

Memorandum 6M-3851-3

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

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

To: J. A. O'Brien

From: J. Giordano

Date: 27 August 1956

Approved: J. D. Crane
J. D. Crane

Abstract: The Master Reference List is a compilation for all the currently active technical specification documents which have received Lincoln-IBM concurrence for AN/FSQ-7, XD-1 design. This list, 6M-3851-3, is a revision of the previous list, 6M-3851-2 and its supplement, and has been brought up to date as of 17 August 1956 inclusive of Concurrence Meeting #69. Also indicated is the status and/or desired installation date of these changes.



This list is a compilation for all currently active technical specification documents as of 17 August 1956 inclusive of Concurrence Meeting #69.

This memorandum lists documents that form the equipment specifications for XD-1. For each document the following information is listed:

1. IBM and/or MIT document numbers;
2. Title, author, and date;
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 indicating the date when the particular document is to have been implemented.
 1. Original Specifications and/or Installed currently as part of the AN/FSQ-7 (XD-1) System;
 2. A Required Installation date;
 3. As Soon As Possible i.e. to be installed in XD-1 as soon as IBM is prepared to include the change.

JG;aar

Signed


J. Giordano

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AN/FSQ-7 (XD-1) SPECIFICATIONS

CENTRAL COMPUTER

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Maintenance Console</u>				
TR-17	"Maintenance Console", by R. A. Rocket, dated 24 February 1954.	Released 12 March 1954	IBM 441	Installed
P-6	"Reset Lines", by W. S. Squire, dated 6 May 1954.	Concurred 1 June 1954		Installed
P-63	IBM Drawings, "Maintenance Console Panel Design" Drawings: 539-167 - 25 June 1954 301-9230 - 30 June 1954	Concurred 27 October 1954. Reference Drawings		
P-134-1	Concurrence on the permanent deferment of the installation of P-134.	Concurred 17 August 1956		
P-178	"Deletion of Preset Status Switch for Marginal Checking", by P. J. Sharkett, dated 24 March 1955.	Concurred 9 April 1955	DR 344**	
P-197	" Mod. for Maintenance Console Audio Amplifier", by W. J. Canty, dated 24 May 1955.	Concurred 13 July 1955	DR 367**	Installed
P-240	"Proposal for the Adding of switches to the Maintenance Console", by P. Longo, dated 10 November 1955.	Concurred 15 November 1955	DR 520**	As soon as Possible.
P-255	"Location of Telephone Units in the Maintenance Console of XD-1", by P. Longo, dated 9 January 1956.	Concurred 12 January 1956	DR 587**	Installed

* Indicates Document

** Indicates Concurrence Letter

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CENTRAL COMPUTER (Continued)

<u>Document Number</u>	<u>Title</u>	<u>Remarks</u>	<u>LL 6DR#</u>	<u>Statu and/or Required Date</u>
<u>Program Element</u>				
TR-18	"Program Element", by R. R. Martin, dated 2 March 1954.	Released 8 February 1954	IBM 425	Installed
P-132	"Removal of Index Registers from the 'Control Clear' Line ", by N. H. Decker, dated 6 January 1955.	Concurred 19 January 1955	DR 311* 312**	Installed
P-170	"Addition of 2 Index Registers", by P. Longo, dated 25 February 1955.	Concurred 6 April 1955	DR 338**	Installed
P-171	"Proposed Change for the Clock Registers", by P. Longo, dated 25 February 1955.	Concurred 7 April 1955	DR 337*	Installed
<u>Test Memory</u>				
IM-79	"Proposal for Test Memory", by J. P. Murphy, dated 26 January 1954.	Released 17 February 1954	IBM 398	Installed
<u>Instruction Control Frame</u>				
TR-14	"Specifications of Instruction Control Frame", by H. J. Kurkjian, dated 26 February 1954.	Released 1 February 1954	IBM 416	Installed
TR-15	"Instruction Control Frame", by S. L. Thompson, dated 10 February 1954.	Released 1 February 1954	IBM 493	Installed
P-59	"Cyclic Program Control", by R. Douglas, dated 1 September 1954.	Concurred 22 December 1954	DR 317*	Installed
P-106-1	Concurrence on the permanent deferment of the installation of P-106.	Concurred 17 August 1956		

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CENTRAL COMPUTER (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Instruction Control Frame (Continued)</u>				
P-113	"Lock Address Counter Modifications", by A. Gayle, dated 22 December 1954.	Concurred 22 December 1954	DR 319* & **	Installed
P-113-1	"Unlocking of the IO Address Counter", by P. Longo, dated 7 November 1955.	Concurred 8 December 1955	DR 548* 568**	Installed
<u>Magnetic Tape System</u>				
BP-1	"Magnetic Tape Proposal", by D. C. Hallock, dated 11 May 1954.	Concurred 25 May 1954	DR 369**	Installed
P-17	"Magnetic Tape Bit Density", by D. C. Hallock, dated 17 June 1954.	Concurred 29 June 1954	DR 370**	Installed
P-33	"Tape End of Files Proposal", by D. C. Hallock, dated 8 July 1954.	Concurred 8 July 1954	DR 371** & *	Installed
P-164	"Change in Rewind Specs. of M.T. Proposal", by F. A. Glenn, dated 28 February 1955.	Concurred 2 March 1955	DR 335**	Installed
P-164-1	"Change to Magnetic Tape Specifications for XD-1 and XD-2", by R. C. Irwin, dated 27 June 1956.	Concurred 2 August 1956	DR 689* 693**	Clarification to BP-1.
P-177	"Magnetic Tape and Reels", by R. A. Imm, dated 9 March 1955.	Concurred 30 March 1955	DR 174* 343**	Installed
P-177-1	"Magnetic Tape and Reels for XD-1", by R. C. Marden, dated 29 December 1955.	Concurred 29 December 1955	DR 585* & **	90 1 May 1956 80 1 June 1956 50 1 July 1956

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CENTRAL COMPUTER (Continued)

<u>Document Number</u>	<u>Title</u>	<u>Remarks</u>	<u>LL 6DR#</u>	<u>Status and/or Required Date</u>
<u>Magnetic Tape System (Continued)</u>				
P-234	"Proposal for the Addition of Two More Tape Drive Units to XD-1", by P. Longo, dated 3 November 1955.	Concurred 17 November 1955. One installed.	DR 522* 539**	Other needed as soon as possible.
P-299	"Proposal to Unlock Tape Drive Select Switches on XD-1", by R. C. Irwin, dated 22 May 1956.	Concurred 7 June 1956	DR 667* 674**	Installed
<u>Order Code</u>				
TR-7	"Programmer's Reference Manual", (Revised 22 December 1953), by C. E. Walston.	Released 23 December 1953	IBM 216A	Installed
H-106	"Standard Instruction Abbreviations", by W. H. Thomas, dated 11 February 1954.	Concurred 11 February 1954	IBM 343	Installed
H-134	"Sense, Select, Select Drums and Operate Codes", by H. L. Kurkjian, dated 21 April 1954.	Concurred 11 February 1954	IBM 436	Installed
P-167	"Proposed Change for Addition of an Operate Unit Instr. (Operate 36) and for a Change in Nomenclature for (Operate 35)", by P. Longo, dated 25 February 1955.	Concurred 30 March 1955	DR 332* 333**	Installed
P-185-1	"PERSELBSN Codes", by N. H. Decker, dated 5 July 1955.	Concurred 13 July 1955	DR 372* 373**	Installed
P-265-1	"Testing of the Clock Register for XD-1", by R. C. Irwin, dated 16 April 1956.	Concurred 3 May 1956	DR 645* 660**	September, 1957

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CENTRAL COMPUTER (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Order Code</u> (Continued)				
P-278	"Proposal for the Addition of an Operate Instruction to XD-1 to Control Parity Checking When Reading From Tapes or Drums", dated 1 March 1956.	Concurred 1 March 1956	DR 633* & **	Installed
P-279	"Proposed Addition of Operate Instruction 30 Operate Raydist to XD-1", by N. H. Decker, dated 5 March 1956.	Concurred 15 March 1956	DR 634**	Installed
<u>Memory</u>				
IM-88	"Performance Specifications for the AN/FSQ-7 Memory Element", by W. H. Papiian and W. M. Wittenberg.	Released 9 April 1954	IBM 441	Installed
P-246	"Revised Performance Specifications for the AN/FSQ-7 Memory Element", by F. P. Handley, dated 3 November 1955.	Concurred 8 December 1955	DR 565* 566**	As soon as possible.
<u>Selection Control Frame</u>				
TR-24	"Specification of the Input-Output Control Frame", by H. J. Kurkjian, dated 8 March 1956.	Released 23 April 1954	IBM 483	Installed
P-10	"Deletion of Drum Disconnect or Parity Alarm at Selection Control Frame"	Concurred 8 June 1954	DR 374**	Installed
P-32	"Proposed Changes to the Selection and IO Control Element for Output System Alarms", by W. S. Squire, dated 7 July 1954.	Concurred 15 July 1954	DR 376**	Installed

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CENTRAL COMPUTER (Continued)

Document Number	Title	Remarks	LL 6DR#	Statu. and/or Required Date
<u>Selection Control Frame</u> (Continued)				
P-60	"Proposal for 'Operate' Instruction to Turn Off IO Interlock", by R. McGill, dated 6 October 1954.	Concurred 22 December 1954	DR 375**	Installed
P-149-1	"Change in the Selection and I/O Control Element Specifications (Sense Display Interrogation)", by R. S. Trevison and W. S. Squire, dated 13 July 1955.	Concurred 13 July 1955	DR 292* 293**	Installed
P-200-1	"Change in Selection Control", by J. J. Coughlin, dated 13 July 1955.	Concurred 23 September 1955		December, 1957
<u>Arithmetic Element</u>				
TR-27	"Specifications of the Arithmetic Element", by C. P. Baccari, dated 14 April 1954.	Concurred 6 May 1954 Released 3 June 1954	IBM 476	Installed
P-91	"XD-1 Parity Count and Parity Check Controls", by H. Kurkjian, dated 20 September 1954.	Concurred by letter to J. F. Mills dated 22 December 1954.	DR 320**	Installed
<u>Card Machines</u>				
TR-25	"Card Machine System Operation", by F. Glenn, R. C. Castle and R. A. Imm, dated 9 July 1954.	Concurred 4 April 1954	IBM 574	Installed
P-7	"Change in Card Machine Specifications", by R. J. Cypser, dated 15 June 1954.	Concurred 15 June 1954	DR 377**	Installed
P-175	"Revision of the 723 Punch", by R. J. Paddock, dated 31 March 1955.	Concurred 23 September 1955	DR 459**	Installed

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CENTRAL COMPUTER (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Card Machines</u> (Continued)				
P-181	"Proposed Changes in the Card Machines", by R. W. Bottomley and S. L. Thompson.	Concurred 19 May 1955	DR 271* 643**	Installed
P-194	"Standby Card Machines for XD-1", by R. J. Paddock, dated 21 June 1955.	Concurred 23 June 1955		Installed
P-194-1	"Cancel Concurrence Document P-194", by R. J. Paddock, dated 18 October 1955.	Concurred 27 October 1955. Deletion of Standby Printer and Punch.	DR 498**	
<u>Telephone Maintenance Intercom System</u>				
P-72	"Proposed Prototype Maintenance Inter- communications System Specifications", by A. Gayle, dated 30 September 1954.	Released 31 December 1954	DR 379**	Installed
P-81	"Modifications of XD-1 Maintenance Intercom Specifications", by H. J. Kirshner, dated 18 December 1954.	Concurred 18 December 1954	DR 380**	Installed
P-154	6M-3000. Supplement 3, 6, and 10, by H. Kirshner.	Concurred 25 March 1955		Installed
P-267	"Phone at the IBM Maintenance Super- visor's Desk in Building F at Lexington, by P. Longo, dated 1 February 1956.	Concurred 1 February 1956	DR 609**	Installed

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CENTRAL COMPUTER (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>General Changes to Central Computer</u>				
IM-64	"Marginal Checking System for XD-1", by L. R. Walters, dated 21 January 1954.	Released 9 February 1954	IBM 307	Installed
P-5	"Calculator Control of Marginal Check- ing", by P. Sharkitt, dated 27 April 1954.	Concurred 8 June 1954	DR 381*	Installed
P-183	"Proposed Changes to CC by the Addition of an AXD System", by P. Longo, dated 20 April 1955.	Concurred 3 May 1955	DR 350* 351**	Installed
P-192-3	Concurrence on the permanent deferment of the installation of the proposals, P-192.	Concurred 17 August 1956.		
PS-248	"Proposal for the Addition of an 'Inactivity Alarm' to XD-1", by P. Longo, dated 21 December 1955.	Concurred 29 December 1955.	DR 583* 584**	Installed

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DRUM SYSTEM

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
P-142-1	"IM-70-2 Drum System Specifications", by N. H. Decker, dated 24 May 1955.	Supersedes all Previous Documents. Concurred 23 June 1955.	DR 382* 686**	Installed
P-142-2	"Changes to Drum System Specifications", by P. Longo, dated 28 September 1955.	Concurred 11 October 1955		Installed
P-142-3	"Changes to Drum System Specifications", by P. Longo, dated 10 October 1955.	Concurred 14 October 1955		Installed
P-142-4	"Changes to Drum System Specifications", by P. Longo, dated 17 October 1955.	Concurred 24 October 1955		Installed

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INPUT SYSTEM

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Manual Inputs</u>				
<u>Manual Inputs Frame</u>				
IM-68	"The Manual Inputs System", by W. M. McMillan, dated 25 January 1954.	Concurred 26 January 1954 Released 2 February 1954	IBM 339	Installed
TR-13	"Modified 026", by R. W. Wilser, dated 26 February 1954.	Concurred 26 January 1954 Released 2 February 1954	IBM 369	Installed
P-37	"Power Source for Keyboard Inputs", by W. S. Squire, dated 12 July 1954.	Concurred 15 July 1954	DR 383**	Installed
<u>Card Reader Specifications</u>				
H-87	"026 Card Reader Specifications", by W. M. McMillan, dated 16 December 1953.	Concurred 29 January 1954. Released 3 February 1954.	IBM 266	Installed
H-96	"056 Card Verifier-Reader Specifications", by R. E. Wilser.	Concurred 29 January 1954 Released 3 February 1954.	IBM 301	Installed
TR-13	"Modified 026", by R. E. Wilser, dated 26 February 1954.	Concurred 26 January 1954. Released 2 February 1954.	IBM 369	Installed
P-193	".009 Card Stock for Binary Punching and Reading"	Concurred 23 June 1955	DR 303* 284**	Installed

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INPUT SYSTEM (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Warning Lights</u>				
P-13	"Proposed Specifications of the Operation of the Warning Light System", by W. S. Squire, dated 10 June 1954.	Concurred 24 June 1954	DR 386**	Installed
P-34	"New Proposal for Warning Light System", by H. J. Kurkjian, dated 2 July 1954.	Concurred 15 July 1954	DR 385**	Installed
P-49	"Warning Light Frame Specifications", by W. S. Squire, dated 23 July 1954.	Concurred 18 August 1954	DR 387**	Installed
P-69	"Concurrence Letter on Changes in the XD-1 Warning Lights Specifications", by R. P. Mayer, dated 18 November 1954.	Concurred 18 November 1954. Superseded by P-209.	DR 388**	See P-209
<u>Phone Line Recorder</u>				
BP-2	"Concurrence Request for Phone Line Data Recorder", by M. J. Raffensperger, dated 12 May 1954.	Concurred 24 May 1954	DR 384**	Installed
<u>Automatic Inputs</u>				
<u>GFI Consoles</u>				
P-54	"Modified SDV Radar Input Element Proposal for XD-1", by A. P. Arneth.	Concurred 8 July 1954	DR 389**	Installed
P-138	6M-3146-1, "Proposal for Mapping Material and Utility Holder", by M. Feldstein, dated 22 March 1955.	Concurred 22 March 1955	DR 315**	Installed

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INPUT SYSTEM (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Automatic Input (Continued)</u>				
<u>GFI Consoles (Continued)</u>				
P-138-1	"Supplement to Mapping Material Specifications", (6M-3146-1) for XD-1, by R. J. Paddock, dated 23 January 1956.	Concurred 16 February 1956	DR 622* 610**	As soon as possible.
P-138-2	"Change in Supplement to Mapping Material Specifications for XD-1", by R. W. Averyt, dated 29 June 1956.	Concurred 2 August 1956	DR 690* 692**	Clarification to P-138-1.
<u>GFI Mapper Counter Frame</u>				
BP-20	"Proposed Radar Input Counter Section", by M. J. Raffensperger, dated 18 March 1954. Drawing - 3028008	Released 30 March 1954.	DR 390*	Installed
P-188-2	"GFI Monitor Equipment for XD-1 and Production Machines", by J. J. Coughlin, dated 24 May 1955.	Concurred 7 June 1955	DR 296* 297**	To be determined at a later date.
P-188-3	"GFI Monitor Specifications", by W. S. Squire	Concurred 13 July 1955	DR 295**	
P-304-1	"LRI and GFI Site Identity Codes", dated 17 August 1956.	Concurred 17 August 1956. Supersedes P-304.	DR 685	1 September 1956
<u>Test Pattern Generator</u>				
P-220-3	"Test Pattern Generator Specifications for XD-1", by J. J. Coughlin, dated 22 February 1956.	Concurred 29 March 1956	DR 636* 642**	December, 1957

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INPUT SYSTEM (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Automatic Inputs</u> (Continued)				
<u>Crosstelling Input</u>				
P-14	"Crosstelling Input Performance Specifications for AN/FSQ-7 (XD-1) and (XD-2)", by P. W. Rocco, dated 4 June 1954.	Concurred 8 July 1954	DR 391**	Installed
P-75	"Change to Crosstelling Input Specifications", by W. S. Squire, dated 13 December 1954.	Concurred 13 December 1954	DR 392**	Installed
P-199	"Change in Crosstell System", by J. J. Coughlin, dated 7 July 1955.	Concurred 20 September 1955	DR 424* 428**	August, 1957
P-199-1	"Crosstell Parity Disable for XD-1, XD-2", by J. J. Coughlin, dated 30 September 1955.	Concurred 25 October 1955	DR 479* 506**	August, 1957
P-199-2	"Crosstell Parity Disable for XD-1 and XD-2", by R. W. Averyt, dated 25 May 1956.	Concurred 14 June 1956	DR 670* 676**	August, 1957
P-291	"XT Word Changes for XD-1", by J. J. Coughlin, dated 13 February 1956.	Concurred 24 April 1956	DR 651* 648**	Installed
<u>IRI Frame</u>				
P-47	"Revised Performance Specifications for Miscellaneous Radar Input", by W. S. Squire, dated 13 July 1954.	Concurred 17 August 1954 Released 24 September 1954	DR 393*	Installed

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INPUT SYSTEM (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Automatic Inputs</u> (Continued)				
<u>LRI Frame</u> (Continued)				
P-124	"Changes to LRI and Output System", by R. C. Marden, dated 24 March 1955. (Affects P-147 and P-52)	Concurred 24 March 1955	DR 394* &**	Installed
P-150	"Proposal for Modifications of XD-1 LRI Equipment to Provide for Acceptance of Phone-Line Data from South Truro", by H. J. White, dated 8 April 1955. (Added Scope)	Concurred 15 April 1955	DR 331**	Installed
P-202	"Change to the LRI System", by J. J. Coughlin, dated 7 July 1955.	Concurred 20 September 1955	DR 425* 429**	December, 1957
P-229-1	"LRI Parity Rate Counter", by R. J. Paddock and W. J. Canty, dated 11 November 1955.	Concurred 2 December 1955	DR 536* 538**	Installed
P-230	"LRI Parity Rate Alarm", by R. J. Paddock and W. J. Canty.	Concurred 2 December 1955	DR 478* 549**	Installed
P-275	"Changes in the LRI Frame for XD-1", by R. W. Averyt, dated 21 February 1956.	Concurred 15 March 1956	DR 626* 630**	As soon as possible.
P-290	"LRI Word Changes for XD-1", by J. J. Coughlin, dated 13 February 1956.	Concurred 24 April 1956	DR 650* 647**	Installed

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INPUT SYSTEM (Continued)

Document Number	Title	Remarks	LL 6DR#	Statu. and/or Required Date
<u>Automatic Inputs (Continued)</u>				
<u>LRI Frame (Continued)</u>				
P-301	"Modification of LRI Parity Checking Circuitry for XD-1", by R. W. Averyt, dated 18 June 1956.	Concurred 28 June 1956	DR 682* 684**	As soon as possible.
P-304-1	"LRI and GFI Site Identity Codes", dated 17 August 1956.	Concurred 17 August 1956. Supersedes P-304.	DR 685**	1 September 1956.
<u>LRI Monitor Specifications</u>				
P-189	"Installation of LRI Monitor Breadboard Equipment in XD-1", by J. J. Coughlin, dated 24 August 1955.	Concurred 8 August 1955	DR 355* 356**	Installed
P-189-1	"LRI Monitor for XD-1", by P. Longo, dated 15 February 1956.	Concurred 15 March	DR 628**	September, 1957
P-189-2	Change to P-189-1 "LRI Monitor for XD-1", dated 16 April 1956.	Concurred 16 April 1956	DR 644**	Corrects P-189-1
P-233	"LRI Monitor Console for XD-1", by P. Longo, dated 20 October 1955.	Concurred 20 October 1955	DR 526* & **	Installed
P-233-1	"Change LRI Monitor Consoles for XD-1", by R. W. Averyt, dated 17 May 1956.	Concurred 14 June 1956	DR 672* 675**	Clarification to P-233.

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INPUT SYSTEM (Continued)

Document Numbers	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Automatic Inputs (Continued)</u>				
<u>DDR & DDT Equipment</u>				
P-216-1	"Input and Output Converters", by J. J. Coughlin, dated 12 December 1955.	Concurred 16 February 1956	DR 601* 659**	December, 1957
P-216-2	Supplement to "Input and Output Converters for XD-1", by P. Longo, dated 15 May 1956.	Concurred 14 June 1956	DR 671* 677**	December, 1957
P-218	"Production Type DDR & DDT Equipment", by J. J. Coughlin, dated 15 September 1955.	Concurred 8 December 1955	DR 570* 571**	

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OUTPUT SYSTEM

Document Numbers	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Bomarc</u>				
M-2848-1	"Proposal for Communications between AN/FSQ-7 and F-99 (Bomarc) Bases for Weapons Control", by J. F. Jacobs and J. Arnow.	Original Specifications. Released by TIR 1-17 on 12 September 1954.		
<u>Output Frame</u>				
IM-77	"Output Storage Element", by L. H. Lee (Rewrite of "Proposed Core Vacuum Tube Output System", by H. K. Rising and R. G. Counihan).	Released 3 June 1954	IBM 466	Installed
M-2697	"Output System Performance Specifications", dated 1 March 1954.	Released 3 March 1954		Installed
M-2863	"Proposed Changes to Output System Performance Specifications", by R. C. Hopkins, dated 11 June 1954.	Concurred 21 July 1954		Installed
P-31	"Proposed Changes to the Output System Alarm Specifications", by W. S. Squire, dated 7 July 1954.	Concurred 15 July 1954	DR 395*	Installed
P-43	"Teletype Monitor Proposal Letter", by A. Gayle, dated 22 July 1954.	Concurred 13 September 1954	DR 398*	
P-52	"A Proposal for Testing the Output System with the MRI and Crosstell Input for XD-1 and XD-2", by P. W. Rocco and R. F. Murray, dated 19 August 1954.	Concurred 3 November 1954	DR 396* & **	Installed

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OUTPUT SYSTEM (Continued)

Document Numbers	Title	Remarks	LL 6DR#	Status and/or Requi. i Date
<u>Output Frame (Continued)</u>				
P-52-1	"Loop Test Specifications for XD-1 and XD-2", by R. W. Averyt, dated 24 May 1956.	Concurred 28 June 1956	DR 681* 691**	Clarification to P-52.
P-73	"Proposed Changes in the Output System Specifications M-2697", by W. S. Squire, dated 30 November 1954.	Concurred 6 December 1954		Installed
P-180	"Increase of Teletype Lines for the Output System", by R. C. Marden, dated 4 April 1956.	Concurred 14 June 1956	DR 345* 346**	Installed
P-180-1	"Increase of Teletype Lines for the Output System", by J. J. Coughlin, dated 22 August 1955.	Concurred 20 September 1955. (An increase of Teletype Lines to a Total of 25.)	DR 427** 415*	Installed
P-191	"Proposed Change to the Output Performance Specifications M-2697", by J. J. Coughlin, dated 8 June 1955.	Concurred 29 June 1955.	DR 397*	Installed
P-201	"Change in the Output System", by J. J. Coughlin, dated 12 July 1955.	Concurred 23 September 1955	DR 462** 433*	September, 1957
P-236	"Output Storage Parity Alarm Check for XD-1", by J. J. Coughlin, dated 23 October 1955.	Concurred 8 December 1955	DR 547* 567**	September, 1957
P-259	"G/G Message Rejection for XD-1", by J. J. Coughlin, dated 17 February 1956.	Concurred 15 March 1956	DR 627* 629**	Clarification to Original Specifications
P-293	"G/G Output Phone Line Message Bit Arrangement", by J. J. Coughlin, dated 15 February 1956.	Concurred 24 April 1956	DR 649* 652**	Installed

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DISPLAY SYSTEM

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Area Discriminator</u>				
IM-72	"AN/FSQ-7 Area Discriminator Specifications for XD-1 and XD-2", by R. C. Marden, including change of 3 April 1954.	Concurred 18 February 1954 Released 1 March 1954	IBM 345 378	Installed
IM-78	"Specifications for Light Gun and Area Discriminator Control and Information Signals", by W. S. Squire, dated 10 March 1954.	No Concurrence For Information Only	IBM 376	
<u>Display System</u>				
M-2877	"Specifications for AN/FSQ-7 (XD-1) Display System", by C. L. Corderman and R. S. Fallows, dated 27 July 1954.	Concurred 18 August 1954		Installed
P-77	6M-2877, Supplement 1, by R. H. Gerhardt, dated 12 November 1954.	Concurred 15 December 1954		Installed
P-139	<p>6M-2877, Supplement 2, by R. Gerhardt, dated 6 December 1954.</p> <p>6M-2877, Supplement 3, by R. Buzzard, dated 17 January 1955.</p> <p>6M-2877, Supplement 4, by R. H. Gerhardt, dated 23 January 1955.</p> <p>6M-2877, Supplement 5, by C. Corderman, dated 24 January 1955.</p>	Concurred 30 March 1955	DR 314**	Installed
P-151	6M-2877, Supplement 6, "Specifications for Automatic Camera and Control for AN/FSQ-7", by L. Sutro, dated 12 April 1955.	Concurred 8 June 1955	DR 318**	Installed

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DISPLAY SYSTEM (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Display System (Continued)</u>				
P-205-1	"Proposed Changes in Manual Input Cabling Between Consoles and Frame 28", by R. C. Marden, dated 15 August 1955.	Concurred 1 September 1955.	DR 412* & **	Installed
P-207	"XD-1 Console Equipment and Label Layouts", by H. K. Rising and R. D. Buzzard, dated 1 June 1955.	Concurred 21 July 1955 Applicable sections superseded by P-207-4.	DR 304**	Installed
P-207-1	Correction to 6M-3583-1.	Concurred 29 September 1955	DR 463**	Clarification to P-207.
P-207-2	"Change to XD-1 Console Equipment and Label Layouts", by R. C. Marden, dated 19 January 1956.	Concurred 19 January 1956	DR 591**	Clarification to P-207.
P-207-3	"Concurrence on Change to XD-1 Console Equipment and Label Layout", dated 28 June 1956.	Concurred 28 June 1956	DR 694**	Clarification to P-207.
P-207-4	XD-1 Console Equipment and Label Layout Memorandum 6M-3583-3, 6M-3584-2, 6M-3585-2, 6M-3586-2, 6M-3587-2.	Concurred 2 August 1956. Supersedes Applicable Sections of P-207.	DR 695**	As soon as possible.
P-208	"Proposed Changes in the Manual Input Interconnection Unit (Frame 28) for XD-1"	Concurred 1 September 1955	DR 361* 411**	Installed
P-209	"Proposed Warning Light Interconnection Unit for XD-1", by R. C. Marden, dated 31 August 1955.	Concurred 1 September 1955	DR 413* & **	Installed
P-209-1	"Location of Warning Light Interconnection Unit", by P. Longo, dated 20 September 1955.	Concurred 20 September 1955.	DR 426* & **	Installed

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DISPLAY SYSTEM (Continued)

Document Number	Title	Remarks	LL 6DR#	Statu and/or Required Date
<u>Display System (Continued)</u>				
P-214	"Changes in Warning Light Cabling for XD-1", by R. C. Marden and R. E. Wagner, dated 12 September 1955.	Concurrence covered in P-207.	DR 464* 465**	Installed
P-238	6M-2877, Supplement 8, "Changes to Display Specifications", dated 28 September 1955.	Concurred 14 October 1955		Installed
P-256	"Supplement to the Display System Specifications (6M-2877) for XD-1", by R. J. Paddock, dated 28 December 1955.	Concurred 12 January 1956	DR 579* 588**	1 September 1956
P-261	6M-2877, Supplement 9, "Changes to Display Specifications for XD-1", by R. H. Gerhardt, dated 26 October 1955.	Concurred 29 December 1955	DR 581**	Installed
P-271	"Supplement to the Display System Specifications (6M-2877) for XD-1", by R. J. Paddock, dated 31 January 1956.	Concurred 9 February 1956	DR 611* 608**	1 September 1956
P-286	6M-2877, Supplement 6, Addendum #1	Concurrence 9 February 1955	DR 604**	Installed
<u>Display Consoles</u>				
H-139A	"Design Specifications, Display Console for AN/FSQ-7, XD-1 and XD-2", by R. G. Mork, dated 21 June 1954.	Released 8 August 1954	DR 127*	Installed
P-36-1	Changes to H-139A, dated 21 June 1954.	Concurred September 1954	DR 399**	Installed
P-36-2	Changes to H-139A	Concurred 11 October 1955		Installed

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DISPLAY SYSTEM (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Display Consoles (Continued)</u>				
P-36-3	Concurrence on Modification of H-139A	Concurred 19 January 1956	DR 586**	Installed in one location.
P-36-7	Concurrence on the permanent deferment of the completion of the change P-36-3.	Concurred 17 August 1956		
P-36-4	"Change of the 19 Inch Charactron in the Situation Display Consoles for XD-1", by R. C. Marden, dated 19 January 1956.	Concurred 19 January 1956	DR 598**	P-14 tubes will be used to replace P-7 tubes when present P-7 supply is exhausted.
P-36-5	Changes in H-139A	Concurred 16 February 1956	DR 603**	Clarification Document.
P-243	6M-3995, "Visor for Situation Display Console", by E. L. Smiley, dated 16 November 1955.	Concurred 17 November 1955	DR 541**	Installed
P-270	"Proposed Change in the DD Filters for the XD-1 Situation and Auxiliary Display Consoles", by R. C. Marden, dated 6 February 1956.	Concurred 9 February 1956	DR 605* 606**	Installed
<u>Auxiliary Console</u>				
P-127-1	"Auxiliary Console Specifications for XD-1, XD-2 and Production Machines", by R. C. Marden and R. W. Lowrie, dated 6 April 1955.	Concurred 8 April 1955	DR 274* 262**	Installed

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DISPLAY SYSTEM (Continued)

Document Number	Title	Remarks	LL 6DR#	Statu and/or Required Date
<u>Auxiliary Console (Continued)</u>				
P-127-2	Amendments to "AN/FSQ-7 Auxiliary Console Specifications for XD-1, XD-2 and the Production Machine" dated 24 June 1955.	Concurred 11 August 1955	DR 416**	Installed
P-127-3	Change to AN/FSQ-7 Auxiliary Console Specifications for XD-1 and XD-2, and Production Machine.	Concurred 23 September 1955	DR 461* 550**	Installed in one location.
P-127-5	Concurrence on the permanent deferment of the completion of the change P-127-3.	Concurrence 17 August 1956		
<u>Side Frames</u>				
P-156-1	"Display Console Side Frames for XD-1, XD-2", by R. C. Marden and R. W. Lowrie, dated 11 April 1955.	Concurred 14 April 1955	DR 227* 253**	Installed
P-156-2	"Supplement 2 to Display Console Side Frames for XD-1", dated 6 June 1955.	Concurred 8 June 1955	DR 264* 270**	Installed
<u>Large Board Display</u>				
P-173	"Proposed Specifications for Large Board Display", 6M-3439, by R. D. Buzzard and N. T. Jones, dated 21 April 1955.	Concurred 8 June 1955	DR 285**	Installed
P-173-1	"6M-4017, Specifications for Utilizing the Kelvin & Hughes Rapid Processing Photographic Projector System"	Concurred 15 December 1955	DR 575**	Installed

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DISPLAY SYSTEM (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Command Post</u>				
P-182-4	"Command Post DD Desk Specifications for XD-1", by R. C. Marden, dated 16 September 1955.	Concurred 23 September 1955	DR 460**	Installed
P-182-5	Supplement to Command Post DD Desk Specifications", by R. C. Marden, dated 12 December 1955.	Concurred 15 December 1955	DR 573**	Installed
P-186-6	"Supplement to Command Post Digital Display Desk Specifications for XD-1", by H. P. Hempel, dated 1 May 1956.	Concurred 17 May 1956	DR 655* 657**	Clarification to P-182-5.
P-237	"6M-3929, Proposed Specifications for Status Boards for the XD-1 Command Post", by R. D. Buzzard.	Concurred 27 October 1955	DR 507**	Installed

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ASSOCIATE EQUIPMENT

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Power Supplies</u>				
IM-65	"Power System for XD-1 Installation", by P. A. Beeby and J. J. Gano, dated 26 January 1954.	Released 19 March 1954	IBM 330	Installed
P-46	"Specification Change to Eliminate the Acknowledge Button", by W. S. Squire, dated 12 August 1954.	Concurred 17 August 1954	DR 402**	Installed
P-51	"Proposal for SDV Radar Input MCD Frame for XD-1", by G. H. Halgas, dated 13 August 1954.	Concurred 31 August 1954	DR 403**	Installed
P-86	"Deviation from IM-65", by R. F. Keating, dated 14 September 1954.	Concurred 21 September 1954	DR 401**	Installed
P-117	"Central Computer MCD Frame", by N. H. Decker, dated 19 January 1955.	Concurred 5 April 1955	DR 353* 354**	Installed
P-118	"Proposed Drum MCD Specifications for the XD-1 and XD-2", by N. H. Decker, dated 11 January 1955.	Concurred 3 April 1955	DR 342* 341**	Installed
P-120	"Proposed Specifications for Output Crosstell and LRI MCD Frame", by N. H. Decker, dated 27 January 1955.	Concurred 5 April 1955	DR 340* 357**	Installed
P-121	"Proposed Display Console CB Frame Specifications for XD-1 and XD-2", by N. H. Decker, dated 10 January 1955.	Concurred 5 April 1955	DR 339* 358**	Installed

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ASSOCIATE EQUIPMENT (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Power Supplies (Continued)</u>				
P-122	"Display MI-WL MCD Frame", by N. H. Decker, dated 31 January 1955.	Concurred 5 April 1955	DR 359* 360**	Installed
P-143	"Proposal on Specifications for the Auxiliary Drum MCD Unit", by N. H. Decker, dated 3 March 1955.	Concurred 29 April 1955	DR 313** 139*	Installed
P-190-2	"Specifications of the Tape Power Supply Unit for AN/FSQ-7"	Concurred 29 June 1955 Supersedes P-190-1.	DR 294**	Installed
P-213	"Change in Method of Sequencing", by P. Longo, dated 12 September 1955.	Concurred 23 September 1955	DR 508**	September, 1957
P-222	"Proposed Expansion of the Marginal Checking System for the Tape Element", by N. H. Decker, dated 27 November 1955.	Concurred 27 November 1955	DR 529* 537**	September, 1957
P-235	"Proposal for Placing the Spare Amplidyne for XD-1 in a Standby Status", by P. Longo, dated 31 October 1955.	Concurred 17 November 1955	DR 523* 540**	As soon as possible.
<u>Air Cooling</u>				
6M-2660	"Cooling Equipment Specifications for AN/FSQ-7 (XD-1)", by W. H. Ayer, dated 1 February 1954.	Released 10 February 1954		Installed
M-2658	"Second Floor Heat Loads for XD-1", by W. H. Ayer, dated 29 January 1954.	Released 10 February		Installed

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ASSOCIATE EQUIPMENT (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Air Cooling (Continued)</u>				
P-104	"Flexible Tubing for Console Connections of the Equipment Cooling System", by H. A. Olsen, dated 29 October 1954.	Concurred 9 November 1954	DR 404**	Installed
P-277	"Automatic Shutdown of Power to Display Consoles of XD-1", by P. Longo, dated 27 February 1956.	Concurred 15 March 1956.	DR 631**	As soon as possible.
<u>Misc. Test Equipment</u>				
P-66	"Test Equipment, Tools, and Furniture List for XD-1 Maintenance", dated 26 October 1954.	Concurred 26 October 1954. Released 18 November 1954.	DR 405**	Installed
P-79	"Spare Parts and Maintenance Test Equipment Storage", by A. Gayle, dated 1 December 1954.	Concurred 1 December 1954	DR 406**	Installed
P-126	"Supplement to Test Equipment, Tools, and Furniture List", by R. Bottomley, dated 20 December 1954.	Concurred 20 December 1954.		Installed
P-165	"Supplement to the Test Equipment, Tools, and Furniture List", by R. C. Marden, dated 2 March 1955.	Concurred 2 March 1955	DR 336**	Installed
P-187	"Change in Test Equipment, Tool, and Furniture", by R. C. Marden, dated 27 April 1955.	Concurred 27 April 1955	DR 347**	Installed
P-203	"Supplement to Test Equipment, Tools, and Furniture List", by R. C. Marden.	Concurred 13 July 1955	DR 407**	Installed

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ASSOCIATE EQUIPMENT (Continued)

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
P-227-3	Concurrence on the permanent deferment of the installation of the proposal, P-227-2.	Concurred 17 August 1956		
P-241	"Supplement to the Test Equipment, Tools, and Furniture List", by R. Bottomley, dated 23 March 1955.	Concurred 23 March		Installed
P-244	"Test Equipment Supplement List for XD-1 Maintenance", by R. Bottomley, dated 17 May 1955.	Concurred 20 May 1955		Installed
P-264	Additional Test Equipment for XD-1.	Concurred 19 January 1956	DR 589**	Installed
<u>Spare Parts</u>				
P-109	"Prototype System Spare Parts Policy Revision", by N. H. Decker, dated 1 December 1954.	Concurred 1 December 1954	DR 408*	Installed
P-223	Spare Parts Policy Revision	Concurred 11 October 1955		Installed

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GENERAL

Document Number	Title	Remarks	LL 6DR#	Status and/or Required Date
<u>Building</u>				
H-152	"Scope of IBM Responsibility at AFRC Building F for XD-1", by A. E. Quick, dated 15 October 1954 and Correction dated 13 April 1955.	Approved by Lincoln, Letter to A. E. Quick, by R. R. Everett, dated 9 November 1954.		
P-115-1	First Floor Layout of Building F Drawing 5001-31007 Revision M.	Concurred 14 October 1955. Incorporates all previous Changes.	DR 447**	
P-163	"Attached Sketch of Basement Layout Building F"	Concurred 15 March 1955	DR 411**	
P-250	"Drawing E-58233-12, "Second Floor Layout Building F"	Concurred 15 December 1955	DR 574**	
<u>Operational Furniture for XD-1</u>				
P-78	6M-3218, Operational Furniture for AN/FSQ-7 (XD-1).	Concurred 14 December 1954		Installed
6M-3055-1	Types and Locations of Clocks, Building F.	Released 3 December 1954		As soon as possible.

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