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Memorandum 6M-4359

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

SUBJECT: EPSCOM Biweekly Report for 1 June 1956

To: Distribution List

From: R. P. Mayer

Date: 7 June 1956

Approved: K. E. McVicar
K. E. McVicar

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Abstract: A summary list of EPSCOM program activity is included along with reports on several programs. One new programmer, Marilyn Lynch (BTL), has joined EPSCOM bringing the EPSCOM force to 40 people.

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A catalogue and schedule of EPSCOM programs required by Western Electric Company at the sites is being prepared. Maroney and McHenry (W.E. Co.) have visited the duplex centrals in Kingston and are studying the switching arrangements which must be taken into account when rewriting EPSCOM programs for SAGE.

Further details on all of the EPSCOM programs can be found below.

(R. P. Mayer)

Maintenance for XD-1

With an eye towards better subsystems testing and SAGE maintenance, plans are being made to integrate some of the test programs into a routine maintenance test for XD-1.

The Cross-tell Subsystem is our first attempt in this automatization process. We hope that before long the Cross-tell Subsystem will be run on a regular daily basis (involving very little computer time).

(James P. Wong Jr.)

Specification and Documentation Subsection

A first draft of the memo "The Differences Between the XD-1 and the AN/FSQ-7 computers" has been written and proofread. Numerous additions have been found in the meantime and a rewrite process is now in effect. It is hoped that the memo will be ready for reproduction in about two weeks.

(Helen E. Quirk)

Coding and Checking Subsection

A memorandum was issued for comments which proposes that flow diagrams should be outlined instead of following the usual procedure of making a General Flow diagram and a parallel, connected, detailed flow diagram. The proposed method takes each block of the General Flow and delineates in greater detail, and as a completely separate drawing, the various functions of that block. Normally the first, and sometimes the second, detailed flow diagrams will require further detailed flow diagrams of particular blocks. These can be made whenever necessary, and in as much detail as is necessary, on completely separate drawings. A numeric outlining code is used to connect the various detailed drawings to the proper places in the next higher order drawing.

The following information is an attempt to record progress on EPSCOM programs which are in the coding stage.

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Program Number	Programmer's Name	No. of cards in last compilation	No. of cards in last listing	Percent Detailed flow diagrams completed
8010	Tefft	167	167	0%
8011	Cox & Thomas	322	322	99%
8012	Tobin	111	111	100%
8014	Colleran & Titiev	0	87	0
8015	Mardirosian	93	93	0
8017	Awad & Toohig	138	138	100%
8018	Tebbetts	383	383	0
8020	Colleran & Titiev	0	87	0
8021	" " "	38	10	0
8022	" " "	0	8	0
8023	Awad & Toohig	0	70	0
8024	Greenhalgh	0	159	50%
8025	Palermo & Paulsen	231	231	10%
8026	Tebbetts	296	296	0
8027	Colleran & Titiev	0	160	0
8201	Marston & Tobin	2588	2725	50%
8209	Sweeney & Maroney	1323	1323	45%
8213	Bernards	258	258	100%
8303	McHenry	1213	1213	25%
8500	Gramling & Sherrerd			
		2893	2893	0

The remaining programs being coded by Helen Quirk, Margaret Dolan, Donald Dalin, Joseph Flanagan, Daniel O'Neill, and Marilyn Lynch have not yet been to the card room.

(W. J. Marston)

Radar Quick Check

A coding specification for the Quick Radar Status Recapitulation Program was received this week and about one-half of the program has been coded thus far.

(Helen E. Quirk)

Radar Orientation Program

The coding of the Card-Read-In section of the Orientation program is just about completed and should be ready for the card room early next week. When this section is debugged, work will commence on the "Display" portion of this program.

(Margaret Dolan)

Radar Pattern Checking Program

Modifications of the pattern checking program are being

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coded and inserted into the main program.

(M. J. Tobin)

Pattern Check Tape Reading

The program has been subjected to numerous delays due to errors in compiling and modification. It is hoped that it is workable at the present time. The program is being compiled again and a trace will be run on 5 June.

(David L. Greenhalgh)

Radar Pattern Punched Card Generator

Flow diagrams have been drawn but modifications are in order. The coding is completed sufficiently to make our first real test on the computer. We have made several attempts to operate the program but the UCP* was not functioning properly at the time. A good deal of time has been spent in familiarizing ourselves with the use of the "checker" for the purpose of efficiently trouble-shooting this program. We have made up an "executive deck" to help us obtain as much information as possible on the defects in the "Pattern Punch" program. The program consists of approximately 250 instructions and the executive deck increases this by 30. A successful compilation was made during the latter part of May.

(Joseph A. Palermo and
Glenn F. Paulsen Jr.)

Mathematic and Miscellaneous Routines

The pattern card conversion routine (for Radar Pattern Checking) has been completed. A subroutine for the Height Flight Test program to convert x and y coordinates to latitude and longitude is being checked out.

(C. Toohig and
B. Awad)

The Situation Display Translation Program was compiled and run for the first time on June 4. I am now in the process of debugging the program.

(Ann Tebbetts)

We have checked out the routines for dual precision addition, subtraction, and multiplication and are still working on division. We will run some parts of our site constant generation program this week.

(Elaine Colleran and
Paula Titiev)

LRI Subsystem Single Message Test

The Functional flow diagram is finished and coding for the
*Utility Control Program

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production model (SAGE) at McGuire has started.

(Daniel F. O'Neill)

Teletype Message Test

The program remains in the debugging phase. Although checker executive programs have been written, very little useful XD-1 computer time has been obtained. This has been mainly caused by the recent computer malfunction, and partly by Lincoln utility system errors. Continued attempts are being made in this area.

(George C. Cox)

Utility System

Since joining the EPSCOM group at the MAH, my time has been fairly evenly split between my new duties with Group 66 and with clean-up of some work for Group 67. The Group 67 efforts have been mostly in making up detailed flow diagrams of the two programs I worked on. The flow diagrams for Section IV of the Assemble Comm. Pool program have been completed. When the flow diagrams for the UCP are finished, my efforts for Group 67 should be completed.

My efforts for Group 66 have consisted of helping the EPSCOM programmers to use the Lincoln Utility System by:

- (1) Answering their questions on the Utility System operation
- (2) Making up Pseudo control cards for their programs so their scheduled computer time can be used most efficiently,
- (3) Being available during Group 66 computer time to assist the programmers in operating their programs at the console.

The following EPSCOM programmers are now equipped with Pseudo control card decks for their programs: Hansell, Palermo, Greenhalgh, Maroney, Cox, Tebbetts, Werlin, Tefft, and Tobin. I believe that these programmers have found their control card decks to be most helpful. By assisting the programmers during their computer time, I have been able to correct quite a few errors in card formats and computer procedures "at the source" and enable them to obtain useful information during their scheduled periods of computer operations.

(P. J. Coakley)

RPM/br

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

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