

**MANNED SPACE FLIGHT SCHEDULE**

# Volume VII

V III 3

# CONSTRUCTION OF FACILITIES

**MSFC-Book 6-Various Locations**



**OMSF PROGRAM STATUS REVIEW OCTOBER 1965**

THIS DOCUMENT CONTAINS SENSITIVE PROGRAM INFORMATION. THE PERSON TO WHOM IT IS ASSIGNED IS RESPONSIBLE FOR LIMITING ACCESS TO THIS DOCUMENT TO NASA PERSONNEL WHO REQUIRE SUCH INFORMATION IN THE DISCHARGE OF THEIR OFFICIAL DUTIES. THIS MATERIAL IS NOT TO BE REPRODUCED OR MADE AVAILABLE TO CONTRACTORS.

Document No. \_\_\_\_\_ Name \_\_\_\_\_

# OMSF PROGRAM STATUS REVIEW PROGRAM SCHEDULE ROAD MAP

LEVEL A

**MSFC FACILITIES  
VARIOUS**

LEVEL B

**GENERAL SUPPORT  
& TECHNICAL  
RELATED FACILITIES**

**PROJECT TITLE  
NO.**

**SATURN I & IB  
RELATED FACILITIES**

**PROJECT TITLE  
NO.**

9130 S-IVB FACILITIES

**SATURN V RELATED  
FACILITIES**

**PROJECT TITLE  
NO.**

9118 S-II STAGE FACILITIES

**ENGINE RELATED  
FACILITIES**

**PROJECT TITLE  
NO.**

9109 F-1 ENGINE FACILITIES  
9131 J-2 ENGINE FACILITIES  
9133 FACILITIES FOR H-1  
ENGINE PROGRAM  
9140 SUPPORT SERVICES  
BUILDING

SCHEDULE RESPONSIBILITY \_\_\_\_\_

STATUS RESPONSIBILITY \_\_\_\_\_

**MANNED SPACE FLIGHT SCHEDULE  
TABLE OF CONTENTS  
VOLUME VII-FACILITIES  
BOOK 6-MSFC-VARIOUS LOCATIONS**



ORIGINAL SCHED. APPROVAL \_\_\_\_\_ (Date)

LAST SCHED. CHANGE \_\_\_\_\_ (Date) (No.) (Initials)

STATUS AS OF \_\_\_\_\_ (Date) (Initials)

CONTRACTOR \_\_\_\_\_

PROJECT:  
SCH'D NO \_\_\_\_\_

EDITION A

<u>Project No.</u>	<u>Title</u>	<u>Level</u>	<u>Page No.</u>	<u>Project No.</u>	<u>Title</u>	<u>Level</u>	<u>Page No.</u>
9109	F-1 Engine Facilities (FY-62-65) <u>Edwards Air Force Base</u>	A	VII-6-1&2		(a/1) Rotary Test Facility	A	VII-6-2
	(a) Control Center	A	VII-6-1			B	VII-6-11
	(b) Test Stand 1-D	A	VII-6-1		(a/2) Bravo Off-Site LOX Storage & Transfer Sys	A	VII-6-2
	(c) Test Stand 1-C	A	VII-6-1			B	VII-6-12
	(d) Test Stand 1-E	A	VII-6-1	9109	F-1 Engine Facilities (FY-66)	A	VII-6-2
	(e) Environmental Capability	A	VII-6-1			B	VII-6-13
	(f) LOX Storage	A	VII-6-1				
	(g) Fuel Storage	A	VII-6-1	9118	S-II Stage Facilities (FY-62-65) <u>Downey</u>	A	VII-6-3& 4
	(h) Fuel Supply	B	VII-6-9		(a) Cryogenic Test Facility	A	VII-6-3
	(i) Flame Channel (Repair)	A	VII-6-1		(b) Electro-Mech Mockup	A	VII-6-3
	(j) Reclamation Dam (Modif)	A	VII-6-1		<u>Seal Beach</u>		
	(k) Drain Sys & Fire Protection	A	VII-6-1		(c) Site Preparation	A	VII-6-3
	(l) Erosion Control	A	VII-6-1		(d) Bulkhead Fabrication Facility	A	VII-6-3
	(m) Weather Protection Test Stand 1-A & 1-B	A	VII-6-1		(e) Vertical Assembly & Hydrostatic Test Facility	A	VII-6-3
	(n) Catwalk	A	VII-6-2		(f) Watering Conditioning Facility	A	VII-6-3
	(o) Guard Rail	A	VII-6-2		(g) Pneumatic, Paint & Packaging Fac	A	VII-6-3
	(p) Road Block	A	VII-6-2		(h) Structural Static Test Facility	A	VII-6-3
	<u>Canoga Park</u>				(i) Dock	A	VII-6-3
	(q) Engine C/O Cell	A	VII-6-2		(j) Service Building	A	VII-6-3
	(r) Engine C/O Cell	A	VII-6-2		(k) Warehouse & Storage Facility	A	VII-6-3
	(s) Hazardous Test Cell	A	VII-6-2		o (l) Addition to Bulkhead Fabrication Fac	A	VII-6-3
	(t) GN <sub>2</sub> System	A	VII-6-2		(m) Vertical C/O Facility	A	VII-6-3
	(u) Hazardous Test Cells (3)	B	VII-6-10			B	VII-6-14
	<u>Santa Susana</u>	A	VII-6-2		<u>Santa Susana</u>		
	(v) GN <sub>2</sub> Storage Bottle	A	VII-6-2		(n) Site Preparation	A	VII-6-3
	(w) Fuel Run Tank	A	VII-6-2		(o) Control Center Modification	A	VII-6-3
	(x) Off-Site LOX Fill System	A	VII-6-2		(p) Propellant Systems	A	VII-6-4
	(y) Isolate Hydro System	A	VII-6-2		(q) Hi Pr Gas & Thermal Control Sys	A	VII-6-4
	(z) Modification for Pump Drive	A	VII-6-2			B	VII-6-15*
					(r) Coca I Test Stand	A	VII-6-4
					(s) Coca IV Test Stand	A	VII-6-4

o Indicates Changes From Last Submission  
\* Indicates Deletion of a Milestone  
\*\* Indicates Additions of a Milestone

SCHEDULE RESPONSIBILITY \_\_\_\_\_

STATUS RESPONSIBILITY \_\_\_\_\_

**MANNED SPACE FLIGHT SCHEDULE  
TABLE OF CONTENTS  
VOLUME VII-FACILITIES  
BOOK 6-MSFC-VARIOUS LOCATIONS**



ORIGINAL SCHED. APPROVAL \_\_\_\_\_ (Date)

LAST SCHED. CHANGE \_\_\_\_\_ (Date) (No.) (Initials)

STATUS AS OF \_\_\_\_\_ (Date) (Initials)

CONTRACTOR \_\_\_\_\_

PROJECT:  
SCH'D NO \_\_\_\_\_

EDITION A

<u>Project No.</u>	<u>Title</u>	<u>Level</u>	<u>Page No.</u>	<u>Project No.</u>	<u>Title</u>	<u>Level</u>	<u>Page No.</u>
9118	o Saturn V Second Stage S-II FAC (FY-66)	A B	VII-6-4 VII-6-16		(g) Helium System	A	VII-6-6
9130	S-IVB Facilities (FY-62-65) <u>Sacto</u>	A	VII-6-5		(h) LOX Storage System	A	VII-6-6
	(a) Site Preparation	A	VII-6-5		(i) GH <sub>2</sub> Recovery System	A	VII-6-6
	(b) Foundation Piling	A	VII-6-5		(j) Bowl LOX System Modification	A	VII-6-6
	(c) Test Stand Beta 1	A	VII-6-5		(k) Instrument Data Transmission Sys	A	VII-6-6
	o (d) Conversion of Beta 1 for Accept Test	A B	VII-6-5 VII-6-17		(l) Delta Pillbox	A	VII-6-7
	(e) Beta-Complex Support	A	VII-6-5		(m) Facility Firex System	A	VII-6-7
	(f) Test Stand Beta 3	A	VII-6-5		(n) Helium Extension Facility	A	VII-6-7
	(g) Attitude Control Motor Test Site	A	VII-6-5	9118	(o) Fuel Trailer Holding Facility	A	VII-6-19 VII-6-7
	(h) Attitude Control Motor Assembly Bldg	A	VII-6-5		<u>Bowl Area</u>		
	(i) Checkout Test Facility	A B	VII-6-5 VII-6-18*		(p) Nitrogen Gas System	A	VII-6-7
9131	J-2 Engine Facilities (FY-62-65) <u>Santa Susana</u>	A	VII-6-6&7		(q) Instrumentation	A B	VII-6-7 VII-6-20
	(a) Delta 2 Test Stand	A	VII-6-6		<u>Delta Area</u>		
	(b) Delta 1 Test Stand	A	VII-6-6		(r) Nitrogen Gas System	A	VII-6-7
	(1) LH <sub>2</sub> Run Tank	A	VII-6-6		(s) JIB Crane	A	VII-6-7
	(2) LOX Run Tank	A	VII-6-6	9131	<u>Canoga Park</u>		
	(3) Hyper-Flow System	A	VII-6-6		(t) Enclose Test Area	A B	VII-6-7 VII-6-21
	(4) Diffuser	A	VII-6-6	9133	(u) Valve Clean Rooms	A B	VII-6-7 VII-6-22
	(5) Altitude Capsule	A	VII-6-6		J-2 Engine Facility	A	VII-6-7
	(6) Test Stand Structure	A	VII-6-6	9140	(FY-66)	B	VII-6-23
	(c) Ctl III LOX Pump Cal Cell 15B	A	VII-6-6		Facility for H-1 Engine Program	A	VII-6-7
	(d) Ctl III LH <sub>2</sub> Pump Cad Cell 45	A	VII-6-6		(FY-64)	B	VII-6-24
	(e) Production Test Facility	A	VII-6-6		Support Service Building (FY-63)	A	VII-6-7
	(f) Ctl III 500 Sec LH <sub>2</sub> Pump Test Capability	A	VII-6-6		o NOTES	A	VII-6-8
					MSFC Various Funding Schedule	A	VII-6-8a
					VARIOUS EXPLANATIONS	A	VII-6-8b

# SCHEDULE SYMBOLS

## MILESTONE SYMBOLS

	SCHEDULED COMPLETION DATE-CONTROLLED MILESTONE
	SCHEDULED COMPLETION DATE-SUPPORTING MILESTONE
	FIRST SCHEDULE REVISION-CONTROLLED MILESTONE*
	FIRST SCHEDULE REVISION-SUPPORTING MILESTONE*
	ACTUAL COMPLETION DATE-CONTROLLED MILESTONE
	ACTUAL COMPLETION DATE-SUPPORTING MILESTONE
	RESCHEDULING REQUEST-CONTROLLED MILESTONE
E	EXPECTED COMPLETION DATE
L	LATEST ALLOWABLE COMPLETION DATE
A	PROJECT (PROGRAM) MANAGERS' ASSESSMENT OF EXPECTED COMPL DATE
A E	EXPECTED AND ASSESSMENT DATES IDENTICAL
A E L	EXPECTED, LATEST ALLOWABLE & ASSESSMENT DATES IDENTICAL
E	SCHEDULED AND EXPECTED DATES IDENTICAL
E L	SCHEDULED, EXPECTED AND LATEST ALLOWABLE DATES IDENTICAL (CONTROLLED MILESTONE)**
E	SCHEDULED AND EXPECTED DATES IDENTICAL (SUPPORTING MILESTONE)
E L	SCHEDULED, EXPECTED AND LATEST ALLOWABLE DATES IDENTICAL (SUPPORTING MILESTONE)**

## USE OF SCHEDULE SYMBOLS IN CONJUNCTION WITH ACTIVITY BARS

### ACTIVITY INITIATION

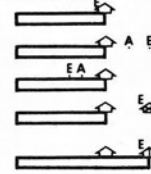
	PREDICTED INITIATION ON SCHEDULE
	PREDICTED LATE INITIATION
	PREDICTED EARLY INITIATION

### ACTIVITY PROGRESS TOWARD COMPLETION - BASIC SCHEDULE

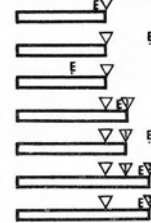
	ACTIVITY ON SCHEDULE
	ACTIVITY BEHIND SCHEDULE
	ACTIVITY AHEAD OF SCHEDULE
	PROGRESS AGAINST SCHEDULED DELIVERIES, TEST FIRINGS, ETC. (ON SCHEDULE)
	LATE INITIATION - BEHIND SCHEDULE
	EARLY INITIATION - AHEAD OF SCHEDULE
	BEHIND SCHEDULE - FOUR CUMULATIVE DELIVERIES
	AHEAD OF SCHEDULE - SEVEN CUMULATIVE DELIVERIES

\* THE 2 FOR 2ND RESCHEDULING, 3 FOR 3RD RESCHEDULING ETC.  
 \*\* SHOWN IN CONJUNCTION WITH A MILESTONE RESCHEDULED TWICE.

## CONTROLLED MILESTONES



## SUPPORTING MILESTONES



## ACTIVITY OR EVENT COMPLETION

	PREDICTED COMPLETION ON SCHEDULE
	PREDICTED LATE COMPLETION WITH PROJECT MANAGERS' ASSESSMENT
	PREDICTED EARLY COMPLETION WITH PROJECT MANAGERS' ASSESSMENT
	PREDICTED LATE COMPLETION WITH PROJECT MANAGERS' REQUEST FOR RESCHEDULING
	RESCHEDULING REQUEST APPROVED, FIRST SCHEDULE REVISION. PREDICTED COMPLETION ON SCHEDULE

	PREDICTED COMPLETION ON SCHEDULE
	PREDICTED LATE COMPLETION (PROJECT MANAGERS' ASSESSMENT OPTIONAL)
	PREDICTED EARLY COMPLETION
	FIRST SCHEDULE REVISION-PREDICTED COMPLETION ON SCHEDULE
	FIRST SCHEDULE REVISION-PREDICTED LATE COMPLETION
	SECOND SCHEDULE REVISION-FIRST MONTH SUBMISSION
	SECOND SCHEDULE REVISION-2ND MONTH SUBMISSION

## RANDOM SITUATIONS

(E AND A SYMBOLS HAVE BEEN OMITTED IN PORTRAYING RANDOM SITUATIONS)

### PREDICTED LATE INITIATION & LATE COMPLETION

	CONDITION "A"-PROPOSED
	CONDITION "A"-ACCEPTED
	CONDITION "B"-PROPOSED (PREDICTED INITIATION LATER THAN SCHEDULED COMPLETION)
	CONDITION "B"-ACCEPTED

### PREDICTED EARLY INITIATION & EARLY COMPLETION

	CONDITION "C"-PROPOSED
	CONDITION "C"-ACCEPTED
	CONDITION "D"-PROPOSED (PREDICTED COMPLETION EARLIER THAN SCHEDULED INITIATION)
	CONDITION "D"-ACCEPTED

### NEW PREDICTED COMPLETION DATE

	EXISTING SCHEDULE	GRAPH CURVES
	PROPOSED	----- PLANNED
	ACCEPTED	————— ACTUAL
		..... CURVE ESTIMATE

### USE OF "LATEST ALLOWABLE" DATE SYMBOL

	KEY MILESTONE - PREDICTED EARLY COMPLETION
	SUPPORTING MILESTONE - PREDICTED LATE COMPLETION
	CONTROLLED MILESTONE - PREDICTED LATE COMPLETION





MILESTONES		CY 1963					CY 1964					CY 1965					CY 1966					CY 1967																									
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O
1	9118 S-11 STAGE FACILITIES (FY-62-65) (NOTE 5)	[Gantt bar from start of 1963 to start of 1965]																				ET																									
2	<u>DOWNEY</u>																																														
3	(A) CRYOGENIC TEST FACILITY	[Gantt bar from start of 1963 to start of 1964]																																													
4	(B) ELECTRO-MECH MOCKUP	[Gantt bar from start of 1963 to start of 1964]																																													
5	<u>SEAL BEACH</u>																																														
6	(C) SITE PREPARATION	[Gantt bar from start of 1963 to start of 1964]																																													
7	BULKHEAD FABRICATION (D) FACILITY	[Gantt bar from start of 1963 to start of 1964]																																													
8	VERTICAL ASSEMBLY & HYDRO TEST FACILITY (E)	[Gantt bar from start of 1963 to start of 1964]																																													
9	WATERING CONDITIONING FACILITY (F)	[Gantt bar from start of 1963 to start of 1964]																																													
10	PNEUMATIC, PAINT, & PACKAGING FACILITY (G)	[Gantt bar from start of 1963 to start of 1964]																																													
11	STRUCTURAL STATIC TEST FACILITY (H)	[Gantt bar from start of 1963 to start of 1964]																																													
12	(I) DOCK	[Gantt bar from start of 1963 to start of 1964]																																													
13	(J) SERVICE BUILDING	[Gantt bar from start of 1963 to start of 1964]																																													
14	WAREHOUSE & STORAGE (K) FACILITY	[Gantt bar from start of 1963 to start of 1964]																																													
15	ADDITION TO BULKHEAD FABRICATION FACILITY (NOTE 5) (L)	[Gantt bar from start of 1964 to start of 1965]																																													
16	(M) VERTICAL C/O FACILITY	[Gantt bar from start of 1964 to start of 1965]																																													
17	INSTALL S-II-1	[Gantt bar from start of 1965 to start of 1966]																																													
18	<u>SANTA SUSANA</u>																																														
19	(N) SITE PREPARATION	[Gantt bar from start of 1963 to start of 1964]																																													
20	CONTROL CENTER (O) MODIFICATION	[Gantt bar from start of 1963 to start of 1964]																																													
NOTES		ALL NOTES WILL BE SHOWN ON PAGE 8.																																													

**MANNED SPACE FLIGHT SCHEDULE**  
**MSFC-VARIOUS LOCATIONS**  
**FACILITIES SUMMARY**

**A**  
LEVEL

ORIGINAL SCHED. APPROVAL 3/31/63  
 (Date)  
 LAST SCHED. CHANGE 4/30/63  
 (Date) (No.) (Initials)  
 STATUS AS OF 9/30/65  
 (Date) (Initials)

CONTRACTOR NOT APPLICABLE PROJECT: SCH'D NO A-9162-1

SCHEDULE RESPONSIBILITY Dr. Wernher von Braun  
 STATUS RESPONSIBILITY Arthur V. Daly





MILESTONES		CY 1963												CY 1964												CY 1965												CY 1966												CY 1967																																																								
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D																																													
1	9130-S-IVB FACILITIES (FY-62-65)	[Gantt bar from Jan 1963 to Dec 1965]																																																												E1																																												
2	SACTO																																																																																																									
3	(A) SITE PREPARATION	[Gantt bar with arrowheads from Jan 1963 to Feb 1963]																																																																																																								
4	(B) FOUNDATION PILING	[Gantt bar with arrowheads from Jan 1963 to Feb 1963]																																																																																																								
5	(C) TEST STAND BETA-1	[Gantt bar from Jan 1963 to Dec 1964]																																																																																																								
6	INSTALL B/S	[Gantt bar with arrowheads from Dec 1963 to Dec 1964]																																																																																																								
7	(D) CONV OF BETA-1 FOR ACCEPT TEST	[Gantt bar from Dec 1964 to Dec 1965]																																																												E3																																												
8	INSTALL #203	[Gantt bar with arrowheads from Dec 1964 to Dec 1965]																																																												E1																																												
9	(E) BETA-COMPLEX SUPPORT	[Gantt bar from Jan 1963 to Dec 1964]																																																																																																								
10	(F) TEST STAND BETA-3	[Gantt bar from Jan 1963 to Dec 1964]																																																																																																								
11	INSTALL FACILITY C/O VEHICLE	[Gantt bar with arrowheads from Dec 1964 to Dec 1965]																																																																																																								
12	(G) ATTITUDE CONTROL MOTOR TEST SITE	[Gantt bar from Jan 1963 to Dec 1964]																																																																																																								
13	(H) ATTITUDE CONTROL MOTOR ASSY BLDG	[Gantt bar from Jan 1964 to Dec 1964]																																																																																																								
14	(I) CHECKOUT TEST FACILITY	[Gantt bar from Jan 1964 to Dec 1965]																																																																																																								
15	BEGIN INSTL GSE IN TEST CONTROL CENTER	[Gantt bar with arrowheads from Dec 1965 to Dec 1965]																																																																																																								
16	CG DETERMINATION IN POSITION #1	[Gantt bar with arrowheads from Dec 1965 to Dec 1965]																																																																																																								
17	POST STATIC C/O POSITION #2	[Gantt bar with arrowheads from Dec 1965 to Dec 1965]																																																												E2																																												
18																																																																																																										
19																																																																																																										
20																																																																																																										
NOTES																																																																																																										

SCHEDULE RESPONSIBILITY <u>Dr. Wernher von Braun</u> STATUS RESPONSIBILITY <u>Arthur V. Daly</u>		MANNED SPACE FLIGHT SCHEDULE MSFC-VARIOUS LOCATIONS FACILITIES SUMMARY		ORIGINAL SCHED. APPROVAL <u>3/31/63</u> (Date)		LAST SCHED. CHANGE <u>4/30/64</u> (Date) (No.) (Initials)		STATUS AS OF <u>9/30/65</u> (Date) (Initials)																																																			
										CONTRACTOR NOT APPLICABLE		PROJECT: SCH'D NO A-9162-1																																															
MILESTONES		CY 1963					CY 1964					CY 1965					CY 1966					CY 1967																																					
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O
1	9131- J-2 ENGINE FACILITIES (FY-62-65)	[Solid bar from Jan 1963 to Dec 1965]															[Solid bar from Jan 1966 to Dec 1966]																																										
2	SANTA SUSANA																																																										
3	(A) DELTA 2 TEST STAND	[Solid bar from Jan 1963 to Dec 1963]																																																									
4	(L) DELTA 1 TEST STAND (NOTE 8)																										[Solid bar from Jan 1966 to Dec 1966]																																
5	ACTIVATION																																																										
6	(1) LH <sub>2</sub> RUN TANK																																																										
7	(2) LOX RUN TANK																																																										
8	(3) HYPER-FLOW SYSTEM																																																										
9	(4) DIFFUSER																																																										
10	(5) ALTITUDE CAPSULE																																																										
11	(6) TEST STAND STRUCTURE																																																										
12	(C) CTL III LOX PUMP CAL CELL 15B	[Solid bar from Jan 1963 to Dec 1963]																																																									
13	(D) CTL III LH <sub>2</sub> PUMP CAD CELL 45	[Solid bar from Jan 1963 to Dec 1963]																																																									
14	(E) PRODUCTION TEST FACILITY	[Solid bar from Jan 1963 to Dec 1963]																																																									
15	(F) CTL III 500 SEC LH <sub>2</sub> PUMP TEST CAPAB	[Solid bar from Jan 1963 to Dec 1963]																																																									
16	(G) HELIUM SYSTEM																[Solid bar from Jan 1964 to Dec 1964]																																										
17	(H) LOX STORAGE SYSTEM																[Solid bar from Jan 1964 to Dec 1964]					[Solid bar from Jan 1965 to Dec 1965]																																					
18	(I) GH <sub>2</sub> RECOVERY SYSTEM																[Solid bar from Jan 1964 to Dec 1964]																																										
19	(J) BOWL LOX SYSTEM MODIFICATION																[Solid bar from Jan 1964 to Dec 1964]					[Solid bar from Jan 1965 to Dec 1965]																																					
20	(K) INSTRUMENT DATA TRANSMISSION SYSTEM																[Solid bar from Jan 1964 to Dec 1964]																																										
NOTES																																																											



SCHEDULE RESPONSIBILITY _____ STATUS RESPONSIBILITY _____	<b>MANNED SPACE FLIGHT SCHEDULE</b> <b>MSFC-VARIOUS LOCATIONS</b> <b>NOTES</b>	ORIGINAL SCHED. APPROVAL _____ (Date) LAST SCHED. CHANGE _____ (Date) (No.) (Initials) STATUS AS OF _____ (Date) (Initials)
CONTRACTOR _____		PROJECT: _____ SCHED NO _____



NOTES FOR OCTOBER SUBMISSION

1. DETERMINATION OF THE REQUIREMENTS FOR THIS FACILITY AWAITS THE RESULTS OF DEVELOPMENTAL TESTS WHICH ARE NOW IN PROGRESS.
2. DETERMINATION OF PEQUIREMENT INCOMPLETE. EVALUATION OF EROSION FROM DEFLECTOR BLAST WILL BE MADE AFTER ADDITIONAL TEST FIRINGS.
3. SECOND ENGINE C/O CELL NOT REQUIRED AT THIS TIME. MAY BE REQUIRED LATER IN PROGRAM.
4. REQUIREMENTS FOR THIS ITEM DEFERRED. TURBO PUMP TESTING HAS BEEN MOVED TO BRAVO AREA. ADDITIONAL REQUIREMENTS MAY RESULT. REPROGRAMMING OF PROJECT WILL BE ACCOMPLISHED PRIOR TO APPROVAL OF ADDITIONAL REQUIREMENTS.
5. CONTRACTOR DELAYED BY INABILITY TO PROCURE MATERIALS. NO PROGRAM IMPACT.
6. START OF DESIGN DELAYED PENDING HEADQUARTERS APPROVAL OF PROJECT SCOPE REVISIONS.
7. START DELAYED PENDING REVIEW OF BATTLESHIP TEST PROGRAM REQUIREMENTS.
8. THIS STAND NO LONGER REQUIRED. PROJECT CANCELLED.

SCHEDULE RESPONSIBILITY Dr. Wernher von Braun

STATUS RESPONSIBILITY J. R. Lada  
J. R. Lada

MANNED SPACE FLIGHT SCHEDULE  
MSFC-VARIOUS LOCATIONS  
CONSTRUCTION OF FACILITIES  
FUNDING SCHEDULE

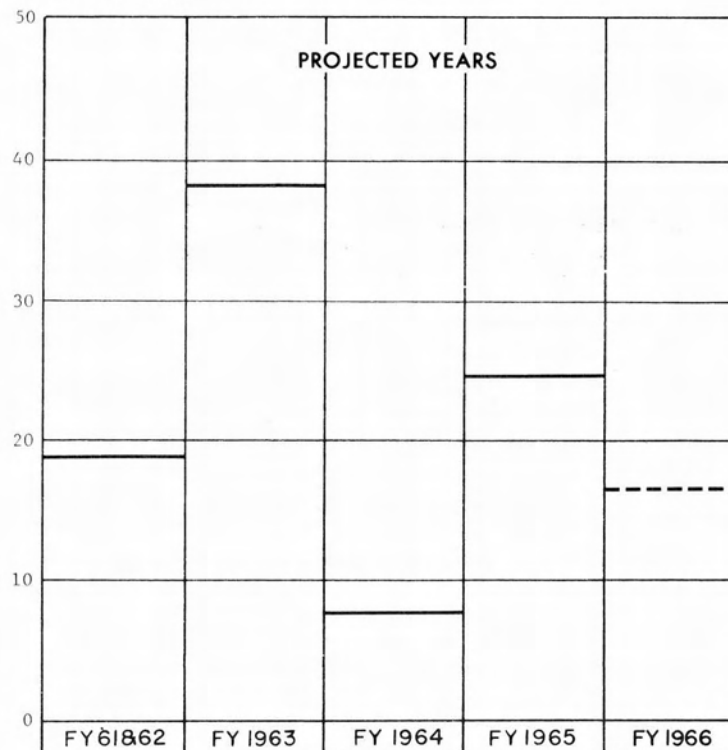
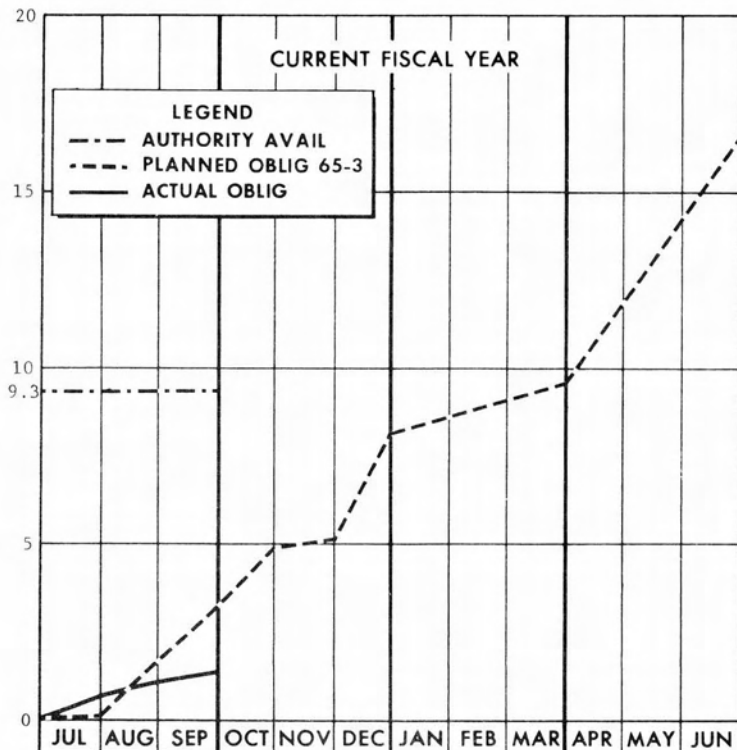


ORIGINAL SCHED. APPROVAL \_\_\_\_\_ (Date)  
LAST SCHED. CHANGE 9/30/65 (24) (Date) (No.) (Initials)  
STATUS AS OF 9/30/65 (Date) (Initials)

CONTRACTOR

PROJECT:  
SCH'D NO: A-6400-3/ 24

OBLIGATIONS (IN MILLIONS)



PLANNED	.070	1.604	3.245	4.911	5.011	8.128			9.669		16.536
ACT./EST.	.652	1.096	1.395								
PLANNED	.070	1.534	1.641	1.666	.100	3.117		1.541			6.867
ACT./EST.	.652	.444	.299								

PLANNED					16,536,000
ACT./EST.	18,844,000	38,022,000	7,624,000	24,633,000	
PLANNED					105,659,000
ACT./EST.	18,844,000	56,866,000	64,490,000	89,123,000	


NOTES

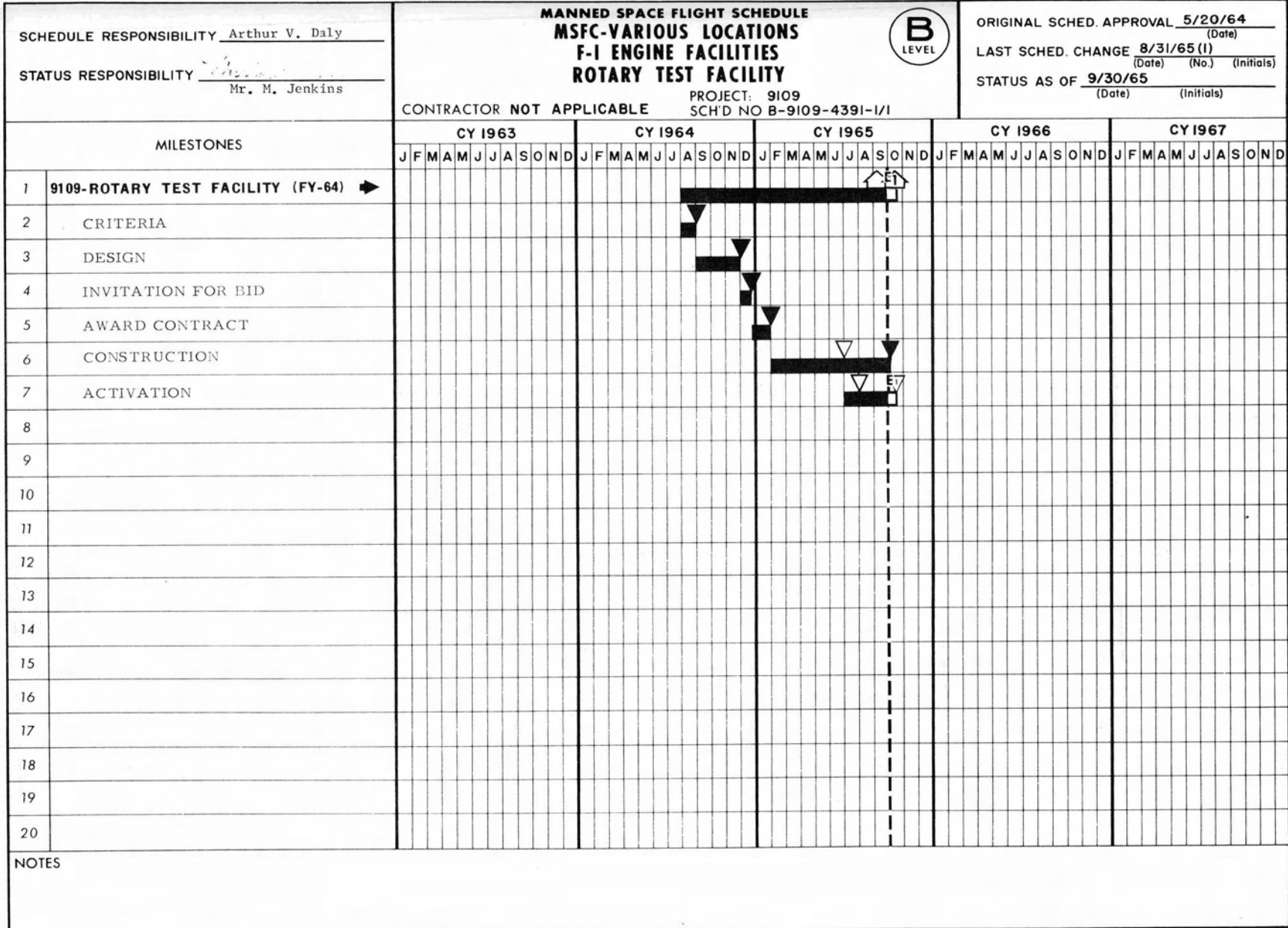
SCHEDULE RESPONSIBILITY _____  STATUS RESPONSIBILITY _____	<b>MANNED SPACE FLIGHT SCHEDULE</b> <b>MSFC-VARIOUS LOCATIONS</b> <b>EXPLANATIONS</b>	 LEVEL	ORIGINAL SCHED. APPROVAL _____ (Date) LAST SCHED. CHANGE _____ (Date) (No.) (Initials) STATUS AS OF _____ (Date) (Initials)
CONTRACTOR		PROJECT: SCH'D NO	

	<u>PROJECT</u>	<u>AMOUNT OF VARIANCE</u> (In Millions)	<u>REMARKS</u>
9130	S-IVB Stage Program (FY-65)	. 315	Contracts for miscellaneous modification (\$169,686) not awarded as scheduled, will be a December obligation. \$15,385 awarded in September, will be an October obligation. Requirements for \$129,929 have not been finalized.
9131	J-2 Engine Program (FY-65)	1. 267	\$1,110,000 awarded in September, will be an October obligation \$157,000 of a \$957,000 commitment remains open, will be obligated in December.





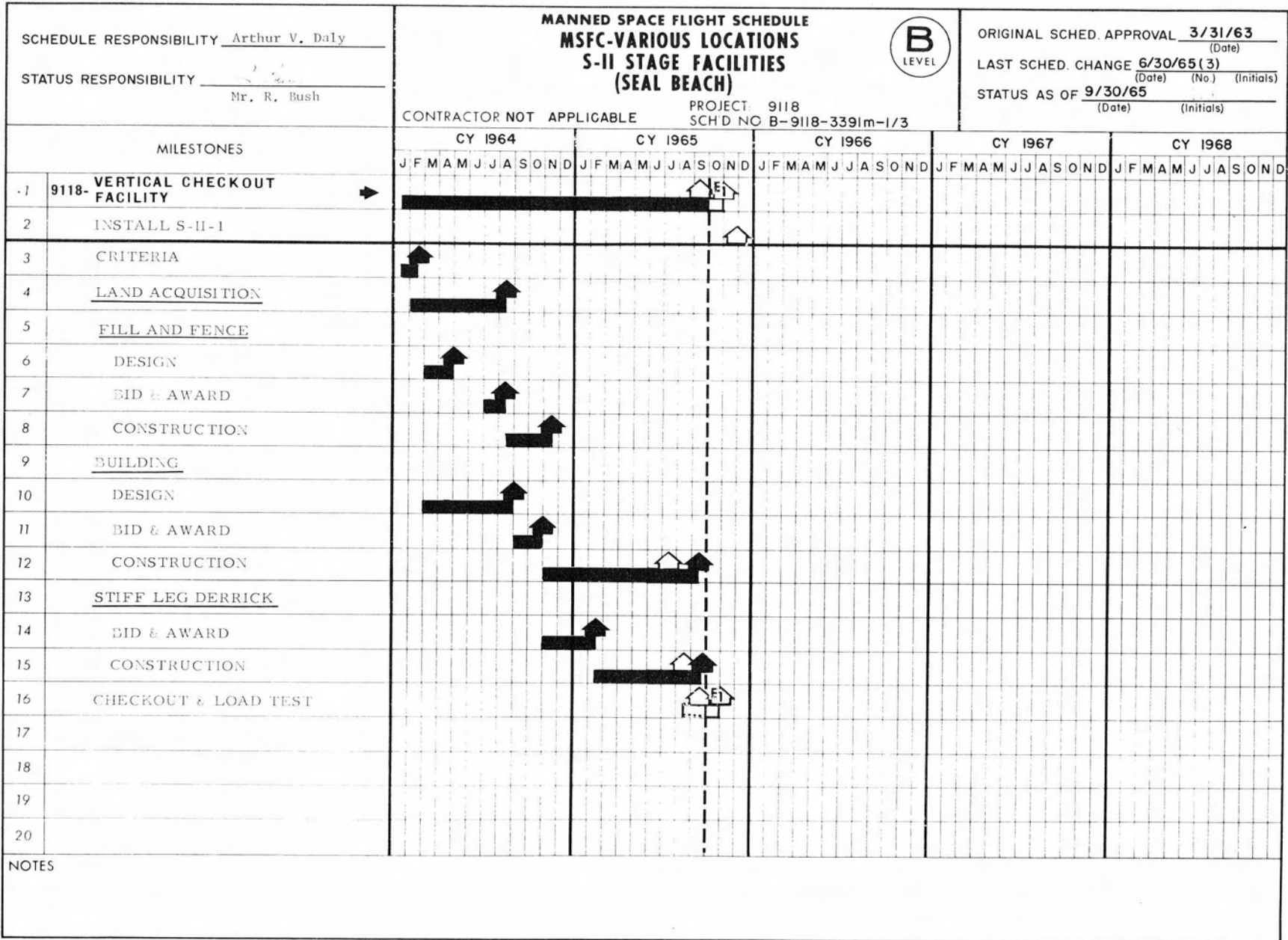
SCHEDULE RESPONSIBILITY <u>Arthur V. Daly</u> STATUS RESPONSIBILITY <u>Mr. M. Jenkins</u>		<b>MANNED SPACE FLIGHT SCHEDULE</b> <b>MSFC-VARIOUS LOCATIONS</b> <b>F-1 ENGINE FACILITIES</b> <b>GN2 SYSTEM (CANOGA PARK)</b> PROJECT: 9109 SCH'D NO B-9109-4391-1/2				ORIGINAL SCHED. APPROVAL _____ (Date) LAST SCHED. CHANGE <u>8/31/65</u> (2) (Date) (No.) (Initials) STATUS AS OF <u>30/65</u> (Date) (Initials)																																																							
								CONTRACTOR NOT APPLICABLE																																																					
MILESTONES		CY 1963			CY 1964			CY 1965			CY 1966			CY 1967																																															
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1	9109-GN <sub>2</sub> SYSTEM (FY-64) →																																																												
2	CRITERIA																																																												
3	DESIGN																																																												
4	INVITATION FOR BIDS																																																												
5	AWARD CONTRACT																																																												
6	CONSTRUCTION																																																												
7	ACTIVATION																																																												
8																																																													
9																																																													
10																																																													
11																																																													
12																																																													
13																																																													
14																																																													
15																																																													
16																																																													
17																																																													
18																																																													
19																																																													
20																																																													
NOTES																																																													



SCHEDULE RESPONSIBILITY <u>Arthur V. Daly</u> STATUS RESPONSIBILITY <u>Mr. M. Jenkins</u>		<b>MANNED SPACE FLIGHT SCHEDULE</b> <b>MSFC-VARIOUS LOCATIONS</b> <b>F-1 ENGINE FACILITIES</b> <b>BRAVO OFF-SITE LOX STOR &amp; TRANSFER SYS (SUZ)</b> PROJECT: 9109 SCHD NO B-9109-4391-1/2		ORIGINAL SCHED. APPROVAL <u>9/30/64</u> <small>(Date)</small> LAST SCHED. CHANGE <u>8/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small>
MILESTONES		CY 1964      CY 1965      CY 1966      CY 1967      CY 1968		
		J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D		
1	<b>9109-BRAVO OFF-SITE LOX STORAGE &amp; TRANSFER SYS (FY-64)</b>			
2	CRITERIA			
3	DESIGN			
4	INVIAATION FOR BIDS			
5	AWARD CONTRACT			
6	CONSTRUCTION			
7	ACTIVATION			
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
NOTES				

SCHEDULE RESPONSIBILITY <u>Arthur V. Daly</u> STATUS RESPONSIBILITY <u>Mr. M. Jenkins</u>	<b>MANNED SPACE FLIGHT SCHEDULE</b> <b>MSFC-VARIOUS LOCATIONS</b> <b>F-1 ENGINE FACILITIES</b> <b>(EDWARDS, SUSANA &amp; CANOGA)</b> PROJECT: 9109 SCH'D NO B-9109-4391-1 /1	ORIGINAL SCHED. APPROVAL <u>9/30/64</u> (Date) LAST SCHED. CHANGE <u>4/30/65 (1)</u> (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials)	
MILESTONES	CY 1964      CY 1965      CY 1966      CY 1967      CY 1968 J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D	(B) LEVEL	
1	9109-F-1 ENGINE FAC (FY-66)		E
2	CRITERIA		
3	DESIGN		E
4	BID & AWARD		E
5	CONSTRUCTION		E
6	ACTIVATION		E
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
NOTES ALL NOTES WILL BE SHOWN ON PAGE 8.			


FORM 10-64 (REV. 1-65) (40x60) (170)



MILESTONES		CY 1963					CY 1964					CY 1965					CY 1966					CY 1967																									
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O
1	9118- HI PR GAS & THERMAL CONTROL SYSTEM →																																														
2	CRITERIA *																																														
3	DESIGN *																																														
4	BID & AWARD *																																														
5	PROCUREMENT *																																														
6	INSTALLATION *																																														
7																																															
8																																															
9																																															
10																																															
11																																															
12																																															
13																																															
14																																															
15																																															
16																																															
17																																															
18																																															
19																																															
20																																															
NOTES																																															

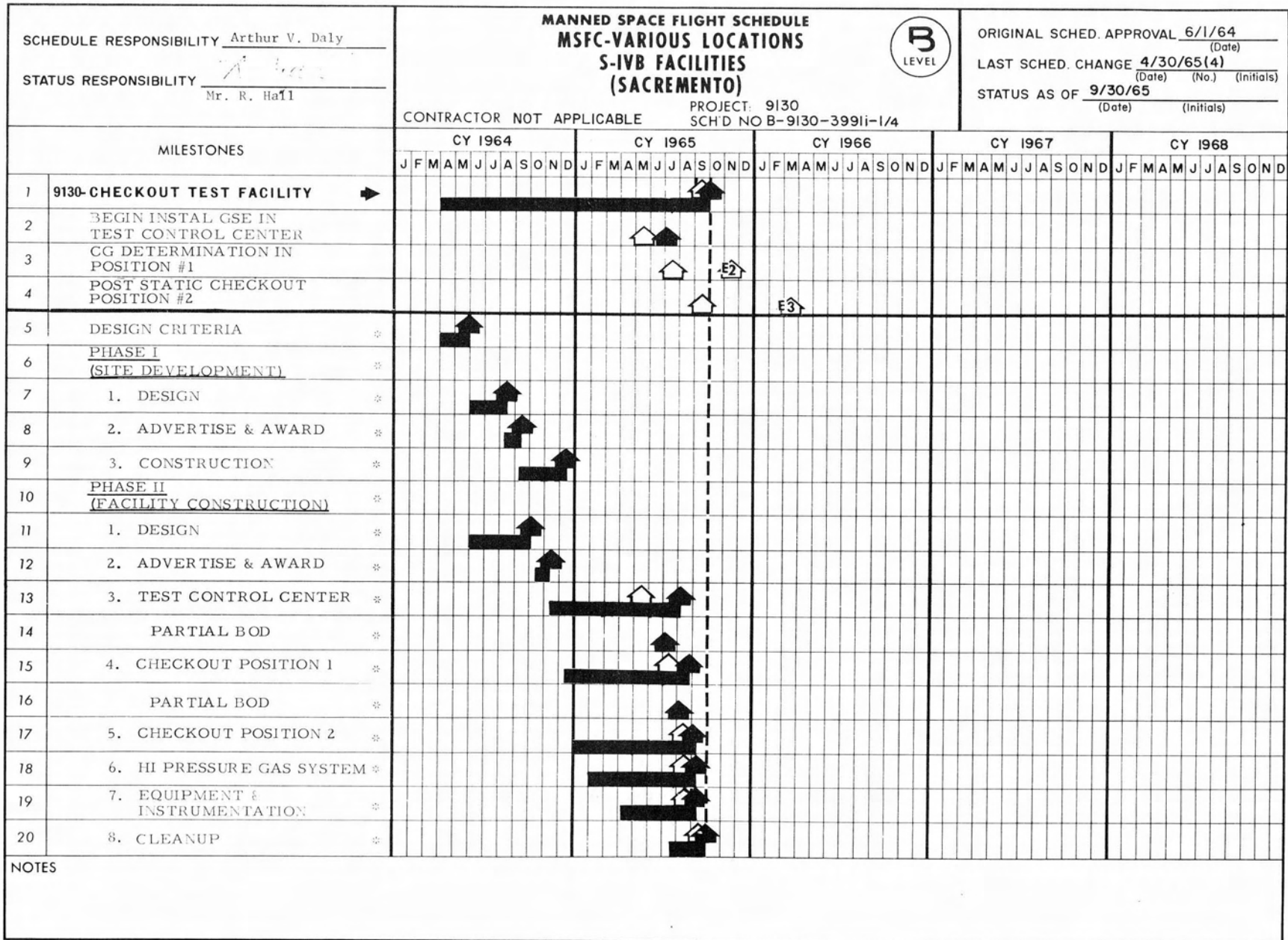
MSFC - Form 132 (Rev. 12/63)

SCHEDULE RESPONSIBILITY <u>Arthur V. Daly</u> STATUS RESPONSIBILITY <u>Mr. R. Bush</u>		<b>MANNED SPACE FLIGHT SCHEDULE</b> <b>MSFC-VARIOUS LOCATIONS</b> <b>S-II STAGE FACILITIES</b> <b>(SEAL BEACH, SANTA SUSANA)</b> CONTRACTOR NOT APPLICABLE PROJECT: 9118 SCHD NO B-9118-3391-1/3			ORIGINAL SCHED. APPROVAL <u>3/31/63</u> (Date) LAST SCHED. CHANGE <u>9/30/65(3)</u> (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials)																																																								
MILESTONES		CY 1964					CY 1965					CY 1966					CY 1967					CY 1968																																							
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1	<b>9118- SATURN V SECOND STAGE S-II FAC (NOTE 6)</b> →																																																												
2	BULKHEAD FAB ADDITION (SEAL BEACH) (NOTE 6)																																																												
3	BOND LAY-UP AREA (SEAL BEACH)																																																												
4	EXPAND DATA RECORDING SYS (SANTA SUSANA) (NOTE 7)																																																												
5																																																													
6																																																													
7																																																													
8																																																													
9																																																													
10																																																													
11																																																													
12																																																													
13																																																													
14																																																													
15																																																													
16																																																													
17																																																													
18																																																													
19																																																													
20																																																													
NOTES ALL NOTES WILL BE SHOWN ON PAGE 8.																																																													

SCHEDULE RESPONSIBILITY <u>Arthur V. Daly</u> STATUS RESPONSIBILITY <u>Mr. R. Hall</u>		<b>MANNED SPACE FLIGHT SCHEDULE</b> <b>MSFC-VARIOUS LOCATIONS</b> <b>S-IVB STAGE FACILITIES</b> <b>(SACTO)</b>													ORIGINAL SCHED. APPROVAL <u>3/31/63</u> <small>(Date)</small>																						
		CONTRACTOR NOT APPLICABLE      PROJECT: 9130 SCH'D NO B-9130-3291d-1/6												LAST SCHED. CHANGE <u>1/31/65(6)</u> <small>(Date) (No.) (Initials)</small>																							
																STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small>																					
MILESTONES		CY 1963				CY 1964				CY 1965				CY 1966				CY 1967																			
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1	9130- CONVERSION OF BETA 1 FOR ACCEPT TEST →																																				
2	INSTALL 203																																				
3	CRITERIA																																				
4	DESIGN																																				
5	ADVERTISE & AWARD																																				
6	PROCUREMENT & CONSTRUCTION																																				
7	PROPELLANT, GAS STORAGE & TRANSFER MODIF																																				
8	TEST STAND MODIF																																				
9	EQUIPMENT & INSTRUMENTATION																																				
10	FACILITY CHECKOUT																																				
11																																					
12																																					
13																																					
14																																					
15																																					
16																																					
17																																					
18																																					
19																																					
20																																					
NOTES																																					

MSFC - Form 1-75-5 (October 1963)





SCHEDULE RESPONSIBILITY <u>Arthur V. Daly</u> STATUS RESPONSIBILITY <u>Mr. B. Ondrak</u>		<b>MANNED SPACE FLIGHT SCHEDULE</b> <b>MSFC-VARIOUS LOCATIONS</b> <b>J-2 ENGINE FACILITIES</b> <b>HELIUM EXT FACILITY (SUZ)</b> PROJECT: 9131 SCH'D NO B-9131-4591-1/1		ORIGINAL SCHED. APPROVAL <u>9/30/64</u> <small>(Date)</small> LAST SCHED. CHANGE <u>1/31/65(1)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small>																																																									
MILESTONES		CY 1964					CY 1965					CY 1966					CY 1967					CY 1968																																							
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1	<b>9131-HELIUM EXTENSION FACILITY</b> →																																																												
2	DESIGN																																																												
3	CONSTRUCTION FUNDS NEEDED																																																												
4	BID & AWARD																																																												
5	CONSTRUCTION																																																												
6	ACTIVATION																																																												
7																																																													
8																																																													
9																																																													
10																																																													
11																																																													
12																																																													
13																																																													
14																																																													
15																																																													
16																																																													
17																																																													
18																																																													
19																																																													
20																																																													
NOTES																																																													









