

NRO APPROVED FOR
RELEASE 1 JULY 2015

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HANDLE VIA BYEMAN
CONTROL SYSTEM ONLY

PROGRAM SCHEDULE

STATUS

10 JUNE 1969

SAFSL-4B

PROGRAM CONTROL

DIRECTORATE

ROUGH DRAFT

HANDLE VIA BYEMAN
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HANDLE VIA BYEMAN
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CONTENT

1. MDAC-WD
2. GE
3. EK
4. MDAC-ED
5. T-IIIM
6. HAMILTON STANDARD
7. CHRONOLOGY OF MAJOR EVENTS
8. MOL LAUNCH SCHEDULES

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CONTRACTOR: McDONNELL DOUGLAS-WESTERN DIVISION
STATUS OF
10 June 1969

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MDAC-WD PROGRAM CONTROL

Performance

Overall performance of the tasks for WBS Areas 8101, 8103, and 8104 was satisfactory. These tasks include the effort expended for both MOL Program Integration (MPI) and the MDAC-WD associate contractor activity. SAFSL Exhibits 21002 and 31002, "Schedule Control System" provided guidance for these tasks. The MPI effort averaged approximately 12 men and the associate contractor manpower averaged approximately 24 men in support of the PERT/Time and schedules activities.

CDRL Submittals

The data items listed below were submitted by MDAC-WD from the date indicated for the first submission through 10 June 1969. All submittals were acceptable.

WBS 8101

<u>Sequence No.</u>	<u>Description</u>	<u>Submission Cycle</u>	<u>First Submission</u>
44	Assoc. Part of MOL Integ. Schedule (Internal Delivery from Assoc. TOMPI)	Monthly	10 Oct 66

WBS 8103

<u>Sequence No.</u>	<u>Description</u>	<u>Submission Cycle</u>	<u>First Submission</u>
20	Red Flag Rpt	As Req	None
21	Problem Analysis Rpt	Bi-wkly	22 Oct 66
24	Detail PERT Act. Rpt	Qrtly, as req	1st PERT cycle
25	Summary PERT Act. Rpt	Bi-wkly	21 Oct 66
27	Summary PERT Event Rpt	Bi-wkly	21 Oct 66
34	Detail PERT Network	Qrtly, as req	21 Sep 66
35	Summary PERT Network	Bi-wkly	21 Oct 66
38	Topical Graphics/Shredouts	Submit 4 times	None
42	Summary Event Dictionary	Bi-wkly	4 Nov 66
45	Simulation Rpt	Annly	None

WBS 8104

<u>Sequence No.</u>	<u>Description</u>	<u>Submission Cycle</u>	<u>First Submission</u>
22	Integ Problem Anal Rpt	Bi-wkly	28 Oct 66
26	Integ Summary PERT Act Rpt	Bi-wkly	26 Oct 66

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WBS 8104 (Cont)

<u>Sequence No.</u>	<u>Description</u>	<u>Submission Cycle</u>	<u>First Submission</u>
28	Integ Summary PERT Event Rpt	Bi-wkly	26 Oct 66
29	AFPMN PERT Event Rpt	Bi-wkly	26 Oct 66
36	AFPMN PERT Network	Bi-wkly	26 Oct 66
37	MDAC-ED, GA EK PERT Networks (Converted from Schedules)	Bi-wkly	16 Jan 67
43	MOL Sys. Integ Schedule (Overt)	Mthly	10 Oct 66
44	MOL Sys. Integ Schedule	Mthly	10 Oct 66
46	Simulation Rpt	Annly	As Req (Twice)
47	Integ Interface List	Bi-wkly	16 Jan 67

Products on non-Dorian DD 1423:

WBS 8101

<u>Sequence No.</u>	<u>Description</u>	<u>Submission Cycle</u>	<u>First Submission</u>
B226	Master Schedule	Monthly	4 Nov 68

WBS 8103

<u>Sequence No.</u>	<u>Description</u>	<u>Submission Cycle</u>	<u>First Submission</u>
B214	Red Flag Rpt	As Req	None
B215	AFSC Form 30 'Pert Input' (Computer Card Deck)	Bi-wkly	21 Sep 66
B228	PERT Networks (Detail)	As Req	23 Sep 66
B229	Topical Graphics/Shredouts	As Req	None Required

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STATUS OF MDAC-WD EFFORT AS OF 10 JUNE 1969

I. AVE DESIGN FABRICATION AND TEST

1. Design Engineering - 35% (Much of the Design effort is further defined on subsequent items) 35% Based on Design effort required to complete Program and 70% based on Design effort required to reevaluate Program.
2. IM Development Fixture - 50% assembly had been completed and development of wiring and piping was started - 15%.
3. MM FWD and AFT Sections - 15% shipments had been on schedule, however, rework to the "Fourth Mode" specification was necessary on two delivered articles.
4. IM Substitute Structures and Interface Hardware - 45% these items have been on schedule.
5. EDCTU Assembly and Installation - 65% "Power On" has been predicted as being 13 weeks late. Testing had not started at the System level.
6. AVE - 5% with some subassembly started on Flight-2. Tooling and manufacturing accounts for most of this activity.
7. IM and MM Static Test - 30% at the subcomponent levels and support to other A/C.
8. IM and MM Dynamic Test - 8%
9. AVE Development Tests - 35% subsystem testing only.
10. AVE Qualification Tests - 10% component levels and subcontractor testing.
11. EC/LS - 15% Facilities and planning; very little AVE Assembly
12. MSK Effort - 48%

II. AGE

1. AGE - Huntington Beach - 20%

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2. AGE - SACTO - 15% This item has been behind schedule; as much as 4 to 5 months.

3. AGE-VAFB - 20%

III. SIMULATION AND TRAINING

1. Mission Simulator - 70% This item was in final installation and checkout at Huntington Beach. Training was in a very preliminary phase.

IV. SOFTWARE

1. Software - 20% Delivered MOL TOL Compiler.

V. SITE ACTIVATION

1. Site Activation (VAFB) - 1%

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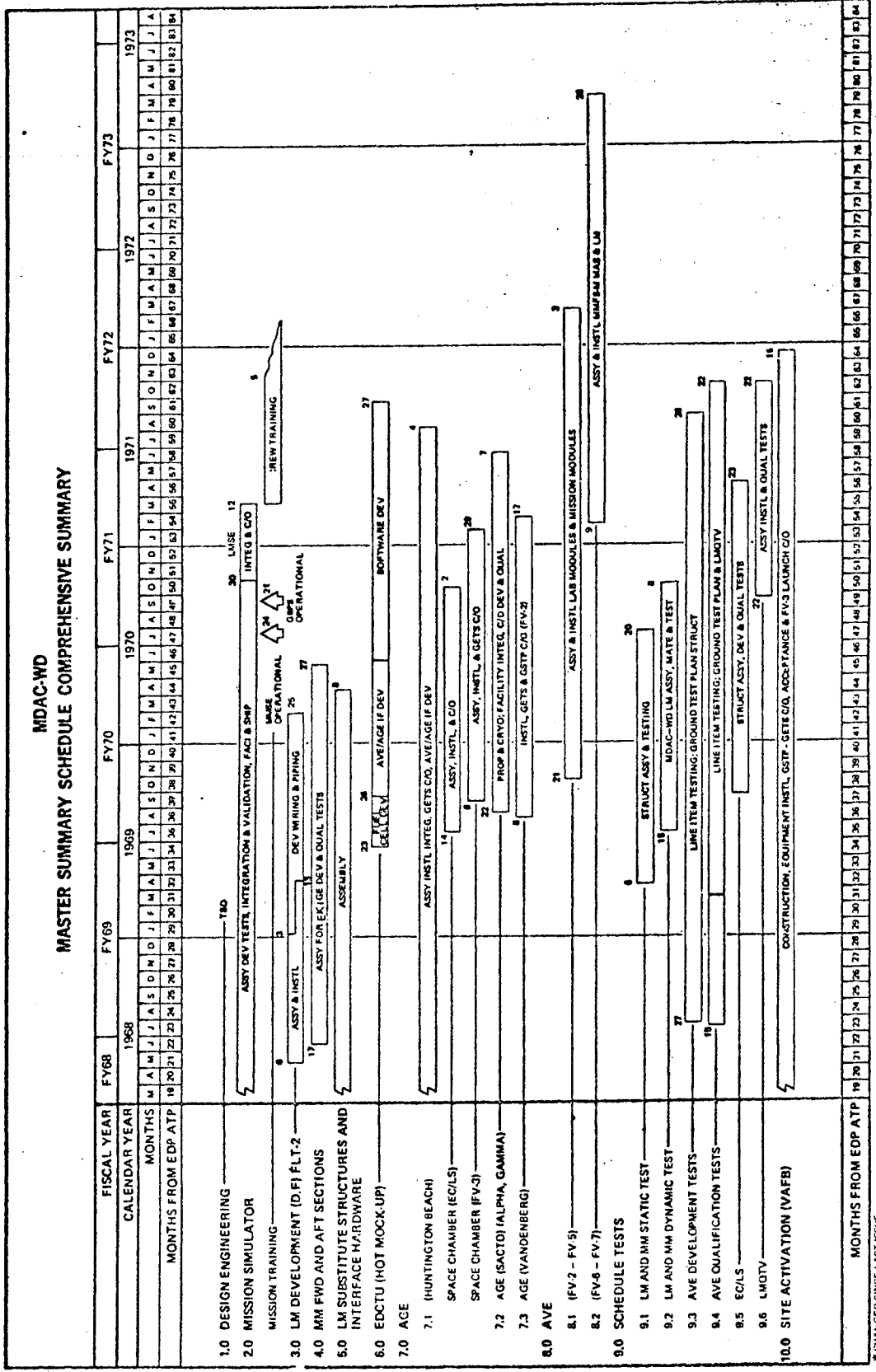


Figure 2-1. MDAC-WD Master Summary Schedule Comprehensive Summary (Sheet 1 of 2)

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			1969					1970					1971					1972					1973						
FISCAL YEAR		FY68		FY69		FY70		FY71		FY72		FY73		FY74		FY75		FY76		FY77		FY78		FY79		FY80			
		1968		1969		1970		1971		1972		1973		1974		1975		1976		1977		1978		1979		1980			
CALENDAR YEAR		1968		1969		1970		1971		1972		1973		1974		1975		1976		1977		1978		1979		1980			
MONTHS		1968		1969		1970		1971		1972		1973		1974		1975		1976		1977		1978		1979		1980			
MONTHS FROM EDP ATP		1968		1969		1970		1971		1972		1973		1974		1975		1976		1977		1978		1979		1980			
		19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84																											
11.0 PROGRAM MILESTONES		DEL 30 APRIL 1968																											
MOL TOL COMPILER (AGE)				TED																									
SUB OF PART II PSIA ASTEG SPEC (SUPT FV-6 AND FV-7)				TED																									
SUB OF PART II LM SPEC																													
LAB MOD FOR FACI (FV-3)																													
MMFS TO GE																													
MMAS TO EK																													
MM FROM EK																													
LV TO VAFB																													
OV FLIGHTS																													
12.0 MAJOR SUBSYSTEMS																													
12.1 MSK EFFORT																													
TOTAL EFFORT																													
MONTHS FROM EDP ATP		19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84																											

* CHANGED SINCE LAST ISSUE

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CONTRACTOR: GENERAL ELECTRIC
STATUS AS OF
10 June 1969

HANDLE VIA BYEMAN
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SOW PARA. 19.0 (Pa. 61)

TITLE: Management

PERCENT COMPLETE: 35%

CONFIDENCE: ± 5%

BRIEF DESCRIPTION:

19.1	Program Management		
19.1.1	Planning, Scheduling, Status Report	35%	
19.1.2	Schedule Control System	40%	
19.1.3	Cost Planning Control System	40%	
19.1.4	EMC Control Program	35%	Lupfer
19.1.5	Cost Proposal for Flt 6 & 7	100%	
19.1.6	Transition Bldg 8310	80%	Campbell
19.2	Configuration Management	30%	Barry
19.3	System Effectiveness Management	30%	
19.4	Contract & Management Systems	35%	Edwards
19.5	Travel and Living	N/A	
19.6	Subcontract Management	35%	Edwards

As management of program is required throughout the program, this task completion should be proportional to the degree of completion of the segment at the date of termination. (Adjustment was made for the fact that reduced management is required as program nears completion.)

ROUGH SKETCH

SOW Par. No. 19.0

Para. No. 19.1.1

TITLE: Program Management - Program Planning, Scheduling, Monitoring, Reporting

% Complete 35%

The contractor's basic program planning, control, and reporting system has been in existence for $2\frac{1}{2}$ years and fully operational for 2 years. There are 3 major program years remaining which would indicate that the contractor was 40% complete because this is a Level of Effort type activity. However, the contractor would still be required to prepare detail schedules for flights 3-5, which brings the % complete down to 35%.

Confidence Level - High

SOW Par. No. 19.0

Para. No. 19.1.2

TITLE: Program Management - Schedule Control System

% Complete 40%

The contractor has established the Master Schedule and all remaining effort will be monthly updates and delivery. The other major effort in this task is PERT Time. The PERT Computer Program has been written. However, a great deal of work remains over the next three years: The contractor must provide more detailed logic for the current fiscal year and then detail the program as it progresses. Two of the five big years have passed and this is a level of effort type activity and for this reason plus the preceding reason, this effort is felt to be 40% complete.

Confidence Level - High

SOW Par. No. 19.0

Para. No. 19.1.3

TITLE: Program Management - Cost Planning Control System

% Complete 40%

Although the contractor has completed the design and documentation of his Cost Planning and Control System and has demonstrated his system, there still remains a continuing level of effort activity during the next three years. The contractor will still have to crank in budgets and milestones and discipline the system.

Confidence Level - High

STATUS OF G.E. EFFORT AS OF 10 JUNE 1969

I. AVE DESIGN FABRICATION AND TEST

1. Engineering Model 103 (MM) - The delivery of this model is 100% complete. Minor refurbishing was in process prior to shipment.
2. Engineering Model 103L (LM) - The delivery of this model is 100% complete. Minor refurbishing was in process prior to shipment.
3. GD -2 (Refurb. 102L & Ship) - This shipment had been completed.
4. Breadboard Testing (BB-1) - This testing was virtually complete.
5. Component Dev Model Procurement & Fabrication - 60% of the procurement and fabrication of the development components had been completed.
6. Component Development Model Test (DC-1) - 40% of the test activity has been completed.
7. Subsystem Development Model Procurement & Fabrication (DSS-1) - 15% of the procurement and fabrication for the DSS-1 test had been completed.
8. Subsystem Development Model Test (DSS-1) - 15 - 20% of the DSS-1 testing had been completed.
9. GE-AVE Structure Test Vehicle (113D) - The delivery of this test vehicle is 100% complete. The contractor has completed approximately 40% of the testing.
10. GE-AVE Thermal Test Vehicle (113T) - Plans for 113T testing had been completed and the test vehicle was ready. Testing had not started.
11. GE-AVE System Development Test Vehicle (114) - The test vehicle had not been delivered nor had testing begun.
12. Qualification Test Vehicle (115) - The test vehicle had not been delivered nor had testing begun.
13. MCC to MDAC-WD from GE (Ship) - Not scheduled until FY 71.

II. AGE

It is estimated that 42.4% of the total AGE system was completed by the contractor at the time of termination.

1. MOL CITE - 50% of this AGE system was completed by the contractor. No deliveries had been made.
2. MMTE (CITE) - 12% of this AGE system was completed by the contractor. No deliveries had been made.

III. SIMULATION AND TRAINING

1. MDS (106) - Hardware design and fabrication was essentially complete. Checkout was in process for Phase Zero configuration, but had not yet been completed. The contractor was approximately four (4) months behind FY 69 schedule. In summary, about 75% of the hardware design and fabrication and checkout system had been completed.

2. MMSE (111) - About 10% of the design, fabrication, and checkout of the MMSE had been completed.

IV. SOFTWARE DEVELOPMENT

1. CEI - CDR - Only the 805 CDR had been completed by 10 June 1969.

2. CEI-FACI - Not scheduled in FY 69.

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CUTOFF DATE: 4 May 1969

FISCAL YEAR CALENDAR YEAR	MMSS MOL FY 69 BASELINE SCHEDULE REVISION 1																	
	FY69			FY70			FY71			FY72			FY73			FY74		
MONTHS	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
MONTHS FROM EDP ATP	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
MOL FLIGHT DATES				TITAN ONLY			TITAN ONLY			TITAN ONLY			TITAN ONLY			TITAN ONLY		
1B AVE DESIGN FABRICATION & TEST																		
1. Hardware Design Releases																		
2. Design Review & Buyoffs																		
* 3. Engineering Model 103 (MM)																		
4. Engineering Model 103L (LM)																		
5. GD 2 MDF for DACO (Refurb. 102L & Ship)																		
6. Breadboard Testing (BB-1)																		
7. Compon Dev Model Proc & Fab (DC-1)																		
8. Compon Dev Model Test (DC-1)																		
9. Subsys Dev Model Proc & Fab (DSS-1)																		
10. Subsys Dev Model Test (DSS-1)																		
11. Compon Qual Model Proc & Fab (QC-1)																		
12. Compon Qual Model Test (QC-1)																		
* 13. GE-AVE Struct Test Veh (1130) ✓																		
14. GE-AVE Thermal Test Veh (113T) ✓																		
15. GE-AVE Sys Dev Test Veh (114) ✓																		
16. GE-AVE Sys PPAC Devel. (114E) ✓																		
17. Qual Test Vehicle (115) ✓																		
18. GE-AVE for Flight 2 (116)																		
19. GD 6 LMQTV Equip.																		
20. GE-AVE (MA) for Flight 3 (118)																		
21. GE-AVE (MA) for Flight 4 (119)																		
MONTHS FROM EDP ATP	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Figure 2-3. MMSS MOL FY 69 Baseline Schedule--Revision 1 (Sheet 1 of 2)

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CUTOFF DATE: 4 May 1969

FISCAL YEAR	MMSS MOL FY 69 BASELINE SCHEDULE REVISION 1													
	1969			1970			1971			1972			1973	
	FY69	FY70	FY71	FY72	FY73	FY74	FY73	FY74	FY73	FY74	FY73	FY74	FY73	FY74
MONTHS FROM EDP ATP	23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88													
22. GE-AVE (MA) for Flight 5 (120)	113D	113T	114E	114E	118	115	119	120	121	122				
23. GE-AVE (A) for Flight 6 (121)														
24. GE-AVE (A) for Flight 7 (122)														
25. MCC to DACO from: GE (Ship)														
26. MMFS to EK from GE (Ship)														
27. MMFS to GE from DACO (Rec)														
28. Payload Compon to GE from EK (Rec)														
29. AVE Computers to GE from DACO (Rec)														
IC. AGE														
1. Mechanical AGE (Initial Use)														
2. MOL CITE (No. 1 & 2) I&C at VF														
3. MOL CITE (No. 3 & 4) I&C at DACO														
4. MOL CITE (No. 2) (Returb. I&C at VAFB														
5. MMTE (No. 1) at PPAC														
6. MMTE (No. 2) at PPAC														
1D. SIMULATION AND TRAINING														
1. MDS (106)														
2. MMSE (111)														
IE. SOFTWARE DEVELOPMENT														
1. CEI-CDR														
2. CEI-FACI														
MONTHS FROM EDP ATP	23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88													

Figure 2-3. MMSS MOL FY 69 Baseline Schedule--Revision 1 (Sheet 2 of 2)

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HANDLE VIA BYEMAN
CONTROL SYSTEM ONLY

CONTRACTOR: EASTMAN KODAK

STATUS AS OF

10 June 1969

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STATUS OF E.K. AS OF 10 JUNE 1969

1. SDM-1 The lens assembly was completed in May 1969. The Mission Module Aft Section (DE-1) and handling equipment GE-41, GE-43, GE-47, DE-12A, DE-15B, DE-16A and DE-40A were received in May 1969. SDM-1 was 90% complete.
2. SDM-2 The first lens assembly for SDM-2 was completed in August 1968. A decision was made to replace the Camera Optical Assembly and the first lens assembly was disassembled. The second build up of the lens assembly had not started and the SDM-2 was 45% completed.
3. THERMAL MODEL
The thermal testing of the lens assembly started in January 1969. The thermal model was 60% complete.
4. OPTICAL ASSEMBLY TEST
The subassemblies of the lens assembly were being worked but none were completed. The Optical Assembly Test was 35% complete.
5. ENGINEERING MODEL
The lens assembly had been dynamically tested and the subassemblies had been inspected for any degradation. None of the subassemblies were completely rebuilt or installed. The Engineering Model was 45% complete.
6. QUALIFICATION MODEL
Work had just begun on the subassemblies of the Qualification Model with less than 3% of the work being done.
7. FLIGHT MODELS
No work had started on the flight models.

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25 MAR 69

MASTER SUMMARY SCHEDULE

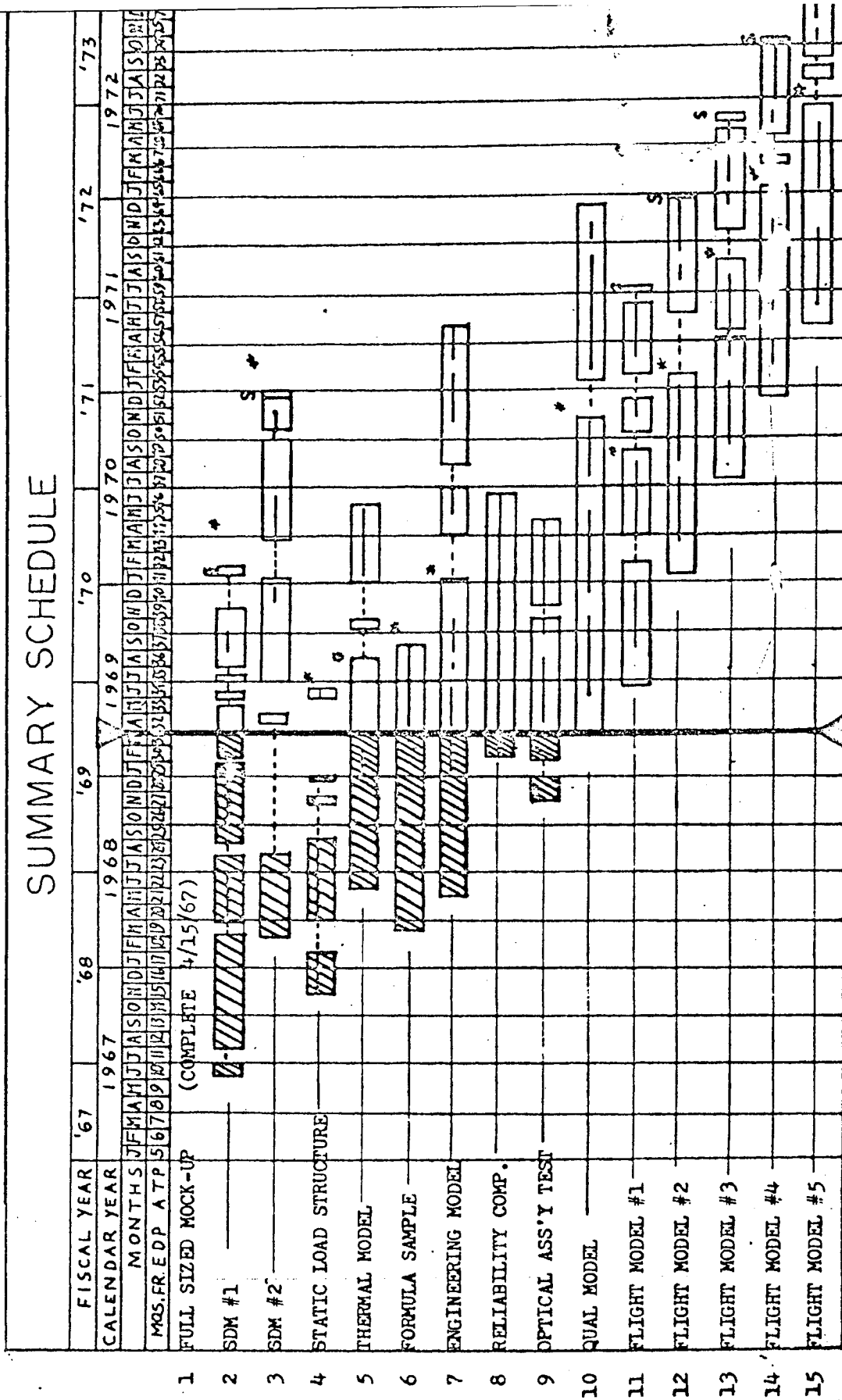


Figure 2-9. Master Summary Schedule

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CONTRACTOR: McDONNELL DOUGLAS-EASTERN DIVISION
STATUS AS OF
10 June 1969

RC 100-107

STATUS OF MDAC-ED AS OF 10 JUNE 1969

I. ENGINEERING

MDAC-ED was 69% complete with the drawing releases and had completed the CDR in the AVE and AGE.

II. GROUND TEST PROGRAM

The Electronic System Test was 91% complete, Structural Test was 54% complete and the thermal vacuum test was not started.

III. AGE SUMMARY

1. AGE at St Louis - The AGE manufacturing assembly and checkout at St Louis was approximately 50% complete.

2. AGE at VAFB - The fabrication and assembly of AGE at VAFB was 5% complete. The GBPS was 75% manufactured but was suffering a four-month delay because of a lack of interface definition with STC.

IV. MANUFACTURING AND INTEGRATION

1. Flight Hardware - The manufacturing and assembly of flight hardware was to begin 1 July 1969 with AVE-1 GBQ. Subsystem components for GBQ had been manufactured and were ready for assembly. No other flight hardware had been produced as of 10 June 1969.

2. Test Hardware - Approximately 80% of all test hardware was completed as of 10 June 1969. Electronic test unit, 100%; Static Adapter, 100%; Re-Entry Vehicles, 100%; Boilerplate-1, 100%; Boilerplate-2, 0%; Thermal Vacuum Test Article, 30%; and Flotation Egress Trainer, 10%.

V. FACILITY ACTIVATION

The Engineering and Operations Building at VAFB was complete and 20% outfitted. AGE and General Support Facility was completed and was 5% outfitted. Work in support of the Launch Control Center and Mission Control Center (SCF) was 15% completed.

VI. TRAINING

Crew transfer training conducted at Wright Patterson AFB was 100% complete. Other crew training and tests involving MDAC-ED were approximately 50% complete.

VII. MANAGEMENT

MDAC-ED was 44% complete with its input to the MOL Master Schedule.

Statement of Work - Status as of 10 June 1969

MDAC-ED

Para 2.6.1.5 Authority UM201

TASK - MASTER SCHEDULES

The task was on schedule and was being performed in a satisfactory manner. At termination it was 44% complete.

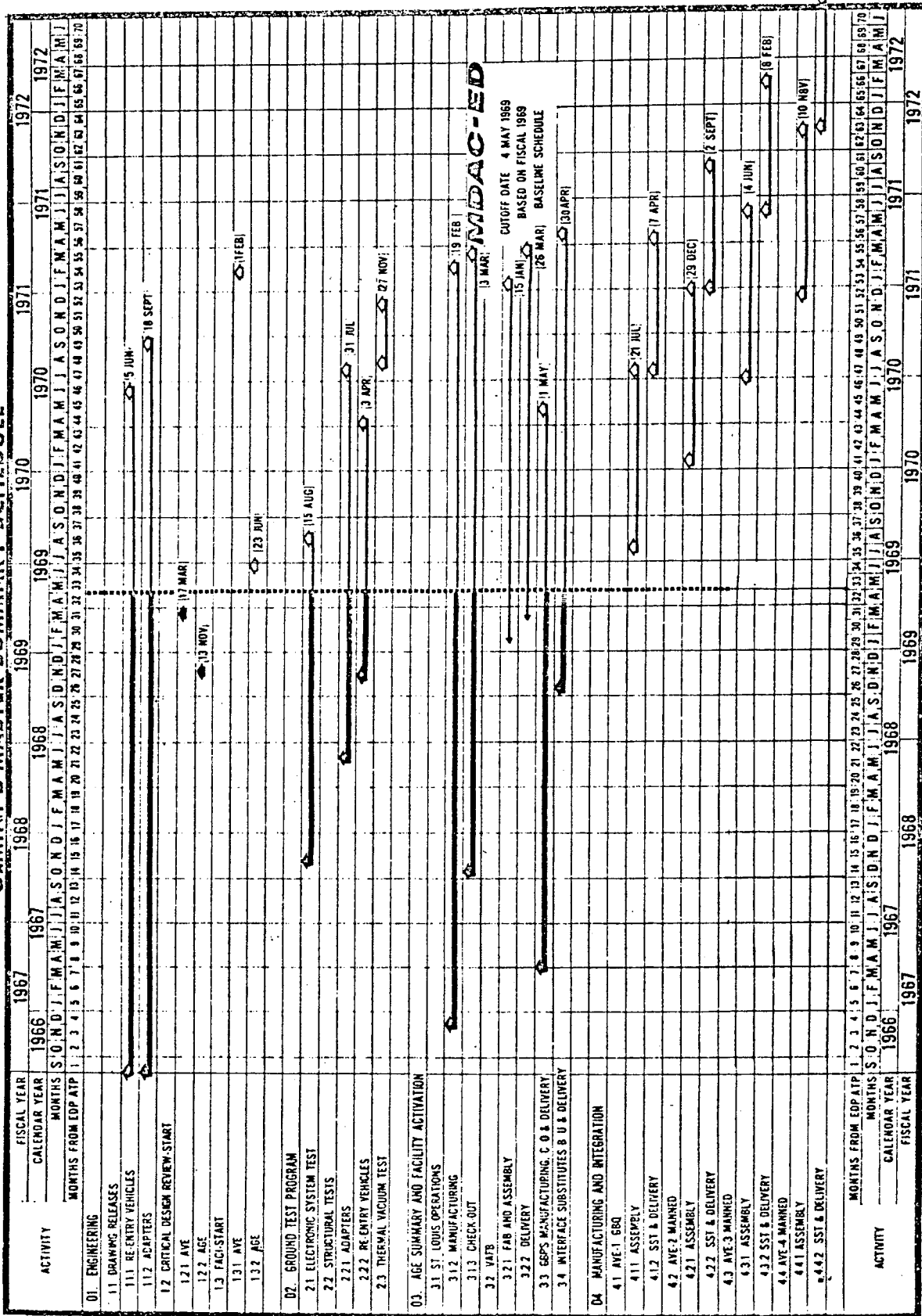
Para 2.6.1.1.5 Authority M-25-15.0/M

TASK-PROBLEM ANALYSIS REPORT

The task was on schedule and was being performed in a satisfactory manner. At termination it was 44% complete.

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MOL MASTER SCHEDULE GEMINI B MASTER SUMMARY SCHEDULE



* DENOTES CHANGE

Figure 2-23. Gemini B Master Summary Schedule

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CONTRACTOR: HAMILTON STANDARD
STATUS AS OF
10 June 1969

STATUS OF HAMILTON STANDARD EFFORT AS OF 10 JUNE 1969

I - TRAINING PSA STATUS

1. TPSA 1-9 have been delivered.
2. TPSA-6 has been returned under the correction of deficiencies clause for a fit problem.
3. TPSA-10 has been rejected due to fit and function problems and is late.
4. TPSA-11 was acceptable with consideration of Airlock electrical housing worth approximately \$1500.00.
5. TPSA-12 is late and is unacceptable for the intended crewman due to improper size.
6. TPSA-13, 14, 15 are complete but have not been presented for acceptance.
7. Hamilton Standard has been notified of the intended crewmen through TPSA No. 18.
8. Parts and components on TPSA 10-21 should be in some stage of completion.

II - DEVELOPMENT PROGRAM

The development program for the basic Pressure Suit Assembly, prior to the implementation of the fire proof non-metallic materials program, is essentially complete.

One month of testing remains to be completed on the helmet drink port. Target completion date was 30 June 1969.

Two months of testing on the absolute pressure controller remain to be done. This testing was to be conducted from 1 July to 1 September 1969 during the Dual Gas Test at MDAC-ED.

Additional testing on the Arm Cable Guide was to be conducted from 1 July to 1 August 1969.

All other development tests on the basic Pressure Suit Assembly have been completed. A totally developed PSA could be available with minimum expenditure by 1 October 1969.

Contract Change Notice No. 11, was sent to Hamilton Standard on 21 May 1968. This change order authorized Hamilton Standard to proceed on incorporating non-metallic materials into the Pressure Suit Assembly, Constant Wear Garment and Flight Configuration PSA.

III - HARDWARE MATRIX

	<u>QUANTITY ON CONTRACT</u>	<u>QUANTITY DELIVERED</u>	<u>STATUS OF NON-DELIVERED ITEMS</u>
1. SAMPLE PRESSURE SUIT	3 ea	3 ea	N/A
2. TRAINING PRESSURE SUIT	21 ea	9 ea	10-15 complete, 16-21 started - Note 1
3. TRAINING FLIGHT CONFIGURATION SUIT	5 ea	0	1st Unit due 15 Sep 70 - See Note 1, 2 & 3
4. FLIGHT PRESSURE SUIT	24 ea	0	CDR 1 Apr 70 - Note 1, 2 & 3
5. EMERGENCY OXYGEN SYSTEM MOCKUP	8 ea	0	Nov 69 Delivery
6. EMERGENCY OXYGEN SYSTEM	12 ea	0	CDR 1 Apr 70 - Note 2 & 3
7. CONSTANT WEAR GARMENT	92 ea	22	CDR 1 Apr 70 - Note 3
8. IMMERSION PROTECTION	23 ea	13	Note 2 & 3
9. GLOVES - Additional	35 pr	15 pr	2 pr TNG Gloves & 18 pr Fit Gloves due
10. URINE MANAGEMENT SYSTEM	40 ea	24	Note 2 & 3
11. ON-ORBIT MAINTENANCE KIT	10 ea	0	CDR 1 Apr 70
12. PRESSURE SUIT-DEVELOPMENT-AS-IS CONDITION	2 ea	0	Deliverable at end of development
13. PRESSURE SUIT - QUAL TEST AS-IS CONDITION	2 ea	0	Deliverable at end of qualification
14. EMERGENCY OXYGEN SYSTEM-QUAL TEST AS-IS COND	2 ea	0	Deliverable at end of qualification
15. COMMUNICATION HEADSETS - Additional	7 ea	0	1st Unit Sep 70
16. ELECT HARNESS COMMUNICATION	12 ea	0	1st Unit Feb 70
17. TMG'S, FOR DUAL GAS TEST	3 ea	3 ea	Delivered for DGST
18. ABSOLUTE PRESSURE CONTROLLERS	2 ea	2 ea	+3 mounting units
19. R/R NECKRING	21 ea	0	Due to be fit

HARDWARE MATRIX (Cont.)

	<u>QUANTITY ON CONTRACT</u>	<u>QUANTITY DELIVERED</u>	<u>STATUS OF NON-DELIVERED ITEMS</u>
20. LOW PRESSURE CONNECTOR LOCKS	21 ea	0	Due to be fit
21. ELECTRICAL HARNESS R/R	21 ea	2 ea	Due to be fit

Hamilton
DIVISION OF UNITED AIRCRAFT CORP.
A.

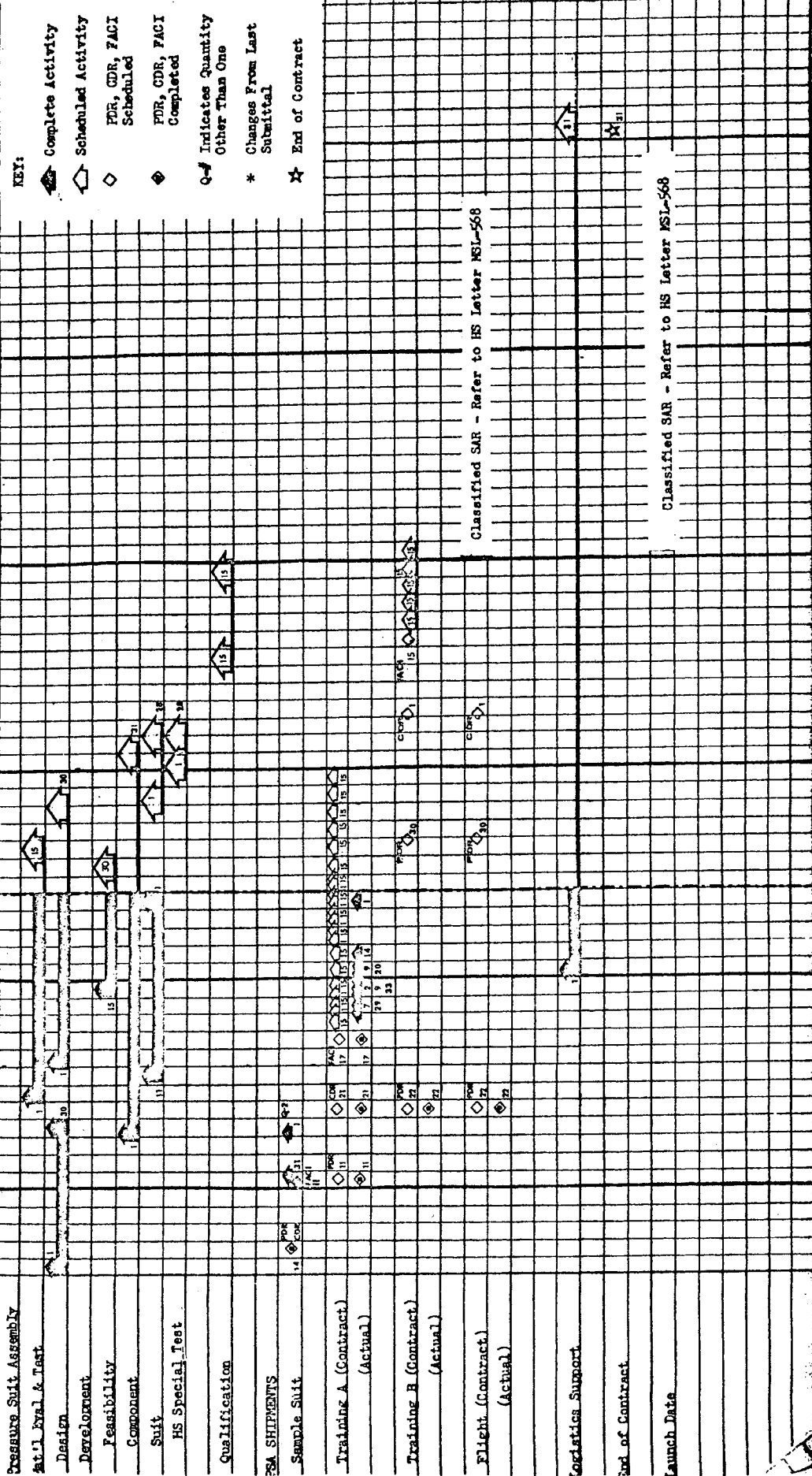
MOL PSA MASTER SCHEDULE

Reference: Contract F04701-68-C-0080

APPROVED BY: _____
PREPARED BY:
P. E. KLISIEWICZ
AS OF **5-30-69**

DATA ITEM (U) M50
CDRL NO. A 035

1967	1968	1969	1970	1971	1972
APR	MAY	JUN	JUL	AUG	SEP
OCT	NOV	DEC	JAN	FEB	MAR
APR	MAY	JUN	JUL	AUG	SEP
OCT	NOV	DEC	JAN	FEB	MAR
APR	MAY	JUN	JUL	AUG	SEP
OCT	NOV	DEC	JAN	FEB	MAR
APR	MAY	JUN	JUL	AUG	SEP
OCT	NOV	DEC	JAN	FEB	MAR
APR	MAY	JUN	JUL	AUG	SEP
OCT	NOV	DEC	JAN	FEB	MAR
APR	MAY	JUN	JUL	AUG	SEP
OCT	NOV	DEC	JAN	FEB	MAR



Basic Program
Pressure Suit Assembly
At'l Eval. & Test
Design
Development
Feasibility
Component
Suit
HS Special Test
Qualification
PSA SHIPMENTS
Sample Suit
Training A (Contract)
(Actual)
Training B (Contract)
(Actual)
Flight (Contract)
(Actual)
Logistics Support
End of Contract
Launch Date

Hamilton Standard
DIVISION OF UNITED AIRCRAFT CORP.

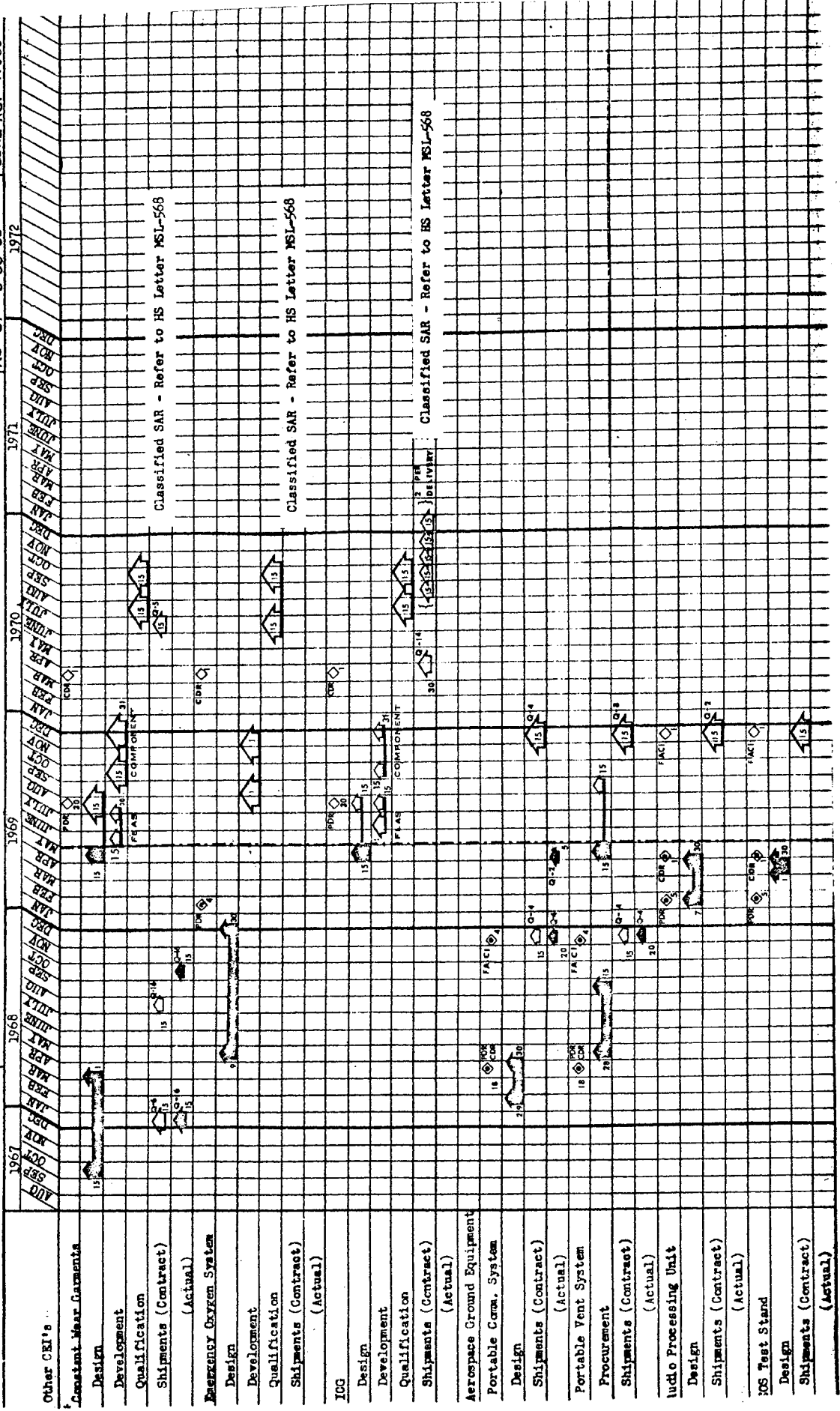
MOL PSA MASTER SCHEDULE

Reference: Contract F04701-68-C-0080

APPROVED BY: _____
DATA ITEM (UMS)
CDRL NO. A 035

PREPARED BY:
P. E. KLISIEWICZ
AS OF 5-30-69

SHEET 2 OF 7



Classified SAR - Refer to HS Letter MSL-568

Classified SAR - Refer to HS Letter MSL-568

Classified SAR - Refer to HS Letter MSL-568

Hamilton Standard
DIVISION OF UNITED AIRCRAFT CORP.

MOL PSA MASTER SCHEDULE

Reference: Contract F04701-68-C-0080

SHEET 1 OF 7
APPROVED BY:
P. E. KLISIEWICZ
AS OF 5-30-69
DATA ITEM (U) MS
CDRL NO. A.035

Item Description	1967			1968			1969			1970			1971			1972			
	SEP	OCT	NOV	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	
EXTRAS - (SHIPMENTS)																			
Brief. Oxygen Sys. Mock-up (Contract)																			
(Actual)																			
Immersion Protection Sys (Contract)																			
(Actual)																			
Urine Management System (Contract)																			
(Actual)																			
Gloves (Contract)																			
(Actual)																			
Communication Headsets (Contract)																			
(Actual)																			
Maintenance Ground Equip. (Contract)																			
(Actual)																			
Ground Maintenance Kit (Contract)																			
(Actual)																			
Ground Controller (Contract)																			
(Actual)																			
Shipping Container (Contract)																			
(Actual)																			
Electrical Harness (Contract)																			
(Actual)																			
M-Orbit Maintenance Kit (Contract)																			
(Actual)																			
MG (Contract)																			
(Actual)																			
MG (Training) (Contract)																			
(Actual)																			
Wetvisor Hood (Training) (Contract)																			
(Actual)																			
Wetglove (Contract)																			
(Actual)																			
Wetglove (Training) (Contract)																			
(Actual)																			
OS Pouch (Training) (Contract)																			
(Actual)																			
Personal Overboot (Contract)																			
(Actual)																			
Personal Overboot (Training) (Contract)																			
(Actual)																			

Classified SAR - Refer to HS Letter NSL-568

Classified SAR - Refer to HS Letter NSL-568

Hamilton Standard
DIVISION OF UNITED AIRCRAFT CORP.

MOL PSA MASTER SCHEDULE

Reference: Contract F04701-68-C-0080

SHEET 1 OF 7
APPROVED BY:
PREPARED BY:
P. E. KLISIEWICZ
DATA ITEM (U) 61
AS OF 5-30-69
CDRL NO. A.035

OTHER SHIPMENTS	1967			1968			1969			1970			1971			1972		
	SEP	OCT	NOV	SEP	OCT	NOV	SEP	OCT	NOV	SEP	OCT	NOV	SEP	OCT	NOV	SEP	OCT	NOV
Retrofitted Eng. A. PSA's (For Dual Gas Test)				22	23	24												
Meta TMS's (For IDST)				22	23	24												
PSA Neck Ring (Retre)																		
Electric Harness (Retre)																		

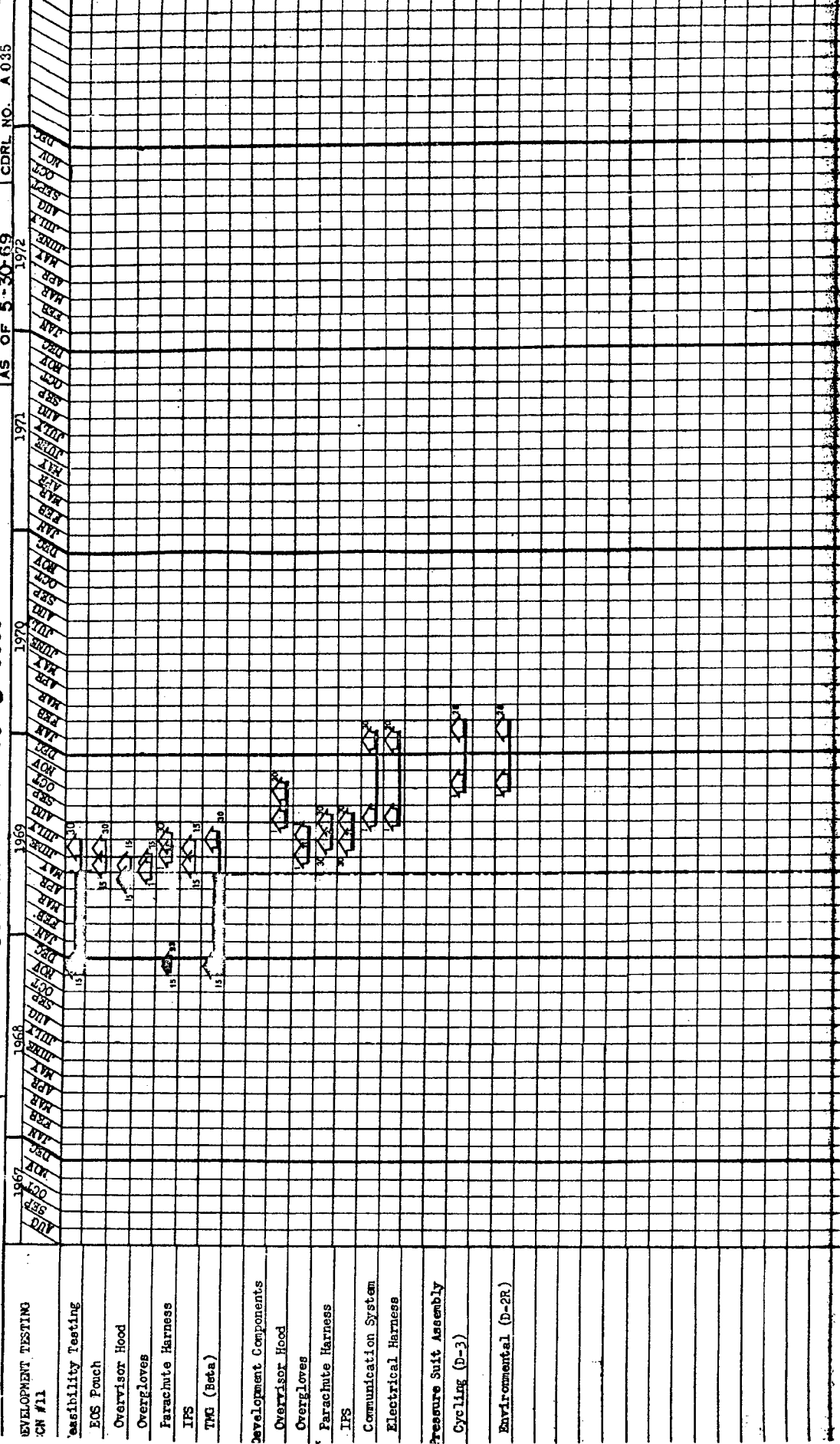
2 PER DELIVERY
EXCEPT LAST DELIVERY
2 PER DELIVERY

Hamilton
Standard
DIVISION OF UNITED AIRCRAFT CORP
A.

MOL PSA MASTER SCHEDULE

Reference: Contract F04701-68-C-0080

SHEET 6 OF 7	APPROVED BY:
PREPARED BY: P. E. KLISIEWICZ	DATA ITEM (U)M501
AS OF 5-30-69	CDRL NO. A 035



NRO APPROVED FOR
RELEASE 1 JULY 2015

TITAN III M

STATUS

10 JUNE 1969

T-III M

MARTIN MARLETTA CORPORATION (AIRFRAME CORE)

AVE: Basic design 83% complete. PDR complete. CDR complete.

COMPONENT DEVELOPMENT: Computer 71% complete. Actuators 75% complete/TARS complete. Static inverter 97% complete.

M-1 FABRICATION: No elements started.

AGE: Basic design 69.5% complete. PDR 94% complete. CDR 71% complete. AGE fabrication 50.8% complete. AGE delivery 61.8% complete.

CAGE DESIGN: Complete.

AC ELECTRONICS DIVISION (INERTIAL GUIDANCE SYSTEM)

AVE: Basic design complete. PDR complete. CDR complete.

IGS DEMONSTRATION: MGC qual test complete. Signal conditioner qual test complete.

AVE FABRICATION AND ACCEPTANCE: LMV (new build) not started. MGC not started. Signal conditioner not started.

AGE: Basic design TDMG complete. PDR complete.

CDR COMPLETE: Fabrication and acceptance - TDMG complete.

ACTIVATIONS: ETR guidance lab modification complete. ETR launch pad AGE modification complete. WTR guidance lab not started. WTR Control Center not started. Denver lab complete.

UNITED TECHNOLOGY CENTER (SOLID ROCKET MOTORS)

AVE: Basic design 50.7% complete. CDR 93% complete.

COMPONENT DEVELOPMENT: Structural testing not started. Hydroburst testing not started. Component qual test 68% complete.

FABRICATION: Cases 29.4% complete. Nozzles 33.7% complete.

DEVELOPMENT TEST: PFRT not started. FACI not started. SRM deliveries not started.

AGE: Basic design 71% complete.

AEROJET-GENERAL CORPORATION (LIQUID ROCKET ENGINES)

AVE: Basic design complete. CDR (Stage 1) complete. CDR (Stage 2) not started.

STAGE I DEVELOPMENT: Frame complete. TCA complete. TPA (turbine kit) complete. Ablative skirt complete.

VERIFICATION TESTING: TCA complete. Engine demonstration complete. FACI (Stage 2) not started.

STAGE II DEVELOPMENT: TCA 94% complete.

AGE: Basic design complete. AGE delivery not started.

LAUNCH COMPLEX (SLC-6)

The Martin effort at Vandenberg AFB in support of the MOL Program to 10 June 1969 was as follows:

- a. Support to the AFSC Civil Engineers and the 6595th ATW for construction surveillance and validation test review.
- b. Secretariat of the Facility Working Group.
- c. Maintenance analysis for the Real Property Installed Equipment which the Martin Company was to maintain. This included writing of preventive maintenance procedures, spares level determination, procurement of spare parts and technical representative support to the military maintenance team of AF accepted SLC-6 facilities.
- d. Launch operations planning, including support to the Launch Operations Flow Subgroup and Launch Operations Working Group.
- e. Activations planning, including secretariat of the SLC-6 Activations Working Group and integration of all MOL associate contractors' SLC-6 activation effort.
- f. Technical inputs to the SLC-6 Communications Plan.

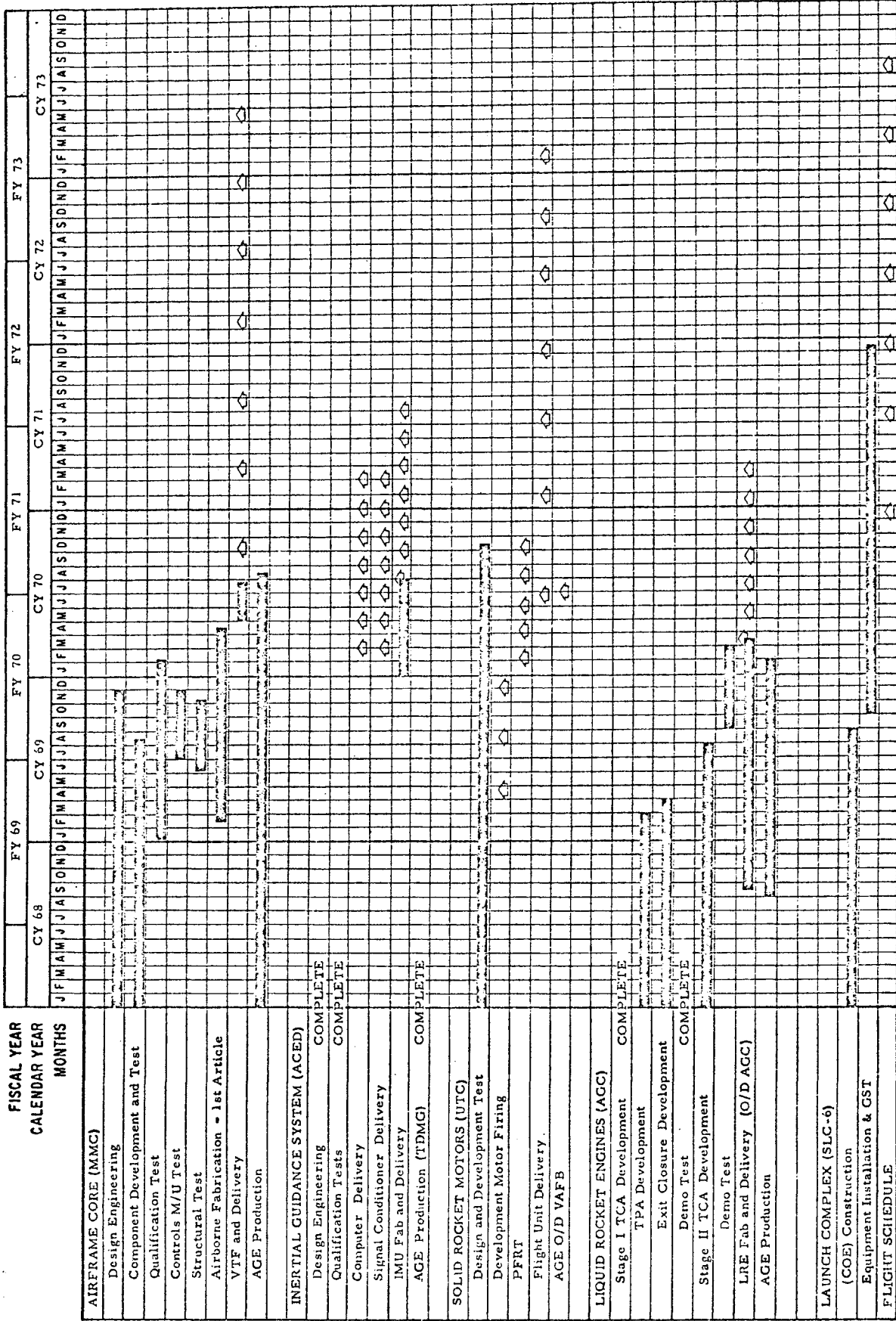
All support provided by the Martin Company in these areas was considered satisfactory and accomplished in a professional manner.

TITAN III M MASTER SCHEDULE

PROGRAM SUMMARY

AS OF DATE: 6 APR 1969

~~SECRET~~



* CHANGE FROM LAST SUBMISSION

SPECIAL ACCESS REQUIRED
CLASSIFIED SPACE PROJECT
NUMBER 632A

~~SECRET~~

DOWNGRADED AT 12 YEAR INTERVALS;
NOT AUTOMATICALLY DECLASSIFIED
DDO DIR 5200.10

CHRONOLOGY OF MAJOR EVENTS AND DECISIONS

1965	1	AUG	ORIGINAL BASELINE - SEC MC NAMARA MEMO
	2	FEB	REVISED BASELINE (9 FLIGHT SCHEDULE)
1966	3	MAY	SCHEDULE REVISION (OPTION 6 SCHEDULE)
		SEP	CONTRACTOR FIRM PROPOSALS
		DEC	ORIGINAL NEGOTIATED BASELINE
	4	FEB	SCHEDULE EXERCISES (9 & 12 MOS SLIP)
		MAR	SCHEDULE REVISION TO 15 MOS SLIP 67/68/69 FUNDING LEVELS SET 286/480/620
1967	5	MAY	SCHEDULE REVISION TO 12-COMPACT BASELINE
		OCT	NEW FUNDING...ACTUAL 430/68, PLANNING 640/69
		NOV	PROGRAM CONTENT REEVALUATED
	6	DEC	SCHEDULE REVISION TO 20 MOS SLIP DR. BROWN MEMO TO SEC MC NAMARA - 2 OPTIONS
		JUN	FY 69 FUNDING EXERCISE - ALTERNATES CONSIDERED
1968	7	JUL	SCHEDULE REVISION TO FY 1969 BASELINE
			NEW FUNDING - ACTUAL 515/69, PLANNING 600/70
1969		MAR	FY 70 FUNDING EXERCISE - ALTERNATES CONSIDERED
		APR	FY 70 COST REDUCTION EXERCISE - REEVALUATED PROGRAM CONTENT
	8	MAY	FY 70 BASELINE SCHEDULE ESTABLISHED
	9	10 JUNE	PROGRAM CANCELLED