

Memorandum 6M-3851-7

Sheet 1 of 16 Sheets

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

SUBJECT: MASTER REFERENCE LIST OF EQUIPMENT SPECIFICATIONS FOR XD-1

To: R. S. Fallows

From: R. H. Gerhardt

Date: 8 July 1958

Approved: *R.S. Fallows/RHG*
R. S. FALLOWS

Abstract: The Master Reference List is a compilation of all the currently active technical specification documents which have received Lincoln-IBM concurrence for AN/ESQ-7 (XD-1) design. This list, 6M-3851-7, is a revision of the previous list, 6M-3851-6, and has been brought up to date as of 8 July 1958. Also indicated is the status and/or desired installation date of these changes.

The responsibility for this memorandum has been transferred to the ESS-CCS of Group 68.



1. This document has been prepared for internal use only. It has not been reviewed by Office of Security Review, Department of Defense, and therefore, is not intended for public release. Further dissemination or reproduction in whole or in part of the material within this document shall not be made without the express written approval of Lincoln Laboratory (Publications Office).

2. The research reported in this document was supported jointly by the Department of the Army, the Department of the Navy, and the Department of the Air Force under Air Force Contract No. AF 19 (122)-458.

6M-3851-7

DISTRIBUTION LIST

Lincoln

D. R. Brown
R. J. Callahan *
R. S. Fallows *
R. H. Gerhardt *
J. Giordano *
L. L. Holmes *
D. R. Israel
L. H. Linehan *
J. H. Karlson *
J. A. O'Brien
T. R. Parkins
H. K. Rising *
E. S. Rich
C. W. Uskavitch *
C. A. Zraket
Div. 2 File (R. E. Rader) *
H. S. Hayes *

ADC

Cdr. 4620th ADW (3) *

AMC

Cdr. RAFD Attn: MRPC *

ADES

H. E. Gale
F. P. Larkin
F. C. Ong
J. P. Quinlan (3 cys & 1 repro.) *
F. Simon
D. P. Wilkes

IBM

A. Adelman *
R. D. Cole
W. A. Dayger
A. F. DiMarco
W. Johnson
C. F. Lynch
B. H. Matteson
J. P. Murphy *
R. F. O'Neil *
W. R. Peavy *
A. H. Raymond, Jr.
R. C. Rolfe *
A. Schiff *
W. S. Squire *
H. VanAllen *
F. A. Weber
M. A. Taylor (Repro)

AFCRC

Lt. Col. J.R. Waterman, CRL
J.R. Bennett, CRLE *
J. Hallgrimson, CRLD *
Capt. R.B. Mollo *

BTL-Whippany

C. W. Halligan (5) *
G. F. Clement
A. A. Currie
M. O. Fichter
F. C. Ong
R. J. Waters

SDC

H. D. Benington
G. C. Cox
B. Ireland
J. Keohane

* Recipients of complete memo.

6M-3851-7

I. INTRODUCTION

This list is a compilation of all currently active technical specification documents for AN/FSQ-7 (XD-1) as of 8 July 1958 inclusive.

This memorandum lists:

- (1) Documents that form the equipment specifications for XD-1.

For each document the following information is listed:

1. IBM and/or MIT document number.
2. Title.
3. Date of IBM-MIT concurrence and/or Lincoln Release.
4. A Lincoln Laboratory Division VI Document Room File number.
5. A "Status and/or Required" column coded for the following information.

I = Installed
Date = Date required for installation
A = As soon as possible
P = Pending
C = Clarification (no change required)
D = Dropped (waiting for a new specification).

- (2) Appendix I which cross references documents to page numbers.

The responsibility for maintenance of this memo has been transferred to the ESS-Change Coordination Subcommittee of Group 68.

APPROVED FOR PUBLIC RELEASE. CASE 06-1104.

6M-3851-7 1

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
---------	---------	------------------------	------------	--------------------------------------

CENTRAL COMPUTER

Maintenance Console

TR-17	Maintenance Console	3-12-54	IBM441	I
P-6	Reset Lines	6-1-54	851	I
P-63	IBM Drawings, "Maintenance Console Panel Design Drawings: 539-167 -6-25-54 301-9230 -6-30-54	10-27-54 Reference Drawings	854	
P-134-1	Concurrence on the permanent deferment of the installation of P-134.	8-17-56	707	
P-178	Deletion of Preset Status Switch for Marginal Checking.	4-4-55	344 735	
P-197	Mod. for Maintenance Console Audio Amplifier	7-13-55	367	I
P-240	Proposal for Adding Switches to Maintenance Console	11-15-55	520 521	I
P-255	Location of Telephone Units in Maintenance Console	1-12-56	587 734	I
P-350	Change to Specs. for Prototype Combat Direction Centrals	2-11-58	812	I

Program Element

TR-18	Program Element	2-8-54	IBM425	I
P-132	Removal of Index Registers from 'Control Clear' Line	1-19-55	311 312	I
P-170	Addition of 2 Index Registers	4-6-55	338	I
P-171	Proposed Change for Clock Registers	4-7-55	769 337	I
P-327	Addition of 256 ² Memory Unit and Associated Changes	6-26-57	760	Oct. 58
P-327-1	Addition of 256 ² Memory Unit and Associated Changes	8-30-57	775	Oct. 58

Test Memory

IM-79	Proposal for Test Memory	2-17-54	41	I
-------	--------------------------	---------	----	---

6M-3851-7

2

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
<u>CENTRAL COMPUTER (Cont.)</u>				
<u>Instruction Control Frame</u>				
TR-14	Specifications of Instruction Control Frame	2-1-54	IBM416	I
TR-15	Instruction Control Frame	1-1-54	IBM493	I
P-59	Cyclic Program Control	12-22-54	317	I
P-106-1	Concurrence on permanent deferment of installation of P-106	8-17-56	698	
P-113	Lock Address Counter Modifications	12-22-54	319	I
P-113-1	Unlocking of the IO Counter	12-8-55	568 548	I
P-327	Addition of 256 ² Memory Unit and Associated Changes	6-26-57	760	Oct.58
P-327-1	Addition of 256 ² Memory Unit and Associated Changes	8-30-57	775	Oct.58
P-365	Automatic Suppression of Indexing on Situation Display Camera	2-14-58	824	A
<u>Magnetic Tape System</u>				
BP-1	Magnetic Tape Proposal	5-25-54	369	I
P-17	Magnetic Tape Bit Density	6-29-54	370	I
P-33	Tape End of Files Proposal	7-8-54	371	I
P-164-1	Change to Magnetic Tape Specs.	8-2-56	693 689	C to BP-1
P-177	Magnetic Tape and Reels	3-30-55	343 174	I
P-177-1	Magnetic Tape and Reels	12-29-55	585	I
P-234	Proposal for Addition of Two More Tape Drive Units	11-17-55	539 522	I
P-299	Proposal to Unlock Tape Drive Select Switches	6-7-56	674 667	I

APPROVED FOR PUBLIC RELEASE. CASE 06-1104.

6M-3851-7 3

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
CENTRAL COMPUTER (Cont.)				
<u>Order Code</u>				
TR-7	Programmer's Reference Manual (Inc. Suppl. 1)	12-23-53	IBM216A	I
H-106	Standard Instruction Abbrev.	2-11-54	IBM343	I
H-134	Sense, Select, Select Drums and Operate Codes	2-11-54	IBM436	I
P-167	Prop. Change for Addition of Operate Unit Instr. (Operate 36) and Change in Nomenclature for (Operate 35).	3-30-55	333 332	I
P-185-1	PERSELBSEN Codes	7-13-55	373 372	I
P-265-1	Testing of Clock Register	5-3-56	660 645	I
P-278	Prop. for Addition of Operate Instruction to XD-1 to Control Parity Checking when Reading from Tape or Drums.	3-1-56	633 714	I
P-278-1	Addition of Operate Instruction to Control Parity Checking when Reading from Tapes	5-2-58	842	I
P-279	Prop. Addition to Operate Instruction 30 (Operate Raydist).	3-15-56	634 733	I
P-327	Addition of 256 ² Memory Unit and Associated Changes	6-26-57	760	Oct. 58
P-327-1	Addition of 256 ² Memory Unit and Associated Changes	8-30-57	775	Oct. 58
P-348	Modification of Select Instruction (Sel 04).	9-26-57	786	A
P-356	Change to Output Alarm Sense Units	12-13-57	807	A
P-365	Automatic Suppression of Index of Situation Display Camera	2-14-58	824	A
T-13	Program Trap	2-27-58	828	Apr. 58
T-13-1	Change to Program Trap	3-12-58	829	Apr. 58

APPROVED FOR PUBLIC RELEASE. CASE 06-1104.

6M-3851-7 4

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
<u>CENTRAL COMPUTER (Cont.)</u>				
<u>Memory</u>				
IM-88	Performance Specs for AN/FSQ-7 Memory Element	4-9-54	IBM444	I
P-246	Revised Performance Specs. for AN/FSQ-7 Memory Element	12-8-55	566 565	I
P-324	Memory Element Specs.	6-17-57	758	Oct. 58 (At this time it will supersede IM-88 and P-246)
P-324-1	Clarification of Memory Element Specifications	7-23-57	761	Oct. 58
P-327	Addition of 256 ² Memory Unit and Associated Changes	6-26-57	760	Oct. 58
P-327-1	Addition of 256 ² Memory Unit and Associated Changes	8-30-57	775	Oct. 58
<u>Selection Control Frame</u>				
TR-24	Specs of Input-Output Control Frame	4-23-54	IBM483	I
P-10	Deletion of Drum Disconnect on Parity Alarm at Selection Control Frame	6-8-54	374	I
P-32	Proposed Changes to Selection and IO Control Element for Output System Alarm	7-15-54	376	I
P-60	Proposal for 'Operate' Instruction to Turn Off IO Interlock	12-22-54	375	I
P-149-1	Change in Selection and IO Control Element Specs. (Sense Display Interrogation)	7-13-55	293 292	I
P-200-1	Change in Selection Control	9-23-55	688 687	I
P-327	Addition of 256 ² Memory Unit and Associated Changes	6-26-57	760	Oct. 58
P-327-1	Addition of 256 ² Memory Unit and Associated Changes	8-30-57	775	Oct. 58
P-365	Auto.Suppression of Indexing of Situation Display Camera	2-14-58	824	A

6M-3851-7 5

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
<u>CENTRAL COMPUTER (Cont.)</u>				
<u>Arithmetic Element</u>				
TR-27	Specs. of the Arithmetic Element	5-6-54	IBM476	I
P-327	Addition of 256 ² Memory Unit and Associated Changes	6-26-57	760	Oct.58
P-327-1	Addition of 256 ² Memory Unit and Associated Changes	8-30-57	775	Oct.58
P-329-1	Parity Count and Parity Check Equipment	5-17-57	771 772	I
<u>Card Machines</u>				
TR-25	Card Machine System Opera.	4-4-54	IBM574	I
P-7	Change in Card Machine Spec.	6-15-54	377	I
P-175	Revision of 723 Punch	9-23-55	459	I
P-181	Prop. Changes in Card Machine	5-19-55	271 643	I
P-194	Standby Card Machines	6-23-55	754 753	I
P-194-1	Cancel Concurrence Document, P-194	10-27-55 Deletion of Standby Printer and Punch	509 498	
<u>Telephone Maintenance Intercom System</u>				
P-72	Prop. Prototype Maint Inter-communications Systems Specs.	10-11-54	379	I
P-81	Mod. of XD-1 Maintenance Intercom Specs.	12-18-54	380	I
P-154	6M-3000, Suppl. 3, 6, & 10	3-25-55		I
P-267	Phone at IBM Maint. Supervisors Desk Bldg. F at Lexington	2-1-56	609	I
P-327	Addition of 256 ² Memory Unit and Associated Changes	6-26-57	760	Oct.58
P-327-1	Addition of 256 ² Memory Unit and Associated Changes	8-30-57	775	Oct.58

6M-3851-7 6

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
CENTRAL COMPUTER (Cont.)				
<u>General Changes to Central Computer</u>				
IM-64	Marginal Checking System	2-9-54	IBM307	I
P-5	Calculator Control of Marginal Checking	6-8-54	381	I
P-183	Proposed Changes to CC by Addition of AXD System	5-3-55	350 351	I
P-192-3	Conc. on permanent deferment of installation of prop.P-192	8-17-56	701	
P-192-6	Automatic Branch on Alarms	12-23-57	800	I
P-248	Proposal for Addition of 'Inactivity Alarm'	12-29-55	584 583	I
P-248-1	Change to Inactivity Alarm Specifications	3-27-58	838	I
DRUM SYSTEM				
P-142-1	Proposed Drum System Specs.	6-23-55	686 382	I
P-142-2	Changes to Drum System Specs.	10-11-55	474	I
P-142-3	Changes to Drum System Specs.	10-14-55	853	I
P-142-4	Changes to Drum System Specs.	10-24-55	850	I
P-142-5	Changes to Drum System Specs.	12-13-57	805	A
P-306	Change in GFI Input Drum Field 2 to Make Bit R11 a Zero	8-31-56	710 706	I
P-364	IC Drum Used as Display Tester	12-13-57	804	I
INPUT SYSTEM				
<u>Manual Inputs Frame</u>				
IM-68	The Manual Inputs System	1-26-54	IBM339	I
P-37	Power Source for Keyboard Inputs	7-15-54	383	I

APPROVED FOR PUBLIC RELEASE. CASE 06-1104.

6M-3851-7 7

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
<u>INPUT SYSTEM (Cont.)</u>				
<u>Card Reader Specifications</u>				
H-87	026 Card Reader Specs.	1-29-54	105	I
H-96	056 Card Verifier-Reader Specifications	1-29-54	IBM301	I
TR-13	Modified 026	1-26-54	106	I
P-193	.009 Card Stock for Binary Punching	6-23-55	284 303	I
<u>Warning Lights</u>				
P-13	Proposed Specs of Operation of Warning Light System	6-24-54	386	I
P-34	New Proposal for Warning Light System	7-15-54	385	I
P-49	Warning Light Frame Specs.	8-18-54	387	I
<u>Phone Line Recorder</u>				
BP-2	Concurrence Request for Phone Line Data Recorder	5-24-54	384	I
<u>GFI Consoles</u>				
P-54	Modified SDV Radar Input Element Proposal	7-8-54	389	I
P-138	6M-3146-1, "Proposal for Mapping Material and Utility Holder."	3-22-55	315	I
P-138-1	Suppl. to Mapping Material Specs.	2-16-56	610 622	I
P-138-2	Change to Suppl. to Mapping Material Specifications	8-2-56	692 690	C
P-188-6	Cancellation of GFI Monitor and Camera	12-10-57	798	I
P-303-1	Suppl. to Change in GFI Mapper Specs.	10-25-56	736 732	I
<u>GFI Mapper Counter Frame</u>				
BP-20	Proposed Radar Input Counter Section - Drawing - 3028008	3-30-54	390	I

6M-3851-7 8

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
<u>INPUT SYSTEM (Cont.)</u>				
<u>GFI Mapper Counter Frame (Cont.)</u>				
P-304-2	Change to LRI & GFI (Site Identity Code)	6-12-58	858	A
P-339	Changes to Input System Specs.	12-13-57	806	May 58
<u>Test Pattern Generator</u>				
P-220-4	Change to Test Pattern Generator Specs.	Concurrence covered in P-220-7		I
P-220-6	Change to Test Pattern Generator Specs.	Concurrence covered in P-220-7		I
P-220-7	Change to Test Pattern Generator Specs.	5-5-58	844	I
P-283-1	Cancellation of P-283, "Drum Pulse Simulator."	2-11-58	821	I
P-285-1	Cancellation of P-285, "Converters for Production Type Pattern Generator."	2-11-58	820	I
P-287-3	Cancellation of P-287-1, LRI Error Checker	2-11-58	815	I
P-325-1	Change to Error Checkers and Drum Simulator	1-15-58	811	A
<u>Crosstelling Input</u>				
P-14	Crosstelling Input Performance Specs.	7-8-54	391	I
P-75	Change to Crosstelling Input Specs.	12-13-54	392	I
P-199	Change in Crosstell System	9-20-55	424 428	I
P-199-1	Crosstell Parity Disable	10-25-55	506 479	I
P-199-2	Crosstell Parity Disable	6-14-56	676 670	I
P-291	XT Word Changes	4-24-56	648 651	I
P-339	Change to Input Sys.Specs.	12-13-57	806	I

6M-3851-7

9

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
<u>INPUT SYSTEM (Cont)</u>				
<u>LRI Frame</u>				
P-47	Revised Performance Specs. for Miscellaneous Radar Input	8-17-54	393	I
P-47-1	Change to Performance Specs. for Misc. Radar Input	6-12-58	856	A
P-124	Changes to LRI and Output System (affects P-147 & P-52)	3-24-55	394	I
P-150-1	Deletion of Modifications of XD-1 LRI Equipment to provide for Acceptance of Phone-Line Data from South Truro.	11-13-57	795	I
P-202	Change to LRI System	9-20-55	429 425	I
P-229-2	Cancellation of P-229-1 LRI Parity Rate Counter	2-11-58	818	I
P-230-1	Cancellation of P-230 LRI Parity Rate Alarm	2-11-58	822	I
P-275	Changes in LRI Frame	3-15-56	630 626	I
P-290	LRI Word Changes	4-24-56	647 650	I
P-301	Modification of LRI Parity Checking Circuitry	6-28-56	684 682	I
P-304-3	Change to GFI & LRI Site Identity Codes.	6-12-58	858	I
P-339	Change to Input Sys. Specs.	12-13-57	806	May 58
<u>Test Consoles</u>				
P-305-1	Cancellation of P-305, Addition of Test Console to XD-1 System	2-11-58	819	I
<u>LRI Monitor Specifications</u>				
P-189	Installation of LRI Monitor Breadboard Equipment	8-25-55	356 355	I
P-189-4	Canc. of P-189-1, "LRI Monitor for XD-1," and P-189-2 "Change to P-189-1 entitled "LRI Monitor for XD-1, P-189-2."	2-11-58	823	I

APPROVED FOR PUBLIC RELEASE. CASE 06-1104.

6M-3851-7 10

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
---------	---------	------------------------	------------	--------------------------------------

INPUT SYSTEM (Cont.)

LRI Monitor Specifications (Cont.)

P-189-5	Change to LRI Monitor	2-25-58	827	I
P-233	LRI Monitor Console	10-20-55	526	I
P-233-1	Change LRI Monitor Consoles	6-14-56	675 672	C

Input and Output Converters

P-216-3	Cancellation of Input and Output Converters for XD-1, P-216-1 and P-216-2.	2-11-58	816	I
P-218-2	Cancellation of Production Type DDR and DDT Equipment for XD-1, P-218.	2-11-58	817	I

OUTPUT SYSTEM

Bomarc

M-2848-1	Proposal for Communications between AN/F3Q-7 and F-99 (Bomarc) Bases for Weapons Control.	Original Specifications. Released by TIR 1-17. on 9-12-54.		
----------	-------------------------------------------------------------------------------------------	------------------------------------------------------------	--	--

Output Frame

IM-77	Output Storage Elements	6-3-54	IBM466	I
M-2697	Output Sys. Performance Specs.	3-3-54		I
M-2863	Proposed Changes to Output System Performance Specs.	7-21-54		I
P-31	Proposed Changes to Output System Alarm Specifications	7-15-54	395	I
P-43	Teletype Monitor Proposal ltr.	9-13-54	398	I
P-52	Proposal for Testing Output System with MRI and Crosstell Input	11-3-54	396	I
P-52-1	Loop Test Specifications	6-28-56	691 681	C
P-52-2	Change to Loop Test Specs.	5-1-58	840	I
P-73	Prop.Changes in Putput System Specs. M-2697	12-6-54	397	I

6M-3851-7 11

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
OUTPUT SYSTEM (Cont.)				
<u>Output Frame (Cont.)</u>				
P-180	Increase of Teletype Lines for Output System (to 10)	6-14-56	346 345	I
P-180-1	Increase of Teletype Lines for Output System (to total of 25).	9-20-55	427 415	I
P-191	Prop. Change to Output Performance Specs. M-2697	6-29-55	397	I
P-201	Change in Output System	9-23-55	462 433	I
P-236	Output Storage Parity Alarm Check	12-8-55	567 547	I
P-259	G/G Message Rejection	3-15-56	629 627	I
P-293	G/G Output Phone Line Message Bit Arrangement	4-24-56	649 652	C
P-302	G/A Loop Test Message Bit Arrangement	8-17-56	702 696	I
P-344	Time Division Output Section	10-30-57	808	May 58
P-356	Change to Output Alarm Sense Units	12-13-57	807	A
P-361	OB Register Parity Check	1-21-58	810	A
DISPLAY SYSTEM				
<u>Area Discriminator</u>				
IM-72	AN/FSQ-7 Area Discriminator Specifications	2-18-54	IBM387	I
IM-78	Specs. for Light Gun and Area Discriminator Control and Information Signals	No Concurrence. For information only.	IBM376 IBM376A	
<u>Display System</u>				
M-2877 M-2877,C1	Specs for AN/FSQ-7 Display System	8-18-54		I
P-48-1	Change to Specs for AN/FSQ-7 (XD-1) Display System	10-5-56	726 722	I

6M-3851-7 12

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
DISPLAY SYSTEM (Cont.)				
<u>Display System (Cont.)</u>				
P-77	Change to XD-1 Display Sys. Specs. 6M-2877, S1.	12-15-54		I
P-139	Change to Display Sys. Specs. 6M-2877, S2, S3, S4, & S5.	3-30-55	314	I
P-139-1	Change to Display Specs.	4-28-58	841	A
P-151	Specs. for Automatic Camera and Control for AN/FSQ-7. 6M-2877, S6.	6-8-55	330	I
P-205-1	Proposed Changes in Manual Input Cablin between Consoles and Frame 28.	9-1-55	412	I
P-207-4	XD-1 Console Equip. and Label Layout Memos 6M-3583-3, 6M-3584-2, 6M-3585-2, 6M-3586-2, 6M-3587-2.	8-2-56	695	I
P-207-5	Corrections, Clarifications and Changes to P-207-4 Console Equipment and Label Layouts.	3-21-57	748	I
P-207-6	Modification to Console Equipment and Label Layouts.	7-23-57	762	I
P-207-7	Change to Console Equipment and Label Layouts.	12-13-57	801	I
P-207-8	Change to XD-1 Console	9-13-57	778	I
P-207-9	Equipment and Label Layouts.	10-15-57	787	A
P-207-10		11-22-57	799	I
P-207-11		1-21-58	809	I
P-207-12		3-13-58	834	I
P-207-13		3-13-58	835	May 58
T-20		6-25-58	862	A
P-208	Proposed Changes in Manual Input Inter-connection Unit (Frame 28).	3-1-55	414 361	I
P-209	Proposed Warning Light Inter-connection Unit.	9-1-55	413	I
P-209-1	Location of Warning Light Inter-connection Unit.	9-20-55	426	I
P-214	Changes in Warning Light	Concurrence	464	I
P-214-1	Cabling.	covered in P-207.		

6M-3851-7

13

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
DISPLAY SYSTEM (Cont.)				
<u>Display System (Cont.)</u>				
P-238	Changes to Display Specs. 6M-2877, S8.	10-14-55	499	I
P-256	Suppl. to Display System Specs. (6M-2877)	1-12-56	588 579	I
P-261	6M-2877, S9, Changes to Display Specs.	12-29-55	581	I
P-271	Suppl. to Display System Specs. (6M-2877)	2-9-56	608 611	I
P-286	6M-2877, S6, Addendum 1	2-9-56	604	I
6M-4216	Category Switch Labels for	2-28-56		I
6M-4216,S1	Situation Display	3-27-56		I
6M-4216,S2	Console	2-13-57		I
P-359		2-10-58	813	I
P-362	Change to Display Assign- ment Bit Assignments	2-13-58	837	A
<u>Display Console</u>				
H-139A	Design Specs Display Console	8-8-54	127	I
P-36-1	Changes to H-139A	9-54	399	I
P-36-2		10-11-54	848	I
P-36-3	Concurrence on Modification of H-139A	1-19-56	586	I (I Room)
P-36-4	Change of 19" Charactron in Situation Display Consoles	1-19-56	598	Partly I
P-36-5	Changes in H-139A	2-16-56	603	C
P-36-6	Change to H-139A Design Specs. for Situation Display Console	10-5-56	727 720	C
P-36-7	Concurrence on permanent deferment of completion of change P-36-3	8-17-56	697	I
P-36-8	Change to H-139A Design Specs. for Situation Display Consoles	10-5-56	728 721	I
P-36-10	Change to H-139A Display	2-25-58	826	A
P-36-11	Console Specifications	10-4-57	784	A

6M-3851-7 14

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
DISPLAY SYSTEM (Cont.)				
<u>Display Consoles (Cont.)</u>				
P-243	6M-3995, Visor for Situation Display Console	11-17-55	541	I
P-270	Proposed Change in DD Filters for Situation & Auxiliary Display Consoles	2-9-56	606 605	I
P-341	Situation Display Console in Mission Operations	1-28-57	740	I
P-341-1	Change to Situation Display Console in Mission Operation Center	2-19-57	743	C
T-1	Situation Display Console for Experimentation AN/FSQ-7	2-11-57	741	I
T-11	Temporary Addition of Normal Area Assignment Switch	10-22-57	788	I
T-17	Change to H139A Display Console Specifications	5-2-58	843	A
<u>Auxiliary Console</u>				
P-127-1	Auxiliary Console Specs. for Production Machines	4-8-55	262 274	I
P-127-2	Amendments to Auxiliary Console Specifications	8-11-55	416	I
P-127-3	Change to Auxiliary Console Specifications	9-23-55	477 550	I (I Room)
P-127-4		10-5-56	730 724	C
P-127-5	Concurrence on permanent deferment of completion of change P-127-3.	8-17-56	699	I
P-127-6	Change to Auxiliary Console Specifications	8-21-56	715 712	C
P-127-7		10-4-57	783	A
P-355	Manual Intervention Push-button Switches, Redesign	8-29-57	790	
T-4	Situation Display Console for Experimentation AN/FSQ-7	9-6-57	773	I

APPROVED FOR PUBLIC RELEASE. CASE 06-1104.

6M-3851-7 15

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
DISPLAY SYSTEM (Cont.)				
<u>Display Wiring and Interconnection Documents</u>				
6M-3728-1	Category and Display	None (Information only)		
6M-3728-1,C1	Assignment Bit Assignments			
6M-3728-1,C2	for SAGE Situation Display Consoles.			
P-258-3	Change to Feature & Category Switches Required to make XD-1 Display Consoles agree with Specs. in Document 6M-3728-1.	9-19-56	718 725	I
P-258-4	Change to Feature and	3-5-57	747	I
P-258-5	Category Switch Specs.	12-20-57	802	I
P-258-6	Concurrence on Change to Feature and Category Switch Specifications.	6-14-57	759	I
P-258-7	Change to Feature and Category Switch Specs.	12-13-57	803	I
P-258-8	Change to Category and Display Assignment Bit Assignments for Situation Display Consoles.	11-25-57	797	I
P-258-9	Change to Feature and Category Switch Specs.	11-4-57	791	I
P-258-10	Concurrence on Change to Feature and Category Switch Specifications.	11-13-57	792	I
P-258-11	Change to Feature and	3-11-58	832	I
P-258-12	Category Switch Specs.	3-13-58	836	I
P-258-13	Change to Category and Display Bit Assignments for Situation Display Consoles.	3-11-58	833	I
P-258-15	Change to Feature and Category Switch Specs.	6-11-58	860	
P-258-16	Change to Category and Display Assignment Bit Assignments	6-6-58	861	
P-313	Temporary Deviation to Doc. 6M-3951 Operational Specs. for Situation Display in a SAGE Direction Center.	8-31-56	711	I

6M-3851-7 16

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
<u>DISPLAY SYSTEM (Cont.)</u>				
<u>Display Wiring and Interconnection Documents (Cont.)</u>				
P-346-1	Change to Digital Display Erase Slot Assignment Specs.	2-28-57	745 746	I
T-6-1	Temporary Change to Situation Display Console P-00	5-29-58	855	I
T-12-1	Temporary Change to Expansion Levels for SD Consoles I 02 and I 04.	11-14-57	793	I
T-14	Timed Button Release for Situation Display Console	3-24-58	839	A
T-14-1	Change to Timed Button Release for Situation Display Console	6-17-58	863	A
<u>Side Frames</u>				
P-156-1	Display Console Side Frames	4-14-55	253 227	I
P-156-2	Suppl.2 to Display Console Side Frames	6-8-55	270 264	I
P-355	Manual Intervention Switch Button Switches, Redesign	8-29-57	790	A
<u>Large Board Display</u>				
P-173	Proposed Specs. for Large Board Display, 6M-3439-2	6-8-55	285	I
P-173-1	Specs. for Utilizing the K&H Rapid Processing Photographic Projector System, 6M-4017	12-15-55	575	I
<u>Command Post</u>				
P-182-4	Command Post DD Desk Specs.	9-23-55	460 641	I
P-182-5	Suppl. to Command Post DD Desk Specs.	12-15-55	573	I
P-182-6	Suppl. to Command Post Digital Display Desk Specs.	5-17-56	657 655	C
P-182-7	Change to Command Post Digital Display Desk Specs.	9-13-57	777	I
P-237	Proposed Specs. for Status Boards for Command Post, 6M-3929	10-27-55	507	I

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
ASSOCIATED EQUIPMENT				
<u>Power Supplies</u>				
IM-65	Power System for XD-1 Installation	3-19-54	IBM330 IBM330 A&B	I
P-46	Spec. Change to Eliminate Acknowledge Button	8-17-54	402	I
P-51	Proposal for SDV Radar Input MCD Frame	8-31-54	403	I
P-86	Deviation from IM-65	9-21-54	401	I
P-117	Central Computer MCD Frame	4-5-55	354 353	I
P-118	Proposed Drum MCD Specs.	4-3-55	341 342	I
P-120	Proposed Specs for Output Crosstell and LRI MCD Frame	4-5-55	357 340	I
P-121	Proposed Display Console CB Frame Specs.	4-5-55	358 339	I
P-122	Display MI-WL MCD Frame	4-5-55	360 359	I
P-143	Proposal on Specs for Auxiliary Drum MCD Unit	4-29-55	313 139	I
P-190-2	Specs of Tape Power Supply Unit	6-29-55 Supersedes P-190-1	294	I
P-213	Change in Method of Sequencing	9-23-55	508	I
P-222	Proposed Expansion of Marginal Checking System for Tape Element	11-27-55	537 524	I
P-235	Proposal for Placing Spare Amplidyne in Standby Status	11-17-55	540 523	I
<u>Air Cooling</u>				
M-2660	Cooling Equipment Specs.	2-10-54		I
M-2658	Second Floor Heat Loads	2-10-54		I
P-104	Flexible Tubing for Console Connections of Equip. Cooling	11-9-54	404	I
P-277	Automatic Shutdown of Power to Display Consoles	3-15-56	631	I

6M-3851-7 18

Doc.No.	Subject	Conc.Date & Remarks	LL 6 DR	Status and/or Required Date
---------	---------	------------------------	------------	--------------------------------------

ASSOCIATED EQUIPMENT (Cont.)

Misc. Test Equipment

P-66	Test Equipment, Tools, and Furniture List for Maintenance	10-26-54	405	I
P-79	Spare Parts and Maintenance Test Equipment Storage	12-1-54	406	I
P-126	Suppl. to Test Equipment	12-20-54	770	I
P-165	Tools, and Furniture List	3-2-55	336	I
P-187	Change in Test Equipment Tools, and Furniture	4-27-55	347	I
P-203	Suppl. to Test Equipment, Tools and Furniture List	7-13-55	407	I
P-227-3	Concurrence on Permanent Deferral of Installation of Proposal, P-227-2	8-17-56	700	
P-227-4	Satellite Control Cable Assembly	5-15-58	845	A
P-241	Suppl. to Test Equipment,	3-23-55	847	I
P-244	Tools, and Furniture List	5-20-55	849	I
P-264	Additional Test Equipment	1-19-56	589	I
P-295-3	Cancellation of P-295-2, "Display Console Tester."	6-20-58	864	C
P-342	Proposed Probe System Specs.	2-15-57	742	I

Spare Parts

P-109	Prototype System Spare Parts Policy Revision	12-1-54	408	I
P-223	Spare Parts Policy Revision	10-11-55	852	I

GENERAL

Building

H-152	Scope of IBM Responsibility at AFCRC Bldg. F	Approved by Lincoln, ltr. to A.E.Quick by R.R.Everett dated 11-9-54.	IBM724	I
P-115-2	First Floor Layout of Bldg. F - Drawing E-76135	12-20-56	739	A

APPROVED FOR PUBLIC RELEASE. CASE 06-1104.

6M-3851-7 19

Doc.No.	Subject	Conc.Date & Remarks	LL 6DR	Status and/or Required Date
GENERAL (Cont.)				
<u>Building (Cont.)</u>				
P-115-3	Change to XD-1 Floor Plan	7-1-57	776 780	Oct. 58
P-115-4	Revised Layout of Maintenance Console Area, Building F	11-8-57	796	I
P-115-5	Change to XD-1 Floor Plans	11-19-57	794	May 58
P-115-6		3-12-58	830	I
P-115-7		3-11-58	831	I
P-163	Attached Sketch of Basement Layout	3-15-55	411	I
P-343	Revised Layout of MDI Room Bldg. F at Lexington	2-12-57	749	A
P-250-2	Change to Second Floor Layout, Building F.	6-12-58	857	A
E-58233-14	Second Flr. Layout, Bldg. F	6-12-57		I
		Refer to P-343, P-349, & P-250-1		
<u>Operational Furniture</u>				
P-78	6M-3218 Operational Furniture for AN/FSQ-7	12-14-54		I
6M-3055-1	Types and Locations of Clocks, Building F	12-3-54		I



R. H. Gerhardt

RHG:mf
Attachment: Appendix I

6M-3851-7

APPENDIX I

Cross reference of specification documents listed to page numbers which specify AN/FSQ-7, XD-1.

<u>Document</u>	<u>Section</u>	<u>Page</u>
BP-1	Magnetic Tape System	2
BP-2	Phone Line Recorder	7
BP-20	GFI Mapper Counter Frame	7
H-87	Card Reader Specifications	7
H-96	Card Reader Specifications	7
H-106	Order Code	3
H-134	Order Code	3
H-139A	Display Consoles	13
H-152	Building	18
IM-64	General Changes to Central Computer	6
IM-65	Power Supplies	17
IM-68	Manual Inputs Frame	6
IM-72	Area Discriminator	11
IM-77	Output Frame	10
IM-78	Area Discriminator	11
IM-79	Test Memory	1
IM-88	Memory	4
M-2658	Air Cooling	17
M-2660	Air Cooling	17
M-2697	Output Frame	10
M-2848-1	Bomarc	10
M-2863	Output Frame	10
M-2877	Display System	11
M-2877,C1	Display System	11
P-5	General Changes to Central Computer	6
P-6	Maintenance Console	1
P-7	Card Machines	5
P-10	Selection Control Frame	4
P-13	Warning Lights	7
P-14	Crossteling Input	8
P-17	Magnetic Tape System	2
P-31	Output Frame	10
P-32	Selection Control Frame	4

6M-3851-7

<u>Document</u>	<u>Section</u>	<u>Page</u>
P-33	Magnetic Tape System	2
P-34	Warning Lights	7
P-36-1	Display Consoles	13
P-36-2	Display Consoles	13
P-36-3	Display Consoles	13
P-36-4	Display Consoles	13
P-36-5	Display Consoles	13
P-36-6	Display Consoles	13
P-36-7	Display Consoles	13
P-36-8	Display Consoles	13
P-36-10	Display Consoles	13
P-36-11	Display Consoles	13
P-37	Manual Inputs Frame	6
P-43	Output Frame	10
P-46	Power Supplies	17
P-47	LRI Frame	9
P-47-1	LRI Frame	9
P-48-1	Display System	11
P-49	Warning Lights	7
P-51	Power Supplies	17
P-52	Output Frame	10
P-52-1	Output Frame	10
P-52-2	Output Frame	10
P-54	GFI Consoles	7
P-59	Instruction Control Frame	2
P-60	Selection Control Frame	4
P-63	Maintenance Console	1
P-66	Misc. Test Equipment	18
P-72	Telephone Maint. Intercom System	5
P-73	Output Frame	10
P-75	Crosstopping Input	8
P-77	Display System	12
P-78	Operational Furniture	19
P-79	Misc. Test Equipment	18
P-81	Telephone Maint. Intercom System	5
P-86	Power Supplies	17
P-104	Air Cooling	17
P-106-1	Instruction Control Frame	2
P-109	Spare Parts	18

6M-3851-7

<u>Document</u>	<u>Section</u>	<u>Page</u>
P-113	Instruction Control Frame	2
P-113-1	Instruction Control Frame	2
P-115-2	Building	18
P-115-3	Building	19
P-115-4	Building	19
P-115-5	Building	19
P-115-6	Building	19
P-115-7	Building	19
P-117	Power Supplies	17
P-118	Power Supplies	17
P-120	Power Supplies	17
P-121	Power Supplies	17
P-122	Power Supplies	17
P-124	LRI Frame	9
P-126	Misc. Test Equipment	18
P-127-1	Auxiliary Console	14
P-127-2	Auxiliary Console	14
P-127-3	Auxiliary Console	14
P-127-4	Auxiliary Console	14
P-127-5	Auxiliary Console	14
P-127-6	Auxiliary Console	14
P-127-7	Auxiliary Console	14
P-132	Program Element	1
P-134-1	Maintenance Console	1
P-138	GFI Consoles	7
P-138-1	GFI Consoles	7
P-138-2	GFI Consoles	7
P-139	Display System	12
P-139-1	Display System	12
P-142-1	Drum System	6
P-142-2	Drum System	6
P-142-3	Drum System	6
P-142-4	Drum System	6
P-142-5	Drum System	6
P-143	Power Supplies	17
P-149-1	Selection Control Frame	4
P-150-1	LRI Frame	9
P-151	Display System	12
P-154	Telephone Maint. Intercom System	5

6M-3851-7

<u>Document</u>	<u>Section</u>	<u>Page</u>
P-156-1	Side Frames	16
P-156-2	Side Frames	16
P-163	Building	19
P-164-1	Magnetic Tape System	2
P-165	Misc. Test Equipment	18
P-167	Order Code	3
P-170	Program Element	1
P-171	Program Element	1
P-173	Large Board Display	16
P-173-1	Large Board Display	16
P-177	Magnetic Tape System	2
P-177-1	Magnetic Tape System	2
P-178	Maintenance Console	1
P-180	Output Frame	11
P-180-1	Output Frame	11
P-181	Card Machines	5
P-182-4	Command Post	16
P-182-5	Command Post	16
P-182-6	Command Post	16
P-182-7	Command Post	16
P-183	General Changes to Central Computer	6
P-185-1	Order Code	3
P-187	Misc. Test Equipment	18
P-188-6	GFI Consoles	7
P-189	LRI Monitor Specifications	9
P-189-4	LRI Monitor Specifications	9
P-189-5	LRI Monitor Specifications	9
P-190-2	Power Supplies	17
P-191	Output Frame	11
P-192-3	General Changes to Central Computer	6
P-192-6	General Changes to Central Computer	6
P-193	Card Reader Specifications	7
P-194	Card Machines	5
P-194-1	Card Machines	5
P-197	Maintenance Consoles	1
P-199	Crosstelling Input	8
P-199-1	Crosstelling Input	8
P-199-2	Crosstelling Input	8
P-200-1	Selection Control Frame	4

6M-3851-7

<u>Document</u>	<u>Section</u>	<u>Page</u>
P-202	LRI Frame	9
P-203	Misc. Test Equipment	18
P-205-1	Display System	12
P-207-4	Display System	12
P-207-5	Display System	12
P-207-6	Display System	12
P-207-7	Display System	12
P-207-8	Display System	12
P-207-9	Display System	12
P-207-10	Display System	12
P-207-11	Display System	12
P-207-12	Display System	12
P-207-13	Display System	12
P-208	Display System	12
P-209	Display System	12
P-209-1	Display System	12
P-213	Power Supplies	17
P-214	Display System	12
P-214-1	Display System	12
P-216-3	Input & Output Converters	10
P-218-2	Input & Output Converters	10
P-220-4	Test Pattern Generator	8
P-220-6	Test Pattern Generator	8
P-220-7	Test Pattern Generator	8
P-222	Power Supplies	17
P-223	Spare Parts	18
P-227-3	Misc. Test Equipment	18
P-227-4	Misc. Test Equipment	18
P-229-2	LRI Frame	9
P-230-1	LRI Frame	9
P-233	LRI Monitor Specifications	10
P-233-1	LRI Monitor Specifications	10
P-234	Magnetic Tape System	2
P-235	Power Supplies	17
P-236	Output Frame	11
P-237	Command Post	16
P-238	Display System	13
P-240	Maintenance Console	1
P-241	Misc. Test Equipment	18

6M-3851-7

<u>Document</u>	<u>Section</u>	<u>Page</u>
P-243	Display Consoles	14
P-244	Misc. Test Equipment	18
P-246	Memory	4
P-248	General Changes to Central Computer	6
P-248-1	General Changes to Central Computer	6
P-250-2	Building	19
P-255	Maintenance Console	1
P-256	Display System	13
P-258-3	Display Wiring & Intercon.Documents	15
P-258-4	Display Wiring & Intercon.Documents	15
P-258-5	Display Wiring & Intercon.Documents	15
P-258-6	Display Wiring & Intercon.Documents	15
P-258-7	Display Wiring & Intercon.Documents	15
P-258-8	Display Wiring & Intercon.Documents	15
P-258-9	Display Wiring & Intercon.Documents	15
P-258-10	Display Wiring & Intercon. Documents	15
P-258-11	Display Wiring & Intercon. Documents	15
P-258-12	Display Wiring & Intercon Documents	15
P-258-13	Display Wiring & Intercon. Documents	15
P-258-15	Display Wiring & Intercon. Documents	15
P-258-16	Display Wiring & Intercon. Documents	15
P-259	Output Frame	11
P-261	Display System	13
P-264	Misc. Test Equipment	18
P-265-1	Order Code	3
P-267	Telephone Maint. Intercom System	5
P-270	Display Consoles	14
P-271	Display System	13
P-275	LRI Frame	9
P-277	Air Cooling	17
P-278	Order Code	3
P-278-1	Order Code	3
P-279	Order Code	3
P-283-1	Test Pattern Generator	8
P-285-1	Test Pattern Generator	8
P-286	Display System	13
P-287-3	Test Pattern Generator	8
P-290	LRI Frame	9
P-291	Crosstelling Input	8

6M-3851-7

<u>Document</u>	<u>Section</u>	<u>Page</u>
P-293	Output Frame	11
P-295-3	Misc. Test Equipment	18
P-299	Magnetic Tape System	2
P-301	LRI Frame	9
P-302	Output Frame	11
P-303-1	GFI Consoles	7
P-304-3	GFI Mapper Counter Frame	8
P-304-3	LRI Frame	9
P-305-1	Test Console	9
P-306	Drum System	6
P-313	Display Wiring & Intercon.Documents	15
P-324	Memory	4
P-324-1	Memory	4
P-325-1	Test Pattern Generator	8
P-327	Instruction Control Frame	2
P-327	Order Code	3
P-327	Memory	4
P-327	Selection Control Frame	4
P-327	Arithmetic Element	5
P-327	Telephone Maintenance Intercom System	5
P-327	Program Element	1
P-327-1	Instruction Control Frame	2
P-327-1	Order Code	3
P-327-1	Memory	4
P-327-1	Selection Control Frame	4
P-327-1	Arithmetic Element	5
P-327-1	Telephone Maintenance Intercom System	5
P-327-1	Program Element	1
P-329-1	Arithmetic Element	5
P-339	GFI Mapper Counter Frame	8
P-339	Crosstalling Input	8
P-339	LRI Frame	9
P-341	Display Consoles	14
P-341-1	Display Consoles	14
P-342	Misc. Test Equipment	18
P-343	Building	19
P-344	Output Frame	11
P-346-1	Display Wiring & Intercon.Documents	16
P-348	Order Code	3

6M-3851-7

<u>Documents</u>	<u>Section</u>	<u>Page</u>
P-350	Maintenance Console	1
P-355	Auxiliary Console	14
P-356	Output Frame	11
P-356	Order Code	3
P-359	Display System	13
P-361	Output Frame	11
P-362	Display System	13
P-364	Drum System	6
P-365	Instruction Control Frame	2
P-365	Order Code	3
P-365	Selection Control Frame	4
T-1	Display Consoles	14
T-4	Auxiliar Consoles	14
T-6-1	Display Wiring & Intercon.Documents	16
T-11	Display Consoles	14
T-12-1	Display Wiring & Intercon.Documents	16
T-13	Order Code	3
T-13-1	Order Code	3
T-14	Display Wiring & Intercon.Documents	16
T-14-1	Display Wiring & Intercon.Documents	16
T-17	Display Consoles	14
T-20	Display System	12
TR-7	Order Code	3
TR-13	Card Reader Specifications	7
TR-14	Instruction Control Frame	2
TR-15	Instruction Control Frame	2
TR-17	Maintenance Console	1
TR-18	Program Element	1
TR-24	Selection Control Frame	4
TR-25	Card Machines	5
TR-27	Arithmetic Element	5
6M-3055-1	Operational Furniture	19
6M-3728-1	Display Wiring & Intercon.Doc.	15
6M-3728-1, C1	Display Wiring & Intercon.Doc.	15
6M-3728-1, C2	Display Wiring & Intercon.Doc.	15
6M-4216	Display System	13
6M-4216, S1	Display System	13
6M-4216, S2	Display System	13
E-58233-14	Building	19