronic Industries Directory as being a supplier of these parts. We would appreciate receiving information on the faceplates and masks you have available. We are particularly interested in the 16ADP7 tube.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

Magnetic Research Corporation
3160 West El Segundo Boulevard
Hawthorne, California

Dear Sirs:

Digital Equipment Corporation is designing a digital response averaging device that will remove the random noise from electroencephalographs by averaging many responses. This will be very much like the ARC-1 computer built at M.I.T. and used by Professor Rosenblith's group in studying neuroelectric data. Part of this device will be a single channel pen recorder. If you have amplifiers that can be used for encephalographic work and single channel pen recorders, we would like to receive prices and catalog information on them.

Sincerely yours,

Kenneth H. Olsen

KBO/jv

March 30, 1960

Magnetic Research Corporation
3160 West El Segundo Boulevard
Hawthorne, California

Dear Sirs:

Digital Equipment Corporation is designing a digital response averaging device that will remove the random noise from electroencephalographs by averaging many responses. This will be very much like the ARC-1 computer built at M.I.T. and used by Professor Rosenblith's group in studying neuroelectric data. Part of this device will be a single channel, high gain encephalograph amplifier. If you have amplifiers of this type, we would like to receive prices and catalog information on them.

Sincerely yours,

Kenneth H. Olsen

KHQ/jv

March 30, 1960

Instrumentation Associates
17 West 60th Street
New York 23, New York

Dear Sirs:

Digital Equipment Corporation is designing a digital response averaging device that will remove the random noise from electroencephalographs by averaging many responses. This will be very much like the ARC-1 computer built at M.I.T. and used by Professor Rosenblith's group in studying neuroelectric data. Part of this device will be a single channel, high gain encephalograph amplifier. If you have amplifiers of this type, we would like to receive prices and catalog information on them.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

Electronic Tube Corporation
1200 East Mermaid Lane
Philadelphia 18, Pennsylvania

Dear Sirs:

Digital Equipment Corporation is designing a digital response averaging device that will remove the random noise from electroencephalographs by averaging many responses. This will be very much like the ARC-1 computer built at M.I.T. and used by Professor Rosenblith's group in studying neuroelectric data. Part of this device will be a single channel, high gain encephalograph amplifier. If you have amplifiers of this type, we would like to receive prices and catalog information on them.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

Coleman Instruments, Inc.
42 Madison Street
Maywood, Illinois

Dear Sirs:

Digital Equipment Corporation is designing a digital response averaging device that will remove the random noise from electroencephalographs by averaging many responses. This will be very much like the ARC-1 computer built at M.I.T. and used by Professor Rosenblith's group in studying neuroelectric data. Part of this device will be a single channel, high gain encephalograph amplifier. If you have amplifiers of this type, we would like to receive prices and catalog information on them.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

American Machine & Foundry Company
General Engineering Laboratories
11 Spruce Place
Greenwich, Connecticut

Dear Sirs:

Digital Equipment Corporation is designing a digital response averaging device that will remove the random noise from electroencephalographs by averaging many responses. This will be very much like the ARC-1 computer built at M.I.T. and used by Professor Rosenblith's group in studying neuroelectric data. Part of this device will be a single channel, high gain encephalograph amplifier. If you have amplifiers of this type, we would like to receive prices and catalog information on them.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 30, 1960

Miss Magdalene Federcell
1120 Lyons Street
Flint, Michigan

Dear Miss Federcell:

Thank you for your letter of March 25 requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv
Enclosures

March 29, 1960

Mr. George McTammany
Purchasing Department
Foxboro Company
Foxboro, Massachusetts

Dear Mr. McTammany:

I was pleased to meet you at the I.R.E. Show and to be able to talk with you for a little while. We feel that in the next few years the control field will be one of the large applications for digital equipment. We would like to get to know your company and have you get to know us because your company will be in the market for digital components and we may be in the market for control components.

The engineers who were with you seemed particularly interested in our manufacturing techniques. If at any time you have any questions on any of the components we use or if you would like to see the way we do things, we would be very glad to show them to you. When you have a need for digital components we would surely like to show them to you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 29, 1960

Mr. Howard R. Dederick
Mechanical Felt & Textiles Company
50 West 18th Street
Weehawken, New Jersey

Dear Mr. Dederick:

Thank you for stopping at our booth at the I.R.E. Show to tell us about the imported metal screen for silk screening operations. We will look forward to seeing samples of this screen and receiving a price list.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 29, 1960

Mr. W. Brown Morton, Jr.
Fennie, Edmonds, Morton, Barrows & Taylor
247 Park Avenue
New York, New York

Dear Mr. Morton:

I am enclosing copies of our ad and Sprague's
ad on the equipment they copied. I am also enclosing a
photostat copy of a letter which you might be interested in.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

March 29, 1960

Mr. Julius E. Knapp
Schering Corporation
86 Orange Street
Bloomfield, New Jersey

Dear Mr. Knapp:

We were pleased to talk with you at the I.R.E. Show and see your enthusiasm for our equipment. You have a very fascinating program and we look forward to hearing from you when you have had a chance to look over our PDP-1 literature more thoroughly.

If you have any other names of people who would be interested, we would appreciate receiving them so that we could put them on our mailing list.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 29, 1960

Triad Transformer Company
4055 Redwood Avenue
Venice, California

Dear Sirs:

We appreciate the wide selection of transformers which Triad makes readily available through our local distributors. There is one special transformer which we are interested in and we would like to know whether you have it available or not. It is a transformer to be used in the transistor power supply to supply the high voltage for a cathode ray tube. It would be used with a transistor oscillator like your TR-688 unit but would have a secondary high voltage winding like that on a fly back transformer. Our immediate interest is for a unit that would put out a total of 10,000 volts but we can use a lower voltage and double, triple, or quadruple with series rectifiers.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 29, 1960

Mr. S. Himmelstein
Technical Director
Data-Stor
Cook Electrical Company
8100 Monticello Avenue
Stokie, Illinois

Dear Mr. Himmelstein:

I appreciate the time you spent last Thursday afternoon at the I.R.E. Show telling me about your tape handlers. It looks like you have done a good job of engineering and manufacturing these units. We expect to be in the market for units like these and we would appreciate receiving any more information you might have. I am enclosing a brochure on our PDP computer which we offer magnetic tape units as an optional feature.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

March 21, 1960

Mr. Bruce Flanagan
Southern Illinois University
Department of Psychology
Perception & Conditioning Laboratory
Carbondale, Illinois

Dear Mr. Flanagan:

Thank you for your interest in the products of Digital Equipment Corporation. Our main product line is Digital Building Blocks that cover the frequency range from very low up to ten megacycles. In addition, we make systems which are assembled out of these Building Blocks and usually are adapted to the customer's particular needs. Our new Programmed Data Processor is a particularly interesting computer because it is very fast and relatively inexpensive. I am enclosing some literature to give you an idea of what our products are. When you need more information, be sure to let us know and we would be glad to give it to you and to demonstrate our equipment if you desire.

We are now designing a commercial version of the ARC-1 (Average Response Computer) used in Professor Rosenblith's laboratory at M.I.T. for processing neuroelectric responses. If you are interested in this type of work, we would be glad to discuss this system with you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

March 21, 1960

Mr. J. Toussaint
Bell Telephone Manufacturing Company
Automation Systems Division
33, Avenue Berkenrode
Hoboken-Anvers, BELGIUM

Reference: XO--6/MY/MVDV/5070

Dear Mr. Toussaint:

Thank you for your inquiry on the products of Digital Equipment Corporation. I am enclosing some general literature on our products which will give you an idea as to what they are like. If you have any further questions, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

March 18, 1960

Mr. William Miller, Jr.
100 LaSalle Street
Apartment MF
New York 27, New York

Dear Mr. Miller:

I was pleased to hear of your interest in Digital Equipment Corporation. We are proud of our little company and do believe it has a future. The company was financed by American Research & Development Corporation, in Boston, and as a result they control the company and own practically all of the stock. For some time, they will be able to supply the financial needs of the company but I do expect eventually the company will have a public stock offering.

I can't quite remember you from campus in the woods, but that was about twelve years ago now. I hope to meet you someday and we can talk over these.

Sincerely yours,

Kenneth M. Olsen

KHO/jv
Enclosures

March 18, 1960

Mr. Hisao Fujiki
Yokogawa Electric Works
3000 Kitajoji Musasino
Tokyo, JAPAN

Dear Mr. Fujiki:

Thank you for your interest in our Programmed Data Processor. I am enclosing some literature which describes the unit and in a couple of weeks I will send a more detailed brochure which is now being prepared. If you have any questions on this system, please feel free to call upon us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

March 17, 1960

Mr. W. Allen Stuart
Purchasing Agent
Lincoln Laboratory
P. O. Box 73
Lexington 73, Massachusetts

Dear Mr. Stuart:

Thank you for your request for quotation No. 6292 on the Dicon Tape Buffer. We feel that it would be unwise for Digital Equipment Corporation to bid on this project.

We hope that you will consider us for future work.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv
Enclosure (RFQ #6292)

cc: Mr. John Harris

March 16, 1960

Mr. Fred H. Chamberlin
36 Beacon Street
Boston, Massachusetts

Dear Mr. Chamberlin:

Thank you for your letter of March 15 requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest in Digital Equipment Corporation, and if we can be of any further assistance do not hesitate to contact me.

Sincerely,

Kenneth H. Olsen

KHQ/jv
Enclosures

March 15, 1960

Dr. Sidney Weinstein
Albert Einstein College of Medicine
Yeshiva University
Eastchester Road & Morris Park Avenue
New York 61, New York

Dear Dr. Weinstein:

We are going to be exhibiting at the I.R.E. Show in New York City next week and if it is possible we would like very much to have you stop in and visit our booth and get to know some of our people. I am enclosing two tickets that will let you in free, I think. It would take two or three days to wander through the show, so I should tell you that we are on the third floor in booth 3831.

We have had several inquiries on ARC type machines but our biggest problem is deciding just what characteristics this should have in order to satisfy at least several customers with one machine. If I miss you at the show, I'll try to call you that week and we can have a casual conversation by telephone and discuss your latest thoughts and what we now think we can do.

I'll look forward to seeing you next week.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures (2)

March 10, 1960

Mr. Francis P. Hazel, Jr.
4 Mason Street
Lexington, Massachusetts

Dear Frank:

We were pleased to hear that we will be able to have your help on this project of getting the PDP-1 booklet into shape. Your rate of \$10 an hour is agreeable with us and we would like to have you start immediately on this job. If we could have it done by next week, it sure would be of help to us.

I am sending a copy of the new IBM 7070 manual to give you some ideas of the way they do this thing. I no longer want to recommend IBM as a model because we just got a call from Bell Labs saying that they like the idea of using our computer because after an hour with PDP-1 manual they were able to program our computer, but they haven't yet been able to figure out the IBM 1401 machine.

On page 5 we should spell out the meaning of $C()$. $C(Y)$ is the contents of memory at address Y . $C(AC)$ is the contents of the accumulator. $C(IO)$ is the contents of the in/out register. $C(Q)$ was meant to be a generalised explanation, but is not necessary.

Here are my thoughts on an outline, although I haven't thought about it enough to have strong feelings. If you arrange the pamphlet in sections that look different from each other and are interestingly laid out, I don't think we need a Table of Contents, and then I don't think we need a formal outline. There's need for the word "Introduction" or for the words "General Description." I'd go right into the description. It is obvious that it is introduction and general description. The first section,

of course, is important because it's all that most people will read. The next section that we call System Block Diagram, I would call something like System Description. The first paragraph on page 1 under System Block Diagram, I think says nothing. In the last three on page 3, i.e., electrical description, mechanical description, and environmental requirements, should be thrown somewhere in the very end. The system description could start off with the first two paragraphs on page 4 and then go on to describe the block diagram. If we have to leave out some of the detail on the block diagram description, go ahead and do it. We could make the block diagram fold out like you suggested. We'll think about it after we see the text again.

The storage paragraph on page 15 should be included on the system diagram and so should the first paragraph under each piece of in/out equipment. Possibly, the section on page 4 titled Operating Speed should come under general description.

I think then the next section should include all that is involved with instructions. This should explain the instruction format and number systems on page 4 and all that follows it. The programming comments under input/output equipment should be in this section. I don't know where the section on page 14 should go. These are just some random thoughts on the outline but not with any strong conviction.

I am sending a few other brochures that we have assembled to give you an idea of the type of work we have been doing. Jack Atwood, our advertising man, suggested the possibility of breaking up the different sections with pictures and charts and using different color arrangements in each section so that it doesn't look like a formidable document but more like a number of separate interesting sections. I would like to consider the possibility of making the whole thing in one sheet which folds out to four or five sections. Be sure to let us know if you have any questions.

Sincerely yours,

Kenneth H. Olsen

KEQ/jv
Enclosures

March 9, 1960

Mr. Horace Ford
100 Memorial Drive
Cambridge, Massachusetts

Dear Mr. Ford:

Because you made so many contributions and were so encouraging early in the life of DEC, we would like to give you one of our Building Blocks to remind you of the company. If you would use this as a paperweight, we would feel very proud.

DEC shipped just slightly over a million dollars during the calendar year of 1959 with a reasonably good profit. Much of the actual profit went into development of new products which gives a good feeling of stability. We now have a very strong engineering force which is unusually well equipped. We still have to develop a strong sales effort. That is receiving a good part of our attention right now.

Our relationship with AR&D has been very good and if we have any criticism of them, I think it would be that they show more confidence in us than we deserve.

With our best wishes,

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

March 9, 1960

General Georges Doriot, President
American Research & Development Corp.
The John Hancock Building
Boston 16, Massachusetts

Dear General Doriot:

The Building Block which you gave to Vernon Alden has been such good advertising that we would like to replace it with two modern units. We hope that you find these gadgets interesting enough to be worth a place in your very interesting office. If you give these away, we will be pleased to replace them.

The AR&D Stockholders' Meeting was very nicely done and it made us proud to be part of the family.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

March 9, 1960

Dean Vernon Alden
Harvard Graduate School of
Business Administration
Soldiers Field Road
Boston, Massachusetts

Dear Vern:

We appreciate the people you have told about DEC Building Blocks as a result of the model you have on your desk. You have a very old model and we would appreciate it if you would get rid of it somehow and replace it with the enclosed unit. We are also enclosing a System Building Block which shows the other product.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

March 9, 1960

Mr. William H. Compton
American Research & Development Corp.
The John Hancock Building
Boston 16, Massachusetts

Dear Bill:

We thought you might need a paperweight for the top of your desk. If you will use the enclosed DEC Building Block, we would feel very proud. We would like to have DEC Building Blocks seen by as many people as possible.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

March 9, 1960

Mr. John Barnard, Jr.
Gaston, Snow, Motley & Holt
82 Devonshire Street
Boston 9, Massachusetts

Dear Jack:

We thought you might need a paperweight for the top of your desk. If you will use the enclosed DEC Building Block, we would feel very proud. We would like to have DEC Building Blocks seen by as many people as possible.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

March 9, 1960

Mr. Arnaud de Vitry
110 East End Avenue
New York 28, New York

Dear Arnaud:

We thought you might need a paperweight for the top of your desk. If you will use the enclosed DEC Building Block, we would feel very proud. We would like to have DEC Building Blocks seen by as many people as possible.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

March 9, 1960

Miss Dorothy E. Rowe
American Research & Development Corporation
The John Hancock Building
Boston 16, Massachusetts

Dear Dorothy:

We thought you might need a paperweight for the top of your desk. If you will use the enclosed DEC Building Block, we would feel very proud. We would like to have DEC Building Blocks seen by as many people as possible.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

March 9, 1960

Professor J. W. Forrester
11 Holden Wood Road
Concord, Massachusetts

Dear Jay:

We thought you might need a paperweight for the top of your desk. If you will use the enclosed DEC Building Block, we would feel very proud. We would like to have DEC Building Blocks seen by as many people as possible.

Sincerely yours,

Kenneth H. Olsen

KHO/nv
Enclosure

March 8, 1960

National Packaging Exposition & Conference
American Management Association
1515 Broadway
New York 36, New York

Dear Sirs:

Please send descriptive information and conference registration forms for the National Packaging Exposition and Conference, on April 4 through 7, 1960.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 8, 1960

Harter Corporation
3001 Prairie Street
Sturgis, Michigan

Dear Sirs:

Please send descriptive information and prices
on your office chairs.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

COPY

March 8, 1960

Royal-McBee
Data Processing Division
Port Chester, New York

Dear Sirs:

Please send descriptive information on your trans-
istorized RPCE-400 computing system.

Sincerely yours,

James H. Myers
Librarian

JHM/jv

March 8, 1960

Remington Rand
Room 1322
315 Park Avenue, South
New York 10, New York

Dear Sirs:

Kindly send free full color booklet FF242 -
"Aristocrat Module Furniture."

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 8, 1960

Mr. W. A. Marchman
1001 Buffalo Avenue
Niagara Falls, New York

Dear Mr. Marchman:

Thank you for your letter of February 29 requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

March 1, 1960

Mr. Raymond G. Stevens
Woods Hole Oceanographic Institution
Woods Hole, Massachusetts

Dear Mr. Stevens:

We were pleased to hear of your continued interest in PDP computers. Because Woods Hole is so close to us, we can drive down any day and talk to you about our products. If there is no urgency on your part, we would like to postpone the visit until after the I.R.E. show, the fourth week in March.

We have a PDP-1 set up in our plant in Maynard which we encourage potential users to try. If you can find a use for this machine at any time, we would be delighted to co-operate with you.

If we can help you in any way, be sure to call on us; and if you would like to have us visit you before the end of March, please let us know.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

March 1, 1960

Mr. R. F. Whiting
Project P-1866
Cook Research Laboratories
6401 West Oakton Street
Morton Grove, Illinois

Dear Mr. Whiting:

We are pleased to hear of your interest in Digital Equipment Corporation's line of Building Blocks. We would like to co-operate in the survey which you are making. Our equipment is being used by most of the large companies and industrial organizations in the digital field. We have built between fifteen and twenty thousand plug-in units in the last two years that have been used in very diverse locations and applications.

DEC plug-in units have been designed to make logical design and assembly as easy as possible. I am enclosing a bulletin on our Programmed Data Processor, which is a rather sophisticated computer that we designed and built and demonstrated in four months using our System Building Blocks. I am also enclosing a booklet of our miscellaneous literature which describes our standard line of Building Blocks. In addition, we have a number of special units which facilitate the design of a system. We maintain an inventory of finished units of between \$100,000 and \$200,000 and so can give off the shelf delivery on most orders.

We would like very much to visit you and explain the ways in which we can be of service. Please let us know when a visit would be most useful to you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

February 29, 1960

**Mr. Fred M. West
Chief Librarian
Solar Aircraft Company
San Diego 12, California**

Dear Mr. West:

Thank you for your letter of February 24 requesting information about Digital Equipment Corporation. Enclosed is a complete catalog describing DEC's products for the Solar Library.

If we can be of any further assistance to you at any time, please do not hesitate to contact us.

Sincerely yours,

Kenneth H. Olsen

**KHO/jv
Enclosure**

February 29, 1960

Mr. John E. McAdam
103 F. Eagle Heights
Madison 5, Wisconsin

Dear Mr. McAdam:

Thank you for your recent postcard requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

February 26, 1960

Mr. William Bartic
Remington Rand Univac
19th & West Allegheny Avenue
Philadelphia 29, Pennsylvania

Dear Bill:

We have decided not to bid on your memory stack even though it was a very attractive project and you people showed a most co-operative attitude. It seemed unwise to concentrate such a large percentage of our output on one customer when the big need of a small company such as ours is to develop a reputation and a proprietary product line.

I want to thank you for the time you spent with us on this project and hope we have not caused any undue inconvenience by turning down this bid.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 23, 1960

Cheshire, Inc.
1644 North Monroe Street
Chicago, Illinois

Dear Sirs:

Digital Equipment Corporation builds a very high speed, relatively simple data processor which appears to have potential application in the maintenance of address files. We have been asked to study the application of this machine to the maintenance of a medium sized magazine subscription list. The problems of filing, updating, and sorting are relatively straightforward, but we have little experience in the preparation of labels. We have been told that Cheshire machines are universally used for applying labels and, therefore, any labels produced on our machines must be compatible with Cheshire.

If you have general literature on your equipment, we would appreciate the opportunity to become acquainted with it. We would like to know the specifications on labels to be used on your machines. Do you make electrically actuated label printers, or do you have manufacturers of such equipment that you can recommend.

We would appreciate any help you can give us in this problem.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 18, 1960

Miss Gloria Weiss
26 Stanton Court
Trenton 10, New Jersey

Dear Miss Weiss:

Thank you for your postcard of February 15 requesting information about Digital Equipment Corporation.

Since no DEC stock is available on the market, no annual reports to the stockholders describing the corporation activities are prepared.

DEC is manufacturing a line of proprietary products which are described in the literature I am enclosing.

Thank you for your interest.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv
Enclosures

February 16, 1960

General Georges F. Doriot, President
American Research & Development Corporation
The John Hancock Building
Boston 16, Massachusetts

Dear General Doriot:

We want to thank you for your most gracious invitation for luncheon before the annual meeting of American Research and Development. Harlan and myself will be most pleased to attend.

We look forward to the annual meeting and the reception following it, and we hope that our equipment will contribute to the interest of the meeting.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 16, 1960

Mr. Joseph Gano
General Manager
Dynamic Controls Company
1955 Massachusetts Avenue
Cambridge 40, Massachusetts

Dear Joe:

We were pleased to receive the literature on your transistorized regulated power supply. We will definitely keep it in mind for when the need arises.

Our standard line of simple-minded power supplies does well for normal applications because the tolerance our circuits have to ripple and regulation, but there are times when people want to use our circuits on 50 cycle line and we are not sure yet what we should recommend. Our supplies use a resonant transformer, so of course it doesn't work at 50 cycles. We are looking into getting 50 cycle resonant transformers, but we're not sure how this will work out. Would one of your supplies work on 50 cycles and deliver 15 volts at several amps? This situation comes up only occasionally and we would not like to stock 50 cycle supplies, but we would like to know where to send the customer.

Sincerely yours,

Kenneth H. Olsen

KBO/jv

February 16, 1960

Waterman Products Co., Inc.
Philadelphia 25
Pennsylvania

Dear Sirs:

We have several questions on your products which we would appreciate answers to if the information is available.

1. What is the maximum anode voltage on your cathode ray tube 5BTP1? Do you have a measure of spot size and distortion in this tube?
2. What is the anode supply voltage and sensitivity of the panelscope Models P1 and P10? What is the useful screen area on this scope?
3. What is the anode supply voltage on the Craftscope Model S16A?
4. Is the S16A scope available for panel mounting, or can it be readily adapted for panel mounting?
5. What is the diameter of the scope bezel on the S15A?

We look forward to your reply.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 16, 1960

Durakool
Elkhart
Indiana

Dear Sirs:

Digital Equipment Corporation is designing a commercial product which will need reliable relays, and we would like to know if you have a unit you would recommend for our application. We want to start and reverse a 3/4 horsepower, 3 phase, 220 volt, 60 cycle motor in a NEMA 56 frame. The motor will have an inertial load with a moment of inertia of about 1.6 pound feet² and will not come to a complete stop before it is reversed. This motor will be started, stopped or reversed at intervals as fast as once every two seconds for about an hour a day. We would, of course, like the relay to last forever but we at least want it to have a predictable life.

If you have a unit that you would recommend for an application like this, we would appreciate hearing about it.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 16, 1960

General Products Corporation
Union Springs
New York

Dear Sirs:

Please send prices and descriptive information
on your taper pin boards.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 16, 1960

Kelco Supply Company
Wholesale Division
312 East 14th Street
Minneapolis 4, Minnesota

Dear Sirs:

Please send us descriptive information and
prices on your folding furniture.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 16, 1960

Vogel-Peterson Company
Route 83 & Madison Street
Elmhurst, Illinois

Dear Sirs:

Please send descriptive information and prices
on your aluminum coat racks.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 16, 1960

A. R. Nelson Company, Inc.
38 Crescent Street
Long Island City 1, New York

Dear Sirs:

Please send descriptive information and prices
on your ARNCO coat and hat racks.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 16, 1960

Louis Rastetter & Sons Co.
1348 Wall Street
Fort Wayne, Indiana

Dear Sirs:

Please send descriptive information and prices
on your folding seats.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 16, 1960

The Monroe Company
95 Church Street
Colfax, Iowa

Dear Sirs:

Please send descriptive information and prices
on your portable furniture.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 16, 1960

Virco Manufacturing Corp.
P. O. Box 44846
Station H
Los Angeles, California

Dear Sirs:

Please send descriptive information and prices
on your folding furniture.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 16, 1960

Hough Manufacturing Corp.
Janesville
Wisconsin

Dear Sirs:

Please send descriptive information and prices on
your flexible partitions.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

COPY

February 16, 1960

Splendor Corporation
501 New York Avenue
Newcastle, Indiana

Dear Sirs:

Please send descriptive information on your
folding door partitions.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

COPY

February 15, 1960

Mr. Frederick Popp
Lincoln Laboratory
Lexington 73, Massachusetts

Dear Ted:

I am enclosing a draft of our proposal for a magnetic tape buffer to do your job. We are considering making this a catalog item and, therefore, we will try to make it as general as possible. Several companies have cheaper ways of making buffers but they can't read and write simultaneously and so I think this may turn out to be a very useful device.

When you have had a chance to look this over, we would like to hear your reactions so that we can go ahead and make the formal proposal.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

(see L.H. file)

February 12, 1960

Mr. Joseph Slawek
Philco Corporation
Government & Industrial Division
4700 Wissahickon Avenue
Philadelphia 44, Pennsylvania

Dear Joe:

I was pleased that I was able to talk to you Thursday morning because I was able to get a much clearer understanding of what your needs and desires for a Memory Tester were. We are quite concerned about not being able to give you the rise times you desired, but we never considered the possibility of making a special purpose device that could not be used for testing regular coincident current memories. By making this compromise, we feel that we can readily meet your requirements and I believe it will be at less cost and probably with so much shorter delivery. We are working on a proposal that we will get to you in a few days and see if we can't convince you that we should do the whole job for you.

We apologize for not proposing this special device earlier, but we hope we can solve your problem expeditiously anyway.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 10, 1960

Dean Vernon R. Alden
Harvard University
Graduate School of
Business Administration
Soldiers Field
Boston 63, Massachusetts

Dear Vern:

We appreciate all the leads that you have given us as a result of visitors to your office. Mr. Frawley visited me today and discussed the Harvard Business Review addressing problem. This is a particularly interesting problem which we never thought of before, and we plan to continue working with him. I am enclosing a collection of our literature which we are all too happy to hand out freely.

Thank you again.

Sincerely yours,

Kenneth H. Olsen

KBO/jv
Enclosures

February 10, 1960

Mr. R. A. Merrill
Marketing Manager
Analex Corporation
150 Causeway Street
Boston 15, Massachusetts

Dear Mr. Merrill:

We have been looking a little further into the problem of producing addressing labels. We have come to two conclusions, one is that you need as much speed as possible on the printing and it seems that you have about the most desirable machine for this. But we also concluded that in order to be used on the normal labeling machines, the labels have to be in the standard Cheshire form. These have sprocket holes in the center of the tape and come in two forms, the strip and the wide way. Would it be possible to feed this type paper on your machines? I am sure the form manufacturers would be willing to produce edge sprocket paper that also has the necessary holes on one inch centers in the center, but this would be more expensive. My impression is that they use the cheapest of paper in these Cheshire forms. I understand that some printing machines generate the holes and others use prepunched paper.

We would appreciate hearing if you have had any experience in printing this type label or if you have any ideas as to how it can be done.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 8, 1960

Mr. Lauri Klemola
4 Harrison Street
Maynard, Massachusetts

Dear Mr. Klemola:

Thank you for your interest in Digital Equipment Corporation. We do not now have an opening for someone with your qualifications, but we will keep your resume so we can contact you if the need develops. We would like to have you stop in sometime so you can see the company and we can get to know you better. This will give us a better idea as to what your interests and skills are.

If you have the chance to visit us, please call Mrs. Helen LeBlanc to make an appointment and she will be sure that the appropriate people are available.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 8, 1960

JAN Hardware Manufacturing Co.
75 North 11th Street
Brooklyn 11, New York

Dear Sirs:

Digital Equipment Corporation is designing a commercial product that will use a five inch oscilloscope. I am enclosing a drawing of the Sylvania 5BGP cathode ray tube which we are now planning to use. Please send price and delivery information on the magnetic shield for the 5BGP, and your CP13584-2 camera mount bezel, and rubber cushioning needed to mount the tube. We do not need a graticule, light filter, or edge lighting. We would like the price for one engineering model and prices for quantities of ten sets.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

February 8, 1960

Mr. V. A. Van Praag
Electro-Logic Corporation
515 Boccaccio Avenue
Venus, California

Dear Mr. Van Praag:

I am sorry that I was not here when you visited us a few weeks ago. It sounds like you have a very interesting operation going on now, and we wish you the best of luck.

We received an inquiry from Mr. Edmund A. Brand, University of Washington, Pysiology and Biophysics, School of Medicine, Seattle 5, Washington. He wanted to know if we had a 7 bit, 10 KC analog to digital converter. We told them that we didn't but recommended that he contact you. I thought you may want to follow through on this.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 8, 1960

Sanborn Company
175 Wyman Street
Waltham, Massachusetts

Dear Sirs:

Digital Equipment Corporation is designing a digital response averaging device that will remove the random noise from electroencephalographs by averaging many responses. This will be very much like the ARC-1 computer built at M.I.T. and used by Professor Rosenbliss' group in studying neuroelectric data. Part of this device will be a single channel, high gain electroencephalograph amplifier and a single channel pen recorder. If you have amplifiers that can be used for encephalographic work and single channel pen recorders, we would like to receive prices and catalog information on them.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 8, 1960

Brush Instruments
37th & Perkins Streets
Cleveland Ohio

Dear Sirs:

Digital Equipment Corporation is designing a digital response averaging device that will remove the random noise from electroencephalographs by averaging many responses. This will be very much like the ARC-1 computer built at M.I.T. and used by Professor Rosenbliss' group in studying neuroelectric data. Part of this device will be a single channel pen recorder. If you have amplifiers that can be used for encephalographic work and single channel pen recorders, we would like to receive prices and catalog information on them.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 8, 1960

Offner Electronics, Inc.
5320 North Kedzie
Chicago, Illinois

Dear Sirs:

Digital Equipment Corporation is designing a digital response averaging device that will remove the random noise from electroencephalographs by averaging many responses. This will be very much like the ARC-1 computer built at M.I.T. and used by Professor Rosenbliss' group in studying neuroelectric data. Part of this device will be a single channel pen recorder. If you have amplifiers that can be used for encephalographic work and single channel pen recorders, we would like to receive prices and catalog information on them.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 8, 1960

Grass Instruments
101 Old Colony Avenue
Quincy, Mass.

Dear Sirs:

Digital Equipment Corporation is designing a digital response averaging device that will remove the random noise from electroencephalographs by averaging many responses. This will be very much like the ARC-1 computer built at M.I.T. and used by Professor Rosenbliss' group in studying neuroelectric data. Part of this device will be a single channel, high gain electroencephalograph amplifier and a single channel pen recorder. If you have amplifiers that can be used for encephalographic work and single channel pen recorders, we would like to receive prices and catalog information on them.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 8, 1960

Ebert Company
Queens Village 28
New York

Dear Sirs:

Digital Equipment Corporation is designing a commercial product which will need reliable relays, and we would like to know if you have a unit you would recommend for our application. We want to start and reverse a 3/4 horsepower, 3 phase, 220 volt, 60 cycle motor in a NEMA 56 frame. The motor will have an inertial load with a moment of inertia of about 1.6 pound feet² and will not come to a complete stop before it is reversed. This motor will be started, stopped or reversed at intervals as fast as once every two seconds for about an hour a day. We would, of course, like the relay to last forever but we at least want it to have a predictable life.

If you have a unit that you would recommend for an application like this, we would appreciate hearing about it.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 8, 1960

Cramer Electronics, Inc.
811 Boylston Street
Boston, Massachusetts

Dear Sirs:

Please remove the following names from your mailing list. These people have either left the company or their present jobs no longer require the need of such information.

Digital Equip. Corp.
Maynard
Massachusetts
Att: Kenneth H. Ober

Digital Equip. Corp.
Main St.
Maynard, Mass.
Att: Robert J. Reed

Digital Equip. Corp.
Main St.
Maynard, Mass.
Att: Beverly Bernier

Digital Equip. Corp.
Maynard, Mass.
Att: Ted Johnson

Digital Equipment Corp.
146 Main St., Bldg. 12
Maynard, Mass.
Att: Mr. Stanley Olsen

Digital Equipment Corp.
146 Main St., Bldg. 12
Maynard, Mass.
Att: Mr. Harlow Anderson

Sincerely yours,

Kenneth H. Olsen

KHO/jv

DF326 reply end

February 5, 1960

Mr. Edmund A. Brand
University of Washington
Physiology and Biophysics
University of Washington
School of Medicine
Seattle 5, Washington

Dear Mr. Brand:

We appreciate your inquiry on analog digital converters. We do not have a converter in our standard line that will meet these specifications, but we would recommend that you contact Electro-Logic Corporation, 515 Boccaccio Avenue, Venus, California, telephone EXbrook 6-3137. This company is specializing in converters with the performance level about that which you specified.

We are now designing an average response computer which we hope to make a standard catalog item. This will be very much like the ARC-1 built by Lincoln Laboratory for the Research Laboratory for Electronics at M.I.T. It digitalizes electroencephalographic responses and performs a running average on a large number of responses to remove the random noise. We built a 6 digit ADC converter as part of this device. If you have trouble finding an inexpensive 7 bit decoder, we would be glad to give you a price on this one.

If we can be of any help at any time, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 5, 1960

Mr. Norman H. Taylor
Vice President
Itak Corporation
Waltham 54, Massachusetts

Dear Norm:

We want to thank you for passing on the Collins request to bid on magnetic core memories to us. In this case we don't feel that we can do the job; but we want to thank you for asking us. We would appreciate hearing of any other such requests.

Sincerely yours,

Kenneth H. Olsen

KHQ/jv
Enclosure

February 5, 1960

Westinghouse Electric Corporation
Bettis Atomic Power Laboratory
Nuclear Core Procurement Department
Bettis Site - P. O. Box 1468
Pittsburgh 30, Pennsylvania

Attention: Mr. R. F. Cobb

Reference: Inquiry No. RFC-X-270220

Gentlemen:

Thank you for your request to bid on a precision pulse generator. Digital Equipment Corporation does not have a standard catalog unit which fits these specifications, but if we had some further information we would be pleased to prepare a bid on a device that would meet your specifications. DEC has the engineering, experience, and equipment to design and test fast signals like those in the specification. Because we have complete sheet metal, painting, and silk screening facilities, we can build equipment like this in a short period of time.

For further consideration, we would need answers to the following questions:

1. What is the shape of the pulse and how do you define rise time?
2. Is the attenuation by the 10 turn pot in cascade with the step attenuation or is this a separate means of attenuation? If they are in cascade, the total attenuation is 10 million which is well beyond our ability to measure.
3. Are your stability and temperature coefficients based on the amplitude or the frequency?

February 5, 1960

4. Can the 60 cycle line frequency be used as the time base for the pulse generator?
5. In your specification on source impedance you specify 100 ohm series with 3 microfarads. Can this be during the interval of the pulse only, or does it have to be constant?

If this specification is based on an already commercially available device, we would appreciate knowing this. It will take some effort to prepare a bid, and I am sure that our price could not compare with a commercially available device.

We appreciate this opportunity to work with you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

COPY

200
February 4, 1960

Mr. D. J. Black, Jr.
Research Corporation
405 Lexington Avenue
New York 17, New York

Dear Mr. Black:

One of our most difficult problems at the moment is fixing the price on our coincident current memories. Our manufacturing costs seem to bear no relation to what's going on in the market, so we are trying to base our price on what other people are charging. Last night we were talking with System Development Corporation who are making a very careful study of high speed computers using core memories. They gave us some numbers which surprised us very much and I thought you might be interested in. They claim that cores are now selling in complete memories at \$.44 to \$.86 per bit.

If you are interested, I recommend that you contact Mr. Robert von Buelow, System Development Corporation, 2500 Colorado Avenue, Santa Monica, California. SDC is also a non-profit organization and whose goals are all in the public good. I am sure Mr. von Buelow will co-operate thoroughly in giving you the results of his study if they will be of any help to you.

If we can ever assist you in any way, feel free to call.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 4, 1960

Haddam Manufacturing Company
Route 9
Middletown Road
Haddam, Connecticut

Dear Sirs:

Please send descriptive information and prices
on your powdered iron clutches and brakes.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 1, 1960

Dean Vernon R. Alden
Harvard Business School of
Business Administration
Soldiers Field Road
Boston, Massachusetts

Dear Vernon:

Enclosed is your Digital stock certificate. It's interesting that they turned out to be the DEC colors.

We appreciate the interest and confidence you have shown in DEC.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosure

February 1, 1960

Miss Florence Krumm
Department 735
Saks Fifth Avenue
Milburn & Short Hills Avenue
Springfield, New Jersey

Dear Miss Krumm:

Thank you very much for returning the check that you found on the street in New York City. The check was for two tickets to a banquet. We have no idea how it got on the street, but by returning it to us you saved me significant inconvenience by making it possible for me to confirm the reservation which I thought was being held by this check.

Sincerely yours,

Kenneth E. Olsen

KHO/jv

February 1, 1960

Mr. Edward A. Aron
93 Marion Street
Brookline, Massachusetts

Dear Mr. Aron:

We are pleased that you are able to come out and visit us at our plant and we look forward to seeing you on Monday, February 8. The bus leaves Harvard Square, at the corner of Massachusetts Avenue and Gardner Street, at 25 minutes past the hour. We will expect to see you sometime in the early afternoon.

The bus ends its trip on the street alongside the mill. If you walk down Main Street a few hundred feet, you come to the main gate of the mill and just inside the gate you will see our entrance.

We look forward to seeing you then.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

February 1, 1960

Mr. J. Frank Coneybear
ASTRA, Inc.
P. O. Box 226
Raleigh, North Carolina

Dear Mr. Coneybear:

We were pleased to receive your letter and to hear of your interest in co-operating with us. I am sending a little of our literature along to give you an idea as to some of the things we have done. Any time there is a possibility of co-operating in a project, we would be more than pleased to discuss this with you.

Our work in the medical field is at a very early stage and will be aimed for some time at a very narrow group of people. It is probably not worth while as yet to consider even informal representation agreements in this field.

There is nothing proprietary in what we are doing in the medical field, but as far as we know there is no other organization who is in a position to build this type of equipment. It is based on the work of the Research Laboratory for Electronics, at M.I.T., in biological signal analysis. Either a special purpose or general purpose computer is arranged to do digital filtering of electroencephalographs. The noise on these signals is usually much greater than the desired signal. To get useful responses, the signals are digitalized and several hundred responses are averaged. The random noise tends to average out to zero and the desired signal remains. Ten years from now a device like this may be used in every hospital, but for some time it will be strictly a research tool by a small number of people.

If you are ever in the Boston area, we would like very much to show you our plant and the things we are doing.

Sincerely yours,

KHO/jv
cc: Mr. Wayne Brobeck

Kenneth H. Olsen

February 1, 1960

Medical News
130 East 59th Street
New York 22, New York

Dear Sirs:

We found your article on "Physiologic Hearing Secrets Sounded Out in Soundproof Lab" particularly interesting because we built some of the equipment shown and because we plan to do more work in this field. If possible, we would like very much to receive ten copies of the January 1960 MEDICAL NEWS. Please bill us for any charges.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv

January 29, 1960

Mr. Robert Slater
John Hancock Mutual Life
Insurance Company
200 Berkeley Street
Boston, Massachusetts

Dear Bob:

I look forward to discussing computers with you next Thursday night and showing you what we have here. The best way to come out is to take Route 27 all the way to the center of Maynard. At a red light, the first one for several miles, 27 turns left and joins Route 62. Stay on 62 when it turns left after about a block and continue about a quarter of a mile through the shopping center and on the left-hand side is a very large old mill. On 62 there is an iron gate which is the main entrance, and we are just opposite this iron gate.

I'll be able to demonstrate our computer. It has a 5 microsecond core memory and can do 100,000 add type instructions per second, which is two and one-half times faster than a 709. It is small enough that we brought it down to the Statler Hotel, plugged it in the wall, and ran programs during the Eastern Joint Computer Conference. If you had to make your decision a year from now, we would make a pitch to sell you our machines, but right now we are somewhat overcommitted. Building equipment is easy, but it takes many man weeks to work out a customer's particular problem; and last week alone we had 79 inquiries on this computer.

Next Thursday I will just try to trigger your imagination for some of your later problems that need computers.

Sincerely yours,

Kenneth E. Olsen

KHO/jv

January 29, 1960

Mr. Daniel Echo
Sales Manager
Electronic Tube Sales
Allen B. Dumont Laboratories, Inc.
750 Bloomfield Avenue
Clifton, New Jersey

Dear Mr. Echo:

We have received a technical data sheet, titled "Large Diameter Electrostatic Radar Tubes" dated 9/1/59. If you have any more data on the K-1477 and the K-1868 (#1), we would like to receive it. We would like to know if you have any measure of pin cushion distortion on these tubes. We would also like to know the price and normal delivery on these and which type phosphors are readily available.

Building hardware for mounting tubes of this type is often the most expensive part of their use. We would like to know what you can supply in magnetic shields, sockets and clamps, and bezels for these type tubes, or which suppliers you might suggest for them.

Sincerely yours,

Kenneth H. Olsen

KBO/jv

January 29, 1960

Mr. J. M. Frunier
Comptoirs Inex - France
39, R. Francois Arago
Montreuil - Seine
FRANCE

Dear Mr. Frunier:

We appreciate your interest in co-operating with Digital Equipment Corporation, and we will look forward to seeing you at the I.R.E. Show in March. We have not worked out plans as to how we should sell equipment in Europe and we have not made any commitments as yet. We would like very much to hear your ideas and attitudes on the subject.

We exhibit at the I.R.E. Show and I plan to be there during the whole show. We can arrange ahead of time to meet together or you can stop by our booth and we can get together. We will have a telephone at the booth and you can call me there.

We look forward to seeing you then.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

January 29, 1960

Air Force Missile Development Center
Air Research and Development Command
United States Air Force
Attention: MDEB-3
P. O. Box 393
Holloman Air Force Base, New Mexico

Subject: Purchase Request MEW-60-R&D-81
dated January 8, 1960

Gentlemen:

Thank you for the opportunity to submit a proposal on the design and fabrication of the editing and recording circuitry for use with certain digital outputs of a UNIVAC scientific computer, as described in Exhibit A dated 29 December 1959. We have carefully reviewed Exhibit A and in particular the suggested design shown on your drawings No. 57000. We plan to implement this recording system in the recommended way as shown on your drawings. Several technical considerations pertinent to that design are discussed below. All circuits, including reading and writing amplifiers, will be packaged in standard DEC System Building Block construction. DEC 5 megacycle System Building Blocks will be used as components as suggested in your drawing No. 57000. An Ampex FR-100, dual speed, magnetic tape unit will be used for recording.

Technical Considerations

Digital Equipment Corporation proposes to accomplish the task specified in Purchase Request MEW-60-R&D-81 in the method specified in the block diagram and detailed in Holloman Air Force Base drawings No. 57000. As a result of the experience of DEC in assembling systems of this type, the following exceptions are taken to the request for bid because they simplify this system and lower the cost, or because they improve the system technically:

January 29, 1960

1. 1410 pulse generators will not be used between the UNIVAC pulse transformers and the 1209 flip-flops, but instead the output of the pulse transformers will be biased at -3 volts and reduced in amplitude with a resistor divider and put directly into the direct set terminals of the flip-flops.
2. We propose to eliminate the pulse generator 4-0 and drive the pulse amplifier 4-02 with a pulse transformer secondary attenuated and biased at +3 volts.
3. No 1110 diode units are necessary because there are enough diode sections of the pulse amplifiers type 1606 left unused to accomplish this task.
4. Four less 1201 flip-flops will be used than called for in the Parts List because flip-flops 6-17, 6-18, 6-19, and 6-20 do not appear on the block diagram.
5. The 1667 level amplifier will be used where the level amplifiers 666 are called for. This is a six channel unit; one can take the place of six 666's.
6. We propose to use five 1103 inverter units, each of which contains six inverters, instead of the seven 1104 inverter units which contain only four inverters each.
7. We propose to redistribute the load on the two halves of the pulse amplifier 4-02 and eliminate the extra pulse inverters in the inputs to pulse amplifiers 10-06, 10-07, 10-08, 10-09, 10-13, and 10-14.
8. We eliminated pulse amplifier 10-18 by mixing the outputs of pulse amplifiers 10-06, 10-08, and 10-13 to feed flip-flop 10-19, and then doing the same to feed pulse delay 10-15. Unused diode circuits in 1606 pulse amplifiers are used for this.
9. Sheet 2 of drawing 57000 specifies Apex write amplifiers, read amplifiers, and output translators. We

January 29, 1960

propose to use Digital Equipment Corporation read and write circuits because we feel they are significantly simpler and more reliable. The output from the DEC circuits are 0 and -3 volts. From this we can probably generate signal levels which are more readily useful to the UNIVAC 1103A than the 0 to +7-1/2 volts produced by the Apex circuits. We propose to deliver these signals at 0 and -15 volts and a 1500 ohm impedance level (using 1667 level amplifiers) but we will modify this to suit the user.

10. We propose using the Apex read/write head assembly which has a separate 16 track write stack and a separate 16 track read stack. We feel this is best because each stack is optimized for its particular application. Because this type head is becoming standard, it makes the tape transport and circuits more useful for other applications if the present need for this device ever terminates.
11. We count the number of 1209 flip-flops as 23, which is one more than the Parts List indicates.
12. There is a typographical error on sheet 3 of drawing 57000. The unit in 10-10 and the unit in 10-17 are labeled delays and they should be flip-flops.

Technical Background of Digital Equipment Corporation

Digital Equipment Corporation is uniquely qualified to undertake the items of work included in this request. This is based on the following factors:

1. DEC has designed and is producing the Building Block components recommended for use in implementing this system. An inventory of these units is readily available for use in this work.
2. DEC has had significant experience in constructing systems based on use of these Building Blocks. Literature describing several DEC systems is included as appendices to this proposal as evidence of the type of systems produced by DEC.

January 29, 1960

3. The engineering personnel of DEC have all had significant experience in computer systems work before and after joining Digital Equipment Corporation. Much of this was obtained at the M.I.T. Lincoln Laboratory, where they played key roles in the development of the SAGE system for Air Defense.
4. The manufacturing facilities of DEC include printed circuit layout and production, sheet metal fabrication, painting, silk screening, technical literature preparation, circuit design and prototype testing, complete electronic assembly with thorough quality control. A few photographs showing some of these facilities are included in the appendix to this proposal. DEC occupies 35,000 square feet of floor space exclusively devoted to DEC Building Block and digital system work.

If the above information is in any way inadequate for you to evaluate the technical background of DEC, we would be more than happy to supply any additional information you may wish, including references to our performance on previous items of work of this type.

Price, Schedule, and Terms

Digital Equipment Corporation, by this letter, offers to design and fabricate an editing and recording system in accordance with the requirements outlined in Items 1 through 6 of Section II-A of Exhibit A, dated 29 December 1959 (Purchase Request HW-60-R&D-81) for a total price of \$43,500 net. This is a fixed price and will remain in effect for sixty days from date of this letter if not accepted or extended by this time. This price is complete for all items of work and is f.o.b. Holloman Air Force Base, New Mexico. Performance of the work can begin immediately upon receipt of an announcement of award. Shipment will be made seventy days after receipt of award announcement. This shipping date is based on the promised shipping date of the Apex FR-300 to DEC. If any government assistance, via priorities or other methods, can be provided to improve the availability of the desired tape unit, this can be reflected in the completion date of the over-all system. Testing of the logic portion of this system will be done utilizing an Apex FR-400, 75 and 37-1/2 inch per second tape drive owned by DEC.

January 29, 1960

No consultants or subcontractors have been utilized in preparing this proposal and it is not anticipated that any will be used in performance of the contract.

In order to produce the best possible system and to best fill the desires of the user, Digital Equipment Corporation will need prior to commencing work answers to the following questions. The different options listed below will not affect the bid price.

1. Can we use a double rack instead of two separate racks as specified in Exhibit A, II, A, 5? A dual rack makes a neater and more compact system and avoids the interconnecting cables. Standard DEC racks are very rugged and at the same time attractive and have more than the necessary mechanical strength to hold the equipment of this system.
2. What would be the most desirable voltage and impedance level in the output of the tape read circuits?
3. What type connectors are desired on the output of the system? We would normally use Cinch-Jones series 141 terminal strips, but we can use other connectors.
4. Is it desirable to have the system on casters?

Thank you for this opportunity to submit this quotation for your consideration, and we trust that you will find it acceptable. Should you desire any further technical information or information regarding Digital Equipment Corporation, we would be most happy to supply it.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv
Enclosures

January 29, 1960

Mr. Lawrence Hart
Controls & Instruments (Europe) Co.
14 East 40th Street
New York 16, New York

Dear Mr. Hart:

Thank you for your interest in Digital Equipment Corporation products. We are enclosing several of our product brochures for your use. If we can be of any further help, please feel free to call on us.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

January 27, 1960

Mr. L. P. Smith
Phillips Petroleum Company
P. O. Box 2067
Idaho Falls, Idaho

Ref: Letter No. LPS 105-60A

Dear Mr. Smith:

Thank you for your inquiry about large magnetic core memories. Digital Equipment Corporation has standard 4000 word memory modules which can be assembled into any size system. The standard modules are 18 or 36 bits per word but they can be readily adapted to any bit length. These modules operate in a five microsecond read/write time, but if the digit length is greater than 36 bits, the time might be lengthened slightly. These modules are a part of our Programmed Data Processors on which I am enclosing some literature.

Several people from our engineering staff have taken part in the development of the magnetic core memory at M.I.T. since its inception eight or nine years ago and have contributed many of the ideas which are now commonly used in all memory systems. We were also part of the group which made the 65,000 word memory described at the Eastern Joint Computer Conference in December, 1956, and the Western Joint Computer Conference in February, 1957. This memory was considered a success and is now being produced for the SAGE system. As a result of this experience, we have concluded that memories should be built in smaller units. DEC is not planning in the immediate future to build modules greater than 4096 words because the resulting memory is simple, fast, and noise free.

We have complete manufacturing facilities and normally we deliver contract systems in a small number of weeks. Because we buy the memory stacks from other manufacturers, a system

January 27, 1960

like this would probably be limited in delivery time by the delivery of the stacks, which have been running three or four months. We specialize in high speed equipment but we like to build systems spread out for ease of manufacture and maintenance. Using our standard manufacturing techniques, a 4000 word, 18 bit module fits in 15-3/4 inches vertical space in a 19 inch rack. The 36 bit module fits in 15-1/4 inches of a 30 inch rack. In addition, there is a small amount of circuitry common to all modules.

We would have to know in detail your exact specifications in order to set a price; but to give you an idea, the cost of an 18 bit FDP memory module is about \$40,000 and a 36 bit FDP module is somewhat less than \$70,000.

We would like to know what size limitations you have and what range of temperature you expect. We would also like to know what signal levels you desire coming in and going out of the memory and whether or not you consider the memory buffer and the memory address register as part of the memory. In our Programmed Data Processor the memory is optimized for speed and the rest of the machine is adjusted to match. Will you have constraints on the timing of signals going in and out of the memory that will not make this possible?

We would like very much to explore in detail your needs and we look forward to hearing more about your problem.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

Small FDP brochure
Order Card
Datamation reprint

EJCC reprint by J. L. Mitchell & K. H. Olsen
WJCC reprints - one by R. L. Best and one by K. H. Olsen

January 27, 1960

Dr. Sidney Weinstein
Albert Einstein College of Medicine
Yeshiva University
Eastchester Road & Morris Park Avenue
New York 61, New York

Dear Dr. Weinstein:

I have been thinking about your project over the weekend and would like to explore the possibility with you of using an ARC instead of a programmed digital computer. This would cut down the magnitude of the project by a very large factor, because you would not need a programmer or an electrical engineer or technician. The device would probably cost \$20,000 to \$30,000 instead of much more for a computer. Because it would be portable, one would not need magnetic tape systems. I like the idea of a small unit that you can plug in the wall and get going with before you commit yourself to a real large, long-term project.

M.I.T. feels that a TX-0 is better than the ARC because the ARC cost them about as much as the TX-0, but we feel now that an ARC with slightly less capability would cost quite a bit less. M.I.T. also has a large number of sharp, young students to program TX-0 but most of us are not so well blessed.

We would propose a five inch oscilloscope as the only output for an ARC. For a permanent record of the results, a land camera mounted on the oscilloscope is very convenient. The land camera could record a number of superimposed traces.

The unit we are now thinking of would average about 1000 samples and would break the curve down into 256 points. The cost of the unit would be less if we could break the curve down

Dr. Sidney Weinstein

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January 27, 1960

to only 128 points, but we are not sure that this would be satisfactory. The analog digital converter would be right within the equipment and, in fact, I think the whole unit would be approximately the shape of the analog digital converter used at M.I.T. but somewhat higher because the oscilloscope would be mounted in the cabinet. Two people should be able to carry the device between them like a G.I. can and it should be able to fit into an automobile or station wagon.

If you are interested in a device like this, we would like to talk to you about it.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

COPY

January 27, 1960

Shepard Laboratories, Inc.
Department ED
Summit, New Jersey

Dear Sirs:

Please send descriptive information on your Model
190-120 high speed printer.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

January 26, 1960

Mr. Bruce Barrett
Computer Systems Division
Laboratory for Electronics
1079 Commonwealth Avenue
Boston, Massachusetts

Dear Bruce:

It was good to hear from you again and we were pleased to hear of your interest in our equipment. I am sending along some of the literature but, because we are perpetually behind in putting down on paper the details of our new equipment and what we have learned about the old equipment, I would like to invite you again to call us as you come closer to a specific application.

Sincerely yours,

Kenneth H. Olsen

KHO/jv
Enclosures

January 26, 1960

Mr. Wayne P. Brobeck
1426 G Street, N.W.
Washington 5, D. C.

Dear Wayne:

We were pleased to hear from you again and we will definitely send out the literature you requested. I'm sure you know how much we appreciate your interest and enthusiasm.

We have always had a policy against paying commissions to anyone because of the problems we have seen other companies get into on this subject. We will be happy to discuss it at the next Board Meeting if you would like to. Other companies get into almost regular disagreements with their representatives as to what is a fair commission. Because much of the selling of this type product is done from the home office, there is often a question as to when a commission is in order. There is the case that always comes up where the commission at stake is very large, but the home office feels that the order would have come in anyway and that the man contributed nothing. The result is that parties break up and the resulting bad feelings rumble through the whole industry.

I hope our attitudes on this don't embarrass you, but up until now we have been very pleased with this method of operating. We look forward to seeing you in a few weeks when we can talk about these things in more detail.

Sincerely yours,

KHO/jv

January 25, 1960

New Hampshire Ball Bearings, Inc.
Peterborough
New Hampshire

Gentlemen:

Please send a copy of your complete catalog for
our files. Thank you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

January 22, 1960

Mr. Robert Crago
326 East Montgomery Avenue
Rockville, Maryland

Dear Bob:

I was pleased to hear from you again and I want to thank you for the part you took in the Eta Kappa Nu award.

We thoroughly enjoy being in business and, as you might guess, we feel much less critical about some of the things we used to criticize at IBM.

I will definitely give you a call when I am in Washington, and I look forward to being able to chat with you again.

Sincerely yours,

KHO/jv

January 21, 1960

Mr. Robert Slater
John Hancock Mutual Life
Insurance Company
200 Berkeley Street
Boston, Massachusetts

Dear Bob:

I plan to be at the meeting on Friday, but if I don't make it here is some information I found out about file cards. We probably want the cards printed offset because we can layout and paste up the card ourselves and save money. The price for 5000, 5 by 8 white file cards, offset printed in one color on one side, we can get for \$39.00, stock included.

We need two envelopes, one to send out and one for return. Twenty-five hundred (2500) 5½ by 8½ white business announcement envelopes we can get for \$46.75, stock included, with return address printed in one color. The original mailing envelopes should be 6 by 9 white booklet envelopes, which would cost \$45.25 for 2500 with return address and mailing permit in one color. Envelope prices break at 2500, so this seems like a good number.

We have a non-profit permit and we will save if we can use it. I think it means we have to have the permit printed on the envelope and we also have to sort the envelopes out by towns before they are mailed.

I don't know if these prices are low as a favor or if they are the standard commercial prices. They are from two printers who do quite a bit of work for DEC.

I found a book in our company library on punch card systems. You can get equipment for a system of

Mr. Robert Slater

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January 21, 1960

any complexity that one desires, but I have concluded that this file will not be used often enough to be worth punched cards. I do, however, believe that we should put the age information and organization information along the outside edges so that it would be very easy to find as one goes through the file and we then have the choice of notching the cards someday if we want to make a semi-punched system.

Sincerely yours,

Ken Olsen

KBO/jv

COPY

January 21, 1960

Mr. Gerald Smith
Raystrom Instrument
Archbald, Pennsylvania

Dear Jerry:

I want to thank you for receiving Jon Fadiman so well and for the pleasant relationship you had in this last project. I hope you are completely satisfied with that system because we like to keep this good relationship.

You told Jon Fadiman that we lost the job with IT&T because we had not given the information they desired. If you could give me the name of someone that I could follow up on this with, I would appreciate it because we have just about written IT&T off as being impossible to do business with. We answered all their questions as well as we could and, in fact, gave them complete enough diagrams that they or someone else could make the memory tester. We called them five or six times and Jon Fadiman visited them trying to get some feedback and discussion with them, but they would never talk to us. I have tentatively decided that DEC will not do business with IT&T. I would sure like to hear the other side of this, however; and if you can give me a hint as to whom I should contact, I would very much appreciate it.

Thank you again.

Sincerely yours,

Kenneth E. Olsen

KHO/jv

January 21, 1960

Professor Alfred K. Suskind
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Al:

While interviewing one of your students last week, I had a chance to glance through your notes for 6.252. It looks like you have a very useful course here. It also seems like your notes are the start of a worth-while document.

If we can ever help you in any way by loaning equipment or giving demonstrations or with any technical information we might have, we would be glad to help you. Besides our normal interest in computer education, it is very much in the company's interest to get our equipment before the people who will be using it in the future. We would be very pleased to loan equipment for classroom use or thesis work or laboratory experiments. If it looked like the equipment would be used well, we might work out some permanent arrangement.

Be sure to call on us if there is any way in which we might help.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

January 20, 1960

Mr. J. D. Ramshall
Managing Director
Farnell Instruments Ltd.
Light Industrial Estate
York Road
Wetherby, Yorkshire, ENGLAND

Dear Mr. Ramshall:

Thank you for your letter offering to meet with us during the Radio Engineering Show in New York. I am afraid that we have not given the subject of foreign marketing any significant thought so have no further ideas, but we would very much like to meet with you in March and explore the possibilities personally.

I plan to be in New York during the whole show. When your plans are more firm, I would be glad to make an appointment to meet with you at almost any time that is convenient for you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

January 20, 1960

Mr. Robert Blanchard
170 Renshaw Avenue
East Orange, New Jersey

Dear Bob:

It was good to hear from you again and I look forward to seeing you at the AIEE conference. Thank you for the invitation to stay with you, but my family and I will be staying with my folks in Connecticut and I'll go back there at night. I'm not sure how much of the conference I'll be able to attend, but let's at least plan to get together for lunch.

We appreciate the interest in our financial needs, but the rumor is not true as yet. We still have more financing available at American Research & Development Corporation that should take care of us for some time. We are not trying to grow fast but, above all, are trying to develop a stable organization. As a result, we are planning no drastic expansion.

Give my greetings to Nancy.

Sincerely yours,

Ken Olsen

KO/jv

January 20, 1960

Mr. F. S. Ellis
Computing Division (Technical Information)
Elliott Brothers (London) Ltd.
Elstree Way, Borehamwood
Hertfordshire, ENGLAND

Dear Mr. Ellis:

We are pleased to hear of your interest in our Programmed Data Processor. Because we are a small company, our plans for manufacturing and marketing are rather modest. We feel that we cannot compete with the very large companies in the general computing field because we cannot supply the service which customers are coming to expect. However, because of the adaptability of this machine and because of the flexibility of our organization, we are in a good position to solve special problems and it is in this area that we plan to concentrate.

Our main product line has been high speed, high capability digital building blocks. Because of the ease in which these building blocks go together and because we maintain a large stock of them, we can assemble a Programmed Data Processor in six to eight weeks. We have only completed one model and that is now in our plant for demonstration. We have one in process but soon we expect to start several more.

Computer installations in this country tend to be so elaborate and so expensive that users are never allowed to be near the machine but can only deliver their problems in a slot and get them back by mail. A number of research oriented companies are interested in this machine because they can afford to have their people do the problems right on the machine and even do some of the programming and program debugging right on the machine. Another application is where the speed and simplicity of the machine are important, such as medical analysis, system control, and military weapon simulation.

The 18 digit FDP-1 with 4000 words of memory costs approximately \$110,000 and the 36 digit machine with 4000 words of

Mr. F. S. Ellis

-2-

January 20, 1960

memory costs approximately \$210,000. We are now just developing our thoughts on marketing these machines in this country and have not as yet given any thought on foreign markets. We are, of course, always happy to talk to anyone that has ideas or suggestions.

If we can ever help you in any way, be sure to call on us.

Sincerely yours,

Kenneth H. Olsen
President

KHO/jv

COPY

January 20, 1960

Sidney Weinstein, Ph.D
Albert Einstein College of Medicine
Yeshiva University
Eastchester Road & Morris Park Avenue
New York 61, New York

Dear Dr. Weinstein:

We have been having a part-time student work on the response averaging problem on our PDP-1 and we are slowly getting results. We are now reading analog voltages in and adding them up, but we have not as yet introduced noise nor have we taken actual measurements from a patient. When we get this going with a little more dramatic results, we may be able to help you sell your program by showing results. If there is any other way at all that we can help you in selling your program, be sure to let us know.

I had a visit this morning from a man from Research Corporation, which is located at 405 Lexington Avenue, New York 17. If you don't already know about them, they may be an organization worth knowing about. Most of the colleges in the country contribute their patents to Research Corporation who then take the resulting funds and distribute them to finance research. I have been working rather closely with them for some time because of some patents we worked out at M.I.T. Often, the large schools will contribute the patents and the small schools get the money because they often do not have the reputation needed to get other funds.

If you have no other contact there, you might call David G. Black, Jr., and tell him that I recommended you call there. He is in the Patent Department, which is not the one which distributes the funds, but he can tell you whom you should contact.

Sidney Weinstein, Ph.D

-2-

January 20, 1960

I'm going to be in New York City for the AIEE conference on February 1. I'll give you a call then and we can talk for a few minutes.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

COPY

January 20, 1960

Metropolitan Transit Authority
Public Relations Department
Room 710, Park Square Building
Boston, Massachusetts

Gentlemen:

We frequently have out of state visitors staying in Boston and thought it might be helpful to them if we had some MTA System Route Maps available in the office. Therefore, we would appreciate receiving six or eight copies of the System Route Map.

Thank you for your assistance.

Sincerely yours,

Kenneth H. Olsen

/jv

January 18, 1960

Machine and Tool Blue Book
Wheaton
Illinois

Gentlemen:

In the future, please send copies of MACHINE
AND TOOL BLUE BOOK to Loren Prentice instead of Kenneth
H. Olsen. Thank you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

January 18, 1960

Miss Barbera A. Wertz
52 Massachusetts Avenue
Cambridge 39, Massachusetts

Dear Miss Wertz:

We were pleased to hear of your interest in Digital Equipment Corporation, and we look forward to discussing the opportunities more thoroughly with you. We have a very definite need for someone to work out customers' problems and to keep in contact with them. Because we are working with some of the most advanced technology in the field, I feel that we can offer a worth-while education to someone like yourself.

I hope that you will be able to visit us this Wednesday. The buses leave Harvard Square 25 minutes past the hour, and I would be pleased to see you anytime that afternoon.

We look forward to hearing from you again.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

January 18, 1960

Mr. Edward A. Aron
93 Marion Street
Brookline, Massachusetts

Dear Mr. Aron:

We appreciate the interest you have shown in Digital Equipment Corporation, and we look forward to seeing you again. Digital Equipment Corporation has openings for a small number of graduates this year and we would like to consider further with you the opportunities here. Whenever it is convenient, we would like very much to show you our plant. If you will call me at Twinbrook 3-1779, I will be pleased to make a date to see you.

DEC is in the old mill just beyond the shopping center in Maynard, on Route 62. The best way to get to Maynard from town is to go out Route 2 until 62. Turn left on 62 and continue about five miles to Maynard.

We look forward to hearing from you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

January 14, 1960

Mr. Earl Pugh
Digital Systems Laboratory
ITT Laboratories
500 Washington Avenue
Nutley, New Jersey

Dear Earl:

We were pleased to hear from you today and we appreciate the interest and confidence you have in our equipment. I hope you can come up here to look at what we have and to see the way we do things on FDP. The best way to get to Maynard from Boston is to come out Route 2 to Concord and turn left on Route 62. You continue on 62 for about five miles until you come to the center of Maynard, which has a couple 5 & 10's and a few other stores. Just beyond the center, still on Route 62, there is a tremendous old mill on the left-hand side. We are just inside the iron gate on 62.

I am enclosing an assortment of our literature that will give you description and price on most of our units. We have a number of other units that might be useful to you, but we will wait until we see you to tell you about them.

If we can help you in any way, be sure to let us know.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

January 14, 1960

Electric Indicator Company, Inc.
Camp Avenue
Stanford, Connecticut

Dear Sirs:

Please send a copy of your catalog that lists three phase, 60 cycle synchronous motors. We have copies of your catalog 3B and 2B in our files, but if there are other products for which you have catalogs we would appreciate receiving copies of these also.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

January 12, 1960

C. P. Clare & Company
3101 Pratt Boulevard
Chicago 45, Illinois

Dear Sirs:

Please send a copy of Clare HG printed circuit
relay bulletin No. CPC-4. Thank you.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

January 8, 1960

Mr. Michael Eloorreaga
Purchasing & Contracting Division
Building S-108
White Sands Missile Range
White Sands, New Mexico

Ref: OMB 29-040-60-127

Dear Mr. Eloorreaga:

I would like to thank you and Mr. Hill for the courtesies extended to our Mr. Ted Johnson from Los Angeles on his recent visit to your facility to discuss your requirements for a set of digital building blocks. The clarifications of the technical requirements have been helpful to us in determining which of our products comes closest to your needs.

We are confident that the proper selection of units from our commercially available products will meet your functional requirements satisfactorily. However, your invitation to bid is based on a very tight specification. Unless all of the detailed characteristics are important for compatibility with an existing set of building blocks that you possess, it appears to us that some part of your specification could be relaxed and in no way jeopardize the flexibility or intended use of the equipment.

The advantages that would accrue to the government under these conditions are that commercially available products could be used to meet your requirements and would probably result in savings due to mass production. Also, additional units when required could be obtained quickly and economically.

If DEC bids on this invitation as it now stands, we will probably take exception to those parts of your specification which rule out use of our commercial products at the present.

January 8, 1960

Due to your space limitations, we will probably propose use of our new Type 1906 Mounting Panel shown in the enclosed photograph. This will accommodate twenty of our System Building Blocks and uses 5-1/4 inches of vertical space in a 19 inch rack. It is identical to Type 1903 Mounting Panel shown in our literature except that it has a patch panel which has the plug-in unit pin connections shown. These terminals can be interconnected using DEC standard Type 911 miniature stacking banana jacks.

This type mounting would meet your requirement for patch-board flexibility. Your need for an equivalent but more permanent type mounting chassis could then be met by removing the patch panels resulting in a Type 1903 chassis on which interconnections are made by point-to-point soldered wires. Any System Building Block type can be put in any socket of either mounting panel. If space were not quite such a limiting factor, our Digital Test Equipment units with graphic front panels could be used to do the patch panel part of the job instead of System Building Blocks.

The specific Flip-Flop which we would recommend is our Type 1201 which operates at any frequency up to 5 megacycles, has built-in output amplifiers and two independent complement input terminals, each with an associated carry output signal. In addition, this package contains two general purpose inverter circuits for use as pulse gates or level gates. As it stands it can be used with no additional gating required to make a stage of an up-down binary counter or a high speed parallel adder as shown in our folder.

This flip-flop has a built-in delay of approximately 90 millimicroseconds which is very important in making this a highly flexible unit. Our standard pulses used to trigger flip-flops are 70 millimicroseconds wide. With this built-in delay, one can reliably sample the output of a flip-flop at exactly the same instant that the input is being pulsed. This is very important in making shift registers and carries in binary counters.

The load driving capability of this flip-flop is defined in terms of DEC standard units of load as shown in the literature.

January 9, 1960

If you need short delays similar to those specified in section 4.4, we would recommend use of our Type 1311 or 1310. These units have delay lines in them. (1310 0 to 1 usec in 50 Msec taps. 1311 dual 0 to 0.2 usec in 50 Msec taps.) Our Type 1304 (see standard specification) delay is a highly stable multivibrator which generates a logic signal (0 to -3 volts) for the duration of the interval and a standard pulse at the end of the delay.

This pulse is particularly useful since it can be used to trigger another delay thus providing a completely asynchronous source of timing signals for doing logic.

One question which we are not clear on, is the need for -5 volts in the system. Our standard units put out ground and -3 volts as the static logic levels which can be used anywhere in conjunction with DEC equipment. We understand that this requirement is associated with some equipment being obtained from Radiation, Inc. If the outputs of DEC equipment must drive Radiation equipment which requires -5 volts input, this could be most conveniently done by putting our -3 volt signal for those lines going to the Radiation equipment through our Type 1667 level amplifier. This gives out a -15 volt signal which can be diode clamped at any voltage between ground and -15 volts.

Our power supplies use line voltage regulation by means of resonant transformers. This provides an exceedingly simple power supply. However, this system of regulation does require that you have typical power company tolerance on the line voltage frequency which are in general tighter than the ± 5 cycles which you specified.

If this is an important requirement, our standard supplies will not be suitable and we would suggest that commercial substitutes be obtained for this purpose. Since all of our circuitry uses saturating transistors, our requirements on the power supplies are very easily met by many manufacturers. The voltages involved are -15 volts and +10 volts.

DEC System Building Blocks do not require the use of a Pulse Standardizer as specified in section 4.5 since each Building Block which handles pulses such as a Type 1606 Pulse Amplifier or a Type 1304 Delay perform this function.

January 8, 1960

Arbitrary negative waveforms which are to be used in generating a standard pulse can be passed through our Type 1410 Pulse Generator which is a DC Schmitt circuit. If the -3 volt requirement of the Radiation signal is to be an input to our equipment and it is desired to generate a standard pulse from it, the Pulse Generator would do this nicely. If the -5 volt Radiation signal is to be used as a gating level, it can be used directly with our equipment.

As we now understand your requirements, we will probably propose the following group of our products to meet the functional requirements you have.

| | | |
|---------|-----|------------------------------------------------------------------|
| Item 1 | 105 | DEC Type 1201 Flip-Flops |
| Item 2 | 2 | DEC Type 1404 Clocks |
| Item 3 | 3 | DEC Type 1304 Delays with Pulse Output |
| Item 4 | 2 | DEC Type 1311 Dual Delay Line (or Type 1310) |
| Item 5 | 2* | DEC Type 1410 Pulse Generators |
| Item 6 | 1 | DEC Type 1667 Level Amplifier |
| Item 7 | 5 | DEC Type 1663 Pulse Amplifier |
| Item 8 | 5 | DEC Type 1906 Mounting Panels |
| Item 9 | 1 | DEC Type 730 Power Supply (Dual +10 volts) |
| Item 10 | 1 | DEC Type 740 Power Supply (Dual -15 volts) |
| Item 11 | | DEC Type 911 Patch cords in lengths of 2, 4, 8, 16, or 32 inches |

*Quantity on Item 5 assumes that most of the requested Pulse Standardizers were for use internal to the system as opposed to standardizing incoming signals.

We are writing to you to review our understanding of your technical requirements for these building blocks in order that our formal bid to you will most nearly meet your needs.

Ted Johnson, from our Los Angeles office, will telephone Mr. Fowler on Monday, January 11, to discuss the situation further. We would be pleased if you would tell us if we are in any significant way misinterpreting your requirements when translating them into our standard units.

The importance of making a sound choice of your first order of digital building blocks is exceedingly important in view of the strong compatibility requirements thereafter.

January 8, 1960

In view of this, we would strongly urge you to investigate the possible choices available to you to the fullest extent. We would be happy to supply you with the names of individuals in companies like Western Electric, Bell Telephone Labs, Johns Hopkins University, Sylvania Electric, RCA, Holloman Air Force Base, and others who are now using DEC equipment and can give you a customer reaction to use of our products. Please let us know if you would like to take advantage of checking with present DEC customers.

DEC is proud to have been the first and largest manufacturer of 5 megacycle building block equipment. We look forward to this opportunity to submit a formal bid and hope that when submitted it will be acceptable in all ways.

Sincerely,

Earlan E. Anderson

HEM/jv

Enclosure:

1906 Photograph

cc: Mr. Robert Fowler
Mr. Paul Hill
Mr. Ted Johnson, DEC, El Segundo, California

January 6, 1960

Mr. William Bartic
Remington Rand Univac
19th & Allegheny
Philadelphia, Pennsylvania

Dear Mr. Bartic:

Thank you for the time you took yesterday in explaining the 510 memory to me, and I particularly appreciated the chance to see the LARC computer. It is indeed a beautiful and impressive machine.

We are very much interested in the 510 memory because it seems like a slight variation on the memory we are already tooled up to make. We are really proud of this memory we have because it is so simple and because electrically so quiet.

We are working out a first price estimate and I will send this along to you as soon as we have it.

Sincerely yours,

Kenneth H. Olsen

KHO/jv

January 5, 1960

Allen Stationery Company
798 Massachusetts Avenue
Cambridge 39, Massachusetts

Dear Sirs:

I am delaying payment of your bill dated December 16, 1959, for one Master Portable Spirit Duplicator for \$28.00 until I am sure it can be put in working order. The unit was assembled backward as received and the master holder was rusted shut, and as a result has not been usable as yet. If it operates, I will send the money on to you or send back the machine.

Sincerely yours,

Kenneth H. Olsen

KHO/jv