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Memorandum 6M-4371

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

SUBJECT: EPSCOM BIWEEKLY REPORT FOR 15 JUNE 1956

To: Distribution List

From: R. P. Mayer

Date: 20 June 1956

Approved: _K. S. McVicar_
K. E. McVicar

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Abstract: The EPSCOM force still stands at 40 people. A summary chart and schedule is included along with reports from programmers.

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A new Biweekly Report form for EPSCOM programmers has been distributed. This form includes spaces for reporting percent of progress on various phases of a program, as well as for discussing the problems encountered and progress made.

Further details on the EPSCOM programs can be found below.

(R. P. Mayer)

Single Track Tracking Program: 8500

The new version of the tracking program has been run with data. There is a major bug in the program in that all of the data is concentrated at about 5 points on the scope and at this time I am trying to determine what causes the error in the radar display. It appears to be in the conversion routine. Another bug is the inability to initiate on any of the radar data.

(W. M. Gramling)

Height-Finder Flight and Equipment Test Program: 8209 & 8102

The Height-Finder Flight program is considered to be complete to the point where it should be combined with the tracking program. A deck of octal corrections was used to simulate, as far as possible, the input to the Flight Test program. All print-outs have been checked and all variations in program logic have been tested as far as possible.

The Height-Finder Equipment Test program has been operating to the requirements of the test team. A few changes have been made and some trouble has been localized to card processing errors.

The documentation is in process for both programs, being in total about 40% complete.

(J. J. Maroney and
F. J. Sweeney)

Quick Radar Recapitulation Program: 8905

About 70% of the coding has been done and about 2/3 of that will be sent to the card room this week.

(Helen E. Quirk)

LRI-GFI Pattern Check Program: 8201

This program is complete except for the conversion to SAGE and to the FST-1 pattern. A new assembly will be made and checked out before attempting to convert the program for the FST-1 pattern. This assembly contains all known modifications requested for this program.

(W. J. Manston)

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Pattern Punch Generator: 802501

The pattern punch program has been checked out and is operating correctly. A few minor corrections will be necessary before it can be combined with another completed program. The combination will provide the means to punch radar data cards and make insertions by using the A and B toggle switch registers. Because of conflicting tags in the two programs, more changes will be necessary before a combined compilation of the two programs can be made. For checking out purposes, we are using the program to be integrated as a subroutine.

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

Pattern Card Conversion Program: 801702

The routine to convert the LRI data has been successfully completed. The routine to convert the GFI data needs more refining.

(C. Toohig and
B. Awad)

Pattern Check Tape Printout: 8024, 8510, 8560

An error was found in the Pattern Check Program which made this program inoperative. The error has been fixed and this program has been modified to handle any similar situations. Three subroutines have been added, bringing the program from its original form of 158 cards to its present (mod. 09) form of 239 cards. These extensive modifications and additions have necessitated revision of all flow diagrams previously drawn.

(David L. Greenhalgh)

LRI Single Message Test: 8903

The cards will be finished (from the card room) this Wednesday (20 June) and I expect to run the program on the computer for the first time this Friday. All research for the program has been completed. Conversion to the SAGE version of this program has been considered throughout the coding and could easily be facilitated by octal correction cards for changing a few minor instructions. This program should be completely finished by 9 July 1956.

(D. F. O'Neill)

I am now coding the print out procedure.

(Marilyn R. Lynch)

Manual Input Keyboard Test: 8501

Coding for the operational part of the program is about 25% complete, and should be finished around the 20th of June. Console E-21 was tested on 12 June and the results indicated the program was operating satisfactorily. As each row of the console was tested, an indication of "good"

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or "bad" was shown on the DD together with the row number and console be-
ing tested.

Consoles presently installed in ESS are not in their finalized
form. The program will be written to test ESS keyboards as they will be
and not as they are at present, to avoid constant modifications as the
consoles are brought up to date.

(John T. Tadler)

The computer test proved that the program methods generated will
work satisfactorily. There now remains the job of modifying this program
to include not only one console and its associated DD & SD, but 105 con-
soles and as many DD's. This modification has progressed satisfactorily
and it is expected to be ready for compilation by Wednesday 20 June.

(Wilmot H. Hansell)

Crosstell Test Program: 810400

The test team is currently satisfied with 810400, as modified
by a large number of octal correction cards.

The program will be documented in its present form; octal cor-
rections will not be incorporated into a re-assembly. (810400 makes use
of the old assembly program)

The deadline for documentation is mid-July. The requirement
for extensive detailed flow charts could seriously upset meeting the deadline.

(L. J. Rose)

Teletype Message Test: 8011

Continued operation of this program through use of the checker
has revealed errors both in this program and in the checker. Considerable
progress has been made, however. Conversion of the card data from Hollerith
to teletype code stored on the A.M. drums is now successful.

(George C. Cox)

Ground/Ground Message Display: 830306

Documentation of this program is the last major thing to do.
During the last week, pictures were taken for this document on the SD
camera console. A few flow diagrams have been typed. These flow diagrams
are based on Wes Marston's method. A rough draft has been written, which
Chris Sherrerd has looked over. This document does not describe the flow
diagrams, so it must be modified or an addition must be added to describe
the flow diagram.

(L. E. McHenry)

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Square Root Subroutine: 801204

An overflow has been detected. Correction of the program will involve the changing of some constants.

(Marcia J. Tobin)

Dual Precision Arithmetic: **8027, 8014, 8020, 8021, 8022**
Conversion to Azimuths:

The dual precision subroutines (except for division) are completed and checked out. The memo is written but may require changes in the division appendix. Division is almost done except for a few details. We ran the conversion program and expect to start debugging.

(Elaine Colleran and
Paula Titiev)

RPM/br   Signed: _R. P. Mayer_
                                                   R. P. Mayer

Attached:
          G-533204 (BTL) = SB-66595 (Lincoln)

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SB-66595

Program Number	Program Title	SAGE CAP. OR PRIORITY	Programmer	DRA	Completed System	Schedule — 1956					Comments
						JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	
8902	LR & GF Pattern Check	–	Marston Tobin	B	XD-1	O		D			
8952	"	3			SAGE						
8002	LR & GF Tracking	–	Sherrerd	B	XD-1		D				Completed 1 May
8900	"	–	Gramling	W	XD-1	C		C	D		Revised version of 8002
8950	"	5			SAGE						
8701	HF Loop Test	–	Marconi Sweeney	R	XD-1		D				Completed 1 April
8751	"	8			SAGE						
8700	HF Flight Test Tracking	–	Gramling	W	XD-1		C	C			Combination of 8900 & parts of 8701
8750	"	3			SAGE						
8600	Crosstell Data Link Test	–	Rose	B	XD-1	C	D				Completed 12 June
5601	"	–			XD-1						Not yet specified
8651	"	10			SAGE						
8801	Teletype Test	–	Cox	R	XD-1	CO	C	I			
8851	"	11			SAGE						
8800	S/A Data Link Test	–	Edwards	W	XD-1	D					Completed 20 April
8850	"	12			SAGE						
8906	Rich. B-S. and Display	–	Mardirosian	B	XD-1	C	C	I			
8956	"	1			SAGE						
8903	LRI Single Message Test	–	O'Neil	W/B	XD-1		C	D			
8953	"	2			SAGE						
8956	GFI Conf. Ter. Loop Test	4			SAGE						Not yet specified
8904	Quick Radar Status Recapitulation	–	Quirk	B	XD-1	C	C	I			
8954	"	6			SAGE						
8400	S/G Simulator (Display)	–	McHenry	W	XD-1		D				Completed 5 May
8450	"	7			SAGE						
8401	S/A Simulator (Display)	–	Volmar	B	XD-1		D				Completed 1 April
8451	"	13			SAGE						
8557	LR & GF Position Prep.	✱	Project Palermo	W	BOTH	O	C	D			
8560	Pattern CK Tel. Print Out	✱	Greenhalgh	W	BOTH	O	C	D			
8955	Radar Orientation Check	✱	Dolan	B	BOTH		C		D		
8553	Site Constants Computation	✱	Solleroi & Tibi	B	BOTH		O	D	C	D	
8457	Binary Print-Out	✱	Shrerrerd	B	BOTH		C	D			Single card
8455	Binary Punch Out	✱	Shrerrerd	B	BOTH		C		D		
8453	Card Comp. & Dup.	✱	McNeil Gillmette	B	BOTH				D		
8454	Octal Print-Out	‡ ✱			BOTH						To be borrowed from GP 67 with slight mod.
8456	Octal & Binary Loading	‡ ✱			BOTH						"
8458	Lincoln Compiler	‡ ✱			BOTH						"
8459	Lincoln Checker	‡ ✱			BOTH						"
8460	Card Input Editor	‡ ✱			BOTH						"
8461	Print-Punch Editor	‡ ✱			BOTH						"
8462	Tape Comp. & Dup.	‡ ✱			BOTH						"

LEGEND

‡ In a form independent of U.C.R.

✱ To be completely checked out on XD-1 prior to McGuire.

B Bell Telephone Labs.

W Western Electric Co.

R Rand Corp.

BOTH Programs which use only those portions of XD-1 and FSQ-7 which are identical, and hence will work on both computers without modification.

O Scheduled checkout date as of 5 May 1956

C Scheduled checkout date revised as of 15 June 1956

D Scheduled documentation date as of 15 June 1956

CHECK		CSS
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Recapitulation of SAGE Equipment Subsystem Test Program Status

CASE 27443

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