OMNITRONICS, INC.
SUBSIDIARY OF BORG-WARNER CORPORATION
511 NORTH BROAD STREET PHILADELPHIA 23, PENNSYLVANIA

OFFICE OF THE PRESIDENT

TELEPHONE WAlnut 5-4343

May 28, 1964

Mr. Kenneth Olson
Digital Equipment Corporation
Main Street
Maynard, Massachusetts

Dear Ken:

I understand from Bob Savell that DEC made two recent decisions regarding Paper Tape Readers; namely, (1) you will buy your Paper Tape Readers on the outside, and (2) you will continue buying Digitronics units.

We are very sorry we lost out in the evaluation. Unfortunately, the evaluation was not smooth and took a very long period of time. A part of the delay was, indeed, our responsibility primarily since the Reader was initially furnished with read head photodiodes which needed replacement to the LS-400 type.

I am happy that at least our Reader is planned for use in the Engineering PDP-4 Computer. Only through extensive use will the real advantages of our unit be determined, particularly through comparison with carefully kept and accurate field reports on the equipment in present use. In addition, we believe the capabilities of the Reader with conventional oiled tape is a distinct advantage.

I am still hopeful that our present products and future products, for sure, will be used by your company.

Best regards.

Very truly yours,

OMNITRONICS, INC.

H. Epstein
President

HE:bs
cc: Bob Savell

THE PRINCETON CLUB OF NEW YORK
15 WEST 43RD STREET
NEW YORK 36, N. Y.

May 28, 1964

Mr. John A. Shane
1600 Beacon Street
Brookline 46, Massachusetts

Dear Mr. Shane:

Mr. Jenkins, our former treasurer, has asked me to respond to your letter of May 15. For your information we are converting back to coventional accounting equipment from the very complex electronic data processing that we have struggled with over the past fifteen months. When we complete this conversion we should be able to handle our members' accounts quietly, efficiently, and accurately, as we have for so many years in the past. Within the next four or six weeks we will be able to return a member's vouchers within a day or two of receiving the remittance. Although we would utilize a system of duplicate vouchers, the original of which would be mailed to the member with his statement, we did this in the old Club and found that it is a bit impractical from the standpoint of increased handling and greatly increased postage costs. This is particularly true since use of the Club involves many more transactions per month than such as department stores.

These changes, however, should give the information the member needs promptly.

Sincerely yours,

Raymond M. Adams
Manager

RA:cd

THE INSTITUTE OF MEDICAL SCIENCES
PRESBYTERIAN MEDICAL CENTER
CLAY AND WEBSTER STREETS, SAN FRANCISCO 15, CALIFORNIA

May 25, 1964

Mr. Kenneth Olson
President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Ken:

As always, our recent trip to DEC was interesting and informative. I am sure that we can develop a powerful PDP-6 system for the Livermore Octopus. LRL inclinations are certainly toward the PDP-6.

As we discussed, I have been working with the Institute of Medical Sciences in San Francisco. The Institute is a non-profit association of biomedical research groups whose theoretical and clinical investigations range from neuroelectric studies to child development. My responsibility is to form a data acquisition and processing center for these research teams. We believe the DEC PDP-5 would make an excellent first data processor and collector, as large volume off-line computing may be handled by service bureau rentals. As useful as the PDP-8 (LINC) has been to several bio-med researchers, for our varied needs, I prefer the more powerful PDP-5 in combination with separate analog-to digital, converters and general purpose display devices to the more neuroelectric oriented computer. The availability of PDP-5 FORTRAN is important to us, too.

A very useful basic PDP-5 system includes:

1. PDP-5 with 4096 words of core and Mod. 33 Teletype, paper tape read-punch.

2. X,Y analog level outputs for operating a Tektronix oscilloscope, Dynac plotter or analog-computer.

3. Standard single channel analog-to digital input channel.

4. Single IBM compatible magnetic tape transport with a very simple interface.

5. Extra rack for special purpose equipment.

We have a mutual affiliation with the University of the Pacific and are supported mostly by NIH grants and private donations. Please write

details of lease or purchase arrangements whereby we may acquire a PDP-5 or PDP-4.

Even though several research projects at the Institute require much greater computation power than is afforded by the PDP-5, it will initially satisfy most of our processing needs. PDP-5 can also collect and format data for IBM Service Bureau computation, hybridize our existant analog computers and aid in training staff and student personnel. Even when our needs justify an on-site large data processor, the PDP-5 will retain usefulness as a data collection channel. We can certainly put it to work as a tool in important medical studies.

Please plan to visit us at the Medical Institute for a first-hand look at our projects.

Thanks for your hospitality and interest.

Sincerely yours,

Jerry.

Jerome A. G. Russell

JAGR:mc

cc: Dr. Arthur Jampolsky

HAYDEN, STONE
INCORPORATED - ESTABLISHED 1892
MEMBERS NEW YORK STOCK EXCHANGE

10 POST OFFICE SQUARE, BOSTON, MASSACHUSETTS 02107 · TELEPHONE LIBERTY 2-9000

file

May 19, 1964

Mr. Kenneth E. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Ken:

Many thanks for your courtesy and time yesterday. I enjoyed my introductory visit with you and especially appreciate the time Andy Anderson took to tour us through your impressive facilities.

The day may come when Hayden, Stone's seventy-odd years of experience in the investment banking business may prove of value to you. At such time, we would enjoy the opportunity to present our suggestions for the most satisfactory methods of achieving your financial goals.

We would like to extend to you and Andy an invitation to visit our Boston office and will contact you later on, perhaps towards the end of the summer, to see if we can suggest a specific date.

Looking forward to seeing you soon, I am

With best wishes,

David B. Stone

DBS:BG

Techno-Economic Services, Inc.

Robert C. Miller
President

May 7, 1964

The President
Digital Equipment Corporation
146 Main Street
Maynard, Mass.

Dear Sir:

A Proposal for Research

A STUDY OF THE MARKET FOR
PROGRAMMED INSTRUCTION AND TEACHING MACHINES

In recent years there has been a dramatic increase in the use of programmed instruction and teaching machines to enable students, teachers, industrial workers, and others to acquire knowledge faster and retain it better. A number of forecasts have been made of the future outlook for such programs and equipment; however, major differences of opinion exist regarding the size and character of the future market.

Recognizing the need for an objective appraisal, including reliable forecasts for major segments through the year 1975, Techno-Economic Services, Inc. is planning a thorough and comprehensive study of this market. Due to the size and scope of this study, multiple-client sponsorship is proposed. The cost to each participant would depend upon the number of sponsors, but would probably be in the range of $2,000 to $5,000.

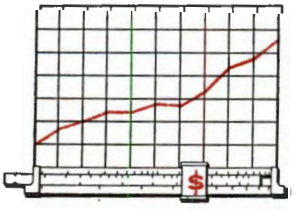
We would like to send you a copy of our proposal for research on this subject; however, we would first like to have an expression of interest from you regarding participation in this study and would also like to have the benefit of any suggestions you may have regarding special areas of concern.

As economics research consultants, we are experienced in the conduct of studies of this type. For your background information, a brochure describing our activities is enclosed.

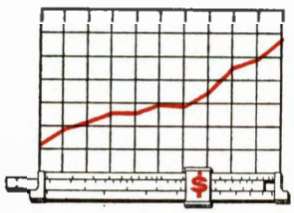
Please let us hear from you soon regarding your interest in participating in this research program.

Sincerely yours,

RCM/jms
Encl.



313 State Street • Los Altos, California • 948-3237



Techno-Economic Services, Inc.

A California Corporation

DIVERSIFIED technical and economics research services for industry and government in the national and international field.

Counseling, consultation, and project studies involving application of economics research techniques to assist management in the following areas:

Long-range planning
Technical and economic evaluation
Marketing research
Forecasting
Sales analysis
Acquisition or merger studies
Regional and area development
New product development
Plant location and site selection
Research planning
Space-requirement analysis
Research on techniques of forecasting and the relationship of economic indicators to individual company or industry performance.

IN GENERAL, the top management of any organization is concerned with the following types of questions:

- What is a reasonable sales and profit target for my company five years from now? Ten years from now?
- Considering the resources available to my company, how can these best be utilized to achieve the objectives?
- To what extent are external economic factors likely to influence the course of our operations?
- What is a reasonable allocation of funds for my type of business for research? For advertising? For public relations?
- Given the existing management, capital, and technical capabilities of my organization, what sensible avenues for merger, acquisition, or other expansion are open to us?
- What is the size and character of the market or markets now served by my organization and what is our relative competitive position? How can it be strengthened?
- What additional facts are needed to support projections of future growth?

Established in November, 1958, Techno-Economic Services, Inc. offers independent, objective economics research applied to the profitable resolution of such questions. The essential elements of the approach are fact-finding, analysis of data, and presentation of results in a format providing clear guidance for intelligent management action in the total marketing concept.

Techno-Economic Services, Inc.

313 STATE STREET, LOS ALTOS, CALIFORNIA

PRINCIPALS

ROBERT C. MILLER, President and founder of Techno-Economic Services, Inc., holds a B.Sc. degree from the University of Nebraska and has had advanced studies at Stanford University in Chemistry and in the Graduate School of Business. Additional graduate work was completed in Economics and Philosophy at The New School, New York. He served as Captain, Medical Administrative Corps, in the U. S. Army during World War II. He was employed by Shell Chemical Corporation for five years in sales development, sales, and economics research, following which he was with Stanford Research Institute for five years as Senior Chemical Economist. Subsequently, he was General Manager of a fertilizer division for a group of growers in Salinas, California, and later became Assistant Manager of the Economics Department of Tidewater Oil Company, San Francisco. He is a member of Phi Lambda Upsilon, national honorary chemical fraternity, and Alpha Chi Sigma, national professional chemical fraternity. Also, he is an active member of the American Chemical Society, the Commercial Chemical Development Association, the Western Chemical Market Research Group, and the Peninsula Marketing Association. He is the author of many reports and published articles on a variety of technical and economic subjects.

JAMES Z. HOFFMAN, Industrial Economist, received a B.S. degree in Chemical Engineering with honors from the University of Illinois, where he also taught inorganic and analytical chemistry. Later, he was awarded an M.S. degree in Industrial Management at Purdue University, where he was scholastically first in his class. He served as a U. S. Army Ordnance Officer in the United States and Europe for two years where his primary duties were procurement and technical liaison with U. S. Government contractors. Following his military experience, he was employed by Spencer Chemical Company for five years as Technical Service Representative and Senior Market Analyst. His duties included production, planning, and design assistance for customers, regional technical seminars, market and commercial feasibility studies, long-range planning, and market development. He is an active member of the American Chemical Society and the American Institute of Chemical Engineers.

JANE G. MOTT-SMITH, Research Assistant and Executive Secretary, graduated from the University of Washington, receiving a B.A. degree in Economics with a minor in Foreign Trade. Before joining Techno-Economic Services, Inc., she worked for Blyth and Co., in Seattle, and for Irving Lundborg & Co. and Penn Mutual Life Insurance Co., in Palo Alto.

PARTICIPATING COUNSELORS

NOEL W. ALLEN, Certified Public Accountant, Carson & Allen, Menlo Park, California, holds a B.Sc. degree from the University of California. Prior to his present affiliation, he was on the staff of Hood & Strong, Certified Public Accountants of San Francisco, and was Assistant Controller for *Sunset* magazine. He has more than 15 years of accounting and systems experience.

DR. WILLIAM A. BONNER, Professor of Chemistry, Stanford University, received a B.Sc. degree from Harvard University in 1941 and holds a Ph.D. from Northwestern University, where he was elected a member of Sigma Xi and was on the faculty 1944-46. He was named a Guggenheim Fellow in 1952 and has authored over 100 research papers in the field of organic chemistry, particularly on carbohydrates, reaction mechanisms, catalysis, and the use of isotopic tracers.

LEONARD J. GREELEY, Brig. Gen., U. S. Army (Ret.), Los Altos, California, was a consultant to the Office of Defense Mobilization 1954-55 and was Deputy Commandant, Armed Forces Industrial College, Washington, D. C. 1951-54. During World War II, he served on General Millard Harmon's staff in the South and Central Pacific and held a variety of military posts, including overseas assignments in Hawaii, the Philippines, and Southern Asia.

DR. NOEL H. STEARN, Consulting Geologist, Portola Valley, California, holds a Ph.D. degree from the University of Wisconsin, where he also taught geology and was a member of Phi Beta Kappa. Starting as an expert on geomagnetic exploration, he has an employment history of 35 years as Chief Geologist, Consultant, Vice President and President of various mining and independent petroleum production companies, especially W. C. McBride, Inc., St. Louis, Missouri, where he was Vice President and Co-Manager 1940-54, prior to his retirement.

DR. DANIEL TEICHROEW, Professor of Management, Stanford Graduate School of Business, obtained A.B. and M.A. degrees in Mathematics and a Ph. D. in Experimental Statistics from the University of North Carolina. His teaching specialties are statistical analysis, operations research, and business data processing. Prior to joining the Stanford faculty, he worked as a professional statistician at the National Bureau of Standards and the University of California at Los Angeles. He also instructed at the Institute of Statistics, University of North Carolina. Dr. Teichroew was with The National Cash Register Company for several years working in the areas of business data processing and computer development and was head of the Business System Analysis Section at the time of his departure.

Legal Counsel
FRANCIS KERNER, Attorney
San Francisco, California

Public Relations Counsel
WILLIAM C. ESTLER
Palo Alto, California

Finance
UNITED CALIFORNIA BANK
Los Altos, California

Travel
HENRI J. LIGTELYN
Los Altos, California

THE TECHNO-ECONOMIC APPROACH

With the rapid advance of technology in recent years, business management faces increased complexity in many decisions, particularly those influencing the company's long range future. Important decisions often require technical understanding as well as economic interpretation beyond the staff capabilities of an individual firm. Techno-Economic Services is dedicated to the accurate translation of technical and economic trends into decisions leading to increased profits for its clients.

A typical research project includes the following steps:

1. Careful definition and statement of the objective
2. Literature search
3. Statistical analysis
4. Field contacts with key industry representatives in the area of interest to generate supplemental and current data
5. Analysis and thoughtful interpretation of findings
6. Presentation of a detailed final report with a succinct summary and conclusions
7. Assistance to management in implementing the findings

RESEARCH TOPICS STUDIED

In the Plastics Industry:

- Polyolefins, A Long-Range Planning Report
- A Study of Trends in Vacuum Forming of Plastics
- A Study of the West Coast Market for Plastic Pots in Commercial Nurseries

In the Fertilizer Industry:

- A Study of Fertilizer Trends in California
- An Economic Analysis of Fertilizer Production and Distribution Opportunities
- A Preliminary Study of the Western Fertilizer Market

In the Animal Feeds Industry:

- A Preliminary Economic Analysis of the Animal Feeds Industry
- A Structure of the Animal Feeds Industry
- A Study of the Western Market for Salt in the Meat Packing, Canning, and Animal Feeds Industries

Other Industries:

- A Study of Trends in Frozen Foods and Refrigerated Storage
- A Preliminary Study of Insurance Sales Trends in California
- A Study of the United States Market for Building Maintenance Materials
- An Interim Techno-Economic Evaluation of a Process for Converting Cotton Stalks to Pulp, Pith, and Fertilizer
- A Study of the Technical and Economic Feasibility of Recovering Fresh Water from Sea Water in Conjunction with Solar Salt Producing Operations
- Preparation of a Corporate Research and Development Program
- A Preliminary Study of the Market for a Barbecue Additive
- The Market Outlook for Farm Machinery and Equipment
- An Analysis of the Operations of a Business Forms Concern
- An Acquisition Study in the Business Forms Industry

TECHNO-ECONOMIC SERVICES, INC., is located 40 miles south of San Francisco in an area universally recognized for its intellectual leadership, its dominant position in research and manufacture of electronic components and systems, and for its access to outstanding educational and library resources (Stanford University, University of California, San Jose State College, The University of Santa Clara).

Working relationships have been established with a carefully selected group of professionals of broad practical industrial experience and diversified knowledge in science, engineering, economics, accounting, electronic data processing, business administration, marketing, and related fields. Techno-Economic Services, Inc., provides a facility through which industry and government can economically tap this reservoir of talent for assistance in solving complicated problems of management.

CLIENTS SERVED by Techno-Economic Services, Inc., include:

Fireman's Fund Insurance Company, San Francisco
Kern County Land Company, San Francisco
Cyprus Mines Corporation, Los Angeles
Chemical Divisions, FMC Corporation, New York
International Minerals and Chemical Corporation, Skokie, Illinois
Leslie Salt Co., San Francisco
Barnes-Hind Laboratories, Inc., Sunnyvale, Calif.
Purex Corporation, Ltd., Lakewood, Calif.

Method of Operation

The method of operation is flexible and adaptable to individual client needs. Normally, studies are contracted on a project basis. Companies engaging the support of Techno-Economic Services, Inc., often pay a retainer which commits the staff to work on problems in the direct interest of the company over an extended period. Memorandum billings are rendered monthly against the retainer, showing actual time and charges incurred during the previous month. Where desired, progress reports are provided. The deposit amount can be supplemented to cover the cost of any studies mutually agreed to be beyond the scope of the retainer. This arrangement provides for day-to-day contact and consultation. It also assures a level of effort in economics research designed to produce meaningful results.

Confidential Handling

Consultations and studies conducted by Techno-Economic Services, Inc., can be handled with any degree of confidential concern desired by the client. In a merger, acquisition, or plant location study, for example, the name of the client company need not be revealed. The highest regard is given to ethical aspects of all activities.

Inquiries may be directed to:

Robert C. Miller, *President*
Techno-Economic Services, Inc.
313 State Street Box 444
Los Altos, California 94023
948-3237 Area Code 415

DISTRIBUTION: Ken Olson, Stan Olson, Harlan Anderson, Loren Prentice, Scott Miller, Ken Van Dyck, Paul Rawson

CLIENT CONTACT REPORT

FILE: Client
BY: Paul Rawson
PR/mhm - 5/6/64

CLIENT: Digital Equipment Corporation

DATE: May 4, 1964

TYPE OF CONTACT: Regular Plant Visitation

PERSONS CONTACTED: Ken Olson, Stan Olson, Harlan Anderson, Loren Prentice, Scott Miller

SCHEDULE FOR DAY'S MEETING:

1. Review by VDC to DEC Management of products competitive with DEC as seen at Spring Joint Computor Conference
2. PDP-7
3. PDP-8
4. New Cabinet
5. Modules Handle

APPEARANCE DESIGN REVIEW:

Paul Rawson presented comments on appearance of equipment competitive with Digital Equipment. VDC's recommendations generally are that DEC's display booth can bear some design study and upgrading regarding materials, design, color, lighting, and identification.

Whereas DEC's product appearance is generally of a very acceptable level, some competitive equipment shows refinement of design detail which indicates that continuing appearance design effort by DEC is very much in order.

Loren Prentice and Paul Rawson discussed the advisability of a regularly scheduled quarterly review by DEC Management of mechanical and appearance design details. Material for such a review might be prepared by Loren Prentice and Paul Rawson.

PDP-7:

The following appearance design recommendations are made by VDC to further improve the appearance and proportions of this machine. Tape Reader to be moved back into cabinet one inch. This will bring front edge of adjusting lever flush with front end of machine proper. This will also make less visually dominating this mechanical appearing piece of equipment. Slots for tape in sides of frame will of necessity be made 3/4" deeper on each side. Further simplicity will be achieved in this already complex panel through the co-ordinating of color in the upper component parts--i.e., the charcoal brown of the magnetic tape reader will be extended upward to include the front panel door at top front. This will visually combine the two component parts into a single color and thereby reduce the complexity of appearance.

The two horizontal aluminum strips, one above and one below the paper tape reader will be reduced in thickness to 3/16". This will further subordinate this element towards appearance simplification.

PDP-8:

VDC recommends that the two top panels slope inward at the top per samples reviewed by Scott Miller and writer. It is further recommended that these panels and the horizontal nameplate strip be moved inward into the machine by 3/4" or 1". This will give further prominence and place greater emphasis on the control panel units and give emphasis to a horizontal break-up of this substantially vertical design.

The appearance of a more horizontal design and resultant more pleasing proportions are achieved through the following arrangement of finishes on the control panels. The switch panel at lower left should be brushed aluminum. The other three panels should be charcoal brown. It is desirable that these three panels be identical in color and since the magnetic tape reader must of necessity be charcoal brown, this is the color we must use. This coloration of panels sets them distinctly apart from the light gray table top surface. This appearance detail is very much to be desired in comparison to having the panels of the same color as the desk top.

MODULE HANDLE:

Samples and drawings were reviewed with Scott Miller, Loren Prentice, and Paul Rawson. The version which allows ventilation past handle has been specified as required by Ken Olson. Handle to be molded in each of three colors for color keying to various speeds of equipment. General nomenclature to be hot die stamped and/or molded into sides and front surface of injection molded plastic handle. Gull-wing design of handle should provide distinctive identifying appearance for this DEC product. Writer very much interested in seeing a series of these handles mounted in a realistic in-use situation. This would provide basis for making judgment of appearance design solution

NEW CABINET CONSTRUCTION:

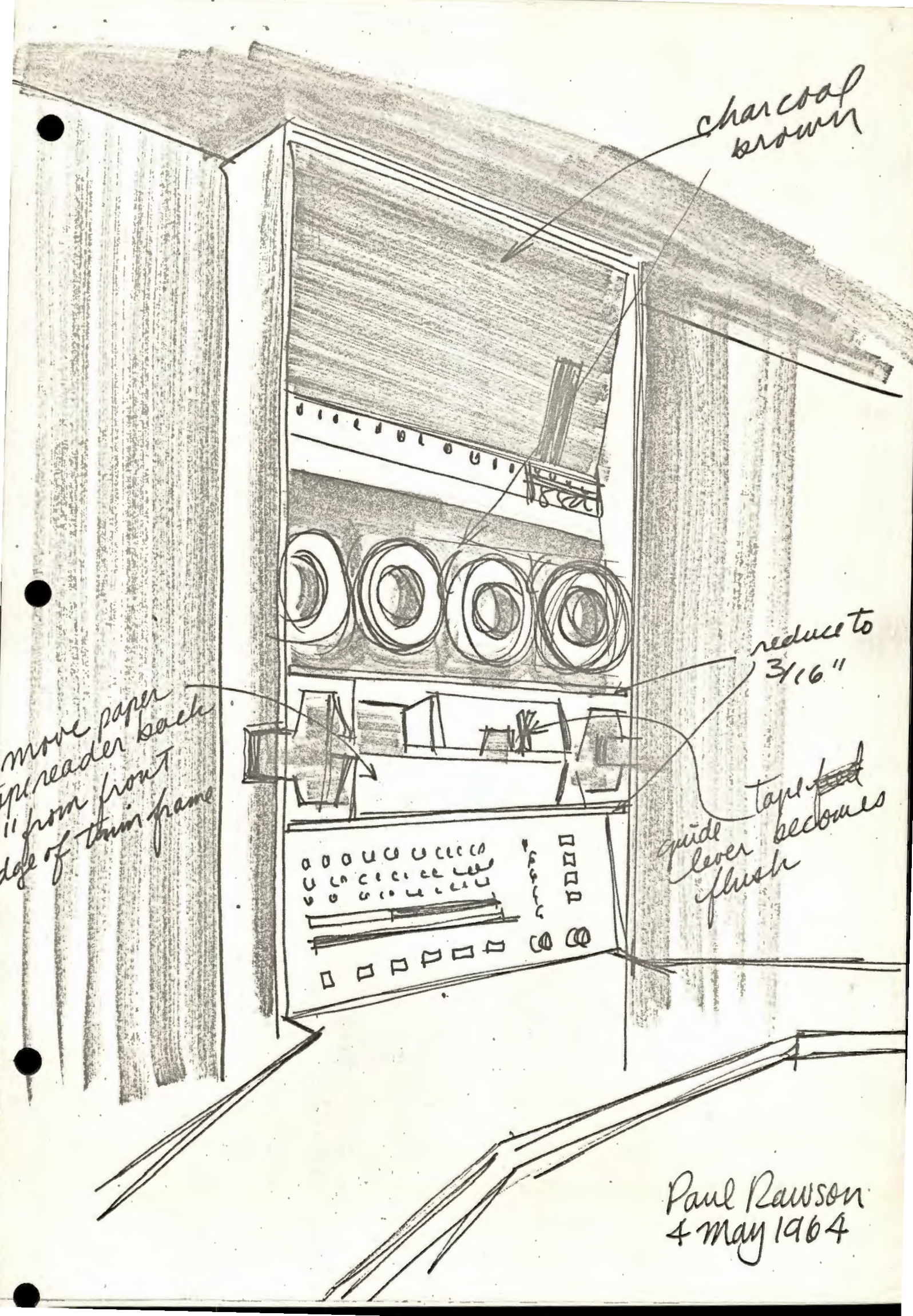
New proportions and new means of access into cabinetry was discussed briefly.

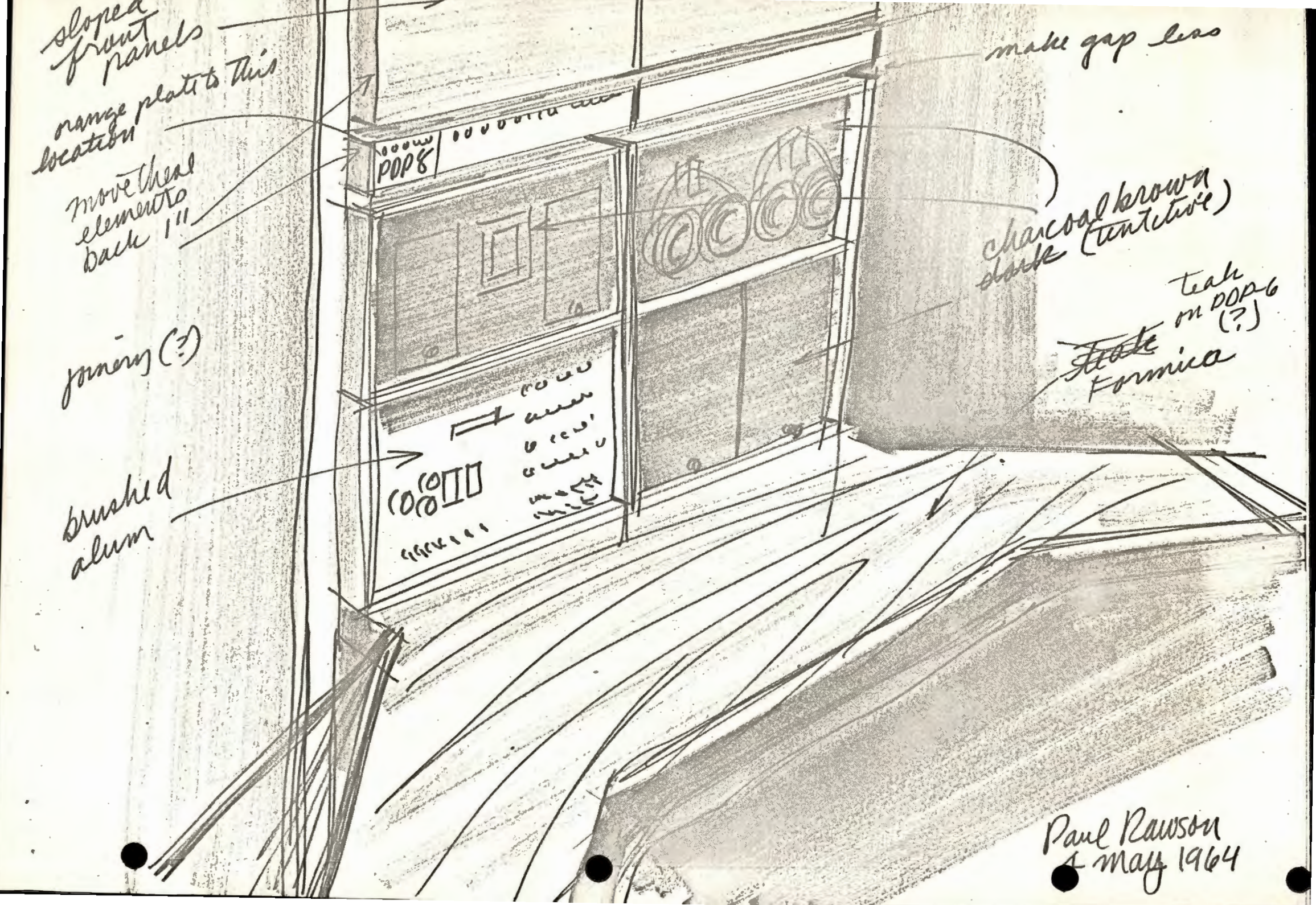
END OF REPORT

Paul Rawson

Paul Rawson, ASID
Vice President/Design

PR:mhm


charcoal brown
reduce to 3/16"
move paper tape reader back 1" from front edge of thin frame
tape guide lever becomes flush
Paul Rawson
4 May 1964


sloped front panels
orange plate to this location
move these elements back 1"
joinery (?)
brushed alum
POP 8
make gap less
charcoal brown shade (tentative)
teak on POP 6 (?)
Formica
Paul Rawson
4 May 1964

MAY 7 1964

WELEX Electronics Corporation
Subsidiary of Halliburton Company

5 May 1964
Serial No. 4888-64

Sales Manager
Digital Equipment Co.
Mayard, Mass.

Dear Sir:

Welex Electronics desires information which would meet with a memory requirement for an advanced systems design in which we are now involved. The basic requirements for this memory are listed below:

1. It must be capable of storing 500,000 numbers of a 9 or 10 digit length.

2. It must be able to receive from a standard telephone line a number of a 10 digit length and hold it in storage for a comparison check to see whether or not it matches any of the 500,000 numbers.

3. It then must be capable of returning an answer of either 'yes' or 'no' and return this answer to the source from which it came.

4. If it is possible, it is highly desirable to do a simultaneous search for more than one 10 digit number at the same time, but not compulsory.

5. The total search time allowed should be a minimum, but can be as long as 3 seconds if necessary.

In reference to the pricing of this memory device, it should be kept to the barest minimum so that the potential may expand at least into the hundreds.

Our requirements are immediate and a quick response to this request will be greatly appreciated. You may call the undersigned at LA 9-1810 if you have any questions.

Very truly yours,

Robert Hutchins
Consultant Engineer

RH:mlg

NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY

50 OLIVER STREET
BOSTON 10, MASS.

SCOTT A. HUTCHINSON
GENERAL MANAGER-STATE AREA

TELEPHONE
AREA CODE 617
743-3202

May 1, 1964

Mr. Kenneth H. Olson, President
Digital Equipment Corporation
Main Street
Maynard, Massachusetts

Dear Mr. Olson:

New Bell System data communications services are now providing many customers in the New England area with the fast management reflexes that enable them to compete more efficiently in today's changing market situations. To help you to better understand the value of these new services, the New England Telephone Company has established a Data Communications Workshop at 185 Franklin Street in Boston.

The Data Workshop explores the concept of data communications from a management standpoint and defines many of the communications services which exist today for taking that important first step to an integrated information system. In the display area you will see actual data transmission devices in operation and have the opportunity to learn how some of your business associates in related industries are utilizing data communication systems to enhance their over-all operations. Emphasis on practical criteria for data communications planning rounds out the presentation.

I would like to extend an invitation to you to participate in a session of the Data Workshop in the near future. Because communications is vital to our everyday business operations, there are many immediate and long range benefits that you will derive from the Workshop. I certainly hope you will attend.

One of our Communications Consultants will contact you shortly and provide you with the necessary details. At that time you may wish to arrange a suitable date on which you would like to be scheduled for the Data Workshop.

Sincerely,

Scott A. Hutchinson

General Manager

F

NEW YORK WASHINGTON

The Research Institute of America, Inc.

Carl Hovgard, Pres. Leo Cherne, Exec. Dir. Joseph D. Ardleigh, Exec. Vice Pres.

589 Fifth Avenue, New York 17, N.Y.

May 1, 1964

Mr. K. H. Olsen, President
Digital Equipment Corporation
P. O. Box 22
Maynard, Massachusetts

Dear Mr. Olsen:

Please accept this as confirmation of your secretary's instructions to continue your Executive Membership for the coming 12 month term at $240.

We're very pleased to know the program is useful to you and your associates, and I hope you'll let us know whenever we can be of service.

Cordially,

R. W. Wadell

Director,
Member Relations Department

R.W.Wadell:dr

did not attend

INDUSTRIAL LIAISON OFFICE

CAMBRIDGE 39, MASS.

April 28, 1964

Mr. K. Olson
Digital Equipment Corporation
Maynard, Massachusetts

Dear Mr. Olson:

On Wednesday and Thursday, May 6 and 7 M.I.T. will offer an informal symposium entitled "Project MAC - A Progress Report." This research, under the direction of Professor Robert M. Fano, is supported by the Office of Naval Research on behalf of the Advanced Research Projects Agency. A copy of the program is enclosed.

This symposium is sponsored by the Industrial Liaison Office as one of a series of private conferences held for member companies of the Liaison Program. Professor Fano has suggested that you would be interested in this meeting and has asked me to extend his personal invitation. Please give us prior notification if you plan to attend.

I join with Professor Fano in the hope that you will be with us on the 6th and 7th.

Sincerely,

Jack W. Christensen

Jack W. Christensen
Industrial Liaison Officer

JWC:jg
Enclosure

GARDNER-DENVER COMPANY

GRAND HAVEN, MICHIGAN

April 21, 1964

Digital Equipment Corporation
Main Street
Maynard, Massachusetts

Attention: Mr. K. H. Olsen, President

Dear Mr. Olsen:

It was a pleasure meeting you at our display at the IEEE Show in New York. As requested, I am sending you information on our 14U2-22 x 22 x .050 automatic "Wire-Wrap" machine.

During the show, Chuck Stein of your company also stopped in at our display and after quite a discussion about the "Wire-Wrap" machines, he requested us to send a quotation to Mr. Paul McGaunn of your purchasing department. I am enclosing a copy of this quotation and machine specifications. Our quotation includes price and delivery on the 14F-22 x 22 x .025 machine, the 14F-20 x 20 x .125 machine, and the 14U2-22 x 22 x .050 machine. We also included information and costs for lease of these various machines, including an option to purchase.

I hope this information will be helpful to you. If there is additional information that we can supply you, please feel free to call on us. Our "Wire-Wrap" Specialist, Russ Riddle has been calling on various interested parties in your plant for some time, supplying them with information on the "Wire-Wrap" machines. I am sure he will be happy to discuss the "Wire-Wrap" machines and their advantages with you at your convenience. We will certainly appreciate the opportunity to serve your needs in the area of wiring tools and automated machines.

GARDNER-DENVER COMPANY

E. F. Julander

E. F. Julander
"Wire-Wrap" Division

EFJ:md

Enc.

April 18, 1964

Mr. K.H. Olsen
Digital Equipment Corporation
146 Main Street
Maynard, Mass.

Dear Mr. Olsen:

On Wednesday, June 3, Brown University will hold a major conference on unemployment for the business leaders of the New England region. We would be pleased if you would set the day aside and plan to be with us on that occasion to help discuss this perplexing problem.

Mr. Thomas J. Watson, Jr., Chairman of the Board of the IBM Corporation and a trustee of the University, is the conference chairman.

The program for the all-day meeting will include stimulating speakers of national prominence. We believe the conference will contribute significantly to our knowledge of unemployment, automation, the future of our economy, and allied topics. More information will be sent to you soon.

The conference is the second to be held under a new Brown University Associates Program, designed to bring Brown and the business community that surrounds it into an intellectual exchange on the more important issues of the day.

The first Associates program, held on January 28 of this year, was on "The Economics of Equal Employment Opportunity," with Adlai E. Stevenson, United States Ambassador to the United Nations, as the main speaker. More than 300 New England business and professional leaders attended, and the meeting was a great success.

Again, we hope you can be with us on June 3.

Sincerely yours,

Barnaby C. Keeney

Barnaby C. Keeney
President, Brown University

HUPP
CORPORATION

RICHARDS-WILCOX DIVISION
AURORA, ILLINOIS

ELMER R. RANSOM
EXECUTIVE VICE PRESIDENT

April 10, 1964

Mr. Kenneth H. Olsen
President
Digital Equipment Company
Maynard, Massachusetts

Dear Mr. Olsen:

We would like to talk to one of your engineers who is familiar with processing manufacturing control work. This is about joint sales of your computors and our conveyors.

Please have him telephone Area Code 312, TWinoaks 7-6951. If I am not available when he calls, ask for Mr. W. F. Schwarz.

May we hear from you soon?

Yours very truly,

E. R. Ransom
Executive Vice President

dk

BUSINESS AUTOMATION

Magazine • 288 Park Avenue, West, Elmhurst, Illinois Telephone: TErrace 4-9350

April 14, 1964

Reply to: Rm. 905
100 E. 42nd Street
New York 17, N.Y.

Mr. Kenneth Olsen, President
Digital Equipment Corp.
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

Thought you might be interested in the editorial coverage (page 50 of the enclosed issue) of your Programed Data Processor-6.

I have recently joined BUSINESS AUTOMATION and will look forward to meeting you in the very near future.

Cordially,
BUSINESS AUTOMATION

Everett G. Reid, Jr.-dm

Mag sent to F.A.

Telephone 892-6761
Area Code 207

Cable Address: RESEARCH
Portland, Maine

Established 1956

Gorham Research Corporation

Gorham, Maine

April 9, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corp.
146 Main Street,
Maynard, Mass.

Dear Mr. Olsen:

We hope the subject of this letter will prove of definite interest to you and your associates, particularly those responsible for future planning and diversification.

Communication processes assume many guises, such as high speed data recording, electronic printing, videograph, facsimile, and so on. The development of communication methods is expanding very rapidly. There is an urgency to perfect suitable specialty papers to meet the stringent requirements of the ever-increasing field of communications.

The manufacturers of computers, graphic recording systems, and high speed read-out devices are electronic wizards, but usually have little knowledge of the intricacies of papermaking, particularly the specialty types. People expert in the manufacture of paper rarely qualify as electronic or imaging scientists.

The staff at Gorham Research has had first-hand experience working with both industries, and has the ability to provide the technical bridge needed to forge the missing link. Our papermaking and paper coating experience may be utilized to develop materials

suited for your machine requirements. Our paper industry contacts, both production and market wise, will assure you a supply of the specialty papers developed for you. Your company can profit from an association with Gorham Research.

One of our present clients, a large paper producer, is embarking upon the development of white conductive papers covering a range of conductivities, which could serve as substrates in the processes in which you are interested. Some people have asked for papers approaching semiconductors in conductivity. Based upon past experience and present thinking, such a development is not beyond the realm of possibility.

Are you interested in white conductive paper?

The enclosed brochure will serve to introduce us in greater detail. We hope we may hear from you.

Very truly yours,

GORHAM RESEARCH CORPORATION

F. C. Schmutz

Frederick C. Schmutz
Senior Technical Consultant

FCS/w
Enclosure.

Industrial Research and Business Development Contractors

Gorham Research Corporation

Gorham, Maine

Distribution of Contract Work at Gorham Research Corporation

Technical Research and Development

Technical research and development continues to be a major portion of our business. This work, heavily oriented toward the chemical process and paper industries, often involves laboratory and pilot plant operations for development and improvement of products and processes.

Detailed lists of projects handled during past five years available on request.

57%	*Management Services*	**Sales Audits**
		New Product Searches and Market Surveys
		Market Expansion Programs
		Acquisitions
		Technical Audits
		Long-range Planning
		Plant Site and Feasibility Studies; Misc.
88%	*Consumer Marketing*	**Consumer surveys, store audits, test marketing, questionnaire design, package appeal tests, package design, market development.**
100%		

Our Company

GORHAM RESEARCH was incorporated as GORHAM LABORATORIES in 1956. At first only laboratory work was accepted, but subsequently the company was so greatly strengthened and broadened as to outdate the word "Laboratories" in the company name.

We are now known as

Gorham Research Corporation

GORHAM RESEARCH CORPORATION specializes in contract technical and business development work. The permanent staff consists of four principals backed by a force of nine technical and marketing personnel. In addition to training in chemistry, physical chemistry, engineering, and business practices, members of the staff have had extensive industrial experience in

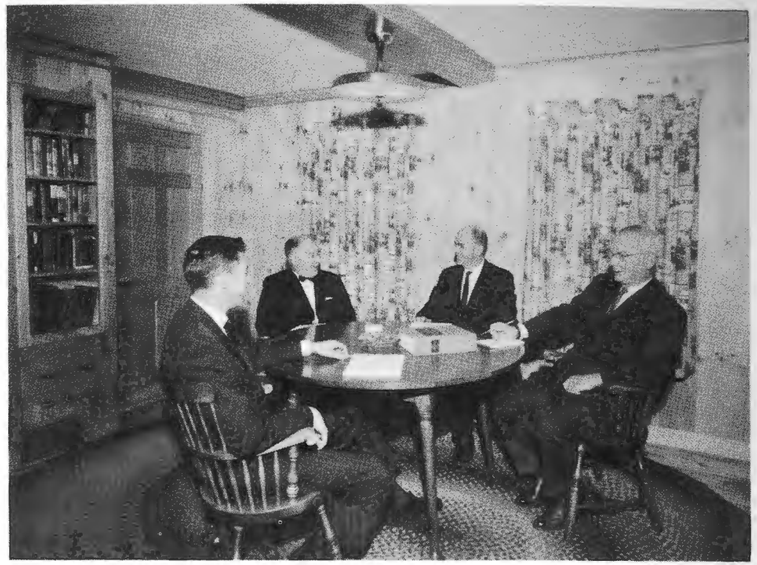
Research
Production
Marketing
Sales

The service could not be complete without the help of a larger group of non-resident specialists, whose skills are available as needed.

GORHAM RESEARCH CORPORATION is prepared to carry through any assignment from the laboratory stage through the pilot plant to production and marketing.

Our Strength Is In Our Experienced Staff

There are no charges for Conference Time at Gorham.



Northeast Market Services for:

Profitability Analysis
Technical Market Research
Market Expansion Plans

Technical Division

The activities of this division constitute a major function of GORHAM RESEARCH CORPORATION. The Gorham staff have engaged in industrial technical development in many diverse fields, of which the following are just a few examples:

Floor and other polishing materials.
Fluorescent and phosphorescent materials.
Lightweight aggregates for concrete.
Surfactants.
Non-woven fabrics.
Textile dyeing and finishing.
Paints, varnishes, enamels, metal protective finishes.
Planographic and other printing plates.
Chemicals for the paper industry.
Paperboard.
New types of paper coatings and finishes, including cast coating.
New coating techniques and machinery development.
Reproduction papers, as thermosensitive, diazo and non-carbon.
Specialty papers, as barrier, transformer, and release.
Communication papers for new data processing systems, electronic printing, and check sorting devices.

The communication papers represent an actively growing area for new papers and should be considered by paper companies and coaters interested in diversification.

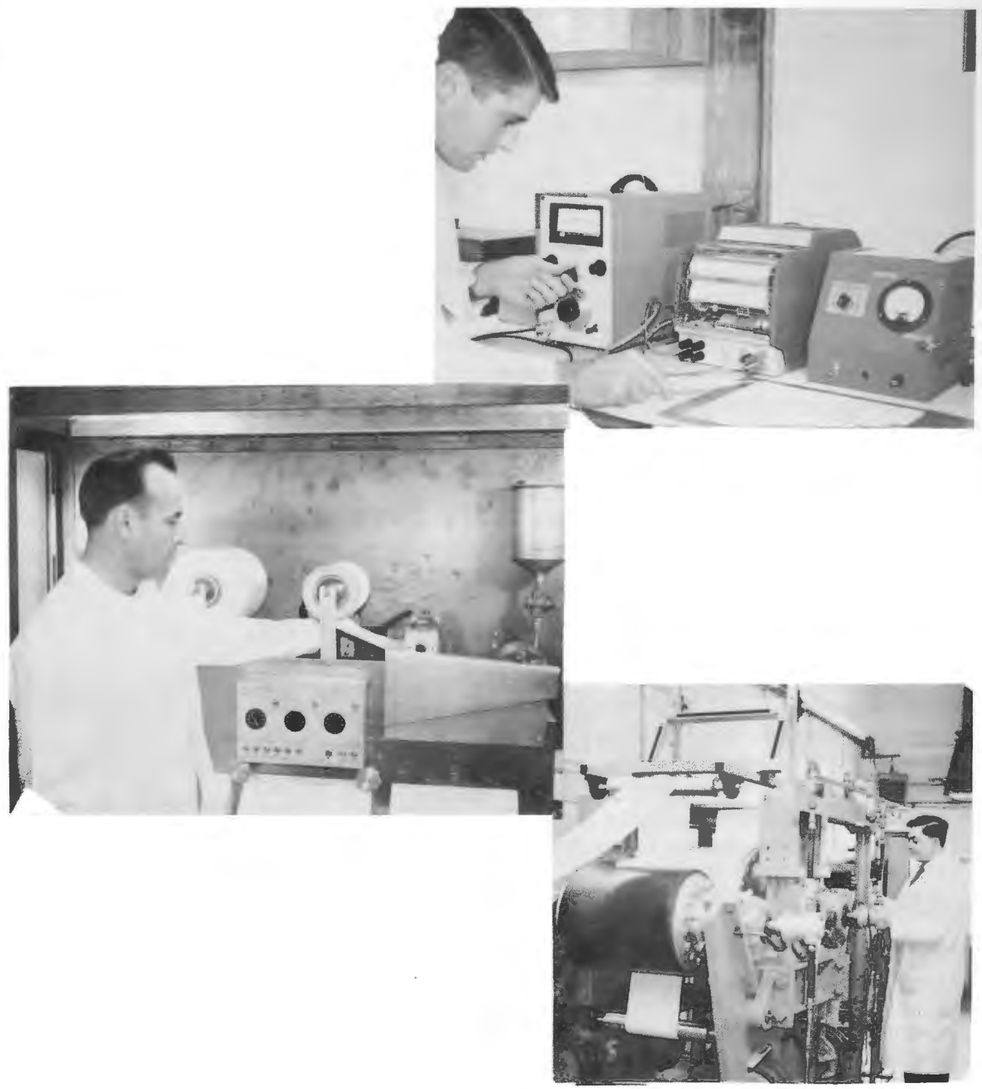
Business Development Division

GORHAM RESEARCH CORPORATION has numerous contacts with companies and industries where special marketing opportunities may exist. The services of Gorham Research can therefore be of inestimable value in any sales, market, and product diversification program. Accomplishment of the objectives is dependent on many factors — not the least of which are our technical skills.

The objective of the business development service of GORHAM RESEARCH is focused, of course, first to increase as much as possible sales and profits from existing production and markets, and then to consider new areas as a follow-up for diversification.

Maine has long been in need of a top-flight professional organization specializing in consumer marketing investigations, including interviewing, test advertising, store audits, and so forth. The Northeast Market Research Division of the GORHAM RESEARCH CORPORATION was established to provide this vital function. Our company, perhaps more than any other local source, is intimately familiar with local markets, buying habits, and public opinion in the northern New England area.

GORHAM RESEARCH CORPORATION
can take an assignment from the Laboratory
. . . through the Pilot Plant to Production
. . . then Marketing and Sales



Our Clients

There seems to be no limit to the type or size of our client companies. Nearly all are manufacturers or sales organizations in one field or another; a few are in the service industries.

Most of our clients already have excellent technical or sales development groups of their own who have more work than they can handle. We provide the extra help on regular or special work programs for as long as needed. Smaller businesses find that we can carry on their entire development programs for what it would cost them to hire a Director of Development. Similarly, with respect to management, diversification and personnel procurement problems we frequently assist forward-looking and growing companies who wish to supplement their own efforts and to do so with the efficiency and speed which our know-how and background assures.

The one thing our clients have in common is a desire to use the services of experienced, management-caliber men. Rather than assist our clients to copy or surpass the products of others, we frequently advise them to seek future strength, success, and profits through the creation and development of new capabilities and products.

Companies having an interest in major technological and market advances of the type herewith discussed are invited to contact one of the following:

PHILIP E. MACLEAN

FREDERICK C. SCHMUTZ

WILLIAM K. THORNDIKE

JOHN F. THURLOW

GORHAM RESEARCH CORPORATION

GORHAM, MAINE

Our Policies

The objective of Gorham Research Corporation is to provide for the client a profit-making research, development, marketing and advisory service of the highest type and to do so in such a way as to free the client from the high costs, long-term commitments, risks, delays and other disadvantages which often accompany the establishment or expansion of his own development group. In accomplishing this objective and particularly in providing the client with reasonable assurance of success while simultaneously maintaining our existing low-overhead position, we observe certain policies —

- *We operate on a contract basis.*
- *We avoid "crash" programs. Priority is given to long-term contracts. Short-term jobs are handled as the work-load permits.*
- *We study prospective jobs in advance and, if success seems unlikely, the client is promptly informed.*
- *We avoid stocking our laboratories with expensive but seldom used equipment. Equipment is purchased as needed or may be loaned by the client.*
- *We seek work which clearly is intended to result in larger profits or savings for the client; "fundamental" studies frequently are referred elsewhere.*
- *We cordially invite potential clients to seek our advice before considering consummation of a contract with us or others.*
- *We do not accept contracts which in our opinion may involve a conflict of interest among our clients.*

Our Location

Located in a rural neighborhood, the Gorham Research Corporation is ideally situated to provide high caliber technical know-how without the usual high overhead costs.

Our laboratories and offices are located ten miles from the Portland airport which is forty minutes flying time from Boston and eighty minutes from New York.

Telephone: 892-6761 — Area Code 207

April 8, 1964

Mr. Ken Olson
Digital Equipment Corporation
Maynard, Mass.

Dear Ken:

The attached is a typical trip report summing up my most recent work session with Loren and Scott at your plant. Between my visits Scott and I exchange reports and he sends me sketches of interim appearance design developments for my evaluation.

To date my function has been substantially that of counselling and maintaining surveillance on appearance design matters with occasional opportunities for establishment of design themes such as the PDP-6. Also projects like the proposed injection molded module handle mentioned in the attached report. Here I could draw to good effect on my experience in mass produced (100M and up) parts of a similar nature.

I contend that DEC is using good judgment in applying VDC's design services to its best advantage. My visitations are at a minimum necessary for me to be kept informed and give guidance to Scott Miller. At the same time you are assured that our working relationship is established to most effectively and economically accomplish any projects that may be more substantial than Scott has time to handle by himself.

VDC feels that it would be to advantage of DEC for you, Loren, and Stan to become more acquainted with our capabilities through a visit to our Westport offices. Such a stop off, perhaps on your way through to New York someday would let you experience our creative environment which is a strength which may not have come through clearly in our slide presentation.

I look forward to seeing you at the Spring Joint Computor Conference and a tour of this show with Stan as he has suggested.

Best regards,

Paul Rawson, ASID
Vice President/Design

PR:mhm

DISTRIBUTION: L. Prentice, S. Miller, KVD, File, RLB, LB

CLIENT CONTACT REPORT

BY: POR
ctk 4/13/64

CLIENT: Digital Equipment Corporation

PERSONS CONTACTED: Scott Miller, Loren Prentice

DATE OF CONTACT: April 7, 1964

TYPE OF CONTACT: Regular Plant Visit

REPORT BY: Paul Rawson

AGENDA:

1. Module Handle.
   Sketch design worked out and given to molder. Scott to advise POR re progress about middle of next week. (April 15). VDC anticipates considerable study required re front surface nomenclature. Part to be injection molded in ABS or polycarbonate. Question still remains as to use of handle to stop-off or not stop-off ventilation. VDC recommends appearance of "stop-off" version as more substantial and high quality look. Such a part would be cored from back to present more simplified appearance. Design attention should be given right away to alternate sizes of larger handles.

PDP-7:
A 45° bevelled edge around outside of cutout in vertical frame members was agreed upon to refine this expedient opening. The symetrical arrangement of a cabinet on either side of control panel seems indicated both from significance of function and preference of symmetrical arrangements by engineering people generally.

PDP-8: (Linc Computor)
Agreed that front frames around rack mounted instruments are too thin. Top front panels to be sloped in at top 5/8". Brushed aluminum trim to occur across top.

Keyboard:
Scott to send VDC sketches of next stage of design. Colored perspective sketches may be in order.

PDP-6 (Micro Tape)
A colored cardboard mock-up by Scott Miller seems to be the next logical step on this. VDC will be interested to see Polaroid photos.

Contact Report
POR - 4-7-64
Digital Equip. Corp.

Winged Tables:

Models on floor having tapered wings were extremely successful from standpoint that ends of wings which previously gave impression of being blunt and drooping down, now appear nicely refined for poise and balance. The internal radius at the dog leg supplements the almost sculptural appearance of this piece.

Closures For Module Receptacle Openings:

Bob Savelle liked VDC concept of proposed cross section of extruded polypropiene. A closure devised to snap into above mentioned openings to maintain desired ventilation draft.

Modules Cardboard Rack Pack:

Reviewed with Bill Loud. Looks good. Would recommend quote be obtained from second source as principle of insurance. Rubber die for orange color printing should be corrected by box manufacturer. Would be interested to see same orange detail on pouch.

Spring-Joint Comp utor Conference.

Writer will attend this show on 21st of April. Present plans call for meeting Stan Olson and tour of show together. 35 MM photos will be taken of equipment generally with view toward comment by VDC on Digital appearance design present and future.

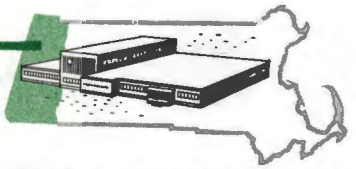
VDC visit to DEC:

Next visit tentatively for two days early in May. Writer will call Scott toward end of April for confirmation.

END OF REPORT

Berkshire County

Industrial Development Commission



COURT HOUSE, PITTSFIELD, MASS. • PHONE HI 2-8740 AREA CODE 413

Philip C. Ahern
Executive Director

April 6, 1964

K H. Olsen, Pres.
Digital Equipment Corp.
146 Main St.
Maynard, Mass.

Dear Mr. Olsen:

Chances are you associate Berkshire County, Massachusetts with rural charm, lovely scenery, pleasant resorts, and good year-round living....but it is also true that $137 million of the County's $200 million annual payroll comes from manufacturing. Factors favorable to industry are here, too.

Many national companies are aware of this. Among large firms with plants in the Berkshires are Beloit, General Electric, General Cable, Hooker Chemical, Kimberly-Clark, Mead, Charles Pfizer, Sperry Rand, and Sprague Electric.

All told, there are 100 manufacturing establishments in the County with eight or more employees, and 114 with seven employees or less. Yet there is plenty of good industrial land available for new industry. Of Berkshire County's 660,000 acres (90 per cent of the area of Rhode Island), only 3.5 per cent are occupied.

For an introduction to the area, I invite you to glance through the enclosed "Business and Industry Review and Forecast, 1963-64" recently issued by the Berkshire Eagle. Be sure to see the industrial development section, starting on Page 4A, to find what Berkshire communities and development groups are doing to make the County a good place in which to do business. Among the topics: Pittsfield's new industrial park, shell building in North Adams, zoning improvements, new schools, and expanded water and sewage facilities.

If you want further information, we have it for you -- on buildings, financing, labor force, markets, transportation, community interest, and many other important factors. You can send for data in complete confidence using the enclosed reply form and envelope.

Berkshire County could be the combination of profitability and liveability you are looking for. Why not find out? Send for the facts now.

Very truly yours,

Philip C. Ahern

Philip C. Ahern
Executive Director

PCA:lem

LITERATURE REQUEST FORM

Dear Mr. Ahern:

I would like literature on opportunities for business and industry in Berkshire County, Massachusetts. Please send information on the following:

☐ Shell building, North Adams, Mass. (26,880 sq. ft., on 6 acres, expandable to 100,000 sq. ft. and 25 acres, all utilities in place)

☐ Downing Industrial Park, Pittsfield, Mass. (170 acres, zoned, engineered, rail access, all utilities)

☐ Economic opportunities in southern Berkshire County

☐ Economic and community data — Berkshire County

☐ General information on economic opportunities in Berkshire County

☐ Opportunities for wood-based industry in Berkshire County (includes forest inventory)

☐ Manufacturers and national business firms in Berkshire County (lists chief administrative officer)

☐ Detailed guide to recreational facilities in Berkshire County

☐ Other (please specify) .....

.....

.....

☐ I am actively interested. Please have a representative contact me.

☐ I am not interested immediately, but please contact me in.....months.

☐ Please do not contact me.

☐ Please remove my name from your list.

☐ Please add the following person(s) to your list.

.....

.....

.....

.....

My name and address:

.....

.....

.....

.....

Western Electronic Products Co.
107 Los Molinos, San Clemente, California
Telephone: 492-4677 (Area Code 714)

April 6, 1964

Mr. Kenneth Olsen, Pres.
Digital Equipment Corp.
Maynard, Mass.

Dear Sir:

Thank you for your interest in our Model MC-2 Measuring Wire Cutter as indicated in your letter of April 3. Catalog information describing all of our products is enclosed.

Price of the Model MC-2 is $365.00 FOB San Clemente, Calif., and delivery can be made from stock. Our local Sales Representative is Robert W. Gray Inc., 572 Washington St., Wellesley, Mass., Telephone 237-1040.

Very truly yours,

WESTERN ELECTRONIC PRODUCTS CO.

Alan P. Schreiber

Alan P. Schreiber
Sales Manager

cat. to file

digital equipment corporation
MAYNARD, MASSACHUSETTS
TWinoaks 7-8822 TWX MAYN 816

2 April 1964

Mr. Jordan Baruch
Bolt, Beranek, and Newman, Inc.
50 Moulton Street
Cambridge 38, Massachusetts

Dear Sir:

I would like to review the present situation, as we see it, in regard to your PDP-1D computer system.

On March 5 I had a discussion with you, Shelly Boilen, and several others at BB&N. Although the system had not passed complete tests, it was agreed that it was very close to being completely operational. BB&N, quite naturally, was eager to get as much time on the system as possible in order to complete programming work. This conflicted somewhat with DEC's desire to use all available time to make the system completely acceptable.

After some discussion, it was decided that BB&N would tentatively accept the system and would be in a favored position regarding use of time on the system. The system warranty was to be extended to nine months and that warranty would not start until DEC's Customer Relations Department felt that the equipment was completely acceptable. DEC is quite anxious to have this acceptance completed and start the formal warranty, but our prime concern is to insure that the system is operating properly.

Since March 5, work has proceeded on the items that were outstanding at that time. Many of these things required work at DEC, rather than at BB&N (correction of prints, preparation of manuals, etc.), and as a result DEC has not required much time on the system during this period. We have, however, kept in contact, and members of our Field Service Department have made several visits to check on the system in general and on specific items.

On April 1, Gerry Moore, Steve Mikulski, and Jack Shields visited BB&N to review the entire situation and to check on several specific items that had come up since March 5. Listed below are the results of their investigation.

1. A problem exists with the Type 6227 flip-flop module. Occasional erroneous transfers from the UNIVAC into memory were occurring due to noise on the clear line in these modules. A temporary fix was accomplished by lengthening the pulse supplied by UNIVAC. This temporary fix will control the problem at the present. Permanent fix involves a change to the module and this will be accomplished as soon as possible. Gerry Moore and Jack Shields are working with DEC's circuit engineers to implement this modification.

2. Several items are outstanding in the final documentation for the system. These include final up-dating of the prints to represent the latest hardware changes and addenda to the appropriate documents to cover the new memory, the teletype system, the drum, and the main frame changes. The appropriate personnel in these areas are responsible to Gerry Moore for completion of the necessary documents by April 30.

3. One of the new items involved complaints from BB&N that loading rules had been violated in some of the new logic added to the computer. Investigation showed that this was, indeed, true and the areas involved have been identified and will be corrected. Gerry Moore is responsible for generating the necessary changes and the Field Service Department will do the actual work of modifying the hardware. These changes should be complete by April 30.

4. During a previous visit Jack Shields had investigated errors occurring during Fastran transfers. As a result of the initial investigation it was determined that the problem was due to a timing situation in the UNIVAC equipment. On April 1 Jack made a modification to the UNIVAC equipment that is a permanent fix for this problem.

5. Another new item was a complaint by BB&N that there were obvious differences in the method of termination in the three memory systems. It should be pointed out that optimum termination will not necessarily be identical in all memory units. Investigation disclosed what appears to be a number of unnecessary terminators in the 16K bank. Field Service Department will schedule time in the near future to go through the entire memory system and insure proper termination.

6. BB&N had previously requested Type SYNC and Type DONE signals to be ORed into Channel 14 of the interrupt system. This will be installed by the Field Service Department.

7. BB&N has expressed concern over the noisethreshold in the memory bus system. This was discussed some time ago and, although the noise condition did not appear to adversely effect the operation of the system, DEC agreed that it should be improved. At a meeting with Shelly Boilen, Jack Brown, Gerry Moore, Steve Mikulski, and myself, it was agreed that certain germanium semi-conductors in the memory bus modules would be replaced with silicon semi-conductors. This item was not involved in acceptance of the system and was to be accomplished on a "not to interfere" basis. At the present time, approximately forty per cent of these substitutions have been accomplished and work is proceeding on the balance.

8. Modifications involving new relays and a power-clear signal for the teletype system are required. The necessary relays have been ordered (lead time was six weeks) and delivery is expected some time this month. Assuming the relays are available, this modification will be completed before April 30.

9. Rewiring of filters on the punch power lines is being done by the Field Service Department.

2 April 1964

10. The most serious problem involves the drum system. The present restrictions on applying AC power to the drum are obviously unacceptable. The solution requires the cooperation of Vermont Research, and they have been consulted regarding the problem. Gerry Moore has scheduled time for them to work on the problem and they are due at BB&N the week of April 6.

We do not consider the system to be completely accepted. The necessary work is, and has been, proceeding. We expect completion of the work by April 30 and final acceptance by Customer Relations on or about May 1.

Our primary concern is, and always has been, that your system perform the job for which it was intended. Although DEC cannot be responsible for those portions of the system not supplied by us, we have done everything possible to help in integration of the complete system. Please be assured that we are making every effort to complete the details necessary for final acceptance and that our interest and efforts will continue after that acceptance.

Please feel free to contact me if you have any further questions, problems, or concerns. Your needs will receive the prompt attention of this department and the entire company.

Very truly yours,

Robert J. Beckman
Manager, Customer Relations

RJB/eb

cc/Mr. K. Olsen, DEC
Mr. S. Boilen, BB&N

TUFTS UNIVERSITY

OFFICE OF THE PRESIDENT

MEDFORD 55, MASSACHUSETTS

March 31, 1964

Mr. Kenneth H. Olsen
Chairman and President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

Mr. Harter of Simmons College and I appreciate very much the time you and Mr. Hindle gave us last Wednesday to discuss the New England Colleges Fund. It was obvious to us that you have a concern for the private liberal arts colleges of New England.

We hope very much that the Digital Equipment Corporation will be on the list of contributors to the New England Colleges Fund this year.

Sincerely yours,

Nils Y. Wessell

NYW:w

ANATHON ASSOCIATES
EIGHTEEN DOUGLAS ROAD
LEXINGTON, MASSACHUSETTS, 02173
AREA CODE 617 - 862-8927

March 27, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

Anathon Associates, a recently organized management consulting firm, offers specialized services to industry and government in the fields of information systems, project management systems, and in engineering management. These services include study, system design, system implementation and education.

Our personnel have extensive backgrounds in private industry as project managers, project engineers, and as program planning and administration specialists. In consulting assignments for the Department of Defense and for industrial firms, they have developed and/or implemented project planning and control systems, management information systems, and product and business planning systems.

Below is a brief list of techniques and services in which our personnel can provide you with assistance:

1. PERT and PERT/Cost
2. NASA PERT and Companion Cost
3. Configuration management (including drawing change control)
4. Project organization
5. Production control systems
6. Market potential studies
7. Technological capability audits
8. Manpower planning
9. Project selection techniques
10. Financial controls

If you have need for services in the areas listed above or in associated areas, we would welcome an opportunity to discuss our capabilities with you.

Sincerely yours,

Jerome Pearlman

Jerome Pearlman
President

JP:rg

IBM

International Business Machines Corporation

Data Processing Division
Strathmore Road, Number One
Natick, Massachusetts 01761

OLympic 3-4600 (Code 617)
CEdar 7-0920 (Code 617)

Ken
Andy
Gordon Bell

March 27, 1964

Mr. Kenneth H. Olson, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olson:

A major new IBM system will be introduced Tuesday, April 7. We are planning a special executive presentation to cover the significant points of our announcement.

The presentation will be given April 7 at 1:30 p.m. in the Federal Room of Valle's Steak House, Route 9, Newton, Massachusetts.

You and your associates are cordially invited to attend, and I hope to have the pleasure of seeing you there.

Very truly yours,

F. N. McCabe
Branch Manager

FNM/cef

MAR 2 4 1964

CENTER FOR ENVIRONMENTAL RESEARCH

123 NEWBURY STREET BOSTON 16 MASSACHUSETTS 617-KE6-9285

March 19, 1964

Digital Equipment Corporation
Maynard, Massachusetts

Gentlemen:

We have noted with interest the quality and competence of the products of your firm in the area of digital computers. May we suggest that the unique facilities and abilities offered by CER in the areas of human mechanics, visual acuity, encapsulation and graphics will be of assistance to you and your design department in developing the functional and the visual characteristics of your product.

Basically, CER offers services in four specific areas.

First, CER investigates both the environmental characteristics of the areas within which the product is to be used and the environmental characteristics of the product itself, compiling data of a unique nature in a useful form.
Second, we analyze the mass of environmental data accumulated to select those factors which have a bearing on the problem at hand and relate them in a hierarchy of significance so as to establish an effective program of physical and visual needs.
Third, on the basis of this program, CER will develop prototype design and details which embody these unique and pertinent programming elements into an economical and functional solution.
Fourth, CER can propose production techniques and develop actual design documents leading to the economical production of the complete design.

As you can see, CER offers a complete program of design service. All of these areas may not be desirable or necessary in your specific case. However, these efforts by an experienced professional organization can significantly extend the basic understanding and knowledge which you already bring to bear on the problem.

Enclosed is a monograph concerning the basic intent of CER. A director of CER will be most pleased to discuss the possibility of CER's assistance at any time of your convenience. Please do not hesitate to call or write.

Very truly yours,

Clifford Douglas Stewart
Director

CDS:EL
Enclosure

MORGAN & Cie S.A.
SOCIÉTÉ ANONYME AU CAPITAL DE F 10.000.000

SIÈGE SOCIAL
14, PLACE VENDÔME - PARIS (1er)
CABLE: MORGANCIE PARIS
R.C. SEINE 61 B 4753 - B. E. Nº 57

NORBERT G. LEROY
Directeur Général

24th March, 1964

Mr. Kenneth H. Olsen,
President,
Digital Equipment Corporation,
Maynard, Mass.,
U.S.A.

Dear Kenneth,

Sorry for the long delay in acknowledging receipt of your letter of March 9th. It was good to see you again in Boston, and I look forward to seeing you in Paris on your next visit. In the meantime, I would be delighted to introduce John Leng to M.G.T., London. I am writing a short note to Donald Atkin who will thus be informed in case John Leng were to call on him. Let me know if there is anything else we can do from this end.

Best regards to your associates, and to you!

Sincerely yours,

Norbert

NGL/lm

Copies sent to Stan Olsen
John Leng
Dick Miller

Northwestern National Bank of Minneapolis

JOHN A. MOORHEAD
PRESIDENT

March 24, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

The Northwestern National Bank of Minneapolis is continuing its program to keep business executives informed on the capabilities and activity in Minnesota's electronics and related science industries. We have just completed our annual review of this complex, and a copy of the 1964 Directory is enclosed for your reference.

We hope that you find this material both interesting and enlightening and that it will kindle an interest in doing business with Minnesota firms. It is our hope, too, that you will eventually consider locating a facility in this area to take full advantage of Minnesota's electronics potential.

If any questions develop regarding plant location, marketing or subcontracting situations in this area, please do not hesitate to call on us for assistance. All confidences will be respected. May we hear from you.

Very truly yours,

John A Moorhead

Enclosure

KHO file

Telephone: AC 617, 756-6975
UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE
Branch of Predator and Rodent Control
36 Harvard Street
Worcester, Massachusetts

March 24, 1964

Mr. Irving Burg, Resident Manager
Maynard Industries, Inc.
Maynard Industrial Park
Maynard, Massachusetts - 01754

Dear Mr. Burg:

Your letter concerning the control of pigeons has reached this office for reply and I am enclosing our leaflets that pertain to pigeons and their control.

Pigeons are one of the few bird species that are not protected by Federal and State laws and therefore they can be destroyed at anytime. One of the better methods of doing this is by shooting with .22 caliber bird shot. Before attempting this, I suggest that you contact your town police department to see if it is permissible to discharge firearms within the town limits.

Pigeons can be destroyed with poisons, but the State restricts the use of poisons to kill birds. The law states that poisons cannot be placed outside of buildings for the purpose of destroying birds unless a permit has been issued to the complaining party by the Massachusetts Division of Fisheries and Game allowing them to do so. To date, the policy of the Division has been to issue a permit only upon the recommendation of the U. S. Fish and Wildlife Service. The permit is issued with the understanding that a representative of the Service will supervise the control operation.

In summation, this means that if a person wishes to control pigeons outside of buildings with poison, he must first contact the Animal Control Biologist located in Massachusetts. He will investigate the problem and apply for a permit if he deems it necessary. The permit will be issued and carried by him to the problem area where the program will be initiated and terminated while the Biologist is present.

This does not mean that permits will be issued to every homeowner that is bothered with a few pigeons. These people usually have two courses of action: (1) either remove the birds by some other means; or (2) prevail upon town officials to rid the town of the birds through a town reduction program. We neither have the time or the funds to supervise control programs at each home within a town when a program sponsored by the town can accomplish the same results.

(over)

Unfortunately, time does not allow the issuing of any new permits this year for the Service has deemed it necessary to discontinue recommending the issuance of permits after March 15 of a given year. This is done to protect migratory birds that are returning North during late March.

The poison used by the Service is not sold on the open market and can only be purchased through the Rodent Control Fund at Amherst, Massachusetts.

Sincerely yours,

Richard N. Smith

Richard N. Smith
Animal Control Biologist
Eastern Massachusetts

Enclosure
WL-413

UNITED STATES
DEPARTMENT OF THE INTERIOR
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Washington 25, D. C.

Wildlife Leaflet 413
January 1960

CONTROLLING BIRDS -- VAGRANT DOMESTIC PIGEONS

Status

Pigeons similar to those now living in a semi-wild state in towns and cities have been closely associated with man since before recorded history. The form, coloration, and habits of the interbred pigeons that are now found in the streets, point to the likelihood that originally these birds came from the blue rock, or common pigeon (Columba livia), of Europe, Asia, and Africa. Most flocks of pigeons in urban areas are composed of individuals to which no one claims ownership. However, there may be occasional birds that are owned by individuals. City pigeons are not protected by Federal laws, but State and local laws should be checked before shooting, trapping or poisoning is attempted.

Why We Have Them

Feeding of pigeons by bird lovers and spillage of grains around elevators, railroad sidings, etc., are some of the sources of food for city pigeons. The abundance of shelter in most cities assures them ample places to roost and breed. These factors and a sympathetic or tolerant attitude toward the birds by a part of the populace are the reasons for their continued existence. While the presence of pigeons affords pleasure to many, excessive concentrations of the birds are a health hazard because they are carriers of diseases of humans, livestock and poultry. In addition, they offend esthetic senses by their contamination. When these conditions exist, control measures may be necessary.

Roost Elimination

Measures to eliminate roosting sites appear costly, but permanent methods of control are usually worthwhile in the long run. Openings in lofts, church towers, behind signs, and under eaves can be screened with rust-proof wire of 3/4-inch mesh which will also keep sparrows and starlings out. Roosting on ledges can be discouraged by covering them with wire netting or installing wood or metal sheathing at a sharp angle.

Products such as glues, wires, or electrical devices can also be used, but applications are usually expensive and not always effective. Most gluey substances stick to the feet, making the birds uncomfortable. These materials are spread in ribbons along ledges and copings and must be replenished frequently to remain effective. Somewhat more permanent products are those which utilize metal wires in the form of a bristling fence to prevent roosting. Buildings can also be fitted with electrical wires which, like an electric fence for livestock, give intermittent shocks to birds attempting to land on the wires.

Removal of Nests

Populations of pigeons can be reduced by destroying their nests and eggs at two-week intervals during the spring and summer months. Use a hook fastened to the end of a long pole to tear down nests under eaves and the like.

Frightening Devices

Noise-making devices have little permanent effect on roosting pigeons that are accustomed to city noises. High-frequency sound vibrations, inaudible to humans, or tape-recorded noises are not usually effective in scaring pigeons. Lights are also of little use.

Shooting Roman candles or firecrackers into roosts are temporarily effective in moving birds, but restrictive legislation against fireworks makes this method impractical in many areas. Streams of water from hoses will move pigeons from roosts. If streams of water or similar controls are to be effective, they must be persistently used until the birds have established themselves elsewhere.

Trapping

Pigeons may be taken in traps placed on buildings and other likely locations. One very effective trap operates by baiting the birds through a door made of swinging, light-weight rods. As these rods will move only inward, the birds cannot return through the trap door. Live decoys in the traps will improve trapping efficiency.

Shooting

Before shooting pigeons, local police regulations should be consulted. Where permissible, shooting with .22 caliber rifles using ammunition loaded with fine shot; with .410 shotguns; or with high-powered air rifles, will eliminate small numbers of birds.

Poisoning

Although poisoned baits are effective and reasonably safe when used by experienced persons, they are not recommended for the general public. Most poisons are toxic to humans and animals and should be handled with care. However, should conditions make the use of poison necessary, the following method will produce results. Winter is the best time to expose poisoned baits, particularly when the ground is covered with snow, and natural feed is scarce.

Prebaiting: Prebaiting with unpoisoned grain is important. Select a flat roof or other likely place where pigeons can be encouraged to feed. Distribute the bait sparingly at first. If pigeons are not attracted to the spot, try another place. Coarse scratch (poultry) feed, whole corn or a mixture of five parts whole corn to one part of wheat is usually acceptable under most conditions. However, observe their grain preference and be guided accordingly in mixing the poisoned bait. Prebaiting should be done, preferably by the same person with the same identifiable clothing, each day for a week or more. Follow with a liberal amount of poisoned material.

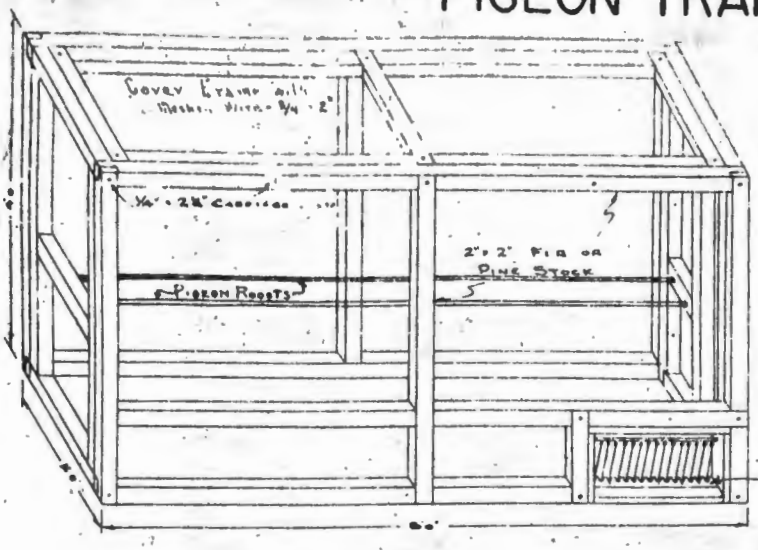
Preparation of Poisoned Bait: Make a paste of one tablespoon of laundry starch in 1/2 cup of cold water; add 1-1/2 cups boiling water and stir until free of lumps; add 1 ounce powdered strychnine alkaloid, stir well. Apply to 8 quarts of corn-wheat bait or 12 quarts whole corn. Shovel or stir. Spread out thinly and let dry. Place a "POISON" label on all containers.

Caution: If other smaller birds, including songbirds, are attracted to the prebait, either shift to another location or use only whole corn, as the kernels are too large for them to eat.

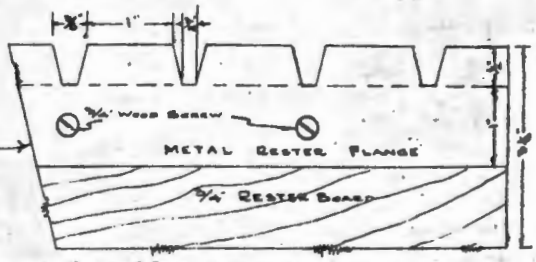
Note: This leaflet supersedes Wildlife Leaflet 254, revised July 1948.

67643

PIGEON TRAP PLAN



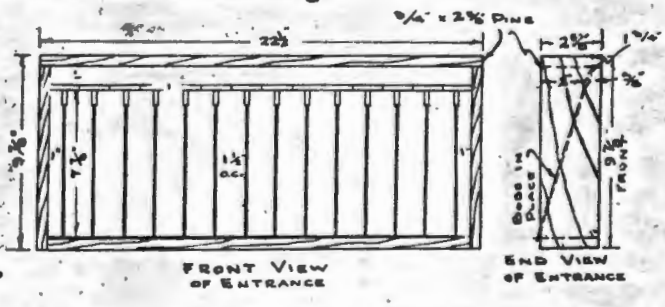
Pigeons can be caught in screened enclosures of various sizes and shapes. For large-scale trapping, it is well to use a trap of dimensions similar to those shown in this leaflet.

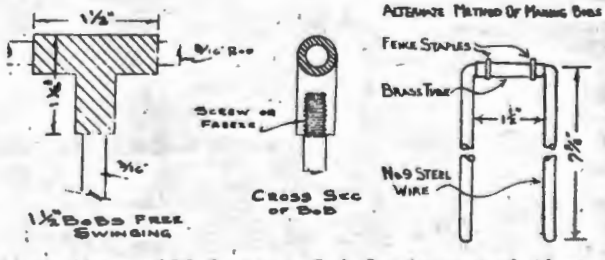


This size trap is capable of large daily catches and enables a person to enter and remove the birds through a small door constructed in the end of the trap. Although large traps are preferred, good catches have been made with poultry crates and other small enclosures.

The construction of a trap with 1 x 2 -inch material is desirable so as to reduce the weight, which is a factor if the trap is to be moved. The use of bolts and the construction of the trap in five sections will facilitate dismantling.

The door or entrance through which pigeons are lured is the principal feature of a trap. Individual, free-swinging "bobs," as illustrated, are most practical and successful. The bobs can be made of heavy aluminum wire or lightweight metal rods. It is important that they swing upward and inward easily and drop back smoothly into slots at the base of the door. For sources of readymade trap doors, write for leaflet entitled, "Manufacturers of Bird Control Materials."





A colony of pigeons will usually remain in one general area, which tends to simplify their removal. Set a trap in an inconspicuous spot, where its not apt to be molested, near the place where pigeons feed or roost. Leave a few birds in the trap as decoys, preferably the same individuals, so that they will become fairly tame and thus lure others. Birds with distinctive colors can be easily identified and seem to be better lures than the drab blue-grays.

It is important to bait the trap with the kind of food the birds are eating. Where they are used to miscellaneous feed, a mixture of one part wheat to five parts of cracked corn makes a good bait. Scatter a small amount outside the trap door to attract the birds. Keep a generous quantity of the bait on the floor inside and near the trap door at all times. Water should be provided except during periods when snow will furnish the necessary moisture. Visit the trap every day or two to remove the pigeons and to rebait.

Giannini Controls Corporation

24 March 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Mr. Olsen:

I am glad to enclose two (2) copies of our schematic diagram for the type CF Monitor.

Please let me know if you need anything else to help in servicing your Church monitor.

Best regards,

Donald H. Putnam
President

DHP:jb
enclosure: 2 schematic drawings

Sales Engineering Office
Empire State Bldg., New York 1, New York • Area Code 212 • CHickering 4-4700 • Cable SUPERSONIC • TWX NY 1-4367

DEPARTMENT OF ELECTRICAL ENGINEERING

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

CAMBRIDGE 39, MASSACHUSETTS

March 23, 1964

Mr. Kenneth H. Olsen, President
Digital Equipment Corporation
143 Main Street
Maynard, Massachusetts

Dear Mr. Olsen,

It is our pleasure to invite you to visit the computer facility made possible through the generous gift in 1961 of a PDP-1 machine by the Digital Equipment Corporation. There will be an informal demonstration of the capability of the system as a multiple-access computer, and several on-line applications. We will meet at the

Research Laboratory of Electronics Conference Room

Room 26-217, M. I. T.

11:00 a.m.

Monday, March 30, 1964

I look forward to the pleasure of your company.

Best regards,

Jack B. Dennis

Jack B. Dennis
Assistant Professor of
Electrical Engineering

JBD:eg

PHILCO CORPORATION

A SUBSIDIARY OF Ford Motor Company

LANSDALE DIVISION • Church Road, Lansdale, Pennsylvania

March 16, 1964

Mr. Kenneth Olsen, President
Digital Equipment Corp.
146 Main Street
Maynard, Mass.

Dear Mr. Olsen:

Dr. Sutcliffe has advised me of his recent correspondence with you and of Dr. Wanlass's visit with you several weeks ago. Some of the literature to which Dr. Sutcliffe has made reference has now been prepared and I am pleased to enclose a comprehensive data sheet on Philco's first line of microelectronic products - Micrologic. I imagine that through your previous conversations with Philco personnel you are aware that we are producing Micrologic under a cross-license agreement with Fairchild Semiconductor. We hold the strong conviction that through this know-how and license agreement Philco brings to the microelectronics industry a significant first in the concept of second-sourcing. In this area in which great emphasis is placed on the absolute necessity of a bona fide second source, Philco, through its agreement with Fairchild, offers socket by socket interchangeability to the circuit designer.

In addition to our first family of Micrologic, the lower power Milliwatt Micrologic family is now being readied for imminent announcement and the full data story on this family will be available at IEEE time next week. At that time we will also have much more comprehensive literature explaining our facilities and capabilities not only in integrated silicon but also in thin film circuits. If you plan to be in New York during the week of March 22, virtually our entire microelectronics management staff will be on hand and I know that all of my colleagues would be very pleased with the opportunity of discussing your interests with you.

In the event that we do not have the opportunity of meeting you next week, I am requesting that our Mr. Kenneth E. Schubert, Product Marketing Manager - Microelectronics, plan to visit you in Maynard at your earliest mutual convenience. In the meantime, if we can be of any further assistance we look forward to hearing from you.

Very truly yours,
PHILCO CORPORATION
Lansdale Division

Chas. S. McCarthy, Jr.
Marketing Manager
Semiconductor Products

CSMc:pmr
Encl.

KENNECOTT COPPER CORPORATION
161 EAST 42ND STREET
NEW YORK, N. Y. 10017

FRANK R. MILLIKEN
PRESIDENT

March 12, 1964

Mr. Kenneth H. Olsen
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

The enclosed brochure describes the benefits to you of a program American business has taken on in the national interest. You may recognize it as a follow up to the Share in America Certificate you received a few weeks ago from the U. S. Industrial Payroll Savings Committee.

Simply stated, we in business are backing our country by encouraging employee participation in the Payroll Savings Plan for U. S. Savings Bonds. As the chairman of the Committee, I am writing to ask you to conduct a Payroll Savings Drive among your employees in support of this patriotic campaign.

In my own company we have found the plan hard to beat as an employee benefit program. We are going to conduct an intensive drive within a few weeks, not only because it is needed by America but also because it is good for us.

The reduction in taxes, long sought by business, provides an extra incentive and a favorable setting for conducting a Bond campaign among your employees. All of us have a vital stake in offsetting the increased pressure on the dollar. A successful Bond campaign will help to accomplish this.

For the employee, signing up to save from pay in Bonds will be the same prudent action you could recommend with any increase in pay: that he save part for the future as well as spend some of it now.

Your support is essential. We hope you will provide it through taking the "Proved Steps to a Successful Company Program" outlined in the enclosed brochure.

Sincerely,

Frank R Milliken

Enclosure

Why a greater

through Payroll Savings is your Company's urgent business in 1964

A message to the leaders of American business and industry

From the President of the United States

THE WHITE HOUSE
WASHINGTON

January 17, 1964

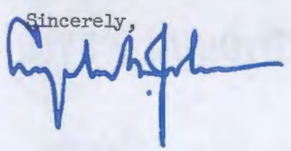
Dear Mr. Milliken:

I have been greatly interested in learning of the work of the U. S. Industrial Payroll Savings Committee, and want to assure you of my support of your efforts in the 1964 campaign which you are now organizing. From every standpoint I believe this program is worthwhile and highly deserving of the time and effort you will be devoting to it.

The Savings Bonds program has long been a symbol of popular participation in our Nation's affairs, and an activity which attracts the finest in volunteer leadership. I am grateful that the members of your Committee, and the employers and employees who respond to your appeal, will carry on this patriotic tradition in 1964.

I wish you every success.

Sincerely,



Mr. Frank R. Milliken
President
Kennecott Copper Corporation
161 East 42nd Street
New York, New York

A Program for Business Leaders Organized by Businessmen

The Payroll Savings Plan for U.S. Savings Bonds, originated by business and conducted by business, has served America well during war and peace. At the same time it has benefited both employee and employer. Today it makes a major contribution to the sound management of the public debt and to the stability of the dollar – the foundation of our economic system and of the strength of our nation.

We, the members of The U.S. Industrial Payroll Savings Committee, actively support the Plan within our companies and industries. As a group we are honored to serve as a focus of support by private enterprise for this nationwide effort.

The following pages will help to explain why we recommend the Payroll Savings Plan enthusiastically. Our enthusiasm is also borne out by the magnificent record of participation in the Plan by a growing list of companies, large and small. We invite your consideration of the proved formula these businesses have followed to bring about such impressive results.

The members of our Committee hope you will join with us to assure success for the industry "Share In America" drive by giving active leadership to a Payroll Savings campaign in your company.

FRANK R. MILLIKEN
Chairman
U.S. Industrial Payroll Savings Committee

6 Reasons for a Payroll Savings Campaign in Your Company . . . Why These Leaders Are for It

Encourages thrift and systematic saving

1

"General Motors actively promotes the purchase of United States Savings Bonds through person-to-person canvass of our employees. I endorse this activity because it encourages thrift and systematic saving on the part of General Motors people.

"We in General Motors are proud to be both salesmen and purchasers of United States Bonds. I urge every business executive to help assure the welfare of our country and its citizens in this way."

JOHN F. GORDON, President
General Motors Corporation

Makes better employees

2

"The employee who saves in Bonds tends to be a better worker. Freer from the tension of financial problems than the non-saver, he gives more concentration to his work, is more likely to remain on the job with a clear goal for the future."

JOHN D. EHRGOTT, Chairman of the Board
The Great Atlantic & Pacific Tea Company, Inc.

Strengthens company teamwork

3

"Teamwork between individuals and between organizations is essential to the continued success of any enterprise. A Savings Bond campaign is a practical demonstration of teamwork among employees, working together toward a worthwhile goal."

H. I. ROMNES, Vice Chairman of the Board
American Telephone and Telegraph Company

A demonstration of
your interest in your employees

4

"Your leadership of a Payroll Savings campaign in your company is a demonstration of your interest in your employees. You are helping them to help themselves. Many people might never have learned to save at all had it not been for the automatic discipline of Payroll Savings – which makes the job simple and virtually painless. We're strongly for it – and would urge every business executive to investigate its possibilities in his own company."

CROWDUS BAKER, President
JAMES T. GRIFFIN, Vice President
Sears, Roebuck and Company

Benefits other employee programs

5

"Systematic employee savings in E Bonds can be useful as a supplement to retirement programs. It can also help to protect an employee's position in company stock and thrift plans by enabling him to meet short-term needs for funds without withdrawing from long-term company programs, when continuous participation in such programs has important benefits to him."

M. J. RATHBONE, Chairman of the Board
Standard Oil Company (New Jersey)

Helps every employee become
a shareholder in his country

6

"When an employee signs up to save systematically from pay in U. S. Savings Bonds, he not only affirms his own faith in our country's future but he gives himself and his family a better chance to enjoy that future. And at the same time he serves his nation in a satisfying, practical way. That is why our company is participating in this campaign."

LESLIE B. WORTHINGTON, President
United States Steel Corporation

The Record in 1963

. . . in New Savers Added

Company	New Savers Added in 1963
General Motors Corp.	85,066
International Business Machines Corp.	37,106
Sears, Roebuck and Co.	28,933
Pacific Telephone & Telegraph Co.	22,388
Bell Telephone Company of Pennsylvania	18,803
Boeing Co.	18,783
Western Electric Co.	14,171
Douglas Aircraft Co.	13,815
North American Aviation Inc.	11,846
Northrop Corp.	11,680
United Aircraft Corp.	11,532
General Dynamics Corp.	11,215
Radio Corporation of America	11,093
Ford Motor Co.	10,951
Burlington Industries Inc.	10,380
General Telephone & Electronics Corp.	9,241
Borden Co.	9,143
Great Atlantic & Pacific Tea Co.	9,034
Minneapolis-Honeywell Regulator Co.	8,258
Chrysler Corp.	8,009
Anaconda Co.	7,650
Martin Marietta Corp.	7,367
Chesapeake & Ohio Railway Co.	7,200
Republic Aviation Corp.	6,272
New England Bell Telephone Co.	6,188
Firestone Tire & Rubber Co.	6,090
International Telephone & Telegraph Corp.	6,066
Northwestern Bell Telephone Co.	5,987
Chesapeake and Potomac Telephone Cos.	5,727
Babcock and Wilcox Co.	5,245
Thompson Ramo Wooldridge Inc.	4,973
Bendix Corp.	4,697
Aluminum Company of America	4,097

. . . in New High Levels of Participation

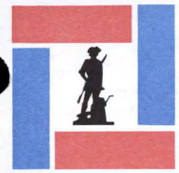
Company	% of Employees Participating in 1963
Northrop Corp.	99%
Republic Aviation Corp.	92%
International Tel. & Tel. Corp.	92%
Boeing Co.	87%
Pure Oil Co.	87%
Ling-Temco-Vought Inc.	82%
United Aircraft Corp.	79%
Babcock and Wilcox Co.	78%
Marquardt Corp.	78%
Bell Telephone Co. of Pa.	78%
New England Bell Telephone Co.	77%
Kennecott Copper Corp.	76%
Garrett Corp.	76%
Electronic Specialty Co.	76%
Bessemer & Lake Erie	75%
Gulf Oil Corp.	74%
Radio Corp. of America	74%
IBM Corp.	73%
Lockheed Aircraft Corp.	73%
Dixie Ohio Express Inc.	71%
Douglas Aircraft Co.	71%
Martin Marietta Corp.	69%
New Jersey Natural Gas Co.	69%
General Electric Co.	68%
Macy's New York	67%
General Motors Corp.	67%
Diamond State Telephone Co.	65%
Northwestern Bell Telephone Co.	64%
Anaconda Co.	63%
Soo Line Railroad Co.	63%
Republic Steel Corp.	63%
Kelsey-Hayes Co.	63%
E. I. du Pont de Nemours & Co.	63%
Goodyear Tire & Rubber Co.	62%
Hughes Aircraft Co.	61%
Chrysler Corp.	60%
Revere Copper & Brass Inc.	60%
Albany Felt Co.	60%

Company	% of Employees Participating in 1963
Bristol Mfg. Corp.	59%
Firestone Tire & Rubber Co.	59%
McDonnell Aircraft Corp.	59%
National Lead Co.	59%
Chicago Transit Authority	59%
Allegheny Ludlum Steel Corp.	58%
American Metal Products Co.	58%
Chesapeake & Ohio Ry. Co.	58%
Rohr Aircraft Corp.	58%
United Engineering & Foundry Co.	56%
Aluminum Co. of America	56%
Borden Co.	56%
Hershey Chocolate Corp.	56%
B. F. Goodrich Co.	56%
Globe Union Inc.	56%
Endicott Johnson Corp.	55%
General Dynamics Corp.	55%
Jones & Laughlin Steel Corp.	54%
Missouri Pacific Railroad	54%
Bell Aerosystems Co.	54%
Stern Brothers	54%
Grumman Aircraft Corp.	54%
Clairol Inc.	53%
Pacific Tel. & Tel. Co.	53%
Texas Power and Light Co.	53%
North American Aviation Inc.	52%
U. S. Time Corp.	52%
Atchison, Topeka & Santa Fe Ry.	52%
Canada Dry Corp.	52%
Leech-Neville Co.	51%
Gar Wood Industries Inc.	51%
Blaw-Knox Co.	51%
Mesta Machine Co.	51%
Public Service Electric and Gas Co.	51%
Foxboro Co.	50%
Providence Gas Co.	50%
Seiberling Rubber Co.	50%
Minneapolis-Honeywell Reg. Co.	50%

Proved Steps to a Successful Company Program

1. President designates a top aide to serve as campaign chairman.
2. All levels of management informed about company campaign and timetable.
3. Key people appointed to head campaign at each plant and department. Canvassers selected on ratio of one to every 15 employees.
4. Cooperation enlisted of employee organizations, management and foremen clubs, and unions. (Organized labor strongly endorses U. S. Savings Bonds.)
5. Enthusiasm of canvassers stimulated by 35–45 minute training meetings.
6. A canvasser spends minute or two with every employee. Employees signed up on authorization cards.
7. Results reported daily to campaign chairman and president.
8. On completion of campaign, president recognizes members of campaign team, cooperating organizations, and employees as a whole for their accomplishment.

NOTE: For instructions and free campaign materials, contact your state U. S. Savings Bonds Office, or write The U. S. Industrial Payroll Savings Committee, Treasury Department, 808 17th Street, N. W., Washington, D. C. 20226.



Savings Bonds for Thrift . . . and Investment too

Savings Bonds – the world's most widely held securities – are primarily a thrift instrument designed for the ordinary saver. The Payroll Savings Plan makes thrift through this means easier and more systematic.

Some of your employees may consider themselves "investors" rather than "savers". Savings Bonds will have values for them too. The Savings Bond is an investment of solid quality, deserving of a place in any portfolio. Its unique investment merits include:

The tax factor The interest on Savings Bonds is exempt from state and local income taxes. In addition, payment of Federal income taxes on E Bond interest may be deferred until the Bonds are redeemed. This could be years in the future, as all E Bonds enjoy an automatic 10-year extension option after regular maturity. E Bonds may also be exchanged at any time (in multiples of $500) for current-income Series H Bonds, with continued deferral of tax on accumulated interest until the H Bonds are redeemed or reach their 10-year maturity.

Tax deferral enhances the effective return on the investment above the interest rate guaranteed by the Treasury. This advantage is increased if the saver reaches a lower tax bracket in his later years.

Economy and convenience There are no fees involved in the purchase or redemption of Savings Bonds. They may be issued in single name, co-ownership, or beneficiary form.

Safety E and H Bonds are registered in the owner's name and are replaceable at no charge if lost, stolen, or destroyed.

Liquidity E Bonds may be redeemed for full purchase price plus accumulated interest, at the owner's option, on demand at any time after two months from issue date; H Bonds, after six months, on one month's written notice.

Peace of mind There is no risk of market fluctuation with Savings Bonds. Both principal and interest are fully guaranteed, and redemption values are stated on the Bonds themselves.

The United States Industrial Payroll Savings Committee

Honorary Chairman:
Honorable Douglas Dillon
Secretary of the Treasury

Chairman:
Frank R. Milliken
President, Kennecott Copper Corporation

Crowdus Baker
President
Sears, Roebuck and Company

Walter Bouldin
President
Alabama Power Company

Maurice R. Chambers
President
International Shoe Company

Harold W. Comfort
President
The Borden Company

John D. deButts
President
Illinois Bell Telephone Company

John D. Ehrgott
Chairman of the Board
The Great Atlantic & Pacific Tea Company, Inc.

Dr. Elmer W. Engstrom
President
Radio Corporation of America

Ray R. Eppert
President
Burroughs Corporation

Raymond C. Firestone
President
Firestone Tire & Rubber Company

Alexander H. Galloway
President
R. J. Reynolds Tobacco Company

Harold S. Geneen
President
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John F. Gordon
President
General Motors Corporation

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E. I. du Pont de Nemours & Co., Inc.

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Sears, Roebuck and Company

John L. Gushman
President
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Charles J. Zimmerman
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Connecticut Mutual Life Insurance Company

PRINTED IN U.S.A.

Quantum Science Corporation

680 FIFTH AVENUE, NEW YORK 19, N.Y. JUDSON 2-6404

March 11, 1964

Mr. Kenneth Olsen
Digital Equipment Corp.
Maynard, Mass.

Dear Mr. Olsen:

I would like to thank you for the courtesy extended by you and your staff on the occasion of my visit last Friday.

This visit aided greatly in my understanding of the company and its potential in the industry. I look forward to following your growth in the future.

Very truly yours,

QUANTUM SCIENCE CORPORATION

Stanford A. Fingerhood
Vice President

SAF:ac

file

DONALDSON, LUFKIN & JENRETTE, INC.
MEMBER NEW YORK STOCK EXCHANGE

INVESTMENT BANKERS
ONE WHITEHALL STREET
NEW YORK 4, N.Y.

WHITEHALL 3-0300
CABLE: PINESTOCK

March 6, 1964

Mr. K. H. Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

I would like to invite you to attend our first Corporate Pension Fund Seminar, which we have arranged for April 22, 1964. Our program (attached) includes a number of top investment, economic and pension authorities. In addition, Peter Drucker will present some challenging management thoughts during lunch.

In talking with corporate officials, we find an increasing interest in the performance and management of their pension and corporate funds. Through this seminar, we hope to provide you with some of the best current thinking in the investment and pension fund fields and an opportunity to exchange views with people having similar responsibilities in other companies.

I think you will find the program both stimulating and informative and all of us here do hope you can join us.

Sincerely,

Dick Hexter

Richard M. Hexter

RMH/pd

DONALDSON, LUFKIN & JENRETTE, INC.

CORPORATE PENSION FUND SEMINAR

UNIVERSITY CLUB, NEW YORK CITY

APRIL 22, 1964

MORNING SESSION - 9:00 A.M.

INTRODUCTION - William H. Donaldson

THE BUSINESS OUTLOOK - 1964 AND BEYOND
Alan Greenspan, President, Townsend - Greenspan and Company, Economic Consultants

SOME VIEWS ON GOVERNMENT ECONOMIC POLICY BEFORE AND AFTER THE PRESIDENTIAL ELECTION
Murray J. Rossant, Member of Editorial Board, New York Times

SUPPLY - DEMAND PROSPECTS FOR INVESTMENT CAPITAL AND THEIR EFFECT ON INTEREST RATES
Dr. Robert H. Parks, Associate Director of Economic Research, Life Insurance Association of America

OPPORTUNITIES AND RISKS AHEAD IN THE STOCK MARKET
Gerald Tsai, Jr., Vice President, Fidelity Management and Research Company

PANEL DISCUSSION

LUNCHEON - 12 Noon

MANAGING FOR GREATER PROFITABILITY
Peter F. Drucker, Management Consultant

AFTERNOON SESSION - 1:30 P. M.

PENSIONS - NATURE OF MANAGEMENT'S ROLE AND RESPONSIBILITY
Dr. Roger F. Murray, S. Sloan Colt Professor of Banking and Finance, Graduate School of Business, Columbia University
Richard L. Yake, Vice President & Director, Towers, Perrin, Forster & Crosby, Inc., Management Consultants

PRACTICAL ASPECTS OF CORPORATE PENSION FUND MANAGEMENT

Clair V. Felker, Assistant Treasurer, Standard Oil Company of Indiana

J. Parker Hall III, Investment Manager, Montgomery Ward & Co.

Edward H. Malone, Manager - Company Trusts Portfolios, General Electric Co.

Frank Wilkens, Investment Funds Manager, General Tire & Rubber Co.

Albert L. Zesiger, Investment Funds Manager, General Tire & Rubber Co.

PANEL DISCUSSION

RECEPTION - 4:30 P. M.

OTHER EVENTS

The New York World's Fair opens the week of April 20. In case you would like to get an early preview of the fair, we will have tickets available at the seminar.

Because of the fair, we suggest that you make your travel reservations at an early date. If you would like us to obtain hotel accomodations for you, just let us know your arrival date and length of stay in New York.

OTHER EVENTS

The New York World's Fair opens the week of April 20. In case you would like to get an early preview of the fair, we will have tickets available at the seminar.

Because of the fair, we suggest that you make your travel reservations at an early date. If you would like us to obtain hotel accomodations for you, just let us know your arrival date and length of stay in New York.

File copy
(original of this letter)
and copy of Ken's reply
sent to Alex Stephens to be
printed in "Laden Newsletter"

TALLY

2 March, 1964

Mr. Ken Olsen, President
DIGITAL EQUIPMENT CORPORATION
Maynard, Massachusetts

Dear Mr. Olsen:

We were informed today that one of your marketing people recently made a point of being critical of Tally products to a potential customer of yours who was seeking to specify Tally on your equipment.

This potential customer is also a very good and large user of our equipment in other applications, and his experience over several years is not consistent with the criticism which he heard.

Naturally we're disappointed to learn that your company's attitude towards our products may be so strong that it finds expression in this type of situation. Since this event is important to us, I've reviewed our relationship with your company to see if there is reasonable basis for it; I don't find one.

You evaluated one of our products about four years ago and found it wanting. About a year ago we supplied you with a product, at our expense, for several months in the strength of our belief that you would find a different result (I'm sure that a fair evaluation of your own products would produce different results over a similar period). Your organization did not get around to testing our product and we took it back. So we feel we've offered your people adequate opportunity to hold and express current opinion about Tally products.

We naturally want your company to favor our products. You're a potential customer of some importance. You also make the kind of equipment with which we like to be associated and with which we have had success elsewhere. And, of course, we want your gratuitus comments to be complimentary. The only way we can do this is by selling you on our perforators and we are going to renew our efforts to do so. In this regard two points are important:

1. We want to reintroduce you to our 60 character per second perforator Model 420. It's better than you apparently think and it has features which make it superior to the one you're using.

2. We want to show you our new high speed perforator. I've attached some advanced advertising copy which tells its story. And a demonstrator is now in your area.

I'm using a copy of this letter to invite our representative, INSTRUMENT ASSOCIATES, to renew our efforts with you. If you have any suggestions about how we might best get our message to you, I'd welcome hearing from you.

Yours sincerely,

TALLY CORPORATION

F. X. Olanie

F. X. Olanie
General Marketing Manager

FXO:lk

cc: Instrument Associates, Inc.
30 Park Avenue
Arlington, Massachusetts

TALLY®

TAPE PERFORATOR

Model P-150

FEATURES

- 150 characters per second
- Asynchronous operation simplifies input logic
- Remote backspace for error correction
- Perforator punch pin contacts verify parity of character perforated
- Perforates paper, paper-mylar, or mylar-foil tapes

APPLICATIONS

Preparation of perforated tape from:

- Digital computers
- Digital data processing systems
- Data acquisition systems
- High speed data logging systems

The Tally Model P-150 tape perforator is a high speed, panel mounted unit operating at speeds to 150 characters per second. Paper, foil, or mylar tapes of varying widths up to eight channels may be used. Tape supply and takeup is available on a separate panel.

The Tally high speed perforator uses a unique wire-spring clutch drive for each punch which allows complete asynchronous operation. This allows the perforator to be slaved to other equipment, thereby eliminating the design compromises required if the perforator is the controlling unit. The tape can be remotely backspaced allowing the user a simple error correction or modification routine.

A unique reading device is incorporated, which senses the motion of each punch pin. Either odd or even parity may be checked. Parity is checked during the punch cycle and prior to tape advance, thereby permitting the unit to stop on the character in error. No backspacing is necessary to delete or modify the incorrect character.

The high speed mechanism of the perforator is enclosed in a baffled oil case which permits quiet operation. The oil is forced through a radiator for cooling, thereby insuring long life and minimum maintenance.

OPERATION

Punching is controlled by the presence or absence of 9 customer supplied drive pulses (one for each bit level, plus one for sprocket and paper advance). Any combination of these pulses (but always including the sprocket and advance pulse) may be applied at any rate up to 150 pps. The applied pulse must be 50 v dc 1.3 + 0.1 milliseconds in duration.

If individual pulses are used to drive the data channels (including sprocket and feed) at a maximum rate of 150 cps, they must occur simultaneously within ± 25 micro seconds. The earliest data instruction for the following character shall not arrive earlier than 6⅔ m.s. after the sprocket and feed instruction.

TRANSISTOR DRIVE

Model 1660 • This unit satisfies all pulse, power and timing requirements of the P-150. Input requirements are a 6-25 volt signal shift (negative or positive going) with a rise time of 5 microseconds or less. Input signals must occur simultaneously within ± 25 microseconds.

CONTROLS

- Buzz switch for preparing tape leader
- Step switch—punches sprocket and advances tape one character
- Servo reset—restores tape handling servo system to a ready condition after loading tape

PRICES

Model P-150 tape perforator	**$2,850**
Model 1660 transistor drive	**1,400**
Model 1665 tape handler	**450**

All prices are F.O.B. factory, Seattle, Washington. Prices and specifications subject to change without notice

SPECIFICATIONS

Operating Speed
Variable from 0 to 150 characters per second
Remote backspace 0-25 characters per second

Standard Code Channels
5, 6, 7 or 8

Code Hole Size
0.072″ diameter on standard 0.1″ centers

Feed Hole Size
0.047″ diameter

Alignment
Code holes and feed holes have a common center line

Standard Tape Widths
0.687, 0.875 and 1.000 inches

Tape Handler—Model 1665
1000′ tape capacity with no overhang on reels

Input Pulse Requirements
Punch Clutch Controls
50 v, 5 amps peak, 1.3 ± 0.1 ms pulse

Drive Motor
⅓ hp, 110 v ac, 60 cps @ 2.5 amps

Feed Hole Punch
Electrically tripped, mechanically driven. Paper advance occurs as a consequence.

Code Hole Punch
Electrically tripped, mechanically driven.

Termination
Continental 250 series, 34 pin connector, mating connector supplied.

Dimensions
P 150 Perforator
19″x14″ H —projects 5½″ in front of panel, 8¾″ behind panel

Tape Handler
19″ W x 10½″ H projects 3½″ in front of panel, 4″ behind panel

TALLY

TALLY CORPORATION • P. O. BOX 2216 • SEATTLE, WASHINGTON 98111
MAIN 4-0760 • AREA CODE 206 • TWX 206-998-0551 • CABLE ADDRESS: TALLY SEATTLE WASHINGTON

BRANCH OFFICES: • CHICAGO 45, ILLINOIS • 3535 WEST PETERSON AVENUE • PHONE: 588-6710
NEW YORK 36, NEW YORK • 516 5TH AVE • SUITE 301 • PHONE: MURRAYHILL 2-0933
WASHINGTON, D. C. (Arlington, Va.) • ARLINGTON TOWERS • PHONE: 525-3777

AFFILIATE: TALLY EUROPE LTD. • 53 VICTORIA STREET • LONDON S. W. 1, ENGLAND • PHONE: ABBEY 4759

Form CDS-5 11/8/63 3M

Printed in U.S.A.

TALLY®

TAPE PERFORATORS

Series 420

Model 420 PR Reel Tape Handling

FEATURES

- 60 characters per second on paper, plastic, or foil tape
- Perforates 5, 6, 7 or 8 levels interchangeably without modification
- Asynchronous operation simplifies input and output logic
- Oil mist lubrication for quiet operation
- Integral reel tape handling

APPLICATIONS

Preparation of perforated tape from

- Keyboards
- Tape reproducers
- Digital computers
- Digital data handling systems
- Analog to digital converters

Tally Series 420 Tape Perforators are self-contained high speed punches which operate at 60 characters per second. The unit is panel mounted and designed to accept paper, foil, or Mylar tape of varying widths up to eight channels. The Model 420 PR is available with 6 or 10-inch metal or 7½-inch Lexan take-up reels. At the time of order, a purchaser should be careful to specify his choice of reel sizes.

The Tally perforator uses a unique wire clutch drive for each punch providing a non-synchronous drive that can be operated at any speed as long as the minimum interval between cycles is 16⅔ milliseconds. This enables the perforator to be slaved to other equipment rather than forcing the design compromises necessary if the perforator is controlling and the other equipment is slaved. The capstan is driven by the Tally bi-directional tape transport allowing the tape to be driven backward to effect a correction or modification of the tape already punched.

The high speed mechanism of the perforator is enclosed in a baffled oil case offering a low noise level and permitting the use of an oil mist to lubricate and cool the moving parts. As a result, the unit requires little maintenance and is unusually quiet.

OPERATION

Punching is controlled by the presence or absence of 9 customer supplied drive pulses (one for each bit level, plus one for sprocket and paper advance). Any combination of these pulses (but always including the sprocket and advance pulse) may be applied at any rate up to 60 pps. The applied pulse must be 48 v dc (or 24 v dc), 4.5 ±0.5 milliseconds in duration. Normally a common drive pulse is applied and controlled by gating switches in associate equipment.

If individual pulses are used to drive the data channels (including sprocket and feed) at a maximum rate of 60 cps, they must occur simultaneously within ±0.5 m.s. However, if data is occurring at random and results in a greater deviation than ±0.5 m.s., the following timing logic must be used: the sprocket and feed instruction shall occur simultaneously with or after the last data instruction. The earliest data instruction for the following character shall not arrive earlier than 16⅔ m.s. after the sprocket and feed instruction.

Where spark suppression is used to protect the pulse source, it must cause the coil current magnitude to approach zero (less than 10% of steady state) within 2 ms after opening the contacts. The following table lists suitable circuit component values.

Resistance of Coil	Drive Pulse	R s	C s	Inductance
220 ohms	48 volts	10 ohms	0.5 mfd	330 mh
50 ohms	24 volts	5 ohms	0.7 mfd	100 mh

A buzz switch is provided so that customer supplied pulses are fed to the sprocket punch for leader preparation.

PRICES

420 P-24	24 volt panel mounted . . .	**$1,100**
420 P-48	48 volt panel mounted . . .	**$1,100**
420 PR 24-6	24 volt 6″ takeup reel . . .	**$1,165**
420 PR 24-10	24 volt 10″ takeup reel . . .	**$1,165**
420 PR 24-7½	24 volt 7½″ takeup reel . .	**$1,165**
420 PR 48-6	48 volt 6″ takeup reel . . .	**$1,165**
420 PR 48-10	48 volt 10″ takeup reel . . .	**$1,165**
420 PR 48-7½	48 volt 7½″ takeup reel . .	**$1,165**

SPECIFICATIONS

Operating Speed
Variable from 0 to 60 characters per second

Standard Code Channels
5, 6, 7 or 8

Code Hole Size
0.072″ diameter on standard 0.1″ centers

Feed Hole Size
0.047″ diameter

Alignment
Code holes and feed holes have a common center line

Standard Tape Widths
0.687, 0.875 and 1.000 inches

Supply
1000 feet, reel

Take-up
6″ or 10″ metal, or 7½″ Lexan reels

Input Pulse Requirements
Sprocket & Paper Drive Clutches (in parallel)
48 v, 110 ohms, 4.5 ±0.5 ms (24 v, 25 ohms)

Punch Clutches
48 v, 220 ohms, 4.5 ±0.5 ms (24 v, 50 ohms)

Drive Motor
1/20 hp, 110 v ac, 60 cps @ 1.7 amps

Feed Drive Hole
Electrically tripped, mechanically driven. Paper advance occurs as a consequence.

Code Hole Punch
Electrically tripped, mechanically driven.

Termination
Continental 250 series, 34 pin connector, mating connector supplied.

Dimensions
420 PR 19″ w x 10½″ h x 11½″ d, no overhang with 6″ reel, with 10″ reel, overhang is 2″ on side, none below panel.
Shipping weight (all models): 48 lbs.

TALLY®

TALLY CORPORATION • 1310 MERCER STREET • SEATTLE, WASHINGTON 98109
MAIN 4-0760 • AREA CODE 206 • TWX 206-998-0551 • CABLE ADDRESS: TALLY SEATTLE WASHINGTON

BRANCH OFFICES: • CHICAGO 45, ILLINOIS • 3535 WEST PETERSON AVENUE • PHONE: 588-6710
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CDS-1–10/1/63 5M

Printed in U.S.A.

YOU CAN TRUST TALLY'S P-150; IT CORRECTS ITS OWN MISTAKES

We have made almost 3,000 perforators; they have all made mistakes. Try as we may, we can't build one that doesn't (neither can anyone else), so we built the next best thing - a perforator that can tell when it makes a mistake and can correct it, all at 150 characters per second. Add this feature to Tally's proven quality and you have the industry's most dependable high speed perforator. You can trust Tally's P-150.

HERE'S HOW IT WORKS:

Precious metal parity contacts are built into the punch pin assembly. Your system can interrogate these contacts and check the parity of each character punched - all in less than 2 inches.

Tape advance follows this interrogation. If an incorrect character was created, your system can (1) inhibit tape advance; (2) instruct the perforator to overpunch the character with an all hole delete code; (3) advance tape to the next character position; and (4) try the same character again.

This routine can be repeated any number of times, but after three attempts you may wish to instruct the system to stop to find the problem. Frequently it's not in the perforator.

HERE'S HOW YOU CAN USE IT:

You may need accurate paper tapes, especially if they are used for machine or computer programming, photo composing or any number of data logging purposes. To get accuracy, you may be designing a system to include post reading the tape for error and going through a clean up routine which takes time and more equipment.

With Tally's P-150, you can design your system around the perforator's ability to give you accurate tape. These are the lines we give you to communicate with the perforator:

1. Eight data lines and a sprocket line.
2. A line to introduce the parity test signal.
3. Two lines to reflect the parity condition, one odd, one even.
4. A line with which to advance tape.
5. A line with which to reverse tape.

Use the Tally P-150; it gives you clean tape with less time, equipment and cost. And it's dependable.

HERE ARE SOME OTHER IMPORTANT REASONS TO CONSIDER THE P-150:

- A die block of the hardest material we can use, and punch pins which are precision honed and individually fitted to approximately .000025 inch tolerance for long life punching of all standard and exotic tapes.

- Positive tape feed control by Servo Motors on reeling mechanisms. This unloads the tape in the punching zone and helps insure accurate longitudinal hole spacing.

- Positive guidance on both edges of the tape for 2 1/2 inches on both sides of the perforating zone to insure accurate edge to hole spacing.

- Powered auger for positive chad removal.

- Panel mounted for easy design integration.

- Bi-directional tape movement for error correction.

- Asynchronous operation. The P-150 accepts data signals at any timing interval of 6.5 ms or more.

And the price is right:

Mechanism	$2,050
Drive Electronics	1,400
Tape Handler (1000 ft. capacity)	450

Inquire today; the P-150 may solve your design problem.

YOU CAN TRUST TALLY'S P-150; IT CORRECTS ITS OWN MISTAKES

We have made almost 3,000 perforators; they have all made mistakes. Try as we may, we can't build one that doesn't (neither can anyone else), so we built the next best thing - a perforator that can tell when it makes a mistake and can correct it, all at 150 characters per second. Add this feature to Tally's proven quality and you have the industry's most dependable high speed perforator. You can trust Tally's P-150.

HERE'S HOW IT WORKS:

Precious metal parity contacts are built into the punch pin assembly. Your system can interrogate these contacts and check the parity of each character punched - as it is being punched.

Tape advance follows this interrogation. If an incorrect character was created, your system can (1) inhibit tape advance; (2) instruct the perforator to overpunch the character with an all hole delete code; (3) advance tape to the next character position; and (4) try the same character again.

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File

INTEROFFICE MEMO

SHOWALTER-JUDD, INC.

MAR 2 1964

TO: Ken Olsen, President

DATE: 2-26-64

AT: Digital Equipment Corporation

FROM: Oliver J. Judd

SUBJECT:

Dear Ken:

I received your On-Line magazine dated January-February 1964 and read the article concerning the HAVOC Computer. It occurred to me on reading this that a variation of this computer might very well represent a substantial market for the PDP-5 Digital Computer. However, it would not be called a PDP-5 Digital Computer.

Every medical office has electroencephalographs and EKG machines. Except for the way the information is put into these machines, the results are somewhat the same. A strip of paper is generated which may be anywhere from two or four channels to sixteen channels and on this record is analog information which is (it is my understanding) somewhat difficult to interpret. The application of the instrument to the patient is relatively straightforward. Electrodes are fastened to the patient, a measurement is taken, it is trimmed with a scissors by the operator and returned to the doctor for diagnosis. The average electroencephalograph has a price tag in the neighborhood of $10,000. It is a most unreliable device and no major contribution in this area has been made for many years.

As a device for acquiring data, the PDP-5 is about as fast as any now on the market. We have A-D converters, multiplexors which are also extremely fast. It would be interesting to speculate as to the applicability of a small general purpose digital computer whose input would be by punched paper tape and whose function could be either that of an electroencephalograph or an electrocardiograph machine or that of a general purpose digital computer which would gather this information, process it, possibly average it, and give a record to the physician which would come from an XY plotter rather than from a one inch peak to peak signal which is usually obtained from an electroencephalograph. I would imagine that properly introduced to the market throught your progressive medical schools in the East, that this package could sell as many PDP-5 type computers as any other single promotion program which you might generate. I would like to emphasize that there would be no soft wear associated with this package. Which ever function was going to be performed by this machine would be set up within the machine by feeding in a tape. The customer, unless he so desired, need not really know that he has a general purpose digital computer. Once he

INTEROFFICE MEMO

SHOWALTER-JUDD, INC.

TO: Ken Olsen, President

DATE: 2-26-64

AT: Digital Equipment Corporation

FROM: Oliver J. Judd

SUBJECT:

has "grown up a little" we could reveal to him what a prise he had.

Cordially,

Oliver.

Oliver J. Judd

OJJ/ll

cc: Nick Mazzarese

P.S. It may be possible for one PDP 5 to handle several patients at once since so much time is required to apply electrodes.

O.J.

Ken Olsen, President

Digital Equipment Corporation

Oliver J. Judd

2-26-64

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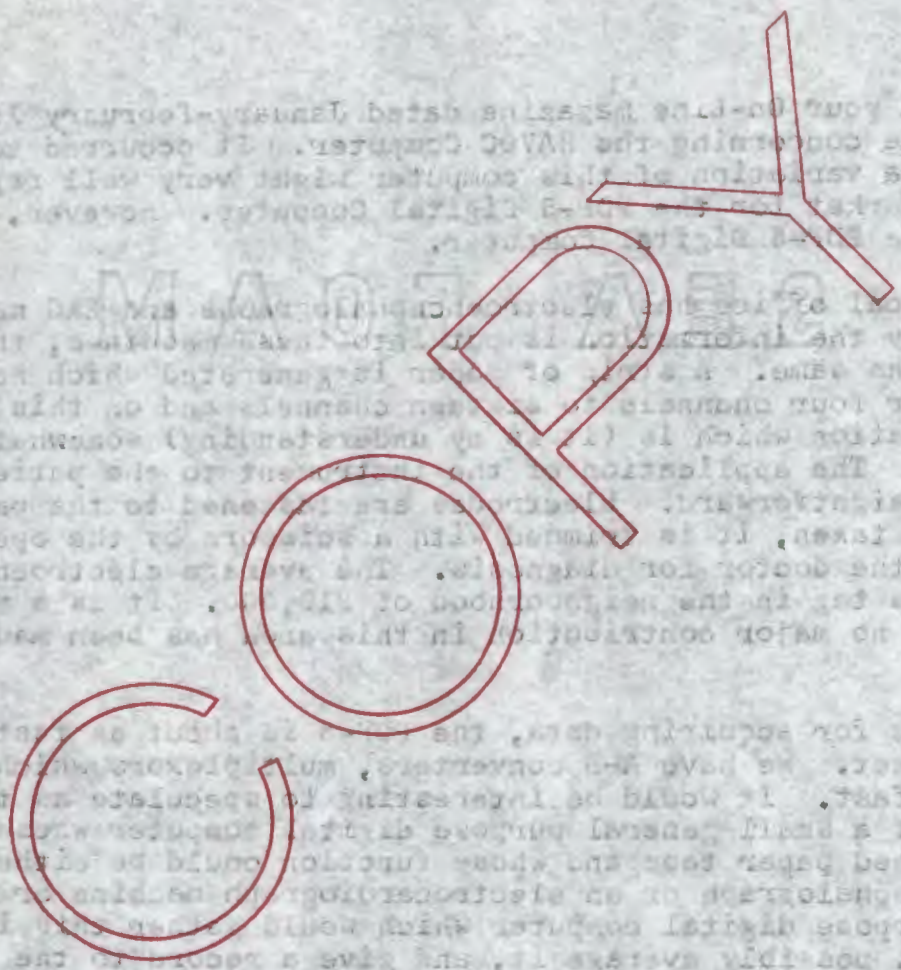

has "grown up a little" we could reveal to him what a prise he had.

Cordially,

Oliver J. Judd

OJJ/ll

cc: Nick Mazzarese

PHILCO CORPORATION

A SUBSIDIARY OF Ford Motor Company

LANSDALE DIVISION • Church Road, Lansdale, Pennsylvania

February 21, 1964

Mr. Kenneth Olsen, President
Digital Equipment Corporation
146 Main Street
Maynard, Mass.

Dear Mr. Olsen:

Dr. Wanlass has talked with me about his recent visit with you. We certainly welcome the opportunity to acquaint you in detail with Philco's microelectronics program and capability. In order to properly do this, we would like to invite you to visit our plant and talk with our top people. Please call us if you find it convenient to make such a visit (Area Code 215, 855-4681).

In the meantime, we will provide you with certain information regarding our product line and plans. This information will be forwarded to you within two (2) weeks when certain of the material is delivered from the printer.

We will also take the opportunity to call you in the near future with respect to visiting your plant. I am hopeful that we will be able to impress you with our capability in the microelectronics field and to work with you on certain of your circuit applications. Thank you for your interest in Philco.

Very truly yours,

C Sutcliffe

C. H. Sutcliffe
Manager
Microelectronics Operation

CHS:dd

file

PHILCO CORPORATION
A SUBSIDIARY OF Ford Motor Company

OFFICE OF THE VICE PRESIDENT
TECHNICAL STAFF

PHILADELPHIA 34
PENNSYLVANIA

February 20th, 1964

Mr. Kenneth H. Olsen
President
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Ken:

I enjoyed the opportunity that I had during my recent trip to Boston to meet with you and Harlan and learn a little more about your company. I appreciate the time the two of you took to acquaint me with the many interesting facets of your business.

I have not yet had an opportunity to obtain the data you requested from our Lansdale Division but as soon as I collect the available data on our microelectronic circuits I will forward this to you. You should be receiving this within a week.

Again, let me extend you and Harlan an invitation to visit with us at Philco at your convenience. I shall look forward to seeing you again during future visits to the Boston area.

Best regards.

Sincerely yours,

Dean

S. Dean Wanlass

b

February 20, 1964

Mr. Lincoln E. Barber, Jr.
Assistant Vice President
The National Shawmut Bank
40 Water Street
Boston 6, Massachusetts

COPY

Dear Lincoln:

As we approach a DEC borrowing requirement you would no doubt like to know what on earth became of that boodle of cash so recently in our till.

The story is best begun with the close of August business 1963. At that time, we were sitting on $975K of cash and short term paper. From September thru January our profit was about $270K yet the cash is almost gone.

The biggest leak in the sieve has been the tax collector – IRS and the Commonwealth of Mass., took home a total of $966K of our marbles.

The number two culprit has been inventory. Performing in accordance with a production plan as derived under the principles of Industrial Dynamics we have deliberately built up the inventory by about $400K since August. This, of course, leaves us in a much better posture from the point of response to the customary fourth Quarter new order up-surge.

There are lesser pluses and minuses as one proceeds down the balance sheet but the above two are the heart of the matter.

Our last Bank borrowing extended from September '61 to November '62 and crested at $800K. It is not contemplated that this new borrowing will be as severe or as prolonged.

At this writing it is anticipated that we will need upwards of $400K spread out over March and April. We'll keep in touch as to precisely when and how much.

Sincerely,

George T. O'Dea
Treasurer

GTO'D:nes

bcc: Kenneth Olsen
Harlan Anderson
Dick Mills

computers
and automation

The magazine of the design, applications, and implications of information processing systems.

815 WASHINGTON STREET
NEWTONVILLE 60, MASSACHUSETTS
DE 2-5453

February 19, 1964

Mr. Kenneth Olson
Digital Equipment Corp.
Main Street
Maynard, Mass.

Dear Mr. Olson:

It is a pleasure to enclose with this letter, a copy of a market information research program proposal which I believe will interest you. It has been prepared by an associated firm, the International Data Corporation.

This proposal outlines a market research program of major importance to every firm selling, or planning to sell, a product or service to the electonic computing and data processing field. The goal of this research program is to compile a detailed data file on every digital computer system installed or on order in the United States and abroad.

The closing date for acceptance of a sponsorship in this program is March 15, 1964. A letter from an officer of your firm, accompanied by one-half of the sponsorship fee for the first year, constitutes acceptance of a sponsorship in this program.

I will be pleased to try to provide any additional information you might desire about this market information research program.

Yours sincerely,

Patrick J. McGovern

Patrick J. McGovern
Associate Publisher

ELECTRA MANUFACTURING CO.
800 NORTH 21ST STREET
INDEPENDENCE, KANSAS

GEORGE D. BUTLER
PRESIDENT

February 19, 1964

Mr. Kenneth Olsen, President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Mr. Olsen:

On March 17 at 2:00 pm a group of our top marketing and executive officer personnel will be visiting your plant to tell your procurement and technical people about a significant new development. Out of a rather chaotic assortment of resistor products being offered your circuit designers, component engineers and procurement personnel, we have developed a new line of products which will cover most of the resistor spectrum with cost balanced to performance.

This new product line which we are introducing this month is the result of several years work and a multi-million dollar investment program in mechanism and new plant facilities. It will result in offering your company increased value in component procurement as well as considerable savings in time and other overhead costs associated with selection and procurement of components. Messrs. Richard Best, Robert Hughes, Bert Studney, Donald White, Russell Doane, Henry Crouse and Paul McGaunn of your organization have been invited to attend this meeting and I would personally like to extend an invitation to you and to any others in your organization who are interested in value analysis work on component selection.

Very truly yours,

George D. Butler

George D. Butler

SOME THOUGHTS ON THE PDP-6 MAINTENANCE MANUAL

Let me begin with some observations on my interviews with PDP-1 and PDP-4 owners. When writing the logic portions of these manuals, I intended to aim the discussion at essentially a middle level -- that is, I intended to write a fairly detailed and complete discription of exactly how the machine works so that an average technician could understand it without any great difficulty. I felt that a very sophisticated engineer having considerable familiarity with digital equipment might find it a little boring but that such a person would be more likely to be in charge of a maintenance group rather than be attempting to maintain the machine himself. At the other end of the scale I felt it would not satisfy anyone who desired the more military type of approach. Happily the interviews seemed to indicate that the relatively intelligent technician was the proper level to write to. Only one (Raytheon) suggested that a more detailed manual would be preferred and he admitted that he felt this way because he was more used to military manuals and equipment. At the other end, people at LRL and AECL felt that they really didn't need the manual to learn the machine but these people did take the course offered at DEC and they do use the manual for reference when working with the machine.

Between these two extremes everyone felt that the writing was at approximately the level of the people that were maintaining the equipment. The only remarks concerning any difficulty in the material were in the area of the memory. Both of the people who mentioned this specifically also mentioned that this did not necessarily indicate a failure in the writing but rather that the memory is the most difficult part of the machine to understand. This possibility was reinforced by the people at LRL who claimed to use the manual only for reference but who in fact referred most often to the memory section because this was the hardest part of the machine to remember. I can make no specific recommendations on the writing from this except to suggest that we take extra care to organise and write the memory section clearly and logically.

Considering the other portions of the manual everyone was quite pleased with the functional block diagram description of the equipment and was quite opposed to any reduction in the amount of material included in that portion. On the other hand almost no one read either the instruction list or the operation chapter relying instead on the little blue book. This would seem to indicate eg that the machine operator does not wish to bother with a huge maintenance manual. Perhaps if we include an operation chapter it should be so organised as to be printed also as a separate small manual for use by the operator. I further feel that if the instruction material is to be printed in a

small booklet like it was for the PDP-1 and PDP-4, it should be prepared by the writer of the logic so that it correlates better with the computer logic than the little blue book did in the case of the PDP-1. Of course most of the people to whom I spoke were those in charge. At the very end of my interviews I spoke with a Foxboro technician who had just been assigned to the PDP-4 and had spent the previous four or five days reading the manual for the first time. He read both the instruction list and the operation chapter and was very much against having them removed from the manual on the grounds that they provided him with information that he needed to understand the computer and that he got it at the point in his learning process that the writer felt that he should receive it and without looking in some other manual for it.

The other two portions of the manual are, of course, circuits and maintenance. Naturally no one sat down to read the circuit chapter. Whenever a module failure occurred the technician would go first to the schematic and then only if he could not understand the circuit thoroughly from looking at the schematic would he go to the circuit description. Everyone felt that even though they used the material very little they all wanted it there so they could use it whenever necessary. Of course the machines are still very new and many are still on warranty so there have been very few module failures. Perhaps more use will be made of the chapter as the machines become older and module failures increase. Almost everyone mentioned, however, that even though detailed descriptions of more difficult circuits are desirable, excessively detailed descriptions of mere inverters, diodes and the like were not necessary.

Lastly, the maintenance. Most owners made their initial spare module order from the list provided in the manual. Except in the case of modules introduced after publication (eg the 1538 for PDP-1) no one has been caught without a spare for one that failed. Of course, this doesn't mean too much at this time since there have been so few failures. There were complaints about other spares, however. In particular AECL, after experience with the equipment, made up its own list of reader spares. Perhaps we should ask them for a copy of the list for reference both when composing the PDP-6 spares list and perhaps for use in revising those of PDP-1 and PDP-4. In the case of the troubleshooting information everyone felt that this was aimed primarily at giving a technician a general background in how to troubleshoot digital equipment and most felt that this was the best approach rather than attempting to deal too much in the detailsand intricacies of any particular part of the machine. Those with considerable background in such work did not bother to read it. All those without such background found it useful. Only one (Raytheon) wanted a considerably expanded maintenance which would explain in great detail all of the things that might go wrong with the computer.

Thus it would seem that we should aim the PDP-6 maintenance manual at the same general level as the PDP-1 and PDP-4 manuals. The only consistent criticism of those manuals was the inclusion of the instruction list

and an operation chapter, both of which were felt to be in the little booklet – although the booklet did not include information on loading tapes etc., which is definitely necessary to the operator. The properties of the manual most consistently praised were completeness and organisation. Almost every respondant remarked that whenever he went to the manual looking for some specific item he was always able to find it relatively easily. People also felt that everything was written with considerable clarity except perhaps the memory. Several people remarked that whenever they wished to add equipment to the computer or do anything unusual with it they were able to find the information they needed, eg the necessary signal connections for adding a piece of in-out gear.

Now to consider the structure of the PDP-6 Manual itself. Let us assume that there will be at least several manuals, the maintenance manual covering the arithmetic processor and at least a pair of subsidiary manuals covering memory and in-out processor. I would recommend that the overall organisation be the same as the previous manuals. I would recommend, however, that since the PDP-6 is a very large machine which will undoubtedly be sold in smaller numbers than the previous smaller machines and will in all likelihood be installed by qualified DEC personnel, the installation portion of the manual should be dropped. What little an installation section contributes to the understanding of the equipment by the reader (such as giving him an idea of how the whole thing is put together etc.) could easily be included in general descriptive material at the beginning of the manual. If it is felt that installation information should be included then I would recommend that a separate installation manual covering the entire system be printed rather than breaking up the material among the various instruction manuals.

I think that from the point of view of instruction the arithmetic processor should be considered the basic part of the entire system and its manual should reflect this factor. The main manual should therefore include not only detailed information specific to the arithmetic processor but also general information on the system as a whole. The overall structure should be the same as in previous manuals: general description, functional description, operation, logic, circuits and maintenance. I feel the operation should be included for completeness sake, but that it should be also printed as a separate small manual for use at the console. The functional description need not contain an instruction list (other than perhaps a handy table); instead, that chapter should refer to the programing manual indicating that if anyone is going to maintain the machine they must certainly know howtto program it, and merely add any extra programing information that is necessary from a maintenance point of view. The circuit chapter should include all circuits used in the arithmetic processor and any minor variations of them that might be used only in some other part of the equipment. For example, inverters should be described only in the main manual

even though one particular inverter type may be used only in memory. Maintenance should include all information particular to the arithmetic processor as well as all general information affecting the system as a whole.

Manuals for memory and in-out processor should be considered as subsidiary to the main manual. They should include general description, functional description, logic and whatever circuits and maintenance are unique to the particular unit. The high speed memory should probably be discussed in the main manual rather than with the regular memory or in a separate manual. The standard in-out equipment on the other hand should probably be discussed separately. Since the in-out equipment can be controlled either from the arithmetic processor or through an in-out processor if included in the system the standard in-out equipment should probably all be included within a single manual. This manual should give complete information concerning control of the equipment from the arithmetic processor or the in-out processor. Individual pieces of optional in-out equipment should, of course, be discussed in separate manuals which should be considered supplements to the main documentation.

Finally, I would recommend that we be allowed to write the programing manual after writing the detailed logical description of the equipment. By this I do not mean that we should necessarily write the sample programs and so on but rather we should be given the sample programs by DECs programers and any accompanying remarks or write ups which they may have in draft form. I recommend this in order to ensure completeness of the programing manual and consistency in notation with the rest of the PDP-6 documentation. Several people complained about the incompleteness of DECs programing information. As a specific example Ed Benz of NSA complained (along with several other things) that nowhere is the programer told how to return from a sequence break in PDP-1 if the machine has more than one memory. I informed him that this and the other things he mentioned were described in detail in the logic part of the maintenance manual but he felt that the programer should definitely not have to go there to find them out. In other words I feel that whoever writes the programing manual should not be merely an editor working over material provided by programers but should instead be someone who knows the machine logic.

Lastly, although they are not a part of the maintenance manual, I would like to comment on the maintenance programs. All PDP-1 users praised the MAINDEC programs both for the quality of the programs themselves and also for the quality of the write ups which contributed so much to their usefulness as maintenance aids. Glen Strahl of LRL remarked that they have changed their MAINDEC programs and that one can do this effectively only if one completely understands the programs, and such understanding was provided by the accompanying write ups. On the other hand, the two PDP-4 users to whom I talked both complained about the

inadequacy of their maintenance programs. Not because CONTEST is inadequate but rather its usefulness is seriously impaired because it lacks an adequate write up. I would therefore recommend that the type of MAINDEC programs and write ups provided with PDP-1 be provided also with PDP-6.

DRAFT
2/19/64 H. Anderson

Professor John M. Blatt
University of New South Wales
Sydney, N.S.W.
Australia

Dear Professor Blatt:

I want to thank you for taking the time from your busy schedule at New York University to come to Maynard to see the PDP-6 and discuss the software planned for it. I particularly want to express my appreciation to you for your excellent letter giving your frank reactions to our efforts on software.

I completely agree with your comments concerning ~~the desirability of the~~ PDP-6 hardware, the importance of having excellent software provided by the manufacturer, and the difficulty of providing excellent software.

I must further agree with you that some of the people doing the software work do present an easy going impression to a visitor. In spite of this they are a very creative, hardworking group which is keenly aware of the state of the programming art. Harrison Morse, III, whom I'm sure you met, has been active in software development at MIT prior to joining DEC and is now a member of the American Standards Association Programming Committee. I believe it is possible that you did not meet all of the people

working on PDP-6 programming during your visit. Our only regret as a company is that we did not start assemblying a qualified programming group sooner so that more of their efforts would not be available as useful software. Incidentally, this group did produce the PDP-4 Fortran Compiler.

As a result of your comments, Gordon Bell, who designed and supervised the construction of the PDP-6 hardware, is now spending full time directing the technical and planning aspects of the PDP-6 software. He has been relieved of all PDP-6 hardware responsibilities. He has started by reviewing the detailed technical specifications for the software and these will be issued as a DEC document soon. Second, he will review the detailed assignments of people to the various parts of the job and coordinate the schedules of the parts. This schedule will include a limited field environment trial of the software, preparation of manuals, and training of instructors. Incidentally, the first customer delivery of a PDP-6 which uses the time sharing programs, monitor programs and Fortran will not occur until approximately November of this year.

Concerning manpower on the PDP-6 software, we are strongly considering having Adams Associates do the library subroutines. In addition, we have added two senior programmers to the group since you were here. One of these was familiar with PDP-6 programming prior to joining the group. Incidentally, I should point out that we have another PDP-6 programming group totally unrelated to the software group in personnel or functions. This is the group preparing maintenance and diagnostic programs. This group appears to be ahead of schedule at the present time and could possibly supply some experienced PDP-6 coders to assist in the software work.

In summary I agree with your comments and would like to tell you that DEC management recognizes the importance of providing advanced high quality software to match the PDP-6 hardware. I will send you copies of our internal company documents on software specification as they evolve and the results of Gordon Bell's review of the schedule and plans in this area.

Thank you again for your comments and we are confident that we must and can provide adequate software for your use of the PDP-6.

Sincerely, HEA, VP

February 4, 1964

COPY

Mr. Ted G. Johnson, Esq.,
Digital Equipment G.M.B.H.
8 Munchen 22
Maximilianstrasse, 26
Germany

Dear Ted:

Your friend Peter Pauling has done an excellent job of evaluating the problem of connecting a Hilger and Watts four circle diffractometer to a PDP-5. It is quite clear to me how position information is fed to the computer using the moire fringes and the photodetector, but the means for controlling the position motors and avoiding "hunting" will have to be further explained.

The company is strongly interested in this application. I am already working on a neutron diffractometer for an Army reactor group (proposal stage) so we may soon have some experience with this equipment. Ken Olsen is checking with an acquaintance on the possible size of the market.

I'm enclosing a ball-park cost estimate of the PDP-5 control system. However, one part is not included: the analogue portion of section A. Presumably this is what controls the position motors. If you can clarify their operation, I'll be glad to price it out.

A constant question that we must consider on a new

product of this variety is what kind of programming is needed, and who is going to do it? If you have any suggestions about this, please let me know.

Best Wishes,

John Allen Jones

JAJ:jb

Enclosures: 3 new PDP-5 price lists
estimate of Hilger and Watts interface

cc: Ken Olsen

Interface for Hilger and Watts Diffractometer to PDP-5

A.	input to program interrupt from 4 phototransistors	2-4605's 1-4113	$ 152 68
B.	datum lines	1-4605	76
C.	pre scaler	1-4225	112
	data break modification for increment mode		500
D.	clock unit		1000
E.	10 solenoids	4-4605's 4-4682's	304 720
	rack and power supply		400
	overhead, etc. @ $60/module	13 x 60 =	780
		Total	$4110

It might be desirable to bring more than one device through the data break. This would require a Type 120 Multiplexor, which costs $3000.

Note that the above pricing assumes all signals will come in at DEC standard voltages. Where this isn't true, an added cost of $60 per line can be expected.

HEADQUARTERS
BOSTON CONTRACT MANAGEMENT DISTRICT
EASTERN CONTRACT MANAGEMENT REGION
AIR FORCE SYSTEMS COMMAND
UNITED STATES AIR FORCE
BOSTON ARMY BASE
BOSTON 10, MASSACHUSETTS

REPLY TO ATTN OF: REIOB

31 Jan 1964

SUBJECT: Results of Inspection of Plant Security Procedures, Methods and Physical Safeguards.

TO: Digital Equipment Corporation
Attn; Mr. Kenneth H. Olsen, President
149 Main Street
Maynard, Massachusetts

1. A recent recurring security inspection of your facility on 28 January 1964 disclosed certain deficiencies which are listed on the attachment to this letter together with the requirements imposed for correction to ensure compliance with your Security Agreement in the areas indicated.

2. It is requested that this Field Office be advised within thirty (30) days from this date of the corrective action taken with special emphasis on prevention of recurrence.

3. Pursuant to the provisions of Section VI of your Security Agreement (DD Form 441) any costs involved in the corrective action does not obligate Government Funds unless specifically authorized by a Government Contracting Officer.

4. The courtesy and cooperation extended during the inspection is appreciated.

Marshall E. Messenger

MARSHALL E. MESSENGER
Inspector in Charge
BISFO, ECMR

1 Atch
List of deficiencies

Digital Equipment Corporation
Attn: Mr. Kenneth H. Olsen, President
149 Main Street
Maynard, Massachusetts

Addendum to REIOB letter dated 31 Jan 1964.

a. Officers of the company who are also officers, directors or executive personnel of wholly owned foreign subsidiary companies, are foreign representatives and must execute non-disclosure certificates; official notice of their execution shall be made a matter of record in the organization's Board meetings; and two copies of the individual certifications and minutes of the Board shall be furnished the cognizant security office. (paragraphs 3q(1) and 16e of the Industrial Security Manual (ISM)). DD Form 441-s (Certificate of Non-Affiliation) must be completed and two copies submitted to Eastern Contract Management Region (ECMR). Also submit a certified list of all officers and directors, their citizenship and clearance status.

b. Four uncleared directors must either be cleared Secret or excluded from access to classified data by official action of Board of Directors. If excluded, two copies of minutes of Board meeting must be submitted to ECMR (paragraph 16a(2) of the ISM).

c. Standard Practice Procedures must be revised to reflect current requirements of the ISM dated 31 December 1962 and to adequately reflect the security procedures of your facility. (paragraph 5q of the ISM)

Kenneth H. Olsen, President and General Manager
Digital Equipment Corporation
146 Main Street
Maynard, Massachusetts

Dear Mr. Olsen:

On behalf of Barnaby C. Keeney, President of Brown University, and the Brown University Corporation, I take great pleasure in inviting you to attend the initial event of the Brown University Associates, a new organization that is described in the enclosed brochure.

The program will be held on the morning, afternoon and evening of January 28, 1964, on the topic of "The Economics of Equal Employment Opportunity." It has been planned with the cooperation of the Advisory Council to the President's Committee on Equal Employment Opportunity and the council's chairman, G. William Miller, President of Textron, Inc.

The leading businessmen of New England are being invited to attend.

The purpose is to discuss in reasoned terms the effects of racial discrimination on the American economy, and to explore areas in which business leaders might make contributions to the ideal of equal employment opportunity.

President Johnson, while he was still Vice President and chairman of the President's Committee on Equal Employment Opportunity, had agreed to address this conference. It now appears that the burdens of the Presidency will make his appearance impossible. Adlai E. Stevenson, United States Ambassador to the United Nations, has been invited in his place to address the evening session.

Additional details on the conference are enclosed. I hope you will be able to join with us at this important meeting.

Sincerely yours,

Howard S. Curtis

Howard S. Curtis
Secretary of the University

REGIONAL CONFERENCE
OF BUSINESS AND COMMUNITY LEADERS

Sponsored by Brown University
and the Plans for Progress Advisory Council of the
President's Committee on Equal Employment Opportunity

JANUARY 28, 1964

Theme: # THE ECONOMICS OF EQUAL EMPLOYMENT OPPORTUNITY

9:00 – 9:45 a.m.	REGISTRATION — *Faunce House*
10:00 – 10:45 a.m.	GENERAL SESSION — *Sayles Hall*
	Welcome BARNABY C. KEENEY, *President, Brown University* WALTER H. REYNOLDS, *Mayor, City of Providence* JOHN H. CHAFEE, *Governor, State of Rhode Island*
	Address HOBART TAYLOR, JR., *Executive Vice Chairman* *President's Committee on Equal Employment Opportunity*
11:00 – 12:30 p.m.	PANEL SESSIONS
	Panel 1 Community Relations
	Panel 2 Matching Skills with Opportunities
	Panel 3 Education and Training
	Panel 4 Economic Growth Through Equal Employment Opportunity
1:00 – 2:00 p.m.	LUNCHEON — *Sharpe Refectory*
2:15 – 3:45 p.m.	*Panel 5* Action Programs for Equal Employment Opportunity
4:00 – 4:30 p.m.	GENERAL SESSION — *Sayles Hall*
6:00 – 7:00 p.m.	RECEPTION
7:30 p.m.	DINNER — *Sharpe Refectory*
	Introduction JOHN O. PASTORE, *United States Senator, R. I.*
	Principal Address ADLAI E. STEVENSON, *United States Ambassador to United Nations*

"How can we best hammer out clear-cut programs that will lead to the elimination of bias and prejudice and provide for the expansion of free and equal opportunity for employment of all men and women, regardless of race or color or religion?"

President
LYNDON B. JOHNSON

Among the outstanding men we have asked to consider this question, during the forthcoming conference at Brown University, are:

FRANK H. BOWLES — Director, Education Programs, Ford Foundation and former president of the College Entrance Examination Board.

LYLE CARTER, JR. — Deputy Assistant Secretary of Health, Education and Welfare, and former New York attorney.

JOHN H. CHAFEE — Governor of the State of Rhode Island and Providence Plantations, former State Representative and lawyer.

EDWARD F. DENISON — Senior Staff Member, Brookings Institution and highly regarded economist.

NATHANIEL GOLDFINGER — Director of Research, AFL-CIO.

BARNABY C. KEENEY — President of Brown University and nationally known educational leader.

THEODORE W. KHEEL — Chairman, New York City Mayor's Committee on Job Advancement and outstanding labor attorney.

G. WILLIAM MILLER — President, Textron Inc. and Chairman, Plans for Progress Advisory Council of the President's Committee on Equal Employment Opportunity.

J. O. NICKLIS — President, Pitney-Bowes, Inc.

N. THOMPSON POWERS — Special Assistant to the Secretary of Labor.

MAHLON PURYEAR — Associate Director, National Urban League and Director of Skills Bank.

PHILIP TAFT — Professor of Economics, Brown University and widely known labor mediator and arbitrator.

HOBART TAYLOR, JR. — Executive Vice Chairman, President's Committee on Equal Employment Opportunity and prominent Michigan attorney.

R. A. WHITEHORNE — Manager, Personnel Research and Service, IBM and member Plans for Progress Advisory Council.

RESERVATION FORM

Please Return To:
MR. HOWARD S. CURTIS
Secretary of the University
Brown University
Providence, R. I. 02912

I plan to attend the Brown University conference on "The Economics of Equal Employment Opportunity" to be held at the University on January 28, 1964.

NAME_____

FIRM _____ TITLE_____

I shall be accompanied by the following members of my firm:

1. NAME_____ TITLE_____

2. NAME_____ TITLE_____

The conference fee, which includes lunch and dinner, is $35 a person. Please return a check with this form. Make checks payable to Brown Univ.

Check the panel which you would prefer to attend.

- #1 Community Relations ☐
- #2 Matching Skills to Opportunities ☐
- #3 Education and Training ☐
- #4 Economic Growth Through Equal Employment Opportunity ☐

General Conferences

THE ECONOMICS OF EQUAL EMPLOYMENT OPPORTUNITY

On January 28, 1964, the University will offer an all-day conference for business and community leaders on The Economics of Equal Employment Opportunity. The main speakers will be men of national prominence who will address themselves to the problems that arise from racial discrimination in the American economy.

URBAN RENEWAL

In the Spring, at a date to be determined later, the University will present a similar program on the subject of Urban Renewal. Experts in the field will discuss such things as the effectiveness of slum clearance, the economic effects of redevelopment programs and the social aspects of urban blight and renewal.

BROWN UNIVERSITY ASSOCIATES

The opening sentence of the Brown University Charter, approved by Rhode Island's colonial legislature in 1764, comes quickly to the question of Brown's purpose. "Institutions for liberal education," it says, "are highly beneficial to society by forming the rising generation to virtue, knowledge, and useful literature . . ." As Brown now prepares to enter its third century, this ancient statement still reflects in large part the basic reason for the existence of the University.

Naturally, however, there are differences in emphasis between what Brown was doing in 1764 and what it seeks to do today. For one thing, the University's preoccupation with "the rising generation" is not as total as it was 200 years ago. In a growing number of ways — through lectures, convocations and similar programs — Brown is addressing itself to the older generations that have sired the students attending college today. Brown is reaching out as never before into the community that surrounds it.

This is a natural development because the liberal university has acquired new dimensions from the dynamics of modern society. Contemporary technology has changed the ways of man, and it has also altered the lot of the private university.

Without question, today's society and today's technology could never have evolved as they did without the knowledge and educational leadership furnished by the private universities of America. This is not a new idea, but neither is it one that is widely understood. Despite the volcanic production of new concepts by these universities, there has often been a lag (and sometimes a perilously long one) between the creation of ideas and their application by those outside the university walls.

In short, there has not been good communication between our universities and the surrounding world that directly or indirectly supports them. Too few ways have been found to profit from a dialogue. Brown is now attempting to rectify this situation by developing an organization of community leaders to bridge the gap between the campus and industry, between the lecture hall and Main Street.

The organization will be known as the Brown University Associates. Through the Associates program, the University hopes to attract the help of thoughtful citizens who would like to join with Brown in a common enterprise of conversation and learning.

Brown has contemplated this move for several years. We have considered such obvious topics of discussion as the research being conducted in physics, engineering and chemistry, as well as some of the less known advances being made in biology, psychology, economics and social science. We have also explored the relevance of political science, religious studies, philosophy, humanities and the fine arts, and we have concluded that the University and its community can learn much from one another in all of these fields.

It is our hope that the Associates program will provide the means for the desired exchange in several ways.

- Through general conferences bringing together members of the Brown faculty, national authorities and Brown University Associates to consider and become better informed on current issues.
- Through the establishment of specialized programs designed for specific interests shared by members of the Brown faculty and the Associates.
- Through special notices welcoming the Associates to regularly scheduled University activities.

It is hoped that the Associates will support their end of the exchange by furnishing the University with information of interest to the faculty and administration.

Thus the Associates program will be a mutual assistance arrangement, capitalizing on the permanent and lively presence of a liberal and independent University. Membership and conference fees will be set at a level necessary to maintain the program.

Projected Specialized Programs

YOUR HEALTH AND YOUR BUSINESS

THE UNDERACHIEVER AND HIGHER EDUCATION

PROBLEMS OF WASTE DISPOSAL AND WATER POLLUTION

THE ROLE OF THE COMPUTER IN BUSINESS

AUTOMATION AND RETRAINING

ADVANCEMENT AND SUPPORT OF THE ARTS

THE SPACE INDUSTRY AND PRIVATE BUSINESS

We hope
you will join us
in this experiment
of
conversation,
exchange of ideas,
and understanding.

American Newspaper Publishers Association

ANPA

Research Institute, Inc.

750 Third Avenue, New York 17, New York

YUkon 6-8200

January 22, 1964

Mr. Kenneth Olson, President
Digital Equipment Corporation
Maynard, Massachusetts

Dear Mr. Olson:

I wish to express our deep appreciation for your unexpected, but most welcome, donation of Digital Equipment computer logic modules to our electronics research laboratory in Easton, Pennsylvania.

These modules will find many uses as demonstration and teaching aids as well as research tools as our laboratory carries on a continued program of research into digital techniques in the graphic arts.

We also wish to express our appreciation for the aid which your Eastern representative, Mr. David Denniston, has given us.

With appreciation and best wishes to you and your associates of the Digital Equipment Corporation.

Sincerely yours,

Stanford Smith

Stanford Smith
General Manager

HEADQUARTERS
BOSTON CONTRACT MANAGEMENT DISTRICT
EASTERN CONTRACT MANAGEMENT REGION
AIR FORCE SYSTEMS COMMAND
UNITED STATES AIR FORCE
BOSTON ARMY BASE
BOSTON 10, MASSACHUSETTS

REPLY TO ATTN OF: REIOB

21 Jan 1964

SUBJECT: Recurring Security Inspection

TO: Digital Equipment Corporation
Attn: Mr. Kenneth H. Olsen, President
146 Main Street
Maynard, Massachusetts

1. MR. BERNARD J. FINN cleared TOP SECRET Industrial Security Specialist, Boston Industrial Security Branch Office, Security Division, Eastern Contract Management Region, will arrive at your facility on 28 January 1964 * to conduct a recurring security inspection in accordance with Section II of the Security Agreement.

2. It is requested that a representative of management be available to participate in this inspection and that the following information be made readily available:

Number of employees:
Number cleared Top Secret:
Number cleared Secret:
Number cleared Confidential:
Number cleared Company Confidential:
Number of Aliens, Immigrant Aliens, Foreign Nationals &/or Foreign Representatives:
Recent changes of Owners/ Officers/Directors &/or Executive Personnel:
List of all classified contracts, subcontracts &/or purchase orders currently in force at facility:
List of subcontractors, if any, and their clearance status:

Marshall E. Messenger
MARSHALL E. MESSENGER
Inspector in Charge
BISBO, ECMR

cc: Mr. Robert F. Dill,
Security Officer

* Intermittently for six months.