7. Attendance. We should plan on a minimum of 1800 attendees. There were 1700 in 1955.

8. Conference Schedule. The cocktail party will be held on the first evening. There will be a luncheon meeting instead of a dinner. It is felt that this is enough organized social activity for a three-day conference. The luncheon will be held either on the middle day or the last day. Blumenthal will speak to the people at the Statler to get their opinion on this. 1400 can be seated. The hotel indicated that a 45 minute set up was required, so 2½ hours between sessions should be sufficient. Blumenthal will check with the hotal to see definitely how much time the luncheon in the middle of the day will take.

9. Documentation of all Financial Transactions. Plans must be made for how payment of bills will be documented. A LAC letterhead purchase order was suggested. This subject will be reconsidered at the next meeting.

10. Next Local Arrangements Committee Meeting. This will be held on Tuesday, July 7.

11. Firm Dates:

Submitting of technical papers: deadline August 15.
All information for Printing and Publicity Committee that is to appear in Preliminary Program from Program Committee: September 15.
All information for Printing and Publicity Committee from LAC that is to appear in Preliminary Program: August 1.
(Preliminary Program should contain as much information as possible.)
Mailing of Preliminary Program: October 26
Final Program to Ross from Program Committee: October 9.

EXHIBITS COMMITTEE

With reference to Item 2.
There was a question as to whether Cohen had the power to exclude one exhibitor for another more attractive. There is no clause in our contract with Mr. Whitlock that provides for this. However, we do have the power to veto a questionable exhibition. Cohen should take the initiative in contacting unusual exhibitors and funneling to Mr. Whitlock. A review of the original mailing list should give some control.

With reference to Item 5.
It is preferable to use other facilities for exhibitors resigration. Exhibitors should not go to normal registration area. One room will be set apart for the exhibitors to use as a resting room.

With reference to Item 7.
We will supply a booth for sponsoring societies by the registration area on the balcony. These people should be contacted early enough so that they will be able to guarantee manpower for these booths. The responsibility for this booth is with the Hotel Committee.

File

August 21, 1961

Revised Tuition Refund Plan

S. Olsen
K. Olsen
H. Anderson
M. Sandler
D. Mills

Bob Lassen

The following is a revision of the Tuition Refund Plan outlined in a memo dated 7/28/61 as discussed at the last Personnel Committee meeting:

1. The Personnel Committee will be the governing body with respect to the administration of the plan.

2. A general outline of the revised plan is as follows:

A. An employee must have completed at least six months of satisfactory employment before becoming eligible for tuition refund privileges. This waiting period may be waived at the discretion of the Personnel Committee.

B. The course of instruction and the school at which the course of instruction will be taken is subject to the approval of the Personnel Committee.

C. The Company will refund to the employee tuition fees only up to a maximum of ____?____ (This amount not yet determined) only if the employee has achieved at least a B grade, an 80% average or its equivalent. All payments will be approved by the Personnel Committee.

D. The employee will pay all other costs related to the course of instruction.

E. Neither the course of instruction nor its related studies will interfere with the employee's job. Special arrangements may be made subject to approval by the Department Head and the Personnel Committee.

The following is a run down of Sylvania's Tuition Plan which may help in some areas of our own plan:

1. Their plan is available to <u>all</u> employees.

2. Reimbursement includes <u>registration</u> and <u>tuition</u> but not books and other material. I think we should include the registration fee in our plan.

3. Plan includes accredited Correspondence Courses. I have some reservation about this.

4. Request is submitted by employee before course is taken and is subject to approval by his immediate supervisor, department head and the Personnel Department.

5. Grade Achievement for reimbursement

   A. Undergraduate - At least C-
   B. Graduate - At least B-

6. There is no financial limit, (I suggest a financial limit of $250 per year, We can extend this at a later date if we wish.)

7. 100% Tuition Refund if course is directly applicable to the job.

8. 50% Tuition Refund if course is taken for a degree program and that program is applicable to the employee's career even though the course is not. I don't think we should consider a 50% refund at this time. We can extend the plan at a later date if we wish.

9. Reimbursement is made regardless of G. I. affiliation. (I do not go along with this)

10. Sylvania also has <u>Company Sponsored Courses</u> whereby selected employees are sent to take a particular course prescribed by the Company and the Company pays <u>all</u> of the expenses involved. (I think this should be made a part of our plan)

INTEROFFICE MEMORANDUM

DATE August 16, 1961

SUBJECT Conference with Colonial Engineering

TO Loren Prentice
FROM Kenneth FitzGerald
CC: Ken Olsen
Harlan Anderson
Roger Melanson

At the start of the meeting Loren and I decided that Colonial Engineering will not be concerned with L & M drawings: #1, 7, and 9. Drawing #9 will have to have some engineering done here in our own drafting room so that we may mount the indicator light panel on the side of the cabinet the same as Jack Brown;s magnetic tape panel.

Drawing #7 is the full door treatment for cabinets and I think that we should seriously consider examining these prints closely and possibily changing our full door treatment to coincide with L & M's. In any event we have got to decide whether ITT will use our cabinet doors or whether we will use theirs.

In viewing the color slide on the projector we felt it would be desirable to have more color slides of the model or possibily we could even make arrangements to borrow the model for a short time and make some studys ourselves.

The following is a list of items to be brought to Colonial Engineering and also other subjects that must be decided upon.

1. A set of chassis track slides.
2. A complete assortment of our standard fasteners.
3. A copy of the letter that I sent to Leo Murphy dictating our standard procedures.
4. A complete set of operator control panel prints showing the hole layout and hardware on the back of the panel.
5. A print of the paper tape reader front panel.
6. A set of prints of the tape catahers and tape container.
7. Samples of typical brushed aluminum surfaces (anodized).
8. E size drawing paper.
9. Obtain from L & M a full size layout of the long logo that mounts at the bottom edge of the hood. (ADX Data Processor)
10. Add to the paper tape reader panel the exact location of the chassis tract mounting.

Andy

File

WE HAVE RECEIVED OUR NEW TIME CLOCKS AND WILL SHORTLY INSTALL AN ADDITIONAL CLOCK ON THE THIRD FLOOR, TEMPORARILY OUTSIDE MY OFFICE. THIS NEW CLOCK WILL BE USED BY PEOPLE WORKING ON THE THIRD FLOOR OF BUILDING 12, AND THOSE PEOPLE IN BUILDINGS 3 AND 4.

I WANT TO AGAIN STATE THE POLICIES AND ETHICS OF TIME CLOCKS AND CARDS. YOU ALL KNOW THAT YOUR TIME CARD IS YOURS, TO BE PUNCHED BY YOU AND YOU ONLY. THE COMPANY AT ALL TIMES WILL INSIST ON THIS RULE FOR THE PROTECTION OF BOTH YOU AND THE COMPANY.

THE COMPANY UNOFFICIALLY RECOGNIZES A FIVE MINUTE WASH-UP PERIOD BEFORE 12:00 NOON AND 5:00 P.M. I AM ASKING THAT WE NOT ALL BE AT THE TIME CLOCKS AT 11:55 AND 4:55; THESE ARE THE TIMES AT WHICH WE FINISH WORKING, NOT THE TIMES AT WHICH WE LINE UP TO PUNCH OUT.

AGAIN, THE SIDE DOOR OF BUILDING 12 IS NEITHER THE ENTRANCE NOR THE EXIT FOR THE PLANT. ONLY WHEN POSTED MAY THIS DOOR BE USED.

Maynard Sandler

MAYNARD SANDLER
PRODUCTION MANAGER

H.E.C. File

TO: ALL PRODUCTION PERSONNEL

SO THAT YOU MAY BETTER KNOW WHAT IS GOING ON IN OUR PRODUCTION AREAS, I WANT TO PASS ON TO YOU SOME OF OUR PLANS AND THOUGHTS.

THE BIG MOVE

THE STOCKROOM WILL SOON MOVE TO LARGER QUARTERS ON THE THIRD FLOOR OF BUILDING 12. WHEN YOU SEE A HOLE IN THE CEILING ABOUT OVER TED KAUPPI'S HEAD, THAT WILL BE THE OPENING FOR A DUMB-WAITER HOIST BY WHICH MATERIAL WILL COME DOWN FROM MURIEL.

YOU KNOW THAT JACK SMITH AND MY OFFICE GROUP ARE ALREADY IN THE FORMER ENGINEERING AREA. SILK SCREENING, POWER SUPPLIES, AND SYSTEMS AND COMPUTER WIRING WILL CONTINUE TO MOVE TO THE THIRD FLOOR AS RAPIDLY AS WE CAN TEAR DOWN, BUILD UP, AND PAINT.

THE FIRST AID ROOM, DOUBLE THE PRESENT SIZE, WILL BE LOCATED NEXT TO THE REST ROOMS ON THE THIRD FLOOR. THIS WILL GIVE US A LOCATION MORE CENTRAL TO THE ENTIRE FACTORY.

IT IS PLANNED THAT FINAL TEST WILL BE LOCATED WHERE MY OFFICE WAS, GIVING YOU PEOPLE MORE ROOM.

OF COURSE, THERE WILL BE INCONVENIENCE, MINOR WE HOPE, WHICH I KNOW YOU WILL APPRECIATE AND UNDERSTAND.

PEOPLE

THE BIG MOVE IS NEEDED BECAUSE OF OUR EXPANDING BUSINESS. IT SEEMS, HOWEVER, THAT SPACE IS EASIER TO COME BY THAN PEOPLE; WE NOW HAVE THE ROOM, AND ARE ACTIVELY LOOKING FOR PEOPLE.

MORE PEOPLE AND MORE PRODUCTION OF COURSE MEANS SOME SHIFTING OF RESPONSIBILITIES AND WORK ASSIGNMENTS.

JACK SMITH IS NOW ASSISTANT TO THE PRODUCTION MANAGER. HIS MAJOR ACTIVITY WILL BE IN CO-ORDINATING OUR COMPUTER PRODUCTION PROGRAM.

GLORIA PORRAZZO IS OUR ASSEMBLY SUPERVISOR RESPONSIBLE FOR MODULE ASSEMBLY AND SYSTEMS WIRING.

BRONY SMALE, ON VACATION AT PRESENT, HAD BEEN HELPING GLORIA IN PRE-ASSEMBLY, BUT I HAVE ASKED BRONY TO JOIN OUR SYSTAMS WIRING GROUP AND SHE HAS AGREED TO HELP US IN THIS EFFORT. I WOULD LIKE TO THANK BRONY FOR A JOB WELL DONE IN PRE-ASSEMBLY. AS WE GROW IN THE COMPUTER AND SYSTEMS FIELD, WE WILL BE ASKING MORE OF YOU TO COME INTO THIS PROGRAM. TIME IS PRESSING HERE AND WE ARE TRYING TO PUT THE GREATEST CONCENTRATION OF EFFORT ON THIS PROGRAM.

DURING THE COMING TWO WEEKS, GLORIA WILL BE ON A WELL-DESERVED VACATION. DURING THIS TIME, BETTY MARIANO WILL TAKE CHARGE OF PRE-ASSEMBLY AND HAZEL PATTERSON WILL FILL IN FOR GLORIA. I KNOW YOU WILL GIVE THESE PEOPLE YOUR UTMOST COOPERATION.

THE EXPANSION OF COMPUTER AND SYSTEMS WORK HAS REQUIRED THE ADDITION OF A SIZEABLE GROUP OF TECHNICIANS TO OUR COMPANY. NORMALLY OUR NEW TECHNICIANS WOULD TRAIN IN PRODUCTION WITH GEORGE GERELDS, BUT TIME AND SPACE DEMAND THAT THESE MEN MOVE TO SYSTEMS ASSEMBLY IMMEDIATELY. GEORGE, ON HIS RETURN FROM VACATION, WILL SPEND MOST OF HIS TIME IN BUILDING 3, INSPECTING THE WORK OF THESE PEOPLE AND ENSURING THAT DEC STANDARDS OF QUALITY AND CONSTRUCTION ARE UNDERSTOOD AND MAINTAINED.

DICK MANGSEN WILL ASSIST GEORGE IN DIRECTING THE FLOOR ACTIVITIES OF QUALITY CONTROL INSPECTION. AGAIN, I KNOW YOU WILL ALL COOPERATE WITH GEORGE AND DICK.

TO ALL OF YOU WHO HAVE ALREADY BEEN ON VACATION, I HOPE IT WAS A GOOD ONE, AND TO ALL OF YOU WHO HAVE NOT BEEN AWAY, IT TRUST THAT IT WILL BE GOOD.

Maynard

MAYNARD SANDLER
PRODUCTION MANAGER

H. Anderson

August 1, 1961

Personnel Requisition Procedure

K. Olsen
S. Olsen
M. Sandler
H. Anderson
D. Mills

Bob Lassen

In order to insure a more systematic tighter control over the procurement of personnel, I propose the following Personnel Requisition procedure:

1. A Personnel Requisition (see attached form) will be initiated by the requesting Department Head and forwarded to the appropriate people (as suggested below) for final approval. It is practical to use only one Personnel Requisition form in the event that more then one individual is requested provided that the job classification is the same. The Personnel Requisition will not be valid unless approval as indicated below is granted. The approved form will then be forwarded to the Personnel Department and will serve as final authority for the procurement of the necessary personnel.

2. The following is a suggested list of people who would have approval authority in accordance with specific job requirements:

   A. Ken Olsen - approve all salaried personnel and all all technicians whether salaried or not.

   B. Stan Olsen - approve all requisitions.

   C. Dick Mills - approve all requisitions.

   D. Maynard Sandler - approve requisitions for all production workers, production-administrative people, technician trainees, sheet metal workers, and all other personnel that might require training in the Production Department regardless of their eventual assignment.

1959
Eastern Joint
Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
American Telephone &
Telegraph Company
195 Broadway
New York 7, New York
Room 1122

September 24, 1959

Mr. W. W. Bledsoe
Sandia Corporation
Sandia Base
Albuquerque, New Mexico

Dear Mr. Bledsoe:

It is a pleasure to inform you that your Paper "Pattern Recognition and Reading by Machine" has been accepted for presentation at the 1959 EJCC. You will be interested to know that four out of every five Papers submitted for the Conference had to be rejected because of limited program time. The fact that your summary was accepted testifies to the expectations that we have for your Paper. I hope you recognize your responsibility for making an interesting, intelligible and well rehearsed presentation at the Conference.

Since you will have only twenty minutes to present your talk, I suggest that you choose a few high points to cover in the oral presentation. Please bear in mind that the specialists in your subject, interested in detail, will have ample opportunity to study your full Paper in the proceedings of the Conference. I urge that you give special attention to telling the audience what you have accomplished so they can evaluate the significance of your work. Three other Papers related to Character Recognition will be presented. It is planned to have all four Papers read in advance by several critics who will have an opportunity, along with the authors, to comment on the Papers in a panel discussion. We hope that this will be a high point in the conference because of the wide spread interest in the state of the art in character recognition.

To accommodate the audience expected, it may be necessary to show a duplicate set of your slides in a room adjacent to the main hall. Please bring two sets of slides with you to the Conference. Experienced speakers find that the requirements for a good slide are quite different from those for a manuscript illustration. May I request that you give special attention to preparing simple slides and to limiting their number so that the audience will have adequate time to study each one.

Acceptance of your Paper, and the right to present it at the Conference, is conditional upon four copies of the completed Paper being received by H. Anderson on or before November 15, 1959. No exceptions will be made to this rule. Instructions for the preparation of your manuscript are enclosed. It is important that these instructions be followed. When you send your manuscript, please include information on the size of the slides you will use and on any other visual aids you may wish to employ. At the same time, please enclose a one-hundred word biography of the author who will present the Paper.

Registration fees will be waived for the speakers and each speaker will receive a complimentary ticket to the award dinner, which will be held on the evening of December 3. It is important that all speakers attend because at this dinner the award of $300 will be made for the best presentation at the Conference of a Paper describing significant work in the computer field. The award was set up in recognition of the fact that careless and obtuse presentations of technical papers are frequently a disgrace to the speaker and an anesthetic to the audience. I urge you to arrange for at least one rehearsal of your presentation before your associates, and I recommend the use of a tape recorder at the rehearsal as an aid to a fruitful post mortem.

Sincerely,

J. H. Felker

Attachment
Manuscript Instructions

1959
Eastern Joint
Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
American Telephone &
Telegraph Company
195 Broadway
New York 7, New York
Room 1122

September 24, 1959

Mr. J. S. Bomba
Bell Telephone Laboratories
Murray Hill, New Jersey

Dear Mr. Bomba:

It is a pleasure to inform you that your Paper "Alpha-Numeric Character Recognition Using Local Operations" has been accepted for presentation at the 1959 EJCC. You will be interested to know that four out of every five Papers submitted for the Conference had to be rejected because of limited program time. The fact that your summary was accepted testifies to the expectations that we have for your Paper. I hope you recognize your responsibility for making an interesting, intelligible and well rehearsed presentation at the Conference.

Since you will have only twenty minutes to present your talk, I suggest that you choose a few high points to cover in the oral presentation. Please bear in mind that the specialists in your subject, interested in detail, will have ample opportunity to study your full Paper in the proceedings of the Conference. I urge that you give special attention to telling the audience what you have accomplished so they can evaluate the significance of your work. Three other Papers related to Character Recognition will be presented. It is planned to have all four Papers read in advance by several critics who will have an opportunity, along with the authors, to comment on the Papers in a panel discussion. We hope that this will be a high point in the conference because of the wide spread interest in the state of the art in character recognition.

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Registration fees will be waived for the speakers and each speaker will receive a complimentary ticket to the award dinner, which will be held on the evening of December 3. It is important that all speakers attend because at this dinner the award of $300 will be made for the best presentation at the Conference of a Paper describing significant work in the computer field. The award was set up in recognition of the fact that careless and obtuse presentations of technical papers are frequently a disgrace to the speaker and an anesthetic to the audience. I urge you to arrange for at least one rehearsal of your presentation before your associates, and I recommend the use of a tape recorder at the rehearsal as an aid to a fruitful post mortem.

Sincerely,

J. H. Felker

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1959
Eastern Joint
Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
American Telephone &
Telegraph Company
195 Broadway
New York 7, New York
Room 1122

September 24, 1959

Mr. L. Hellerman
International Business Machines Corporation
Product Development Laboratory
Box 390
Poughkeepsie, New York

Dear Mr. Hellerman:

It is a pleasure to inform you that your Paper "A Digital Computer Algorithm for the Analytic Solution of Differential Equations" has been accepted as a supernumerary by the Program Committee. If agreeable to you, the Paper will be published in the Proceedings of the Conference but no assurance can be given at this time that the Paper will be scheduled for oral presentation. We will, however, let you know by November 20 whether or not it has been possible to schedule an oral presentation. I will need to know by return mail whether or not this procedure is acceptable to you and whether or not you plan to have your Paper in on November 15 as discussed below. You will be interested to know that four out of every five Papers submitted for the Conference had to be rejected because of limited program time.

Publication of your Paper is conditional upon four copies of the completed Paper being received by H. Anderson on or before November 15, 1959. No exceptions will be made to this rule. Instructions for the preparation of your manuscript are enclosed. It is important that these instructions be followed. When you send your manuscript, please include information on the size of the slides you will use and on any other visual aids you may wish to employ. At the same time, please enclose a one-hundred word biography of yourself.

In the event that it is possible to schedule your Paper for oral presentation, you will, like other speakers, have twenty minutes to present your material and this will require that you make a very careful preparation. Since there may not be many experts in your subject at the meeting, a rehearsal before a representative but non-expert group of your associates may be of considerable assistance in finding the right level of presentation.

The following will also be of interest in the event your Paper can be scheduled for oral presentation. To accommodate the audience expected, it may be necessary to show a duplicate set of your slides in a room adjacent to the main hall. Please bring two sets of slides with you to the Conference. Experienced speakers find that the requirements for a good slide are quite different from those for a manuscript illustration. May I request that you give special attention to preparing simple slides and to limiting their number so that the audience will have adequate time to study each one.

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Sincerely,

J. H. Felker

Attachment
Manuscript Instructions

c.c.: P. J. Nelson

September 24, 1959

Messrs. H. L. Gray
C. Harrison, Jr.
Argonne National Laboratory
Box 299
Lemont, Illinois

Gentlemen:

It is a pleasure to inform you that your Paper "Normalized Floating Point Arithmetic with an Index of Significance" has been accepted as a supernumerary by the Program Committee. If agreeable to you, the Paper will be published in the Proceedings of the Conference but no assurance can be given at this time that the Paper will be scheduled for oral presentation. We will, however, let you know by November 20 whether or not it has been possible to schedule an oral presentation. I will need to know by return mail whether or not this procedure is acceptable to you and whether or not you plan to have your Paper in on November 15 as discussed below. You will be interested to know that four out of every five Papers submitted for the Conference had to be rejected because of limited program time.

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In the event that it is possible to schedule your Paper for oral presentation, you will, like other speakers, have twenty minutes to present your material and this will require that you make a very careful preparation. Since there may not be many experts in your subject at the meeting, a rehearsal before a representative but non-expert group of your associates may be of considerable assistance in finding the right level of presentation.

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Sincerely,

J. H. Felker

Attachment
Manuscript Instructions

c.c.: W. F. Miller

1959
Eastern Joint
Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
American Telephone &
Telegraph Company
195 Broadway
New York 7, New York
Room 1122

September 24, 1959

Messrs. A. Levine
R. B. McGhee
Hughes Aircraft Company
Systems Development Laboratories
Culver City, California

Gentlemen:

It is a pleasure to inform you that your Paper "Analog Simulation as a Tool for the Determination of Optimum Tolerances" has been accepted as a supernumerary by the Program Committee. If agreeable to you, the Paper will be published in the Proceedings of the Conference but no assurance can be given at this time that the Paper will be scheduled for oral presentation. We will, however, let you know by November 20 whether or not it has been possible to schedule an oral presentation. I will need to know by return mail whether or not this procedure is acceptable to you and whether or not you plan to have your Paper in on November 15 as discussed below. You will be interested to know that four out of every five Papers submitted for the Conference had to be rejected because of limited program time.

Publication of your Paper is conditional upon four copies of the completed Paper being received by H. Anderson on or before November 15, 1959. No exceptions will be made to this rule. Instructions for the preparation of your manuscript are enclosed. It is important that these instructions be followed. When you send your manuscript, please include information on the size of the slides you will use and on any other visual aids you may wish to employ. At the same time, please enclose a one-hundred word biography of each author.

In the event that it is possible to schedule your Paper for oral presentation, you will, like other speakers, have twenty minutes to present your material and this will require that you make a very careful preparation. Since there may not be many experts in your subject at the meeting, a rehearsal before a representative but non-expert group of your associates may be of considerable assistance in finding the right level of presentation.

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Sincerely,

J. H. Felker

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Manuscript Instructions

1959

Eastern Joint

Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
Bell Telephone Laboratories
Mountain Avenue
Murray Hill, New Jersey
Room 5C-101

OCT 6 1960

MESSRS. V. L. NEWHOUSE:
J. W. BREMER:
H. H. EDWARDS:
Applied Physics Section
General Electric Company
P.O. Box 1088
Schenectady, New York

Gentlemen:

In confirmation of my recent phone conversation with Mr. Newhouse, it is a pleasure to inform you that your Paper has been accepted as a supernumerary by the Program Committee. As I said during our phone conversation, the Paper will be published in the Proceedings of the Conference, but no assurance can be given at this time that the Paper will be scheduled for oral presentation. We will, however, let you know by November 20 whether or not it has been possible to schedule an oral presentation. I would appreciate it if you will send me written confirmation that this procedure is acceptable to you and that you will be able to have this Paper in on November 15th as discussed below. As you already know, four out of every five Papers submitted for the Conference had to be rejected because of limited program time.

Publication of your Paper is conditional upon four copies of the completed Paper being received by H. Anderson on or before November 15, 1959. No exceptions will be made to this rule. Instructions for the preparation of your manuscript are enclosed. It is important that these instructions be followed. When you send your manuscript, please include information on the size of the slides you will use and on any other visual aids you may wish to employ. At the same time, please enclose a one-hundred word biography of each author.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Lincoln Laboratory

Lexington 73, Mass.

9 November 1959

To: Chairmen: Program and Publication Committees
Chairmen: Local Arrangements Committee and Sub-Committees

Enclosed is a rough summary of minutes covering the 1959 Eastern Joint Computer Conference Steering Committee Meeting on 2 November 1959.

Frank Heart (bc)

Frank E. Heart

FEH:bic

Encl

Summary of Minutes

Steering Committee Meeting - 2 November 1959

1959 Eastern Joint Computer Conference

I. PRESENT:

Frank E. Heart	Robert A. Kudlich
Harrison W. Fuller	Philip R. Bagley
Jean H. Felker	Harlan E. Anderson

II. GENERAL DISCUSSION (1)

Heart advised that an invitation had been extended to Dr. J. H. Foote, President of AIEE, to address the conference banquet. Dr. Foote was unable to attend the banquet and suggested addressing the conference at the luncheon on Tuesday. Since a luncheon is not scheduled for Tuesday, and it was felt that it was too late to attempt any manipulation with the program, Heart will decline Dr. Foote's offer but extend him free registration.

The prize question was discussed. The arrangement is to have the Program Committee attend each technical session. The Program Committee would meet each day and again before the dinner for a final decision. Bailey would have a blank check ready before the dinner. Heart asked if there were any other proposals for feedback, perhaps along the lines Willis Ware suggested. Felker and Kudlich advised they hadn't seen anything practical that could be done. Heart suggested an honorable mention for several papers and Felker advised that if it came out very close, he thought he would mention the runner-up but preferred to defer a decision until he saw how the voting came out. Since this will appear in the Proceedings, Anderson asked if certificates were being awarded. Felker advised there would be a pen set presented with a small image of a speaker and a few words with the man's name. Bagley suggested a photograph in the Proceedings and Heart recommended that when the prize money was presented, the winner be given a note requesting that a picture be sent immediately to Anderson - he could bill Anderson for it if he wished. It was decided that the prize item be given delicate treatment in the Proceedings.

Bagley stated he had received the suggestion that an explanation of the pattern on the program cover be included in the final program. He also advised there had been a misprint in the price of the banquet in the preliminary program ($7.00 instead of $7.50) but that it would have cost more to correct the error than let it stand.

Felker asked the cost of printing the preliminary program and Heart advised $4,360 for a mailing of 30,000. He further stated that he had asked Fuller for a reading as soon as possible on the details of the final program. Felker thought the final program was very important and that the $1500 budget figure should not be set arbitrarily; he stated that he was not interested in prettiness but something that is convenient to use. It was suggested the program be designed to fit into a coat pocket and that it should include page numbers and a table of contents. Heart promised to stay in close touch with Fuller on the final program.

Heart felt he would like to be free to wander around following his welcoming address and asked to be relieved of the duty of Session Chairman for the first two speakers. Felker agreed and said he would perform this duty himself.

III. STATUS REPORT - LOCAL ARRANGEMENTS COMMITTEE

Fuller presented the status of the following committees:

a. Exhibits

Exhibit space totalling $26,000 has been sold, including nine rooms on the fourth floor. Someone from the LAC will be at the hotel on Sunday night to arrange whatever might be necessary. They are prepared to start setting up exhibits at midnight Sunday if any of the exhibitors require it. Since normal registration will not start until 6 PM Monday night, it was decided that exhibitors would register at the normal registration desk, rather than at a separate desk. Exhibit hours will be 10 AM to 5:30 PM on Tuesday, 9:30 AM to 9:00 PM on Wednesday, and 9:30 AM to 5:30 PM on Thursday.

b. Hotel

The Hotel Committee is still receiving requests for rooms. They now have rooms for the four Wednesday round-table discussions on the 4th floor - numbers 401, 402, 403, and a triple room. Fuller will check on these numbers since they did not appear to agree with room numbers previously listed as available. There will be two press rooms, meeting rooms, and a speakers' lounge on the 4th floor. It was decided that the speakers' lounge, Room 435, was actually the room Felker had requested for purposes of selecting papers and getting speakers and session chairmen together. This will be changed from "speakers' lounge" to "Program Committee Room." At this point, Anderson also requested a room in the same vicinity where he could get together with speakers to go over galley proofs, transcripts, etc. It was decided this should be separate from Felker's room and should be called the "Publication Committee Room." Signs were requested for both these committee rooms. Fuller suggested Anderson call Blumenthal for the number of the room assigned to the Publication Committee. Anderson advised he was planning to write to the authors requesting their papers because he hadn't yet received any and the deadline is November 15. Heart suggested he advise the authors in this letter about the set-up of the Publication Committee Room.

Fuller advised we still have about twenty rooms on the 4th floor and suggested we would not want to keep more than four or five indefinitely without any assignment. Heart felt there would be more pushes for committee rooms and suggested maintaining as many as possible until the last minute. It was agreed not to save rooms for speakers nor for any other large groups. Fuller advised the Statler is giving the conference two free rooms, and probably Blumenthal would have one of these. Heart asked for a room for Monday, Tuesday, and Wednesday. Kudlich ordered a room for Monday, Tuesday, Wednesday, and Thursday; Felker also ordered a room for his personal use. Kudlich and Felker will pay for their rooms. Heart suggested cutting down to ten rooms two weeks before the conference, and to five rooms one week before the conference, and hold a few right up to the last minute but not after the first day of the conference. This was agreed on. Fuller agreed to advise Kudlich and Felker their room numbers, and Heart recommended that as the time got closer, it would be nice to distribute lists of room number assignments to all committee people.

Heart inquired about the dinner menu and Fuller advised he did not yet know. It was suggested there be a la carte liquor service at the banquet. Concerning the cocktail party, Fuller advised they plan some reasonably good hors d'oeuvres and estimate three drinks per person. Parallel distribution was suggested, plus a good supply. Fuller said tickets would be sold which will cover as many drinks as they wished. Heart stated that in order to insure a good party, the conference might subsidize the cocktail party in the amount of around $500. Fuller asked if the $500 was an emergency fund in case they guessed badly, and Heart agreed but stated that Fuller had some leeway with it. Heart also recommended a larger supply of cheaper food rather than a small supply of more expensive food. He further advised we make sure the cocktail party is planned for only two hours.

c. Trips

Concerning the trips to Lincoln Laboratory computer facilities, Heart advised that although only one trip was mentioned in the program for Wednesday afternoon, he felt a reasonable estimate of people interested would be around 300, and it had been arranged to conduct a morning and an afternoon tour of 150 each. Felker expressed some concern that the tour would compete with the technical sessions. Heart advised that he has had considerable grief concerning these tours, and it was decided to let the matter stand as is. It was felt that the small number attending each tour would not materially detract from the session attendance.

d. Hospitality

Fuller advised that the Hospitality Committee will have a booth for message service and a recruiting board which they will oversee. Recruiting cards will be restricted to 4" x 6" and will be stamped and posted by the Hospitality Committee. Fuller (?) thought there should be something in the final program concerning recruiting rules. The Hospitality Committee is also arranging to have coffee for the women each morning on the veranda of the Terrace Room.

e. Finance

As of October 15, Finance Committee issued a new budget with a $6,000 profit and contingency fund.

f. Publicity and Printing

The wind-up of preliminary mailing was about two days late, with the exception of foreign mailing which was a day or two beyond that. The postage figure was not in the budget yet. The $1500 estimate for the final program is still a questionable figure.

Bagley advised that the final program must be pretty well set up by now because the proofs were expected by November 7. Heart asked to be advised the status of it soon and asked for an opportunity to see the final program while there was still some chance to say something about it. Anderson agreed to furnish the names of his Publication Committee for inclusion in the final program. Bagley recommended these names be phoned to Doug Ross as soon as possible; he also offered to help Fuller construct some recruiting rules if he required help.

Felker expressed the opinion that we are striving too hard on the publicity angle - that the general public really has no part in the conference. Since the Datamatic article is still forthcoming, it was agreed there should be a de-emphasis on publicity. It was not the intent to maximize registration.

g. Registration

Concerning the Registration Committee, Fuller advised that some of them have faded away and new people may have to be recruited. CEIR is on board and will be responsible for key punching and preparing lists. Arrangements have been made with IBM for typewriters and other paraphernalia. After some discussion it was decided to have one booth for straight registration and another for the sale of tickets and for odds and ends business. Extra copies of the Proceedings would be handled from the tickets booth. Anderson agreed to furnish Fuller with 1000 forms to be filled out for extra copies of the Proceedings; they would then be returned to Anderson. Heart recommended they be prepared for a real problem at the tickets booth on Tuesday morning. Fuller advised they started over a month ago to solicit help for the Registration desks and have not had overwhelming response from the commercial organizations; we can provide about ten girls a day but may have to hire some others for at least the first day. Fuller's assistant at LFE is in charge of the people-acquisition problem.

There was general discussion concerning the operation of the Registration area. Fuller advised there were five positions in registration. Arrangements should be made about a booth for the three professional societies. It was suggested that guards police the exhibit area, possibly under the direction of an LAC member, to make sure there aren't stacks of literature around and signs all over the booths. Fuller thought the guards would probably report to Blumenthal. Bailey and Fuller will have access to the cash registers and will make collections from the Registrations people and see that it is banked. There will be an area labeled "Information" near the Hospitality booth.

IV. STATUS REPORT - PROGRAM COMMITTEE

Felker advised the program is in good shape now; they have had contact with the authors who have promised to get their papers in by November 15. The authors of the four supernumerary papers have been advised that their papers will be printed, regardless, but they will be on the program only if there is space. It was Felker's belief that any author who doesn't have his paper in by the deadline would probably have submitted a sloppy paper anyhow. He felt it was unfortunate to have publicized the fact that only 27 out of several hundred papers were selected. Felker did not see the publicity release before it went out; Kudlich had seen it too late to do anything about it. Since this announcement might hurt future conferences, Fuller agreed to have it removed from future releases. Heart advised he has asked for prior looks at any future publicity. About six gripes had been received from various organizations by the Program Committee concerning the selection of papers, including RCA and Potter Instrument.

V. STATUS REPORT - PUBLICATION COMMITTEE

Anderson advised it was his impression that the Local Arrangements Committee would provide stenotypists. He would like to have a stenotypist available at each of the sessions for a transcript of the discussion. Felker agreed to furnish Anderson copies of the written questions, although he felt they were generally not very useful. Anderson advised that stenotypists would take down the discussions but not the papers, and transcription can take place in the Publication Committee Room on the 4th floor. He would like to have the results as quickly as possible after the session - the same day if possible.

Much general discussion was had on the question of publishing the discussion material in the Proceedings. Felker felt strongly that the discussions should not be printed unless the speaker had a chance to edit the transcript. Fuller (?) suggested two stenotypists instead of one for the discussions only, and this was agreed on. The question of publishing the Wednesday night panel sessions was discussed and decided against. Heart felt it would be important to include the Thursday afternoon discussions. Heart was in favor of allowing Anderson to use his own judgment on publishing discussion material, and preferred not to make a rigid rule about editing the transcripts in view of the one-month projected publication date for the Proceedings. After considerable haggling, Felker's position carried, and discussions will not be printed unless the author has had an opportunity to examine it. Anderson advised that he would provide several tape recorders from his office as a possible aide in transcription, and someone to take care of them. He would, however, require help from the IAC on amplifying system connections. He agreed to print only what has been checked with the authors, and if it is going to delay anything, he will omit it. He stated that he would do his best to get all of the discussions and print as much as he can.

Felker advised that Willis Ware is not going to supply a manuscript.

VI. GENERAL DISCUSSION (2)

Fuller advised we would have standard cards for questions and someone will have to distribute them and collect them again right after the paper and give them to the Session Chairman. Felker suggested about six people for this job, to be furnished by the IAC.

Heart advised we had decided to have a commercial organization print the Proceedings. Anderson will write to Gannett about this decision, although Heart has already discussed it with Gannett. Anderson was advised to contact Doug Ross for the conference symbol, non-profit mailing permits, and a return address for the Proceedings. Total requirements will not be known until after the NJCC meeting at the conference. Students will not receive free copies. It was decided that Anderson will get the names of the exhibitors from Whitlock (about 50) and furnish Whitlock with one copy of the Proceedings for each exhibiting organization. It was suggested that all exhibitor personnel be issued special badges, be permitted admission to technical sessions, and be able to buy tickets to the functions. Conference help will not receive copies of the Proceedings unless they register in the normal fashion.

There will be a guard at the technical sessions doors to see that only people with badges are admitted. A Local Arrangements Committee man should be at each session to arrange slides, etc., and this should be someone who knows the ropes. Heart suggested we have specific volunteers really learn the ropes and be the LAC representatives at the technical sessions; the guards should be under their direction. Felker asked that he be given the names of the LAC representatives so that someone from the Program Committee can get together with them on Monday morning to go over the details. Fuller agreed to furnish these names. A sign on the door indicating which technical paper was in progress was suggested. It was agreed to have a stop-light signal to warn speakers that their time was up. Anyone having anything to do with the operation of a session are to be on hand one-half hour before the session.

Heart suggested the following list of people to receive free registration and Proceedings: persons on the conference letterhead, members of the Program and Publication Committees, Goode, Endres, Hamming, Rubinoff, Imm, all speakers, all session chairman, and panelists. Kudlich suggested changing "speakers" to "authors" and include the supernumeraries. Heart agreed to get a letter out to all of these people, and requested that the people at the registration desk be told that when the people pick up their material they should be sure to fill out the registration card and leave it at the desk. Anderson agreed to supply Frank with the names of the authors plus his Publication Committee members. Heart will supply Fuller with a list of all the people to whom he sent letters in order that the Registration people will have their material ready for them.

It was decided to have a speakers' table for the 27 speakers, and a head table which would include those present at this meeting, the session chairmen, the NJCC members who were on the Russian trip, the LAC member who is running the banquet, and several key individuals from the professional societies. A list was made up to include 22 people at the head table.

All those at the speakers' table and the head table were to receive complimentary registration, including a copy of the Proceedings, plus a free banquet ticket. Heart agreed to advise each individual accordingly. In the case of co-authors, it was felt that only the individual actually delivering the paper should receive complimentary banquet tickets and a place at the speakers' table. The authors of the supernumerary papers are to receive free registration and Proceedings only.

The question of arrangements for the wives was discussed. It was decided not to present them with free banquet tickets, but to provide a table near the speakers' table where they could sit together if they wished. This would be a reserved table for the wives of anyone sitting at the speakers' or head tables - no special invitation would be issued to the wives.

Anderson asked the purpose of the press rooms and Fuller advised they were for the use of reporters who may come to cover the sessions to ask questions of the speakers. Publicity people will be on hand to aid them. Fuller had not had a chance to check Publicity plans.

Felker recommended adequate screening and projection facilities for the 35 MM color slides which Willis Ware will be showing at the dinner; seating arrangements should be checked.

It was agreed that no one would be allowed free admission to the cocktail party except the individual running it.

"Give-Aways"

Concerning give-aways, Fuller stated the following proposals had been received by him:

(1) Coffee service on the 4th floor for an hour in the morning and afternoon to registrants at large. The location of the room for this service would be at the end of a long hallway, passing by all of the 4th floor exhibits; this would be a gesture to help out the 4th floor exhibitors.

Felker stated there was a small point in this but felt it was not a function of EJCC to supply coffee since there was no return on it. Other objections stated were that it would take too long; it would conflict with other activities; announcing it would be distracting; a sign about 4th floor exhibits in the main exhibit area would accomplish just as much. The issue was voted on - Fuller and Bagley abstained; all others voted against the proposal.

(2) Cocktail party late Monday evening around 8 or 8:30 for exhibitors and staff. This would basically be for the benefit of the exhibitor personnel who would be about finished setting up then, and would cost about $500.

Heart stated he had planned a Steering Meeting that night but that it wasn't crucial. Kudlich felt it was important to provide these people with good exhibit space, power, lights, etc., but that was not the same as entertaining them at a cocktail party - they will be coming to the Tuesday night cocktail party. Anderson felt, from an exhibitor's point of view, they look on this as a traditional thing and that in some measure they are sponsoring the conference. He thought good relationships with exhibitors from year to year was a good idea. Bagley stated that if nothing was provided for them they would collect at the hotel bar anyhow. Felker stated this was not a money-making conference and he would rather see the $500 spent elsewhere; however, he suggested Whitlock might want to arrange something but it should be made clear that he is sponsoring it. The alternative of subsidizing a coffee cart all day Monday for the exhibitors was suggested as a token of cooperation. This was agreed on and a figure of $300 was established for this purpose.

(3) Free lunches for the registration girls, plus free dinners if they worked late, and transportation if they didn't have it.

It was pointed out that registration will be in operation until 9 PM on Monday night, but that there shouldn't be anyone around Tuesday night. Heart suggested we try to keep a tight reign on this and not, for example, consider expensive dinners. He suggested this would be in Fuller's province to handle within a reasonable limit. Agreed.

(4) A few dollars should be spent on the press. Fuller stated he had a budget from Publicity & Printing for $575, including such items as mailing of news stories ($150), photographs ($125), telephones in the press rooms, typewriters in the press rooms, refreshments for press rooms ($50), press table for banquet, some entertainment of newspapermen ($50), press conference luncheons for editors and writers. Fuller was not too certain what was meant by these figures, but presumed the $575 was the same as the $600 figure Bailey had in the budget.

Felker thought we should keep the conference as professional as possible and not try to do things that were appropriate for a big business organization since this is largely a volunteer operation. Fuller stated the present plan is for five more publicity mailings to various media, and that was the $150 figure. After general discussion, it was agreed there should be no money for food and drink for the press, and that publicity should be generally cut down, with perhaps one more mailing instead of five. It was felt that publicity was being over-emphasized. Kudlich suggested that future conferences avoid the word "publicity" in their committees, and substitute "information and printing." It was further decided that newsmen should not be furnished banquet tickets, or cocktail tickets unless there was a very special case, but that if they wanted to attend, they could buy a ticket.

Fuller stated he would probably have to look at each thing as it came along and try to hold it down; he stated that he was prepared to pass on the feeling of the committee as well as he could on these "give-aways", and that he could be trusted to limit the budget.

Heart passed around all of the correspondence on the John Wiley complaint regarding exhibit space, and his proposed reply.

Those present were reminded of another Steering Committee meeting the night before the conference around 8:30 PM in the Hotel Statler, as per Heart's letter of September 16.

digital | EQUIPMENT CORPORATION

MAYNARD, MASSACHUSETTS

EJCC

11-2-59

Prepare form for ordering extra copies (1000 copies). Turn over to Henry Fruchtman

digital | EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

Eastern Joint Computer Conference
Meeting.

Report:

Questions: not to be printed.

1. Is Willis Ware's talk to be printed?

OK 2. ~~Is~~ Can the members of the Publication Committee be listed in the final program

OK 3. Publication Committee would like to have a room reserved at the Hotel for ~~the~~ paper reviews. With sign.

yes 4. Will any directory for these rooms be available.

yes 5. Is Frachtman handling sale of extra copies of the Proceedings.

6. Who has art work for symbol for cover.

7. We need stenotypists to cover ~~all~~ each session and would like to have written copy of all material at the Publication Committee meeting room as soon after each session as is possible. Could we have written copies of questions also?

8. How many copies to be printed?

9. Who gets free copies of publications

OK 10. Reminder to authors about deadline, need addresses

11. Electronic News tone down

OK 12. Picture of Award Winner and a news item on this.

Permit # 58447 Doug
Non Profit Boston Permit.
Program Committee is in Room 435.
~~Speakers Lounge~~
Call Blumenthal about room.
Get number.

13. Could we have vote on Pro. outside printer.

14. Whom should we notify about this?

15. Discussion to be approved by speaker.

16. Free Copies
   a.) No exhibitors
   b.) No students
   c.) One to each exhibiting company
   d. None to conference help.

1959
Eastern Joint
Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
P. O. Box 5,
Needham 94, Massachusetts

16 September 1959

Messrs. J. Felker, H. Fuller, R. Kudlich, P. Bagley, H. Anderson

I would like to confirm arrangements for two Steering Committee meetings:

Monday, October 19, 9:30 AM, M.I.T. Faculty Club

An agenda is attached for this meeting. I would anticipate that a primary discussion subject would be the actual operation of the technical sessions. It would be quite appropriate for Mr. Fuller to invite one or two additional members of the Local Arrangements Committee to attend this meeting if such attendance would be helpful. I would anticipate that the meeting will last at least through lunch.

Monday, November 30, 8:30 PM, Mezzanine, Statler Hotel, Boston

This meeting is intended primarily as a place for last-minute checking; however, I would also appreciate it if the Local Arrangements Committee would provide detailed budget and expense estimates at this time in order to equip me for discussions with NJCC at the conference. At this meeting it would be appropriate for Mr. Fuller to invite any other members of the Local Arrangements Committee whose presence would be helpful.

Regards, Frank

Frank E. Heart

FEH:bic

Encl: Agenda

AGENDA

Steering Committee Meeting
Monday, ~~October 19~~ November 2, 1959, 9:30 A.M.
M.I.T. Faculty Club

(This list is not intended to exclude items of importance, but merely to provide a starting point)

1. General status report by Local Arrangements Committee including a discussion of each major function, and specifically including a budget/expense report.
2. Status report by the Program Committee.
3. Status report by the Publications Committee and discussion of Publications Committee requirements. Discussion of Publications' handling of "question periods."
4. Discussion of technical session operation.
5. Discussion of registration area operation.
6. Discussion of publicity plans.
7. Discussion of fourth floor space and hotel sleeping space.
8. Discussion of food functions.
9. Discussion of prize award.

9.a Give aways

10. Open discussion.

Exhibitors

Committee Reports

Electronic News

1959

Eastern Joint

Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
P. O. Box 5,
Needham 94, Massachusetts

In Reply Use
Address Below

November 3, 1959

I would like to remind you of the approaching deadline for the manuscript of your paper for the 1959 Eastern Joint Computer Conference.

Four complete copies of your manuscript including all drawings and charts should be in my hands by November 15. The EJCC steering committee voted that papers not meeting this deadline would neither be printed in the Proceedings of the conference nor would the speakers be permitted to deliver their paper at the conference.

As you probably know, a concentrated effort is being made to print the proceedings promptly. The Publication Committee is planning to check with you during the conference on any editorial changes in your manuscript and/or question and answer transcripts. Would you or a representative of your paper please report to the Publication Committee Room in the Hotel Statler to arrange for a time to take care of this? In the case of 1st and 2nd day papers, the day after your paper would be an appropriate time. Authors of all other papers try to check in on the first day of the conference concerning editorial changes to manuscripts and make plans for reviewing questions and answers.

I hope that you will find your participation in the 1959 EJCC a rewarding experience.

Sincerely,

Harlan E. Anderson, Chairman
1959 EJCC Publication Committee
Digital Equipment Corporation
Maynard, Massachusetts

1959
Eastern Joint
Computer Conference

December 1, 2, 3, 1959
Statler Hilton Hotel, Boston

In Reply Address
P. O. Box 5,
Needham 94, Massachusetts

29 October 1959

Messrs. J. H. Felker, H. W. Fuller, H. E. Anderson

I recently received in the mail an interesting document from the National Joint Computer Committee. A copy of this document is attached and I would appreciate your reading it.

I would like to emphasize that this piece of paper is in no way binding on the 1959 Eastern Joint Computer Conference since it has not yet even been accepted by NJCC, and has in no case been given to me as an official directive. However, we can certainly take note of it where we so desire.

I have marked in the margin those NJCC suggestions which might, even at this late date, be pertinent and worth our consideration.

Sincerely yours,

Frank

Frank E. Heart

FEH:bic

Encl: NJCC ltr 10-23-59, w/JCC
Policy Manual

1959

Eastern Joint

Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
P. O. Box 5,
Needham 94, Massachusetts

MANUSCRIPT INSTRUCTIONS TO AUTHORS

You will have two means of cummunicating your 1959 Eastern Joint Computer Conference paper to the computer field, orally and written.

Past conferences have shown that the Proceedings of the E.J.C.C. are an important and lasting record of the meeting. To maximize the usefulness of this material two important points must be kept in mind.

1. the written record must be distributed soon after the conference.

and 2. the material must be prepared in a clear manner.

DEADLINES

Four copies of your final manuscript and all drawings and photographs must be in the hands of the Publications Committee by November 15, 1959. Send them to:

Harlan E. Anderson
EJCC Publication Committee
Digital Equipment Corporation
Maynard, Massachusetts

E.J.C.C. Steering Committee voted not to print papers that failed to meet this deadline.

During the conference itself (December 1-3) you will be contacted by a member of the Publications Committee for a final check on any editorial changes that may have been made on your paper. It is hoped that galley proofs from the printers will be available at that time.

Review of the text of questions and answers as recorded by stenotypists will also be carried out during the conference if at all possible.

MATERIAL PREPARATION

Title

The title should be short if possible but not so short that the subject will not be indicated clearly. The author should remember that a paper is indexed by significant words in the title and that many readers of the PROCEEDINGS select the papers they read from the table of contents. The title, therefore, should be carefully chosen. Six to eight words is the usual maximum length.

Abstract

The abstract should be really informative and should outline the essentials of the paper within the compass of about 200 words or less. It should be meaty enough to serve as a complete abstract for such services as Science Abstracts or the Abstracts and References section of the PROCEEDINGS. The author should ask himself if he is willing to accept his abstract, without the rest of the paper, as a fair statement of what he has accomplished. The problem should be clearly stated, the method of attack outlined, and numerical results, where possible, included. In general neither references nor equations should appear in the summary. The essence of a good abstract is a concise statement in plain English of just what has been done and why.

Figures and Tables

It is very helpful to readers of all classes if tables, figures, curves, etc. can be arranged so that they are self-explanatory and can be used with a minimum of reference to the text. The quantities and units used in plotted curves should be given clearly, and the captions worded to convey as much information as possible to the engineer who is merely leafing through his copy of the PROCEEDINGS. If his attention is caught by curves that mean something to him, he is much more likely to read the paper. A caption such as "Plot of X_0/y versus s for various values of the parameter n," will not enlist the interest of many readers. It is better to say, "Axial sound-pressure curves of electrostatic loudspeaker for various diaphragm thicknesses."

Manuscript

Manuscripts should be typed on one side of the sheet only and double spaced. All illustrations should be referred to in the text by figure number. All footnotes should be numbered.

Footnote references must be complete. Authors' initials, title of article, volume and page numbers, and month of publication should be included. The complete reference should be as follows:

For a periodical: R.N. Hall "Power rectifiers and transistors." PROC. I.R.E., vol. 40, pp. 1512-1518; November, 1952.

For a book: W. A. Edson, "Vacuum Tube Oscillators," John Wiley and Sons, Inc., New York, N.Y., pp. 170-171; 1948.

Illustrations

Drawings for printing must be in black ink on white paper or on tracing cloth. Photographs must be glossy prints. The size should not exceed 8½ by 11 inches.

It should be borne in mind that most illustrations will be reduced in size to a 3½ column width when printed. It is particularly important, therefore, that all letters, numbers, and lines be drawn large enough and heavy enough to remain legible after reduction.

Drawings with typewriting on them are not acceptable. All information to be reproduced must be hand lettered in ink.

Graphs should be drawn with only the major coordinate lines showing. A chart containing a large number of closely spaced line will not reproduce legibly.

Captions, if they are included on the drawing itself, should not appear within the area to be reproduced. They should be placed under the illustrations.

Please feel free to contact me, if you have questions concerning any of the material above.

Harlan E. Anderson

Harlan E. Anderson
Chairman, Publications Committee

1959
Eastern Joint
Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

H. F. Anderson

In Reply Address
P. O. Box 5
Needham 94, Massachusetts

M.I.T.
Lincoln Laboratory
Lexington 73, Mass.

23 September 1959

Harry H. Goode
Professor of Electrical Engineering
2517 East Engineering
University of Michigan
Ann Arbor, Michigan

Dear Harry:

I would like to inform you concerning the status of the 1959 Eastern Joint Computer Conference.

I. Program

A program has been chosen and a list of titles is attached for your information. Out of 132 submitted papers, only 27 were picked. A considerable effort went into the program selection this time, and I am really hoping that it will turn out quite well. Both Jean Felker and Bob Kudlich put in a sizable effort and a well directed one.

II. Local Arrangements

The details of the local arrangements' job are simply overpowering and the schedule for completion of the preliminary program is quite tight; however, we are still planning for a mailing on October 26 and if our luck holds out it may actually happen. We will have one cocktail party and one final dinner and no luncheons. There will be two inspection trips (Lincoln Laboratory and Arthur D. Little), and a number of other company open-house arrangements. There will be no formal Ladies' Activities Program, but there will be a strong "hospitality" effort.

The exhibit space was completely sold out very quickly, and many companies have still been beating at the door.

Financially, the conference is still in the black and will continue that way unless we make a serious miscalculation. I will try to have accurate budget numbers for NJCC at the time of the conference.

III. Proceedings

We have decided to use local Boston area printing facilities through an arrangement with Graphic House Associates. This firm has estimated a period of from four to five weeks for the completion of the printing job. Several prior contacts with this commercial organization have permitted us to treat this estimate with considerable confidence. Insofar as price is concerned, estimates by Graphic House Associates were surprisingly close to the estimates of several other local organizations, as well as the estimate by the Institute of Radio Engineers; we are still assuming a $3.00-per-copy budget figure. Per your suggestion, I spoke with Larry Cummings and the I.R.E. does not have any deep-seated objections to our decision.

In order to furnish final copy to the printer as expeditiously as possible, we are insisting upon receipt of a complete paper by November 15 as a prerequisite for appearance on the program of the conference. We then plan to have galley proofs available during the conference for final checking with authors.

We are going to make a real attempt to have the Proceedings in the mail within 1.5 or 2 months after the conference.

Regards,

FEH

Frank E. Heart

FEH:bic

Encl: Preliminary Program Schedule,
1959 EJCC

cc: H. F. Anderson w/encl
H. W. Fuller
J. H. Felker

Tuesday, December 1, 1959

10:00 - 12:00 A.M.

omit Conference Welcome	Frank E. Heart, Chairman, 1959 EJCC Lincoln Laboratory
Computers of the Future	R. Rice IBM
Negative Resistance Elements as Digital Computer Components	M. H. Lewin RCA Laboratories

2:00 - 5:00 P.M.

Deposited Magnetic Films as Logic Elements	A. Franck G. Marette B. Parsegyan Remington Rand Univac
Solid State Microwave High Speed Computers	J. A. Rajchman RCA Laboratories
The Engineering Design of the Stretch Computer	E. Bloch IBM
Design of the Larc System	H. Lukoff and others Remington Rand Univac

Wednesday, December 2, 1959

9:00 - 12:00 A.M.

A Small Memory as a Control Device in a Multiprogrammed Computer and an Economic Means of Performing High Speed Arithmetic	Norman Lourie Henry Schrimpf Roy Reach William Kahn Datamatic Division of Minneapolis-Honeywell
The Virtual Memory in the Stretch Computer	John Cocke and H. G. Kolsky IBM
A Combined Analog - Digital Differential Analyzer	Howard K. Skramstad National Bureau of Standards
The System Organization of Mobidic B	Stanley K. Chao Sylvania Electric Products
A Universal Computer Capable of Executing an Arbitrary Number of Sub-Programs Simultaneously	John Holland University of Michigan

2:00 - 5:00 P.M.

The Multi-Sequence Computer as a Communication Tool	J. N. Ackley I.T.&T. Labs
Synthesis of Switching Two Terminals Based on the Theory of G.R.Kirchhoff and O. Veblen	Satio Okada Brooklyn Polytechnic Institute
Application of Boolean Matrices to the Analysis of Flow Diagrams	Reese T. Prosser Lincoln Laboratory
SIMCON - The Simulator Compiler	Thomas Sanborn Space Technology Laboratories
Techniques and Methods Employed in a Digital Computer Program to Solve General Transient Heat Transfer Problems	D. J. Campbell General Electric

Wednesday Evening

Recognized leaders in their fields will lead small group discussions. Members of the audience will be able to exchange opinions with one another and the discussion leaders. The topics will be:

System Aspects of the Utilization of Kilo-megacycle Components

Judicious Use of Your Computer

Large Signal Equivalents in the Analysis of Circuit Tolerances

The Role of Computers in the Engineering Design of Computers

Thursday, December 3, 1959

9:00 - 10:35 A.M.

The Automatic Transcription of Machine Shorthand	G. Salton Harvard University and Sylvania Electric Products
A Management Science Computer Application	Morgan R. Walker James E. Kelley, Jr. Mauchly Associates
The Automatic Digital Computer as an Aid to Medical Diagnosis	C. B. Crumb, Jr. Dr. C. E. Rupe, M.D. Bendix Systems Division

10:55 - 12:30 P.M.

An Advanced Magnetic Tape System for Data Processing	Dr. Richard B. Lawrance Datamatic Division of Minneapolis-Honeywell
A High Speed, Small Size Magnetic Drum Memory Unit for Ultra Small Digital Computers	M. May G. Miller G. Shifrin Ramo Wooldridge
Temperature Compensation for a Core Memory	A. Ashley E. Cohler W. S. Humphrey Sylvania Electric Products

2:30 - 5:00 P.M.

Use of a Computer to Design Character Recognition Logic	R. J. Evey IBM
A Self Organizing Logical System	Richard L. Mattson Lockheed Missiles and Space Div.
Alpha-Numeric Character Recognition Using Local Operations	J. S. Bomba Bell Telephone Laboratories
Pattern Recognition and Reading by Machine	W. W. Bledsoe I. Browning Sandia Corporation
Discussion of Problems in Pattern Recognition	Authors and invited critics

6:30 P.M. - Dinner

Award Presentation

In recognition of the fact that technical programs are sometimes marred by careless or obtuse presentation of papers, the EJCC has decided to emphasize the importance of a good oral presentation. An award of $300 will be made for the best presentation at the Conference of a paper describing significant work in the computer field. The winner of the award will be selected by the Program Committee and the presentation will be made at the Conference dinner on the last day of the meeting.

Status of Computer Developments in the Soviet Union

In the Summer of 1959 a delegation sponsored by the National Joint Computer Committee visited, in the Soviet Union, a number of research institutes, universities and factories producing digital computers. This delegation received the most detailed picture of Soviet developments yet given to a group from the West. Dr. Willis W. Ware, a member of the delegation and the editor of the delegation's report will speak at the Conference Dinner on the Status of Computer Developments in the Soviet Union.

Addresses of Speakers for the 1959 Eastern Joint Computer Conference

Dr. Rex Rice
Machine Theory Group
IBM Research
P.O. Box 390
Poughkeepsie, New York

Mr. M.H. Lewin
Radio Corporation of America
David Sarnoff Research Center
Princeton, New Jersey

Mr. A. Franck, Manager
Mathematics and Logic Research
Remington Rand Univac
Univac Park
St. Paul 16, Minnesota

Mr. J. A. Rajchman
Radio Corporation of America
David Sarnoff Research Center
Princeton, New Jersey

Mr. Erich Bloch
International Business Machines Corp.
Data Processing Division
Product Development Laboratory
Box 390
Poughkeepsie, New York

Mr. H. Lukoff, Chief Engineer
Remington Rand Univac
19th Street & West Allegheny Avenue
Philadelphia 29, Pennsylvania

Mr. N. Lourie, Assistant Project Manager
Minneapolis-Honeywell Regulator Division
151 Needham Street
Newton Highlands 61, Massachusetts

Mr. H. K. Skramstad, Assistant Chief
Data Processing Systems Division
U.S. Department of Commerce
National Bureau of Standards
Washington 25, D.C.

Mr. S. K. Chao
Sylvania Electric Products, Inc.
Data Processing Laboratory
189 "B" Street
Needham 94, Massachusetts

Mr. John Holland
The University of Michigan
Logic of Computers Group
Room 4001 Angell Hall
Ann Arbor, Michigan

Messrs. H.G. Kolsky
J. Cocke
International Business Machines Corp.
Product Development Laboratory
P.O. Box 390
Poughkeepsie, New York

Mr. J. N. Ackley
I.T. & T Laboratories
Nutley, New Jersey

Mr. Satio Okada
435 Vanderbilt Avenue
Brooklyn 38, New York

Mr. R. T Prosser
Massachusetts Institute of Technology
Lincoln Laboratory
P.O. Box 73
Lexington 73, Massachusetts

Mr. T. G. Sanborn
Space Technology Laboratories, Inc.
Data Processing and Operations Department
P.O. Box 95001
Los Angeles 45, California

Mr. D. J. Campbell
General Electric Company
Evendale Computations Operation
Building 305
Evendale, Ohio

Mr. Gerard Salton
Computation Laboratory
Harvard University
Cambridge 38, Massachusetts

Messrs. J.E. Kelley
M.R. Walker
Mauchly Associates, Inc.
50 E. Butler Avenue
Ambler, Pennsylvania

Mr. C. B. Crumb, Jr.
Bendix Aviation Corporation
Systems Division
P.O. Box 416
Renton, Washington

Mr. R.B. Lawrance
Minneapolis-Honeywell Regulator Company
Datamatic Division
151 Needham Street
Newton Highlands 61, Massachusetts

Messrs. M. May
G. Miller
G. Shifrin
Digital Control Department
Thompson Ramo Wooldridge, Inc.
P.O. Box 90534 Airport Station
Los Angeles 45, California

Messrs. A. Ashley
E. Cohler
W. S. Humphrey
Sylvania Electronic Systems
Data Systems Operations
189 B Street
Needham 94, Massachusetts

Mr. R. J. Evey
International Business Machines Corp.
Product Development Laboratory
Box 390
Poughkeepsie, New York

Mr. R. L. Mattson
Lockhead Missile and Space Division
Logical Design Department 58-12
Palo Alto, California

Mr. W. W. Bledsoe
Sandia Corporation
Sandia Base
Albuquerque, New Mexico

Mr. J. S. Bomba
Bell Telephone Laboratories
Murray Hill, New Jersey

Mr. L. Hellerman
International Business Machines Corporation
Product Development Laboratory
Box 390
Poughkeepsie, New York

Messrs. H. L. Gray
C. Harrison, Jr.
Argonne National Laboratory
Box 299
Lemont, Illinois

Messrs. A. Levine
R. B. McGhee
Hughes Aircraft Company
Systems Development Laboratories
Culver City, California

Messrs. V. L. Newhouse
J. W. Bremer
H. H. Edwards
Applied Physics Section
General Electric Company
P.O. Box 1088
Schenectady, New York

1959
Eastern Joint
Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
~~P.O. Box 5~~
~~Needham 94, Massachusetts~~

M.I.T.
Lincoln Laboratory
Lexington 73, Mass.

23 October 1959

To: Chairmen and Vice Chairmen: Publication Committee, Program Committee, Local Arrangements Committee & Sub-Committees

Subject: EJCC Expenses for "Give Aways"

I have recently noticed an increasing number of suggestions that the EJCC furnish items such as free lunches, free coffee, free liquor, free banquet tickets, etc., to various classes of people. For example, there have been suggestions to furnish such items to newsmen, to wives of attendees, to speakers, to session chairmen, to exhibitors, etc. It is quite clear that both political and financial considerations are involved in such decisions. I will have to answer to the National Joint Computer Committee concerning the use of funds and, more particularly, concerning the use of funds in a haphazard way.

It is quite clear that many such give-aways are reasonable and appropriate; however, I am going to have to insist upon an orderly procedure in determining which are reasonable and which are not reasonable. That orderly procedure is to prepare a list of such projected give-aways with an estimate of their cost, and permit the conference Steering Committee (Messrs. Heart, Fuller, Bagley, Felker, Kudlich, Anderson) to make a decision on each one.

Therefore, by this letter I specifically forbid any commitment of EJCC funds for such give-away purposes prior to an approval by the conference Steering Committee. (The only exceptions to this are free banquet tickets for speakers and free coffee for wives of attendees; these items have already been discussed and approved by at least a large part of the Steering Committee.) Any individuals who wish to commit funds for give-away purposes should prepare a list of such proposals and submit this list, either directly to me or through the chairman of the appropriate committee, for consideration at the November 2 meeting of the Steering Committee.

I recognize that even give-aways take some planning, but this issue is sufficiently crucial in a political and financial way that it is just going to have to wait for an orderly consideration of each issue.

Sincerely yours,

Frank

Frank E. Heart

FEH:bic

REGISTER OF PRINCIPAL COMMITTEE MEMBERS FOR 1959 EJCC

16 October 1959

HARLAN E. ANDERSON
Digital Equipment Corp.
Main Street
Maynard, Mass.

Publication Committee Chairman
TW 3-1779

PHILIP R. BAGLEY
The MITRE Corp.
Lexington 73, Mass.

LAC Vice Chairman
CR 4-8750 X21

DAVID L. BAILEY
The MITRE Corp.
Lexington 73, Mass.

LAC Finance Committee, Chairman
CR 4-8750 X204

S. PAUL BLUMENTHAL
Computer Products Division
Laboratory for Electronics, Inc.
1079 Commonwealth Avenue
Boston, Mass.

LAC Hotel Committee, Chairman
AL 4-4235, X310

HOWARD I. COHEN
Sylvania Electronic Systems
189 B. Street
Needham, Mass.

LAC Exhibits Committee, Chairman
HI 4-3940 X475

JEAN H. FELKER
American Tel. & Tel. Company
195 Broadway
New York 7, N. Y.

Program Committee Chairman

HENRY E. FRACHTMAN
The MITRE Corp.
Lexington 73, Mass.

LAC Finance Committee, Vice-Chairman
CR 4-8750 X148

HARRISON W. FULLER
Computer Products Division
Laboratory for Electronics, Inc.
1079 Commonwealth Avenue
Boston, Mass.

LAC Chairman
AL 4-4235

FRANK E. HEART
MIT Lincoln Laboratory
Lexington 73, Mass.

Conference Chairman
VO 2-3370 X7451

ARTHUR D. HUGHES
National Company
37 Washington Street
Melrose, Mass.

LAC Hospitality Committee, Chairman
NO 5-9150

ROBERT KRAMER
Electronic Systems Laboratory
MIT
Cambridge, Mass.

LAC Printing & Publicity Committee,
Vice-Chairman
UN 4-6900 X3623

ROLLIN MAYER
The MITRE Corp.
Lexington 73, Mass.

LAC Trips Committee, Co-Chairman
CR 4-8750 X25

JOHN F. PIERCE, Jr.
39 Peterborough Street
Boston, Mass.

LAC Registration Committee
Vice-Chairman
KE 6-0637

DOUGLAS T. ROSS
Electronic Systems Laboratory
MIT
Cambridge 39, Mass.

LAC Printing and Publicity Committee,
Chairman
UN 4-6900 X2342

HENRY L. SCHMITZ, Jr.
Applied Science
International Business Machines Corp.
520 Boylston Street
Boston, Mass.

LAC Registration Committee, Chairman
CO 7-9400

FREDERIC W. ("Bill") SPEARIN
National Company
37 Washington Street
Melrose, Mass.

LAC Hospitality Committee,
Vice-Chairman
NO 5-4800

ALEXANDER VANDERBURGH
MIT Lincoln Laboratory
Lexington 73, Mass.

LAC Trips Committee, Co-Chairman
VO 2-3370 X7351

ALFRED E. VENTOLA, Jr.
Computer Products Division
Laboratory for Electronics, Inc.
1079 Commonwealth Avenue
Boston, Mass.

LAC Hotel Committee, Vice-Chairman
AL 4-4235 X308

JOHN L. WHITLOCK
John Leslie Whitlock Associates
6064 Ninth Street, North
Arlington 5, Virginia

LAC Exhibits Manager
JE 2-5079

GEORGE D. WOOD, Jr.
Office of Public Relations
Room 3-339
MIT
Cambridge 39, Mass.

LAC Printing & Publicity Committee
Vice-Chairman
UN 4-6900 X2705

MINUTES OF

1959 EASTERN JOINT COMPUTER CONFERENCE

LAC COMMITTEE MEETING (LAC-6)

Thursday, October 15, 1959

Smith House, Cambridge

PLUS POST-MEETING NOTES

LAC COMMITTEE MEETING (LAC-5)

This meeting was held October 15, 1959, 6:15 P. M. at the Smith House in Cambridge.

In attendance were:

Philip R. Bagley, LAC Vice Chairman
David L. Bailey, Finance Chairman
S. Paul Blumenthal, Hotel Chairman
Henry E. Frachtman, Finance Vice Chairman
Arthur D. Hughes, Hospitality Chairman
Robert Kramer, Printing and Publicity Vice-Chairman
Rollin P. Mayer, Trips Chairman
Douglas T. Ross, Printing and Publicity Chairman

Finance

Bailey reported that the total-expected income was about $26,000 and that the total expected expenses were about $20,000.

No claim forms for requesting reimbursement will be made available at the conference. Such requests will be handled on an individual basis by whoever is floor manager at the conference.

Petty cash will be available at the conference upon request to Bailey or Frachtman or someone designated by them.

Frachtman generously agreed to supervise a ticket sales booth which would handle the tickets for cocktail party, dinner, and trips.

Hotel

Blumenthal has assigned fourth floor rooms for

roundtable discussions
press room (small)
speakers lounge
NJCC dinner

Since the roundtable discussions take place only on Wednesday evening, at other times one of the discussion rooms will be used for press gatherings, and one for a general lounge. More than 20 rooms remain unassigned. Blumenthal is anxious to know the room needs as soon as possible so that he can release unneeded space back to the hotel.

Regarding the block of sleeping rooms reserved for the committee, Heart says that he will know after the next Steering Committee meeting (early in November) how many sleeping rooms we can relinquish.

The veranda of the Terrace Room will be available for the women's coffee hour conducted by the Hospitality Committee, but it must be vacated by 11 A. M.

Blumenthal requests that coffee be served in the general lounge on the fourth floor. This would be an attraction to draw people through the fourth floor exhibit area. He suggests serving from 9:30 to 11:00 A. M. Tuesday, Wednesday, and Thursday, at a cost of $200 per day. This has been referred to Frank Heart for approval.

Registration for exhibitors and all others on committee business will be done on Monday until 6 P. M. at a table at the head of the mezzanine stairs. At 6 P. M., the regular registration desk will take over this function.

Preliminary plans have been made for liability insurance and for guards. Final arrangements will be made during November.

The details of the cocktail party and dinner will be worked out with the hotel in the next few weeks.

Definite needs for bulletin boards have been established for list of registrants, recruiting notices, and trip announcements, and a blackboard for messages. Blumenthal plans to have extra bulletin boards available to meet unforeseen needs.

The sponsoring societies will be invited to supply literature and man one or more sponsoring societies booths. (Heart asks that the societies be actively solicited--that is to say, goaded--to provide material.) If no society wishes to man a booth, we will provide and man one booth for the three societies.

Blumenthal volunteered to investigate getting a cash register for the ticket booth which will stamp a validation on each ticket sold.

Blumenthal asked to have by November 15 a list of those people who are to receive free dinner or cocktail party tickets. Subsequent to the meeting, Frank Heart agreed to supply this list.

Immediately after the meeting Blumenthal planned to work out the mezzanine floor plan and give it to Kramer (Printing and Publicity) for inclusion in the final program.

Blumenthal expressed a strong belief that the conference attendance will exceed 3000. He has given some thought to providing closed-circuit television to carry the meeting to some available space in or near the Statler. He suggested that the committee members make tentative plans regarding possible excess attendance.

Blumenthal will arrange for furnishing for committee headquarters (Hancock Room).

Printing and Publicity

Unless something can be done, the delivery of the advance program from the printer will be late. As a consequence, the mailing would be about 5,000 letters a day for 5 days beginning Monday, October 26, and ending Friday, October 30. Effort will be expended to try to improve matters. Frank Heart expresses a strong desire to see a copy of the advance program before it goes in the mail.

The preparation of the final program appears to be under control. Proofs are expected to be available November 7. However, the original budget figure of $200 for the final program will be exceeded manyfold. It has been rebudgeted at $1500. 3500 copies are planned. If the incremental cost is trivial for 500 more, the number of copies will be 4000.

Requests for signs to be provided by the Printing and Publicity Committee are to be in by 1 November. For last-minute work, the Committee will arrange to have a sign painter at the hotel on Monday evening and Tuesday morning the week of the conference.

A conference badge will be designed and printed in several colors to distinguish the types of registrants (i.e., speakers, local arrangements committee and staff NJCC, exhibitors, regular attendees).

A misprint occurred on the registration card, giving the dinner price as $7.00 instead of $7.50. It was agreed to correct this error only if it could be done for $100 or less.

The needs of DATAMATION for publicity material are apparently satisfied.

A publicity announcement to newspapers, trade journals, radio stations, and television stations will be sent out next week.

Post-meeting note: The publicity people are reminded that plans for publicity other than routine distribution of announcements must be checked with Frank Heart before commitments are made.

Registration

Representation of the Registration Committee was regrettably absent. Registration Committee Chairman Henry Schmitz is out of town until November 4.

Registration Committee plans to provide 6 typewriters and 2 tape-producing cash registers for the registration desk.

Corporation for Economic and Industrial Research (contact: Tom Lyons) has volunteered to keypunch and list the registration information. The card is presumably to be in a format suitable for use by Willis Ware (RAND) for maintaining a mailing list.

The list of people receiving complimentary registration including proceedings will be supplied by Frank Heart. Local Arrangements Committee chairmen and vice-chairmen will receive complimentary registration with proceedings. Exhibitors and other Local Arrangements Committee members will receive complimentary registration without proceedings.

The definite numbers of people for manning the registration desk have not been decided upon.

Post-meeting notes: (1) Some notation must be put on registration cards to show which registrants are automatically to receive a copy of the proceedings (that is, without further payment). This indication must be carried over to the punched cards which will be used to print the registration list and later will be used by Willis Ware to print the mailing labels for the proceedings. (2) Will exhibitors and conference committee help have registration cards, and, if so, will their names appear on the registration list and eventually in Willis Ware's mailing list? (3) Remind CEIR that registration lists are not to be given to anyone without Frank Heart's O. K.

Trips

In response to an earlier suggestion by Frank Heart, an additional trip to Lincoln Lab has been arranged, for Wednesday morning, bringing the capacity of the Lincoln trips to 200 people. Capacity of the A. D. Little trip could not be increased.

A letter has been sent inviting local companies to provide open house or unofficial tours. Analex is the only company to respond so far. Several companies contacted directly have also shown interest.

Blumenthal will investigate getting liability insurance coverage for trip attendees. Vanderburg will inquire what insurance the bus company carries.

Hospitality

Art Hughes summarized the hospitality literature. It was agreed that the literature (such as places to shop) of interest only to the ladies would be printed and distributed separately from the final program.

Exhibits

Exhibitors are being turned away for lack of suitable space.

A floor layout of exhibits on the mezzanine and fourth floor was sent in by mail.

Post-conference note: A semi-final exhibitors list exists in the form of letters from Whitlock to Bailey tabulating the exhibit receipts. Bailey is making a few copies of the list for interested parties.

Publication of Proceedings

It is planned to have the conference proceedings printed locally and to have them mailed within 2 months after the conference.

Post-meeting note: Willis Ware of RAND Corp. will supply the mailing labels from the punched-card registration list. Orders for copies of proceedings not covered by the registration fee will be turned over directly to Harlan Anderson, who will have mailing labels typed from them.

General

The need for detailed manpower requirements for manning desks, etc., to be submitted to Harry Fuller was stressed.

Post-meeting note: (1) Bear in mind that things which cost money not in the budget must be cleared with Frank Heart. (2) It appears that the responsibility for maintaining the recruiting bulletin board has not been assumed by any committee.

Heart asked to have the committee members reminded that:

each committee should try very very hard to imagine themselves in the shoes of an average or perhaps slightly stupider-than-average conference attendee, and try to visualize all the kinds of questions, problems, etc., which such a person might have in the areas affected by a particular sub-committee. The smoothness of the operation is completely dependent upon people going through this mental exercise and then making prior arrangements to cope with as many potential problems as possible.

The committee members were reminded by the chairman that their hard work was really appreciated.

The meeting adjourned at 9:20 P. M.

- Submitted by P. R. Bagley

PRB/als

1959

Eastern Joint

Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
~~P.O. Box 3~~
~~Needham 94, Massachusetts~~

M.I.T.
Lincoln Laboratory
Lexington 73, Mass.

23 September 1959

Mr. H. F. Anderson
Publication Committee
1959 Eastern Joint Computer Conference
Digital Equipment Corporation
Main Street
Maynard, Massachusetts

Dear Andy:

I would like to indicate concurrence with your choice of Graphic House Associates as the printing contractor for the Proceedings of the 1959 Eastern Joint Computer Conference. I discussed this matter with Mr. Cummings, as suggested by Harry Goode, and the I.R.E. apparently has no deep-seated negative reactions.

The Proceedings' budget figure will remain at $3.00. It is my impression that enough money is available as back-up in the event of a small miscalculation, and I sincerely hope we do not have a large miscalculation.

I will be out of town until roughly the middle of October but will plan to talk to you at the Steering meeting on October 19.

Regards,

Frank

Frank E. Heart

FEH:bic

1959 EASTERN JOINT COMPUTER CONFERENCE

LAC COMMITTEE MEETING (LAC-5)

Tuesday, September 8, 1959

6:00 P.M.

MIT Faculty Club

LAC COMMITTEE MEETING (LAC-5)

This meeting was held September 8, 1959, 6:00 p.m. at the MIT Faculty Club.

In attendance were:

Philip R. Bagley, LAC Vice Chairman
David Bailey, Finance Chairman
S. Paul Blumenthal, Hotel Chairman
Howard Cohen, Exhibits Chairman
Henry E. Frachtman, Finance Vice Chairman
Harrison W. Fuller, LAC Chairman
Frank E. Heart, Conference Chairman
Arthur D. Hughes, Hospitality Chairman
Robert Kramer, Printing and Publicity Vice Chairman
Albert Linsky, Exhibits Vice Chairman
Hideo Mori, Representing National Simulation Council
Frederic W. Spearin, Hospitality Vice Chairman
Alexander Vanderburgh, Jr., Trips Vice Chairman
George Wood, Publicity and Printing Vice Chairman

Exhibits Committee

The 4th floor was investigated and it was decided to exhibit there. The additional exhibit space on the 4th floor will cost the same per square foot as that on the 2nd. This additional space will give a total of 89 booths.

Finance Committee

A $5,000 balance was reported with another payment from Mr. Whitlock.

Hospitality Committee

It was recommended that EJCC sponsor a cocktail party Monday night for the exhibitors. Further consideration of this must wait for a more final budget.

Showing a movie of Boston at the morning coffee hour was suggested but S. P. Blumenthal said the rooms he had in mind are too small. There is a possibility of using the Bay State Room for this purpose, if it is available. It will be discussed further. There is no question that a satisfactory room can be found. A. D. Hughes will formalize this room request in a letter to S. P. Blumenthal.

Three types of maps will be available, Freedom Trail, Visitors Map of Boston, and an Esso map, along with other literature.

Hotel Committee

By September 15, Mr. Felker should specify the exact number of rooms he requires. He will have a Program Committee Dinner meeting with 26 or 27 people.

It was suggested that reserved sleeping rooms be held until the last possible date that the Statler will hold them.

Insurance covering the conference and exhibit areas has been taken care of.

The Hotel Committee will arrange for all dinners, cocktail parties, meeting rooms, conference rooms, etc. This will keep down the number of people contacting the Statler and eliminate confusion.

Printing and Publicity

There is a possibility that a private printer may be used instead of IRE.

Datamation magazine is planning on covering EJCC again this year as in the past. G. Wood will make sure that he is the principal contact for Datamation, and will establish this with Datamation.

Mr. Kramer showed a proposed advance program and a final program. There was some controversy as to size, but all agreed it was attractive. It was suggested that the advance program should have something about Boston to make it attractive to visitors.

E. Heart, H. Fuller, P. R. Bagley and R. Kramer will meet the week of September 11 to discuss the preliminary program mailing.

Registration Committee

IBM is making up the registration cards.

The registration desk will be open the night before from 6 p.m. to 9 p.m. the next day.

A postal permit and a P.O. box in Arlington Heights were obtained. Return registration will be mailed to this box, and handled first by D. Bailey.

Trips Committee

The two organized trips will be limited to no more than 100 people.

The local companies that offer open house will be an unofficial part of the Conference. Alex Vanderburgh will contact local organizations by telephone.

Insurance coverage for the organized trips and possible liability for the unorganized ones will be investigated by S. P. Blumenthal.

General Comments

'63 Conference: V. Heart suggested delaying the reservation of the New Prudential Center for a Boston EJCC in 1963.

Recruiting: Mr. Heart suggested that some rule about recruiting be put into the program or sent to exhibitors. It was further suggested that 3 x 5 cards be stamped and posted on a bulletin board.

LAC Chairman: P. R. Bagley will be Acting Chairman of LAC in the absence of H. Fuller from Sept. 19 to about Oct. 12.

NEXT MEETING Thursday, October 15, 1959, MIT Faculty Club, 6:00 p.m., to be arranged by P. R. Bagley.

1959

Eastern Joint

Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
Bell Telephone Laboratories
Mountain Avenue
Murray Hill, New Jersey
Room 5C-101

Amer. Tel. & Tel. Co.
195 Broadway
New York 7, New York
Room 1122

September 2, 1959

Mr. H. E. Anderson, Vice President
Digital Equipment Corporation
Main Street
Maynard, Massachusetts

Dear Harland:

We have reviewed your "Manuscript Instructions to Authors." My chief comment is that we would like to have 40 copies instead of 30. It will be very important that we get a copy of the final manuscript at the same time that you do so that our Session Chairman can read the paper and be in a position to introduce it properly. Ben Gurley has volunteered to work closely with you on this and send our copies out to the Session Chairman as soon as they arrive in Boston. Will you therefore request an extra copy of the manuscript and drawings for our exclusive use? Some minor comments on the write-up have been penciled in to the margin of the enclosed copy.

You may be interested to know that we plan to tell authors that no one will be allowed to appear on the program who does not get their paper to you by November 15. This makes it doubly important that Ben Gurley be in touch with you as the papers are received.

Sincerely,

Jean H. Felker

c.c.: B. M. Gurley
R. A. Kudlich

In Reply Address
P. O. Box 5,
Needham 94, Massachusetts

50

1959

Eastern Joint

Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

COPY

MANUSCRIPT INSTRUCTIONS TO AUTHORS

You will have two means of communicating your 1959 Eastern Joint Computer Conference paper to the computer field, orally and written.

Past conferences have shown that the Proceedings of the E.J.C.C. are an important and lasting record of the meeting. To maximize the usefulness of this material two important points must be kept in mind.

1. the written record must be distributed soon after the conference.

and 2. the material must be prepared in a clear manner.

DEADLINES

Four ~~Three~~ copies of your final manuscript and all drawings and photographs must be in the hands of the Publications Committee by November 15, 1959. Send them to:

Harlan E. Anderson
EJCC Publication Committee
Digital Equipment Corporation
Maynard, Massachusetts

We need one for program committee

E.J.C.C. Steering Committee voted not to print papers that failed to meet this deadline.

During the conference itself (December 1-3) you will be contacted by a member of the Publications Committee for a final check on any editorial changes that may have been made on your paper. It is hoped that galley proofs from the printers will be available at that time.

Review of the text of questions and answers as recorded by stenotypists will also be carried out during the conference if at all possible.

MATERIAL PREPARATION

Title

The title should be short if possible but not so short that the subject will not be indicated clearly. The author should remember that a paper is indexed by significant words in the title and that many readers of the PROCEEDINGS select the papers they read from the table of contents. The title, therefore, should be carefully chosen. Six to eight words is the usual maximum length.

Abstract

The abstract should be really informative and should outline the essentials of the paper within the compass of about 200 words or less. It should be meaty enough to serve as a complete abstract for such services as Science Abstracts or the Abstracts and References section of the PROCEEDINGS. The author should ask himself if he is willing to accept his abstract, without the rest of the paper, as a fair statement of what he has accomplished. The problem should be clearly stated, the method of attack outlined, and numerical results, where possible, included. In general neither references nor equations should appear in the summary. The essence of a good abstract is a concise statement in plain English of just what has been done and why.

Figures and Tables

It is very helpful to readers of all classes if tables, figures, curves, etc. can be arranged so that they are self-explanatory and can be used with a minimum of reference to the text. The quantities and units used in plotted curves should be given clearly, and the captions worded to convey as much information as possible to the engineer who is merely leafing through his copy of the PROCEEDINGS. If his attention is caught by curves that mean something to him, he is much more likely to read the paper. A caption such as "Plot of X_o/y versus s for various values of the parameter n," will not enlist the interest of many readers. It is better to say, "Axial sound-pressure curves of electrostatic loudspeaker for various diaphragm thicknesses."

Manuscript

Manuscripts should be typed on one side of the sheet only and double spaced. All illustrations should be referred

to in the text by figure number. All footnotes should be numbered.

Footnote references must be complete. Authors' initials, title of article, volume and page numbers, and month of publication should be included. The complete reference should be as follows:

For a periodical: R. N. Hall, "Power rectifiers and transistors." PROC. I.R.E., vol. 40, pp. 1512-1518; November, 1952.

For a book: W. A. Edson, "Vacuum Tube Oscillators," John Wiley and Sons, Inc., New York, N. Y., pp. 170-171; 1948.

Illustrations

Drawings for printing must be in black ink on white paper or on tracing cloth. Photographs must be glossy prints. The size should not exceed 8½ by 11 inches.

It should be borne in mind that most illustrations will be reduced in size to a 3½ column width when printed. It is particularly important, therefore, that all letters, numbers, and lines be drawn large enough and heavy enough to remain legible after reduction.

Drawings with typewriting on them are not acceptable. All information to be reproduced must be hand lettered in ink.

Graphs should be drawn with only the major coordinate lines showing. A chart containing a large number of closely spaced lines will not reproduce legibly.

Captions, if they are included on the drawing itself, should not appear within the area to be reproduced. They should be placed under the illustrations.

Please feel free to contact me, if you have questions concerning any of the material above.

Harlan E. Anderson
Chairman, Publications Committee

1959

Eastern Joint

Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
P. O. Box 5,
Needham 94, Massachusetts

MANUSCRIPT INSTRUCTIONS TO AUTHORS

You will have two means of cummunicating your 1959 Eastern Joint Computer Conference paper to the computer field, orally and written.

Past conferences have shown that the Proceedings of the E.J.C.C. are an important and lasting record of the meeting. To maximize the usefulness of this material two important points must be kept in mind.

1. the written record must be distributed soon after the conference.

and 2. the material must be prepared in a clear manner.

DEADLINES

Four copies of your final manuscript and all drawings and photographs must be in the hands of the Publications Committee by November 15, 1959. Send them to:

Harlan E. Anderson
EJCC Publication Committee
Digital Equipment Corporation
Maynard, Massachusetts

E.J.C.C. Steering Committee voted not to print papers that failed to meet this deadline.

During the conference itself (December 1-3) you will be contacted by a member of the Publications Committee for a final check on any editorial changes that may have been made on your paper, It is hoped that galley proofs from the printers will be available at that time.

Review of the text of questions and answers as recorded by stenotypists will also be carried out during the conference if at all possible.

MATERIAL PREPARATION

Title

The title should be short if possible but not so short that the subject will not be indicated clearly. The author should remember that a paper is indexed by significant words in the title and that many readers of the PROCEEDINGS select the papers they read from the table of contents. The title, therefore, should be carefully chosen. Six to eight words is the usual maximum length.

Abstract

The abstract should be really informative and should outline the essentials of the paper within the compass of about 200 words or less. It should be meaty enough to serve as a complete abstract for such services as Science Abstracts or the Abstracts and References section of the PROCEEDINGS. The author should ask himself if he is willing to accept his abstract, without the rest of the paper, as a fair statement of what he has accomplished. The problem should be clearly stated, the method of attack outlined, and numerical results, where possible, included. In general neither references nor equations should appear in the summary. The essence of a good abstract is a concise statement in plain English of just what has been done and why.

Figures and Tables

It is very helpful to readers of all classes if tables, figures, curves, etc. can be arranged so that they are self-explanatory and can be used with a minimum of reference to the text. The quantities and units used in plotted curves should be given clearly, and the captions worded to convey as much information as possible to the engineer who is merely leafing through his copy of the PROCEEDINGS. If his attention is caught by curves that mean something to him, he is much more likely to read the paper. A caption such as "Plot of X_0/y versus s for various values of the parameter n," will not enlist the interest of many readers. It is better to say, "Axial sound-pressure curves of electrostatic loudspeaker for various diaphragm thicknesses."

Manuscript

Manuscripts should be typed on one side of the sheet only and double spaced. All illustrations should be referred to in the text by figure number. All footnotes should be numbered.

Footnote references must be complete. Authors' initials, title of article, volume and page numbers, and month of publication should be included. The complete reference should be as follows:

For a periodical: R.N. Hall "Power rectifiers and transistors." PROC. I.R.E., vol. 40, pp. 1512-1518; November, 1952.

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Illustrations

Drawings for printing must be in black ink on white paper or on tracing cloth. Photographs must be glossy prints. The size should not exceed 8½ by 11 inches.

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Captions, if they are included on the drawing itself, should not appear within the area to be reproduced. They should be placed under the illustrations.

Please feel free to contact me, if you have questions concerning any of the material above.

Harlan E. Anderson

Harlan E. Anderson
Chairman, Publications Committee

1959 EASTERN JOINT COMPUTER CONFERENCE

LAC COMMITTEE MEETING (LAC-4)

Tuesday, August 4, 1959

6:00 P.M.

MIT Faculty Club

Steering Committee
Faculty Club
19 Oct.
9:30 AM

?? 1 Dec ← Statler
8PM day before

call printer
Call Bennett
Paul Dixon: Printed ??
Manuscript to Folker.
Room for publicity 4th Floor
Call recent chairmen

Call Frank on Wed.
Stenotypist

LAC COMMITTEE MEETING (LAC-4)

This meeting was held August 4, 1959, 6:00 p.m. at the MIT Faculty Club. In attendance were:

Philip R. Bagley, LAC Vice Chairman

David Bailey, Finance Chairman

S. Paul Blumenthal, Hotel Chairman

Howard Cohen, Exhibits Chairman

Harrison W. Fuller, LAC Chairman

Robert Kramer, Printing and Publicity Vice Chairman

Albert Linsky, Exhibits Vice Chairman

Rolland Mayer, Trips Chairman

Hideo Mori, Representing National Simulation Council

Frederic W. Spearin, Hospitality Vice Chairman

Albert Ventola, Hotel Vice Chairman

Exhibits Committee

All booths have been sold. In addition, many companies have expressed a strong interest. Approximately 14 more booths could be sold using the mezzanine and Hancock Room.

A group, consisting of Fuller, Cohen, Blumenthal, Schmitz, and Bagley, will review the mezzaine space and the Hancock Room on Friday, August 7.

Mr. Whitlock will inform exhibitors that insuring their exhibits is up to them.

Finance Committee

A bank balance of $4,000 was reported. A check in the amount of $3,780 was received from Mr. Whitlock.

Copies of purchase orders made by committee members should be sent to Mr. David Bailey.

Hospitality Committee

An informal coffee hour will be held each morning for wives and guests. It was suggested that a hostess be present to plan trips and inform of interesting happenings in Boston. There will be a tour of Boston.

Mr. Sherry will supply literature on Boston and a calendar of events.

Hotel Committee

Fifteen rooms have been reserved on the 4th floor. S. P. Blumenthal said that some of these rooms have a 50-person capacity, others are considerably smaller.

The hotel would like the Imperial Ballroom for the night of Nov. 30. We have not given them a decision. S. P. Blumenthal feels we should give back the Ballroom, but that guards be posted.

Publicity Committee

An advanced program will be mailed with Statler pre-registration cards and instructions to return cards immediately.

Registration Committee

It was agreed that a fee of $1 be charged to students with $3 per copy of Proceedings optional. Members will be charged $4-5; non-members $6-7. Copy of proceedings is included in this price.

Trips Committee

Two trips were tentatively suggested: Lincoln Laboratory Wednesday during the day and Arthur D. Little during the evening.

Registration for trips will be on Tuesday and will be limited on a first-come, first-served basis. There will be a $1.50 transportation charge.

In addition to these trips, several organizations in this area will welcome guests. They will be announced in the Convention Program.

General Comments

The new Prudential Center was suggested as a possibility for the '61 convention. It was suggested that reservations be placed now anticipating a Boston EJCC in 1963.

Next Meeting: September 8, 1959, MIT Faculty Club, 6:00 p.m.

HWF:ks

1959

Eastern Joint

Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
P. O. Box 5,
Needham 94, Massachusetts

3 September 1959

Mr. Jean H. Felker
American Telephone & Telegraph
195 Broadway
New York 7, New York

Dear Jean:

Thank you very much for your letter of 31 August. It is certainly clear that a considerable amount of work has been involved. If you are still planning to have another Program Committee Meeting on or about September 11, I would like to attend and I would appreciate information concerning the time and place.

The general EJCC schedule seems quite reasonable. I will send a copy to Harry Fuller to check local reactions.

With regard to the panels, my response is mixed. I have a slight inclination toward a fewer number of panels in order to emphasize single-session aspects of the conference; if you are undecided I would recommend a smaller number than six. I have some additional comments on the panel discussion titles:

a. I don't understand the subject of the Poppelbaum panel.

b. The Grems' panel has a rather general title - do you really plan to leave it this way?

c. I still have some slightly negative feelings about the "You're not getting through to your editor."

d. The three other panel titles sound fine.

Please understand that within the time-space limitations you are free to do as you wish in connection with these panels; the above reactions are merely for your benefit.

I rather like the idea of having three stand-by papers for possible substitution; however, the idea of printing such papers (if they are not presented orally) still bothers me. As you may

recall, I was worried about a possible strong adverse reaction on the part of the sponsoring societies' Publication people. Is it possible that the three stand-by authors would be sufficiently anxious to present a paper at EJCC that they would be prepared to act as stand-by without any promise of publication? Specifically, I would prefer that we could avoid publishing such extra papers; if you strongly feel that such a promise of publication is required in order to obtain stand-bys, I am prepared to reluctantly go along.

With regard to the dinner on Thursday, I do not have strong personal feelings concerning the timing or the "sit down" versus "buffet." My personal mild preference was for an earlier, quicker meal to permit people to get away earlier. Since the Local Arrangements Committee was always slightly opposed to the dinner concept on Thursday, they probably don't care whether it is early, late, or middling. As the Program Committee appears to have a definite view, I will recommend to Harry Fuller that the dinner plans come out as close to your suggestions as possible. The organization of award presentation followed by a talk sounds quite reasonable.

Thanks again for all the effort.

Sincerely yours,

Frank E. Heart

FEH:bic

cc: H.W.Fuller, w/Felker ltr 8-31-59
H.F.Anderson, "

COPY

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

195 BROADWAY, NEW YORK 7, N.Y.

AREA CODE 212
EX 3-9800

J. H. FELKER
TRANSMISSION ENGINEER

August 31, 1959

Mr. F. E. Heart
Massachusetts Institute of Technology
Lincoln Laboratory
Lexington 73, Massachusetts

Dear Frank:

We had a busy Program Committee Meeting on Friday, August 28. The program is shaping up as follows. We will select 27 papers from the more than 130 submitted (tentative schedule attached). We propose about six panel sessions (tentative list attached) in the Bay State Room and running in parallel with the technical papers.

We have three papers in hand on self-organizing and biological type systems. We are considering having these papers presented in the main stream of papers and of also having a free-for-all discussion of the subject on Wednesday evening with the speakers and three additional "experts" in charge of discussion. All this is dependent on the quality of the three papers. They require further study before we are certain we want to accept them.

By September 15 we hope to have the program lined up. Incidently, since we intend to be hard-boiled about rejecting papers that are not received in final form by November 15, we believe it will be prudent to have three standby papers held in reserve. We will tell the authors of these papers that their papers, if received by November 15, will be printed in the conference proceeding and a decision as to whether or not the paper can be presented orally will be made by November 20. We realize that these papers can not be listed in the program. If they are used they will be used as direct substitutes with no changes in the schedule. I would like your concurrence in offering publication of these supernumerary papers in the conference proceedings.

As to the conference dinner, we propose a sit-down dinner at 6:30 on Thursday evening. Ben Gurley has complete confidence in the Statler's ability to serve a large group rapidly. We plan a short presentation of the award followed by a talk of 20 to 30 minutes duration. We have specific suggestions for the speaker. We hope to settle this matter soon.

Sincerely,

Attached:
Proposed Schedule
Tentative List of Panel Discussion

Copies to Program Committee

1959 EJCC - Proposed Schedule for Technical Sessions and Special Events

Tuesday, December 1

9:00 - 10:00	Registration
10:00 - 10:30	Welcoming address by Conference Chairman and announcements
10:30 - 12:00	Two 30-minute papers, or one 40 plus one 20-minute paper, plus 20-minute discussion plus shuffling
12:00 - 2:00	Break
2:00 - 5:00	Standard technical Session with 5 papers (See attached sheet)
6:00 - 8:00	Cocktail party

Wednesday, December 2

9:00 - 12:00	(1) Standard technical Session* (2) In parallel, panel discussion A (up to 1-1/2 hours in Bay State Room)
12:00 - 2:00	Break
2:00 - 5:00	(1) Standard technical Session (2) In parallel, panel discussion B (up to 1-1/2 hours in Bay State Room)
Evening	Inspection tours
Evening	Large Panel Discussion

Thursday, December 3

9:00 - 12:00	(1) Standard technical Sessions (2) In parallel, panel discussions C and D (up to 3 hours in Bay State Room)
12:00 - 2:00	Break
2:00 - 5:00	(1) Standard technical Sessions (2) In parallel, panel discussions E and F (up to 3 hours in Bay State Room) Note: Because of dinner, this session may have to end at 4:30
6:30 - 8:30(?)	Dinner, presentation of award

Above schedule provides for a maximum of 27 papers plus panel discussions.

* See last sheet for definition of stand session

Timetable for Standard 3-Hour Session

Minutes	
0-5	Introduction by Chairman
5-25	Paper #1
25-45	Paper #2
45-65	Paper #3
65-90	Discussion of first three papers
90-100	Allowance for lost motion
100-115	Break
115-135	Paper #4
135-155	Paper #5
155-170	Discussion of last two papers
170-180	Allowance for lost motion

Note 1: By reducing discussion period, a 30-minute paper could be fit into second part of session.

Note 2: If Chairman is giving tutorial paper and comments, only 4 papers would be given, of which one, and perhaps two, could be 30-minute papers.

TENTATIVE LIST OF PANEL DISCUSSIONS

Subject	Sponsor
System Aspects of Very High Speed Computers	R. A. Kudlich
Machine Aids to Preparation of Manufacturing Information	R. A. Kudlich
Circuit and Device Models for Tolerance Analysis	W. J. Poppelbaum
Applications	Miss M. Grems
"You're Not Getting Thru to Your Editor"	Trade Press*
Self-Organizing and Biological Type Systems	The Committee

* Editor of Datamation proposed this

1959

Eastern Joint

Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
P.O. Box 5
Needham 94, Massachusetts

M.I.T.
Lincoln Laboratory
Room B-283
Lexington 73, Mass.

28 August 1959

Mr. R. S. Gardner
Asst. Secretary, Technical Activities
American Institute of Electrical Engineers
33 West Thirty-Ninth Street
New York 18, New York

Dear Mr. Gardner:

This letter is in reply to your note of 18 August addressed to Mr. Harry Goode. I would particularly like to bring you up to date concerning the status of publication plans for the 1959 Eastern Joint Computer Conference Proceedings.

We have reached a decision that the conference Proceedings will not be distributed at the conference. It is felt that the arguments for inclusion of discussion and the desires to give authors the maximum preparation time override the desire for at-conference distribution. Although several recent conferences have successfully distributed papers at the door, such a procedure involves compromises which we have decided to avoid.

We have chosen to use a volunteer committee for the editorial and planning aspects of the conference Proceedings. As you may have noted from the conference letterhead or the Call for Papers, Mr. Harlan Anderson of the Digital Equipment Corporation is Chairman of the Publication Committee.

Insofar as the actual printing is concerned, we have not yet reached a final decision. The normal and obvious choice is the IRE inasmuch as Eastern Joint Computer Conferences have, by precedent, alternated printing between the AIEE and IRE in successive years. It is quite likely that we will use the facilities of the IRE; however, the long delays which have occasionally occurred in connection with the printing of EJCC Proceedings have induced us to also examine the possible advantages of independent commercial printers, and this examination is not yet quite complete. I was rather concerned about your statement that "We offered the 1959 Eastern Joint Computer Conference our facilities and personnel to print the proceedings booklet ..." A careful examination of my records indicates no such

offer, unless you are referring to the correspondence in connection with an offer of commercial assistance on the part of Mr. Lewis Winner and your recommendations concerning his competence. I certainly did not interpret that correspondence as an official offer on the part of AIEE. In any case, we have not seriously considered the services of the AIEE for this 59 EJCC printing job in light of the strong alternating precedent.

In connection with details regarding the program, it is our current plan to release a preliminary program to the members of the three societies on roughly the first of November. In any case, the Program Committee under Mr. Jean Felker is at this very moment involved in filtering a large influx of papers in order to arrive at a program. You may have guessed at this schedule in light of the much publicized August 15 closing date for submission of technical papers. All personnel concerned with the 59 EJCC are trying very hard to meet the 1 November distribution date, and I am optimistic concerning this deadline. Prior to that time there will be very little material available concerning the actual program, field trips, etc. A sizable portion of the exhibit space has been sold and the names of the exhibitors are available; however, I do not have an up-to-date list and if you are particularly interested in listed exhibitors these might be obtained from Mr. Fuller, Chairman of the Local Arrangements Committee.

I would be happy to furnish you additional information as you may require, but I am sure you recognize the inevitable difficulty of keeping everyone properly informed. By the way, I would like to express strong agreement with the other part of your letter: the sooner a General Chairman is chosen for the 1960 EJCC, the better. I would have been very glad to have a longer time period in which to work.

Very truly yours,

FEH

Frank E. Heart

FEH:bic

cc: H.H.Goode
H.F.Anderson, w/cy ltr 8-18-59 from R.S.Gardner

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS
33 WEST THIRTY-NINTH STREET
NEW YORK 18, N. Y.

COPY

F.E. HEART

AUG 20 1959

August 18, 1959

Mr. Harry H. Goode, Chairman
Joint Computer Committee
Bendix Systems Division
Ann Arbor, Mich.

Dear Mr. Goode:

Time is moving along and we are getting to the point where it would seem advisable to name a General Chairman for the 1960 Eastern Joint Computer Conference. Considerable detail, as you know, is necessary in planning a conference and it puts a prospective General Chairman at a disadvantage if he does not know in advance that he has to take on such an assignment. Other chairmen have to be assigned for local arrangements and sometimes it is hard to get men in New York as they feel that the Winter General Meeting and other big meetings, that are put on here, just about takes all available personnel. However, I am confident that there are many capable men in this Section who could work on this conference but we will need time to locate them and get them in-the-groove, so to speak. If anything has been done along these lines which I have not been advised of will you kindly let me know so that we might expedite the activitiy.

We offered the 1959 Eastern Joint Computer Conference our facilities and personnel to print the proceedings booklet and have it available at the time of the conference, but have not had any definite word from them. Further information is requested in this regard, and if it is not to be used, what is being done about this particular booklet and where is it proposed to be printed? More details regarding the program and other events would also be helpful, so that we can give it publicity.

We have already had more contact with the 1960 Western Joint Computer Conference than on either Eastern Conferences and we are naturally as interested in the success of the Eastern Conferences. I would appreciate word from you and/or Mr. Heart on both the 1959 and 60 EJCCs.

Very truly yours,

R.S. Gardner

R.S. Gardner, Ass't. Secretary
TECHNICAL ACTIVITIES

RSG:bs

cc: F.E. Heart

digital | EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

Manuscript Instructions to Authors

You will have two ~~opportunities~~ means of communicating to your ~~fellow~~ ~~paper to be delivered at the~~ for the 1959 Eastern Joint Computer Conference ~~and~~ paper ~~to be presented via oral~~ to ~~have two opportunities~~ ~~those people vitally interested in the~~ the computer field, orally and ~~in the Proceedings~~ written.

Past ~~one~~ conferences have shown ~~the~~ that the Proceedings ~~of~~ _____ are ~~a I~~ an important and lasting record of the meeting. To maximize the ~~useful~~ usefulness of this material two important points ~~will be followed this year~~ must be kept in mind.

1. the written record must be distributed soon after the conference
and 2. the material must be prepared in a clear ~~e~~ manner.

Deadlines

Three copies of your ~~paper~~ final manuscript and all drawings and photographs must be in the hands of the ~~E~~ Publications Committee by November 15, 1959. Send them to:

Harlan E. Anderson
EJCC Publication Committee
Digital Equipment Corporation
Maynard, Massachusetts

~~Failure to meet this deadline~~

E.J.C.C. Steering Committee voted not to print papers that failed to meet this deadline.

~~Editorial changes~~

During the conference itself (December 1-3) you will be contacted by a member of the Publications Committee for a final check on any editorial changes that may have been made on your paper. It is hoped that galley proofs from the printers will be available at that time.

Review of the text of questions and answers as recorded by stenotypists will also be carried out during the conference if at all possible.

Material Preparation

Title #1

Abstract #2

Figures + Tables #3

Manuscript #4

Illustrations #5

THE INSTITUTE OF RADIO ENGINEERS
INCORPORATED
1 EAST 79 STREET
NEW YORK 21, N.Y.
LEHIGH 5-5100

June 11, 1959

Mr. Harlan Anderson
Digital Equipment Corp.
Maynard, Mass.

Dear Mr. Anderson:

I estimate that the Proceedings of the 1959 Eastern Joint Computer Conference will cost approximately $4200 for 2,000 copies and about $40.00 for each additional 100 copies. This estimate is based on a program of twenty papers and an issue of 128 pages.

I am enclosing Information for Proceedings Authors on which I have marked in red those instructions which should be transmitted to the authors.

The IRE Editorial Department will need only one copy of each paper. However, you might consider asking the authors for two copies. The extra copy could be held by the Proceedings committee as a protection against the loss of the original.

Please feel free to call on me if you have any further questions.

Sincerely yours,

E.K. Gannett
Managing Editor

EKG/php

Reprinted from the PROCEEDINGS OF THE I.R.E.
VOL. 42, NO. 11, NOVEMBER, 1954

PRINTED IN THE U.S.A.

Information for Proceedings Authors

Reprints of these instructions are available on request from the Editorial Department, Institute of Radio Engineers, 1 East 79 Street, New York 21, N. Y.

Suggestions on Content and Presentation

IN ACCORDANCE with policy determined by the Editorial Board, PROCEEDINGS papers must describe sound and important work in a manner which is intelligible to engineers working in other fields. This is so that the PROCEEDINGS can serve not only to provide reference material for specialists but also to keep radio engineers generally informed on progress in the various branches of radio engineering and electronics. It is believed that these objectives are not conflicting and that clarity of presentation is welcomed as much by the expert as by the casual reader. A clearly written paper, moreover, will secure for the author the largest possible audience. The following suggestions as to form and organization are to assist the author in presenting his material to the best advantage.

The paper will ordinarily consist of a Title, Summary or Abstract, Introduction, Main Section and Discussion, in that order. The summary at the beginning, rather than a list of conclusions at the end, has been adopted as the IRE standard form. The roles of these parts of the paper in increasing the clarity of presentation will be discussed in the following paragraphs.

The Title

The title should be short if possible but not so short that the subject will not be indicated clearly. The author should remember that a paper is indexed by significant words in the title and that many readers of the PROCEEDINGS select the papers they read from the table of contents. The title, therefore, should be carefully chosen. Six to eight words is the usual maximum length.

The Summary or Abstract

This section should be at the beginning of the paper because here it leads naturally into the introduction. It is helpful for the reader to be informed briefly of the subject, method, and results before the background of the work is reviewed in the introduction to follow. The summary should be really informative and should outline the essentials of the paper within the compass of about 200 words or less. It should be meaty enough to serve as a complete abstract for such services as Science Abstracts or the Abstracts and References section of the PROCEEDINGS. The author should ask himself if he is willing to accept his abstract, without the rest of the paper, as a fair statement of what he has accomplished. The problem should be clearly stated, the method of attack outlined, and numerical results, where possible, included. In general neither references nor equations should appear in the summary. The essence of a good abstract is a concise statement in plain English of just what has been done and why.

An example of a good abstract is the following one of the paper, "Some New Developments in High Fidelity Loudspeakers," by H. F. Olson and John Preston, which appeared in the 1954 Convention Record, part 6, page 8.

> Three direct-radiator-dynamic-loudspeaker mechanisms have been developed for high-fidelity sound reproduction. These units are of three sizes, namely, 8-, 12-, and 15-inch mechanisms. The improvements include smoother response frequency characteristics, broader directivity patterns, improved transient response, and lower nonlinear distortion. These characteristics have been obtained by employing the proper configuration for the cone, a special pulp for the material of the cone and a damping ring in the outside suspension of the cone. In the case of the 15-inch duo cone loudspeaker an additional feature, namely, a series of conical domes are cemented to the low-frequency cone. The high-frequency response is improved by these domes because of the smaller solid angle into which the high-frequency cone operates. The directivity pattern is broadened due to the diffraction effects produced by the domes.

Contrast the above with the following, which is typical of many so-called summaries.

"The design of high-fidelity loudspeakers is discussed and a new line of loudspeakers is described." The reader of such an abstract, if it appears by itself, has no idea whether it will be worth his while to look up the original paper or not. If it appears at the beginning of the paper, it gives the reader no information as to the aspects of the problem considered, the method of attack or the results. The general reader is unlikely to dig into the body of a paper without clearer indication that he will find something of interest.

The Introduction

The purpose of the introduction is to orient the reader with respect to the problem. He should be told how the new work ties in with the old and in what respect the results are new. There is no need for the introduction to be a long scholarly study. The important relationships

can be pointed out in a few words if the author really understands the background of his work. And it helps greatly to make a paper readable if the author will state the purpose of the work again in plain English, before he plunges into the technical details.

The writer of a paper should be scrupulously careful in his introduction to give references to all work on which his paper depends directly or significantly.

The Body of the Report

Here, the writer should avoid following a stereotyped form and should bear in mind constantly that his object is to communicate information effectively to the reader. Even other workers in the same field appreciate clear indications of the line of thought that is being followed, and frequent guideposts are essential to non-specialists who want to understand the general nature of the work and its significance but do not want to go into the mathematical details.

In work that is essentially mathematical, it is most helpful to the reader to carry along with the mathematics a physical picture of the successive stages through which the work is being carried. It is frequently advantageous to put long, purely mathematical derivations in appendices to avoid interrupting the main train of thought.

The Discussion

After the work has been described and the results have been given, the significance of the work should be carefully considered, usually in a separate section. In this part of the report many of the conclusions given in the summary will be developed. The Discussion is of greatest importance, since any work that is worth reporting deserves careful appraisal. Failure to state the conclusions clearly is perhaps the commonest fault in writing a scientific paper.

Figures and Tables

It is very helpful to readers of all classes if tables, figures, curves, etc. can be arranged so that they are self-explanatory and can be used with a minimum of reference to the text. The quantities and units used in plotted curves should be given clearly, and the captions worded to convey as much information as possible to the engineer who is merely leafing through his copy of the PROCEEDINGS. If his attention is caught by curves that mean something to him, he is much more likely to read the paper. A caption such as, "Plot of x_0/y versus s for various values of the parameter n," will not enlist the interest of many readers. It is better to say, "Axial sound-pressure curves of electrostatic loudspeaker for various diaphragm thicknesses."

INSTRUCTIONS ON SUBMITTING PAPERS

The review and publication of papers will be seriously delayed if manuscripts and illustrations are not submitted in complete form. By complying with the following rules, the author can avoid delays, reduce the likelihood of errors, and improve the appearance of his paper.

Material Required

The following material should be submitted to the Managing Editor, Institute of Radio Engineers, 1 East 79 Street, New York 21, N. Y.

1. Three copies of the paper for review purposes, each copy to include illustrations, a separate list of captions, and an abstract not exceeding 200 words.
2. The master set of original illustrations (not copies) for printing must be submitted with the paper.
3. A photograph and biography (125 words) of each author must be submitted with the paper.

Preparation of Manuscripts

Manuscripts should be typed on one side of the sheet only and double-spaced. All illustrations should be referred to in the text by figure number. All footnotes should be numbered.

Footnote references must be complete. Authors' initials, title of article, volume and page numbers, and month of publication should be included. The complete reference should be as follows:

For a periodical: R. N. Hall, "Power rectifiers and transistors," PROC. I.R.E., vol. 40, pp. 1512–1518; November, 1952.

For a book: W. A. Edson, "Vacuum Tube Oscillators," John Wiley and Sons, Inc., New York, N. Y., pp. 170–171; 1948.

Abbreviations should be made in accordance with "Standards on Abbreviations of Radio-Electronic Terms, 1951," PROC. I.R.E., vol. 39, no. 4, p. 397; April, 1951.

Preparation of Illustrations

Drawings for printing must be in black ink on white paper or on tracing cloth. Photographs must be glossy prints. The size should not exceed $8\frac{1}{2}$ by 11 inches.

It should be borne in mind that most illustrations will be reduced in size to a $3\frac{1}{2}$-inch column width when printed. It is particularly important, therefore, that all letters, numbers, and lines be drawn large enough and heavy enough to remain legible after reduction.

Drawings with typewriting on them are not acceptable. All information to be reproduced must be hand lettered in ink.

Graphs should be drawn with only the major coordinate lines showing. A chart containing a large number of closely spaced lines will not reproduce legibly.

Captions, if they are included on the drawing itself, should not appear within the area to be reproduced. They should be placed under the illustration.

Graphical symbols should be drawn in accordance with "IRE Standards on Graphical Symbols for Electrical Diagrams, 1954," PROC. I.R.E., vol. 42, no. 6, p. 965; June, 1954.

—*The Editorial Board*

1959

Eastern Joint

Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
P. O. Box 5,
Needham 94, Massachusetts

July 1, 1959

EASTERN JOINT COMPUTER CONFERENCE

LOCAL ARRANGEMENTS COMMITTEE MEETING NOTICE

A dinner meeting of the 1959 Local Arrangements Committee (LAC-3) will be held at 6:00 p.m. on Tuesday, July 7, 1959 at the MIT Faculty Club, 50 Memorial Drive, Cambridge. It is expected that the meeting can be quite short. The agenda is the following:

1) Reports of Subcommittees

   Finance (Review of the new budget)
   Hotel
   Publicity and Printing
   Registration
   Trips
   Hospitality
   Exhibits

2) Discussion of what will be included in preliminary program mailing, and what material each subcommittee is expected to furnish Printing and Publicity for preliminary program mailing. (Deadline for submission - August 1)

3) Review of Critical Schedule Dates

4) Next LAC Meeting Date

5) Miscellaneous

Harrison W. Fuller

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Lincoln Laboratory

Lexington 73, Massachusetts

Volunteer 2-3370

20 May 1959

To: Distribution List

From: Frank E. Heart

Attached is an approximately chronological summary of the 1959 Eastern Joint Computer Conference Steering Committee Meeting on 14 May 1959. It seemed appropriate to construct a summary since the raw minutes consumed twelve pages.

Frank

Encl.

Distribution List:

Members, Steering Committee
Members, Local Arrangements Committee
H. H. Goode, Chairman, NJCC

Summary of Minutes

Steering Committee Meeting - 14 May 1959

1959 Eastern Joint Computer Conference

I. PRESENT:

Frank E. Heart
Harrison W. Fuller
Jean H. Felker
Harlan E. Anderson
Douglas T. Ross
Robert Kudlich
Philip R. Bagley

II. STATUS - LOCAL ARRANGEMENTS COMMITTEE

A. Committee Members

Harrison W. Fuller, Laboratory for Electronics - Chairman

Philip R. Bagley, Lincoln Laboratory - Vice Chairman

Finance Committee: David L. Bailey, The Mitre Corp. - Chairman
Henry E. Frachtman, The Mitre Corp.

Registration Comm: Henry L. Schmitz, Jr., I.B.M. - Chairman
John F. Pierce, Jr., I.B.M. - V. Chairman

Trips Committee: Rollin P. Mayer, Lincoln Lab) Co-
Al. Vanderburgh, Jr., Lincoln Lab) Chairmen

Exhibits Committee: Howard I. Cohen, Sylvania - Chairman

Exhibits Management: John Leslie Whitlock Associates
Arlington, Virginia

Printing & Publicity Committee: Douglas T. Ross, M.I.T. - Chairman
George Wood, M.I.T.)
Robert Kramer, M.I.T.) V. Chairmen

Hospitality Comm: Arthur D. Hughes, National Co. - Chairman
Frederic W. Spearin, National Co. - V. Chairman

Hotel Committee: S. Paul Blumenthal, Lab for Elec. - Chairman
Alfred E. Ventola, Jr., Lab for Elec. - V. Chairman

B. Exhibits

It is possible to have booths on the mezzanine but this area will not be offered until we see if we run out of space.

A new price for exhibit space does influence the budget. Original estimated income from exhibits was $9,000; now estimate $10,000 (without considering the mezzanine). Whitlock Associates will guarantee $8,000 to the conference.

The Committee will have a veto power over contributing exhibitors.

Whitlock's first announcement will probably be out within a week after we get the information to him; this announcement will not mention the National Simulation Council.

C. Printing & Publicity

Concerning the Printing & Publicity Committee, Ross advised they have a whole crew set up with someone assigned to each of the major things that need to be done.

A copy of the Call for Papers announcement to be sent out to the journals is attached.

A Servo Lab account number has been set up and clerical-type charges will be recorded. When accounting time comes, Servo Lab will not run the conference into the red, but they would like reimbursement, if possible, for mailing, clerical items, etc. Frank stated that mailing costs was a completely legitimate expense, but requested that before any large clerical efforts were 'committed,' Harry Fuller and Dave Bailey must be consulted.

Willis Ware had been contacted for a mailing list of the NJCC but this is being updated in August and will not be available until the end of September. Earlier mailings cannot be done from the NJCC list.

Concerning the Call for Papers to members, the ACM, IRE and AIEE were contacted asking if they can supply the postage and do the mailing and charge to the EJCC. Student members shall be included, where appropriate.

D. Other Committees

The Hotel, Registration, Trips, and Hospitality Committees are all starting to work; no significant details yet.

E. Miscellaneous

Bailey requests budget estimates from Publications (Anderson) and Printing-Publicity (Ross) as soon as it is feasible.

III. PUBLICATIONS COMMITTEE

Anderson reported on discussions with Gannett (IRE); details will be forthcoming on publication lead times and costs. F. Heart asked Anderson to at least consider other possibilities for printing in addition to IRE and AIEE.

IV. STATUS - PROGRAM COMMITTEE

A. Committee Members (To Date)

Jean H. Felker, Bell Telephone Laboratories - Chairman

Robert Kudlich, Bell Telephone Laboratories
Mandalay Grems, I.B.M.
John Hastra, I.B.M.

B. Program Possibilities

There was considerable general discussion of program possibilities. The Program Committee hopes to get about twenty good papers. They have entertained a number of suggestions that we run discussion groups in parallel with papers. Another suggestion was to have the speakers available for cross-examination (which might be arranged in the evenings).

Plans are, at least at some sessions, to ask the chairmen to provide a tutorial paper which sets the background for the papers in that section and describes the over-all fields of the papers, with the goal of taking care of the man who is interested in the field, but is not a specialist.

F. Heart felt we should not shut off the possibility of work coming in, and would like to give a very clear opportunity for members of the societies to send in contributed material for consideration; this should not be a wholly 'invited papers' conference.

V. SCHEDULE DISCUSSION

August 15 was confirmed as the deadline for submission of technical papers to the Program Committee.

F. Heart asked for a date at which the Program Committee must furnish names, titles, session organizations, etc., to go into the preliminary program (this still allows a 10-15% change in the final program). This date was set at September 15; however, the abstracts would not be required by that date.

F. Heart felt the preliminary program must be in the hands of the average guy by November 1 at the absolute latest because people want to get this before they make a decision on whether or not to come to the conference, and a month ahead is none too early to allow for airline tickets, hotel reservations, and other schedules. Ross said if he had the material by September 15 he might be able to get it out a week or ten days earlier than November 17, but could not yet guarantee a November 1 date. Anderson advised that keeping control in one place saves time; it is important to deal with a printer who has complete facilities to eliminate mailing things back and forth. Ross advised it would be necessary to have things in the mail by October 27 in order to be in the hands of the reader by November 1. That would allow only six to seven weeks for the entire process of laying out, proofing, printing, stuffing, and mailing; he might be able to do it. F. Heart suggested October 26 as the firm date at which the preliminary program must be in the Post Office, even if this meant some degradation of the material. Felker asked if this would be just one sheet of paper and was advised that this wasn't decided. Hotel card, registration card, some ticket information, the program and whatever art work goes with it, may be included. Doug Ross agreed on October 26 as the Post Office date for the preliminary program.

Fuller and Ross will work out dates of major publicity releases to journals and newspapers.

The next date considered was the date at which material for final program must be in Ross' hands, including abstracts of technical papers and any changes in the technical program. Ross suggested October 12 which means a mailing date by Felker of October 9. Ross will plan to keep Felker informed as to how the schedules are going and will give him any advantage he can. October 12 was settled.

The next consideration was the date at which papers must be in the hands of the Publication Committee. Felker said that we could set a date and enforce it. Although this might not give us the best program, it would simplify the problems of the Publications people. Felker thought they should be told they won't be allowed to talk unless their papers are submitted previously. F. Heart recommended announcing that papers will be required at some date before the conference, but defer the decision about being 'hard-hearted' until we get some feedback. Felker suggested settling on the policy that we would not print any paper that is not in our hands by November 15, and this was agreed on.

The target date for distribution of conference Proceedings was not set since we do not yet have sufficient data. It was stated that all registrants get a copy of the Proceedings, plus some number which is submitted by NJCC. It was hoped that a month be sufficient for distribution of the Proceedings, but this was not set - it seemed unrealistic.

October 15 was tentatively set for the next get-together of the Steering Committee. F. Heart agreed to a trip to Bell Labs sometime in August.

VI. PRIZE DISCUSSION

There was considerable discussion on the prize question. In particular, Ross advanced several suggestions concerning the possibility of a medal in addition to, or as a replacement for, a cash award. After general discussion, it appeared that the sense of the meeting was that the idea of a medal was precedent-setting and clearly a project for the NJCC. The matter was dropped, except that both Mr. Felker and Mr. Heart indicated that the matter would be brought to the attention of the NJCC. It was requested that Mr. Ross drop the matter insofar as he is a member of the current EJCC effort; however, if Mr. Ross prepares a written proposal it will be forwarded through proper channels for NJCC consideration for future conferences.

Additional discussion concerning the prize centered on the amount and on the question of whether emphasis should be on 'technical excellence' or 'presentation technique.'

After general discussion, the following paragraph was agreed upon to be inserted in the Call for Papers announcement: "An award of $300 will be made for the best presentation at the conference of a paper describing significant work in the computer field." The decision concerning placement and treatment of this announcement in the release will be decided between Ross and Fuller. Ross advised it would probably go out within 10 days to two weeks; the delay being due to the lack of a signet which Fuller felt it should have.

VII. CALL FOR PAPERS TO GENERAL MEMBERSHIP

Felker felt it was important to get the Call for Papers out by June 1, no matter what it had in it. June 1 was agreed on as the target date for having the Call for Papers announcement in the mail.

VIII. MISCELLANEOUS

Concerning intercommittee requirements, Anderson did not feel it was appropriate today to discuss his requirements upon the Program Committee. Felker thought the

Publications Committee would want someone to follow each session and act as go-between and insure that stenotypist notes are gone over before the printer gets hold of them. Anderson advised that he would try to have someone "technically" take notes. He further advised that by August 15 he will have either copies of the IRE handbook for authors or will make one up himself. F. Heart requested that Anderson (sometime before August 15) send a letter to Felker and Fuller, with a copy to Heart, specifying what he needs, and this was agreed.

Felker felt that October 15 would be time enough to establish the requirements of speakers for such facilities as projection equipment, sound equipment, etc. Fuller thought an earlier date would be helpful. The necessity for two sets of slides was discussed because of a wall obstructing view at Statler; Kudlich agreed to ask for two sets of slides.

Fuller asked for a date to determine the matter of parallel sessions and possible evening meetings, which should be known by the time of the preliminary program preparation. Felker agreed to September 15 for this information, and stated that any scheduled meeting will be scheduled by the time the program is firmed.

Heart advised conference headquarters space would be downstairs, and requested that at least five rooms on the fourth floor be reserved, unconditionally, for requests from NJCC for committee rooms. Fuller was requested to tell the Statler that we are making tentative plans to use the Bay State Room.

Heart stated that at the October 15 meeting we should make a decision as to how many of the 500-block of bedrooms, which the Statler is now holding, will be required for our own disposition; i.e., living space for speakers, etc.

Fuller advised it was important for the Local Arrangements Committee to know the times which sessions are to run and Felker agreed to specify this information. Fuller agreed to send Felker a list of any restrictions he could think of.

On the subject of the National Simulation Council, Fuller suggested they meet on Monday and Friday, and that if we do anything for them at all it will have to be external to our program. Anderson favored advising them of our schedule and if they wished to have a meeting the day before or the day following our conference, that would be okay. Fuller suggested it seemed reasonable to offer them a word in the preliminary program if they got material to us in time and if it meets our restrictions. Heart requested that Fuller follow this up and when he receives a clear feeling as to what the NSC wants, submit a proposal to Heart and we will settle it then; Fuller agreed to this.

Attachment: Call for Papers Announcement
to Journals, 11 May 1959

SERVOMECHANISMS LABORATORY
DEPARTMENT OF ELECTRICAL ENGINEERING

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE 39, MASSACHUSETTS UNiversity 4-6900

J. FRANCIS REINTJES, Director
GEORGE C. NEWTON, Jr., Associate Director
JOHN E. WARD, Executive Officer

May 11, 1959

Dear Editor:

Would you please assist us in ensuring that the 1959 Eastern Joint Computer Conference is a success by publishing at your earliest convenience the following announcement and call for papers?

CALL FOR PAPERS

1959 EASTERN JOINT COMPUTER CONFERENCE

The 1959 EJCC, sponsored by AIEE, ACM, and IRE, will be held at the Statler Hilton Hotel, Boston, Massachusetts, on December 1, 2, and 3, 1959. Papers will be accepted on any phase of computing. Persons wishing to present papers should submit by August 15, 1959, four copies of a 100 word abstract and a 1,000 word summary. Present plans call for a single session conference, and papers will be limited to a presentation time of 20 minutes followed by a brief discussion period. At the discretion of the program committee, papers of exceptional interest may be allowed a longer period of time for presentation, provided written request by the author is made at the time the abstract and summary are submitted. Abstracts should be suitable for inclusion in the program of the conference. It is requested that summaries be submitted which accurately describe the author's work in order to assist the program committee in selecting papers of greatest merit.

The chairman of the conference will be Mr. F.E. Heart, Lincoln Laboratory, Lexington, Mass., and Mr. H.W. Fuller, Laboratory for Electronics Inc., Boston, Mass., will direct the local arrangements. Exhibit management will be handled by John Leslie Whitlock Associates, Arlington, Virginia. Abstracts and summaries should be sent by August 15, 1959, to

J.H. Felker, Chairman
EJCC Program Committee
Bell Telephone Laboratories
Mountain Avenue
Murray Hill, New Jersey
Room 5C-101

We will keep you informed as more information becomes available, including a rush preprint of the program in late September. Please write for any special editorial or news assistance you may require.

Thank you for your support.

Very truly yours,

Douglas T. Ross
Chairman
Printing and Publicity Committee
1959 Eastern Joint Computer Conference

1959
Eastern Joint
Computer Conference

December 1, 2, 3, 1959
Statler Hilton Hotel, Boston

In Reply Address
P. O. Box 5,
Needham 94, Massachusetts

14 August 1959

Mr. Harlan E. Anderson
Digital Equipment Corporation
Maynard, Massachusetts

Dear Andy:

The "Manuscript Instructions to Authors" is eminently satisfactory as far as I'm concerned. The idea of contacting authors at the conference is especially good.

Thank you for the rapid service.

Regards,

Frank

Frank E. Heart

FEH:mgj

REGISTER OF PRINCIPAL COMMITTEE MEMBERS

For 1959 EJCC

HARLAN F. ANDERSON Digital Equipment Corp. Main Street Maynard, Mass.	Publication Committee Chairman TW 3-1779
PHILIP R. BAGLEY MIT Lincoln Laboratory Lexington 73, Mass.	LAC Vice Chairman VO 2-3370, X5513
DAVID BAILEY Barta Building MIT Cambridge, Mass. or The Mitre Corp. Lexington 73, Mass.	LAC Finance Committee, Chairman UN 4-6900 VO 2-3370
S. PAUL BLUMENTHAL Computer Products Division Laboratory for Electronics, Inc. 1079 Commonwealth Ave. Boston, Mass.	LAC Hotel Committee, Chairman AL 4-4235, X310
HOWARD I. COHEN Sylvania Electric Products, Inc. 189 B. St. Needham, Mass.	LAC Exhibits Committee, Chairman HI 4-3940, X475
JEAN H. FELKER Room 5C-101 Bell Telephone Laboratories Mountain Ave. Murray Hill, N.J.	Program Committee Chairman
HENRY E. FRACHTMAN The Mitre Corp. Lexington 73, Mass.	LAC Finance Committee, Vice-President VO 2-3370, X666
HARRISON W. FULLER Computer Products Division Laboratory for Electronics, Inc. 1079 Commonwealth Ave. Boston, Mass.	LAC Chairman AL 4-4235
FRANK E. HEART MIT Lincoln Laboratory Lexington 73, Mass.	Conference Chairman VO 2-3370, X7451
ARTHUR D. HUGHES National Co. 37 Washington St. Melrose, Mass.	LAC Hospitality Committee, Chairman NO 5-4800

REGISTER OF PRINCIPAL COMMITTEE MEMBERS (Contd.)

For 1959 EJCC

[illegible]
Servomechanisms Laboratory
MIT
Cambridge, Mass.

LAC Printing and Publicity Committee, Vice-Chairman
UN 4-6900, X2796

ROLLIN MAYER
MIT Lincoln Laboratory
Lexington 73, Mass.

LAC Trips Committee, Co-Chairman
VO 2-3370, X7227

JOHN F. PIERCE, Jr.
Applied Science
International Business Machines Corp.
520 Boylston St.
Boston, Mass.

LAC Registration Committee Vice-Chairman
CO 7-9400

DOUGLAS T. ROSS
Servomechanisms Laboratory
MIT
Cambridge 39, Mass.

LAC Printing and Publicity Committee, Chairman
UN 4-6900, X2342

HENRY L. SCHMITZ, Jr.
Applied Science
International Business Machines Corp.
520 Boylston St.

LAC Registration Committee, Chairman
CO 7-9400

FREDERIC W. SPEARIN
National Co.
37 Washington St.
Melrose, Mass.

LAC Hospitality Committee, Vice-Chairman
NO 5-4800

ALEXANDER VANDERBURGH
MIT Lincoln Laboratory
Lexington 73, Mass.

LAC Trips Committee, Co-Chairman
VO 2-3370, X7354

ALFRED E. VENTOLA, Jr.
Computer Products Division
Laboratory for Electronics, Inc.
1079 Commonwealth Ave.
Boston, Mass.

LAC Hotel Committee, Vice-Chairman
AL 4-4235, X308

JOHN L. WHITLOCK
John Leslie Whitlock Associates
6064 Ninth Street, North
Arlington 5, Virginia

LAC Exhibits Manager
JE 2-5079

GEORGE D. WOOD, Jr.
Office of Public Relations
Room 3-339
MIT
Cambridge 39, Mass.

LAC Printing and Publicity Committee Vice-Chairman
NO 5-4800

1959

Eastern Joint

Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
P. O. Box 5,
Needham 94, Massachusetts

MEMORANDUM

To: Dr. Harrison W. Fuller

From: Douglas T. Ross

Date: July 10, 1959

Subject: Printing Committee Deadlines 1959 EJCC

This memorandum establishes a set of deadlines for the many printed items required for the 1959 EJCC. We have already pushed dates as late as possible so that it is important that no slippages occur. From past experiences, the Printing Committee seems to be the perennial fall-guy since it is on the end of the line and has so many details, tight schedules, and outside vendors to contend with. Therefore, let me request -- nay beg -- all of the other committees to beat your deadlines if possible, make sure you have supplied as complete information as possible, and in general be as much help as you can. With good cooperation all around we should have a smoothly functioning and fairly painless operation.

Douglas T. Ross
Chairman, Publicity and Printing

P.S. Please don't get a bent nose if, after struggling mightily to provide us with the best possible copy, we edit in seemingly picayune ways. Howl if we change your meaning, but please go along with the little things. Editing, like design, is an art.

Subject: Printing Committee Deadline 1959 EJCC

August 1 - Printing Committee to receive from LAC committees copy for Advance Registration Preliminary Program. Items expected from LAC committees:

Hotel: How to get rooms.
Cocktail and luncheon information and prices.

Registration: Registration instructions and prices.
Hours for registration desk.

Trips: Brief description of offerings.
Limousine side trips arrangements, if any.

Hospitality: Ladies' Program plans.
Message service, including phone or wire information.

Exhibits: Brief enticement notice.

From the Program Committee: A progress report on how the conference seems to be shaping up. E.g., will there be multiple sessions at all? What, if any, special arrangements for panels or luncheon speakers are in the works? What are plans for prize presentation, etc.?

The above items, if received by August 1, will permit the Publicity and Printing Committee to estimate the layout requirements for the preliminary program sufficiently early to integrate the material with the design, and check edited copy with the individual committees.

August 1 - Printing Committee to receive from LAC committees requests for check-off boxes on the IBM Registration Card. Present plans call for the purchase of separate hotel reservation cards. Be sure that copy submitted for the preliminary program adequately describes themeaning of Registration Card boxes.

August 15 - September 1 - Printing committee to check with other committees to obtain approval of edited preliminary program information. By September 15 the general design of all Advance Registration material (and tickets and badges as well) should be quite firm.

September 1 - Final master of IBM Registration card to be sent to IBM for printing of cards.

September 15 - Printing Committee to receive from Program Committee complete Preliminary Program information including speakers, titles, companies, titles of papers, session organization, session chairmen, luncheon speakers, prize judging, prize presentation, etc.

September 15 - Printing Committee to receive from LAC committees copy for Final Program. Same information as for the preliminary program, but this time in full detail.

October 1 - All Advance Registration Material to be ready for printing in final, proofed form.

October 1 - October 15 - Printing Committee to check with other committees to obtain approval of edited final program information.

October 15 - Printing Committee to receive from Program Committee final detailed program and schedule information for final program.

October 15 - Printing Committee to receive from Exhibits Committee final detailed information on exhibits including map of exhibit booths.

October 26 - All Advance Registration mailing in post office on way to recipients.

November 1 - All committees to submit requests for signs to Printing Committee.

November 7 - Final Program to be ready for printing in final proofed form.

1959

Eastern Joint

Computer Conference

December 1, 2, 3, 1959

Statler Hilton Hotel, Boston

In Reply Address
P. O. Box 5,
Needham 94, Massachusetts

July 29, 1959

EASTERN JOINT COMPUTER CONFERENCE

LOCAL ARRANGEMENTS COMMITTEE MEETING NOTICE

A dinner meeting of the 1959 Local Arrangements Committee (LAC-4) will be held at 6:00 p.m. on Tuesday, August 4, 1959 at the MIT Faculty Club, 50 Memorial Drive, Cambridge. The agenda is the following:

1) Reports of Subcommittees, including review of material given by Subcommittees to Doug Ross for preliminary program mailing.

   Finance
   Hotel
   Publicity and Printing
   Registration
   Trips
   Hospitality
   Exhibits

2) Consideration of additional exhibit space.

3) Consideration of franked tickets and registration cards.

4) Next LAC Meeting Date

Note: The luncheon previously scheduled for Wednesday, Dec. 2, 1959, will not be held. The two social functions will be the cocktail party on Tuesday, Dec. 1, 1959 from 6 p.m. to 8 p.m., and a dinner on Thursday, Dec. 3, 1959 from 6 p.m. to 8 p.m.

Harrison W. Fuller

EJCC.

AIEE published the Western Joint Computer Conference proceedings for 1958 which I received almost 1 year after the conference. Is this due to late delivery of copy or ~~late~~ slow printing.

Must the thing say that ~~D~~ each author is a non member of AIEE.

Probably should write to Publication Chairman who is

A. Dowling at Ramo-Wooldridge.

Check on Slade from A.D. Little.
Is he a good speaker?
Did he give A. Buck's paper in New York?
Let Zelker know.

Schedule

Aug. 15 — Deadline for paper summaries.

Sept. 15 Preliminary Speakers, titles, session organization, luncheon speakers etc. Notify people their papers have been selected. To printing committee

October 9-12 → Final printing material must be in to Committee.

October 26 In post office preliminary program.

November 15 — Papers in final form

~~November 17~~

December 1-3 — Convention

October

Arnold Cohen — RR Univac. 1958
2½ months when he did it. (Could be done in one month.)
Date of conference — to final copy in printers hand.
All papers in the hands of the
Send authors guide
Will not print papers not turned in by 15 November
50% of the papers did not meet authors forms.
If we don't hear in one weeks time.

E.J.C.C.

Contact

Morris Rubinoff
John Nash — ~~Lockheed~~, Missile Systems Division
Lockheed Aircraft Corporation
3251 Hanover Street
Palo Alto, Calif.

E. K. Gannett, Managing Editor
~~IRE~~
Institute of Radio Engineers
1 East 79th Street
New York 21, New York.

TELEPHONE
LEHIGH 5-5100

Gannett

1. Charge — Printing bill only.
   Editorial — None
   Grammar
   Abbreviations

Galley proof to authors
Instructions on

2. Mechanics

   Typed — Double Spaced one side
   Illustration — Reprod

3 months from time of initial

5/14/59

Trips — Rollin Mayer — MITRE
Alex Vanden

Exhibit Space — Less than available in other areas.
10K from

Publications — Budget. Price/copy
Free distribution ??

To Whom.
Where will the names come from?

Publications
Dave Bailey, Give a firm estimate.

1800 copies @ $3/each = $5400

Check price: AIEE and IRE
and other
factors

1. Distribution
2. Deadline
3. Handling of sessions
   discussion
   and questions.
4. Tutorial paper
   by chairman

Felker — 20 good papers
10/1 Should be ~~accepted~~ invited.

Next meeting on ~~15~~ or about 15 October Thurs

Prize money for:

a.) presentation — by vote of participating people.

b.)

~~Winner~~

Winner will be announced in the Publications of the Proceedings.

$300 prize

X Publications should have a person at each session taking rough notes, and

Copy to F. K. Heart

Letter to Jean Felker by 15 August.

a.) How many copies of authors paper

b.) Supply authors handbook

Letter to Fuller by 15 August

a.) Where are how many stenotypists?

b.) What do they do with their results?

c.) When transcribed?

d.) Where do the questions come from?

SERVOMECHANISMS LABORATORY
DEPARTMENT OF ELECTRICAL ENGINEERING
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
CAMBRIDGE 39, MASSACHUSETTS UNiversity 4-6900

J. FRANCIS REINTJES, Director
GEORGE C. NEWTON, Jr., Associate Director
JOHN E. WARD, Executive Officer

H. T. G.

May 11, 1959

Dear Editor:

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J.H. Felker, Chairman
EJCC Program Committee
Bell Telephone Laboratories
Mountain Avenue
Murray Hill, New Jersey
Room 5C-101

We will keep you informed as more information becomes available, including a rush preprint of the program in late September. Please write for any special editorial or news assistance you may require.

Thank you for your support.

Very truly yours,

Douglas T. Ross
Chairman
Printing and Publicity Committee
1959 Eastern Joint Computer Conference

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Lincoln Laboratory
Lexington 73, Massachusetts

Volunteer 2-3370

8 April 1959

Professor Harry N. Goode
University of Michigan
Ann Arbor, Michigan

Dear Harry:

I would like to inform you concerning a recent appointment to the Steering Committee for the 1959 Eastern Joint Computer Conference: Mr. Harlan E. Anderson has accepted the post of Publications Chairman. Mr. Anderson is an official of the Digital Equipment Corporation, Main Street, Maynard, Massachusetts.

Sincerely yours,

Frank E. Heart

Frank E. Heart

FEH:bic
Distribution "S"

Meeting Lunch 4 PM ~~April 13, 1955~~ May 14 Friday

PUBLICATIONS COMMITTEES

EASTERN JOINT COMPUTER CONFERENCES, 1953 THRU 1957

1953 - Washington, D.C.

Chairman: W.D. Lewis, Bell Tele. Labs., Murray Hill, N.J.
K.M. Collins, Bell Tele. Labs.
J. R. Harris, Bell Tele. Labs., Murray Hill, N.J.
W. Keister, Bell Tele. Labs.
J. H. McGuigan, Bell Tele. Labs., Murray Hill, N.J.

1954 - Philadelphia, Pa.

P. A. Zaphyr,	Westinghouse Elec. Corp.
J. T. Carleton,	Westinghouse Electric Corp.
W. D. Rowe,	Westinghouse Elec. Corp., Buffalo, N.Y.
R. E. Wendt, Jr.,	Westinghouse Elec. Corp.
B. H. Mount,	Westinghouse Elec. Corp.
C. P. Saalbach,	Westinghouse Elec. Corp.
R. W. Long,	Westinghouse Elec. Corp.
M. Middleton, Jr.,	Applied Science Rep., IBM, 2107 Bryan St., Dallas, Texas (Formerly of Westinghouse)

1955 - Boston, Mass.

Chairman:	N. P. Edwards,	I.B.M., 112 E. Post Road, White Plains, N.Y.
	G.M. Amdahl,	Aeronutronic Systems, Inc., 1234 Airway, Glendale, Calif. (Formerly of I.B.M.)
	C. T. Baker,	I.B.M.
	W. G. Bouricius,	I.B.M.
	B. O. Evans,	I.B.M., Endicott, N.Y.
	R. A. Gregory,	I.B.M.
	R. E. Merwin,	I.B.M., Poughkeepsie, N.Y.
	G. E. Petrie,	I.B.M.
	D. C. Ross,	I.B.M.
	C. E. Walston,	I.B.M., Kingston, N.Y,

1956 - New York City

Chairman:	V. N. Vaughan, Jr.,	Amer. Tele & Tele Co., 195 Broadway, N.Y.C.
	C. Cole,	R.C.A.
	J. W. Guppy, Jr.,	Bell Tele. Labs., Murray Hill, N.J.
	L. Hobbs,	Remington Rand Univac
	A. Katz,	R.C.A., Camden, New Jersey
	W. R. Smith,	Amer. Tele & Tele Co.
	W. F. Steagall,	Remington Rand Univac, 1900 W.Allegheny Ave., Phila.

1957 - Washington, D. C.

Chairman:	Morris Rubinoff,	Philco Corp., 4700 Wissahickon Ave., Phila.
	R. J. Konefal,	Philco Corp.

1959 EASTERN JOINT COMPUTER CONFERENCE

LAC COMMITTEE MEETING (LAC-2)

Wednesday, May 27, 1959

6:00 pm

MIT Faculty Club

PRELIMINARY SUBCOMMITTEE RESPONSIBILITIES AND DISCUSSIONS

EXHIBITS COMMITTEE

Howard I. Cohen, Chairman, Sylvania.

1. Check all power and facilities restrictions of Hotel Statler, (e.g. "no water allowed") and advise Exhibits Manager, John Whitlock.

2. Gather list of potential exhibitors that Manager might not think of and request that they have announcements. Chairman can himself approach especially attractive potential exhibitors who may not normally exhibit (e.g. European).

3. Keep Exhibits Manager informed of key dates and appropriate plans as they develop (e.g., the final date for submission of exhibits information for inclusion in the final program will be October 9, 1959).

4. Monitor all questionable exhibitors from names Whitlock sends.

5. Advise Hotel Committee Chairman if there is to be a separate place for exhibitors to register apart from normal registration area.

6. Arrange police protection of exhibit area.

7. Provide, if possible, a booth for sponsoring societies (with emblems) and manned by representatives of the societies. In view of limited booth space it may be more appropriate to have the Hotel Committee provide this booth on balcony.

8. Consider insurance on Exhibit area with Exhibit Manager and Statler and submit plans to Finance Committee for budget by June 15, 1959.

9. Check on when exhibit area must be cleared at end of Conference.

HOTEL COMMITTEE

S. Paul Blumenthal, Chairman, Lab. for Electronics
Alfred E. Ventola, Jr., Vice-Chairman, Lab. for Electronics

1. Preliminary financial details of Cocktail Party and Luncheon party to Finance Chairman by June 15. Number of tickets required. Write up note on Luncheon & Cocktail party for preliminary program by Aug. 1, 1959.

2. Prepare chart of Registration area: chairs, telephones, drinking fountains, personnel requirements. (Each Committee is to arrange for its own clerical help).

3. Prepare appropriate hours of duty for secretarial and clerical personnel.

4. Prepare "on duty" sheets for LAC personnel.

5. List of hotel rooms available for VIPs.

6. Provide space for employment notices (Policy is for single notices of uniform size. Perhaps all notices should be stamped and posted by LAC person.)

7. Check on liability requirements, insurance.

8. Arrange for hotel acknowledgement of room registrations.

9. Extra chairs, fire laws, fire and watchmen protection.

10. Conference information and message service (check with Hospitality Committee for possible overlap.)

11. Layout notices, posters, signs, directions and submit to Printing Committee.

12. Provide location for attendance lists furnished by Registration Committee.

13. Arrange for stenotypists to record question period discussion (check with Publications Committee Chairman for special requirements).

14. Assure Room for Press Conference. (check with Publicity Committee.)

15. Provide lounges, cloak rooms, drinking fountains, fire extinguishers, pay telephones, discussion group rooms, rooms for speakers and committee meetings.

16. Check with Exhibits Committee for location of sponsoring societies booth. If on balcony, this will be responsibility of Hotel Committee. In any event, Hotel Committee will provide for manning of this booth by representatives of three societies for all three days. Also arrange for each society to provide their own literature well in advance of the conference.

17. Satisfy Program Committee Chairman's requirements for visual aids, etc. These are to be specified, but may consist of:

a. Two slide projectors and screens.
b. Blackboard.
c. Speaker's and floor microphones and PA systems.
d. Time clock and buzzer.
e. Podium and speaker lighting.

REGISTRATION COMMITTEE

Henry L. Schmidt, Jr., Chairman, I. B. M.
John F. Pierce, Jr., V. Chairman, I. B. M.

1. Advise LAC Chairman by June 15 if IBM pre-registration and registration cards are to be used, and time needed to print them. Registration cards should have:
Boxes for society membership, luncheon, cocktail party, tours.
Final date for advance registration will be November 15, 1959.

2. Determine registration booth space, typewriters and personnel requirements and attempt to make arrangements for personnel and typewriters. Final plans for booth by Nov. 1 .

3. Establish method for handling advance and on-the-spot registrations; receipting procedures. Could have Finance Committee first process advance registrations (take out checks, make sure they are signed by individuals, and then pass "approved" pre-registrations on to Registration Committee.

4. Advise Publications and Printing Committee of any suggestions regarding badges, e.g., different colors to denote 1. LAC Committee, 2. Speakers and Chairmen, 3. Registrants, 4. National EJCC personnel.

5. When badges are typed, provide duplicate badges for speakers, chairman and selected personnel.

6. List all complimentary candidates for registration before Oct. 1, in conjunction with LAC Chairman.

7. Provide list of forms to handle unexpected claims and adjustments at time of conference.

8. Look up policy for last 4 years on fees. What distribution of categories, e.g.,

	Advance	Door	
Member	4	5	(Want $5.50 average)
Non-member	6	7	

Submit recommendations to Finance Chairman by June 15.

FINANCE COMMITTEE

David L. Bailey, Chairman, Mitre Corp.
Henry E. Fractman, Mitre Corp.

1. Each Committee is asked to submit financial plans to Finance Commitee by June 15.
2. Allocate an operating budget for each committee.
3. All committees will be notified of fiscal procedures established by Finance Committee. In establishing these:
   a. Consider method of assuring carbon receipts for all transactions.
   b. Consider use of duplicate registration receipts in locked machine.
   c. Determine forms for cash disbursements.
   d. Write brief set of instructions for registration desk about rebates allowed (inspection trips, proceedings etc.)
   e. Consider advisability of having petty cash fund (about $200) to help on-the-spot operations during conference.
   f. Determine how Finance Committee plans to monitor expenses incurred during preparation for conference.
4. By June 15 get recommendations of Registration Committee on Registration fees. Discuss these with LAC chairman.

PUBLICITY AND PRINTING COMMITTEE

Douglas T. Ross, M. I. T., Chairman
George Wood, M. I. T., } V. Chairman
Robert Kramer, M.I.T., } V. Chairman

1. Advance Registration Mailing. Material supplied by Registration, Hotel, and Inspection Trips Committee. Registration Committee determine if they want IBM registration cards, and time needs to print them. Know by June 15.

2. Conference Publicity: Include local publications like "Reflector". (Miss S. Whitcher, 73 Tremont St., Boston 8, Mass. Aug. 25 deadline for Oct. issue).

3. Final Program Booklet - 3,000. Possibly have a few "tear-out" pages. Final Program format to be checked by LAC Chairman before final printing.

4. Consult E. C. Sherry of Boston Convention Bureau for possible aid.

5. By Nov. 15 Publicity Chairman should advise LAC Chairman of plans for Press Conferences. Check with Hotel Committee for room.

6. Badges--Registration Committee will make suggestions or comments. Badges chosen by Publicity and Printing Committee (Pilgrim Badge Co., possibly).

7. Signs as requested by Hotel Committee and others. Have facilities for handling unforseen work at time of conference.

8. Submit to LAC Chairman requests for information about printing that can be done much before the meeting: registration and hospitality signs, food function tickets, etc.

HOSPITALITY COMMITTEE

Arthur D. Hughes, Chairman, National Company
Frederic W. Spaarin, V. Chairman, National Company

1. Contact Mr. Sherry of Convention and Tourist Bureau of the Chamber of Commerce. He could be of considerable help.
2. Know what is going on in Boston of an entertainment nature. Might check events listed with WGBH. Have catalogue of eating places.
3. Write up information section for preliminary and final program.
4. Aid hotel committee with information from past experience on food functions.
5. Submit suggestions or completed plans for additional hospitality functions to LAC chairman at subsequent LAC meetings.

TRIPS COMMITTEE

Rollin P. Mayer, Lincoln Lab) Co-
Al Vanderburgh, Jr., Lincoln Lab) Chairman

1. Select companies and institutions to be visited.
2. Confer with E.C. Sherry of Convention and Tourist Bureau of Greater Boston Chamber of Commerce.
3. Set up schedules, write for permission and cooperation.
4. Arrange for transportation. Establish method of payment with Finance committee.
5. Arrange for ticket sales with Hotel Committee and establish prices (operation would ideally break even).
6. Prepare one page description of trips to be distributed to all registrants or to be included in programs (establish preference with Publicity and Printing Committee).

DISCUSSION

Present at meeting:

Philip R. Bagley, LAC Vice Chairman
David Bailey, Finance Chairman
S. Paul Blumenthal, Hotel Chairman
Howard I, Cohen, Exhibits Chairman
Henry E. Frachtman, Finance Vice Chairman
Harrison W. Fuller, LAC Chairman
Arthur Hughes, Hospitality Chairman
Robert Kramer, Printing and Publicity Vice Chairman
Hideo Mori, Representing National Simulation Council
Douglas T. Ross, Printing and Publicity Chairman
Henry L. Schmitz, Jr. Registration Chairman
Frederic W. Spearin, Hospitality Vice Chairman
Alfred E. Ventola, Jr. Hotal Vice Chairman
Frank Verzuh, LAC Chairman 1955

GENERAL COMMENTS

1. Exhibits Management. We have not yet signed the contract for exhibits management with John Whitlock.

2. Boston Convention and Tourist Bureau. Mr. Sherry of the Boston Convention and Tourist Bureau would have like to attend this meeting but had another commitment. We should be able to procure valuable help from Mr. Sherry. He is, for example, able to recommend reliable commercial concerns with special competence needed by the Committee.

3. Typist and Clerical Helpers at Conference. Volunteer typist and clerical help was difficult to get in 1955. We should try to get this volunteer help from several companies. Paul Blumenthal suggested that we establish a fund with which we could hire the temporary help, and ask companies to donate to this fund if they did not wish to volunteer girls. This money would be tax deductible whereas the volunteered girls would not be. The hired girls would be paid by the hour.

We would need in the order of 30 girls the first day, 25 girls for each succeeding day. It was suggested that if we do procure voluntary help that we pay for such things as taxis and lunches.

The work of obtaining volunteer help should be distributed over several members on precisely what insurance and protection is required for budgetary purposes. Whitlock will be consulted.

5. Complimentary Tickets. These must be considered for both registration and food functions. We will consider this seriously in a couple of months. It was suggested that six complimentary tickets for the cocktail party should go to members of the press.

6. Preliminary Budget. It is close to the time when our budget estimate should be improved. Chairmen of the subcommittees should submit their budgets within the next two or three weeks, by mid-June. A new budget will be distributed thereafter.

August 1, 1961

International Correspondence Schools

K. Olsen
S. Olsen
M. Sandler
H. Anderson
D. Mills

Bob Lassen

The I. C. S. has two basic plans which are applicable to our training needs. They are as follows:

1. Selective Units Course - This is a "tailor made" course designed to meet the needs of a specific training problem. Under such a program, I. C. S. claims that they can pinpoint instruction for the needs of 1 person or 1000 persons. (a course for all or a separate course for each) This would be a company sponsored program and would be involuntary. In designing a Selective Units Course, I. C. S. will research the following:

   (A) The objective.
   (B) Age and previous education.
   (C) The nature of present employment.
   (D) Previous working experience.

The employee will receive all the instruction benefits guaranteed under the Cooperative Training Plan and will receive an I. C. S. certificate upon completion. (not an I. C. S. diploma)

This is a "short term" course ranging from a minimum of 5 instruction units to a maximum of 50 instruction units.

Cost of Selected Units Course:

$50.00 enrollment fee plus $6.50 for each lesson unit.

2. Cooperative Training Program - This is a company owned program whereby the employer signs a Cooperative Training Arrangement (see attached copy) with I. C. S. This is an agreement to cooperate with I. C. S. with respect to the administration of the program. This is a long term or career course of instruction which enables the employee to obtain a complete curriculum of study. This can be administered on either a voluntary or involuntary basis.

I. C. S. recommends, under the Coop. Training Program, that the employer assign a responsible person to serve as a Training Counselor or Project Leader. The Project Leader will have the following responsibilities:

A. General Administration - enrollment, record keeping, ordering all necessary materials.

B. Liaison between I. C. S., Students, and Management.

C. Posting Announcements - disseminate information.

D. Counselling and encouraging systematic study.

The employee will receive all instruction benefits guaranteed by I. C. S. and will receive an I. C. S. diploma upon completion of the curriculum.

Although the company owns the plan under this agreement, it can be administered on an "employee-pay" basis by wage deductions.

Cost of Cooperative Training Courses

$50.00 for enrollment per person plus $5.25 for each lesson unit. Less two 10% discounts (employer and employee) if a Coop. Training Agreement is signed.

H Anderson File

dec INTEROFFICE MEMORANDUM

DATE August 1, 1961

SUBJECT Air Conditioning

TO Distribution List A FROM Bob Hughes

Mr. John Dwyer of New England Engineering in Medford supplied us with Carrier Corporation's numbers for figuring air conditioning cooling required in our buildings. These numbers are based on an outside temperature of 95° F, 75% relative humidity and an inside temperature of 80° F, 50% relative humidity.

Building 4, Third Floor:

6 north windows
24 east windows
4 south windows
16 west windows

20 windows in sun
3' x 6' = 18 x 20 = 360 sq. ft.
x 110 BTU/sq. ft.
39,600 BTU

30 windows not in sun
3' x 6' = 18 x 30 = 540 sq. ft.
x 17
9,180 BTU

2 watts lite/sq. ft.
14,000 sq. ft.

28,000 watts
x 3.4
112,00 0
84,000
95,200.0 BTU

Heat thru floors
5 x 14,000 sq. ft. = 70,000 BTU

50 people x 400 BTU = 20,000 BTU

25 scopes = 13,750 w = 46,750 BTU

25 irons = 900 w = 3,060 BTU

25 racks = 2,500 w = 8,500 BTU

leakage
3000 CFM of outside air
x 30 = 90,000 BTU

39,600 sunny windows
9,180 shaded windows
95,200 lights
70,000 floors and walls
20,000 people
46,750 scopes
3,060 soldering irons
8,500 racks
90,000 leakage
382,290 BTU - TOTAL
20,000 BTU/unit = 19 units

19 x $321 = $6,100

Building 12, Second Floor:

4 south windows
16 west windows
7 north windows
16 east windows

16 windows in sun
3' x 6' = 18 x 16 = 288
x110
31,680 BTU

27 windows not in sun
27 x 3' x 6' = 486
x 17
8,262 BTU

2 watts lite/sq. ft.
9,000 sq. ft.

18,000 watts
x 3.4
72,00 0
54,000
61,200.0 BTU

Heat thru upstairs floor
5 x 9,000 sq. ft. = 45,000 BTU

50 people x 400 BTU = 20,000 BTU

8 scopes = 14,960 BTU

50 solder irons = 6,120 BTU

leakage
3,000 CFM outside air
x 30 = 90,000 BTU

31,680	sunny windows
8,262	shaded windows
61,200	lights
45,000	floor and walls
20,000	people
14,960	scopes
90,000	leakage
6,120	soldering irons
277,222 BTU	- TOTAL
13,000 BTU/unit	= 21 units @ 13,000 BTU

Fitz - I have a copy

H.E.G. File

July 31, 1961

PERSONNEL COMMITTEE MEETING

K. Olsen
S. Olsen
M. Sandler
D. Mills
H. Anderson

R. Lassen

The following is a list of items which will be introduced at our next Personnel Committee meeting. We have not had a meeting for some time and our list of projects is in desperate need of attention!

1. Tuition Refund Plan (see letter to Committee dated 7/20)
2. Military Leave Plan (Dick Mills)
3. Company Newspaper (Jack Atwood, Bob Lassen)
4. Transfer Procedure (see letter to Committee dated 7/21)
5. Personnel Requisition Procedure
6. In-company Courses
7. Commendation Letters (see letter to Committee dated 7/21)
8. International Correspondence School

The following is a list of "general" items which should be brought up for discussion as soon as possible.

1. Personnel Requirements
2. Wage Administration

File

INTEROFFICE MEMORANDUM

DATE July 28, 1961

SUBJECT Future Systems Business

TO Ken Olsen
CC Harlan Anderson
Dick Mills
Dick Best

FROM Jon Fadiman

1. Machines now under construction:

Core Tester 2102F, for R.C.A. to be delivered July 14.
Price: $21,000.

Core Tester 2102G, for Philco Corp. to be delivered August 14.
Price: $21,000.

Memory Tester 1516B, for Phillips, Holland to be delivered August 14.
Price: $50,000.

Core Tester 2108, General Ceramics to be delivered June 29.
Price: $13,400.

We have just shipped a Programmable Pulse Generator, 2104 to I.B.M.
Price: $11,000.

2. New Business:

The orders are sure from Ampex Computer Products Company for two Memory Testers, Model 1516 at approximately $50,000 each, and two Semi-automatic Core Testers, Model 2108 at approximately $9,500 each. The first Memory Tester 1516 will be due about September 25 and the next one on October 23. The Core Testers will be due sometime about July 24 and August 7. We have received purchase orders for one of the 1516's and one 2108 for Ampex to go to Hong Kong. Treat this information about Hong Kong as confidential.

The chances are about 90% that we get an order from Ampex Computer Products for a large Memory Exerciser. This would be due for delivery some time at the end of October or earlier if possible and the price would be in the neighborhood of $40,000.

We are also about 80% sure of receiving an order for a smaller Memory Exerciser from Gerry Smith of Daystrom Instruments in Archbald, Pennsylvania. The price for this machine will be in the order of $18,000 and delivery time will be sometime around October 10.

We also have a good possibility of selling a Memory Tester Model 1514 or 1516 to R.C.A. in Needham for a price of around $50,000. The chances of this sale are about 60%.

dec INTEROFFICE MEMORANDUM

Lib

DATE July 25, 1961

SUBJECT

TO Harlan Anderson/Kenneth Olsen FROM R. Mills

In the change over to IBM payroll accounting, the following list of changes which need to be made to accommodate our IBM payroll accounting include mechanical changes as well as policy changes, and I would appreciate discussing these with you at your convenience:

1. To avoid mid-week special rate changes, we recommend that all pay increases be made effective on Monday of any week.

2. We contemplate that any retroactive pay changes will be given to the employees in a separate check.

3. As we need to have an hourly rate card for all salaried employees on yearly rates, I would recommend that we add one cent to all rate cards in order that no employee will receive less than his yearly rate. The cost of this in the course of a year would be minimal, approximately $140.00 on our present salaried payroll.

4. The people who are now being paid a 10% night premium and who work Saturdays would be paid at their regular rate, including the 10% night premium.

5. Any employees who terminate during a month would have no extra deductions for Group Insurance which would pay for their coverage through the end of the month. This means, in effect, that DEC would, in the event an employee left in the middle of the month, pay the two weeks' employee deductions for Group Insurance through the end of that month.

6. We contemplate assigning clock numbers from No. 1 through the end to every employee after the employees have been sorted down by Department. Numbers would be reassigned every year at the beginning of the calendar year, and the primary purpose of this is to be able to sort down for payroll reports, tax return filings, and project manager reports.

R. F. Mills

Who is covered by this?

dec INTEROFFICE MEMORANDUM

DATE July 24, 1961

SUBJECT Technician Requirements for Next 3 Months

TO R. Lassen, R. Hughes, G. Gerelds, E. Harwood, J. Smith, M. Sandler, R. Mills, K. Olsen, S. Olsen, H. Anderson ✓, B. Gurley, J. Fadiman, R. Doane, D. White

FROM Dick Best

Technician requirements were determined at a meeting among R. Hughes, G. Gerelds, E. Harwood, J. Smith, J. Fadiman, and R. Best. The results follow:

G. Gerelds has 8 plug-in unit test stations, and needs 8 technicians to avoid overtime. He currently has 7 men. He will take over the testing of computer In-Out equipment and of computer memories, which will increase the manpower requirement. The technicians who are building these testers will operate them initially, then will be transferred to G. Gerelds' group when the equipment is ready. Current deficit: 1 man.

E. Harwood needs 3 men spread out between now and 3 months from now.

J. Fadiman needs 2 more men in mid-August and an additional man on September 1 when Dick Banks returns to school.

R. Hughes needs 2 men immediately and 1 more in 3 months.

Total deficit is 3 right now, and 7 additional within the next 3 months. The plan is to hire good men as we find them, train them in construction under G. Gerelds, train them in Test when there is room in Test, and to then transfer them to the other jobs above. When the men come in faster then Test can train them, they move to system work as wiremen, returning to Test as space there becomes available.

File

July 21, 1961

Personal Letters of Commendation

K. Olsen
H. Anderson
D. Mills
S. Olsen
M. Sandler

Bob Lassen

I propose that we seriously consider the implementation of personal commendation letters to individual employees for jobs well done.

A letter of this nature would be initiated by the Department Head and should be used only in cases of outstanding achievement. I believe that such a letter should describe in detail the employee's achievement or his contribution to a specific project. A copy of this letter would be placed in the employee's personnel file.

This would serve not only as a valued intangible reward but as a guide with respect to evaluating employees who are being considered for higher level jobs.

File

July 19, 1961

Engineering - Personnel Requirements

K. Olsen
D. Mills
B. Gurley
H. Anderson
D. Best
R. Lassen
Bob Lassen

Meeting Attended by: (Listed above)

Purpose of Meeting: To establish personnel requirements and a plan of operation for Computer Engineering for the coming year.

Result of Meeting:

A. Established the following projected personnel breakdown by sections:

Check Out	Tape	In-Out	G. Bell
(A. Blumenthal)	(J. Brown)	(B. Savell)	Clapp*?
McPherson*	Bouvert	Chin	
Shields*	Arsenault	Cleary?	
Gossel	Turgeon*		
Pinkney (2 wks.)	Farr?		Jr. Technicians*
Murphy			4 (currently
Cleary (T)			being screened)
Farr (T)			

Coord.	B. Gurley	Programmers	Sales
(E. Harwood)	Hall*	(G. Bell)	(J. Koudella)
Reed		Morse*	Secretary*
Clerk*			

B. Proposed Utilization of Personnel:

It was determined that eventually some of the above mentioned personnel would be placed into the following areas:

Programming
New Computer Development
Routine
Field Maintenance
Special Options Engineering

* Indicates prospective candidates to whom offers will be made per authorization of K. Olsen and H. Anderson.

H. Anderson

INTEROFFICE MEMORANDUM

Rule

DATE July 19, 1961

SUBJECT MAILING LIST TAPES

TO G. Bell
J. Brown
J. Koudela
S. Lambert

FROM J. Atwood

CC: K. Olsen
H. Anderson
B. Gurley
S. Olsen

C-E-I-R has delivered two magnetic tapes of the first 5000 names (10,000 cards) on our Direct Mail List. The two tapes were made separately but should be identical. One tape will be used in mailing list programming; the other is available for engineering applications. If you would like to use either or both tapes, please let me know as quickly as you can so we can establish a schedule.

dec INTEROFFICE MEMORANDUM

DATE July 13, 1961

SUBJECT Notes on Anelex Meeting of July 13, 1961

TO Ben Gurley/Dick Best/ Harlan Anderson/Gordon Bell

FROM Kenneth H. Olsen

The Anelex 120-column printer is not significantly more expensive than the 72-column machine, because it is more commonly sold. The price of the large machine with 48 characters is $21,000 in units of one, $20,400 in quantities of two, and $16,500 when 12 are bought in one year. For 64-character print wheel, there is $480 extra.

The 72-column machine with 48 characters is $13,500 in quantities of one, $12,800 in quantities of two, and $11,300 in quantities of 12 in one year. $96 extra for 64-character print wheel.

The price for a pedestal with power supplies, drivers and sequencing circuits for 120 characters is $8,900; for 72 characters, $8,075. They need to sequence their power supply voltages in order to protect their transistor circuits.

If 120-column machine is cut down to 72 columns, the price is cut by 4 or 5 thousand dollars. $150 is taken out for each module of four hammers that is taken out ($230 is the normal module price), and $50 is taken out for each hammer-driver card.

Each hammer card is fused to protect the hammer in the transistors with an indicating-type fuse that removes the ready light. The hammer card contains two power transistors, Type 2N1146B and 2N1218. There appear to be two small single transistors also on the card. There are four large capacitors which apparently supply the charge to the hammer, which are Sprague Type TD81315, 5,000 MFD at 50 WVDC. The driver plug-in units are rather thick because of the large size of the capacitors, and they fit 12 to a 19" rack.

There are two signals which drive their hammer drivers -- a pulse and a gating level. The gating level comes from an emitter follower, which is a 2N404 inverter with a 1.8K load clamped at 12 volts. The input circuit is a 47K resistor by-passed with 300 MFD and 18K positive bias to +6 volts. This gate generator will drive 25 feet of No. 24 twisted pair.

The pulse generator is an inverter with the same circuit as the gate generator except that it is clamped at 6 volts and is followed by a 2N1605 emitter follower. The output of this has a 100 ohm resistor in series with up to 25 feet of RG174/U coaxial cable. The emitter follower has a 4.7 resistor to -18.

On their plug-in units, they do not tie the power resistors to heat sinks, but have them on standoffs, which are about 3/8" high. I'm not sure how much thermal energy is removed by simple circulation around these power transistors.

INTEROFFICE MEMORANDUM

DATE July 12, 1961

SUBJECT BIWEEKLY REPORT

TO

K. Olsen
✓H. Anderson
S. Olsen
J. Atwood
R. Beckman, DCO
G. Bell
R. Best
A. Blumenthal
R. Boisvert
H. Bronstien
J. Brown
S. Butman
D. Chin
J. Clemens
H. Crouse
J. Cudmore
E. de Castro
D. Denniston, NYO
R. Doane
F. Edwards
J. Fadiman
G. Gerelds
B. Gurley
E. Harwood
R. Hughes
T. Johnson, WCO
J. Koudela
R. Lassen
J. MacKeen
R. Mills
L. Prentice
M. Sandler
R. Savell
J. Smith
B. Stephenson
A. Swift
E. Towle
R. Tringale
D. Wardimon
R. Whipple
D. White

FROM J. Atwood

There will be a BIWEEKLY REPORT THIS FRIDAY, July 14.

That July 14 is also Bastille Day is purely coincidental. The Report will not be published in French or in colors appropriate to the holiday.

Unfortunately it will be just like any other Biweekly Report -- incomplete and uninspiring. At least that's how it will be UNLESS YOU DECIDE TO DO SOMETHING ABOUT IT. And by "you," I mean all the people who should contribute but don't, and all the people who dash off a few incidental comments about nothing in particular just to satisfy the requirement.

Assembling and publishing the Biweekly is still a fair project. It is worth the trouble IF AND WHEN the end product is a mutually informative document which helps people working in widely separated areas on widely diverse projects to keep abreast of developments elsewhere in the organization.

If and when the Biweekly falls short of this reasonably basic standard for usefulness, as it has been ISSUE AFTER ISSUE, it ain't hardly worth the bother.

So how about it? How about MAKING A CONTRIBUTION--A REAL ONE--BY 9:00 FRIDAY MORNING. Let's start the new fiscal year right with a Report that's worth reading. What say?

INTEROFFICE MEMORANDUM

File

DATE JULY 10, 1961

SUBJECT IRRADIATED CABLE

TO K. OLSEN
H. ANDERSON
M. SANDLER
B. GURLEY
H. CROUSE

FROM J. F. SMITH

WE HAVE A LARGE STOCK OF NON-IRRADIATED RIBBON CABLE THAT HAS BEEN LYING AROUND FOR A LONG TIME. AS THIS CABLE WILL NEVER BE USED BECAUSE OF ITS FLOW BACK RATE, I SUGGEST WE SHIP IT OUT AND HAVE CABLES CONSTRUCTED. THE CABLES SHOULD BE THE TYPE WITH CONNECTORS ON BOTH ENDS. THE CABLES MINUS A CONNECTOR ON ONE END SHOULD CONTINUE TO BE CONSTRUCTED OF IRRADIATED CABLE TO ASSURE A GOOD LOOKING JOB WHEN CONNECTED TO OUR AMPHENOL SOCKET PINS.

A GREAT DEAL OF CABLE IS GOING TO BE NEEDED FOR THE CONSTRUCTION OF CABLES WITH CONNECTORS ON BOTH ENDS. I THINK IT WOULD BE A GOOD IDEA TO ORDER MORE NON-IRRADIATED CABLE FOR THIS JOB. IT IS QUITE A BIT CHEAPER AND DELIVERY IS VERY GOOD. THIS WOULD ALSO TAKE SOME PRESSURE OFF THE DELIVERY OF IRRADIATED CABLE WHICH WE HAVE BEEN HAVING SO MUCH TROUBLE WITH. OF COURSE, WE WILL HAVE TO KEEP A TIGHT CONTROL ON THIS CABLE TO MAKE SURE IT DOES NOT GET MIXED UP WITH OUR IRRADIATED CABLE. MAYBE THE WAY TO DO THIS IS TO HAVE THE NON-IRRADIATED CABLE DELIVERED TO THE SUB-CONTRACTOR MAKING UP OUR CABLES.

File

July 7, 1961

PERSONNEL DEPARTMENT ACTIVITY REPORT:

D. Mills
M. Sandler
S. Olsen
H. Andersen
R. Lassen

PERSONNEL POLICIES ESTABLISHED:

1. Vacation for employees who do not have sufficient length of service to qualify for a paid vacation will be granted only at the discretion of Management. Such requests to be reviewed by Stan Olsen.

2. Nite Premium - The night premium for hourly employees will be the Employer's Basic Rate Plus 10% of The Employer's Basic Rate. Definite night shift hours will be left open at this time. Day shift employees who work beyond their normal shift will be paid for that over time in accordance with company policy but will not receive a "Nite Premium".

POLICIES AND PROCEDURES CURRENTLY BEING CONSIDERED

1. Departmental Personnel Transfers - We feel that we should eventually establish a formal personnel transfer procedure possibly when our Standard Cost System is put into effect. In the meantime all transfer requests should be placed with the Personnel Dept. for subsequent approval by the Personnel Committee.

2. A memo which will outline the procedure for changing an employee's vacation period will be distributed to all supervisors this week.

PROJECTS CURRENTLY IN PROCESS

1. The suggested format and organization of a new company newspaper is ready for Committee and Management approval.

2. The first draft of a new application form to be used only for salaried applicants has been prepared and is currently being

reviewed for format by Jack Atwood. This form will provide us with more detailed biographical information and will be a more helpful selection tool.

3. The Personnel Dept. is currently collecting Wage Survey Data which will be used in conjunction with our Job and Wage Classification Program.

4. The Personnel Dept. is also making a study of Job Classification and Wage Evaluation programs. Of special interest at this time is the program designed by the National Metal Trades Asso. This program will be worth consideration but would have to be adapted to our particular job structure.

INTEROFFICE MEMORANDUM

DATE July 7, 1961

SUBJECT CHANGE IN VACATION DATE:

TO
K. Olsen
H. Anderson ✓
S. Olsen
M. Sandler
R. Mills
J. Atwood
R. Best
B. Gurley
J. Fadiman
L. Prentice
R. Melanson

FROM Personnel Dept.

As has happened to most all of us at one time or another, it becomes necessary to change our original vacation dates. As some difficulty has been encountered in processing vacation checks due to very late notice, your cooperation is needed to make the following procedure effective:

1. Any notice of change of vacation date will have to be in to Accounting by the Monday preceding the Friday an employee goes on vacation in order to receive vacation checks, otherwise the vacation checks will be mailed to the home address on the Thursday following the Friday an employee leaves on vacation.

2. In the event that emergency conditions exist which have caused the change in the vacation date, a special effort will be made by the Accounting Department to obtain the checks rapidly.

3. No change in vacation date will be allowed unless the request is submitted in Memo form and has the Supervisor's approval.

If there are any questions concerning the above policy, please contact the Personnel Office.

dec INTEROFFICE MEMORANDUM

DATE July 3, 1961

SUBJECT Meeting with Bill Fletcher of Bolt, Beranek and Newman

TO Harlan Anderson ✓ FROM Ben Gurley
CC Al Blumenthal
Ed Harwood
Bob Savell

At a meeting with Bill Fletcher of Bolt, Beranek and Newman on the 12th of June, a number of items were discussed which should be done to the Bolt, Beranek and Newman machine. Some of these are important and things which certainly should be done. Others are of questionable importance and others are debatable.

A. Things that certainly must be done:

1. Memory speed up.
2. Scope speed up. I'm not certain we can make this scope speed up with the vacuum tube arrangement, but I have hopes that we can make it.
3. An IOT to clear the Sequence Break System, clear the sync flip-flops, the waiting breaks, and the breaks started. We already have an IOT to clear the All Channel on's. This is necessary so that the Sequence Break System is in a known state when it is activated.
4. They have the type-out and type-in on the same sequence break channel. This works out ok, but in doing this there was some error in that the tyi now gives an IOT completion pulse. These lines should get separated so that this does not happen.
5. Bill has suggested that we kill the completion pulse if the punch is off and that this can be done rather easily if the punch completion signal goes through the on-off switch, he made that a double hole switch. We can look at this and see how reasonable that is.

B. Possible Changes:

1. Bill pointed out that with the typewriters all going to program flags, one is soon going to run out of program flags, so he has suggested that typewriter #0 hit program flag 1, as presently. Any succeeding typewriter is not to hit any program flags. That we include an

IOT, "examine the status". This way we can look at the status bits with the IOT examine status. Typewriter #0 should go to IO 1, typewriter #1 to IO 2, and so forth. He would suggest that we put the light pen in IO 0. This means hooking in a light pen flip-flop. I think we have a spare flip-flop in the display. This flip-flop would be cleared by the display pulse and set by the light pen. There would no longer be a separate light pen return.

2. He has suggested that we fuse the outlets that we have on the computers. I think this is probably a good idea in that we have those 5 amp filters. I guess we had mentioned they were limited to 5 amps, but that there was no fuse on it and someone inadvertantly put too heavy a load and over heated one of the filters. That machine does not have any fuses or circuit breakers. When we finished the revised power on panel, we should install that. This also would mean getting the power clear so that it works properly.

3. We should install the no skip instruction.

4. We should install the new in-out halt circuitry. Also, tyi should clear the in-out register. Their's is connected up that way and its well that we connect all machines this way, make that a standard thing.

5. Their audio output seems to have some coupling between vertical and horizontal, and these signals are weak. I don't know what this is, or how important it is, but we should take a quick look at it one day and see if there is anything we can obviously do.

6. Another item mentioned was to make the relays faster and we have already done that.

7. He has asked us to further examine the lightning protection for the machine, the stop if there's a loss of power, and to back up on an illegal operation of a halt. An alternate possibility to this would be for the illegal op or halt to cause a break to channel 0. This would have to work rather quickly and go higher up in the Sequence Break System than signals normally go, so that the break would occur before the halt actually does.

PERMANENT MEMORANDUM

DATE June 30, 1961

SUBJECT PERMANENT MEMORANDA

TO Lists A, B and C
Staff Secretaries and Stenographers

ABSTRACT Explains the rules for the issuance of Permanent Memoranda. Covers authorship, format, numbering, approval, security classification, external distribution, revisions, attachments, and provision for file copies.

FROM J. L. Atwood
Harlan E. Anderson

APPROVED BY

This is a preliminary set of rules for the use of Permanent Memoranda. It is issued at this time because new Permanent Memorandum forms have just been printed on a gray paper that goes well with the purple color from the spirit duplicators.

Permanent Memorandum Rules

1. Anyone may issue a Permanent Memorandum on any subject.

2. Each Permanent Memorandum must carry a Memorandum Number. These "M" numbers may be obtained from Eleanor Parker. The number should appear beside the printed "M" in the upper right-hand corner of the Permanent Memorandum form. It should also appear in the same location on each succeeding page of the memorandum. (Page 2 and all following pages should be duplicated on the gray boxed form.)

3. Each page of every Permanent Memorandum must be numbered. This number and the total number of pages in the memorandum should appear in the indicated spaces in the "PAGE OF" printed in the upper right-hand corner of the Permanent Memorandum form. It should also appear in the same location on each succeeding page of the memorandum.

4. The date of the memorandum, the subject (typed in all capital letters), and the addressee(s) should appear in the indicated places on the form.

5. A brief description of the information contained in the memorandum should be inserted after the word "ABSTRACT." This is a summary for the guidance of the reader; it should be neither so short that it fails to adequately describe nor so long that it actually tells all the memorandum itself was intended to do.

6. The author's name should appear after the word "FROM" and the signed initials of the person approving the issuance of the memorandum should appear after "APPROVED BY."

7. Just as anyone may issue a Permanent Memorandum, so anyone may approve such a memorandum - within reasonable limitations. In general, approvals should be given by the author's supervisor or department head. Approvals may also be given by the project engineer when the memorandum concerns a particular project. Be guided here by the fact that the name of the person approving the memorandum may be taken as an indication of the value of the memorandum.

8. Each attachment to a Permanent Memorandum should be given a page number, and a list of all attachments together with the page number of each should appear on the last page preceding the attachments.

9. There are three methods of adding to or changing a Permanent Memorandum once it has been issued. (1) If the memorandum is completely revised, the new version should be issued under the same "M" number as the original but with "-A" suffixed to the number. A second revision would be "-B", etc. (2) A correction should be issued under the same number as the original but with the identification" Correction 1 (or 2 or 3)" typed on the line immediately below the "M" number. (3) An addendum should also be issued under the same "M" number as the original but with the identification "Addendum 1" typed on the line immediately below the "M" number.

10. All Permanent Memoranda dealing with confidential information are classified "Company Confidential." All copies of such memoranda must be numbered, and a list showing the recipients of each numbered copy must be turned in to Eleanor Parker. Each page of every copy of such memoranda must also be stamped in red, "COMPANY CONFIDENTIAL."

11. Copies of certain Permanent Memoranda may be distributed outside the company. If you wish to make such distribution, check with Eleanor Parker to ascertain whether this is permissible, and provide her with a list of the recipients and their addresses.

12. All file copies of every Permanent Memorandum and every revision, addendum and correction are to be turned over to Eleanor Parker. At least one copy must be provided for the Permanent Memorandum Book, and it is usually desirable to have at least 10 extra copies on file.

13. Contact Eleanor Parker if you wish to check the Permanent Memorandum Book or obtain copies of Permanent Memoranda.

dec INTEROFFICE MEMORANDUM

File

DATE June 29, 1961

SUBJECT Subcontracting as applied to Air Force contracts

TO Harlan Anderson FROM Henry Crouse

I contacted Miss Mary Doherty, ACO and Mr. Thomas M. Walsh of Air Research and Development Command concerning sub-contractors.

Section 34 of the General Provisions is substantially ? overlooked.

Section 35 applies when the subcontract is more than $25,000 or 5% (which in this instance is $19,250.00) of the contract. The procedure in this case is to write the Administrate Contractors Officer for permission to use a subcontractor. This should be done prior to issuance of the purchase order. The requesting letter is to include:

1. A statement as to the name of the subcontractor and the total dollar amount.
2. Proof of competition, giving names of at least three bidders.
3. Reason for selection.

This also applies to the Buy American Act, Section 13.

The format for filing is our letters, no government forms are available.

Section 6(b) Examination of records, we are to include a provision in our purchase orders to subcontractors (those in excess of $2500 excluding public utility services) to the effect that "the subcontractor agrees that the Comptoller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under the subcontract, have access to and the right to examine

any directly pertinent books, documents, papers, and records involving transactions related to the contract."

Henry Crouse

INTEROFFICE MEMORANDUM

DATE June 29, 1961

SUBJECT

TO Harlan Anderson/Ben Gurley

FROM Kenneth H. Olsen

Bob Hughes of ITT called today, June 29, to say that he would like to visit next Thursday, July 6, to talk about licensing our computer for European operations. The proposal he would like to talk about would be where they buy Building Blocks from us and assemble them overseas.

I, of course, invited him to come and talk and told him that we haven't thought too much about this as yet. We should get together and decide somewhat on the party line before that time.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

File

DATE June 28, 1961

SUBJECT

TO H. Anderson/B. Gurley/G. Bell FROM Kenneth H. Olsen

Mr. Charlie Carey at Curtiss-Wright in New Jersey called today, June 28, at 3 p.m. to obtain information on our PDP. They're proposing making flight simulators for the airlines and the military which would need about 20 computers. They are convinced that our computer is the best, or so it appears, and now they're trying to convince their customers. They just had a meeting with Eastern, United and American Airlines and were questioned about the capability of our organization by the chief engineer at Eastern. Mr. Carey asked who they could see to get information about this and where they could visit to see one. I told him that BBN would be the organization to give an independent view, but our plant would be the place to see one. He will call me back to make arrangements for this visit.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

File

DATE June 27, 1961

SUBJECT

TO Harlan Anderson
Ben Gurley
Dick Best
Gordon Bell

FROM Kenneth H. Olsen

Al Susskind of M.I.T. called this afternoon, Tuesday, June 27, and asked if I'd be willing to spend some time with him talking about what we thought a group like his should be doing in computer development. I, of course, told him we're always glad to give our ideas out when we have no responsibility.

He's coming to visit at 9:00 on Friday, June 30, and I'll spend some time with him. If any of you have ideas on this subject, or would like to take part in the discussion, I'm sure he would be pleased to hear them.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

File

DATE June 27, 1961

SUBJECT

TO Ben Gurley
Harlan Anderson
Gordon Bell

FROM Kenneth H. Olsen

Jack Dennis called this morning, Tuesday, June 27, to say that he and John McCarthy would like to come out and visit us on Wednesday, June 28, at about 9:30. They have been chosen as a committee of two to make a proposal as to what should eventually be tied on to the PDP computer we are giving to M.I.T.

They have found that the room next to TX-0 can be made available for PDP. They are interested in equipment which could be used on both computers. They would like to know if the drum system that we proposed to BBN could be put on our PDP and used also with TX-0. They are also concerned about the compatibility of paper tape generated on their Flexowriters and that used by our own.

I think that we should have coffee with the pair when they first come and then later on one person can talk in detail with them.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE June 22, 1961

SUBJECT EMPLOYEE PUBLICATION

TO K. Olsen
CC: H. Anderson
S. Olsen
R. Lassen

FROM J. Atwood

Because I have had a fair amount of experience in starting and running both internal and external house organs, I have fairly firm convictions about the nature of the beast. These are stated in some detail in the attached supplement to a public information program prepared some years back for New England Gas and Electric System.

I ask you to look over this material for two reasons: (1) in all modesty I think it is one of the best available examinations of the factors involved in initiating an employee publication and (2) it is quite applicable to our own situation. After you have read it, you may want to pass it along to Andy, Stan and Bob. It may help you all to come up with specific ideas on the subject.

In the meantime, let me make some specific suggestions based on our present capabilities with respect to personnel and equipment.

First, I think we should put out an 8 1/2 x 11 magazine format publication printed on 80 lb. coated or dull coated stock (see samples). It should be printed in two colors - black and a second color changing from issue to issue. It should be 8 pages plus cover if it is issued every two weeks or 12 pages plus cover if it is a monthly publication.

Second, it should have a name that will stand on its own. It should be neither cute nor tricky, and it should be directly related to our business. My best offering at the moment is "On Line" (since Ampex is already using "Readout").

Third, the editorial staff should be formed from people outside the Advertising Department. However, they should work with the advice and assistance of various people in our department, and the actual layout and production should be handled by Advertising. Someone like Pete Bonner, who has a liberal arts background, might be a happy choice for editor. He could be assisted by a reporter on each floor of the plant, and someone like Jackie Micklay might serve as his coordinator in Advertising. Bob Lassen and I could provide day-to-day guidance in the selection and preparation of editorial material.

Fourth, the editorial content of the magazine should be broken down on some reasonable basis between "company interest" material, "mutual company-employee interest" material, and "employee interest" material. A possible page-by-page arrangement would be as follows:

Cover 1 A large photo related to the feature article and the name and date of the publication.

Cover 2 Comments from a member of the management (or the board of directors) on an appropriate subject, together with a photo and brief biographical sketch.

Page 1 A feature article on a subject of major importance, such as plant expansion, the introduction of a new product line, an important sale, or the opening of new offices.

Page 2 An article on developments in the module side of the business, explaining new designs, new additions, new uses, new test procedures, new production techniques, or the like.

Page 3 A similar article on the systems side of the business.

Page 4 An article concerning the employee and his job. This would treat such subjects as home study, attitudes, workmanship, and other factors relating to job performance and personal advancement.

Page 5 An article on the work and the personnel of a particular department or field office.

Page 6 An article on obligations and benefits of employment at Digital. This would treat such matters as sick pay, vacations, insurance coverage, and so on.

Page 7 News items on employees and employee activities, such as promotions, honorable discharges, new hirings, picnics, parties, and the like.

Page 8 Personal items from the various areas of the plant and the district offices, letters to the editors, and (possibly) classified advertisements.

Cover 3 Service anniversaries.

Cover 4 A page of "photos of the month."

All this editorial matter should be presented in the most appetizing manner we can manage, with the ratio of photos to text about 60-40. And the copy should be typed for reproduction with the margins justified. This means that all the girls who have IBM Executive machines would have to pitch in on this phase of the operation.

These are my thoughts of the moment.

SUPPLEMENT

A PLAN FOR AN EMPLOYEE HOUSE ORGAN

If you were asked to guess the total monthly house organ circulation in the United States today, would you say 400,000...4,000,000... or 40,000,000? If you took the third choice, you would be just about right.

It's a fact that American business and industrial firms now distribute a combined total of nearly 40,000,000 copies of their house organs every single month of the year. Included in this total are publications issued by U. S. Rubber, General Mills, Chrysler Corporation, and dozens of others among the country's industrial giants.

With names like these behind them, 40 million copies can't be wrong. There must be good and sufficient reasons why management groups are willing to invest hundreds of thousands of dollars each year in little magazines or newspapers which quite often are intended for distribution only among the employees.

Why House Organs?

When a house organ is used as a vehicle for selling goods and services, it is easy enough to understand how a large expenditure can be justified. In that case, the publication is merely another advertising medium, and the cost of publication can be charged up to sales promotion.

However, when the house organ is strictly an employee* proposition, we have to look a little further for an explanation of management's willingness to pay the freight. Here are a few of the reasons we would be likely to discover:

> In a big business, management necessarily tends to lose touch with the individual worker. There is little opportunity for "top brass" to exchange ideas with the employee, explain company plans and policies to him, or grant him special recognition.
>
> As for the employee, he is apt to be somewhat suspicious of management's motives, uncertain what part he himself plays in the overall scheme, and unsure of his future security.

Given proper conception, launching and handling, the house organ comes closer than anything else can to taking the place of that missing personal contact.

> It provides an excellent medium by which management can get its message across to the employee, and, by reverse token, it serves as a sounding board for employee attitudes.
>
> It offers a method of emphasizing the importance of the individual worker. It can demonstrate convincingly that management thinks of him not simply as a tool of production but as a flesh-and-blood human being, with hopes, wants and fundamental rights.

* Throughout the plan, "employee" is used to mean everybody in the organization—from top to bottom and bottom to top.

We should demand the same characteristics in both because the publication would be as much a spokesman for the System and its companies as any actual person--probably more so.

A friendly, down-to-earth, straight-talking house organ is a worthwhile addition to any team, but a "stuffed-shirt" house organ is just as weak, ineffective and generally worthless as a "stuffed-shirt" executive would be.

The need, then, is for a publication that talks <u>with</u> the employees in terms they understand about things they are or should be interested in. "With" is underlined to point up the fact that it should be a two-way proposition, with plenty of opportunity for the employee to do some talking, too.

Because it is that kind of a project, the greatest care should be taken to insure that the house organ discusses but doesn't lecture, suggests but doesn't demand, and argues but doesn't decide. It should be written in the same terms as we would use if we were actually talking matters over with the employee face-to-face.

<u>Between the Covers</u>

The friendliest, most down-to-earth, straight-talkingest house organ we could conceive would still be a waste of paper unless (to backtrack once more) it tells the employees about "things they are or should be interested in."

Naturally the common denominator should be the Negea System and its components. The interest we should be concerned with are those that arise from the readers' connection with our operations. There should be no effort to compete with the newspapers and general magazines in satisfying their myriad other interests.

This means omitting humor for humor's sake, recipes and household hints, and all the other types of material that have no earthly bearing on the purpose of the project. These are used mainly by house organ editors as a means of stimulating reader interest when the editors feel they haven't much else to offer.

Editorials should also be left out if we are to adhere to the principal of not pontificating to the readers. There is little proof that editorials are worth the space they take up anyway.

Actually we have more than enough material available which is of real value and interest to all. For simplicity's sake, we can classify it under three headings—"management interest", "mutual interest", and "employee interest."

The first covers topics in which management has the greater interest but which employees as a whole should know about. The second includes topics which can be discussed to the equal benefit of both management and workers. The third comprises topics of interest to the employees alone.

Here is a breakdown of the three classifications and some of the many topics that might be considered:

Company Interest

1. "Big Picture"

   Free enterprise vs. Communism
   Government power threat
   Overall industry developments
   New England power situation
   Outstanding industry ads, booklets, etc.

2. Management and Policies

   "Meet Our Officers"
   Explanations of rate changes
   Executive message
   Report on annual meeting
   Employees' annual report
   Digests of supervisors' meetings
   Who owns the stock?

3. Plant, Equipment and Organization

   Company growth (then and now)
   Equipment, new and old
   Improvements in plants and facilities
   System history
   Mergers and consolidations

4. Operations

   Where the money comes from
   Efficiency and production records
   How various services and departments operate
   Improved methods
   Operations reports
   Cooperation between departments and companies
   Battles with the elements
   Service extensions
   Sales promotion figures
   Defense preparations (reopening of army camps, etc.)
   Security measures

5. End Use

   Industrial, commercial and well-known residential customers
   000th gas or electric range (refrigerator, water heater, etc.) customer
   Street lighting comparisons
   Market for gas, electricity and appliances
   Unusual applications
   New appliances
   Promotional information (low rates, etc.)

Mutual Interest

6. Noteworthy employees

Retirements
Service anniversaries
Typical employees and their stories
Major promotions
Second-generation employees and family groups

7. Health and Safety

Tabulated safety records
Outstanding safety records
How to prevent accidents
How to stay healthy
Family health information

8. Employee Benefits

Pension provisions
Insurance coverage
Steady employment

9. Job Information

Object lessons on courtesy
Careers in the business
Training courses and other educational opportunities
Legislation affecting job security and working conditions
Money-saving ideas

10. Area Promotion and Community Relations

Employees in civic affairs
Sharing in drives and campaigns
Benefit shows, hospital visits, etc.
Organizational projects (Junior Achievement, etc.)
New England recreational plugs
Stories on communities served

Employee Interest

11. Routine Personal News

Deaths, births and marriages
Engagements
Illness and operations
Employees' families, homes, hobbies, etc.
Birthdays and wedding anniversaries

12. Special Personal News

New Employees
Employees in National Guard, Army, Navy, Marines, and Air Corps
Appointments, transfers, and routine promotions

13. Employee Organizations and Activities

Outings, parties, etc.
Clubs, American Legion Posts, etc.
Credit Union news
Labor union news

A magazine-type house organ can also be mailed to schools, libraries, public officials, and hundreds of other "neighbors." It could carry our story wherever it went--doing a valuable job of building understanding and good will in the communities we serve.

The final argument in favor of the magazine is one that we have already mentioned. Because the house organ would be an official representative of the System, we should publish something we can be proud of when our employees and outside readers compare it with house organs distributed by other utilities. Otherwise, we should forget the whole idea.

How It Could Be Done

The work of publishing a house organ for the System would be divided between the Service Corporation and the various properties. Local news gathering could be done on the local level; feature stories, special features, and publishing could be done at the System level.

Each property could have an editor and a staff of reporters placed in strategic spots around the plants and offices. They could feed news items and photographs into a headquarters in Cambridge.

The headquarters here could have an editor-in-chief, a staff man, and a secretary. (All three would have other duties as outlined in the Public Information Program.) They would edit material coming in, contribute the proper amount of feature material, and put it all together for printing.

All material pertaining to policies, plans, operating procedures, and other subjects which might be open to misinterpretation if not properly handled should be reviewed by appropriate System officials before publication. Material of a questionable or controversial nature could be treated according to the directions of the Relations Committee.

The most desirable method of distributing house organs is to put them in envelopes and mail them to the employees' homes. The cost of envelopes can be eliminated by making the publication a "self-mailer." The cost of mailing can be eliminated by making the distribution by hand during working hours. Either alternative results in a loss of prestige and potential readership.

A Word about the Staff

Except at the System level, all work should be done on a volunteer basis. That means that there must be some method of compensation for the editors and reporters.

The ideal solution of this problem seems to be occasional staff meetings which are combined with luncheons or dinners. Getting the entire System group together once or twice a year is also a very desirable thing, both for morale purposes and for improving and coordinating operating methods.

One Last Question

Whether the publication should be a monthly or a bi-monthly affair

H Anderson

dec INTEROFFICE MEMORANDUM

COMPANY CONFIDENTIAL

DATE June 19, 1961

SUBJECT Computer Orders on Hand

TO Distribution List A

FROM Ed Harwood

MODEL	CUSTOMER	DELIVERY DATE
PDP-1C-1	Itek	22 June 1961
PDP-1C-2	ITT	28 August 1961
PDP-1C-3	CRC 4K	15 February 1962
PDP-1C-4	CRC 4K	15 February 1962
PDP-1C-5	MIT	1 September 1961
PDP-1C-6	CRC 1K	1 October 1961
PDP-1C-7	BBN (L.A.)	1 November 1961
PDP-1C-8	ITT (Prod. #1)	15 December 1961
PDP-1C-9	G.T.C. (Texas)	15 December 1961
PDP-1C-10	ITT (Prod. #2)	15 January 1962
PDP-1C-11	BBN (Camb.)	1 February 1962
PDP-1C-12	LRL	8 February 1962

INTEROFFICE MEMORANDUM

DATE June 19, 1961

SUBJECT

TO Ben Gurley
Loren Prentice
Harlan Anderson

FROM Kenneth H. Olsen

One of the ideas that we had when we first started the company was to make memory planes with a simplification of the technique used by Al Gudetz in putting etched wiring conductors through. Al had to be very clever and very careful in order to get four conductors through each core. The basic technique would be relatively straightforward if you use only one or possibly two conductors, and yet one would overcome the most difficult aspects of wiring the plane.

The technique would be to start off with a phenolic board with holes the size of the cores. The board would then be filled with cores and sprayed with cement so the cores and the board are almost a homogeneous mass as far as the outside is concerned. This unit is then plated heavily with copper. It is then coated with photoresist and all the unwanted copper is removed.

One could plate the sense winding through, wind the digit winding, and then string all the X and Y wires through the whole stack at one time. There are, of course, many variations to this and it could be optimized.

One could, I believe, make a special machine which would drill all the necessary holes in the board. One could have a pneumatically operated drill head, spend it over a table with cross feeds that are driven by step motors. Drilling 4000 holes in a board would take some time, but this machine would need no attendance and we are really in no great hurry.

Cementing the cores to the board is, of course, very critical. Here we would have to study all the new plastic adhesives. One technique would be to heat the board before the cores are installed so that when it is shrunk down to normal the temperature of the cores are held very tightly. The adhesive is sprayed on just before the board is made to shrink. This should be an exceedingly good joint. One would have to test planes with thermoshock to be sure that the copper connections are sound.

It might be worth while experimenting with a setup like this rather than going to the trouble of teaching our girls to make planes the conventional way.

I believe that one of the reasons this technique has not become popular is the difficulty in drilling the boards. If we had a machine that would drill two holes per second, which is rather slow, we could make a board every half hour, or about 16 in an eight hour shift, or almost one computer's worth a day. This should last us for a while and two machines would double that output.

Maybe we shouldn't fool around with a clever machine for this but should make it up out of standard parts. Simple lead screws with perhaps recirculating ball type nuts driven by Geneva movements which are in turn driven by slow motors like the standard electric Slo-Syn. We could stop the motor during the pause in the Geneva movement or, in the fast coordinate, we may be able to perform the whole drilling operation during the pause and just stop in the other coordinate.

If we wanted some machines to impress with our degree of automation, this would be the machine.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

File

DATE June 19, 1961

SUBJECT

TO Dave Dubay

FROM Kenneth H. Olsen

Our portable dictating machines are very convenient but they have a very serious disadvantage in that it is so easy to let the batteries run out. These battery packs contain two 6 volt batteries. One is a fairly large cadmium sulphide cell and the other is 5 cells which may be cadmium sulphide or mercury. It seems that one battery is for the motor and one for the transistor amplifier. They seem to be isolated and, if this is true, we could drive it directly from a 6 volt battery through the charger input on the side.

Our battery chargers appear to be two 16 volt power supplies with series dropping resistors. We could also use a car battery for this and we can use the 12 volts in the battery with a smaller dropping resistor to accomplish the same.

If the two 6 volt batteries are not isolated, we could charge them one at a time from the automobile battery.

Kenneth H. Olsen

cc: Stan Olsen
Harlan Anderson
Bob Hughes

H. Anderson

File

INTEROFFICE MEMORANDUM

DATE June 15, 1961

SUBJECT Analysis of Semiconductor Component Replacement During Quality Control Test

TO Distribution List A and B FROM J. Cudmore

This report concerns only semiconductor components replaced for electrical defects. It does not include components rejected for mechanical defects such as, in backwards or broken connections. This report covers the months of March, April, and May.

Components	No. of Components	No. Replaced	% Replaced
Transistors			
2N1427	18,365	536	2.91
2N1754	14,060	80	.49
2N412	12,225	711	5.81
2N1305	3,626	18	.49
MD-27	3,574	410	11.4
2N224	3,225	58	1.79
2N398	560	0	0
2N438	48	0	0
2N522	320	1	.312
2N599	60	0	0
2N656	18	3	16.6
2N670	80	0	0
2N674	520	12	2.3
2N711	256	4	1.56
2N769	26	1	3.84
2N779	40	15	37.5
2N1065	80	0	0
2N1184	240	25	10.4
2N1272	40	0	0
2N1301	306	45	14.7
2N1310	160	0	0
2N1796	320	11	3.43
TOTAL	58,149	1,930	3.31
Diodes			
3101	16,894	2	--
OMC-514	15,919	268	1.68
D001	80,592	414	.51
D003	1,360	8	.59

Components	No. of Components	No. Replaced	% Replaced
D662	23,000	1	--
D664	1,270	1	--
CTP894	4,210	88	2.09
2425	450	1	.22
1N270	1,400	16	1.14
1N67A	1,080	7	.64
1N748	40	0	0
1N758	7	0	0
1N1875	20	4	20.0
320A	293	8	2.73
320D	120	0	0
750A	60	2	3.33
Q6-100	120	0	0
TOTAL	146,895	820	.55
TOTAL Semiconductors	205,044	2,750	1.34

dec INTEROFFICE MEMORANDUM

File

DATE June 14, 1961

SUBJECT

TO Ben Gurley/Loren Prentice

FROM Kenneth H. Olsen

I propose that we go along exactly with Bob Pfister on his color scheme unless someone has some other suggestions. Like many other decisions, the man with the strongest feeling about the subject or, apparently in this case, the only man with any opinion at all gets his way.

My understanding of his suggested color scheme is as follows: Sand color top on the formica table. Sand color tweed for the sides of the computer. White for the console side of the computer. English austin blue with white lettering for the control panel.

If anyone has a different idea of Pfister's suggestion or if they have ideas of their own, feel free to bring them up. If someone would like American Ford Falcon blue on the front panel, all they need do is pick up a quart at Christie & Thomson across the street.

We now have on order a quantity of white tweed and a quantity of tan tweed, I believe.

The frames and the swinging gates and the other parts inside can be painted our standard tweed color because it matches the sand very closely and doesn't show very much from the outside. This will be an advantage because we paint our standard color most of the time and any of our standard panels would fit in nicely. This would also mean that we can use our frames for our special systems which would have standard tweed panels on them.

Kenneth H. Olsen

cc: Harlan Anderson
Scott Miller

File

dec INTEROFFICE MEMORANDUM

DATE June 12, 1961

SUBJECT

TO Harlan Anderson
Stanley Olsen
Dick Mills
Jack Atwood
Ben Gurley
Dick Best
Loren Prentice

FROM Kenneth H. Olsen

Maybe we should build a rather large auditorium where we can have meetings of half the company or so at a time. We could then hold very large classes when it was desired, and we could also have outside organizations, such as PGEC, have meetings in our place which would be very good advertising for us.

Most people have very limited auditorium facilities, but I think this is because space is so expensive. We now have quite a bit of space and the price is relatively low. The chairs could be either folding chairs, of which we now seem to have somewhat of a surplus and which are relatively inexpensive and yet quite comfortable. If we were to tile the floor, this would be expensive but it might be worth while. Eventually we should also have facilities for serving coffee.

There are two areas which we could use for this. The far end of Building 3 which has a very level floor would be a reasonable place for this because it is between engineering and the rest of the factory. However, like most of our space, the posts would be a serious limitation. The area where the machine shop and the dead storage are have no posts and, therefore, would lend itself very readily to an auditorium. This would cut into our dead storage area, but we could put some of our less dead storage in Building 3 where we have more than enough space. This has some very interesting advantages. When we want PGEC to walk through our whole plant on the way to the meeting, we could have them use the front entrance and they couldn't help but see all the interesting work that is going on. When we want outside people to come in and not see the plant, we can have them use the Purchasing Department entrance and they would have to go up the stairwell to the fourth floor but they would have no access to the main plant. The one problem in this area is that it would be noisy during certain machine shop operations, such as sawing cases, but I think, in general, this is not too serious a problem.

We will not do this for some time, if we decide to go ahead with it but we should now layout the area accordingly. I think that if we decide to do it we should make only a limited dead storage up in the fourth floor and then assign a generous portion of Building 3 to dead storage.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

Jule

DATE JUNE 12, 1961

SUBJECT

TO K. OLSEN
H. ANDERSON
S. OLSEN
M. SNNDLER

FROM J. SMITH

THE SCHOOL YEAR AT NORTHEASTERN HAS COME TO A CLOSE AND I WOULD LIKE TO TAKE THIS OPPORTUNITY TO REPORT MY PROGRESS.

COURSES COMPLETED	SEMESTER HOURS	1ST	2ND
HUMAN RELATIONS	5	A	A
INDUSTRIAL PSYCHOLOGY	2½	A	-
WORD SIMPLIFICATION	2½	-	A
MAN IN SOCIETY	6	B	B

digital equipment corporation
MAYNARD, MASSACHUSETTS

INTEROFFICE MEMORANDUM

DATE June 12, 1961

SUBJECT PDP PRICE REVISIONS

TO PDP Distribution List FROM J. L. Atwood

A letter to potential PDP customers is being drafted covering the following changes in prices:

Basic PDP (including $1800 60-ch/sec punch)	$120,000

Options

Multiply and Divide	10,300
Jump Field (Memory Switches)	10,000
Memory Modules	30,000
16-inch Scope	10,300
Light Pen	1,300
"Simple" Tape Control	7,500
"Better" Tape Control	35,000 (1)
Tape Unit	18,000 (2)
Card Reader	8,000 (3)
Card Punch	15,000

(1) Tentative price.

(2) $3,000 higher than former price.

(3) $7,000 lower than former price.

File

dec INTEROFFICE MEMORANDUM

DATE June 9, 1961

SUBJECT ITT

TO Harlan Anderson/Dick Mills

FROM Kenneth H. Olsen

We got ourselves into a rather strange situation with ITT in respect to the line units. When they questioned us as to why we were concerned about the size of this project, we mentioned the dollars involved, and it turned out that a good part of this was line units, and they agreed that line units need not be built here. However, a strange situation has developed where they have the option as to whether they build line units instead of us.

Now it turns out that the design development of these line units was many, many times more expensive than what we originally estimated. Fortunately, we made the price high enough that if we sell a few line units, we'll recoup this loss, I believe. However, I now feel that it is very much in our favor if we make these line units, and it would be very much against us if we just give them all the drawings which we developed for almost no charge and have them manufacture them.

I suggest that, since we are making this contract for twelve units, we specify in this contract that they will build all the line units themselves or have us build all the line units for these first twelve units. I think in this case they will have no choice but to give them to us, but then we will know where we stand; and I feel that, seeing these are approximately half the dollar volume, it's important for us to know, and it's a very reasonable thing to ask them to commit themselves on. We want to do it in such a way that they will give us the order.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

File

DATE June 9, 1961

SUBJECT

TO Harlan Anderson
Ben Gurley
Ed Harwood

FROM Kenneth H. Olsen

I am becoming so pleased with the way this frame and console are developing that I think we should seriously consider the possibility of not offering a separate console at all. I think we might be better off not giving a console to M.I.T. than to give them the one we have even though it would cost us nothing to do so.

If we ever have to make a console, I think we should develop a package which has the punch and the paper tape reader in it using the same techniques we are developing for the new console. I think the punch should be on the bottom with its fan fold source and receiver and the reader above it so that the reader is more or less at eye level.

If people want non-fan fold tape for use on the console, I think all they will need is a loose spooler and they will be fairly well in business although, of course, it would not be as convenient as the fan fold. If they want a reader with reeler/unreeler or bi-directional reader, I think we have to supply that in a separate cabinet. This, however, could be a cabinet which is mounted on top of one of our standard tables.

Kenneth H. Olsen

dec INTEROFFICE MEMORANDUM

DATE June 9, 1961

SUBJECT

TO Harlan Anderson
Dick Mills
Stan Olsen

FROM Kenneth H. Olsen

Mr. Osborn of Lehman Bros. called today and would like to come out and visit us next week. I made an appointment for 12 noon on Wednesday, June 14. I thought we would have lunch with him at the French Restaurant and then casually show him the place in the afternoon. He will have a colleague with him. I don't think we want to tie up too many people for this session, but I think that at least two out of we four should be involved in the meeting.

Kenneth H. Olsen

File

MEMO

TO: H. ANDERSON FROM: TED JOHNSON

SUBJECT: WEST COAST OFFICE & PDP-1 DATE: JUNE 7, 1961

The following is a preliminary outline of the factors that I think we should consider in our thinking about bringing a demonstrator PDP-1 to the Los Angeles area.

As I mentioned over the phone, Mr. Petrasanta of BBN recently indicated that interest in having a PDP-1 in their facilities has increased to the point where they are trying to collect enough project work to justify taking on a machine full-time in their facilities on either a buy or lease arrangement. Naturally, if they can take up the bulk of the time on a computer, they would like to have that machine in their facilities. They have forwarded the problem on the Cambridge office and, since their plans would greatly affect our planning for a demonstrator, this interest should be followed up as soon as possible at your end.

Some of the major reasons for having a machine here are:

1. An opportunity for potential customers to try programs and appreciate the machine.

2. A chance for them to establish confidence in the company and to help them sell the idea to management and their customer people.

3. A general means of attracting attention to the West Coast office, which I believe would have a significant carry-over benefit to modules sale as well as to possible PDP-1 sales, (looked at in this line, a significant contribution toward selling building blocks would be an important hidden factor in the economical feasability of running a machine here).

4. Present a stronger competitive stand to the local branches and companies, (3C, Packard Bell, CDC160).

5. Possibly provide a timely and useful assist to Livermore and other possible customers.

6. Effectively train West Coast Personnel without interrupting their sales activities to any harmful extent.

7. Fit into overall plan for required facilities in line with expanded personnel and the need for maintenance and technical support from this office.

Actually selling machine time to any appreciable extent is a very uncertain factor and will involve considerable bush beating. So far MS&A have indicated an interest in taking up some time, a medical group at SC thought they might use up a few hours. A.D. Little Company and Planning Research Corporation indicated some interest. Except for the plans of BBN, however, the bulk of any time requested would be merely time desired to become acquainted with the machine and would not represent a continuing or significant basis for justifying anything like a planned computer service operation.

The current prospects for the PDP-1 which hold the most potential are:

1. JPL - These people have definite plans to buy a computer and the indications are that our machine holds the greatest chance. This decision should be made by July 1. Having a machine in this area during the interim period would, I am sure, be a real assist in getting this sale.

2. BECKMAN SYSTEMS - There is an urgent need for a machine like PDP-1. The main problem for them is to convince the customer of the reliability of this machine in their system. There will be a decision this month if they are going to go ahead and then Beckman will be moving quickly on their decision for the computer.

3. ELECTRO OPTICAL SYSTEMS - These people have continuing interest in PDP-1 and with increased familiarity with power of this small machine would be a strong and very desirable prospect.

4. UCLA MEDICAL CENTER - I am in contact with several people here who are greatly considering a machine of this nature, (I will know more about this later this week).

5. SYSTEM DEVELOPMENT CORPORATION

6. RAND CORPORATION

7. NEL

The lease on the present office terminates on August 1, 1961. Depending on the plans of BBN, we will probably have to house the PDP-1 in our office facilities. This would imply space requirements, with expanded office space requirements and storage area, in the neighborhood of 1,000 square feet. Factors to be considered in the location of the office are:

1. Character of the area, geographical proximity to desirable customers.

2. Responsibly efficient location from the point of view of a sales support headquarters for permanency of the office and suitability to our operation in terms of office lay-out, cost, etc.

Plushy sales offices are generally located on Wilshire Blvd or to some extent in Santa Monica and Pasadena. Research type companies are generally located in Santa Monica, Pasadena and to some extent the airport area, also Fullerton and Newport Beach.

Computer Controls Corporation is located in the West L.A., Santa Monica area and so is Packard Bell. I do not feel that the location of the office is of very critical importance for the short term but that we should remember the nature of the office as basically sales headquarters in making a selection. Again we are being influenced by the BBN machine as a long term prospect. I do not think the the Melrose location is desirable for our purposes, particularly since BBN is planning to move themselves within about a year and a half. Should BBN be a strong factor in determining office location, we could consider possibilities of temporary location in their offices, looking perhaps in the Santa Monica area, or even temporary housing in other facilities such as MS&A. They have indicated that they would be most amenable to such a possibility.

I am continuing to look into the problem of office space and hope to have some strong alternatives to recommend in the very near future. Price of the BBN space was 33 cents per square foot. I feel that we could get good space for something in this general price range perhaps more in the neighborhood of 45 cents per square foot.

Another factor in our present planning is the decision of Ken Larsen to join the firm. I feel that he would be unusually and quickly effective in heldping to get a demonstrator on a working basis as well as to assume a share of the sales responsibilities. With the coming end of fiscal year period, we should be prepared to handle a flurry of module orders.

At the present time, without knowing the requirements of BBN, and having a very definite idea of the time requirements on the machine it is only possible to make a generalization about the kinds of people requirements we would have to make this machine useful. IN some cases, it is right that the customer would be quite capable of running a machine without significant supervision.

I will submit a more organized report shortly.

Ted ljj

I.T.T.

~~1. Housing change etc cost extra. Item 1.~~

2. II F. 4. of Spec

→ 18 bit Duplex Switch — for interconnection.

3. IV Acceptance Requirements has been changed.

a.) Introd.
b.) B
c.) C

4. p. 6 — 6 hour test.

dec INTEROFFICE MEMORANDUM

File

SUBJECT New Lease for Period 9/1/61 through 8/1/66, Maynard Industries, Inc.

DATE June 6, 1961

TO K. Olsen/H. Anderson

FROM R. Mills

1. Term:

They will write a five-year lease, 9/1/61 through 8/31/66.

2. Rental Charges:

9/1/61 through 10/31/61, 2 months, $1,949.99 per month. Two months free for fourth floor deducted net in this figure.

11/1/61 through 3/31/64, $2,408.32 a month (end of current lease).

4/1/64 through 8/31/66, $2,611.66 a month.

The two months' credit for the fourth floor were given in this way as the termination time for Brand-Rex on the fourth floor of Building #4 is not known.

3. Option to Renew:

We must give them a one-year notice of our option to renew the lease on or before 9/1/65. The rent under the option from 9/1/66 through 8/31/71 (5 years), $2,924.16 a month. This monthly figure is plus 5¢ per square foot on 75,000 square feet. Our average cost per square foot would then be .468 cents.

4. Building #4:

They will give us a letter as evidence that they are leasing us Building #4, the third and fourth floors, for the period 6/1/61 through 9/1/61 written in such a way that the fourth floor is upon exit of Brand-Rex.

5. Building #4 - Third Floor - Reception Area:

The third floor of Building #4, the west end near the stairway, which we wish to use as a reception area, they are willing to give us free, and we may remove the partition.

6. Parking Area:

They will knock down Buildings 15 through 19, present Draper Corporation lessee. They couldn't tell us the date as yet, since Draper's lease runs through December 1, but they did state that it would be done as soon as possible thereafter. This will give us parking for 59 cars 3 deep.

7. Brand-Rex:

They expect that Brand-Rex will be out of the fourth floor by June 15.

8. Floor Loading:

I expressed my concern for the expected loading on the fourth floor, Building #4, and asked them if they had any study which showed what the floor loading factors were in this area. They showed me an analysis made by some consulting engineers of another building, pointing out that depending upon the manner in which the floor was loaded, the per square foot poundage changed radically. The net result of all this conversation was that it will be up to us to determine what our floor load is.

# # #

File

H. ANDERSON

PERSONNEL REQUIREMENTS - By Supervisor

June 5, 1961

B. Gurley - (Computer & Mag. Tape)

3 Elec. Eng.
1 Display Eng.
1 Logical Designer
1 Mechanical Tech.
1 Night Shift Tech.
7

R. Best -(Co. Sp. Engr.)

3 Elec. Eng.

J. Fadiman -(Systems)

1 Memory Test Eng.

L. Prentice - (Sys. & Computers)

2 Machinists
1 Mechanical Eng.
3

E. Harwood - (Sys. & Computers)

7 Systems Techs.

J. Atwood - (SG&A)

1 Printer
1 Technical Writer Adv.
1 Advertising Clerk
3

H. Crouse - (SG&A)

1 Purchasing Clerk

R. Mills -(SG&A)

1 Keypunch Operator
3 Gen. Accounting Clerks
4

Training

4 Elec. Engrs. (B.G. & R.B.)

M. Sandler - (Mfg. - DL)

5 Production (F&M) DL

S. Olsen - SG&A

2 Senior Sales Engrs.
2 Junior Sales Engrs.
4

R. Melanson - (Co. Sp. Eng.)

2 Drafting Electromech.

Training - (Co. Sp. Engr.)

4 Elec. Engrs.

TOTAL 44

dec INTEROFFICE MEMORANDUM

File

DATE June 1, 1961

SUBJECT

TO Harlan Anderson

FROM Ken Olsen

Mr. Paul Jordan, vice president of Gulton Industries, called this morning. He had a note from Dr. Gulton to make the call but he wasn't able to contact Dr. Gulton to find out what it was all about, and so he asked me if I happened to know. I did receive a letter from General Doriot saying that I would receive a call but he didn't tell me what it was for, and so there were two of us talking with no idea what we were supposed to be talking about.

I told him that I would call General Doriot and ask him what we were supposed to have been talking about and that I would call him back if it was important. If you talk to American Research before I do, will you ask them what I was supposed to have been talking about.

His phone number is LIberty 8-2800, at Metuchen, New Jersey.

Ken Olsen

digital

INTEROFFICE MEMORANDUM

DATE May 17, 1961

File

SUBJECT

TO Kenneth Olsen
Harlan Anderson
Jack Smith

FROM R. Mills

As we have experienced some difficulty in breaking down Bernie Joyce's bills as between Repairs, Relocations, Leasehold Improvements, and Capital Assets, I would suggest that something along the order of the following be established:

1. Establish a Work Order Register using four classifications of work (1) Repairs, (2) Relocations, (3) Leasehold Improvements, and (4) Capital Assets. A form of the Work Order Register might be something as follows:

Work Order No.	Date	Department Requesting	Description	Amount	Classification

In conjunction with the above Work Order Register, all of Bernie's invoices should be submitted by Work Order broken down as between labor and material in order to obtain a total cost for that particular job. By doing this, we will have a sufficient amount of evidence to substantiate any deductions we will be taking for repair items.

What this means is that Bernie will work on assigned Work Orders only (by Jack Smith) submitting bills in detail for each Work Order.

R. Mills

File

TO: H. ANDERSON & B. GURLEY DATE: MAY 16, 1961

SUBJECT: COMPUTER MEMO FROM: TED G. JOHNSON

The WJCC was another good opportunity to get aligned on our computer policy and to orient my effort and sales strategy. It would seem that we now:

1. Believe that a policy of "sale, not rent" will bring in enough business for our planned level of production and commensurate with our abilities and facilities in marketing and service.

2. Are aiming at a level of "one computer per month" as a reasonable production goal.

3. Are deliberately avoiding policies and approaches which will take up too much processing and sales time, including magazine advertising.

I think the basic policy is wise and sound, but also feel that we are in danger of rationalizing away steps that would provide solid sales entres and enable us to sell more effectively to customers who would buy under the conditions we impose. I think that we should:

1. Make use of some high level advertising to improve our company image and give confidence to management decision-makers. Livermore and others will provide a media, but a good article or two in leading magazines, (Datamation, Control Engineering, and trade circulars like DataLink), would do a great deal.*

2. Do a better job in pointing out some unique advantages:

   a. High Speed Multiply, (this makes us, except for 3C's DDP, the only high speed "computer" in this price range).

   b. Sequence Break.

   c. Ease of programming and logical power for the PDP-1.

3. Take action on the "soft-ware" and get an abbreviated Fortran and perhaps Algol. I don't think we should exclude a market that is IBM conditioned. If we are to define a market, I don't think that a definition should ignore user needs and preferences. DECAL also may be nice, new, and different--but so far it "ain't" and it would itself need a sales job. Above all, we need <u>something</u> <u>soon</u>.

* I am of the opinion that this aspect of sales hunts is the most. Some easy and relatively trouble-free sales have and could be lost if we ignore the need to "establish a confidence level".

CDC 160A

There was some question on the new interrupt features of the 160A. It appears that the 160A has several interrupt channels that operate much as sequence break, requiring memory for each subroutine and to store the active registers. However, there also seems to be a difference in that the computer has to interrogate incoming information in order to determine "where it came or is coming from", or rather it interrogates the I/O devices to which that channel or line is connected.

Price of the 160A is $90K with 8K memory. No possibility of a fast multiply.

3C's DDP

not true.

I was told that the Multiply and Divide times are 25 and 40 usecs., (as opposed to the literature figures). I was also told that the price is $135K, essentially equivalent to our $120K with fast multiply and divide, (different word length.)

110K + 10.3K

File

TO: R. BEST, H. ANDERSON & S. OLSEN DATE: MAY 16, 1961

SUBJECT: Reliability Data on Building Blocks FROM: TED G. JOHNSON

Oliver Judd and Charlie Callahan from Boeing went after Stan and myself at the WJCC on the subject of reliability data for our modules.

MAIN ARGUMENTS:

1. Have to sell management.
2. Trend, others are doing it, competitive.

MAIN DEFENSE:

1. Haven't had to.
2. Don't want to wage a "figure war" with companies of Epsco vintage.
3. Tremendous job to do a good job of it.
4. Don't want to risk being committed to performance specs, could damage DEC.

SOME COMMENTS:

1. We should keep in mind that what is wanted is design reliability data, not performance data.
2. Large companies like Boeing will be a growing market and a large one. Selling to these people involves recognizing their problems of selling within their organization and of their paper requirements, (systems specs, military procedures, proposal preparation).
3. Reliability formulas, as I understand them largely involve determining the reliability of the ingredients of the circuit. It would seem that our circuits might not be fairly represented because in many cases, our circuits have extra components and are quite sophisticated as a result of design for systems reliability.

CONCLUSION:

I don't think we should close our eyes to this need but:

1. Evaluate present-day reliability determinations as they apply to our circuit.
2. Recognize the need for selling our story to people who aren't familiar with DEC or the equipment, including our philosophy of 100% testing, incoming inspection, quality control and systems experience.
3. Realize that we don't have to use the Epsco approach if we have some useful data available.

4. Examine the sales literature of competition for their approaches to this problem.

5. Consider having an evaluation and initial study made by a "reliability expert", (if such exist, say at MIT, who is recognized as such among his cohorts).

digital

File

INTEROFFICE MEMORANDUM

DATE May 16, 1961

SUBJECT Air Force Contracts

TO Kenneth H. Olsen
Harlan Anderson
Jack Atwood

FROM R. Mills

Our Air Force Contracts No. AF19(604)-8439 for a Universal Controller for Psychological Experiments, and AF19-(604)-8067 for a Dynamic System Simulator, state under Page 2, Part I - Contract Provisions, Paragraph B.2., the following:

"ACKNOWLEDGEMENT AND SPONSORSHIP

(a) The Contractor agrees that in the release of information relating to this contract such release shall include a statement to the effect that the project or effort depicted was or is sponsored by the AIR RESEARCH AND DEVELOPMENT COMMAND, USAF.

(b) For the purpose of this clause, 'information' includes but is not limited to, news releases, articles, manuscripts, brochures, advertisements, still and motion pictures, speeches, trade association meetings, symposia, etc.

(c) Nothing in the foregoing shall affect compliance with the requirements of the clause of this contract entitled 'Military Security Requirements'.

(d) The Contractor further agrees to include this provision in any subcontract awarded as a result of this contract."

Since the largest parts of the Controller and Dynamic System Simulator are being manufactured from standard components which we stock for both commercial and government work, I doubt very much that subparagraph (d) regarding the including of this provision in any subcontract awarded is applicable to other than major subcontractors providing complete pieces of equipment on a specific purchase order such as the Soroban typewriter, display scope, etc.

As regards news releases, we should include the above provisions on only releases dealing with the color display.

# # #

File

May 5, 1961

Ken Olsen
Harlan Anderson
Stan Olsen
Dick Mills

Barbara G. Charnock

Due to the fact that pertinent information that might be of interest to you comes to my attention, I thought I would submit a monthly report on those months that this information appears worthwhile.

On April 13th Maynard Sandler and myself attended the National Metal Trades Asso. meeting in Providence R. I.

The discussion was of value in that it stressed the importance of consistency within an organization. The major point being that any favoritism shown to one employee over another, is the quickest way to bring unions into an organization.

On April 28th, Mr. Mangan of the National Metal Trades Asso., visited this plant in regard to giving some of our key employees a Personnel Appraisal test. This phase of the test is a free one; N.M.T.A. hoping that as a result of the analysis of these tests that they will prove to us the value of participating in a program which would train whomever participates to become a psychoanalysist of some merit. The information I have received so far as a result of questionning Mr. Mangan and checking with a former participate at Bradley Container Corp, would appear to give the program merit.

However, at this point I am by no means sold on it and feel that we should have the results of these tests before giving even the slightest consideration to this total program. While the initial tests are free the total program is quite costly. The charge being $1,000.00 for the first person taking it and an additional $500.00 for each other person participating. In-as-much as we are members of N.M.T.A., I thought it would be to our advantage to avail ourselves of the gratuitous portion of this program.

INSURANCE

In regard to insurance I feel that an amendment should be made to our Employee Handbook so that no employee will question what his/her right is as to what he/she will receive and what he/she won't receive. The employees question at present being, "If I haven't used up all my company sick time, will I receive both a days' pay plus the weekly disability income benefit?" I feel the employee should know and realize that this insurance is not set up as a means of making money, but as a means of compensation for benefits not received or covered from other sources.

Please advise me as to your feeling about the value of my submitting these reports monthly.

dec MEMO

DATE 4/25/61

TO H. Anderson FROM Ted Johnson

In line with the market for special purpose usage of the PDP-1, where the programming requirements are not extensive and the machine will be a work-horse at a fairly specific job, I think we should generate applications literature which illustrate this advantage of PDP-1 for test equipment, conversion, A-D systems. This could be brief with clear description of the application area, block diagram of PDP-1 plus other equipment required as a package to solve the problem, and listed specs and advantages of this problem-solving package.

We might consider having a consultant do this job for us. I firmly believe times-a-wasting on our computer efforts. CDC160A has already moved in on some of our advantages. We can expect developments in the scope field, tape systems, automatic interrupts. MS&A could do this job. If we scheduled key time for these vital jobs, we could do it.

Ted

INTEROFFICE MEMORANDUM

DATE April 20, 1961

SUBJECT

TO Harlan Anderson
Ben Gurley
Gordon Bell

FROM Kenneth H. Olsen

John Ward is coming out to visit us on Monday, April 24, at 10:30 a.m., to talk about a new computer to replace the RW-300 which burned up at M.I.T. John is taking along Dr. Stark, who is in charge of this machine. They are particularly interested in an educational discount which I think we can afford to think about. We definitely can't let this become common knowledge. We should be sure that we are ready for these people and take good care of them. If Gordon can find out a little more about their application ahead of time, it would be worth while.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE April 17, 1961

SUBJECT Evaluating A Transistor For The Low Speed Line

TO

FROM Robert Hughes
Daniel Wardimon

The information given here represents data collected from measurements made on R.C.A. 2N404, R.C.A. 2N412, TI 2N1305, TI 2N1307 transistors.

The purpose of these measurements is to compare the different parameters of the above transistors in order to evaluate the 2N1305 for future use in replacement of the 2N412 in the low speed line.

The 2N412 is specified by the manufacturer as a mixer for entertainment application. The 2N1305 and 2N1307 are specified by TI as a high frequency transistor for computer and switching applications, and the manufacturer's information is presented for all of them on the same data sheet, and they are produced on the same line and grouped later when certain parameters serve as a criterion. The 2N404 is specified as a medium speed switching transistor for computer use.

The measurements were conducted in order to get information about the following:

1. Check those electrical specifications in which we are interested, which are presented by the manufacturer.
2. Study the distribution of the different parameters of each transistor.
3. Compare the above transistors from the data collected in 1 and 2.

The following parameters were measured:

1. I_{cbo} - Leakage current of the collector base diode.
2. I_{ebo} - Leakage current of the emitter base diode.
3 & 4. V_{ces} - Saturation voltage at two different values of I_c.
5. F_t - Frequency at which H_{fe} is 1, (with output short circuited).
6. C_{req} - Amount of capacity required at the base driving circuit in order to reach optimum turn off time.

7. C_{cb} - Collector base junction capacity.

8. C_{eb} - Emitter base junction capacity.

9. Q_s - Stored charge in emitter base diode.

10. T_q - Life time of minority carriers, or recombination time.

The above measurements were made on the following equipment:

No. 1 - 4 Transistor curve tracing scope #575.

No. 5 - 6 With DEC circuit made for this purpose together with the #543 scope.

No. 7 - 10 On #543 scope with the S plug-in unit. This unit was designed for these and other measurements.

Transistor parameters, like any other product made within tolerances, obey some sort of distribution curve. Now, if we perform the above measurements on a group of transistors, we could plot the distribution curve from the results.

Actually, the resulted plot is stepped curve, the conversion of which to a continuous distribution curve is very time consuming. There is, however, a second way of showing the picture by plotting the result on "Probability Paper".

If the normal distribution for some sort of measurement looks like figure 1, then its conversion to probability scale is a straight line like figure 2.

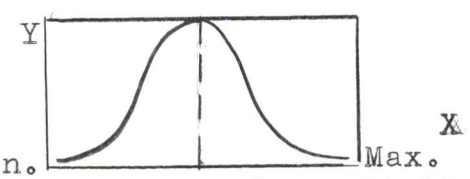


Figure 1

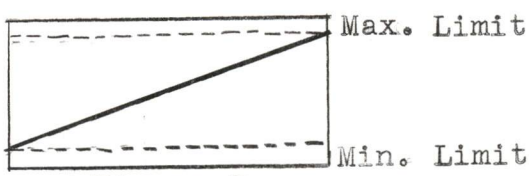


Figure 2

This kind of presentation (figure 2) is much easier to get and is more useful. On this paper, a normal distribution is converted to a straight line. On the original curve, the X axis serves for parameter values and the Y axis, a number of samples per unit of parameter value. On the other hand, on the probability paper, the X axis is marked with percent scale from .01 to 99.99 (not a linear scale), and the Y axis marked with parameter values (on a linear scale). The normal distribution is a symetrical curve and half the area under the curve (which means half the numbers of samples), to the left or right side of the peak corresponds to the 50% point on the probability paper. To find the number of samples that exist in a group between two arbitrary set parameters, it is necessary to evaluate the area under the normal distribution curve between the above two points, while on the probability paper, that number is readily determined. This is one advantage of the plot.

Obviously, the picture in figure 1 represents an ideal situation where the peak of the curve is positioned midway between the maximum and minimum values. If as a result from a shift in the process control, the curve moves to the right or left, then the straight line will move accordingly along the X axis parallel to itself. In case the process is out of control like in figure 3, the corresponding straight line is given in figure 4.

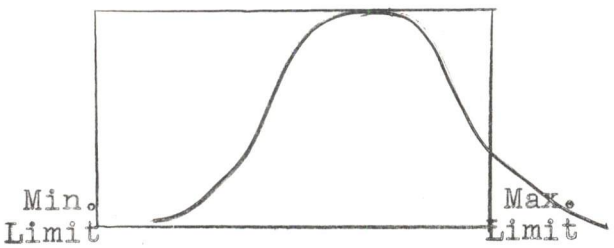


Figure 3

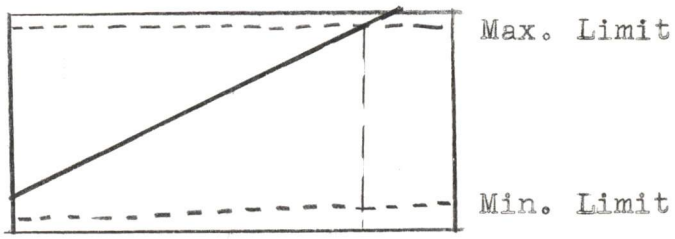


Figure 4

and the intersection with the maximum limit points out immediately what is the number or percentage of samples that are above the maximum limit. Thus, the second advantage of this plot is monitoring the production control; for whenever a shift is observed, the manufacturer changes the process in order to bring the distribution to its original position, and hopefully, a correction is made which brings the process in control. However, many components may have above limit specifitions and the manufacturer may chop the distribution curve in order to stay within the maximum and minimum limits, and the samples being tested are picked then from chopped distribution like in figure 5. The resultant line on the probability paper will be as shown in figure 6. It is clear that in a group of transistors taken from a chopped distribution line, the most occured value is now shifted towards the minimum or maximum limits which is a highly undesirable factor, as the average component value is much higher. Thus, with the probability paper, we know what kind of product we have, information which is not given with the manufacturer's specifications.

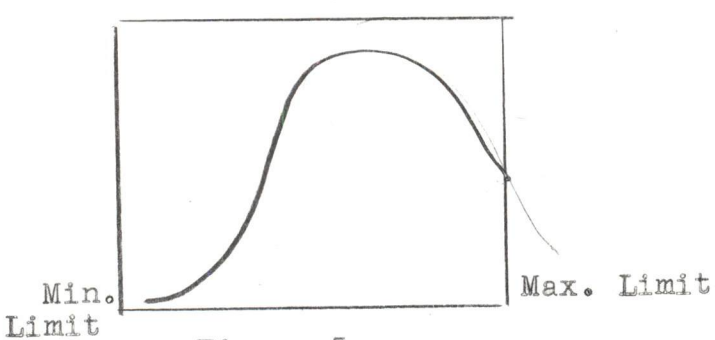


Figure 5

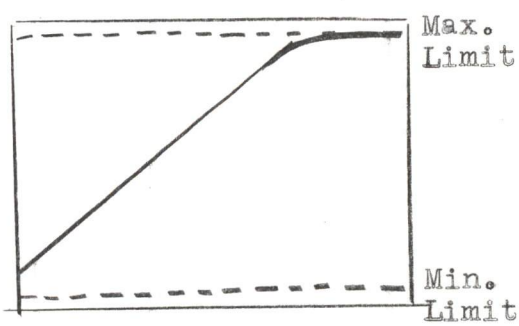


Figure 6

To clear up the matter, here is an example of how to read the paper: Suppose the plot contained information about leakage current, then any point on the line divides the batch of 100 transistors into two groups; one possesses the property of having less leakage current than read on the Y axis (parameter values) at this point and the other group has more than this value. If the circuit designer wants to set his own maximum and minimum limits, the probability paper will serve as a guide as to whether the limits are reasonable or not, for as they are set closer, less transistors will be suitable and the application will be costlier; the plot will tell exactly how many rejects there are for any setting of limits and thus enable basis for price calculation as well.

In reality, the distributions are not perfect and so we get curves instead of straight lines.

In conclusion, the probability paper eliminates the need to depend on the so called "typical values" which are defined differently by different manufacturers, by giving more relevant and reliable information.

The results of each parameter from the four different transistors were plotted on the same sheet for direct comparison use and are self-explanatory. It is evident that not one transistor type is superior in all respects to the others, but the 2N1305 and 2N1307 look attractive because of close quality control and also because of higher absolute ratings, higher Beta, less C_{req} and stored charge.

References:

1) Probability and Statistics
(Official textbook for continental classrooms, 1961)

2) Reliability report on the Philco SAT. Transistors (1960)

3) Modern Probability Theory and Its Applications
E. Parzen (John Wiley, 1960)

The above references are available at DEC Library.

COMPARISON ELECTRONICAL SPECIFICATION TABLE

	TI 2N1305	TI 2N1307	RCA 404	RCA 412
	Min. Typ. Max.	Min. Typ. Max.	Min. Typ. Max.	Min. Typ. Max.
I_{cbo} (uA) @ 25° C	-3 -6 @ -25V	-3 -6 @ -25V	-2 -5 @ -12 V	-10 @ -13V
I_{ebo} (uA) @ 25° C	-2 -6 @ -25V	-2 -6 @ -25V	-1 -2.5 @ -2.5V	-12 @ -.5V
V_{ces} (V)	-.1 -.2 @ Ic=-10 ma @ Ib=-.25 ma	-.1 -.2 @ Ic=-10 ma @ Ib=-.17 ma	-.1 -.15 @ Ic=-12 ma @ Ib=-.4 ma	No Data
V_{ces} (V)	-.35 @ Ic=-200 ma @ Ib=-13 ma	-.35 @ Ic=-200 ma @ Ib=-10 ma		
C_{ob} (pf)	20 @ Vcb=-5V @ f = 1 mc	20 @ Vcb=-5V @ 1 mc	20 @ Vcb=-6 No frequency specified.	No Data
C_{cb} (pf)	7 @ Veb=-5V @ f = 1 mc	7 @ Veb=-5V @ f = 1 mc	No Data	No Data
Q_s (pCb)	1000 @ Ib=1 ma @ Ic=10 ma	800 @ Ib = 1 ma @ Ic = 10 ma	800 1400 @ Ib = .1 ma @ Ic = 10 ma	No Data

ABSOLUTE RATINGS

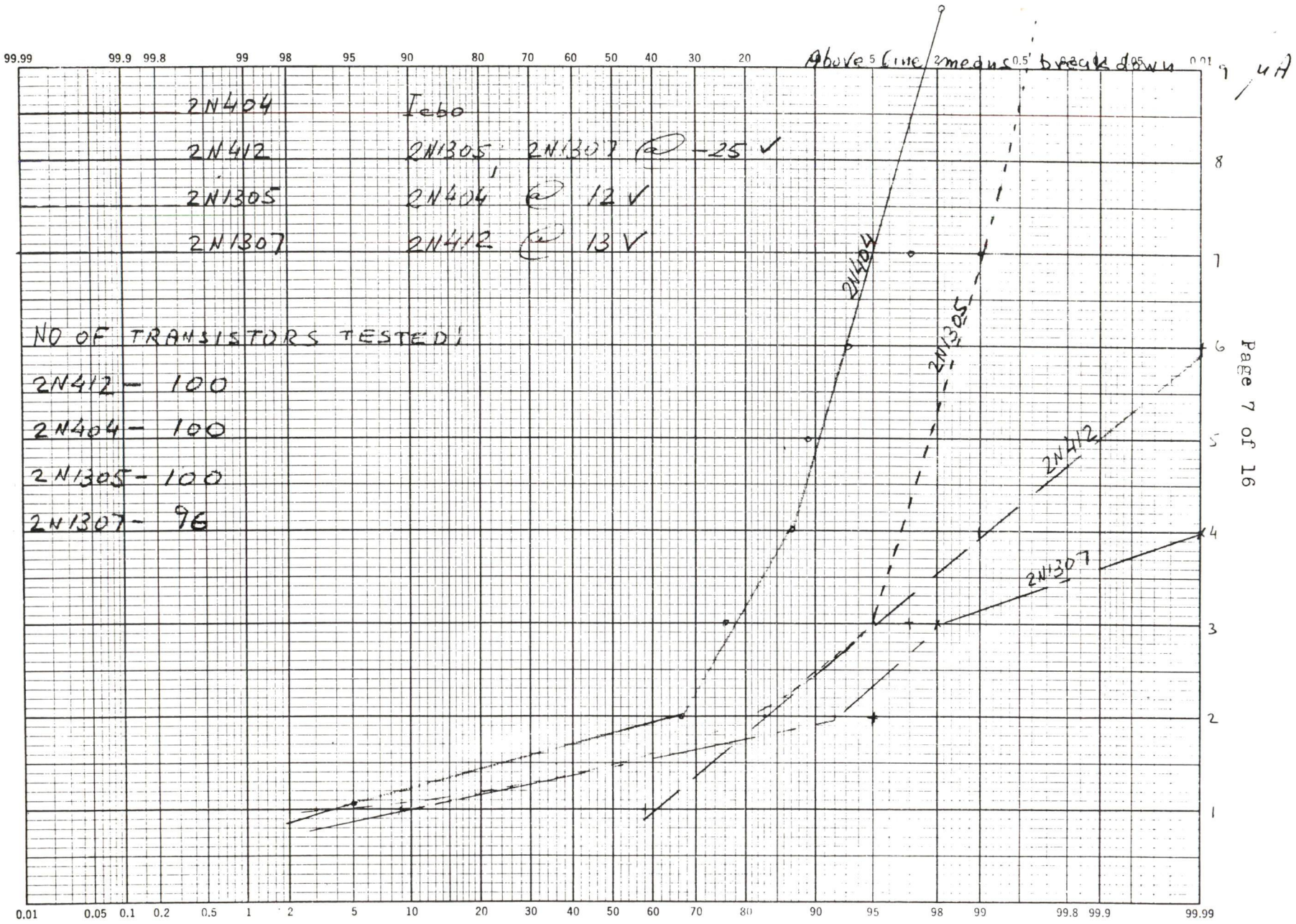
	TI 2N1305	TI 2N1307	RCA 2N404	RCA 2N412
Collector Base Voltage (V)	30	30	25	13
Emitter Base Voltage (V)	25	25	12	.5
Collector Current (ma)	300	300	100	15
Total Device Dissipation (mW)	150 @ 25° C	150 @ 25° C	120 @ 25° C	80 @ 25° C
Storage Temp. Range C°	-65 to +100	-65 to +100	-65 to +85	-65 to +85
Maximum Oper. Temperature C°	No Data	No Data	85	71

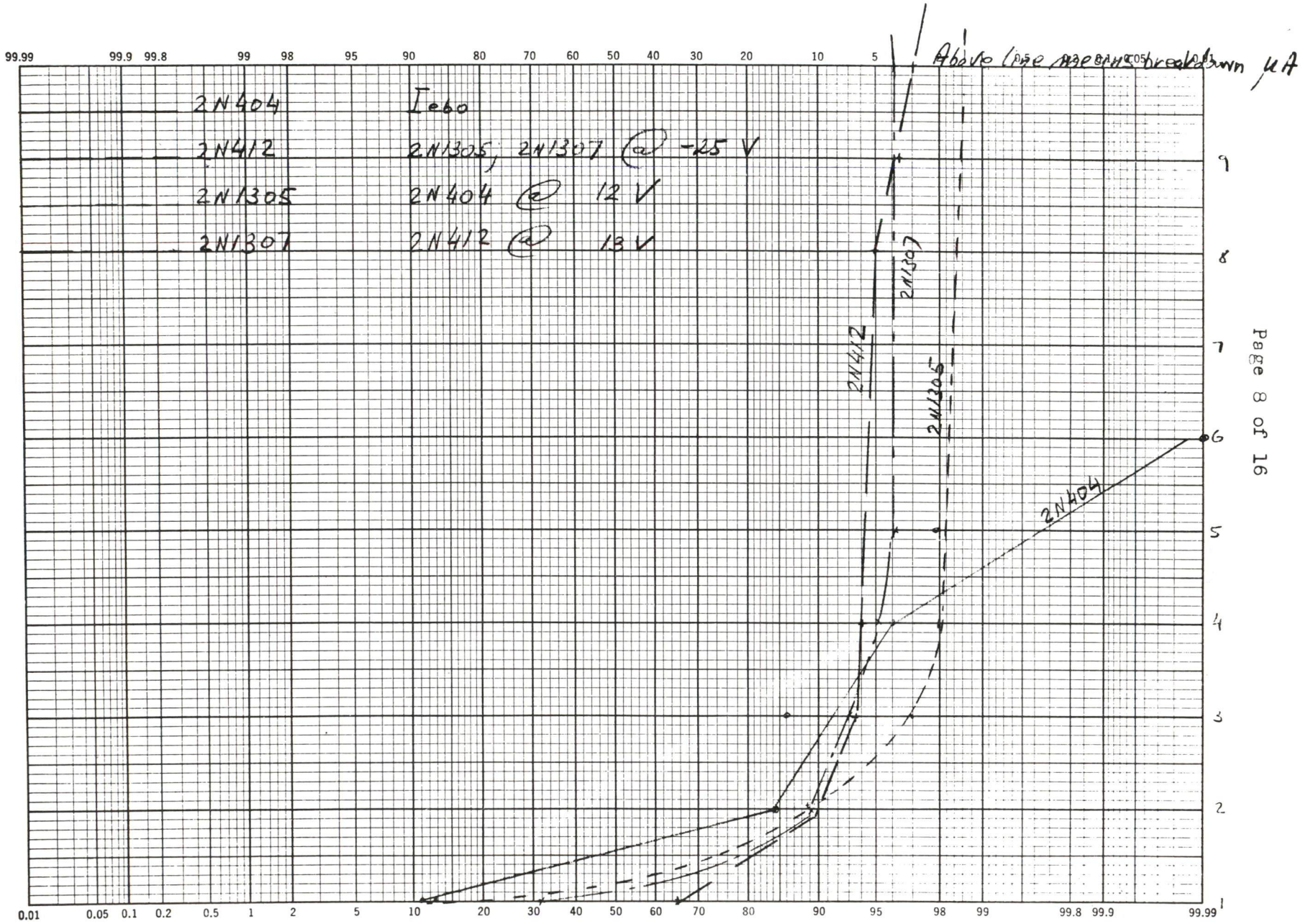
SUPPLEMENT

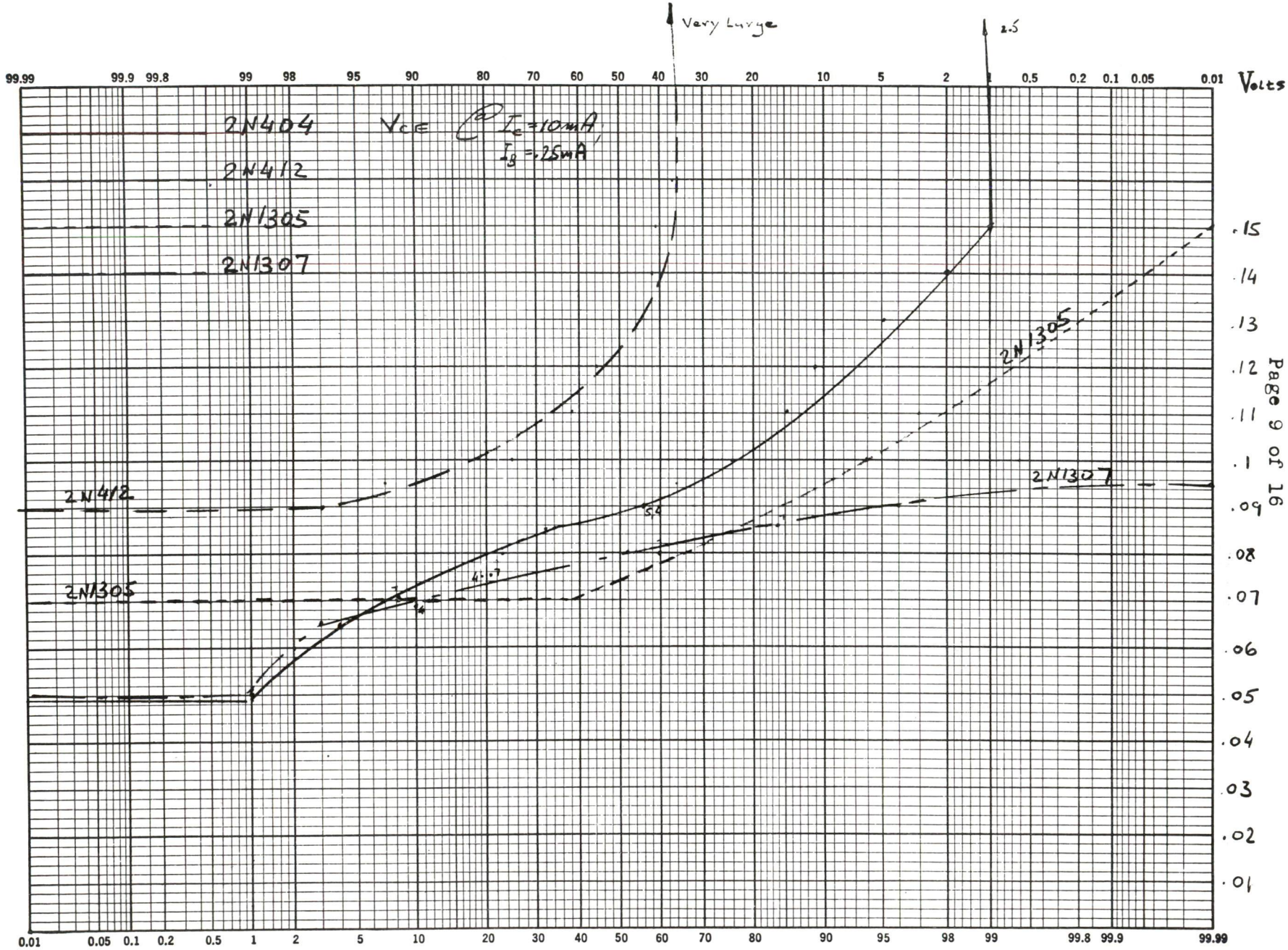
The following five tests have been done on the first 1,000 2N1305 transistors ordered:

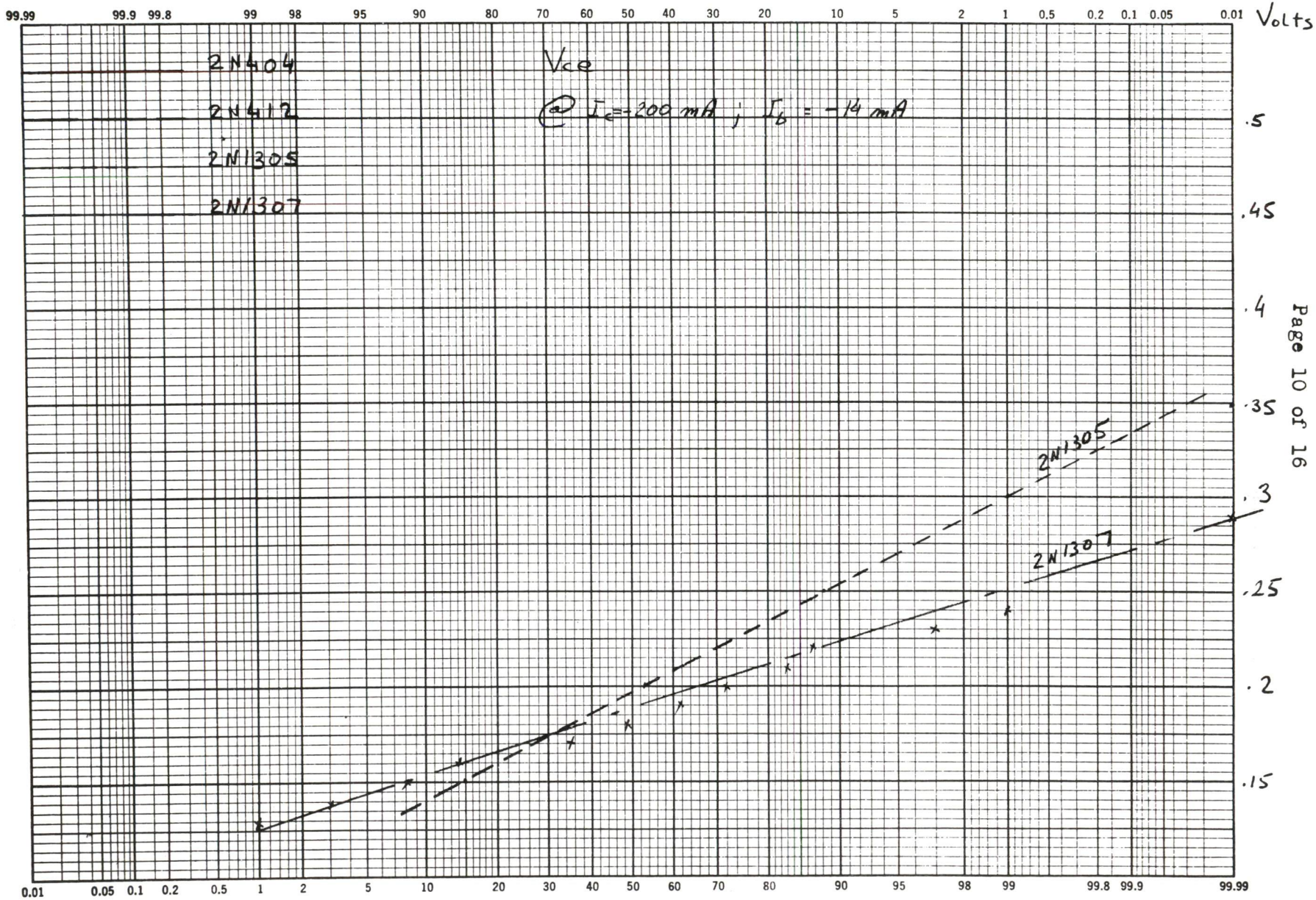
1. I_{ebo} @ 25 V
2. I_{cbo} @ 25 V
3. V_{ces} @ I_c = 200 ma; I_b = 13.3 ma
4. V_{ces} @ I_c = 10 ma; I_b = .25 ma
5. V_{ces} @ I_c = 30 ma; I_b = 2 ma

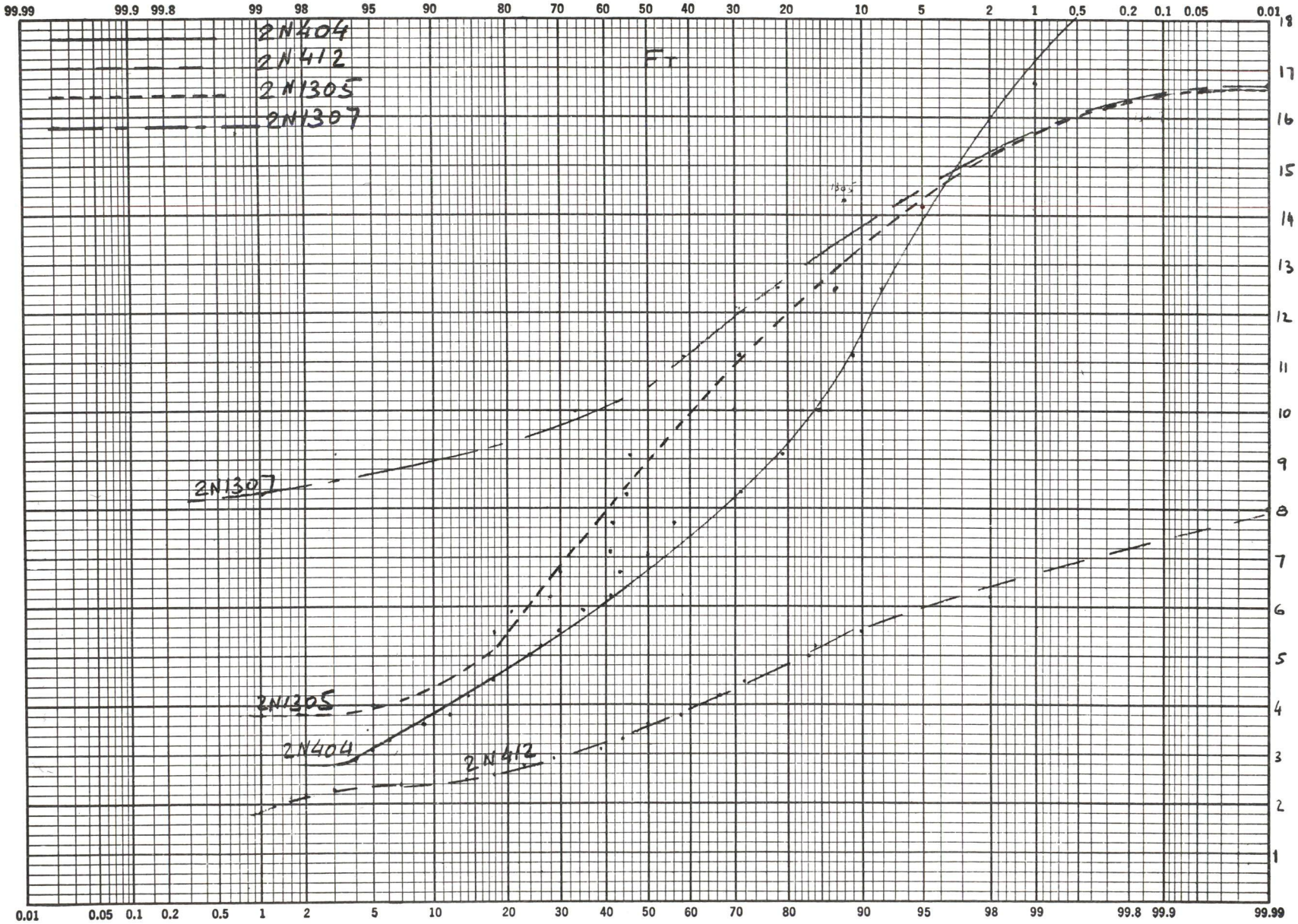
Two transistors failed test No. 2, and two transistors failed test No. 3.


99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
Above 5 Line means breakdown
2N404
2N412
2N1305
2N1307
IEBO
2N1305 2N1307 @ -25 ✓
2N404 @ 12 ✓
2N412 @ 13 ✓
NO OF TRANSISTORS TESTED!
2N412 - 100
2N404 - 100
2N1305 - 100
2N1307 - 96
2N404
2N1305
2N412
2N1307
1 2 3 4 5 6 7 8
7 uA

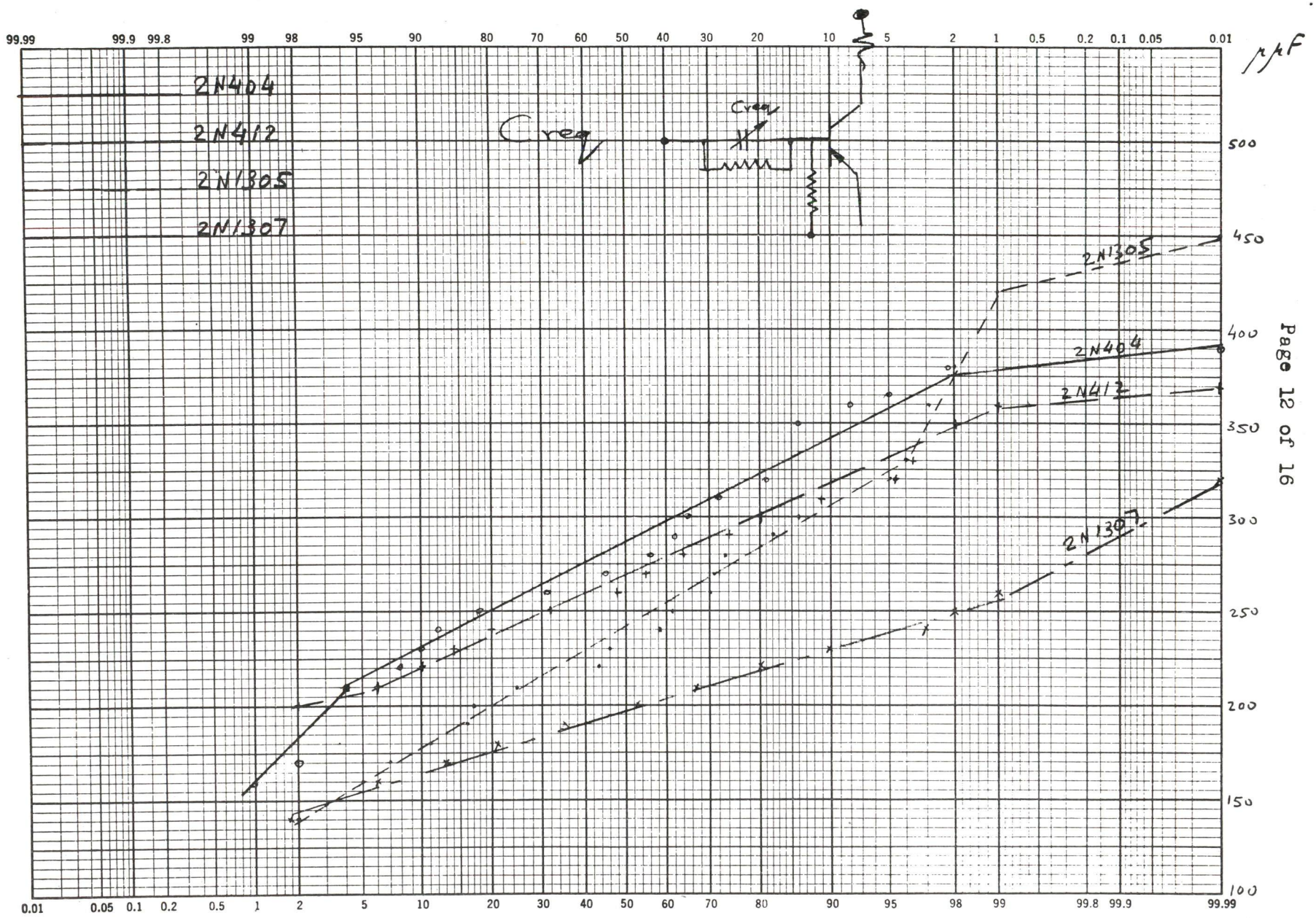

99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5
Above line means breakdown μA
2N404 I_{ebo}
2N412 2N1305, 2N1307 @ -25 V
2N1305 2N404 @ 12 V
2N1307 2N412 @ 13 V
2N1307
2N412
2N1305
2N404
9 8 7 6 5 4 3 2 1
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99

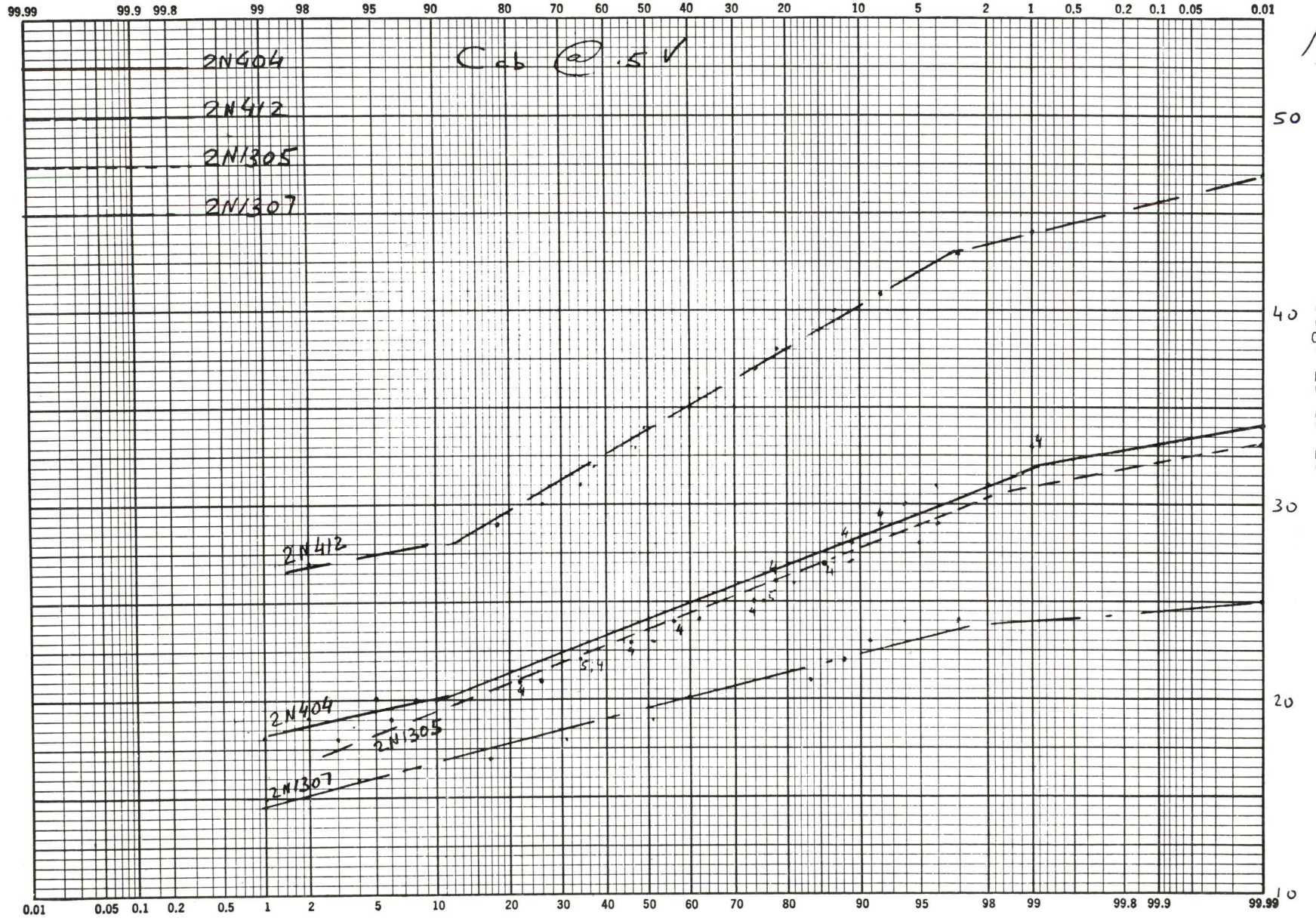

Very Large
2.5
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01 Volts
2N404
2N412
2N1305
2N1307
V_{CE} @ I_C = 10mA, I_B = .25mA
2N412
2N1305
2N1307
2N1305
.15
.14
.13
.12
.11
.1
.09
.08
.07
.06
.05
.04
.03
.02
.01
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99

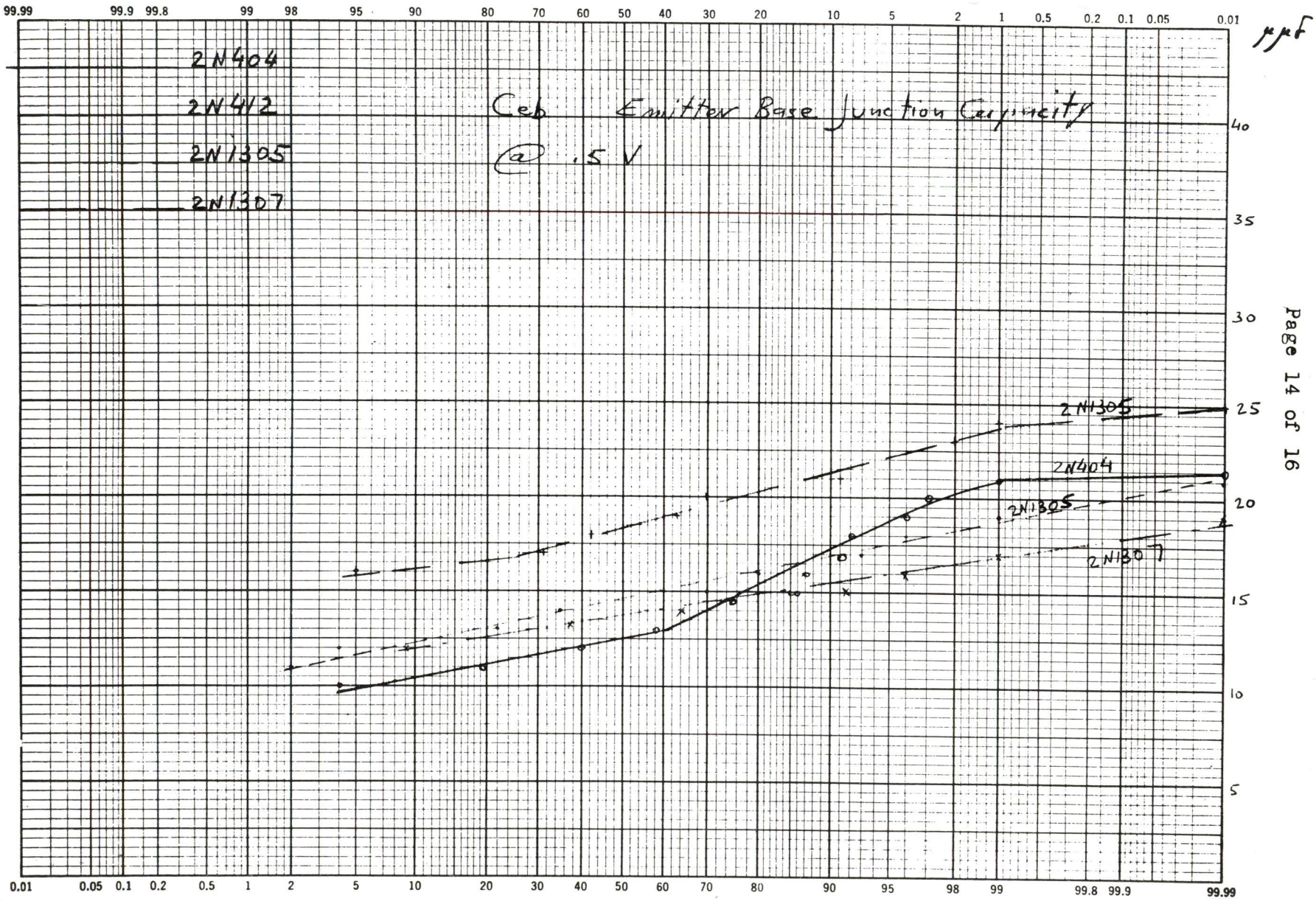

2N404
2N412
2N1305
2N1307
Vce
@ I_c = -200 mA ; I_b = -14 mA
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01
Volts
.5
.45
.4
.35
.3
.25
.2
.15
2N1305
2N1307
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99

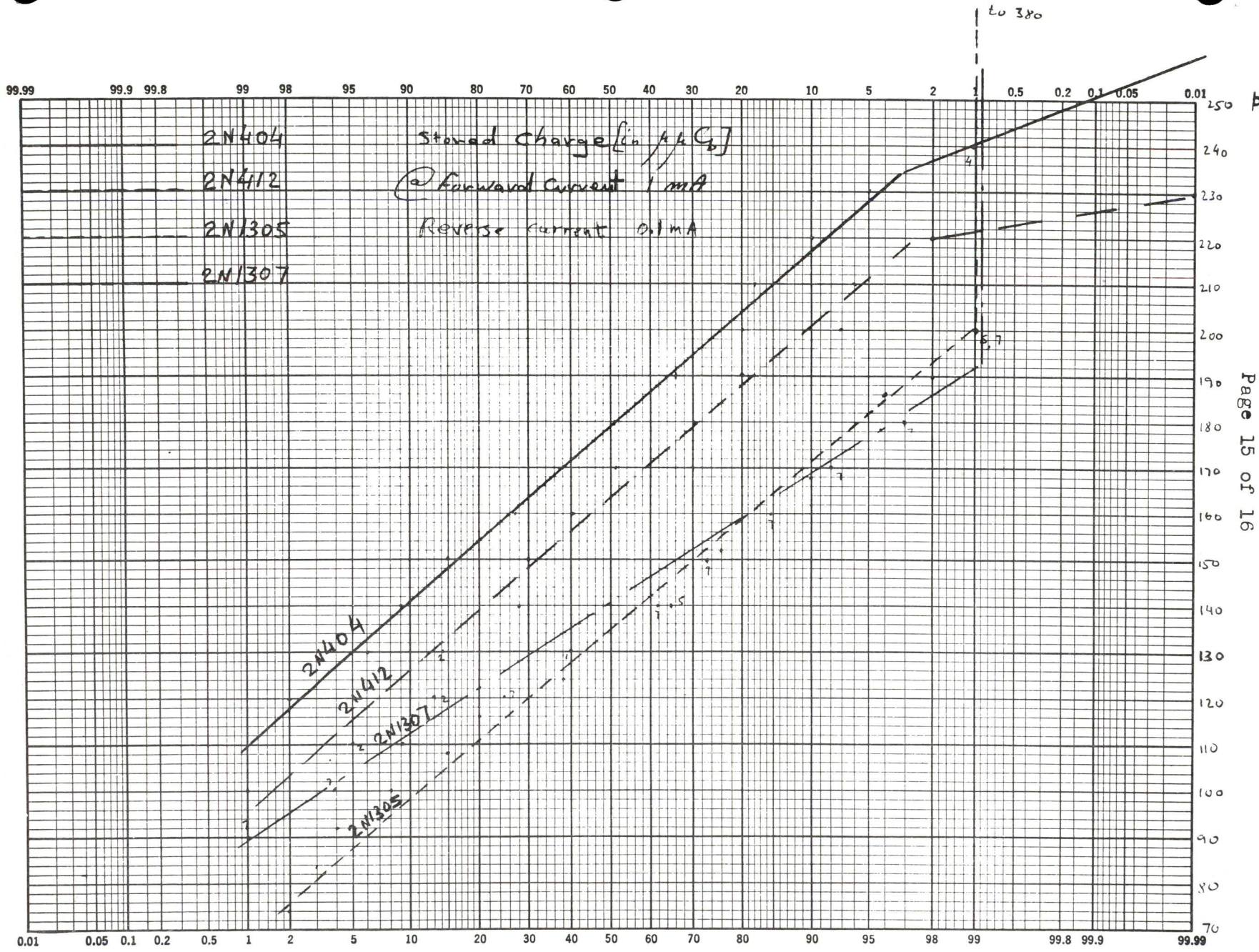

2N404
2N412
2N1305
2N1307
F_T
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
2N1307
2N1305
2N404
2N412

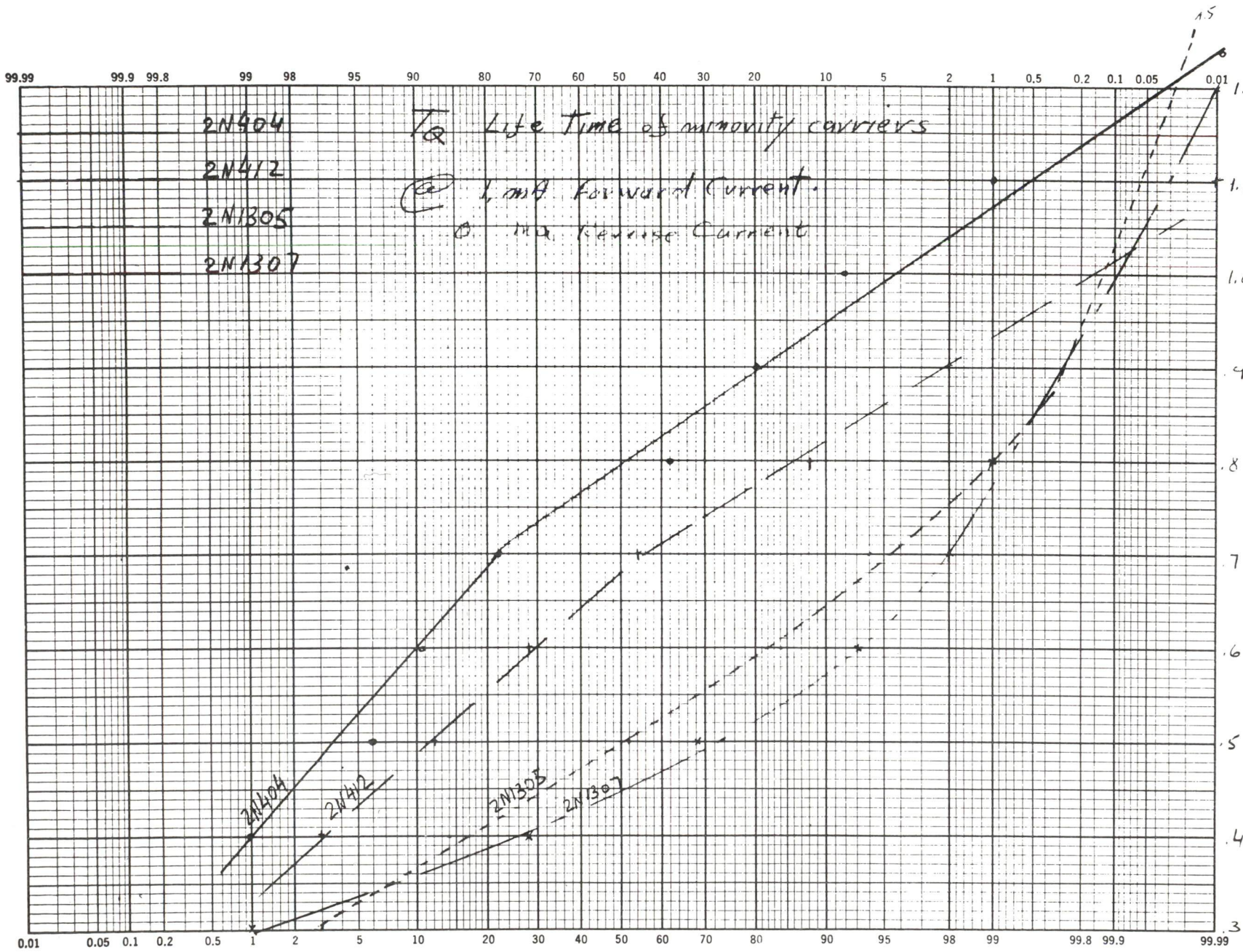
Mcy


2N404
2N412
2N1305
2N1307
Creq
Creq
2N1305
2N404
2N412
2N1307
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
500 450 400 350 300 250 200 150 100
μμF


2N404
2N412
2N1305
2N1307
Cob @ .5 V
μμF
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
50
40
30
20
10
2N412
2N404
2N1305
2N1307


2N404
2N412
2N1305
2N1307
Ceb Emitter Base Junction Capacitance
@ .5 V
μμf
2N1305
2N404
2N1305
2N1307
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
40 35 30 25 20 15 10 5


to 380
2N404
2N4112
2N1305
2N1307
Stored charge [in pμ Cb]
@ Forward Current 1 mA
Reverse current 0.1 mA
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70
PCb


2N404
2N412
2N1805
2N1307
T_Q Life Time of minority carriers
@ 1 ma Forward Current.
0 ma Reverse Current
99.99 99.9 99.8 99 98 95 90 80 70 60 50 40 30 20 10 5 2 1 0.5 0.2 0.1 0.05 0.01
0.01 0.05 0.1 0.2 0.5 1 2 5 10 20 30 40 50 60 70 80 90 95 98 99 99.8 99.9 99.99
1.5
1.2 μSec
1.1
1.0
.9
.8
.7
.6
.5
.4
.3
2N404
2N412
2N1323
2N1307

INTEROFFICE MEMORANDUM

File

DATE April 13, 1961

SUBJECT

TO Harlen Anderson
Computer File
Customer File (University of California)

FROM Ben Gurley

I had a call from Ted Johnson yesterday with reference to the University of California Radiation Laboratory at Livermore with respect to the Uptime Card Reader. Uptime has offered California a "Turn-The-Corner" Buffer, they call it. This is an 80 x 12 bit buffer, and the card is read row by row into this buffer and then out column by column. The University of California is interested in this going into our PDP-1. This would require some slightly simplified form of a high Speed Channel. Now, we had quoted $15,000 for Card Reader Control in this price. Ted has wondered if we would supply, for this $15,000, instead of what we thought was a Card Reader Control, a simple High Speed Channel to take this "Turn-The-Corner" Buffer. So, we have almost no card reader control other than perhaps a signal to pick up the card and then when the card is picked it may also initialize this High Speed Channel, then when the card is read, the 80 words from the card would come blasting in at 200 K^{C} rate. To work successfully with magnetic tape, it would have to be able to pause while the magnetic tape comes in at a higher priority on the High Speed Channel request. I will get in touch with Ed LaFranke and discuss some of the details of this. The Uptime people will communicate with us to get together and start ironing out the engineering of this Card Reader System.

Uptime is also very interested in going after the 1401 market with their Card Reader and our computer with its options.

Along this line, Bob Allen of Uptime mentioned that they were unable to get space at the Western Joint Computer Conference, and if we were interested in making a joint push for this 1401 market, he was wondering if it would be possible to share some space in our booth at Los Angeles. I didn't do any committing. It would be one of two things, either space for the Card Reader itself, and if you saw the machine at E.J.C.C., or if you check with Ken, it really doesn't take up an awful lot of space, or if this was not possible, it might be feasable to just give them space for some literature. Again, I made, in no sense, a commitment. I would have the feeling that if we are not going to send a computer out there, the Uptime Card Reader would overwhelm any exhibit we might have. This Card Reader, incidently, is an extremely good attention getter because it seems to really work well and very very fast.

INTEROFFICE MEMORANDUM

File

DATE April 12, 1961

SUBJECT

TO Ted Johnston
CC Ben Gurley
John Koudela
Harlen Anderson

FROM Gordon Bell

I just talked with Mr. Albert Nault of CEIR here in Boston. CEIR has an IBM 7090 part time with the Smithsonian Institute. He was interested in possibly doing some programming for us and also seeing our machine. He mentioned that Mr. William Crowley in Los Angeles of CEIR would like information, that is, prices, specifications and this sort of thing, on our machine. I'm going to talk to him on Thursday, April 13, about programming and also mainly I just want to show him the machine.

digital equipment corporation
MAYNARD, MASSACHUSETTS

File

April 12, 1961

Dick Mills
Maynard Sandler
Ben Gurley
Dick Best
Harlan Anderson

Kenneth H. Olsen

Mr. Lucy, whom I believe is vice president of Information Systems Company, in California, had talked to me at American Research about developing an interest in DEC. We showed little enthusiasm for this; in fact, we were quite negative. However, I did give them an invitation to visit us because they are potentially a good customer for Building Blocks and computers. They happen to be one of the few people at all successful in industrial control and just finished the first computer controlled sugar factory in Boston. They also have computerized the Boston Edison power plant.

On Friday, April 14, Mr. Carl Ward is coming to visit us on his way from Europe to California and would like to visit us. I said this was a good idea and that I would be here. However, it turns out that I am scheduled to meet with ITT that day; and I would like to have Dick Mills take care of him, show him around, and have Dick Best and Maynard Sandler join them for coffee so that we show them due respect and due friendliness.

Mr. Jerrow, president of the company, will visit us the 18th or 20th of April. I told him that either day would be equally good for us and we would be glad to adjust to his schedule.

Kenneth H. Olsen

TO: Harlen Anderson FROM: Ed Harwood

File

Possible Costing Areas for a Production Model of PDP-1C

1. Design changes
   - A Engineering
   - B Drafting
   - C Technician
2. Manufacturing
   - A Wiring mounting panels
   - B Sheet metal and machine shop
3. Systems assembly
   - A Misc. wiring
   - B Special wiring
4. Check out
   - A Misc. wiring and small changes
5. Final test
6. DEC components
   - A Plug-in unit
   - B Power supplies
   - C Special panels
7. Direct material
   - A Switches
   - B Casters
   - C Fans
   - D Cabinets
8. Purchased items for a machine
   - A Typewriter
   - B Reader
   - C Punch
   - D Special In-Out devices

INTEROFFICE MEMORANDUM

DATE April 5, 1961

SUBJECT PERSONNEL AND EQUIPMENT REQUIREMENTS

TO K. H. Olsen
H. E. Anderson

FROM J. L. Atwood

We have talked over in detail our ability to keep pace with the demands for advertising, sales promotion, technical publication, photographic, and house printing service. Taking into consideration our present work load and the increases which may be expected in the immediate future as a result of growing sales volume, these appear to be our requirements of the moment for additional personnel and equipment.

Personnel

1. Offset duplicator operator, second shift - already requisitioned

2. Typist - to work in the direct mail section preparing labels and assisting with mailings

3. Technical writer - to do the bulk of the writing, editing and rough layout on operating manuals for new systems. This man should also be able to help with technical bulletins and application notes. He should be approved by engineering insofar as his technical competence is concerned, but his work should be supervised and coordinated by our department.

Equipment

1. Electric typewriter - at least one additional IBM executive machine similar to the one Florence uses to accommodate the heavier flow of reproduction typing. It might also be well to consider providing similar machines for Eleanor Parker, so she and Jane can again backstop each other, and for one typist in engineering, so that at least some of the technical copy to be printed can be reproduced directly from the final typed version of the text. The improvement in work flow should more than offset the $3.00 per week difference in the lease rates of the IBM's and the Peter Paul machines which could be returned if Eleanor's machine and the two Olympias were given to typists now using Royal manuals.

2. Densitometer - would be especially helpful in getting better halftones, but would also be useful in many other photographic applications. Kodak's reflection-transmission model costs about $104. Smith's might be able to sell it to us for $99.

3. Photocopier - a large size Nord at $385 would handle virtually all our requirements, including two-page magazine spreads and 12 x 18 offset line plates. The Nord we now have could then be sent to Ted.

4. Camera - a medium-priced single lens reflex camera seems to be about the best all-around buy. The Optika IIa at $229.50, less industrial discount, covers the range from 2 1/4 x 3 1/4 down to 2 1/4 x 1 3/4. It would be easy to use for in-plant shots of equipment, people and facilities.

5. Lights - two or three Sylvania Sun Light units at $24.95 would do very well as easily portable, easily controllable lights for photographic purposes.

INTEROFFICE MEMORANDUM

DATE April 3, 1961

SUBJECT

TO Ken Olsen
CC Harlen Anderson

FROM Ben Gurley

ITL, Division of Itek, wants some special things on their computer. We thought we pretty well had under control what they wanted, but it turns out that there was some misunderstanding. They want a bi-directional reader. Digitronics makes such a reader and it costs $2,850 instead of the $2,300 we normally pay. In addition, on the $2,300, if we keep going with Digitronics and buy our pro order, we get a 10% discount, making an increase in price of $780 between their bi-directional model and their uni-directional model. In addition, we have ordered a spooler for them which will take up to 500 feet of paper and costs us $830. They had first talked about having two extra small tables, one with the punch and reader mounted on it and the other with the typewriter on it. At the meeting of Digital Equipment Computer Users Society, last Friday, Larry Buckland thought that perhaps he would like a one section rack of the sort that BBN has on theirs, that is the short rack. So perhaps this would now be that the reader and punch be on a one section short rack and a separate one of our standard little tables for the typewriter. Now, on the table and on the console table, also on the display table, they would like to have the ends square. One other thing they would like is to be able to have their flexowriter operate on line and off line. They've ordered a Flexowriter and they would like us to provide a box so that this can be used either a tape preparation or as an on line - off line device. They would like a letter and a quote on these items as soon as possible. I'm not sure that we want to do the on line - off line Flexo, we may, however, to accomodate them.

R. Anderson

File

INTEROFFICE MEMORANDUM

DATE March 29, 1961

SUBJECT Test Equipment Committee

TO All Engineers

FROM Kenneth H. Olsen

As our engineering organization gets larger, it becomes more and more important that we have a sufficient stock of test equipment and that we have an organization which will keep it in good working order. In order to accomplish this end, I propose that we form a "Test Equipment Committee." This committee will supervise the personnel responsible for maintaining test equipment, it will set up procedures, and it will be responsible for proposing new equipment.

This committee will have to meet regularly and will have to be small in size in order to be effective. I propose that the following people be on this committee: Bob Hughes (Chairman), Russ Doane (Secretary), Don White, and Dave Dubay. I propose that this committee meet every Monday at 8:30 a.m. in the Library (whether all members can attend or not). If everyone agrees, we will assume that the committee is as stated with the stated meeting place and time. This will be an open meeting, and all interested people will be encouraged to attend and take part. The meetings will be short and will be adjourned as soon as there is no more business or further meeting is not fruitful.

Minutes will be kept on all action and will be published in the Bi-Weekly report.

We should also have a Library Committee to take on the same responsibility there. I would like to hear suggestions or hear of volunteers to operate on this committee. One possibility would be to have the Test Equipment Committee take responsibility for the library also, because it will take very little time.

Kenneth H. Olsen

File

INTEROFFICE MEMORANDUM

DATE March 29, 1961

SUBJECT

TO H. E. Anderson
Ben Gurley
Gordon Bell
John Koudela

FROM Ken Olsen

Pete Choffey of Control Data has invited us to see their CDC-160 computer. It is being housed at Charles Adams Associates, in Bedford. We should call him to make an appointment.

Ken Olsen

File

TO: H. ANDERSON

FROM: TED JOHNSON

SUBJECT: SALES ENGINEER SEARCH

DATE: 3/23/61

So far have generated very few candidates for job of sales engineer. Presently three prospects hold some promise:

1. JIM RAUTKOSKIE

Age 22, Single. Presently employed by Nortronics in digital group. 10 months work experience. Graduated in 1960, Ohio Univ. 3.2 out of 4.0 grade average. Tau Beta Pi. Offered job by Dorsett Labs., Ed Merrigan who worked for IFM is sales manager and offered salary $7800 plus company car. Plans to finish up at Nortronics at end of this month and was very interested in DEC. Quiet and pleasant personality. Interested in digital work and sales engineering. Main liability might be that he looks his age. He would require some draft deferment which he was assured of by Dorsett.

2. KEN LARSEN

Presently employed by TMI. Has some interest in sales engineering and I will be talking with him sometime next week. Very capable engineer. Family, 4 children. Appears to be about 29 or 30. Probable salary range would be $10,000 neighborhood. Would be good man.

3. DICK BARR

Presently working for IFM in Northern California area. Carrying 10 lines, most capable saleman and good engineer. Would consider relocating in Los Angeles. Salary would be in the $12,000 bracket.

Ted jr

TO: H. ANDERSON

FROM: TED JOHNSON

SUBJECT: COMPUTER

DATE: 3/23/61

Howard White, Rad. Labs. at Berkeley, will be in Boston in two weeks to attend a short invitational meeting held by Irwin Pless in connection with the MArk II Precision Encoder and Pattern Recognition Device. I encouraged a visit to Maynard and suggest you at least arrange a visit to BBN if he calls.

He is interested in the possibility of directly linking a PDP-1 to IBM computer equipment as well as pattern recognition and cloud chamber work.

Could I have a status report on the computer activities?

1. Present orders received.
2. No. of machines being produced.
3. Present orders expected.
4. Pricing changes being considered.
5. Listing of applications being considered by customer.
6. Rental plan status.
7. Maintenance plans status.
8. Sales programs being planned, market approaches.
9. Availability of computer for demonstration at this office, possible scheduling.
10. Names of new people in sales, engineering.
11. Status of marginal check and other troubleshooting routines.
12. Other useful information.

Ted

INTEROFFICE MEMORANDUM

DATE March 23, 1961

SUBJECT

TO Ben Gurley
Harlan Anderson
John Koudela

FROM Kenneth H. Olsen

Mr. Josiah Macy, Department of Physiology, Albert Einstein School of Medicine, called on Friday, March 17, and said that they were interested in a computer about the capability of PDP-1. They had heard very favorable things about TX-0 and have strong prejudices in our direction. They have been looking at the CDC-160 so far, although they have passingly looked at the Packard Bell 250.

He has a fixed amount of money which I think he said was $160,000 or $170,000. With this, he needs a computer which will store somewhat more six bit characters than he could fit in 4018 digit words. If he could fit them all in 4000 words, our machine should be competitive. The most critical operation which he will do is to make six bit analog-digital conversions at a rate of 15,000 per second, stack these on tape for processing later. He may, in the same machine, take this data later on and sort it out so that he can get some reasonable amount of information later on.

I told him which hotel we would be staying at during the I.R.E. Show and invited him to visit us and have written a letter telling him the present prices of the equipment.

He knew little of the work being done by Dr. Sidney Weinstein at the same school.

Kenneth H. Olsen

cc: Yeshiva University file

dec MEMO

DATE March 22, 1961

TO Harlan Anderson/Ben Gurley FROM Kenneth H. Olsen

A number of people would like to make their own computers and we discourage them from trying to do it with the PDP design, but apparently the computer that Wes Clark designed for National Security Agency went together rather well. What do you think about writing a booklet on this computer so that people can make their own with our Building Blocks and this book?

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE March 22, 1961

SUBJECT

TO Harlan Anderson

FROM Kenneth Olsen

As you probably have noticed, I have been working with Ken FitzGerald on the development of a new paper tape reader. If this works out well, the next development is a magnetic tape reader which maybe we could develop under the Air Force contract. This has another interesting potential in that by simply driving it from a synchronous motor, one would have an analog tape unit. We should consider this possibility because it would be a good opportunity to finance development and would also give them a much more reliable and straightforward unit, I believe.

Kenneth Olsen

MEMO

TO: H. ANDERSON DATE: 3/16/61

SUBJECT: L.A. OFFICE FROM: TED JOHNSON

We are currently considering the feasibility of doing some small systems work at Los Angeles. I have attached a basic flow chart which brings out the major functions which might be undertaken by L.A.

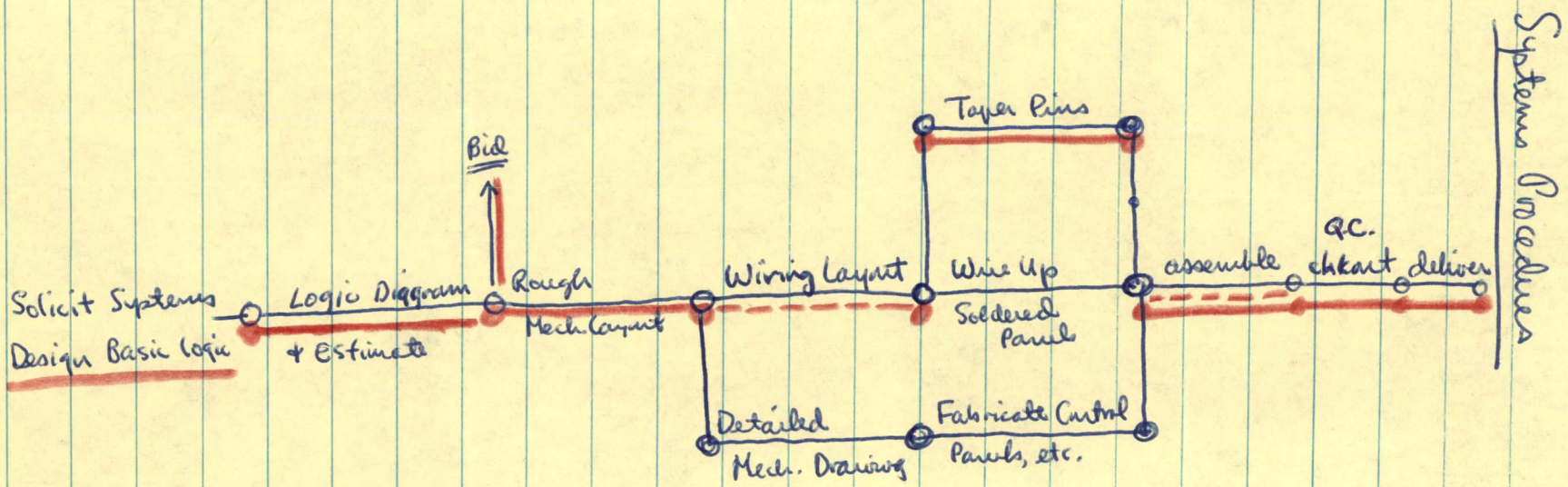
If assembly and checkout are to be done at Maynard, I see no real advantage. Small systems will often call for other equipment, (other vendors also), which implies adequate facilities, test equipment, and checkout and systems assembly at this office.

Again, I think that we should plan for such work on a broad scale, considering future computer maintenance requirements, etc., and only do this if there is some point to it:

1. Building up the branch office capability, (personnel, etc.
2. Localyizing systems responsibility.

There has been the question raised of Quality Control and checkout being done by Maynard. This seems to me to be a very little advance except to extend the role of this office to proposal preparation.

Ted



DO AT LOS ANGELES

DO AT EITHER

DO AT MAYNARD

MEMO

TO: H. ANDERSON & BEN GURLEY FROM: TED JOHNSON

SUBJECT: SYSTEM DEVELOPMENT CORPORATION DATE: 3/14/61

Bob von Buelow and John Hawkins are people interested in the digital clock I am bidding on. This will be used with their Transac. They are also very interested in our CRT devices for high speed read-out. They are doing work in:

1. Air traffic control, requiring vector as well as alphanumeric information to be displayed.

2. Business problems

3. Socialized problems

4. Whole family of human factors problems some of which involve testing the memory span of individuals with respect to coding patterns, etc.

For their requirement, they look to maximum 72 x 72 matrix. Hawkins doesn't feel they need this.

Alternative vendors might be:

1. 3 Stromberg Carlson units (too slow).

2. 1 IBM Console.

3. n DEC units where n is probably 5 or 6.

USNOTS was also interested in the CRT. A block diagram description of how the CRT and light pen work. Also a price on a separate unit with buffers and a basic description of how alphanumeric information is generated and displayed. (see attachment)

Please send a letter to Hawkins, copy to von Buelow.

Ted

INTEROFFICE MEMORANDUM

DATE March 14, 1961

SUBJECT

TO Ben Gurley
Dick Best
Harlan Anderson

FROM Kenneth H. Olsen

I propose that we have an engineering meeting in the very near future at which we brainstorm all the possibilities for summer student jobs. There are jobs, I am sure, that we could outline in detail that we could turn right over to a summer student that he could take the responsibility for and only have to look for advice when he has problems, rather than to need day-by-day instruction. We might have them write up application examples for our Logic Book, such as random number generators. We could also have them do research in a library for things like random number generators.

Kenneth H. Olsen

1. Writing up applications for Building Blocks for Logic book
2. Programming - Utility, applications, maintenance.
3. IRE articles
4.

File

dec MEMO

DATE March 14, 1961

TO Jack Atwood/Harlan Anderson/ Stan Olsen

FROM Kenneth H. Olsen

We have to develop a facilities brochure which tells the history of the company and has a lot of pictures of our facilities for use in recruiting. No one knows anything about the company when they come to visit us except that a friend of theirs might have had good experience, but they are completely naive as to what the history is and what our facilities include.

Kenneth H. Olsen

Ye HTG

INTEROFFICE MEMORANDUM

DATE March 10, 1961

SUBJECT

TO Kenneth Olsen
Harlan Anderson
Barbera Stephenson

FROM Stan Olsen

I just received a call from Ollie Judd of Rush Drake and we were talking about a memory system for part of Boeing which I turned down because it would be too difficult competing with Telemeter Magnetics. There's about a $23,000 order coming from this section though and this is exclusive of the section which Ted is working with to supply Building Blocks on another computer. This first one incidentally is a Milling Machine to operate at 100 KC.

Ollie Judd and Rush Drake will be at the I.R.E. Show and want to definitely get together with myself, and perhaps Andy, to discuss something. After that on Friday 24th March, Ollie will spend almost a full day here at the plant. He has been doing quite well lately with our products so we should encourage him considerably and also take this advantage to straighten him out on his personal problems.

INTEROFFICE MEMORANDUM

DATE March 7, 1961

SUBJECT Harlan Anderson ✓

TO Ben Gurley
Gordon Bell

FROM Kenneth H. Olsen

At our user's meeting on Friday, there is one item that I would like to have brought up if it seems at all worth while. If we could eliminate the typewriter on our computer and standardize on a teletypewriter, such as the one made by Teleprinter Corporation, in Paramus, New Jersey, we would have a very simple and reliable typewriter that would suffer from the limination of fewer characters but would indeed be a mechanically nice device.

Ken Olsen

digital equipment corporation
MAYNARD, MASSACHUSETTS

INTEROFFICE MEMORANDUM

DATE March 6, 1961

SUBJECT

TO Harlan Anderson
Ben Gurley
Gordon Bell

FROM Kenneth H. Olsen

John McCarthy called this morning, Monday March 6, to ask if we were still interested in building PDP-3's for M.I.T. I told him that we were immediately tied up and couldn't take any short-term commitments but that we expect in not too many months to be free of production problems on PDP-1 and to be then working on the next computer. Although we are not taking orders for PDP-3, we are definitely interested in developing a new product and we can think of no one better to work with than the people at M.I.T.

We have to a little careful about some apparent inconsistency that may develop here because we tell some people we are not making PDP-3's and yet with M.I.T. we are encouraging it somewhat. This is not completely inconsistent because what we are saying is that we are, in a few months, willing to talk to them about a new computer which may look like a PDP-3. They will not have their building before two and one-half to three years, although they would like to have the machine delivered before then. This means delivery in about two years and could even be three years.

John is interested, and maybe enthusiastic, about the BBN serial parallel computer. He feels that the base can be tied very nicely together to do multiple programming I'm sort of fascinated by this device and I think we should encourage them to look into it, and this would be an ideal machine because people can use them singly for simple problems and they could be distributed throughout all of M.I.T., and yet they could be the heart of the big machine they need.

H. Anderson

Tile

INTEROFFICE MEMORANDUM

DATE 3/2/61

SUBJECT Office Improvemen

TO H. Anderson & S. Olsen FROM Ted Johnson

Considering the future space requirements at this office, I would set out the following minimum space allowing for present plans for an additional man and incoming equipment:

1.	Desk and office space	400 sq. feet
2.	Building Blocks Display and work area	70
3.	Storage space and inventory	70
4.	Computer display area	(200)
5.	Guest room, tables	(100)
		540 Sq. feet
		(840 sq. feet)

The computer display area and guest area alloted would allow for expansion of the work area. Possible systems work should be considered in future space requirements.

I do think that we should have the computer out here within the next two months for one to two weeks. Formal invitations would be more effective than a trade show demonstration of PDP-1 at this point.

dec MEMO

DATE 3/2/61

TO H. Anderson FROM Ted Johnson

Things seem to be shaping into a computer dept. with channels of its own. Who should I direct general information to for distribution?

Need to know more about developments and thinking along maintenance line, rental, and DECAL.

Ted

DAP 984

INTEROFFICE MEMORANDUM

DATE 3/2/61

SUBJECT Electro Optical Systems

TO H. Anderson

FROM Ted Johnson

Our contact with MS&A (consultants) led to a good possibility at Electro Optical Systems in Pasadena. They need a general purpose machine and were looking at the 1620. If we can convince them of the potential of the machine, relative ease of programming and available service, and clarify their thinking about their real requirements, (as well as beat the stiff IBM rental competition) this could be a nice place to put a computer.

Lot of Cal Tech people. Group is Advanced Electronics, Dr. Robert Wall and Dr. Henry Rickter.

Ted

H. Anderson

File

INTEROFFICE MEMORANDUM

DATE February 22, 1961

SUBJECT D001 Diode Tests

TO List A & B

FROM David Dubay

The following diodes were subjected to three cycles of cooling and heating. Initially, all these diodes passed DEC specifications.

Type	Quantity	Low Temp.	High Temp.
D001	1061	-20°C	+55°C

All diodes were tested after being subjected to +55°C or -20°C. The results of these tests are shown on the attached graph. The figures represent the number of diodes which failed that particular test.

Test

#1 Forward Drop Dynamic Test $\leq$ 1.5V @ 10 ma

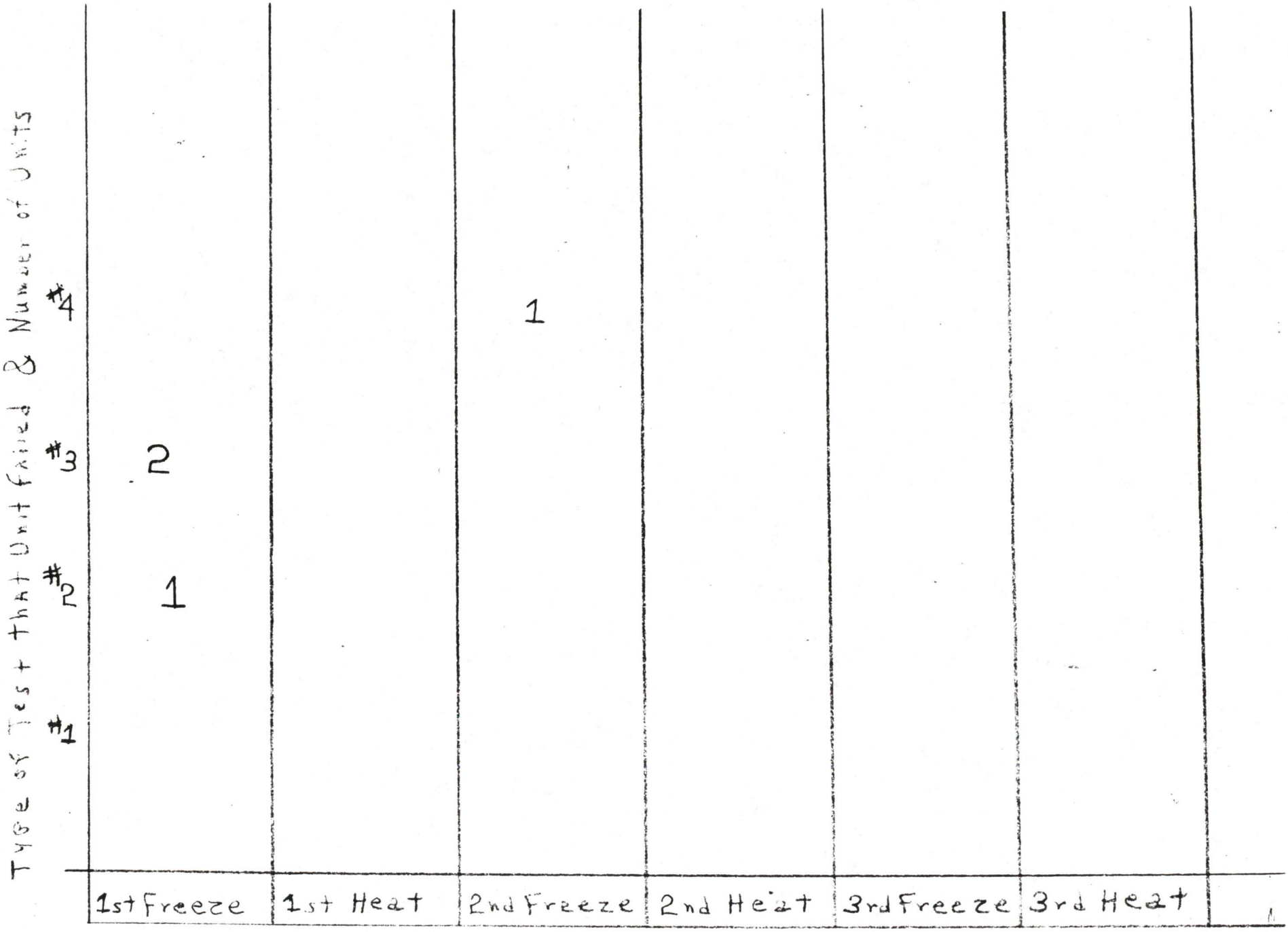
#2 Forward Drop Static Test $\leq$ 0.7V @ 10 ma

#3 Stored Charge $\leq$ 70 pcb I_f = 10 ma I_R = 0.1 ma

#4 Inverse Leakage $\leq$ 20 μa @ 4V

The D001 is a Transitron diode which will be used to replace the Ohmite diode type OMC 514.

Results of Enviromenta. Testing



INTEROFFICE MEMORANDUM

DATE FEBRUARY 17, 1961

SUBJECT CURRENT ENGINEERING ACCOUNT NUMBERS

TO ENGINEERING, DRAFTING, ACCOUNTING, PURCHASING, & M. SANDLER

FROM R. L. BEST

EN 1000	General Engineering
EN 1010	5MC Building Blocks
EN 1011	Compatible Low Speed B. B.
EN 1012	Non-Compatible Low Speed B. B.
EN 1013	Current Drivers (vacuum tube)
EN 1014	Digital-to-Analog Converter B. B.
EN 1015	Typewriter
EN 1016	Core Memory Development
EN 1017	Signal Converters
EN 1018	Memory Tester Development
EN 1019	Sales
EN 1020	PDP-1 Development
EN 1021	Core Handler
EN 1022	Power Supplies
EN 1023	Mounting Panels
EN 1024	Paper Tape Reader
EN 1025	Paper Tape Punch
EN 1026	Magnetic Tape Equipment
EN 1027	Display
EN 1028	PDP-3 Development
EN 1029	10MC Building Blocks
EN 1030	Educational Building Blocks
EN 1031	Computer Development
EN 1032	Utility Programming
EN 1033	Sales Programming
EN 1034	PDP-1 Sales
EN 1035	PDP-3 Sales
EN 1036	Light Pen Development
EN 1037	Core Tester and Memory Tester Sales
EN 1038	Special Systems Sales
EN 1039	Solid State Current Drivers
EN 1040	Drum Circuit Development
EN 1041	Drum System Development
EN 1042	Current Driver Power Supply 766
EN 1043	VHF Building Blocks
EN 1044	Analog-to-Digital Converter B. B.
EN 1045	Digital Average Response Computer
EN 1046	Punched Card Equipment for PDP-1
EN 1047	PDP-1 Prototype Operation BG
EN 1048	Test Equipment Headquarters RH
EN 1049	Engineering Stock Room AS
EN 2005	PDP-1B Manufacture
EN 2009	Memory Tester 1514 (RCA)
EN 1050	DATA PHONE SYSTEM (ED. DE CASTRO)

EN 2010	Automatic Core Tester 2102 (TMI)
EN 2011	Memory Exerciser 2201 (RCA)
EN 2012	Memory Tester 1512C (DATAMATIC)
EN 2013	Automatic Core Tester 2102B (RCA)
EN 2014	Memory Tester 1515 (TMI)
EN 2015	Logic Checkout System 2300 (CBS)
EN 2016	Automatic Core Tester 2102C (TMI)
EN 2017	Memory Tester 1512D (GC)
EN 2018	Memory Exerciser 2202 (TMI)
EN 2019	Automatic Core Tester 2102D (TMI)
EN 2020	Sense System Modification to MT-1512B (PHILCO)
EN 2021	Sense System Modification to MT-1512 (TMI)
EN 2022	Automatic Core Tester 2105 (GENERAL CERAMICS)
EN 2023	Modifications to CT-2102 for DC Slice (TMI)
EN 2024	Core Evaluator 2104 (BUR)
EN 2025	Light Pen (BBN)
EN 2026	Automatic Core Tester 2102E (RCA)
EN 2027	Memory Tester 1514B
EN 2028	Memory Tester 1516A (LOCKHEED)
EN 2029	Digital Processor 2305 (NEL)
EN 2030	Buffer 2306 and 4202 Flip-Flop
EN 2031	PDP-1C-1 (ITEK) BG
EN 2032	PDP-1B Field Service (BBN) EH
EN 2033	Memory Exerciser 2204A (TMI) JF
EN 2034	Memory Exerciser 2204B (TMI) JF
EN 2035	Automatic Core Tester 2102F (new design) JF
EN 2036	Analog inputs to PDP-1B BG
EN 2037	PDP-1C-2 (ITT) BG
EN 2038	PDP-1C-3 (CRC) BG
EN 2039	PDP-1C-4 (CRC) BG
*EN 2040	Memory Exerciser 2205A (RCA) JF
*EN 2041	Input-Output for PDP-1C-1 (ITT) BG
*EN 2042	21-inch Color Display (CRC) BG
*EN 2043	21-inch Black & White Display (CRC) BG
*EN 2044	Memory Tester 1517 (IBM-Owego) JF

Supersedes Memo Dated January 16, 1961

* New Numbers Added.

INTEROFFICE MEMORANDUM

DATE February 16, 1961

SUBJECT

TO Harlan Anderson

FROM Kenneth Olsen

Mr. John Zvara, from Raytheon, at 1089 Washington Street, West Newton, called to ask for help in how we would program our computer to do an unmanned vehicle recovery problem. This is a Raytheon-sponsored project right now and they are not sure they will get sponsorship. I told him that we could not do the programming for them and probably couldn't be very helpful. He would like to come out with one or two of their people and see the computer, and I told him I would be away for a week but that you would be glad to take care of them.

He is an aeronautical engineer by trade and was at M.I.T. for a number of years. He is the one that built his own house in Lexington that we drove by a few times.

This vehicle will be taken under landing control when it is 100 miles out and 100,000 feet in altitude. It will be going at Mach 5 and will come straight in. It will be dropping like a rock. They will have long-range radar and short-range radar with data links to a computer. This vehicle will be somewhat airborne and somewhat in orbit. It will be just beyond the atmosphere and will make some small number of passes around the globe before it lands. It sounds like a fascinating problem, but I don't think it will pay off for a while. But I would appreciate it if you would take good care of him when he visits us.

Kenneth Olsen

INTEROFFICE MEMORANDUM

DATE February 16, 1961

SUBJECT

TO Harlan Anderson

FROM Kenneth Olsen

I did not mail in my Board of Directors notice saying I would be at the meeting. I can come back to be sure I am here on the 27th, but it might be convenient to save that day so that I could stay over in case there is business in California. I will let you decide whether we postpone the meeting or not, but let me know fairly early if I should come back for Monday.

I would guess that American Research would feel very much relieved if we postponed it because of the session they have the next day. I realize that I am leaving you without any help when it comes to setting up the exhibit at John Hancock. If you want to set it up on the 21st, I can write a letter to Bob Slater inviting him to bring his people down to see the computer. You could write the letter, actually, and have Jane type it on my engraved stationery. It should say:

> "Dear Bob: We are going to have our computer set up in the basement of John Hancock Building on Monday afternoon, February 27, or Tuesday morning, February 28. We would like to take some time to show it to your people, if it would be convenient for them. I will be out of town for the week before that, but if you would have someone call Harlan Anderson, he would be happy to set up a time when we could put on a demonstration for you."

If Gordon Bell had the IBM card reader set up and working at that time, it sure would be nice.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE **February 16, 1961**

SUBJECT **Educational Demonstration Units**

TO **Stan Olsen**

FROM **Ken Olsen via H.E.A.**

Ken called this morning and said that we should go ahead and make some models up of the educational demonstration units based on the drawings that he sent in with Jack Brown this morning. He said we should encourage the sheet metal man to round off the corners, etc. One problem he thought of was that the notches that he had specified for holding the etched board are impossible to do with the tools that we have. Apparently the old dimensions of the notch were 1/16" wide and ¼" deep. He suggested instead of that we use our oval tool and make the notches 1/8" wide and whatever depth is appropriate.

# # #

CC: Loren Prentice

INTEROFFICE MEMORANDUM

Eleanor
Please find me this article.
H.E.O.
File

DATE February 15, 1961

SUBJECT

TO Harlan Anderson
Ben Gurley
Gordon Bell

FROM Kenneth H. Olsen

Electronics
Electrical manufact.

On page 130 of the February 1961 Electrical Engineering magazine, there is a summary of what is available for digital transmission over private line and common carrier line. We ought to make a demonstration using our computer, and this would be a good place to get a summary of the information.

The next article is titled, "Systems Talk and Common Language Pool." It is a description of the PICE system which uses a CDC 1604 to collect and translate information for use in a large computer.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

File

DATE February 14, 1961

SUBJECT

TO Richard Mills
Ben Gurley
Harlan Anderson

FROM Kenneth H. Olsen

In carrying out our ideas of accounting projects from the time they are conceived to the time they are dropped, we are going to have to be very careful to be fair to the man in charge of each project.

If we are successful, we are going to have more projects ready to be in production and that are salable than we can make at any one time, and it is going to be part of management's decision as to which ones are going to be made at any one time. An example of this is the computer last year where it was really ready to be exploited last year, but instead we expanded the production on our Building Blocks and increased our engineering activity in the Building Block area, when our original plan was to put this effort into the computer. We are confident we made the right decision because the Building Block business was a good business to expand our capability in, but the result was that the computer was delayed by several months in a way which was really not the fault of the people involved in the project.

I propose that we do not charge interest for the period of this delay. During this period, the money that was spent in salaries and in buying equipment was supposedly well spent and it was contributed and should be counted in the accounting, but the interest under money spent I believe should be just not counted for a fixed period of time. In the case of the computer, I would say that it was delayed a factor of six to eight months by the management decision that we were not in a position to expand our capability to exploit the computer during 1960.

What I think this means is that we have not compounded as much interest on the money and that it will make the computer business look a lot better. One can easily imagine the case of a project that gets delayed for years and would never be profitable simply because management slowed down its expansion.

Kenneth H. Olsen

File

dec MEMO

DATE February 6, 1961

TO Harlan Anderson
Ben Gurley
Gordon Bell

FROM Kenneth H. Olsen

The I.R.E. sub-group on information theory is having a lecture next Thursday, February 9, on Seismological Data Collection. This may be of interest because of the work we are thinking of doing with Geotechnical Corporation. This lecture is given by Bruce Bogert from Bell Telephone Laboratories, Murray Hill, New Jersey. Cocktails and dinner are at 6:30 at the M.I.T. Faculty Club, and the meeting is at 8:00, Room 12-182.

Kenneth H. Olsen

K. Anderson

7/6

INTEROFFICE MEMORANDUM

DATE February 4, 1961

SUBJECT The 2N1305 & 2N1307 Transistors

TO List A & B

FROM Robert Hughes

Engineering has just ordered 100 2N1305 and 100 2N1307 transistors for evaluation in our low speed line of circuitry.

A reappraisal of the characteristics of the 2N1307 led us to believe that its characteristics were more than we needed in most circuits, however, they would make excellent inverters so we will experiment with both types. The basic differences between a 2N1305 and a 2N1307 are the 2N1305 has a Beta specification of 40 and a minimum alpha cut-off frequency of 5 megacycles, whereas the 2N1307 has a minimum Beta specification of 60 and an alpha cut-off frequency minimum of 10 megacycles.

The 2N1307 costs about $1.08 and the 2N1305 costs about 68¢. These transistors both come from the same line and should have the same quality. We will test the samples in models of the low speed line to insure that they are a production replacements for the 2N412.

File

dec MEMO

DATE February 3, 1961

TO Alma Pontz/Harlan Anderson FROM Kenneth H. Olsen

Link Barber called this afternoon Friday, February 3, and said that he bought the short term paper for us. He bought $65,000 of commercial credit, thirty days at 2-3/8 per cent interest, which will be delivered today. He was not able to get the ninety day paper delivered today but it will be delivered on Monday, February 6. This was $25,000 worth of Dow Chemical at 2-7/8 per cent interest, and the note will come due on May 10.

There is a letter coming from the Shawmut Bank acknowledging this.

Kenneth H. Olsen

February 2, 1961

Massachusetts Mental Health Center - Harvard University
Medical School - PDP-1
Sales Department, H. Anderson, Gordon Bell
B. Gurley

On Monday, January 30, 1960, I talked with Dr. Leiderman, Dr. Shipiro, Mr. Bernard Tersky, and Sanford Freedman who were respectively physiologists, an instrumentation man, and an EEG man. These people are interested in a device which would take analog data, convert it to digital form, and put it on a magnetic tape suitable for 704 and 709. I had gotten in contact with them essentially to talk about a PDP-1 for use with physiological experiments and general purpose computation. At this time they are money bound but do have access to a 709 or 7090 at Littaeur or a 709 at the MIT computation facility. It was rumored that the medical school might eventually buy a 1620 for use in research. One of the people at Harvard Medical School, namely Dr. Rutstein in preventative medicine, is on this committee for computers. I phoned Rutstein today and only ralked with a very rude secretary.

The people at Physiologists will be sending us a specification for the tape converter, and I assume we might be interested in making a bid on the unit.

H. Anderson

February 2, 1961

ITT System

Kenneth Olsen

Gordon Bell

In regard to the order from ITT on January 27, 1961, the following numbers handle this: EN 2031 the computer main frame and central processor, its typewriter, punch, and ordinary peripheral gear. EN 2041 has been set up and is called the ITT input-output system for PDP-1C. This number handles the engineering required to develop their input-output system. I will take prime responsibility for this input-output system and as of now the system will take the direction as indicated for the proposal submitted to ITT on January 17, 1961.

In the near future I would like to discuss an improvement in the ITT input-output system which would be a more efficient use of hardware. This system has been designed in the rough stages before January 27, 1961, but before we undertake the development of the contract per se, I think we should talk with ITT along the lines of the improved system.

February 2, 1961

AFCRC

Harlan Anderson Gordon Bell

In regard to AFCRC computer, on Monday, January 30, 1961, I talked with Charlton Walter at AFCRC about the two PDP-1's for AFCRC. Their procurement seems to be going in the right direction and hopefully within two weeks we should receive a purchase order. I later found that MIT people, including Jack Dennis, John Ward, Doug Ross, Lou Crasney, and Mark Connolly, had advised him about whether he should take a PDP-3 or two PDP-1's. They, of course, were in favor of a pair of PDP-1's and also proposed little things like that the two machines might work in parallel for some operations such as double length arithmetic. But in general, I think they were helpful.

We talked about the special devices that he would like to have connected to these machines to facilitate various problem solving. The first device that he would like to have would be a television display. That is, a display which would continuously display a complete raster including background information. This could be used for pattern recognition and the display of video quality and video bandwidth pictures. This implies a tremendous amount of backing storage and he essentially would want the 500 line resolution as a conventional tube and the same sort of scan time. He said he could make available money under $100,000 to us for this type of agreement since it would be almost trivial for our contracts to be negotiated with this agreement. He also would like to have this type of television operation in color. So the overall problem of the system would basically be a television display which could be fed by the computer. Thus, it might take quite some time for our machine to calculate a picture, but once a picture had been calculated it could be up dated and continuously displayed with almost no flicker.

The second device that he was interested in obtaining would be a scheme to multiply a 500 by 500 matrix by a 1 x 500 matrix in 1/25th of a second. Ten stretch computers might be able to do the problem. Other methods are non-digital, optically, or photographically. This multiplication is essentially forming or 2.5×10^5 products and sums in 1/25th of a second. He likes the idea of storage tubes, but the dynamic range of the thing doesn't seem appropriate. I think the thing actually could be done using a drum or a light beam scanning of a photographic plate and then reading the integrated output for the multiplier tube. That is, the beam would scan along a lined photographic plate which has density proportional to one of the 500 points determining the rows of a matrix (continuous function). The 500 x 1 would modulate the beam in a fashion to multiply, the line scan times the lines of the matrix.

Another scheme might be to store each of the elements, each of the rows on the drum in an analog fashion and then in parallel do a series of products whose outputs are integrated. The most important thing is that the points in the matrix are only specified to one part in 64, or so as the overall accuracy is 5%.

cc: K. Olsen
B. Gurley

INTEROFFICE MEMORANDUM

DATE January 27, 1961

SUBJECT BIWEEKLY REPORT

TO K. Olsen
H. Anderson
S. Olsen
G. Bell
R. Best
J. Brown
J. Cudmore
D. Denniston
R. Doane
J. Fadiman
G. Gerelds
B. Gurley
E. Harwood
R. Hughes
T. Johnson
H. LeBlanc
L. Prentice
M. Sandler
J. Smith
B. Stephenson
A. Swift
B. Towle
W. Weeton
R. Whipple
D. White

FROM J. Atwood

The year's second Biweekly Report will be issued on Tuesday. Please plan to have your contribution in our hands not later than 12 noon on Monday.

A WORD ABOUT "CONTRIBUTIONS"

A "contribution" is anything from one sentence up.

Don't be scared off by the fact that some of your fellow contributors really unload. If they have that much information to pass along, so much the better.

But we'd rather have just one sentence, if that's all the time you can spare, than to have nothing at all.

Just a simple statement like "Last week I sold a computer" or "The other day I invented a new building block" would be sufficient to let your cohorts know that things are really moving along here at Digital.

H. Anderson

INTEROFFICE MEMORANDUM

DATE January 26, 1961

SUBJECT Analysis of Semiconductor Component Replacement During Test

TO List A & B

FROM J. Cudmore

This report concerns only semiconductor components replaced for electrical defects. It does not include components with mechanical defects such as, in backwards or broken connections. The following is the combined statistics for the weeks ending January 6 and January 13, 1961.

Component	No. of Components	No. Replaced	% Replaced
Transistors			
MA-45	480	1	.208
MD-27	225	6	2.66
T1961	3240	48	1.48
2N224	160	0	0
2N393	200	8	4.0
2N412	1160	46	3.96
2N670	120	0	0
2N1301	60	0	0
Total:	5645	109	1.93
Diodes			
305A	240	0	0
320A	1380	1	.073
341A	120	0	0
514	11,345	142	1.25
894	240	8	3.34
2425	120	0	0
3101	3380	0	0
Total:	16,825	151	.89
Total Semiconductors	22,470	260	1.15

K. Anderson

INTEROFFICE MEMORANDUM

DATE January 26, 1961

SUBJECT The 2N1307 Transistor

TO List A & B

FROM J. Cudmore - R. Hughes

The 2N1307 transistor is a possible replacement for the 2N412 transistor which is used extensively in the 500 KC line. The 2N412 is an entertainment type transistor which costs about 54¢. Its specifications are as follows:

ABSOLUTE MAXIMUM RATINGS

Collector:

D.C. voltage	13V.
D.C. current	15 ma.
Dissipation @25°C	80 mw.
@55°C	35 mw.

Emitter:

D.C. voltage	.5V
D.C. current	.15 ma.

1KC. Beta @ Ic 1 ma., Vc 6V. 17 min. (This is an unpublished factory specification.)

Ten 2N412's were tested from a virgin lot and the results are tabulated below.

	ICBO(ua.) @ 13V	IEBO(ua.) @ 4V	VCE(volts) Ib 1 ma, Ic 30 ma	F_t(mc.)	Qb* Pcb.	Cob Pf.
1.	0.7	0.4	0.18	2.5	120	47
2.	0.8	0.3	0.10	5.0	190	35
3.	5.0	1.0	0.13	4.4	180	43
4.	1.1	0.5	0.12	4.8	150	37
5.	2.1	0.4	0.14	3.1	160	43
6.	1.5	0.6	0.10	4.0	190	39
7.	0.7	0.4	0.11	4.2	190	39
8.	0.8	0.5	0.08	5.8	210	31
9.	1.6	0.5	0.10	5.8	210	35
10.	0.8	0.4	0.12	3.6	190	37

The 2N1307 costs about $1.08. Its specifications and the results of tests on six samples follows.

* Qb Stored Charge @ Ib 1 ma. (Pico coulombs)

Absolute Maximum Ratings at 25°C

Collector to Base Voltage	30V.
Emitter to Base Voltage	25V.
Collector Current	300 ma.
Total Dissipation	150 mw.
@ 55°	75 mw.
Storage Temp. Range	-65 to +100°C

Operating Characteristics at 25°C

ICBO @ 25V.	6 ua.	max.
IEBO @ 25V.	6 ua.	max.
h_{FE} @ Ic 10 ma, VCE 1V	60	min.
h_{FE} @ Ic 200, VCE .35V	20	min.
VCE @ Ic 10 ma, Ib .17 ma	.20V	max.
Cob @ VCB 5V, f 1 mc.	20 pf	max.
Alpha cut off frequency	10 mc.	min.

	ICBO(ua.) @ 13V	IEBO(ua.) @ 4V	VCE(volts) Ib 1 ma, Ic 30 ma.	F_t(mc.)	Qb* Pcb.	Cob Pf.
1.	1.9	1.6	0.088	10.0	160	17
2.	1.8	2.0	0.080	10.0	110	18
3.	1.8	1.4	0.096	9.1	150	13
4.	2.0	1.5	0.094	10.5	140	17
5.	1.5	2.0	0.082	10.0	190	17
6.	1.6	2.6	0.084	11.1	130	15

The use of the more expensive 2N1307 in place of the 2N412 would greatly improve operating margins and could also reduce the number of transistors replaced in test. During the weeks ending January 6 and January 13, 4.0% of all the 2N412 transistors in units going through test were replaced for having electrical defects.

* Qb Stored Charge @ Ib 1 ma. (Pico coulombs)

INTEROFFICE MEMORANDUM

File

DATE January 25, 1961

SUBJECT

TO Gordon Bell
Harlan Anderson
Ben Gurley

FROM Kenneth H. Olsen

Mr. Glen Bailey of ITT called at noon today, Wednesday, January 25, and read to me the letter of understanding on the ADX contract. He hopes to get the letter out today, which means we can go ahead. If we don't like the paragraphs which assign all inventions made during this contract to ITT, we should make a counterproposal to them.

I suggest that Gordon Bell dictate and have printed for distribution within the company a description of the large number input multiple sequence device so that this does not become the property of ITT and so we can sell it to others. If there is any other device which we expect to use here which we do not have a record of at the moment, we should also make a new record of it.

We got another letter from John Ackley at ITT today asking some questions. I propose that Gordon Bell answers this letter directly.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE January 25, 1961

SUBJECT

TO Harlan Anderson

FROM Kenneth Olsen

In the January 20, 1961, ELECTRONICS magazine, under the Electronics Newsletter section, there is an item which says the Navy will build an antisubmarine test range in the Bahamas, which has been dubbed AUTEC (Atlantic Underwater Test and Evaluation Center. They say it will be used to test torpedoes and underwater missiles like the Subroc and the Asroc and advanced techniques and equipment for locating, tracing and verifying submarine contacts. Related oceanographic surveys are also planned. Installation will cost over $100,000,000.

Apparently, they waivered on the wisdom of the Bahamas because of the problem in Cuba and considered location off Key West, but apparently they have committed themselves to the Bahamas as of now.

Kenneth Olsen

H. Anderson

File

INTEROFFICE MEMORANDUM

DATE January 24, 1961

SUBJECT High Temperature Operation of Flip-Flop

TO List A & B

FROM J. Cudmore - R. Hughes

It has been observed that during flip-flop testing, the margins gradually deteriorate with time. The result of this condition is that the longer the unit is under test the less chance it has of passing specifications. This phenomenon is related to the temperature of the unit. All units are placed on a light box and the lights left on during the test. It was hoped that the heat generated by the lights would show up any temperature sensitivity in the unit under test, and it indeed did. Measurements show that the temperature of the unit may get as high as 65°C. This exceeds the high temperature operation specification by 10°C. The test temperature has been lowered to about 52°C by removing two of the four lights and drilling vent holes in the light box.

This incident did raise the questions, what is the temperature sensitivity of the flip-flops and what component is limiting high temperature operation? A 4201(M) arbitrarily selected from finished goods was then tested at elevated temperatures. When the unit had been subjected to 55°C for one half hour it failed to operate completely with normal +10V margins. The positive bias on one side of the flip-flop had to be increased .3V to insure operation. Examination of the base waveforms of the flip-flop verified the loss of positive bias. It was first thought that the ICBO had increased sufficiently with the temperature increase to cause this condition. Both flip-flop transistors (2N1961) were removed from the circuit and tested for ICBO at 55°C. The leakage current amounted to 5 and 7.5 ua at VCB-5V. The positive bias is supplied from +10V by a 68K ohm resistor and amounts to about 148 ua. The leakage of either transistor does not seem sufficient to overcome this amount of positive bias. The only remaining path of leakage is the diode network tied to the base of each flip-flop transistor. This network in the 4201 consists of four diodes, one from normal set, one from direct set, and two from the complement inputs. The four diodes from base of the underbiased transistor were removed and tested for inverse current. The results are listed below.

	25°C	30°C	35°C	40°C	45°C	50°C	55°C
#1	11.5	13.2	18.1	26	33	41.5	55.5
#2	9.0	10.5	14.2	17.5	23	27.5	35.2
#3	14.5	16.9	22.9	30.5	38	45.4	59.4
#4	4.2	4.9	6.7	8.6	11.5	14.5	19.5

All values in ua.
All diodes test an inverse voltage of 3V.
All diode OMC-514(R).

At room temperature (25°C) all four diodes pass the specification of less than 20 ua leakage at 3.0V. Since the two complement diodes are back biased to -3.2V it can be seen that diodes #1 and #3 would greatly reduce the positive bias. These diodes do not represent the worst case that could be encountered. The inverse current can double for every 10°C increase in ambient temperature. A diode which has 20 ua leakage at 25°C could conceivably have 160 ua leakage at 55°C. This situation would surely stop the flip-flop entirely. This condition can exist on all the flip-flops to varying degrees, depending on the complexity of the diode network.

This problem can be overcome by inserting a silicon diode such as the CTP2425 or D004 in series with the flip-flop transistor base and the diode network. The positive bias resistor could then be tied directly to the base. Several flip-flops (4202, 1201, 1209, and 6202) contain a diode capacitor circuit made up of a 3101(R) diode and a 2200 pf capacitor. This circuit was used to eliminate the loss of negative base drive which could easily result due to the multiple input circuits. This diode is not tested for reverse leakage at any temperature. This bulky, space consuming combination could be replaced by a single diode. This single diode would then limit loss of both positive bias and negative bias drive. In almost all other flip-flops various biasing methods of the input and gating circuits are used to eliminate possible loss of negative base drive. These methods all increase triggering requirements. The silicon diode would raise triggering requirements still higher but the input circuits could be suitably modified to compensate for this increase.

H. Anderson

File

INTEROFFICE MEMORANDUM

DATE January 24, 1961

SUBJECT Bilateral Transistors

TO List A

FROM Robert A. Hughes

Texas Instruments is now making bilateral transistors for RCA Camden and the specifications that were written for RCA Camden lead me to believe that RCA is using them for memory current switching. We presently use two 2N599's back-to-back in PDP to do this job, and it would probably be to our advantage to use a bilateral type here.

I have requested samples and literature from Texas Instruments.

INTEROFFICE MEMORANDUM

DATE January 24, 1961

SUBJECT

TO Ken Olsen
Harlan Anderson
Dave Denniston

FROM Stan Olsen

I called Lieutenant Beckman at Dam Neck today. Among the problems of delivery of the buffer system and co-ordination for our modification of his present units, we also discussed this later problem of the classroom demonstrator. He was quite intrigued with the pegboard idea and its flexibility, but he was still somewhat in love with his idea on the 6 inch by 6 inch size and he doesn't quite feel strongly about the need for exact duplication of our building blocks in the classroom training aid line. I am sure that there is only a fine line now between our settlement on an ideal system and the next problem of course is to get together with him. His basic problem in coming up to see us is the lack of funds for traveling and suggested that we get down to Dam Neck to visit him. If it's possible for any of us to make it soon, this should prove worthwhile. He seemed just a little reluctant and I seem to have the hint that he probably has given 3C a green flag to go ahead on this same unit, so he's a little embarassed and caught in the middle, but this problem should work itself out.

H. Anderson

INTEROFFICE MEMORANDUM

DATE January 17, 1961

SUBJECT STANDARDIZATION OF HEADINGS ON PUNCHED PAPER TAPE

TO PDP-1 Users FROM Edward Harwood

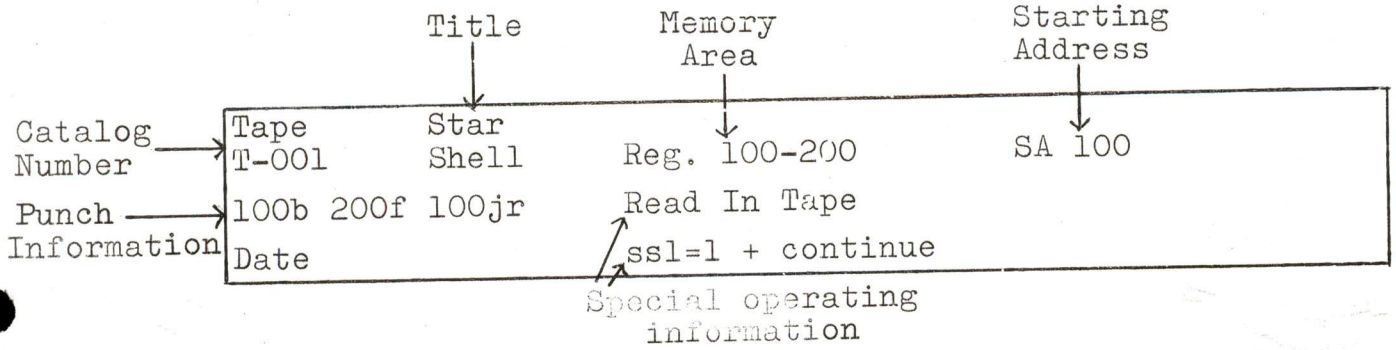
We have had a bit of trouble with people picking up a tape and the information on the heading being insufficient for the person to properly run the program. To get around this, we would like to standardize the headings so that any person familar with the computer can pick up a tape and run the program and use it properly.

The heading should have the following information on it.

1. Title of program and date tape was prepared.
2. Starting address of program.
3. Area of memory the program is in.
4. Anything special that is required in order to run this program properly such as position of sense switches or putting a number in the test word switches to get the program started in the right mode.

One other item may be noted, if the tape has been prepared by the standard punch load package which is now used in the machine. That is the punching information by which the tape has been prepared so that another tape can be reproduced at any time. This bit of information tells where the program begins, where it ends, and whether or not it jumps to a starting address in the program. We will also try to start a numbering system and catalog for all tapes. As soon as this is set up, all tapes will also have one of these numbers on it. We will have one master file which holds all tapes somewhere around the computer room. This file will not be for regular program running. It will be used only in case the operating tape gets damaged.

Figure 1 shows a typical heading on a piece of fan fold tape. This format should be followed in all cases.



digital equipment corporation
MAYNARD, MASSACHUSETTS

H. E. Anderson

File

INTEROFFICE MEMORANDUM

DATE January 13, 1961

SUBJECT Cost System Proposal

TO

FROM Maynard Sandler

The changing nature of our company's business has brought the need for change in the organization of our endeavors and a consequent need for expansion of our system for cost-finding for control. Our engineering, manufacturing and distribution efforts and personnel have grown as our volume of sales has increased.

Our concepts of accounting, especially cost accounting, must be adjusted to provide measures of performance which will enable us to exercise cost control. Our present general accounting procedures give us good statements of the company's financial condition and progress, and our present cost accounting or job-cost system gives us good comparison measurements of performance in our manufacturing organization.

The original design of our accounting systems allowed for expansion of personnel and activity. Responsibility areas were quite general and broad, but now we have grown to such level that it has become necessary to specialize areas of endeavor or function. As the manufacture and development of systems and computers now constitute an increasing part of our sales and our total organization effort, so do they now comprise an increasing part of our total cost of doing business. New product lines have also made changes in the nature of our business and in the relationships of elements of our cost structure.

Our cost accounting and general accounting systems must recognize these changes or they will fail to provide us with true costs, measures of performance, and cost-finding data which are the basis of sound business and cost control.

COST ACCOUNTING PLAN

Our present accounting plan is based on two manufacturing entities. Building Blocks and allied products are considered as one division, and Systems and Computers as a second division.

Labor, Material and Overhead for both divisions are recorded to determine Cost of Goods Sold and Gross Profit. Total Selling, General and Administrative Expense and Total Company Sponsored Engineering Expense, however, are applied to the sum of the two divisions to determine Operating Profit.

This proposed cost accounting plan is designed to find the profitability of (1) each of our product lines, and (2) each functional division of our company endeavor.

It has become vital to our continued progress that we organize our accounting plans so that we may allocate direct and expense charges to more detailed subdivisions of our organization and to those subdivisions which have engendered those charges. We must be able to analyze how our costs are incurred so that accountability may be established.

Cost Groups

Functionally, we propose costing divisions or accounting groups. Costing groups are chosen as those locations or functions for which activities involving production, labor, material and operating expenses can be recorded and controlled most advantageously.

Operation of the company's activities indicate four natural sub-divisions:

1. Divisions or groups concerned with direct processing of salable products. These are termed Productive Cost Groups.

2. Divisions or groups primarily concerned with rendering service not directly, but indirectly, associated with the processing of salable products. These groups are termed Supporting Cost Groups, and they are part of the manufacturing phase of the company.

3. Divisions or groups primarily concerned with the selling, administrative, and managerial phases of the company endeavors. These groups are termed Staff Cost Groups.

4. Divisions or groups primarily concerned with the engineering functions of the company. These groups are termed Engineering Cost Groups.

Note: Appendix I is Cost Group listing.

Effective operation of each cost group is the responsibility of that group's supervisory personnel. During each accounting period, cost groups will be charged with the costs incurred by or for them. These costs will be classified according to their various elements such as labor, supplies, material, indirect charges, and an equitable apportionment of fixed charges.

Every cost group will be considered as a business. Direct Labor, Direct Material, and Overhead will be determined ~~to~~ for each group.

All Productive Cost Groups and certain Supporting and Staff Cost Groups will use Job Numbers to record labor, and for other cost groups wages will be considered as Direct Labor for the group.

Productive Cost Groups will record Direct Material costs and Operating Supplies in the usual manner, and for Supporting and Staff Cost Groups operating supplies will be considered as Overhead Expense.

Overhead will be apportioned on the basis of Direct Labor Dollars for all cost groups using Job Numbers. For all other cost groups expenses will be considered as Overhead Expense.

All cost groups, in addition to the direct charges of labor, material and overhead assigned, will share certain distributed charges, such as Rent, and certain distributed costs of other cost groups, such as Purchasing.

Product Lines

Our company started with one product line--Test Equipment Building Blocks. We now produce and market eight product lines:

01	Test Equipment B.B.	100 Series
02	Test Equipment B.B.	3000 Series
03	Test Equipment B.B.	5000 Series
04	SPU	1000 Series
05	SPU	4000 Series

06	SPU	6000 Series
07	Systems	
08	Computers	

Each of these product lines must be analyzed to determine value to the structure of DEC. We propose to accumulate costs for each product line to measure against sales.

Each of our product lines will be considered as a business in itself. It is proposed that our Statement of Income and Deficit be a composite of product lines.

Note: See Appendix II

For each product line we presently record Sales, and for every product of a given product line we presently determine Manufacturing Cost. Selling, General and Administrative Expense can be distributed to product lines on the basis of Job Numbers and/or Sales Volume and/or Direct Labor Dollars. Engineering Expense can be distributed to product lines similarly.

Cost Elements

The present DEC Chart of Accounts comprises the cost elements or facts by which we determine the profitability of our business. For each Cost Group we propose to build up costs through recording and accumulating Cost Elements. Measurements of performance can then be plotted against standards or budgets.

The present Chart of Accounts of Expenses is divided into Manufacturing Expenses (400 Series), Engineering Expenses (500 Series), and SGA Expenses (800 Series). It is proposed that we use a composite Chart of Expense Accounts.

Note: Appendix III is Composite Chart of Expense Accounts.

Detailed Statements of Costs of Goods Sold and Statements of SGA Expenses will be prepared for each product line. It is proposed that composite forms such as the Composite Statement of Income and Deficit (Appendix II) be used.

Coding

Especially vital to our proposed accounting plan is intelligent coding and accurate, interested discipline in using those code numbers.

Job Numbers, Operation Numbers, Cost Group Numbers, and Product Numbers are all determinants in the allocations of costs, and our flow of cost information will be only as good as our use of numbers.

Summary

General accounting tells us whether or not we make a profit - cost accounting will tell us why we succeed or fail.

All members of management must rely on the paper story of operations for judging performance and for formulating future policies and plans of action. Pertinent and timely reports will be published to show performance data for each costing period. These reports will enable us to maintain true control of our business performance.

Cost accounting will report; management must control.

APPENDIX I

COST GROUPS LISTING

COST OF GOODS SOLD

Productive:

No. 10 - Silk Screen - Perform photography, screen preparation, screening etching operations.

No. 11 - Unit Assembly - Perform operations to produce building blocks, accessory equipment, and components.

No. 12 - Final Test - Perform testing, inspection and packaging of manufactured components and products to insure adherence to DEC specifications.

No. 13 - Sheet Metal Shop - Perform fabrication, dipping and painting operations to produce units and components.

No. 14 - System Assembly - Perform all operations to manufacture and test systems for sale.

No. 15 - Computer Assembly - Perform all operations to manufacture and test computers for sale.

Supporting:

No. 20 - Machine Shop - Perform activities concerned with the making, maintenance and repair of tools, dies, jigs, fixtures and special assignments.

The costs of this group will be distributed on the basis of Job Numbers.

No. 21 - Carpenter Shop - Perform activities concerned with all carpenter work.

The costs of this group will be distributed on the basis of Job Numbers and floor area.

No. 22 - Quality Control - The activities of this cost group include identification, segregation and authorization for disposition of defective materials, general responsibility for insuring that all incoming materials and manufactured parts conform to specifications, and specific technical responsibility for the test and packaging operations of all Assembly and Final Test Groups.

The costs of this group will be distributed to all Productive Cost Groups on the basis of direct labor dollars.

No. 23 - Shipping - This cost group is concerned with the packaging, preparation for shipment, invoice preparation, delivery to carriers of all company products and other articles which must be shipped out of the plant.

The costs of this group will be distributed on the basis of direct labor dollars to Productive Cost Groups. Certain activities such as Advertising and Sales will engender costs which will be distributed on a job basis.

No. 24 - Receiving - This cost group is concerned with the receiving and distribution of all goods and products coming into the plant.

The cost of this group will be distributed on the basis of direct labor dollars to all Productive and certain specified Supporting and Staff Cost Groups.

No. 25 - Maintenance - This cost group performs all plant maintenance and janitorial duties.

The total cost of this group will be distributed to all Cost Groups on the basis of number of employees.

No. 26 - Production Control - This cost group includes the activities of material procurement, planning and scheduling, stockroom and certain

internal cost functions.

The total costs of this group will be distributed to all Productive Cost Groups on the basis of direct labor dollars.

SELLING, GENERAL, ADMINISTRATIVE

Staff:

No. 30 - DEC Sales - This cost group includes all selling and distribution activities.

No. 31 - West Coast Sales - This cost group includes all activities of the West Coast Office.

No. 32 - Advertising - This cost group handles all advertising programs, mailing lists, trade shows.

The costs of Advertising will be distributed on the basis of sales volume and specific jobs.

No. 33. - House Printing - This cost group subdivision of Advertising fulfills all internal printing requirements.

The costs of House Printing will be distributed to other cost groups on the basis of Job Numbers.

No. 34 - Representatives - This group covers the expense of maintaining an organization of field representatives.

General:

No. 40 - Purchasing - This cost group is responsible for the procurement of materials, parts, supplies and outside services.

The costs of this group will be distributed to other cost groups on the basis of quantity of purchase orders placed.

No. 41 - Library - This cost group is responsible for all library functions and expenses.

The costs of this group will be distributed on the basis of number of supervisory and/or technical employees.

No. 42 - Accounting - This cost group is concerned with payroll preparation and distribution, timekeeping, accounts receivable, accounts payable, budgets, maintenance of general ledger and other accounting duties.

No. 43 - Tabulating - This cost group subdivision of Accounting includes all IBM Tabulating expenditures.

The costs of the Accounting and Tabulating Groups will be distributed on the basis of total cost group expenditure.

Administrative:

No. 50 - General Management - This cost group is responsible for investigating, analyzing, and evaluating data pertinent to planning activities and management controls, and for making recommendations which will guide management in its plans, policies, and programs.

No. 51 - Personnel - This cost group includes the activities of the Personnel Manager and his staff in all matters pertaining to recruiting, employment and maintenance of the company's working force.

The costs of this group will be distributed to all other Cost Groups on the basis of number of personnel.

No. 52 - Board of Directors - This cost group includes the activities of the Board of Directors.

ENGINEERING

No. 60 - General Engineering - The principal activities of this cost group include design and and development of products, solution of technical questions relating to specific customer application problems, development of new applications, testing and release of prototype models of new products, establishment of or deviation from specification, quality and sales specifications.

No. 61 - Research and Development - The principal activities of this cost group include investigation and analysis of developmental, exploratory, and fundamental research problems which require concentrated attention free from scheduled commitments and routine responsibilities.

No. 62 - Drafting - This cost group is concerned with drafting and maintenance of drawings and prints.

The costs of this group will be distributed on the basis of Job Numbers.

No. 63 - Test Equipment Headquarters - This cost group is responsible to maintain all test equipment in calibration and to make investigations of the testing procedures of the company.

The costs of this group will be distributed to production assembly cost groups on the basis of direct labor dollars.

APPENDIX II

COMPOSITE STATEMENT OF INCOME AND DEFICIT

	100	3000	5000	1000	4000	6000	Systems	Computers	TOTAL
Sales									
Less Returns & Allowances									
Total Sales									
Cost of Goods Sold (Mfg. Cost)									
Gross Profit									
Selling Expense									
General Expense									
Administrative Expense									
Engineering Expense									
Operating Profit and (Loss)									
Other Income:									
Interest									
Miscellaneous									
Other Charges									
Profit and (Loss) before Taxes									
Est. Federal & State Taxes									
Net Profit and (Loss) for Period									

APPENDIX III

CHART OF EXPENSE ACCOUNTS

Number	Title	How Allocated
400	Direct Labor	Job No. - Direct
401	Direct Material	Job No. and Invoices to Group - Direct
403	Direct Cost Outside Contractors	Job No. and Invoices to Group - Direct
404	Supervisory Labor	Group Payroll - Direct
405	Clerical Labor	Group Payroll - Direct
410	Indirect Labor	Group Payroll - Direct
411	Overtime Premium	Group Payroll - Direct
412	Vacation and Holiday	Group Payroll - Direct
413	Sick Leave	Group Payroll - Direct
415	Commissions	Direct
418	Social Security Expense	Group Payroll - Direct
420	Hospital Insurance	Group Payroll - Direct
421	Workmen's Compensation Insurance	Apportioned on Payroll Dollars
430	Rent Equipment	Invoices to Group - Direct
431	Property Insurance	Apportioned on Floor Area
432	Rent	Apportioned on Floor Area
433	Depreciation	Direct to Group
434	Amortization	Direct to Group
435	Maintenance	Apportioned on Number of Personnel from Cost Group No. 25
438	Electricity	Apportioned on Number of Personnel
439	Repairs	Job No. - Direct
450	Operating Supplies	Invoices - Direct
451	Spoiled Goods	Job No. - Direct
452	Obsolete Goods	Job No. - Direct and transfer to Cost Group responsible
453	Freight In	Invoices - Direct
454	Freight Out	Invoices - Direct

Number	Title	How Allocated
455	Tools and Implements	Job No. and Invoices - Direct
460	Dues and Subscriptions	Invoices - Direct
461	Travel and Entertainment	Vouchers - Direct
462	Telephone & Telegraph	Invoices - Direct
463	Postage	Invoices - Direct
464	Sales Promotion	Job No. and Invoices - Direct
465	Advertising	Job No. - Direct and transfers to Cost Groups
466	Other Taxes	Direct and Apportioned
467	Bad Debts	Direct (Sales)
468	Contributions	Direct (General Management)
470	Research & Development	Direct and Apportioned
473	Mass. Excise Tax	Direct (General Management)
480	Inventory Adjustment	Direct
482	Director's Fees	Direct (Board of Directors)
483	Life Insurance	Direct (General Management)
484	Other Insurance (Crime, etc.)	Direct (General Management)
485	Legal & Professional	Direct (General Management)
486	Books	Direct (Library)
490	Miscellaneous	Direct

INTEROFFICE MEMORANDUM

DATE January 13, 1961

SUBJECT ADVERTISING DEPARTMENT ASSIGNMENTS

TO Al Andrews
Florence Dudzinski
Bob Graham
Frank Howland
George Lord
Gertrude Loynd
Jacquelyn Micklay
Scott Miller
Grace Stokes

FROM Jack Atwood

CC: Ken Olsen
Harlan Anderson
Stan Olsen

Because of the increased volume of work being handled by our department, it becomes necessary to make the members of the department responsible for certain specific activities. This does not mean that the persons bearing primary responsibility are necessarily expected to do any one of these jobs by themselves. We will work together very closely as we always have in order to get as much work as possible done properly and on time.

It does mean, however, that each person must share some responsibility for getting specific things done. No person can follow up on all these various activities. This is particularly true in my case, since I must and will spend more time on creative work and less time on supervisory functions.

This is a list of the specific activities for which I will hold each person, including myself, responsible.

Jack Atwood

Space Advertising
Operational Publicity
Public Relations
Recruitment
Sales Aids
Catalogs
Direct Mail
Sales Rep Materials
Plans & Studies
Special Projects
Digital Newsletter
Media & Market Surveys
Public Relations Scrapbook
Media Info Book
Reference Material
Job Tickets

Al Andrews

Promotional Publicity
Technical Articles
Technical Papers
Product Bulletins
Application Notes
Trade Shows
Operating Manuals
DEC Product File
Product Bulletin Book
Application Note Book
News Release Book
Trade Show File
News Release File

Florence Dudzinski

Purchase Requisitions
Billing
Mail
Dictation
Reproduction Typing
Job File
Recruitment Ad Book
Employment Source Log
Biweekly Reports
Production Schedule
Space Orders
Filing, other than noted

Bob Graham

Printing
Test Data Sheets
Offset Plate File
Printing Supplies
Spirit Duplicator Supplies

Frank Howland

Technical Illustration
Composition
Engravings
Mats
Signs
Forms
Photo Display
Art, Photo & Type Files
Art, Photo & Type Books
Typesetting Supplies

George Lord

Photography
Offset Plates
Photo Equipment
Photo Supplies
Photocopy Supplies
Schematics
Offset Negative File

Gert Loynd

Inquiry Handling
Prospect Mailing List
Inquiry Scrapbook
Mailing Guide Book
Inquiry Log Sheets
Inquiry Record Book
Inquiry Code Cards
Publicity Reprints
Inquiry Evaluation Log

Jackie Micklay

Sales Literature Stock
Office Forms and Supplies
Stationery
Minimum Stock Notices
Inventory
Schematics File
Schematic Record Book
Sample Schematic Book
Systems File
Sample Rep Binder
Sample DEC Binder
Sample Customer Binder
Lobby Literature Rack
Sample Catalog Binding
Binding Supplies
Forms Sample File
Archives File

Scott Miller

Design
Packaging
Specifications
Proposals
Exhibits
Bulletin Board
Displays
Art Supplies

Grace Stokes

Prospect Mailings
Publicity Mailings
Customer Mailings
Sales Rep Mailings
Company Mailings
Customer Mailing List
Sales Rep Mailing List
Publicity Mailing List
DEC Routing List
Direct Mail Supplies

We will resume the practice of regular morning meetings of department members as soon as we are relocated and have the space to do so. At that time we will discuss progress on these various activities and make plans for any coordinated effort that may be required.

Certain of these activities must meet calendar dates, and these calendar dates will be noted on the job tickets when the orders are made out. Whenever Florence gets a job ticket with a specific due date, she will note the item on a blackboard which we will use

for production scheduling.

In this connection, it is essential that a job ticket be made out on each specific job handled by the department. Certain job tickets will be made out semi-annually. These include such continuing jobs as inquiry handling, mailing list maintenance and other such projects as have no particular monthly significance. All other jobs must have job tickets in order that we maintain an orderly flow of work through the department and utilize our time and efforts to the best advantage. Do not, I repeat, do not start any job without a job ticket.

A little later in the year I hope that several members of the department can be made responsible for general areas of activity. This would reduce the number of full department meetings required to keep track of our progress on specific items. For the time being, I think it is better for us all to get together until each person feels that he has full control of his particular assignments.

One further responsibility which we will all continue to share is that of keeping our area in good order. New filing cabinets, storage cabinets and work counters have been ordered, and as soon as they are put in place, we will have sufficient, proper storage space for all our materials. In addition, we will take a day soon to clear outdated and useless material out of our present files, to clean out desks, and to put the dead storage room back in proper shape.

When this clean-up is completed and we are relocated in our new area, I will expect everyone to maintain the materials, machines and work space for which he or she is responsible in presentable condition. If you find that members of other departments are making this difficult or impossible, I will see to it that the condition is corrected.

# # #

File

January 9, 1961

DIODES

Maynard Sandler Robert Hughes

This memo is to bring you up to date on what Engineering is doing with components to improve the end product. We have just ordered 1000 Transitron diodes. They are type S980G, DEC type D001. The specification for these diodes is enclosed, but in brief, they will all pass our tests and will replace the diode which is used in the 5 megacycle and 500 kc lines. We will not have any more reds or any such color coding. We will simply use D001 diodes everywhere. These diodes will have our own color coding on them (black, black, and brown) and will be coated with a clear urethane film so that the diode markings will not come off when they are washed in trichlorethylene. The 1000 diodes which we ordered will go through our hot and cold cycles to see how they make out before we use them in production. These diodes will cost us 20¢ in 100,000 quantities. You should probably give consideration to terminating our orders with Ohmite Manufacturing Company in the near future.

We are about to buy some Clevite small glass silican diodes to replace the 3101 Westinghouse diodes which are now used. These glass diodes will take a very small fraction of the space that the Westinghouse diodes used to take and will not require insulation. As yet, we are unsure whether or not we will have to add a color code on these diodes to differentiate it from others as we do on the 3101. This diode is Clevite type CSR 5427, DEC type D002 and will be color coded black, black, and red. This diode will get the same environment test as diode D001 and probably you should give consideration to our orders with Westinghouse.

We are adding a reverse recovery specification to the CTP 894 diodes and they are priced from 45¢ to 55¢ because of the added test. Sometime in the future we will probably make the CTP 894, DEC type D003 and have it color coded accordingly.

cc: K. Olsen, H. Anderson, S. Olsen, R. Best, H. Crouse, R. Hughes, B. Gurley, D. White, and R. Doane

SPECIFICATION FOR DIGITAL EQUIPMENT CORPORATION

DIODE TYPE D001

Forward drop static:* 0.6 volts at 10 ma.

Forward drop dynamic:* 1.5 volts at 10 ma.

Reverse recovery:* 0.7 microseconds to 0 volts when forward current is 10 ma, and reverse current is 0.1 ma.

P.I.V.: at 100 microamperes -20 volts.

Inverse current: Less than 20 microamps at -4 volts.

Marking: This diode shall have 3 color code bands (black, black, and brown) located at the cathode.

Coating: The diode will be coated with a clear urethane film.

Robert A. Hughes

January 9, 1961

INTEROFFICE MEMORANDUM

DATE January 6, 1961

SUBJECT SALES CALL REPORT 12/23/60 to 1/6/61

TO Stan

FROM Jack Brown

SUN OIL

John Riee was out of town, but Tom Spratt reviewed many of his requirements. He was most concerned over -

a. Double Length Arithmetic
b. Floating Point Operation
c. Price.

They have about $150,000.00 budgeted but want the most for their moaney.. The PB 250 I believe is our competition. Spratt talked with Gordon Bell who answered most of his questions, but I promised we would send some price information in addition.

INTEROFFICE MEMORANDUM

DATE January 6, 1961

SUBJECT SALES CALL REPORT 12/23/60 to 1/6/61

TO Stan

FROM Jack Brown

UNITED GAS

The Computer they have built with our equipment is working well and the only complaint is that the blocks cost so much they may have priced themselves out of the market. They will most probably attempt to build modules if they get many orders but I doubt if they will be successful, and we may get future production business.

Ed Gordon through studying C. Adams survey of Computers was interested in our PDP and asked us to quote on the configuration described in the attached letter. UGC has already sent a letter of intent to Packard Bell (?) so I doubt if we have a chance, but should answer anyway.

INTEROFFICE MEMORANDUM

DATE January 5, 1961

SUBJECT

TO Harlan Anderson
Ben Gurley
Gordon Bell

FROM Kenneth H. Olsen

I propose that we write fairly soon a booklet and perhaps a magazine article on "nonmathematical uses of digital computers." We take so for granted the use of computers for sorting, shifting, and manipulating information where very few mathematical operations are involved that we do not appreciate the fact that the ordinary person, including many users, do not realize how important the nonmathematical uses of the computer are. Even John Hancock, who use computers a lot, do not really understand, I am afraid, how much of their computer usage has nothing to do with computation.

This is a very important message to get across because it is a justification for an 18 bit computer and also computer with long multiplication time. It would also be a contribution to the education of mankind because of the confusion rampant on the nature of computers.

This booklet might be the booklet in which we go into detail on how you go about programming a PDP. We are not going to tell people how to do Fortran type operations anyway, but mainly the ones which are, in general, nonmathematical.

We could use most of the examples that we have written up already, such as, Kalah and the ARC, and go into detail on our assembly and compiling program.

Kenneth H. Olsen

INTEROFFICE MEMORANDUM

DATE January 5, 1961

SUBJECT

TO Harlan Anderson
Stanley Olsen
Ben Gurley

FROM Kenneth H. Olsen

Mr. Rosen, of Yale, called on Thursday, January 5, and said that our PDP-1 has created a tremendous stir at Yale. They just can't believe that they can get so much computation for so little money. He is going next week to Washington to see if he can drum up the money. There is a possibility that he might get the whole $160,000 and put the order in within a few weeks, but he is mainly interested in rental. He would be particularly interested in rental with an option to buy. He asked me approximately what the rental costs.

He mentioned Charlie Adams' article said that the rental would be $2,200. I told him the story behind that, and he understood completely; but he asked me for a guess as to what the cost would be, and I told him that I guessed it would be about $4,500 per month for a $160,000 machine. He said that plus or minus $500 on that would not be bad and that he thought the number was quite reasonable. I propose that we immediately develop a rental system and offer it to this man even though we don't have a general policy available to give to all customers. If we could allow 20 per cent of the rental cost to go toward the purchase, it would make it very desirable to this man.

He also suggested that there are many people in the situation where they would not like to commit many thousands of dollars to purchase a machine, but they would like to rent it for a while and still have some investment in the final cost of the machine.

Kenneth H. Olsen

digital equipment corporation
MAYNARD, MASSACHUSETTS

INTEROFFICE MEMORANDUM

DATE January 5, 1961

SUBJECT

TO Ben Gurley
Harlan Anderson
Gordon Bell

FROM Kenneth H. Olsen

Professor John McCarthy, from M.I.T., called on Wednesday, January 4, to see if we would be willing to build a souped-up PDP-3 for M.I.T. He was just about to have a meeting with Wes Clark to see what Lincoln Laboratory's reaction to this was. The machine they have in mind would be a PDP-3 but with boundary registers and would eventually have 260,000 words of memory. They are interested in having the machine delivered in about a year and then expand it to full complexity in about two. This is for the Laboratory for Communication Sciences, but they would like to have the machine delivered before the building is done.

Kenneth H. Olsen

digital equipment corporation
MAYNARD, MASSACHUSETTS