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6673

Memorandum M-2036

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Page 1 of 2

Air Traffic Control Project  
Servomechanisms Laboratory  
Massachusetts Institute of Technology  
Cambridge, Massachusetts

SUBJECT: BI-WEEKLY REPORT, FEBRUARY 3, 1950

1.0 GENERAL

(W. G. Welchman)

A long paper by Peter G. Masfield entitled, "Some Economic Factors in Civil Aviation," was recommended to us by Mr. Shatz of CAL and has proved to be extremely interesting. A brief commentary on the paper has been prepared and circulated to members of the 6673 group.

Memorandum M-2033 entitled, "Some Simple Paths in  $r, \theta$  Coordinates," was issued and some more work of a similar nature was done.

Thinking about Masfield's paper and about approach paths led me to see the approach problem in a rather different light and I expect to say more about this in the next bi-weekly report.

(C. R. Wieser)

The Federal Telecommunication Laboratories were visited to discuss air traffic problems. Since Mr. Paul Adams, who is in charge of traffic studies at Federal, was absent because of illness the discussion was mainly about navigation equipment. The visit is discussed in M-2035.

Summary Report Number 4 is now in preparation.

(W. Livvill)

Work has been completed on report of Bob Wieser's and my trip to Sperry. It is being issued as an M-series memorandum. Am trying to formulate the limitations on the accuracy with which a plane can be guided on a given course. Sperry engineers indicated to us that present systems have greatest errors coming from their navigation systems.

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~~RESTRICTED~~

M-2036

6673  
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~~RESTRICTED~~  
UNCLASSIFIED

Page 2

1.0 GENERAL - continued

(A. Orden)

A memorandum was prepared on the status of work on angular progress control and was discussed with other members of the group. Further analysis was directed primarily at ways in which various variables which are measurable in the a/c can be combined to provide a stable control system.

(B. R. Israel)

A summary of the Sperry Gyroscopes Report entitled, "An Interim Report on the Further Development of a System for Airport Traffic Guidance and Control," has been prepared. This condensation (the original is 194 pages) briefly describes the operational rather than the electronic features of the proposed system.

Some time was spent in the first week of this period in preparing for a trip to the Air Route Control Center at Boston. At the time of this visit permission was obtained for future visits with the purpose of becoming acquainted with the operation of the Control Center. Three such visits were made during the evenings at the end of that week and much valuable information was obtained. The operation of the center under exacting weather conditions was quite enlightening and revealed several shortcomings of the present-day system of control.

The second week of the period, the between-term vacation period, was spent in Washington D.C. In the course of this trip several visits were made to the CAA, in particular to the Office of Federal Airways and the Library of the CAA. A description of various features of this trip will appear as a separate memorandum.

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