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Memorandum 6M-4323

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Page 1 of 5

Division 6 - Lincoln Laboratory
Massachusetts Institute of Technology
Lexington 73, Massachusetts

SUBJECT: EPSCOM BIWEEKLY REPORT FOR 4 MAY 1956

To: Distribution List

From: R. P. Mayer

Date: 10 May 1956

Approved: K. S. McVicar
K. S. McVicar

CLASSIFICATION CHANGED TO:
Auth: DPJ
By: RE
Date: 5-22-66

Abstract: EPSCOM now includes 38 people. A chart showing most of the EPSCOM programs includes scheduling information.

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GM-4323

Page 2

Three new W.E. Company programmers, D. A. Dalin, J. P. Flanagan, and D. L. Greenhalgh have joined EPSCOM. Bill Vollmer and Ken Brock (both W.E. Co.) have left EPSCOM for other W.E. Co. assignments. W.E. Co. is making arrangements to leave some of their people in EPSCOM on a more permanent basis, although some of their men will rotate through EPSCOM for experience. The EPSCOM manpower now stands at 38 people. This includes Paul Coakley (BTL) who is on loan to group 67 but who will return to EPSCOM on 15 May.

Further details on all of the EPSCOM programs, including a summary chart, can be found below.

(R. P. Mayer)

Pattern Checking

The LRI Test Team has requested several modifications to the Pattern Check Program. The major modification requires an auxiliary program which will have the ability to print selected card images previously stored on tape by the pattern check program. D. L. Greenhalgh is writing this program. The justification for this program results from the fact that tape to printer conversion equipment will not generally be available in SAGE.

The pattern check program uses binary cards containing range-azimuth constants in standard "LOG" format. In the past, two standard utility programs and a short additional routine were used to obtain these binary cards from instruction-type cards. G. F. Paulsen and J. A. Palermo are writing a short program which will convert the decimal numbers on each instruction type card to binary and then punch cards containing up to twenty binary words with a word count and a check sum.

The printer plug-board rewiring has been completed but not checked. The present program has the option of using this special printer board or the standard "straight-across" board. The special board, when used, provides titles and extra spaces for the print-out.

(W. J. Marston)

Height-Finder Flight Test Program No. 8209

During the past two weeks, the major job has been computer check-out of this program. At this time, the program is considered to be very near completion. The check-out of certain sections of the program is delayed due to equipment failures which have not been corrected.

In addition, the program has been amended, such that the new request word format will be selectional. This amendment has also been added to the height-finder equipment test program No. 8102.

(J. J. Maroney)

**LOG" refers to the LRI, QB, QFI drum, which contains all radar input fields.

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6M-4323

Page 3

Tracking Program

I have been working with the conversion equations of the tracking program and hope to start coding parts of the routine this week.

(Margaret Tefft)

Mathematical and Miscellaneous Routines

At present we are waiting for a memo to be written on the Orientation and Calibration program. We are gathering information concerning the differences between XD-1 and FSQ-7 as they affect programmers.

(Helen E. Quirk)

A memo justifying the method used for the square root routine is being written.

New specifications have been received for the "missing word" routine in the "pattern check" program. The program is being modified to include these new specifications.

(M. J. Tobin)

The routines for the dual precision addition, subtraction, and multiplication are ready to be compiled as sub-routines. Our progress in division has been impeded by difficulties in the computer but it is finished except for one special case. We are also in the process of writing memos on these routines.

(Paula Titiev and
Elaine Colleran)

The pattern card conversion routine is being checked out. We are also working on a sub-routine for the Height-Flight Test program to convert the x and y coordinates of a plane's position to its latitude and longitude.

(G. Toohig and
B. Awad)

Display Programs

The program for the geography display was run over the weekend. A small error was found which has been corrected. The program will be re-run on Tuesday. The flow diagram and some of the coding has been completed for the Situation Display Translation Program.

(Ann Tebbetts)

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Page 4

G/G Simulation

The G/G simulation program is basically finished. I have started documentation and am 50% complete. The broad flow diagram is complete and the detail flow diagram is 10% completed.

(L. E. McHenry)

Crosstell Program

The basic revision of the EPSCOM XD-1 Crosstell Program is now completed.

Last Tuesday (May 1) the XD-1 program ran successfully in a full-scale test with Whirlwind I. Such errors as occurred were either deliberately inserted, or were due to equipment failure.

Prior to May 1, the XD-1 program ran in a closed loop which omitted both the telephone lines and the Whirlwind I computer.

A second full-scale test is scheduled for May 8, 1956, from 2 P.M. to 4 P.M. The only change in the manner of running the test involves the choice of channel; we will use channel #2 (register addresses 5 thru 9) instead of channel #1 (register addresses 0 thru 4).

The responsibility for running the XD-1 program during the tests with Whirlwind I currently rests with the writer. R. Carter of Western Electric is currently learning about the program, and will soon take over the job of running it.

The one big thing which remains to be done on the Crosstell Program is the documentation. Work on this will commence as soon as we decide whether or not to reassemble the XD-1 Crosstell Program, leave it as it is, or translate it into the compiler mode.

(L. J. Rose)

Program No. 8011
Teletype Test

The first draft of both the specification and flow diagrams have been completed. The program is in the debugging stage. Further operation should reveal necessary revisions and refinements.

(George C. Cox)

Signed: R. P. Mayer
R. P. Mayer

RPM/br

Attachment: 6P-84

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Page 5

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CAT. #	PROGRAM TITLE	RESPONSIBILITY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER	
			Wk	TEST												
8002	RADAR PATTERN TEST	- MASTON (S)														
8507	GEN & SIM RADAR DATA PATTERN CONSTRAINTS - PALMER (W), FALLAND (W)															
8508	GEN & SIM RADAR DATA PATTERN	- TORRES (S), AWAD (S)														
8510	PATTERN CHECK TAPE PRINT-OUT	- GREENGLER (W)														
8503	LRI SUB-SYSTEM DIAGNOSTIC															
8506	GPI FRAME LOOP TEST															
8508	RADAR DATA FUERT TEST TRACKING	- SHEERARD (S)														
8509	SITE CONSTANTS READ-IN	- TORRES (S)														
8505	RADAR ORIENTATION / CALIBRATION	- DOLAN (S)														
8504	QUICK RADAR STATUS RECAPITULATION	- GAMLING (W)														
8506	RI DRUM DATA B-SCAN DISPLAY	- MATHIASSEN (S)														
8501	RADAR DATA TPI DISPLAY	- THOMPSON (S)														
8503	COMPUTATION & SITE CONSTRAINTS	- COLMAN (S)														
8504	SUNSET RADAR DATA PRINT-OUT	- WILSON (S)														
8402	DISPLAY GENERATION	- MAHA (S)														
8701	HEIGHT SUB-SYSTEM LOOP TEST	- MADONNY (W)														
8700	HEIGHT FINDING FUERT TEST TRACKING	- MADONNY (W)														
8508	INVERSE STEREOGRAPHIC CONVERSION	- AWAD (S), TORRES (S)														
8800	5/A DATA LINK TEST	- BERNARDS (W)														
8401	5/A MESSAGE DISPLAY	- VALLER (W)														
8400	5/G MESSAGE DISPLAY	- McHEWY (W)														
8501	TELETYPE TEST	- COE (S)														
8400	ESS CROSSCELL TEST	- ROSE (S)														
8601	SAGE CROSSCELL TEST															
8408	LINCOLN COMPILER (CARDS)	- BRADY (S)														
8408	CARD COMPARISON / DUPLICATION	- MCNULTY (S), SOULETTE (S)														
0112	TAPE COMPARISON / DUPLICATION	- BRADY (S)														
8404	OCTAL PRINT-OUT (3)	- SHEERARD (S)														
8405	BINARY PUNCH-OUT (3)	- SHEERARD (S)														
8406	OCTAL / BINARY READ-IN (3)	- SHEERARD (S)														
8407	BINARY PRINT-OUT	- SHEERARD (S)														
	KEYBOARD INPUT SIMULATION	- MCNULTY (S), SOULETTE (S)														
	SITUATION DISPLAY TRANSLATION	- YERGENY (S)														
	LIGHT-GUN TEST	- WILSON (S)														
8012	SQUARE ROOT SUB-ROUTINE	- TORRES (S)														
8014	DUAL PRECISION SUB-ROUTINES	- CHILMAN (S), STREY (S)														
8010	Sine - Cosine Sub - Routine	- TERRY (S)														
	RADAR DATA CONVERSION SUB-ROUTINE - TERRY (S)															
	TAPES PRINT-OUT ROUTINE															
	MANUAL EVENTS SIMULATION	- WILSON (S), TAYLOR (S)														

C. S. Skirrow RTA

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