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Project Whirlwind
Servomechanisms Laboratory
Massachusetts Institute of Technology
Cambridge, Massachusetts

SUBJECT: CONFERENCE AT EASTMAN KODAK ON OCTOBER 26, 1949

To: Jay W. Forrester

From: Hugh R. Boyd

Date: October 31, 1949

Ed Rich and Hugh Boyd of M.I.T. conferred with Art Tyler and Todd Cochran of Eastman at the Hawkeye plant on Wednesday afternoon, October 26. We discussed the present status of the reader-recorders and the remaining work to be done. Rich described some of the problems which he has encountered and his proposed solutions. Tyler and Cochran were aware of some of these problems and agreed on the methods of solution in general. In some cases, we all agreed that it would be better to try to cure the cause than to alleviate the effect as we had done. The second unit will be debugged to a point comparable to the first unit by the end of October. In August, Tyler had been anxious to make extensive tests on this second unit, but on Wednesday we decided that the second unit should be shipped here as soon as the debugging is completed. The automatic developing machine which is being modified slightly will be shipped in approximately a month. After shipping the second unit, Cochran and Tyler will write up some information on optical alignment, clutch alignment and maintenance, and automatic development before proceeding to test further units. Both Rich and I felt that we badly needed additional information on these subjects of which we know very little. Eastman has also agreed to send us tracing copies for all of the electrical schematic sketches as soon as possible.

FUTURE PROGRAM

Tyler talked to Fitzpatrick and Smith of ONR on Monday, October 24. I understand that they agreed to extend the Eastman contract to May 1 and also will try to find additional funds to carry the Eastman program until that date. I believe that at present Eastman has money to carry them to about the first of the year and they will require a few thousand dollars additional to complete the work. Cochran will be the only full-time man on the project until it is completed. Cochran felt that it would take approximately one month per unit to debug the rest of the reader-recorders. His remaining time will be spent in coming here for a week or two next

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month and in writing instruction booklets. I understand that the Eastman contract calls for three sets of drawings, one set of reproducible tracings, and ten instruction booklets. I believe that we should arrange with ONR to get at least six of these instruction booklets and one set of reproducible tracings. If ONR also wishes a set of reproducible tracings, then Eastman should be instructed to prepare two sets.

INSTRUCTION BOOKS

The content of the instruction booklets was discussed briefly. The content of these booklets is open to question, and we were not able to clarify the situation too much. We agreed that a necessary minimum included general operating instructions for the machine, lists of drawings, and detailed information on the parts with which we are least familiar, such as optics, clutches, and automatic developing equipment. A much more complete instruction book is very desirable, but Eastman neither has the test specifications, the money, nor the experience with the equipment that would be needed to write a really adequate book. Any suggestions along this line will be appreciated, although I feel that this is primarily an Eastman problem.

TESTING

Everyone agreed that the faults found so far in the reader-recorder are of a minor nature and throw no particular light on the probable reliability of the equipment. The first information on reliability will come when the reader-recorder is hooked into the computer through the input-output register so that an actual check can be made of the reading and recording of large quantities of numbers. It is expected that this connection with the input-output register will take place within the next two weeks, and Cochran expects to come here shortly thereafter to help us study the equipment reliability and give us the benefit of his experience during the testing.


Hugh R. Boyd

HRB:rbb
cc: H. Fahnestock
N. Taylor
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