

EDITION "A"

MANNED SPACE FLIGHT SCHEDULES

Volume III
LAUNCH VEHICLES

Book 3 - Saturn V

SATURN HISTORY DOCUMENT
University of Alabama Research Institute
History of Science & Technology Group
Date ----- Doc. No. -----

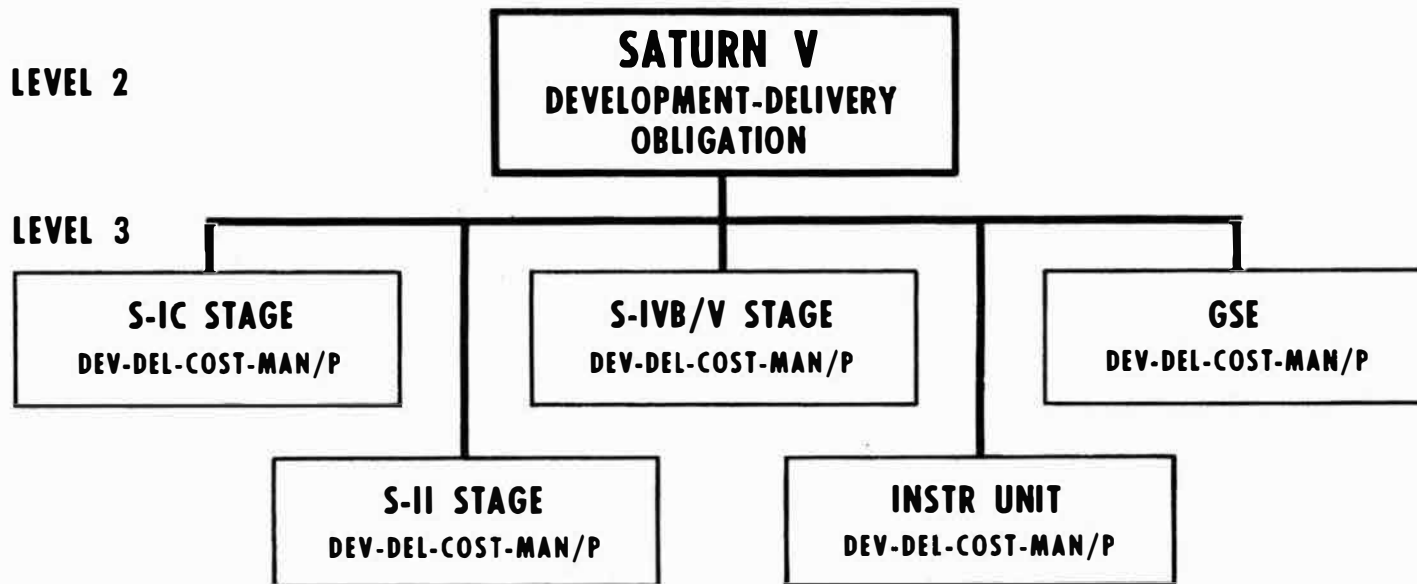


OMSF PROGRAM STATUS REVIEW OCTOBER 1965

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OMSF PROGRAM STATUS REVIEW PROGRAM SCHEDULE ROAD MAP



MANNED SPACE FLIGHT SCHEDULE
TABLE OF CONTENTS
VOLUME III-LAUNCH VEHICLES
BOOK 3-SATURN V

EDITION A

| <u>Level</u> | <u>Schedule No.</u> | <u>Title</u> | <u>Page No.</u> | <u>Level</u> | <u>Schedule No.</u> | <u>Title</u> | <u>Page No.</u> |
|--------------|---------------------|--------------------------------------|-----------------|--------------|---------------------|--|-----------------|
| | | <u>SATURN V</u> | | | | | |
| | | Control Milestones | III-3-6 thru 5 | 3 | 3332-00-1c | (c) All Systems | III-3-32 |
| | | Single Thread | III-3-6 | 3 | 3332-00-1d | (d) Common Bulkhead | III-3-33 |
| 2 | 3300-00-1 | Development and Delivery Plan | III-3-7 | 3 | 3332-00-1e | (e) Electro-Mechanical Mockup | III-3-34 |
| 2 | 3300-00-2 | Saturn V Hardware Quantities | III-3-8 | 3 | 3332-00-1f | (f) Facility Checkout | III-3-35 |
| 2 | 3300-00-3 | Saturn V Hardware Identification | III-3-9 | 3 | 3332-00-1g | (g) S-II-1 | III-3-36&37 |
| 2 | 3300-00-4 | Saturn V Hardware Identification | III-3-10 | 3 | 3332-00-1h | (h) S-II-2 | III-3-38 |
| 2 | 3300-00-5 | Saturn V Dynamic Testing | III-3-11 | 3 | 3332-00-1i | (i) S-II-3 | III-3-39 |
| 2 | 3300-00-6 | Launch Vehicle Obligations | III-3-11a | 3 | 3332-00-1j | (j) S-II-4 | III-3-40 |
| 2 | 3300-00-7 | Launch Vehicle Obligations | III-3-11b | 3 | 3332-00-1k | (k) S-II-2 Contract Incentive Features | III-3-41 |
| | | | | 3 | 3332-00-1l | (l) S-II Procur Veh 511 Thru 515 | III-3-42 |
| | | | | 3 | 3332-00-1m | (m) S-II-501 Stage Qual Status | III-3-43 |
| | | | | 3 | 3332-00-1n | (n) S-II Stage Eng Changes | III-3-44 |
| | | | | 3 | 3332-00-1o | (o) Basic Eng Design Rel | III-3-45 |
| | | | | 3 | 3332-00-1p | (p) All S-II Stage Hardware | III-3-46 |
| | | | | 3 | 3332-00-1q | (q) All S-II Stage Hardware | III-3-47 |
| | | <u>S-IC STAGE</u> | | | | | |
| 3 | 3331-00-1 | Development and Delivery Plan | III-3-12 | 3 | | | |
| 3 | 3331-00-1a | (a) Structural | III-3-13 | | | | |
| 3 | 3331-00-1b | (b) Dynamic | III-3-14 | | | | |
| 3 | 3331-00-1c | (c) Facility Checkout | III-3-15 | | | | |
| 3 | 3331-00-1d | (d) S-IC-1 | III-3-16 | 3 | 3332-00-2a | NAA Man Months | III-3-47a |
| 3 | 3331-00-1e | (e) S-IC-2 | III-3-17 | 3 | 3332-00-2b | NAA Man Years | III-3-47b |
| 3 | 3331-00-1f | (f) S-IC-3 | III-3-18 | | | | |
| 3 | 3331-00-1g | (g) S-IC-4 | III-3-19 | | | | |
| 3 | 3331-00-1h | (h) S-IC-T | III-3-20&21 | | | | |
| 3 | 3331-00-1i | (i) S-IC Contract Incentive Features | III-3-22 | 3 | 3333-00-1 | Development and Delivery Plan | III-3-48 |
| 3 | 3331-00-1j | (j) S-IC Procur Veh 511 Thru 515 | III-3-23 | 3 | 3333-00-1a | (a) Structural | III-3-49 |
| 3 | 3331-00-1k | (k) S-IC-501 Stage Qual Status | III-3-24 | 3 | 3333-00-1b | (b) Battleship | III-3-50 |
| 3 | 3331-00-1l | (l) S-IC-1 Eng Changes | III-3-25 | 3 | 3333-00-1c | (c) Facility Checkout | III-3-51 |
| 3 | 3331-00-1m | (m) All S-IC Stage Hardware | III-3-26 | 3 | 3333-00-1d | (d) Dynamic | III-3-52 |
| 3 | 3331-00-1n | (n) All S-IC Stage Hardware | III-3-27 | 3 | 3333-00-1e | (e) S-IVB-501 | III-3-53 |
| | | | | 3 | 3333-00-1f | (f) S-IVB-502 | III-3-54 |
| | | | | 3 | 3333-00-1g | (g) S-IVB-503 | III-3-55 |
| | | | | 3 | 3333-00-1h | (h) S-IVB-504 | III-3-56 |
| 3 | 3331-00-2a | Boeing Man Months | III-3-27a | 3 | 3333-00-1i | (i) S-IVB-501 Software Requirements | III-3-57 |
| 3 | 3331-00-2b | Boeing Man Years | III-3-27b | 3 | 3333-00-1j | (j) S-IVB Contract Incentive Features | III-3-58 |
| 3 | 3331-00-2c | Mason Rust Man Months | III-3-27c | 3 | 3333-00-1k | (k) S-IVB Procur Veh 507 Thru 515 | III-3-59 |
| 3 | 3331-00-2d | Mason Rust Man Years | III-3-27d | 3 | 3333-00-1l | (l) S-IVB-501 Stage Qual Status | III-3-60 |
| 3 | 3331-00-2e | Arrowhead Man Months | III-3-27e | | | | |
| 3 | 3331-00-2f | Arrowhead Man Years | III-3-27f | | | | |
| 3 | 3331-00-2g | Civil Service Manpower | III-3-27g | | | | |
| | | | | 3 | 3333-00-2a | Dac Man Months | III-3-60a |
| | | | | 3 | 3333-00-2b | Dac Man Years | III-3-60b |
| | | <u>S-II STAGE</u> | | | | | |
| 3 | 3332-00-1 | Development and Delivery Plan | III-3-28 | | | | |
| 3 | 3332-00-1a | (a) S-II-S/D Stage | III-3-29 | | | | |
| 3 | 3332-00-1b | (b) Battleship | III-3-30&31 | | | | |

**MANNED SPACE FLIGHT SCHEDULE
TABLE OF CONTENTS
VOLUME III-LAUNCH VEHICLES
BOOK 3-SATURN V**

EDITION A

| <u>Level</u> | <u>Schedule No.</u> | <u>Title</u> | <u>Page No.</u> | <u>Level</u> | <u>Schedule No.</u> | <u>Title</u> | <u>Page No.</u> |
|---------------------------------|---------------------|---|-----------------|----------------------------|---------------------|-------------------------------|-----------------|
| <u>INSTRUMENT UNIT</u> | | | | | | | |
| 3 | 3335-00-1 | Development and Delivery Plan | III-3-61 | 3 | 3336-00-1i | LCC Firing Room #1 | III-3-84 |
| | | IU Vibration Test Unit | | 3 | 3336-00-1j | LCC Firing Room #2 | III-3-85 |
| 3 | 3335-00-1a | (a) S-IU-200V | III-3-62 | 3 | 3336-00-1k | RCA 110A Computer Deliveries | III-3-86 |
| 3 | 3335-00-1b | (b) S-IU-500V | III-3-63 | 3 | 3336-00-1l | Service Arm/Umb Test Facility | III-3-87 |
| 3 | 3335-00-1c | IU Structural Test Unit | III-3-64 | 3 | 3336-00-1m | Pad A | III-3-88 |
| 3 | 3335-00-1d | IU Dynamic Test Unit | III-3-65 | 3 | 3336-00-1n | Software Schedule SA-501 | III-3-89 |
| 3 | 3335-00-1e | IU System Test Unit | III-3-66 | 3 | 3336-00-1o | Basic Eng Design Rel | III-3-90 |
| 3 | 3335-00-1f | IU Flight Systems Test Unit | III-3-67 | 3 | 3336-00-1p | Vehicle GSE Eng Changes | III-3-91 |
| 3 | 3335-00-1g | IU Facilities Checkout Unit | III-3-68 | 3 | 3336-00-1q | Vehicle GSE Eng Changes | III-3-92 |
| 3 | 3335-00-1h | IU Delivery (S-IU-501) | III-3-69 | <u>CONTRACTOR MANPOWER</u> | | | |
| 3 | 3335-00-1i | IU Delivery (S-IU-502) | III-3-70 | 3 | 3336-00-2a | RCA Man Months | III-3-92a |
| 3 | 3335-00-1j | IU Delivery (S-IU-503) | III-3-71 | 3 | 3336-00-2b | RCA Man Years | III-3-92b |
| 3 | 3335-00-1k | IU Delivery (S-IU-504) | III-3-72 | 3 | 3336-00-2c | Boeing Man Months | III-3-92c |
| 3 | 3335-00-1l | IU Software Requirements | III-3-73 | 3 | 3336-00-2d | Boeing Man Years | III-3-92d |
| 3 | 3335-00-1m | IU 501 Stage Qual Status | III-3-74 | 3 | 3336-00-2e | GE Man Months | III-3-92e |
| | | | | 3 | 3336-00-2f | GE Man Years | III-3-92f |
| | | | | 3 | 3336-00-2g | Sanders & Assoc Man Months | III-3-92g |
| | | | | 3 | 3336-00-2h | Sanders & Assoc Man Years | III-3-92h |
| <u>CONTRACTOR MANPOWER</u> | | | | | | | |
| 3 | 3335-00-2a | IBM Man Months | III-3-74a | <u>VEHICLE SUPPORT</u> | | | |
| 3 | 3335-00-2b | IBM Man Years | III-3-74b | <u>CONTRACTOR MANPOWER</u> | | | |
| 3 | 3335-00-2c | Bendix Man Months | III-3-74c | 3 | 3337-00-1 | GE Man Months (MTF) | III-3-93a |
| 3 | 3335-00-2d | Bendix Man Years | III-3-74d | 3 | 3337-00-2 | GE Man Years (MTF) | III-3-93b |
| 3 | 3335-00-2e | Civil Service Manpower | III-3-74e | 3 | 3337-00-3 | Boeing Man Months | III-3-93c |
| | | | | 3 | 3337-00-4 | Boeing Man Years | III-3-93d |
| <u>GROUND SUPPORT EQUIPMENT</u> | | | | | | | |
| 3 | 3336-00-1 | Development and Delivery Plan | III-3-75 | | | | |
| 3 | 3336-00-1a | Sat V Automation Sys Dev Fac (Mech BB) | III-3-76 | | | | |
| 3 | 3336-00-1b | Sat V Automation Sys Dev Fac (Elec BB) | III-3-77 | | | | |
| 3 | 3336-00-1c | VAB Low Bay (Mech) | III-3-78 | | | | |
| 3 | 3336-00-1d | VAB High Bay #1 (Mech) | III-3-79 | | | | |
| 3 | 3336-00-1e | LUT #1 (Mech) | III-3-80 | | | | |
| 3 | 3336-00-1f | LUT #1 (Elec) | III-3-81 | | | | |
| 3 | 3336-00-1g | LUT #2 (Mech) | III-3-82 | | | | |
| 3 | 3336-00-1h | LUT #2 (Elec) | III-3-83 | | | | |

MANNED SPACE FLIGHT SCHEDULE

MSFC CONTROL MILESTONES

| MILESTONE | DATE | MILESTONE | DATE |
|---|--------|---|--------|
| A. <u>DYNAMIC TESTING</u> | | S-IC-5 DELIVERY TO KSC | DEC 67 |
| SATURN V DIV TEST COMPLETE (501 & ON) | NOV 66 | S-IC-6 DELIVERY TO KSC | MAR 68 |
| RELEASE LTA-2 FOR SA-502 MISSION | NOV 66 | S-IC-7 DELIVERY TO KSC | JUN 68 |
| B. <u>S-IC STAGE</u> | | S-IC-8 DELIVERY TO KSC | SEP 68 |
| * S-IC-D DELIVERY TO MSFC | OCT 65 | S-IC-9 DELIVERY TO KSC | NOV 68 |
| FORWARDED S-IC INCENTIVE CONVERSION | | S-IC-10 DELIVERY TO KSC | JAN 69 |
| CONTRACT TO APO FOR APPROVAL | DEC 65 | S-IC-11 DELIVERY TO KSC | MAR 69 |
| MTF POSITION 1 AVAILABLE FOR FLIGHT | | S-IC-12 DELIVERY TO KSC | MAY 69 |
| STAGE ACCEPTANCE TESTING (S-IC-4) | JAN 67 | S-IC-13 DELIVERY TO KSC | JUL 69 |
| * S-IC-T MSFC INITIAL CAPTIVE TESTING | | S-IC-14 DELIVERY TO KSC | SEP 69 |
| COMPLETE | JAN 66 | S-IC-15 DELIVERY TO KSC | NOV 69 |
| * COMPLETE S-IC STRUCTURAL TEST PROGRAM | DEC 67 | C. <u>S-II STAGE</u> | |
| MTF POSITION 2 AVAILABLE FOR FLIGHT | | S-II-AS DELIVER TO MTF | SEP 65 |
| STAGE ACCEPTANCE TESTING | DEC 67 | * S-II-S/D DELIVERY TO MSFC | NOV 65 |
| * S-IC-F DELIVERY TO KSC | JAN 66 | FORWARD S-II INCENTIVE CONVERSION | |
| * S-IC-I DELIVERY TO KSC | JUL 66 | CONTRACT FOR APO APPROVAL | DEC 65 |
| * S-IC-2 DELIVERY TO KSC | NOV 66 | * MTF A-2 TEST STAND AVAILABLE FOR FLIGHT | |
| * S-IC-3 DELIVERY TO KSC | APR 67 | STAGE ACCEPTANCE TESTING (S-II-I) | MAR 66 |
| S-IC-4 DELIVERY TO KSC | AUG 67 | COMPLETE BATTLESHIP SYSTEMS TESTS, | |
| | | FLIGHT SUPPORT AND DEVELOPMENT | JUN 67 |

CONTROL MILESTONES WHICH SCHEDULE AND EXPECTED DATE INFORMATION FOR NASA PERT "C" COMPUTER PROGRAM UTILIZATION IN GSE WILL BE SHOWN IN NEXT SUBMISSION.

MANNED SPACE FLIGHT SCHEDULE

MSFC CONTROL MILESTONES

| MILESTONE | DATE | MILESTONE | DATE |
|---|--------|------------------------------------|--------|
| MTF A-1 TEST STAND AVAILABLE FOR FLIGHT | | D. <u>S-IVB STAGE</u> | |
| STAGE ACCEPTANCE TESTING | OCT 67 | FORWARD S-IVB INCENTIVE CONVERSION | |
| * S-II-F DELIVERY TO KSC | JAN 66 | CONTRACT FOR APO APPROVAL | OCT 65 |
| * S-II-1 DELIVERY TO KSC | JUL 66 | * S-IVB-501 DELIVERY TO KSC | JUL 66 |
| * S-II-2 DELIVERY TO KSC | NOV 66 | S-IVB-502 DELIVERY TO KSC | NOV 66 |
| * S-II-3 DELIVERY TO KSC | APR 67 | S-IVB-503 DELIVERY TO KSC | APR 67 |
| * S-II-4 DELIVERY TO KSC | AUG 67 | S-IVB-504 DELIVERY TO KSC | AUG 67 |
| * S-II-5 DELIVERY TO KSC | DEC 67 | S-IVB-505 DELIVERY TO KSC | DEC 67 |
| S-II-6 DELIVERY TO KSC | MAR 68 | S-IVB-506 DELIVERY TO KSC | MAR 68 |
| S-II-7 DELIVERY TO KSC | JUN 68 | S-IVB-507 DELIVERY TO KSC | JUN 68 |
| S-II-8 DELIVERY TO KSC | SEP 68 | S-IVB-508 DELIVERY TO KSC | SEP 68 |
| S-II-9 DELIVERY TO KSC | NOV 68 | S-IVB-509 DELIVERY TO KSC | NOV 68 |
| S-II-10 DELIVERY TO KSC | JAN 69 | S-IVB-510 DELIVERY TO KSC | JAN 69 |
| S-II-11 DELIVERY TO KSC | MAR 69 | S-IVB-511 DELIVERY TO KSC | MAR 69 |
| S-II-12 DELIVERY TO KSC | MAY 69 | S-IVB-512 DELIVERY TO KSC | MAY 69 |
| S-II-13 DELIVERY TO KSC | JUL 69 | S-IVB-513 DELIVERY TO KSC | JUL 69 |
| S-II-14 DELIVERY TO KSC | SEP 69 | S-IVB-514 DELIVERY TO KSC | SEP 69 |
| S-II-15 DELIVERY TO KSC | NOV 69 | S-IVB-515 DELIVERY TO KSC | NOV 69 |

MANNED SPACE FLIGHT SCHEDULE

MSFC CONTROL MILESTONES

| MILESTONE | DATE | MILESTONE |
|-------------------------------------|--------|--|
| E. <u>INSTRUMENT UNIT</u> | | F. <u>SYSTEM DEVELOPMENT FACILITY BREADBOARD</u> |
| COMPLETE S-IU-500V TESTING | OCT 65 | MECHANICAL BREADBOARD OPERATIONAL |
| COMPLETE S-IU-200 S/500S II TESTING | OCT 65 | ELECTRICAL BREADBOARD OPERATIONAL |
| COMPLETE S-IU-500FS TESTING | FEB 66 | G. <u>LAUNCH COMPLEX 39 LVGSE - FLOW 1 & 2</u> |
| *S-IU-501 DELIVERY TO KSC | JUL 66 | VAB LOW BAY OPERATIONAL |
| S-IU-502 DELIVERY TO KSC | NOV 66 | S-II ACCESS EQUIPMENT |
| S-IU-503 DELIVERY TO KSC | APR 67 | HANDLING EQUIPMENT |
| S-IU-504 DELIVERY TO KSC | AUG 67 | S-IVB ACCESS EQUIPMENT |
| S-IU-505 DELIVERY TO KSC | DEC 67 | HANDLING EQUIPMENT |
| S-IU-506 DELIVERY TO KSC | MAR 68 | J-2 ENG TEST & C/O EQUIPMENT |
| S-IU-507 DELIVERY TO KSC | JUN 68 | ENGINE HANDLING EQUIPMENT |
| S-IU-508 DELIVERY TO KSC | SEP 68 | MOBILE PNEUMATIC EQUIPMENT |
| S-IU-509 DELIVERY TO KSC | NOV 68 | S-II STAGE ESE |
| S-IU-510 DELIVERY TO KSC | JAN 69 | STAGE POWER |
| S-IU-511 DELIVERY TO KSC | MAR 69 | INTERCONNECT CABLES |
| S-IU-512 DELIVERY TO KSC | MAY 69 | S-IVB STAGE ESE |
| S-IU-513 DELIVERY TO KSC | JUL 69 | STAGE POWER |
| S-IU-514 DELIVERY TO KSC | SEP 69 | INTERCONNECT CABLES |
| S-IU-515 DELIVERY TO KSC | NOV 69 | DDAS |

MANNED SPACE FLIGHT SCHEDULE

MSFC CONTROL MILESTONES

MILESTONE

VAB HIGH BAY

S-1C ACCESS EQUIPMENT

HANDLING EQUIPMENT

HYD PERFORM TESTER

INTER UMB GRD CARRIER T/S

IU HANDLING EQUIPMENT

F-1 ENGINE TEST & C/O EQUIP

ENGINE HANDLING EQUIPMENT

VENT COUPLINGS

APOLLO SIMULATOR

SHORT RANGE THEODOLITE

RCA 110A COMPUTER

COMPUTER PERIPHERAL EQUIP

OPERATIONAL DISPLAY SYSTEM

SHORT RANGE THEODOLITE

ST-124 ESE

LUT #1 OPERATIONAL

S-1C PNEUMATIC EQUIPMENT

HYD SUPPLY & C/O SYSTEM

INERT PREFILL UNIT

MILESTONE

S-II PNEUMATIC EQUIPMENT

HEAT EXCHANGER

S-IVB PNEUMATIC EQUIPMENT

HEAT EXCHANGER

HYDRAULIC SERVICER

APS PNEUMATIC EQUIPMENT

IU PNEUMATIC EQUIPMENT

GROUND COOLING UNIT

LUT #1 ELECTRICAL EQUIPMENT

S-1C STAGE ESE (INCL POWER & CABLES)

S-II STAGE ESE

S-IVB STAGE ESE

IU STAGE ESE

SYSTEM INTEGRATION ESE

PRIMARY POWER SYSTEM ESE

INTERCONNECTING CABLES

OVERALL TEST SET

CROSSOVER JUNCTION BOXES

RCA 110A COMPUTER

DISCRETE CONTROL SYSTEM

MANNED SPACE FLIGHT SCHEDULE

MSFC CONTROL MILESTONES

| MILESTONE | MILESTONE |
|-----------------------------|--------------------------|
| DIGITAL EVENTS EVALUATOR | S-IVB STAGE ESE |
| DDAS | IU STAGE ESE |
| COUNT CLOCK SYSTEM | SYSTEM INTEGRATION ESE |
| ST-124 ESE | PRIMARY POWER SYSTEM ESE |
| COMPUTER PERIPHERAL ESE | INTERCONNECTING CABLES |
| LUT #2 MECHANICAL EQUIPMENT | OVERALL TEST SET |
| S-IC PNEUMATIC EQUIPMENT | CROSSOVER JUNCTION BOXES |
| HYD SUPPLY & C/O SYSTEM | RCA 110A COMPUTER |
| INERT PREFILL UNIT | DISCRETE CONTROL SYSTEM |
| S-II PNEUMATIC EQUIPMENT | DIGITAL EVENTS EVALUATOR |
| HEAT EXCHANGER | DDAS |
| S-IVB PNEUMATIC EQUIPMENT | COUNT CLOCK SYSTEM |
| HEAT EXCHANGER | ST-124 ESE |
| HYDRAULIC SERVICER | COMPUTER PERIPHERAL ESE |
| APS PNEUMATIC EQUIPMENT | FIRING ROOM #1 |
| IU PNEUMATIC EQUIPMENT | S-IC STAGE ESE |
| GROUND COOLING UNIT | S-II STAGE ESE |
| LUT #2 ELECTRICAL EQUIPMENT | S-IVB STAGE ESE |
| LUT #2 OPERATIONAL | IU STAGE ESE |
| S-IC STAGE ESE | SYSTEM INTEGRATION ESE |
| S-II STAGE ESE | PRIMARY POWER SYSTEM ESE |

MANNED SPACE FLIGHT SCHEDULE

MSFC CONTROL MILESTONES

MILESTONE

INTERCONNECTING CABLES
 RCA 110A COMPUTER
 DISCRETE CONTROL SYSTEM
 DIGITAL EVENT EVALUATOR
 DDAS
 COUNT CLOCK SYSTEM
 OPERATIONAL DISPLAY SYSTEM
 COMPUTER PERIPHERAL ESE
 FIRING ROOM #2
 S-IC STAGE ESE
 S-II STAGE ESE
 S-IVB STAGE ESE
 IU STAGE ESE
 SYSTEM INTEGRATION ESE
 PRIMARY POWER SYSTEM ESE
 INTERCONNECTING CABLES
 RCA 110A COMPUTER
 DISCRETE CONTROL SYSTEM
 DIGITAL EVENT EVALUATOR
 DDAS
 COUNT CLOCK SYSTEM

MILESTONE

OPERATIONAL DISPLAY SYSTEM
 COMPUTER PERIPHERAL ESE
 PAD A
 PAD A OPERATIONAL
 APS SERVICER UNIT
 S-IC FLUSH & PURGE SERVICER
 RJ-1 SODIUM NITRITE SERVICER
 LONG RANGE THEODOLITE
 S-IVB SIMULATED BATTERY TEST SET
 SOFTWARE SCHEDULE
 DEBUGGING COMPLETE
 LVO OPERATION

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
- EXPECTED COMPLETION DATE
- LATEST ALLOWABLE COMPLETION DATE
- PROJECT (PROGRAM) MANAGERS' ASSESSMENT OF EXPECTED COMPL DATE
- EXPECTED AND ASSESSMENT DATES IDENTICAL
- EXPECTED, LATEST ALLOWABLE & ASSESSMENT DATES IDENTICAL
- SCHEDULED AND EXPECTED DATES IDENTICAL
- SCHEDULED, EXPECTED AND LATEST ALLOWABLE DATES IDENTICAL (CONTROLLED MILESTONE)**
- SCHEDULED AND EXPECTED DATES IDENTICAL (SUPPORTING MILESTONE)
- SCHEDULED, EXPECTED AND LATEST ALLOWABLE DATES IDENTICAL (SUPPORTING MILESTONE)**

USE OF SCHEDULE SYMBOLS IN CONJUNCTION WITH ACTIVITY BARS

ACTIVITY INITIATION

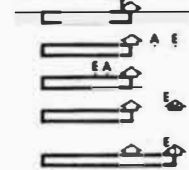
- PREDICTED INITIATION ON SCHEDULE
- PREDICTED LATE INITIATION
- PREDICTED EARLY INITIATION

ACTIVITY PROGRESS TOWARD COMPLETION - BASIC SCHEDULE

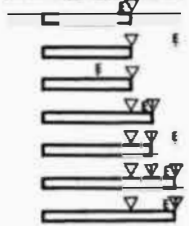
- ACTIVITY ON SCHEDULE
- ACTIVITY BEHIND SCHEDULE
- ACTIVITY AHEAD OF SCHEDULE
- PROGRESS AGAINST SCHEDULED DELIVERIES, TEST FIRINGS, ETC. (ON SCHEDULE)
- LATE INITIATION - BEHIND SCHEDULE
- EARLY INITIATION - AHEAD OF SCHEDULE
- BEHIND SCHEDULE - FOUR CUMULATIVE DELIVERIES
- AHEAD OF SCHEDULE - SEVEN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

GRAPH CURVES

- PLANNED
- ACTUAL
- CURVE ESTIMATE

USE OF "LATEST ALLOWABLE" DATE SYMBOL

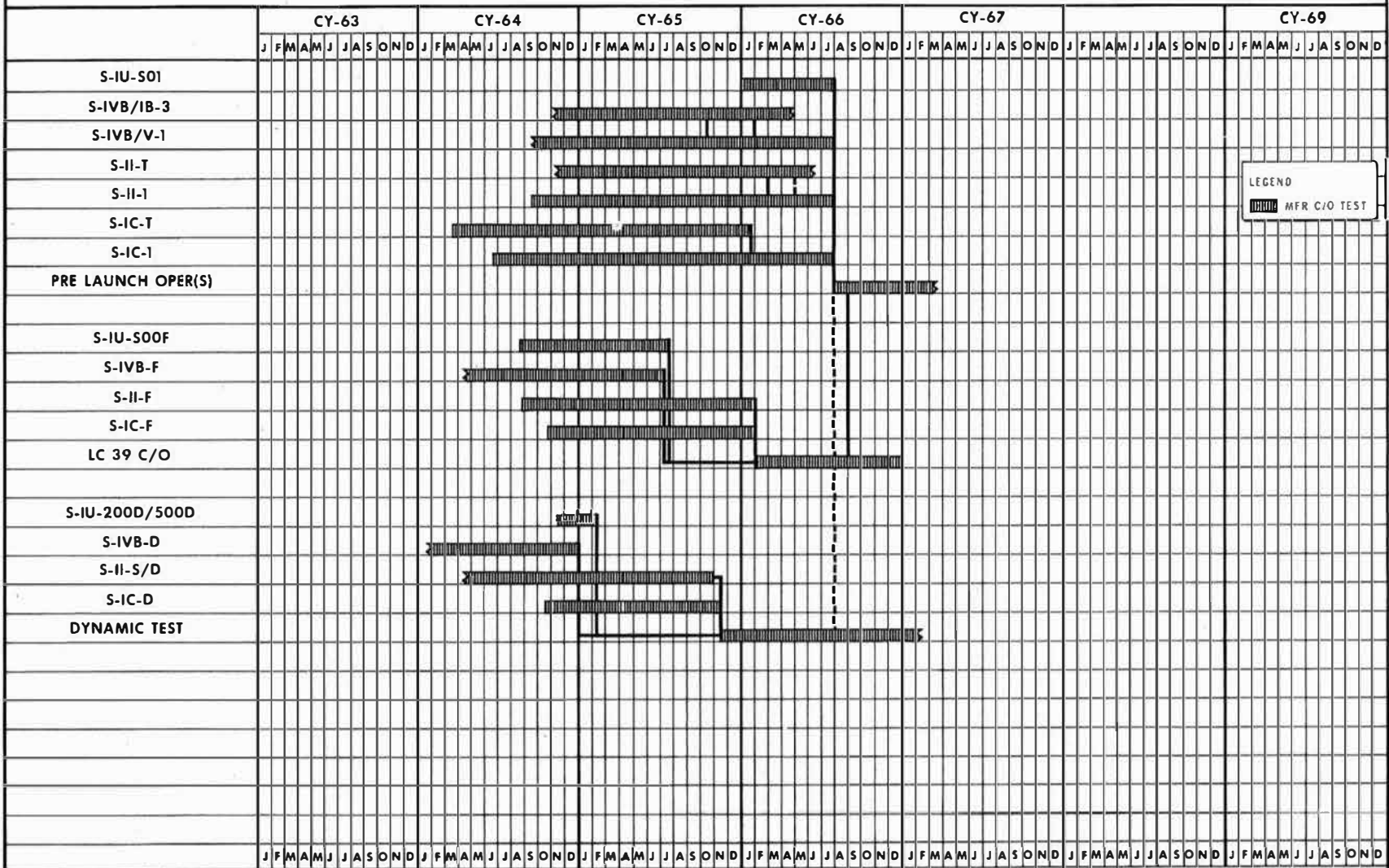
- KEY MILESTONE - PREDICTED EARLY COMPLETION
- SUPPORTING MILESTONE - PREDICTED LATE COMPLETION
- CONTROLLED MILESTONE - PREDICTED LATE COMPLETION

| | | |
|--|----------------------|--|
| | GENERAL NOTES | |
|--|----------------------|--|

PERT EVENT NUMBERS WILL BE PLACED IN SARP BOOKS
UNIFORMLY FOR NOVEMBER SUBMISSION.

THE SINGLE SUPPORT CONTRACTOR FUNDING CHARTS ARE
OMITTED IN THIS SUBMISSION. THEY ARE PRESENTLY
BEING REVISED TO REFLECT NECESSARY ADJUSTMENTS TO
MORE ACCURATELY REPORT THE ACTUAL USAGE BY PROJECT.
THE REVISED CHARTS WILL BE INCLUDED IN THE NEXT SARP
SUBMISSION.

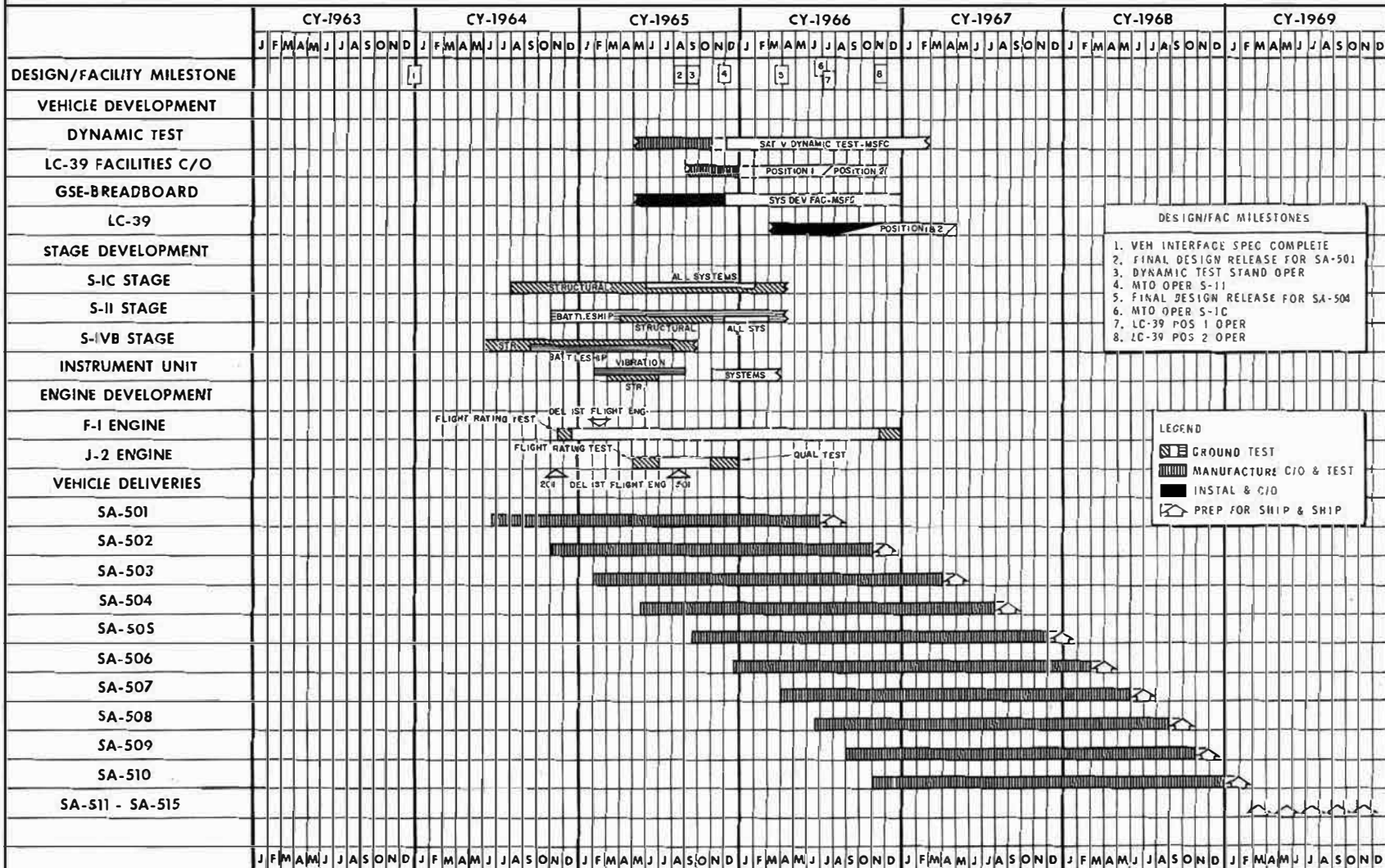
SA-501 SINGLE THREAD



LEGEND
 MFR C/O TEST

NOTES:

SAT V LAUNCH VEHICLE DEVELOPMENT AND DELIVERY PLAN MA-2 SCHEDULE



- DESIGN/FAC MILESTONES**
1. VEH INTERFACE SPEC COMPLETE
 2. FINAL DESIGN RELEASE FOR SA-501
 3. DYNAMIC TEST STAND OPER
 4. MTO OPER S-11
 5. FINAL DESIGN RELEASE FOR SA-504
 6. MTO OPER S-1C
 7. LC-39 POS 1 OPER
 8. LC-39 POS 2 OPER

- LEGEND**
- ☐ GROUND TEST
 - ▨ MANUFACTURE C/O & TEST
 - INSTAL & C/O
 - ◁ PREP FOR SHIP & SHIP

NOTES: START OF VEHICLE ASSEMBLY DEFINED AS POINT WHEN START OF ASSEMBLY OF GORE SEGMENTS OF EARLIEST STAGE TAKES PLACE.

| | | | |
|---|--|--|--|
| SCHEDULE RESPONSIBILITY <u>Wernher von Braun</u> STATUS RESPONSIBILITY <u>Arthur Rudolph</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V HARDWARE QUANTITIES PROJECT: SATURN V SCH'D NO: 2-3300-00-2 | <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> 2 </div> LEVEL | ORIGINAL SCHED. APPROVAL <u>3/31/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>8/31/65</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>8/31/65</u> <small>(Date) (Initials)</small> |
|---|--|--|--|

| | <u>PROGRAM REQUIREMENTS</u> | <u>GROUND TEST VEHICLES</u> | <u>POP 65-2</u> | <u>ON CONTRACT</u> |
|---|-----------------------------|-----------------------------|-----------------|--------------------|
| S-IC | 4 | | 4 | 4 |
| S-II | 4 | | 4 | 4 |
| S-IVB | 6(a) | | 6(a) | 6 (a) |
| S-IU | 7 | | 7 | 7 |
| <u>FLIGHT VEHICLES</u> | | | | |
| S-IC | 15 | | 15 | 10 |
| S-II | 15 | | 15 | 10 |
| S-IVB | 15 | | 15 | 6 |
| S-IU | 15 | | 15 | 15 |
| <u>LV & STAGE AUTOMATIC GSE CHECKOUT SETS</u> | | | | |
| S-IC | 5 | | 6 | 5 |
| S-II | 5 | | 5 | 5 |
| S-IVB | 6(b) | | 6(b) | 6(b) |
| S-IU | 2(e) | | 2 | 2 |
| LV | 4(c) | | 4 | 4 |
| LV | 2(d) MANUAL | | 2 | 2 |

- NOTES:
- (a) Same as Saturn IB With necessary Modifications
 - (b) Same as Saturn IB Cehckout Stations
 - (c) One complete set at MSFC; 3 sets at KSC
 - (d) Both sets at KSC (one S-II and one S-IVB)
 - (e) Includes 1 set for use with S-IU-500 FS

| | | |
|--|--|--|
| SCHEDULE RESPONSIBILITY <u>Wernher von Braun</u> STATUS RESPONSIBILITY <u>ArEfiur Rudolph</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V HARDWARE IDENTIFICATION PROJECT: SATURN V SCH'D NO: 2-3300-00-3 | ORIGINAL SCHED. APPROVAL <u>3/31/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>9/30/65</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
| GROUND TEST VEHICLES | | |
| <u>S-1C (4)</u> <ul style="list-style-type: none"> <input type="checkbox"/> STRUCTURAL TEST STAGE <input type="checkbox"/> ALL SYSTEMS TEST STAGE <input type="checkbox"/> DYNAMIC TEST STAGE <input type="checkbox"/> FACILITIES CHECKOUT STAGE | | |
| <u>S-1I (4)</u> <ul style="list-style-type: none"> <input type="checkbox"/> STRUCTURAL/DYNAMIC TEST STAGE <input type="checkbox"/> ALL SYSTEMS TEST STAGE <input type="checkbox"/> FACILITIES CHECKOUT STAGE <input type="checkbox"/> BATTLESHIP TEST STAGE | | |
| <u>S-1VB (a) 6</u> <ul style="list-style-type: none"> <input type="checkbox"/> MSFC BATTLESHIP TEST STAGE <input type="checkbox"/> BATTLESHIP TEST STAGE <input type="checkbox"/> STRUCTURAL TEST STAGE <input type="checkbox"/> FACILITIES TEST STAGE (NOW USED IN SATURN V SDF) <input type="checkbox"/> DYNAMIC TEST STAGE <input type="checkbox"/> ALL SYSTEMS TEST STAGE (CONVERTED TO FACILITIES CHECKOUT STAGE) | | |
| <u>S-1U (7)</u> <ul style="list-style-type: none"> <input type="checkbox"/> S-1U-200/500S-1I STRUCTURAL <input type="checkbox"/> S-1U-200/500S - STRUCTURAL (USED ON SATURN 1B) | | |
| FLIGHT VEHICLES | | |
| <u>S-1C (15)</u> <ul style="list-style-type: none"> <input type="checkbox"/> S-1C-1 THRU S-1C-10 <input type="checkbox"/> S-1C-11 THRU S-1C-15^a | | |
| <u>S-1I (15)</u> <ul style="list-style-type: none"> <input type="checkbox"/> S-1I-1 THRU S-1I-10 <input type="checkbox"/> S-1I-11 THRU S-1I-15^a | | |
| <u>S-1VB (15)</u> <ul style="list-style-type: none"> <input type="checkbox"/> S-1VB/V-1 THRU S-1VB/V-6 <input type="checkbox"/> S-1VB/V-7 THRU S-1VB/V-15^a | | |
| <u>S-1U (15)</u> <ul style="list-style-type: none"> <input type="checkbox"/> S-1U-501 THRU S-1U-515 | | |
| NOTES: ^a NOT ON CONTRACT (a) SAME AS SATURN 1B WITH NECESSARY MODIFICATIONS. | | |

SCHEDULE RESPONSIBILITY Wernher von Braun

STATUS RESPONSIBILITY Arthur Rudolph

MANNED SPACE FLIGHT SCHEDULE

SATURN V
HARDWARE IDENTIFICATION

PROJECT: SATURN V
SCH'D NO: 2-3300-00-4

2
LEVEL

ORIGINAL SCHED. APPROVAL 3/31/65
(Date)

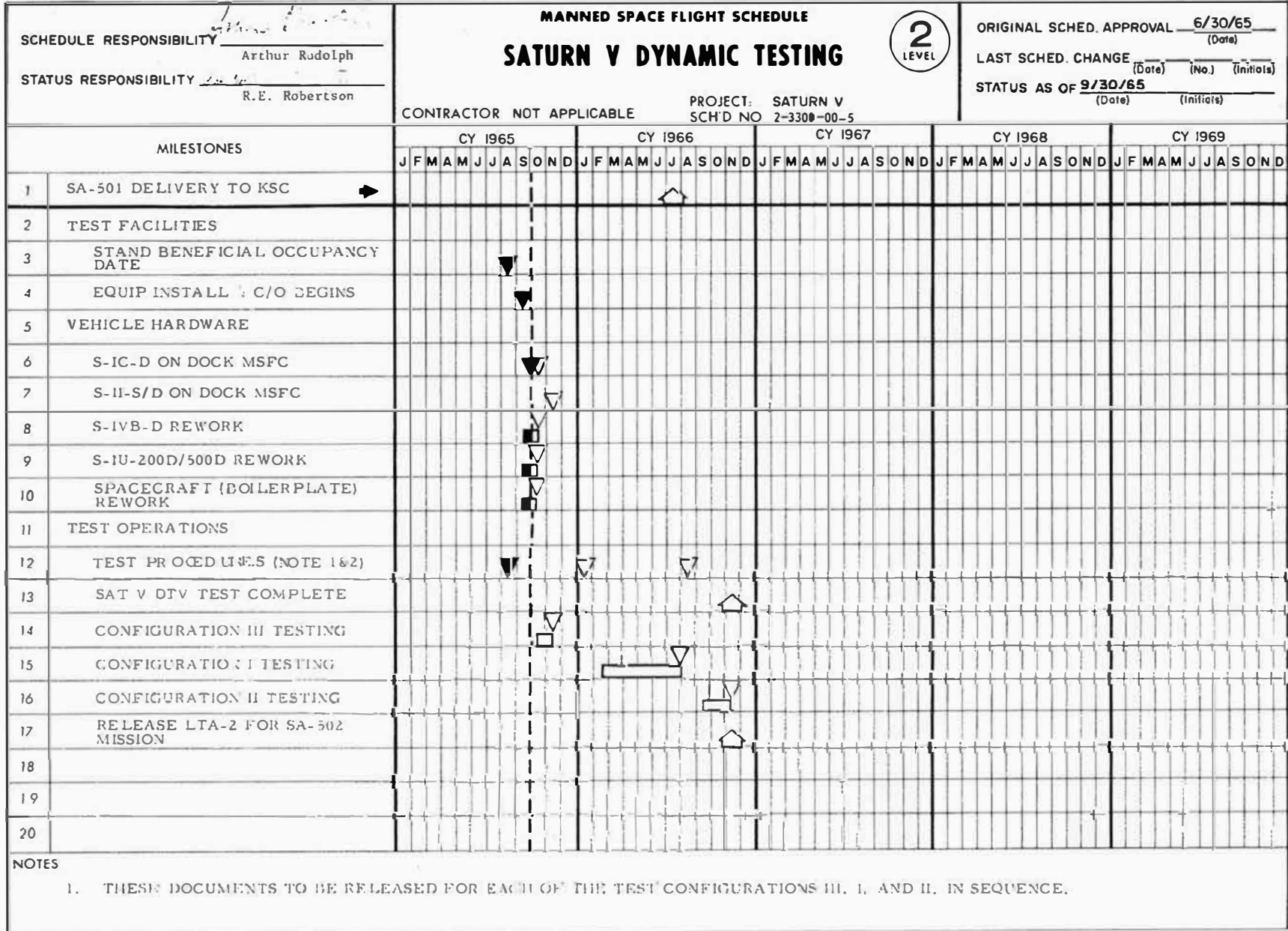
LAST SCHED. CHANGE _____
(Date) (No) (Initials)

STATUS AS OF 9/30/65
(Date) (Initials)

GSE SETS

| | |
|---|---|
| o S-1C (5) | |
| o MSFC | -2 |
| o MICHOU | -3 (1 removed from MSFC) |
| o MTF | -1 |
| o S-11 (5) | |
| o DOWNEY | -1 |
| o SEAL BEACH | -2 |
| o MTF | -3 (1 removed from Downey) |
| o S-IVB (6) | |
| o HUNTINGTON BEACH | -3 |
| o SACTO | -3 |
| o S-IU (2) | |
| o MSFC | -1 |
| o IBM (HUNTSVILLE) | -1 |
| o LV (6) | |
| o MSFC - BREADBOARD | -1 |
| o LC-39 (LUT/LCC #1, #2, #3; NOTE 1) | -3 |
| o VAB LO-BAY | -2 MANUAL (One S-11 and one S-IVB ESE SET) |

NOTES: 1. Includes equipment necessary to utilize 3 Hi Bays and 2 Pads
2. Will accompany S-IU-500 FS to DAC



SCHEDULE RESPONSIBILITY Wernher von Braun
 STATUS RESPONSIBILITY Arthur Rudolph

MANNED SPACE FLIGHT SCHEDULE
SATURN V LAUNCH
VEHICLE OBLIGATIONS

2
LEVEL

ORIGINAL SCHED. APPROVAL 4/30/65
 (Date)
 LAST SCHED. CHANGE 7/31/65 (2)
 (Date) (No.) (Initials)
 STATUS AS OF 9/30/65
 (Date) (Initials)

CONTRACTOR NOT APPLICABLE PROJECT: SATURN V
 SCH'D NO: 2-3300-00-6

| PROGRAM OR PROJECT ELEMENT | TOTAL OBLIGATIONS PRIOR FY | PLANNED OBLG TO DATE CURRENT FY | ACTUAL OBLG TO DATE CURRENT FY | PLANNED TOTAL OBLG CURRENT FY | PLANNED TOTAL OBLG AT COMPL |
|----------------------------------|----------------------------|---------------------------------|--------------------------------|-------------------------------|-----------------------------|
| S-IC STAGE | 649.9 | 72.0 | 68.4 | 249.6 | 1509.1 |
| S-II STAGE | 469.9 | 64.0 | 116.7 | 230.4 | 1336.6 |
| S-IVB STAGE | 320.1 | 79.4 | 65.9 | 163.7 | 958.7 |
| INSTR UNIT | 148.8 | 15.3 | 12.5 | 79.2 | 441.6 |
| VEHICLE GSE* | 84.1 | 33.5 | 29.3 | 98.0 | 324.3 |
| F-1 ENGINE | 127.1 | 25.3 | 24.9 | 70.4 | 359.6 |
| J-2 ENGINE | 103.3 | 26.7 | 26.0 | 78.7 | 315.2 |
| VEHICLE SUPPORT | 199.8 | 43.0 | 32.5 | 207.7 | 994.5 |
| SATURN V VEHICLE SUB TOTAL | 2103.0 | 358.9 | 376.2 | 1177.7 | 6239.6 |
| ALLOWANCE FOR PROGRAM ADJUSTMENT | 0 | 0 | 0 | 9.7 | 534.5 |
| SATURN V PROJECT TOTAL | 2103.0 | 358.9 | 376.2 | 1187.4 | 6774.1 |

NOTE: FUNDS ESTABLISHED BY MSFC POP 65-3 TO SUPPORT MA-2 SCHEDULE.
 * INCLUDES VEHICLE INTEGRATION CHECKOUT AND RELIABILITY.

SCHEDULE RESPONSIBILITY Wernher von Braun

STATUS RESPONSIBILITY Arthur Rudolph

MANNED SPACE FLIGHT SCHEDULE

**SATURN V LAUNCH
VEHICLE OBLIGATIONS**

2
LEVEL

ORIGINAL SCHED. APPROVAL 4/30/65
(Date)

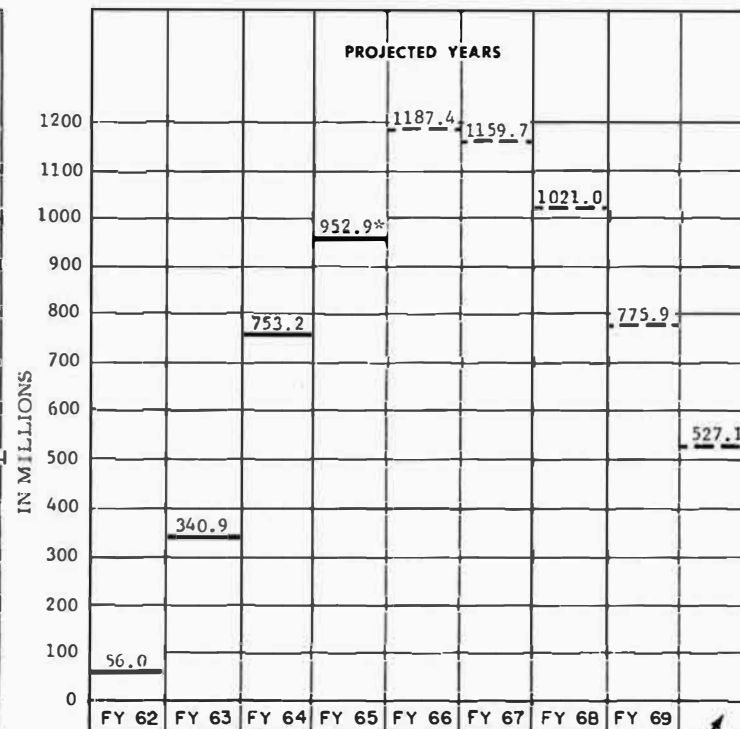
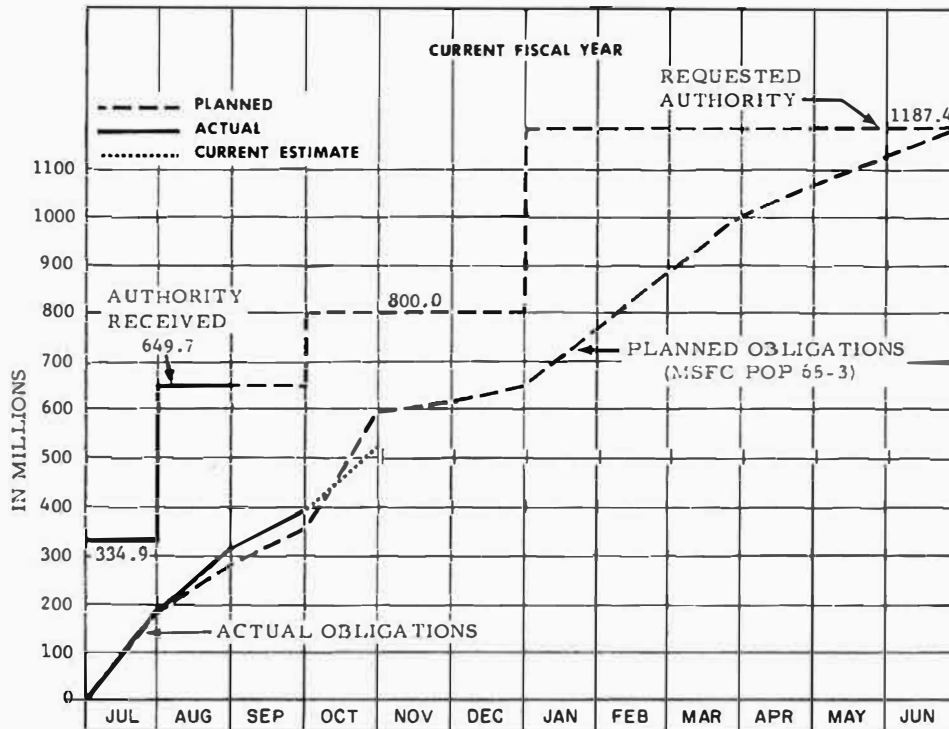
LAST SCHED. CHANGE 7/31/65 (2)
(Date) (No.) (Initials)

STATUS AS OF 9/30/65
(Date) (Initials)

CONTRACTOR NOT APPLICABLE

PROJECT: SATURN V
SCH'D NO 2-3300-00-7

OBLIGATIONS



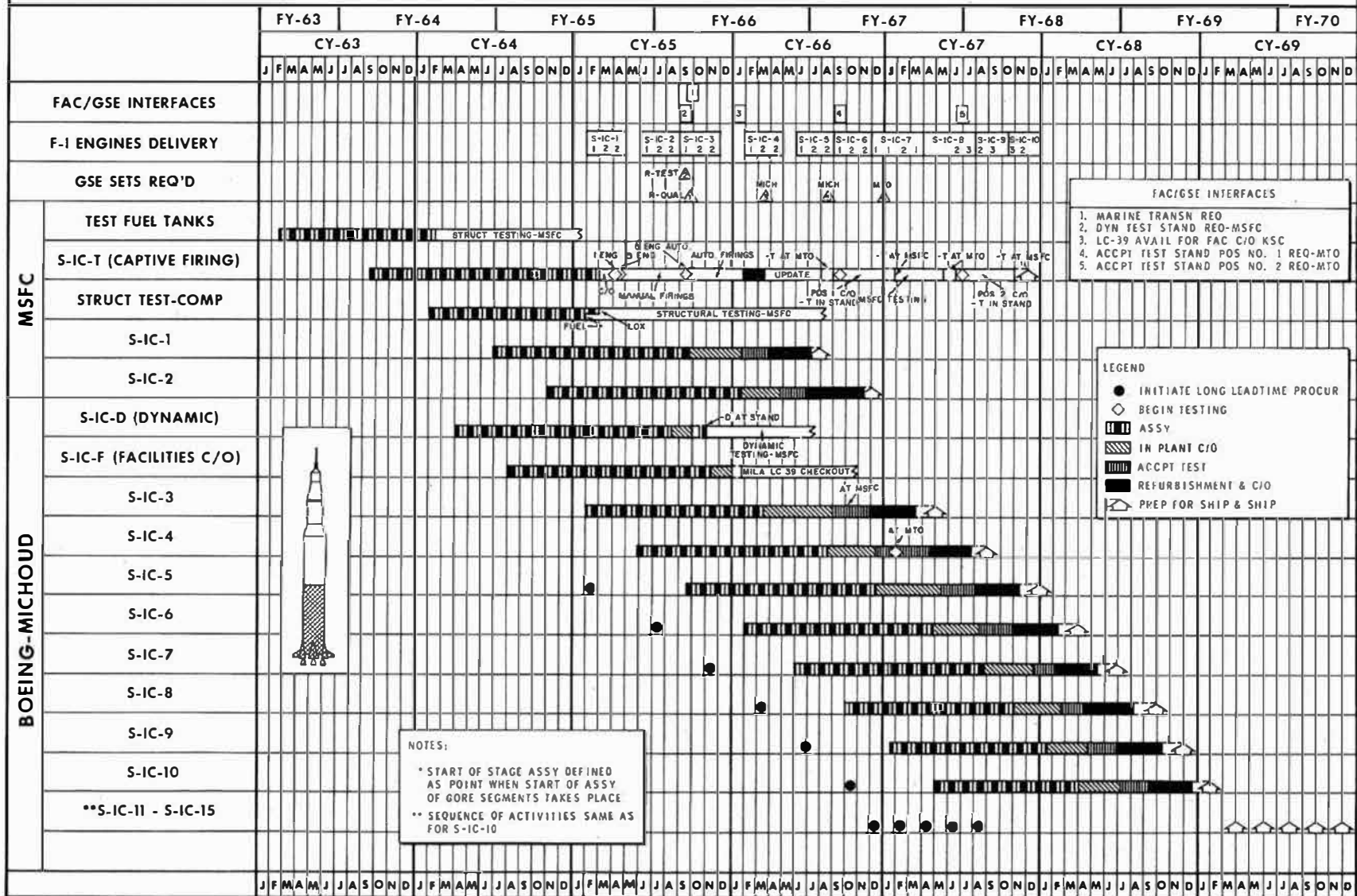
| | | | | | | | | | | |
|---------|-------|-------|-------|-------|-------|-------|--|--------|--|--------|
| PLANNED | 195.5 | 286.2 | 358.9 | 596.8 | 615.2 | 649.7 | | 1005.4 | | 1187.4 |
| EST. | | | | | | | | | | |
| ACT. | 198.7 | 313.7 | 376.2 | | | | | | | |

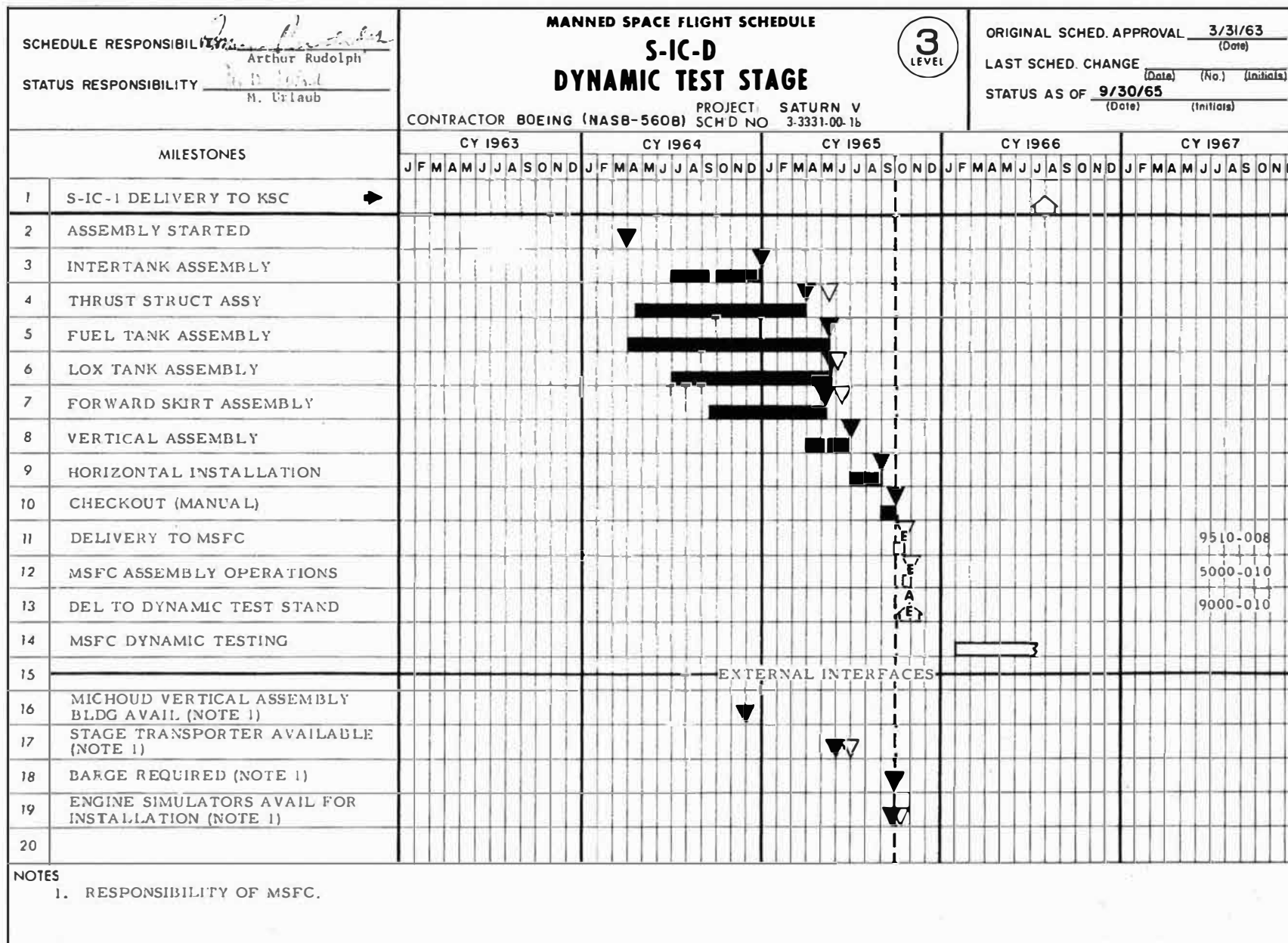
| | | | | | | | | |
|---------|------|-------|--------|--------|--------|--------|--------|--------|
| PLANNED | | | | 3290.4 | 4450.1 | 5471.1 | 6247.0 | 6774.1 |
| ACT. | 56.0 | 396.9 | 1150.1 | 2103.0 | 2479.2 | | | |

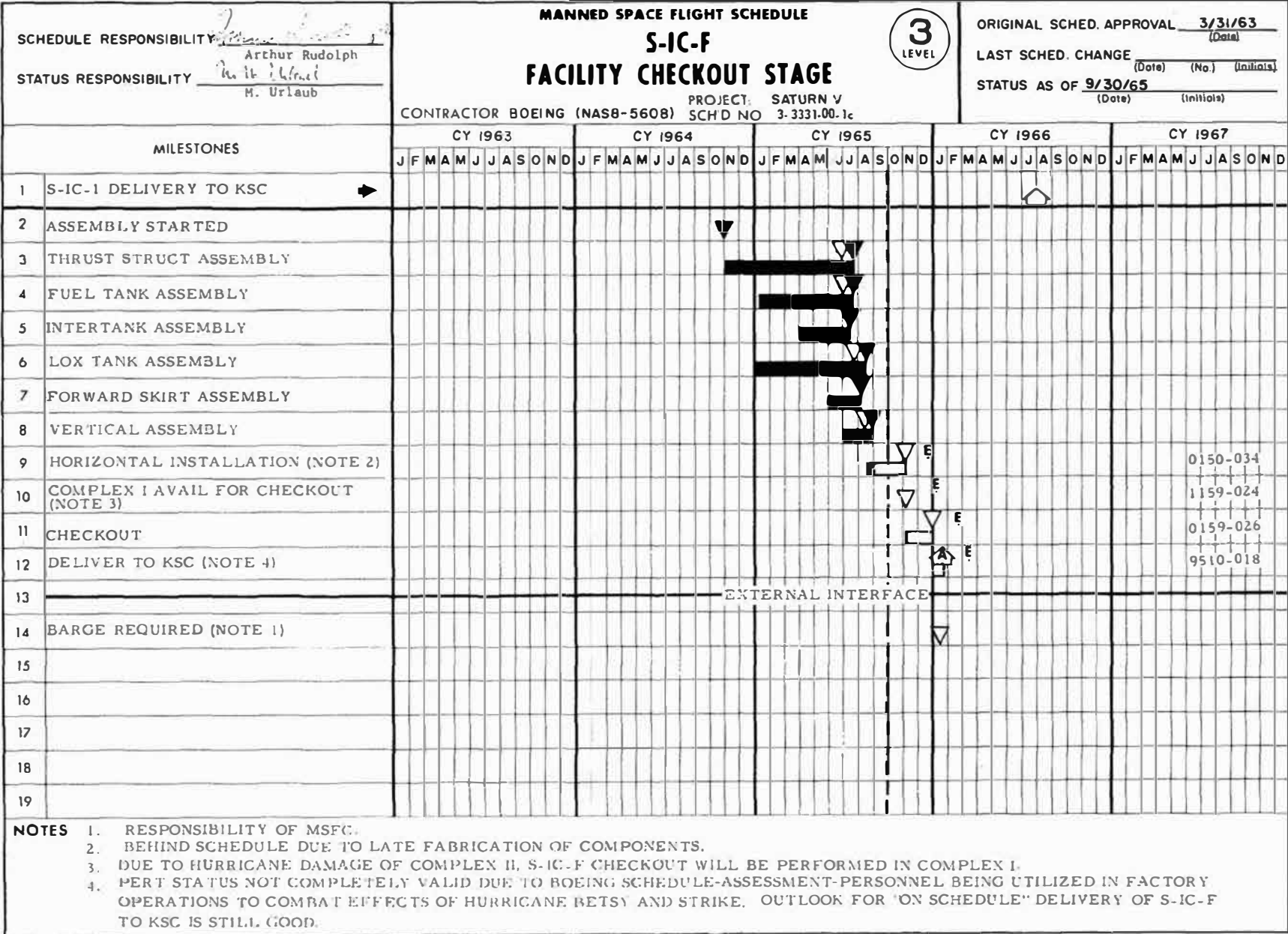
NOTES

FUNDS ESTABLISHED BY MSFC POP 65-3 TO SUPPORT MA-2 SCHEDULE.
*TRANSFERRED 72.5 M FY 64 SUPPLEMENT FROM FY 65 TO FY 64.

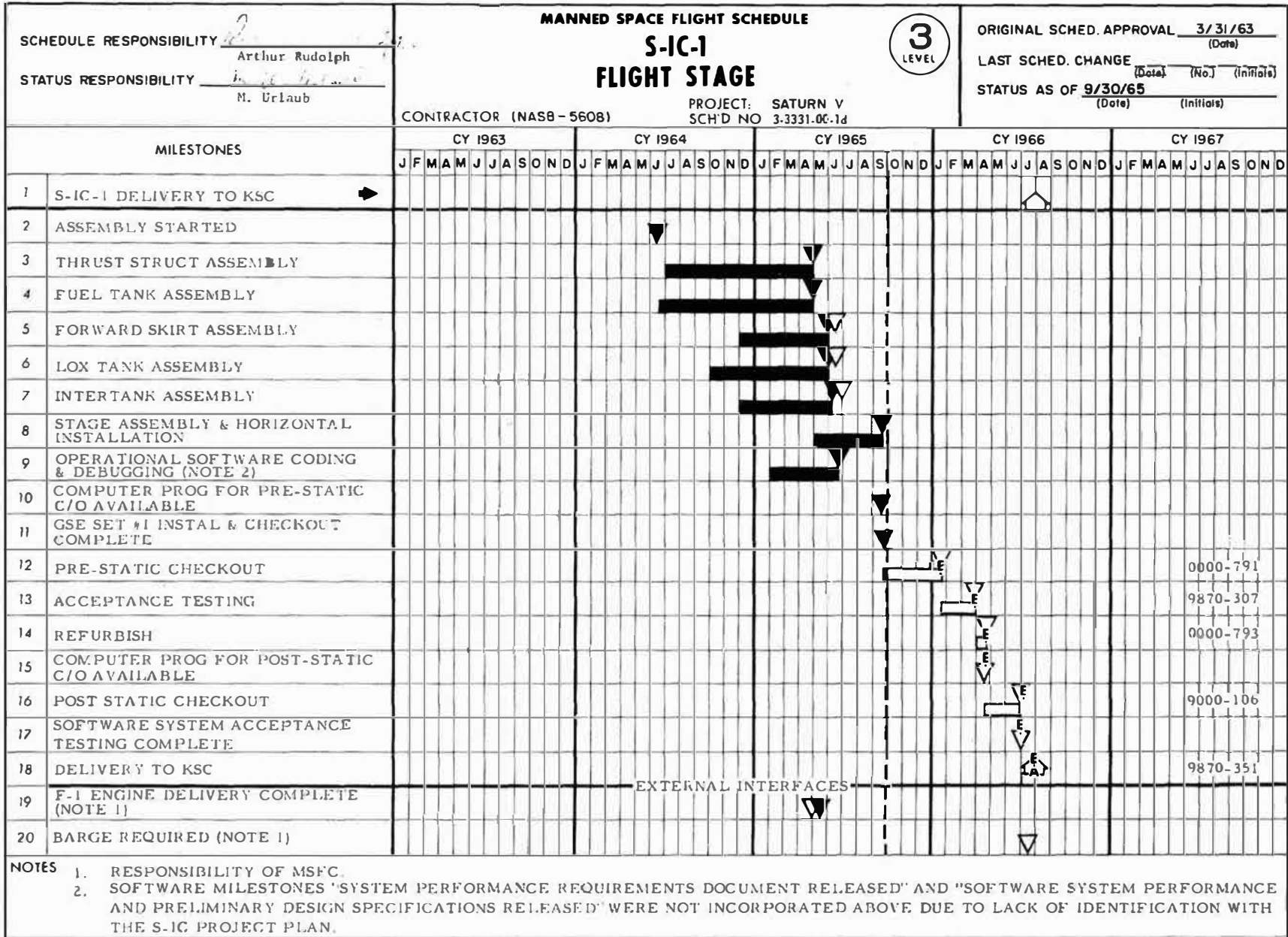
S-IC STAGE DEVELOPMENT AND DELIVERY PLAN MA-2 SCHEDULE







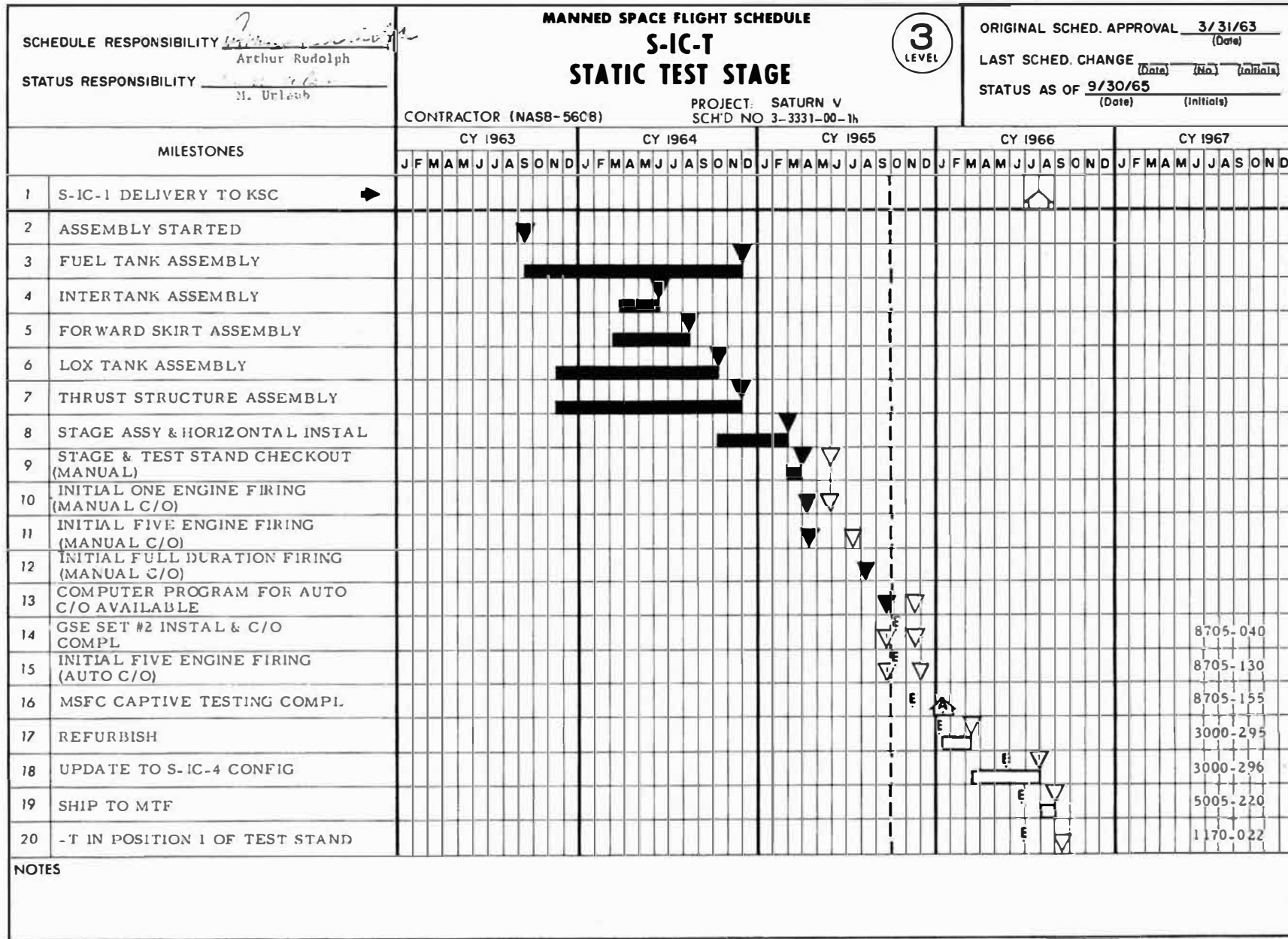
111-3-15



| 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 |
| 1 | S-IC-2 DELIVERY TO KSC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | ASSEMBLY STARTED | | | | | | | ▼ | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | THRUST STRUCT ASSEMBLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | FUEL TANK ASSEMBLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | FORWARD SKIRT ASSEMBLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0000-932 | | |
| 6 | LOX TANK ASSEMBLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0000-933 | | |
| 7 | INTERTANK ASSEMBLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0000-937 | | |
| 8 | STAGE ASSY & HORIZONTAL INSTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0000-948 | | |
| 9 | PRE-STATIC CHECKOUT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0000-991 | | |
| 10 | ACCEPTANCE TESTING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9870-407 | | |
| 11 | REFURBISH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0000-993 | | |
| 12 | POST STATIC CHECKOUT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9000-246 | | |
| 13 | DELIVERY TO KSC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9870-451 | | |
| 14 | EXTERNAL INTERFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | F-1 ENG DEL COMPL (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NOTES
 1. RESPONSIBILITY OF MSFC

| 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 | S-IC-4 DEL TO KSC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | STAGE ASSEMBLY (NOTE 2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | HORIZONTAL INSTALLATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | TEST AND CHECK OUT STATION AVAIL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | PRE-STATIC CHECKOUT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | SHIP TO MTF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | MTF POSITION 1 (GSE SET #1) AVAIL FOR ACCEPTANCE TESTING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | ACCEPTANCE TESTING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | SHIP TO MICHOUD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | REFURBISH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | POST-STATIC CHECKOUT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | DELIVER TO KSC (NOTE 3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | EXTERNAL INTERFACES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | F-1 ENGINE DELIVERIES COMPL (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | STAGE TRANSPORTER AVAIL (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | BARGES REQUIRED (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOTES | 1. RESPONSIBILITY OF MSFC. 2. BEHIND SCHEDULE DUE TO LATE AVAIL OF ELECTRICAL EQUIPMENT FOR THRUST STRUCTURE. 3. PROBLEMS REFLECTED BY PERT E DUE TO LATE INSTL OF GSE COMPONENTS. PERT DATA BELIEVED TO BE INVALID DUE TO UTILIZATION OF BOEING SCHEDULE-ASSESSMENT-PERSONNEL IN FACTORY TO COMBAT EFFECTS OF HURRICANE BETSY AND STRIKE. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



NOTES

| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>H. Urlaub</u> | | MANNED SPACE FLIGHT SCHEDULE S-IC-T STATIC TEST STAGE | | ORIGINAL SCHED APPROVAL <u>3/31/63</u> (Date) LAST SCHED CHANGE _____ (Date) (No) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | |
|---|---------------------|---|---------|---|---------|--|---------|---|---------|---|---|---|
| | | | | | | CONTRACTOR (NAS8-5608) PROJECT: SATURN V SCHD NO 3-3331-00-1h | | | | | | |
| MILESTONES | CY 1963 | | CY 1964 | | CY 1965 | | CY 1966 | | CY 1967 | | | |
| | J | F | M | A | M | J | J | A | S | O | N | D |
| 1 GSE SET #4, INSTAL. & C/O COMPL | | | | | | | | | | | | |
| 2 MTF POS 1 CHECKOUT | | | | | | | | | | | | |
| 3 SHIP TO MSFC | | | | | | | | | | | | |
| 4 MSFC CAPTIVE TESTING | | | | | | | | | | | | |
| 5 SHIP TO MTF (NOTE 2) | | | | | | | | | | | | |
| 6 -T IN POSITION 2 OF TEST STAND (NOTE 2) | | | | | | | | | | | | |
| 7 MTF POSITION 2 C/O (NOTE 2) | | | | | | | | | | | | |
| 8 SHIP TO MSFC (NOTE 2) | | | | | | | | | | | | |
| 9 MTF POSITION 2 AVAIL FOR FLIGHT STAGE ACC TESTING (NOTE 2&3) | | | | | | | | | | | | |
| 10 | EXTERNAL INTERFACES | | | | | | | | | | | |
| 11 STATIC TEST FACILITY REQUIRED (NOTE 1) | | | | | | | | | | | | |
| 12 F-1 ENGINE DELIVERIES COMPLETE (NOTE 1) | | | | | | | | | | | | |
| 13 MARINE TRANSPORTER REQUIRED (NOTE 1) | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | |

- NOTES
1. RESPONSIBILITY OF MSFC.
 2. PLANNING DATA PENDING ACTIVATION OF MTF POSITION 2 TEST STAND.
 3. PERT STATUS SHOWN REPRESENTS BOEING'S ACTIVATION PROGRESS ASSUMING CONSTRUCTION OF FACILITIES AND TECH SYSTEM INSTALLATION AT MTF POSITION 1 ARE "ON SCHEDULE".

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>M. Urlaub</u> M. Urlaub | | MANNED SPACE FLIGHT SCHEDULE SATURN V PLAN FOR CONVERSION OF S-IC CONTRACT INCENTIVE FEATURES | | | | | | | | | | | | ORIGINAL SCHED. APPROVAL <u>3/31/65</u> (Date) LAST SCHED. CHANGE _____ (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | | | |
| | | CONTRACTOR BOEING | | | | | | PROJECT: SATURN V SCH'D NO: 3-3331-00-1i | | | | | | | | | | | | | | | | | |
| MILESTONES | | CY1965 | | | | | | CY1966 | | | | | | | | | | | | | | | | | |
| | | 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 | S-IC-1 DELIVERY TO KSC → | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | DATE SPECIFICATION AND REQUIREMENTS WILL BE DEFINED FOR ISSUANCE IN THE RFP | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | DATE PROPOSAL DUE FROM CONTRACTOR | | | | | | | ▼ | | | | | | | | | | | | | | | | | |
| 4 | PRENEGOTIATION POSITION ESTABLISHED WITH OMSF, INCLUDING INCENTIVE ARRANGEMENT | | | | | | | ▼ | ▽ | | | | | | | | | | | | | | | | |
| 5 | DATE TO BEGIN NEGOTIATION WITH CONTRACTOR | | | | | | | | E | ▽ | | | | | | | | | | | | | | | |
| 6 | DATE OF COMPLETION OF NEGOTIATIONS | | | | | | | | | E | ▽ | | | | | | | | | | | | | | |
| 7 | DATE CONTRACT TO BE FORWARDED FOR HEADQUARTER'S APPROVAL | | | | | | | | | | | E | ▽ | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>M. Urlaub</u> | | MANNED SPACE FLIGHT SCHEDULE SATURN V S-IC STAGE FOLLOW-ON PROCUREMENT VEHICLES 511 THROUGH 515 | | | | | | | | | | | | (3) LEVEL | | ORIGINAL SCHED. APPROVAL <u>3/31/65</u> (Date) LAST SCHED CHANGE _____ (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | |
| MILESTONES | | CONTRACTOR BOEING | | | | | | | | | | | | PROJECT: SATURN V SCH'D NO. 3.3331-00-1j | | | | | | | | | | | |
| | | 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 |
| 1 | WORK STATEMENT COMPLETE → | | | | | ▽ | | | | | | | | | | | | | | | | | | | |
| 2 | DOCUMENTED REQUIREMENT TO PROCUREMENT OFFICE | | | | | | ▽ | | | | | | | | | | | | | | | | | | |
| 3 | CONTRACT AWARD | | | | | | | | | | | ▽ | | | | | | | | | | | | | |
| 4 | EARLIEST LONG LEAD TIME PROCUREMENT INITIATION (NOTE 1) | | | | | | | | | | | ▽ | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOTES 1. PROCUREMENT INITIATION FOR S-IC-11. CONTRACT DELIVERY WILL BE MARCH 1969. | | | | | | | | | | | | | | | | | | | | | | | | | |

SCHEDULE RESPONSIBILITY Arthur Rudolph
 STATUS RESPONSIBILITY M. Urlaub

MANNED SPACE FLIGHT SCHEDULE

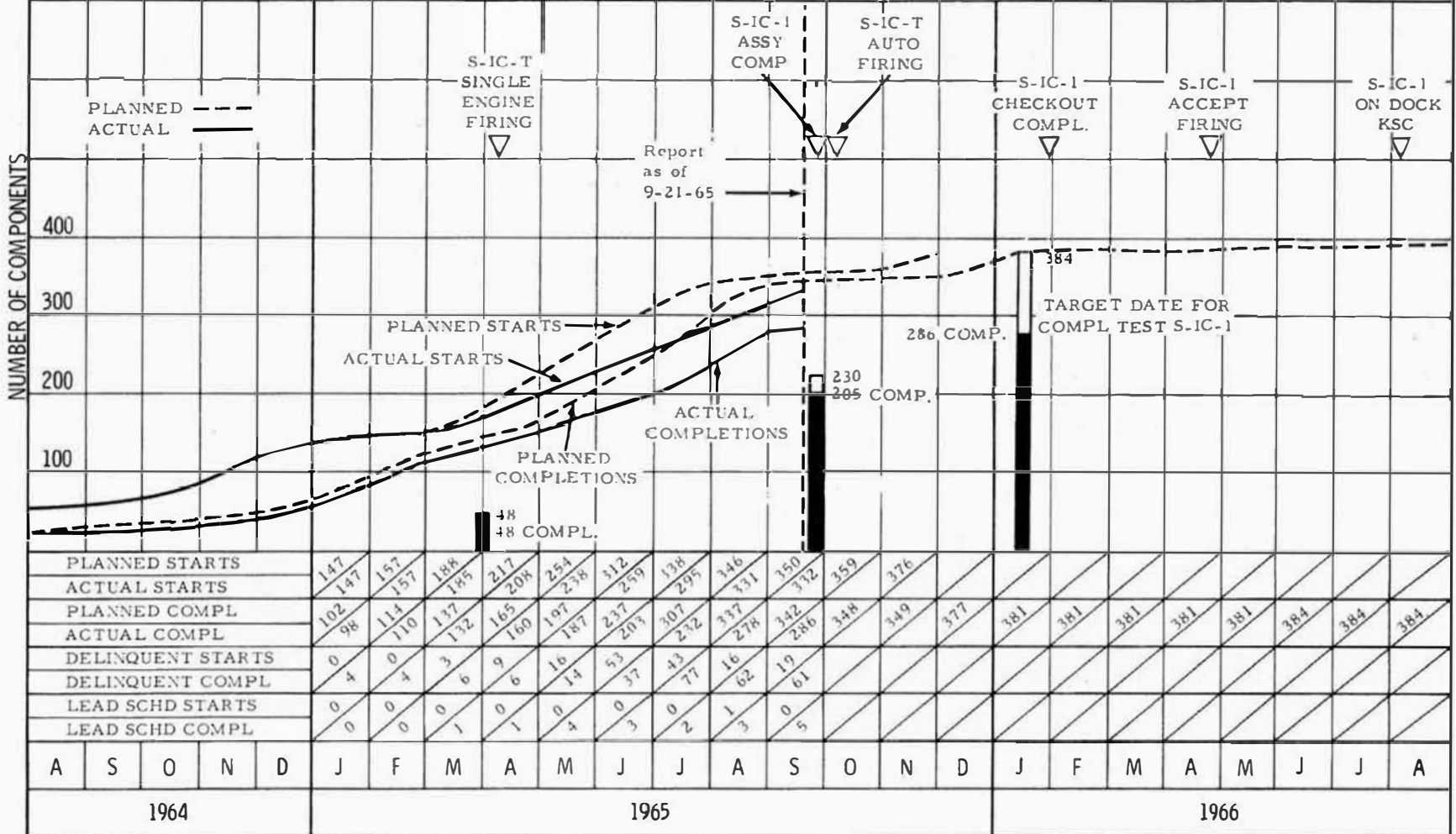
S-IC-1 STAGE

STAGE QUALIFICATION STATUS

3
LEVEL

ORIGINAL SCHED. APPROVAL 6/30/65
 (Date)
 LAST SCHED. CHANGE _____
 (Date) (No.) (Initials)
 STATUS AS OF 9/21/65
 (Date) (Initials)

CONTRACTOR _____ PROJECT SATURN V
 SCH'D NO 3-3331-00-1d



NOTES:
 8 UNSCHEDULED STARTS

SCHEDULE RESPONSIBILITY _____
 Arthur Rudolph
 STATUS RESPONSIBILITY _____
 M. Uryab

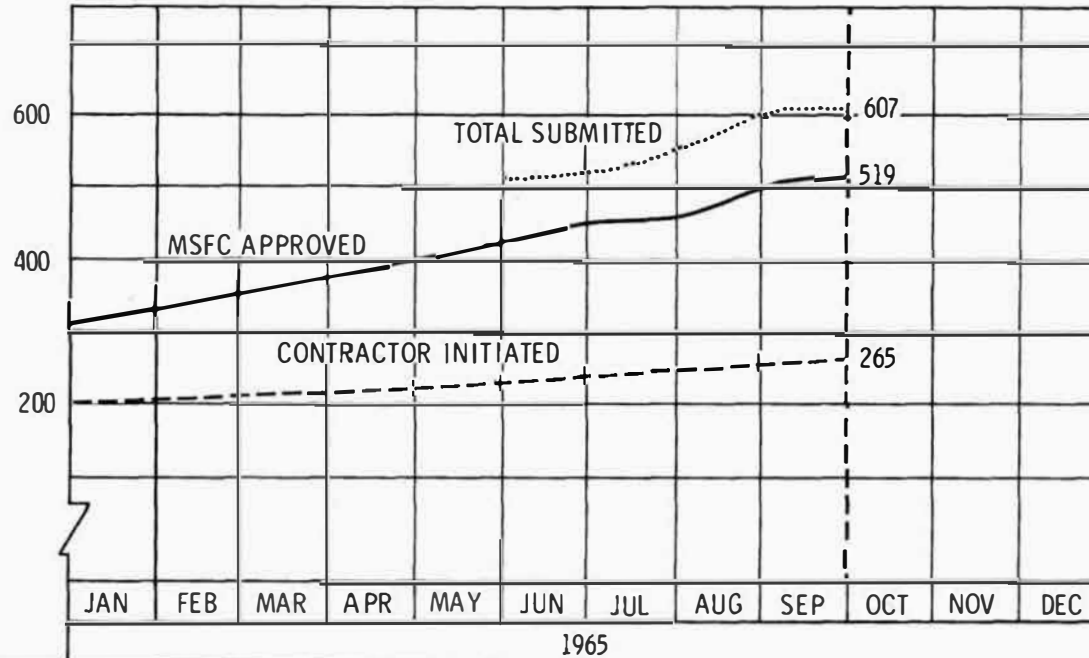
MANNED SPACE FLIGHT SCHEDULE
S-1C ENGINEERING CHANGES
TOTAL STAGE AND GSE

3
 LEVEL

PROJECT: SATURN V
 SCH'D NO 3-3331-00-11

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

NO. OF ENGINEERING CHANGES (CAM'S)



| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| TOTAL SUBMITTED * | | | | | 552 | 537 | 552 | 592 | 607 | | | |
| CONTRACTOR INITIATED * | | | | | 230 | 236 | 243 | 259 | 265 | | | |
| MSFC APPROVED * | 310 | 332 | 368 | 396 | 428 | 455 | 465 | 504 | 519 | | | |

NOTE: * NUMBERS ARE CUMMULATIVE.

| SCHEDULE RESPONSIBILITY _____ Arthur Rudolph | | MANNED SPACE FLIGHT SCHEDULE | | | 3 LEVEL | | ORIGINAL SCHED. APPROVAL _____ (Date) |
|---|--|---|---|--|---|------------------------|---|
| STATUS RESPONSIBILITY _____ M. Urlaub | | ALL S-IC STAGE HARDWARE | | | | | LAST SCHED. CHANGE _____ (Date) (No.) (Initials) |
| | | (ENGINEERING CHANGES) | | | PROJECT: SATURN V | | STATUS AS OF <u>9/30/65</u> (Date) _____ (Initials) |
| | | CONTRACTOR BOEING (TBC) | | | SCH'D NO 3-3331-00-1m | | |
| Change* Category | Total No. of Engineering Changes Requested (Boeing/MSFC) | No. of Change Requests Initiated by Contractor | No. of Change Requests Initiated by MSFC | No. of Changes Approved by MSFC Stage CCB | No. of Changes Disapproved by MSFC Stage CCB | No. Changes Pending | |
| Out of Scope (Negotiable) | 37 | 5 | 32 | 30 | 1 | 6 | |
| In Scope (Non-Negotiable) | 22 | 16 | 6 | 20 | 0 | 2 | |
| Total | 59 | 21 | 38 | 50 | 1 | 8 | |
| NOTE: CHANGE ACTIVITY DURING SEPTEMBER. | | | | | | | |
| DATA SHOWN INCLUDES REPROCESSED CHANGES | | | | | | | |

| SCHEDULE RESPONSIBILITY: <u>Arthur Rudolph</u> | | MANNED SPACE FLIGHT SCHEDULE | | | <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> 3 <small>LEVEL</small> </div> | | ORIGINAL SCHED. APPROVAL _____ (Date) |
|---|--|--|--|---|--|---------------------|--|
| STATUS RESPONSIBILITY: <u>M. Urlaub</u> | | ALL S-IC STAGE HARDWARE (ENGINEERING CHANGES) | | | | | LAST SCHED. CHANGE _____ (Date) / (No.) (Initials) |
| CONTRACTOR BOEING (TBC) | | PROJECT: SATURN V SCH'D NO 3-3331-00-1n | | | | | |
| Change Category | Total No. of Engineering Changes Requested (Boeing & MSFC) | No. of Change Requests Initiated by Contractor | No. of Change Requests Initiated by MSFC | No. of Changes Approved by MSFC Stage CCB | No. of Changes Disapproved by MSFC Stage CCB | No. Changes Pending | |
| Out-Of-Scope | 260 | 59 | 201 | 215 | 39 | 6 | |
| In-Scope | 391 | 221 | 170 | 340 | 49 | 2 | |
| Total | 651 | 280 | 371 | 555 | 88 | 8 | |
| NOTE: CHANGE ACTIVITY TO OCTOBER 1, 1965. DATA SHOWN INCLUDES REPROCESSED CHANGES. | | | | | | | |

| | | |
|---|---|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>M. Urlaub</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER S-IC STAGE (2577)(5706) PROJECT: SATURN V CONTRACTOR BOEING (NAS8-5608) SCH'D NO: 3-3331-00-2a | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
|---|---|--|

**OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)**

| CURRENT FISCAL YEAR | | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE | |
|---|--------------|----------|------|-------|-------|-------|-------|-----|-----|-------|-----|-----|-------|--|
| NO. OF WORKING DAYS IN REPORTING PERIOD | | 19 | 20 | 24 | 20 | 19 | 22 | 19 | 20 | 25 | 20 | 20 | 24 | |
| CUMULATIVE OBLIGATIONS | POP 65-2 | 32.0 | 62.2 | 62.2 | | | 119.7 | | | 197.5 | | | 214.7 | |
| | POP 65-3 | 33.1 | 59.9 | 62.2 | 116.7 | 116.7 | 116.7 | | | 193.5 | | | 211.4 | |
| | ACTUAL | 33.1 | 62.2 | 62.2 | | | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | 16.9 | 34.5 | 55.4 | | | 109.4 | | | 163.2 | | | 216.7 | |
| | POP 65-3 | 17.1 | 34.8 | 55.8 | 73.4 | 90.1 | 109.4 | | | 164.1 | | | 218.4 | |
| | ACTUAL | TOTAL | 13.4 | 30.0 | 50.2* | | | | | | | | | |
| | | IN-HOUSE | 9.4 | 21.1 | 35.3* | | | | | | | | | |
| | SUB CONTRACT | 4.0 | 8.9 | 14.9* | | | | | | | | | | |
| COST RATE | POP 65-2 | 16.9 | 17.6 | 20.9 | | | 19.5 | | | 21.0 | | | 20.3 | |
| | POP 65-3 | 17.1 | 17.7 | 21.0 | 17.6 | 16.7 | 19.3 | | | 21.2 | | | 20.3 | |
| | ACTUAL | 13.4 | 16.6 | 20.2* | | | | | | | | | | |

**MANPOWER
(IN EQUIVALENT MAN MONTHS)**

| | | | | | | | | | | | | | |
|-----------------------------|----------|------|------|-------|------|------|------|--|--|------|--|--|------|
| TOTAL DIRECT MANPOWER | POP 65-2 | 8800 | 8780 | 8760 | | | 8700 | | | 8640 | | | 8580 |
| | POP 65-3 | 8630 | 8610 | 8590 | 8570 | 8550 | 8530 | | | 8470 | | | 8410 |
| | ACTUAL | 7059 | 7263 | 7700* | | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | | |

NUMBER OF SHIFTS 1
 PERCENT OF OVERTIME 7.9 (AUGUST 1965)
 REMARKS: * ESTIMATED ACTUALS

| | | |
|---|---|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>M. Urlaub</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER S-IC STAGE (2577)(5606) PROJECT: SATURN V CONTRACTOR BOEING (NAS8-5608) SCH'D NO: 3-3331-00-2b | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
|---|---|--|

**OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)**

| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
|-------------------------------------|-------------------------|---------|---------|---------|---------|---------|---------|---------|
| UNCOSTED OBLIGATIONS | XXX | 50.4 | 25.9 | 18.9 | 15.3 | 10.4 | 3.9 | XXX |
| OBLIGATIONS TO CONTRACTOR | 302.5 | 193.4 | 211.4 | 206.5 | 160.0 | 100.8 | 59.2 | 1233.8 |
| TOTAL AVAILABLE | 302.5 | 243.8 | 237.3 | 225.4 | 175.3 | 111.2 | 63.1 | XXX |
| ACCRUED COSTS DURING PERIOD | 252.1 | 217.9 | 218.4 | 210.1 | 164.9 | 107.3 | 63.1 | 1233.8 |
| (533 ACCRUED COSTS) | (252.1) | (217.9) | (164.3) | (92.9) | (30.5) | (8.1) | 0 | (765.8) |
| UNFILLED ORDERS | 18.6 | 14.8 | 18.9 | 15.3 | 10.4 | 3.9 | 0 | XXX |
| ADVANCED FUNDING | 31.8 | 11.1 | 0 | 0 | 0 | 0 | 0 | XXX |
| MONTHLY COST-RATE (YEAR END) | 20.2 | 19.1 | 20.3 | 18.8 | 13.3 | 9.3 | 3.8 | XXX |

**MANPOWER
(IN EQUIVALENT MAN YEARS)**

| | | | | | | | | |
|------------------------------------|-------|------|------|------|------|------|------|-------|
| TOTAL DIRECT | 10227 | 8737 | 8520 | 8210 | 6700 | 4470 | 2630 | 49494 |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | |

REMARKS:

| | | |
|---|--|---|
| SCHEDULE RESPONSIBILITY _____ Arthur Rudolph STATUS RESPONSIBILITY _____ M. Urlaub | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER S-IC STAGE (14017) (4019) (4004) PROJECT: SATURN V CONTRACTOR MASON-RUST (NAS8-5618) SCH'D NO: 3-3331-00-2c | ORIGINAL SCHED APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
|---|--|---|

**OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)**

| CURRENT FISCAL YEAR | | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE | |
|---|----------|--------------|-----|-----------------|------------------|-----|-----|-----|-----|-----|-----|-----|------|--|
| NO. OF WORKING DAYS IN REPORTING PERIOD | | 21 | 22 | 21 | 21 | 20 | 21 | | | 23 | | | 22 | |
| CUMULATIVE OBLIGATIONS | POP 65-2 | 2.1 | 2.1 | 2.1 | | | 4.3 | | | 6.5 | | | 8.6 | |
| | POP 65-3 | 1.1 | 2.1 | 3.7 | 3.8 | 3.9 | 3.9 | | | 8.5 | | | 8.6 | |
| | ACTUAL | 1.1 | 2.1 | 3.4 | | | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | .7 | 1.4 | 2.1 | | | 4.3 | | | 6.6 | | | 8.8 | |
| | POP 65-3 | .7 | 1.4 | 2.2 | 3.0 | 3.8 | 4.5 | | | 6.8 | | | 9.1 | |
| | ACTUAL | TOTAL | .6 | 1.2 | 1.9 ^a | | | | | | | | | |
| | | IN-HOUSE | .3 | .6 | 1.0 ^a | | | | | | | | | |
| | | SUB CONTRACT | .3 | .6 | .9 ^a | | | | | | | | | |
| COST RATE | POP 65-2 | .7 | .7 | .7 | | | .7 | | | .8 | | | .7 | |
| | POP 65-3 | .7 | .7 | .8 | .8 | .8 | .7 | | | .8 | | | .8 | |
| | ACTUAL | .6 | .7 | .7 ^a | | | | | | | | | | |

**MANPOWER
(IN EQUIVALENT MAN MONTHS)**

| | | | | | | | | | | | | | |
|-----------------------------|----------|-----|-----|-----|-----|-----|-----|--|--|-----|--|--|-----|
| TOTAL DIRECT MANPOWER | POP 65-2 | 540 | 540 | 540 | | | 540 | | | 540 | | | 540 |
| | POP 65-3 | 540 | 540 | 540 | 540 | 540 | 540 | | | 540 | | | 540 |
| | ACTUAL | 543 | 546 | 554 | | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | | |

NUMBER OF SHIFTS 1.4
 PERCENT OF OVERTIME 2.9 (AUGUST)
 REMARKS: - INDICATES ESTIMATES

| | | |
|---|--|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>M. Urlaub</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER S-IC STAGE (14017) (4019) (4004) PROJECT: SATURN V CONTRACTOR MASON-RUST (NAS8-5618) SCH'D NO: 3-3331-00-2d | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
|---|--|--|

**OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)**

| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
|-------------------------------------|-------------------------|---------|---------|---------|---------|---------|---------|---------|
| UNCOSTED OBLIGATIONS | XXX | .7 | 1.2 | .7 | .5 | .3 | .1 | XXX |
| OBLIGATIONS TO CONTRACTOR | 12.5 | 8.2 | 8.6 | 8.4 | 8.0 | 8.6 | 8.6 | 62.9 |
| TOTAL AVAILABLE | 12.5 | 8.9 | 9.8 | 9.1 | 8.5 | 8.9 | 8.7 | XXX |
| ACCRUED COSTS DURING PERIOD | 11.8 | 7.7 | 9.1 | 8.6 | 8.2 | 8.8 | 8.7 | 62.9 |
| (533 ACCRUED COSTS) | (11.8) | (7.7) | (4.9)* | | | | | (24.4)* |
| UNFILLED ORDERS | .7 | .7 | .7 | .5 | .3 | .1 | 0 | XXX |
| ADVANCED FUNDING | 0 | .5 | 0 | 0 | 0 | 0 | 0 | XXX |
| MONTHLY COST-RATE (YEAR END) | .6 | .6 | .8 | .7 | .7 | .7 | .7 | XXX |

**MANPOWER
(IN EQUIVALENT MAN YEARS)**

| | | | | | | | | |
|------------------------------------|-----|-----|-----|-----|-----|-----|-----|------|
| TOTAL DIRECT | 851 | 540 | 540 | 540 | 540 | 580 | 580 | 4171 |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | |

REMARKS: * CONTRACT 14017 EXPIRES ON DECEMBER 31, 1965.

| | | | | | | | | | | | | |
|--|--|--|-------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>M. Urauh</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER S-IC STAGE PROJECT: SATURN V CONTRACTOR ARROWHEAD (NASB-5097) SCH'D NO: 3-3331-00-2e | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | | | | | |
| CURRENT FISCAL YEAR | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE |
| NO. OF WORKING DAYS IN REPORTING PERIOD | 21 | 22 | 21 | 21 | 20 | 21 | | | 23 | | | 22 |
| CUMULATIVE OBLIGATIONS | POP 65-2 | .3 | .4 | .4 | | .9 | | | .9 | | | .9 |
| | POP 65-3 | .5 | .5 | 1.1 | 1.1 | 1.1 | 1.1 | | 1.1 | | | 1.1 |
| | ACTUAL | .2 | .5 | .7 | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | .2 | .5 | .8 | | 1.2 | | | 1.2 | | | 1.2 |
| | POP 65-3 | .3 | .6 | .9 | 1.2 | 1.8 | 2.5 | | 2.5 | | | 2.5 |
| | TOTAL | .7 | 1.0 | 1.3* | | | | | | | | |
| | IN-HOUSE | .7 | 1.0 | 1.3* | | | | | | | | |
| ACTUAL | SUB CONTRACT | 0 | 0 | 0 | | | | | | | | |
| COST RATE | POP 65-2 | .2 | .3 | .3 | | .3 | | | 0 | | | 0 |
| | POP 65-3 | .3 | .3 | .3 | .3 | .6 | .7 | | 0 | | | 0 |
| | ACTUAL | .7 | .3 | .3* | | | | | | | | |
| MANPOWER (IN EQUIVALENT MAN MONTHS) | | | | | | | | | | | | |
| TOTAL DIRECT MANPOWER | POP 65-2 | 40 | 40 | 40 | 40 | 20 | | | | | | |
| | POP 65-3 | 99 | 99 | 99 | 99 | 99 | 33 | | 0 | | | 0 |
| | ACTUAL | 73 | 75 | 75* | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | |
| NUMBER OF SHIFTS <u>1</u> PERCENT OF OVERTIME <u>10.4</u> REMARKS: * INDICATES ESTIMATES | | | | | | | | | | | | |

| | | | | | | | | |
|---|--|---|---------|---------|---------|---------|---------|--------|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>M. Urlaub</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER S-IC STAGE PROJECT: SATURN V CONTRACTOR ARROWHEAD (NASB-5097) SCH'D NO: 3-3331-00-21 | ORIGINAL SCHED APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | |
| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
| UNCOSTED OBLIGATIONS | XXX | 1.6 | 1.4 | | | | | XXX |
| OBLIGATIONS TO CONTRACTOR | 14.6 | 5.9 | 1.1 | | | | | 21.6 |
| TOTAL AVAILABLE | 14.6 | 7.5 | 2.5 | | | | | XXX |
| ACCRUED COSTS DURING PERIOD | 13.0 | 6.1 | 2.5 | | | | | 21.6 |
| (533 ACCRUED COSTS) | (13.0) | (6.1) | (2.5) | | | | | (21.6) |
| UNFILLED ORDERS | .9 | .9 | 0 | | | | | XXX |
| ADVANCED FUNDING | .7 | .5 | 0 | | | | | XXX |
| MONTHLY COST-RATE (YEAR END) | .5 | .3 | 0 | | | | | XXX |
| MANPOWER (IN EQUIVALENT MAN YEARS) | | | | | | | | |
| TOTAL DIRECT | 219 | 105 | 44 | | | | | 368 |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | |
| REMARKS: | | | | | | | | |

SCHEDULE RESPONSIBILITY Werner von Braun

STATUS RESPONSIBILITY _____
T.F. Morning

MANNED SPACE FLIGHT SCHEDULE
S-IC STAGE
REGULAR & OVERTIME DIRECT
CIVIL SERVICE MANHOURS

3
LEVEL

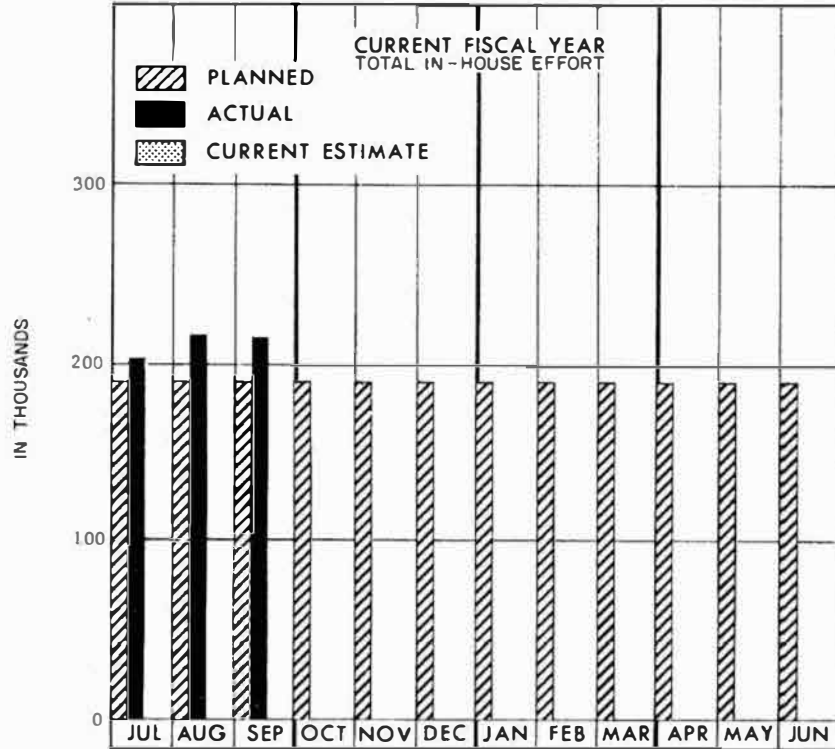
ORIGINAL SCHED. APPROVAL 4/30/65
(Date)
LAST SCHED. CHANGE 7/31/65 (2)
(Date) (No) (Initials)
STATUS AS OF 9/30/65 JH
(Date) (Initials)

CIVIL SERVICE

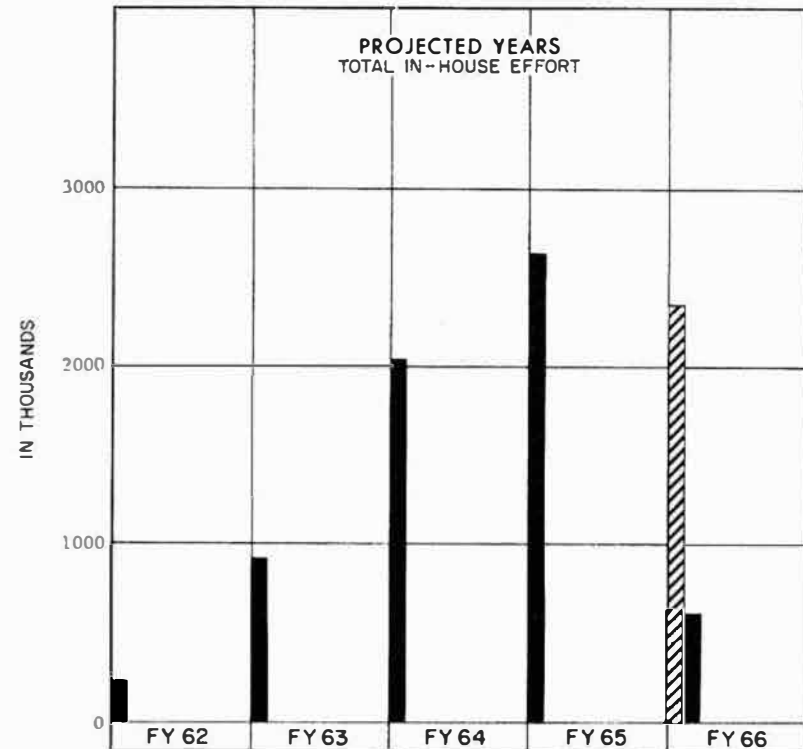
PROJECT: SATURN V
SCH'D NO: 3-3321-00-2g

PERCENTAGE OVERTIME _____ NO. OF SHIFTS _____
(AVERAGE FOR REPORT PERIOD) (END OF REPORT PERIOD)

DIRECT MANHOURS



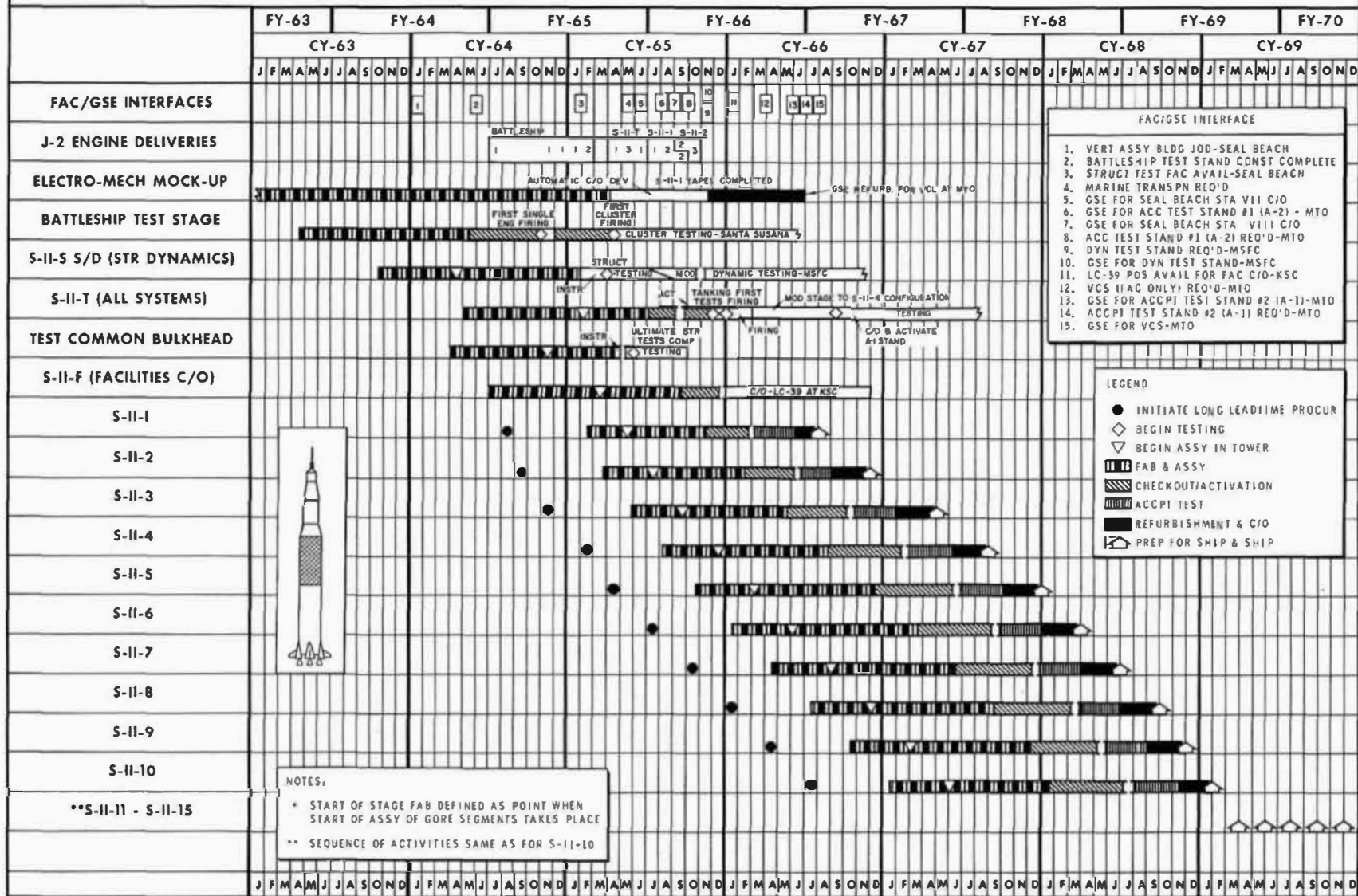
| | | | | | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CUR. EST. | | | | | | | | | | | | |
| ACT. | 202.1 | 214.7 | 212.0 | | | | | | | | | |
| PLANNED | 195.2 | 195.1 | 195.0 | 194.9 | 194.8 | 194.7 | 194.5 | 194.4 | 194.3 | 194.2 | 194.1 | 194.0 |



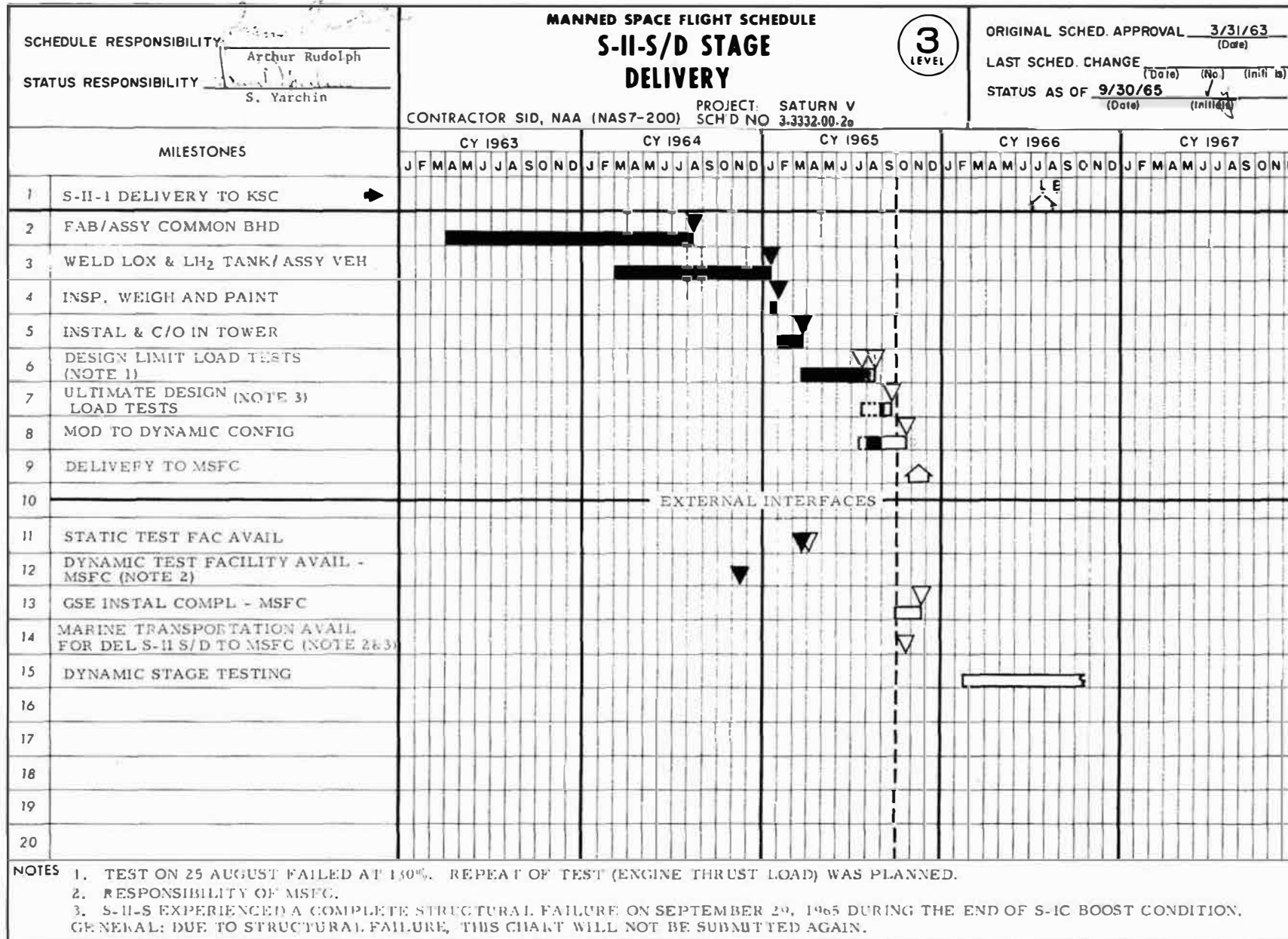
| | | | | | |
|-----------|-------|-------|--------|--------|--------|
| CUR. EST. | | | | | |
| ACT. | 218.6 | 929.8 | 2047.1 | 2637.1 | 628.8 |
| PLANNED | | | | | 2335.2 |

NOTES

S-II STAGE DEVELOPMENT AND DELIVERY PLAN MA-2 SCHEDULE



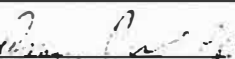
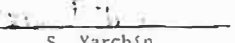


SUMMARY BARS FOR S-II-3 THROUGH S-II-10 WILL BE ADDED NEXT SUBMISSION.



NOTES 1. TEST ON 25 AUGUST FAILED AT 150%. REPEAT OF TEST (ENGINE THRUST LOAD) WAS PLANNED.
 2. RESPONSIBILITY OF MSFC.
 3. S-II-S EXPERIENCED A COMPLETE STRUCTURAL FAILURE ON SEPTEMBER 29, 1965 DURING THE END OF S-IC BOOST CONDITION. GENERAL: DUE TO STRUCTURAL FAILURE, THIS CHART WILL NOT BE SUBMITTED AGAIN.

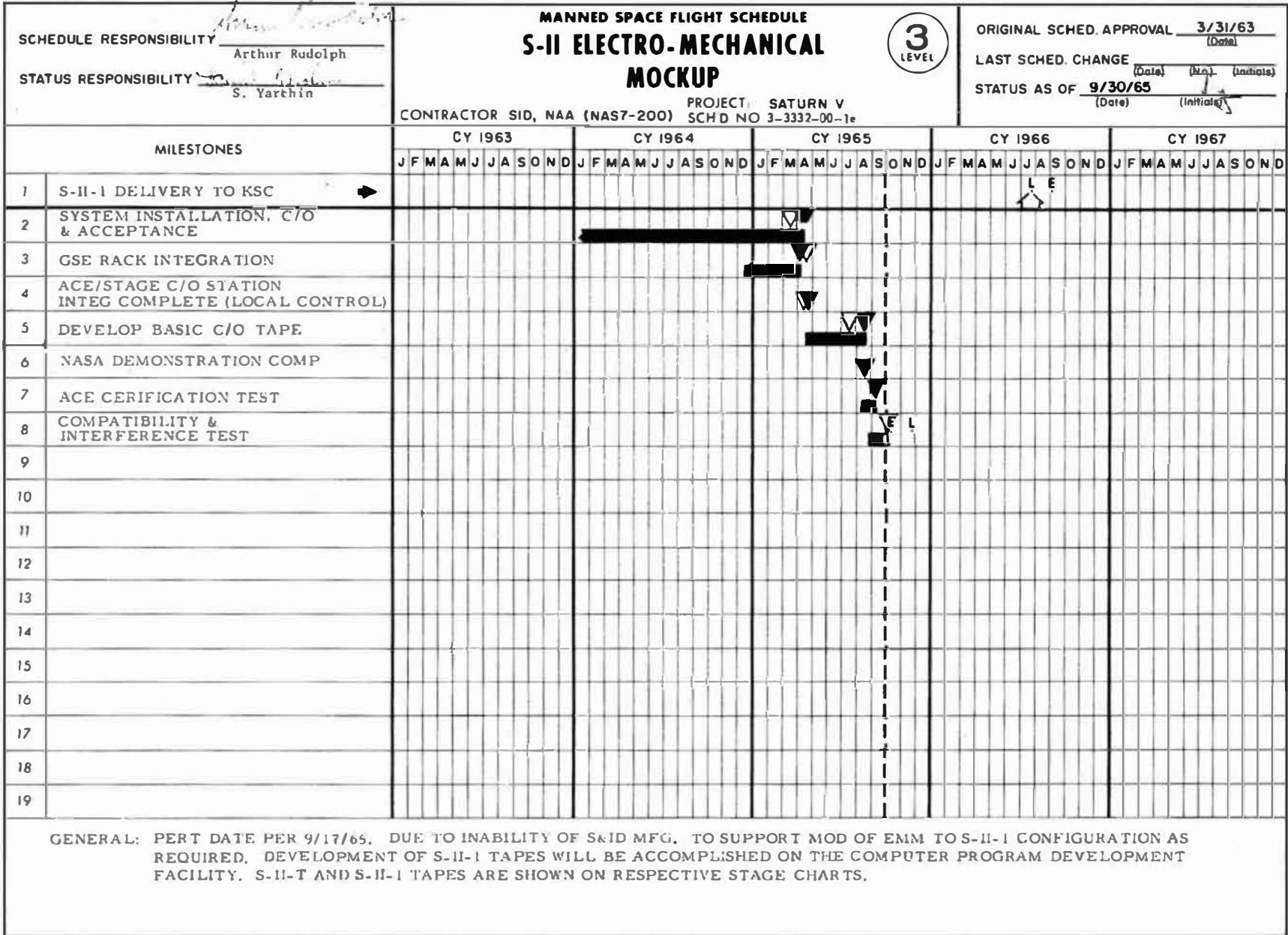
| SCHEDULE RESPONSIBILITY _____ STATUS RESPONSIBILITY <u>Arthur Rudolph</u> <u>S. Yarchin</u> | MANNED SPACE FLIGHT SCHEDULE S-II BATTLESHIP STAGE PROJECT: SATURN V CONTRACTOR SID, NAA (NAS7-200) SCH D NO 3-3332-00-1b | 3 LEVEL | ORIGINAL SCHED. APPROVAL <u>3/31/63</u> (Date) LAST SCHED. CHANGE _____ (Date) (No) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|------------|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| 1 | EXTERNAL INTERFACES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | GSE/SDD INSTALLED FOR CRYOGENIC TESTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | GSE/SDD INSTALLED FOR CLUSTER FIRINGS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | J-2 ENGINES REQUIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | SECOND SET J-2 ENGINES REQUIRED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| NOTES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

159 - 1 (Rev. 1-1965) (Part of 1-1965)

| SCHEDULE RESPONSIBILITY  Arthur Rudolph STATUS RESPONSIBILITY  S. Yarchin | | MANNED SPACE FLIGHT SCHEDULE S-II COMMON BULKHEAD TEST TANK | | <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;"> 3 <small>LEVEL</small> </div> | ORIGINAL SCHED. APPROVAL <u>3/31/65</u> <small>(Date)</small> LAST SCHED. CHANGE _____ <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|---|--|---|---|---|---------|---|---|---------|---|---|---------|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|
| | | CONTRACTOR SID, NAA (NAS7-200) PROJECT SATURN V SCH'D NO 3-3332-00-1d | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | S-II-1 DELIVERY TO KSC  | | | | | | | | | | | | | | | | | | | | | | LE  | | | | | | | | | | | | | | | | | |
| 2 | FAB/ASSY COMMON BHD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | FAB/ASSY FWD SKIRT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | FINAL ASSEMBLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | INSTALL INSTRUMENTATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | DEL TO SANTA SUSANA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | CHECKOUT TEST ARTICLE & FIXTURE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | LIMITED STRUCT PRESSURE TESTS - PHASE III (CRYOGENIC) (NOTE 1 & 2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | CRYOGENIC QUALIFICATION TESTING (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | -----EXTERNAL INTERFACE----- | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | TEST FAC CONST COMPL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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NOTES

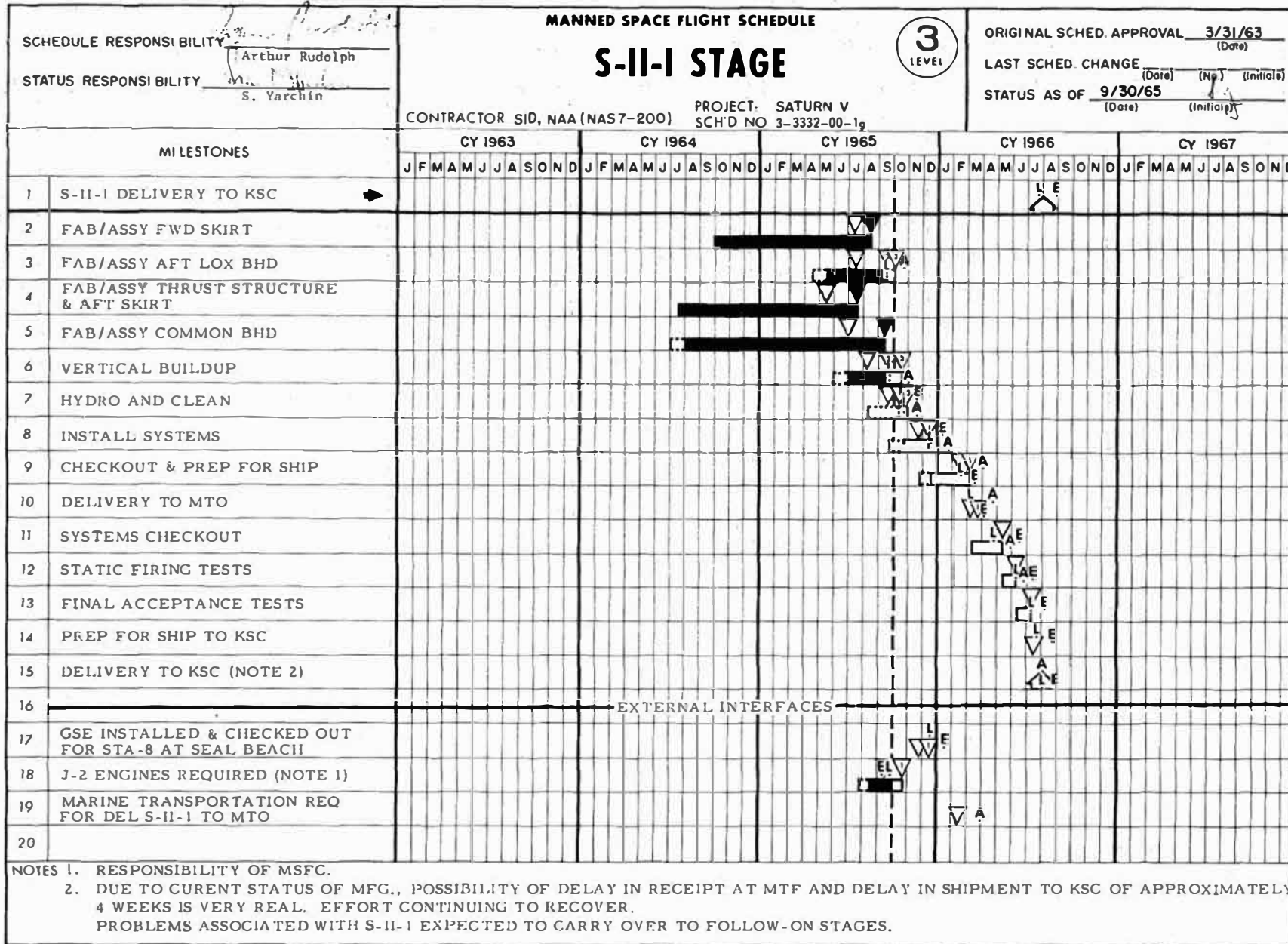
1. TEST PROGRAM MODIFIED TO ELIMINATE INITIAL STEPS USING LN₂ AND THEREBY REDUCE LENGTH OF PROGRAM.
2. TO CONTINUE PHASE III (LIMIT PRESSURE CYCLE TESTS) ON WEEKEND OF OCTOBER 9 TO ACCOMPLISH 60 + CYCLES.



| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S. Yarchin</u> | | MANNED SPACE FLIGHT SCHEDULE S-II FACILITY CHECKOUT STAGE | | | 3 LEVEL | | ORIGINAL SCHED. APPROVAL <u>3/31/63</u> <small>(Date)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|---|---|--|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CONTRACTOR SID, NAA (NAS 7-200) | | | PROJECT SATURN V SCH'D NO 3-3332-00-2f | | LAST SCHED. CHANGE <u>9/30/65</u> <small>(Date) (No.) (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 |
| 1 | S-II-1 DELIVERY TO KSC ➔ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | FAB/ASSY FWD SKIRT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | FAB/ASSY AFT LOX BHD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | FAB/ASSY THRUST STR & AFT SKIRT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | FAB/ASSY COMMON BHD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | VERTICAL BUILDUP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | HYDRO & CLEAN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | INSTALL SYSTEMS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | CHECKOUT & PREP FOR SHIP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | DELIVERY TO KSC (NOTE 3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | EXTERNAL INTERFACES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | MARINE TRANSPORTATION REQ FOR DEL OF S-II-F TO KSC (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | LC-39 POSITION 1 AVAIL (NOTE 2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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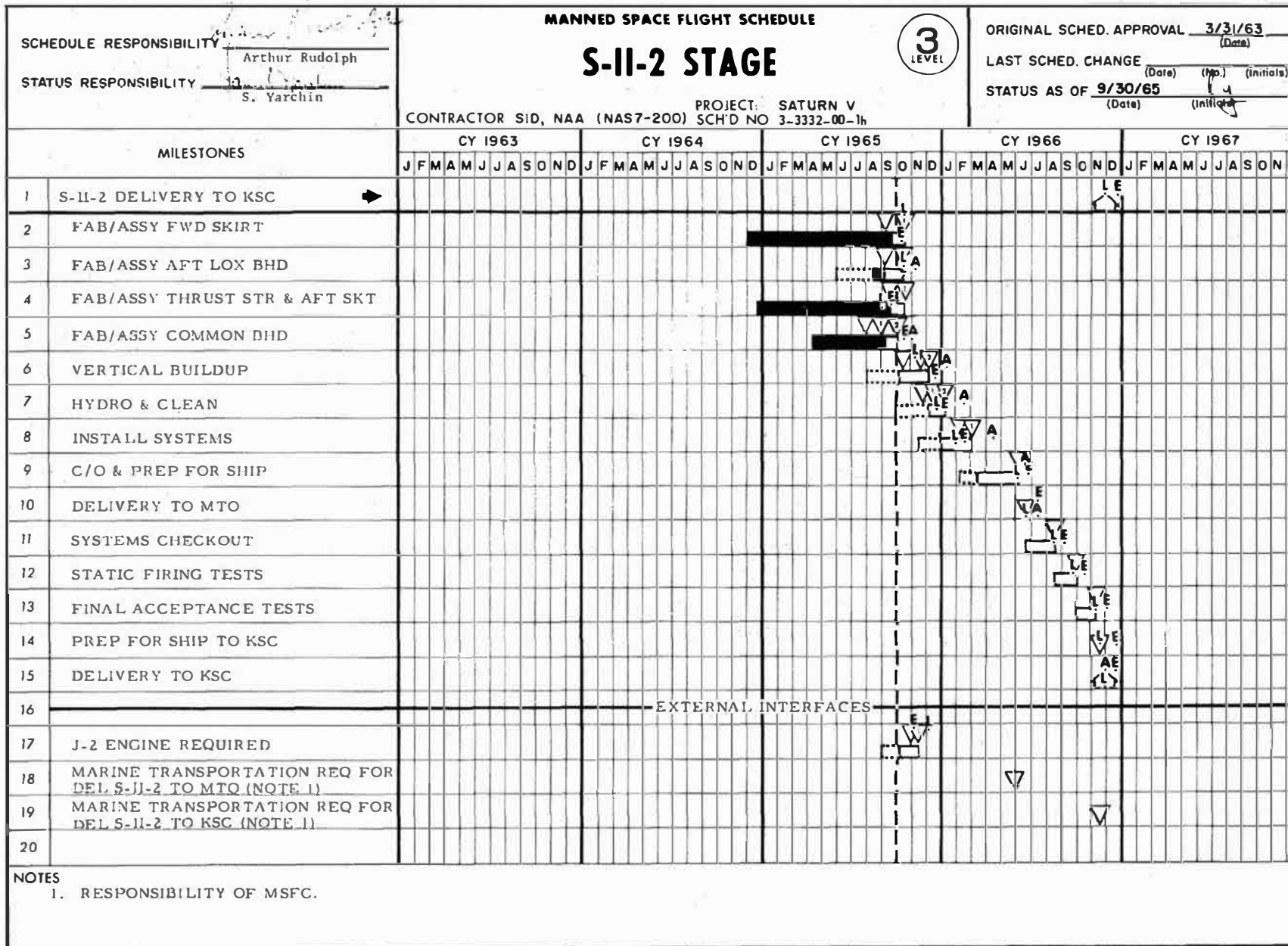
1. RESPONSIBILITY OF MSFC.
2. RESPONSIBILITY OF KSC.
3. DUE TO CURRENT STATUS OF MFG POSSIBILITY OF DELAY IN RECEIPT (BEYOND 10 JAN 66 NEED DATE) EFFORT CONTINUING TO RECOVER.



| SCHEDULE RESPONSIBILITY | | MANNED SPACE FLIGHT SCHEDULE | | | | | | | | | | | | ORIGINAL SCHED. APPROVAL <u>3/31/63</u> <small>(Date)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|--|--|---|---|---------|---|---|---------|---|---|---------|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arthur Rudolph | | S-II-I STAGE | | | | | | | | | | | | LAST SCHED. CHANGE <u> </u> <small>(Date) (No.) (Initials)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATUS RESPONSIBILITY | | PROJECT SATURN V CONTRACTOR SID, NAA (NAS7-200) SCH'D NO 3-3332-00-2g | | | | | | | | | | | | STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | CY 1963 | | | CY 1964 | | | CY 1965 | | | CY 1966 | | | CY 1967 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MILESTONES | | 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 | S-II-1 DELIVERY TO KSC → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | TEST STAND A-2 OPERATIONAL AT MTO FOR S-II-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | MARINE TRANSPORTATION REQ FOR DEL S-II-1 TO KSC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | QUAL TEST OF S-II-1 COMPONENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | SYS PERF REQ(S) DOCUMENTS RELEASED (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | SOFTWARE SYSTEM PERF & PRELIM DESIGN SPEC(S) COMPL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | OPER SOFTWARE SYSTEM CODING AND DEBUGGING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | SOFTWARE SYS ACPT TESTING COMPL (S-II-1 TAPES COMPL) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | STAGE DESIGN REVIEWS COMP. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

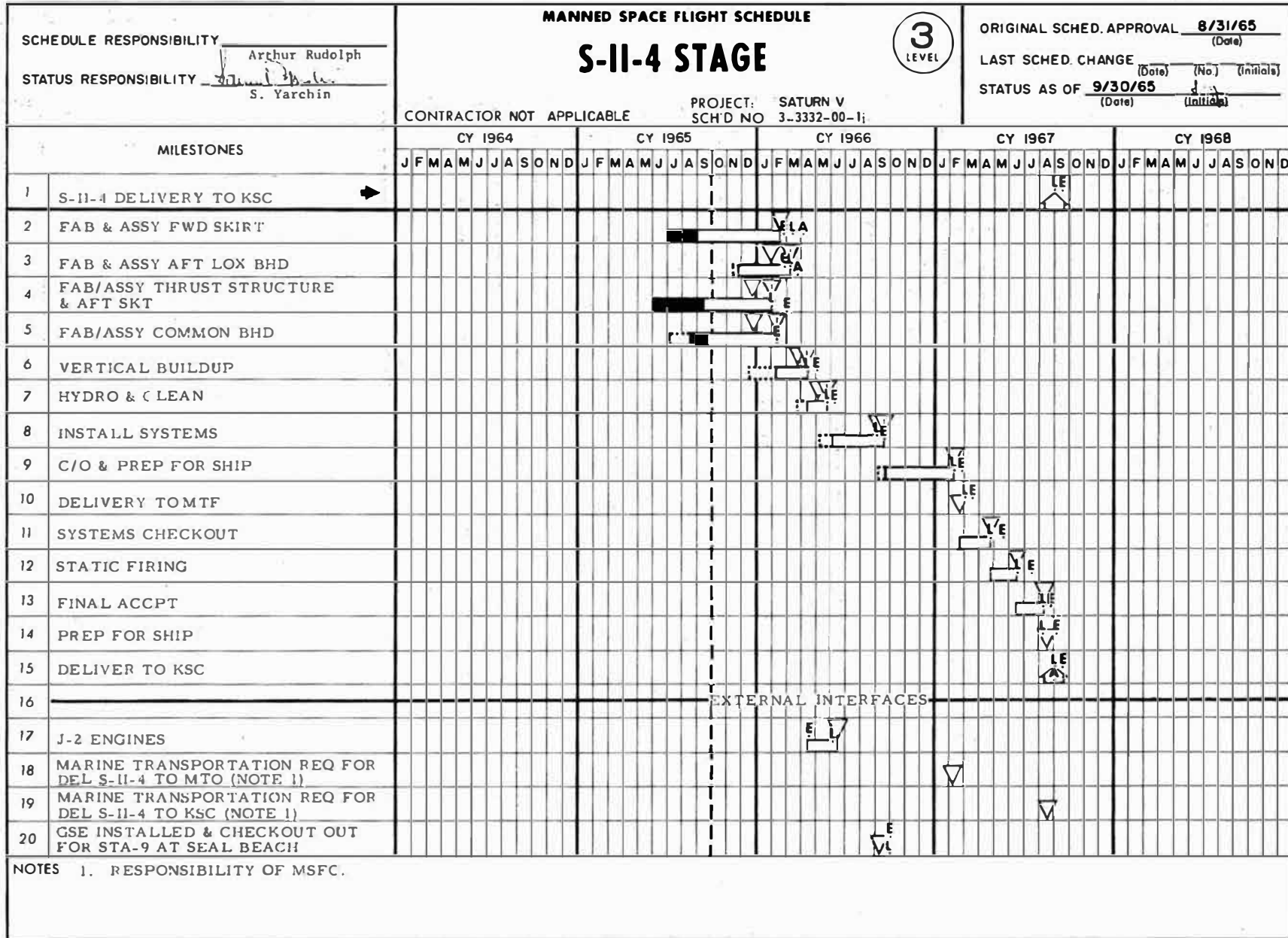
NOTES

- 1. NO SUCH DOCUMENT FURNISHED NAA. GENERAL PARAMETERS FURNISHED AND SUBSEQUENT MSFC/NAA MEETINGS ESTABLISHED FIRM REQUIREMENTS. FIRM REQUIREMENTS WERE ESTABLISHED BY JANUARY 13, 1965.



NOTES
1. RESPONSIBILITY OF MSFC.

| SCHEDULE RESPONSIBILITY Arthur Rudolph | | MANNED SPACE FLIGHT SCHEDULE | | 3 LEVEL | | ORIGINAL SCHED. APPROVAL <u>8/31/65</u> (Date) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|------------------------------|---|---|---|---|---|---------|---|---------|---|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | LAST SCHED. CHANGE (Date) (No.) (Initials) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STATUS RESPONSIBILITY S. Yarchin | | CONTRACTOR NOT APPLICABLE | | PROJECT: SATURN V SCHD NO 3-3332-00-21 | | 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 |
| 1 | S-II-3 DELIVERY TO KSC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | FAB/ASSY FWD SKIRT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | FAB/ASSY AFT LOX BHD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | FAB/ASSY THRUST STRUCTURE & AFT SKIRT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | FAB/ASSY COMMON BHD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | VERTICAL BUILDUP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | HYDRO & CLEAN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | INSTALL SYSTEMS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | C/O & PREP FOR SHIP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | DELIVERY TO MTF | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | SYSTEMS CHECKOUT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | STATIC FIRING TESTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | FINAL ACCEP TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | PREP FOR SHIP TO KSC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | DELIVERY TO KSC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | EXTERNAL INTERFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | J-2 ENGINES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | MARINE TRANSPORTATION REQ FOR DEL S-II-3 TO MTO (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | MARINE TRANSPORTATION REQ FOR DEL S-II-3 TO KSC (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | FIRST ARTICLE CONFIGURATION INSPECTION COMPLETE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOTES | | I. RESPONSIBILITY OF MSFC. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>C. S. Yarchin</u> | | MANNED SPACE FLIGHT SCHEDULE SATURN V PLAN FOR CONVERSION OF S-II CONTRACT INCENTIVE FEATURES CONTRACTOR S & ID _____ PROJECT: SATURN V SCH'D NO: 3-3332-00-1k | | | | | | | | | | | | | | | | | | | | | | | | ORIGINAL SCHED. APPROVAL <u>3/31/65</u> (Date) LAST SCHED. CHANGE _____ (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (No.) (Initials) | |
|---|------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|--|--|
| MILESTONES | | CY 1965 | | | | | | | | | | | | CY 1966 | | | | | | | | | | | | | |
| | | 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 | S-II-1 DELIVERY TO KSC → | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | DATE SPECIFICATION AND | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | REQUIREMENTS WILL BE DEFINED | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | FOR ISSUANCE IN THE RFP | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | DATE PROPOSAL DUE FROM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | CONTRACTOR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | PRENEGOTIATION POSITION | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ESTABLISHED WITH OMSF, | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | INCLUDING INCENTIVE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ARRANGEMENT | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | DATE TO BEGIN NEGOTIATION | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | WITH CONTRACTOR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | DATE OF COMPLETION OF | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NEGOTIATIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | DATE CONTRACT TO BE FOR- | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | WARDED FOR HEADQUARTER'S | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | APPROVAL (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOTES 1. DELAY IN DELIVERY OF COST PROPOSAL. | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|--|---|---|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S. Yarchin</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V S-II STAGE FOLLOW-ON PROCUREMENT VEHICLES 511 THROUGH 515 | (3) LEVEL | ORIGINAL SCHED. APPROVAL <u>3/31/65</u> (Date) LAST SCHED. CHANGE _____ (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | | | | | | | | | | | | | | |
| CONTRACTOR S&ID _____ | | PROJECT: SATURN V SCH'D NO: 3-3332-00-11 | | | | | | | | | | | | | | | | | | | | | | | |
| MILESTONES | 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 | |
| 1 | WORK STATEMENT COMPLETE → | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | DOCUMENTED REQUIREMENT TO PROCUREMENT OFFICE | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | CONTRACT AWARD | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | EARLIEST LONG LEAD TIME PROCUREMENT INITIATION | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | | | | | | | | | | |

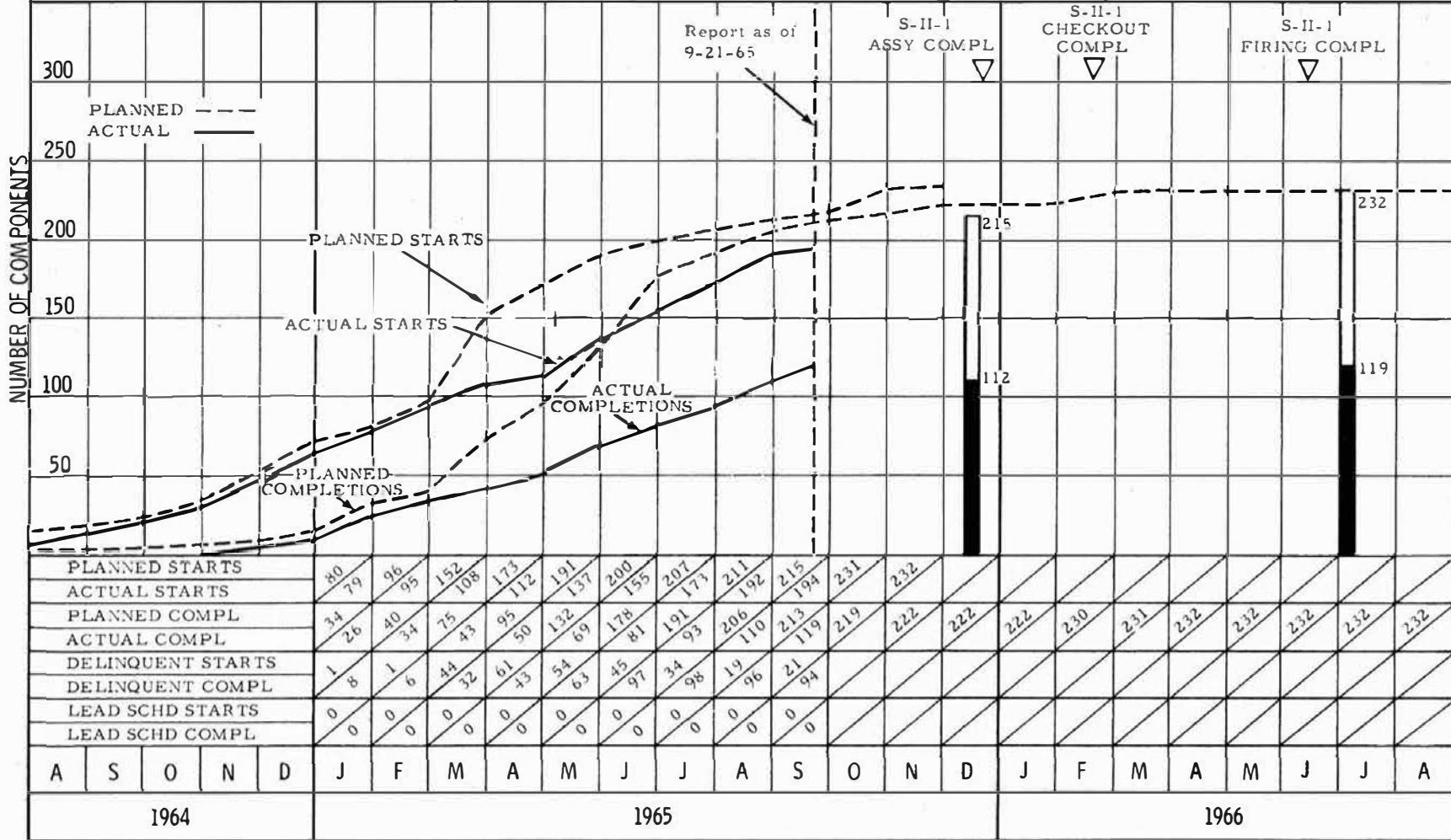
SCHEDULE RESPONSIBILITY: Arthur Rudolph
 STATUS RESPONSIBILITY: S. Yarchin

MANNED SPACE FLIGHT SCHEDULE
S-II-1 STAGE
STAGE QUALIFICATION STATUS

3
LEVEL

ORIGINAL SCHED. APPROVAL 6/30/65
(Date)
 LAST SCHED. CHANGE (Date) (No) (Initials)
 STATUS AS OF 9/30/65
(Date) (Initials)

CONTRACTOR PROJECT: SATURN V
 SCH'D NO 3-3332-00-1m



NOTES:

SCHEDULE RESPONSIBILITY Arthur Rudolph
 STATUS RESPONSIBILITY S. Yarchin

MANNED SPACE FLIGHT SCHEDULE
**ALL S-II STAGE
 (ENGINEERING CHANGES)**

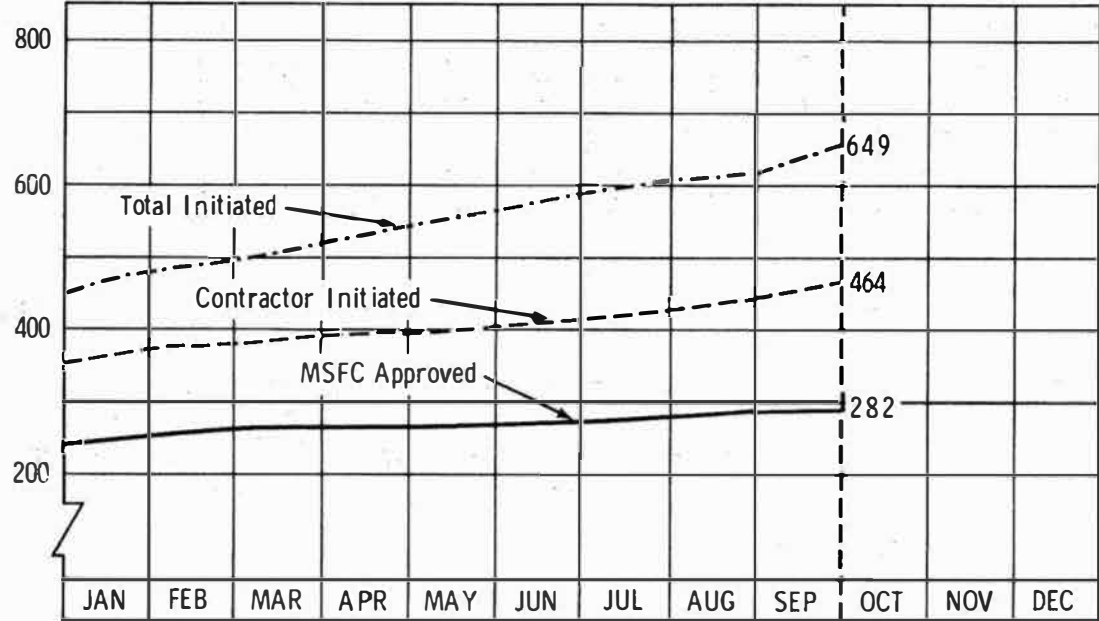
3
LEVEL

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

CONTRACTOR

PROJECT: SATURN V
 SCH'D NO 3-3332-00-2a

No. of Engineering Changes



| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Total Initiated (Cum) | 478 | 496 | 518 | 541 | 563 | 584 | 602 | 617 | 649 | | | |
| Contractor Initiated (Cum) | 373 | 382 | 392 | 394 | 403 | 418 | 429 | 440 | 464 | | | |
| Approved (Cum) | 253 | 260 | 265 | 267 | 270 | 273 | 277 | 281 | 282 | | | |

NOTES:

SCHEDULE RESPONSIBILITY Arthur Rudolph

STATUS RESPONSIBILITY S. Yarchin

MANNED SPACE FLIGHT SCHEDULE

**ALL S-II STAGE
(BASIC ENGINEERING DESIGN RELEASES)**

3
LEVEL

ORIGINAL SCHED. APPROVAL _____ (Date)

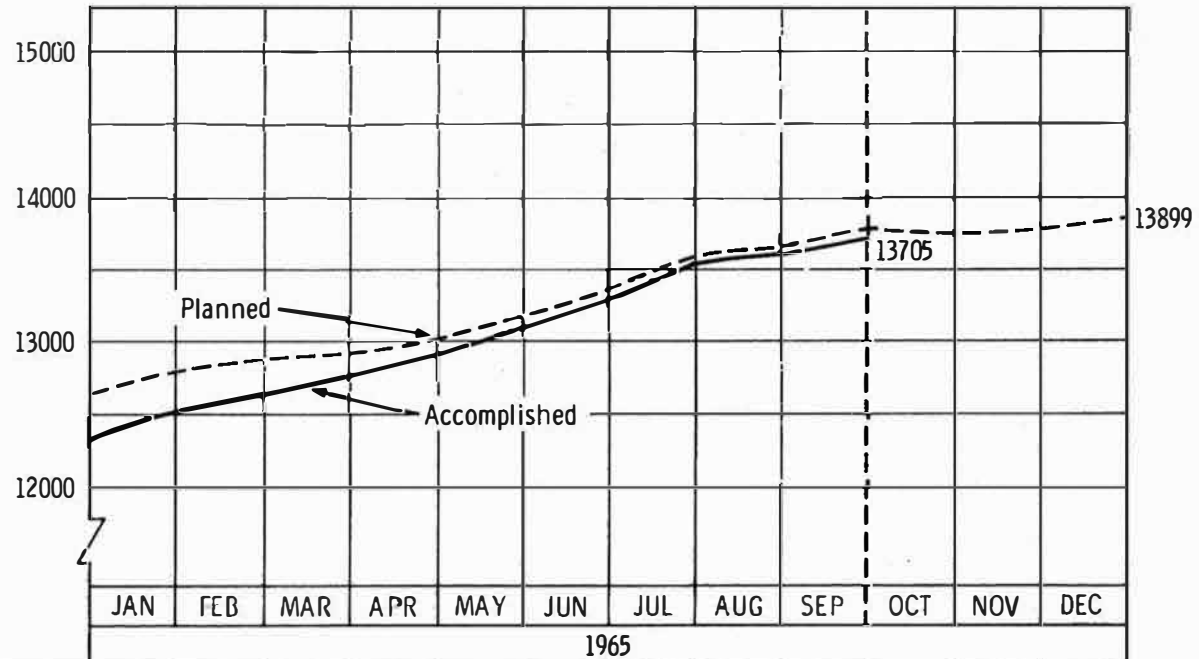
LAST SCHED. CHANGE _____ (Date) (No.) (Initials)

STATUS AS OF 9/30/65 (Date) (Initials)

CONTRACTOR

PROJECT SATURN V
SCH'D NO 3-3332-00-16

No. Basic Design Engineering Releases



| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Planned (Cum) | 12806 | 12889 | 12902 | 13002 | 13170 | 13352 | 13605 | 1372J | 13766 | 13747 | 13784 | 13899 |
| Accomplished (Cum) | 12528 | 12630 | 12788 | 12906 | 13112 | 13296 | 13548 | 13654 | 13705 | | | |

NOTES:

SCHEDULE RESPONSIBILITY Arthur Rudolph
Arthur Rudolph

STATUS RESPONSIBILITY S. Yarchin
S. Yarchin

MANNED SPACE FLIGHT SCHEDULE
**ALL S-II STAGE HARDWARE
(ENGINEERING CHANGES)**

3
LEVEL

ORIGINAL SCHED. APPROVAL _____ (Date)

LAST SCHED. CHANGE _____ (Date) (No.) (Initials)

STATUS AS OF 9/30/65 _____ (Date) (Initials)

CONTRACTOR SBID (NAA)

PROJECT: SATURN V
SCH'D NO 3-3332-00-2p

| Change Category | Total No. of Engineering Changes Requested | No. of Change Requests Initiated by Contractor | No. of Change Requests Initiated by MSFC | No. of Changes Approved by MSFC Stage CCB | No. of Changes Pending Action by MSFC Stage CCB |
|-----------------|--|--|--|---|---|
| In Scope | 16 | 16 | N/A | N/A | N/A |
| Out of Scope | 16 | 8 | 8 | 1 | 6 |
| TOTAL | 32 | 24 | 8 | 1 | 6 |

NOTES: THESE NUMBERS DO NOT INCLUDE 3 DISAPPROVED CHANGE REQUESTS.
CHANGE ACTIVITY DURING SEPTEMBER

| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> | | MANNED SPACE FLIGHT SCHEDULE ALL S-II STAGE HARDWARE (ENGINEERING CHANGES) | | | ORIGINAL SCHED. APPROVAL _____ (Date) | |
|--|--|--|--|---|--|--|
| STATUS RESPONSIBILITY <u>S. Yarchin</u> | | CONTRACTOR S&ID (NAA) | | | LAST SCHED. CHANGE _____ (Date) (No.) (Initials) | |
| | | PROJECT: SATURN V SCH D NO 3-3332-00-2q | | | STATUS AS OF <u>9/30/65</u> (Date) (Initials) | |
| Change Category | Total No. of Engineering Changes Requested (S&ID/MSFC) | No. of Change Requests Initiated by Contractor | No. of Change Requests Initiated by MSFC | No. of Changes Approved by MSFC Stage CCB | No. of Changes Pending Action by MSFC Stage CCB | |
| In Scope | 241 | 229 | 28 | N/A | N/A | |
| Out of Scope | 408 | 235 | 157 | 282 | 6 | |
| TOTAL | 649 | 464 | 185 | 282 | 6 | |
| NOTES: THESE NUMBERS DO NOT INCLUDE 82 DISAPPROVED CHANGE REQUESTS, CHANGE ACTIVITY TO SEPTEMBER 1965. | | | | | | |

| | | | | | | | | | | | | |
|--|--|--|-------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S. Yarchin</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER S-II STAGE PROJECT: SATURN V SCH'D NO: 3-3332-00-2a CONTRACTOR NAA (7-00) | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | | | | | |
| CURRENT FISCAL YEAR | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE |
| NO. OF WORKING DAYS IN REPORTING PERIOD | 19 | 20 | 24 | 20 | 18 | 22 | | | 25 | | | 24 |
| CUMULATIVE OBLIGATIONS | POP 65-2 | 25.0 | 60.0 | 60.0 | | 113.2 | | | 196.4 | | | 218.6 |
| | POP 65-3 | 60.0 | 60.0 | 60.0 | 113.2 | 113.2 | 113.2 | | 196.4 | | | 218.6 |
| | ACTUAL | 60.0 | 60.0 | 113.0 | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | 16.4 | 33.7 | 54.5 | | 110.0 | | | 165.0 | | | 219.0 |
| | POP 65-3 | 16.5 | 33.9 | 54.8 | 72.2 | 87.8 | 106.9 | | 163.3 | | | 219.0 |
| | TOTAL | 15.9 | 34.4 | 56.6* | | | | | | | | |
| | IN-HOUSE | 12.5 | 26.2 | 43.2* | | | | | | | | |
| | SUB CONTRACT | 3.4 | 8.2 | 13.4* | | | | | | | | |
| COST RATE | POP 65-2 | 16.4 | 17.3 | 20.8 | | 20.4 | | | 21.2 | | | 20.2 |
| | POP 65-3 | 16.5 | 17.4 | 20.9 | 17.4 | 15.6 | 19.1 | | 21.6 | | | 20.9 |
| | ACTUAL | 15.9 | 18.5 | 22.2* | | | | | | | | |
| MANPOWER (IN EQUIVALENT MAN MONTHS) | | | | | | | | | | | | |
| TOTAL DIRECT MANPOWER | POP 65-2 | 7400 | 7500 | 7600 | | | 7600 | | | 7600 | | 7600 |
| | POP 65-3 | 7500 | 7700 | 7900 | 8000 | 8100 | 8200 | | 8000 | | | 7800 |
| | ACTUAL | 8441 | 9019 | 9500* | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | |
| NUMBER OF SHIFTS $\frac{1}{12.7}$ | | | | | | | | | | | | |
| PERCENT OF OVERTIME $\frac{12.7}{100}$ | | | | | | | | | | | | |
| REMARKS: * INDICATES ESTIMATES | | | | | | | | | | | | |

| | | |
|--|--|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S. Yarchin</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER S-II STAGE | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
| CONTRACTOR NAA (7-200) | | PROJECT: SATURN V SCH'D NO: 3-3332-00-2b |

**OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)**

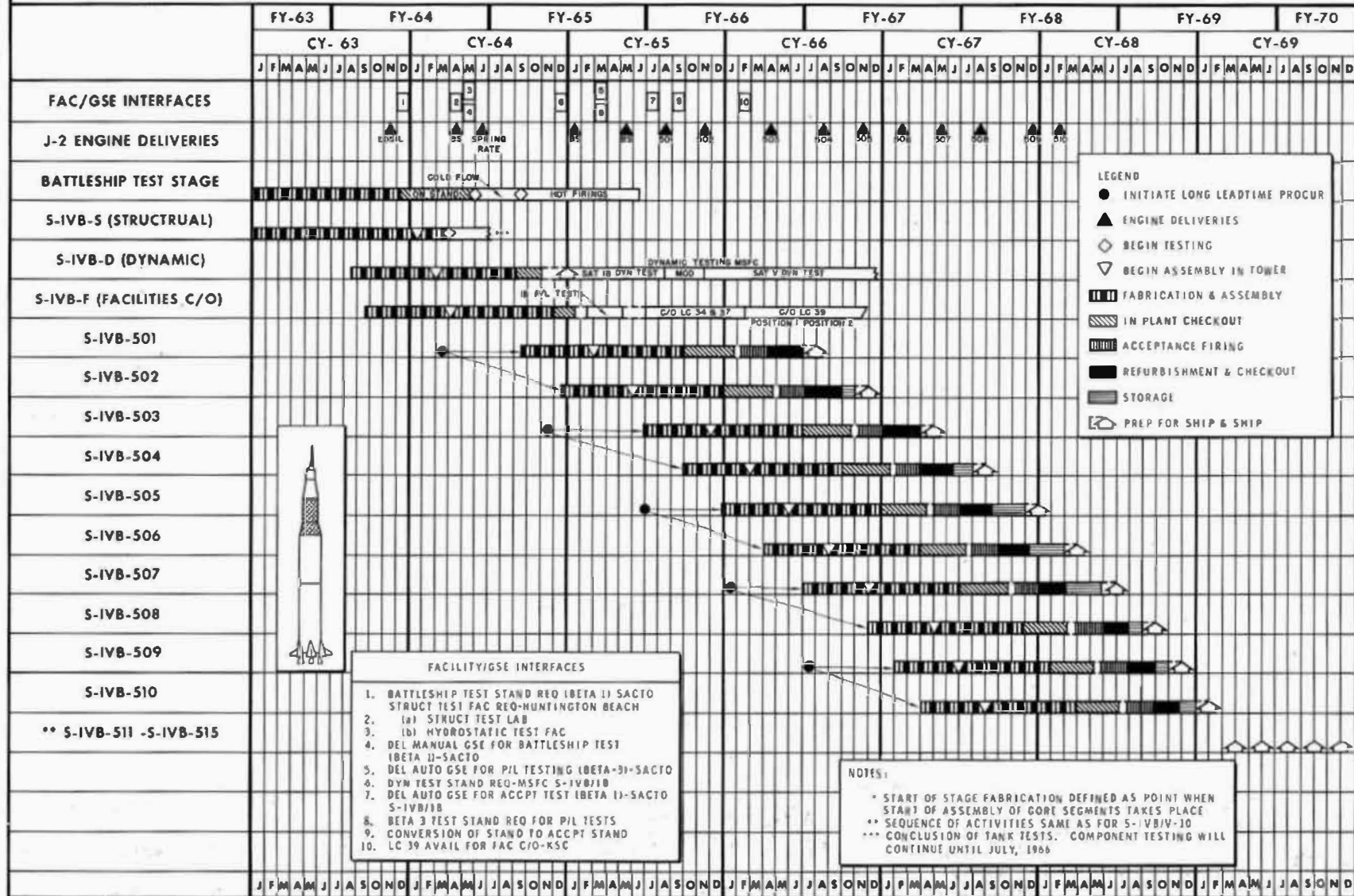
| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
|-------------------------------------|-------------------------|---------|---------|---------|---------|---------|---------|-----------|
| UNCOSTED OBLIGATIONS | | 49.6* | 25.0 | 24.6 | 20.6 | 15.6 | 7.6 | |
| OBLIGATIONS TO CONTRACTOR | 248.3* | 184.4 | 218.6 | 217.5 | 191.1 | 126.0 | 81.5 | 1267.4 |
| TOTAL AVAILABLE | 248.3 | 234.0 | 243.6 | 242.1 | 211.7 | 141.6 | 89.1 | |
| ACCRUED COSTS DURING PERIOD | 198.7 | 209.0 | 219.0 | 221.5 | 196.1 | 134.0 | 89.1 | 1267.4 |
| (533 ACCRUED COSTS) | (198.7) | (209.0) | (237.9) | (207.5) | (133.4) | (70.5) | (43.0) | (1,100.0) |
| UNFILLED ORDERS | 24.7 | 32.3 | 24.6 | 20.6 | 15.6 | 7.6 | 0 | |
| ADVANCED FUNDING | 24.9* | -7.3 | 0 | 0 | 0 | 0 | 0 | |
| MONTHLY COST-RATE (YEAR END) | 15.1 | 20.1 | 20.9 | 17.5 | 14.0 | 9.0 | 3.0 | |

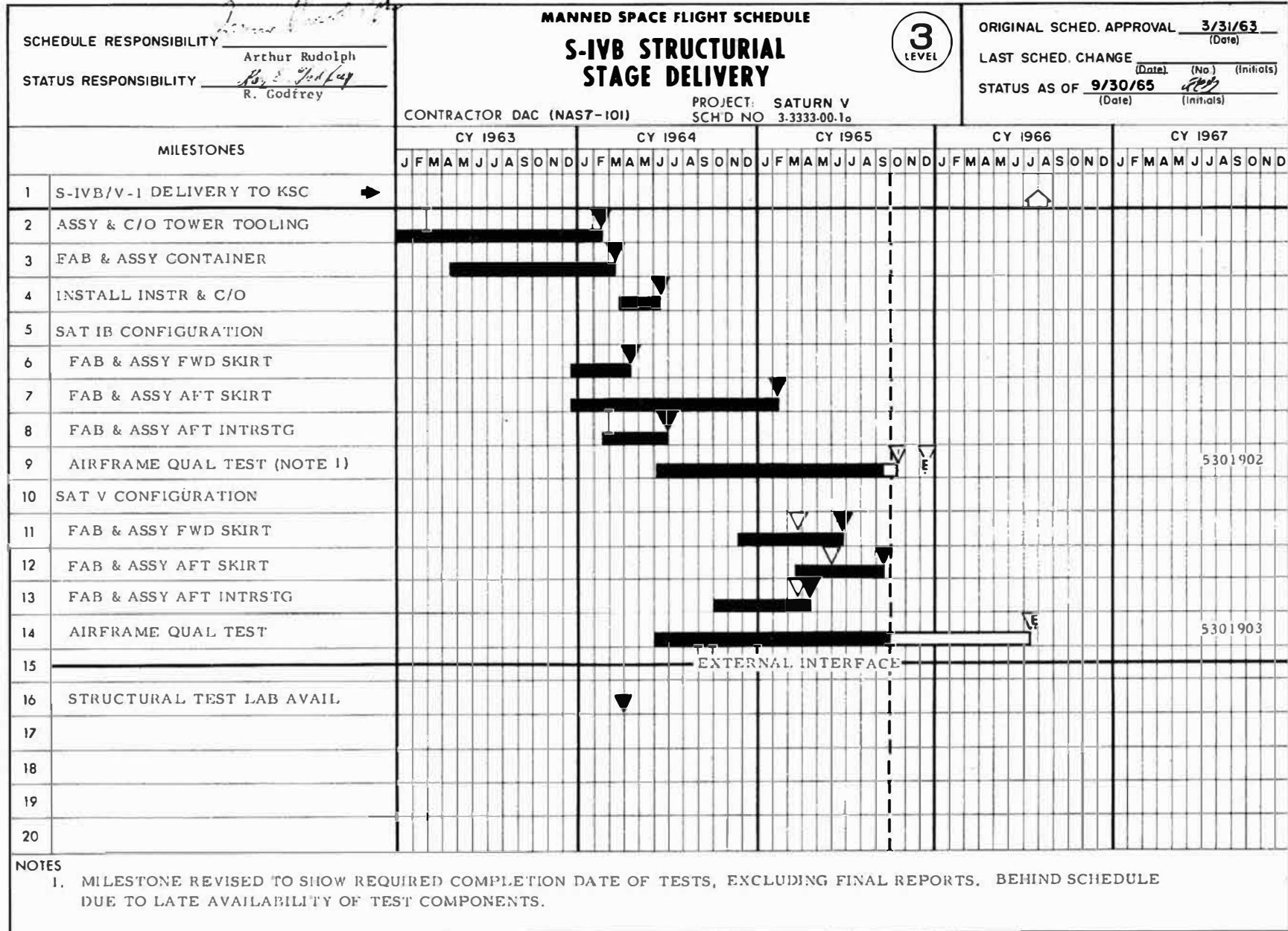
**MANPOWER
(IN EQUIVALENT MAN YEARS)**

| | | | | | | | | |
|------------------------------------|------|------|------|------|------|------|------|--|
| TOTAL DIRECT | 7925 | 7362 | 7925 | 7725 | 6900 | 4600 | 2850 | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | |

REMARKS: * TRANSFERRED \$29.2 M TO FY 64 AS SUPPLEMENT.

S-IVB STAGE DEVELOPMENT AND DELIVERY PLAN MA-2 SCHEDULE





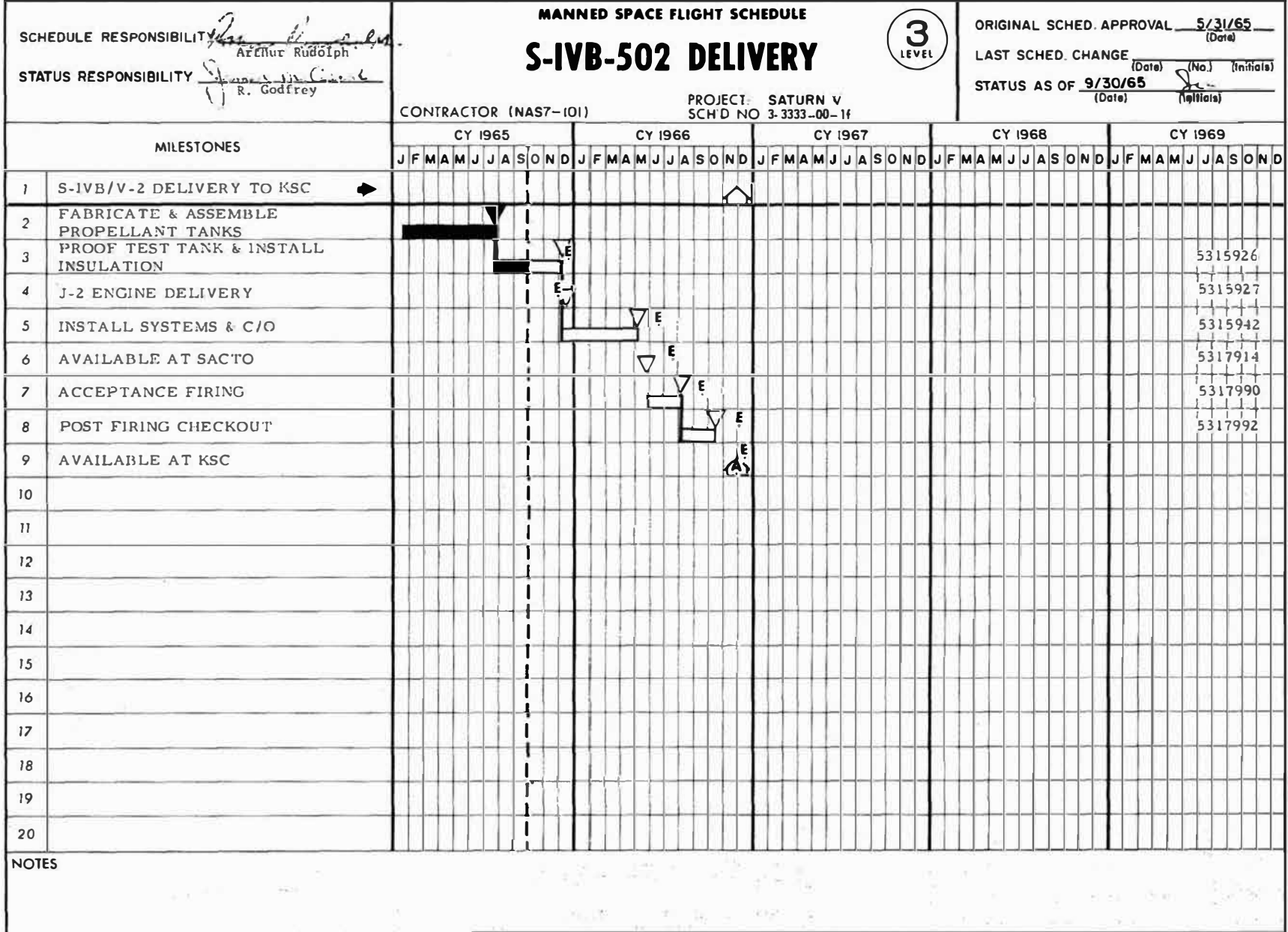
NOTES

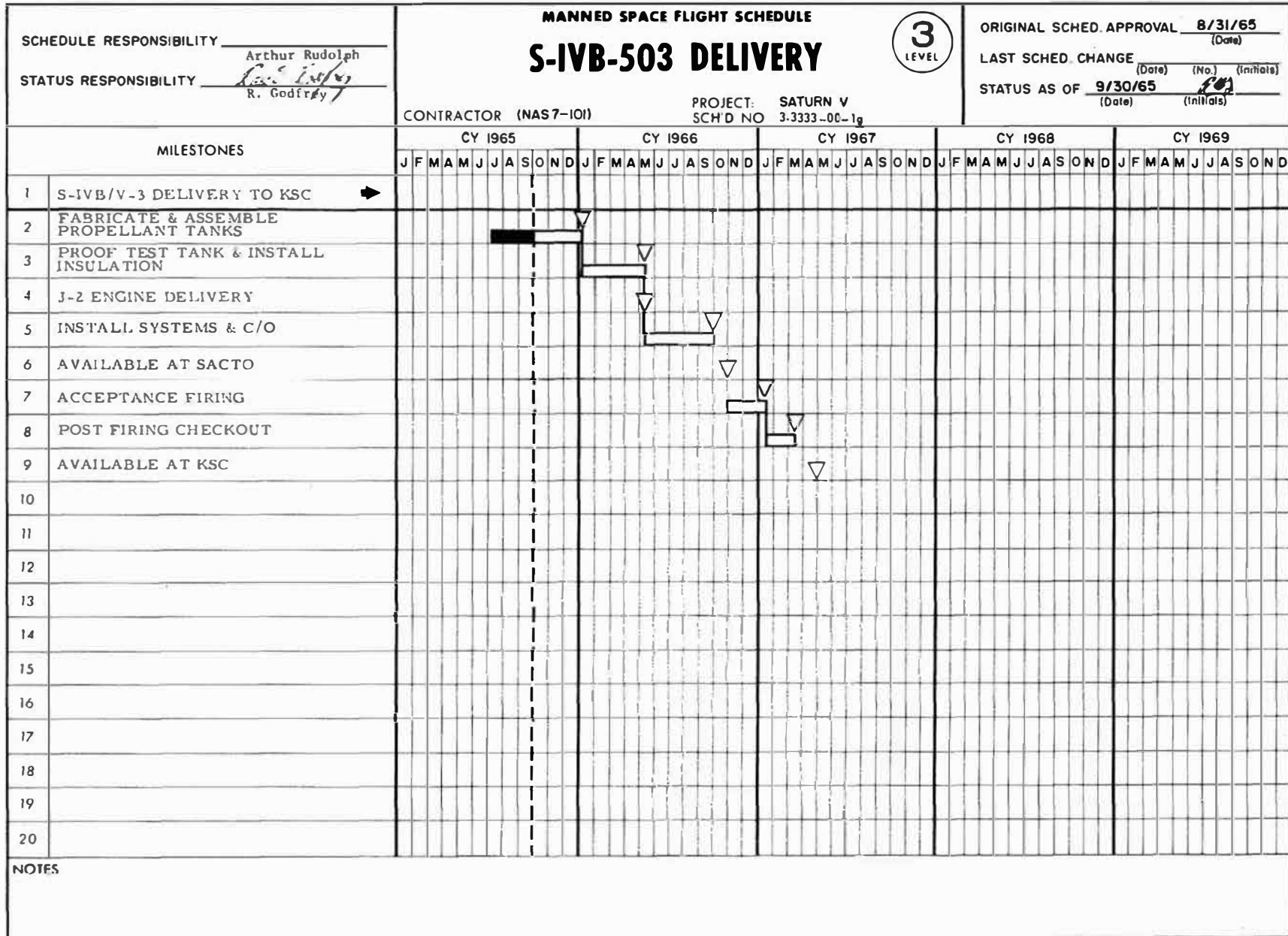
- 1. MILESTONE REVISED TO SHOW REQUIRED COMPLETION DATE OF TESTS, EXCLUDING FINAL REPORTS. BEHIND SCHEDULE DUE TO LATE AVAILABILITY OF TEST COMPONENTS.

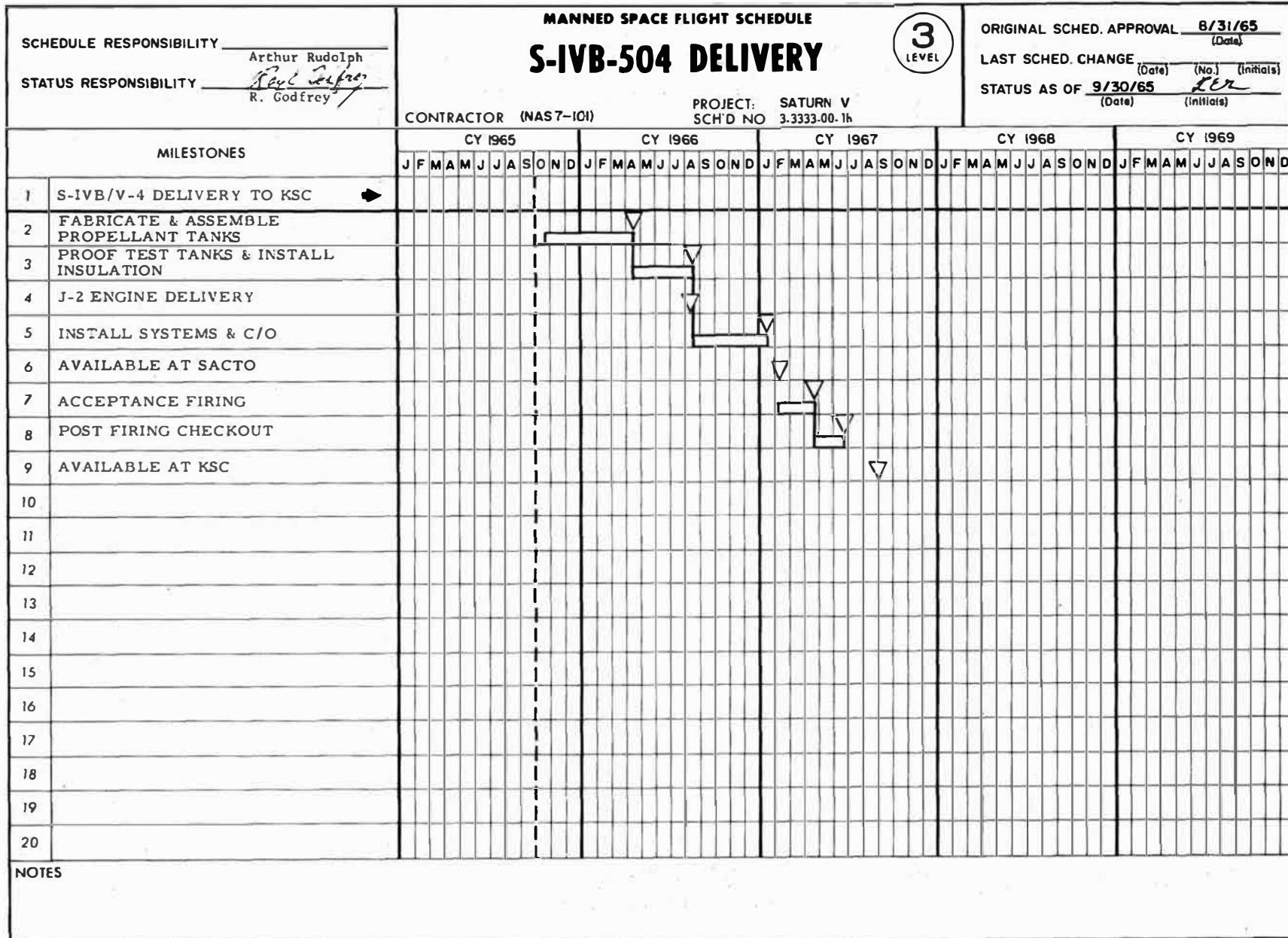
| SCHEDULE RESPONSIBILITY <i>Arthur Rudolph</i> STATUS RESPONSIBILITY <i>R. Godfrey</i> | | MANNED SPACE FLIGHT SCHEDULE S-IVB FACILITY CHECKOUT STAGE DELIVERY | | ORIGINAL SCHED. APPROVAL <u>3/31/63</u> (Date) LAST SCHED. CHANGE (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) |
|--|--|---|--|---|
| MILESTONES | | CONTRACTOR DAC (NAS7-101) PROJECT SATURN V SCH'D NO 3-3333.00-1c | | |
| | | 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 | S-IVB/V-1 DEL TO KSC | | | |
| 2 | FAB PROPELLANT TANKS | | | |
| 3 | PROOF TEST TANKS & INSTALL INSULATION | | | |
| 4 | INSTALL SYS & C/O | | | |
| 5 | PREP & SHIP TO SACTO | | | |
| 6 | INSTALL IN STAND & C/O | | | |
| 7 | PROPELLANT LOADING TESTS (1B CONFIG) | | | |
| 8 | STAGE AVAIL AT KSC FOR FAC C/O OF LC-34 & 37-B | | | |
| 9 | STAGE AVAIL FOR LC-39 CHECKOUT | | | |
| 10 | EXTERNAL INTERFACES | | | |
| 11 | COMPLEX BETA | | | |
| 12 | STAND NO. BETA 3, JOINT OCCUPANCY (MSFC) | | | |
| 13 | FAB, INSTALL. & C/O GSE FOR PROP LOADING TEST AT SACTO | | | |
| 14 | | | | |
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| NOTES | | | | |

| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> ARTHUR RUDOLPH | | MANNED SPACE FLIGHT SCHEDULE S-IVB-501 DELIVERY | | | | ORIGINAL SCHED. APPROVAL <u>3/31/63</u> (Date) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|---------|---|---------|---|---------|---|---------------------|---|---|---|---|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|
| STATUS RESPONSIBILITY <u>R. Godfrey</u> R. GODFREY | | CONTRACTOR (NAS7-101) | | | | LAST SCHED. CHANGE (Date) (No.) (Initials) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | PROJECT: SATURN V SCH'D NO 3-3333-00-1e | | | | STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MILESTONES | CY 1963 | | CY 1964 | | CY 1965 | | CY 1966 | | CY 1967 | | | | | | | | | | | | | | | | | | | | | | | |
| | J | F | M | A | M | J | J | A | S | O | N | J | F | M | A | M | J | J | A | S | O | N | J | F | M | A | M | J | J | A | S | O |
| 1 | S-IVB/V-1 DELIVERY TO KSC | | | | → | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | FABRICATE & ASSEMBLE PROPELLANT TANKS | | | | ■ | | ■ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | PROOF TEST TANK AND INSTALL INSULATION | | | | ■ | | ■ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | J-2 ENGINE DELIVERY | | | | | | ▼ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | INSTALL SYSTEMS & C/O | | | | | | ■ | | | | | | | | | | | | E | | 5315951 | | | | | | | | | | | |
| 6 | AVAILABLE AT SACTO | | | | | | | | ▽ | | | | | | | | | | E | | 5317911 | | | | | | | | | | | |
| 7 | ACCEPTANCE FIRING | | | | | | | | ■ | | | | | | | | | | E | | 5317947 | | | | | | | | | | | |
| 8 | POST FIRING CHECKOUT | | | | | | | | ■ | | | | | | | | | | E | | 5317950 | | | | | | | | | | | |
| 9 | AVAILABLE AT KSC | | | | | | | | | | △ | | | | | | | | E | | | | | | | | | | | | | |
| 10 | COMPLETE DEQ TEST | | | | | | ▽ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | COMPLETE FORMAL QUAL TEST | | | | | | ▽ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | EXTERNAL INTERFACES | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | LC-39 POSITION #1 AVAIL (NOTE 1) | | | | | | | | ▽ | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | COMPUTER PROGRAM FOR FACTORY CHECKOUT ACCEPTED | | | | | | ▽ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | COMPUTER PROGRAM FOR STATIC TEST ACCEPTED | | | | | | ▽ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | COMPUTER PROGRAM FOR POST STATIC CHECKOUT ACCEPTED | | | | | | ▽ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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NOTES 1. RESPONSIBILITY OF KSC.







| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>R. Godfrey</u> | | MANNED SPACE FLIGHT SCHEDULE S-IVB-501 STAGE SOFTWARE REQUIREMENTS | | | 3 LEVEL | ORIGINAL SCHED. APPROVAL <u>3/31/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>9/30/65</u> <u>RG</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <u>RG</u> <small>(Date) (Initials)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|--|---|---------|---|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|
| MILESTONES | | CONTRACTOR DAC (NAS 7-101) | | PROJECT: SATURN V SCHD NO 3.3333-00-1i | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 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 | | | |
| 1 | S-IVB/V-1 DELIVERY TO KSC → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | COMPTR PROGRAM FOR FAC C/O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | SYS PERF REQ(S) DOC REL (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | SOFTWARE SYS PERF & PRELIM DESIGN SPEC(S) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | OPER SOFTWARE SUBSYS CODING AND DEBUGGING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | PROGRAM TAPES ACCEPTED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | COMPTR PROGRAM FOR STATIC TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | SYS PERF REQ(S) DOC REL (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | SOFTWARE SYS PERF & PRELIM DESIGN SPEC(S) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | OPER SOFTWARE SUBSYS CODING & DEBUGGING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | PROGRAM TAPES ACCEPTED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | COMPTR PROGRAM FOR POST-FIRING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | C/O | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | SYS PERF REQ(S) DOC REL (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | SOFTWARE SYS PERF & PRELIM DESIGN SPEC(S) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | OPER SOFTWARE SUBSYS CODING & DEBUGGING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | PROGRAM TAPES ACCEPTED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| NOTES 1. NO SUCH DOCUMENT FURNISHED DAC. GENERAL PARAMETERS FURNISHED AND SUBSEQUENT MSFC/DAC MEETINGS ESTABLISHED FIRM REQUIREMENTS. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| MILESTONES | | CY 1965 | | | | | | | | | | | | CY 1966 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|---------|---|---|---|---|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | 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 | S-IVB/V-1 DELIVERY TO KSC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | DATE SPECIFICATION AND REQUIREMENTS WILL BE DEFINED FOR ISSUANCE IN THE RFP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | DATE PROPOSAL DUE FROM CONTRACTOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | PRENEGOTIATION POSITION ESTABLISHED WITH OMSF, INCLUDING INCENTIVE ARRANGEMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | DATE TO BEGIN NEGOTIATION WITH CONTRACTOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | DATE OF COMPLETION OF NEGOTIATIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | DATE CONTRACT TO BE FORWARDED FOR HEADQUARTER'S APPROVAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOTES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SCHEDULE RESPONSIBILITY Arthur Rudolph
 STATUS RESPONSIBILITY R. Godfrey

MANNED SPACE FLIGHT SCHEDULE
 SATURN V
 PLAN FOR CONVERSION OF S-IVB CONTRACT
 INCENTIVE FEATURES

CONTRACTOR DOUGLAS PROJECT: SATURN V
 SCH'D NO: 3-3333-00-1j

3
LEVEL

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

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>R. Godfrey</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V S-IVB STAGE FOLLOW-ON PROCUREMENT VEHICLES 507 THROUGH 515 | (3) LEVEL | ORIGINAL SCHED. APPROVAL <u>3/31/65</u> (Date) LAST SCHED. CHANGE _____ (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | | | | | | | | | | | | |
| CONTRACTOR DOUGLAS | | PROJECT: SATURN V SCH'D NO: 3-3333-00-1k | | | | | | | | | | | | | | | | | | | | | |
| MILESTONES | CY1965 | CY1966 | | | | | | | | | | | | | | | | | | | | | |
| | 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 | WORK STATEMENT COMPLETE → | | | | | | | | | | | | | | | | | | | | | | |
| 2 | DOCUMENTED REQUIREMENT TO PROCUREMENT OFFICE | | | | | | | | | | | | | | | | | | | | | | |
| 3 | CONTRACT AWARD | | | | | | | | | | | | | | | | | | | | | | |
| 4 | EARLIEST LONG LEAD TIME PROCUREMENT INITIATION | | | | | | | | | | | | | | | | | | | | | | |
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| NOTES | | | | | | | | | | | | | | | | | | | | | | | |

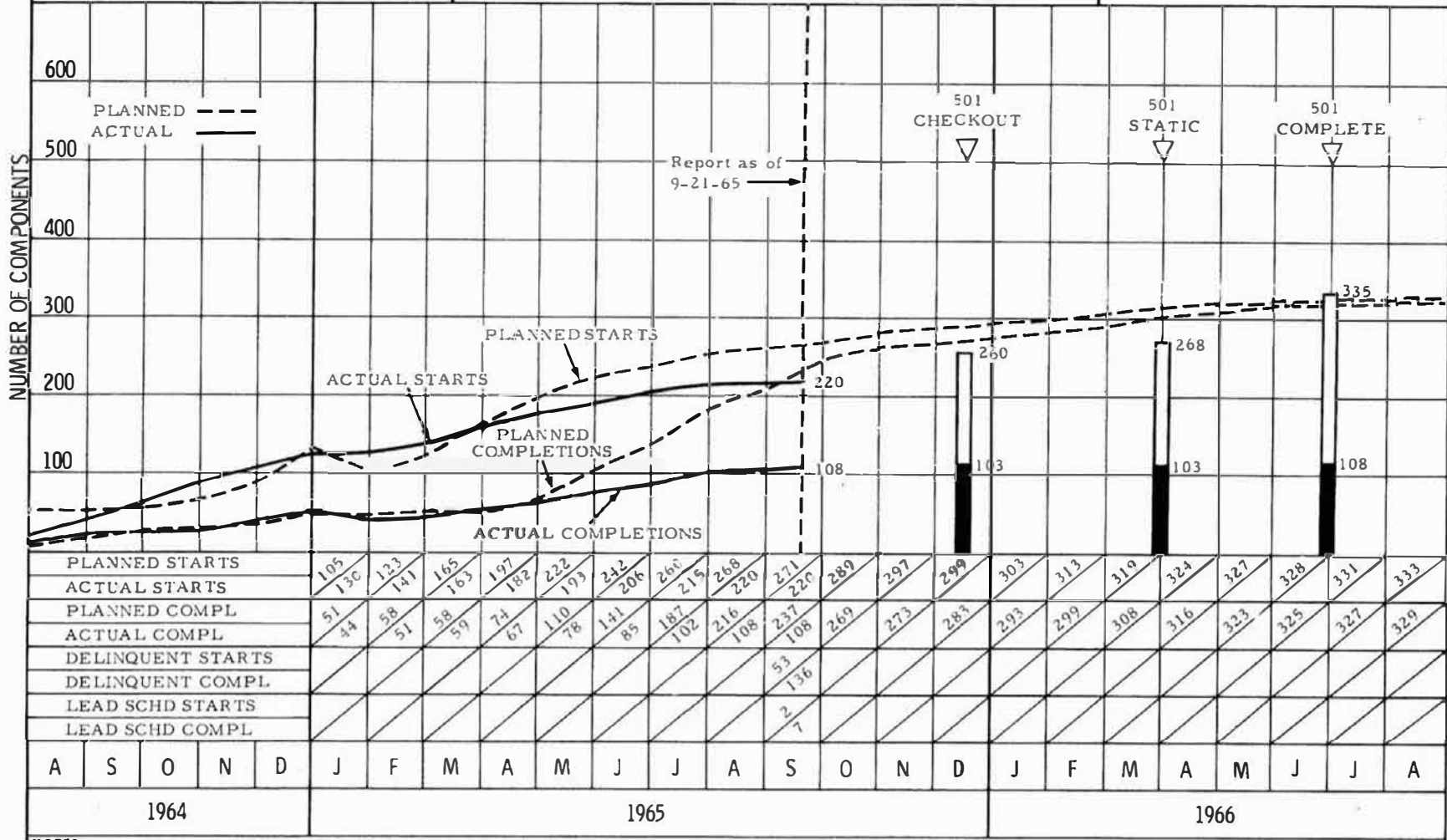
SCHEDULE RESPONSIBILITY Arthur Rudolph
 STATUS RESPONSIBILITY R. Godfrey

MANNED SPACE FLIGHT SCHEDULE
S-IVB/V-501 STAGE
STAGE QUALIFICATION STATUS

3
LEVEL

ORIGINAL SCHED. APPROVAL 6/30/65
 (Date)
 LAST SCHED. CHANGE (Date) (No.) (Initials)
 STATUS AS OF 9/30/65 RTJ
 (Date) (Initials)

CONTRACTOR PROJECT: SATURN V
 SCHD NO 3-3333-00-11

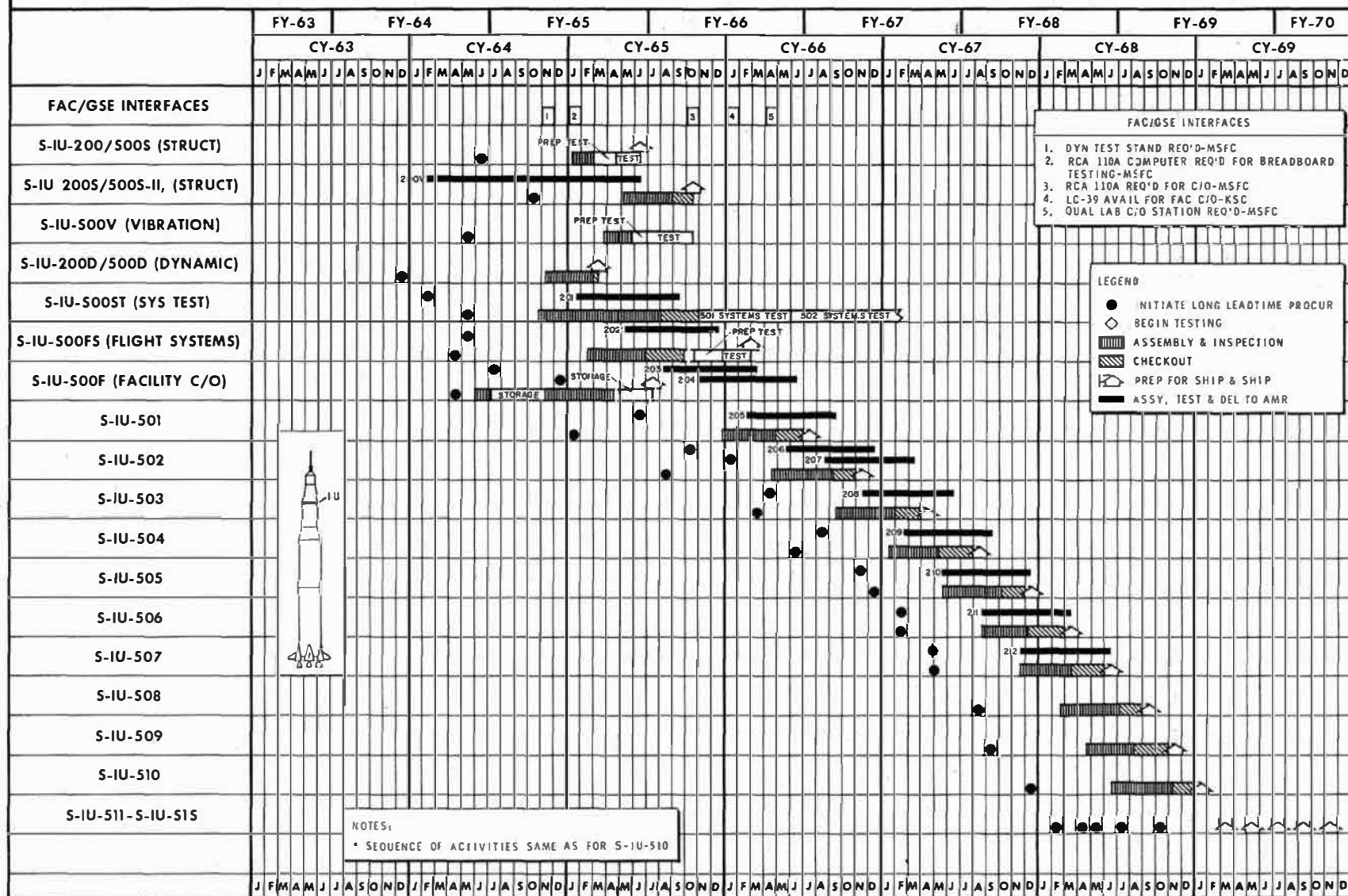


NOTES: 2 ITEMS NOT SCHEDULED

| SCHEDULE RESPONSIBILITY <i>Arthur Rudolph</i> | | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER | | | | | | | ORIGINAL SCHED APPROVAL <u>4/30/65</u> (Date) | | | | | |
|---|----------|--|-------|--------|---|------|------|-----|---|-------|---|-------|-------|--|
| STATUS RESPONSIBILITY <i>Roy E. Godfrey</i> | | S-IVB STAGE | | | | | | | LAST SCHED. CHANGE <u>7/31/65 (2)</u> (Date) (No.) | | STATUS AS OF <u>9/30/65</u> (Date) <i>RG</i> (Initials) | | | |
| | | CONTRACTOR DAC (NAS7-101) | | | PROJECT: SATURN V SCH'D NO: 3-3333-00-2a | | | | | | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | | | | | | | |
| CURRENT FISCAL YEAR | | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE | |
| NO. OF WORKING DAYS IN REPORTING PERIOD | | 19 | 25 | 19 | 25 | 18 | 19 | 24 | 20 | 20 | 20 | 25 | 19 | |
| CUMULATIVE OBLIGATIONS | POP 65-2 | 15.0 | 36.5 | 36.5 | XX | XX | 68.5 | XX | XX | 122.1 | XX | XX | 137.7 | |
| | POP 65-3 | 20.0 | 36.5 | 76.0 | 76.0 | 76.0 | 76.0 | XX | XX | 126.0 | XX | XX | 142.5 | |
| | ACTUAL | 20.0 | 65.0 | 65.0 | | | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | 10.8 | 23.8 | 34.0 | XX | 56.3 | 66.0 | XX | 90.6 | 101.0 | XX | 129.2 | 139.5 | |
| | POP 65-3 | 11.8 | 26.9 | 38.5 | 53.2 | 63.6 | 74.3 | XX | 98.2 | 109.1 | XX | 134.3 | 145.0 | |
| | ACTUAL | TOTAL | 10.7* | 25.5 | 37.1** | | | | | | | | | |
| | | IN-HOUSE | 9.6 | 21.9 | 31.7** | | | | | | | | | |
| | | SUB CONTRACT | 1.1 | 3.6 | 5.4** | | | | | | | | | |
| COST RATE | POP 65-2 | 10.8 | 13.0 | 10.2 | XX | XX | 9.7 | XX | XX | 10.4 | XX | XX | 10.4 | |
| | POP 65-3 | 11.8 | 15.1 | 11.6 | 14.7 | 10.4 | 10.7 | XX | XX | 10.9 | XX | XX | 10.7 | |
| | ACTUAL | 10.7* | 14.8 | 11.6** | | | | | | | | | | |
| MANPOWER (IN EQUIVALENT MAN MONTHS) | | | | | | | | | | | | | | |
| TOTAL DIRECT MANPOWER | POP 65-2 | 4900 | 4825 | 4800 | XX | XX | 4700 | XX | XX | 4700 | XX | XX | 4850 | |
| | POP 65-3 | 5397 | 5330 | 5289 | 5164 | 5005 | 4850 | XX | XX | 4716 | XX | XX | 4,872 | |
| | ACTUAL | 5347 | 5045 | 5116** | | | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | | | |
| NUMBER OF SHIFTS <u>1.3</u> | | | | | | | | | | | | | | |
| PERCENT OF OVERTIME <u>11%</u> | | | | | | | | | | | | | | |
| REMARKS: * CONTAINS A -1.2 M INVENTORY ADJUSTMENT. ACTUAL COSTS FOR JULY WITHOUT ADJUSTMENT ARE 11.9 M. ** INDICATES ESTIMATES | | | | | | | | | | | | | | |

| | | | | | | | | |
|--|--|--|---------|---------|---------|---------|---------|---------|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>R. Godfrey</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER S-IVB STAGE | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | |
| CONTRACTOR DAC (NAS7-101) | | PROJECT: SATURN V SCH'D NO: 3-3333-00-2b | | | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | |
| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
| UNCOSTED OBLIGATIONS | XXX | 32.4 | 12.5 | 10.0 | 10.0 | 7.0 | 1.0 | XXX |
| OBLIGATIONS TO CONTRACTOR | 160.8 | 120.9 | 142.5 | 141.2 | 134.9 | 86.8 | 59.9 | 847.0 |
| TOTAL AVAILABLE | 160.8 | 153.3 | 155.0 | 151.2 | 144.9 | 93.8 | 60.9 | XXX |
| ACCRUED COSTS DURING PERIOD | 128.4 | 140.8 | 145.0 | 141.2 | 137.9 | 92.8 | 60.9 | 847.0 |
| (S33 ACCRUED COSTS) | (128.4) | (140.8) | (150.5) | (84.9) | (16.1) | 0 | 0 | (520.7) |
| UNFILLED ORDERS | 7.7 | 11.4 | 10.0 | 10.0 | 7.0 | 1.0 | 0 | XXX |
| ADVANCED FUNDING | 24.7 | 1.1 | 0 | 0 | 0 | 0 | 0 | XXX |
| MONTHLY COST-RATE (YEAR END) | 9.5 | 11.9 | 10.7 | 10.4 | 10.0 | 6.0 | 0 | XXX |
| MANPOWER (IN EQUIVALENT MAN YEARS) | | | | | | | | |
| TOTAL DIRECT | 4697 | 4806 | 4960 | 4819 | 4650 | 2900 | 2550 | 29382 |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | |
| REMARKS: | | | | | | | | |

INSTRUMENT UNIT DEVELOPMENT AND DELIVERY PLAN MA-2 SCHEDULE



| SCHEDULE RESPONSIBILITY <i>Arthur Rudolph</i> | | MANNED SPACE FLIGHT SCHEDULE S-IU VIBRATION TEST UNIT DELIVERY S-IU-200V | | | | | | | | | | | | 3 LEVEL | ORIGINAL SCHED. APPROVAL <u>3/31/63</u> <small>(Date)</small> | | | | | | | | | | | | | | | | | | | | |
|---|--|--|---|---|---|---------|---|---|---|---------|---|---|---|---|--|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STATUS RESPONSIBILITY <i>F. Duerr</i> | | CONTRACTOR NOT APPLICABLE PROJECT: SATURN V SCHD NO 3-3335.00.1a | | | | | | | | | | | | LAST SCHED. CHANGE <small>(Date)</small> <small>(No.)</small> <small>(Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date)</small> <i>J</i> <small>(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 |
| 1 | SA-201 DELIVERY ➔ | S-IU-201 ^E 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | STRUCT FABRICATION & INSP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | ASSY OF COMPONENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | PREPARATION & SHIP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | PREP FOR TESTING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | TESTING (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | TESTING OF B-377 PG (TRANSP) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | DIS-ASSY & RE-ASSY TEST AT IBM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | STORAGE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | TESTING ON BOARD B-377SG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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NOTES 1. ADDITIONAL TIME REQUIRED FOR SPECIAL TESTS (COMPONENT QUALIFICATION).
 "E" AS REFLECTED IN ABOVE SCHEDULE IS NOT A "PERT E"

| | | | | | |
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| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>F. Duerr</u> | MANNED SPACE FLIGHT SCHEDULE S-IU VIBRATION TEST UNIT DELIVERY S-IU-500V PROJECT: SATURN V SCH'D NO 3-3335-00.1b | 3 LEVEL | ORIGINAL SCHED. APPROVAL <u>3/31/63</u> (Date) LAST SCHED. CHANGE (Date) (Mo) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | |
| MILESTONES | CONTRACTOR NOT APPLICABLE | | | | |
| | 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 | S-IU-501 DELIVERY | | | | |
| 2 | STRUCT FAB & INSPECTION | | | | |
| 3 | ASSEMBLY OF COMP | | | | |
| 4 | PREPARATION AND SHIP | | | | |
| 5 | TESTING (NOTE 1) | | | | |
| 6 | | EXTERNAL INTERFACE | | | |
| 7 | AWARD TEST CONTRACT | | | | |
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| NOTES 1. LATE INCORPPORATION OF ENGINEERING CHANGES. "E" AS REFLECTED IN ABOVE SCHEDULE IS NOT A "PERT E". | | | | | |

| SCHEDULE RESPONSIBILITY <i>Arthur Rudolph</i> STATUS RESPONSIBILITY <i>F. Duerr</i> | | MANNED SPACE FLIGHT SCHEDULE S-IU STRUCTURAL TEST UNIT DELIVERY S-IU-200/500S | | | 3 LEVEL | ORIGINAL SCHED. APPROVAL <u>3/31/63</u> (Date) | LAST SCHED. CHANGE _____ (Date) (No.) (Initials) | STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------------------------------------|--|---|---------|--|---|---|--|---|----------|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CONTRACTOR NOT APPLICABLE | | | PROJECT: SATURN V SCH'D NO 3-3335.00-1c | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 |
| 1 | DELIVERY TO KSC → | | | | | | S-IU-201 | | | S-IU-501 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | STRUCT FAB & INSP | | | | | | ↓ | | | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | ASSY OF COMPONENTS | | | | | | ↓ | | | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | PREP FOR TESTING | | | | | | ↓ | | | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | TESTING (NOTE 1) | | | | | | ↓ | | | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 7 | <u>S-IU-200/500-II</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | STRUCT FAB & COMPONENT ASSY (NOTE 1) | | | | | | ↓ | | | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | PREP FOR TEST (NOTE 1) | | | | | | ↓ | | | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | TESTING (NOTE 1) | | | | | | ↓ | | | ↓ | | | | | | | | | | | | | | | | | | | | | | | | | |
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| NOTES 1. PROBLEMS ENCOUNTERED DURING MANUFACTURING OF THE NAA-PRODUCED SEGMENTS FOR S-IU-203 HAVE RESULTED IN MSFC FURNISHING IBM WITH A GENERAL DYNAMICS PRODUCED SEGMENTS FOR S-IU-203. THIS RESULTS IN S-IU-200/500S TESTING VERIFYING THE SEGMENTS FOR S-IU-201, 202, AND 203 (MANUFACTURES BY GENERAL DYNAMICS), AND S-IU-200/500S-II TESTING VERIFY THE SEGMENTS FOR S-IU-204 & SUBSEQUENT (MFR BY NAA). S-IU-200/500S-II SCHED IS BEING EVAL. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

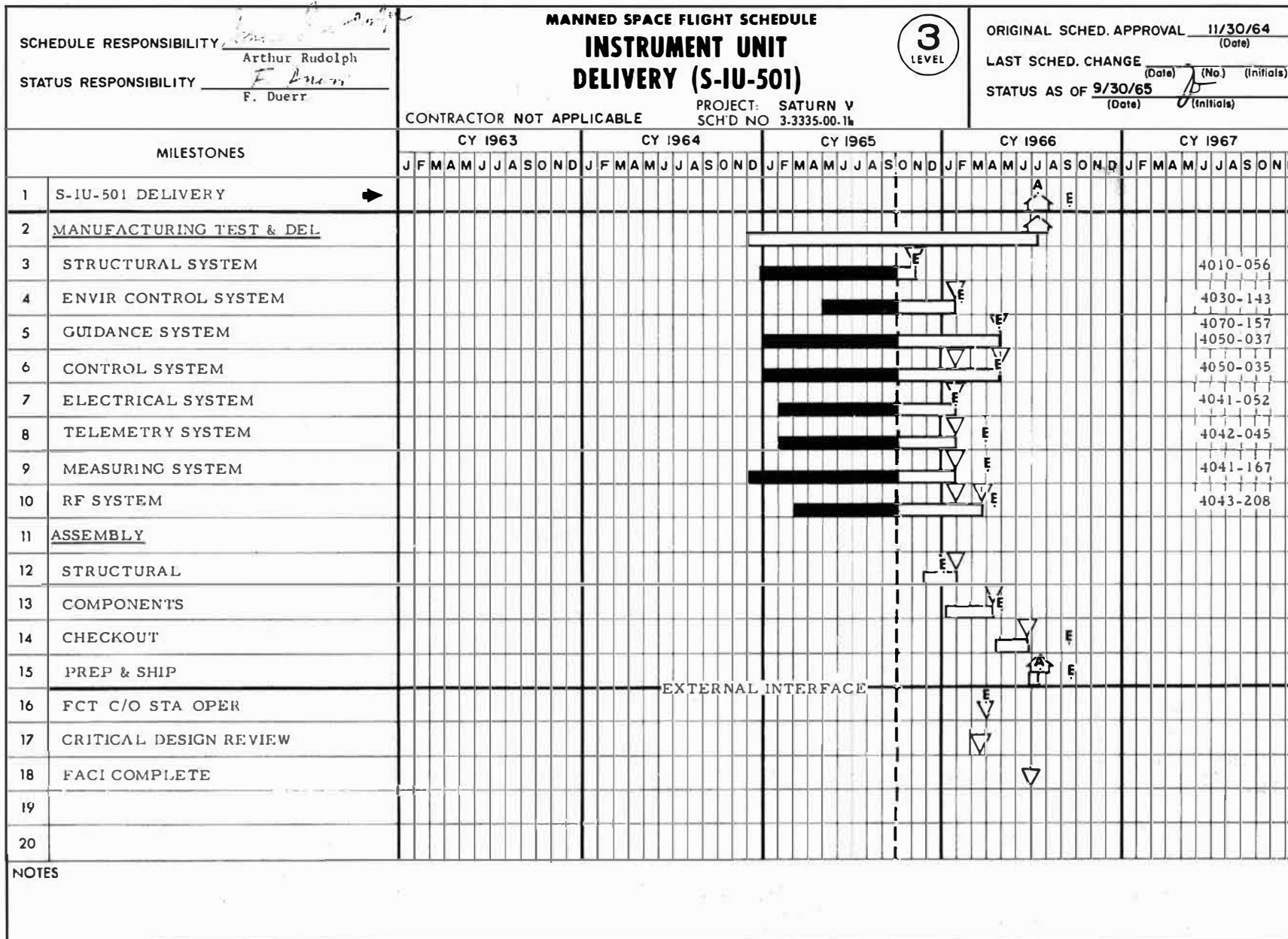
MSFC Form 1-73a5 (October 1964)

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| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>F. Duerr</u> | | MANNED SPACE FLIGHT SCHEDULE S-IU-DYNAMIC TEST UNIT DELIVERY S-IU-200D/500D PROJECT: SATURN V SCH'D NO 3-3335.00.1d | | 3 LEVEL | ORIGINAL SCHED. APPROVAL <u>3/31/63</u> (Date) LAST SCHED. CHANGE (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | |
| MILESTONES | | CONTRACTOR NOT APPLICABLE | | | | |
| | | 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 | DELIVERY TO KSC | | | S-IU-201 | S-IU-501 | |
| 2 | STRUCTURAL FABRICATION & INSPECTION | | ■ | ■ | | |
| 3 | ASSEMBLY OF COMPONENTS | | | ▼ | | |
| 4 | DEL TO DYNAMIC TEST FACILITY | | | ▲ | | |
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| NOTES | | | | | | |

| SCHEDULE RESPONSIBILITY <i>Arthur Rudolph</i> STATUS RESPONSIBILITY <i>F. Duerr</i> Arthur Rudolph F. Duerr | | MANNED SPACE FLIGHT SCHEDULE S-IU SYSTEM TEST UNIT DELIVERY S-IU-500ST | | 3 <small>LEVEL</small> | ORIGINAL SCHED. APPROVAL <u>3/31/63</u> <small>(Date)</small> LAST SCHED. CHANGE <u> </u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | CONTRACTOR NOT APPLICABLE PROJECT: SATURN V SCHED NO 3.3335-00-1e | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MILESTONES | 1 | 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 | S-IU-501 DELIVERY ➔ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | STRUCTURAL FAB & INSP ▼ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | STRUCT MODIFICATION ▼ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | ASSY OF COMPONENTS (NOTE 1) ▼ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | CHECKOUT (NOTE 2) ▼ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | TESTING ▼ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 | EXTERNAL INTERFACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | GSE TEST & C/O COMPL (NOTE 3) ▼ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| NOTES | | 1. BEHIND SCHEDULE DUE TO LATE I.U. DEFINITION AND MANPOWER BEING UTILIZED ON S-IU-500V & S-IU-500FS. 2. SCHEDULE IS BEING EVALUATED. 3. RESPONSIBILITY OF MSFC. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| SCHEDULE RESPONSIBILITY <i>Arthur Rudolph</i> | | MANNED SPACE FLIGHT SCHEDULE S-IU FLIGHT SYSTEMS TEST UNIT DELIVERY S-IU-SOFS PROJECT: SATURN V SCH'D NO 3-3335-00-1f | | ORIGINAL SCHED. APPROVAL <u>3/31/63</u> (Date) | | | | | | | | | | | | | | | | | |
|--|---------------------------------|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| STATUS RESPONSIBILITY <i>F. Duerr</i> | | | | LAST SCHED. CHANGE (Date) (No.) (Initials) | | STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | | | | | | | |
| MILESTONES | | CONTRACTOR NOT APPLICABLE | | | | | | | | | | | | | | | | | | | |
| | | 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 | S-IU-501 DELIVERY → | | | | | | | | | | | | | | | | | | | | |
| 2 | STRUCTURAL FAB & INSP | | | | | | | | | | | | | | | | | | | | |
| 3 | ASSEMBLY OF COMPONENTS (NOTE 1) | | | | | | | | | | | | | | | | | | | | |
| 4 | MEASUREMENT INSTAL (NOTE 1) | | | | | | | | | | | | | | | | | | | | |
| 5 | CHECKOUT (NOTE 1) | | | | | | | | | | | | | | | | | | | | |
| 6 | PREPARE AND SHIP (NOTE 1) | | | | | | | | | | | | | | | | | | | | |
| 7 | PREPARE FOR TESTING (NOTE 1) | | | | | | | | | | | | | | | | | | | | |
| 8 | TESTING (NOTE 1) | | | | | | | | | | | | | | | | | | | | |
| 9 | GSE TEST & C/O COMPL (NOTE 2) | | | | | | | | | | | | | | | | | | | | |
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| NOTES 1. RESCHEDULING NECESSARY DUE TO LATE ESE DELIVERY, NECESSITATING REALLOCATION OF RCA 110A COMPUTERS. 2. RESPONSIBILITY OF MSFC. | | | | | | | | | | | | | | | | | | | | | |

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|--|---|-------------------------|---|-------------------------|-------------------------|
| SCHEDULE RESPONSIBILITY <i>[Signature]</i> STATUS RESPONSIBILITY <i>[Signature]</i> Arthur Rudolph F. Duerr | MANNED SPACE FLIGHT SCHEDULE S-IU FACILITIES CHECKOUT UNIT DELIVERY S-IU-200F/500F PROJECT: SATURN V SCH'D NO 3-3335-00-1g | 3 LEVEL | ORIGINAL SCHE D APPROVAL <u>3/31/63</u> <small>(Date)</small> LAST SCHE D CHANGE <small>(Date)</small> <small>(No.)</small> <small>(Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date)</small> <small>(Initials)</small> | | |
| MILESTONES | CONTRACTOR NOT APPLICABLE | | | | |
| | 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 DELIVERY TO KSC → | | | S-IU-201 EL | S-IU-501 EL | |
| 2 STRUCTURAL FAB & INSP | | █ | | | |
| 3 STRUCTURAL MODIFICATION | | | V | | |
| 4 ASSEMBLY OF COMPONENTS | | | █ | | |
| 5 PREPARATION FOR SHIPPING | | | █ | | |
| 6 DEL TO KSC (NOTE 1) | | | █ | | |
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| NOTES | | | | | |



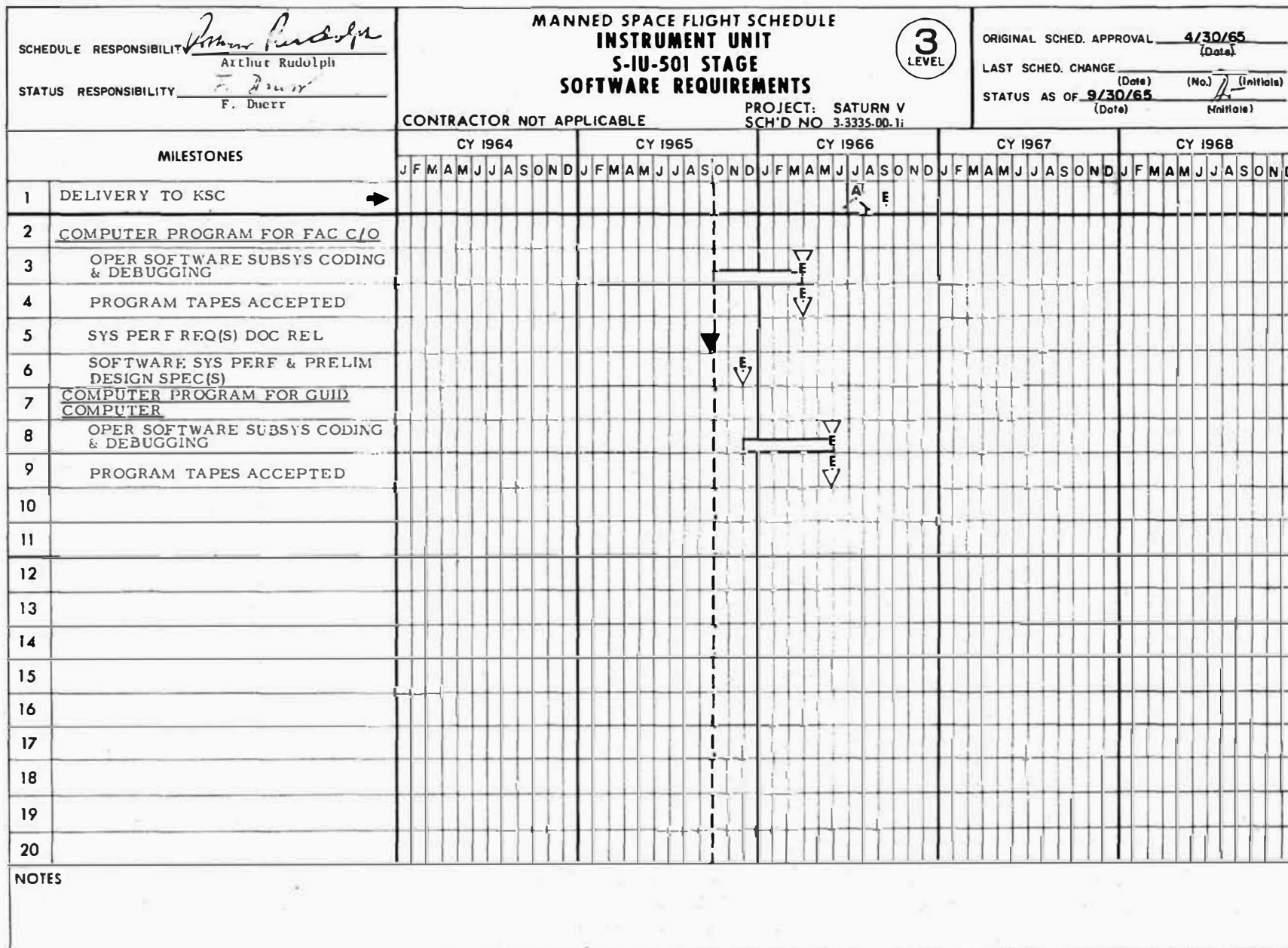
NOTES

FORM 10-64 (Rev. 1-65)

| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>F. Duerr</u> | MANNED SPACE FLIGHT SCHEDULE INSTRUMENT UNIT DELIVERY (S-IU-502) | (3) LEVEL | ORIGINAL SCHED. APPROVAL <u>9/30/65</u> (Date) LAST SCHED. CHANGE _____ (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONTRACTOR NOT APPLICABLE | | PROJECT: SATURN V SCH'D NO 3-3335-00-1i | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MILESTONES | CY 1965 | | | | CY 1966 | | | | CY 1967 | | | | CY 1968 | | | | CY 1969 | | | | | | | | | | | | | | | | | | |
| | 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 |
| 1 | S-IU-501 DELIVERY → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | FAB AND ASSY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | CHECKOUT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | PREP & SHIP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| NOTES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| SCHEDULE RESPONSIBILITY _____ STATUS RESPONSIBILITY _____ <div style="text-align: right; font-size: small;"> Arthur Rudolph <i>F. Duerr</i> F. Duerr </div> | | MANNED SPACE FLIGHT SCHEDULE INSTRUMENT UNIT DELIVERY (S-IU-503) PROJECT: SATURN V SCH'D NO 3-3335.00-1j CONTRACTOR NDT APPLICABLE | | | <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <div style="text-align: center;"> 3 <small>LEVEL</small> </div> </div> | ORIGINAL SCHED. APPROVAL <u>9/30/65</u> <small>(Date)</small> LAST SCHED CHANGE _____ <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| MILESTONES | CY 1965 | | | | | CY 1966 | | | | | CY 1967 | | | | | CY 1968 | | | | | CY 1969 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 |
| 1 | S-IU-503 DELIVERY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| NOTES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| SCHEDULE RESPONSIBILITY _____ Arthur Rudolph STATUS RESPONSIBILITY _____ F. Duery | MANNED SPACE FLIGHT SCHEDULE INSTRUMENT UNIT DELIVERY (S-IU-504) PROJECT: SATURN V SCH'D NO 3-3335-00-1k CONTRACTOR NOT APPLICABLE | 3 LEVEL | ORIGINAL SCHED. APPROVAL <u>9/30/65</u> (Date) LAST SCHED. CHANGE _____ (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|------------|--|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MILESTONES | CY 1965 | | | | CY 1966 | | | | CY 1967 | | | | CY 1968 | | | | CY 1969 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 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 |
| 1 | S-IU-504 DELIVERY → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | FAB AND ASSY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | CHECKOUT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | PREP AND SHIP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| NOTES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



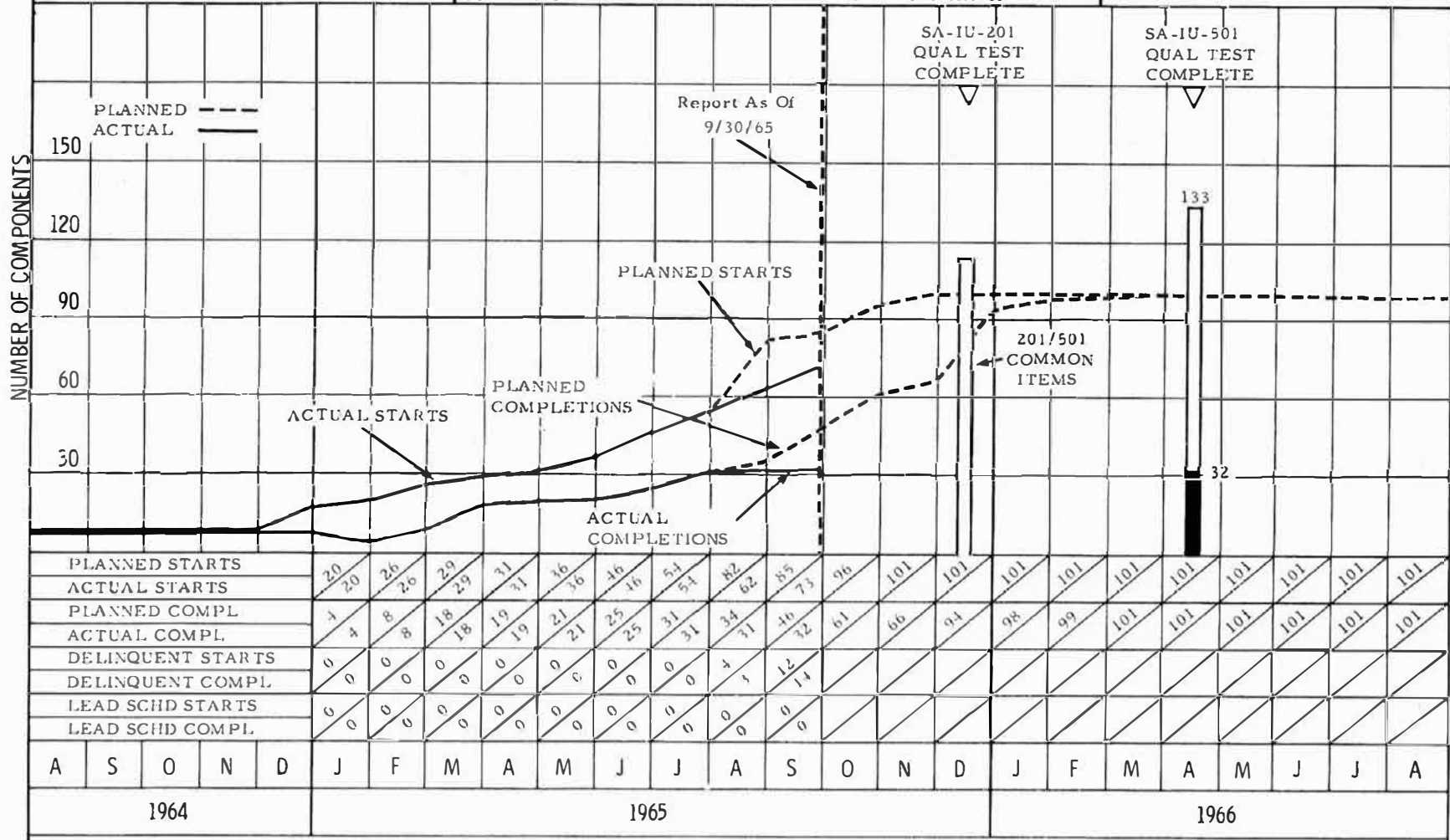
SCHEDULE RESPONSIBILITY Arthur Rudolph
 STATUS RESPONSIBILITY F. Duerr

MANNED SPACE FLIGHT SCHEDULE
S-IU-501
STAGE QUALIFICATION STATUS

3
LEVEL

ORIGINAL SCHED. APPROVAL 6/30/65
 LAST SCHED. CHANGE (Date) (M) (Initials)
 STATUS AS OF 9/30/65
 (Date) (Initials)

CONTRACTOR PROJECT: SATURN V
 SCH'D NO 3-3335-00-1m



NOTES:
 32 ITEMS NOT SCHEDULED

| | | | | | | | | | | | | |
|--|---|---|-------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>F. Duerr</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER INSTRUMENT UNIT <small>(11561) (11562)</small> PROJECT: SATURN V CONTRACTOR IBM (NAS8-14000) SCH'D NO: 3-3335-00-2a | ORIGINAL SCHED APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | | | | | |
| CURRENT FISCAL YEAR | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE |
| NO. OF WORKING DAYS IN REPORTING PERIOD | 19 | 20 | 24 | 20 | 20 | 26 | 15 | 20 | 25 | 20 | 20 | 24 |
| CUMULATIVE OBLIGATIONS | POP 65-2 | 5.4 | 9.7 | 14.9 | | 29.6 | | | 46.1 | | | 50.6 |
| | POP 65-3 | 5.4 | 12.0 | 12.0 | 29.5 | 29.5 | 29.5 | | 48.4 | | | 53.8 |
| | ACTUAL | 6.0 | 12.2 | 12.2 | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | 4.4 | 8.9 | 13.4 | | 27.0 | | | 40.3 | | | 53.3 |
| | POP 65-3 | 3.8 | 7.8 | 12.3 | 16.9 | 21.8 | 27.2 | | 42.6 | | | 58.1 |
| | TOTAL | 7.4 | 10.1 | 13.6* | | | | | | | | |
| | IN-HOUSE | 3.3 | 5.2 | 8.2* | | | | | | | | |
| | SUB CONTRACT | 4.1 | 4.9 | 5.4* | | | | | | | | |
| COST RATE | POP 65-2 | 4.4 | 4.5 | 4.5 | | 4.6 | | | 4.4 | | | 4.3 |
| | POP 65-3 | 3.8 | 4.0 | 4.5 | 4.6 | 4.9 | 5.4 | | 5.5 | | | 5.5 |
| | ACTUAL | 7.4 | 2.7 | 3.5* | | | | | | | | |
| MANPOWER (IN EQUIVALENT MAN MONTHS) | | | | | | | | | | | | |
| TOTAL DIRECT MANPOWER | POP 65-2 | 1290 | 1300 | 1300 | | | 1310 | | | 1290 | | 1280 |
| | POP 65-3 | 1350 | 1365 | 1390 | 1400 | 1410 | 1425 | | 1460 | | | 1450 |
| | ACTUAL | 949 | 919 | 1020* | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | |
| NUMBER OF SHIFTS | | <u>2-MFG, 1-ENGR.</u> | | | | | | | | | | |
| PERCENT OF OVERTIME | | <u>9.4</u> | | | | | | | | | | |
| REMARKS: | | JULY ACTUALS INCLUDE \$5.2 M OF PRIOR YEAR COSTS APPLICABLE TO THE NAS8-11501 OVERRUN. * ESTIMATES | | | | | | | | | | |

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| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>F. Duerr</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER INSTRUMENT UNIT Z (11561) (11562) (14000) (5469) PROJECT: SATURN V CONTRACTOR IBM (NAS8-5276)(5296) SCH'D NO: 3-3335-00-2b | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
|--|---|--|

**OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)**

| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
|---|-------------------------|----------|----------|----------|----------|----------|---------|-----------|
| UNCOSTED OBLIGATIONS | 0 | 8.694 | 9.663 | 5.400 | 4.500 | 3.100 | 1.000 | N/A |
| OBLIGATIONS TO CONTRACTOR | 31.902 | 40.858 | 53.796 | 57.067 | 49.311 | 44.448 | 22.810 | 300.192 |
| TOTAL AVAILABLE | 31.902 | 49.552 | 63.459 | 62.467 | 53.811 | 47.548 | 23.810 | N/A |
| ACCRUED COSTS DURING PERIOD | 23.208 | 39.889 | 58.059 | 57.967 | 50.711 | 46.548 | 23.810 | 300.192 |
| (533 ACCRUED COSTS) | (23.208) | (45.056) | (37.918) | (32.938) | (24.349) | (16.017) | (8.100) | (187.586) |
| UNFILLED ORDERS | 5.200 | 9.663 | 5.400 | 4.500 | 3.100 | 1.000 | 0 | N/A |
| ADVANCED FUNDING | 3.494 | 0 | 0 | 0 | 0 | 0 | 0 | N/A |
| MONTHLY COST-RATE (YEAR END) | 3.600 | 3.603 | 5.459 | 4.767 | 4.400 | 3.600 | .900 | N/A |

**MANPOWER
(IN EQUIVALENT MAN YEARS)**

| | | | | | | | | |
|--|-----|------|------|------|------|------|-----|------|
| TOTAL DIRECT | 677 | 1277 | 1410 | 1405 | 1310 | 1130 | 705 | 7914 |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | |

REMARKS:

| | | | | | | | | | | | | | |
|--|--|--|-------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|--|
| SCHEDULE RESPONSIBILITY: <u>Arthur Rudolph</u> STATUS RESPONSIBILITY: <u>F. Duerr</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER INSTRUMENT UNIT (5399) PROJECT: SATURN V CONTRACTOR BENDIX (NAS8-13005) SCH'D NO: 3-3335-00-2c | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | | | | | | |
| CURRENT FISCAL YEAR | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE | |
| NO. OF WORKING DAYS IN REPORTING PERIOD | 22 | 21 | 21 | 22 | 20 | 23 | 20 | 19 | 23 | 21 | 21 | 22 | |
| CUMULATIVE OBLIGATIONS | POP 65-2 | 2.5 | 5.0 | 5.0 | | 9.0 | | | 13.3 | | | 14.4 | |
| | POP 65-3 | 0 | 0 | 0 | 3.5 | 3.5 | 3.5 | | 9.1 | | | 10.3 | |
| | ACTUAL | 0 | 0 | 0 | | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | 1.8 | 3.5 | 5.0 | | 8.9 | | | 12.3 | | | 15.4 | |
| | POP 65-3 | 1.7 | 3.3 | 4.9 | 6.4 | 7.8 | 9.4 | | 13.4 | | | 16.7 | |
| | ACTUAL | TOTAL | 1.3 | 2.7 | 4.3* | | | | | | | | |
| | | IN-HOUSE | .9 | 2.0 | 3.2* | | | | | | | | |
| | | SUB CONTRACT | .4 | .7 | 1.1* | | | | | | | | |
| COST RATE | POP 65-2 | 1.8 | 1.7 | 1.5 | | 1.2 | | | 1.1 | | | 1.0 | |
| | POP 65-3 | 1.7 | 1.6 | 1.6 | 1.5 | 1.4 | 1.6 | | 1.2 | | | 1.1 | |
| | ACTUAL | 1.3 | 1.4 | 1.6 | | | | | | | | | |
| MANPOWER (IN EQUIVALENT MAN MONTHS) | | | | | | | | | | | | | |
| TOTAL DIRECT MANPOWER | POP 65-2 | 700 | 680 | 650 | | 600 | | | 580 | | | 560 | |
| | POP 65-3 | 700 | 690 | 680 | 675 | 660 | 650 | | 610 | | | 600 | |
| | ACTUAL | 418 | 517 | 540* | | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | | |
| NUMBER OF SHIFTS <u>2-MFG, 1-ENGR</u> | | | | | | | | | | | | | |
| PERCENT OF OVERTIME <u>12.8</u> | | | | | | | | | | | | | |
| REMARKS: * INDICATES ESTIMATES | | | | | | | | | | | | | |

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| SCHEDULE RESPONSIBILITY: <u>Arthur Rudolph</u> STATUS RESPONSIBILITY: <u>F. Duerr</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER INSTRUMENT UNIT <small>(13005) PROJECT: SATURN V CONTRACTOR BENDIX (NASB-5399) SCH'D NO: 3-3335-00-2d</small> | ORIGINAL SCHED. APPROVAL: <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE: <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF: <u>9/30/65</u> <small>(Date) (Initials)</small> |
|--|--|---|

**OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)**

| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
|-------------------------------------|-------------------------|----------|----------|---------|---------|---------|---------|----------|
| UNCOSTED OBLIGATIONS | 0 | 1.072 | 8.387 | 2.000 | 1.000 | .500 | .100 | N/A |
| OBLIGATIONS TO CONTRACTOR | 6.734 | 22.606 | 10.293 | 11.600 | 10.300 | 8.500 | .400 | 70.433 |
| TOTAL AVAILABLE | 6.734 | 23.678 | 18.680 | 13.600 | 11.300 | 9.000 | .500 | N/A |
| ACCRUED COSTS DURING PERIOD | 5.662 | 15.291 | 16.680 | 12.600 | 10.800 | 8.900 | .500 | 70.433 |
| (533 ACCRUED COSTS) | (5.662) | (15.291) | (14.686) | (8.243) | (2.185) | 0 | 0 | (46.067) |
| UNFILLED ORDERS | .800 | 1.597 | 2.000 | 1.000 | .500 | .100 | 0 | N/A |
| ADVANCED FUNDING | .272 | 6.790 | 0 | 0 | 0 | 0 | 0 | N/A |
| MONTHLY COST-RATE (YEAR END) | .800 | 1.614 | 1.080 | .900 | .900 | .400 | 0 | N/A |

**MANPOWER
(IN EQUIVALENT MAN YEARS)**

| | | | | | | | | |
|------------------------------------|-----|-----|-----|-----|-----|-----|----|------|
| TOTAL DIRECT | 199 | 538 | 628 | 560 | 460 | 360 | 10 | 2755 |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | |

REMARKS:

SCHEDULE RESPONSIBILITY Wernher von Braun

STATUS RESPONSIBILITY _____

T.F. Morring

MANNED SPACE FLIGHT SCHEDULE
SATURN V INSTRUMENT UNIT
REGULAR & OVERTIME DIRECT
CIVIL SERVICE MANHOURS

3
LEVEL

ORIGINAL SCHED. APPROVAL 4/30/65

(Date)

LAST SCHED. CHANGE 7/31/65 (2)

(Date)

(No.)

(Initials)

STATUS AS OF 9/30/65

(Date)

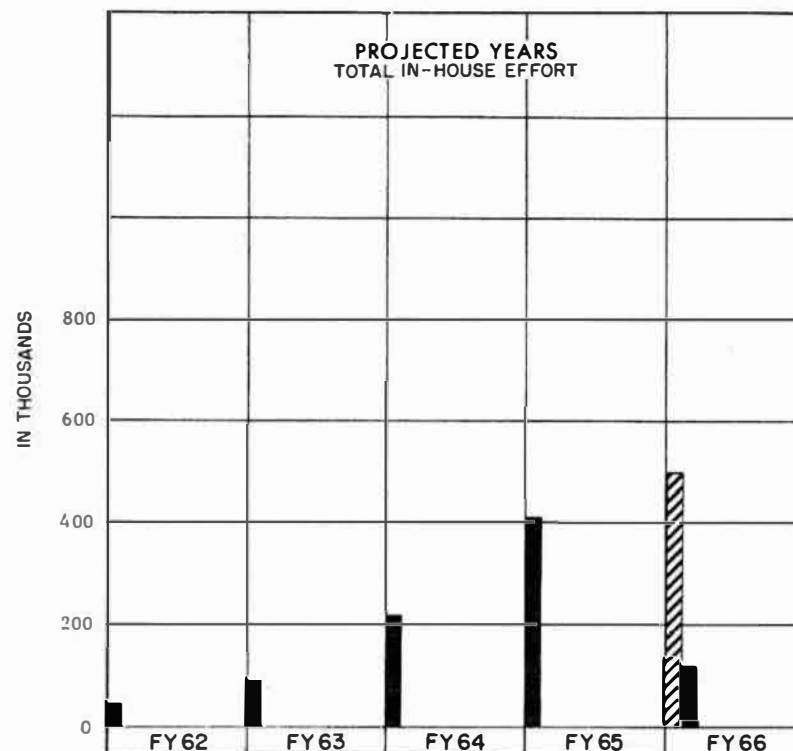
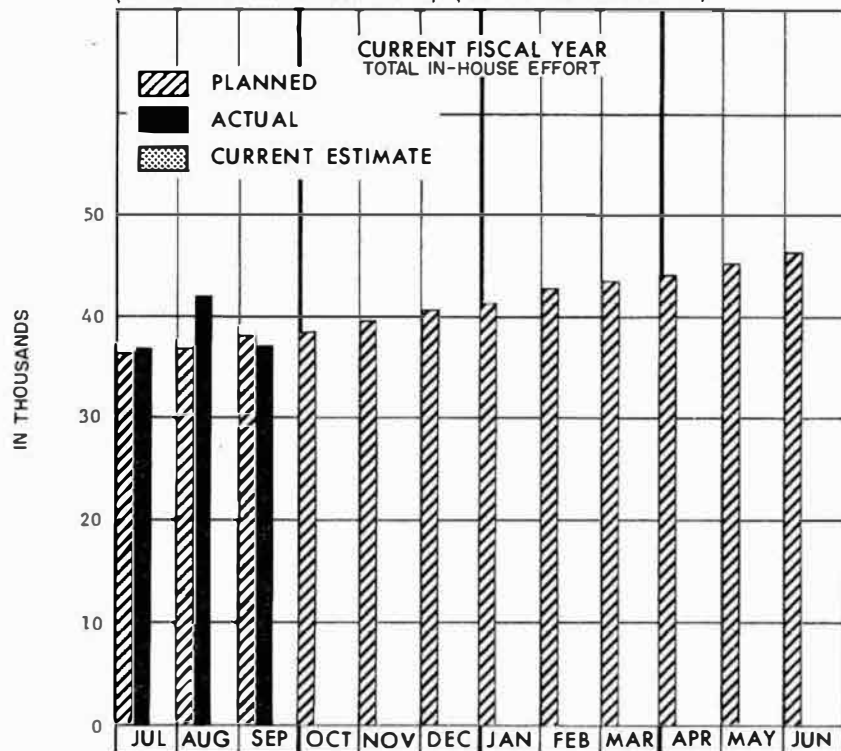
(Initials)

CIVIL SERVICE

PROJECT: SATURN V
 SCH'D NO: 3-3335-00-2e

PERCENTAGE OVERTIME _____ NO. OF SHIFTS _____
 (AVERAGE FOR REPORT PERIOD) (END OF REPORT PERIOD)

DIRECT MANHOURS

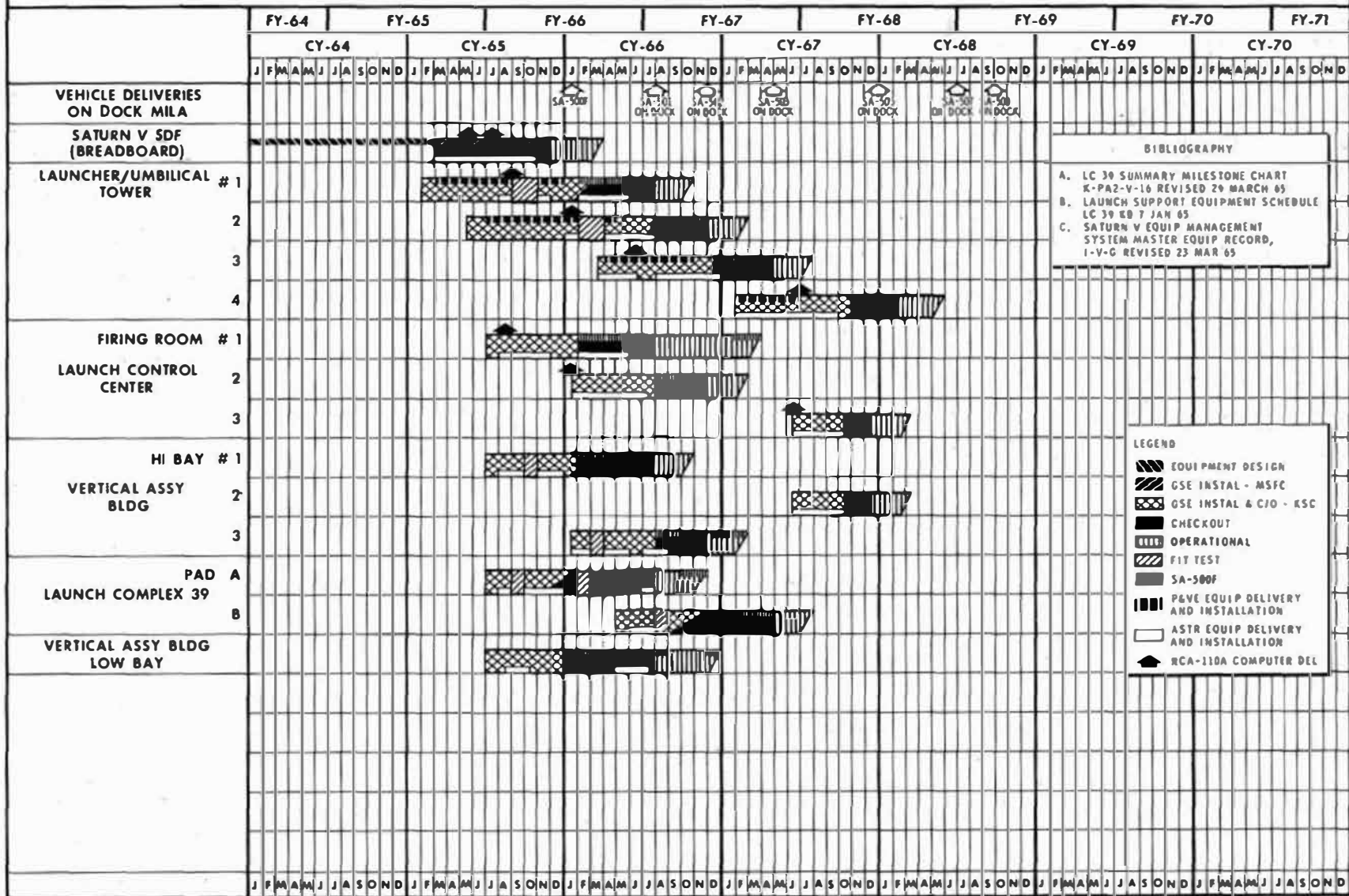


| | | | | | | | | | | | | |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|
| CUR. EST. | | | | | | | | | | | | |
| ACT. | 37.1 | 42.6 | 37.3 | | | | | | | | | |
| PLANNED | 36.1 | 37.0 | 38.1 | 39.0 | 39.9 | 40.8 | 41.9 | 43.2 | 44.0 | 44.5 | 45.5 | 46.5 |

| | | | | | |
|-----------|------|------|-------|-------|-------|
| CUR. EST. | | | | | |
| ACT. | 42.9 | 88.8 | 217.6 | 409.8 | 117.0 |
| PLANNED | | | | | 496.5 |

NOTES

SAT V VEHICLE GSE DELIVERY AND INSTALLATION MA-2 SCHEDULE



III-3-75

| | | | |
|--|---|------------------------|---|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> S.E. Smith | MANNED SPACE FLIGHT SCHEDULE SATURN V AUTOMATION SYSTEM DEVELOPMENT FACILITY (MECHANICAL BREADBOARD) CONTRACTOR NOT APPLICABLE | 3 LEVEL | ORIGINAL SCHED. APPROVAL <u>1/22/64</u> (Date) LAST SCHED. CHANGE <u>5/31/65</u> (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) |
| | | PROJECT: SATURN V | |
| | | SCH'D NO: 3-3336-00-1a | |

| MILESTONES | CY 1964 | | | | | | | | | | | | CY 1965 | | | | | | | | | | | | CY 1966 | | | | | | | | | | | |
|-------------------------------|---------|---|---|---|---|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|
| | 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 MECHANICAL BB OPERATIONAL → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 S-IC - PNEUMATIC CONSOLE | | | | | | | | | | | | | | | | | | | | ▽ | ▽ | | | | | | | | | | | | | | | |
| 3 PNEUMATIC C/O RACKS | | | | | | | | | | | | | | | | | | | | ▽ | | | | | | | | | | | | | | | | |
| 4 HELIUM TEST CONSOLE | | | | | | | | | | | | | | | | | | | | ▽ | | | | | | | | | | | | | | | | |
| 5 NITROGEN TEST CONSOLE | | | | | | | | | | | | | | | | | | | | ▽ | | | | | | | | | | | | | | | | |
| 6 HYD SUPPLY & C/O UNIT | | | | | | | | | | | | | | | | | | | | ▽ | | | | | | | | | | | | | | | | |
| 7 INERT PREFILL UNIT | | | | | | | | | | | | | | | | | | | | ▽ | | | | | | | | | | | | | | | | |
| 8 UMBILICAL HARDWARE | | | | | | | | | | | | | | | | | | | | ▽ | | | | | | | | | | | | | | | | |
| 9 SII - PNEUMATIC CONSOLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 PNEU SERVICE & C/O CONSOLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 UMBILICAL HARDWARE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 S-IVB-PNEUMATIC CONSOLE A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 PNEUMATIC CONSOLE B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 UMBILICAL HARDWARE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 S-IVB - 500ST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 IU - PNEUMATIC CONSOLE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 UMBILICAL HARDWARE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 GROUND COOLING UNIT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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NOTES
 TRIANGLES DENOTE HARDWARE DELIVERY.

| <p>SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> Arthur Rudolph</p> <p>STATUS RESPONSIBILITY <u>S.E. Smith</u> S.E. Smith</p> | <p>MANNED SPACE FLIGHT SCHEDULE SATURN V AUTOMATION SYSTEM DEVELOPMENT FACILITY (ELECTRICAL BREADBOARD)</p> <p style="text-align: right; border: 1px solid black; border-radius: 50%; padding: 2px;">3 LEVEL</p> <p>CONTRACTOR NOT APPLICABLE</p> <p>PROJECT: SATURN V SCH'D NO: 3-3336-00-1b</p> | <p>ORIGINAL SCHEO. APPROVAL <u>5/31/65</u> (Date)</p> <p>LAST SCHED. CHANGE <u>5/31/65</u> (I) (Date) (No.) (Initials)</p> <p>STATUS AS OF <u>9/30/65</u> (Date) (Initials)</p> | |
|---|--|---|-------------------------|
| MILESTONES | CY 1964 | CY 1965 | CY 1966 |
| | 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 ELECT BB OPERATIONAL (NOTE 1) → | | | A E |
| 2 S-IC-ESE (NOTE 3) | | | V |
| 3 S-IC-POWER (NOTE 3) | | | V |
| 4 S-IC-SIMULATOR | | | V |
| 5 S-II-ESE (NOTE 3) | | | V |
| 6 S-II POWER (NOTE 3) | | | V |
| 7 S-II SIMULATOR (NOTE 3) | | | V |
| 8 S-IVB ESE (NOTE 3) | | | V |
| 9 S-IVB POWER (NOTE 3) | | | V |
| 10 S-IVB SIMULATOR (NOTE 3) | | | V |
| 11 IU ESE (NOTE 3) | | | V |
| 12 IU POWER (NOTE 3) | | | V |
| 13 IU-500ST | | | V |
| 14 SYSTEM INTEGRATION | | | V |
| 15 DDAS ESE (NOTE 3) | | | V |
| 16 RCA 110 COMPUTERS (TWO UNITS) | | | V |
| 17 OPERATIONAL DISPLAY SYS | | | V |
| 18 COMPUTER PERIPHERAL EQUIP | | | V |
| 19 DIGITAL EVENT EVALUATOR | | | V |
| 20 COUNTDOWN CLOCK SYSTEM | | | V |
| <p>NOTES</p> <p>BARS DENOTE PRELIMINARY DESIGN, FINAL DESIGN, MANUFACTURING, AND ACCEPTANCE CHECKOUT. TRIANGLES DENOTE DELIVERY.</p> <ol style="list-style-type: none"> DELIVERY DATES PER GE SEPT 16, 1965, MANAGEMENT ASSESSMENT. PRELIMINARY DESIGN COMPLETE. FINAL DESIGN COMPLETE. | | | |

| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | | MANNED SPACE FLIGHT SCHEDULE SATURN V VAB LOW BAY | | 3 LEVEL | ORIGINAL SCHED. APPROVAL <u>8/31/65</u> <small>(Date)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------------------|--|---|---|--|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|
| | | CONTRACTOR NOT APPLICABLE | | PROJECT: SATURN V SCH'D NO: 3-3336-00-1c | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | LAST SCHED. CHANGE _____ <small>(Date) (No.) (Initials)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MILESTONES | 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 | VAB-LOW BAY OPER (NOTE 1) → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | MECHANICAL EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | S-II ACCESS EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | HANDLING EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | S-IVB ACCESS EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | HANDLING EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | J-2 ENG TEST & C/O EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | ENGINE HANDLING EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | MOBILE PNEUMATIC EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | ELECTRICAL EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | S-II STAGE ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | STAGE POWER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | INTERCONNECT CABLES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | S-IVB STAGE ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | STAGE POWER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | INTERCONNECT CABLES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | DDAS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NOTES 1. ARROWS DENOTE REQUIRED ON DOCK EQUIPMENT DELIVERIES.

| | | | |
|--|--|--|---|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V VAB HIGH BAY #1 | <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> 3 <small>LEVEL</small> </div> | ORIGINAL SCHED. APPROVAL <u>8/31/65</u> <small>(Date)</small> LAST SCHED. CHANGE _____ <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
| CONTRACTOR NOT APPLICABLE | | PROJECT: SATURN V SCH'D NO: 3-3336-00-1d | |

| MILESTONES | 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 VAB HIGH BAY #1 OPER (NOTE 1) → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 MECHANICAL EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 S-IC ACCESS EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 HANDLING EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 HYD PERFORM TESTER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 INTER UMB GRD CARRIER T/S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 IU HANDLING EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 F-1 ENGINE TEST & C/O EQUIP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 ENGINE HANDLING EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 VENT COUPLINGS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 ELECTRICAL EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 APOLLO SIMULATOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 SHORT RANGE TEODOLITE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 KSC GUIDANCE LABORATORY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 RCA 110 A COMPUTER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 COMPUTER PERIPHERAL EQUIP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 OPERATIONAL DISPLAY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 SHORT RANGE THEODOLITE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 ST-124 ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NOTES 1. ARROWS DENOTE REQUIRED ON DOCK EQUIPMENT DELIVERIES.

| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V LUT #1 MECHANICAL EQUIPMENT CONTRACTOR NOT APPLICABLE PROJECT: SATURN V SCH'D NO: 3-3336-00-1e | 3 LEVEL | ORIGINAL SCHED. APPROVAL <u>8/31/65</u> (Date) LAST SCHED. CHANGE _____ (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|------------|--|---|---|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|---------|---|---|---|---|---|---|---|---|---|---|---|
| MILESTONES | 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 | LUT #1 OPERATIONAL (NOTE 1) → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | MECHANICAL EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | S-IC PNEUMATIC EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | HYD SUPPLY & C/O SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | INERT PREFILL UNIT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | S-II PNEUMATIC EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | HEAT EXCHANGER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | S-IVB PNEUMATIC EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | HEAT EXCHANGER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | HYDRAULIC SERVICER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | APS PNEUMATIC EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | IU PNEUMATIC EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | GROUND COOLING UNIT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOTES 1. ARROWS DENOTE REQUIRED ON DOCK EQUIPMENT DELIVERIES. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

3 YEAR

| | | | |
|--|---|--|---|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V LUT #1 ELECTRICAL EQUIPMENT PROJECT: SATURN V SCH'D NO: 3-3336-00-1f | <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> 3 <small>LEVEL</small> </div> | ORIGINAL SCHED. APPROVAL <u>8/31/65</u> <small>(Date)</small> LAST SCHED. CHANGE _____ <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
|--|---|--|---|

| MILESTONES | 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 LUT #1 OPERATIONAL (NOTE 1) → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 ELECTRICAL EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 S-IC STAGE ESE (INCL POWER & CABLES) | | | | | | | | | | | | ∧ | | | | A | | | | | | | | | | | | | | | | | | | | |
| 4 S-II STAGE ESE (INCL POWER & CABLES) | | | | | | | | | | | ∧ | | | | | A | | | | | | | | | | | | | | | | | | | | |
| 5 S-IVB STAGE ESE (INCL POWER & CABLES) | | | | | | | | | | | ∧ | | | | | | A | | | | | | | | | | | | | | | | | | | |
| 6 IU STAGE ESE (INCL POWER & CABLES) | | | | | | | | | | | ∧ | | | | | | A | | | | | | | | | | | | | | | | | | | |
| 7 SYSTEM INTEGRATION ESE | | | | | | | | | | | ∧ | | | | | | A | | | | | | | | | | | | | | | | | | | |
| 8 PRIMARY POWER SYSTEM ESE | | | | | | | | | | | ∧ | | | | | | | | A | | | | | | | | | | | | | | | | | |
| 9 INTERCONNECTING CABLES | | | | | | | | | | | ∧ | | | | | | | A | | | | | | | | | | | | | | | | | | |
| 10 OVERALL TEST SET | | | | | | | | | | | ∧ | | | | | | | | A | | | | | | | | | | | | | | | | | |
| 11 CROSSOVER JUNCTION BOXES | | | | | | | | | | | ∧ | | | | | | | | | A | | | | | | | | | | | | | | | | |
| 12 RCA 110A COMPUTER | | | | | | | | | | | ∧ | | | | | | | | | | A | | | | | | | | | | | | | | | |
| 13 DISCRETE CONTROL SYSTEM | | | | | | | | | | | ∧ | | | | | | | | | | | A | | | | | | | | | | | | | | |
| 14 DIGITAL EVENTS EVALUATOR | | | | | | | | | | | ∧ | | | | | | | | | | | | A | | | | | | | | | | | | | |
| 15 DDAS | | | | | | | | | | | ∧ | | | | | | | | | | | | A | | | | | | | | | | | | | |
| 16 COUNT CLOCK SYSTEM | | | | | | | | | | | ∧ | | | | | | | | | | | | A | | | | | | | | | | | | | |
| 17 ST-124 ESE | | | | | | | | | | | ∧ | | | | | | | | | | | | A | | | | | | | | | | | | | |
| 18 COMPUTER PERIPHERAL ESE | | | | | | | | | | | ∧ | | | | | | | | | | | | A | | | | | | | | | | | | | |
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NOTES 1. ARROWS DENOTE REQUIRED ON DOCK EQUIPMENT DELIVERIES.

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| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V LUT #2 MECHANICAL EQUIPMENT CONTRACTOR NOT APPLICABLE | 3 LEVEL | ORIGINAL SCHE. APPROVAL <u>8/31/65</u> (Date) LAST SCHE. CHANGE _____ (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) |
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| MILESTONES | CY 1965 | | | | | | | | | | | | CY 1966 | | | | | | | | | | | | CY 1967 | | | | | | | | | | | |
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| | 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 LUT #2 OPERATIONAL (NOTE 1) → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 MECHANICAL EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 S-IC PNEUMATIC EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 HYD SUPPLY & C/O SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 INERT PREFILL UNIT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 S-II PNEUMATIC EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 HEAT EXCHANGER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 S-IVB PNEUMATIC EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 HEAT EXCHANGER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 HYDRAULIC SERVICER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 APS PNEUMATIC EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 IU PNEUMATIC EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 GROUND COOLING UNIT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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NOTES 1. ARROWS DENOTE REQUIRED ON DOCK EQUIPMENT DELIVERIES.

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| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V LUT #2 ELECTRICAL EQUIPMENT | <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> 3 <small>LEVEL</small> </div> | ORIGINAL SCHED. APPROVAL <u>8/31/65</u> <small>(Date)</small> LAST SCHED. CHANGE _____ <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
| CONTRACTOR NOT APPLICABLE | | PROJECT: SATURN V SCH'D NO: 3-3336-00-1h | |

| MILESTONES | CY 1965 | | | | | | | | | | | | CY 1966 | | | | | | | | | | | | CY 1967 | | | | | | | | | | | |
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| | 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 LUT #2 OPERATIONAL (NOTE 1) → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 ELECTRICAL EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 S-IC STAGE ESE (INCL. POWER & CABLES) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 S-II STAGE ESE (INCL. POWER & CABLES) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 S-IVB STAGE ESE (INCL. POWER & CABLES) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 IU STAGE ESE (INCL. POWER & CABLES) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 SYSTEM INTEGRATION ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 PRIMARY POWER SYSTEM ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 INTERCONNECTING CABLES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 OVERALL TEST SET | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 CROSSOVER JUNCTION BOXES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 RCA 110A COMPUTER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 DISCRETE CONTROL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 DIGITAL EVENTS EVALUATOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 DDAS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 COUNT CLOCK SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 ST-124 ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 COMPUTER PERIPHERAL ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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NOTES 1. ARROWS DENOTE REQUIRED ON DOCK EQUIPMENT DELIVERIES.

| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V LAUNCH CONTROL CENTER FIRING ROOM #1 | (3) LEVEL | ORIGINAL SCHED APPROVAL <u>8/31/65</u> (Date) LAST SCHED. CHANGE _____ (Date) (No) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| CONTRACTOR NOT APPLICABLE | | PROJECT: SATURN V SCH'D NO: 3-3336-00-1; | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MILESTONES | 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 | FIRING ROOM #1 OPER (NOTE 1) → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | S-IC STAGE ESE (INCL POWER & CABLES) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | S-II STAGE ESE (INCL POWER & CABLES) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | S-IVB STAGE ESE (INCL POWER & CABLES) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | IU STAGE ESE (INCL POWER & CABLES) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | SYSTEM INTEGRATION ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | PRIMARY POWER SYSTEM ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | INTERCONNECTING CABLES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | RCA 110A COMPUTER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | DISCRETE CONTROL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | DIGITAL EVENT EVALUATOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | DDAS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | COUNT CLOCK SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | OPERATIONAL DISPLAY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | COMPUTER PERIPHERAL ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| NOTES 1. ARROWS DENOTE REQUIRED ON DOCK EQUIPMENT DELIVERIES. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> S.E. Smith | MANNED SPACE FLIGHT SCHEDULE SATURN V LAUNCH CONTROL CENTER FIRING ROOM #2 CONTRACTOR NOT APPLICABLE | <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> 3 <small>LEVEL</small> </div> | ORIGINAL SCHED. APPROVAL <u>8/31/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u> </u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
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| MILESTONES | CY 1965 | | | | | | | | | | | | CY 1966 | | | | | | | | | | | | CY 1967 | | | | | | | | | | | |
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| | 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 | FIRING ROOM #2 OPER (NOTE 1) → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | S-IC STAGE ESE (INCL POWER & CABLES) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | S-II STAGE ESE (INCL POWER & CABLES) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | S-IVB STAGE ESE (INCL POWER & CABLES) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | IU STAGE ESE (INCL POWER & CABLES) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | SYSTEM INTEGRATION ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | PRIMARY POWER SYSTEM ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | INTERCONNECTING CABLES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | RCA 110A COMPUTER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | DISCRETE CONTROL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | DIGITAL EVENT EVALUATOR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | DDAS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | COUNT CLOCK SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | OPERATIONAL DISPLAY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | COMPUTER PERIPHERAL ESE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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NOTES 1. ARROWS DENOTE REQUIRED ON DOCK EQUIPMENT DELIVERIES.

| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>M. W. Anderson</u> S.E. Smith | MANNED SPACE FLIGHT SCHEDULE SATURN V RCA 110A COMPUTER DELIVERIES | 3 LEVEL | ORIGINAL SCHED. APPROVAL <u>6/12/64</u> (Date) LAST SCHED. CHANGE _____ (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| CONTRACTOR NOT APPLICABLE | | PROJECT: SATURN V SCH'D NO: 3-3336-00-1k | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MILESTONES | CY 1964 | | | | | | | | | | | | CY 1965 | | | | | | | | | | | | CY 1966 | | | | | | | | | | | |
| | 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 |
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| NOTES ARROWS DENOTE COMPUTER DELIVERY, INSTALLATION AND CHECKOUT COMPLETE. 1. 500FS PROGRAM RE-EVALUATION INDICATED A NEED FOR 110A COMPUTER AT DAC ENVIRONMENTAL TEST FACILITY. THIS UNIT WILL BE REFURBISHED AND RECONSIGNED TO LC-39 LUT #4 AT COMPLETION OF 500FS TEST PROGRAM IN 1967. 2. SHIPMENT DELAYED TILL DATES SHOWN AT KSC'S REQUEST. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

3 YEAR

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| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V VEHICLE GSE SERVICE ARM/UMB. TEST FACILITY CONTRACTOR NOT APPLICABLE PROJECT: SATURN V SCH'D NO: 3-3336..00-11 | <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <div style="text-align: center;"> 3 LEVEL </div> </div> | ORIGINAL SCHED. APPROVAL <u>8/31/64</u> <small>(Date)</small> LAST SCHED. CHANGE _____ <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
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| MILESTONES | CY 1964 | | | | | | | | | | | | CY 1965 | | | | | | | | | | | | CY 1966 | | | | | | | | | | | |
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| | 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 SERVICE ARM/UMBILICAL TEST → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 FACILITY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 S-IC AFT UMBILICALS (NOTE 1) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 S-IC INTERTANK UMBILICAL(NOTE 2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 S-IC FORWARD UMBILICAL (NOTE 3) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 S-II INTERMEDIATE UMBILICAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 S-II FORWARD UMBILICAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 S-II LH ₂ UMBILICAL CARRIER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 S-II LOX UMBILICAL CARRIER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 S-IVB AFT UMBILICAL CARRIER (NOTE 4) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 S-IVB FORWARD UMBILICAL CARRIER (NOTE 5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 I. U. UMBILICAL CARRIER (NOTE 5) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | EXTERNAL INTERFACES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 KSC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 S-IC TAIL SERVICE MAST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 S-IC SERVICE & ACCESS ARMS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 S-II INTERMEDIATE SERVICE ARM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 S-II FORWARD SERVICE ARM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 S-IVB AFT SERVICE ARM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 S-IVB FORWARD SERVICE ARM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NOTES BARS DENOTE DESIGN, FABRICATION, ASSEMBLY AND CHECKOUT. TRIANGLES DENOTE SCHEDULE DELIVERY DATES.

1. TWO UMBILICAL OF FIRST SET OF THREE UNITS HAVE BEEN DELIVERED.
2. FIRST UNIT HELD AT MICHOU D AT MSFC REQUEST TO INCORPORATE DESIGN CHANGES.
3. ALL SEVEN UMBILICALS DELIVERED.
4. TWO OF SEVEN UMBILICALS DELIVERED.
5. FIVE OF SEVEN UMBILICALS DELIVERED.

| | | | |
|--|--|---|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V PAD A CONTRACTOR NOT APPLICABLE | (3) LEVEL | ORIGINAL SCHED. APPROVAL <u>8/31/65</u> (Date) LAST SCHED. CHANGE _____ (Date) (No.) (Initials) STATUS AS OF <u>9/30/65</u> (Date) (Initials) |
| | | PROJECT: SATURN V SCH'D NO: 3-3336-00-1m | |

| MILESTONES | 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 | PAD A OPERATIONAL (NOTE 1) → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | MECHANICAL EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | APS SERVICER UNIT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | S-IC FLUSH & PURGE SERVICER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | RJ-1 SODIUM NITRITE SERVICER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | ELECTRICAL EQUIPMENT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | LONG RANGE THEODOLITE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | S-IVB SIMULATED BATTERY TEST SET | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NOTES 1. ARROWS DENOTE REQUIRED ON DOCK EQUIPMENT DELIVERIES.

| | | | |
|--|---|--------------|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE SATURN V VEHICLE GSE SOFTWARE SCHEDULE SA-501 CONTRACTOR NOT APPLICABLE PROJECT: SATURN V SCH'D NO: 3-3336-00-1n | (3) LEVEL | ORIGINAL SCHED. APPROVAL <u>9/1/64</u> LAST SCHED. CHANGE <u>9/30/65</u> STATUS AS OF <u>9/30/65</u> |
|--|---|--------------|--|

| MILESTONES | 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 SOFTWARE SCHEDULE SA-501 → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 OPERATIONAL TEST PROGRAMS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 SYSTEM PERFORMANCE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 REQUIREMENTS DOCUMENT REL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 SOFTWARE SYSTEM PERFORMANCE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 & PRELIMINARY SPEC. COMPLETE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 OPERATION SOFTWARE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 CODING AND DEBUGGING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 SOFTWARE SYSTEM ACCEPTANCE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 TESTING COMPLETE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NOTES
 ATOLL TRANSLATOR COMPLETE 8/1/65
 PRELIMINARY SPECIFICATION DOCUMENTATION COMPLETE 9/1/65

SCHEDULE RESPONSIBILITY Arthur Rudolph
 STATUS RESPONSIBILITY S.E. Smith

MANNED SPACE FLIGHT SCHEDULE
AS 501 VEHICLE GSE
(BASIC ENGINEERING DESIGN RELEASES)

3
LEVEL

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

CONTRACTOR PROJECT: SATURN V
 SCH'D NO 3-3336-00-10

No. Basic Design Engineering Releases



| | | 1965 | | | | | | | | | | | |
|--------------|------------|----------|-------------------------------|----|------|------|------|------|------|-----------|------|--|--|
| Planned | Display | Sanders* | | | | | | | | | | | |
| | ESE | GE* | | | | | | | | | | | |
| | 110A | RCA | A MANUFACTURING CONTRACT ONLY | | | | | | | | | | |
| | MGSE | TBC* | 13 | | | | 110 | | | | | | |
| | Cum. Total | | 21 | 21 | 1054 | 1966 | 2793 | 2915 | 2943 | | | | |
| Accomplished | Display | Sanders* | | | 400 | 600 | 579 | 341 | 107 | COMPLETED | | | |
| | ESE | GE* | | 22 | 7 | 6 | 52 | 177 | 257 | 292 | 576 | | |
| | 110A | RCA | A MANUFACTURING CONTRACT ONLY | | | | | | | | | | |
| | MGSE | TBC* | 13 | | | | 104 | 6 | | COMPLETED | | | |
| | Cum. Total | | 21 | 43 | 450 | 1056 | 1791 | 2315 | 2679 | 2971 | 3547 | | |

NOTES: * NON-CUMULATIVE.

| SCHEDULE RESPONSIBILITY _____ | | MANNED SPACE FLIGHT SCHEDULE | | <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;"> 3 <small>LEVEL</small> </div> | | ORIGINAL SCHED. APPROVAL _____ <small>(Date)</small> | | |
|---|---------------------|--|--|--|--|--|--|---|
| STATUS RESPONSIBILITY _____ | | ALL VEHICLE GSE (ENGINEERING CHANGES) | | | | LAST SCHED. CHANGE _____ <small>(Date) (No.) (Initials)</small> | | |
| S.E. Smith | | | | CONTRACTOR | | PROJECT: SATURN V | | STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
| S.E. Smith | | CONTRACTOR | | SCH'D NO 3-3336-00-1p | | | | |
| End Items | Contractor | Change* Category | Total No. Of Engineering Changes Requested | No. of Change Requests Initiated by Contractor | No. of Change Requests Initiated by MSFC | No. of Changes Approved by MSFC Stage CCB | No. of Changes Disapproved by MSFC Stage CCB | No. of Changes Pending Action by MSFC Stage CCB |
| OPNL DISP Sys. | Sanders Assoc. Inc. | Class I | 9 | 1 | 8 | 7 | 1 | 1 |
| | | Class II | 1555 | 1555 | 0 | N/A | N/A | N/A |
| ESE | GE | Class I | 68 | 20 | 48 | 59 | 8 | 1 |
| | | Class II | 1072 | 1072 | 0 | N/A | N/A | N/A |
| 110A | RCA | Class I | 403 | NOT CURRENTLY AVAILABLE | | 390 | 8 | 5 |
| | | Class II | 894 | 894 | 0 | N/A | N/A | N/A |
| MGSE | TBC | Class I | 3 | 0 | 3 | 2 | 0 | 1 |
| | | Class II | 66 | 66 | 0 | N/A | N/A | N/A |
| TOTAL | | | 4070 | 3608 | 59 | 458 | 17 | 8 |
| NOTES: THESE NUMBERS DO NOT INCLUDE CHANGES DISAPPROVED BY MSFC PRIOR TO JULY 1, 1965. *CLASS I - EFFECTION FORM. FIT OR FUNCTION. *CLASS II - VARIATION CHANGE ACTIVITY TO OCTOBER 1, 1965. | | | | | | | | |

| SCHEDULE RESPONSIBILITY | | Arthur Rudolph | | MANNED SPACE FLIGHT SCHEDULE | | | | | ORIGINAL SCHED. APPROVAL _____ (Date) | |
|---|---------------------|------------------|--|--|--|---|--|---|---|--|
| STATUS RESPONSIBILITY | | S.E. Smith | | ALL VEHICLE GSE (ENGINEERING CHANGES) | | | | | LAST SCHED. CHANGE _____ (Date) (No.) (Initials) | |
| | | | | PROJECT: SATURN V | | | | | STATUS AS OF <u>9/30/65</u> | |
| | | | | CONTRACTOR | | | | | SCH'D NO 3-3336-00-1q | |
| | | | | 3 LEVEL | | | | | | |
| End Items | Contractor | Change* Category | Total No. of Engineering Changes Requested | No. of Change Requests Initiated by Contractor | No. of Change Requests Initiated by MSFC | No. of Changes Approved by MSFC Stage CCB | No. of Changes Disapproved by MSFC Stage CCB | No. of Changes Pending Action by MSFC Stage CCB | | |
| OPNL DISP Sys. | Sanders Assoc. Inc. | Class I | 2 | 1 | 1 | 1 | 1 | 0 | | |
| | | Class II | 308 | 308 | 0 | N/A | N/A | N/A | | |
| ESE | GE | Class I | 12 | 2 | 10 | 11 | 1 | 0 | | |
| | | Class II | 54 | 54 | 0 | N/A | N/A | N/A | | |
| 110A | RCA | Class I | 12 | 7 | 5 | 9 | 0 | 3 | | |
| | | Class II | 36 | 36 | 0 | N/A | N/A | N/A | | |
| MGSE | TBC | Class I | 1 | 1 | 0 | 0 | 0 | 1 | | |
| | | Class II | 21 | 21 | 0 | N/A | N/A | N/A | | |
| TOTAL | | | 446 | 430 | 16 | 21 | 2 | 4 | | |
| NOTES: *CLASS I - EFFECTING FORM, FIT OR FUNCTION. *CLASS II - VARIATION CHANGE ACTIVITY DURING SEPTEMBER. | | | | | | | | | | |

| | | | | | | | | | | | | |
|--|--|--|-------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER VEHICLE GSE (11582) (5433) PROJECT: SATURN V CONTRACTOR RCA (13007) (5423) SCH'D NO: 3-3336-00-2a | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | | | | | |
| CURRENT FISCAL YEAR | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE |
| NO. OF WORKING DAYS IN REPORTING PERIOD | 19 | 25 | 17 | 20 | 24 | 22.5 | | | 25 | | | 25 |
| CUMULATIVE OBLIGATIONS | POP 65-2 | 1.5 | 3.0 | 4.5 | | 8.5 | | | 10.9 | | | 15.4 |
| | POP 65-3 | 4.0 | 4.0 | 4.0 | 8.5 | 8.5 | 8.5 | | 10.9 | | | 13.4 |
| | ACTUAL | 4.3 | 4.3 | 5.1 | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | 2.4 | 4.8 | 6.8 | | 10.8 | 12.8 | | 15.8 | | | 18.1 |
| | POP 65-3 | 1.7 | 3.6 | 5.8 | 7.4 | 9.0 | 10.8 | | 14.0 | | | 18.0 |
| | ACTUAL | 2.1 | 4.7 | 7.3* | | | | | | | | |
| | IN-HOUSE | .8 | 1.9 | 2.9* | | | | | | | | |
| | SUB CONTRACT | 1.3 | 2.8 | 4.4* | | | | | | | | |
| COST RATE | POP 65-2 | 2.4 | 2.4 | 2.0 | | 2.0 | | | 1.0 | | | .8 |
| | POP 65-3 | 1.7 | 1.9 | 2.2 | 1.6 | 1.6 | 1.8 | | 1.0 | | | 1.8 |
| | ACTUAL | 2.1 | 2.6 | 2.6* | | | | | | | | |
| MANPOWER (IN EQUIVALENT MAN MONTHS) | | | | | | | | | | | | |
| TOTAL DIRECT MANPOWER | POP 65-2 | 288 | 288 | 288 | | | 186 | | 134 | | | 73 |
| | POP 65-3 | 300 | 300 | 300 | 286 | 286 | 286 | | 281 | | | 281 |
| | ACTUAL | 305 | 300 | 300* | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | |
| NUMBER OF SHIFTS | | MFG 1 1/2 ENG 1 | | | | | | | | | | |
| PERCENT OF OVERTIME | | 10 | | | | | | | | | | |
| REMARKS: * ESTIMATES | | | | | | | | | | | | |

| | | |
|--|--|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER VEHICLE GSE (5433) (13007) PROJECT: SATURN V CONTRACTOR RCA (NAS8-2430) (5423) SCH'D NO: 3-3336-00-26 | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
|--|--|--|

**OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)**

| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
|-------------------------------------|-------------------------|---------|---------|---------|---------|---------|---------|-------|
| UNCOSTED OBLIGATIONS | 0 | 4.9 | 10.9 | 6.3 | 0 | 0 | 0 | XXX |
| OBLIGATIONS TO CONTRACTOR | 6.6 | 21.1 | 13.4 | 6.5 | 3.5 | 2.0 | 2.0 | 55.1 |
| TOTAL AVAILABLE | 6.6 | 26.0 | 24.3 | 12.8 | 3.5 | 2.0 | 2.0 | XXX |
| ACCRUED COSTS DURING PERIOD | 1.7 | 15.1 | 18.0 | 12.8 | 3.5 | 2.0 | 2.0 | 55.1 |
| (533 ACCRUED COSTS) | 1.7 | 15.1 | | | | | | |
| UNFILLED ORDERS | 4.9 | 10.9 | 6.3 | 0 | 0 | 0 | 0 | XXX |
| ADVANCED FUNDING | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| MONTHLY COST-RATE (YEAR END) | .2 | 2.6 | 1.8 | 1.0 | .3 | .2 | .2 | XXX |

**MANPOWER
(IN EQUIVALENT MAN YEARS)**

| | | | | | | | | |
|------------------------------------|-----|-----|-----|-----|-----|-----|-----|------|
| TOTAL DIRECT | 110 | 305 | 290 | 220 | 100 | 50 | 50 | 1125 |
| RATIO OF INDIRECT TO DIRECT | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

REMARKS:

| | | |
|---|---|--|
| SCHEDULE RESPONSIBILITY <u><i>Arthur Rudolph</i></u> Arthur Rudolph STATUS RESPONSIBILITY <u>S.E. Smith</u> S.E. Smith | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER VEHICLE GSE | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
|---|---|--|

CONTRACTOR BOEING (NAS8-5608) PROJECT: SATURN V SCH'D NO: 3-3337-00-3

OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)

| CURRENT FISCAL YEAR | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE | |
|---|----------|--------------|------|------|------|------|-----|-----|------|-----|-----|------|--|
| NO. OF WORKING DAYS IN REPORTING PERIOD | 19 | 20 | 24 | 20 | 19 | 22 | | | 25 | | | 24 | |
| CUMULATIVE OBLIGATIONS | POP 65-2 | 2.5 | 5.0 | 7.5 | | 15.0 | | | 18.0 | | | 20.5 | |
| | POP 65-3 | 5.0 | 5.0 | 7.5 | 7.5 | 15.0 | | | 18.0 | | | 18.0 | |
| | ACTUAL | 5.0 | 5.0 | 7.5 | | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | 1.5 | 3.0 | 4.5 | | 8.0 | 9.5 | | 15.0 | | | 17.0 | |
| | POP 65-3 | 1.0 | 2.0 | 3.0 | 4.5 | 6.0 | 7.5 | | 12.0 | | | 18.0 | |
| | ACTUAL | TOTAL | .7 | 1.4 | 2.4* | | | | | | | | |
| | | IN-HOUSE | .7 | 1.4 | 2.4* | | | | | | | | |
| | | SUB CONTRACT | 0 | 0 | 0 | | | | | | | | |
| COST RATE | POP 65-2 | 1.5 | 1.5 | 1.5 | | | 1.5 | | 1.5 | | | .5 | |
| | POP 65-3 | 1.0 | 1.0 | 1.0 | 1.5 | 1.5 | 1.5 | | 1.5 | | | 2.0 | |
| | ACTUAL | .7 | .7 | 1.0* | | | | | | | | | |

MANPOWER
(IN EQUIVALENT MAN MONTHS)

| | | | | | | | | | | | | | |
|-----------------------------|----------|-----|-----|------|-----|-----|-----|--|--|-----|--|--|-----|
| TOTAL DIRECT MANPOWER | POP 65-2 | 380 | 360 | 355 | | | 335 | | | 265 | | | 260 |
| | POP 65-3 | 350 | 350 | 360 | 360 | 400 | 400 | | | 600 | | | 540 |
| | ACTUAL | 456 | 462 | 514* | | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | | |

NUMBER OF SHIFTS 1
 PERCENT OF OVERTIME 7
 REMARKS: * ESTIMATES

| | | | | | | | | |
|--|--|--|---------|---------|---------|---------|---------|-------|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER VEHICLE GSE | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | |
| CONTRACTOR BOEING (NASB-5608) | | PROJECT: SATURN V SCH'D NO: 3.3337-00-2 | | | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | |
| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
| UNCOSTED OBLIGATIONS | 0 | 0 | .5 | .5 | 0 | 0 | 0 | XXX |
| OBLIGATIONS TO CONTRACTOR | 0 | 5.7 | 18.0 | 19.5 | 9.5 | 9.0 | 4.1 | 65.8 |
| TOTAL AVAILABLE | 0 | 5.7 | 18.5 | 20.0 | 9.5 | 9.0 | 4.1 | XXX |
| ACCRUED COSTS DURING PERIOD | 0 | 5.2 | 18.0 | 20.0 | 9.5 | 9.0 | 4.1 | 65.8 |
| (533 ACCRUED COSTS) | 0 | 5.2 | | | | | | |
| UNFILLED ORDERS | 0 | .5 | .5 | 0 | 0 | 0 | 0 | XXX |
| ADVANCED FUNDING | 0 | 0 | 0 | 0 | 0 | 0 | 0 | XXX |
| MONTHLY COST-RATE (YEAR END) | N/A | 1.6 | 2.0 | .7 | .7 | .7 | .3 | |
| MANPOWER (IN EQUIVALENT MAN YEARS) | | | | | | | | |
| TOTAL DIRECT | 0 | 107 | 470 | 400 | 100 | 50 | 50 | 1177 |
| RATIO OF INDIRECT TO DIRECT | N/A | | | | | | | |
| REMARKS: | | | | | | | | |

| | | |
|--|--|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER VEHICLE GSE PROJECT: SATURN V SCH'D NO: 3.3336.00.2e CONTRACTOR GE (W-410) | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
|--|--|--|

OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)

| CURRENT FISCAL YEAR | | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE | |
|---|----------|--------------|------|------|------|------|------|-----|-----|------|-----|-----|------|--|
| NO. OF WORKING DAYS IN REPORTING PERIOD | | 19 | 20 | 24 | 20 | 19 | 23 | 20 | 19 | 20 | 25 | 20 | 19 | |
| CUMULATIVE OBLIGATIONS | POP 65-2 | 5.0 | 10.0 | 15.0 | | | 24.5 | | | 38.0 | | | 48.5 | |
| | POP 65-3 | 6.0 | 9.3 | 11.5 | 11.5 | 20.0 | 24.5 | | | 38.0 | | | 48.5 | |
| | ACTUAL | 6.0 | 9.3 | 11.5 | | | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | 4.5 | 9.0 | 13.5 | | 18.5 | 22.0 | | | 38.0 | | | 47.0 | |
| | POP 65-3 | 2.7 | 6.8 | 12.3 | 16.3 | 20.3 | 25.1 | | | 38.5 | | | 53.5 | |
| | ACTUAL | TOTAL | 1.8 | 3.5 | 8.7* | | | | | | | | | |
| | | IN-HOUSE | .9 | 2.1 | 6.3* | | | | | | | | | |
| | | SUB CONTRACT | .9 | 1.4 | 2.4* | | | | | | | | | |
| COST RATE | POP 65-2 | 4.5 | 4.5 | 4.5 | | | 3.5 | | | 4.0 | | | 3.0 | |
| | POP 65-3 | 2.7 | 4.1 | 5.5 | 4.0 | 4.0 | 4.8 | | | 5.5 | | | 4.0 | |
| | ACTUAL | 1.8 | 1.7 | 5.2* | | | | | | | | | | |

MANPOWER
(IN EQUIVALENT MAN MONTHS)

| | | | | | | | | | | | | | |
|-----------------------------|----------|-----|-----|------|------|------|------|--|--|------|--|--|-----|
| TOTAL DIRECT MANPOWER | POP 65-2 | 570 | 570 | 570 | | | 570 | | | 570 | | | 570 |
| | POP 65-3 | 850 | 925 | 1205 | 1105 | 1105 | 1105 | | | 1105 | | | 990 |
| | ACTUAL | 729 | 831 | 983* | | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | | |

NUMBER OF SHIFTS 1 1/2
 PERCENT OF OVERTIME 25
 REMARKS: * ESTIMATES

| | | |
|--|--|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER VEHICLE GSE PROJECT: SATURN V SCH'D NO: 3-3336-00-2f | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
| CONTRACTOR GE (W-410) | | |

**OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)**

| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
|-------------------------------------|-------------------------|---------|---------|---------|---------|---------|---------|-------|
| UNCOSTED OBLIGATIONS | 0 | 2.3 | 13.1 | 8.1 | 7.1 | 3.0 | 3.0 | XXX |
| OBLIGATIONS TO CONTRACTOR | 6.0 | 19.7 | 48.5 | 40.0 | 14.5 | 6.6 | 4.5 | 139.8 |
| TOTAL AVAILABLE | 6.0 | 22.0 | 61.6 | 48.1 | 21.6 | 9.6 | 7.5 | XXX |
| ACCRUED COSTS DURING PERIOD | 3.7 | 8.9 | 53.5 | 41.0 | 18.6 | 6.6 | 4.5 | 139.8 |
| (533 ACCRUED COSTS) | 3.7 | 8.9 | | | | | | |
| UNFILLED ORDERS | 2.3 | 13.1 | 8.1 | 7.1 | 1.5 | 1.5 | 0 | XXX |
| ADVANCED FUNDING | 0 | | | | 1.5 | 1.5 | 0 | XXX |
| MONTHLY COST-RATE (YEAR END) | .6 | 3.4 | 4.0 | 4.0 | 1.5 | .5 | .4 | XXX |

**MANPOWER
(IN EQUIVALENT MAN YEARS)**

| | | | | | | | | |
|------------------------------------|-----|-----|------|-----|-----|----|----|------|
| TOTAL DIRECT | 135 | 316 | 1050 | 930 | 240 | 75 | 50 | 2796 |
| RATIO OF INDIRECT TO DIRECT | 0 | | | | | | | XXX |

REMARKS:

| | | | | | | | | | | | | |
|---|---|--|-------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S. E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER VEHICLE GSE (NASB-14009) PROJECT: SATURN V CONTRACTOR SANDERS & ASSOC SCH'D NO: 3.3336-00.2g | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | | | | | |
| CURRENT FISCAL YEAR | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE |
| NO. OF WORKING DAYS IN REPORTING PERIOD | 21 | 21 | 21 | 21 | 21 | 21 | | | 21 | | | 21 |
| CUMULATIVE OBLIGATIONS | POP 65-2 | 2.0 | 2.0 | 2.0 | | 4.0 | | | 4.0 | | | 4.0 |
| | POP 65-3 | 1.0 | 1.0 | 4.0 | 4.0 | 4.0 | 4.0 | | 4.0 | | | 4.0 |
| | ACTUAL | 1.0 | 1.0 | 1.0 | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | .7 | 1.5 | 2.2 | | 3.6 | 3.7 | | 4.0 | | | 4.0 |
| | POP 65-3 | .7 | 1.5 | 2.2 | 3.0 | 3.5 | 4.0 | | 4.5 | | | 4.5 |
| | TOTAL | .8 | 1.5 | 2.5* | | | | | | | | |
| | IN-HOUSE | .6 | 1.1 | 1.6* | | | | | | | | |
| | SUB CONTRACT | .2 | .4 | .9* | | | | | | | | |
| COST RATE | POP 65-2 | .7 | .8 | .7 | | | .1 | | .1 | | | 0 |
| | POP 65-3 | .7 | .8 | .7 | .8 | .5 | .5 | | .1 | | | 0 |
| | ACTUAL | .8 | .7 | 1.0* | | | | | | | | |
| MANPOWER (IN EQUIVALENT MAN MONTHS) | | | | | | | | | | | | |
| TOTAL DIRECT MANPOWER | POP 65-2 | 170 | 170 | 170 | | | 60 | | 30 | | | 0 |
| | POP 65-3 | 170 | 170 | 170 | 6 | 6 | 60 | | 30 | | | 0 |
| | ACTUAL | 170 | 170 | 170 | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | |
| NUMBER OF SHIFTS | | N/A FIXED PRICE CONTRACT | | | | | | | | | | |
| PERCENT OF OVERTIME | | N/A | | | | | | | | | | |
| REMARKS: | | * ESTIMATES | | | | | | | | | | |

| | | | | | | | | | | | | | |
|--|---|--|-------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|------|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>J.M. Balch</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER VEHICLE SUPPORT (MTF) PROJECT: SATURN V SCH'D NO: 3-3337-00-1 CONTRACTOR GE (W-410) | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | | | | | | |
| CURRENT FISCAL YEAR | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE | |
| NO. OF WORKING DAYS IN REPORTING PERIOD | 19 | 20 | 24 | 20 | 19 | 23 | 20 | 19 | 20 | 25 | 20 | 19 | |
| CUMULATIVE OBLIGATIONS | POP 65-2 | 4.0 | 9.0 | 15.0 | - | - | 40.0 | - | - | 46.0 | - | - | 46.0 |
| | POP 65-3 | 0 | 0 | 0 | 24.0 | 24.0 | 24.0 | - | - | 34.0 | - | - | 46.0 |
| | ACTUAL | 0 | 0 | 0 | | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | 3.9 | 8.2 | 12.1 | - | - | 23.6 | - | - | 33.8 | - | - | 45.7 |
| | POP 65-3 | 3.9 | 7.8 | 12.1 | 16.0 | 20.0 | 24.0 | - | - | 34.2 | - | - | 45.7 |
| | ACTUAL | TOTAL | 3.3 | 7.8 | 14.0* | | | | | | | | |
| | ACTUAL | IN-HOUSE | 2.2 | 5.0 | 8.9* | | | | | | | | |
| | ACTUAL | SUB CONTRACT | 1.1 | 2.8 | 5.1* | | | | | | | | |
| COST RATE | POP 65-2 | 3.9 | 4.3 | 3.9 | - | - | 3.8 | - | - | 4.0 | - | - | 4.0 |
| | POP 65-3 | 3.9 | 3.9 | 4.3 | 3.9 | 4.0 | 4.0 | - | - | 3.4 | - | - | 3.8 |
| | ACTUAL | 3.3 | 4.5 | 6.2 | | | | | | | | | |
| MANPOWER (IN EQUIVALENT MAN MONTHS) | | | | | | | | | | | | | |
| TOTAL DIRECT MANPOWER | POP 65-2 | 1610 | 1700 | 1769 | - | - | 1790 | - | - | 1800 | - | - | 1820 |
| | POP 65-3 | 980 | 1040 | 1048 | 1080 | 1100 | 1120 | - | - | 1200 | - | - | 1280 |
| | ACTUAL | 1286 | 1413 | 1473* | | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | | |
| NUMBER OF SHIFTS <u>1</u> PERCENT OF OVERTIME <u>18%</u> | | | | | | | | | | | | | |
| REMARKS: | | * INDICATES ESTIMATES | | | | | | | | | | | |

| | | |
|--|---|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>S.E. Smith</u> | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER VEHICLE GSE NASB-14009) PROJECT: SATURN V CONTRACTOR SANDERS & ASSOC SCH'D NO: 3.3336.00.2h | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
|--|---|--|

**OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)**

| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
|-------------------------------------|-------------------------|---------|---------|---------|---------|---------|---------|-------|
| UNCOSTED OBLIGATIONS | 0 | 0 | .5 | 0 | 0 | 0 | 0 | XXX |
| OBLIGATIONS TO CONTRACTOR | 0 | 5.7 | 4.0 | 0 | 0 | 0 | 0 | 9.7 |
| TOTAL AVAILABLE | 0 | 5.7 | 4.5 | 0 | 0 | 0 | 0 | XXX |
| ACCRUED COSTS DURING PERIOD | 0 | 5.2 | 4.5 | 0 | 0 | 0 | 0 | 9.7 |
| (533 ACCRUED COSTS) | 0 | 3.5 | | | | | | |
| UNFILLED ORDERS | 0 | .5 | 0 | 0 | 0 | 0 | 0 | XXX |
| ADVANCED FUNDING | 0 | 0 | 0 | 0 | 0 | 0 | 0 | XXX |
| MONTHLY COST-RATE (YEAR END) | 0 | 1.6 | 0 | 0 | 0 | 0 | 0 | XXX |

**MANPOWER
(IN EQUIVALENT MAN YEARS)**

| | | | | | | | | |
|------------------------------------|---|-----|----|---|---|---|---|-----|
| TOTAL DIRECT | 0 | 107 | 70 | 0 | 0 | 0 | 0 | 177 |
| RATIO OF INDIRECT TO DIRECT | 0 | | | | | | | XXX |

REMARKS:

| SCHEDULE RESPONSIBILITY _____ Arthur Rudolph STATUS RESPONSIBILITY _____ J.M. Balch | | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER VEHICLE SUPPORT (MTF) | | | | | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | |
|---|---------------------------------|--|----------------|-----------------------|----------------|----------------|--|--------------|
| | | CONTRACTOR GE (W-410) | | PROJECT: SATURN V | | | | |
| | | | | SCH'D NO: 3-3337-00-2 | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | |
| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
| UNCOSTED OBLIGATIONS | 0 | .1 | 2.8 | 3.1 | 3.6 | 3.4 | .5 | - |
| OBLIGATIONS TO CONTRACTOR | 3.2 | 18.0 | 46.0 | 45.0 | 40.0 | 36.4 | 35.2 | 223.8 |
| TOTAL AVAILABLE | 3.2 | 18.1 | 48.8 | 48.1 | 43.6 | 39.8 | 35.7 | - |
| ACCRUED COSTS DURING PERIOD | 3.1 | 15.3 | 45.7 | 44.5 | 40.2 | 39.3 | 35.7 | 223.8 |
| (533 ACCRUED COSTS) | 3.1 | 15.3 | (*) | (*) | (*) | (*) | (*) | (*) |
| UNFILLED ORDERS | .1 | 2.8 | 3.1 | 3.6 | 3.4 | .5 | 0 | |
| ADVANCED FUNDING | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| MONTHLY COST-RATE (YEAR END) | .4 | .4 | 3.8 | 3.7 | 3.5 | 3.2 | 1.5 | |
| MANPOWER (IN EQUIVALENT MAN YEARS) | | | | | | | | |
| TOTAL DIRECT | 229 | 496 | 1325 | 1400 | 1400 | 1400 | 800 | 7650 |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | |
| REMARKS: * CONTRACT IS ON A ONE YEAR BASIS: SCOPE NEGOTIATED AND FUNDED BY FISCAL YEAR. CONTRACT DOES NOT REQUIRE A 533 PROJECTION PAST CURRENT FISCAL YEAR. | | | | | | | | |

| | | | | | | | | | | | | | |
|--|--|--|-------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|--------|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>Wayne Strickland</u> Wayne Strickland | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER VEHICLE SUPPORT SYS ENG & SYS INTEG PROJECT: SATURN V SCH'D NO: 3-3337-00-3 CONTRACTOR BOEING (NAS8-5608) | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> | | | | | | | | | | | |
| OBLIGATIONS & COSTS (MILLIONS OF DOLLARS) | | | | | | | | | | | | | |
| CURRENT FISCAL YEAR | JULY | AUG | SEPT | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUNE | |
| NO. OF WORKING DAYS IN REPORTING PERIOD | 19 | 20 | 24 | 20 | 19 | 22 | 19 | 20 | 25 | 20 | 20 | 24 | |
| CUMULATIVE OBLIGATIONS | POP 65-2 | 5.000 | 10.000 | 15.000 | XX | XX | 25.000 | XX | XX | 35.000 | XX | XX | 37.800 |
| | POP 65-3 | 10.000 | 10.000 | 15.000 | 21.000 | 21.000 | 21.000 | XX | XX | 33.000 | XX | XX | 44.800 |
| | ACTUAL | 10.000 | 10.000 | 10.000 | | | | | | | | | |
| CUMULATIVE ACCRUED COSTS | POP 65-2 | 3.500 | 7.000 | 10.300 | XX | XX | 19.700 | XX | XX | 28.700 | XX | XX | 37.800 |
| | POP 65-3 | 3.300 | 6.700 | 10.400 | 14.000 | 17.600 | 21.300 | XX | XX | 32.800 | XX | XX | 44.850 |
| | ACTUAL | TOTAL | 3.036 | 6.233 | 10.006* | | | | | | | | |
| | ACTUAL | IN-HOUSE | 3.036 | 6.233 | 10.006* | | | | | | | | |
| | ACTUAL | SUB CONTRACT | | | | | | | | | | | |
| COST RATE | POP 65-2 | 3.500 | 3.500 | 3.300 | XX | XX | 3.100 | XX | XX | 3.000 | XX | XX | 2.800 |
| | POP 65-3 | 3.300 | 3.400 | 3.700 | 3.600 | 3.600 | 3.700 | XX | XX | 4.000 | XX | XX | 4.050 |
| | ACTUAL | 3.036 | 3.197 | 3.773* | | | | | | | | | |
| MANPOWER (IN EQUIVALENT MAN MONTHS) | | | | | | | | | | | | | |
| TOTAL DIRECT MANPOWER | POP 65-2 | 1500 | 1500 | 1420 | XX | XX | 1330 | XX | XX | 1290 | XX | XX | 1260 |
| | POP 65-3 | 1775 | 1825 | 1910 | 1940 | 1960 | 1960 | XX | XX | 1940 | XX | XX | 1940 |
| | ACTUAL | 1759 | 1914* | 1743* | | | | | | | | | |
| RATIO OF INDIRECT TO DIRECT | | | | | | | | | | | | | |
| NUMBER OF SHIFTS <u>1</u> | | | | | | | | | | | | | |
| PERCENT OF OVERTIME <u>5.9</u> | | | | | | | | | | | | | |
| REMARKS: * INDICATES ESTIMATES | | | | | | | | | | | | | |

| | | |
|--|--|--|
| SCHEDULE RESPONSIBILITY <u>Arthur Rudolph</u> STATUS RESPONSIBILITY <u>Wayne Strickland</u> Wayne Strickland | MANNED SPACE FLIGHT SCHEDULE OBLIGATIONS, COSTS, AND MANPOWER VEHICLE SUPPORT SYS ENG & SYS INTEG PROJECT: SATURN V SCH'D NO: 3.3337-00.4 CONTRACTOR BOEING (NAS8-5608) | ORIGINAL SCHED. APPROVAL <u>4/30/65</u> <small>(Date)</small> LAST SCHED. CHANGE <u>7/31/65 (2)</u> <small>(Date) (No.) (Initials)</small> STATUS AS OF <u>9/30/65</u> <small>(Date) (Initials)</small> |
|--|--|--|

**OBLIGATIONS & COSTS
(MILLIONS OF DOLLARS)**

| | FY 1961 THRU FY 1964 | FY 1965 | FY 1966 | FY 1967 | FY 1968 | FY 1969 | FY 1970 | TOTAL |
|-------------------------------------|-------------------------|----------|----------|----------|----------|----------|---------|-----------|
| UNCOSTED OBLIGATIONS | N/A | 0 | .821 | .771 | .971 | .471 | .400 | XXX |
| OBLIGATIONS TO CONTRACTOR | N/A | 24.681 | 44.800 | 48.000 | 43.000 | 26.000 | 3.900 | 190.381 |
| TOTAL AVAILABLE | N/A | 24.681 | 45.621 | 48.771 | 43.971 | 26.471 | 4.300 | XXX |
| ACCRUED COSTS DURING PERIOD | N/A | 23.860 | 44.850 | 47.800 | 43.500 | 26.071 | 4.300 | 190.381 |
| (533 ACCRUED COSTS) | N/A | (23.860) | (49.205) | (45.320) | (41.000) | (36.439) | (0) | (195.824) |
| UNFILLED ORDERS | N/A | .821 | .771 | .971 | .471 | .400 | 0 | XXX |
| ADVANCED FUNDING | N/A | 0 | 0 | 0 | 0 | 0 | 0 | XXX |
| MONTHLY COST-RATE (YEAR END) | N/A | 3.789 | 4.050 | 4.100 | 3.100 | 2.200 | .300 | XX |

**MANPOWER
(IN EQUIVALENT MAN YEARS)**

| | | | | | | | | |
|------------------------------------|-----|------|------|------|------|------|-----|------|
| TOTAL DIRECT | N/A | 1200 | 1910 | 1925 | 1800 | 1100 | 200 | 8135 |
| RATIO OF INDIRECT TO DIRECT | N/A | | | | | | | |

REMARKS: