

SECRET

D/O SP



[Redacted]

Copy No. [Redacted]
10 December 1968

TO: [Redacted]
FROM: [Redacted]
SUBJECT: Briefing by LSMC/SV to [Redacted] on Recent
[Redacted] Program Problems

[Redacted] through [Redacted] has requested a briefing of LSMC/SV [Redacted] on recent program problems and the actions and methods used to insure a continued successful program.

The enclosed charts were prepared by A/P as requested by [Redacted] and have been reviewed and accepted as the requirement for a full [Redacted] Program review. I have advised [Redacted] that the charts can not be released to him without your approval.

The first three charts cover the results of action directed by the R.O. due to an interface problem on J-47 [Redacted]. Since [Redacted] was briefed on the action directed, we could provide him with the results.

The remainder of the charts cover management and control procedures within A/P and between Associate Contractors, data which if given, should be to you and not to [Redacted]

Would you please review the charts and advise me as to your desires.

I have recommended to [Redacted] that he be prepared to present his briefing without charts four through eight.

Declassified and Released by the NRO

Accordance with E. O. 12958

[Redacted]

OK [Redacted]

NOV 26 1997

[Redacted] advised 12 Dec to give 17 3 charts - if AF wants more info we will see way to rear of their [Redacted]

[REDACTED]
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PAYLOAD PROBLEMS

**FOUR CONSECUTIVE SYSTEMS LAUNCHED HAVE SUFFERED UNRELATED
NON-CATASTROPHIC FAILURES.**

AS A RESULT A THOROUGH SYSTEM AUDIT IS BEING CONDUCTED.

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PAYLOAD BASELINE AUDITS

- o SCOPE
 - o DETERMINE THROUGH ANALYSIS OF DOCUMENTATION THAT THE A/P PAYLOAD SYSTEMS HAVE NO INHERENT FAILURE MODES.
 - o VALIDATE INTERFACES WITH AGENA, BOSTON, NEW YORK AND PHILADELPHIA - SYSTEMS AND AGE/STE.
- o METHOD
 - o USE WIRING DIAGRAMS TO VERIFY ACCURACY OF SUBSYSTEM AND J-BOX SCHEMATICS.
 - o USE SUBSYSTEM AND BOX SCHEMATICS TO ANALYZE SYSTEM DESIGN
 - o INCLUDE ASSOCIATE'S SCHEMATICS AND INTERFACE SPECIFICATIONS.
 - o DETERMINE POSSIBLE FAILURE MODES.
 - o INACTIVE WIRING OR CIRCUITS
 - o IMPROPER CIRCUIT MODIFICATION
 - o INTERFACE SPARE PINS
 - o USE AGE SCHEMATICS TO VERIFY COMPATIBILITY AND FUNCTIONAL SIMULATION.
 - o REVIEW TEST PROCEDURES TO VERIFY ALL CIRCUITS AND SUBSYSTEMS ARE TESTED.

PAYLOAD BASELINE AUDITS

J-1 SYSTEMS

- o AUDIT STARTED 1 OCTOBER, COMPLETED 4 DECEMBER.
- o NO ENGINEERING ERRORS WERE FOUND THAT WOULD CAUSE SYSTEM FAILURE
- o WIRING CHANGES DIRECTED TO CONFORM WITH SPARE PIN GROUND RULES.
- o DRAWING REVISIONS REQUIRED TO SHOW ALL SPARE PINS, SPARE WIRES AND LATEST DESCRIPTIVE TERMS
- o DESIGN CHANGE DIRECTED FOR BACKUP POWER SHUTDOWN ON BOSTON INSTRUMENTS. EFFECTIVITY: J43, 44, 46.
- o BASELINE SYSTEM SCHEMATIC BOOK ESTABLISHED.

J-3 SYSTEMS



- o AGENA INTERFACE AUDIT TO BE COMPLETED JANUARY 17, 1969 ON CR-6
- o SYSTEM AUDIT TO BE COMPLETED MARCH 1969
- o BASELINE SCHEMATIC BOOK HAS BEEN ESTABLISHED ON CR-6.
- o BASELINE SYSTEM AND AGE SCHEMATIC BOOK ECD MARCH 1969.

PAYLOAD BASELINE
CONFIGURATION MAINTENANCE


- o A/P SUBSYSTEMS
 - o CHANGES ARE DIRECTED BY PAYLOAD INTEGRATION (SDRD).
 - o ENGINEERING RELEASES IN ACCORDANCE WITH A/P RELEASE PROCEDURE, ARE APPROVED BY PAYLOAD SYSTEMS INTEGRATION, AND INCLUDED IN CONFIGURATION STATUS.
- o ASSOCIATE CONTRACTOR SUBSYSTEMS
 - o CHANGES ARE DIRECTED AND RELEASED BY ASSOCIATE CONTRACTOR
 - o CHANGES ARE REVIEWED BY RESIDENT OFFICE TECHNICAL STAFF AND APPROVED BY RESIDENT OFFICE
 - o FIELD CHANGES ARE REVIEWED BY PAYLOAD SYSTEMS INTEGRATION FOR COORDINATION
- o INTERFACE CHANGES REQUIRE APPROVAL BY ASSOCIATES AND RESIDENT OFFICE

PAYLOAD BASELINE
MAINTENANCE

- o TEST AND CHECKOUT OF FLIGHT SYSTEMS
 - o SUBSYSTEM TEST PROCEDURES ARE UPDATED BY THE TEST GROUP, CHECKED AND APPROVED BY ASSOCIATES AND PAYLOAD INTEGRATION.
 - o SYSTEM TEST PROCEDURES ARE UPDATED FOR EACH SYSTEM - PREPARED BY THE TEST GROUP, CHECKED AND APPROVED BY PAYLOAD INTEGRATION.
 - o REQUIRED SPECIAL TESTING IS CONTROLLED BY SUPPLEMENTAL TECHNICAL INSTRUCTIONS ISSUED BY PAYLOAD INTEGRATION.
 - o ALL TESTING IS REVIEWED AT MILESTONE CRITIQUES AND AUDITS - PRE-CHAMBER, POST-CHAMBER, STORAGE AND PRE-FLIGHT.



PAYLOAD MANAGEMENT
OVERVIEW

- o MANAGEMENT POLICIES ARE DOCUMENTED IN STANDARD OPERATING PROCEDURES
 - o S. O. P. 's ESTABLISH METHODS OF CONTROLLING:
 - o CHANGES TO SPECIFICATIONS AND DESIGNS
 - o RELEASE OF ENGINEERING CHANGES
 - o TEST REVIEW CRITIQUES AND FLIGHT READINESS AUDITS
 - o LAUNCH AND FLIGHT REQUIREMENTS
 - o HANDLING OF FLIGHT HARDWARE AND TEST EQUIPMENT
 - o QUALITY ASSURANCE INSTRUCTIONS ESTABLISH METHODS OF ENSURING COMPLIANCE WITH COMPANY STANDARDS.
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FLOW CHART

