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Memorandum M-2550

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

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To: Jay W. Forrester

From: Division 6 Staff

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SECTION I - CAPE COD SYSTEM

1.1 Group 61

1.10 General

(R.J. Horn, Jr.) (CONFIDENTIAL)

A general plan for the new radar-mapper installations to be set up in Room 228 has been worked out. Several new features are included: redisplay of unmasked data, light-splitting mirror to eliminate parallax, tilted surface, and improved calibration marking system.

Various minor changes in the control-center equipment continue to be designed and installed.

Equipment reliability reached a new high this period; 93.6 per cent of the time operations were completely unhampered by equipment troubles.

A Navy picket vessel will commence operations in an area under Cape Cod surveillance around 14 December.

The experimental schedule is limited at the moment by the availability of aircraft and by the heavy demonstration schedule.

A new smooth-and-predict program has been finished and has passed initial tests.

Considerable attention is being devoted to XD-1 problems - order code, card preparation, displays, personnel organization, and so forth.

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1.3 Group 65

1.31 Activities of Group 65

(P. Youtz) (UNCLASSIFIED)

Three Charactron tubes were reprocessed with a small-angle electrostatic-deflection system in the deflection-yoke region for character compensation, character position, and making vectors. These tubes were evaluated during this biweekly period. Two of the tubes became gassy before adequate tests could be made on them. The third tube demonstrated that the small-angle electrostatic-deflection system had to be redesigned. This work will be given highest priority during the next biweekly period so that this electrostatic-compensation system can be evaluated as soon as possible.

The work on the helical dag coating which permits a low voltage in the deflection region and a very high voltage at the phosphor screen has been progressing slowly. Several pen designs have been used during this period in an endeavor to coat a spiral with the helical ink. During this period we have been unable to develop a satisfactory pen.

Work on transparent phosphorescent films for Group 25 was continued during this period. The nature of this work is described in the previous biweekly report.

A two-day trip to IBM at Poughkeepsie was made during this period in support of the reliable-receiver tube program.