

Memorandum M-2876

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Division 6 - Lincoln Laboratory
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

SUBJECT: BIWEEKLY REPORT FOR JUNE 18, 1954

To: Jay W. Forrester

From: Division 6 Staff

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SECTION I - CAPE COD SYSTEM

1.1 Group 61

The Biweekly Report of Group 61 is omitted because of the move to Lexington.

1.2 Group 64

(S. H. Dodd) (UNCLASSIFIED)

Computer operation has continued to suffer from the extensive installations of and modifications to the terminal equipment. Another month of large-scale changes is planned, but efforts are being made to reduce the amount of interference caused computer operation by this work.

Effective 21 June the equipment in Room 222 will not be usable for a period of about three weeks. As of the same date the MITE slot assignments on the buffer drum will be changed, and only 14 digits will be read to the computer. About two weeks will be required to make these changes during which time the MITE units will be unavailable for operation. After the changes have been made operators must adapt their programs to the new arrangement of the MITE units.

1.3 Group 65 (Continued)

1.33 Research and Development

(P. C. Tandy) (UNCLASSIFIED)

Two helical-dag aluminized tubes have been life tested. The first tube cracked after being based with less than 15 minutes of operation. The second tube, not yet based, is still good after approximately 21 hours of operation.

A storage-tube research mount has been modified again to facilitate electron-optic tests on 5-inch Charactron tubes.

Power supplies are still preventing life testing of more than one helical-dag tube at a time. It is hoped that the required power supplies can be completed in the near future.

(S. Twicken) (UNCLASSIFIED)

On 7 June 1954 I attended a meeting of the JETEC Task Force on Computer Gas Tubes. This task force is attempting to write a specification format for computer gas tubes, principally the 2D21 thyratron. Some progress has been made, and the manufacturers have been appraised of the dearth of information on ratings and characteristics needed for proper tube applications; as yet this information has not been available from the manufacturers. The work of this task force will resume in the fall.

A meeting of representatives of the MIT-IBM Tube Group and the Display Group was held at High Street on 8 June 1954 to discuss desired characteristics of the 16-inch cathode-ray tube to be used in the mappers. Some complications have been introduced by design of the CRT housing and power supply having been frozen before adequate consideration had been given to the CRT itself.

As a follow-up to discussions previously held with us on tube noise and intermittents, Hytron requested and obtained intermittent and leakage tests on some 20 noise-reject tubes. Our tests indicated only a few shorts but considerable nonlinear heater-to-cathode leakage.

Considerable time has been spent in preparing for the move of part of our facilities to Lexington.

(T. F. Clough) (UNCLASSIFIED)

An analysis of the Sylvania 7AK7 has been made to survey the various changes in mount materials and geometry which took place between 1948 and 1953. The results have been reported to P. Youtz.