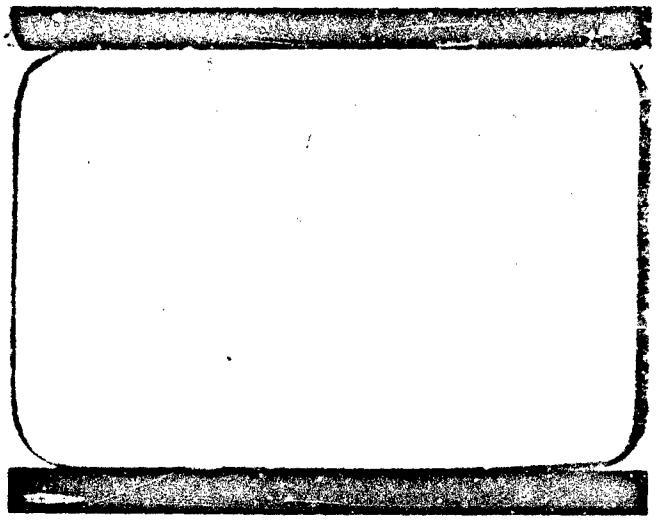
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DIFFICULTIES REVIEW ATLAS BOOSTER AIRBORNE AND GROUND SUPPORT SYSTEMS.

BOOK II.

GENERAL INFORMATION.

Volume VIII.

Instrumentation System Airborne Difficulties Review.

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VOLUME I	AIRFRAMES
*VOLUME II	ABORT SENSING AND IMPLEMENTATION SYSTEM
VOLUME III	AUTOPILOT
*VOLUME IV	AUXILIARY POWER SOURCE
VOLUME V	ELECTRICAL
*VOLUME VI	GUIDANCE
VOLUME VII	HYDRAULICS
VOLUME VIII	INSTRUMENTATION
VOLUME IX	PNEUMATICS
VOLUME X	PROPELLANT UTILIZATION
VOLUME XI	PROPULSION INTERFACE
VOLUME XII	PROPULSION
VOLUME XIII	RANGE SAFETY COMMAND

*VOLUMES II, IV AND VI UNDER ONE COVER.

GENERAL INFORMATION

The Difficulties Review encompasses problems gathered from the factory, the field, (ETR and WTR) and UTP. The factory difficulties are limited to "selloff" and rerun composite testing.

In the UTP area, the difficulties were excerpted from Central Test Control Reports, Problem Reports, Supplementary History Sheets and Problem Review Reports.

Field problems for the Difficulties Review have been limited to captive flights, flight readiness firings, actual countdown dual propellant loading, quad tanking, component reliability testing, and flight acceptance composite tests. Difficulties called out in the search for critical weakness program was not documented.

GSE problems shall be limited to ETR Complex 12, 13, 36A and 36B for the present edition. Hereafter only booster difficulties shall be maintained.

Failure analysis reports cover difficulties from the field and factory and may complement the information above.

The GSE Difficulties Review, Book 1 contains 14 Volumes, one volume for each system, under one cover. Each volume is appropriately indexed.

The Airborne Difficulties Review, Book 2 contains 13 volumes. Each volume is under separate cover except Volumes II, IV and VI. Volumes II, IV, and VI are under one cover because of the limited material contained in each volume. All volumes are appropriately indexed.

A guide to facilitate interpretation of data in the Difficulties Review (GSE and Airborne) is part of each book or volume.

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GENERAL DYNAMICS
Convair Division

Subject: Explanatory Information For Use of Difficulties Review (DR) Data Tab Runs

This information has been prepared to facilitate use of the DR. It is not intended to describe how the DR was prepared nor the scope of the existing effort.

The Difficulties Review (DR) is presented on a form compatible with automated data processing and printout.

Appearing at the top of the page (outside of blocked-in areas) is the identification of the system and whether it is Airborne or Ground Support Equipment. Appearing with this identification is the date of the document and the page number.

On the right hand side outside of the blocked area, appears the abstract number. An abstract number is assigned to each item of the Difficulty Review to facilitate traceability to the original input document.

Appearing under the major identification are blocks wherein the information on component or system difficulty is identified and explained. Attached are samples of pages coded for reference to the following definitions and explanations:

CODE	EXPLANATION
(1)	This group of blocks callout system, subsystem, test/report number, failed component name, difficulty (Dif) data source, and GDC part number if applicable. Also called out here is the vehicle number, if applicable, and the date of difficulty. In the same row, the site location, and in case of a flight, captive flight, or countdown, the time will be entered. The block containing PRI and OTH refer to whether or not the failure is primary or a secondary failure. A secondary failure is to be interpreted as caused by another discrepancy. The last block in this row is obvious and requires no further explanation:
(2)	Refers to a major system of the launch vehicle.
(3)	Refers to subsystem of a major vehicle system if applicable, (Booster, sustainer, etc).

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CODE	EXPLANATION
(4)	Is a report number as opposed to type of report, (UTP, Countdown, Flight, FAR, etc.).
(5)	Is a type of report, such as a FAR, UTP, FRF, etc.
(6)	Refers to a component part by name.
(7)	Is a component piece part of the component and referred to by name, (plug, seal, wiring, diode, etc., only where applicable).
(8)	Is a GDC part number, if applicable.
(9)	Refers to a site or location at time of discrepancy on the component or vehicle system.
(10)	Is the vehicle on which discrepancy occurred. Vehicle number listed only if unit was installed on a vehicle at time of discrepancy.
(11)	Is the vendor part number, if applicable.
(12)	Is the vendor name, if applicable.
(13)	Is the failure caused by other component or other system. This item defines the failure as secondary or not secondary.
(14)	Refers to the primary failure. If item is labeled no, then item (13) may appear as a yes. Should item (13) appear as a yes, then an abstract will have been written to identify the cause of failure effecting the component referred to in the Difficulty Review, Item 6. It should be noted that a multiple failure may be recorded in these blocks, (yes/yes), or if a failure did not occur, (no/no).
(15)	Defines the failure mode, and if identifiable, the cause is called out. A careful review of the failure mode is made to determine effect on system operation and vehicle effort.

CODE	EXPLANATION
(16)	Defines the system effect. This effect is the result of the failure mode assigned to the component.
(17)	Defines the vehicle effect. This effect is a result of the failure mode and the result of the system effect. It should be noted that corrective action may be taken whether or not the failure was confirmed.
(18)	Lists the corrective action. Taken by GDC, the vendor, or both.

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(1) SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							697076

CORRECTIVE ACTION-DEPT 141-3 TO PERFORM RETEST ON TWO (2) ADDITIONAL UNITS FROM LOT 15, TO DETERMINE LOT ACCEPTABILITY AND PROVIDE COMPARISON DATE.

(2) HYDRAULIC-A/B	27A3977	UTP-PRT	841229	CONVAIR	YES	VICKERS	697095
(3) BOOSTER	HYDRAULIC PUMP	87-08566-1			NO	AA-60894-R-2A	

(4) FAILURE MODE-OUT OF SPECIFICATION. S/N 609-0420. PEAK TRANSIENT PRESSURES WERE 4100 TO 4600 PSIG, ALLOWABLE IS 4000 PSIG. NO-FLOW TO FULL FLOW TIME IS 0.157 SECONDS, ALLOWABLE TIME IS 0.08 SECONDS.

(5)

CORRECTIVE ACTION-SUBMIT ECP 7669 TO REVISE TEST REQUIREMENTS TO PRACTICAL LEVELS.

(6) HYDRAULIC-A/B	SLV-A9-10-269F	FAR	T106	FACTORY	YES	VICKERS 696174
BOOSTER	(7) HYDRAULIC PUMP/SEAL	87-08566-1	841003		NO	AA-60894-R-2A

FAILURE MODE-LEAK-EXTERNAL-CONTINUOUS OIL SEEPAGE WAS OBSERVED DURING CHECKOUT. CAUSED BY DEFECTIVE SEAL AT PUMP PERFORMANCE PRESSURE SENSING PORT. (8)

(9)

(10)

CORRECTIVE ACTION-VENDOR REVIEWED STOCK OF O-RINGS AND INFORMED THEIR PERSONNEL OF CORRECT SEAL INSTALLATION PROCEDURES.

HYDRAULIC-A/B	SLV-90-10-239-F	FAR	0071-01	WTR	NO	VICKERS	698468
BOOSTER	BOOSTER HYDRAULIC PUMP/SEAL	87-08566-1	840709		YES	AA-60894-R-2A	

(15) FAILURE MODE-LEAK EXTERNAL. PUMP WAS REPORTED LEAKING AFTER HOT FIRING TEST. CASE WAS OVERPRESSURIZED CAUSING DAMAGE TO CASE COVER SEAL.

(18) CORRECTIVE ACTION-NO CORRECTIVE ACTION RECOMMENDED SINCE DAMAGE OCCURRED DUE TO INADVERTENT OVERPRESSURIZATION OF THE PUMP.

HYDRAULIC-A/B	69A1910.5	UTP-PRT	840814	CONVAIR	YES	VICKERS	
BOOSTER	HYDRAULIC PUMP	87-08566-1			NO	AA-60894-R-2A	

FAILURE MODE-LEAK EXTERNAL. S/N 209-0866 FAILED TO MEET CASE DRAIN LEAKAGE REQUIREMENTS OF 0.6 GPM DURING PRT-1AT. THIS UNIT ALSO FAILED TO MEET PEAK TRANSIENT PRESSURE REQUIREMENTS. REFER TO FPR-4881.

SYSTEM EFFECT-NONE.

(11) (12) (13) (14)

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTM	VENDOR NAME / VENDOR PART NO	
							699763
CORRECTIVE ACTION-BOOSTER HYDRAULIC FILL AND BLEED PERFORMED.							
HYDRAULIC-A/B BOOSTER	FTA0867/P6-WO-01-0AC8	COMPOSITE-FRD/DPL	1510 650713	36B	NO NO		697607
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. TEST WAS RUN WITHOUT BOOSTER HYDRAULICS BECAUSE BOOSTER HPU COULD NOT BE OPERATED REMOTELY. THIS WAS NOTED DURING AUTOPILOT FINAL CHECKS. SYSTEM EFFECT-OPERATION DOES NOT START. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-BOOSTER HPU HAND VALVE, MICROSWITCHES V5 AND V6 ADJUSTED TO MAKE WIPER CONTACT.							
HYDRAULIC-A/B BOOSTER	GDC/BKF65-048/01-401-C0-39	FLIGHT	590 650701	B-1 -32.5	YES NO		697144
FAILURE MODE-LEAK. B1 HYDRAULIC ACCUMULATOR PRESSURE EXHIBITED NO PRESSURE DIFFERENCE DURING THE OIL EVACUATION SEQUENCE. SYSTEM EFFECT-POSSIBLE CONTAMINATION. ALTHOUGH THE FAILURE MODE INDICATES THE POSSIBILITY OF AIR IN THE BOOSTER HYDRAULIC SYSTEM, SYSTEM PERFORMANCE WAS SATISFACTORY. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE. THE POSSIBILITY OF CONTAMINATION WAS NOT CONFIRMED BY ANY OTHER TELEMETRY DATA.							
HYDRAULIC-A/B BOOSTER	GDC/BKF65-038/B2-401-00-177	FLIGHT	1770 650603	B-2 2.3	NO NO		697320
FAILURE MODE-OUT OF TOLERANCE. BOOSTER HYD ACCUM. PRESS MEASUR. M33P AND HYD. PUMP OUTLET PRESS. MEASUR M3P INDICATED AN INITIAL NORMAL PRESS. RISE BUT TO A LOWER (3130 PSIA) THAN NORMAL (3300 PSIA) PEAK AT 2.3 SEC. THE PRESS. THEN DECAYED TO 2720 PSIA DURING NEXT 1.5 SEC. SPECIFIC CAUSE UNKNOWN BUT SYMPTOMATIC OF UNUSUALLY HEAVY DEMAND ON SYSTEM. (16) SYSTEM EFFECT-OPERATION TOO LOW. BOOSTER HYDRAULIC PRESS. LOWER THAN NORMAL FOR A TIME PERIOD OF -2.3 SEC TO 1.9 SEC. NO ADVERSE EFFECT NOTED ON SYSTEM PERFORMANCE. (17) VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE.							
HYDRAULIC-A/B BOOSTER	68/CZZH65-013-BA1847-/L4-7MO-01-71 87	COMPOSITE-FRD/DPL	7107 650410	2-4	YES NO		

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
INSTRUMENTATION-A/B	AE61-1108/P3-501-00-32	FLIGHT	32E 611110	13 -1	YES NO		697366

FAILURE MODE-NONE.

SYSTEM EFFECT-NONE.-RES VEHICLE EFFECT-PREMATURE SUSTAINER ENGINE SHUTDOWN. THE INCORRECT INSTRUMENTING OF THE SUST AINER LOX REGULATOR CAUSED THE REGULATOR TO STARVE THE SGG OF LOX WHICH RESULTED IN GG FLAMEOUT AND LOSS OF SUSTAINE R THRUST. MISSILE DESTROYED AT 34 SECONDS BY RANGE SAFETY OFFICER.

VEHICLE EFFECT-PREMATURE SUSTAINER ENGINE SHUTDOWN. THE INCORRECT INSTRUMENTING OF THE SUSTAINER LOX REGULATOR CAUS ED THE REGULATOR TO STARVE THE SGG OF LOX WHICH RESULTED IN GG FLAMEOUT AND LOSS OF SUSTAINER THRUST. MISSILE DESTRO YED AT 34 SECONDS BY RANGE SAFETY OFFICER.

CORRECTIVE ACTION-RE-WORK PRINT TO ENSURE PORT 603 IS UTILIZED.

INSTRUMENTATION-A/B	98-24-093 SHUTTLE VALVE O RING	FAR 27-01279-1	610100	ETR	YES NO	CIRCLE SEAL P2-425	698694

FAILURE MODE-INTERNAL LEAK. NUMEROUS VALVES LEAKED WHEN PRESSURE WAS APPLIED. ON DISASSEMBLY ALL OF THE VALVES WERE FOUND TO HAVE THE SPOOL SEALING O RING CLOSEST TO THE SYSTEM PORT, BADLY CUT, AND IN SOME CASES PIECES WERE MISSING . DURING ACTUATION THE FORWARD O RING CATCHES IN THE TRANSDUCER PORT AND IS THEN CUT BY THE SPOOLS BACKUP SHOULDER.

CORRECTIVE ACTION-THE VENDOR HAS REDESIGNED THE VALVE TO INCORPORATE AN ANNULAR BORE RELIEF VALVE AT THE INTERSECTI ON OF THE TRANSDUCER PORT TO PREVENT CONTACT OF THE O RING WITH THE BORE AS IT PASSES THE TRANSDUCER PORT.

INSTRUMENTATION-A/B	98-24-063 VALVE-O-RING	FAR 27-01279-1	600900	ETR	YES NO	JAMES POND CLA RK	694414

FAILURE MODE-LEAK. VALVE LEAKED HYDRAULIC OIL WHEN IN THE OPERATING POSITION. FRONT O-RING ON THE POPPET WAS CUT. T HE VALVE HOUSING WAS CUT OPEN. THE TRANSDUCER PORT WAS NOT FULLY CHAMFERED AND BURRS WERE LEFT ON THE PORT EDGE. O-R ING FAILURE WAS DUPLICATED ON THE FIRST ACTUATION WITH NEW O-RING INSTALLED. ROTATION OF THE POPPET UPON VALVE ACTUA TION CAUSED THE O-RING TO BE CUT.

CORRECTIVE ACTION-ALL TEST PROCEDURES HAVE BEEN MODIFIED TO INCLUDE, (1) THE VALVE MUST NOT BE ACTUATED WITH A PRES SURE GREATER THAN 10 PSI ON THE SYSTEM PORT. AN O-RING IS BEING INSTALLED UNDER THE DUST CAP ON THE CALIBRATION PORT TO PREVENT LOSS OF PRESSURE WITH SUBSEQUENT LOSS OF TELEMETERED DATA. ALL VALVES IN THE VENDOR STOCK WILL BE MODIFI ED TO INCLUDE INCREASED CHAMFER ON THE TRANSDUCER PORT.

INSTRUMENTATION-A/B LAND LINE	P2-TCO-04-5001 TRANSDUCER	COMPOSITE-B FACT	5001 660303	ETR12	YES NO		

FAILURE MODE-MEASUREMENT P1128P WAS ERRATIC.

SYSTEM EFFECT-NONE-LOSS OF SINGLE MEASUREMENT ONLY.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							899366

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-TRANSDUCER WAS REPLACED.

INSTRUMENTATION-A/B	GDC/BKF68-007	FLIGHT	7118	PALC2-4	YES		899483
LAND LINE	TRANSDUCER	87-01247-7	660215	-8	NO		

FAILURE MODE-FAIL DURING OPERATION. MEASUREMENT F1386T FAILED DURING THE INITIAL RISE OF THE ENGINE START SEQUENCE.

SYSTEM EFFECT-NONE-LOSS OF THE AFFECTED MEASUREMENT ONLY.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-OPEN-THIS VEHICLE INCORPORATED ECP 3503 IN AN ATTEPT TO CORRECT THIS REPETITIVE FAILURE. A STUDY IS BEING MADE OF CURRENT AND PREVIOUS FAILURE CHARACTERISTICS.

INSTRUMENTATION-A/B	SLV-90-24-4345-F	FAR	71-04	WTR	YES	BOURNS	892073
LAND LINE	TRANSDUCER, LANDLINE	69-01003-13	641229		NO	E0042063O4	

FAILURE MODE-CONTAMINATION. HYSTERESIS INCREASED WITH REPEATED LANDLINE CALIBRATION RUNS. FAILURE WAS ATTRIBUTED TO GROSS CONTAMINATION IN THE BALL SOCKET WHICH WOULD CAUSE STICKY BALL-IN-SOCKET MOVEMENT, RESULTING IN ERRATIC MOVEMENT OF THE WIPERARM OVER THE MANDREL. MEAS F1001P.

CORRECTIVE ACTION-VENDOR IS TAKING ACTION TO PRECLUDE THE POSSIBILITY OF FUTURE CONTAMINATION PROBLEMS.

INSTRUMENTATION-A/B	GD/CBKF64-025L4-701-00-7101	FRF	7101	2-4	YES		899926
LAND LINE	TRANSDUCER - LANDLINE		640618		NO		

FAILURE MODE-STRUCTURAL - DIFFERENTIAL PRESSURE TRANSDUCERS WERE OVER PRESSURIZED AT ENGINE TANKS PRESSURIZATION DUE TO THE WATER HAMMER EFFECT AT THE INITIAL PRESSURE SURGE.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-COMPOSITE DELAYED AND RESCHEDULED. IT WAS DECIDED LATER TO REMOVE THIS INSTRUMENTATION AND CONDUCT THE FRF THE FOLLOWING DAY WITH OUT IT.

CORRECTIVE ACTION-NONE - CONDUCT TEST WITHOUT VERNIER FLOW RATE INSTRUMENTATION.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B LAND LINE	BKF64-011/P2-403-00-263 LANDLINE TRANSDUCER	COUNTDOWN	2630 640415	ETR -2400	YES NO		893166

FAILURE MODE-FAIL DURING OPERATION. AIRBORNE TRANSDUCER WAS FAULTY.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-COUNTDOWN DELAYED. 10 MINUTE HOLD REQUIRED TO REINSTALL SUSTAINER BOOT AFTER TROUBLE SHOOTING THE FA ULTY TRANSDUCER.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B LAND LINE	FAR-LV-9D-24-4216 PRESSURE TRANSDUCER	FAR SS-01107-63	2240 630927	2-3	YES NO	COLVIN 401-6-4-71	893216

FAILURE MODE-STRUCTURAL. THE TRANSDUCER (MEASUREMENT P1001P) FAILED WHEN IT HAD NO VOLTAGE OUTPUT AT ANY APPLIED PR ESSURE FROM 0 TO 40 PSIG. THE FAILURE WAS DUE TO THE WIPER ARM LEAD BEING BROKEN AT THE INTERNAL LUG SOLDER JOINT. L OOSE WINDINGS AND LOW-STRENGTH SOLDER JOINTS WERE ALSO PREVALENT.

CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN BECAUSE VENDOR CORRECTIVE ACTION REQUEST 4815-63 DATED 630815 AND VCAR 4688-63 DATED 630923 WERE RECEIVED FROM THE VENDOR ON SIMILAR FAILURES ADVISING IN HOUSE CORRECTIVE MEASURES ARE BE ING TAKEN.

INSTRUMENTATION-A/B LAND LINE	NS-AS-24-3233-F PRESSURE TRANSDUCER	FAR 7-01783-5	1440 630215	FACTORY	YES NO	BOURNS 73311-0-35-752	891816

FAILURE MODE-CONTAMINATION. TRANSDUCER SHOWED ERRATIC OPERATION AT HIGH END OF PRESSURE RANGE. FAILURE ATTRIBUTED T O A FIBER IMBEDDED IN THE POTENTIOMETER WINDINGS. THIS WAS PROBABLY DUE TO INSUFFECIENT AND/OR IMPROPER CLEANING AFT ER POTTING.

CORRECTIVE ACTION-PROGRAM FOR THE ELIMINATION OF POSSIBLE CONTAMINATION SOURCES IS BEING IMPLEMENTED EFFECTIVE 15 M AR 63.

INSTRUMENTATION-A/B LAND LINE	SF-9B-24-3230 TRANSDUCER, LANDLINE	FAR 7-01783-11	1160 630127	ETR	YES NO	BOURNS 42013-0-30-752	

FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER FOR MEASUREMENT P1001P INDICATED 8.8 PSIA WHEN 0 PSIA WAS EXPECTED. APPAR ENTLY EXCESSIVE PRESSURES WERE APPLIED TO THE TRANSDUCER, CAUSING A STRETCHED BELLOWS AND A HIGH OUTPUT.

CORRECTIVE ACTION-FIELD PERSONNEL WERE INFORMED OF THE APPARENT OVERPRESSURIZATION AND THAT AN INVESTIGATION SHOULD

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BE MADE TO DETERMINE IF THIS IS THE CASE.							891603
INSTRUMENTATION-A/B LAND LINE	AE 62-0421/PB-403-00-F1 TRANSDUCER-LANDLINE	COUNTDOWN	104D 620308	ETR $100	YES NO		894963
FAILURE MODE-ERRATIC OPERATION. ERRATIC PRESSURE INDICATIONS ON THE LANDLINE MEASUREMENT OF THE SUSTAINER LOX REFERENCE REGULATOR PRESSURE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COUNTDOWN DELAYED. EXTENT OF DELAY; 91 MINUTES. CORRECTIVE ACTION-DELETED REDLINE REQUIREMENT. REGULATOR WAS CHANGED DURING INVESTIGATION WHICH SHOWED TRANSDUCER TO BE CAUSE OF PROBLEM.							
INSTRUMENTATION-A/B LAND LINE	AA62-0067/P6-402-00-F1 TRANSDUCER-LANDLINE	COUNTDOWN 7-01723-13	104D 620411	ETR/36 -20	YES CEC NO 4-380AMA-100A		896216
FAILURE MODE-OUT OF SPECIFICATION. LAUNCH ATTEMPT TERMINATED WHEN LOX TANK HELIUM PRESSURE FELL BELOW REDLINE VALUE OF 29.5 PSIG TO 29.3 PSIG. SUBSEQUENT TESTS SHOWED LOX TANK PRESSURE TRANSDUCER WAS 0.8 PSIG BELOW ACTUAL VALUE FAILURE ALSO DOCUMENTED IN REPORT AE62-0421/P6-402-00-F1. SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. READING GIVEN BY TRANSDUCER WAS NOT TRUE VALUE DUE TO CALIBRATION DISCREPANCY. VEHICLE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED. CORRECTIVE ACTION-LOX AND FUEL TANK PRESSURE TRANSDUCERS REPLACED. DIRECT PRESSURE CALIBRATION PROCEDURE INSTITUTED FOR CRITICAL MEASUREMENTS IN LIEU OF USING LAB CALIBRATION CURVES. (FAR SP-98-24-260)							
INSTRUMENTATION-A/B LAND LINE	AE60-0340/P1-401-00-66 COAXIAL CABLE CONNECTOR	COUNTDOWN	66D 600722	ETR-11 -4200	YES NO		898299
FAILURE MODE-ERRATIC OPERATION. WATER IN SUSTAINER RCC ACCELEROMETER CONNECTOR. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B LAND LINE	AE60-0322/P8-402-00-66 HARNESS	COUNTDOWN	86D 630512	ETR-12 -1.32	YES NO		
FAILURE MODE-FAIL DURING OPERATION. MALFUNCTION IN RCC CIRCUITRY.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED. CORRECTIVE ACTION-UNKNOWN.							898298
INSTRUMENTATION-A/B LAND LINE	98-24-036 TRANSDUCER, LANDLINE	FAR T-01649-7	290 600100	ETR	YES NO	ROSEMOUNT 134AN	891642
FAILURE MODE-OUT OF SPECIFICATION. TRANSDUCER FOR MEASUREMENT P1021T WAS REJECTED PRIOR TO INSTALLATION DUE TO CIRC UMFERENTIAL PITTED HOLES ON THE ELEMENT SHIELD APPROXIMATELY ONE INCH FROM THE BOSS THREADS. THE HOLES WERE IN SOLDE R WHICH WAS MELTED, REVEALING AN AREA APPROXIMATELY ONE INCH LONG WHEREIN WAS FOUND A NUMBER 18 GAUGE WIRES WRAPPED TIGHTLY IN A MACHINED CIRCUMFERENTIAL GROOVE APPROXIMATELY 1/8 INCH DEEP. THE HOLES DID NOT AFFECT OPERATION, BUT IS A MANUFACTURING DISCREPANCY. CORRECTIVE ACTION-ALL TRANSDUCERS OF THIS TYPE WILL BE INSPECTED UNDER A MICROSCOPE PRIOR TO ACCEPTANCE TO DETECT T HIS TYPE OF MANUFACTURING DISCREPANCY.							
INSTRUMENTATION-A/B LAND LINE	98-24-030 TRANSDUCER, LANDLINE	FAR T-01720-5	591100	ETR	YES NO	SERVONIC INSTR UMENTS, INC	892079
FAILURE MODE-INTERNAL LEAK. TRANSDUCER FOR MEASUREMENT P1291P INDICATED OSCILLATIONS OF THE OUTPUT AND INTERNAL LEA KAGE. THE OSCILLATIONS WERE CAUSED BY THE INTERNAL LEAKAGE WHICH IN TURN RESULTED FROM AN IMPROPER WELDING AT THE CO NNECTION OF THE BOURDON TUBE AND POTENTIOMETER WIPER ARM. CORRECTIVE ACTION-THE VENDOR IS IMPROVING QUALITY CONTROL PROCEDURES RELATIVE TO IMPROPER WELDING.							
INSTRUMENTATION-A/B LAND LINE	81-414-C7-09 TRANSDUCER-LANDLINE	CAPTIVE	90 590909	81 2.05	YES NO		899654
FAILURE MODE-CONTAMINATION. SUSTAINER LUBE OIL PRESSURE DID NOT INCREASE AT ENGINE START. THIS WAS BELIEVED CAUSED BY A PLUGGED INSTRUMENTATION SENSE LINE. SYSTEM EFFECT-NONE. VEHICLE EFFECT-PREMATURE PROPULSION CUTOFF- OBSERVER CUTOFF WHEN SUSTAINER LUBE OIL PRESSURE DID NOT MEET REDLINE R EQUIREMENT (BELOW LOWER LIMIT). CORRECTIVE ACTION-LUBE OIL SYSTEM WAS PURGED. NO CONTAMINATES WERE FOUND ALTHOUGH BLOCKAGE WAS NOTED PRIOR TO BLOWD OWN.							

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
INSTRUMENTATION-A/B LAND LINE	68-24-027 TRANSDUCER, LANDLINE	FAR 7-01648-7	590800	ETR	YES NO	ROSEMOUNT	692877

FAILURE MODE-FAILED DURING OPERATION. SIX TEMPERATURE TRANSDUCERS MEASURING P1021T FAILED TANKING TESTS FOR DIFFERENT REASONS. TWO DUE TO AN INTERNAL SHORT TO GROUND, ONE HAD NO RESPONSE, TWO HAD OPEN CIRCUITS AND ONE HAD NO CONTINUITY. THE INTERNAL SHORTS WERE CAUSED BY BROKEN AND FRAYED WIRES MAKING CONTACT WITH THE OUTER PROTECTIVE CASE. THE NO-RESPONSE FAILURE COULD NOT BE CONFIRMED. THE OPEN CIRCUITS WERE CAUSED BY WIRES BROKEN DIRECTLY IN LINE WITH THE HOLES IN THE PROTECTIVE SHIELD. THE NO-CONTINUITY FAILURE WAS CAUSED BY BROKEN AND BENT WIRES DIRECTLY IN LINE WITH HOLES IN THE PROTECTIVE SHIELD. THE BROKEN WIRES RESULTED FROM HIGH FLOW RATE CONDITIONS.

CORRECTIVE ACTION-A NEW TRANSDUCER ELEMENT HAS BEEN DESIGNED AND IS IN PRODUCTION. THIS NEW ELEMENT EMPLOYS A CERAMIC COATING OVER THE PLATINUM WIRE ELEMENT TO PREVENT FAILURE FROM THE HIGH FLOW CONDITIONS.

INSTRUMENTATION-A/B LAND LINE	62-412-86-03 LANDLINE TEMPERATURE PROBE	CAPTIVE	2D 590609	82	YES NO		695036

FAILURE MODE-STRUCTURAL. TEMPERATURE PROBE INSTRUMENTING SUSTAINER TURBINE TEMPERATURE CAME OUT OF THE BOSS, THEREBY PERMITTING HOT GAS TO ENTER THE THRUST SECTION.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE. ENGINE COMPARTMENT TEMPERATURE DATA DID NOT INDICATE A TEMPERATURE INCREASE.

CORRECTIVE ACTION-INSTALL NEW PROBE.

INSTRUMENTATION-A/B LAND LINE	68-24-023 TRANSDUCER, LANDLINE	FAR 7-01760-5	2D 590516	SANDIEGO	YES NO	SERVONIC INSTRUMENTS INC	692076

FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. LANDLINE TRANSDUCER F1291P READ 200 PSI LOW AT MAXIMUM INPUT PRESSURE. FAILURE WAS CAUSED BY THE BOURDON TUBE ASSEMBLY SHIFTING FROM THE ZERO PRESSURE REFERENCE POINT. SHIFTING OF THE TUBE ASSEMBLY CAUSED THE POTENTIOMETER WIPER ARM TO BE AT SOME POINT OTHER THAN ZERO WITH NO PRESSURE APPLIED AND OFF THE WINDINGS WITH HIGH PRESSURE APPLIED.

CORRECTIVE ACTION-THE INSTALLATION DRAWING IS BEING CHANGED TO INCLUDE CAREFUL HANDLING PROCEDURES. THE DESIGN IS BEING CHANGED TO ADD AN ADDITIONAL SET SCREW TO HOLD THE BOURDON TUBE ASSEMBLY MORE SECURELY TO THE ZERO PRESSURE REFERENCE POINT.

INSTRUMENTATION-A/B LAND LINE	FTA4328/P1-205-00-09 LANDLINE-TRANSDUCER	COUNTDOWN	9B 581114	ETR-11 -3300	NO NO	

FAILURE MODE-OUT OF SPECIFICATION. TRANSDUCER INDICATED PU VALVE WAS OPEN WHEN IT WAS CLOSED.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. POTENTIOMETER KNOB OF TRANSDUCER TURNED IN ERROR BY OBSERVER. GAVE OPEN PU VALVE INDICATION. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-READJUSTED POTENTIOMETER.							000581
INSTRUMENTATION-A/B LAND LINE	EM-839/106-84-09 866 CHAMBER TEMPERATURE THERMOCOUPLE	CAPTIV	9A	S-1	YES NO		000063
FAILURE MODE-FAIL DURING OPERATION. INSTRUMENTATION THERMOCOUPLE STEMS SHEARED OFF AND ENTERED THE TURBINE HOUSINGS. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-INDIVIDUAL TURBINE INLET TEMPERATURES WERE INSTRUMENTED FOR SUBSEQUENT TESTS.							
INSTRUMENTATION-A/B POWER SOURCE	39C4546 BATTERY R3C AND TLM	UTP-PRT 69-06308-1	660127		YES O 61083	YARDNEY ELEC C	000243
FAILURE MODE-BATTERY FAILED TO MAINTAIN PRESSURE DROPPED FROM 4PSIG TO 0PSIG IN 5 SECONDS. BATTERY COVERS COULD NOT BE ATTACHED CORRECTLY DUE TO INTERFERENCE BETWEEN RUBBER STRIPS ON THE REVERSE SIDE OF THE COVER AND THE CELL VENT TRAPS. CORRECTIVE ACTION-ALL BATTERIES IN LOT RETURNED TO VENDOR FOR REWORK FOLLOW UP ACTION FOR FUTURE DELIVERY IS DOCUMENTED IN CARR 6040 DATED 66/02/28.							
INSTRUMENTATION-A/B POWER SOURCE	SLV-9D-24-5034-F BATTERY	FAR 69-06308-1	650919	WTR	YES NO	WHITTAKER	001071
FAILURE MODE-CONTAMINATION. ONE CELL OF THE MANUALLY ACTIVATED TELEMETRY BATTERY WAS FOUND TO BE LEAKING GASEOUS NITROGEN WHEN PRESSURIZED. LEAKAGE FOUND DUE TO CONTAMINATION OF THE FILL NECK, AND/OR FAULTY ACTIVATOR. CORRECTIVE ACTION-FILL NECK WAS CLEANED AND CONCERNED PERSONNEL WERE ADVISED TO EXERCISE EXTREME CARE TO ASSURE CLEAN FILL NECKS ON SUBSEQUENT VEHICLES.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B POWER SOURCE	MSCAPE213D/P6B-CO-06-0AC6 BATTERY	COMPOSITE-J FACT 69-06309-001	151D 650606	ETR-368 -200	NO NO		897458

FAILURE MODE-OUT OF TOLERANCE. ATLAS TELEMETRY 1 FILAMENT SUPPLY VOLTAGE DROPPED TO 8.4 AFTER TELEMETRY TO INTERNAL . REDLINE IS 8.0 VOLTAGE SUPPLIED BY A GROUND SUPPLY AND NOT AN AIRBORNE BATTERY.

SYSTEM EFFECT-OPERATION TOO LOW.

VEHICLE EFFECT-COMPOSITE DELAYED.

CORRECTIVE ACTION-USED BATTERY. REASON FOR LOW VOLTAGE BEING INVESTIGATED.

INSTRUMENTATION-A/B POWER SOURCE	MSTAPE 007D/P6B-CO-04-0AC6 BATTERY	COMPOSITE-J FACT	151D 650731	ETR-368 120	NO NO		897449

FAILURE MODE-OUT OF TOLERANCE. ATLAS TELEMETRY 1 FILAMENT SUPPLY VOLTAGE WAS 9.9 (LOW) AFTER TELEMETRY WAS TRANSFER RED TO INTERNAL. POWER WAS SUPPLIED FROM A GROUND SUPPLY AND NOT AN AIRBORNE BATTERY.

SYSTEM EFFECT-OPERATION TOO LOW.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-REASON FOR LOW VOLTAGE BEING INVESTIGATED. A BATTERY WAS INSTALLLED DURING A HOLD.

INSTRUMENTATION-A/B POWER SOURCE	MSCAPE192B/P6B-CO-03-0AC6 BATTERY TELEMETRY NO. 2	COMPOSITE-J FACT	151D 650728	368	YES NO		897455

FAILURE MODE-OUT OF TOLERANCE. BATTERY OPEN CIRCUIT VOLTAGE WAS MEASURED AS 29.8 VDC REDLINE VALUE IS 30.0 VDC.

SYSTEM EFFECT-OPERATION TOO LOW.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-REQUESTING REDLINE CHANGE TO 29.0 VOLTS.

INSTRUMENTATION-A/B POWER SOURCE	LV-9B-24-4977-F BATTERY	FAR 27-06358-1	204D 650303	ETR	YES EAGLE-PICHER NO 6AP4067		

FAILURE MODE-LEAK-EXTERNAL. A SMALL AMOUNT OF LIQUID LEAKED FROM THE BATTERY VENT HOSE WHEN THE BATTERY WAS ACTIVAT ED DURING A J-FACT TEST. IT PERFORMED SATISFACTORILY FOR THE TEST. DEFORMATION OF THE SUMP CELLS MAY HAVE BEEN RESPO NSIBLE FOR THE LEAKAGE.

CORRECTIVE ACTION-EAGLE-PICHER ELIMINATED FOAMING THE POTTING IN THE VULNERABLE AREA OF THE SUMP BY CEMENTING LOCKF OAM POTTING 8MINS TO THE EXPOSED SIDES, ENDS, AND BOTTOM OF THE SUMP AND TO THE END OF THE CELL BLOCK ASSEMBLY. THE

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BATTERY WILL BE FREE-FOAM POTTED AND LID WELDED AFTER POTTING.							892878
INSTRUMENTATION-A/B POWER SOURCE	A65-930-2018/P8-L0-03-0AC4 BATTERY	COUNTDOWN 27-06358-1	1460 641211	36A -9300	YES NO		889860
FAILURE MODE-OUT OF SPECIFICATION. BATTERY VOLTAGE OUT OF TOLERANCE (BELOW REDLINE). SYSTEM EFFECT-OPERATION TOO LOW. BATTERY VOLTAGE OUT OF TOLERANCE (BELOW REDLINE). VEHICLE EFFECT-NONE. CORRECTIVE ACTION-BATTERY WAS REPLACED.							
INSTRUMENTATION-A/B POWER SOURCE	69A3125.1 BATTERY	UTP-DUAL/PPT 68-06308-1	640822	60/C	YES NO	POWER SOURCES 200994	891777
FAILURE MODE-STRUCTURAL. PRESSURE TESTING THE SPECIMEN FOLLOWING TEMPERATURE SHOCK TEST INDICATED ONE OR MORE OF TH E CELLS CRACKED. THE BATTERY WAS ACTIVATED AND A PIN TO CASE VOLTAGE READING WAS RECORDED. THIS CONFIRMED FAILURE. CORRECTIVE ACTION-SPECIMEN IR/D TO VENDOR FOR REPLACEMENT. THE CELL CONFIGURATION WAS MODIFIED BY VENDOR TO PASS TH E TEMPERATURE SHOCK TEST. MODIFIED PART REIESTED AND SUCCESSFULLY PASSED. (REF. FRR 391).							
INSTRUMENTATION-A/B POWER SOURCE	LV-88-24-4736F BATTERY	FAR 27-06358-1	2500 640813	ETR	YES NO	EAGLE-PICHER P1756	892751
FAILURE MODE-FAIL DURING OPERATION. BATTERY VOLTAGE DROPPED BELOW THE REDLINE VALUE OF PLUS 26.7 VOLTS DC, 4 HOURS AFTER ACTIVATION. FAILURE WAS CAUSED BY THE BATTERY ACTIVATION CURRENT NOT BEING TURNED OFF AFTER BATTERY ACTIVATION . CORRECTIVE ACTION-RAR LV-88-24-8378 WAS WRITTEN RECOMMENDING THE LAUNCH COMPUTER SYSTEM BE MODIFIED TO REMOVE THE B ATTERY ACTIVATE CURRENT WHEN BATTERY OUTPUT VOLTAGE HAS REACHED NOMINAL VALUE. THIS WILL ELIMINATE THE POSSIBILITY O F THE DROPPING RESISTOR OVERHEATING AND SUBSEQUENT DAMAGE TO THE BATTERY.							
INSTRUMENTATION-A/B POWER SOURCE	69A3125.1 BATTERY	UTP-DUAL/PPT 68-06308-1	640801	60/C	YES NO	POWER SOURCES 200994	
FAILURE MODE-OUT OF TOLERANCE. DURING EXAMINATION OF PRODUCT, SEVERAL OUT-OF-TOLERANCE DIMENSIONS WERE MEASURED. CORRECTIVE ACTION-TESTING CONTINUED. OUT OF TOLERANCE DIMENSIONS NOT CRITICAL. THE SPECIFICATION CONTROL DRAWING WA							

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B CHANGED TO ALLOW FOR TOLERANCES. B.C. AND OPI NOTIFIED ON OTHERS. VIR 69-06308-1-01 AND VIR 69-06308-1-07 ALLOWED FOR WIDER TOLERANCES. (REF. FRR 363).							001709
INSTRUMENTATION-A/B POWER SOURCE	SDA-BKE64-032/PE-401-00-250 BATTERY-SBUIB	COUNTDOWN 87-06359-009	2500 640727	12 -3300	YES NO		000718
FAILURE MODE-SHORT (ELECTRICAL). TELEMETRY BATTERY NO 1 ACTIVATE SBUIB SHORTED, DRAWING EXCESSIVE CURRENT. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. BATTERY OUTPUT VOLTAGE DROPPED TO ZERO AND BATTERY READY LIGHT ILLUMINATED AT T-55 MIN. FAILURE DUE TO SHORTED OUTPUT CONNECTOR CAUSED BY OVERHEATING FROM EXCESSIVE CURRENT THROUGH A SHORTED CURRENT LIMITER AND SHORTED SBUIB. VEHICLE EFFECT-COUNTDOWN DELAYED FOR 70 MINUTES HOLD. CORRECTIVE ACTION-REPLACED BATTERY. COUNTDOWN PROCEDURE REVISED TO REMOVE ACTIVATE SIGNAL AFTER BATTERY ACTIVATE UNTIL JUST PRIOR TO GOING INTERNAL.							
INSTRUMENTATION-A/B POWER SOURCE	FTA0251/P3-4CO-08-187 BATTERY, TELEMETRY	COMPOSITE-J FACT 87-06358-001	1970 630930	13	YES NO		695262
FAILURE MODE-SHORT (ELECT). SHORTING PIN NOT REMOVED FROM ACTIVATION CIRCUIT. SYSTEM EFFECT-OPERATION DOES NOT START. ATTEMPT TO ACTIVATE BATTERY FAILED. BATTERY SUBMERGED IN WATER TO SATISFY SAFETY REQUIREMENTS. VEHICLE EFFECT-COMPOSITE DELAYED. PROBABLE HOLD INFERRED FROM INSUFFICIENT INFORMATION. CORRECTIVE ACTION-BATTERY REPLACED.							
INSTRUMENTATION-A/B POWER SOURCE	A-BD-24-4185-F BATTERY	FAR 87-06161-1	45F 630911	W/R	YES NO	YARDNEY	001308
FAILURE MODE-EXTERNAL LEAK. THE TELEMETRY BATTERY FAILED WHEN NO VOLTAGE OUTPUT COULD BE MEASURED AFTER ACTIVATION. FAILURE WAS CAUSED BY INSUFFICIENT GAS PRESSURE TO INFLATE THE BLADDER AND FORCE THE ELECTROLYTE INTO THE BATTERY CELLS. THE GAS PROBABLY LEAKED OUT OF THE STORAGE TANK THROUGH A DEEP SCRATCH UNDER THE WASHER WHERE THE BLADDER ATTACHES TO THE STORAGE TANK. CORRECTIVE ACTION-NONE. THE VENDOR WAS INFORMED OF THE FAILURE AND ITS SUSPECTED CAUSE.							
INSTRUMENTATION-A/B POWER SOURCE	MG-BB-24-3468-C BATTERY	FAR 87-06348-1	630424	ETR	YES NO	EAGLE-PICHER MAR-4073	
FAILURE MODE-OUT OF TOLERANCE. LIGHTWEIGHT TELEMETRY BATTERY GAVE A VOLTAGE INDICATION OF 34.8 VOLTS WHEN THE MINIMUM ALLOWED IS 34.5 VOLTS. FAILURE ANALYSIS WAS CANCELED SINCE THE BATTERY WILL REMAIN AT ETR FOR TESTING.							

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							888883

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B	A-90-24-3343-F	FAR	83F	WTR	YES	YARDNEY	887980
POWER SOURCE	BATTERY		630310		NO	19XPA3-3B-	

FAILURE MODE-LEAK-BATTERY ELECTROLYTE WAS FOUND IN B-1 POD AND B-1 ENGINE AFTER THE BATTERY HAD BEEN USED. WHEN THE BATTERY WAS OPENED THE CASE WAS FOUND SATURATED WITH ELECTROLYTE. THE BATTERY IS DESIGNED TO PERMIT EXCESS ELECTROLYTE TO LEAK OUT OF THE CASE.

CORRECTIVE ACTION-GDTF ECPS 8481 AND 8481-R-1 WERE ISSUED TO ORIENTATE THE BATTERY TO ELIMINATE THIS PROBLEM.

INSTRUMENTATION-A/B	A-93-24-3202-C	FAR	21F	ETR-11	YES	YARDNEY	885377
POWER SOURCE	BATTERY-89UIB	27-06181-1	621208		NO	2879	

FAILURE MODE-UNIT FAILED DURING OPERATION. UNIT FAILED TO ACTIVATE DURING COUNTDOWN. OPENER MECHANISM 89UIB FIRED WITH INSUFFICIENT FORCE TO CAUSE DIAPHRAGM PUNCTURING.

CORRECTIVE ACTION-UNKNOWN. VENDOR WAS INFORMED OF CAUSE OF FAILURE.

INSTRUMENTATION-A/B	MG-88-24-3168C	FAR	621002	ETR	YES	EAGLE-PICHER	883317
POWER SOURCE	BATTERY	27-06348-1			NO	HAR4073	

FAILURE MODE-OUT OF SPECIFICATION. FAILED TO PASS TESTS.

CORRECTIVE ACTION-NONE-FAILURE ANALYSIS TO BE PERFORMED BY VENDOR.

INSTRUMENTATION-A/B	MG-88-24-3147F	FAR	621002	ETR	NO	EAGLE-PICHER	881384
POWER SOURCE	BATTERY-HEATER	27-06348-1			NO	HAR 4073	

FAILURE MODE-FAIL DURING OPERATION. FAILED WHEN AN OHMMETER CHECK OF THE BATTERY HEATER CIRCUIT DID NOT SHOW CONTINUITY IN THE CIRCUIT. THE FAILURE WAS NOT CONFIRMED. ANALYSIS SHOWED THAT TESTING THE BATTERY HEATER WITH A MULTIMETER IS AN INCONCLUSIVE TEST, AND HAS RESULTED IN THE REJECTION OF 6000 BATTERIES.

CORRECTIVE ACTION-GDC PERSONNEL AT ETR CHANGED PROCEDURE 27-03403-1, PARAGRAPH 5.3, TO PREVENT THIS TYPE OF REJECTION.

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INSTRUMENTATION-A/B POWER SOURCE	A-9B-24-3081-F BATTERY-SQUIB	FAR 27-06190-1	6F 620807	ETR	YES NO	EAGLE-PICHER GAP4046	893647

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE BATTERY SHOWED NO OUTPUT AFTER THE ACTIVATION CIRCUIT HAD BEEN ENERGIZED. ANALYSIS SHOWS THAT 3 POSSIBILITIES COULD EXPLAIN THE FAILURE. 1. AN AGEING PROBLEM. 2. EXTENSIVE TESTIN 4. 3. A COMBINATION OF 1 AND 2 VENDOR ANALYSIS SHOWED AN AGEING PROBLEM. AGGRAVATED BY HIGH TEST CURRENTS EXISTS WIT H THE SQUIB.

CORRECTIVE ACTION-THE VENDOR WILL USE A NEW SQUIB IN WHICH THE MATCH MATERIAL IS HERMETICALLY SEALED TO PREVENT INT ERACTION OF THE MATCH MATERIAL AND THE OTHER SQUIB COMPONENTS.

INSTRUMENTATION-A/B POWER SOURCE	ETR LOCAL REPORT/PE-4CO-04-178 BATTERY	COMPOSITE-8 FACT 27-06359-3	1790 620822	1E	YES NO	EAGLE-PITCHER P1734	895737

FAILURE MODE-LEAK-EXTERNAL FOLLOWING ACTIVATION ELECTROLYTE LEAKAGE WAS NOTED.

SYSTEM EFFECT-DEPLETION OF LIQUID SUPPLY.

VEHICLE EFFECT-COMPOSITE DELAYED.

CORRECTIVE ACTION-REMOVED BATTERY AND REINSTALLED BATTERY SIMULATOR CABLES. (FAR 9B-14-138).

INSTRUMENTATION-A/B POWER SOURCE	A-9D-24-3113F BATTERY	FAR	620807	VAFB-F8	YES NO	YARDNEY 19XPA3-88	893769

FAILURE MODE-LEAK-EXTERNAL-TWO BATTERIES FAILED ON 7 AND 8 AUGUST, 1968, RESPECTIVELY. ELECTROLYTE WAS FOUND ON THE MISSILE AFTER THE BATTERIES HAD BEEN USED AND REMOVED. THE FAILURES WERE CONFIRMED. THE DESIGN OF THE BATTERY IS SU CH THAT IT WILL ALLOW EXCESS ELECTROLYTE TO LEAK OUT OF THE BATTERY CASE.

CORRECTIVE ACTION-OSTF ECP 8481 AND 8481-R-1 WERE ISSUED TO PROVIDE FOR THE RE-ORIENTATION OF THE BATTERY ON THE MI SSILE TO ELIMINATE THE PROBLEM.

INSTRUMENTATION-A/B POWER SOURCE	MG-9B-24-274F BATTERY	FAR 27-06348-1	620300	ETR	NO NO	EAGLE PICHER MAR4073	892471

FAILURE MODE-OUT OF TOLERANCE. IMPROPER HANDLING AND PROCESSING CAUSED FAILURE.

CORRECTIVE ACTION-DESIGN GROUP REQUESTED ON AUGUST 17, 1968 REVISION TO PROCEDURE 27-03493-1 ON BATTERY HANDLING AF TER ACTIVATION AND PRIOR TO LOAD TEST BATTERY HEATERS SHALL BE ACTIVATED FOR A MINIMUM PERIOD OF ONE HOUR.

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INSTRUMENTATION-A/B POWER SOURCE	A-98-24-231F 10 RPS COMMUTATOR-MOTOR	FAR	620403	ETR	YES NO	REED AND REESE 1096485-33	693691

FAILURE MODE-ELECTRICAL SHORT DURING BENCH TEST IN LABORATORY. FAILURE CAUSED COMMUTATOR MOTOR SPEED TO FLUCTUATE. A CONTINUITY CHECK WAS MADE AND IT WAS FOUND THAT A WIRE WAS SHORTED TO THE SHIELD OF THE WIRE. HOWEVER, THE MOTOR M AINTAINED CONSTANT SPEED TO SPEC. REQUIREMENTS. CAUSE OF FAILURE COULD NOT BE CONFIRMED.

CORRECTIVE ACTION-MOTOR REPLACED WITH IMPROVED MOTOR EFFECTIVE DEC 1961.

INSTRUMENTATION-A/B POWER SOURCE	AA62-0050/P6-4CO-06-F1 BATTERY, ATLAS TELEMETRY NO. 1	COMPOSITE-J FACT 27-06358-1	1040 620329	36A	YES NO	YARDNEY P1756	694626

FAILURE MODE-OUT OF EXPECTED TEST VALUE. UPON ACTIVATION THE OPEN CIRCUIT VOLTAGE WAS 31. NORMAL IS 33.5. VOLTAGE D ECREASED TO 30, THE REDLINE, THEN INCREASED TO 30.5 AND STABILIZED. BATTERY DELIVERED 28 VOLTS LOADED, WITHIN THE TO LERANCE WHICH WAS 26 TO 30.

SYSTEM EFFECT-OPERATION TOO LOW.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B POWER SOURCE	A-98-24-237-F BATTERY	FAR 27-06348-1	620306	ANR	YES NO	EAGLE PICHER	693640

FAILURE MODE-OUT OF TOLERANCE. SUBJECT 3 BATTERIES FAILED THAT PORTION OF LOAD TEST WHICH STATES THE VOLTAGE SHALL DECREASE TO 29.7 VOLTS WITHIN 0.5 SEC AFTER APPLICATION OF LOAD AND SHALL BE BETWEEN 28.6 AND 29.7 VOLTS THEREAFTER. FAILURE NOT CONFIRMED.

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B POWER SOURCE	MG-98-24-274-F BATTERY	FAR 27-06348-1	620308	ETR-J	NO NO	EAGLE-PICHER	

FAILURE MODE-OUT OF TOLERANCE. THE BATTERY VOLTAGE DROPPED TO 28.5 VOLTS DURING PRELOAD TEST. SPECIFIED IS 28.6 TO 29.7 VOLTS. THE BATTERY WAS IMPROPERLY LOADED WITHOUT ACTIVATING THE HEATER TO BRING IT UP TO OPERATING TEMPERATURE.

CORRECTIVE ACTION-MISSILE ELECTRICAL DESIGN GROUP (MEMO 62-661-7-78 DATED 17 AUGUST 1962) REQUESTED THAT THE LIGHT WEIGHT TELEMETRY BATTERY HANDLING PROCEDURE (27-05493-1) BE REVISED TO REQUIRE THAT HEATERS BE ACTIVATED FOR A MINI

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NUM OF ONE HOUR PRIOR TO LOAD TEST.							891459
INSTRUMENTATION-A/B POWER SOURCE	A98-24-186-F	FAR 27-06161-1	32E 611110	ETR	YES NO	EAGLE-PICHER	897487
FAILURE MODE-ERRATIC OPERATION OF VOLTAGE OUTPUT WAS REPORTED DURING COUNTDOWN. LABORATORY CHECK SHOWED PIN A, B, C AND D SHORTED TO CASE. LATER ANALYSIS DID NOT CONFIRM FAILURE. BATTERY MAY HAVE BEEN IR/D ON SUSPICION AS ANOTHER BATTERY THAT OPERATES IN CONJUNCTION WITH THIS ONE DID FAIL. CORRECTIVE ACTION-NONE TAKEN. BATTERY DID NOT FAIL.							
INSTRUMENTATION-A/B POWER SOURCE	A-98-24-189F BATTERY-SWITCH	FAR 27-06161-1	32E 611110	ETR	YES NO	EAGLE-PICHER	897486
FAILURE MODE-ELECTRICAL SHORT. OCCURRED WHEN VOLTAGE DROP WAS NOTED DURING COUNTDOWN. A LABORATORY CHECK SHOWED PINS A, B, C AND D SHORTED TO CASE. ANALYSIS CONFIRMED AN INTERNAL SHORT AROUND MONITOR SWITCH WHICH HAD FAILED TO BURN COMPLETELY OPEN AS REQUIRED. CORRECTIVE ACTION-THE VENDOR WAS NOTIFIED OF THE SWITCH PROBLEM AND IS INCORPORATING A SWITCH OF NEW DESIGN IN ALL FUTURE BATTERIES.							
INSTRUMENTATION-A/B POWER SOURCE	AA61-0124/PS-SCO-01-26 TLN BATTERY HARNESS CONNECTOR	COMPOSITE-B FACT	26E 610818	13	YES NO		896226
FAILURE MODE-OUT OF TOLERANCE. HARNESS CONNECTOR FOR TLN 3 BATTERY WAS CLOCKED 180 DEGREES FROM NORMAL POSITION. HARNESS WAS NOT OF SUFFICIENT LENGTH TO ALLOW INSTALLING WITH CONNECTOR BACKSHELL POINTING FORWARD INSTEAD OF AFT. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NECESSARY LENGTH ADDED TO HARNESS TO PERMIT INSTALLATION.							
INSTRUMENTATION-A/B POWER SOURCE	98-24-133 BATTERY	FAR 27-06161-1	610706	ETR-13	YES NO	EAGLE PITCHER	
FAILURE MODE-FAIL DURING OPERATION. FOLLOWING ACTIVATION OF THE BATTERY EXCESSIVE VOLTAGE WAS NOTED. THE FILAMENT AND PLATE CONNECTION PINS WERE REVERSED. THE FAILURE WAS THE RESULT OF A MANUFACTURING DEFECT. CORRECTIVE ACTION-PRESENT INVESTIGATION OF THE PROBLEM ENCOUNTERED ON THE BATTERY INDICATES THAT THIS BATTERY WAS O							

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VER LOOKED DURING IN PLANT SURVEY CONDUCTED BY RECEIVING INSPECTION. AN INSPECTION OPERATION WAS INCORPORATED INTO R							893918
ECEIVING INSPECTION PROCEDURES IN APRIL 1961, TO CHECK OUT BATTERIES FOR CORRECT WIRING.							
INSTRUMENTATION-A/B	AA61-0081/PS-501-00-02	COUNTDOWN	2XE	13	YES		893745
POWER SOURCE	TELEMETRY BATTERY		610706	-4200	NO		
FAILURE MODE-OUT OF TOLERANCE. WHEN TLM 2 BATTERY WAS ACTIVATED, METER READINGS INDICATED THAT THE FILAMENT AND B-P LUS VOLTAGES WERE IMPROPER. SUBSEQUENTLY FOUND THAT THE FILAMENT AND B-PLUS LEADS WERE REVERSED INTERNALLY IN THE BA TTERY CONNECTOR.							
SYSTEM EFFECT-ERRATIC OPERATION.							
VEHICLE EFFECT-COUNTDOWN DELAYED 110 MINUTES.							
CORRECTIVE ACTION-REPLACEMENT BATTERY INSTALLED.							
INSTRUMENTATION-A/B	98-24-111	FAR	13E	ETR	YES YARDNEY		893503
POWER SOURCE	BATTERY	27-06161-1	610313		NO		
FAILURE MODE-FAILED DURING OPERATION. ABOUT 2 HOURS AFTER ACTIVATION, THE OPEN CIRCUIT VOLTAGE ACROSS THE B PLUS SE CTION OF THE ITEM BATTERY DROPPED TO ZERO VOLTS. THE BATTERY FAILED BECAUSE OF ELECTROLYTE LEAKAGE AROUND THE POSITI VE B PLUS TERMINAL.							
CORRECTIVE ACTION-TO PREVENT FUTURE OCCURANCES OF ELECTROLYTE LEAKAGE, ALL TLM BATTERIES BUILT AFTER FEB 1, 1961 BY YARDNEY WILL BE COMPLETELY DIPPED IN POLYURETHANE BEFORE BEING INSTALLED IN THE BATTERY CASES.							
INSTRUMENTATION-A/B	AA61-0032/PS-501-00-13	COUNTDOWN	13E	13	YES		893811
POWER SOURCE	TELEMETRY BATTERY		610310	-2100	NO		
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. RF 2 BATTERY VOLTAGE DROPPED BELOW OPEN CIRCUIT REDLINE VALUE.							
SYSTEM EFFECT-OPERATION TOO LOW.							
VEHICLE EFFECT-COUNTDOWN DELAYED 121 MINUTES.							
CORRECTIVE ACTION-BATTERY REPLACED.							
INSTRUMENTATION-A/B	98-24-076	FAR	66D	ETR	YES YARDNEY		
POWER SOURCE	BATTERY	27-06358-5	600722		NO		
FAILURE MODE-STRUCTUFAL. THE BATTERY WAS REJECTED IN THE LAB WHEN THE FILAMENT VOLTAGE READ 3.4 VOLTS APPROXIMATELY 8 HOURS AFTER ACTIVATION. THE BATTERY HAD BEEN ACTIVATED ON THE MISSILE. THE BOTTOMS OF THE FOUR FILAMENT CELLS WER E WARPED FROM EXCESSIVE HEAT. A HOLE WAS BURNED THROUGH THE SIDE OF TWO OF THE FILAMENT CELLS.							

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							004416
CORRECTIVE ACTION-REDUCED ACTIVATED STAND TIME IMPOSED AND PROCUREMENT REGULATED.							
INSTRUMENTATION-A/B	98-24-077	FAR	66D	ETR	YES	YARDNEY	004417
POWER SOURCE	BATTERY	27-06358-5	600722		NO		
FAILURE MODE-CONTAMINATION. DURING THE COUNTDOWN THE MONITOR CIRCUIT SWITCH FAILED TO OPEN FOR AT LEAST 80 MINUTES AFTER THE BATTERY HAD BEEN ACTIVATED. CAUSE OF THE FAILURE WAS DUE TO THE ELECTROLYTE MANIFOLD BEING CLOGGED WITH A CORK LIKE MATERIAL WHICH CAUSED A BACK PRESSURE THAT HELD THE MONITOR SWITCH CLOSED.							
CORRECTIVE ACTION-REDUCED ACTIVATED STAND TIME IMPOSED AND PROCUREMENT REGULATED.							
INSTRUMENTATION-A/B	AE60-0466/FC-4C0-01-3E	COMPOSITE-FACTORY	32D		NO		009618
POWER SOURCE	WIRING		600611		NO		
FAILURE MODE-FAIL DURING OPERATION. CHANNELS 15 AND E CONTAINED EXCESSIVE NOISE UP TO 10 PERCENT IBW. THE NOISE LEVEL DECREASED TO ACCEPTABLE LIMITS AFTER POWER CHANGEOVER FROM INTERNAL TO EXTERNAL. THE NOISE WAS CAUSED BY AN IMPROPERLY GROUNDED AND SHIELDED BATTERY SIMULATOR CABLE. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST- COMPOSITE TESTING WAS REQUIRED. CORRECTIVE ACTION-BATTERY SIMULATOR CABLE WAS PROPERLY GROUNDED AND SHIELDED. A TEST BATTERY WAS UTILIZED TO VERIFY THAT THE SOURCE OF THE NOISE WAS NOT MISSILEBORNE.							
INSTRUMENTATION-A/B	98-24-044	FAR	42D	ETR	YES	YARDNEY	009016
POWER SOURCE	BATTERY	27-06358-5M	600302		NO		
FAILURE MODE-ELECTRICAL SHORT. THE FILAMENT POWER SECTION OUTPUT VOLTAGE DROPPED TO 2.9 VOLTS, UNDER LOAD WHEN THE BATTERY WAS SWITCHED TO INTERNAL AT T-3 1/2 MIN. ALL FOUR CELLS IN THE FILAMENT VOLTAGE BATTERY SECTION WERE WARPED AT THE BOTTOM. BATTERY FAILURE WAS CAUSED BY A SHORT CIRCUIT IN ONE CELL OF THE FILAMENT SUPPLY SECTION. CORRECTIVE ACTION-INVESTIGATE THE QUALITY CONTROL METHODS AT THE VENDORS PLANT TO PREVENT FUTURE OCCURRENCE OF THIS TYPE OF FAILURE.							
INSTRUMENTATION-A/B	FTA5293/PS-401-0C-2B	COUNTDOWN	28D	1S	YES		
POWER SOURCE	BATTERY		591104	-1500	NO		
FAILURE MODE-OUT OF SPECIFICATION, INDICATING BELOW THE UNLOADED REDLINE VALUE 6.8 V FOR FILAMENT VOLTAGE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-OPERATION TOO LOW. VEHICLE EFFECT-COUNTDOWN DELAYED. 55 MINUTES HOLD AND 60 MINUTES RECYCLE. CORRECTIVE ACTION-REPLACE TELEMETRY BATTERY.							696611
INSTRUMENTATION-A/B POWER SOURCE	FTA6265/P1-401-00-26 BATTERY-TELEMETRY	COUNTDOWN	260 591029	11 -1800	YES NO		697904
FAILURE MODE-ERRATIC OPERATION-TELEMETRY BATTERY WAS EXHIBITING ERRATIC VOLTAGE VARIATIONS. SYSTEM EFFECT-ERRATIC OPERATION-DEGRADATION OF DATA QUALITY. VEHICLE EFFECT-COUNTDOWN DELAYED. 81 MINUTE HOLD AND 15 MINUTE RECYCLE. CORRECTIVE ACTION-REPLACED TELEMETRY BATTERY.							
INSTRUMENTATION-A/B POWER SOURCE	DA95/A1-401-00-19 BATTERY	FRF	190 590906	-A-1	YES NO		698721
FAILURE MODE-FAIL DURING OPERATION. IRSS BATTERY FAILED DURING THE TEST. SYSTEM EFFECT-NONE-EXTERNAL POWER WAS SUPPLIED TO THE TELEMETRY SYSTEM THROUGHOUT THE TEST. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACED BATTERY.							
INSTRUMENTATION-A/B POWER SOURCE	20-24-024 HARNESS INSTRUMENTATION RANGE SAFE TV SYSTEM	FAR 27-11304-1	40 590500	WTR	YES NO		694630
FAILURE MODE-FAIL DURING OPERATION-PIN 8 WAS PRESENT-ITS SLEEVE WAS MISSING. IT APPEARED THAT THE SLEEVE HAD PULLED AWAY FROM THE INTERNAL PIN AND WAS LOST AT SOME PREVIOUS DEMATE OF THE CONNECTOR. TWO MORE SLEEVES WERE PULLED FROM THEIR INTERNAL PINS WHEN THE CONNECTOR PLASTIC INSERTS WERE SEPARATED. CORRECTIVE ACTION-CONVAIR HAS RECOMMENDED TO STL THAT THIS CONNECTOR BE CHANGED TO A MORE RELIABLE TYPE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4969 CHOKE, FILTER	UTP-PRT 69-01015-3	66-04-20	6D/C	YES NO	OECO 10761	
FAILURE MODE-OUT OF TOLERANCE-DURING ELECTRICAL CHARACTERISTICS TEST, FOLLOWING THERMAL SHOCK TEST, THE INDUCTANCE MEASURED TO BE 0.87 HENRIES ON A FREED, MOD. 1110AB INDUCTANCE BRIDGE. THE INDUCTANCE SHOULD BE GREATER THAN 1.0 HENRY. CAUSE WAS DUE TO CHOKE BUILT TO 1 VOLT, 400CPS. SPEC CONTROL DRAWING REQUIRES 1 MYMIN AT 8V, 400CPS.							

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							690309
CORRECTIVE ACTION-ENTIRE LOT WAS TESTED 100% AT 8V, 400CPS. CAR 6136 SENT TO OECO TO COMPLY WITH 1.0 MYMIN AT 8V, 400CPS. SPEC. CONTROL DRAWING REVISED TO ACCEPT 0.88 MY MIN AT 8V 400CPS AFTER EXPOSURE TO ENVIRONMENTAL TESTS. REF. CTCTM NO. 591-4-048							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0793/83-401-00-101 TRANSDUCER	FLIGHT	1010 660822	5768-3 106	YES NO	BOURNS	690297
FAILURE MODE-FAIL DURING OPERATION. THE V2 AND V1 YAW MEASUREMENTS FAILED AT 106 AND 151 SECONDS RESPECTIVELY DUE TO AERODYNAMIC HEATING. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-THE VERNIER CLAMSHELL WAS INCORPORATED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69A5363 PRESSURE TRANSDUCER	UTP-PET 69-01003-35	660821	6D/C	YES NO	BOURNS 2007371704	690162
FAILURE MODE-OUT OF TOLERANCE. DURING X-AXIS VIBRATION, MINUS 4 PERCENT F.S. SPIKES WERE OBSERVED BETWEEN 900-950 CPS VIBRATION FREQUENCY DURING THE INCREASING SWEEP. THIS FAILURE DID NOT REPEAT. MAXIMUM ALLOWABLE IS PLUS OR MINUS 2.5 PERCENT F.S. S/N 605-3752. PET LOT 710-6. CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C5099.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-35	660810	6D/C	YES NO	BOURNS 2007371705	690160
FAILURE MODE-DURING THE FINAL PROOF CYCLE AN OUT-OF-TOLERANCE READING WAS NOTED WHEN THE TRANSDUCER WAS PRESSURIZED AT 900 PSIA DECREASING, THE THEORETICAL READING AT THIS PRESSURE IS 60.00. THE ACTUAL READING WAS 61.39. THE TOLERANCE ALLOWED IS PLUS OR MINUS 1.0 PERCENT, PLUS OR MINUS .25 PERCENT FOR INSTRUMENT ERROR. S/N 604-3717. PET LOT 710-8. CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69A5363 PRESSURE TRANSDUCER	UTP-PET 69-01003-33	660609	GD/C	YES NO	BOURNS 2007371704	690184

FAILURE MODE-AFTER ISPT, THE PRESSURE FITTING THREADS WERE FOUND TO BE GALLED AFTER BACKING THE B NUT OFF THESE THREADS. S/N 605-3748. PET LOT 710-6.

CORRECTIVE ACTION-THE SPECIMEN WAS REJECTED FOR DEFECTIVE PRESSURE PORT THREAD (VENDOR RESPONSIBILITY). CORRECTIVE ACTION NOT COMPLETED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C5062 PRESSURE TRANSDUCER	UTP-PET 69-01004-133	660926	GD/C	YES NO	WIANCKO 100388133	690191

FAILURE MODE-OUT-OF-TOLERANCE. DURING VIBRATION TEST, AT APPROXIMATELY 19 CPS OF THE RETURN SWEEP (2000 TO 5 CPS), THE SPECIMEN OUTPUT CHANGED FROM 2.524 VDC TO 0.397 VDC. S/N 605-0601.

CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C5062 PRESSURE TRANSDUCER	UTP-PET 69-01004-133	660518	GD/C	YES NO	WIANCKO 100388-133	690190

FAILURE MODE-CALIBRATION OUT OF TOLERANCE. THE MAX. ERROR DURING CALIBRATION WAS 1.28 PERCENT FSO AT 3150 AND 3500 PSIA. THE MAX. ALLOWABLE IS PLUS OR MINUS 1.00 PERCENT FSO. THE EQUIPMENT ERROR IS PLUS OR MINUS 0.25 PERCENT FSO. S/N 6040599. PET LOT 710-2.

CORRECTIVE ACTION-CAR 6166 DATED 5-24-66 HAS BEEN ISSUED AND A PFR WILL BE SENT TO WIANCKO REQUESTING FAILURE ANALYSIS, CORRECTIVE ACTION AND REWORK OF THE UNIT. THIS SPECIMEN FAILED IN IAT TESTING, AND IS NOT CONSIDERED A PET FAILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-5070F TRANSDUCE, PRESSURE.	FAR 69-01004-133	71-24 660510	FACTORY		WIANCO 100388-133	

FAILURE MODE-OUT OF SPECIFICATION. EXCESSIVE POSITIVE SHIFT DUE TO EXTREME SENSITIVITY TO TAPPING THE TRANSDUCER WAS REPORTED BUT, UNCONFIRMED.

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CORRECTIVE ACTION-NONE. SINCE THE REPORTED FAILURE WAS UNCONFIRMED.							890428
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4316 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PAT 27-01552-51	660510	6D/C	YES NO	WIANCKO 54103-13	890337
FAILURE MODE-THE OUTPUT WAS OUT OF TOLERANCE DURING THE CALIBRATION PORTION OF ISPT. AT 5.00 PSID THE OUTPUT SHOULD BE 5.000 VOLTS. THE READING OBTAINED WHEN THE PRESSURE WAS INITIALLY APPLIED WAS 4.796. THE OUTPUT GRADUALLY INCREASED TO WITH IN THE REQUIRED 5.000 PLUS OR MINUS 0.030 VOLTS WITH NO PRESSURE CHANGE. S/N 6040444. CORRECTIVE ACTION-THE SPECIMEN WILL BE SUBJECTED TO FAILURE ANALYSIS AT WIANCKO ON 6-9-68. FINAL CLOSE-OUT OF PROBLEM DEPENDENT ON PFR REPLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69A5298 ACCELEROMETER	UTP-PET 7-01413-5	660510	6D/C	YES NO	BORG-WARNER 9747	890315
FAILURE MODE-THE OUTPUT FREQUENCY WAS OUT OF TOLERANCE DURING THE LOW TEMPERATURE TEST AND DURING RUN 2 OF PROOF CYCLE B. PROOF CYCLE C FOLLOWING LOW TEMPERATURE TEST INDICATED ERROR BAND OF PLUS 0.31 PERCENT TO MINUS 0.00 PERCENT. ALLOWABLE IS PLUS OR MINUS 0.15 PERCENT. SYSTEM ERROR IS PLUS OR MINUS 0.15 PERCENT MAXIMUM. SERIAL NUMBER 604-0537. PET LOT 710-2. CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69A5298 ACCELEROMETER	UTP-PET 7-01413-5	660504	6D/C	YES NO	BORG-WARNER 9747	890316
FAILURE MODE-DURING EXAMINATION OF PRODUCT, DIMENSIONAL-OUT-OF-TOLERANCES WERE OBSERVED ON DIMENSIONS A, L, M, N(WIDE), AND N(LONG). SERIAL NUMBER 604-0537. PET LOT 710-2. CORRECTIVE ACTION-TESTING CONTINUED. VENDOR WILL BE NOTIFIED OF DISCREPANCIES AND REQUESTED TO TAKE PROPER CORRECTIVE ACTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4316 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PAT 27-01552-51	660418	6D/C	YES NO	WIANCKO 54103-13	
FAILURE MODE-THE OUTPUT AT 0 PSID WITH INCREASING PRESSURE, RUN 3, HAD AN ERROR OF PLUS 1.30 PERCENT. MAXIMUM ALLOWABLE IS PLUS OR MINUS 1.0 PERCENT FSV. SYSTEM ERROR IS LESS THAN PLUS OR MINUS 0.25 PERCENT FSV. S/N 6030441.							

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							890336
CORRECTIVE ACTION-CORRECTIVE ACTION-NOT COMPLETED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4604 ANG. DISP. TRANSDUCER - SCREW	UTP-PAT 69-01005-5	660418	60/C	YES NO	SERVONI.INST.I NC. 5041-0103	890335
FAILURE MODE - OUT OF TOLERANCE. THE CLAMP LOCK SCREW COULD NOT TIGHTEN THE CLAMP WITH 128 INCH- OUNCES, AT WHICH T ORQUE VALUE THE SCREW BROKE. 48 INCH-OUNCES IS THE MAXIMUM TORQUE ALLOWED. THE SCREW MUST HAVE BEEN DAMAGED DURING H ANDLING AT 60/C, AND DID NOT ENTER THE SECOND SET OF CLAMP THREADS. S/N 3110103.							
CORRECTIVE ACTION - NONE. SINCE THE UNIT PASSED THE CLAMPING TORQUE TEST DURING RECEIVING TESTS, THE SCREW MUST HAV E BEEN DAMAGED DURING HANDLING. CLAMPING TORQUE IS CHECKED ON EACH UNIT DURING RECEIVING IAT; THUS NO FURTHER ACTION IS NEEDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4582 ACCELEROMETER	UTP-PET 7-01413-5	660418	60/C	YES NO	BORG-WARNER 9747	890317
FAILURE MODE-DURING FSPT, THE 20G OVERLOAD TEST CAUSED A 3 TO 4 CPS SHIFT IN OUTPUT FREQUENCY WHICH RESULTED IN OUT OF TOLERANCE CONDITIONS DURING RUN 3. MAXIMUM ERROR WAS MINUS 0.35 PERCENT. ALLOWABLE ERROR IS PLUS OR MINUS 0.15 P ERCENT. SYSTEM ERROR IS PLUS OR MINUS 0.15 PERCENT. SERIAL NUMBER 603-0551. PET LOT 710-1.							
CORRECTIVE ACTION-TESTING WAS COMPLETED AND PART SENT TO 60/C RELIABILITY FAILURE ANALYSIS. WHEN FAILURE ANALYSIS I S COMPLETED THE VENDOR WILL BE NOTIFIED OF NECESSARY CORRECTIVE ACTIONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4582 ACCELEROMETER	UTP-PET 7-01413-5	660415	60/C	YES NO	BORG-WARNER 9747	890316
FAILURE MODE-DURING LOW TEMPERATURE TEST THE VOLTAGE OUTPUT WENT OUT OF TOLERANCE AND THE OUTPUT FREQUENCY SHIFTED. SERIAL NUMBER 603-0551. PET LOT 710-1.							
CORRECTIVE ACTION-TESTING CONTINUED. PRELIMINARY FAILURE ANALYSIS REPORTS INDICATE THE VOLTAGE OUTPUT PROBLEM WAS C AUSED BY HEATER THERMOSTAT FAILING TO CONTROL AT 105 DEGREES F AND ALLOWED TEMPERATURE OF HEATER TO 60 TO 135 DEGREE S F AND HIGHER. THE OUTPUT FREQUENCY SHIFT PROBLEM APPEARS TO BE DUE TO ERRATIC OPERATION OF THERMOSTAT DURING ACCEL ERATION CAUSING TEMPERATURE TO RISE ABOVE 105 DEGREES F. THE FAILURE ANALYSIS IS CONTINUING.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-80-84-30889F TLM CANISTER	FAR 69-11100-849	660414	WTR		SD/C	890429

FAILURE MODE-OUT OF SPECIFICATION. EXCESSIVE NOISE WAS REPORTED ON ALL CHANNELS. DISCREPANCY ATTRIBUTED TO RECORDIN
G EQUIPMENT.

CORRECTIVE ACTION-NONE. SINCE THE FAILURE WAS NOT WITH THIS PART.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-24 CONVERTER-FREQ-DC	FLIGHT	5001 660408	ETR12 98	YES NO	MAA	890415

FAILURE MODE-MEASUREMENT P838 ERRONEOUSLY DISPLAYED A DROP IN PUMP SPEED FOR A 20 SECOND PERIOD.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-OPEN-INVESTIGATION IN PROCESS TO DETERMINE EXACT CAUSE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-24 TRANSDUCER	FLIGHT 701413-9	5001 660408	ETR12	YES NO	BORG-WARNER	890414

FAILURE MODE-MEASUREMENT U101A WAS ERRATIC DISPLAYING TRANSIENTS AT 37 AND 42 SECONDS-BECOMING NOISY AT 88 SECONDS-
DEVIATING LOW FROM 91 SECONDS ON-AND LIMITING AT 3.4 G FOR THE LAST 18 SECONDS OF BOOSTER PHASE.

SYSTEM EFFECT-NONE-LOSS OF THE SINGLE MEASUREMENT ONLY.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-OPEN-INVESTIGATION IN PROCESS TO DETERMINE CAUSE. CONTAMINATION IS SUSPECTED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-24 TRANSDUCER	FLIGHT 7-01664-R3	5001 660408	ETR12 -2	YES NO	

FAILURE MODE-MEASUREMENT A 745T DISPLAYED AN ERRONEOUS DROP IN TEMPERATURE FROM -2 TO 76 SECONDS WHEN IT RETURNED T
O NORMAL OPERATION.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE.

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CORRECTIVE ACTION-THE AXIS OF THE TRANSDUCER WAS ROTATED 90 DEGREES ON SUBSEQUENT INSTALLATIONS SUCH THAT THE SENSI NG ELEMENT WILL POINT AFT THUS AVOIDING WATER CONTAMINATION WHICH WAS THE SUSPECT CAUSE.							690413
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4582 ACCELEROMETER	UTP-PET 7-01413-5	660406	6D/C	YES NO	BORG-WARNER 9747	690319
FAILURE MODE-DIMENSION A WAS OUT OF TOLERANCE ON ALL HOLES BECAUSE OF POOR ALIGNMENT. THE LARGEST HOLE GAGE THAT WO ULD PASS THROUGH ALL HOLES WAS 0.196. THE NEXT LARGEST GAGE USED WAS 0.199. TOLERANCE IS 0.199 TO 0.203. DIMENSION K SHOULD BE 0.47 TO 0.53. IT MEASURED 0.55. DIMENSION N SHOULD BE 4.72 TO 4.78 WIDE AND 5.72 TO 5.76 LONG. IT MEASURE D 4.70 BY 5.71. SERIAL NUMBER 603-0531. PET LOT 710-1. CORRECTIVE ACTION-CONTINUE TEST. VENDOR WAS CONTACTED ON 4-8-66 AND INFORMED OF DIMENSIONAL DISCREPANCIES. VENDOR P ROMISED TO REVIEW HIS SPECS AND MAKE THEM CONFORM TO 6D/C REQUIREMENTS. DIMENSION K WILL BE REVISED BY 6D/C ENGINEER ING TO READ, 0.5 (REF.).							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C5136 PRESSURE TRANSDUCER	UTP-DUAL/PPT 69-01003-19	660406	6D/C	YES NO	SERVONIC INST. INC. 3031-2119	690195
FAILURE MODE-OUT OF TOLERANCE. DURING THE TEMPERATURE TEST AT MINUS 100 DEGREES F., THERE WAS NO OUTPUT FROM THE TE ST SPECIMEN. THE ELEMENT WAS CONTINUOUS, BUT THE OUTPUT WAS OPEN AT ALL TIMES. S/N 410-2211. CORRECTIVE ACTION-VENDOR WORKMANSHIP CAUSED THE FAILURE. SOLDER SPLASHES ON THE WIPER CAUSED THE WIPER TO ACT AS A BIMETAL STRIP, THUS LIFTING OFF THE ELEMENT. FOR FURTHER PRODUCTION, THE VENDOR HAS DIRECTED HIS INSPECTORS TO CHECK THE WIPER ASSEMBLY MORE CAREFULLY, IN ACCORDANCE WITH PPR 8-0500-KC DATED 3-24-66.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4582 ACCELERCMETER	UTP-PET 7-01413-5	660405	6D/C	YES NO	BORG-WARNER 9747	690321
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS SUBJECTED TO VIBRATION TESTS PER CTC TASK HISTORY NUMBER 4. RESONANCE OCCUR RED AT 1000 CPS WHILE VIBRATING IN THE SENSITIVE Z AXIS. OUTPUT FREQUENCY EXCURSION WAS FROM 10,300 TO 12,200 CPS. T HE HEATER POWER CALCULATED IN POST VIBRATION PROOF CYCLE C (PROC. 27F4582, PARA. 4.7.3 SHALL 8.1) IS 38 WATTS. MAXIM UM ALLOWABLE IS 30 WATTS. SERIAL NUMBER 603-0531. PET LOT 710-1. CORRECTIVE ACTION-CONTINUE TESTING. SPEC. 7-01413 WILL BE CHANGED TO ALLOW 30 WATTS MAXIMUM HEATER POWER FOR THE IN ITIAL 2 MINUTES AFTER POWER TURN-ON AND THEN 30 WATTS MAXIMUM AFTER 8 MINUTES. THE CHANGE WILL BE MADE UPON RECEIPT OF VENDOR VIR.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4387.1 TEMPERATURE TRANSDUCER	UTP-PET 7-01664-23	660405	60/C	YES NO	ROSEMOUNT 150FD	000512

FAILURE MODE-A TIME CONSTANT AND TIME RESPONSE TEST WAS PERFORMED ON THE UNIT PER TP 69F4387 PARA. 5.6 SMALL B. SHALL C, AT AN OIL VELOCITY OF 5.8 FEET PER SECOND. THE TIME CONSTANT AND RESPONSE TIME WERE 0.38 SECONDS AND 3.3 SECONDS, RESPECTIVELY. THE REQUIRED VALUES ARE 0.50 SECONDS MAX. AND 5.0 SECONDS, RESPECTIVELY. SERIAL NUMBER 508-0659. SPECIAL PET.

CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C3136 PRESSURE TRANSDUCER	UTP-DUAL/PPT 69-01003-19	660405	60/C	YES NO	SERVONIC INST. INC. 5031-2119	000194

FAILURE MODE-OUT OF TOLERANCE. DURING THE CONTINUITY TEST PERFORMED DURING THE THE I.S.P.T., THE NOISE EXCEEDED 0.5 PERCENT DURING BOTH INCREASING AND DECREASING PRESSURE AT ONE POINT. RECORDED VALUE IS APPROXIMATELY 10 PERCENT, WITH 0.5 PERCENT THE MAXIMUM ALLOWABLE. SUBSEQUENT CHECKS INDICATED THAT THE NOISE IS NOW LESS THAN 0.5 PERCENT. S/N 4102211.

CORRECTIVE ACTION-AN X-Y PLOT IS PART OF THE PRE-INSTALLATION CALIBRATION, THUS ANY DISCREPANCY OF THIS TYPE WOULD BE FOUND DURING THIS CHECKOUT, AND RESULT IN THE REJECTION OF THE PART. NO FURTHER ACTION NEEDED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4582 ACCELEROMETER	UTP-PET 7-01413-5	660404	60/C	YES NO	BORG-WARNER 9747	000323

FAILURE MODE-OUT OF TOLERANCE. DURING SPT (PROCEDURE 27F4582, PARA. 5.2) THE MAXIMUM HEATER DISIPATION REACHED 35.2 WATTS DURING THE FIRST MINUTE OF OPERATION (PARA. 4.7.1.2 SMALL B. 1). MAXIMUM ALLOWABLE IS 30 WATTS. SERIAL NUMBER 401-0328. PET LOT 710-1.

CORRECTIVE ACTION-CONTINUE TESTING. UPON RECEIPT OF VIR FROM THE VENDOR, 60/C WILL REVISE SPEC. 7-01413 TO PERMIT 35 WATTS MAXIMUM FOR THE FIRST 2 MINUTES FROM INITIAL POWER TURN-ON. THE 30 WATTS MAXIMUM REQUIREMENT WILL APPLY AFTER THE INITIAL 2 MINUTES TURN-ON.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-38 TLM CANISTER	FLIGHT	3030 660403	ABRESA-1	YES NO		

FAILURE MODE-MEASUREMENT E508 ERRONEOUSLY EXHIBITED SHORT DURATION NEGITIVE FLUCTUATIONS. PROBLEM THOUGHT TO ORIGIN

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ATE IN CROSSTALK AT THE SUBCARRIER LEVEL. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE PLANNED.							890396
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4582 ACCELEROMETER	UTP-PET 7-01413-8	660331	60/C	YES NO	BORG-WARNER 9747	890322
FAILURE MODE-DURING VIBRATION (PROCEDURE 27F4582, PARA. 8.8) OUT OF TOLERANCE CONDITIONS WERE OBSERVED IN THE X-AXIS, Y-AXIS, AND Z-AXIS SWEEPS. SERIAL NUMBER 601-0328. PET LOT 710-1. CORRECTIVE ACTION-ACCOMPLISH POST VIBRATION PROOF CYCLE. OBTAIN A REPLACEMENT SPECIMEN (603-0331) AND SUBJECT IT TO VIBRATION TESTS. FAILURE ANALYSIS ON S/N 601-0328 TO BE PERFORMED AT VENDOR FACILITY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-37 TRANSDUCER	FLIGHT	7ED 660330	ABRESB-A SECO	YES YES		890397
FAILURE MODE-MEASUREMENT P344P INDICATED AN ABNORMAL TRANSIENT AT SECO AND A DECAY DURING THE VERNIER SCLO PHASE. IT CANNOT BE DETERMINED IF THIS DATA IS ERRONEOUS OR REFLECTS A TRUE CONDITION. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE PLANNED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4608 TEMPERATURE TRANSDUCER	UTP-PAT 27-01247-8	660323	60/C	YES NO	LEWIS ST125088	890192
FAILURE MODE-OUT OF TOLERANCE. PINS A AND B WERE TOO LONG (DIMENSION K TOO SHORT). DIMENSION K LIMITS ARE 0.062 TO 0.093 INCH. DIMENSION K FOR PINS A AND B OF S/N 308-0750 WERE 0.021 AND 0.016 INCH, RESPECTIVELY. DIMENSION K FOR PINS A AND B OF P/N 308-0756 WERE 0.027 AND 0.024 INCH, RESPECTIVELY. CORRECTIVE ACTION-CONTINUE PAT TEST. VENDOR WAS MADE AWARE OF THIS PROBLEM DURING MEETING WITH VENDOR CHIEF ENGINEER ON 1-27-66 AT CONVAIR. A CHECK WAS MADE OF ALL UNITS IN STOCK AT CONVAIR. ALL DISCREPANT PARTS WERE RETURNED TO VENDOR FOR REWORK. VENDOR BEGAN CLOSE INSPECTION OF PIN CONDITION ON UNITS MADE AFTER 1-31-66.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-SB-24-3312 ABSOLUTE PRESSURE TRANSDUCER, NAND REL	FAR 87-01586-38	1840 660321	36B	YES NO	SERVONIC 2091-0909	000469

FAILURE MODE-OUT OF TOLERANCE. UNIT WAS FOUND TO BE READING LOW. A RESISTANCE CHECK OF THE 7500 OHM RESISTANCE ELEMENT SHOWED 4280 OHMS.

CORRECTIVE ACTION-CONFIRMED FAILURE. FAILURE WAS CAUSED BY THE MANDREL HAVING A GROOVE WORN IN IT BY THE WIPER. THIS RESULTED IN A SHORT CIRCUIT BETWEEN WINDINGS. TRANSDUCERS ON BOOSTERS, ESPECIALLY H674P TO BE KEPT UNDER SURVEILLANCE TO DETERMINE IF A CORRELATION EXISTS BETWEEN THE AMOUNT OF TESTING AND TRANSDUCER WEAROUT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4382 ACCELEROMETER	UTP-PET 7-01413-8	660321	60/C	YES NO	BORG-WARNER 8747	000329

FAILURE MODE-OUT OF TOLERANCE. DURING SPT (PROCEDURE 27F4382; PARA. 5.2) THE FIRST TWO CALIBRATION RUNS AGREED WITH EACH OTHER. THE THIRD RUN (AFTER 20G OVERLOAD TEST) SHOWED A FREQUENCY SHIFT OF APPROX. 5 TO 7 CPS LOWER THAN THE FIRST TWO RUNS. AFTER TRANSVERSE ACCELERATION, BOTH PROOF CYCLE C RUNS FOLLOWED THE MEAN OUTPUT FREQUENCY CURVE WI..I N SPEC. SERIAL NUMBER 601-0528. PET LOT 710-1.

CORRECTIVE ACTION-UPON COMPLETION OF TESTS UNIT WILL BE RETURNED TO VENDOR WITH ALL DISCREPANCIES. VENDOR WILL BE ASKED TO REPORT CAUSE OF DISCREPANCIES AND IMPLEMENT CORRECTIVE ACTION. 60/C B. A. STATES THAT BORG WARNER DOES NOT PERFORM THE REQUIRED OVERLOAD TEST BETWEEN SECOND AND THIRD CALIBRATION RUNS AS REQUIRED BY SPEC. 7-01413. 60/C STDS. LAB. FUNCTIONAL TESTS DO NOT INCLUDE A 20G OVERLOAD, AND COMPLIANCE WITH THE LONG-TERM ZERO SHIFT REQUIREMENT IS NOT DETERMINED BY CURRENT PRACTICES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-34 TRANSDUCER	FLIGHT	3040 660319	ABRESA-1	YES NO		000407

FAILURE MODE-MEASUREMENT U95P FAILED TO INDICATE SENSOR PORT UNCOVERING. DATA WAS 20 PERCENT IBW HIGH PRIOR TO LIFT OFF AND WAS OFF SCALE HIGH AT PORT UNCOVERING. MECHANICAL DEFORMATION OF THE TRANSDUCER IS SUSPECT.

SYSTEM EFFECT-NONE-LOSS OF THIS MEASUREMENT ONLY.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-NONE-THIS HAS NOT BEEN A RECURRING PROBLEM. THE LIMITED FUTURE USE OF THIS INSTRUMENTATION DOES NOT WARRENT FURTHER ACTION.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-34 TRANSDUCER	FLIGHT 701413-3	3040 660318	ABRESA-1 56	YES NO	BORG-WARNER	000403
FAILURE MODE-MEASUREMENT U101A DISPLAYED AN ABRUPT DROP OF APPROXIMATELY 16 AND WAS ERRATIC THEREAFTER UNTIL BECO. CONTAMINATION IS SUSPECT. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE. NO ACTION PLANNED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-34 TRANSDUCER	FLIGHT	3040 660318	ABRESA-1	YES NO		000404
FAILURE MODE-MEASUREMENT P59P WAS ERRATIC IN A MANNER TYPICAL OF POTENTIOMETER WIPER ARM LIFTOFF. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE-NO ACTION IS PLANNED UNLESS THE PROBLEM BECOMES REPETITIVE FOR THIS MEASUREMENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4308 ACCELEROMETER	UTP-PET 7-01413-5	660318	60/C	YES NO	BORG-WARNER 9747	000320
FAILURE MODE-OUT OF SPEC. RECALCULATION (8 APRIL 1966) OF MAXIMUM PERCENT ERROR FREQUENCY SHIFT DURING TRANSVERSE ACCELERATION YIELDED 0.75 PERCENT FSO. MAXIMUM ALLOWABLE IS 0.25 PERCENT. SYSTEM ERROR, PLUS OR MINUS 0.15 PERCENT MAXIMUM. SERIAL NUMBER 601-0320. PET LOT 710-1. CORRECTIVE ACTION-CONTINUE TESTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-18 TRANSDUCER	FLIGHT 27-01618-7	7110 660318	PALCE-4	YES NO	NAA	
FAILURE MODE-MEASUREMENT P830D ERRONEOUSLY INDICATED VALVE DRIFT OF 2 DEGREES BETWEEN 60 AND 80 SECONDS AND ERRATIC 5 DEGREE MOVEMENTS BETWEEN 230 AND 250 SECONDS. SYSTEM EFFECT-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-NONE. CORRECTIVE ACTION-ROCKETDYNE ECP MAB-183 PROVIDES A REDESIGNED TRANSDUCER MOUNTING BRACKET AND PU VALVE PROTRACTOR. CORRESPONDING GDC ECPS ARE 3418 AND 3618.							880488
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	374-3-86-18 TRANSDUCER	FLIGHT 87-01247-7	7116 860318	PALCE-4 -2	YES NO		880408
FAILURE MODE-MEASURMENT P132ST FAILED DURING THE INITIAL RISE OF THE ENGINE START SEQUENCE. SYSTEM EFFECT-NONE-LOSS OF THE AFFECTED MEASUREMENT ONLY. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-OPEN-THIS REPETITIVE FAILURE IS UNDER INVESTIGATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-98-24-3311 ABSOLUTE PRESSURE TRANSDUCER, MAND REL	FAR 7-01731-9	1840 860317	368	YES NO	BOURNS 7124-0-35-752	880468
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS FOUND TO BE READING LOW. A RESISTANCE CHECK OF THE 7500 OHM RESISTANCE ELEMENT SHOWED 5100 OHMS. CORRECTIVE ACTION-CONFIRMED FAILURE. A WIPER WEAR PATH ON THE MANDREL CAUSED ADJACENT WINDING TO SHORT CIRCUIT. UNIT HAD BEEN INSTALLED WITHOUT CALIBRATION. CARE SHOULD BE TAKEN WHEN REWORKING UNITS AND MANDREL TO BE MICROSCOPICALLY. ACTION WILL BE TAKEN TO INSURE THAT ONLY CALIBRATED UNITS WILL BE INSTALLED ON BOOSTERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BLV-98-24-3081F CIRCUIT BOARD	FAR 58-13531-9	860317	FACTORY		GD/C	880457
FAILURE MODE-ELECTRICAL SHORT CIRCUIT. DIODE CR-38 WAS FOUND TO HAVE HIGH LEAKAGE IN BOTH FORWARD AND REVERSE DIRECTIONS. CAUSE UNKNOWN. CORRECTIVE ACTION-CAUSE UNDETERMINED. NO ACTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-98-24-3313 ABSOLUTE PRESSURE TRANSDUCER, SEAL ANT	FAR 7-01720-3	1840 860318		YES NO	BOURNS 73511-0-10-752	
FAILURE MODE-ERRATIC OPERATION. DURING FLIGHT ACCEPTANCE COMPOSITE TESTING THE TRANSDUCER EXHIBITED INTERMITTENT OU							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
TPUT. THE HARNESS WAS |STED BUT NO DISCREPANCIES WERE FOUND.							890470
CORRECTIVE ACTION-CONFIRMED FAILURE. THE INTERMITTENT OUTPUT WAS DUE TO THE LOW LEVEL VIBRATION THE TRANSDUCER EXPE RIENCED DURING CHECKOUT. THE VIBRATION CAUSES THE POTENTIOMETER EPOXY TO MIGRATE UNDER THE WIPER. REMAINING 7-01720-3 BOURNS TRANSDUCERS ARE TO BE REMOVED FROM STOCK AND FROM VEHICLES AND ARE TO BE REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-98-24-8058F COMMUTATOR	FAR 27-01656-21	56-01 660311	FACTORY		FIFTH DIMENSIO N MRXD-469	890441
FAILURE MODE-OUT OF SPECIFICATION. SLOW COMMUTATING SPEED OF 15 PERCENT WAS REPORTED. SPECIFICATION ALLOWS 5 RPS PL US 5 MINUS 10 PERCENT. FAILURE WAS CAUSED BY BROKEN COMMUTATOR GEAR MOTOR ARMATURE WINDING.							
CORRECTIVE ACTION-RAR SLV-A9-24-8564 ACTION ASCERTAINED VENDOR HAD INSTITUTED 100 PERCENT INSPECTION OF COMMUTATOR GEAR MOTORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-98-24-5052F TRANSDUCER, HYDRAULIC P	FAR 69-01004-23	5302 660304	ETR		BOURNS 2023203001	890446
FAILURE MODE-LEAK. REPORTED SET NOT CONFIRMED IN FAILURE ANALYSIS.							
CORRECTIVE ACTION-RAR SLV-98-24-6374 WAS ISSUED REQUESTING CASE SEALING REQUIREMENTS DESIGN REVIEWED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	68C5009.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-33	660303	GD/C	YES NO	BOURNS 2007371703	890181
FAILURE MODE-OUT OF TOLERANCE. OUTPUT VOLTAGE SPIKES EXCEEDED THE PLUS OR MINUS 2.5 PERCENT F.S. VOLTAGE DEVIATION REQUIREMENT. S/N 509-3372. PET LOT 710-2.							
CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4569.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 69-01552-51	660302	GD/C	YES NO	WIANCKO 84103-13	
FAILURE MODE-THE INSULATION RESISTANCE WAS 10 MEGOHMS AT ROOM TEMPERATURE AFTER ACCELERATION. THE REQUIREMENT IS 50							

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME / VENDOR PART NO	
MEGOHMS MINIMUM. S/N 511-0388. PET LOT 710-8. CORRECTIVE ACTION-WIANCKO REPORTED THE CAUSE OF FAILURE AS BEING LEAKAGE AT THE FEEDTHROUGH TERMINALS. SOLDER FLUX WAS THE PRIMARY CAUSE. CORRECTIVE ACTION CONSISTS OF CONTROL OF FLUX USAGE DURING SOLDERING AND IMPROVED CLEANING AFTER SOLDERING. CONTROL IS EFFECTED BY INSULATION RESISTANCE CHECKS PERFORMED DURING FABRICATION AND TEST.							000335
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-5051F TRANSDUCER, ABSOLUTE-PRESSURE.	FAR 69-01003-29	660301	FACTORY		SERVONICS 2091-1129	000433
FAILURE MODE-ERRATIC OPERATION-DURING STANDARDS LAB INSPECTION. CAUSE WAS FOUND TO BE FROM CONTAMINATION IN TRANSDUCER OIL. CORRECTIVE ACTION-RAR SLV-99-24-5572 INITIATED VENDOR IMPROVED FILTRATION OF OIL IN PROCEDURE SEB-045.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	69C4569.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01552-51	660225	60/C	YES NO	WIANCKO 54103-13	000334
FAILURE MODE-THE OUTPUT ERROR EXCEEDED THE ALLOWABLE DURING THE MINUS 65 DEGREES TEMPERATURE TEST. S/N 511-0388. PET LOT 710-8. CORRECTIVE ACTION-PROCUREMENT PROBLEM REPORT B-0272-KC HAS REQUESTED THE VENDOR TO DETERMINE THE CAUSE OF DEFICIENCY AND INITIATE ACTION TO PRECLUDE RECURRENCE. FINAL CLOSEOUT IS DEPENDENT ON THE PPR ANSWER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	69C4590.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01552-49	660225	60/C	YES NO	WIANCKO 54103-9	000193
FAILURE MODE-DURING X-AXIS VIBRATION THE OUTPUT SIGNAL WAS OUT OF SPEC. S/N 512-0402 AND S/N 511-0333. PET LOT 710-1, AND 710-2. CORRECTIVE ACTION-SPEC. CONTROL DRAWING 27-01552 REVISION F MODIFIES THE ALLOWABLE ERROR BAND FROM PLUS OR MINUS 2.0 PERCENT TO PLUS OR MINUS 3.0 PERCENT. REF. CIC 28643-963-8-1. THIS ADJUSTMENT ACCOMODATES THE ERROR BAND DISCREPANCY AS REPORTED, 4.0 PERCENT FSO (PEAK TO PEAK), I.E. PLUS OR MINUS 2.0 PERCENT PLUS STATIC ERROR.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4760.1 ANG. DISP. TRANSDUCER	UTP-PET 68-01005-1	660228	GD/C	YES NO	SERVONICINST.I NC. 5041-0101	000153

FAILURE MODE - OUT OF TOLERANCE. AFTER REWORK OF THE CALIBRATION FIXTURE THE NOISE TEST WAS RERUN AT MINUS 30 DEGREES F. AT A 6 DEGREES PER SECOND ANGULAR RATE. THE NOISE WAS 600 MV. THE REQUIREMENT IS 300 MV. MAX. S/N 5120305. PET LOT F10-2.

CORRECTIVE ACTION - THE SPECIFICATION WILL BE CHANGED TO DELETE THE NOISE CHECK AT MINUS 30 DEGREES F (SCN NUMBER 1 ON 27-01446 PER CIC 38135). A PPR WAS INITIATED AND SENT TO THE VENDOR FOR DETERMINATION OF PET IRREGULARITY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A1-4N0-01-303 CONNECTOR	COMPOSITE-FRD/DPL	303D 660224	ABRESA-1	YES NO		000272

FAILURE MODE-ELECTRICAL OPEN. PLUG P-3 ON THE TELEPAK WAS LOOSE.

SYSTEM EFFECT-NONE. SIX MEASUREMENTS INDICATED OPEN.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-THE PLUG WAS RECONNECTED PROPERLY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A1-4N0-01-303 TRANSDUCER	COMPOSITE-FRD/DPL 2Y-01386-039	303D 660224	ABRESA-1	YES NO		000270

FAILURE MODE-OUTPUT OF MEASUREMENT H33P WAS 22 PERCENT ABOVE THE EXPECTED TEST VALUE.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-THE TRANSDUCER WAS REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A1-4N0-01-303 TRANSDUCER	COMPOSITE-FRD/DPL	303D 660224	ABRESA-1	YES NO	BORG-WARNER	

FAILURE MODE-OUTPUT OF MEASUREMENT U19IA WAS ERRATIC.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE TRANSDUCER WAS REPLACED.							890271
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4590.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01552-49	660223	6D/C	YES NO	WIANCKO 54103-9	890310
FAILURE MODE-DURING P. C. AT MINUS 65 DEGREES F., THE OUTPUT EXCEEDED THE ALLOWABLE FOR S/N 511-0353. DURING P. C. AFTER MINUS 65 DEGREES F, THE OUTPUT EXCEEDED THE ALLOWABLE FOR S/N 512-0408. PET LOTS 710-1, AND 710-2.							
CORRECTIVE ACTION-PROCUREMENT PROBLEM REPORT B-0272-KC HAS BEEN SENT TO WIANCKO REQUESTING THAT ACTION BE TAKEN. FI NAL CLOSE-OUT IS DEPENDENT UPON REPLY TO PPR B-0272-KC.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4590.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01552-49	660222	6D/C	YES NO	WIANCKO 54103-9	890333
FAILURE MODE-THE INSULATION RESISTANCE AT 162 DEGREES F. WAS MEASURED AS 42 MEGOHMS. THE REQUIREMENT IS 50 MEGOHMS MINIMUM. SERIAL NUMBER 5110353. PET LOT 710-1.							
CORRECTIVE ACTION-WIANCKO REPORTED THE CAUSE OF FAILURE AS BEING LEAKAGE AT THE FEEDTHROUGH TERMINALS. SOLDER FLUX WAS THE PRIMARY CAUSE. CORRECTIVE ACTION CONSISTS OF CONTROL OF FLUX USAGE DURING SOLDERING AND IMPROVED CLEANING AF TER SOLDERING. CONTROL IS EFFECTED BY INSULATION RESISTANCE CHECKS PERFORMED DURING FABRICATION AND TEST.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4589.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01552-51	660222	6D/C	YES NO	WIANCKO 54103-13	890334
FAILURE MODE-THE DIAMETER OF ONE OF THE MOUNTING HOLES IS 0.229 INCH. THE REQUIREMENT IS 0.195 TO 0.215 INCH. S/N 5 11-0372. PET LOT 710-1.							
CORRECTIVE ACTION-ENGINEERING DESIGN STATES THAT THE INSTALLATION OF THESE TRANSDUCERS WILL NOT BE MEASURABLY AFFEC TED BY THE SLIGHTLY OVERSIZED HOLE. WIANCKO HAS RECTIFIED THE PROBLEM WITH THEIR SUBCONTRACTOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4502 ACCELEROMETER	UTP-PET 7-01413-8	650222	6D/C	YES NO	BORG-WARNER 9747	
FAILURE MODE-FOUR DIMENSIONS WERE OUT OF TOLERANCE. ONE DIMENSION (0.30) SHOULD BE 0.30 MAX ON THE GDC DRAWING. THE OTHER THREE DIMENSIONAL DISCREPANCIES WERE THE RESULT OF POOR VENDOR Q.C. SERIAL NUMBER 601-0328. PET LOT 710-1.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							890324

CORRECTIVE ACTION-GD/C Q.C. WILL SUBMIT A PROCUREMENT PROBLEM REPORT (PPR) TO THE VENDOR REQUESTING PRODUCT IMPROVEMENT. IT WOULD BE DIFFICULT FOR GD/C TO REJECT THESE UNITS FOR MINOR DIMENSIONAL DISCREPANCIES AS THERE IS A CRITICAL PARTS SHORTAGE ON THIS COMPONENT. GD/C ENGINEERING WILL CORRECT THE 0.50 INCH DIMENSION ON A DNR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C5090.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-33	660221	GD/C	YES NO	BOURNS 2007371704	890163

FAILURE MODE-DURING THE FIRST CALIBRATION RUN AT AMBIENT TEMP., (FOLLOWING EXPOSURE TO PLUS 300 DEGREES F.), MAXIMUM ERROR WAS PLUS 1.30 PERCENT F.S. AT 70 PERCENT OF RATED PRESSURE DECREASING. SPEC. LIMITS ARE 1.0 PERCENT F.S. MAXIMUM ERROR FOLLOWING 150 PERCENT PRESSURE APPLICATION WAS 1.17 PERCENT F.S. S/N 602-3658. PET LOT 710-4.

CORRECTIVE ACTION-NONE REQUIRED, SINCE THE DISCREPANCY WAS PROBABLY CAUSED BY MISREADING OF THE PRESSURE GAGE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-35 TRANSDUCER	FLIGHT 701413-5	730 660219	ABRES0-1	YES NO	BORG-WARNER	890367

FAILURE MODE-MEASUREMENT U101A WAS NOISY FOR A 15 SECOND PERIOD PRIOR TO BECO AND SHIFTED DOWN 0.7G FOR A 1 SECOND PERIOD AT 179 SECONDS. SLIGHT CONTAMINATION OF THE TRANSDUCER IS SUSPECT.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-THIS IS A REPETITIVE PROBLEM. THE VENDOR HAS IMPROVED ASSEMBLY AND INSPECTION PROCEDURES. NO OTHER ACTION IS PLANNED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-35 TRANSDUCER	FLIGHT	730 660219	ABRES8-1	YES NO		890369

[redacted] FAILURE MODE-MEASUREMENT P19T FAILED TO PROVIDE VALID DATA AT ANY TIME DURING THE FLIGHT. EXACT FAILED ITEM IS UNKNOWN.

SYSTEM EFFECT-NONE-LOSS OF THIS MEASUREMENT ONLY.

VEHICLE EFFECT-NONE.

[redacted] CORRECTIVE ACTION-NONE PLANNED.

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4566.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01552-55	660218	6D/C	YES NO	WIANCKO 54103-21	690330

FAILURE MODE-DURING THE PROOF CYCLE AT 165 DEGREES F, THE INSULATION RESISTANCE WAS 25 MEGOHMS. THE REQUIREMENT IS 50 MEGOHMS MINIMUM. S/N 511-0378. PET LOT 710-2.

CORRECTIVE ACTION-WIANCKO LETTER WTC-C-2771, DATED 4-26-66, VERIFIED THE FAILURE AND REPORTED THE CAUSE AS BEING LEAKAGE AT THE FEEDTHROUGH TERMINALS. SOLDER FLUX WAS THE PRIMARY CAUSE. CORRECTIVE ACTION CONSISTS OF CONTROL OF FLUX USAGE DURING SOLDERING AND IMPROVED CLEANING AFTER SOLDERING. CONTROL IS EFFECTED BY INSULATION RESISTANCE CHECKS PERFORMED DURING FABRICATION AND TEST.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	6DC/8KF66-007 TRANSDUCER	FLIGHT	7115 660215	FALCE-4 232	NO NO	NAA	690421

FAILURE MODE-FAIL DURING OPERATION. MEASUREMENT P330P DISPLAYED CHARACTERISTICS INDICATIVE OF A FROZEN SENSE LINE.

SYSTEM EFFECT-NONE-LOSS OF THE AFFECTED MEASUREMENT ONLY.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-OPEN-NAA IS ATTEMPTING TO ISOLATE POSSIBLE LOX LEAKAGE AREAS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4569.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01552-51	660215	6D/C	YES NO	WIANCKO 54103-13	690330

FAILURE MODE-THE OUTPUT W/ 8 OUT OF TOLERANCE DURING THE FIRST CALIBRATION RUN. S/N 511-0381. PET LOT 710-1.

CORRECTIVE ACTION-PROCUREMENT PROBLEM REPORT B-0872-RC HAS BEEN SENT TO WIANCKO REQUESTING CORRECTIVE ACTION. FINAL CLOSEOUT IS DEPENDENT ON THE PPR ANSWER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4654.1 PRESSURE TRANSDUCER	UTP-PET 69-01004-123	660215	6D/C	YES NO	BOURNS 2023203003	

FAILURE MODE-OUT OF SPEC. INSULATION RESISTANCE AT 165 DEGREES F (DURING THE 3-HOUR STABILIZATION PERIOD) WAS 6.6 MEGOHMS. SPECIFICATION REQUIREMENT FOR INSULATION RESISTANCE IS 50 MEGOHMS MINIMUM. S/N 512-0141. PET LOT 710-1.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-CAR 6106 HAS BEEN ISSUED AND PPR B-0320-KC HAS BEEN SENT TO THE VENDOR ALONG WITH THE TEST UNIT. THIS PPR REQUESTS THAT THE VENDOR DETERMINE THE CAUSE OF THE DISCREPANCY, INITIATE CORRECTIVE ACTION AND NOTIFY 6D/C .							890189
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	66C4834.1 PRESSURE TRANSDUCER	UTP-PET 69-01004-123	660214	6D/C	YES NO	BOURNS 2023203003	890188
FAILURE MODE-OUT-OF TOLERANCE CONDITIONS OCCURRED DURING THE I.S.P.T. TEST, MINUS 65 DEGREES F. TEMPERATURE TEST, AND THE AFTER MINUS 65 DEGREES F. TEMPERATURE TEST. S/N 512-0141. PET LOT 710-1. CORRECTIVE ACTION-CAR 6106 HAS BEEN INITIATED AND PPR B-0320-KC HAS BEEN SENT TO THE VENDOR ALONG WITH THE TEST UNIT. THIS PPR REQUESTS THAT THE VENDOR DETERMINE THE CAUSE OF DIFFICULTY, INITIATE CORRECTIVE ACTION AND NOTIFY 6D/C.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-15 WIRING	FLIGHT	660 660211	ABRES8-2 JETT	YES NO		890400
FAILURE MODE-MEASUREMENT S2610 ERRONEOUSLY WENT TO ZERO PERCENT ISW DURING THE JETTISON SEQUENCE. WIRING DAMAGE AT VERNIER YAW ACTIVATION IS SUSPECT. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE. DATA AVAILABLE IS NOT SUFFICIENT TO DETERMINE THE CAUSE OF MALFUNCTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	574-3-66-15 TRANSDUCER-WIRING	FLIGHT	660 660211	ABRES8-2 87	YES NO		890401
FAILURE MODE-MEASUREMENT P28P ERRONEOUSLY DROPPED FROM 87 TO 10 PERCENT ISW. WIRING SHORT OR OPEN IS SUSPECT. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE-MALFUNCTIONS OF THIS NATURE HAVE BEEN INFREQUENT AND CORRECTIVE ACTION DOES NOT APPEAR TO BE WARRENTED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69F4588 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01552-55	660211	6D/C	YES NO	WIANCKO 54103-21	690339
FAILURE MODE-TWO OF THE MOUNTING HOLE DIAMETERS EXCEEDED THE REQUIREMENT OF 0.195 TO 0.218 INCH. BOTH WERE 0.219 IN CH. S/N 511-0375. PET LOT 710-2. CORRECTIVE ACTION-WIANCKO HAS RECTIFIED THEIR PROBLEM. REF; WHITTAKER CORP. TWX WTC-B-2092X, DATED 3-3-66.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69F4589 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01552-51	660211	6D/C	YES NO	WIANCKO 54103-13	690332
FAILURE MODE-DIMENSION M (MOUNTING HOLES) IS OUT OF TOLERANCE FOR TWO OF THE FOUR HOLES. BOTH DIMENSIONS WERE MEASURED AS 0.220 INCHES. THE REQUIREMENT IS 0.195 INCH TO 0.218 INCH. SERIAL NUMBER 5110361. PET LOT 710-1. CORRECTIVE ACTION-ENGINEERING DESIGN STATES THAT THE INSTALLATION OF THESE TRANSDUCERS WILL NOT BE MEASURABLY AFFECTED BY THE SLIGHTLY OVERSIZE HOLES. WIANCKO HAS RECTIFIED THE PROBLEM WITH THEIR SUBCONTRACTOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69F4590 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PET 27-01552-49	660211	6D/C	YES NO	WIANCKO 54103-9	690311
FAILURE MODE-TWO OF THE MOUNTING HOLE DIAMETERS EXCEEDED THE REQUIREMENT OF 0.185 INCH TO 0.213 INCH. ONE WAS 0.227 INCH. AND THE OTHER WAS 0.219 INCH. SERIAL NUMBER 511-0353. PET LOT 710-1. CORRECTIVE ACTION-WIANCKO HAS RECTIFIED THEIR PROBLEM. REF., WHITTAKER CORP. TWX WTC-B-2092X, DATED 3-30-66.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	66C4978.1 PRESSURE TRANSDUCER	UTP-PET 68-01003-19	660209	6D/C	YES NO	BOURNS 2004206305	690196
FAILURE MODE-OUT OF TOLERANCE. DURING THE PROOF CYCLE FOLLOWING VIBRATION, ERROR BANDS RELATIVE TO SPECIMEN OPERATIONAL PERFORMANCE EXCEEDED THE SPECIFICATION REQUIREMENT OF PLUS OR MINUS 1.0 PERCENT F.S. A NEGATIVE SHIFT IN THE CALIBRATION DATA WAS APPARENT THROUGHOUT THE RATED RANGE OF THE SPECIMEN. MAXIMUM ERROR WAS MINUS 3.65 PERCENT F.S. S/N 5111762. PET LOT 710-3. CORRECTIVE ACTION-CORRECTIVE ACTION NOT COMPLETED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C5017.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-39	660209	GD/C	YES NO	BOURNS 8007371707	890186

FAILURE MODE-DURING VIBRATION IN THE Y-AXIS, DEVIATIONS FROM THE THEORETICAL OUTPUT EXCEEDED THE SPECIFICATION REQU IREMENT OF PLUS OR MINUS 2.5 PERCENT F.S. MAXIMUM DEVIATION WAS FROM PLUS 5 PERCENT TO MINUS 3 PERCENT F.S., AND OCC URRED AT A VIBRATION FREQUENCY OF 100 CPS. S/N 512-3573. PET LOT 710-6.

CORRECTIVE ACTION-MEMO 963-9-66-26 INFORMS QUALITY ASSURANCE AND UTP INTEGRATION THAT ALL VIBRATION TESTS ARE TO BE PERFORMED IN THE VERTICAL PLANE. TRANSDUCERS ARE ACCEPTABLE FOR PRODUCTION USE. NO FURTHER ACTION REQUIRED BECAUSE THE MOST CRITICAL APPLICATION (RED-LINE) OCCURS PRIOR TO FLIGHT AND EXPOSURE TO VIBRATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4761.1 HELIUM TEMPERATURE TRANSDUCER	UTP-PET 7-01633-5	660207	GD/C	YES NO	LEWIS 568348	890327

FAILURE MODE-MOUNTING SURFACE DIMENSIONS WERE OUT OF TOLERANCE. SERIAL NUMBER 512-0349. THE 30 DEGREES PLUS OR MINU S 15 MINUTES BEVEL ANGLE MEASURED 31 DEGREES 14 MINUTES.

CORRECTIVE ACTION-CONTINUE TEST ON THE SAME SPECIMEN. RETURN TO VENDOR AFTER TEST. VENDOR WAS NOTIFIED AGAIN TO CHE CK ALL SPECIFIED DIMENSIONS DURING THE IAT PER THE CONVAIR APPROVED PROCEDURE (LEWIS PROCEDURE LEIATP-4, 4-10-59). I N A MEETING HELD AT CONVAIR ON 1-27-66, THE VENDORS CHIEF ENGINEER, C. STEGNER, PROMISED TO DO THIS AT ONCE. GD/C WA INSTRUCTED GD/C RECEIVING INSPECTION TO PERFORM MOUNTING DIMENSION EXAMINATION ON EACH PART OF PET LOT 710-11 AT GD /C. DUE TO CONTINUED POOR WORKMANSHIP AND QC BY THE VENDOR, CONVAIR DESIGN, 963-9, IS REMOVING LEWIS AS AN APPROVED SOURCE FOR NEW PROCUREMENT ON ALL 7-01633 AND 7-01684 PARTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4611.1 HELIUM PRESSURE TRANSDUCER	UTP-PAT 7-01633-5	660207	GD/C	YES NO	ROSEMOUNT 1496	890326

FAILURE MODE-MOUNTING SURFACE DIMENSIONS WERE OUT OF TOLERANCE. THE 30 DEGREES PLUS OR MINUS 15 MINUTES BEVEL ANGLE MEASURED 30 DEGREES 38 MINUTES. SERIAL NUMBER 509-0960.

CORRECTIVE ACTION-TESTING IS TO BE HELD AWAITING SPECIMEN. THE DISCREPANT PART IS TO BE RETURNED TO THE VENDOR FOR REWORK OR REPLACEMENT. VENDOR STATES THAT ALL UNITS HAVE BEEN 100 PERCENT INSPECTED FOR MOUNTING SURFACE DIMENSIONS SINCE FEBRUARY 1966. ALL UNITS IN GD/C STOCK WERE CAREFULLY INSPECTED FOR MOUNTING SURFACE DIMENSIONS. ALL THOSE FAI LING EXAMINATION WERE RETURNED TO THE VENDOR FOR REWORK OR REPLACEMENT.

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	66C4618.1 HELIUM PRESSURE TRANSDUCER	UTP-PAT 7-01633-5	660207	6D/C	YES NO	LEWIS 56834B	690383

FAILURE MODE-MOUNTING SURFACE DIMENSIONS WERE OUT OF TOLERANCE. SERIAL NUMBER 311-1432. THE ENTIRE SEALING SURFACE APPEARED AS A CIRCULAR ARC WITH A RADIUS OF APPROXIMATELY 0.1 INCH.

CORRECTIVE ACTION-TESTING TO BE CONTINUED ON ANOTHER SPECIMEN. DISCREPANT PART TO BE RETURNED TO VENDOR FOR REWORK OR REPLACEMENT. THE VENDOR HAS BEEN NOTIFIED TO CHECK ALL SPECIFIED DIMENSIONS DURING IAT. THE VENDOR HAS PROMISED T O JO THIS IMMEDIATELY PER CONVERSATION WITH THE VENDOR CHIEF ENGINEER AT 6D/C ON 1-27-66. ALL UNITS IN 6D/C STOCK WE RE CAREFULLY INSPECTED FOR MOUNTING SURFACE DIMENSIONS. ALL THOSE FAILING EXAMINATION WERE RETURNED TO VENDOR FOR RE WORK OR REPLACEMENT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	596-1-009 TRANSMITTER	COMPOSITE-FRD/DPL	305D 660207	ABRE8A-1	YES NO		690278

FAILURE MODE-TELEMETER FREQUENCY WAS OUT OF SPECIFICATION.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-THE TELEMETRY PACKAGE WAS IRED AND RETURNED TO SAN DIEGO FOR REPAIR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	P8-TSN-02-5001 TRANSDUCER	COMPOSITE-FRD/DPL	3001 660205	ETR12	YES NO		690365

FAILURE MODE-MEASUREMENT H33P DISPLAYED LEVEL VARIATIONS OF UP TO 15 PERCENT. PROBLEM ATTRIBUTED TO WIPER ARM LIFT OFF.

SYSTEM EFFECT-NONE. LOSS OF SINGLE MEASUREMENT ONLY.

VEHICLE EFFECT- NONE.

CORRECTIVE ACTION-TRANSDUCER WAS REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4605.1 ANG. DISP. TRANSDUCER	UTP-PET 69-01005-1	660204	6D/C	YES NO	SERVONICINST.I NC. 3041-0101	

FAILURE MODE - OUT OF TOLERANCE. THE FUNCTIONAL CHECK - OUTPUT NOISE TEST AT MINUS 30 DEGREES F. SHOWED NOISE OF 25 00 MV. THE REQUIREMENT IS 100 MV MAX. DURING THE P. C. CAL. RUN, THE ERROR WAS GREATER THAN THE 3 PERCENT FSVR ALLOW

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ABLE AT MINUS 30 DEGREES F. S/N 512-0388. PET LOT 710-2.							660138
CORRECTIVE ACTION - CAUSE OF THE NOISE IS UNKNOWN. THE OUTPUT ERROR WAS CAUSED BY AN IMPROPER CALIBRATION FIXTURE. THE SPECIFICATION WILL BE CHANGED TO DELETE THE LOW TEMPERATURE NOISE CHECK. A PPR WAS INITIATED AND SENT TO THE VEN DOR FOR DETERMINATION OF THE PET IRREGULARITY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C4983.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-29	660204	6D/C	YES NO	BOURNS 2007371702	660149
FAILURE MODE - OUT OF TOLERANCE. DURING THE MINUS 100 DEGREES F. TEMPERATURE ENVIRONMENT, ERROR BANDS RELATIVE TO S PECIMEN OPERATIONAL PERFORMANCE EXCEEDED THE SPECIFICATION REQUIREMENT OF PLUS OR MINUS 2.5 PERCENT F.S. MAXIMUN ERR OR OF MINUS 6.3 PERCENT F.S. OCCURRED AT 20 PERCENT OF RATED PRESSURE. S/N 601-3643. PET LOT 710-4							
CORRECTIVE ACTION - THE FAILURE WAS CAUSED BY A DAMPING PLATE THAT WAS DAMAGED DURING REWORK AT THE VENDORS PLANT. RECEIVING INSPECTION HAS BEEN NOTIFIED TO SCREEN ALL UNITS IN THIS LOT THAT HAVE BEEN REWORKED BY THE VENDOR. THE VE NDOR HAS NOTIFIED HIS INSPECTORS TO EXERCISE MORE CARE WHEN INSPECTING REWORKED UNITS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-T1-24-3305 POWER SUPPLY, TRANSISTOR	FAR 27-12116-3	2900 660203	FACTORY	YES NO	6D/C	660467
FAILURE MODE-FAIL DURING OPERATION. THE TRANSDUCER POWER SUPPLY INDICATED A VOLTAGE SHIFT FROM 5 TO OVER 6 VOLTS DI RECT CURRENT OUTPUT DURING INTEGRATED BOOSTER TEST AY65-0530-004-13B.							
CORRECTIVE ACTION-FAILURE CONFIRMED. A TRANSISTOR WAS FOUND TO BE OPEN CIRCUITED. THE EXACT CAUSE OF FAILURE COULD NOT BE FOUND AS ONLY THE POWER SUPPLY WAS MADE AVAILABLE FOR ANALYSIS. P/N 55-13540-801; SERIAL NUMBER 124-D. 6D/C A CTION CONSISTED OF ADVISING COMBINED SYSTEMS TEST STAND PERSONNEL OF THE RESULTS OF THIS ANALYSIS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-9D-24-5053F TRANSDUCER,PRESSURE	FAR 69-01003-19	T1-15 660201	WTR		BOURNS 2004206305	660443
FAILURE MODE-FAILURE DURING OPERATION. THE TRANSDUCERS OUTPUT W/S NORMAL BETWEEN ZERO TO 35 PSIA. NO CHANGE IN OUTP UT OCCURRED WHEN PRESSURES ABOVE 35 PSIA WERE APPLIED. THIS PART MEASURES FUEL TANK PRESSURE.							
CORRECTIVE ACTION-RAR SLV-9D-24-8573 WAS SENT TO THE VENDOR ADVISING OF POSSIBILITY OF MANUFACTURING DISCREPANCIES.							

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SYSTEM/ SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4808.1 ANG. DISP. TRANSDUCER	UTP-PET 69-01008-5	660131	60/C	YES NO	SERVONICINST.I NC. 5041-0103	690154

FAILURE MODE - OUT OF TOLERANCE. OIL LEAKED FROM AROUND THE FINE ADJUST SCREW AND FROM THE MIDDLE SCREW (NEAREST TH E FINE FINE ADJUST SCREW OF THE COVER PLATE. POOR WORKMANSHIP AND INSUFFICIENT FINE ADJUSTMENT OF THE O-RING COMPRES SION CAUSED THE LEAK. S/N 511-0877. PET LOT 710-1.

CORRECTIVE ACTION - SERVONIC REPLIED TO PPR B-0319-KC ON 5-10-66 STATING THAT THE ADJUSTMENT CAM O-RING GROOVE DIAM ETER HAS BEEN CHANGED FROM 0.251 PLUS OR MINUS 0.001 INCH TO 0.264 PLUS OR MINUS 0.001 INCH, AND THAT THE O-RING GRO OVE FINISH HAS BEEN CHANGED FROM 64 TO 32.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4780.1 ANG. DISP. TRANSDUCER	UTP-PET 69-01005-1	660131	60/C	YES NO	SERVONICINST.I NC. 5041-0101	690159

FAILURE MODE - OUT OF TOLERANCE. DURING THE MINUS 30 DEGREES F. TEMPERATURE TEST THE ERROR WAS GREATER THAN THE PLU S OR MINUS 3 PERCENT FSVR ALLOWABLE. THE FUNCTIONAL CHECK - OUTPUT NOISE TEST AT MINUS 30 DEGREES F. SHOWED NOISE OF APPROXIMATELY 220 MV. MAXIMUM ALLOWABLE IS 100 MV. S/N 5110303. PET LOT 710-1.

CORRECTIVE ACTION - OUTPUT ERROR WAS CAUSED BY IMPROPER CALIBRATION FIXTURE AND METHODS. THE SPECIFICATION WAS CHAN GED TO DELETE THE LOW TEMPERATURE NOISE CHECK. A PPR WAS INITIATED AND SENT TO THE VENDOR FOR DETERMINATION OF THE P ET IRREGULARITY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C4834.1 PRESSURE TRANSDUCER	UTP-PET 69-01004-123	660126	60/C	YES NO	BOURNS 2023203003	690167

FAILURE MODE-DIMENSION C PER FIGURE 1 OF PROCEDURE 69F4834 MEASURES 1.04 INCH. TOLERANCE IS 0.97 TO 1.03 INCH. MEAS UREMENT ACCURACY IS PLUS OR MINUS .001 INCH. S/N 5110158. PET LOT 710-1.

CORRECTIVE ACTION-TESTING WAS CONTINUED TO COMPLETION. ACCUMULATION OF SOLDER AROUND MOUNTING HOLE INCREASED THICKN ESS DIMENSION OF TRANSDUCER CASE OUTSIDE OF ALLOWABLE LIMITS. VENDOR HAS BEEN INFORMED AND QUALITY CONTROL HAS BEEN ALERTED AT THE VENDORS FACILITY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C4834.1 PRESSURE TRANSDUCER	UTP-PET 69-01004-123	660124	FACTORY	YES NO	BOURNS 2023203003	

FAILURE MODE-OUT OF EXPECTED TEST VALVE. OUTPUT VOLTAGE FROM THE TRANSDUCER FOLLOWING AN 80V, 40MS TRANSIENT VOLTAG

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
E WAS 0.020 VDC. PRIOR TO THE TRANSIENT VOLTAGE APPLICATION, THE OUTPUT VOLTAGE WAS 0.183 VDC, PRESSURE INPUT WAS AP PROXIMATELY 14.7PSIA THROUGHOUT THE TEST. TEST ERROR IN VOLTAGE APPLICATION. CORRECTIVE ACTION-TEST PERSONNEL REINSTRUCTED.							690748
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-9B-24-5034F TRANSDUCER, ABSOLUTE-PRESSURE.	FAR 69-01003-7	5302 660119	ETR		BOURNS 2004206701	690442
FAILURE MODE-FAILURE TO OPERATE AT PRESCRIBED TIME. DURING FUNCTIONAL TESTING NO OUTPUT WAS RECEIVED FROM THE TRANS DUCER. LOSS OF OUTPUT ATTRIBUTED TO PIN HOLE IN BELLOWS. CORRECTIVE ACTION-RAR SLV-9B-24-6575 WAS SENT TO THE VENDOR REQUESTING HIS REVIEW OF TRANSDUCER BELLOWS CLEANING OF CORROSIVE SOLDER FLUX.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4763.1 LOG TEMPERATURE TRANSDUCER	UTP-PET 7-01649-9	660119	6D/C	YES YES	ROSEMOUNT 134AG	690314
FAILURE MODE-DURING VIBRATION A SHORTED OR LOW IMPEDANCE CONDITION WAS NOTED FROM PIN A TO PIN B. AFTER VIBRATION A SHORTED CONDITION WAS FOUND BETWEEN PIN B AND CASE. SERIAL NUMBER 507-0703. CORRECTIVE ACTION-ROSEMOUNT SUBMITTED A VCP TO CHANGE THE CASE PACKING MATERIAL TO FIRM FOAM-TYPE POTTING AS USED O N THE 53-01258 TEMPERATURE TRANSDUCERS. IT WAS APPROVED ON 2-21-68 BY ENGINEERING, VAF 7-01649-9-VCP-004.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4763.1 LOG TEMPERATURE TRANSDUCER	UTP-PET 7-01649-9	660119	6D/C	NO YES	ROSEMOUNT 134AG	690313
FAILURE MODE-THE ELEMENT RESISTANCE FROM PIN A TO B MEASURED 310.00 OHMS AT 29.8 INCHES OF MERCURY PRESSURE. IT SHO ULD HAVE BEEN 499.1 PLUS OR MINUS 1.5 OHMS. SERIAL NUMBER 507-0703. CORRECTIVE ACTION-THE OUT OF TOLERANCE CONDITION COULD NOT BE VERIFIED. VALUES DURING THE REMAINDER OF THE TEST WER E SATISFACTORY. THE CONDITION WAS PRESUMED TO BE A TESTING ERROR.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	60C/A6U63-001-058/FC-CO-01-0058-00 : TELEMETER -COMMUTATOR-	COMPOSITE-FACTORY 87-01636-81	5801 660117	FACTORY	YES NO	FIFTH DIMENSIO N	660514

FAILURE MODE-FAIL DURING OPERATION. THE CHANNEL =13 COMMUTATOR INDICATED 4.17RPS DURING THE TEST. A MINIMUM OF 4.25 RPS IS ALLOWED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4959.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-33	660117	60/C	YES NO	BOURNS 2007371704	660105

FAILURE MODE-DURING VIBRATION IN THE Y AXIS, DEVIATIONS RELATIVE TO SPECIMEN OUTPUT VOLTAGE EXCEEDED THE SPECIFICATION REQUIREMENT OF PLUS OR MINUS 2.5 PERCENT F.S. SINUSOIDAL DEVIATIONS IN EXCESS OF PLUS OR MINUS 4 PERCENT F.S. WERE OBSERVED. STATIC PRESSURE INPUT TO THE SPECIMEN WAS 450 PSIA. MAXIMUM DEVIATION OCCURRED AT APPROXIMATELY 100 CPS VIBRATION FREQUENCY. S/N 310-3431. PET LOT 710-3.

CORRECTIVE ACTION-MEMO 983-9-36-26 INFORMS QUALITY ASSURANCE AND UTP INTEGRATION THAT ALL VIBRATION TESTS ARE TO BE PERFORMED IN THE VERTICAL PLANE. TRANSDUCERS ARE ACCEPTABLE FOR PRODUCTION USE. NO FURTHER ACTION REQUIRED BECAUSE THE MOST CRITICAL APPLICATION (RED-LINE) OCCURS PRIOR TO FLIGHT AND EXPOSURE TO VIBRATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4761.1 HELIUM TEMPERATURE TRANSDUCER	UTP-PET 7-01633-5	660112	60/C	YES NO	LEWIS 568348	660329

FAILURE MODE-MOUNTING SURFACE DIMENSIONS WERE OUT OF TOLERANCE. SERIAL NUMBER 310-0344 (485L).

CORRECTIVE ACTION-OBTAIN A NEW TEST SPECIMEN. VENDOR HAS BEEN NOTIFIED TO CHECK ALL SPECIFIED DIMENSIONS ON EACH PART DURING THE IAT (LEWIS PROCEDURE LEIATP-4, 4-10-89). 60/C HA INSTRUCTED 60/C RECEIVING INSTRUCTION TO PERFORM MOUNTING DIMENSION EXAMINATION ON EACH PART OF PET LOT 710-11 AT 60/C. DUE TO CONTINUED POOR WORKMANSHIP AND QC BY THE VENDOR, CONVAIR DESIGN, 983-9, IS REMOVING LEWIS AS AN APPROVED SOURCE FOR NEW PROCUREMENT ON ALL 7-01633 AND 7-01684 PARTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-SD-24-5056F TELEMETER CANISTER	FAR 69-11100-947	660110	WTR		BENDIX 69-11100-947

FAILURE MODE-OUT OF TOLERANCE. TELEMETER DISPLAYED 18 PERCENT NOISE ON ALL CHANNELS. MAXIMUM OF 8 PERCENT IS ALLOWED.

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							690436
CORRECTIVE ACTION-RAR SLV-GD-24-8577 REQUESTING GD/C SURVEY AND RECYCLE ALL TELEMETERS NOT INCLUDED IN ECP 3484.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C4854.1 PRESSURE TRANSDUCER	UTP-PET 69-01004-123	660107	FACTORY	YES NO	BOURNS 2023203003	690750
FAILURE MODE-FAIL TO OPERATE AT THE PRESCRIBED TIME. THE TRANSDUCER WAS NON-OPERATIVE FOLLOWING THE REVERSE EXCITAT ION SUSCEPTABILITY TEST.							
CORRECTIVE ACTION-ECP 3643 INITIATED WHICH GIVES REVERSE VOLTAGE PROTECTION ON -223.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4587.1 TEMPERATURE TRANSDUCER	UTP-PET 7-01584-23	660103	FACTORY	YES NO	ROSEMOUNT 150FD	690740
FAILURE MODE-OUT OF TOLERANCE. TWO UNITS SHOWED OUT OF TOLERANCE RESPONSES AS FOLLOWS. TIME CONSTANT 1.4 AND 1.6 SE C WHERE 0.5 SEC ALLOWED. RESPONSE TIME 3.6 AND 3.8 SEC WHERE 3.0 SEC ALLOWED. FAILURE CONFIRMED; CAUSE NOT DETERMINE D.							
CORRECTIVE ACTION-THE VENDORWAS NOTIFIED AND THE SPECIFICATION WAS CHANGED TO ALLOW A MORE REALISTIC TIME CONSTANT. UNITS PASS NEW SPECIFICATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C4854.1 PRESSURE TRANSDUCER	UTP-PET 69-01004-123	660103	FACTORY	YES NO	BOURNS 2023203003	690746
FAILURE MODE-FAIL TO OPERATEAT PRESCRIBED TIME. FOLLOWING THE TRANSIENT VOLTAGE TEST. NO OUTPUT WAS OBTAINED FROM T HE TEST SPECIMEN. OUTPUT VOLTAGE WAL ERRATIC IMMEDIATELY FOLLOWING THE REVERSE EXCITATION SUSCEPTABILITY TEST. HOWEV ER IT STABILIZEDAFTER ABOUT 1 MINUTE. THE REVERSE EXCITATION TEST PRECEDED THE TRANSIENT VOLTAGE TEST. FAILURE DUE T O REVERSE VOLTAGE.							
CORRECTIVE ACTION-ECP 3643 ADDS REVERSE VOLTAGE PROTECTION TO -223.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	60C/3KF85-070/401-00-85 TRANSMITTER	FLIGHT 27-14480-5	650 651220	9-2 180	YES NO	BENDIX	
FAILURE MODE-OUT OF SPECIFICATION. COMMUTATED WAVEFORMS BEGAN TO SHOW SIGNS OF LOW SIGNAL STRENGTH AT APPROXIMATELY							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
100 SECONDS. PROBLEM CAUSED BY COMBINED EFFECTS OF POOR ANTENNA LOOK ANGLE AND LESS THAN NORMAL TRANSMITTER POWER.							000909
SYSTEM EFFECT-OPERATION TOO LOW. AS RESULT OF LOW SIGNAL STRENGTH, DATA WAS VERY NOISY AFTER 210 SECONDS AND WAS US ABLE ONLY FOR BRIEF PERIODS AFTER THIS TIME. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE. PROBLEM CONSIDERED TO BE AN ISOLATED CASE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-5065-P TELEPAK CANISTER	FAR 69-11100-849	651220	FACTORY	YES NO		000944
FAILURE MODE-STRUCTURAL. UNIT REPORTEDLY FAILED BY INDICATING THAT THE 100-PERCENT CALIBRATION PULSES ON ALL COMMUT ATED CHANNELS WERE IN EXCESS OF 120 PERCENT OF THE INFORMATION BANDWIDTH. THE CAUSE OF FAILURE WAS A BROKEN SILICON BAR OF RESISTOR R-1 IN THE 55-13540-817 POWER SUPPLY BEING PRE-TORQUED. CORRECTIVE ACTION-FAILURE WAS CONFIRMED. GD/C PERSONNEL ALERTED REGARDING POSSIBLE LOOSE MOUNTING OF THE POWER SUPP LY. REF. RAR SLV-A9-24-0565. RAR SLV-A9-24-0566 SENT TO TELEMETRY DESIGN CONCERNING THE USE IN THE 55-13540-817 POWE R SUPPLY OF A COMPONENT NOT MEETING THE TELEMETER VIBRATION SPECIFICATIONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4879.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-39	651209	GD/C	YES BOURNS NO 2007371707		992319
FAILURE MODE-OUT OF SPECIFICATION. DURING VIBRATION ON THE Y-AXIS, ERROR BANDS RELATIVE TO SPECIMEN, OUTPUT VOLTAGE RATIO EXCEEDED SPECIFICATION REQUIREMENTS. MAXIMUM ERRORS OBSERVED AT 100 CPS WERE PLUS 3.2 PERCENT AND MINUS 3.0 P ERCENT FULL SCALE SINUSOIDAL OUTPUT. THE SPECIFICATION REQUIREMENT IS PLUS OR MINUS 2.5 PERCENT FULL SCALE, MAXIMUM. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4935.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-13	651209	GD/C	YES BOURNS NO 2004206304		
FAILURE MODE-CONTAMINATION. AFTER STABILIZATION AT -100 DEG F, THE OUTPUT VOLTAGE RATIO DROPPED TO 0.79 PERCENT WIT H AN INLET PRESSURE OF 25 PERCENT. SUBSEQUENT OPERATION AT ROOM TEMPERATURE WAS NORMAL. CUTTING OIL ON THE ELEMENT, INTRODUCED DURING REWORK AT VENDORS PLANT, FORMED AND INSULATING FILM. S/N 511-4788. PET LOT 710-4.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-VENDOR HAS ESTABLISHED SPECIAL CLEANING FOR REWORKED UNITS.							891115
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-3048F TRANSDUCER, ACCELEROMETER	FAR 27-01922-7	71-20 651208	FACTORY		KISTLER 303M47	890445
FAILURE MODE-OUT OF SPECIFICATION. DUE TO TEMPERATURE SENSITIVITY. UNIT MEASURES ACCELERATION. CORRECTIVE ACTION-INFORMATIVE TYPE RAR SLV-A9-24-6568 WAS FORWARDED TO THE VENDOR ADVISING OF THE FAILURE SYMPTONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4593 PRESSURE TRANSDUCER	UTP-PET 69-01003-19	651124	GD/C	YES NO	SERVONIC 3031-2119	891120
FAILURE MODE-OUT OF SPECIFICATION. TWO UNITS WERE REJECTED DURING Z-AXIS VIBRATION TESTING WHEN THE MAXIMUM PEAK TO PEAK SINUSOIDAL OUTPUT VOLTAGE ERRORS WERE 7 PERCENT AND 10 PERCENT RESPECTIVELY. SPECIFICATION LIMITS ARE PLUS OR MINUS 2.1 PERCENT FULL SCALE. THE FAILURES WERE CAUSED BY IMPROPERLY ADJUSTED COUNTER BALANCES. CORRECTIVE ACTION-THESE TWO UNITS WILL BE RETURNED TO THE VENDOR FOR REWORK TO SPECIFICATIONS. ALL SERVONIC 69-0100 3-7, -13, -19, AND -21 UNITS ARE TO BE RETURNED TO THE VENDOR VIA SURVEY 31-65 REVISION A. EACH UNIT WILL BE VIBRATE D TO PROVE COMPLIANCE WITH SPECIFICATIONS. THE UNITS THAT DO NOT COMPLY WITH SPECIFICATIONS WILL BE REWORKED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4593 PRESSURE TRANSDUCER	UTP-PET 69-01003-19	651128	GDC	YES NO	SERVONIC 3031-2119	891127
FAILURE MODE-ERRATIC OPERATION. TWO UNITS WERE REJECTED WHEN THE MAXIMUM OUTPUT VOLTAGE SPIKES WERE MINUS 5 PERCENT FULL SCALE AT 68 CPS AND MINUS 3.8 PERCENT FULL SCALE AT 34 CPS RESPECTIVELY, DURING THE X-AXIS VIBRATION SWEEP. SP ECIFICATION LIMITS ARE PLUS OR MINUS 2.5 PERCENT FULL SCALE. CORRECTIVE ACTION-ALTHOUGH THE REPORTED FAILURE WAS NOT CONFIRMED, THE LOT, LOG NUMBER 655-0-16, WAS REJECTED BECAU SE OF FAILURES REPORTED IN LOG NUMBERS 655-0-17, 18, AND 20.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4598.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-35	651188	FACTORY	YES NO	BOURNS 8007371703	
FAILURE MODE-OUT OF SPECIFICATION. THE THICKNESS OF THE TRANSDUCER WAS 1.188 INCHES, SPECIFIED AS 1.12 PLUS OR MINU S 0.03 INCHES.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							699737

CORRECTIVE ACTION-VENDOR WILL BEGIN 100 PERCENT CHECK OF CASES AND WILL REVISE DRAWING TO DECREASE MAXIMUM ALLOWABL E THICKNESS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4930.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-31	651116	60/C	YES NO	BOURNS 2007371703	692345

FAILURE MODE-OUT OF SPECIFICATION. WHILE VIBRATING IN THE X-AXIS, SPIKES OF -4.0 PERCENT WERE MOMENTARILY NOTED AT 723 CPS. THIS PHENOMENON DID NOT REPEAT DURING A SECOND SWEEP FROM 600 -1100 CPS AND BACK. ALSO FAILURE WAS NOT CON? IRMED BY VENDOR.

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-98-24-3046-P ABSOLUTE PRESSURE TRANSDUCER	FAR 69-01003-39	3001 651111	ETR	YES NO	BERVONIC 2091-1139	699836

FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED WHEN IT WAS FOUND TO BE NON-LINEAR. WHEN 500 PSIA WAS APPLIED, THE TRANSDUCER OUTPUT INDICATED 730 PSIA AND WITH 3000 PSIA APPLIED, THE TRANSDUCER OUTPUT INDICATED 8400 PSIA. FAILURE ATTRIBUTED TO EXCESSIVE USE AND HIGH WIPER TENS.ON.

CORRECTIVE ACTION-FAILURE CONFIRMED. VENDOR TO INSURE WIPER TENSION IS CORRECT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4586.1 TEMPERATURE TRANSDUCER	UTP-PET 7-01649-11	651110	FACTORY	YES NO	ROSEMOUNT 134AC	699744

FAILURE MODE-OUT OF SPECIFICATION. THE MOUNTING SURFACE DIMENSION FOR THE O-RING SEAL WAS OUT OF TOLERANCE BY PLUS 0.001 INCH. THE FAILURE WAS THE RESULT OF ONLY 80 PERCENT INSPECTION BY VENDOR.

CORRECTIVE ACTION-60/C REVISED VENDOR IAT TO CHECK ALL SPECIFIED DIMENSIONS ON EACH P/NT. 60/C RECEIVING INSPECTION WAS INSTRUCTED TO PERFORM 100 PERCENT MOUNTING DIMENSION EXAMINATION ON EACH PART OF PET LOT 710-2.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-5050 TRANSDUCER, TEMPERATURE.	FAR 7-01684-7	651108	FACTORY		ROSEMOUNT ENG. 152F	690434
FAILURE MODE-ELECTRICAL OPEN CIRCUIT. DUE TO BROKEN SENSOR WIRE PROBABLY DUE TO MISHANDLING. CORRECTIVE ACTION-RAR SLV-99-24-6571 REQUESTING IMPROVED HANDLING PROCEDURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4592.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-13	651103	GD/C	YES NO	BOURNS 2004206304	691116
FAILURE MODE-OUT OF SPECIFICATION. DURING THE CALIBRATION FOR FINAL SATISFACTORY PERFORMANCE TEST, THE MAXIMUM ERRO R WAS +1.34 PERCENT. ALLOWED IS + OR - 1.0 PERCENT AND SYSTEM ACCURACY IS + OR - 0.21 PERCENT. CAUSE OF THE DISCREPA NCY IS UNKNOWN. S/N 308-1591, PET LOT 710-3. CORRECTIVE ACTION-VENDOR WILL VIBRATE EACH UNIT IN THIS LOT /710-2 AND -3/ AND REWORK ALL UNITS THAT DO NOT PASS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4597 PRESSURE TRANSDUCER	UTP-PET 69-01003-33	651102	GDC	YES NO	BOURNS 2007371704	691131
FAILURE MODE-ERRATIC OPERATION. DURING VIBRATION IN THE X-AXIS, VOLTAGE SPIKES EXCEEDED MINUS 4 PERCENT OF FULL SCA LE OUTPUT. SPECIFICATION LIMITS ARE PLUS OR MINUS 2.5 PERCENT OF FULL SCALE OUTPUT. THE CAUSE OF THE DISCREPANCY IS UNKNOWN. CORRECTIVE ACTION-SPECIFICATION 27-01445-7 WAS CLARIFIED PER CIC 33977. RERUN THE VIBRATION TEST USING A CAPACITOR PER CIC 33977.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4592.2 PRESSURE TRANSDUCER	UTP-PET 69-01003-13	651101	GD/C	YES NO	BOURNS 2004206304	691117
FAILURE MODE-OUT OF SPECIFICATION. DURING VIBRATION ON THE Z-AXIS, VOLTAGE SPIKES EXCEEDED -5 PERCENT F.S.O. SPECIF ICATION LIMITS ARE + OR -2.5 PERCENT F.S.O. THE CAUSE WAS IMPROPERLY ADJUSTED BEARINGS. S/N 307-3253, PET LOT 710-2							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI GTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4737.1 TEMPERATURE TRANSDUCER	UTP-PET 87-01847-5	651101	GD/C	YES NO	LEWIS ENGR. CO 87123088	691032
FAILURE MODE-LEAK-EXTERNAL. DURING PET INITIAL SATISFACTORY PERFORMANCE TEST WITH PROBE OF SPECIMEN AT 910 DEGREES F AND HEAD OF SPECIMEN AT 870 DEGREES F, WHILE IN A 1,000 PSI CHAMBER, A LEAK OCCURRED THROUGH CERAMIC BONDING AROUND PINS - CAUSED BY PRESSURE SEALING MATERIAL /PYRO CERAM/ MELTED AND ALLOWED PRESSURIZED GAS TO LEAK THROUGH PROBE HEAD.							
CORRECTIVE ACTION-PET PROCEDURE WAS NOT CLEAR REGARDING HEAD TEMPERATURE LIMITATION /AIR COOLING/ PET TEST PROCEDURE WAS REVISED TO CLARIFY TEST METHOD OF HIGH TEMPERATURE/HIGH PRESSURE TEST TO KEEP HEAD TEMPERATURE AT OR BELOW 600 DEGREES F. CTCTH LOG NO 655-0-010.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	83C4598 PRESSURE TRANSDUCER	UTP-PET 89-01003-13	651027	GD/C	NO NO	BOURNS 2004206304	691110
FAILURE MODE-OUT OF SPECIFICATION. AT - 100 DEGREES F, OUTPUT ERROR WAS -2.24 PERCENT. ALLOWED IS PLUS OR MINUS 2.0 PERCENT. SYSTEM ACCURACY WAS PLUS OR MINUS 0.83 PERCENT. FAILURE WAS NOT CONFIRMED DURING REPEAT TEST. CAUSE IS TEST EQUIPMENT ERROR. S/N 507-3253. PET LOT 710-2.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	39C4593.1 PRESSURE TRANSDUCER	UTP-PET 89-01003-19	651026	GDC	NO NO	BOURNS 2004206303	691129
FAILURE MODE-OUT OF SPECIFICATION. DURING THE PROOF CYCLE AFTER MINUS 100 DEGREES F, WITH AN INPUT PRESSURE OF 97 PERCENT THE OUTPUT PRESSURE WAS 93.83 PERCENT AND 93.82 PERCENT DURING THE TWO RUNS WITH INCREASING PRESSURE. THE REQUIREMENT IS 97 PLUS OR MINUS 1.0 PERCENT. THE DISCREPANCY WAS CAUSED BY OUT GASSING OF INTERNAL PARTS WHICH CAUSED A CHANGE IN REFERENCE PRESSURE. SINCE THIS PART ACTUALLY MEETS THE LONG TERM STABILITY REQUIREMENTS, THE TEST DISCREPANCY IS NOT A FAILURE.							
CORRECTIVE ACTION-AS OF SEPTEMBER 1968 THE VENDOR HAS STARTED SUBJECTING ALL CAPSULE TYPE TRANSDUCERS TO A VACUUM BAKE BEFORE SEALING.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-A9-24-5048F TLM CANISTER-COMMUTATOR	FAR 69-11100-849	71-18 681026	FACTORY		60/C	690444
FAILURE MODE-OUT OF SPECIFICATION. COMMUTATOR SPEED VARIED ABOVE THE ALLOWABLE 10 PERCENT. CORRECTIVE ACTION-RAR SLV-A9-24-0569 WA ISSUED TO THE COMMUTATOR VENDOR REQUESTING IMPROVED QUALITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	69C4830.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-51	651021	60/C	NO NO	BOURNS 2007371703	692346
FAILURE MODE-OUT OF SPECIFICATION. OVERALL WIDTH OF TRANSDUCER IS 1.520 INCHES. SPECIFIED IS 1.540 PLUS OR MINUS 0.013 INCHES. CORRECTIVE ACTION-DRAWING 69-01003 WAS CHANGED BY REV. H TO SPECIFY 1.54 PLUS OR MINUS 0.03 INCHES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	83C4734 PRESSURE TRANSDUCER	UTP-PET 69-01003-53	651021	60/C	YES NO	SERVONIC 2091-1139	692309
FAILURE MODE-OUT OF SPECIFICATION. THREE UNITS WERE REJECTED WHEN THEY HAD OUT OF TOLERANCE SPIKING DURING VIBRATION TESTING. THE SPECIFIED VIBRATION ERROR BAND IS PLUS OR MINUS 2.5 PERCENT. THE SPIKING WAS PROBABLY CAUSED BY OIL CONTAMINATION, LOW WIPER TENSION, OR WIPER RESONANCE. TWO OF THE UNITS WERE RETURNED TO THE VENDOR. THESE TWO FAILURES WERE CONFIRMED. THE CAUSE OF FAILURE WAS NOT DETERMINED. CORRECTIVE ACTION-SPECIFICATION 27-01445 WAS REVISED TO CLARIFY TRANSDUCER LOAD IMPEDANCE TO BE EMPLOYED DURING TEST. SUBSEQUENT REVISION OF TEST PROCEDURE 68A3658.1 WILL RESULT IN A TEST ENVIRONMENT COMPATIBLE WITH OPERATIONAL USAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	68C4595.1 PRESSURE TRANSDUCER	UTP-PET 69-01003-59	651021	FACTORY	YES NO	BOURNS 2007371702	
FAILURE MODE-OUT OF SPECIFICATION. THE MEASUREMENT FROM THE END OF THE PRESSURE FITTING TO THE CENTER OF THE NEAREST MOUNTING HOLE IS 0.843 INCHES. THE TOLERANCE IS 0.862 PLUS OR MINUS 0.010 INCHES AND THE MEASUREMENT ACCURACY IS 0.001 INCHES.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-DIMENSIONAL REQUIREMENT IS REDEFINED BY DRAWING 69-01003 REV. H, TO 0.98 PLUS OR MINUS 0.03 INCHES.							690779
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	BLV-A9-E4-3047-F TELEPAK CANISTER	FAR 69-11100-049	651081	FACTORY	YES NO	GD/C	690537
FAILURE MODE-OUT OF TOLERANCE. UNIT FAILED IN FINAL TELEMETRY SYSTEM CHECKOUT BY INDICATING THAT THE CHANNEL C ZERO-PERCENT CALIBRATION PULSE WAS 86 PERCENT OF DESIGN BANDWIDTH BELOW THE 100-PERCENT CALIBRATION PULSE. (SPECIFICATIONS ALLOW 80 PLUS OR MINUS 4 PERCENT. UNIT WAS INADVERTENTLY OPENED AND DEPOTTED BEFORE AN ATTEMPT WAS MADE TO ADJUST ITS FREQUENCY AND SENSITIVITY CONTROLS. CORRECTIVE ACTION-FAILURE CONFIRMED. BECAUSE THE ULTIMATE CAUSE OF FAILURE COULD NOT BE FOUND, NO SPECIFIC ACTION WAS REQUESTED. A COPY OF FAR WAS SENT TO FACTORY PERSONNEL RESPONSIBLE FOR TELEMETER MANUFACTURE AND TO DATA EVALUATION GROUP PERSONNEL RESPONSIBLE FOR MAINTAINING COMPLETE DATA RECORDS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	69C4392.1 PRESSURE TRANSDUCER	UTP-PET 69-01033-19	651019	GD/C	YES NO	BOURNS 2004206303	691129
FAILURE MODE - OUT OF SPECIFICATION. WITH AN INPUT PRESSURE OF 97 PSIA, THE OUTPUT WAS 93.2 PERCENT OF THE FULL SCALE VOLTAGE RATIO. THE REQUIREMENT IS 97.0 PLUS OR MINUS 10 PERCENT. THE BELLOWS STOP, AFTER A PRESUMABLY NORMAL ADJUSTMENT, HAD NOT BEEN LOCKED IN PLACE DURING THE VENDORS MANUFACTURING PROCESS. S/N 506-1585. PET LOT 710-1. CORRECTIVE ACTION-THE VENDOR WILL REVIEW HIS PROCESS CONTROL TO INSURE THAT ALL UNITS ARE INSPECTED AFTER BELLOWS STOP ADJUSTMENT AND SECURING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-A9-24-3042-F DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01332-51	151F 651008	FACTORY	YES YES	WIANCKO S4103-13	690542
FAILURE MODE-OUT OF TOLERANCE. UNIT REPORTEDLY INDICATED A MINUS 7 PERCENT OUTPUT ERROR AT ZERO PSID ON TELEMETERY RECORDING FC-CO-01-0025-005 ON MEASUREMENTUSOP. CORRECTIVE ACTION-FAILURE OF THE TRANSDUCER WAS NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ALV-66-24-5043-F ACCELEROMETER ASSEMBLY	FAR 87-11870-25	651007	FACTORY	YES NO	DONNER 4310F-1/2A	000839

FAILURE MODE-ERRATIC OPERATION. THE UNIT WAS REJECTED BECAUSE OF ERRATIC OUTPUT. AFTER CALIBRATION AND TESTING IN F AILU" ANALYSIS, NO OUT OF SPECIFICATION OPERATION WAS EVIDENT.

CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRAF UC ERS	ALV-66-24-5039-F TLM CANISTER-CONNECTOR	FAR 69-11100-039	5301 650928	ETR	YES NO		001422

FAILURE MODE-ERRATIC OPERATION. INTERMITTENT DROPOUT ON ALL CHANNELS FROM NORMAL 2000 MV TO 200 MV AT RECEIVER STAT ION. THE 200 MV READING REPORTED AS RADIATION FROM ANOTHER TELEMETER ON A ANOTHER RANGE TEST. OBSERVATION PLACED A D ROPOUT AS LASTING ABOUT 1 MINUTE. POSSIBLE CAUSES OF REPORTED FAILURE ARE POOR ELEC CONNECTION, MONETARY SHIELDING, REFLECTIONS OF RADIATED ENERGY CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED. RESPONSIBLE ENGINEER INFORMED OF THE F INDINGS AND THE POSSIBILITY OF A POOR ELECTRICAL CONNECTION ABOARD THE BOOSTER WAS STRESSED.

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED. RESPONSIBLE ENGINEER INFORMED OF THE FINDINGS AND THE POSSIBILITY OF A POOR ELECTRICAL CONNECTION ABOARD THE BOOSTER WAS STRESSED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C4251.1 CRYSTAL RECTIFIED-TRANSFORMER	UTP-QUAL/PPT 87-01379-1	650922	GD/C	YES NO	GD/C	002284

FAILURE MODE-STRUCTURAL. DURING SECTIONING TEST, ONE TEST SPECIMEN EXHIBITED A VOID IN THE POTTING COMPOUND OF APPR OXIMATELY 0.1 INCH IN DIAMETER. THE LENTGH OF VOID WAS ABOUT 0.5 INCHES. THIS WAS CAUSED BY GLASS WRAP TRAPPING AIR BETWEEN THE COILS WHEN THE PORES WERE CLOSED BY RESIN DURING CONSTRUCTION.

CORRECTIVE ACTION-GD/C GENERAL CONSTRUCTION SPEC NOTE WAS ADDED ON 8-10-65 TO SLIT GLASS WRAP BETWEEN COILS OF MULTI -BOBBIN TRANSFORMERS. REF. CTCTN NO. 551-4-034.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PET-TP-2-0280.1 PRESSURE TRANSDUCER	UTP-PET 7-01731-1	650922	FACTORY	YES NO	BOURNS 71724-0-6-752	

FAILURE MODE-OUT OF TOLERANCE. DURING HIGH TEMPERATURE (PLUS 300 DEG F), UNIT EXHIBITED OUTPUT VOLTAGE ERROR OF -2 35 PERCENT F.S. WHERE PLUS OR MINUS 2.0 PERCENT F.S. IS ALLOWABLE. THE PROBABLE CAUSE OF THE FAILURE IS EXCESSIVE PR ESSURE IN INTERNAL COMPENSATING BELLOWS AND/OR SILICONE OIL.

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
							890765
CORRECTIVE ACTION-TEST SPECIMEN REJECTED AND RETURNED TO VENDOR. THE BALANCE OF THE 16 UNITS IN PET LOT 15 WERE SUB JECTED TO HIGH TEMPERATURE TEST FOR ACCEPTANCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-5040-F SUBCARRIER OSCILLATOR	FAR 27-01607-945	650916	FACTORY	YES NO	BENDIX 3131153-EAA	890843
FAILURE MODE-DRIFT. OSCILLATOR FREQUENCY REPORTEDLY DRIFTED DURING CHECKOUT.							
CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED. THE TELEMETER COULD NOT BE OBTAINED FOR ADDITIONAL FAILURE ANALYSIS. N O CORRECTIVE ACTION TAKEN. HOWEVER, PERSONNEL WERE ALERTED TO MAINTAIN SURVEILLANCE OVER THIS TELEMETER DURING FINAL CHECKOUT OF THE MISSILE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-5041-F COMMUTATOR	FAR 27-01636-15	650916	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-466	890833
FAILURE MODE-CONTAMINATION. UNIT REPORTEDLY INDICATED AN INTERMITTENT DISAPPEARANCE OF THE INFORMATION AND NEGATIVE GATE SEGMENTS OF THE COMMUTATED WAVE TRAIN DURING TELEMETER VIBRATION. FAILURE POSSIBLY DUE TO THE PRESENCE OF CONT AMINATION.							
CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED. MEMO, 655-0-65-28 IS A REPLY TO THE CORRECTIVE ACTION REQUEST (RAR SLV -99-24-5363). ALSO THE REPLY STATED THAT BECAUSE OF THE EXHAUSTIVE TESTING AND THE LOW RATE OF FAILURES ATTRIBUTED T O CONTAMINATION, THE RECOMMENDATION FOR SURVEY IS CONSIDERED UNJUSTIFIED AND CONSIDERS SPECIFIC ACTION ONLY ON EACH FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-5037-F SUBCARRIER OSCILLATOR	FAR 59-01174-133	650918	FACTORY	YES NO	BENDIX 1068141-176	892760
FAILURE MODE-ERRATIC OPERATION. ERRATIC OPERATION OF THE SUBCARRIER OSCILLATOR WAS DETECTED DURING A FACTORY CHECKO UT OF THE TELEMETRY SYSTEM. A REPLACEMENT OSCILLATOR FUNCTIONED SATISFACTORILY AND SUBSEQUENT INVESTIGATIONS OF THE SUSPECT OSCILLATOR REVEALED NO DEFECTS.							
CORRECTIVE ACTION-FACTORY PERSONNEL WERE ADVISED TO SUBMIT SUSPECTED SUBASSEMBLIES FOR FUNCTIONAL TEST IMMEDIATELY AND, IF NOT FOUND DEFECTIVE, TO BE RE-INSTALLED TO DETERMINE IF THE FAILURE IS STILL PRESENT, AS PER STANDARD DEPART MENTAL PROCEDURES.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-90-24-5035-P COMMUTATOR-MOTOR	FAR 27-01838-15	650907	WTR	YES NO	FIFTH DIMENSIO N SDUOSMO-530	888719

FAILURE MODE-OUT OF SPECIFICATION. DURING DECOMMUTATION OF A TELEMETRY CALIBRATION TAPE THE COMMUTATOR WAS DETERMIN ED TO BE OPERATING AT VARYING SPEEDS BELOW NORMAL SPECIFIED. DUE TO A MISPLACED BRUSH-INSULATOR STRIP WHICH INTERFER ED WITH NORMAL ROTATION OF THE ROTOR SECTION OF THE MOTOR.

CORRECTIVE ACTION-VENDOR WAS INSTRUCTED TO IMPROVE RECEIVING INSPECTION PROGRAM COVERING DC MOTORS DELIVERED BY GLO BE INDUSTRIES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-A9-24-5033 PRESSURE TRANSDUCER	FAR 27-01852-51	2900 650803	FACTORY	YES NO	WIANCKO 54103-13	899073

FAILURE MODE-STRUCTURAL. DURING MISSILE CHECKOUT, THE TRANSDUCER OUTPUT EXCEEDED EXPECTED VALUES. EXAMINATION AND T ESTING SHOWED THAT ELECTRICALLY IT WAS SATISFACTORY; BUT THERE PROBABLE WAS DISTORTION IN THE ARMATURE AND BOURDON T UBE ASSEMBLY. THIS IS USUALLY CAUSED BY OVER PRESSURIZATION. THE EXACT CAUSE WAS NOT FOUND. MEAS U60P.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. IT WAS RECOMMENDED THAT CHECKOUT TECHNIQUES AND PROCEDURES BE REVIEWED TO ELIMINATE POSSIBILITIES OF OVERPRESSURIZATION. PERSONNEL NOTIFIED USE OF HANDLING TAGS INITIATED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-A9-24-5031 PRESSURE TRANSDUCERS	FAR 69-01004-25	7116 650831	FACTORY	YES NO	BOURNS 2023203001	899081

FAILURE MODE-ELECTRICAL OPEN. DURING FINAL CHECKOUT, THE TRANSDUCER INDICATED OUT OF BAND VALUES. EXAMINATION REVEA LED AN OPEN TRANSISTOR, OPEN RESISTOR, AND SHORTED DIODE, PROBABLY CAUSED BY MISAPPLICATION OF VOLTAGE. MEAS H824P.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. RAR SLV-A9-24-5036 WAS ISSUED TO ENPHASIZE TRAINING IN PROCEDURES. A T RANSDUCER WORKING COMMITTEE IS ALSO WORKING OUT A MASS TRANSDUCER TRAINING PROGRAM PROPOSAL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-5038-P SUBCARRIER OSCILLATOR POTENTIOMETE R	FAR 27-01807-115	7116 650830	FACTORY	YES NO	BENDIX	

FAILURE MODE-ELECTRICAL OPEN. DURING FACTORY FINAL CHECKOUT THE ELEMETRY PREFLIGHT CALIBRATION PULSES WERE OUT OF B AND LIMITS DUE TO FAULTY SOLDER CONNECTIONS AT FREQUENCY POTENTIOMETER R-18.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							891060

CORRECTIVE ACTION-VENDOR REQUESTED TO IMPROVE QUALITY CONTROL OVER SOLDERING TECHNIQUE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-A8-24-5026-F LIMITER-CIRCUIT BOARD	FAR 87-12707-1	130F 650823	FACTORY	YES NO	CONVAIR 87	891069

FAILURE MODE-OPEN (ELECTRICAL). DURING FINAL CHECKOUT OF VEHICLE IN FACTORY, TELEMETER NO. 2 WAS FOUND TO HAVE AN OPEN CONNECTION BETWEEN J3 PIN-P AND RESISTOR R-5 ON LIMITER CIRCUIT BOARD DUE TO FAULTY SOLDERING TECHNIQUE.

CORRECTIVE ACTION-SOLDERING TECHNIQUES FOR EYELETED PRINTED CIRCUIT BOARDS WERE IMPROVED AND WEEKLY AUDITS OF ALL ELECTRONICS MANUFACTURING AREAS WERE INSTITUTED. ALLL NEW DESIGNS INCORPORATED PLATED THROUGH TYPE BOARDS INSTEAD OF EYELET TYPE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	60A/BKF64-038/L4-403-00-7101 COMMUTATOR.	FLIGHT	7101 650814	2-4	YES NO		899938

FAILURE MODE-OUT OF TOLERANCE. COMMUTATION SPEED OF CHANNEL 11; RF1, WAS OPERATING SLOW BY 8.4 PCT. CAUSE UNKNOWN. COMMUTATOR MOTORS HAVE A HISTORY OF GAINING SPEED WITH OPERATING TIME.

SYSTEM EFFECT-NONE. THE OUT-OF-TOLERANCE SPEED DID NOT RESULT IN ANY DATA RETRIEVAL DIFFICULTIES.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-NONE. PROPOSAL TO PERFORM 50 HOUR RUN TIME TEST FOR COMMUTATOR MOTORS DISSAPPROVED BY GDC ENGINEERING CHANGE BOARD.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	GDCBM2-65-013/PSB-LO-02-DAC6 TLM CANISTER	COUNTDOWN	1510 650814	ETR	YES NO	TEXAS INSTRUME MTS	899844

FAILURE MODE-TOLERANCE. INTERMODULATION FROM RF8 CHANNELS C AND E INTO RF8 CHANNELS 10 AND 13.

SYSTEM EFFECT-ERRATIC OPERATION. RF2 CHANNEL 13 SHOWED 6 PERCENT NOISE; CHANNEL 10 SHOWED 3 PERCENT NOISE.

VEHICLE EFFECT-NONE. NO HOLD INITIATED.

CORRECTIVE ACTION-NONE.

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	6DCBNR6S-053/P6B-LO-02-0AC6 TLM CANISTER	COUNTDOWN SS-13537	1S1D 650811	36B -240	YES NO		000646

FAILURE MODE-OUT OF TOLERANCE. UPON SWITCHING POWER TO INTERNAL, FILAMENT VOLTAGE TO RF-1 CHANNEL E INCREASED AND S HIFTED SCO FREQUENCY.

SYSTEM EFFECT-OPERATION TOO HIGH. NEGATIVE GATE LEVEL EXCEEDED TOLERANCE.

VEHICLE EFFECT-NONE. NO HOLD INITIATED.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	6DC-BNR-6S-053/P6B-LO-3R-0AC6 COMMUTATOR	COUNTDOWN SS-13537-861	1S1D 650811	36B	YES NO		000613

FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR OVERSPEEDING. RF1 CHANNEL 12 AND 13 COMMUTATION RATE WAS 5.35 RPS EXCEEDI NG SPEC RATE 5.25 RPS.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE. NO HOLD INITIATED.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-A8-24-5021 PRESSURE TRANSDUCER	FAR 69-01004-23	650811	FACTORY	YES NO	BOURNS 2025203001	000334

FAILURE MODE-DRIFT. THE TRANSDUCERWAS REJECTED BECAUSE OUTPUT WAS OUT OF EXPECTED VALUE. THE FAILURE WAS SIMILAR TO THOSE REPORTED IN FAR-SLV-S9-24-4936 AND WAS PROBABLY DUE TO LONG TERM DRIFT.

CORRECTIVE ACTION-PART REDESIGNED TO -123 BY SUBSTITUTING FILM TYPE RESISTORS FOR CARBON COMPOSITION RESISTORS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	6DC-BHZ6S-037, 6S-LO-02-AC6 COMMUTATOR	FLIGHT SS-13537-861	1S10 650811	36B/ETR	YES NO	BENDIX

FAILURE MODE-OUT OF SPECIFICATION. COMMUTATION RATE OF CHANNELS 12 AND 13 TELEMETRY PACKAGE RF1 WAS 0.10 REV PER SE COND OUT OF SPEC HIGH.

SYSTEM EFFECT-OPERATION TOO HIGH. IRIG SPECIFICATION OF 5.0 PLUS 5 PERCENT EXCEEDED BY 0.10 RPS. DATA PROCESSING EQ UIPMENT CAPABLE OF RECOVERING DATA IN EXCESS OF THIS SPECIFICATION. NO DATA LOST.

DIFFICULTIES REPORTING-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							891033

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-REVISED COMMUTATOR ACCEPTANCE PROCEDURES. INCORPORATED COMMUTATOR RUN-IN FOR COMMUTATORS USED ON CENTAUR BOOSTER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GDC/BK66-066/AB-801-00-147 WIRING	FLIGHT	147F 650805	A-2 0	YES GDC NO		889146

FAILURE MODE-ELECTRICAL OPEN. SIGNAL GROUND TO ARMAS ANALOG SIGNAL CONDITIONER (ASC) HAD BEEN INADVERTANTLY OMITTED IN THE B1 POD HARNESS, RESULTING IN ARMA ANALOG MEASUREMENT LOSS AFTER LIFTOFF.

SYSTEM EFFECT-OPERATION DOES NOT START. TWENTY-TWO ARMA MEASUREMENTS FROM THE ANALOG SIGNAL CONDITIONER (ASC) WERE LOST THROUGHOUT THE FLIGHT DUE TO A BIAS SHIFT.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-CIC 36792 APPROVED FOR CLASS II CHANGE TO ADD THE MISSING WIRE, EFFECTIVE ON 27-0025-2 (147F) AND ON.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GLV-A9-24-3022-F TLM CANISTER-RESISTOR	FAR 69-11100-667-R-6	350802	FACTORY	YES TEXAS INSTRUME NO NTS TC1/8-15		891858

FAILURE MODE-OUT OF SPECIFICATION. THERMAL RESISTOR R-6 OF THE TELEMETER PACKAGE WAS FOUND TO MEASURE 30 OHMS AT RO ON TEMPERATURE INSTEAD OF NOMINAL 15 OHMS AFTER TELEMETER FAILURE DURING FACTORY FINAL CHECKOUT. FAILURE WAS CAUSED BY FAULTY MANUFACTURING TECHNIQUE IN JOINING THE RESISTANCE ELEMENT TO THE CONNECTING LEADS.

CORRECTIVE ACTION-MANUFACTURER WAS REQUESTED TO TAKE ACTION TO INSURE POSITIVE CONTACT BETWEEN ELEMENT AND LEADS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	HSCAPE 0770/F6B-C0-04-0AC6 COMMUTATOR	COMPOSITE-J FACT SS-13837-661	1910 650731	368	YES NO		897450

FAILURE MODE-SHORT(ELECT). A SHORT ON RF1 CHANNEL E COMMUTATOR CAUSED THE NEGATIVE GATE SEGMENTS TO BE AT 100 PERCENT.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-COMPOSITE DELAYED.

CORRECTIVE ACTION-TLM PACKAGE NO.1 AND ACCESSORY PACKAGE (MATCHED SET) REPLACED.

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-BLV-99-24-5028 PRESSURE TRANSDUCER	FAR 87-01552-59	650729	FACTORY	YES NO	WIANCKO 84103-21	699093

FAILURE MODE-STRUCTURAL. THE TRANSDUCER WAS REJECTED DURING CALIBRATION BECAUSE OF EXCESSIVE OUTPUT ERROR. EXAMINATION REVEALED CHIPPED AND CRACKED FERRITE PAD WHICH PRODUCED A CHANGE IN THE RELUCTANCE PATH. THE DAMAGE WAS PROBABLY CAUSED BY MISHANDLING.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. NO CORRECTIVE ACTION WAS TAKEN BECAUSE THE SOURCE OF MISHANDLING WAS NOT IDENTIFIED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-BLV-99-24-5025-F ACCELEROMETER TRANSDUCER	FAR 7-01413-9	650720	FACTORY	YES NO	BORG-WARNER 9747-B	690675

FAILURE MODE-ELECTRICAL OPEN. DURING CALIBRATION THE TRANSDUCER WAS REJECTED FOR NO OUTPUT. THE TRANSFORMER IN THE AMPLIFIER SECTION WAS FOUND TO HAVE A BROKEN WIRE. EXCESSIVE TENSION MAY HAVE CAUSED THE BREAK.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED THE VENDOR WAS INFORMED OF THE PROBLEM AND PROBABLE CAUSE. IN COMPLIANCE. THE VENDOR HAS IMPROVED ASSEMBLY AND INSPECTION TECHNIQUES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	BLV-99-24-5020-F TRANSDUCER, INSTRUMENTATION	FAR 69-01003-39	650727	FACTORY	YES NO	SERVONIC 2091-1139	892070

FAILURE MODE-CONTAMINATION. TRANSDUCER EXHIBITED ERRATIC OUTPUT. FAILURE WAS ATTRIBUTED TO NON-METALLIC PARTICLES FOUND IN THE SILICONE OIL. THE PARTICLES EVIDENTLY GOT BETWEEN THE WIPER AND THE RESISTANCE MANDREL AND CAUSED THE ERRATIC OUTPUT.

CORRECTIVE ACTION-RECOMMENDED THE VENDOR REVIEW THAT ASSEMBLY, CLEANING, AND INSPECTION PROCEDURES TO PRECLUDE THE POSSIBILITY OF FOREIGN PARTICLES AND FIBERS BEING SEALED IN THE TRANSDUCER CASE. VENDOR INFORMED PRODUCTION AND Q.C. PERSONNEL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	BLV-A9-24-5023-F TRANSDUCER, POTENT	FAR 69-01003-39	5001 650724	FACTORY	YES NO	BOURNS 2007371707	

FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER FOR MEASUREMENT H33P INDICATED NO OUTPUT DURING END-TO-END TESTING. PRELIMINARY EXAMINATION REVEALED PIN A WAS ELECTRICALLY OPEN TO PINS B AND C BECAUSE THE POTENTIOMETER RESISTANCE WINDING WAS FOUND BURNED OUT BENEATH THE WIPER AT THE UNPRESSURIZED POSITION. THE BURNED AREA APPEARED TO HAVE BEEN SUBJECT

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
ED TO EXCESSIVE CURRENT, HAVING LITTLE ROUND BALLS OF MELTED WIRE AT THE BROKEN ENDS OF THE WIRE. CORRECTIVE ACTION-TET 3995 EXAMINED AND REVALIDATED. PERSONNEL ADVISED OF FAILURE.							892871
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA6540/P3-4CO-01-225 COMMUTATOR	COMPOSITE-J FACT	2250 650707	13	YES NO		897922
FAILURE MODE-OUT OF TOLERANCE. TELEMETRY RF 1 CHANNEL 11 COMMUTATOR SPEED WAS FAST AT 4 RPS. MAXIMUM ALLOWABLE IS 2 .625RPS. SYSTEM EFFECT-OPERATION TOO HIGH. TELEMETRY RF 1 CHANNEL 11 COMMUTATOR RUNNING TOO FAST. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACED TELEMETRY PACKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-3277 COMMUTATOR	FAR 27-01387-005	650705	ETR	YES NO	FIFTH DIMENSIO N R2SC-123	892564
FAILURE MODE-CONTAMINATION. COMMUTATION SPEED WAS 1.69 RPS WHEN 2.25 WAS EXPECTED. THE FAILURE WAS ATTRIBUTED TO SO LDER BALL CONTAMINATION WITHIN THE GEARTRAIN ASSEMBLY. CORRECTIVE ACTION-REQUESTED VENDOR TO REVIEW ASSEMBLY, INSPECTION, AND TESTING REQUIREMENTS AND TAKE REMEDIAL ACTIO N TO PREVENT SHIPMENT OF CONTAMINATED UNITS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-2B-24-3265 COMMUTATOR	FAR 27-01836-15	1510 650702	ETR	YES NO	FIFTH DIMENSIO N HRXD466	892565
FAILURE MODE-CONTAMINATION. COMMUTATOR MASTER PULSE SEGMENT AND NEGATIVE PULSE SEGMENT WERE FOUND SHORTED TOGETHER. FAILURE WAS CAUSED BY METALLIC CONTAMINANTS IN AND ADJACENT TO THE 5 AND 4 POLE HOUSINGS CAUSING A SHORT CIRCUIT BE TWEEN A NEGATIVE GATE SEGMENT AND THE ADJACENT MASTER PULSE SEGMENT ON POLE 4. CORRECTIVE ACTION-REQUESTED VENDOR REVIEW ASSEMBLY, INSPECTION AND TESTING REQUIREMENTS AND TAKE REMEDIAL ACTION TO PREVENT SHIPMENT OF CONTAMINATED UNITS.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	CT-66-24-3251	FAR 27-01638-7	650700	FACTORY	YES NO	FIFTH DIMENSIO N HRXD-462	002566

FAILURE MODE-CONTAMINATION. COMMUTATOR INDICATED AN ABRUPT DECREASE IN COMMUTATION RATE TO 4.81 RPS. THE MINIMUM AL LOWABLE IS 4.30 RPS. FAILURE WAS ATTRIBUTED TO GROUND METAL PARTICLES AND A SEGMENT OF STRANDED WIRE FOUND IN THE FI NAL PAIR OF MATING GEARS IN THE GEARTRAIN.

CORRECTIVE ACTION-REQUESTED VENDOR REVIEW ASSEMBLY, INSPECTION AND TESTING REQUIREMENTS AND TAKE REMEDIAL ACTION AS NECESSARY TO PREVENT SHIPMENT OF CONTAMINATED UNITS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CRYSTAL RECTIFIER-WIRING ERS	SLV-A9-24-3014-F	FAR 66-11127-5	7114 650823	FACTORY	YES NO	CONVAIR 66-11127-5	001870

FAILURE MODE-SHORT (ELECTRICAL). WIRE 15 OF THE TELEMETRY MONITOR CRYSTAL RECTIFIER WAS FOUND TO BE PINCHED BETWEEN THE FRAME AND CIRCUIT BOARD, CAUSING INTERMITTENT SHORTING OF MEASUREMENT E98V (GUIDANCE 115 VOLTS 400 CPS PHASE-A VOLTAGE) DURING FACTORY FINAL CHECKOUT.

CORRECTIVE ACTION-FINAL COMPONENT INSPECTION PRACTISE WAS REVISED TO INCLUDE CHECKS FOR EXCESS SLACK IN WIRING AND CONCERNED PERSONNEL WERE SHOWN PHOTOGRAPHS OF THE DEFECTIVE COMPONENT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	FAR-SLV-99-24-5008	FAR 27-01552-49	7114 650823	FACTORY	YES NO	WIANCKO 34103-9	000094

FAILURE MODE-OUT OF TOLERANCE. ONE TRANSDUCER WAS REJECTED IN THE LAB ON 650310 AND THE OTHER WAS REMOVED FROM 7114 ON 650823 FOR THE SAME REASON-EXCESSIVE OUTPUT ERRORS. CAUSE OF FAILURE WAS LOOSENING OF E-CORES FROM THEIR MOUNTIN G BLOCKS, DUE TO IMPROPER PREPARATION OF SURFACES BEFORE ADHESIVE IS APPLIED.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. IN RESPONSE, THE VENDOR IMPROVED HIS SURFACE PREPARATION BY ENGINEERIN G CHANGE ORDER 10327 DATED 650608.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC PRESSURE TRANSDUCER ERS	CT-T1-240-3256	FAR 66-01003-31	1740 650821	FACTORY	YES NO	BOURNS 800PST1703	

FAILURE MODE-CONTAMINATION AN OPENSIGNAL WAS INDICATED FOR MEASUREMENT P-98P. CORRECT READINGS COULD BE OBTAINED BY TAPPING THE TRANSDUCER. FAILURE WAS ATTRIBUTED TO MIGRATORY PARTICLES OF CEMENT MOVING UNDER THE WIPER AND CAUSING THE INTERMITTENT OPEN CIRCUIT. WIPER TENSION WAS ACCEPTABLE.

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							891564

CORRECTIVE ACTION-ACTION WAS TAKEN TO ELIMINATE SPIKING FAILURES ON THE -7 THROUGH -48 SERIES TRANSDUCERS BY CHANGI NG THE MOUNTING MATERIAL HOLDING THE POTENTIOMETER WIRE IN PLACE. THIS WAS ACCOMPLISHED AFTER THE ASSEMBLY DATE OF J UNE 1964 OF THIS TRANSDUCER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-90-24-5016-F TRANSDUCER, INSTRUMENTATION	FAR 7-01633-5	7109 650618	WTR	YES NO	ROSEMOUNT 1496	892069

FAILURE MODE-ELECTRICAL SHORT. TRANSDUCER FOR MEASUREMENT F247T INDICATED AN INTERMITTENT OUTPUT. AN INTERMITTENT H IGH-RESISTANCE SHORT CIRCUIT DEVELOPED IN THE UPPERMOST WINDINGS OF THE END ELEMENT WHEN ONE OF THE CERAMIC COATED P OSTS WAS DAMAGED. THE DAMAGED AREA WAS ALIGNED WITH A PERFORATION IN THE PROTECTIVE SHEATH AND APPEARED TO HAVE BEEN INFLICTED BY AN EXTERNAL SOURCE. THE SHORT CIRCUIT PATH MAY HAVE BEEN DEVELOPED BY MOISTURE INTRUSION IN THE DAMAGE D AREA.

CORRECTIVE ACTION-INFORMED WTR PERSONNEL OF THE PROBABLE CAUSE OF THE FAILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-90-24-5015 PRESSURE TRANSDUCER	FAR 89-01004-23	7107 650617	2-4	NO NO	BOURNS 2023203001	892264

FAILURE MODE-FAIL DURING OPERATION. DURING A TEST ON THE VEHICLE, THE TRANSDUCER SHOWED A LOSS IN OUTPUT. FAILURE A NALYSIS TESTS COULD NOT DUPLICATE THE REPORTED FAILURE.

CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. THIS UNIT REDESIGNED TO 89-01004-123.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-5010-F POWER SUPPLY, TRANSFORMER T-1	FAR 89-01133-1	650617	FACTORY	YES NO	ACI 1138	891667

FAILURE MODE-SHORT (ELECTRICAL). DURING MANUFACTURING CHECK OF THE TELEMETRY POWER SUPPLY THE PRIMARY WINDINGS OF T RANSFORMER T-1 WERE FOUND TO BE SHORTED BY SOLDER BALLS AROUND THE INSIDE OF THE TRANSFORMER TERMINALS, CAUSING OUTP UT VOLTAGE TO DROP TO 8 PERCENT OF NOMINAL VALUE.

CORRECTIVE ACTION-VENDOR INSTITUTED IMPROVED SOLDERING TECHNIQUES ON SUBSEQUENT PRODUCTION RUNS.

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA8558/P8-CO-02-DAC8 TLM CANISTER	COMPOSITE-J FACT	1510 650618	ETR-368	YES NO		697559

FAILURE MODE-OUT OF TOLERANCE. ALL ATLAS LINKS SHOWED 60 CPS RIPPLE. THE MOST SERIOUS CASE WAS RF1 CH13 WHICH SHOWE D DATA VARIATIONS OF 6 PCT.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA8558/P8-CO-02-DAC8 TLM CANISTER	COMPOSITE-J FACT	1510 650618	ETR-368 -240	YES NO		697454

FAILURE MODE-OUT OF SPECIFICATION TOLERANCE. ALL ATLAS RF1 SCO SHIFTED FREQUENCY DOWN AT TELEMETRY TO INTERNAL. WOR ST CASES WERE RF1-13 SHIFTING 38 PCT AND RF1-E 30 PCT. AFTER STABILIZING RF1-A WAS APPROX 10 PCT FSW ABOVE HIGH FREQ UENCY BAND EDGE. OVERALL QUALITY OF RF1 WAS POOR.

SYSTEM EFFECT-ERRATIC OPERATION.

VEHICLE EFFECT-COMPOSITE DELAY.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLY-29-24-5003-F COMMUTATOR	FAR 27-01636-21	650614	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-469	691402

FAILURE MODE-OUT OF TOLERANCE. DURING FACTORY TEST THE DEFECTIVE COMMUTATOR WAS FOUND TO BE OPERATING WITH SPEED OF ALL POLES AT 5.5 RPS, INSTEAD OF 5 RPS AND 0.185 RPS AS SPECIFIED. THE FAILURE WAS CAUSED BY INTERCHANGE OF NAME PL ATES WITH ANOTHER COMMUTATOR DURING MANUFACTURE.

CORRECTIVE ACTION-MANUFACTURER WAS REQUESTED TO IMPROVE MANUFACTURING PROCEDURES TO PREVENT RECURRENCE. MANUFACTURE R REVISED FINAL TEST PROCEDURE BY REQUIRING TEST PERSONNEL TO CHECK IDENTIFICATION AGAINST PERFORMANCE, REQUIREMENTS AND INSPECTION TAGS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4280 TRANSDUCER	UTP-ET 69-01004-33	650610	GD/C	YES NO	WIANCKO P8-4262-33	

FAILURE MODE - OUT OF TOLERANCE. THE UNIT FAILED RF SUSCEPTIBILITY BETWEEN 7.8 AND 9.7 MC WHERE A DC SHIFT OF 90 MI

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
LLIVOLTS WAS OBSERVED AND BETWEEN 57 AND 70 MC WHERE A DC SHIFT OF 100 MILLIVOLTS WAS OBSERVED. S/N 405-0516. THE DISCREPANCY RESULTED FROM TESTS WHICH INTENTIONALLY EXCEEDED THE DESIGN REQUIREMENTS. CORRECTIVE ACTION - NONE.							690170
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4989-F CALIBRATOR	FAR 27-12291-801	7201 650605	FACTORY	YES NO		682861
FAILURE MODE-FAIL TO CEASE OPERATION AT PRESCRIBED TIME. THE CALIBRATOR WAS REJECTED BECAUSE IT OPERATED CONTINUOUSLY. SPECIFICATIONS REQUIRE THAT THE CALIBRATOR OPERATE 25 PLUS OR MINUS 15 SECONDS. CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4991-F COMMUTATOR	FAR 27-01636-15	7201 650601	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-466	682863
FAILURE MODE-CONTAMINATION. THE COMMUTATOR WAS REJECTED WHEN CHANNEL-A SEGMENT 39 INDICATED 0 PERCENT INFORMATION B AND WIDTH MEASURED 25 TO 75 PERCENT 19W WAS EXPECTED. FAILURE WAS CAUSED BY A STAINLESS STEEL SLIVER ON THE J-1 CONNECTOR BACKSHELL SHORTING PIN-7 OF CONNECTOR J-1 TO THE COMMUTATOR CASE. THE METALLIC SLIVER APPARENTLY DROPPED INTO THE CONNECTOR BACKSHELL DURING COMMUTATOR ASSEMBLY. CORRECTIVE ACTION-FIFTH DIMENSION HAS DELETED THE USE OF MASKING TAPE AND PAPER AS PROTECTIVE DEVICES. POLYETHYLENE BAGS WILL BE USED. MANUFACTURING AND INSPECTION PERSONNEL HAVE BEEN INSTRUCTED TO PROVIDE ADDITIONAL EMPHASIS IN MATERIAL HANDLING AND CLEANLINESS MEASURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-99-24-5009 PRESSURE TRANSDUCER	FAR 27-01552-51	149F 650328	FACTORY	YES NO	WIANCKO 54103-13	690120
FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER WAS REMOVED FROM 149F BECAUSE OF ERRATIC OUTPUT, CAUSED BY LOOSENING OF E-CORES FROM THEIR MOUNTING BLOCKS. THIS WAS CAUSED BY IMPROPER PREPARATION OF SURFACES BEFORE THE ADHESIVE WAS APPLIED. FOR SIMILAR CASES, SEE FAR-SLV-99-24-5008. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. IN RESPONSE, THE VENDOR IMPROVED HIS SURFACE PREPARATION BY ENGINEERING CHANGE ORDER 10327 DATED 650608.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4994-F PRESSURE TRANSDUCER	FAR 7-01731-5	1640 650527	FACTORY	YES NO	BOURNS 71734-0-0-10-7	692637

FAILURE MODE-STRUCTURAL. THEUNIT WAS REJECTED WHEN IT SHOWED A STATIC ERROR OF PLUS 3.38 PERCENT. DRAWING 7-01731 S PECIFIES A MAXIMUM STATIC ERROR ALLOWABLEOF PLUS 0.75 PERCENT. THE FAILURE IS ATTRIBUTED TO OVERPRESSURIZATION. IT C OULD NOT BE DETERMINED WHERE THE OVERPRESSURIZATION OCCURRED MEASF125P.

CORRECTIVE ACTION-ALL INVOLVED GD/C PERSONNEL WERE INFORMED OF THE DISCREPANCY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4980-F DETECTOR-POTENTIOMETER	FAR 69-11118	7116 650521	FACTORY	YES NO	SPECTROL 60-2-1-104	692672

FAILURE MODE-OPEN (ELECT). THE POTENTIOMETER OUTPUT VOLTAGE WAS ERRATIC AND WOULD NOT ADJUST TO 5.000 PLUS OR MINUS 0.0005 VOLTS DC. THE FAILURE WAS CAUSED BY A PHYSICAL BREAK IN THE POTENTIOMETER RESISTANCE ELEMENT. THE EXACT BREA K COULD NOT BE IDENTIFIED AS OTHER OPEN CIRCUITS WERE CAUSED BY HANDLING. GDC POT P/N 86-75263-011.

CORRECTIVE ACTION-THE FAULTY SPECTROL FIXTURE WHICH CAUSED THE RESISTANCE WIRES TO BREAK WAS CORRECTED. THIS POTENT IOMETER WAS DECLARED INACTIVE FOR NEW DESIGN AFTER 15 FEBRUARY 1963. IT WAS REMOVED FROM THE PREFERRED PARTS LIST IN MARCH 1964.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-5012-F TRANSDUCER, INSTALLATION	FAR 69-01003-39	650520	WTR	YES NO	BOURNS 2007371707	692066

FAILURE MODE-CONTAMINATION. TRANSDUCER EXHIBITED ZERO OUTPUT VOLTAGE WHEN PRESSURIZED TO 3000 PSIG. FAILURE WAS NOT CONFIRMED. CONTAMINANT PARTICLES MAY HAVE CAUSED THE FAILURE BY GETTING BETWEEN THE WIPER ARM AND THE RESISTANCE MA NDREL.

CORRECTIVE ACTION-INFORMED THE VENDOR OF THE CONTAMINANTS FOUND IN THE OIL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4262 PRESSURE TRANSDUCER	UTP-PRT 69-01004-33	650520	GD/C	YES NO	WIANCKO PZ-4262-33	

FAILURE MODE - OUT OF TOLERANCE, DURING THE P.C. AFTER Z-AXIS TEMPERATURE VIBRATION, THE OUTPUT HAD A NEGATIVE SHIF T OF 9.8 TO 11.7 PERCENT THROUGHOUT THE RANGE OF THE SPECIMEN. S/N 4040520. THIS FAILURE RESULTED FROM TESTS WHICH I NTENTIONALLY EXCEEDED DESIGN REQUIREMENTS. CONNECTOR PIN-C (OUTPUT GROUND) WAS FOUND TO HAVE A 700 OHM RESISTANCE TO THE TRANSDUCER CASE. ALSO, ONE OF THE WIRES IN THE SENSOR WERE BROKEN IN 2 PLACES.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							000171

CORRECTIVE ACTION - NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-AS-E4-4966-F PRESSURE TRANSDUCER	FAR 7-01731-8	1840 650319	FACTORY	YES NO	BOURNS 71724-0-10-752	000841

FAILURE MODE-STRUCTURAL. THEPRESSURE TRANSDUCER HAD AN OUTPUT VOLTAGE STATIC ERROR OF PLUS 9.0 PERCENT. A PLUS OR MINUS 0.75 PERCENT MAXIMUM STATIC ERROR ISALLOWED. THE FAILURE IS ATTRIBUTED TO OVERPRESSURIZATION. IT COULD NOT BE DETERMINED WHERE THE OVERPRESSURIZATION OCCURRED. REAS FS44P.

CORRECTIVE ACTION-ALL INVOLVED GDC PERSONNEL WERE INFORMED OF THE DISCREPANCY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA9531/PR-4CO-03-264 TLM CANISTER	COMPOSITE-B FACT	2640 650314	ETR-12	YES NO		007596

FAILURE MODE-OUT OF TOLERANCE. SPURIOUS FREQUENCIES WERE NOTED ON EITHER SIDE OF THE PRIMARY CARRIER FREQUENCY OF 2 29.9MC DURING THE TEST.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-REPLACE TELEMETRY CANISTER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-93-E4-4988-F AUDIOFREQUENCY DETECTOR-DIODE	FAR 69-11118-5	650313	FACTORY	YES NO	FAIRCHILD	002067

FAILURE MODE-OPEN (ELECT). THE AUDIOFREQUENCY DETECTOR HAD AN OUTPUT OF MINUS 0.916 VOLT DC FOR A 180 DEGREES PHASE 2 VOLTS RMS INPUT WHEN 0.0 VOLT DC WAS EXPECTED. THE FAILURE WAS CAUSED BY A BROKEN WIRE LEAD IN THE CR-1 DIODE BRIDGE ASSEMBLY. THE BRIDGE ASSEMBLY IS MANUFACTURED BY FAIRCHILD SEMICONDUTOR CORPORATION AS A FSP-12, GDC P/N 87-1901 0-018. EXCESSIVE FLATTENING OR NICKING OF THE WIRE IN THE BREAK AREA WEAKENED THE WIRE ENOUGH TO CAUSE FAILURE FROM NORMAL VIBRATION AND THERMO-FLEXING OF THE WIRE. IT IS ASSUMED THAT THE FLATTENING TOOK PLACE WHEN THE LEAD WAS WELDED.

CORRECTIVE ACTION-A MORE FREQUENT INSPECTION OF THE WELD HAS BEEN INSTITUTED BY THE VENDOR.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4981-F AUDIOFREQUENCY DETECTOR-RESISTOR	FAR 69-11118-5	5601 650513	FACTORY	YES NO	GDC	892871

FAILURE MODE-SHORT (ELECT). THE AUDIOFREQUENCY DETECTOR BURNED OUT AND SPLIT WHEN POWER WAS APPLIED. FAILURE WAS CA USED BY THE RESISTOR R-8 LEAD SHORTING TO THE CASE OF TRANSISTOR Q-2, 2N930.

CORRECTIVE ACTION-ECN 401803 IS BEING PROCESSED TO ADD A NOTE TO DRAWING 69-11118 WHICH REQUIRES RESISTOR R-8 LEADS BE INSULATED. RELEASE OF THIS CHANGE WILL BE BY 12 JULY 1966.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4990-F DETECTOR-POTENTIOMETER	FAR 69-11118-5	650511	FACTORY	YES NO	SPECTROL	892866

FAILURE MODE-OPEN (ELECT). THE AUDIOFREQUENCY DETECTOR FAILED DURING PRODUCTION TESTING. ADJUSTMENT OF R8 SHOULD PR OVIDE A PLUS 5.000 PLUS OR MINUS 0.035 VOLT DC OUTPUT. ACTUAL ADJUSTMENT WAS ERRATIC AND SKIPPED FROM PLUS 2.530 TO PLUS 5.639 VOLTS DC. THE FAILURE WAS CAUSED BY A BROKEN WIRE LEAD IN THE INTERNAL WIPER CIRCUIT OF THE R8 POTENTIOME TER, P/N 86-75263-011, MANUFACTURED BY SPECTROL ELECTRONICS CORPORATION. THE SHARP BEND NEAR THE BROKEN WIRE LEAD EN D WEAKENED THE WIRE ENOUGH TO CAUSE FAILURE FROM NORMAL FLEXURE OF THE WIRE. THIS SHARP BEND WAS PRODUCED DURING FAB RICATION OF THE POTENTIOMETER, PROBABLY DURING SOLDERING.

CORRECTIVE ACTION-THE VENDOR INCREASED A RELATIVE NUMBER OF UNITS INSPECTED FOR 30 DAYS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4979-F DETECTOR-POTENTIOMETER	FAR 69-11118-5	650511	FACTORY	YES NO	SPECTROL	892847

FAILURE MODE-OPEN (ELECT). THE OUTPUT VOLTAGE OF THE AUDIOFREQUENCY DETECTOR JUMPED FROM PLUS 2.551 TO 6.792 VOLTS DC WHEN THE SPECTROL MODEL-60, R-8 POTENTIOMETER WAS ADJUSTED. A SETTING OF PLUS 5.000 PLUS OR MINUS 0.005 VOLTS DC IS SPECIFIED. FAILURE OF THE DETECTOR WAS CAUSED BY A BROKEN WIRE IN THE MANDREL OF THE POTENTIOMETER.

CORRECTIVE ACTION-THE FOLLOWING ACTION WAS REQUESTED. 1. DISCONTINUE USE OF SPECTROL MODEL-60 POTENTIOMETERS. 2. RE MOVE ALL SPECTROL MODEL-60 POTENTIOMETERS FROM STOCK.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-99-24-5006-F PRESSURE TRANSDUCER	FAR 27-01552-49	650510	FACTORY	YES NO	WIANCKO 54103-9	

FAILURE MODE-OUT OF TOLERANCE. TWO27-01552-49 AND TWO 27-01552-58 TRANSDUCERWERE REJECTED FOR BEING OUT OF STATIC E RROR BAND, CAUSED BY AGING CHANGES IN CARBON RESISTORS WHICH WERE IMPROPERLY INSTALLED.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							690688
CORRECTIVE ACTION-VENDOR REPAIRING ALL FAILURES OF THIS TYPE AT VENDOR EXPENSE. VENDOR CORRECTIVE ACTION INCLUDED D ISCIPLINARY LAYOFFS AND TRANSFERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4998-F BANDPASS FILTER-INDUCTOR	FAR 27-01295-5	7118 650506	FACTORY	YES NO	APPLIED COMPON ENTS ACI 3030-5	692662
FAILURE MODE-OUT OF SPECIFICATION. THE BANDPASS FILTER WAS REJECTED WHEN ITS MAXIMUM OUTPUT WAS 0.064 VOLT AC, WHER EAS 0.070 TO 0.115 VOLT AC WAS REQUIRED. THE FAILURE WAS CAUSED BY AN UNSTABLE INDUCTOR IN THE FILTER. AN UNSOLDERED CONNECTION WAS FOUND IN THE FILTER, BUT IT HAD NOT AFFECTED THE OPERATION OF THE FILTER. N/A 27-12267 FILTER ASSEMB LY. CORRECTIVE ACTION-APPLIED COMPONENTS INDICATED THAT IF FUTURE ORDERS ARE ACCEPTED, THEIR MANUFACTURING PROCESS WOUL D BE CHANGED AND MORE DETAILED CONTROLS WOULD BE IMPLEMENTED TO IMPROVE THE FILTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-3230 COMMUTATOR	FAR 27-01636-7	650506	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-182	692567
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. COMMUTATOR SPEED WAS 5.31 RPS WHEREAS THE MAXIMUM ALLOWED IS 5.25 R PS. THE INCREASE IN COMMUTATION RATE WAS DUE TO THE REDUCTION IN TORQUE REQUIREMENTS. CORRECTIVE ACTION-RECOMMENDED THE VENDOR BURN IN THE COMMUTATORS FOR 50 HOURS BEFORE CALIBRATION AND TEMPERATURE CY CLE THEN DURING CHECKOUT TESTS. ALSO RECOMMENDED USE OF A LARGER MOTOR, NOT AS SENSITIVE TO THE SPEED VARIATIONS WIT H LOAD CHANGE AS ARE PRESENTLY USED IN THE 20 AND 30 RPS UNITS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-3002-F TRANSDUCER, INSTRUMENTATION	FAR 68-01003-39	650505	SAN DIEG O	YES NO	BOURNS 2007371707	692067
FAILURE MODE-INTERNAL LEAK. TRANSDUCER EXHIBITED A STATIC ERROR OF-1.74 PERCENT. FAILURE WAS ATTRIBUTED TO A POROUS AND PITTED BRAZE POINT ON THE BOURDON TUBE, ALLOWING SYSTEM PRESSURE TO LEAK INTO THE TRANSDUCER CASE. THIS RESULTE D IN AN INCREASE IN THE TRANSDUCER REFERENCE PRESSURE, CAUSING THE NEGATIVE SHIFT. CORRECTIVE ACTION-VENDOR STATED AN IMPROPER WELD WAS THE BASIC CAUSE OF FAILURE, BUT THE DEFECTIVE UNIT WAS NOT DET ECTED BECAUSE OF AN IMPROPER LEAK CHECK PROCEDURE WHICH SINCE HAS BEEN CORRECTED. SURVEY 34-68 WAS ISSUED TO SURVEY ALL TRANSDUCERS OF THIS PART NUMBER SUSPECTED OF POSSIBLE BOURDON TUBE LEAKAGE.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4974-F DETECTOR-POTENTIOMETER	FAR 99-11118-5	7115 650429	FACTORY	YES NO	SPECTROL	892883

FAILURE MODE-OPEN (ELECT). THE OUTPUT VOLTAGE OF THE AUDIOFREQUENCY DETECTOR SKIPPED FROM PLUS 3.635 TO 6.442 VOLTS DC. THIS OCCURED DURING ADJUSTMENT OF POTENTIONETER R-6. THEN THE UNIT COULD NOT BE ADJUSTED TO THE REQUIRED PLUS 5 .000 PLUS OR MINUS 0.005 VOLTS DC. FAILURE WAS CAUSED BY SEVEN BROKEN WIRES ON THE MANDREL OF THE SPECTROL MODEL-60 POTENTIOMETER. THESE BROKEN WIRES WERE CAUSED BY A MANUFACTURING DEFECT IN THE POTENTIOMETER.

CORRECTIVE ACTION-THE FOLLOWING ACTION WAS REQUESTED. 1. DISCONTINUE USE OF SPECTROL MODEL-60 POTENTIOMETERS. 2. RE MOVE ALL SPECTROL MODEL-60 POTENTIOMETERS FROM STOCK.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4988-F UMBILICAL RECEPTACLE	FAR 99-11550-1	650429	FACTORY	YES NO	CANNON ELECTRI C	892869

FAILURE MODE-STRUCTURAL. THE UMBILICAL RECEPTACLE ASSEMBLY WAS REJECTED WHEN THE RECEPTACLE FRONT INSULATOR, 27-079 97-5, WAS FOUND CRACKED AND DELAMINATED BETWEEN THE POLARIZING PINHOLE AND CONTACT HOLE 1. THE CRACKING AND DELAMINA TION OCCURRED DURING DRILLING OPERATIONS BY CANNON ELECTRIC PERSONNEL. ALSO, THE POLARIZING PIN HOLE WAS NOT CHAMFER ED.

CORRECTIVE ACTION-THE PRINT CHANGE DENOTING THE POLARIZING PIN HOLE CHAMFER WAS INITIATED AFTER THIS UNIT WAS BUILT . A CANNON ELECTRIC ENGINEERING EVALUATION IS IN PROCESS TO DETERMINE WHETHER A MATERIAL CHANGE FOR THESE INSULATORS IS FEASIBLE. GDC DESIGN STATES THAT NO DESIGN CHANGE WILL BE MADE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4982-F DETECTOR-POTENTIOMETER	FAR 99-11110-801	131F 650427	FACTORY	YES NO	SPECTROL	892870

FAILURE MODE-OPEN (ELECT). THE A-R AUDIOFREQUENCY DETECTOR MODULE FAILED TO FUNCTION WHEN THE UNIT WARMED UP. THE F AILURE WAS CAUSED BY A BROKEN WINDING IN THE SPECTROL MODEL-60, R-6 POTENTIOMETER, 86-75868-011.

CORRECTIVE ACTION-THE FAULTY SPECTROL FIXTURE WHICH CAUSED THE RESISTANCE WIRES TO BREAK WAS CORRECTED. THIS POTENT IOMETER WAS DECLARED INACTIVE FOR NEW DESIGN AFTER 15 FEBRUARY 1963. IT WAS REMOVED FROM THE PREFERRED PARTS LIST IN MARCH 1964.

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4958-F POWER SUPPLY	FAR 88-13540-801	181F 650426	FACTORY	YES NO		892864

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE TRANSDUCER POWER SUPPLY HAD NO OUTPUT WHEREAS 2.5 VOLTS SHOULD APPEAR. FAILURE ANALYSIS SHOWED THAT THE NO 2.5 VOLT OUTPUT WAS CAUSED BY A FAULTY CABLE IN THE COMPONENT TEST SET. ALSO THE ANALYSIS SHOWED THAT THE 5.000 VOLT REFERENCE VOLTAGE COULD NOT BE ADJUSTED WITHIN TOLERANCE WHEN INSTALLED IN THE NEXT ASSEMBLY. THE 5.000 VOLT OUTPUT WAS TOO HIGH DUE TO THE DES.GN ALLOWING THIS VOLTAGE TO BE TOO HIGH IN A WORST-CASE CONDITION.

CORRECTIVE ACTION-NONE. THIS IS THE LAST PRODUCTION REQUIREMENT FOR THIS POWER SUPPLY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-3245 COMMUTATOR	FAR 27-01636-7	630421	FACTORY	NO NO	FIFTH DIMENSIO N MRXP-462	892868

FAILURE MODE-OUT OF TOLERANCE. APPPROXIMATELY 6 MINUTES 15 SECONDS AFTER STARTING THE VIBRATION TEST, TRACE 2 INDICATED BREAKUP. A FAULTY DUMMY PACKAGE USED DURING THE TESTING WAS DISCOVERED BY PRODUCTION PERSONNEL. THE COMMUTATOR FUNCTIONED NORMALLY OUTSIDE OF THE DUMMY PACKAGE.

CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-24-4973-F AMPLIFIER-POTENTIOMETER	FAR 55-01120-3	150F 650420	FACTORY	YES NO	MAYBERRY 128-1A	892880

FAILURE MODE-FAIL DURING OPERATION. THE DIFFERENTIAL AMPLIFIER FAILED WHEN OUTPUT OF NEITHER CHANNEL WOULD RESPOND TO CHANGES IN GAIN SETTING. THE CHANNEL-A FAILURE WAS NOT CONFIRMED. THE CHANNEL-B FAILURE WAS CONFIRMED, AND WAS CAUSED BY THE INOPERATIVE BOURNS POTENTIOMETER, 3281L-1-204. THE POTENTIOMETER WIPER STOP TAB WAS APPARENTLY BENT DURING ASSEMBLY, ALLOWING THE WIPER TO TRAVEL PAST ITS STOP AND DROP OFF THE ELEMENT DURING ADJUSTMENT. IT WAS CONCLUDED THAT THE AMPLIFIER MAY HAVE BEEN OPERATED WITHOUT SIGNAL INPUT, AND THAT THE POTENTIOMETER WAS TURNED PAST THE STOP IN AN ATTEMPT TO OBTAIN A CORRECT OUTPUT.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4975-F AMPLIFIER	FAR 55-01120-3	150F 650419	FACTORY	YES NO	MAYBERRY 128-1A	

FAILURE MODE-FAIL DURING OPERATION. THE DIFFERENTIAL AMPLIFIER FAILED WHEN OUTPUT OF NEITHER CHANNEL WOULD RESPOND

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TO CHANGES IN GAIN SETTING. THE UNIT MAY HAVE BEEN OPERATED WITHOUT SIGNAL INPUT. CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							692001
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C3809.1 PRESSURE TRANSDUCER	UTP-DUAL/PPT 69-01003-13	650415	6D/C	NO NO	BOURNS 2304206300	691120
FAILURE MODE - STRUCTURAL. THERE WAS A SHIFT IN THE CALIBRATION READINGS EXCEEDING +6 PERCENT THROUGHOUT THE CALIBR ATION RANGE. ALLOWABLE IS PLUS OR MINUS 1 PERCENT. SHIFT WAS CAUSED BY INADVERTENT OVER- PRESSURIZATION TO AN UNKNOW N PRESSURE. S/N 302-1540, PET LOT 710-1 CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-69-24-4971-F REGULATOR, ELECTRICAL-POTENTIOMETE R	FAR 69-11117-1	650414	FACTORY	YES NO		692005
FAILURE MODE-CONTAMINATION. THE REGULATOR ASSEMBLY HAD A MAXIMUN OUTPUT OF 2.566 VOLTS DC. REQUIRED OUTPUT IS 2.8 V OLTS DC TO 7.0 VOLTS DC. THE FAILURE WAS CAUSED BY THE BIAS VOLTAGE BEING OUT OF SPECIFICATIONS DUE TO A NON-ADJUSTA BLE POTENTIOMETER, 86-75263-008. THE POTENTIOMETER COULD NOT BE ADJUSTED BECAUSE THE THREADS ON THE DRIVE SCREW HAD BEEN STRIPPED DUE TO POTTING INSIDE THE POTENTIOMETER. THE POTTING COMPOUND COULD HAVE ENTERED THE POTENTIOMETER DUE TO A LOOSE CAP PLATE SEAL. CORRECTIVE ACTION-THE RECEIVING INSPECTION ACCEPTANCE PROCEDURE HAS BEEN REVISED TO REQUIRE AN IMMERSION TEST IN AC CORDANCE WITH MIL-STD-202-D.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4280 PRESSURE TRANSDUCER	UTP-DUAL/PPT 69-01004-33	650406	6D/C	YES NO	WIANCKO P2-4262-33	690172
FAILURE MODE - OUT OF TOLERANCE. DURING THE PROOF PRESSURE PORTION OF THE CALIBRATION RUN AT MINUS 65 DEGREES F, TH E SPECIMEN OUTPUT WAS 7.62 VDC. PROCEDURE REQUIREMENTS SPECIFY A MAXIMUM OUTPUT OF 5.4 VDC. S/N 4030310. THE DISCREP ANCY WAS CAUSED BY AN IMPROPERLY WELDED INTERNAL CONNECTION BETWEEN THE 1.47 K RESISTOR AND IN 457 DIODE IN THE LIMI TING OR CLAMPING CIRCUIT. CORRECTIVE ACTION - NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4966-F PRESSURE TRANSDUCER	FAR 69-01003-19	650401	FACTORY	YES NO	BOURNS 3004206305	892643

FAILURE MODE-INTERNAL LEAK. THE PRESSURE TRANSDUCER WAS REJECTED WHEN IT SHOWED A PLUS 16.8 PERCENT STATIC ERROR. T HE UNIT LOST VACUUM REFERENCE PRESSURE THROUGH A LEAK IN THE ELECTRICAL RECEPTACLE SOLDER JOINT. IT WAS CONCLUDED TH AT THE LEAKAGE WAS PROBABLY DUE TO MISHANDLING.

CORRECTIVE ACTION-APPROPRIATE PERSONNEL WERE MADE AWARE OF THE FAILURE AND WERE CAUTIONED CONCERNING PACKAGING AND HANDLING OF TRANSDUCERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BKF65-020/A01-401-00-297 INSTRUMENTATION DISCONNECT	FLIGHT	297D 650326	A-1 -1.95	YES NO		891330

FAILURE MODE-OPEN (ELECT). INFLIGHT STAGING DISCONNECT PLUG (100P1) WAS SHAKEN LOOSE BY ENGINE VIBRATION AT ENGINE START.

SYSTEM EFFECT-OPERATION STOPS PREMATURELY. 16 TELEMETRY MEASUREMENTS MONITORING THE BOOSTER PACKAGE AND THE S2 EQUI PMENT POD FAILED TO PROVIDE DATA.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-LAUNCH PROCEDURES 27-94801 27-90948 AND 27-88756 CHANGED TO INCLUDE A PULL TEST FOR PLUGS OF THIS TYPE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4965-F ABSOLUTE PRESSURE TRANSDUCER	FAR 27-01386-39	225D 650323	FACTORY	NO NO	SERVONIC 2091-0939	892644

FAILURE MODE-OPEN (ELECT). THE ABSOLUTE-PRESSURE TRANSDUCER WAS REJECTED WHEN THE OUTPUT WAS 34 PERCENT INFORMATION BAND WIDTH, WHEN 0.4 PERCENT IBW WASEXPECTED. ALSO, THERE WAS NO CONTINUITY BETWEEN PIN C, LOW SIDE OF RESISTANCE WI NDING, AND ANY OTHER PIN. LACK OF CONTINUITY WAS DUE TO AN OPEN ON THE LOW END, PIN C, OF THE POTENTIOMETER. THE OPE NCIRCUIT WAS CAUSED BY EXCESSIVE CURRENT FLOWING THROUGH THE WIPER. EXCESSIVECURRENT RESULTED FROM USING MISSILE CHE CKOUT DEVICES SUCH AS SIMPSON MULTI METERS CAPABLE OF DRAWING MORE THAN 5 MA CURRENT. MEAS 11130P.

CORRECTIVE ACTION-THE VACUUM-TUBE VOLTMETER IN THE TEST EQUIPMENT TOOL 3993 CONSOLE 18 PRESENTLY BEING USED TO CHEC K TRANSDUCERS AND THEIR CIRCUITS. USE OF THIS INSTRUMENT INSURES A CURRENT LESS THAN 5 MA.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4960-F TLM CANISTER-RECTIFIER	FAR 69-11100-813	7111 650322	FACTORY	YES NO	BENDIX 3139740-3	892869

FAILURE MODE-OUT OF SPEC. MEASUREMENT E96V, GUIDANCE 118 VOLTS 400 CPS PHASE-A, MEASURED 92 PERCENT INFORMATION BAN DWIDTH AND WAS ABOUT 5.5 PERCENT 1BW GREATER THAN MEASUREMENT E81V, PHASE-A AT THE OUTPUT OF THE INVERTER POWER SUPP LY, THROUGHOUT THE TEST-WHEREAS 51.5 PERCENT 1BW OR 118.3 VOLTS AC WERE EXPECTED. THE FAILURE WAS CAUSED BY THE MONI TOR CRYSTAL RECTIFIER WHICH HAD AN IMPROPERLY ADJUSTED R-24 POTENTIOMETER. IT IS THEORIZED THAT THE RECTIFIER WAS IM PROPERLY ADJUSTED BECAUSE MEASUREMENT E96V WAS A FUNCTION OF PHASE-B INSTEAD OF PHASE-A AS ON THE MISSILE.

CORRECTIVE ACTION-ECN383354 TO DRAWING 69-11100 WAS ISSUED 28 MAY 1965 MAKING THE CHANGES NECESSARY FOR THE FACTORY TO USE PHASE-A FOR MEASUREMENT E96V AS IS DONE ON THE MISSILE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA65-0015/PE-401-00-E04 TLM CANISTER	COUNTDOWN 27-11341-949	E04D 650321	ETR-12 -4920	YES NO		899645

FAILURE MODE-OUT OF SPECIFICATION. EXCESSIVE NOISE WAS OBSERVED ON ALL CONTINUOUS CHANNELS DURING AND FOLLOWING GCT NUMBER 1.

SYSTEM EFFECT-ERRATIC OPERATION. EXCESSIVE NOISE IN ALL CONTINUOUS CHANNELS ON RF NUMBER 1.

VEHICLE EFFECT-NONE. NO HOLD INITIATED.

CORRECTIVE ACTION-CANISTER REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-9B-24-4998-F PRESSURE TRANSDUCER	FAR 7-01720-8	E04D 650319	ETR CX.1 2	YES NO	BOURNS 75311-0-35-752	892635

FAILURE MODE-INTERNAL LEAK. DURING PROCEDURE 27-90681 THE TRANSDUCER INDICATED 600 PSIA WITH 1000 PSIA APPLIED TO T HE SYSTEM. UPON REMOVAL OF THE TRANSDUCER SILICONE DAMPING FLUID WAS LEAKING FROM THE ELECTRICAL PLUG END. TESTING C ONFIRMED LEAKAGE INTO THE TRANSDUCER CASE AND OIL EVIDENCED ON THE OUTSIDE OF THE CASE. THE CAUSE OF THE FAILURE IS UNKNOWN BECAUSE THE ANALYSIS WAS STOPPED BEFORE ITS COMPLETION. MEAS F246P.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4993-F PRESSURE TRANSDUCER	FAR 7-01731-8	650316	FACTORY	YES NO	BOURNS 71734-0-10-752	

FAILURE MODE-CONTAMINATION. THE UNIT WAS REJECTED WHEN THE OUTPUT WAS ERRATIC DURING THE FIRST X-Y PLOT OF THE CALI

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
BRATION RUN. THE REPORTED FAILURE WAS NOT CONFIRMED. HOWEVER, IT IS POSSIBLE THAT SOME OF THE NON-METALLIC PARTICLES FOUND IN THE SILICONE OIL COULD HAVE LODGED ON THE RESISTANCE MANDREL AND CAUSED THE DISCONTINUITY. CORRECTIVE ACTION-THIS TRANSDUCER WAS SHIPPED TO GDC ON 4 SEPTEMBER 1963. SINCE THEN BOURNS HAS TAKEN MANY STEPS TO IMPROVE THE TRANSDUCER INCLUDING CONTROLS ON POTTING COMPOUNDS, PRE-CLOSURE INSPECTION AND X-Y PLOTS, OUTPUT VOLTAG E VERSUS APPLIED PRESSURE.							092630
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4963-F PRESSURE TRANSDUCER	FAR 69-01003-38	7111 650317	FACTORY	YES NO	BOURNS 2007371704	092630
FAILURE MODE-OPEN (ELECT). TWO PRESSURE TRANSDUCER WERE REJECTED WHEN INTER MITTENT OPEN CONDITIONS WERE OBSERVED. THEINTERMITTENT OPEN CIRCUITS WERE CAUSED BY DETERIORATION OF THE EPOXY ADHESIVE USED IN THE TRANSDUCER ASSEMBLY AND BY MANY MIGRATING EPOXY PARTICLES BETWEEN THE WIPER AND THE POTENTIOMETER COIL. MEAS P27P AND P30P. CORRECTIVE ACTION-BOURNS HAS CHANGED THEIR ADHESIVE FROM BIGGS R-314 TO GE 9522.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27C4293 TEMPERATURE TRANSDUCER	UTP-PET 7-01633-5	650317	GD/C	YES NO	LEWIS 568348	091175
FAILURE MODE - OUT OF SPECIFICATION. INSULATION RESISTANCE WAS BELOW 20 MEGOHMSSPECIFIED. THIS RESULTED FROM NOT US ING THE REVISED TEST PROCEDURE TO PROTECT THE TRANSDUCER DURING CALIBRATION IN ICE WATER. S/N 501-0505. CORRECTIVE ACTION-TEST PERSONNEL REINSTRUCTED IN USE OF REVISED TEST PROCEDURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-A9-24-4963-F PRESSURE TRANSDUCER	FAR 27-01858-49	7111 650311	FACTORY	YES NO	WIANCKO 54103-9	090845
FAILURE MODE-DRIFT. DURING FINAL CHECKOUT, THE OUTPUT AT LOW PRESSURE WAS OUT OF BAND. REFER TO FAR-SLV-99-24-4972 FOR A SIMILAR CASE. THE LOW OUTPUT WAS PRESUMED TO BE DRIFT, DUE TO THE IMPROPER INSTALLATION OF CARBON RESISTORS RA THER THAN PRECISION TYPE. CORRECTIVE ACTION-VENDOR REPAIRING ALL FAILURES OF THIS TYPE AT OWN EXPENSE. VENDOR CORRECTIVE ACTION INCLUDED DISC IPLINARY LAYOFFS AND TRANSFERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-A9-24-4959-F ACCELEROMETER TRANSDUCER	FAR 7-01413-5	7112 650311	FACTORY	YES NO	BORG-WARNER 9747-B	
FAILURE MODE-CONTAMINATION. DURING FINAL CHECKOUT, THE ACCELEROMETER OUTPUT WAS BELOW SPECIFICATION. A SMALL CHIP W AS FOUND BETWEEN MAGNETS AND ONE MAGNET WAS CRACKED.							

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							890676

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR WAS REQUESTED TO REVIEW MANUFACTURING PROCEDURES. IN COMPLI ANCE, THE VENDOR REVISED FINISH, CLEANING, AND INSPECTION METHODS TO PRECLUDE RECURRENCE OF CONTAMINATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-A-99-24-4985-F PRESSURE TRANSDUCER	FAR 27-01558-51	650308	FACTORY	YES NO	WIANCKO 54103-13	890691

FAILURE MODE-DRIFT. DURING CALIBRATION, TRANSDUCER OUTPUT WAS BELOW THE ALLOWED LOWER LIMIT, CAUSED BY DRIFTCHARACT ERISTICS IN THE CARBON RESISTORS WHICH WERE IMPROPERLY INSTALLED. FAILURE ANALYSIS WAS DISCONTINUED BECAUSE OF SIMIL ARITY TO THE FAILURE DESCRIBED IN FAR-SLV-99-24- 4978.

CORRECTIVE ACTION-VENDOR REPAIRING ALL FAILURES OF THIS TYPE AT OWN EXPENSE. VENDOR CORRECTIVE ACTION INCLUDED DISC IPLINARY LAYOFFS AND TRANSFERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4973-F AMPLIFIER, TRANSMITTER	FAR 27-01612-7	2040 650305	ETR-CX.1 E	YES NO	BENDIX	892884

FAILURE MODE-ERRATIC OPERATION. THE TELEMETER HAD SPURIOUS RADIATION AT 235.639 AND 229.157 MEGACYCLES. NOMINAL FRE QUENCY IS 232.4 MEGACYCLES PLUS OR MINUS 0.01 PERCENT. THE FAILURE WAS CAUSED BY A MISMATCH OF TRANSMITTER OUTPUT, 2 7-01610-7, TO AMPLIFIER INPUT, 27-01612-7 IN TELEPAK 55-13666-047.

CORRECTIVE ACTION-THIS UNIT WAS SHIPPED FROM BENDIX-PACIFIC BEFORE JUNE 1964. IN JUNE 1964 THEIR TEST PROCEDURES WE RE REVISED TO INCLUDE A RADIOFREQUENCY INTERFERENCE CHECK ON ALL UNITS AS PART OF THE ACCEPTANCE CRITERIA.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GDC/ZZH63-008-DA1040-/L3-THO-03-71 COMPOSITE-FRD/DPL 04 TRANSDUCER-SUSTAINER FUEL PUMP		7104 650304	WTR	YES NO		899776

FAILURE MODE-LEAK-EXTERNAL AT THE SUSTAINER FUEL PUMP INLET PRESSURE TRANSDUCER DURING THE FUEL LEAK CHECK.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-RE-TORQUED THE SEAL ON THE TRANSDUCER.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ETR-008/P2-4CO-08-204 TLM CANISTER	COMPOSITE-J FACT	204D 650303	ETR-12	YES NO		897531

FAILURE MODE-FAIL DURING OPERATION. SPURIOUS SIGNALS AT 227.5 AND 235.0 MEGACYCLES WERE OBSERVED WHILE TELEMETRY WA S RADIATING.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-9D-24-4992-F ABSOLUTE PRESSURE TRANSDUCER	FAR 68-01003-39	7104 650302	PALC2-3	YES NO	BOURNS 2007571707	892640

FAILURE MODE-CONTAMINATION. THE UNIT FAILED WHEN IT EXHIBITED AN INTERMITTENT OUTPUT. THE FAILURE IS ATTRIBUTED TO CONTAMINATION ON THE RESISTANCE MANDREL CAUSING DISCONTINUITY. PREVIOUS ANALYSES REVEALED AN EPOXY ADHESIVE USED IN THE TRANSDUCERS DETERIORATES AND MIGRATES THROUGHOUT THE SILICONE OIL.

CORRECTIVE ACTION-BOURNS STATED THAT CLEANLINESS IS CONSTANTLY BEING STRESSED AND THAT PERSONNEL WERE AGAIN REMINDE D OF THE NECESSITY FOR THOROUGHLY CLEANING UNITS. ALSO BOURNS HAS CHANGED THEIR ADHESIVE FROM BIGGS R-314 TO GE 9522 .

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-3236 CALIBRATOR	FAR 27-12291-1	650302	FACTORY	YES NO		892563

FAILURE MODE-ERRATIC OPERATION. CALIBRATION PULSES WERE INTERMITTENTLY MISSING. FAILURE COULD NOT BE CONFIRMED.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ETR-008/P24CO-01-204 TLM CANISTER	COMPOSITE-B FACT	204D 650301	ETR-12	YES NO		897530

FAILURE MODE-FAIL DURING OPERATION SPURIOUS SIGNALS AT 235.0 MEGACYCLES WERE OBSERVED WHILE TELEMETRY WAS RADIATING .

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-99-24-4984-F PRESSURE TRANSDUCER	FAR 87-01552-49	650301	FACTORY	YES NO	WIANCKO 54103-9	690639

FAILURE MODE-OUT OF TOLERANCE THREE OF THESE TRANSDUCERS WERE REJECTED DURING CALIBRATION, FOR EXCEEDING THE OUTPUT ERROR BAND. ONE OF THE THREE WAS TESTED AND WAS WITHINERROR BAND. IT HAD PRECISION RESISTORS. THE OTHER TWO WERE OU T OF BAND, AND HAD CARBONRESISTORS WHICH WERE IMPROPERLY INSTALLED.

CORRECTIVE ACTION-VENDOR REPAIRING ALL FAILURES OF THIS TYPE AT OWN EXPENSE. VENDOR CORRECTIVE ACTION INCLUDED DISC IPLINARY LAYOFFS AND TRANSFERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-3239 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 87-01552-49	1560 650227	36A	NO NO	WIANCKO 54103-9	690602

FAILURE MODE-STRUCTURAL. TRANSDUCER HAD A NEGATIVE OUTPUT AT ZERO PSID DUE TO A SHIFT CAUSED BY DAMAGE TO THE BOURD ON TUBE AS A RESULT OF EXCESSIVE POSITIVE PRESSURE. ALSO, THE BOURDON TUBE RETAINING WIRE WAS BENT AND IMPROPERLY BR AZED.

CORRECTIVE ACTION-RE-EXAMINE ALL PROCEDURES APPLICABLE TO AU81P TO ELIMINATE ANY POSSIBILITY THAT MORE THAN 15 PSID IS APPLIED TO THESE UNITS. INFORM VENDOR OF POTENTIAL PROBLEM AREA CONCERNING BRAZED JOINTS ON BOURDON TUBE RETAINI NG WIRES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4954-F TRANSMITTER-SCREW	FAR 87-01610-5	7115 650223	FACTORY	YES NO	BENDIX 3131107-3	692691

FAILURE MODE-SHORT (ELECT). THE TRANSMITTER WAS REJECTED WHEN OUTPUT WAS MEASURED AT 5.5 WATTS OF RADIOFREQUENCY EN ERGY AT 250.677 MCPS. SPECIFICATIONS REQUIRE AT LEAST 7 WATTS AT 249.9 PLUS OR MINUS 0.025 MCPS. THE FAILURE WAS CAU SED BY A DEFECTIVE HEAT SINK MOUNTING SCREW. THE SPUR ON THE SCREW DUG INTO THE HEAT SINK, REMOVING ITS ELECTRICAL I NSULATING COVERING AT THE INTERFACE OF THE HEAT SINK WITH THE TRANSMITTER CHASSIS. THIS BREAK IN HEAT SINK COVERING CREATED A SHORT CIRCUIT WHEN THE MOUNTING SCREW WAS POSITIONED.

CORRECTIVE ACTION-THE VENDOR ASSEMBLY LINE PERSONNEL AND INSPECTORS WERE MADE AWARE OF THE FAILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-3231 TELEMETER-WIRING	FAR 55-13868-845	650223	FACTORY	YES NO		

FAILURE MODE-SHORT, ELECTRICAL. TELEMETER WAS REPORTED TO HAVE BEEN FOUND WITH BURNT WIRES IN THE 28 VOLT POWER INP

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UT AND OUTPUT TO THE TRANSIENT SUPPRESSOR. WHEN OPENED FOR FAILURE ANALYSIS THE WIRES COULD NOT BE FOUND-THEY APPARENTLY HAD BEEN REMOVED AND REPLACED. NO INTERNAL DAMAGE COULD BE FOUND. IT WAS CONCLUDED THE REPORTED BURNT WIRES WERE CAUSED BY A 28 VOLT SHORT CIRCUIT EXTERNAL TO THE TELEMETER. CORRECTIVE ACTION-NONE.							692569
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-SLV-A9-24-4943 ACCELEROMETER TRANSDUCER	FAR 7-01413-8	7111 650223	FACTORY	YES NO	BORG-WARNER 9747-B	690677
FAILURE MODE-CONTAMINATION. DURING FINAL CHECKOUT OF 7111, THE ACCELEROMETER HAD NO OUTPUT. A SMALL CHIP WAS FOUND WHICH PREVENTED THE VIBRATION WIRE FROM MOVING. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR WAS REQUESTED TO REVIEW MANUFACTURING PROCEDURES. IN COMPLIANCE, THE VENDOR REVISED FINISH, CLEANING, AND INSPECTION METHODS TO PRECLUDE RECURRENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	PET-TP-2-0080.1 PRESSURE TRANSDUCER	UTP-PET 7-01731-1	650222	FACTORY	YES NO	BOURNS 71724-0-6-752	690766
FAILURE MODE-OUT OF TOLERANCE. DURING POST LOW, HIGH AND AMBIENT TEMPERATURE TESTS, THE UNIT EXHIBITED AN OUT OF TOLERANCE ERROR BAND OF -0.18 AND -0.36 PERCENT FSV/R. THE FAILURE WAS ATTRIBUTED TO VENDOR QC INSPECTION BEING PERFORMED ONLY AT AMBIENT TEMPERATURE. CORRECTIVE ACTION-GD/C REJECTED PET LOT 15 AND RETURNED THE TRANSDUCERS TO THE VENDOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-A9-24-4970-F TLM CANISTER-CONNECTOR	FAR 27-14596-1	147F 650219	FACTORY	YES NO	BENDIX	692867
FAILURE MODE-FAIL DURING OPERATION. TELEMETER ASSEMBLY 2 HAD A ZERO VOLT DC OUTPUT ON 102U1J2-6-AND N WHEREAS 5.05 VOLTS DC WAS EXPECTED. THE FAILURE WAS UNCONFIRMED. IT IS ASSUMED THAT THE UNCONFIRMED FAILURE WAS CAUSED BY AN INADVERTENTLY LOOSENED CONNECTOR ON THE MISSILE DURING INITIAL TROUBLESHOOTING OF THE PROBLEM. CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4970-F CALIBRATOR, DIODE	FAR 27-13094-1	147F 650219	FACTORY	YES NO	BENDIX	692886

FAILURE MODE-SHORT (ELECTRICAL). IN TELEMETER ASSEMBLY 1, P/N 27-13497-3, THE CALIBRATION SHIFTED FROM DATA LEVEL T O ZERO PERCENT INFORMATION BANDWIDTH AND STAYED THERE. IT SHOULD HAVE SHIFTED BACK AND FORTH AT APPROXIMATELY ONE-HA LF SECOND INTERVALS. THE FAILURE WAS TRACED TO THE CALIBRATOR, 27-13094-1. THE MULTIVIBRATOR OF THE CALIBRATOR WOULD NOT OPERATE BECAUSE OF TWO SIMULTANEOUSFAILURES. 1. ZENER DIODE CR-1, 87-19005-301, 652CD, MANUFACTURED BY TEXAS IN STRUMENTS, WAS ELECTRICALLY LEAKY. 2. TRANSISTOR Q-4, 2N910, MANUFACTURED BY GENERAL ELECTRIC, SHORTED COLLECTOR TO EMITTER.

CORRECTIVE ACTION-THE TEXAS INSTRUMENTS MANUFACTURING SPECIFICATION WAS REVISED TO INCLUDE A 100 PERCENT SCREEN OF DEVICES FOR CENTERING OF SILICON WAFER ON KOVAR TAB. GENERAL ELECTRIC DISCLAIMED RESPONSIBILITY FOR THE TRANSISTOR F AILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-3241 PRESSURE TRANSDUCER	FAR 27-01586-29	156D 650219	ETR	YES NO	SERVONIC INST.	690591

FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER READ 4 PERCENT LOW DUE TO AN INHERENT PRESSURE RIPPLE IN THE HYDRAULIC RE TURN SYSTEM WEARING OUT THE MANDREL IN THE 25 TO 100 PSIA REGION.

CORRECTIVE ACTION-DESIGN CHANGE REQUIRED. THREE SUGGESTIONS. (1) PLACE AN ORIFICE BEFORE THE TRANSDUCER PRESSURE PO RT TO DAMP THE PRESSURE RIPPLE, (2) REPLACE POTENTIOMETRIC TRANSDUCER WITH A VARIABLE RELUCTANCE OR STRAIN-GAGE TYPE , AND (3) MODIFY THE BOOSTER HYDRAULIC RETURN SYSTEM TO ELIMINATE OR REDUCE THE PRESSURE RIPPLE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-4110 PRESSURE TRANSDUCER	UTP-PET 7-01731-5	650217	CDC	YES NO	BOURNS 71724-0-10-752	692210

[redacted]

FAILURE MODE-OUT OF TOLERANCE. DURING THE TEMPERATURE TEST ON 5 MARCH 1965 THE ERROR WAS ALSO HIGH OUT OF TOLERANCE . THIS IS AN OLDER TYPE TRANSDUCER, SUBJECT TO DISCREPANCIES OF THIS TYPE, PET LOT TESTING, BY REVELATION OF SUCH PE RFORMANCE, RESULTSIN THE REJECTION OF BELOW-STANDARD UNITS. (S/N 4121974).

CORRECTIVE ACTION-PET LOT 27 WAS REJECTED ON 18 MARCH 1965.

[redacted]

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	HZ-9D-24-4961-F AMPLIFIER	FAR 27-12782-811	650216	WTR	YES NO	BENDIX-PACIFIC	892890

FAILURE MODE-ERRATIC OPERATION. THE RADIO FREQUENCY TRANSMITTING SECTION EMITTED SPURIOUS SIGNALS. THIS UNIT CONSIS TS OF 1. TRANSMITTER, 27-01610-1. 2. POWER AMPLIFIER, 27-01612-1. 3. FILTER, 27-01608-1. THE FAILURE IS ATTRIBUTED T O LOW POWER OUTPUT FROM THE TRANSMITTER AND LOW POWER AMPLIFIER OUTPUT. THESE CONDITIONS WERE CAUSED BY THE TRANSMIT TER NOT BEING TUNED PROPERLY, AND THE TUBES IN THE POWER AMPLIFIER BEING OVERDRIVEN. ALSO, THE RF SECTION WAS NOT A MATCHED SET.

CORRECTIVE ACTION-THIS UNIT WAS SHIPPED FROM BENDIX-PACIFIC IN APRIL 1964. IN JULY 1964 THEIR TEST PROCEDURES WERE REVISED TO INCLUDE A RADIOFREQUENCY INTERFERENCE CHECK ON ALL UNITS AS PART OF THE ACCEPTANCE CRITERIA.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-3238 PRESSURE TRANSDUCER-	COMPOSITE-FRD/DPL 69-01003-31	156D 650216	ETR35A	YES NO	BOURNS 2007371703	891360

FAILURE MODE-ERRATIC OPERATION. A LOW AND ERRATIC OUTPUT WAS RECORDED DURING TESTING OF CTP-INT-0008. THE FAILURE W AS CONFIRMED AS REPORTED. LACK OF ADHESION BETWEEN THE SOLDER AND TRANSDUCER CASE RESULTED IN A FRACTURED SOLDER JOI NT. LOSS OF INTERNAL PRESSURE THEREFORE CAUSED THE NEGATIVE SHIFT IN VOLTAGE OUTPUT.

CORRECTIVE ACTION-VENDOR SHOULD BE INFORMED OF THIS FAILURE AND THE RESULTS OF THIS ANALYSIS. FLUXING AND SOLDERING PROCEDURES BEING USED SHOULD BE INVESTIGATED TO PREVENT RECURRENCE OF THE FAILURE MODE DESCRIBED IN THIS REPORT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-99-24-4936 PRESSURE TRANSDUCER	FAR 69-01004-23	650215	FACTORY	YES NO	BOURNS 2023203001	899326

FAILURE MODE-DRIFT. 24 TRANSDUCERS WERE REJECTED IN A 3-MONTH PERIOD BEFORE DATE OF 650215. ALL PARTS SHOWED MINOR CHANGES IN STATIC ERROR BAND. TESTS AND ANALYSIS REVEALED THE CAUSE OF FAILURE TO BE NON-STABLE COMPENSATING RESISTO RS.

CORRECTIVE ACTION-THE FAILURES WERE CONFIRMED. RAR SLV-99-24-8491 WAS ISSUED, AND THE VENDOR RESPONDED BY CHANGING THE TYPE OF TRANSISTOR TO A MORE STABLE FILM TYPE. THIS ACTION RESULTED IN A NEW PART NO. 69-01004-123.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C4148 PRESSURE TRANSDUCER	UTP-PET 69-01003-39	650215	60/C	YES NO	BOURNS 2007371707

FAILURE MODE-OUT OF SPECIFICATION. THE FOLLOWING DISCREPANCIES WERE NOTED DURING EXAMINATION OF THE TRANSDUCER. THE

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1.12 INCH DIMENSION WAS 1.131 INCH, .001 INCH OVER MAXIMUM ALLOWABLE. THE MOUNTING SURFACES HAD NICKS AND BURRS WHI CH PREVENTED THE UNIT FROM LYING FLAT ON THE MOUNTING SURFACE. EPOXY SEALANT USED IN THE EVACUATION HOLE PROTRUDED A BOVE THE SURFACE. CORRECTIVE ACTION-CAR 5838, 21 JUNE 1965, REQUESTED THAT THE VENDOR TAKE CORRECTIVE ACTION TO ASSURE THAT TRANSDUCE RS MEET SPECIFICATION REQUIREMENTS.							698511
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-3242 DIFFERENTIAL-PRESSURE TRANSDUCER	FAR 27-01552-49	156D 650215	ETR	NO NO	WIANCKO 54103-9	690590
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER HAD A NEGATIVE OUTPUT AT ZERO PSID DUE TO A SHIFT CAUSED BY DAMAGE TO THE BOURDON TUBE AS A RESULT OF EXCESSIVE POSITIVE PRESSURE. ALSO, TWO SOLDERED TERMINATIONS WERE FOUND TO PROTRUDE THR OUGH THE POTTING SURFACE. CORRECTIVE ACTION-RE-EXAMINE ALL PROCEDURES APPLICABLE TO AU81P TO ELIMINATE ANY POSSIBILITY THAT MORE THAN 15 PSID IS APPLIED TO THESE UNITS. INFORM THE VENDOR OF THE POTENTIAL PROBLEM AREA CONCERNING SOLDERED TERMINATIONS PROTRUD ING THROUGH THE POTTING SURFACE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	60-2057 TEMPERATURE TRANSDUCER	UTP-SLT 7-01633-5	650212	GD/C	YES NO	LEWIS 368348	691176
FAILURE MODE-STRUCTURAL. ELEMENT B OPENED. DURING THE X-AXIS TEMP-VIBRATION RUN AT 440 CPS. PERIODIC RE-EVALUATION TESTS ON THIS UNIT WERE COMPLETED 2-8-65. THIS SPEC. IS BEYOND THE SCOPE OF THE PROCUREMENT SPECIFICATION. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NZ-A9-24-4947-F TRANSMITTER, DIODE	FAR 27-12762-813	899D 650210	FACTORY	YES NO	BENDIX	
FAILURE MODE-OUT OF TOLERANCE. TELEMETER FAILED WHEN CHANNEL 11 INDICATED NOISE OF 6 PERCENT INFORMATION BANDWIDTH. 5 PERCENT IS THE MAXIMUM ALLOWED. FAILURE WAS DUE TO A TRANSMITTER FAILURE CAUSED BY THE VARACTOR DIODES OPERATING WITH TOO HIGH A BIAS VOLTAGE. THIS FORCED THE DIODES TO OPERATE IN THEIR ASTABLE REGION, PERMITTING A RELAXATION OSC ILLATION OR NOISE PRODUCTION PHENOMENON TO EXIST. CORRECTIVE ACTION-RECOMMENDED VENDOR SELECT VARACTOR BIASING RESISTORS DURING TRANSMITTER ASSEMBLY TO AVOID OPERATI ON OF THE VARACTOR IN ITS ASTABLE REGION. ALSO RECOMMENDED VENDOR REVISE QUALITY CONTROL TEST PROCEDURES TO TEST FOR							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
OUTPUT DISTORTION BETWEEN TEMPERATURE LIMITS WHILE VARYING INPUT VOLTAGE OVER THE SPECIFICATION RANGE.							693716
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4931-F POWER SUPPLY-DIODE	FAR 55-13540-3	650209	FACTORY	YES NO		691627
FAILURE MODE-STRUCTURAL. TRANSDUCER POWER SUPPLY INDICATED ERRATIC OPERATION DURING VIBRATION ELECTRICAL TEST. FAIL URE WAS CONFIRMED AND ATTRIBUTED TO AN INTERMITTENT CONNECTION IN THE REGULATOR DIODES, CR-5, IN430A. THE INTERMITTE NT CONNECTION RESULTED FROM A BROKEN LEAD WIRE TO THE CRYSTAL WITHIN THE DIODE.							
CORRECTIVE ACTION-VENDOR WAS NOTIFIED OF THE FINDINGS OF THIS REPORT. IT WAS ALSO VERIFIED THAT THE POWER SUPPLY HA D NOT EXCEEDED ITS MAXIMUM VIBRATION TIME.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4931-F POWER SUPPLY-TRANSISTORS	FAR 55-13540-3	650209	FACTORY	YES NO		691626
FAILURE MODE-SHORT (ELECT). TRANSDUCER POWER SUPPLY FAILED WHEN ALL OUTPUT VOLTAGES WERE ZERO. FAILURE WAS CONFIRME D BUT CAUSE OF FAILURE COULD NOT BE DETERMINED. TWO SHORTED TRANSISTORS WERE REPLACED AND THE ORIGINAL FAILURE WOULD NOT RECUR.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-99-24-4251-F POWER SUPPLY-WIRING	FAR 27-01611-1	148F 650205	FACTORY	YES NO	BENDIX-PACIFIC 3130896-2	692692
FAILURE MODE-SHORT (ELECT). THE POWER SUPPLY FAILED DURING NEXT-ASSEMBLY ELECTRICAL TESTING. THE TEST SET CIRCUIT B REAKER ACTIVATED WHEN 28-VOLT DC WAS APPLIED. THE FAILURE WAS ISOLATED TO THE SHIELDED WIRE CONNECTING THE INPUT TER MINAL TO RESISTOR R-15 AND TO CAPACITORS C-10 AND C-1. THE SHIELDED WIRE WAS BEING PINCHED BY THE CIRCUIT BOARD, CAU SING A SHORT CIRCUIT.							
CORRECTIVE ACTION-THE VENDOR STATES THAT THE ROUTING AND SECURING OF WIRE BUNDLES ON ALL FUTURE UNITS WILL BE WATCH ED MORE CLOSELY TO ASSURE AGAINST A RECURRENCE OF THIS TYPE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4949-F TRANSDUCER, INSTRUMENTATION	FAR 69-01003-31	53-01 650205	ETR	YES NO	SOURNS 2007371703	
FAILURE MODE-CONTAMINATION. TRANSDUCER OUTPUT WAS INTERMITTENT DUE TO A LARGE QUANTITY OF PLASTIC-LIKE PARTICLES IN							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
THE DAMPING OIL. THE PARTICLES WERE BETWEEN THE WIPER AND THE WINDING AND CAUSED THE ERRATIC OUTPUT.							892676
CORRECTIVE ACTION-VENDOR IS INITIATING NEW IMPROVED CLEANING PROCEDURES TO PREVENT RECURRENCE OF THIS PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	NZ-A9-24-4929F OSCILLATOR POTENTIOMETER	FAR 87-12762-613	2990 650203	FACTORY	YES NO		893715
FAILURE MODE-OUT OF TOLERANCE. TELEMETER FAILED WHEN THE MEASUREMENT INDICATING SUSTAINER ENGINE YAW POSITION WAS READING 50 PERCENT INFORMATION BANDWIDTH WHEREAS 100 PERCENT WAS EXPECTED AND 0 PERCENT WHEN 50 PERCENT WAS EXPECTED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A DEFECTIVE FREQUENCY-ADJUST POTENTIOMETER, R-18, IN THE CHANNEL 4 SUBCARRIER OSCILLATOR.							
CORRECTIVE ACTION-NONE. EXACT CAUSE OF FAILURE NOT DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	69-4110 PRESSURE TRANSDUCER	UTF-PET 7-01731-5	650203	GDC	YES BOURNS NO 71724-0-10-752		892214
FAILURE MODE-LEAK-EXTERNAL. SILICONE OIL LEAKED THROUGH THE POORLY SOLDERED JUNCTION OF THE CASE AND THE ELECTRICAL CONNECTOR. IT WAS NOT POSSIBLE TO DETERMINE IF THE DAMAGE OCCURRED BEFORE OR AFTER IT WAS RECEIVED BY GDC. (S/N 412 1975)							
CORRECTIVE ACTION-THE TRANSDUCER WAS REJECTED ON AN I.R., AND ANOTHER ARTICLE WAS SELECTED FOR THE PET.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	NZ-A9-24-4948-F WIRING	FAR 87-12762-613	2990 650128	FACTORY	YES NO		892619
FAILURE MODE-OUT OF TOLERANCE. TELEMETER FAILED WHEN NO EXTERNAL 28 VOLT SIGNAL WAS OBTAINED. FAILURE WAS CONFIRMED AND WAS CAUSED BY WIRES 2 AND 21 BEING INTERCHANGED AT CONNECTOR J-34 DURING TELEMETER ASSEMBLY.							
CORRECTIVE ACTION-RECOMMENDED PRODUCTION TEST EQUIPMENT BE CHANGED TO TEST ALL CIRCUITRY WITHIN THE TELEMETER INCLUDING THE RF MONITOR CIRCUIT.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4964-F PRESSURE TRANSDUCER	FAR 7-017E0-8	264D 650128	FACTORY	YES NO	SERVONIC INSTR UMENTS K-75	892643
CORRECTIVE ACTION-TESTING IS UNDERWAY, PER ECP 7681, TO STUDY THE FEASIBILITY OF REPLACING THE POTENTIOMETRIC PRESS URE TRANSDUCER WITH A VARIABLE RELUCTANCE TYPE. ALSO, EFFECTIVE JUNE 1968, THE VENDOR REMOVED ALL CLOTH RAGS FROM HI S ASSEMBLY AND TEST AREAS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-4187 PRESSURE TRANSDUCER	UTP-PET 27-01386-39	650127	GD/C	YES NO	SERVONIC 2091-0909	892646
FAILURE MODE-ERRATIC OPERATION. DURING Z AXIS VIBRATION, SPIKES GREATER THAN 3 PERCENT WERE EXPERIENCED AT 1800 CPS AND TO A LESSER EXTENT AT 750 CPS. S/N 4121800, PET LOT 4.							
CORRECTIVE ACTION-NONE. CAUSE OF THE REPORTED DISCREPANCY WAS OPERATION OF THE SHAKER FIXTURE COMBINATION AT ACCUMM ULATIVE 40G RMS LEVEL INSTEAD OF THE DESIRED 25G RMS LEVEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4934-F PRESSURE TRANSDUCER	FAR 69-01003-31	650128	FACTORY	YES NO	BOURNS 2007371703	891596
FAILURE MODE-OUT OF TOLERANCE. THIS TRANSDUCER WAS REJECTED FOR A STATIC ERROR OF PLUS 1.33 PERCENT. MAXIMUM ALLOWA BLE IS PLUS OR MINUS 1.0 PERCENT. THE UNIT WAS SHIPPED FROM THE VENDOR IN A MARGINAL CONDITION. THE DIFFRENCE BETWEE N THE CONVAIR AND THE VENDOR CALIBRATIONS IS PROBABLY EQUIPMENT ERROR.							
CORRECTIVE ACTION-A LONG-TERM STABILITY PARAGRAPH WAS ADDED TO THE SPECIFICATIONS TO PERMIT ACCEPTANCE OF UNITS WIT H SPECIFIED DEVIATIONS FROM PREVIOUS, ACCEPTABLE CALIBRATIONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4935-F DETECTOR CAPACITOR	FAR 69-11118-1	7201 650128	FACTORY	YES NO		
FAILURE MODE-OUT OF TOLERANCE. FREQUENCY DETECTOR OUTPUT INDICATED 2.882 VOLTS DC WHEREAS 5.000 PLUS OR MINUS 0.005 VOLTS DC WAS SPECIFIED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE FAILURE OF THE C-2 CAPACITOR. THE C-2 CAPACITOR IS RATED AT 10 VOLTS, BUT IS SUBJECTED TO 10.8 VOLTS IN THE DETECTOR.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-ECP 3434, PARTS IMPROVEMENT, PROVIDES FOR REPLACEMENT OF EXISTING ELECTRONIC PARTS WITH SPECIAL QUALITY CAPACITORS, ETC. THE ECP WAS APPROVED BY THE CUSTOMER ON 20 JULY 1988, AND IS EFFECTIVE ON ARTICLES 69-1690-S 1 THROUGH 88 AND 69-1640-S1 THROUGH 88.							891437
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-SLV-99-24-4978-F PRESSURE TRANSDUCER	FAR 27-01352-49	650126	FACTORY	YES NO	WIANCKO 54103-9	890667
FAILURE MODE-ELECTRICAL OPEN. DURING CALIBRATION THE TRANSDUCER WAS OUT OF BAND(LOWOUTPUT), DUE TO DRIFT IN RESISTANCE. A CARBON RESISTOR WAS FOUND TO BE OPEN. FOR A RELATED CASE SEE FAR-SLV-AS-24-4983-F. CARBON RESISTORS WERE IMPROPERLY INSTALLED.							
CORRECTIVE ACTION-VENDOR REPAIRING ALL FAILURES OF THIS TYPE AT OWN EXPENSE. VENDOR CORRECTIVE ACTION INCLUDED DISCIPLINARY LAYOFFS AND TRANSFERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4940-F ELECTRICAL FILTER CAPACITOR	FAR 27-12287-3	650121	FACTORY	YES NO	APPLIED COMPONENTS ECI-210	891643
FAILURE MODE-OUT OF TOLERANCE. LIMITER FILTER FAILED DURING VIBRATION OF THE NEXT ASSEMBLY WHEN THE OUTPUT VOLTAGE OF CHANNEL 4 BECAME ERRATIC. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A POOR BOND BETWEEN THE ROLL OF FOIL FORMING THE CAPACITOR BODY AND ONE LEAD.							
CORRECTIVE ACTION-RECEIVING INSPECTION IS NOW USING A PULL TEST ON CAPACITOR LEADS. ONLY LOW DISSIPATING FACTOR CAPACITORS ARE NOW PURCHASED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4916-F PRESSURE TRANSDUCER	FAR 69-01003-31	650118	FACTORY	YES NO	BOURNS 2007371703	891589
FAILURE MODE-LEAK EXTERNAL. THE UNIT HAD A MINUS 1.54 PERCENT STATIC ERROR. 1.0 PERCENT IS ALLOWED. THIS FAILURE WAS CAUSED BY EXCESS PRESSURE IN THE EVACUATED CHAMBER. MOST LIKELY SOURCE OF THIS PRESSURE IS A LEAK IN THE BOURDON TUBE. HOWEVER THE LEAK WAS NOT FOUND.							
CORRECTIVE ACTION-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4930-F DETECTOR	FAR 69-11118-1	7115 650111	FACTORY	YES NO		892893

FAILURE MODE-OUT OF SPEC. THE DETECTOR FAILED EOP 330.720, PARAGRAPH 5.11. THE OUTPUT WAS 2.674 VOLTS DC WHEN IT SH OULD HAVE BEEN 2.500 PLUS OR MINUS 0.025 VOLTS DC. THE FAILURE WAS NOT CONFIRMED. WHEN THE DETECTOR WAS RECEIVED FOR FAILURE ANALYSIS, LEAD 4 WAS FOUND BROKEN OFF. IT COULD NOT BE LEARNED IF THE BROKEN LEAD CAUSED THE FAILURE REPORT ED OR IF THE BREAK OCCURRED DURING SHIPMENT. HAD THE LEAD BEEN BROKEN AT THE TIME IT WAS REJECTED, A DIFFERENT FAILU RE MODE SHOULD HAVE RESULTED.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4921-F PRESSURE TRANSDUCER	FAR 69-01003-13	650106	FACTORY	YES NO	BOURNS 2004206304	891592

FAILURE MODE-OUT OF TOLERANCE. AN EXCESSIVE STATIC ERROR OF 1.04 PERCENT WASREPORTED. THE TRANSDUCER WAS ACTUALLY W ITHIN SPECIFICATION AFTER ACCOUNTING FOR THE CALIBRATION INSTRUMENT ERROR. THE UNIT WAS REJECTED BECAUSE OF A DISCRE PANCY IN PART NUMBER IDENTIFICATION. MEAS FIP.

CORRECTIVE ACTION-EFFECTIVE NOVEMBER 9, 1964, TRANSDUCERS ARE ONLY REJECTED FOR BEING OUT OF SPECIFICATIONS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4955-F PRESSURE TRANSDUCER	FAR 69-01003-31	7110 650105	FACTORY	YES NO	BOURNS 2007371703	892859

FAILURE MODE-CONTAMINATION. THE PRESSURE TRANSDUCER WAS REJECTED WHEN AN INTERMITTENT OPEN CONDITION WAS OBSERVED. THE INTERMITTENT OPEN CIRCUIT WAS CAUSED BY DETERIORATION OF THE EPOXY ADHESIVE USED IN THE TRANSDUCER ASSEMBLY, AND BY MANY MIGRATING EPOXY PARTICLES BETWEEN THE WIPER CONTACT AND THE POTENTIOMETER COIL.

CORRECTIVE ACTION-BOURNS WAS CHANGED THEIR ADHESIVE FROM BIGGS R-314 TO GE 9522.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4912-F TELEMETER CANISTER-TRANSDUCER	FAR 69-11100-613	7109 650104	FACTORY	YES NO		

FAILURE MODE-OUT OF SPECIFICATION. MEASUREMENT PSSP INDICATED 1 PERCENT OF INFORMATION BANDWIDTH WHEREAS 15 PERCENT WAS EXPECTED. TYPE FAILURE WAS NOT CONFIRMED.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE.							091938
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4928 PRESSURE TRANSDUCER	FAR 7-01751-1	650104	FACTORY	YES NO	BOURNS 71724-0-0-752	090682
FAILURE MODE-STRUCTURAL. A POSITIVE ERROR OF 1.10 PERCENT WAS OBSERVED AT 500 PSIA. FAILURE WAS CAUSED BY ANNEALED AREAS IN THE BOURDON TUBE ADJACENT TO A CENTRAL WELD. THE BOURDON TUBE BECAME ANNEALED DURING WELDING BECAUSE NO HEA T SHIELDING WAS USED.							
CORRECTIVE ACTION-VENDOR WILL USE SUITABLE HEAT SHIELDS WHENEVER WELDING IS DONE ON BOURDON TUBES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4772-P AMPLIFIER-ELECTRONIC TUBE	FAR 27-13517-1	64-08-05	FACTORY	YES NO	RATHEON	095035
FAILURE MODE-OUT OF TOLERANCE. OUT PUT POWER WAS 5.5 WATTS, WHEREAS THE MINIMUM POWER ACCEPTABLE IS 7.0 WATTS. FAIL URE WAS CAUSED BY A REDUCTION IN OUTPUT POWER FROM THE POWER AMPLIFIER. REDUCTION IN OUTPUT POWER WAS CAUSED BY A SH IFT IN TUBE CHARACTERISTICS. PREVIOUS FAILURE ANALYSIS HAS SHOWN RATHEON CK7578 TUBES USED IN THIS AMPLIFIER ARE OPE RATED ABOVE THEIR MANUFACTURERS RATING.							
CORRECTIVE ACTION-THE MANUFACTURER OF THE POWER AMPLIFIER IS CONDUCTING TESTS TO DISCOVER IF THE OVERRATING OF THES E TUBES IS CAUSING THE FAILURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4769-P EVENTS SIGNAL MODULE-WIRING	FAR 27-12374-803	64-0814	FACTORY	YES NO		094208
FAILURE MODE-ELECTRICAL SHORT. POTENTIOMETER R-5 COULD NOT BE ADJUSTED FOR AN OUTPUT READING OF 0.000 PLUS OR MINUS 0.010 VOLT DC. THE MINIMUM OUTPUT WAS 0.357 VOLT DC. FAILURE WAS CAUSED BY A SHORT CIRCUIT BETWEEN TERMINAL 7 OF TR ANSFORMER T-1 AND THE LEAD OF RESISTOR R-12.							
CORRECTIVE ACTION-THE RESPONSIBLE DESIGN GROUP WAS NOTIFIED OF THE FAILURE AND ITS CAUSE. THEY WERE ASKED TO INVEST IGATE POSSIBLE PACKAGING ADJUSTMENTS TO ALEVIATE THE CLOSE COMPRESSION OF THE COMPONENTS WITHIN THE UNIT.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4426-C COMMUTATOR	FAR 67-12308-3	64-01-27	FACTORY	YES NO	BENDIX	892830
FAILURE MODE-OUT OF TOLERANCE. SPEED WAS 25.6RPS; WHEREAS 30.0RPS PLUS OR MINUS 3 PERCENT IS REQUIRED. FAILURE ANALYSIS OF THE COMMUTATOR WAS MADE BY SLV RELIABILITY CONTROL. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4903-F DETECTORS-3/C-2 CAPACITORS	FAR 69-11118-1	2940 641230	FACTORY	YES NO		893447
FAILURE MODE-SHORT, ELECTRICAL. OUTPUT FROM THESE 3 DETECTORS WAS BELOW SPECIFIED LIMITS. FAILURE CAUSED BY SHORTED C-2 CAPACITORS. SHORT CAUSED BY 15 TO 17.8 VDC BEING APPLIED TO 10 VOLT CAPACITOR. CORRECTIVE ACTION-ECP 3434 APPROVED WHICH PROVIDED FOR REPLACEMENT OF EXISTINGPARTS WITH SPECIAL QUALITY PARTS IN ELECTRONIC SYSTEMS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4948-F TRANSDUCER	FAR 69-01003-36	641229	FACTORY	YES NC	BOURNS 2007371707	892074
FAILURE MODE-INTERNAL LEAK. TRANSDUCER HAD A STATIC ERROR OF-3.8 PERCENT WHEN PLUS OR MINUS 1.0 PERCENT IS ALLOWED. THE FAILURE WAS ATTRIBUTED TO A POROUS BRAZE JOINT ON THE BOURDON TUBE; ALLOWING SYSTEM PRESSURE TO LEAK INTO THE TRANSDUCER CASE. THIS RESULTED IN AN INCREASE IN THE TRANSDUCER REFERENCE PRESSURE, CAUSING THE NEGATIVE SHIFT. CORRECTIVE ACTION-REQUESTED VENDOR INVESTIGATE ITS WELDING AND BRAZING TECHNIQUES AND LEAK TESTING PROCEDURES TO ASSURE THERE ARE NO LEAKS IN THE BOURDON TUBES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4920-F DETECTOR-CIRCUIT BOARD	FAR 69-11118-1	641228		YES NO		891830
FAILURE MODE-OUT OF TOLERANCE. FREQUENCY DETECTOR FAILED WHEN THERE WAS NO OUTPUT. FAILURE WAS CONFIRMED AND ATTRIBUTED TO TERMINAL 8 OF PRINTED CIRCUIT BOARD 69-11109-7 NOT BEING PLATED THROUGH. CORRECTIVE ACTION-RECOMMENDED QUALITY CONTROL BE INCREASED IN THE MANUFACTURING DEPARTMENT.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-90-24-4924 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01832-31	7104 641228	WTR	YES NO	WIANCKO	898693

FAILURE MODE-STRUCTURAL. OUTPUT READ 110 PERCENT WITH 0 PSID APPLIED. OUTPUT SHOULD HAVE READ 0 PERCENT. FAILURE WA S CAUSED BY A BROKEN WIRE BETWEEN PINS 5 AND 6 OF TRANSFORMER T-1. THE BREAK WAS NOT CAUSED BY OVER-CURRENT.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GDA-AP?65-002/E1-601-00-111 TRANSMITTER	FLIGHT	111F 641222	WTR 302.2	YES NO		890914

FAILURE MODE-OUT OF SPECIFICATION. SIGNAL STRENGTH FROM THE TIME TRANSPOSITION TELEMETRY TRANSMITTER DECREASED UNTI L THRESHOLD WAS REACHED NEAR SUSTAINER ENGINE CUTOFF.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN. NO PROBLEM EXISTED WITH OTHER SIMILAR SYSTEMS, SO THE PROBLEM APPEARS TO BE PECULIAR TO THE TRANSMITTER ABOARD MISSILE 111F.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AGU63-001-31/FC-CO-01-0008-007 OSCILLATOR	COMPOSITE-FACTORY 27-11541-939	2040 641218		YES NO	BENDIX	897556

FAILURE MODE-FAIL DURING OPERATION-THE OSCILLATOR OF CHANNEL 8 DISPLAYED SHIFTS UP TO 8 PCT FBW THROUGHOUT THE TEST . REF IR 052015.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. SHIFTING OSCILLATOR FREQUENCY WOULD CAUSE ERRONEOUS ANALOG SIGNALS TO BE TRA NSMITTED.

VEHICLE EFFECT-COMPOSITE RESCHEDULED.

CORRECTIVE ACTION-THE TRANSMITTER WAS REPLACED. SYSTEM AND COMPOSITE RETESTING WAS PERFORMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4906-? PRESSURE TRANSDUCER	FAR 69-01003-31	641217		YES NO	BOURNS 2007371703	

FAILURE MODE-CONTAMINATION. THE TRANSDUCER HAD A DISCONTINUITY. THE FAILURE WAS NOT CONFIRMED, HOWEVER, A CONTAMINA TION FIBER WAS FOUND ON THE MANDREL. PLASTIC-LIKE AND FIBROUS CONTAMINANTS WERE FOUND INSIDE THE CASE. THE PLASTIC-LI KE PARTICLES ARE APPARENTLY DUE TO DETERIORATION OF THE EPOXY ADHESIVE.

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
							091887
CORRECTIVE ACTION-EPOXY ADHESIVE WAS CHANGED BY THE VENDOR. VENDOR PERSONNEL WERE AGAIN REMINDED OF NECESSITY FOR T HROUGHLY CLEANING UNITS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4692-F PRESSURE TRANSDUCER	FAR 69-01003-31	641217	FACTORY	YES NO	BOURNS 2007371703	091882
FAILURE MODE-LEAK-EXTERNAL. THE STATIC ERROR BAND OF THIS TRANSDUCER WAS -5.79 PERCENT AS COMPARED TO THE SPECIFICA TION OF PLUS OR MINUS 1 PERCENT. THIS WAS DUE TO PRESSURE ENTRAPPED IN THE CASE DUE TO A LEAK IN THE BOURDON TUBE.							
CORRECTIVE ACTION-LEAK CHECK METHOD CHANGED BY THE VENDOR TO REQUIRE HELIUM LEAK CHECK WITH PROOF PRESSURE AFTER JO INTS HAVE BEEN STRESSED BY TUBE CYCLING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4932-F PRESSURE TRANSDUCER	FAR 69-01003-19	641216	FACTORY	YES NO	BOURNS 2004206305	092860
FAILURE MODE-INTERNAL LEAK. TWO ABSOLUTE-PRESSURE TRANSDUCERS WERE REJECTED WHEN THEY HAD MINUS 1.74 PERCENT AND MI NUS 1.69 PERCENT STATIC ERROR RESPECTIVELY. SPECIFICATIONS ALLOW ONLY PLUS OR MINUS 1.0 PERCENT STATIC ERROR. BOTH F AILURES ARE ATTRIBUTED TO A LOSS OF ABSOLUTE REFERENCE PRESSURE WITHIN THE TRANSDUCER. THE SOURCE OF LEAKAGE OF ONE TRANSDUCER WAS TRACED TO THE BELLOWS AREA, BUT THE EXACT CAUSE OF FAILURE COULD NOT BE PINPOINTED. THE SOURCE OF LEA KAGE OF THE SECOND TRANSDUCER WAS TRACED TO THE CASE WELD AREA, AND IS ATTRIBUTED TO INCLUSIONS IN THE WELD JOINT AL LOWING A TINY LEAK PATH. THE INCLUSIONS COULD NOT BE IDENTIFIED.							
CORRECTIVE ACTION-OFFSITE GD/C PROCUREMENT INSPECTION HAS BEEN DELETED FROM ALL TRANSDUCER PURCHASE ORDERS. EFFECTI VE 22 APRIL 1965 ALL TRANSDUCERS ARE TESTED BY GDC RECEIVING INSPECTION OR GD/C STANDARDS LABORATORY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4887-F DIFFERENTIAL AMPLIFIER	FAR 55-01120	7109 641215	FACTORY	YES NO		093547
FAILURE MODE-OUT OF SPECIFICATION. INTERACTION FROM CHANNEL 11 SEGMENT 31 CAUSING A SLOPING OF SEGMENT 35; FAILURE CAUSED BY SLOW OVERLOAD RECOVERY TIME OF DIFFERENTIAL AMPLIFIER. THIS CONSIDERED A DESIGN DEFICIENCY.							
CORRECTIVE ACTION-ALL AMPLIFIERS IN STOCK TESTED FOR COMPLIANCE WITH OVERLOAD RECOVERY TIME REQUIREMENT WITH UNSATI SFACTORY UNITS RETURNED TO VENDOR.							

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CONVAIR DIVISION

15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4884-F TRANSDUCER POWER SUPPLY-INDUCTOR	FAR 88-13540	2040 641218	FACTORY	YES NO		003448

FAILURE MODE-OPEN-ELECTRICAL. ALL OUTPUTS MEASURED 0.0 VOLTS. FAILURE DUE TO BROKEN LEAD TO L-1 INDUCTOR. BROKENLEA D RESULTED FROM A FATIGUE BREAK DUE TO VIBRATION.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-4110 PRESSURE TRANSDUCER	UTP-PET 7-01731-5	641216	60C	YES NO	BOURNS 71724-0-10-752	002815

FAILURE MODE-OUT OF SPECIFICATION. THE UNIT FAILED THE Z-AXIS VIBRATION TEST. SPIKES HAVING A MAGNITUDE OF 3 PERCEN T OF FULL SCALE OUTPUT WERE OBSERVED DURING THAT PORTION OF THE SWEEP BETWEEN 700 CPS AND 800 CPS. THE MAXIMUM VIBRA TION ERROR BAND TOLERANCE IS PLUS OR MINUS 1.5 PERCENT.

CORRECTIVE ACTION-PET LOT 27 WAS REJECTED. VCAR, DATED 28 DECEMBER 1964, WAS FORWARDED TO BOURNS DELINEATING THE FA ILURE. IT WAS SUGGESTED THAT ADEQUATE MANUFACTURING CONTROL AND INSPECTION SHOULD TEND TO PRECLUDE THIS TYPE OF FAIL URE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-1904-F PRESSURE TRANSDUCER	FAR 69-01003-33	641214	FACTORY	YES NO	BOURNS 2007371703	001868

FAILURE MODE-OUT OF TOLERANCE. AN EXCESSIVE STATIC ERROR (0.87 PERCENT BEYOND ALLOWABLE) WAS REPORTED. NO CAUSE OF FAILURE WAS NOTED DURING FAILURE ANALYSIS. FAILURE IS ATTRIBUTED TO LACK OF TEMPERATURE CYCLING BECAUSE OF SIMILARIT Y TO PRODUCTION EVALUATION TEST FAILURES.

CORRECTIVE ACTION-THE VENDOR INCORPORATED A TEMPERATURE-CYCLING AND HIGH-TEMPERATURE STABILIZATION PROCESS PRIOR TO THIS FAILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4939-F DETECTOR CAPACITOR	FAR 69-11116-1	2190 641213	FACTORY	YES NO		

FAILURE MODE-OUT OF TOLERANCE. FREQUENCY DETECTOR OUTPUT VOLTAGE WAS 1.518 VOLTS DC WHEREAS 1.250 PLUS OR MINUS 0.0 50 VOLTS DC WAS SPECIFIED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE LEAKY C-8 CAPACITOR. THE C-8 CAPACITOR IS RAT ED AT 15 VOLTS, BUT IS SUBJECTED TO 10.5 VOLTS IN THE DETECTOR.

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							691438
CORRECTIVE ACTION-ECP 3434, PARTS IMPROVEMENT, PROVIDED FOR REPLACEMENT OF EXISTING ELECTRONIC PARTS WITH SPECIAL QUALITY CAPACITORS, ETC. THE ECP WAS APPROVED BY THE CUSTOMER ON 20 JULY 1965, AND IS EFFECTIVE ON ARTICLES 69-1690-51 THROUGH 68 AND 68-1848-81 THROUGH 88.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	NZ-99-24-4927-F OSCILLATOR-WIRING	FAR 27-01607-119	641212	FACTORY	YES NO	BENDIX-PACIFIC 3131153-106	691625
FAILURE MODE-OUT OF TOLERANCE. THE OSCILLATOR EXHIBITED ERRATIC OPERATION DURING VIBRATION OF THE TELEMETER. FAILURE WAS CONFIRMED AND ATTRIBUTED TO TWO IMPROPERLY SOLDERED CONNECTORS CONNECTING RESISTORS R1 AND R7 TO CIRCUIT BOARD LANDS.							
CORRECTIVE ACTION-REQUESTED VENDOR REINSTRUCT PERSONNEL IN PROPER SOLDERING TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4893 PRESSURE TRANSDUCER	FAR 69-01003-29	641211	FACTORY	YES NO	BOURNS 2007371702	693388
FAILURE MODE-LEAK-EXTERNAL. TRANSDUCER OUTPUT HAD A STATIC ERROR BAND OF MINUS 3.05 PERCENT. WHEREAS, SPECIFICATIONS ALLOW A PLUS OR MINUS 1.6 PERCENT STATIC ERROR BAND. FAILURE OF THE PRESSURE TRANSDUCER IS ATTRIBUTED TO A POROUS BRAZED WELD AT THE WIPER-END BOURDON TUBE JOINT, ALLOWING PRESSURIZED GAS TO LEAK INTO THE TRANSDUCER CASE, AND RESULTING IN A LOSS OF REFERENCE PRESSURE.							
CORRECTIVE ACTION-CONVAIR INITIATED CORRECTIVE ACTION BY ISSUING RAR SLV-99-24-8458 TO DETERMINE THE EFFECT OF LEAKAGE PROBLEMS ON PRESENT STOCK.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-A8-24-4878-F WIRING	FAR 85-13666-837	204D 641209	FACTORY	YES NO		693445
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 13 DISPLAYED A 200 CPS 2.5 G AMPLITUDE SIGNAL WHEN STRAIGHT DC SIGNAL IS EXPECTED. FAILURE CAUSED BY WIRE REVERSAL DURING PACKAGE BUILDUP NOT DETECTED DURING CHECKOUT.							
CORRECTIVE ACTION-INSPECTION PERSONNEL CAUTIONED TO CHECK WIRE ROUTING TO ENSURE CONNECTIONS ARE IN ACCORD WITH APPLICABLE BLUEPRINTS.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4886 ABSOLUTE PRESSURE TRANSDUCER	FAR 68-01803-38	641208	FACTORY	YES NO	BOURNS 8007371705	093758

FAILURE MODE-STRUCTURAL. AN EXCESSIVE STATIC ERROR BAND OF -4.08 PERCENT WAS RECORDED. WHEREAS THE ALLOWABLE STATIC ERROR IS PLUS OR MINUS 3.0 PERCENT. THE FAILURE WAS CAUSED BY A ONE WAY LEAK BETWEEN THE BOURDON TUBE AND THE INTERNAL WALLS OF THE TRANSDUCER. A LEAK PATH WAS FOUND AT ONE END OF THE BOURDON TUBE. THE LEAK PATH RESULTED FROM LACK OF FUSION BETWEEN THE WELD MATERIAL AND THE BOURDON TUBE WALL.

CORRECTIVE ACTION-VCAR 7218-65 FROM THE VENDOR STATES LEAK CHECK METHOD CHANGED TO REQUIRE HELIUM LEAK CHECK WITH 1 000 PSI (OR PROOF PRESSURE) AFTER JOINTS HAVE BEEN STRESSED BY TUBE CYCLING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4890-F DETECTOR CAPACITOR	FAR 68-11118-1	641204	FACTORY	YES NO		093540

FAILURE MODE-OUT OF TOLERANCE. OUTPUT VOLTAGE WAS 1.808 VDC WHEN 1.250 PLUS OR MINUS 0.050 VDC WAS EXPECTED. FAILURE CAUSED BY HIGH VOLTAGE ACROSS CAPACITOR C-2 CAUSING THE TANTALUM SLUG TO BREAKDOWN AND LEAK.

CORRECTIVE ACTION-ECP APPROVED WHICH REPLACES EXISTING ELECTRONIC PARTS WITH SPECIAL QUALITY PARTS IN ELECTRONIC SYSTEMS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GDA-SKF64-033 DISCONNECT- STAGING	FLIGHT	7105 641204	PALCE-4 -1.1	YES NO		090284

FAILURE MODE-PREMATURE OPERATION. THE INSTRUMENTATION STAGING DISCONNECT PREMATURELY SEPARATED AT MINUS 1.1 SECONDS.

SYSTEM EFFECT-OPERATION STOPS PREMATURELY. LOSS OF TEN ASSOCIATED MEASUREMENTS. NINE OF THESE WERE LANDLINE.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-FOUR PROCEDURES CONCERNED WITH CHECKOUT OF THE PROPER MATING OF THE PLUG WERE MODIFIED TO INCLUDE A PULL TEST ON THE PLUG BODY INSTEAD OF ONLY THE LANYARD.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4918-F AMPLIFIER DIODE	FAR 68-01180-8	641203	FACTORY	YES NO	HAYBERRY 128-18	

FAILURE MODE-ELECTRICAL SHORT. DIFFERENTIAL AMPLIFIER FAILED WHEN THE GAIN WAS UNSTABLE. FAILURE WAS CONFIRMED. GAIN DRIFT OF CHANNEL A COULD HAVE BEEN CAUSED BY DEFECTIVE SOLDER CONNECTIONS BETWEEN TWO LEADS OF TRANSFORMER T-4 AND

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THEIR RESPECTIVE CIRCUIT BOARD LANDS. THIS ALSO CAUSED SHORTING OF DIODE VR-2 USED TO CONTROL BIAS VOLTAGE FOR THE CHANNEL A OSCILLATOR. THE SHORTED DIODE CAUSED THE FAILURE OF CHANNEL B BECAUSE THE OSCILLATORS WERE ELECTRICALLY TIED TOGETHER WITH A SOLID BUSS WIRE. CORRECTIVE ACTION-REQUESTED DESIGN GROUP TAKE ACTION TO ASSURE DIFFERENTIAL AMPLIFIERS ARE MANUFACTURED COMPLYING TO THE SPECIFICATION CONTROL DRAWING BY HAVING THE BUSS WIRE REMOVED FROM ALL DIFFERENTIAL AMPLIFIERS, AND TO REQUEST AN IMPROVEMENT IN AND TO REVIEW DRIFT-TEST PROCEDURES. ALSO REQUESTED AMPLIFIER MANUFACTURER TAKE ACTION TO PREVENT RECURRENCE OF FAILURES DUE TO IMPROPER SOLDERING.							008020
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-A9-24-4941-F TRANSDUCER	FAR 69-01003-39	71-10 641203	FACTORY	YES NO	BOURNS 2007371707	008078
FAILURE MODE-OUT OF TOLERANCE. TWO TRANSDUCERS FOR MEASUREMENT H130P AND H3P EXHIBITED HIGHER RESISTANCE READINGS THAN EXPECTED DURING END-TO-END CHECKS. FAILURE WERE NOT CONFIRMED. IT WAS CONCLUDED THE TEST SET WAS MISREAD WHEN THESE TRANSDUCERS WERE REJECTED. CORRECTIVE ACTION-FAILURES NOT CONFIRMED. RECOMMENDED APPROPRIATE PERSONNEL VERIFY TEST EQUIPMENT AND RECHECK THE TRANSDUCERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4919-F PRESSURE TRANSDUCER	FAR 69-01001-13	641203	FACTORY	YES NO	BOURNS 2004206304	001391
FAILURE MODE-LEAK. EXTERNAL THE TRANSDUCER EXHIBITED A MINUS 1.33 PERCENT STATIC ERROR. THE ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT. THE ERROR WAS DUE TO A LOSS OF REFERENCE PRESSURE IN THE CASE CAUSED BY A LEAK AT THE ELECTRICAL CONNECTOR SOLDER JOINT MEAS FIP CORRECTIVE ACTION-VENDOR PERSONNEL WERE NOTIFIED OF THEIR DEFICIENT WORKMANSHIP AND INSTRUCTED TO ELIMINATE THIS TYPE OF DISCREPANCY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4884 PRESSURE TRANSDUCER	FAR 27-01243-7	641202	FACTORY	NO NO	COLVIN 401-A-10-T5	000732
FAILURE MODE-STRUCTURAL. TRANSDUCER HAD A 36 PERCENT POSITIVE STATIC ERROR. HISTORICALLY, POSITIVE STATIC ERRORS IN LOW RANGE PSIA TRANSDUCERS ARE CAUSED BY OVERPRESSURIZATION, RESULTING IN STRETCHED BELLOWS. CORRECTIVE ACTION-NONE.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4868 PRESSURE TRANSDUCER	FAR 87-01243-7	641802	FACTORY	NO NO	BOURNS 42011-0-100-75 2	000733

FAILURE MODE-STRUCTURAL. OUTPUT VOLTAGE WAS 7.8 VOLTS DC AT ALL INPUT PRESSURES FROM 0 TO 100 PSIA. FAILURE WAS ATT RIBUTED TO SEVERE OVER PRESSURIZATION, RESULTING IN STRETCHING THE BELLOWS, PUSHING THE BELLOWS STOP FROM THE HOUSIN G, PUSHING THE BELLOWS LINKAGE BALL FROM THE WIPER ARM SOCKET, AND JAMMING THE WIPER ARM AT THE RESISTANCE MANDREL T HREE-QUARTER POINT.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GDA-APZ64-069/A1-402-00-210 TLM CANISTER	FLIGHT	2100 641201	WTR-A1 18	YES NO		0 1704

FAILURE MODE-OUT OF EXPECTED TEST VALUE. DATA FROM TELEPAK NO. 1 WAS NOISY. CHANNELS A AND C ESPECIALLY SHOWED EXCE SSIVE NOISE (OPCT AND 100 OPCY DROP OUTS) BETWEEN 18 TO 55 SECONDS AND DURING LAST 70 SECONDS OF SUSTAINER PHASE.

SYSTEM EFFECT-ERRATIC OPERATION. LOSS OF TELEMETRY DATA OCCURRED DURING THE MORE SEVERE DROPOUTS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CAPSAN12-069/P6-LO-01-0AC4 TRANSDUCER - TELEMETRY	COUNTDOWN 87-01297-003	1460 641127	ETR-36A -12000	YES NO	BOURNS	000350

FAILURE MODE-ERRATIC OPERATION. A081P FUEL TANK HEAD TRANSDUCER PRESSURE CONNECTIONS WERE REVERSED WHICH COULD HAVE CAUSED INTERNAL TRANSDUCER DAMAGE AND POSSIBLE PROPELLANT UTILIZATION FUEL MANOMETER CONTAMINATION.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-THE TRANSDUCER ULLAGE SENSING LINE WAS DISCONNECTED AND THE LINE AND TRANSDUCER WERE CAPPED DURIN G THE COUNTDOWN. AFTER THE TEST THE TRANSDUCER WAS REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4902-F PRESSURE TRANSDUCER	FAR 69-01003-39	641127	FACTORY	YES NO	BOURNS

FAILURE MODE-OUT OF TOLERANCE. AN EXCESSIVE STATIC ERROR OF 1.45 PERCENT WAS REPORTED.

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							891585

CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4917-F PRESSURE TRANSDUCER	PAR 7-01732-5	641127	FACTORY	YES NO	BOURNS 71725-0-10-752	891590

FAILURE MODE-OUT OF TOLERANCE THE APPARENT EXCESS STATIC ERROR WAS DUE TO THE INTERPRETATION OF THE SPECIFICATION CONTROL DRAWING.

CORRECTIVE ACTION-THE ERROR BAND WAS CLARIFIED BY REVISING NOTE 3.4 ON SPECIFICATION CONTROL DRAWING 7-01732. THIS WAS ACCOMPLISHED BY DRAWING CHANGE-C, RELEASED JULY 7, 1965.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-245-3211-REVISED TEMPERATURE TRANSDUCER	FAR 87-01867-5	641125	FACTORY	YES NO	TRANSONICS	890600

FAILURE MODE-STRUCTURAL. TRANSDUCER INDICATED AN OPEN CIRCUIT CONDITION DURING TRANSDUCER RINGOUT CONTINUITY CHECK. INVESTIGATION REVEALED THE WIRE COIL WAS FRACTURED ON BOTH SIDES DUE TO REMOVAL BY PRYING UNDER THE EDGES WITH A PROBING TOOL PRIOR TO REINSTALLATION.

CORRECTIVE ACTION-IMPROVED HANDLING METHODS RECOMMENDED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-A8-24-4871-F TEMPERATURE TRANSDUCER	FAR 7-01684-23	7109 641124	FACTORY	YES NO	LEWIS 568396	890670

FAILURE MODE-STRUCTURAL. DURING FINAL CHECKOUT, AN OPEN CIRCUIT WAS DISCOVERED. THE TRANSDUCERS RESISTIVE ELEMENT HAD BEEN PUNCTURED AS THE RESULT OF MISHANDLING.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. PERSONNEL WERE INFORMED OF THE PROBLEM AND THE CONSEQUENCES OF MISHANDLING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4914-F DETECTOR	FAR 99-11110-1	641123	FACTORY	YES NO		

FAILURE MODE-OUT OF SPECIFICATION. FREQUENCY DETECTOR FAILED WHEN OUTPUT VOLTAGE WAS A MINUS 0.157 VOLT DC WHEREAS 0.000 PLUS OR MINUS 0.05 VOLT DC WAS SPECIFIED. FAILURE WAS CONFIRMED; HOWEVER, THE CAUSE WAS NOT DETERMINED.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							898618
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-84-4944 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-81552-99	641123	FACTORY	YES NO	WIANCO	899881
FAILURE MODE-OUT OF SPECIFICATION. STATIC ERROR BAND WAS-1.42 PERCENT. FAILURE WAS CONFIRMED BUT THE CAUSE OF FAILURE COULD NOT BE DETERMINED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-84-4881-F TLM CANISTER-CRYSTAL RECTIFIER	FAR 69-11100-813	641119	FACTORY	YES NO		899949
FAILURE MODE-OUT OF TOLERANCE. MEASUREMENTS ES1V, ES2V, ES3, AND E06V INDICATED 98 PERCENT IBW WHEN 91.5 PERCENT IBW IS EXPECTED. FAILURE CAUSED BY CRYSTAL RECTIFIER (P/N 69-11127-3) OUTPUT BEING HIGH. CAUSE FOR HIGH OUTPUT NOT FOUND.							
CORRECTIVE ACTION-NONE. EXACT CAUSE OF FAILURE COULD NOT BE DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-84-4899-F PRESSURE TRANSDUCER	FAR 69-81003-13	641116	FACTORY	YES NO	BOURNS 2004206304	891864
FAILURE MODE-EXTERNAL LEAK. AN EXCESSIVE STATIC ERROR OF -1.43 PERCENT WAS REPORTED. THIS WAS DUE TO A SMALL LOSS OF CASE REFERENCE PRESSURE. THE LOCATION OF THE LEAK COULD NOT BE FOUND.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69AE170.E TRANSMITTER-POWER	UTP-SLT 69-81002	641118	SD/C	YES NO	BENDIX-PACIFIC	
FAILURE MODE-STRUCTURAL. DURING SLT X-AXIS TEMPERATURE VIBRATION TEST AT VIBRATION SINE INPUT OF 600CPS AND A TEMPERATURE OF 5 DEGREES F, RF OUTPUT POWER DROPPED TO 0.0 WATTS CAUSED BY THE CAPACITORS BREAKING OFF MOUNTINGS IN POWER SUPPLY DUE TO EXTREME VIBRATION LEVELS ENCOUNTERED DURING SLT TESTING.							

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							000065
CORRECTIVE ACTION-NONE. SINCE FAILURE OCCURRED DURING SLT TESTING AT ENVIRONMENT LEVELS BEYOND DESIGN LIMITS, NO DE SIGN CHANGES CONTEMPLATED. DEPT 688-8 COMMUNICATED TEST RESULTS TO VENDOR FOR CONSIDERATION FOR POSSIBLE DESIGN IMPR OVEMENTS IN FUTURE PRODUCTION. REF. CTCTN NO. 661-4-007.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-A8-846-3815 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01858-81	1360 641116	FACTORY	YES NO	WIANCKO 84183-18	390691
FAILURE MODE-ELECTRICAL OPEN. FAILURE OF THE Y-1 TRANSFORMER DUE TO AN OPEN WINDING BETWEEN TERMINALS 5 AND 6 CAUSE D THE VOLTAGE OUTPUT OF THE TRANSDUCER TO BE OUT OF SPEC AT ZERO PSID.							
CORRECTIVE ACTION-VENDOR SHOULD INVESTIGATE TO INSURE NO OTHER DEFECTIVE TRANSORMERS ARE INSTALLED IN LIKE UNITS AN D REQUEST NECESSARY PREVENTATIVE ACTION FROM TRANSFORMER MANUFACTURER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69AZ176.2 TLM CANISTER - TRANSMITTER	UTP-SLT 68-11100-801	641118	GD/C	YES NO	BENDIX	690131
FAILURE MODE - OUT OF SPECIFICATION - DURING Y-AXIL TEMPERATURE - VIBRATION TEST OUTPUT RF POWER DROPPED TO 0.0 WAT TS. FAILURE DUE TO THREE CAPACITORS BREAKING OFF MOUNTINGS IN TRANSMITTER POWER SUPPLY							
CORRECTIVE ACTION - NONE. FAILURES OCCURRED DURING SLT TESTING AT ENVIRONMENTAL LEVELS BEYOND DESIGN LIMITS. NO DES IGN CHANGES CONTEMPLATED. GDC COMMUNICATED TEST RESULTS TO VENDOR FOR CONSIDERATION FOR POSSIBLE DESIGN IMPROVEMENTS IN FUTURE PRODUCTION. REF. CTCH NO. 661-4-009.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69AZ176.2 TRANSMITTER, POWER SUPPLY	UTP-SLT 68-01002-3	641117	GD/C	YES NO	BENDIX-PACIFIC	690816
FAILURE MODE-STRUCTURAL. DURING SLT X-AXIS VIBRATION - TEMPERATURE TEST AT VIBRATION SINE, INPUT OF 200 CPS AND ROO M AMBIENT TEMPERATURE RF OUTPUT POWER DROPPED FROM 6.2 WATTS TO 0.2 WATTS. ABOVE CAUSED BY THREE CAPACITORS BREAKING OFF MOUNTINGS IN POWER SUPPLY DUE TO EXTREME VIBRATION LEVELS ENCOUNTERED DURING SLT TESTING.							
CORRECTIVE ACTION-NONE. FAILURE OCCURRED DURING SLT TESTING AT ENVIRONMENT LEVELS BEYOND DESIGN LIMITS. NO DESIGN C HANGES CONTEMPLATED. DEPT 688-8 COMMUNICATED TEST RESULTS TO VENDOR FOR CONSIDERATION FOR POSSIBLE DESIGN IMPROVEMEN TS IN FUTURE PRODUCTION. REF. CTCTN NO. 661-4-006.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	66AR176.2 TLM CANISTER-TRANSMITTER	UTP-SLT 88-11100-881	641117	6D/C	YES NO	BENDIX	000817

FAILURE MODE-OUT OF SPECIFICATION. DURING POST ACCELERATION PROOF CYCLE OUTPUT RF POWER DECREASED BELOW 7.0 WATTS S PEC. MINIMUM TO 6.8 WATTS DURING 2.0 HOUR OPERATING PERIOD. DURING X-AXIS SINE VIBRATION OUTPUT RF POWER DROPPED TO 6.2 WATTS. CAUSE OF FAILURES NOT DETERMINED.

CORRECTIVE ACTION-NONE. FAILURES OCCURRED DURING SLT TESTING AT ENVIRONMENTAL LEVELS BEYOND DESIGN LIMITS. NO DESIG N CHANGES CONTEMPLATED GDC COMMUNICATED TEST RESULTS TO VENDOR FOR CONSIDERATION FOR POSSIBLE DESIGN IMPROVEMENTS IN FUTURE PRODUCTION REF CTCH NO. 661-4-005.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-4900-F POWER SUPPLY-TRANSFORMER	FAR 88-13840-805	641116	FACTORY	YES NO	APPLIED COMPON ENTS 1138	000561

FAILURE MODE-OUT OF SPECIFICATION. A READOUT OF 9.80 VDC WAS RECORDED WHEN 8.20 PLUS OR MINUS 0.164 VDCWAS EXPECTED . THIS FAILURE NOT CONFIRMED. HOWEVER, BOTH TRANSFORMERS GDC P/N 88-01133- 1 FOUND TO BE OUT OF SPEC WINDING 10-11 O F -87 UNIT FOUND 1 TURN SHORT. FEEDBACK WINDING 1-2 OF -88 UNIT FOUND REVERSED. BOTH FAILURES ATTRIB- UTED TO INADEQ UATE QUALITY CONTROL BY VENDOR RECEIVING INSPECTION. PROCEDURES ALSO FOUND INADEQUATE.

CORRECTIVE ACTION-EXISTING STOCK PURGED AND RETESTED. RECEIVING INSPECTION TEST PROCEDURE REVISED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-89-24-4923-F PRESSURE TRANSDUCER	FAR 69-01003-39	641116	FACTORY	YES NO	BOURNS	001384

FAILURE MODE-CONTAMINATION. THE TRANSDUCER WAS REJECTED FOR AN ERRATIC OUTPUT. IT WAS FOUND THAT THE ENTIRE TRANSDU CER ASSEMBLY WAS CLUTTERED WITH PLASTIC-LIKE PARTICLES. THIS IS APPARENTLY THE EPOXY ADHESIVE DETERIORATING IN THE S ILICONE OIL.

CORRECTIVE ACTION-THE VENDOR CHANGED THE EPOXY ADHESIVE FROM B1661 R-314 TO 6E9328.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4922-F PRESSURE TRANSDUCER	FAR 69-01003-39	6301 641116	FACTORY	YES NO	BOURNS	

FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER WAS REJECTED FOR OUTPUT SPIKING DURING A TELEMETRY SYSTEM TEST. (MEA SUREMENT M33P).

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1968

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							091593

CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. THIS TRANSDUCER WILL BE REPLACED WITH A NEW ONE (ECP 7871-P-CB).

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4874 TRANSDUCER	FAR 69-01908-5	641116	FACTORY	YES NO	SERVONIC 9041-0103	090785

FAILURE MODE-OUT OF TOLERANCE. THE STARTING FORCE WAS MORE THAN THE REQUIRED 12 INCH OUNCES. FAILURE WAS CAUSED BY INADEQUATE LUBRICATION ON THE O-RINGS.

CORRECTIVE ACTION-ALL TRANSDUCERS WILL BE LUBR.CATED WITH A 96 PERCENT DC810 4 PERCENT MOLY-DI-SULFIDE MIXTURE ON T HE O-RINGS AND SHAFT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4926-F PRESSURE TRANSDUCER	FAR 7-01731-5	641114	FACTORY	YES NO	BOURNS	091597

FAILURE MODE-STRUCTURAL. THE TRANSDUCER REPORTEDLY HAD A STATIC ERROR BAND OF 1.30 PERCENT. SPECIFICATIONS ALLOW PL US OR MINUS 0.75 PERCENT. FAILURE WAS CAUSED BY SOFT AREAS IN THE BOURDON TUBE, RESULTING FROM REWELDING AFTER THE B OURDON TUBE HAD BEEN MOUNTED.

CORRECTIVE ACTION-VENDOR PERSONNEL WERE NOTIFIED THAT WHEN EVER WELDING IS DONE WITH THE BOURDON TUBE INSTALLED, A SUITABLE HEAT SHIELD MUST BE USED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4880-F PRESSURE TRANSDUCER/0 TO 3500 PSIA	FAR 7-01731-9	641114	FACTORY	YES NO	BOURNS	091581

FAILURE MODE-CONTANINATION. THE TRANSDUCER EXHIBITED AN ERRATIC OUTPUT AND WOULD NOT STABILIZE BETWEEN 5 AND 7 VOLT S DC (1750 TO 2450 PSIA). THIS WAS CAUSED BY A DEPOSIT ON THE RESISTIVE ELEMENT AND BY LOW CONTACT FORCE OF THE WIPE RS.

CORRECTIVE ACTION-WIPER ARM TENSION SPECIFICATION WAS INCREASED AND THE ELEMENT CLEANING PROCESS WAS CHANGED BY THE VENDOR.

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CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	FQI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FB27-3046 BAND PASS FILTER UNIT	USP-PET T-01750-7	641113	GD/C	YES NO	APPLIED COMPON ENTS INC AC13030-7	000063

FAILURE MODE-ELECTRICAL OPEN. DURING INITIAL SATISFACTORY PERFORMANCE TEST OF PET, THERE WAS NO CONTINUITY BETWEEN PINS A AND C, CAUSED BY VENDOR LEAVING PIN C OPEN. VE ' MANUFACTURED FILTER WITH A NONMETAL CASE RESULTING IN NO C ASE GROUND EXISTING.

CORRECTIVE ACTION-APPLIED COMPONENTS INC. WAS INFORMED OF THE CONDITION AND CONSEQUENTLY JUMPERED PINS A AND C IN C ONPLIANCE WITH DRAWING T-01750 FOR SUBSEQUENT PRODUCTION. REF. FPR F-5020-CT; LTCTN APPENDIX A PAGE 1 TO PET REPORT S/R 27-3046.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4913 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01552-49	641112	FACTORY	YES NO	WIANCO 54103-9	000064

FAILURE MODE-CONTAMINATION. STATIC ERROR BAND WAS -2.04. MAXIMUM ALLOWABLE IS 1 PERCENT. THE FAILURE WAS CAUSED BY A FIBER IN THE ARMATURE PATH WHICH IMPEDED ITS MOVEMENT.

CORRECTIVE ACTION-TO INSURE PARTICLES THAT ARE NOT LEFT IN THE TRANSDUCER, A TRIPLE FLUSH WAS INCORPORATED AUGUST 1 , 1964 IN THE MANUFACTURING PROCEDURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4857-F BAND PASS FILTER	FAR 27-01293-1	641111	FACTORY	YES NO	APPLIED COMPON ENTS AC13030-7	000619

FAILURE MODE-OUT OF SPECIFICATION. OUTPUT AT 1032 CPS WAS 0.120 VOLT RMS, WHEREAS REQUIRED OUTPUT IS 0.070 TO 0.115 VOLT RMS. THIS WAS APPARENTLY DUE TO INCORRECT ADJUSTMENT. N/A 27-12287 FILTER ASSEMBLY.

CORRECTIVE ACTION-THE REPORTED FAILURE WAS NOT CONFIRMED. IT WAS RECOMMENDED THAT FACTORY PERSONNEL BE CAUTIONED TO USE THE PEAK RESPONSE WHEN ADJUSTING THESE FILTERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4923-F PRESSURE TRANSDUCER	FAR 69-01003-31	641111	STAND. L AB.	YES NO	BOURNS	

FAILURE MODE-CONTAMINATION. THE TRANSDUCER, WAS REJECTED BECAUSE OF AN EXCESSIVE STATIC ERROR BAND. THIS WAS CAUSED BY EPOXY PARTICLES ON THE BALL BEARINGS OF THE BOURDON TUBE MOUNT. THESE WERE APPARENTLY DUE TO DETERIORATION OF TH E EPOXY ADHESIVE IN THE SILICONE OIL.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							891383
CORRECTIVE ACTION-THE VENDOR CHANGED THE EPOXY ADHESIVE FROM BI668 R-314 TO 6E9322.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	60/AA6U63-001-38/FC-CO-68-6978-001 TLM CANISTER-CRYSTAL RECTIFIER	COMPOSITE-FACTORY	641110		YES NO		889892
FAILURE MODE-OUT OF TOLERANCE- TELEMETRY MEASUREMENT E81V (400 CYCLE A-C PHASE A) INDICATED 88 PERCENT IBW (116.6 V AC) WHEN 91.5 PERCENT IBW (119.3 VAC) WAS EXPECTED. MEASUREMENTS E86V, E82V AND E53V (115 VAC 400 CYCLE TORQUE REFERENCE PHASE A, B AND C) ALSO INDICATED VOLTAGE HIGHER THAN EXPECTED. THE DISCREPANCY WAS CAUSED BY AN INCORRECT CRYSTAL RECTIFIER CALIBRATION WITHIN THE TELEPAK. SYSTEM EFFECT-OPERATION TOO HIGH. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEMS LEVEL AND POST-COMPOSITE TESTING REQUIRED. CORRECTIVE ACTION-THE TELEPAK WAS REMOVED AND REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4633-F DETECTOR-CAPACITOR	FAR 69-11118-1	641110	FACTORY	YES NO		895822
FAILURE MODE-ERRATIC OPERATION-OUTPUT VOLTAGE FLUCTUATED AND COULD NOT BE STABILIZED. THIS WAS DUE TO A LEAKING CAPACITOR (C-2). IT APPARENTLY FAILED DUE TO EXCESSIVE INPUT VOLTAGE (10 VOLTS). CORRECTIVE ACTION-ECP 3434 HAS BEEN APPROVED PROVIDING FOR IMPROVED ELECTRONIC PARTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4809 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 87-01382-55	641110	FACTORY	YES NO	WIANCO 94103-15	894536
FAILURE MODE-OUT OF TOLERANCE. STATIC ERROR WAS PLUS 1.74 PERCENT, WHEREAS 1 PERCENT IS THE MAXIMUM ALLOWABLE. THE FAILURE WAS CONFIRMED. HOWEVER, THE CAUSE OF FAILURE COULD NOT BE FOUND. THERE SEEMS TO BE AN INHERENT DRIFT. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4886-F BANDPASS FILTER	FAR 87-01393-1	641110	FACTORY	YES NO	APPLIED COMPONENTS AC13030-1	
FAILURE MODE-ELECTRICAL SHORT, NO OUTPUT. FAILURE CAUSED BY AN INTERNAL SHORT CIRCUIT OF GROUND LEAD TO CASE HEADER							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							884197

CORRECTIVE ACTION-LEAD-CASE CONTINUITY TEST BEING PERFORMED AT VENDOR FACILITY TO ENSURE LEADS ARE NOT SHORTED TO C ASE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-48 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01552-49	641110	FACTORY	YES NO	WIANCO 54103-9	893580

FAILURE MODE-STRUCTURAL. STATIC ERROR WAS FOUND TO BE 6.38 PERCENT, WHEREAS 1 PERCENT IS THE MAXIMUM ALLOWABLE. FAI LURE WAS ATTRIBUTED TO A CRACKED FERRITE PAD. CRACK WAS CAUSED BY MISHANDLING OF THE TRANSDUCER.

CORRECTIVE ACTION-RAR SLV-99-24-8460 WAS WRITTEN, RECOMMENDING MEASURES BE TAKEN TO PREVENT MISHANDLING OF TRANSDUC ERS AT CONVAIR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-20-3038-F TRANSDUCER	FAR 69-11560-15	5301 641108	FACTORY	YES NO	GD/C	895999

FAILURE MODE-ELECTRICAL OPEN-TRANSDUCER OUTPUT WAS REPORTED INTERMITTENTLY OPEN AT THE HIGH END OF THE POTENTIOMETE R, BUT WAS NORMAL AT THE LOW END. THE REPORTED FAILURE OF THE TRANSDUCER ASSY WAS NOT CONFIRMED.

CORRECTIVE ACTION-SINCE FAILURE WAS NOT CONFIRMED NO FURTHER ACTION CAN BE TAKEN AT THIS TIME.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4901-F CALIBRATOR/RELAY	FAR 27-15991-1	641106	FACTORY	YES NO		893539

FAILURE MODE-ELECTRICAL SHORT. CALIBRATOR PULSE WIDTH WAS 295 MILLISEC. WHEN 300 TO 600 MILLISEC. WAS EXPECTED. FAI LURE DUE TO DEFECTIVE LATCHING RELAY THAT WOULD LATCH IN ONLY ONE POSITION CAUSED BY IMPROPERLY MOUNTED PERMANENT MA GNET.

CORRECTIVE ACTION-RELAY VENDOR TO PERFORM 100 PERCENT INSPECTION BOTH IN PROCESS AND FINAL.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PR! OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4682-F CALIBRATOR	FAR 27-12991-1	841106	FACTORY	YES NO		893546

FAILURE MODE-OUT OF TOLERANCE. CALIBRATOR OPERATED 36.5 SEC. WHEN 35 SEC. MAX. WAS EXPECTED. FAILURE CONFIRMED, HOW EVER. REQUIREMENTS HAVE BEEN CHANGED TO ALLOW 40 SEC. MAX. OPERATING TIME.

CORRECTIVE ACTION-NONE. CONDITION IS ACCEPTABLE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4905-F DETECTOR-WIRING	FAR 69-11118-1	841104	FACTORY	YES NO		893041

FAILURE MODE-OUT OF TOLERANCE. OUTPUT WAS 2.50 VDC WHEN 3.0 PLUS OR MINUS 0.005 VDC IS EXPECTED. FAILURE CAUSED BY 2 CONNECTIONS ON CIRCUIT BOARD BEING VOID OF SOLDER. DURING CALIBRATION ATTEMPT WHILE TEMP WAS BEING RAISED THE DETE CTORS OUTPUT JUMPED AND BECAME NOISY. THIS CONDITION ATTRIBUTED TO INADEQUATE SOLDER CONNECTIONS ON POTENTIOMETER R-6 MANDREL.

CORRECTIVE ACTION-RESPONSIBLE GROUPS CAUTIONED ABOUT FAILURE TO DETECT UNSOLDERED CONNECTIONS. FAULTY POTENTIOMETER REPLACED WITH IMPROVED 100K POTENTIOMETER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-A9-24-4847-F TEMPERATURE TRANSDUCER	FAR 7-01684-23	7109 841104	FACTORY	YES NO	LEWIS 568386	890660

FAILURE MODE-STRUCTURAL. DURING FINAL CHECKOUT, THE TRANSDUCER INDICATED AN OPEN CIRCUIT. EXAMINATION REVEALED BROK EN WIRES, THE RESULT OF MECHANICAL BREAKING BY MISHANDLING.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. IT WAS RECOMMENDED THAT TORQUE PAINT BE PLACED ON THE TRANSDUCER PROTE CTIVE SHIELD TO ASSURE THAT IT IS NOT REMOVED BEFORE BEING INSTALLED ON THE VEHICLE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C-3852 PRESSURE TRANSDUCER	UTP-PET 69-01003-39	841103	GD/C	YES NO	BOURNS 8007371707	

FAILURE MODE - OUT OF TOLERANCE. DURING THE FINAL PROOF CYCLE THE UNIT WAS OUT OF TOLERANCE IN SEVERAL PLACES. THE MAXIMUM OUT OF TOLERANCE READING WAS 41.71 PERCENT AT 40 PERCENT THEORETICAL OUTPUT. THE ALLOWED ERROR IS 1.0 PERCEN T. THE FAILURE IS NOT VALID DUE TO EXCESSIVE EXPOSURE TO HIGH TEMPERATURE DURING THAT PART OF THE PET AND A MALFUNCT ION OF THE VIBRATION EQUIPMENT DURING Z-AXIS VIBRATION, WHICH SUBJECTED THE UNIT TO POSSIBLE EXCESSIVE HIGH AMPLITUD E LOW FREQUENCY SHOCK. S/N 408-1488. PET LOT 8.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							890150
CORRECTIVE ACTION - PET PROCEDURE 69A3658-1 WILL BE REVISED TO REQUIRE LIMITING OF 300 DEGREES F. HIGH TEMPERATURE EXPOSURE TO 5 MINUTES MAXIMUM. ACTION WILL BE ACCOMPLISHED PRIOR TO PET LOT 3 TESTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C-3652 PRESSURE TRANSDUCER	UTP-PET 69-01003-39	641103	GD/C	YES NO	BOURNS 2007371707	890159
FAILURE MODE - OUT OF TOLERANCE. DURING THE FINAL PROOF CYCLE THE UNIT WAS OUT OF TOLERANCE IN SEVERAL PLACES. THE MAXIMUM OUT OF TOLERANCE READING WAS 71.85 PERCENT AT 70 PERCENT THEORETICAL OUTPUT. THE ALLOWED ERROR IS 1.0 PERCENT. THE CAUSE OF THE DISCREPANCY WAS APPARENTLY THAT THE UNIT WAS NOT PROPERLY STABILIZED WHEN RECEIVED FROM THE VENDOR S/N 407-1434. PET LOT 1.							
CORRECTIVE ACTION - VCAR 6922, DATED 28 OCTOBER 1964 CONTINUES THE PREVIOUS TEMPERATURE STABILIZATION CYCLING, AND IN ADDITION ACCOMPLISHES AN EXPOSURE TO 300 DEGREES F. FOR 5 MINUTES, EFFECTIVE 16 NOVEMBER 1964.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4907-F PRESSURE TRANSDUCER	FAR 69-01003-39	5301 641102	FACTORY	YES NO	BOURNS	891588
FAILURE MODE-CONTAMINATION. AN INTERMITTENT OPEN CIRCUIT WAS REPORTED. THIS WAS DUE TO PARTICLES OF EPOXY ADHESIVE MIGRATING THROUGH THE SILICONE OIL UNDER THE INFLUNCE OF LOW LEVEL VIBRATION. THE PARTICLES WERE DUE TO DETERIORATION OF THE ADHESIVE IN THE OIL.							
CORRECTIVE ACTION-THE VENDOR CHANGED THE EPOXY ADHESIVE FROM BIGGS R-314 TO GE 9522.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-39-24-4865-F COMMUTATOR	FAR 27-01636-15	641029	FACTORY	YES NO	FIFTH DIMENSIO N MRXD466	895624
FAILURE MODE-CONTAMINATION. A SPIKE WAS OBSERVED ON SEGEMENT 30 OF THE COMMUTATORS J-1 SECTION. THIS WAS DUE TO A SMALL PIECE OF MATERIAL RESTING ON THE RETURN CONTACT. THE ORIGIN OF THE MATERIAL OR WHETHER OR NOT IT WAS FOREIGN WAS NOT DETERMINED.							
CORRECTIVE ACTION-THE VENDOR WAS INFORMED OF THIS FAILURE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4889 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01552-49	641029	FACTORY	NO NO	WIANCO	893386
FAILURE MODE-STRUCTURAL. STATIC ERROR BAND WAS OUT OF TOLERANCE. FAILURE WAS ATTRIBUTED TO OVERPRESSURIZATION OF TH E TRANSDUCERS IN THE POSITIVE DIRECTION. OVERPRESSURIZATION OCCURED DURING RECALIBRATION WHILE CHANGING FROM AMBIENT TO ELEVATED REFERENCE PRESSURE.							
CORRECTIVE ACTION-PERSONNEL HANDLING DIFFERENTIAL PRESSURE TRANSDUCERS WERE ACQUAINTED WITH THE CONTENTS OF RAR LV-99-24-8455, AND WERE CAUTIONED AGAINST IMPROPER PRESSURIZATION OF THESE TRANSDUCERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69A2178.4 AMPLIFIER S/N 64-30, CIRCUIT BOARD	UTP-PRT 27-01612-5	641029	GD/C	YES NO	BENDIX TAV-102	890618
FAILURE MODE-ELECTRICAL OPEN. TEST SPECIMEN OPERATING AT NORMAL 27.5 VDC POWER LEVEL WITH THE TRANSMITTER OUTPUT BE ING RECORDED ON MAGNETIC TAPE DURING BENCH TEST AT ROOM AMBIENT CONDITIONS. OUTPUT OBSERVED TO DROP FROM ACCEPTABLE 8.4 WATTS TO UNACCEPTABLE 8.4 WATTS AFTER TWO HOURS OF CONTINUOUS OPERATION. THIS WAS CAUSED BY LOOSE GROUND BETWEEN VARIABLE COMPONENTS MOUNTING BLOCK AND THE CASE DUE TO FOUR LOOSE SCREWS.							
CORRECTIVE ACTION-SOURCE INSPECTION PERSONNEL AT THE VENDOR WAS NOTIFIED OF THE LOOSE SCREW FINDING BY GD/A QUALITY CONTROL AND REQUESTED ACTION BE TAKEN TO PREVENT LOOSE AMPLIFIER SCREWS. REF. FR-654-2-423.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4910 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01552-51	641029	FACTORY	YES NO	WIANCO 54103-13	890686
FAILURE MODE-OUT OF TOLERANCE. STATIC ERROR BANDS WERE -1.72 PERCENT FOR EACH TRANSDUCER. THE CAUSE OF FAILURE COUL D NOT BE FOUND. HOWEVER, THERE DOES SEEM TO BE INHERENT DRIFT, PROBABLY CAUSED BY AGING OF ELECTRICAL OR MECHANICAL COMPONENTS.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-99-24-4836 POSITION TRANSDUCER	FAR 69-01005-1	641028	13	YES NO	SERVONIC 5041-0101	
FAILURE MODE-CONTAMINATION. THE TRANSDUCER WAS REJECTED WHEN A HIGH RESISTANCE SHORT WAS MEASURED BETWEEN THE WIPER AND CASE. EXAMINATION REVEALED SOLDER PARTICLES IMBEDDED IN THE POTTING MATERIAL BONDING THE WIPER TO ITS SUPPORT S HAFT.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							899443

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. RAR LV-9B-24-8430 REQUESTED THE VENDOR TO REVIEW PRODUCTION PROCEDURES . THE VENDOR STATED THAT APPROPRIATE PERSONNEL WERE CAUTIONED REGARDING THEIR WORKMANSHIP.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4932-F COMMUTATOR MOTOR	FAR 67-01636-21	641028	FACTORY	YES NO	FIFTH DIMENSIO N MRXD469	891628

FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR FAILED DURING VIBRATION TESTING ON THE TOP ASSEMBLY WHEN ITS SPEED DROPPE D TO 4.44 RPS. BEFORE VIBRATION THE SPEED WAS 4.78 RPS AND AFTER VIBRATION 4.91 RPS. THE SPECIFIED SPEED IS 5.00 RPS PLUS 5, MINUS 10 PERCENT THE FAILURE WAS CONFIRMED AND ATTRIBUTED TO AN EXCESSIVE SIDE LOAD ON THE MOTOR BEARING.

CORRECTIVE ACTION-REQUESTED VENDOR REVIEW ITS ASSEMBLY PROCEDURE AND THE POSSIBILITY OF A MOTOR BEING INSTALLED OFF CENTER CAUSING A SIDE LOAD ON THE MOTOR BEARING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C-2037 TEMPERATURE TRANSDUCER	UTP-PRT 7-01833-5	641028	GD/C	YES NO	LEWIS 568348	891178

FAILURE MODE-CONTAMINATION. THE OBSERVED INSULATION RESISTANCE WAS 40,000 OHMS WITH SIMPSON MULTIMETER. REQUIRED RE SISTANCE IS 20 MEGOHMS AT 200 VDC. APPEARS TO BE DUE TO EFFECT OF MOISTURE ON MAGNESIUM OXIDE INSULATION.

CORRECTIVE ACTION-GD/A STOCK OF THESE TRANSDUCERS WERE RETURNED TO THE VENDOR (LEWIS) FOR REWORK.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4864F TRANSDUCER	FAR 69-01003-13	5301 641027	FACTORY	YES NO	BOURNS	892909

FAILURE MODE-EXTERNAL LEAK. UNIT REJECTED FOR OUT OF TOLERANCE STATIC ERRORS. FAILURE ATTRIBUTED TO LOSS OF REFEREN CE PRESSURE THROUGH TWO SMALL LEAKS IN THE CONNECTOR TO CASE SOLDER JOINT.

CORRECTIVE ACTION-VENDOR PERSONNEL REQUESTED TO USE GREATER CARE IN SOLDERING AND INSPECTION.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4863 PRESSURE TRANSDUCER	FAR 7-01731-7	2250 641027	FACTORY	YES NO	BOURNS 71724-0-15-752	890731

FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER EXHIBITED AN OUT OF TOLERANCE POSITIVE SHIFT. ALTHOUGH NO DAMAGE WAS OBSERVED TO PROVE THE CAUSE OF FAILURE; A POSITIVE SHIFT IN AN UNDAMAGED TRANSDUCER SUGGESTS OVERPRESSURIZATION. OVERPRESSURIZATION WOULD RESULT IN PERMANENT DISTORTION OF THE SENSING ELEMENT.

CORRECTIVE ACTION-APPROPRIATE CONVAIR GROUPS WERE INFORMED OF THE RESULTS OF THIS ANALYSIS AND WERE REQUESTED TO HANDLE TRANSDUCERS WITH GREATER CARE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	PET-TP-1-0260.1 PRESSURE TRANSDUCER	UTP-PET 7-01731-1	641026	FACTORY	YES NO	BOURNS 71724-0-6-752	890767

FAILURE MODE-OUT OF TOLERANCE. DURING OPERATING VIBRATION TESTS, UNIT EXHIBITED 7 TO 25 PERCENT DEVIATION (FSO) DUE TO SPIKING. THE FAILURE WAS DUE TO CASE RESONANCES RESULTING IN WIPER LIFTOFF.

CORRECTIVE ACTION-GD/C REJECTED PET LOT 14 AND RETURNED THE TRANSDUCERS TO THE VENDOR. THE VENDOR INCREASED CONTROL OF MANUFACTURING TOLERANCES DURING ASSEMBLY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4860-F TRANSDUCER POWER SUPPLY, CAPACITOR	FAR 55-13540-601	641024	FACTORY	YES NO		895623

FAILURE MODE-OUT OF SPECIFICATION. NOISELEVEL WAS 60 AND 150 MILLIVOLTS. SPECIFICATIONS CALL FOR A MAXIMUM NOISE OF 25 AND 85 MILLIVOLTS. THEFAILURE WAS DUE TO A FRACTURE IN ONE ENDCAP CONNECTION OF CAPACITOR C-Y (DEARBORN P/N HPF 104F2, 0.1 MICRO FARAD).

CORRECTIVE ACTION-ECP 3434 HAS BEEN APPROVED, PROVIDING FOR IMPROVED ELECTRONIC PARTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	CT-99-24-3200 OSCILLATOR RESISTOR	FAR 7-01466-651	641024	FACTORY	YES NO	INTERNATIONAL RESISTOR CORP 1041962-1-K	

FAILURE MODE-ELECTRICAL OPEN. OSCILLATOR COULD NOT BE ADJUSTED WITHIN FREQUENCY SPECIFICATION LIMITS. THE LOWEST OUTPUT OBTAINABLE WAS 19667 CPS WHEREAS 19294 PLUS OR MINUS) 216 CPS IS REQUIRED. FAILURE WAS CAUSED BY OPEN CIRCUITING OF THE LEAD ATTACHMENT CUP SOLDER CONNECTION IN METAL FILM RESISTOR R-23. THE SOLDER CONNECTION WAS FRACTURED. THE OPEN CIRCUIT REMOVED THE MULTIVIBRATOR SECTION TUBES CATHODE BIAS, REDUCING THE OUTPUT FREQUENCY EXCURSION OF THE SECTION.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							893094

CORRECTIVE ACTION-REQUESTED THE RESISTOR VENDOR, INTERNATIONAL RESISTOR CORPORATION, MORE CLOSELY MONITOR THE LEAD CUP BONDING PROCESSES TO ACHIEVE CORRECT CUP BONDING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4852F TRANSDUCER	FAR 7-01732-8	1840 641023	FACTORY	YES NO	BOURNS 71725-0-10-752	893107

FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER HAD WRONG OUTPUT AT AMBIENT PRESSURE. THE FAILURE WAS CAUSED BY SHIFTING OF THE WIPER ARM PROBABLY BECAUSE OF OVERPRESSURIZATION OF THE TRANSDUCER. THE TRANSDUCER HAD PASSED ITS LAST CALIBRATION.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4911 PRESSURE TRANSDUCER	FAR 69-01004-23	7108 641023	FACTORY	NO NO	BOURNS 2023203001	890805

FAILURE MODE-STRUCTURAL. TRANSDUCERS WERE READING HIGHER THAN THE EXPECTED VALUE. FAILURE WAS DUE TO OVERPRESSURIZATION.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4846-F BAND PASS FILTER	FAR 87-01895-23	641022	FACTORY	YES NO	APPLIED COMPON ENTS AC13030-23	895616

FAILURE MODE-OUT OF SPECIFICATION. THE OUTPUT VOLTAGE WAS REPORTEDLY HIGHER THAN SPECIFIED. THIS WAS FOUND TO BE DUE TO IMPROPER ADJUSTMENT.

CORRECTIVE ACTION-A CAUTION NOTE WAS ADDED TO EQUIPMENT OPERATING PROCEDURE 550.411.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4870-F PRESSURE TRANSDUCER/0 TO 3500 PSIA	FAR 7-01720-5	1840 641022	FACTORY		BOURNS	

FAILURE MODE-OPEN (ELECT). TWO TRANSDUCERS FAILED BY INDICATING AN INTERMITTENT OPEN CIRCUIT. THIS WAS CAUSED BY MIGRATING PARTICLES OF EPOXY ADHESIVE IN THE SILICONE OIL DAMPING FLUID WHEN SUBJECTED TO LOW LEVEL VIBRATION (GROUND-

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SOURCE HYDRAULIC SYSTEM PRESSURIZED WITH THE AUTOPILOT ON).							893635
CORRECTIVE ACTION-BOURNS CHANGED THEIR ADHESIVE FROM 81668 R-314 TO GE 9922.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-9B-24-4861-F BANDPASS FILTER	FAR 27-01295-23	2910 641022	FACTORY	YES NO	APPLIED COMPON ENTS ACT 3030-23	893444
FAILURE MODE-O : OF TOLERANCE. OUTPUT AT 9718 CPS WAS 2.0 VOLTS PEAK-TO-PEAK WHEN 1.0 TO 1.8 VOLTS MAX IS EXPECTED. CAUSE ATTRIBUTED TO OUTPUT BEING ADJUSTED AT THE WRONG FREQUENCY.							
CORRECTIVE ACTION-APPROPRIATE PERSONNEL INFORMED OF FILTER CHARACTERISTICS AND RESULTS OF ANALYSIS. PROCEDURE CHANG ED TO INSURE PROPER ADJUSTMENT OF THE FILTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4837F OSCILLATOR	FAR 69-11100-813	7108 641022	FACTORY	YES NO	BENDIX	893408
FAILURE MODE-OUT OF TOLERANCE. TRANSMITTER CARRIER FREQUENCY WAS HIGH. MAY HAVE BEEN DUE TO THE OSCILLATOR BEING DE TUNED FROM THE NATURAL CRYSTAL FREQUENCY.							
CORRECTIVE ACTION-CHANGES WERE MADE BY BENDIX TO PROCEEDURES AND SPECIFICATIONS TO MAINTAIN BETTER FREQUENCY STABIL ITY OF THESE TRANSMITTERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-9B-24-4861F TRANSDUCER	FAR 7-01649-9	2360 641022	ETR-12	YES NO	ROSEMOUNT 134AG	892837
FAILURE MODE-UNIT REJECTED FOR ERRATIC OPERATION.							
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-A9-24-4898-F ACCELEROMETER TRANSDUCER	FAR 7-01413-5	7108 641022	WTR	YES NO	BORG-WARNER 9747-B	
FAILURE MODE-ELECTRICAL SHORT. DURING FINAL CHECKOUT THE TRANSDUCER WAS OVERHEATING AND DRIFTING. AFTER DISASSEMBLI NG, A SHORT WAS FOUND IN THE HEATER CIRCUIT.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							890672

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED, BUT THE CAUSE OF THE SHORT CIRCUIT WAS NOT DETERMINED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C-3652 PRESSURE TRANSDUCER	UTP-PET 69-01003-39	641021	GD/C		YES BOURNS NO 2007371707	892315

FAILURE MODE - OUT OF SPECIFICATION. DURING THE 21 OCTOBER 1964 POST PLUS 300 DEGREESF PROOF CYCLE THE MAXIMUM ERRO R WAS PLUS 1.11 PERCENT. DURING THE 22 OCTOBER 1964 POST VIBRATION PROOF CYCLE THE MAXIMUM ERROR WAS PLUS 1.60 PERCE NT. DURING THE 3 NOVEMBER 1964 FINAL PROOF CYCLE THE MAXIMUM ERROR WAS 1.85 PERCENT. THE ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT. APPARENTLY, THETRANSDUCER WAS NOT PROPERLY TEMPERATURE STABILIZED WHEN RECEIVED FROM THE VENDOR. S/N 4071434, PET LOT 1.

CORRECTIVE ACTION-THE VENDOR WILL EXPOSE EACH TRANSDUCER TO 300 DEGREES F FOR 5 MINUTES, EFFECTIVE 16 NOVEMBER 1964

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C-3652 PRESSURE TRANSDUCER	UTP-PET 69-01003-39	641021	GD/C		YES BOURNS NO 2007371707	892314

FAILURE MODE - OUT OF SPECIFICATION. DURING THE 21 OCTOBER 1964 POST PLUS 300 DEGREESF PROOF CYCLE AND THE POST VIB RATION PROOF CYCLETHE MAXIMUM ERROR WAS PLUS 1.34 PERCENT AND PLUS 1.61 PERCENT OF FULL SCALE OUTPUT RESPECTIVELY. D URING THE 3 NOVEMBER 1964 FINAL PROOF CYCLE THE MAXIMUM ERROR WAS PLUS 1.71 PERCENT OF FULL SCALE OUTPUT. THE ALLOWA BLE ERROR IS PLUS OR MINUS 1.0 PERCENT. THESE DISCREPANCIES WERE CAUSED BY EXCESSIVE EXPOSURE TO HIGH TEMPERATURE AN D POSSIBLE EXCESSIVE VIBRATION. S/N 4081436, PET LOT 2.

CORRECTIVE ACTION-PET PROCEDURE 69A3652-1 WAS REVISED TO REQUIRE LIMITING OF 300 DEGREES F HIGH TEMPERATURE EXPOSUR E TO 5 MINUTES MAXIMUM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-98-24-4697-F PRESSURE TRANSDUCER/0-3000PSIA	FAR Y-01720-3	289D 641021	ETR		YES SERVONICS NO	891583

FAILURE MODE-ERRATIC OPERATION. IT WAS REPORTED THE TRANSDUCER OUTPUT SIGNAL CONTAINED SUFFICIENT NOISE TO CAUSE A 10 TO 20 PERCENT VARIATION IN THE DATA LEVEL.

CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4848-F CALIBRATOR	FAR 27-12291-5	641020	FACTORY	YES NO		895820
FAILURE MODE-FAIL TO CEASE OPERATION AT PRESCRIBED TIME. THE CALIBRATOR REPORTEDLY FAILED IN THE NEXT ASSEMBLY WHEN IT OPERATED 48 SECONDS. OPERATING TIME SHOULD BE BETWEEN 18 AND 35 SECONDS. CORRECTIVE ACTION-NONE-THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4830-C OSCILLATOR	FAR 7-01664-851	194D 641020	FACTORY	YES NO	BENDIX 1040659-47	895036
FAILURE MODE-OUT OF TOLERANCE. COULD NOT BE ADJUSTED TO CENTER FREQUENCY OF 960 CYCLES PER SECOND. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-99-24-4844-F PRESSURE TRANSDUCER	FAR 27-01386-29	3530 641020	WTR 2-3	YES NO	SERVONIC 2091-0902	898696
FAILURE MODE-STRUCTURAL. DURING A TEST ON THE MISSILE, THE TRANSDUCER WAS READING LOW OVER PART OF ITS RANGE. EXAMINATION REVEALED THAT THE RESISTIVE ELEMENT WAS WORN, PROBABLY CAUSED BY HIGH FREQUENCY DITHER. FOR A RELATED CASE, SEE FAR-LV-99-24-4787-F. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. AS A RESULT OF THIS PROBLEM, THE TRANSDUCER CALIBRATION CYCLE WAS CHANGED TO A SIX MONTH PERIOD.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4820-F COMMUTATOR	FAR 27-11541-939	1960 641019	FACTORY	YES NO	BENDIX	893411
FAILURE MODE-ERRATIC OPERATION. CHANNEL 14 HAD BREAKUP OF 85 PERCENT INFORMATION BAND WIDTH ON TWO MASTER PULSES AT T PLUS 47.3 SECONDS OF THE MISSILE TELEMETRY TEST. FAILURE WAS DUE TO UNSATISFACTORY COMMUTATOR OPERATION. CORRECTIVE ACTION-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-A9-24-4042-F PRESSURE TRANSDUCER	FAR 87-01306-29	1960 641019	FACTORY	YES NO	SERVONIC 172-2	698641

FAILURE MODE-OUT OF TOLERANCE. DURING CHECKOUT OF MISSILE 1960, THE OUTPUT OF THIS TRANSDUCER SHIFTED OUT OF THE SP ECIFIED ERROR BAND. EXAMINATION DID NOT REVEAL DISCREPANCIES; ALTHOUGH THE SHIFT IN OUTPUT WAS DUPLICATED. THIS IS T YPICAL OF AN OVERLOAD FAILURE, AND MAY HAVE BEEN AN ISOLATED CASE.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE CAUSE OF FAILURE WAS NOT PROVED, AND NO CORRECTIVE ACTION WAS TAKE N.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4024-C TLM CANISTER-TRANSMITTER	FAR 87-11541-939	1960 641016	FACTORY	YES NO	BENDIX	693410

FAILURE MODE-OUT OF TOLERANCE. CHANNEL 4 WAS OUT OF BAND AND CHANNEL 14 OPERATED NEAR THE HIGH FREQUENCY BAND EDGE.

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS CANCELLED BY SLV RELIABILITY CONTROL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-4038-F DEMODULATOR-TRANSFORMER	FAR 87-13563-19	641015	FACTORY	YES NO	APPLIED COMPON ENTS 2112	693567

FAILURE MODE-OUT OF TOLERANCE. DURING NEXT ASSEMBLY TESTING, A DC VOLTAGE WAS FOUND TO BE TOO HIGH. REPLACING THE T RANSFORMER 87-01106-1RESULTED IN THE ASSEMBLY PASSING THE TEST.

CORRECTIVE ACTION-NONE-THE FAILURE WAS NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69A21YG.2 TRANSDUCER POWER SUPPLY	UTP-SLT 88-13340-803	641015	60/C	YES YES	60/C 88-13340-803	

FAILURE MODE-ELECTRICAL SHORT. TEST SPECIMEN WAS AT ROOM AMBIENT TEMPERATURE DURING BENCH TEST FOLLOWING SLT 12 & A CCELERATION TEST. THE OUTPUT VOLTAGES (-6 VDC TO +8.8 VDC) OF TRANSDUCER POWER SUPPLY (P/N 88-13340-803) DROPPED TO ZERO DURING PROOF CYCLE FOLLOWING SLT ACCELERATION. THIS WAS CAUSED BY TRANSISTOR Q1 SHORTING OUT AS A RESULT OF Q4 BURNING OUT ON TRANSDUCER POWER SUPPLY.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE. FAILURE CONSIDERED RANDOM. REF. FR-684-2-411 SUPPLEMENT A.							690620
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4812-C TLM CANISTER-TRANSMITTER	FAR 55-13557-655	196D 641014	FACTORY	YES NO	BENDIX	693419
FAILURE MODE-OUT OF TOLERANCE. THE TRANSMITTER FAILED REPORTEDLY DUE TO ERROR IN WIRING. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4819-F COMMUTATOR	FAR 55-13666	196D 641014		NO NO		693418
FAILURE MODE-FAILED TO OPERATE AT THE PRESCRIBED TIME. CHANNEL E COMMUTATOR DID NOT OPERATE BECAUSE OF AN ERROR IN THE PROCEEDURE. CORRECTIVE ACTION-ONE COPY OF PROCEDURE 27-92020-1, USED BY INSPECTORS ON MISSILE 196-D, HAS HAD THE SENTENCE, (SET COMMUTATOR SWITCH ON), REMOVED FROM PAGE 025, PARAGRAPH F.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-A9-24-4845-F PRESSURE TRANSDUCER	FAR 27-01366-29	196D 641013	FACTORY	NO NO	SERVONIC H-172-2	690697
FAILURE MODE-STRUCTURAL. DURING TELEMETRY CHECKOUT, THE TRANSDUCER WAS READING OUT OF THE SPECIFIED BAND. EXAMINATION REVEALED DAMAGE TO THE BOURDON TUBE AND MECHANICAL STOP DUE TO OVERPRESSURIZATION. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. ACTION WAS REQUESTED, WHERE APPROPRIATE, TO ELIMINATE THE POSSIBILITY OF APPLYING EXCESSIVE PRESSURE. SEE RAR-LV-A9-24-8422.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4816-F OSCILLATOR	FAR 55-13557-655	174D 641012	FACTORY	YES NO	BENDIX	693420
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A OPERATED OUTSIDE THE LOW FREQUENCY BAND EDGE. CANNEL A SUBCARRIER OSCILLATOR WAS REPLACED AND OPERATION WAS NORMAL. CAUSE OF FAILURE OF THE OSCILLATOR WAS NOT DETERMINED. CORRECTIVE ACTION-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-89-24-4845-F DETECTOR	FAR 89-11118-1	641010	FACTORY	YES NO		898868
FAILURE MODE-OUT OF TOLERANCE. WHILE TESTING THE NEXT ASSEMBLY. THE MEASURED OUTPUT VOLTAGE WAS LOW.							
CORRECTIVE ACTION-NONE-THE FAILURE REPORTED WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4818-F OSCILLATOR	FAR 88-13837-855	174D 641010	FACTORY	YES NO	BENDIX	893412
FAILURE MODE-OUT OF TOLERANCE. CHANNEL E FREQUENCY WAS OUT OF TOLERANCE. AFTER THE CHANNEL E SUBCARRIER OSCILLATOR WAS REPLACED, OPERATION WAS NORMAL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4825-F OSCILLATOR-WIRING	FAR 88-13868-837	196D 641009	FACTORY	YES NO		893409
FAILURE MODE-OUT OF TOLERANCE. INTERMITTENT OUTPUT FROM CHANNEL 11. THIS WAS DUE TO A POOR SOLDER CONNECTION ON THE SUB CARRIER OSCILLATOR FILTER.							
CORRECTIVE ACTION-BENDIX-PACIFIC WAS REQUESTED TO REVIEW THE SUPPLIERS QUALITY-CONTROL PROGRAM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4817-F TLM CANISTER	FAR 88-13837-855	174D 641009	FACTORY	YES NO	BENDIX	891779
FAILURE MODE-ERRATIC OPERATION. CHANNEL 18 INDICATED COMPLETE BREAKUP FROM 15 TO 16 SECONDS.							
CORRECTIVE ACTION-NONE. CAUSE OF FAILURE WAS NOT KNOWN; AS FAILURE ANALYSIS WAS CANCELLED AT AIR FORCE REQUEST.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C1649.5 PRESSURE TRANSDUCER	UTP-PRT 69-01003-13	641009	60/C	YES NO	BOURNS 3004206304	691519

FAILURE MODE-STRUCTURAL. DURING RANDOM/SINE VIBRATION TESTING UNIT HAD OUTPUT UP TO -8 PERCENT OF THE PRIMARY VALVE . AT COMPLETION OF VIBRATION SWEEP UNIT DID NOT RESPOND TO PRESSURE AND REMAINED AT 90 PERCENT OUTPUT. OUTPUT SHIFTE D TO 99.99 PERCENT WHEN UNIT WAS TAPPED. CAUSED BY BROKEN LINKAGE WIRE BETWEEN BELLOWS AND WIPER.

CORRECTIVE ACTION-EXISTING. APPROVED, DEFINITIZED SPECIFICATIONS /SPECIFICATION CONTROL DRAWING 69-01003 AND BOOK S PECIFICATION 27-01443/ FOR THIS TRANSDUCER DO NOT REQUIRE IT TO WITHSTAND RANDOM/SINE VIBRATION. CONTINUED USE WILL BE MADE OF THIS TRANSDUCER WITHOUT CHANGE IN SPECIFICATION OR CONFIGURATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4972 TRANSDUCER	FAR 69-01003-1	641009	FACTORY	YES NO	SERVONIC 5041-0101	690730

FAILURE MODE-OUT OF TOLERANCE. STARTING FORCE WAS MORE THAN THE SPECIFIED 12 INCH OUNCE MAXIMUM SPECIFICATION. HIGH STARTING FORCE WAS CAUSED BY INADEQUATE LUBRICANT ON THE O-RINGS.

CORRECTIVE ACTION-ALL TRANSDUCERS WILL BE LUBRICATED WITH A 96 PERCENT DC-510 4 PERCENT MOLY-DI-SULFIDE MIXTURE ON THE O-RINGS AND SHAFT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4973 TRANSDUCER	FAR 69-01003-1	641009	FACTORY	YES NO	SERVONIC 5041-0101	690724

FAILURE MODE-ELECTRICAL OPEN. THE ELEMENT MEASURED OPEN ELECTRICALLY. FAILURE WAS CAUSED BY PASSAGE OF EXCESS CURRE NT THROUGH THE ELEMENT WIRE BURNING THE ELEMENT OPEN.

CORRECTIVE ACTION-PERSONNEL WERE CAUTIONED TO USE ONLY HIGH IMPEDANCE MEASURING DEVICES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GD/AAGUSS-001-88.7C-CO-01-0808-078 TLM CANISTER	COMPOSITE-FACTORY SS-13537-698	1740 641008	FACTORY	YES NO		

FAILURE MODE-ERRATIC OPERATION-TELEMETRY CHANNEL 18 INDICATED BREAKUP FOR APPROXIMATELY 1 SECOND DURATION AND CHANN EL 8 (SUSTAINER PITCH POSITION), INDICATED 7 PERCENT VARIATIONS IN NULL POSITION.

SYSTEM EFFECT-ERRATIC OPERATION.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM LEVEL AND COMPOSITE RETESTING REQUIRED. CORRECTIVE ACTION-REPLACED TELEMETRY PACKAGE.							897888
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4876-F CALIBRATOR	FAR 87-12891-5	841006	FACTORY	YES NO		893545
FAILURE MODE-OUT OF TOLERANCE. CALIBRATOR OPERATED FOR 38 SEC. WHEN 33 SEC. MAX. WAS EXPECTED. FAILURE CAUSED BY CALIBRATOR NOT BEING TEMPERATURE COMPENSATED. CORRECTIVE ACTION-PROCEDURE REVISED TO ALLOW 10 TO 40 SEC. OPERATING TIME FOR THE CALIBRATOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4803C TLM CANISTER	FAR 87-11341-939	1960 841008	FACTORY	YES NO	BENDIX	893422
FAILURE MODE-OUT OF TOLERANCE. SEGEMENTS 51 AND 53 OF CHANNEL 16 WERE OVER 140 PERCENT OF INFORMATION BANDWIDTH INSTEAD OF 80 TO 100 PERCENT. CORRECTIVE ACTION-NONE. NO FAILURE ANALYSIS PERFORMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4799F COMMUTATOR-TRANSISTOR	FAR 87-01636-15	841005	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-466	892089
FAILURE MODE-STRUCTURAL. THE COMMUTATOR WAS REPORTED TO HAVE STOPPED OPERATING DURING VIBRATION TESTING. FAILURE WAS CAUSED BY A CRACKED TRANSISTOR LEAD. CRACKING WAS CAUSED BY THE SHARP BEND RADIUS OF THE TRANSISTOR LEADS. CORRECTIVE ACTION-THE TRANSISTOR LEAD DRESS HAS BEEN INVESTIGATED FOR IMPROVEMENT, AND A MANUFACTURING PROCESS INSTRUCTION ISSUED WHICH DEFINES TRANSISTOR LEAD DRESS AND PRECLUDES SHARP BENDS AT THE TRANSISTOR BODY TO PREVENT LEAD BREAKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4815-C COMMUTATOR	FAR	841008				

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4834F TRANSDUCER	FAR 69-01003-39	641000	FACTORY	YES NO	BOURNS	893114
FAILURE MODE-FIVE UNITS REJECTED FOR INTERMITTENT OPEN CIRCUIT. FAILURES ATTRIBUTED TO DETERIORATION OF THE EPOXY A DHESIVE USED IN ASSEMBLY, AND BY MIGRATION OF EPOXY PARTICLES THROUGHOUT THE SILICONE OIL. THE SAME FAILURE WAS REPO RTED ON TWO UNITS BY FAR SLV-A9-24-4838 AND ON ONE UNIT BY FAR LV-A9-24-4869.							
CORRECTIVE ACTION-A VCP WAS APPROVED ALLOWING THE VENDOR TO CHANGE THE ADHESIVE FROM BIGGS R-314 TO GE 9522.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4834F TRANSDUCER	FAR 69-01003-33	641000	FACTORY	YES NO	BOURNS	892898
FAILURE MODE-CONTAMINATION. TWO UNITS REJECTED FOR INTERMITTENT OPEN CIRCUIT. FAILURES ATTRIBUTED TO DETERIORATION OF THE EPOXY ADHESIVE USED IN ASSEMBLY, AND BY MIGRATION OF EPOXY PARTICLES THROUGHOUT THE SILICONE OIL.							
CORRECTIVE ACTION-A VCP WAS APPROVED ALLOWING THE VENDOR TO CHANGE THE ADHESIVE FROM BIGGS R-314 TO GENERAL ELECTRI C 9522.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4834F TRANSDUCER	FAR 69-01003-31	641000	FACTORY	YES NO	BOURNS	891575
FAILURE MODE-CONTAMINATION. THREE UNITS REJECTED FOR INTERMITTENT OPEN CIRCUITS. FAILURES ATTRIBUTED TO DETERIORATI ON OF THE EPOXY ADHESIVE USED IN ASSEMBLY, AND BY MIGRATION OF EPOXY PARTICLES THROUGHOUT THE SILICONE OIL.							
CORRECTIVE ACTION-A VCP WAS APPROVED ALLOWING THE VENDOR TO CHANGE THE ADHESIVE FROM BIGGS R-314 TO GE 9522.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4849-F BAND PASS FILTER	FAR 27-01295-1	640929	FACTORY	YES NO	APPLIED COMPON ENTS AC13030-1	895621
FAILURE MODE-OUT OF SPECIFICATION. OUTPUT AT 518CPS WAS TOO HIGH. RESONANT FREQUENCIES WERE 408 AND 430CPS, SHOULD HAVE BEEN BETWEEN 397 AND 403CPS. FAILURE DUE TO IMPROPER CURING OF EPOXY-IMPREGNATED INDUCTORS.							
CORRECTIVE ACTION-VENDOR CHANGED PROCEDURES AND SPECIFICATIONS FOR TESTING, INCLUDING TEMPERATURE CYCLING FOR STABI LITY.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-LV-JA-24-4651 PRESSURE TRANSDUCER	FAR 58-01107-63	353D 640927	FACTORY	YES NO	COLVIN 401-6-4-75	899424

FAILURE MODE-STRUCTURAL. THE TRANSDUCER WAS REJECTED WHEN THE SOLDER JOINT WAS FOUND BROKEN. THE JOINT WAS INCOMPLETELY FILLED WITH SOLDER AND NUMEROUS POROUS AREAS WERE FOUND.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. IN RESPONSE TO VENDOR CORRECTIVE ACTION REQUEST 3628-63 DATED 630516, THE VENDOR STATED THAT ALL UNITS NOW BEING MANUFACTURED ARE WELDED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4826-F TRANSDUCER POWER SUPPLY-CAPACITOR	FAR 55-13540-803	640924	FACTORY	YES NO		893997

FAILURE MODE-ELECTRICAL OPEN. NO VOLTAGE WAS MEASURED AT THE 5 VOLT DC OUTPUT. THIS WAS DUE TO A POOR SOLDERED CONNECTION OF ONE OF THE PIGTAILS TO THE FOIL OF CAPACITOR C-3 IN THE CHOPPER CIRCUIT.

CORRECTIVE ACTION-ECP 3434 WAS APPROVED TO REPLACE THIS CAPACITOR WITH AN IMPROVED PART.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	GDA/BKF64-042/L4-701-00-7102 TLM CANISTER-CONNECTOR	FLIGHT 69-11100	7102 640923	2-4 52	YES YES		899936

FAILURE MODE-FAIL DURING OPERATION. POSSIBLY CONNECTOR AT TRANSMITTER LOOSENED UNDER VIBRATIONAL STIMULUS.

SYSTEM EFFECT-ERRATIC OPERATION. LOOSENING OF CONNECTOR CAUSED RF NO. 1 SIGNAL STRENGTH FLUCTUATIONS (APPROXIMATELY 12 DB PEAK-TO-PEAK).

VEHICLE EFFECT-NONE. DATA RETRIEVAL VIA RF NO. 1 NOT AFFECTED.

CORRECTIVE ACTION-CLOSER ADHERENCE TO CONNECTOR INSTALLATION DRAWING RE-EMPHASIZED TO QC AND INSPECTION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	GDA/BKF64-042/L4-701-00-7102 COMMUTATOR	FLIGHT	7102 640923	2-4	YES NO		

FAILURE MODE-OUT OF TOLERANCE. RF NO. 1 CHANNEL 11 COMMUTATOR SPEED 7.2 PERCENT FASTER THAN NOMINAL SPEED OF 2.5 RPS (TOLERANCE IS 5 PERCENT). OVERSPEED ATTRIBUTED TO LACK OF COMMUTATOR DRAG (CHANNEL 11 MOTOR DRIVES ONLY ONE COMMUTATOR WHILE OTHERS DRIVE AT LEAST 2) AND RUN TIME (MOTORS HAVE HISTORY OF GAINING SPEED WITH OPERATING TIME).

SYSTEM EFFECT-NONE. THE OUT OF TOLERANCE SPEED DID NOT RESULT IN ANY DATA RETRIEVAL DIFFICULTIES.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE. PROPOSAL TO PERFORM 50-HOUR RUN TIME TEST FOR COMMUTATOR MOTORS DISSAPPROVED BY GDC ENGINEERING CHANGE BOARD.							899937
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4826-F DETECTOR-POTENTIOMETER	FAR 69-11110-1	640922	FACTORY	YES NO	SPECTROL MOD 60	894120
FAILURE MODE-ELECTRICAL OPEN. THE OUTPUT AT PIN 15 OF DEMOD 69-11110-5 VARIED AFTER THE UNIT WARMED UP. THIS WAS DUE TO AN OPEN 100,000 OHM WIRE WOUND POTENTIOMETER IN DETECTOR 69-11110. CORRECTIVE ACTION-THE POTENTIOMETER MANUFACTURER- (1) FOUND AND CORRECTED A FAULTY FIXTURE, (2) INITIATED A 100 PER CENT HIGH TEMPERATURE INSPECTION. ECP 3434 WAS APPROVED FOR AN IMPROVED POTENTIOMETER. SPECTROL MODEL 60 POTENTIOMETERS WERE REMOVED FROM THE PREFERRED PARTS LIST AND THE 100,000 OHM SIZE WAS DECLARED INACTIVE FOR NEW DESIGN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	CT-99-24-3189 OSCILLATOR	FAR 7-01488-039	640922	FACTORY	NO NO	BENDIX 1041962-3K	891890
FAILURE MODE-OUT OF SPECIFICATION. OSCILLATOR REPORTERLY CAUSED THE TELEMETRY CHANNEL-C OUTPUT TO BECOME NOISY DURING THE DESTRUCT SIGNAL ON TELEMETRY CHANNEL-E. THIS OCCURRED DURING TESTING OF THE OSCILLATOR NEXT ASSEMBLY, TELEMETER P/N 55-13537-855, PEP EOP 55-330.27.2. FAILURE WAS NOT CONFIRMED. THE FAILURE REPORTED IS ATTRIBUTED TO EITHER FAULTY TEST EQUIPMENT OR THE USE OF WRONG DISCRIMINATORS IN THE TEST EQUIPMENT. CORRECTIVE ACTION-IT IS RECOMMENDED THE TEST EQUIPMENT FAULT BE CORRECTED AND TEST PERSONNEL BE INSTRUCTED IN THE CORRECT USE OF TEST EQUIPMENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-SLV-90-24-4807-C TEMPERATURE TRANSDUCER	FAR 7-01884-3	7102 640922	2-3	YES NO	LEWIS 96836A	890674
FAILURE MODE-ELECTRICAL OPEN. THE INDICATED FAILURE WAS AN OPEN CIRCUIT. HOWEVER AN ANALYSIS WAS CANCELLED PER TWX VANSAN 10-7-72 DATED 641007. CORRECTIVE ACTION-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-A9-24-4038 PRESSURE TRANSDUCER	FAR 87-93900-35	640921	FACTORY	NO NO	SERVONIC L-64	888418

FAILURE MODE-STRUCTURAL. DURING FINAL CHECKOUT, THE TRANSDUCER OUTPUT EXCEEDED THE SPECIFIED VALUE. EXAMINATION REV EALED DISTORTION OF THE HIGH PRESSURE BELLOWS, CAUSED BY OVERLOADING.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. IT WAS REQUESTED THAT APPROPRIATE PERSONNEL BE MADE AWARE OF THE RESUL TS OF THE ANALYSIS TO PREVENT RECURRENCE OF THIS TYPE OF PROBLEM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-9D-24-4039-F TEMPERATURE TRANSDUCER	FAR 7-01033-9	640921	WTR 1-4	YES NO	ROSEMOUNT 1496	892877

FAILURE MODE-CONTAMINATION. THE TRANSDUCER HAD AN OPEN CIRCUIT BETWEEN PINS D AND E. FAILURE WAS CAUSED BY AN UNKNO WN OBJECT PASSING THROUGH THE PROTECTIVE CAGE ORIFICE PRESSING AGAINST OR HITTING THE WIRE, AND SEPARATING THE WIRE AT ITS WEAKEST POINT.

CORRECTIVE ACTION-TWX, YANSAN 11-27-165, WAS RECEIVED FROM FIELD PERSONNEL STATING THAT MEMO 532-1-1033 HAD BEEN RE CEIVED AND WAS DISTRIBUTED TO APPROPRIATE PERSONNEL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4033F TRANSDUCER	FAR 69-01003-39	3020 640921	FACTORY	YES NO	BOURNS	892903

FAILURE MODE-OUT OF TOLERANCE. UNIT REJECTED FOR THE STATIC ERROR BAND BEING OUT OF TOLERANCE. FAILURE CAUSE BY INT ERNAL PRESSURE, CAUSING OUTPUT TO BE SHIFTED. SOURCE OF PRESSURE UNKNOWN.

CORRECTIVE ACTION-VENDOR INFORMED OF FINDINGS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAT-SLV-9D-24-4021-F PRESSURE TRANSDUCER	FAR 87-01243-9	640921	WTR	NO NO	BOURNS 42011-0-150-75 8	

FAILURE MODE-STRUCTURAL. THE TRANSDUCER HAD BEEN REPORTED AS HAVING AN OPEN CIRCUIT. ACTUALLY IT HAD BEEN PHYSICALL Y DAMAGED DURING INSTALLATION, AND WAS IMPROPERLY DISPOSITIONED FOR FAILURE ANALYSIS.

CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. FIELD PERSONNEL WERE REQUESTED TO HANDLE TRANSDUCERS MORE CAREFULL

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
Y.							89064"
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4783-C TLM CANISTER-COMMUTATOR	FAR 83-13537-883	174D 640916	FACTORY	YES NO	BENDIX	893714
FAILURE MODE-ERRATIC OPERATION. THERE WERE MULTIPLE DISCREPANCIES IN THIS PACKAGE; INCLUDING-CHANNEL 18 WAS NOISY O N ALL SEGMENTS. CHANNEL A HAD A VARIABLE NEGATIVE GATE; AND AT PERCENT INFORMATION BANDWITH NOISE LEVEL. COMMUTATOR SPEED WAS 41 REVOLUTIONS PER SECOND. WHEREAS 30 RPS WAS EXPECTED.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4832-F SUBCARRIER OSCILLATOR DIODE	FAR 87-01607-937	640916	FACTORY	YES NO	BENDIX PACIFIC 3131153-AAA	893229
FAILURE MODE-ELECTRICAL SHORT. OUTPUT FREQUENCY WAS HIGH AND OUTPUT AMPLITUDE WAS LOW. THIS WAS DUE TO GOLD FLAKING FROM DIODE CR-3(1N942A, MOTOROLA) AND SHORTING.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-90-24-4827P TRANSDUCER	FAR 69-01003-33	7102 640916	WTR	YES NO	BOURNS	892807
FAILURE MODE-UNIT REJECTED FOR ERRATIC OPERATION. FAILURE CONFIRMED; BUT EXACT CAUSE COULD NOT BE DETERMINED. IT HA D THE CHARACTERISTICS OF A RESISTIVE FILM OR PARTICLE ON THE WINDING.							
CORRECTIVE ACTION-CAUSE NOT DETERMINED. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4783-F DETECTOR-POTENTIOMETER	FAR 69-11116-1	640915	FACTORY	YES NO	SPECTROL	
FAILURE MODE-ELECTRICAL OPEN. POTENTIOMETER R-6 WOULD NOT PROPERLY CONTROL OUTPUT VOLTAGE. FAILURE WAS CAUSED BY PO TENTIOMETER R-6 BEING ELECTRICALLY OPEN. POTENTIOMETER R-6 WAS DAMAGED DURING ASSEMBLY AT THE VENDORS FACTORY.							
CORRECTIVE ACTION-SPECTROL MODEL 60 100 KILO-HOMS SIZE (PN 69-75203-11) WAS DECLARED INACTIVE FOR NEW DESIGN AFTER							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
FEB. 15, 1963.							895430
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4797 REGULATOR ASSEMBLY CIRCUIT BOARD	FAR 69-11117-1	640911	FACTORY	YES NO		891624
FAILURE MODE-SHORT (ELECT). THE OUTPUT VOLTAGES WERE MEASURED TO BE 73.26 AND 6.75 VOLTS AC. A RESISTANCE OF 0.5 OH M WAS MEASURED BETWEEN TERMINALS1 AND 6. THE RESISTANCE SHOULD READ OPEN. BOTH FAILURE SYMPTOMS WERE CAUSED BY A SOL DER SPLASH SHORTING TWO PRINTED CIRCUIT LANDS TOGETHER.							
CORRECTIVE ACTION-MANUFACTURING PROCESS CONTROL PERSONNEL WERE SHOWN THE FAILURE AND ITS CAUSE. THEY WERE CAUTIONED TO IMPROVE QUALITY CONTROL							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4823-F DETECTOR-POTENTIOMETER	FAR 69-11118-1	640910	FACTORY	YES YES	SPECTROL MODEL	895770
FAILURE MODE-ELECTRICAL OPEN. DEMODULATOR 69-11110-5 HAD A FLUCTUATION IN OUTPUT AS THE UNIT WARMED UP. DUE TO AN I NTERMITTENT OPEN IN WIRE WOUND POTENTIOMETER IN AS DETECTOR 69-11118. (ADDITIONAL FAILURES DOCUMENTED IN FAR).							
CORRECTIVE ACTION-THE POTENTIOMETER MANUFACTURER- (1) FOUND AND CORRECTED A FAULTY FIXTURE (2) INITIATED A 100 PERC ENT HIGH TEMPERATURE INSPECTION. ECP 3434 WAS APPROVED FOR AN IMPROVED POTENTIOMETER. SPECTROL MODEL 60 POTENTIOMETE RS WERE REMOVED FROM THE PERFERRED PARTS LIST AND THE 100,000 OHM SIZE WAS DECLARED INACTIVE FOR NEW DESIGN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4823-F DETECTOR-DIODE	FAR 69-11118-1	640910	FACTORY	YES YES	TEXAS INSTR. 6130	895771
FAILURE MODE-ELECTRICAL OPEN. DEMODULATOR 69-11110-5 HAD A FLUCTUATION IN OUTPUT AS THE UNIT WARMED UP. MAY HAVE BE EN DUE TO AN INTERMITTENT OPEN IN THE A-5 CR-5 DIODE IN AS DETECTOR 69-11118. (ADDITIONAL FAILURES DOCUMENTED IN FAR).							
CORRECTIVE ACTION-INSPECTIONSUPERVISION NOTIFIED MANUFACTURING PERSONNEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4822-F DETECTOR-POTENTIOMETER	FAR 69-11118-1	640910	FACTORY	YES NO	SPECTROL MODEL	
FAILURE MODE-ELECTRICAL OPEN. DEMODULATOR 69-11110-5 INDICATED A VARIATION IN OUTPUT OF SUBCARRIER OSCILLATOR CHANN EL-A SEGMENT 29. THIS WAS DUE TO AN OPEN WIRE WOUND POTENTIOMETER (R6) IN THE DETECTOR.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							893453

CORRECTIVE ACTION-THE POTENTIOMETER MANUFACTURER, (1) FOUND AND CORRECTED A FAULTY FIXTURE, (2) INITIATED A 100 PER CENT HIGH TEMPERATURE INSPECTION. ECP 3434 WAS APPROVED FOR AN INPROVED POTENTIOMETER. SPECTROL MODEL 60 POTENTIOMETERS WERE REMOVED FROM THE PERFERRED PARTS LIST AND THE 100000 OHM SIZE WAS DECLARED INACTIVE FOR NEW DESIGN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-LV-68-24-4835-7 PRESSURE TRANSDUCER	FAR 27-01243-7	640910	FACTORY	YES NO	BOURNS 42011-0-100-752	890642

FAILURE MODE-OUT OF TOLERANCE. THE PART WAS REJECTED IN THE STANDARDS LAB BECAUSE THE STATIC ERROR BAND HAD BEEN EXCEEDED. FURTHER TESTS AND EXAMINATION REVEALED NOTHING AS A CAUSE OF THE FAILURE.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. NO CORRECTIVE ACTION COULD BE TAKEN BECAUSE THE REASON FOR FAILURE WAS NOT DETERMINED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-68-24-4823-F REGULATOR, TRANSISTOR	FAR 68-11117-1	640910	FACTORY	YES YES	TEXAS INSTR.	890266

FAILURE MODE-ELECTRICAL OPEN. DEMODULATOR 68-11110-5 HAD A FLUCTUATION IN OUTPUT AS UNIT WARMED UP. POSSIBLY DUE TO 2N930 TRANSISTOR (Q2) IN A1 VOLTAGE REGULATOR 68-11117. (ADDITIONAL FAILURES DOCUMENTED IN FAR).

CORRECTIVE ACTION-INSPECTION SUPERVISION NOTIFIED MANUFACTURING PERSONNEL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-A8-24-47C8F TLM CANISTER-RESISTORS	FAR 68-11100-813	7105 640908	FACTORY	YES NO	BENDIX	893713

FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE NOISE OSCILLATION WAS NOTED ON CHANNELS 5 THROUGH 8. CHANGING THE VOLTAGE DIVIDER FIXED-BIAS RESISTORS SO BIAS VOLTAGE FOR THE FREQUENCY-MULTIPLYING VARACTOR DIODES WAS REDUCED ABOUT 5 PERCENT, ELIMINATED ALL NOISE OSCILLATIONS. FAILURE WAS CAUSED BY TOO HIGH A BIAS VOLTAGE.

CORRECTIVE ACTION-A DESIGN REVIEW WILL BE MADE BY THE MANUFACTURER IN THE NEAR FUTURE TO DETERMINE AREAS FOR POSSIBLE IMPROVEMENT.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4776-C OSCILLATOR	FAR 7-01488-831	1810 640809	FACTORY	YES NO	BENDIX 1041962-1-K	892845

FAILURE MODE-OUT OF TOLERANCE. CHANNEL A SIGNAL FREQUENCY WAS REPORTED TEN PERCENT OUT OF BAND.

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED BY SLV RECIABILITY CONTROL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-3196 POWER SUPPLY	FAR 27-12991-3	640908	FACTORY	YES NO	BENDIX 1046173-2-A	891891

FAILURE MODE-OUT OF SPECIFICATION. THIS POWER SUPPLY WAS REJECTED WHEN ITS SUBCARRIER-OSCILLATOR PLATE-VOLTAGE MONI TOR POINT INDICATED PLUS 1.480 VOLTS DC. THE VOLTAGE REQUIREMENT IS PLUS 1.411 TO PLUS 1.469 VOLTS DC. THIS WAS DISC OVERED DURING TESTING OF THE POWER SUPPLY NEXT ASSEMBLY P/N 55-13537-655 PER EOP 55-330.27.2. REPORTED FAILURE WAS N OT VERIFIED. SINCE THE NEXT ASSEMBLY TELEMETER WAS NOT RECEIVED FOR ANALYSIS, NO REASON COULD BE DISCOVERED TO EXPLA IN THE REJECTION OF THIS POWER SUPPLY.

CORRECTIVE ACTION-IT IS RECOMMENDED TELEMETRY TOP PACKAGE BE SENT FOR FAILURE ANALYSIS WHENEVER POWER SUPPLY FAILUR ES ARE INVOLVED. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4806F LIMITER FILTER, INDUCTOR	FAR 27-01295-9	640903	FACTORY	YES NO	APPLIED COMPON ENTS	893776

FAILURE MODE-OUT OF TOLERANCE. OUTPUT VOLTAGE WAS 0.0145 VOLTS AC. A MINIMUM OF 0.020 VOLTS AC IS REQUIRED. LOW OUT PUT WASDETERMINED TO BE DUE TO A CHANGE IN INDUCTANCE OF THE COILS. THIS WAS DUE TO IMPROPER DURING AFTER POTTING. N /A 27-12682-3 FILTER.

CORRECTIVE ACTION-BANDPASS FILTERS IN STOCK AND SPARES WERE CURED AND RETESTED. THE MANUFACTURER OF THE COIL CHANGE D MANUFACTURING PROCESSES TO INCLUDE CURING AT 160 DEGREES F.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C-2057 TEMPERATURE TRANSDUCER	UTP-PRT 7-01633-5	640902	6D/C	YES NO	LEWIS 36B348	

FAILURE MODE - CONTAMINATION. THE OBSERVED INSULATION RESISTANCE WAS 4 MEGOHMS AT 200 VDC REQUIRED RESISTANCE IS 20 MEGOHMS. APPEARS TO BE DUE TO EFFECT OF MOISTURE ON MAGNESIUM OXIDE INSULATION. A RECHECK ON 9-10-64 SHOWED AN INSU LATION RESISTANCE OF 12 MEGOHMS. THE UNIT WAS CLEANED AND THE INSULATION RESISTANCE OF ELEMENT -B TO PIN -F WAS MEAS URED AT 8 MEGOHMS. THE REQUIREMENT IS 20 MEGOHMS MINIMUM. S/N 4940486.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							891033

CORRECTIVE ACTION-6D/A STOCK OF THESE TRANSDUCERS RETURNED TO VENDOR /LEWIS/ FOR RE WORK.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4798-C BANDPASS FILTER	FAR 27-01295-5	640901	FACTORY	YES NO	APPLIED COMPON ENTS AC15030-5	892088

FAILURE MODE-OUT OF TOLERANCE. OUTPUT WAS GREATER THAN THE MAXIMUM ALLOWED. FAILURE ANALYSIS OF THESE BANDPASS FILTERS WAS CANCELED BECAUSE PREVIOUS ANALYSIS SHOWED FAILURE IN THIS MODE WAS CAUSED BY IMPROPERLY CURED INDUCTORS.

CORRECTIVE ACTION-6D/C ISSUED SURVEY INSTRUCTION 116-64.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4788-F DETECTOR-POTENTIOMETER	FAR 69-11116-1	640831	FACTORY	YES NO	SPECTROL M0060	893451

FAILURE MODE-ELECTRICAL OPEN. OUTPUT COULD NOT BE ADJUSTED TO THE SPECIFICATION REQUIREMENT OF 5.000 PLUS OR MINUS 0.005 VOLTS DC. FAILURE WAS CAUSED BY POTENTIOMETER R-6 OPENING ELECTRICALLY WHEN THE DETECTOR WARMED TO THE NORMAL OPERATING TEMPERATURE.

CORRECTIVE ACTION-SPECTROL MODEL 60, 100 KILOHM SIZE (PN86-75263.011)WAS DECLARED INACTIVE FOR NEW DESIGN AFTER FEBRUARY 15, 1963.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GDA-APZ64-062/D1-501-00-36 WIRING	FLIGHT	36F 640831	WTR	YES NO		893864

FAILURE MODE-PREMATURE OPERATION. START OF THE TIME TRANSPOSITION TELEMETRY (TTT) SYSTEM WAS PREMATURELY INITATED DUE TO ERRONEOUS WIRING TO THE BECO ENABLE INSTEAD OF THE BECO SIGNAL.

SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. DUE TO THE ERRONEOUS START SIGNAL, THE DESIRED TELEMETRY DATA WAS NOT OBTAINED DURING THE TELEMETRY BLACKOUT ASSOCIATED WITH BOOSTER JETTISON.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-PROCEDURES WERE INITIATED TO ENSURE PROPER WIRING TO START SIGNAL.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4613F TRANSDUCER	FAR 7-01732-5	353D 640831	FACTORY	YES NO	BOURNS	892804
FAILURE MODE-OUT OF TOLERANCE. UNIT REJECTED FOR ERRATIC OPERATION. FAILURE CAUSED BY UNBALANCED TENSION ON THE DOU BLE WIPER.							
CORRECTIVE ACTION-IN JUNE 1963 THE VENDOR STARTED 100 PERCENT WIPER TENSION INSPECTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-A9-24-4804 POSITION TRANSDUCER	FAR 27-01616-7	7104 640828	FACTORY	YES NO	SERVONIC 5031-0107	899121
FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE TRANSDUCER REPORTEDLY FAILED DURING ADJUSTMENT ON THE VEHICLE. IT COUL D NOT BE ADJUSTED. AND AN OPEN WAS REPORTED. FUNCTIONAL TESTS ON THE TRANSDUCER REVEALED NO DEFICIENCIES. FAILURE TO ADJUST IS ATTRIBUTED TO THE TRANSDUCER BEING IN THE BUSSED REGION. THE OPEN CIRCUIT WAS PROBABLY REPORTED WHEN THE TRANSDUCER WAS IN THE ZERO OUTPUT PORTION OF ITS RANGE.							
CORRECTIVE ACTION-THE FAILURE HAS NOT CONFIRMED. NO CORRECTIVE ACTION WAS TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4831-F SUBCARRIER OSCILLATOR	FAR 27-01607-115	640827	FACTORY	YES NO	BENDIX-PACIFIC 3131153-86	893230
FAILURE MODE-OUT OF TOLERANCE. FREQUENCIES OF THE OSCILLATOR WERE LOWER THAN SPECIFIED. BY ADJUSTING FREQUENCY AND SENSITIVITY CONTROL THE FREQUENCIES WERE BROUGHT WITHIN SPECIFICATION. GD/C PERSONNEL ARE NOT PERMITTED TO ADJUST TH ESE CONTROLS.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4801F TRANSDUCER	FAR 7-01633-5	640826	FACTORY	YES NO	ROSEMOUNT 149D	892903
FAILURE MODE-UNIT REJECTED FOR OUT-OF-TOLERANCE. (LOW) INSULATION RESISTANCE. FAILURE NOT CONFIRMED.							
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-9D-24-4787-F PRESSURE TRANSDUCER	FAR 27-01386-29	353-D 640826	2-3	YES NO	SERVONIC H-172-2	898640

FAILURE MODE-OUT OF TOLERANCE. DURING A DPL TEST, THE PART WAS READING LOW IN THE LOWER PORTION OF ITS RANGE. EXAMINATION REVEALED THAT THE RESISTIVE ELEMENT WAS WORN IN THE AFFECTED RANGE. FOR A RELATED CASE, SEE FAR-LV-9D-24-4844-F.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. AS A RESULT OF THIS PROBLEM, THE TRANSDUCER CALIBRATION CYCLE WAS CHANGED TO A MORE FREQUENT VALIDATION INSPECTION THAN BEFORE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PET-TP-2-0564.1A PRESSURE TRANSDUCER	UTP-PET 27-01243-9	640821	FACTORY	YES NO	COLVIN 401-A-15-75	898761

FAILURE MODE-CONTAMINATION. DURING X-AXIS VIBRATION, THE UNIT EXHIBITED AN OUT OF TOLERANCE OUTPUT WITH SPIKING AND SHIFTING. THE FAILURE WAS CONFIRMED DUE TO A NON-CONDUCTIVE PARTICLE ATTACHED ON THE ELEMENT AT THE 50 PERCENT POINT.

CORRECTIVE ACTION-GD/C RETURNED PET LOT 2 TO THE VENDOR. ALL TRANSDUCERS OF THIS P/N AND VENDOR WERE PURGED FROM STOCK AND RE-TESTED TO SPECIAL VIBRATION TESTS PRIOR TO USE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4719-F DIFFERNTIAL PRESSURE TRANSDUCER	FAR 27-01552-55	7102 640819	FACTORY	NO NO	WIANCKO 54103-21	898840

FAILURE MODE-OUT OF SPECIFICATION. TRANSDUCER WAS FOUND TO BE IN ERROR. IT WAS REMOVED AND CALIBRATED. MAXIMUM ERROR WAS MINUS 20 PERCENT. IT WAS CONCLUDED THAT IT HAD BEEN OVERPRESSURIZED OR DAMAGED BY SHOCK.

CORRECTIVE ACTION-FINAL ASSEMBLY, MISSILE CHECKOUT, RECEIVING-INSPECTION, AND STANDARDS LABORATORY PERSONNEL WERE INSTRUCTED TO TAKE GREAT CARE IN HANDLING, INSTALLING AND TESTING TRANSDUCERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA6481/PE-4CO-01-105 COMMUTATOR	COMPOSITE-B FACT	193D 640818	12	YES NO	1096483-35	

FAILURE MODE-ERRATIC OPERATION. 2.5 RPS COMMUTATOR WAS CHANGING SPEED BETWEEN 2.1 AND 2.4 RPS.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
VEHICLE EFFECT-NONE. CORRECTIVE ACTION-CHANGED COMMUTATOR MOTOR IN RF 1.							697691
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-99-24-4763-F ACCELEROMETER TRANSDUCER	FAR 7-01413-8	640818	FACTORY	YES NO	BORG-WARNER 9747-8	698666
FAILURE MODE-OUT OF TOLERANCE. THE OUTPUT FREQUENCY OF THIS VIBRATING WIRE TRANSDUCER WAS BELOW THE SPECIFIED VALUE . THE CAUSE OF FAILURE WAS NOT ESTABLISHED, BUT COULD HAVE BEEN THE RESULT OF AGING EFFECTS OF THE VIBRATING WIRE, O R A CHANGE IN SUPPORT DIMENSIONS, OR EXCESSIVE CROSS-AXIS ACCELERATION. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. SURVEY INSTRUCTION 111-64 DATED 640914 REMOVED ACCELEROMETERS BELOW S/ N 210 FROM STOCK STORES, AND MISSILES FOR INSPECTION AND TESTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-A9-24-4803 POSITION TRANSDUCER	FAR 69-01008-1	7101 640817	FACTORY	YES NO	SERVONIC 5041-0101	699390
FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE TRANSDUCER WAS REJECTED BECAUSE THE OUTPUT WAS NOT THE EXPECTED VALUE. CYCLING TESTS REVEALED CHANGES IN RESISTANCE, WHICH WAS CAUSED BY WEAR ON THE RESISTIVE ELEMENT. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. RAR SLV-A9-24-8407 RECOMMENDED THAT THESE TRANSDUCERS NOT BE INSTALLED UNTIL COMPOSITE TESTING, TO PREVENT PREMATURE WEAR ON THE RESISTIVE ELEMENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-98-24-3120 COMMUTATOR MOTOR	FAR 27-01367-8	640817	ETR	YES NO	FIFTH DIMENSIO N RESC-123	692497
FAILURE MODE-ERRATIC OPERATION. COMMUTATION RATE VARIED FROM 2.43 TO 2.47 RPS. FAILURE WAS APPARENTLY CAUSED BY THE BENT MOTOR ROTOR. IN ADDITION, A PIECE OF WIRE WAS SHORTING PINS 13, 14, 15, 16, AND 17. CORRECTIVE ACTION-VENDOR AND CONVAIR PERSONNEL WERE INFORMED OF THE DEFICIENCIES FOUND DURING ANALYSIS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4761-F T.M CANISTER-RESISTOR	FAR 27-12762-011	3000 640814	FACTORY	YES NO		
FAILURE MODE-STRUCTURAL. CHANNEL 11, SEGMENT 29, WAS FLUCTUATING BETWEEN 43 PERCENT INFORMATION BANDWIDTH (IBW) AND 63 PERCENT IBW. THIS SEGMENT SHOULD BE 100 PERCENT IBW. FAILURE WAS CAUSED BY INSUFFICIENT SOLDER ON TERMINAL IN PR							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INTED CIRCUIT BOARD LOCATION L-1. THERMAL FLEXING BETWEEN THE RESISTOR LEAD AND ITS TERMINAL CAUSED THE BRIDGE CIRCU IT TO INCREASE RESISTANCE AND LOWER THE PERCENTAGE IBW USED BY THE SENSOR. CORRECTIVE ACTION-ALL PERSONNEL NOW INVOLVED IN THE SOLDERING OF THIS PRINTED CIRCUIT BOARD MUST BE CERTIFIED AND S UCCESSFULLY COMPLETE THE NASA APPROVED SOLDERING SCHOOL COURSE.							894181
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-99-24-4780 PRESSURE TRANSDUCER	FAR 87-93900-033	640811	FACTORY	YES NO	SERVONIC D64	899836
FAILURE MODE-STRUCTURAL. DURING LAB TESTS, THE TRANSDUCER WAS REJECTED BECAUSE OF SPIKING ON THE RECORD. DUNING DIS ASSEMBLY, THE WIPER ARM WAS BENT. AFTER STRAIGHTENING IT, THE SPIKING WAS ELIMINATED. PROBABLE CAUSE OF FAILURE WAS TOO LIGHT A PRESSURE OF WIPER ARM ON THE MANDREL. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. NO CORRECTIVE ACTION WAS TAKEN BECAUSE THE WIPER ARM DAMAGE PRECLUDED VERIFICATION OF THE CAUSE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4808F TRANSDUCER	FAR 7-01731-3	1960 640811	FACTORY	YES NO	BOURNS	892899
FAILURE MODE-UNIT REJECTED FOR ERRATIC OPERATION. CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69A2176.3 TLM CANISTER	UTP-ETT 69-11100-801	640810	FACTORY		GD/C 69-11100-801	890818
FAILURE MODE-FAIL DURING OPERATION. TEST SPECIMEN AT 90 DEGREES F TEMPERATURE AND ETT SINE/RANDOM VIBRATION LEVEL I N Y-AXIS. THE NEGATIVE 1.25 VDC REFERENCE FOR COMMUTATED CHANNELS 11, 13 AND A WAS MISSING IN THE RECORDED PROOF CYC LE 8 OF THE 21ST ETT VIBRATION SWEEP. CAUSED BY MOISTURE CONDENSATION ON INSIDE SURFACE AND COMPONENTS CONTRIBUTING TO LOSS OF NEGATIVE 1.25 VDC REFERENCE FOR CHANNELS 11, 13 AND A. CORRECTIVE ACTION-ADDITIONAL TEMPERATURE CYCLES FOR FIRST ETT SPECIMEN MODIFIED TO THE LATEST CONFIGURATION, AGREED BY GD/A AND AIR FORCE FOR MOISTURE PROOFING (CIC 87713). REF. FR-654-8-370.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-PB-248-3155 TRANSDUCER-PRESSURE	FAR 55-01107-63	6A 640808	LERC	YES NO	COLVIN 401-6-4-75	890899

FAILURE MODE-ERRATIC OPERATION. TRANSDUCER EXHIBITED ERRATIC OUTPUT DURINGCALIBRATION AFTER BEING REMOVED FROM THE VEHICLE. FAILURE COULD NOT BE CONFIRMED DUE TO THE AS- RECEIVED CONDITION OF THE TRANSDUCER. HOWEVER, ERRATIC OPERATION COULD HAVE BEEN CAUSED BY THE TRANSDUCER CASE NOT BEING GROUNDED WHICH WOULD RESULT IN PICKUP OF NOISE AND EXTRANEOUS SIGNALS, CAUSING CROSSTALK. FAILURE OCCURRED ON CENTAUR TEST VEHICLE 6A.

CORRECTIVE ACTION-REQUEST VENDOR TO IMPROVE TRANSDUCER CASE GROUNDING METHOD TO ASSURE PROPER GROUND TO NEXT ASSEMBLY INSTALLATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27-3603 TEMPERATURE TRANSDUCER-CONNECTOR	UTP-PET 7-01033-5	640807	GD/C	YES NO	LEWIS/BENDIX 568348	891034

FAILURE MODE-CONTAMINATION. THE PLATING ON THE ELECTRICAL CONNECTOR HAS CHIPPED AWAY IN TWO PLACES. APPEARS TO BE CAUSED BY CORROSION OR OTHER CONTAMINATION ON COPPER PLATING PRIOR TO SILVER PLATING.

CORRECTIVE ACTION-REQUESTED VENDOR OF TRANSDUCER /LEWIS/ TO TAKE CORRECTIVE ACTION. VENDOR WILL IMPROVE INSPECTION, ESPECIALLY RECEIVING INSPECTION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4748-C TLM CANISTER	FAR 55-15937	640805	FACTORY	YES NO	BENDIX	892846

FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. CHANNEL E WAS FOUND TO BE OUT OF SPECIFICATIONS. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-A9-24-4770-F PRESSURE TRANSDUCER	FAR 7-01737-5	640805	FACTORY	YES NO	SERVONIC D82	

FAILURE MODE-ELECTRICAL OPEN. AN OPEN CIRCUIT WAS FOUND BETWEEN TWO PINS. EXAMINATION REVEALED BENT AND BROKEN WIRES AT THE PLUG, CAUSED BY CARELESS HANDLING.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. FACTORY PERSONNEL WERE INFORMED OF THE FAILURE AND WERE CAUTIONED TO H ANDLE PARTS CAREFULLY.							890693
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4753-C TELEMETER CANNISTER	FAR 55-13537-643	640604	FACTORY	YES NO	BENDIX	893656
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A WAS DISCOVERED TO BE OUT OF SPECIFICATIONS. FAILURE ANALYSIS OF THIS PACKA GE WAS WAIVED BY SLV RELIABILITY CONTROL. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4751-C TLM CANISTER	FAR 55-13537-643	640603	FACTORY	YES NO		893652
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 13 WAS DISCOVERED TO BE OUT OF THE FREQUENCY BAND TOLERANCES. FAILURE ANALYS IS OF THIS PACKAGE WAS WAIVED BY SLV RELIABILITY CONTROL. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AGU63-001-19/FC-CO-01-0502-007 TLM CANISTER	COMPOSITE-FACTORY 55-13533-643	151D 640730	FACTORY	YES NO	BENDIX	893376
FAILURE MODE-FAIL DURING OPERATION-TELEMETRY NO.1, CHANNEL 13 INDICATED MASTER PULSE VARIATIONS UP TO 10 PCT. IBW. AT TIMES THE MASTER PULSE EXCEEDED THE LOW FREQUENCY BANDEDGE. EXACT CAUSE UNKNOWN. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE RETESTING WAS REQUIRED. CORRECTIVE ACTION-THE TELEMETRY PACKAGE WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4792-F COMMUTATOR MOTOR	FAR 87-01636-21	640730	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-469	
FAILURE MODE-OUT OF TOLERANCE. COMMUTATION SPEED WAS FOUND TO BE 4.17 RPS. THE GLOBE MOTOR (PN 61A109) USED IN THIS COMMUTATOR HAS TOO SMALL A TORQUE OUTPUT TO COMPENSATE FOR NORMAL SMALL LOAD CHANGES. THESE LOAD CHANGES ARE DUE TO THERMAL EFFECTS ON BEARINGS, GEARS, ETCETERA.							

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							691623

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C1649 PRESSURE TRANSDUCER	UTP-PAY 69-01003-13	640729	60/C	YES NO	BOURNS 3004206304	691121

FAILURE MODE-OUT OF SPECIFICATION. DURING THE PROOF CYCLE BEFORE AND AFTER THE RANDOM/SINE VIBRATION TEST. MAXIMUM ERRORS WERE -2.08 AND -2.11 PERCENT RESPECTIVELY. ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT. SPIKING WAS OBSERVED DURING THE VIBRATION TEST. ANALYSIS REVEALED A SLIGHT KINK IN THE WIRE CONNECTING BELLOWS TO WIPER BUT THIS DID NOT APPEAR TO BE THE CAUSE OF FAILURE. S/N 309 0509.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4614F TRANSDUCER POWER SUPPLY-CAPACITOR	FAR 55-13540-803	640728	FACTORY	YES NO		693745

FAILURE MODE-OPEN-ELECT. NO VOLTAGE WAS PRESENT AT ANY OF THE POWER SUPPLY OUTPUTS. THIS WAS DUE TO FAULTY BANDING OF A LEAD TO SOLDER AT THE JOINT OF THIS LEAD TO THE PLATE OF CAPACITOR C-3. THIS CAPACITOR IS IN A CHOPPER CIRCUIT.

CORRECTIVE ACTION-ECP 3434 WAS APPROVED PROVIDING FOR REPLACEMENT OF EXISTING ELECYRONIC PARTS WITH SPECIAL QUALITY RESISTORS, CAPACITORS, TRANSISTOR RELAYS, DIODES, ETC.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4750-C COMMUTATOR	FAR 55-13530-811	640728	FACTORY	YES NO	BENDIX	693651

FAILURE MODE-FAILED DURING OPERATION. COMMUTATOR SEGMENTS WERE FOUND TO BE UNEVEN, THEREBY CAUSING EXCESSIVE BRUSH WEAR. FAILURE ANALYSIS OF THE COMMUTATOR WAS WAIVED BY SLV RELIABILITY CONTROL.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4721-F TLM CANISTER, FUSE	FAR 69-11300-1	7103 640727	FACTORY	NO NO		

FAILURE MODE-ELECTRICAL OPEN. MEAS A 831 D WAS NOT RECEIVING 28 VOLT EXCITATION FROM J2, PIN C OF TELEMETER. FAILUR

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E CAUSED BY BLOWN FUSE. FUSE BLOWN BY PRODUCTION PERSONNEL WHILE TROUBLE SHOOTING OF ASSOCIATED TRANSDUCER. CORRECTIVE ACTION-PROCEDURE CHANGED TO REDUCE POSSIBILITY OF SHORTING TELEPAK FUSES WITH CHECKOUT EQUIPMENT.							691801
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4735-F DEMODULATOR-WIRING	FAR 27-12367-5	640727	FACTORY	YES NO		691309
FAILURE MODE-OUT OF TOLERANCE. OUTPUT VOLTAGE COULD NOT BE ADJUSTED TO THE REQUIRED 0.000 PLUS OR MINUS 0.005 VOLT DC. DEMODULATOR FAILURE WAS CAUSED BY MISWIRING OF THE INPUT SIGNAL LEAD AT TERMINAL 1 OF INDUCTOR L-1. CORRECTIVE ACTION-INSPECTION PROCEDURES PRIOR TO THE FIRST TEST WERE CLARIFIED. SHOP AND INSPECTION PERSONNEL WERE INSTRUCTED TO EXERCISE CAUTION IN RINGOUT AND TEST PROCEDURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4768-P EVENTS SIGNAL MODULE-WIRING	FAR 27-12374-803	640723	FACTORY	YES NO		694180
FAILURE MODE-ELECTRICAL SHORT. OUTPUT VOLTAGES WERE VERY LOW. THE FAILURE WAS NOT CONFIRMED AT THE MODULE LEVEL. WHILE IN THE PACKAGE, AN INTERNAL SHORT CIRCUIT TO PIN 8 WOULD LOAD THE DESTRUCT INPUT SUFFICIENTLY TO CAUSE THE FAILURE REPORTED. THE SHORT CIRCUIT WAS CAUSED BY CLOSE PROXIMITY OF THE COMPONENTS. DURING POTTING THESE COMPONENTS CAN BREAK THROUGH THE INSULATION AND CAUSE ANY NUMBER OF SHORT CIRCUITS. CORRECTIVE ACTION-THE RESPONSIBLE CONVAIR DESIGN GROUP WAS NOTIFIED OF THE FAILURE AND ITS CAUSE. THE GROUP WAS ASKED TO INVESTIGATE POSSIBILE PACKAGING ADJUSTMENTS TO ALLEVIATE THE CLOSE COMPRESSION OF THE COMPONENTS WITHIN THE UNIT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27-3603 TEMPERATURE TRANSDUCER	UTP-PET 7-01633-5	640723	GD/C	YES LEWIS NO 56B34B		691177
FAILURE MODE-OUT OF SPECIFICATION. INSULATION RESISTANCE BETWEEN PIN A AND THE CASE AND BETWEEN PIN B AND THE CASE IS ERRATIC AND IN THE RANGE OF 0.2 MEGOHM. CORRECTIVE ACTION-UNKNOWN.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4783-C SUBCARRIER OSCILLATOR	FAR 7-01488-839	174D 640722	FACTORY	YES NO	BENDIX 1041962-3-K	891900
FAILURE MODE-OUT OF TOLERANCE. OUTPUT FREQ. COULD NOT BE ADJUSTED TO CORRECT VALVE. FAILURE DOCUMENTED ON IR 997822 , PR F-6094-SP, S/N 311692 (ALSO ON FAR LV-99-24-4748C AGAINST 151D). CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GDA/BKF64-029/F3-402-00-216 TLM CANISTER	COUNTDOWN ST-11541-933	216D 640717	ETR-12 -6900	YES NO	BENDIX	899612
FAILURE MODE-OUT OF TOLERANCE. SEGMENTS 33 AND 35 OF RF1 CH14 ELECTRICALLY CONNECTED. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. INTERACTION BETWEEN CH14 MEASUREMENTS (Z3E AND 64C) WAS NOTED DURING FIRST G UIDANCE COMMAND TEST (REF. AA64-0043). VEHICLE EFFECT-COUNTDOWN DELAYED. PICKUP FROM PLANNED HOLD AT T-95 WAS DELAYED FOR APPROXIMATELY 54 MINUTES DUE TO CHANGE. CORRECTIVE ACTION-TELEMETRY RF CANISTER REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-A9-24-4728-F TEMPERATURE TRANSDUCER	FAR 7-01684-23	151D 640717	FACTORY	YES NO	LEWIS 7-01684-23	890879
FAILURE MODE-STRUCTURAL. DURING FINAL CHECKOUT, ELECTRICAL SHORTS AND OPENS WERE INDICATED. EXAMINATION REVEALED WI RES BROKEN MECHANICALLY DUE TO MISHANDLING. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. PERSONNEL OF APPROPRIATE DEPARTMENTS WERE INFORMED OF THE PROBLEM AND THE CONSEQUENCES OF MISHANDLING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-471 TLM CANISTER	FAR 55-13537-843	151D 640715	FACTORY	YES NO	BENDIX	891902
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A INDICATED 2 PERCENT OUT OF BAND. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4785-C COMMUTATOR	FAR 27-01636-21	640714	FACTORY	YES NO	FIFTH DIMENSION MRXD-469	892966
FAILURE MODE-OPEN (ELECT). PIN B OF PLUG J-1 FOUND OPEN DURING VIBRATION TESTING. FAILURE NOT CONFIRMED AS FAILURE ANALYSIS WAS CANCELLED. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4784-C COMMUTATOR	FAR 27-01636-15	640714	FACTORY	YES NO	FIFTH DIMENSION MRXD-466	892987
FAILURE MODE-OPEN (ELECT). PIN Z OF PLUG J-2 WAS OPEN DURING VIBRATION TESTING. FAILURE NOT CONFIRMED AS FAILURE ANALYSIS WAS CANCELLED. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-LV-99-24-4763-F ACCELEROMETER TRANSDUCER	FAR 7-01413-5	2500 640713	ETR	YES NO	BORG-WARNER 2747-B	890667
FAILURE MODE-CONTAMINATION. THE ACCELEROMETER ACTED ERRATICALLY DURING A PROCEDURE RUN. THE SENSING HEAD WAS FOUND TO BE LEAKING DUE TO CORROSION PROBABLY CAUSED BY ACID CORE SOLDER FLUX. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR HAS DISCONTINUED USE OF ACID CORE SOLDER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4734-F TRANSDUCER POWER SUPPLY-DIODE	FAR 88-13540-803	640709	FACTORY	YES NO		893038
FAILURE MODE-OUT OF SPECIFICATION. THE 5 VOLT REFERANCE VOLTAGE WOULD NOT ADJUST PROPERLY. POWER SUPPLY VOLTAGE DRIFTED BEYOND THE 10MV SPECIFICATION WHEN ALLOWED TO OPERATE CONTINUOUSLY FOR AS LITTLE AS 12 MINUTES. THE OUTPUT ZENER DIODE CAN DRIFT MORE THAN THE ALLOWABLE OUTPUT TOLERANCE. THIS DIODE (1N466A)) DOES NOT HAVE A STRINGENT ENOUGH TEMPERATURE CHARACTERISTIC FOR THIS POWER SUPPLY APPLICATION. CORRECTIVE ACTION-IN ANSWER TO FAR SLV-99-24-8396, THE 1N466A DIODE HAS BEEN REPLACED WITH A P/N 69-63178 SPECIAL QUALITY DIODE.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4708-0 COMMUTATOR, MOTOR	FAR	640708	FACTORY		BENDIX 1098483-38	693654
FAILURE MODE-OUT OF TOLERANCE. DC GEARMOTOR FAILED WHEN IT INDICATED A SPEED OF 12 RPS. SPECIFICATIONS REQUIRE 10 R PS PLUS OR MINUS 0.5. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER PER TWX 64-91-003. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C-2040.3 PRESSURE TRANSDUCER	UTP-SLT 69-01003-31	640708	69/C	YES NO	BOURNS 7007371703	692344
FAILURE MODE - ERRATIC OPERATION. NEGATIVE NOISE SPIKES OF 20-25 PERCENT WERE EVIDENT THROUGHOUT THE SLT X, Y AND Z AXISTEMPERATURE SINE/RANDOM VIBRATION SWEEPS. S/N 3090041. CORRECTIVE ACTION-NONE. VIBRATION LEVELS FOR THIS TEST ARE 25 PERCENT ABOVE SLV DESIGN LEVEL REQUIREMENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C-2040-3 PRESSURE TRANSDUCER BEARING	UTP-SLT 69-01003-31	640708	69/C	YES NO	BOURNS 7007371703	692343
FAILURE MODE - STRUCTURAL. DURING PAST Y-AXIS VIBRATION PROOF CYCLE THE ERRORS WERE AS HIGH AS 3.22 PERCENT (1.0 PE RCENT ALLOWED). VENDOR DISASSEMBLY REVEALED THATTHIS WAS CAUSED BY MINOR IMPRESSIONSON THE BEARING CONES, CAUSED BY THE VIBRATION LEVEL ENCOUNTERED. S/N 3090041. CORRECTIVE ACTION-NONE. OTHER TRANSDUCERS OF THIS SERIES (69-01003) DID NOT EXHIBIT SIMILAR IMPERFECTIONS AFTER SLT RANDOM/SINE VIBRATIONS. THE VIBRATION LEVEL WAS 25 PERCENT ABOVE DESIGN LEVEL REQUIREMENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4748-F SUBCARRIER OSCILLATOR/RESISTOR	FAR 27-01607-925	640707	FACTORY	YES NO	BENDIX-PACIFIC 3131153-13AA	
FAILURE MODE-DRIFT. FREQUENCY TENDED TO DRIFT AS THE UNIT WAS WARMED UP. FREQUENCY DRIFT WAS DUE TO THE TEMPERATURE SENSITIVITY OF THE OSCILLATOR. THIS WAS CAUSED BY TWO FAULTY CARBON FILM RESISTORS,R10 AND R-11 IN THE TEMPERATURE COMPENSATING CIRCUIT. RESISTOR FAILURE WAS DUE TO POOR INTERNAL CONSTRUCTION; AS RESISTANCE VALVES VARIED WHEN RESIS TOR LEADS WERE MOVED. BOTH RESISTANCE VALVES MEASURED HIGH AND WERE OUTSIDE SPECIFICATIONS.							

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CORRECTIVE ACTION-NONE, SINCE THIS IS THE ONLY REPORTED FAILURE OF THIS UNIT IN THIS MODE.							693629
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-2038.2 PRESSURE TRANSDUCER	UTP-PRT 69-01003-29	640706	FACTORY	YES NO	BOURNS 2007371702	690769
FAILURE MODE-OUT OF TOLERANCE. DURING BOTH X AND Y-AXIS RANDOM/SINE VIBRATION, THE NOISE LEVEL WAS GREATER THAN SPECIFIED. THIS IS CAUSED BY A MOMENTARY DISCONTINUITY BETWEEN THE WIPER AND THE WINDING. S/N 3040078. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA6471/P3-4CO-02-216 TLM CANISTER	COMPOSITE-B FACT 27-11616-823	216D 640702	ETR-13	YES NO		697460
FAILURE MODE-FAIL DURING OPERATION. INTERMITTENT OPERATION OF TELEMETRY MEASUREMENT S610, ROLL DISPLACEMENT GYRO SIGNAL, OCCURRED DURING COUNTDOWN GUIDANCE COMMAND TEST. OPERATION WAS PROPER DURING PLUS COUNT. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. PARTIAL DATA LOSS DURING THE GUIDANCE COMMAND TEST. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-TELEMETRY ACCESSORY PACKAGE REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA6471/P3-4CO-02-216 TLM CANISTER	COMPOSITE-B FACT 27-11541-933	216D 640702	ETR-13	YES NO		697459
FAILURE MODE-OUT OF TOLERANCE. TLM MEASUREMENT Z3E, TRANSPONDER RF INPUT/AGC, READ 65 PERCENT ISW WHEN A READING OF APPROXIMATELY 30 PERCENT WAS EXPECTED. SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACED TELEMETRY RF PACKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-A9-24-4730-F TEMPERATURE TRANSDUCER	FAR 7-01684-3	710Z 640702	FACTORY	YES NO	LEWIS 7-01684-3	
FAILURE MODE-ELECTRICAL OPEN. DURING CHECKOUT, AN OPEN CIRCUIT WAS INDICATED IN THE TRANSDUCER. EXAMINATION REVEALED A BROKEN WIRE PROBABLY CAUSED BY MISHANDLING BEFORE OR DURING INSTALLATION.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							690673

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. PERSONNEL OF APPROPRIATE DEPARTMENTS WERE INFORMED OF THE PROBLEM AND THE CONSEQUENCES OF MISHANDLING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-A9-E4-4704-C TRANSDUCER	FAR 7-01720-5	289D 640630	FACTORY	YES NO	SERVONICS	693626

FAILURE MODE-ERRATIC OUTPUT. MEASUREMENT H35P INDICATED VARIATIONS IN OUTPUT DURING SYSTEM TESTING OF UP TO 6 PERCENT INFORMATION BANDWIDTH. THE CONDITION WAS ACCEPTABLE TO ENGINEERING. ENGINEERING STATES THAT WHEN THE MISSILE IS PLACED IN THE VERTICAL POSITION THIS CONDITION WILL NOT EXIST; THEREFORE THE FAILURE ANALYSIS IS NOT REQUIRED.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-A9-E4-4699-F CHANGEOVER SWITCH	FAR 55-01017-3	147F 640630	FACTORY	YES NO		692756

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. POWER CHANGEOVER SWITCH FAILED TO SWITCH FROM ITS INTERNAL TO ITS EXTERNAL POSITION. FAILURE WAS CONFIRMED. THE SWITCH WAS FOUND TO BE INOPERATIVE AFTER BEING SUBJECTED TO SIMULTANEOUS INTERNAL AND EXTERNAL COMMANDS.

CORRECTIVE ACTION-REQUESTED APPLICABLE PROCEDURES INCLUDE WARNING THAT POWER CHANGEOVER SWITCHES ARE NOT TO BE CYCLED MORE THAN ONCE A MINUTE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FR69C-2035.2 PRESSURE TRANSDUCER	UTP-PRT 69-01003-29	640630	FACTORY	YES NO	BOURNS 2007371702	690770

FAILURE MODE-LEAK-EXTERNAL. TWICE ON THE PRE Y-AXIS VIBRATION PROOF CYCLE (6-30-64 AND 7-6-64) AND TWICE ON THE POST Y-AXIS VIBRATION PROOF CYCLE (7-6-64 AND 7-7-64) THE TRANSDUCER ERROR EXCEEDED THE SPECIFICATION. THE FAILURE WAS DUE TO A LEAK IN A SILVER BRAZE JOINT AT THE BASE OF THE BOURDON TUBE. S/N 3040075.

CORRECTIVE ACTION-THE VENDOR INITIATED A MANUFACTURING CHANGE THAT PERFORMS A HIGH PRESSURE HELIUM LEAK CHECK INSTITUTED AFTER TUBE CYCLING. BRAZE JOINT APPEARED TO BE AN ISOLATED CASE OF MARGINAL WORKMANSHIP.

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-89-24-4690-F AMPLIFIER TUBE	FAR	640629	FACTORY	YES NO	BENDIX-PACIFIC	893818
FAILURE MODE-OUT OF TOLERANCE. POWER AMPLIFIER FAILED WHILE INSTALLED IN A TELEPAK BY LOSING POWER AND NOT MEETING ITS MINIMUM REQUIREMENT. THIS POWER LOSS WAS CAUSED BY THE RAYTHEON VACUUM TUBES BEING OPERATED ABOVE THEIR ABSOLUTE MAXIMUM RATINGS. FAILURE WAS CONFIRMED; HOWEVER, THE EXACT CAUSE IS IN DISAGREEMENT BETWEEN THE VENDOR AND ASTRONAUTICS. CORRECTIVE ACTION-VENDOR IS BURNING-IN 20 AMPLIFIERS TO PROVE IF THE PROBLEM IS IN THE AMPLIFIER OR ELSEWHERE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4685 POWER CHANGEOVER SWITCH-MOTOR	FAR 55-01017-3	640629	FACTORY	YES NO		893819
FAILURE MODE-ELECTRICAL SHORT. K-1 RELAY IN THE TOP TELEMETRY PACKAGE LOCKED IN THE INTERNAL POSITION RESULTING IN CONTINUITY BETWEEN PINS N AND N OF 1D4V1J1, WHEN IT SHOULD HAVE BEEN OPEN. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A N OPEN MOTOR CIRCUIT. THE OPEN MOTOR CIRCUIT WAS DUE TO A BURNED BRUSH LEAD AND A BURNED BRAKE WINDING CAUSED BY THE MOTOR RECEIVING EXTERNAL-INTERNAL COMMANDS SIMULTANEOUSLY. CORRECTIVE ACTION-RECOMMENDED RESPONSIBLE PERSONNEL TAKE NECESSARY ACTION TO PREVENT THIS TYPE OF FAILURE FROM RECURRING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4684-F PRESSURE TRANSDUCER	FAR 7-01731-1	640629	FACTORY	YES NO	BOURNS 71724-0-6-752	893162
FAILURE MODE-LEAK-EXTERNAL. LEAKING OIL WAS DISCOVERED AROUND THE ELECTRICAL RECEPTACLE. THE FAILURE WAS ATTRIBUTED TO IMPROPER SOLDERING TECHNIQUES; PROBABLY DUE TO THE APPLICATION OF EXCESSIVE HEAT, RESULTING IN A SHRINKAGE CRACK AND A VOID. CORRECTIVE ACTION-THE VENDOR STATED THE TRANSDUCER WAS USED BEYOND ITS NORMAL LIFE (MORE THAN 5 YEARS), AND DID NOT REFLECT CURRENT WORKMANSHIP STANDARDS AND ASSEMBLY TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR2YA3617 PRESSURE TRANSDUCER	UTP-PET 87-01243-9	640628	FACTORY	YES NO	COLVIN 401-A-15-75	
FAILURE MODE-OUT OF SPECIFICATION. DURING EXAMINATION OF THE PRODUCT, THE UNIT DID NOT COMPLY WITH ENGINEERING DRAWING IN TWO DEMINSIONS. THE DRAWING DIMENSIONS WERE DETERMINED TO BE CORRECT.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							899762

CORRECTIVE ACTION-NONE DOCUMENTED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-A9-24-3127 TRANSMITTER	FAR 55-01149-3	1350 640625	ETR	YES NO	TEXAS INSTRUME NTS 435578-7	893710

FAILURE MODE-OUT OF TOLERANCE. OUTPUT FREQUENCY WAS 42.3 KILOCYCLES BELOW THE NOMINAL 232.4 MEGACYCLES. THE FAILURE WAS APPARENTLY CAUSED BY A SHIFT IN ALIGNMENT. THE EXACT CAUSE OF FAILURE WAS NOT FOUND SINCE SPECIFIC MEASUREMENTS OF PART VALUES ARE NOT MADE AND RECORDED DURING TRANSMITTER ASSEMBLY AND NO FAILED OR OUT OF TOLERANCE PARTS WERE D ETECTED.

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-3141 TRANSMITTER	FAR 55-01149-3	640625	ETR	YES NO	TEXAS INSTRUME NTS 435578-7	892498

FAILURE MODE-FAILED DURING OPERATION. TRANSMITTER OUTPUT WAS ZERO. FAILURE WAS NOT CONFIRMED. HOWEVER, POWER OUTPUT WAS LOW. THE TUBE DISPLAYED THE NORMAL DETERIORATION EXPECTED WITH EXTENDED USE. NO INDICATION WAS FOUND INDICATING THE TUBE WAS OPERATED BEYOND ITS DESIGN PARAMETERS.

CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED. A RECOMMENDATION WAS MADE THAT OPERATING TIME OF THESE TRANSMITT ERS BE KEPT UP TO DATE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C2176.2 TLM CANISTER-CIRCUIT BOARD	UTP-PRT 69-11100-801	640625	GD/C	YES NO	GD/C	892186

FAILURE MODE-STRUCTURAL. TEST SPECIMEN AT AMBIENT TEMPERATURE 80 PLUS 10 DEGREES F. PRT Z AXIS RANDOM-SINE VIBRATIO N SWEEP IN PROGRESS. THE OUTPUT OF PIN 55, CHANNEL 11, SHOWED NEGATIVE AND THE BLIPS ON CHANNEL 5 BECAME INOPERATIVE . THE CHANNEL 11 PROBLEM WAS CAUSED BY A BAD CONNECTOR RETAINING SPRING CLIP AT PIN-6 OF THE J13 CONNECTOR. THE CHAN NEL 5 PROBLEM WAS CAUSED BY 3 CAPACITORS THAT HAD BROKEN OFF THE CIRCUIT BOARD AT THE BEND RADIUS.

CORRECTIVE ACTION-ECP 7960 WAS SUBMITTED FOR A REDESIGN OF THE CIRCUIT BOARD ASSEMBLIES TO REINFORCE COMPONENT MOUN TING TO MEET PRT VIBRATION LEVELS. REF. FR-654-2-216 SUPP C.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-99-24-4800 PRESSURE TRANSDUCER	FAR 69-01003-29	640624	FACTORY	YES NO	BOURNS 2007371702	899381

FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER OUTPUT HAD A STATIC ERROR BAND IN EXCESS OF ALLOWABLE. HOWEVER, TESTS , DISASSEMBLY AND ANALYSIS DID NOT REVEAL ANY DISCREPANCIES.

CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. NO CORRECTIVE ACTION WAS TAKEN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4758 BANDPASS FILTER	FAR 27-01293-5	640624	FACTORY	YES NO	ALLIED COMPONE NTS ACI3030-5	894103

FAILURE MODE-STRUCTURAL. OUTPUT AT 875 CPS WAS 0.062 VOLT AC, WHEREAS 0.070 TO 0.115 VOLT AC WAS REQUIRED. FAILURE WAS CAUSED BY CHANGES IN INDUCTANCE DUE TO AGING OF THE EPOXY OR TO IMPROPER CURING OF THE EPOXY DURING BANDPASS FIL TER ASSEMBLY.

CORRECTIVE ACTION-SURVEY-INSTRUCTION 116-64 DATED 22 SEPT. 1964 REMOVED ALL PIN 27-01293-1, -3 AND -5 BAND PASS FIL TERS FROM STOCK AND CALLED OUT PERFORMING TESTS RECOMMENDED IN RAR SLV-99-24-0383.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4716 DETECTOR-CAPACITOR	FAR 69-11116-1	640624	FACTORY	NO NO		898827

FAILURE MODE-SHORT (ELECT). OUTPUT COULD NOT BE ADJUSTED TO REQUIRED VOLTS DC. FAILURE CAUSED BY PARTIALLY SHORTED CAPACITOR WHICH WAS PROBABLY CAUSED BY EXCESSIVE VOLTAGE APPLIED DURING TESTING.

CORRECTIVE ACTION-PERSONNEL CAUTIONED NOT TO EXCEED VOLTAGE INPUT REQUIREMENTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	F669C2176.2 CALIBRATOR MODULE CAPACITOR	UTP-PRT 27-12291-5	640624	60/C	YES NO	60/C 27-12291-5	

FAILURE MODE-STRUCTURAL. TEST SPECIMEN AT AMBIENT TEMPERATURE. PRT X-AXIS RANDOM-SINE SWEEP IN PROGRESS. THE CALIBR ATION PULSE FAILED ON CHANNELS 5,6,7,8,9 AND 10 WITH 27.5 VDC APPLIED TO J1-N. THIS WAS CAUSED BY CAPACITOR C1 AND C 2 BEING BROKEN OFF OF CIRCUIT BOARD.

CORRECTIVE ACTION-ECP SUBMITTAL FOR REDESIGN OF CALIBRATOR MODULE TO REINFORCE CAPACITOR MOUNTINGS TO MEET PRT VIBR

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI DTH	VENDOR NAME VENDOR PART NO	
ATION LEVELS (ECP 7980). REF. FR-654-2-321 AND FR-654-2-216 C.							690978
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4717-F DETECTOR-POTENTIOMETER	FAR 69-11118-1	640623	FACTORY	YES NO		692828
FAILURE MODE OPEN (ELECT). OUTPUT VOLTAGE UNSTABLE. FAILURE CAUSED BY AN OPEN R-6 POTENTIOMETER. CORRECTIVE ACTION-POTENTIOMETER REPLACED WITH IMPROVED 10Ok POTENTIOMETER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4713-F DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01552-93	7101 640622	2-4	YES NO	WIANCKO 64103-21	693279
FAILURE MODE-OUT OF SPECIFICATION. FOUR TRANSDUCERS FAILED DURING A FLIGHT READINESS FIRING IN THAT THE DATA WAS ER RONEOUS. BY CALIBRATION THE MAXIMUM ERRORS WERE FOUND TO BE PLUS 18, PLUS 27, PLUS 100 AND MINUS 19 PERCENT. IT IS P RESUMED THAT THE TRANSDUCERS WERE DAMAGED BY OVERPRESSURIZATION DURING THE START SEQUENCE. CORRECTIVE ACTION-NONE. THESE TRANSDUCERS WERE IN A SPECIAL INSTALLATION TO BE USED ONLY ONCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR65CE174.2 COMMUTATOR WIRING	UTP-PRT 27-01636-13	640622	6D/C	YES NO	FIFTH DIMENSIO N MRXD-466	693245
FAILURE MODE-OPEN (ELECT). TEST SPECIMEN WAS AT AMBIENT TEMPERATURE WHILE PRT X-AXIS RANDOM-SINE SWEEP WAS IN PROGR ESS-SEGMENT 41 OF CHANNEL C AND SEGMENT 1 OF CHANNEL 13 DID NOT RESPOND TO INPUT SIGNALS. THIS WAS CAUSED BY INTERNA L OPENS IN COMMUTATOR DUE TO BROKEN WIRES. CORRECTIVE ACTION-ECP 7980 WAS SUBMITTED TO CORRECT RANDOM-SINE DISCREPANCIES BUT WAS DISAPPROVED BY CUSTOMER. REF. FR-654-2-346.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4691-C ABSOLUTE-PRESSURE TRANSDUCER	FAR 69-01003-39	7102 640921	FACTORY	YES NO	BOURNS	
FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER HAD OUTPUT SPIKING. NO ANALYSIS WAS PERFORMED BECAUSE THE TRANSDUCER WAS DISPOSITIONED ACCEPTABLE AS IS.							

GENERAL DYNAMICS
CONVAIR DIVISION

15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE.							002017
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR 66C 2176.2 DEMODULATOR-POTENTIOMETER	UTP-PRT 69-11110-3	6406ZZ	GD/C	YES NO	GD/C 69-11110-3	001720
FAILURE MODE-OUT OF TOLERANCE. TEST SPECIMEN AT AMBIENT TEMPERATURE, X AXIS RANDOM-SINE SWEEP IN PROGRESS. CHANNEL 3 READS PLUS 10 PERCENT HIGH, INTERMITTENTLY LOSING MEASUREMENT S94R. THIS WAS CAUSED BY A POSSIBLE HEAT SENSITIVE DEMODULATOR TRIM POTENTIOMETER. CORRECTIVE ACTION-AN ECP TO REPLACE THE TRIMPOT IN THE DEMODULATOR WITH AN IMPROVED TYPE WAS SUBMITTED AND DISAPPROVED BY SLV ENGINEERING CHANGE BOARD. PART WAS INCLUDED IN STUDY ON TCP 6336R1, PARTS IMPROVEMENT PROGRAM. REF. FR-65 4-2-342.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4692-F AMPLIFIER	FAR 65-01120	640621	FACTORY	YES NO		003621
FAILURE MODE-FAIL DURING OPERATION. DIFFERENTIAL AMPLIFIER FAILED WHILE INSTALLED IN A TELEPAK. SEGMENTS 1 AND 31 OF CHANNEL 11 INDICATED SPIKING OF APPROXIMATELY 60 PERCENT OF INFORMATION BANDWIDTH WHEN GREATER THAN 100 PERCENT WITHOUT SPIKING WAS EXPECTED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE DIFFERENTIAL AMPLIFIER OPERATING IN SATURATION WITH AN EXCESSIVE INPUT. CORRECTIVE ACTION-DESIGN GROUP INITIATED A CHANGE WHEREBY THE OUTPUT MUST BE GREATER THAN 5 VOLTS DC (100 PERCENT) FOR ALL INPUTS GREATER THAN THE NORMAL SPECIFICATION INPUTS. DATA EVALUATION PERSONNEL WERE INFORMED OF THE SATURATION CHARACTERISTICS OF THE AMPLIFIER AND THE LACK OF SPECIFICATIONS IN REGARD THERETO. THE AMPLIFIER CANNOT BE REJECTED BECAUSE OF THE SATURATION AND SUBSEQUENT SPIKING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4707-F PRESSURE TRANSDUCER	FAR 69-01003-31	7102 6406E0	FACTORY	NO NO	BOURNS 2007371703	003627
FAILURE MODE-OPEN (ELECT). THE TRANSDUCER HAD AN OPEN CIRCUIT. MICROSCOPIC EXAMINATION SHOWED THE RESISTIVE WIRE HAD BEEN BURNT OPEN. AN EXCESSIVE VOLTAGE HAD BEEN APPLIED TO THE TRANSDUCER. IT WAS FOUND THAT A DEFECTIVE TEST SET HAD BURNED OUT THE TRANSDUCER DURING CHECKOUT. DEFECTIVE TEST SET 3898, P/N 57-40400-1, S/N 3, HAD A SHORT BETWEEN PINS 5 AND 11 OF SWITCH D-7. THE TEST SET WAS REPAIRED. CORRECTIVE ACTION-NONE.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	66C1649.3 PRESSURE TRANSDUCER	UTP-PRT 69-01003-13	640620	6D/C	YES NO	BOURNS 2004206304	691122

FAILURE MODE-STRUCTURAL. DURING FIRST 5 SECONDS OF X-AXIS RANDOM/SINE TEMPERATURE VIBRATION TEST, THE OUTPUT WENT TO 100 PERCENT. FAILURE ANALYSIS AT VENDORS PLANT INDICATED LINKAGE WIRE BETWEEN BELLOWS AND WIPER WAS BROKEN JUST BELOW THE WELD INSIDE THE BEARING. FAILURE APPEARS TO BE DUE TO OVER HEATING, LACK OF LOCKTITE OR BOTH.

CORRECTIVE ACTION-IN VIEW OF THE FAILURE HISTORY OF THESE UNITS, PET TESTING WAS ESTABLISHED TO CONTROL INCOMING QUALITY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4708-F SIGNAL CONDITIONER	FAR 27-12478-1	640619	SAN DIEG O	YES NO		692624

FAILURE MODE-OUT OF TOLERANCE. SUMMING NETWORK FAILED WHEN ITS OUTPUT WAS 4.954 VOLTS DC. OUTPUT SHOULD BE 5.000 PLUS OR MINUS 0.005 VOLTS DC.

CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-5145 OSCILLATOR-POTENTIOMETER	FAR 27-01353-9	1350 640619	ETR	YES NO	BENDIX 1063017-9	691899

FAILURE MODE-OUT OF TOLERANCE. CHANNEL 1-11 SUBCARRIER OSCILLATOR OUTPUT COULD NOT BE ADJUSTED TO WITHIN TOLERANCE. FAILURE WAS CAUSED BY A DEFECTIVE POTENTIOMETER MANUFACTURED BY MINELCO.

CORRECTIVE ACTION-A THOROUGH STUDY OF MINELCO POTENTIOMETERS WAS STARTED IN SEPT. 1963. SUBSEQUENT CHANGES TO MINELCO POTENTIOMETERS ARE IDENTIFIED BY DATE CODE NUMBER 6230 OR GREATER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4672-F AMPLIFIER	FAR 27-01612-3	640618	FACTORY	YES NO	BENDIX-PACIFIC 1077064-2A	

FAILURE MODE-FAIL DURING OPERATION. RADIOFREQUENCY POWER AMPLIFIER FAILED WHILE INSTALLED IN A TELEMETER. INPUT CURRENT ROSE TO 8 AMPERES WHEN 4 AMPERES IS THE MAXIMUM ALLOWED. FAILURE WAS CONFIRMED, HOWEVER, THE EXACT CAUSE WAS NOT DETERMINED. TWO POSSIBLE CAUSES WERE OPERATION OF THE AMPLIFIER WITHOUT A LOAD AND THE TUBES BEING OPERATED ABOVE THE MANUFACTURERS ABSOLUTE MAXIMUM RATINGS.

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIV	SITE TIME DIF	PRI OTM	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-BY MUTUAL AGREEMENT VENDOR IS TO PERFORM A 100 HOUR TEST ON 20 AMPLIFIERS TO DETERMINE IF THE TUBES ARE BEING OVERDRIVEN. ALSO ALL TEST PERSONNEL ARE TO OPERATE THE AMPLIFIER WITH A 50 OHM LOAD.							695460
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4703-C POWER SUPPLY	FAR 27-01611-1	640617	FACTORY	YES NO	BENDIX 3130896-2	892986
FAILURE MODE-FAIL DURING OPERATION. POWER SUPPLY FAILED DURING PREVIBRATION CHECK OF THE TOP PACKAGE WHEN THE POWER SUPPLY EXHIBITED NO OUTPUT. A MINIMUM OF 7 WATTS WAS REQUIRED. FAILURE ANALYSIS WAS CANCELED DUE TO LACK OF AUTHORIZED FUNDS.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-4775F DETECTOR-POTENTIOMETER	FAR 69-11118-1	640616	FACTORY	YES NO	SPECTROL 60	894106
FAILURE MODE-ELECTRICAL OPEN. OUTPUT WAS 0.0615 VOLT DC WHEREAS 0.000 PLUS OR MINUS 0.50 VOLT DC WAS EXPECTED. FAILURE WAS CAUSED BY FAILURE OF POTENTIOMETER R6. R6 WAS FOUND OPEN ELECTRICALLY AT 100 DEG F.							
CORRECTIVE ACTION-RAR SLV-99-24-8251 WAS PREVIOUSLY ISSUED RECOMMENDING-(A) THE USE OF SPECTROL MODEL 60 POTENTIOMETERS BE DISCONTINUED BY CONVAIR. (B) REMOVE ALL SPECTROL MODEL 60 POTENTIOMETERS FROM STOCK.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4702-C CALIBRATOR	FAR 7-12222-5	640616	FACTORY	YES NO		892985
FAILURE MODE-FAIL DURING OPERATION. CALIBRATOR FAILED WHEN NO POSITIVE OR NEGATIVE PULSES WERE INDICATED THEREBY VERIFYING A NO-OUTPUT CONDITION. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY TWX 64-61-003.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-4679-F PRESSURE TRANSDUCER	FAR 7-01737-5	640612	FACTORY	YES NO	SERVONICS D-92	
FAILURE MODE-LEAK-EXTERNAL. THE TRANSDUCER HAD AN OUT OF SPECIFICATION ERROR BAND. FAILURE WAS ATTRIBUTED TO A FORO US BRAZED WELD PERMITING PRESSURE TO ENTER THE SEALED CASE.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							892390

CORRECTIVE ACTION-THE VENDOR REVISED BOTH MANFACTURING AND INSPECTION TECHNIQUES TO REDUCE THE POSSIBILITY OF POROU S WELDS AND TO INCREASE THE POSSIBILITY OF DETECTING THOSE POROUS WELDS WHICH MAY EXIST.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-2166.3 PRESSURE TRANSDUCER	UTP-SLT 69-01004-23	640612	FACTORY	YES NO	BOURNS	890751

FAILURE MODE-OUT OF TOLERANCE. DURING POST Z-AXIS SLT VIBRATION PROOF CYCLE, THE OUTPUT ERROR WAS 0.94 PERCENT. THE MAXIMUM ALLOWABLE ERROR IS 0.75 PERCENT AND THE INSTRUMENTATION ERROR IS 0.11 PERCENT.

CORRECTIVE ACTION-NONE THE VIBRATION LEVEL WAS APPROXIMATELY 100 PERCENT ABOVE SPECIFICATION REQUIREMENT AND THE UN IT HAD SUCCESSFULLY PASSED THE PERIODIC RE-EVALUATION TEST.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4652-F REGULATOR-POTENTIOMETER	FAR 69-11117-1	640610	FACTORY	YES NO		895455

FAILURE MODE-OPEN (ELECT) RADIOFREQUENCYTELEMETER FAILED WHEN CHANNELS 5, 8 AND 9 INDICATED GYRO NULL LEVELS OF 71 PERCENT INFORMATIONBANDWIDTH WHEN 50 PCT IS SPECIFIED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE POTENTIOMETER IN THE REGULATOR MODULE OF THE DEMODULATOR 69-11110-5 BEING BURNED OPEN ON ITS GROUND END. THIS CONDITION ALLOWED THEBI AS VOLTAGE GENERATED BY THE REGULATOR TOBE 20 PERCENT HIGH. THE POTENTIOMETER WAS DAMAGED BEFORE THE MODULE WAS POTT ED.

CORRECTIVE ACTION-REQUESTED THAT TEST PERSONNEL EXERCISE CARE WHEN TESTING THE DEMODULATOR MODULES AND THEIR SUB MO DULES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4706-F TRANSDUCER-AMPLIFIER-RESISTOR	FAR 27-01924-1	640610	FACTORY	YES NO	GULTON INDUSTR IES 27-01924-1	893653

FAILURE MODE-SHORT (ELECT). BIAS UNIT FAILED WHEN THE OUTPUT VOLTAGE WAS FOUND TO BE HIGH AND FLUCTUATING. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A PARTIALLY SHORTED RESISTOR. THE PRECISE CAUSE OF THE RESISTOR FAILURE COULD NOT BE ISOLATED.

CORRECTIVE ACTION-REQUESTED THE QUALITY CONTROL GROUP INVESTIGATE THE POSSIBILITY THAT MERCURY CONTAMINATION WAS IN TRODUCED BY THE VENDOR.

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CONVAIR DIVISION

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-AB-24-4709-F PRESSURE TRANSDUCER	FAR 69-01003-39	7102 640610	FACTORY	YES NO	BOURNS 2307371707	893628

FAILURE MODE-OUT OF TOLERANCE. DURING MISSILE CHECKOUT THE VOLTAGE OUTPUT WAS HIGH-PLUS 0.028 VOLT WHEN PLUS 0.002 VOLT IS EXPECTED. FAILURE WAS NOT CONFIRMED. CHECKOUT PROCEDURE WAS NOT COMPATIBLE WITH THE UNITS SPECIFICATION.

CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED. GD/C CORRECTED CHECKOUT PROCEDURE TO ENSURE COMPATIBILITY WITH SPECIFICATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-98-24-3143 TRANSMITTER INDUCTOR, DIODE	FAR 55-01149-3	1350 640610	ETR	YES NO	TEXAS INSTRUME NTS 435578-7	891898

FAILURE MODE-OUT OF TOLERANCE. LOW POWER OUTPUT AND IMPROPER DEVIATION SENSITIVITY. LOW POWER OUTPUT WAS CAUSED BY AN IMPROPERLY TUNED INDUCTOR (L-203). THE LOCKRING WAS APPARENTLY LEFT LOOSE BY THE MANUFACTURER. IMPROPER DEVIATION SENSITIVITY WAS APPARENTLY CAUSED BY A CHANGE IN CAPACITANCE OF THE VARICAP DIODE.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	68C2037 TEMPERATURE TRANSDUCER	UTP-PRT 7-01633-5	640610	GD/C	YES NO	LEWIS 56834B	891179

FAILURE MODE-STRUCTURAL. ELEMENT B OPEN CIRCUITED DURING THE PROOF CYCLE FOLLOWING 300 DEG. F HIGH TEMPERATURE TEST. THE FAILURE APPEARED TO BE THE RESULT OF MISHANDLING. THE CERAMIC MANDREL WAS CRACKED AND THERE WAS EXTERNAL DAMAGE TO THE SHIELD.

CORRECTIVE ACTION-TEST PROCEDURES HAVE BEEN REVISED TO INCORPORATE IMPROVED HANDLING TECHNIQUES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-99-24-4686-F ACCELEROMETER TRANSDUCER	FAR 7-01413-5	640609	FACTORY	YES NO	BORG-WARNER 9747-B	890669

FAILURE MODE-CONTAMINATION. THIS ACCELEROMETER MEASURES MISSILE LONGITUDINAL ACCELERATION. DURING A TEST IN THE FACTORY IT HAD NO OUTPUT. CONTAMINATION WAS FOUND IN THE SENSING HEAD, THE RESULT OF USING AN ACID CORE SOLDER FLUX.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR DISCONTINUED THE USE OF ACID CORE SOLDER.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	59C-2057 TEMPERATURE TRANSDUCER	UTP-PRT 7-01633-8	640608	60/C	YES NO	LEWIS 368348	891030

FAILURE MODE-CONTAMINATION. INSULATION RESISTANCE WAS 8 MEGOHMS. A MINIMUM OF 20 MEGOHMS IS REQUIRED. TRICHLORETHYLENE USED IN CLEANING DILATED THE SILICONE RUBBER PRESSURE RELIEF DEVICE.THE TRICHLORETHYLENE THEN ENTERED THE HEAD AND CAUSED DETERIORATION OF THE INSULATION.

CORRECTIVE ACTION-CLEANING PROCEEDURES WERE CHANGED TO OMIT CLEANING THE HEAD TO ASSURE THAT THE SILICONE RUBBER SEAL WILL NOT BE DAMAGED BY ANY CLEANING AGENT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	59CR057 TEMPERATURE TRANSDUCER	UTP-PRT 7-01633-8	640606	60/C	YES NO	LEWIS 368348	891033

FAILURE MODE-LEAK-EXTERNAL. DURING THE INITIAL PROOF CYCLE, THE TRANSDUCER LEAKED IN EXCESS OF THE PERMISSABLE MAXIMUM 10CC/SEC FAILURE WAS CAUSED BY A POROUS SILVER SOLDER PRESSURE SEAL AT THE SENSING ELEMENT END OF THE PROBE.

CORRECTIVE ACTION-THE VENDOR HAS CHANGED WELDING AND INSPECTION PROCEEDURES SO ITS QUALITY CONTROL WILL, HENCEFORTH, BE ADEQUATELY MAINTAINED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4697-F RECTIFIER DIODE	FAR 87-12403-1	640603	FACTORY	YES NO		892963

FAILURE MODE-OUT OF TOLERANCE. THE RECTIFIER FAILED WHEN IT WAS OBSERVED THE 115 VOLT AC INPUT WAS BEING LOADED DOWN TO 20 VOLTS AC. FAILURE WAS CONFIRMED, HOWEVER, EXACT CAUSE WAS NOT KNOWN. PROBABLE CAUSE WAS A CRACKED CRYSTAL IN CR-3.

CORRECTIVE ACTION-NONE. SINCE THE IDENTITY OF THE DIODE MANUFACTURER COULD NOT BE LEARNED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4715-F POWER CHANGEOVER SWITCH/3	FAR 87-01206-801	640603	FACTORY	YES NO	KINETICS M-143-7	

FAILURE MODE-STRUCTURAL. SEPARATION BETWEEN EYELET POST AND COLLAR AROUND EYELET TERMINALS. FAILURE CAUSED BY FAILURE OF VENDOR TO PROPERLY SEAL THESE 3 UNITS AND/OR APPLICATION OF EXTREME HEAT WHEN SOLDERING LEADS.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-PROCEDURES, TESTS AND INSPECTION METHODS REVIEWED BY VENDOR AND FOUND ADEQUATE TO PREVENT FAULTY UNITS FROM BEING SHIPPED.							692826
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BLV-99-24-4752 COMMUTATOR	FAR 27-01636-21	640603	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-469	693655
FAILURE MODE-OUT OF TOLERANCE. THE COMMUTATION RATE WAS 5.29 RPS. THE SHIFT UPWARD IN THE NOMINAL COMMUTATION RATE, WHICH CAUSED THE COMMUTATOR TO BE REJECTED, WAS THE RESULT OF EITHER A REDUCTION IN THE TORQUE REQUIRED TO DRIVE THE MOTOR, GEARTRAIN, AND SAMPLING SWITCH COMBINATION, OR CHANGES IN THE MOTOR CHARACTERISTICS. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	693-693 PRESSURE TRANSDUCER	UTP-PET 69-01003-39	640603	GD/C	YES NO	BOURNS 2007371707	692312
FAILURE MODE - OUT OF SPECIFICATION. ON 3 JUNE 1964, 9 UNITS FAILED THE POST MINUS 100 DEGREES F PROOF CYCLE WHEN THE ERRORS WERE 1.38,1.17, 1.32, 1.23, AND 1.23 PERCENT OF FULL SCALEVOLTAGE RATIO, RESPECTIVELY. FOUR UNITS FAILED THE PAST PLUS 300 DEGREES F PROOF CYCLE ON 3 JUNE 1964. THEY HAD ERRORS OF PLUS 1.50, 1.43, 1.43, AND 1.36 PERCENT OF FULL SCALE VOLTAGE RATIO, RESPECTIVELY. THE ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT PLUS INSTRUMENT ERROR OR PLUS OR MINUS 0.15 PERCENT. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4624-F POWER SUPPLY-CAPACITOR	FAR 55-13540-5	640602	FACTORY	YES NO		693616
FAILURE MODE-ELECTRICAL OPEN. TRANSDUCER POWER SUPPLY FAILED DURING BENCH TESTING WHEN NO VOLTAGE COULD BE MEASURED ON THE 5 VOLT DC CALIBRATE VOLTAGE. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A LOOSE CONNECTION IN CAPACITOR C-3 OF THE CHOPPER CIRCUIT RESULTING FROM INSUFFICIENT SOLDER TO MAINTAIN THE PIGTAIL-TO-CAPACITOR FOIL CONNECTION. CORRECTIVE ACTION-RECOMMENDED CAPACITORS MANUFACTURED BEFORE NOVEMBER 1965 NOT BE USED. ALSO RECOMMENDED VENDOR TAKE NECESSARY ACTION TO PREVENT RECURRENCE OF THIS TYPE OF FAILURE.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4647-P TAPE RECORDER	FAR 87-01637-3	111F 640528	FACTORY	YES NO	APPLIED MAGNET ICB	696196

FAILURE MODE-STRUCTURAL. UNIT WAS REJECTED FOR LACK OF OUTPUT AS CAUSED BY TAPE STOPPAGE. FAILURE WAS CONFIRMED AS CAUSED BY TAPE STICKING TO ROLLERS AND ERASE HEAD TOGETHER WITH TRANSPORT ROLLERS BINDING. THIS DISCREPANCY RESULTED FROM TAPE CONTRACTION.

CORRECTIVE ACTION-REDESIGN OF THE CAPSTAN AND TAPE TENSION ADJUSTMENT ROLLER. INVESTIGATE POSSIBLE COATING MATERIAL FOR HEADS AND ROLLERS TO PREVENT STICKING OF TAPE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4625-P TLM CANISTER/TTT	FAR 87-12113-607	106F 640528	FACTORY	NO NO		696153

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. ACTUATION OF TELEMETRY TIME TRANSPOSITION WAS INDICATED TO BE .02 SECONDS LATE. IT IS CONSIDED THAT THE TELEMETRY CHECKOUT TRAINER HAD WRONG TIME BASE.

CORRECTIVE ACTION-TEST EQUIPMENT ENGINEERING WAS REQUESTED TO PROVIDE THE SAME TIME BASE TO ALL TAPE RECORDERS WITH IN THE FACTORY TELEMETRY TRAILERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4657-C OSCILLATOR	FAR 7-01488-839	640526	FACTORY		1041962-3-K	695456

FAILURE MODE-OUT OF SPECIFICATION. THE SUBCARRIER OSCILLATOR FAILED WHEN IT COULD NOT BE ADJUSTED TO OPERATE WITHIN THE HIGH FREQUENCY TOLERANCE LIMITS OF 70610 PLUS OR MINUS 210 CYCLES PER SECOND. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY SLV RELIABILITY CONTROL.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4629-C TLM CANISTER	FAR 87-11341-945	193D 640523	FACTORY	YES NO	BENDIX	696135

FAILURE MODE-OUT OF TOLERANCE. CHANNEL 18 WAS OPERATING AT 4 PCT BELOW THE LOW FREQUENCY BAND EDGE.

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS CANCELED.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4649 TRANSMITTER, DISCRIMINATOR	FAR 87-01610-1	640522	FACTORY	YES NO	BENDIX 3131107-3	696197
FAILURE MODE-ERRATIC OPERATION. UNIT WAS REJECTED FOR HIGH OUTPUT FREQUENCY. CAUSED BY SPURIOUS SIGNALS GENERATED B Y THE CRYSTAL CONTROLLED DISCRIMINATOR. CORRECTIVE ACTION-VENDOR IS HOLDING A TIGHTER TOLERANCE ON DISCRIMINATOR BIAS VOLTAGE. DISCRIMINATOR CRYSTAL SPECIF ICATION WAS MODIFIED FOR CLOSER TOLERANCES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C2177.1 TEMPERATURE TRANSDUCER	UTP-PRT 7-01649-9	640522	GD/C	YES NO	ROSEMOUNT 134AG	698218
FAILURE MODE-OPEN (ELECTRICAL). DURING VIBRATION IN THE X-AXIS, THE RESISTANCE BECAME ERRATIC AND VARIED IN EXCESS OF 10 OHMS. THE FAILURE WAS CAUSED BY ABROKEN LEAD WIRE WHICH WAS MAKING INTERMITTENT CONTACT. BREAK CAUSED BY A NIC K IN THE WIRE. (S/N 1944) CORRECTIVE ACTION-VENDOR CHANGED PRODUCTION TECHNIQUES AND INSPECTION PROCEEDURES TO PRECLUDE THE POSSIBILITY OF AD DITIONAL UNITS WITH NICKED WIRE REACHING GD/C. ALL UNITS PRODUCED PRIOR TO MARCH 1963 WERE SURVEYED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-2167-1 TRANSDUCER	UTP-PAT 87-01952-55	640522	GD/C	YES NO	WIANCKO P2-4106-21	690164
FAILURE MODE - OUT OF TOLERANCE. THE TEST SPECIMEN ERROR BAND DURING THE PRE-ACCELERATION PROOF CYCLE WAS PLUS 1.66 PERCENT AND MINUS 0.0 PERCENT. THE ALLOWABLE IS PLUS OR MINUS 1.0 PERCENT. S/N 3050019. CORRECTIVE ACTION - NONE. THE PART WAS RETURNED TO THE VENDOR AND THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4628-C DEMODULATOR	FAR 7-12077-8	640521	FACTORY	YES NO		696134
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR VOLTAGE NONLINEARITY. CORRECTIVE ACTION-NONE. ANALYSIS WAS CANCELED. UNIT PLACED ON WAIVER.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4668-F AMPLIFIER, CONNECTOR	FAR 27-01444-3	640829	FACTORY	YES NO	KINETICS M798	693459
FAILURE MODE-CONTAMINATION. EIGHT DIFFERENTIAL AMPLIFIERS WERE REJECTED WHEN THE ELECTRICAL CONNECTOR PINS WERE FOUND TO BE CORRODED. FAILURE ANALYSIS REVEALED THE VENDOR INADVERTENTLY USED THE WRONG CONNECTOR IN THE DIFFERENTIAL AMPLIFIERS. CORRECTIVE ACTION-REQUESTED THAT THE VENDOR TAKE THE NECESSARY STEPS TO PREVENT RECURRENCE OF THIS FAILURE MODE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4698 DIFFERENTIAL AMPLIFIER	FAR 27-12479-1	640819	FACTORY	YES NO	KINETICS M798	692964
FAILURE MODE-ERRATIC OPERATION. DIFFERENTIAL AMPLIFIER FAILED WHEN ITS OUTPUT FLUCTUATED FROM 5.0 TO 5.134 VOLTS DC. SPECIFICATIONS REQUIRE 5.0 VOLTS DC PLUS OR MINUS 80 MILLIVOLTS. FAILURE WAS CONFIRMED BUT THE CAUSE WAS NOT ISOLATED. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4699-F CONVERTER-WIRING	FAR 68-13834-3	2890 640819	FACTORY	YES NO		692793
FAILURE MODE-ERRATIC OPERATION. CONVERTER FAILED WHEN OUTPUT VARIED FROM 0 TO 50 PERCENT OF INFORMATION BANDWIDTH. FAILURE WAS CONFIRMED AND ATTRIBUTED TO AN INTERMITTENT HIGH RESISTANCE SOLDER CONNECTION. CORRECTIVE ACTION-ALL SOLDERERS MUST NOW COMPLETE THE NASA SOLDERING SCHOOL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4710-F TLM CANISTER-TRANSISTOR	FAR 27-13498-1	1437 640919	FACTORY	YES NO	BENDIX 350900-29	691393
FAILURE MODE-ELECTRICAL SHORT. NO RF OUTPUT. FAILURE CAUSED BY SHORTING OF PT-1807 TRANSISTOR FROM COLLECTOR TO EMITTER CAUSE OF SHORTED TRANSISTOR NOT DETERMINED HOWEVER MANUFACTURING DEFECT IS SUSPECTED. CORRECTIVE ACTION-NONE, VENDOR REGARDS THIS AS A RANDOM TYPE FAILURE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4746-F SUBCARRIER OSCILLATOR	FAR 27-01607-937	640918	FACTORY	NO NO	BENDIX PACIFIC 3131153-AAA	893891
FAILURE MODE-FAIL DURING OPERATION. THE OSCILLATORS OUTPUT CONTROL HAD NO EFFECT ON OUTPUT FREQUENCY. FREQUENCY WAS A CONSTANT 118 KILOCYCLES. NO FAILURE EXISTED IN THE SUBCARRIER OSCILLATOR. THERE IS A POSSIBILITY THE CAUSE OF THE PROBLEM REPORTED IS IN THE NEXT ASSEMBLY.							
CORRECTIVE ACTION-EOP 330.597 RELEASED ABOUT SEPT. 10, 1964. THIS ALLOWED PRODUCTION PERSONNEL TO FUNCTIONALLY TEST SUSPECTED SUBCARRIER OSCILLATORS ON AN INDIVIDUAL BASIS PRIOR TO REJECTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4611-F OSCILLATOR	FAR 27-12651-1	35ED 640814	FACTORY	YES NO	UNITED ELECTRO DYNAMICS 14363-H	893904
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR EXCESSIVE NOISE ON SUBCARRIER OSCILLATOR CHANNEL 15.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4653-C COMMUTATOR GEAR MOTOR	FAR	640514	FACTORY	YES NO	BENDIX 1096488-35 1096488-38	893456
FAILURE MODE-OUT OF SPECIFICATION. THE GEARMOTOR FAILED WHEN IT RAN AT 2.68 RPS. SPECIFICATIONS ALLOW 2.5 PLUS OR MINUS 5 PERCENT RPS. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY SLV RELIABILITY CONTROL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4609-F SIGNAL CONDITIONER	FAR 27-12590-813	35ED 640514	FACTORY	NO NO		894574
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR NARROW INFORMATION BANDWIDTH. FAILURE WAS CAUSED BY INCORRECT TOLERANCES BEING USED TO EVALUATE THE TELEMETRY DATA.							
CORRECTIVE ACTION-SCALE FACTOR WAS CORRECTED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4696-F DEMODULATOR-WIRING	FAR 27-12367-601	640514	FACTORY	YES NO		002016

FAILURE MODE-ELECTRICAL OPEN. THE DEMODULATOR FAILED WHEN OUTPUT WAS MEASURED AT 9.282 VOLTS DC. SPECIFICATIONS REQUIRE 5.000 PLUS OR MINUS 0.150 VOLTS DC. FAILURE WAS CONFIRMED AND ATTRIBUTED TO NO SOLDER HAVING BEEN PLACED ON THE JUNCTION OF WIRES FROM THE OUTPUT CONTROL POTENTIOMETER PIN 12 OF THE EXTERNAL CONNECTOR AND TERMINAL 4 OF TRANSFORMER T8.

CORRECTIVE ACTION-RECOMMENDED MANUFACTURING INSPECTION IMPROVE INSPECTION STEPS BEFORE POTTING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C1849.3 PRESSURE TRANSDUCER	UTP-PAT 69-01003-13	640514	6D/C	YES NO	BOURNS 2004206304	001123

FAILURE MODE-OUT OF SPECIFICATION. MAXIMUM ERROR WAS 1.49 PERCENT. ALLOWED IS PLUS OR MINUS 1.0 PERCENT. INSTRUMENT ERROR WAS 0.15 PERCENT. VENDOR CONFIRMED ERROR CAUSED BY OMISSION OF 0.5 MEGOHM RESISTOR IN CALIBRATION.

CORRECTIVE ACTION-VENDOR CHANGED CALIBRATION PROCEDURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4621-C DIFFERENTIAL AMPLIFIER	FAR 27-12479-1	640513	FACTORY	YES NO	KINETICS	000102

FAILURE MODE-OUT OF TOLERANCE. UNIT COULD NOT BE ADJUSTED TO ZERO OUTPUT.

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS CANCELED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4610-F SIGNAL CONDITIONER-WIRING	FAR 27-12388-885	3820 640513	FACTORY	YES NO		000003

FAILURE MODE-ELECTRICAL OPEN. UNIT WAS REJECTED FOR NO COMMUTATION ON CHANNEL 17. FAILURE WAS CONFIRMED AS CAUSED BY A BROKEN WIRE ON RECEPTACLE J12, PIN A.

CORRECTIVE ACTION-INSPECTION AND PRODUCTION PERSONNEL WERE CAUTIONED ON USE OF GOOD WORKMANSHIP AND PRACTICES.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4675-C PRESSURE TRANSDUCER	FAR 69-01003-31	640513	FACTORY	YES NO	BOURNS 200731703	000000

FAILURE MODE-OUT OF SPEC. THE TRANSDUCER HAD A STATIC ERROR OF PLUS 3.14 PERCENT AND MINUS 4.39 PERCENT WHEREAS ONLY PLUS OR MINUS 1.0 PERCENT IS ALLOWED BY SPECIFICATIONS. FAILURE ANALYSIS OF THIS PRESSURE TRANSDUCER WAS CANCELLED BECAUSE THE TRANSDUCER WAS SENT TO THE VENDOR FOR REWORK.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-A9-24-4677-F PRESSURE TRANSDUCER	FAR 27-01245-9	3520 640513	FACTORY	YES NO	COLVIN 401-A-15-75	000644

FAILURE MODE-LEAK-EXTERNAL. THE TRANSDUCER WAS REJECTED DURING A TELEMETRY SYSTEM CHECK. THE OUTPUT WAS OUT OF BAND. A LEAK WAS DISCOVERED AT THE SOLDER SEAL CASE JUNCTION, CAUSED BY IMPROPER CLEANING OF METAL SURFACES AND POOR SOLDERING.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR IMPROVED HIS SOLDERING TECHNIQUES BY FOLLOWING THE TECHNIQUES OF NASA SPECIFICATION 1969. IN ANSWER TO RAR REPORT LV-A9-24-0249.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-09-24-4824-F DIFFERENTIAL AMPLIFIER WIRE	FAR 27-12478-1	640512	FACTORY	YES NO	KINETICS	000191

FAILURE MODE-ELECTRICAL OPEN. UNIT WAS REJECTED FOR FAILURE TO ADJUST TO ZERO VDC. FAILURE WAS CONFIRMED. WAS CAUSED BY A BROKEN WIRE IN THE POWER SUPPLY GROUND RETURN.

CORRECTIVE ACTION-VENDOR STATED THAT UNIT WAS INSPECTED FOLLOWING A REPAIR. PROCEDURES IN VENDOR PLANT WERE CHANGED TO REQUIRE INSPECTION ON ALL REPAIRED UNITS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4816-C FOUR-CHANNEL LIMITER FILTER	FAR 7-11333-5	1990 640512	FACTORY	YES NO		000139

FAILURE MODE-ERRATIC OPERATION. CHANNEL 2 HAD INTERMITTENT OUTPUT DURING CHECKOUT.

CORRECTIVE ACTION-NONE. ANALYSIS WAS WAIVED.

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4615-C COMMUTATOR	FAR 27-11541-845	1950 640508	FACTORY			696158
FAILURE MODE-ERRATIC OPERATION. CHANNEL 14 COMMUTATOR OPERATED INTERMITTENTLY. CORRECTIVE ACTION-NONE. ANALYSIS WAS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4660-F PRESSURE TRANSDUCER	FAR 69-01003-33	7101 640508	FACTORY	YES NO	BOURNS 2007371703	692618
FAILURE MODE-OPEN (ELECT). THE TRANSDUCER INDICATED AN OPEN CIRCUIT. THE REPORTED FAILURE WAS NOT CONFIRMED, HOWEVE R TESTING SHOWED THAT THE TRANSDUCER HAD LOW WIPER TENSION. LOW WIPER TENSION COULD CAUSE THE REPORTED FAILURE. CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4670-F ELECTRICAL FILTER	FAR 27-12267-1	640507	FACTORY	YES NO		696095
FAILURE MODE-OPEN (ELECT). LIMITER FILTER FAILED BY INDICATING OUT OF SPECIFICATION SIGNAL REJECTION OF THE CHANNEL 2 BANDPASS FILTER. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A BROKEN SIGNAL GROUND WIRE. CORRECTIVE ACTION-ASSEMBLY AND TEST PERSONNEL WERE CAUTIONED TO USE MORE CARE IN HANDLING THE MODULES TO PREVENT EX CESSIVE FLEXING OF THE LEADS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4668-F PRESSURE TRANSDUCER	FAR 69-01003-31	7101 640508	FACTORY	NO NO	BOURNS 2007371703	692633
FAILURE MODE-OPEN (ELECT). THE TRANSDUCER OUTPUT WAS READING OPEN. MICROSCOPIC EXAMINATION SHOWED THE RESISTIVE WIR E WAS BURNT OPEN. APPARENTLY AN EXCESSIVE VOLTAGE WAS APPLIED TO THE TRANSDUCER. INVESTIGATION OF MISSILE CHECKOUT S HOWED A DEFECTIVE TEST SET HAD BURNED OUT THE TRANSDUCER. DEFECTIVE TEST SET 5955, P/N 27-40400-1, S/N 3, HAD A SHOR T BETWEEN PINS 8 AND 11 OF SWITCH D-7. THE TEST SET WAS REPAIRED. CORRECTIVE ACTION-NONE.							

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CONVAIR DIVISION

18 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4671F ANGULAR POSITION TRANSDUCER	FAR 69-01008-1	640506	FACTORY	YES NO	SERVONIC 5041-0101	692391
FAILURE MODE-ELECTRICAL OPEN. THE FAILURE WAS CAUSED BY MISALIGNMENT OF THE RESISTANCE ELEMENT TO THE WIPER TRAVEL PLANE, AND BY LOW WIPER PRESSURE. THIS RESULTED IN AN INTERMITTENT OPEN CIRCUIT ON ONE SIDE OF THE RESISTANCE ELEMEN T. CORRECTIVE ACTION-A NOTE WAS ADDED TO THE VENDORS DRAWING REQUIRING THE COIL BE PARALLEL TO THE POT BASE WITHIN 0.0 04 INCH IN THE WIPER TRAVEL RANGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4642-F POWER CHANGEOVER SWITCH-WIRING	FAR SS-01017-3	147F 640505		YES NO	KINETICS	696195
FAILURE MODE-ELECTRICAL OPEN. UNIT FAILED BECAUSE OF OPEN BRUSH LEAD CIRCUIT DUE TO INSUFFICIENT BONDING OF LEAD WI RES. CORRECTIVE ACTION-VENDOR HAS REVISED HIS RECEIVING INSPECTION METHODS TO PREVENT RECURRANCE OF THE PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4674-F DETECTOR-WIRING	FAR 69-11118-1	640505	FACTORY	YES NO		693967
FAILURE MODE-ELECTRICAL SHORT. FREQUENCY DETECTOR FAILED WHEN THE OUTPUT VOLTAGE COULD NOT BE ADJUSTED. FAILURE WAS CONFIRMED AND DUE TO A SHORT BETWEEN TWO JUNCTION POINTS ON PRINTED CIRCUIT BOARD B02 CAUSED BY EXCESSIVE SOLDER. CORRECTIVE ACTION-ALL PERSONNEL INVOLVED WITH SOLDERING ON THESE BOARDS MUST NOW BE CERTIFIED SOLDERERS BY SATISFAC TORY COMPLETION OF A NASA SPONSORED SOLDERING SCHOOL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4651-F ELECTRICAL FILTER TRANSFORMER	FAR 87-12403-3	640504	FACTORY	YES NO	TRIAD	
FAILURE MODE-STRUCTURAL. LIMITER FILTER FAILED WHEN OUTPUT VOLTAGE WAS MEASURED TO BE 0.0076 VOLT AC WHEN 0.047 PLU S OR MINUS 0.005 VOLT AC IS EXPECTED. THE FAILURE WAS CONFIRMED AND ATTRIBUTED TO A BROKEN SECONDARY WINDING LEAD IN TRANSFORMER T-1 DUE TO MOVEMENT OF PIN 2.							

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CORRECTIVE ACTION-REQUESTED THAT THE TRANSFORMER VENDOR BE INFORMED OF THE FAILURE AND TO TAKE CORRECTIVE ACTION BY SECURING THE TERMINAL PIN AGAINST MOVEMENT, SUCH AS FLATTENING THE POTTED PORTION OF THE PIN.							896085
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-9B-24-4607-C ACCESSORY PACKAGE CANISTER	FAR 27-11616-857	640504	ETR	YES NO		894570
FAILURE MODE-LEAK, EXTERNAL. UNIT WAS REJECTED FOR LEAKAGE AT THE CASE AND END CASTING JOINT. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-3119 COMMUTATOR	FAR 58-13560-807	135D 640504	ETR	YES BENDIX NO		893448
FAILURE MODE-ERRATIC OPERATION CHANNEL-12 WAVEFORM SHOWED SPIKING AT BOTH LEADING AND TRAILING SEGMENT EDGES. THE P OLE PHASING HAS FOUND TO BE QUESTIONABLE. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-9D-24-4735-F PRESSURE TRANSDUCER	FAR 7-01731-1	330D 640504	WTR	YES BOURNS NO	71724-0-6-752	890643
FAILURE MODE-CONTAMINATION. DURING A FUNCTIONAL TEST, ERRATIC OUTPUT WAS OBSERVED OVER PART OF THE TRANSDUCERS RANG E. EXAMINATION REVEALED A BLACK SMEAR OVER THE AFFECTED PORTION OF THE RESISTIVE ELEMENT. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED THE VENDOR WAS NOTIFIED OF THE FAILURE, AND PRECAUTIONS WERE RE-EMPHASI ZED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-4612-P TLM CANISTER, DIODE	FAR 27-14355-1	640502	FACTORY	YES GD/C NO		
FAILURE MODE-ELECTRICAL OPEN. FAILURE MAY HAVE BEEN CAUSED BY MISAPPLIED VOLTAGE TO TELEPAC. NEGATIVE 28 VDC APPLIE D TO PIN 3 OF THE UNIT WILL AFFECT DIODE CR-2.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-PERSONNEL WERE CAUTIONED AND INSTRUCTED IN THE CORRECT APPLICATION OF TEST VOLTAGES.							896157
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4391-P AMPLIFIER	FAR 27-12113-605	38F 640502	FACTORY	YES NO		894566
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR INADEQUATE INFORMATION BANDWIDTH. FAILURE WAS CONFIRMED AS CAUSED BY IMPROPERLY ADJUSTED EXCITATION VOLTAGE AND LOW GAIN OF THE DIFFERENTIAL AMPLIFIER.							
CORRECTIVE ACTION-RECOMMENDED CHANGES IN CHECKOUT PROCEDURES WHEN TESTING TELEMETERS ABOARD THE MISSILE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4673-F DEMODULATOR TRANSFORMER	FAR 27-12387-5	640501	FACTORY	YES NO		893968
FAILURE MODE-ELECTRICAL OPEN. DEMODULATOR FAILED WHEN THE OUTPUT VOLTAGE COULD NOT BE ADJUSTED TO THE REQUIRED 0.000 PLUS OR MINUS 0.005 VOLT DC. FAILURE WAS CONFIRMED AND ATTRIBUTED TO AN OPEN PRIMARY LEAD IN TRANSFORMER T-1.							
CORRECTIVE ACTION-REQUESTED VENDOR IMPROVE THE QUALITY OF SOLDER CONNECTIONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4622-F TRANSDUCER	FAR 69-01005-3	7101 640500	FACTORY	YES NO	SERVONICS 5041-0301	890650
FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER FAILED WHEN MEASUREMENT S 257D (SUSTAINER PITCH) INDICATED GROUND BETWEEN 175 AND 177 SECONDS AND BETWEEN 192 AND 203 SECONDS. THE FAILURE REPORTED WAS NOT CONFIRMED. CAUSE OF THE FAILURE IS NOT KNOWN BUT COULD HAVE BEEN CAUSED BY IMPROPER ADJUSTMENT OF THE MECHANICAL LINKAGE DRIVING THE TRANSDUCER, BY SLIPPAGE OF THE INPUT SHAFT, OR BY SOME OTHER ABNORMALITY NOT REPORTED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-14-218F THERMOCOUPLE	FAR 88-14431	640430	FACTORY	YES NO	GD/C	
FAILURE MODE-OUT OF TOLERANCE WITH RESPECT TO INSULATION RESISTANCE DUE TO USE OF AN INADEQUATE SEALING COMPOUND WHICH ALLOWED MOISTURE TO ENTER. THIS FAILURE MODE IS APPLICABLE TO SEVEN ADDITIONAL ITEMS OF THIS SAME PART NUMBER.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE MANUFACTURING PROCCESS WAS CHANGED TO REQUIRE USE OF A SILICONE RESIN.							893379
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-A9-24-4614-F DIFFERENTIAL AMPLIFIER	FAR 55-01120-3	36F 640429	FACTORY	YES NO		893801
FAILURE MODE-OUT OF TOLERANCE. FAILURE WAS CAUSED BY LOW DC VOLTAGE ABOARD THE MISSILE AND SUSCEPTIBILITY OF THE TH E DIFFERENTIAL AMPLIFIER TO 60 CPS NOISE. IDENTICAL FAILURE REPORTED ON FAR A-A9-24-4591-F.							
CORRECTIVE ACTION-RECOMMENDED THAT PROCEDURES BE REVISED TO CHECK MISSILE VOLTAGE SUPPLIED TO THE TELEMETERS AND TH AT ALL DIFFERENTIAL AMPLIFIERS BE SURVEYED AND TESTED FOR NOISE SUSCEPTIBILITY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-A9-24-4588-F TLM CANISTER	FAR 68-11100-5	640429	FACTORY	YES NO		894565
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR IMPROPER INFORMATION BANDWIDTH. FAILURE WAS CONFIRMED AS CAUSE D BY A WIRING ERROR.							
CORRECTIVE ACTION-E.O.P. WAS REVISED TO INCORPORATE WIRING ERROR TEST.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-A-99-24-4712-F PRESSURE TRANSDUCER	FAR 7-01720-3	640428	FACTORY	YES NO	SERVONICS M-74	890665
FAILURE MODE-STRUCTURAL. THE TRANSDUCER WAS OUT OF STATIC ERROR BAND. EXAMINATION REVEALED A CRACK IN THE BOURDON T UBE, DUE TO TOO SHARP A BEND RADIUS IN MANUFACTURE.							
CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR WAS REQUESTED TO INCREASE THE BEND RADIUS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	CT-99-24-3144 ABSOLUTE PRESSURE TRANSDUCER	FAR 7-01720-5	1350 640428	ETR	NO NO	BOURNS	
FAILURE MODE-ELECTRICAL OPEN. AN ELECTRICAL OPEN WAS DISCOVERED FROM PIN A TO PIN B. CONTINUITY CHECKS REVEALED PIN A TO BE INTERMITTENT. THIS CONDITION WAS LATER ISOLATED TO THE HARNESS BEING USED FOR THE TEST. FURTHER TESTING REV EALED NO DISCREPANCIES.							

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CORRECTIVE ACTION-NONE. FAILURE COULD NOT BE CONFIRMED.							890588
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-2161 ANGULAR TRANSDUCER	UTP-PAT 69-01008-1	640426	GD/C	YES NO	SERVONICINST.I NC. 5041-0131	890589
FAILURE MODE - OUT OF TOLERANCE CONDITIONS WERE OBSERVED DURING PROOF CYCLE -A ON 4-28-64, DURING THE PRE-ACCELERATION PROOF CYCLE ON 4-28-64, AND DURING THE POST ACCELERATION PROOF CYCLE ON 4-29-64. S/N 4010168. CORRECTIVE ACTION - NONE. SUBSEQUENT TESTING VERIFIED THAT TEST EQUIPMENT CAUSED THE OUT OF TOLERANCE CONDITIONS. EQUIPMENT RECALIBRATED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-A9-24-4684-F PRESSURE TRANSDUCER	FAR T-01751-1	1460 640427	FACTORY	YES NO	BOURNS 71724-0-6-752	890592
FAILURE MODE-EXTERNAL LEAKAGE. DURING FINAL CHECKOUT THE TRANSDUCER WAS FOUND TO BE LEAKING AROUND THE ELECTRICAL RECEPTACLE. EXAMINATION REVEALED A CRACK IN THE SOLDER SEAL, CAUSED BY IMPROPER SOLDERING TECHNIQUES. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR WAS INFORMED OF THE FAILURE AND STATED THAT WORKMANSHIP STANDARDS HAVE IMPROVED SINCE THE DATE OF MANUFACTURE OF THIS PART.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-99-24-4700-F ACCELEROMETER TRANSDUCER	FAR T-01413-3	640425	FACTORY	YES NO	BORG-WARNER 9747-B	890866
FAILURE MODE-CONTAMINATION. DURING CALIBRATION IN THE STANDARDS LAB, THE OUTPUT WAS OUTSIDE THE SPECIFIED BAND. CONTAMINATION WAS FOUND IN THE SENSING HEAD. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR WAS REQUESTED TO IMPROVE QUALITY CONTROL. THE VENDOR COMPLIED BY ESTABLISHING A CLEAN-ROOM FOR ASSEMBLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3449-F FILTER, WIRING	FAR 27-01295-3	640424	FACTORY	YES NO	APPLIED COMPONENTS AC13030-3	
FAILURE MODE-OPEN (ELECTRICAL). THE UNIT OUTPUT WAS INTERMITTENT. DISASSEMBLY OF THE UNIT REVEALED AN UNSOLDERED CONNECTION. THE CONNECTION WAS THEN SOLDERED AND THE UNIT OPERATED NORMALLY.							

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							890109

CORRECTIVE ACTION-RAR A-99-24-3822 INITIATED QC CORRECTIVE ACTION BY REQUESTING IMPROVED INSPECTION PROCEDURES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-99-24-4644-F ACCELEROMETER TRANSDUCER	FAR 7-01413-5	3500 640424	WTR	YES NO	BORG-WARNER 9747-B	890671

FAILURE MODE-CONTAMINATION. THIS IS AN ACCELEROMETER MEASURING MISSILE LONGITUDINAL ACCELERATION. DURING A TEST ON 3500 IT HAD NO OUTPUT. CONTAMINATION WAS FOUND ON THE VIBRATING WIRE HEAD. THE RESULT OF USING AN ACID CORE SOLDER F LUX.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR DISCONTINUED THE USE OF ACID CORE SOLDER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-A-99-24-4741-P PRESSURE TRANSDUCER	FAR 7-01731-1	640424	FACTORY	YES NO	BOURNS 71724-0-6-752	890649

FAILURE MODE-OUT OF TOLERANCE. DURING A CALIBRATION CHECK, THE TRANSDUCER EXCEEDED THE ALLOWABLE OUTPUT ERROR. EXAM INATION REVEALED NO DISCREPANCIES. FAILURE WAS PROBABLY DUE TO MARGINAL MATERIAL PROPERTIES OF THE BOURDON TUBE.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. IT WAS RECOMMENDED THAT THE VENDOR REVIEW HIS MATERIAL INSPECTION PROC EDURES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4585-C ACCESSORY PACKAGE	FAR 55-13536-807	1560 640423	FACTORY	YES NO		894564

FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR OUTPUT LEVEL TOO HIGH. IDENTICAL FAILURES REPORTED ON FAR LV-A 9-24-4586-C, 4595-C,4596-C, 4600-C, 4603-C.

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS NOT PERFORMED ON ANY OF THE FAILURES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4538-F CONNECTOR	FAR 55-13666-835	640423	FACTORY	YES NO		

FAILURE MODE-ELECTRICAL SHORT. ELECTRICAL OPEN CIRCUIT AT RECEPTACLE J-4 OPNK. OPEN CIRCUIT WAS CAUSED BY FUSING OF JUMPER WIRE BETWEEN PINS J AND S CAUSED BY CORROSIVE SHORT CIRCUIT HIGH CURRENT PATH.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							693200
CORRECTIVE ACTION-RAR LV-A9-24-8306 REQUESTED WATERPROOFING MODIFICATION WHICH SHOULD ELIMINATE RECURRENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4393 ELECTRICAL REGULATOR DIODE	FAR 69-11117-1	640422	FACTORY	YES NO		693817
FAILURE MODE-OUT OF TOLERANCE. REGULATOR ASSEMBLY FAILED WHEN ITS OUTPUT VOLTAGE WAS 16.4 VOLTS DC. SPECIFICATIONS REQUIRE 17.50 PLUS OR MINUS 1 VOLTS DC. FAILURE WAS CONFIRMED AND CAUSED BY MARGINAL COMPONENTS IN THE ASSEMBLY. THE UNIT WILL NOT FUNCTION PROPERLY WITH ALL COMPONENTS WITHIN SPECIFICATIONS IF ZENER DIODE BREAKDOWN VOLTAGE IS NEAR THE LOW LIMIT.							
CORRECTIVE ACTION-RECOMMENDED REVIEW OF THE DESIGN OF THE REGULATOR ASSEMBLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-3011 ANGULAR POSITION TRANSDUCER	UTP-DUAL/PPT 27-01616-7	640422	GD/C	NO NO	SERVONIC 5031-0107	690165
FAILURE MODE - OUT OF TOLERANCE. THE UNIT WAS OUT OF TOLERANCE DURING THE PROOF CYCLE AFTER 40,000 CYCLES OF LIFE TEST ON 4-22-64, 5-2-64 AND 5-12-64. S/N 3120015.							
CORRECTIVE ACTION - NONE. THE TEST FIXTURE HAD AN IMPROPER CALIBRATION. FIXTURE RECALIBRATED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4650-F PRE-FLIGHT CALIBRATOR WIRING	FAR 27-13094-1	640421	FACTORY	YES NO	GD/C	696136
FAILURE MODE-OUT OF SPECIFICATION. FAILURE WAS CAUSED BY THREE WIRING ERRORS DURING ASSEMBLY.							
CORRECTIVE ACTION-PRODUCTION AND INSPECTION PERSONNEL WERE ADVISED OF THE FAILURE TEST PROCEDURES WERE REVISED TO INCLUDE A PIN TO PIN CHECKOUT WHICH WILL DETECT SUCH DISCREPANCIES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4638-F COMMUTATOR	FAR 27-01638-7	640421	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-462	
FAILURE MODE-OUT OF SPECIFICATION. THE COMMUTATOR FAILED WHEN IT RAN AT 5.37 RPS. SPECIFICATIONS ALLOW 5.0, PLUS 5-10 PERCENT. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE LACK OF A CONTROL TO REGULATE THE COMMUTATION RATE OF THIS COMMUTATOR.							

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							893457

CORRECTIVE ACTION-RECOMMENDED THAT THE DESIGN GROUP REPLACE THIS PART NUMBER COMMUTATOR WITH A UNIT EMPLOYING A FEEDBACK SPEED CONTROL SYSTEM. ALSO RECOMMENDED THAT THE VENDOR BURN-IN THE COMMUTATORS FOR 50 HOURS BEFORE INSTALLATION IN A NEXT ASSEMBLY.

INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUCERS	FR69C-3011.1 ANGULAR POSITION TRANSDUCER	UTP-DUAL/PPT 27-01616-7	640421	FACTORY	YES NO	SERVONIC 5031-0107	890779

FAILURE MODE-OUT OF TOLERANCE. THE ERROR BAND WAS SLIGHTLY GREATER THAN SPECIFIED 4 TIMES DURING THE LIFE TEST. AFTER THE SECOND FAILURE THE TRANSDUCER WAS SENT TO THE STANDARDS LAB WHERE THE FAILURE WAS NOT CONFIRMED. AFTER THE THIRD FAILURE, THE TEST EQUIPMENT WAS SENT TO STANDARDS LAB FOR CHECKING. S/N 3120015.

CORRECTIVE ACTION-THE INSTRUMENT ERROR ALLOWANCE WAS INCREASED FROM PLUS OR MINUS 0.06 TO 0.20 PERCENT.

INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4576F DETECTOR POTENTIOMETER	FAR 69-11118-1	640420	FACTORY	YES NO	SPECTROL M0060	894558

FAILURE MODE-ELECTRICAL OPEN. UNIT WAS REJECTED WHEN IT COULD NOT BE ADJUSTED WITHIN TOLERANCE. FAILURE WAS CONFIRMED AS CAUSED BY AN ELECTRICAL OPEN IN POTENTIOMETER R-6. FAILURE OF THE POT. IS THOUGHT TO BE CAUSED BY EXSESSIVE CURRENT SURGES.

CORRECTIVE ACTION-A SURVEY WAS RECOMMENDED TO REPLACE THESE-60 POTENTIOMETERS WITH HIGHER CURRENT-CAPACITY UNITS. UNIT WAS REPLACED WITH 100 KILOHM UNIT BY ECP 3434.

INSTRUMENTATION-A/S TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4678-F ELECTRICAL FILTER	FAR 27-01295-5	640420	FACTORY	YES NO	APPLIED COMPONENTS AC13030-5	893966

FAILURE MODE-OUT OF TOLERANCE. TWO BANDPASS FILTERS FAILED WHEN THE OUTPUT AT 675 CPS WAS 0.067 VOLT AC WHEREAS 0.070 TO 0.115 VOLT AC IS REQUIRED. FAILURES WERE CONFIRMED AND ATTRIBUTED TO CHANGES IN INDUCTANCE DUE TO AGING OF THE EPOXY OR TO IMPROPER CURING OF THE EPOXY DURING BANDPASS FILTER ASSEMBLY.

CORRECTIVE ACTION-RECOMMENDED ALL BANDPASS FILTERS MANUFACTURED BY APPLIED COMPONENTS BEFORE JANUARY, 1964, BE REMOVED FROM ASTRONAUTICS STOCK, CURED AT 180 DEGREES F FOR 4 HOURS, AND THEN RETESTED.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-09-24-4518-C DIFFERENTIAL AMPLIFIER	FAR 27-01241-1	640420	FACTORY	YES NO	MAY BERRY 114-6	892600
FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE NOISE.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-A9-24-4567-F PRESSURE TRANSDUCER	FAR 69-01003-31	7101 640418	FACTORY	NO NO	BOURNS 2007371703	892834
FAILURE MODE-OPEN (ELECT). THE TRANSDUCER OUTPUT WAS READING OPEN. MICROSCOPIC EXAMINATION SHOWED THE RESISTIVE ELEMENT WIRE WAS BURNT OPEN. APPARENTLY AN EXCESSIVE VOLTAGE WAS APPLIED TO THE TRANSDUCER. INVESTIGATION OF MISSILE CHECKOUT SHOWED A DEFECTIVE TEST SET HAD BURNED OUT THE TRANSDUCER. DEFECTIVE TEST SET 5995, P/N 27-40400-1, D/N 5, HAD A SHORT BETWEEN PINS 9 AND 11 OF SWITCH D-7. THE TEST SET WAS REPAIRED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-A9-24-4569-F PRESSURE TRANSDUCER	FAR 69-01003-39	7101 640418	FACTORY	YES NO	BOURNS 2007371707	892821
FAILURE MODE-OPEN (ELECT). THE TRANSDUCER OUTPUT WAS REPORTED READING OPEN AT PIN B.							
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-A9-24-4582-F TLM CANISTER, FUSE	FAR 69-11100-9	640418	FACTORY	YES NO	BENDIX	892525
FAILURE MODE-ELECTRICAL OPEN. MEASUREMENT E-95V OF CHANNEL 13 SEGMENT 18 WAS OUT OF BAND. CAUSE WAS FOUND TO BE AN OPEN CIRCUIT FUSE.							
CORRECTIVE ACTION-RAR SLV-A9-24-8300 RECOMMENDING DISCONTINUANCE OF BELL RINGING CONTINUITY TESTS AND THE USE OF REGULARLY CALIBRATED AND AUTHORIZED TEST EQUIPMENT FOR CHECKOUT.							

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4590 TRANSDUCER POTENTIOMETER	FAR 7-01731-9	3920 640418	FACTORY	YES NO	BOURNS 7174-0-33-752	691561

FAILURE MODE-OPEN (ELECT.) FAILURE CAUSED BY OPEN CIRCUIT BETWEEN PINS A TO C AND B TO C. RESISTANCE WINDING WAS FO UND BURNED OPEN DIRECTLY UNDER WIPER CONTACT. EXCESSIVE CURRENT APPLICATION MOST LIKELY OCURRED WHILE THE TRANSDUCER WAS INSTALLED ON THE MISSILE.

CORRECTIVE ACTION-ACTION WAS TAKEN TO REMOVE USE OF BUZZERS AND SIMPSON METERS FROM TRANSDUCER CHECKOUT PROCEDURES. ALL CHECKOUT PERSONNEL WERE INSTRUCTED TO USE VTVMS OR EQUIVALENT FOR TRANSDUCER CHECKS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4630-F DIFFERENTIAL AMPLIFIER CAPACITOR	FAR 87-01018-1	640417	FACTORY	YES NO	APPLIED COMPON ENTS DC-1-018	693773

FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED BECAUSE OF EXCESSIVE RECOVERY TIME. FAILURE WAS CONFIRMED AS CAUSE D BY A DESIGN INADEQUACY IN THE LOW LEVEL MODULATOR CIRCUIT (INCORRECT SIZE CAPACITOR USED - 330 PICOFARAD INSTEAD O F 560 PICOFARAD.

CORRECTIVE ACTION-NONE. DELIVERY REQUIREMENTS FOR THIS UNIT HAVE BEEN SATISFIED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-3011.1 ANGULAR POSITION TRANSDUCER	UTP-DUAL/PPT 87-01616-7	640417	FACTORY	NO NO	SERVONIC 5031-0107	693760

FAILURE MODE-OUT OF SPECIFICATION. DIMENSION A WAS 0.905 INCHES. SHOULD BE 0.975 PLUS OR MINUS 0.03 INCHES. S/N 310 0002.

CORRECTIVE ACTION-SPECIFICATION CONTROL DRAWING WAS IN ERROR. DRAWING WILL BE CHANGED SO THAT DIMENSION A WILL BE 0 .975 PLUS OR MINUS 0.030 INCHES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PET-TP-2-0364.1A PRESSURE TRANSDUCER	UTP-PET 87-01843-9	640417	FACTORY	YES NO	COLVIN 401-A-15-75	

FAILURE MODE-OUT OF TOLERANCE. DURING POST VIBRATION AND FINAL SPT, THE UNIT EXHIBITED OUT OF TOLERANCE OUTPUT WITH MAXIMUM ERROR OF 1.975 PERCENT WHEN 1.5 PERCENT IS THE MAXIMUM ALLOWABLE. THE FAILURE WAS CAUSED BY A 0.6 PERCENT F SV/R STEP AT 1 PERCENT FSV/R.

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-SD/C RETURNED TRANSDUCER TO VENDOR AND INITIATED INSPECTION HOLD ON THIS VENDORS TRANSDUCERS UNTI L SATISFACTORY PET COMPLETION WAS DEMONSTRATED.							000763
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-A9-24-3078-F PRESSURE TRANSDUCER	FAR 88-01107-68	640417	FACTORY	YES NO	COLVIN 401-6-4-78	000597
FAILURE MODE-STRUCTURAL. TRANSDUCER HAD NO ELECTRICAL OUTPUT DURING STANDARDS LAB CHECK. FAILURE ATTRIBUTED TO A BR OKEN WIPER ARM CONDUCTOR CAUSED BY EXCESSIVE HEAT APPLICATION DURING SOLDERING WHICH RESULTED IN STRUCTURAL WEAKENIN G OF THE WIRE. CORRECTIVE ACTION-VENDOR REQUESTED TO INVESTIGATE SOLDERING TECHNIQUES TO PREVENT THIS TYPE FAILURE. RECOMMEND THAT COLVIN PRESSURE TRANSDUCERS NO LONGER BE USED ON STANDARD LAUNCH VEHICLES DUE TO THEIR UNRELIABILITY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27-3442 PRESSURE TRANSDUCER	UTP-PET 7-01751-5	640416	60/C	YES NO	BOURNS 71724-0-10-752	000162
FAILURE MODE - OUT OF TOLERANCE. DURING THE FINAL SATISFACTORY PERFORMANCE TEST THE OUTPUT AT 23 PSIA (2.3 PERCENT) WAS OUT OF TOLERANCE ON THE DECREASING PORTION OF EACH RUN. S/N 4011290. PET LOT 26. CORRECTIVE ACTION - NONE. STANDARDS LABORATORY CHECKED THE UNIT ON 5-18-64 AND THE OUT OF TOLERANCE WAS NOT CONFIRM ED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4568-C COMMUTATOR	FAR	1950 640415	FACTORY	YES NO	BENDIX 1096485-38	002809
FAILURE MODE-OUT OF TOLERANCE BY 8 PERCENT ABOVE NOMINAL 2.8 RPS COMPARED TO 5 PERCENT MAXIMUM. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4608-F DEMODULATOR-WIRING	FAR 87-12366-5	640414	FACTORY	YES NO		
FAILURE MODE-ELECTRICAL SHORT. UNIT WAS REJECTED FOR INADEQUATE OUTPUT. FAILURE WAS CONFIRMED AS CAUSED BY A WIRE S HORTED AGAINST TERMINAL 38.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							894573
CORRECTIVE ACTION-INSPECTION AND PRODUCTION PERSONNEL WERE ALERTED TO USE CAUTION DURING ASSEMBLY AND CHECKOUT OF T HIS UNIT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-AB-24-4160-C COMMUTATOR	FAR 87-11841-948	1950 640415	FACTORY	YES NO	BENDIX	892606
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 11 COMMUTATOR SPEED WAS REPORTED 8 PERCENT ABOVE MAXIMUM.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-1650.2 PRESSURE TRANSDUCER	UTP-PRT 69-01003-39	640413	60/C	YES NO	BOURNS 2007971707	892313
FAILURE MODE - OUT OF SPECIFICATION DURING THE TEMPERATURE RANDOM - SINE VIBRATION TEST THE TRANSDUCER OUTPUT SHOWE D SPIKES OF UP TO MINUS 8.0 PERCENT IN THE X-AXIS, MINUS 4.0 PERCENT IN THE Y-AXIS, AND MINUS 15.0 PERCENT IN THE Z-AXIS. THESE SPIKES ARE INEXCESS OF THE PLUS OR MINUS 3.0 PERCENT TOLERANCE REQUIREMENT OF THE TEST PROCEDURE. THE MO DE OF FAILURE WAS MOST LIKELY WIPER LIFT-OFF. S/N 402093T.							
CORRECTIVE ACTION-ON 28 OCTOBER 1964, MAP NO31186, ECP 7871, WAS IN THE SUBMITTAL CYCLE TO SSO. THIS ECP PROPOSES A TRANSDUCER THAT WILL PERFORM THE REQUIRED FUNCTIONS WITH NO ADVERSE AFFECTS FROM THE HIGH FREQUENCY SUPERIMPOSED HY DRAULIC PRESSURE FLUCTUATIONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-98-24-4602-F OSCILLATOR WIRING	FAR 7-01468-839	2630 640411	ETR	YES NO	BENDIX 1041968-3K	894569
FAILURE MODE-ERRATIC OPERATION. UNIT WAS REJECTED FOR INTERMITTENT OUTPUT. FAILURE WAS CONFIRMED AS CAUSED BY IMPRO PER SOLDERING TECHNIQUES OF INTERNAL WIRING.							
CORRECTIVE ACTION-VENDOR WAS REQUESTED TO REVIEW HIS SOLDERING TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GDA/BKF64-011/P2-402-00-263 TLM CANISTER	COUNTDOWN	2630 640410	ETR-12 -600	YES NO		
FAILURE MODE-FAIL DURING OPERATION. ALL DATA SEGMENTS ON RF 1 CHANNEL E WERE BREAKING UP.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS DATA NOT USABLE FROM RF NO.1 CHANNEL E. VEHICLE EFFECT-COUNTDOWN DELAYED. COUNTDOWN ABORTED AFTER 18 MIN HOLD PRIMARILY DUE TO ADVERSE WEATHER AND SECONDAR ILY DUE TO UNRESOLVED TELEMETRY PROBLEM. CORRECTIVE ACTION-CANISTER REPLACED PRIOR TO NEXT ATTEMPTED LAUNCH.							699F64
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4539-C COMMUTATOR	FAR 27-11541-945	195D 64041C	FACTORY	YES NO	BENDIX	692613
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. CHANNEL 14, COMMUTATOR 14 FAILED TO OPERATE. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4570-C POWER SUPPLY-WIRING	FAR 27-11616-823	640410	FACTORY	YES NO	GD/C	692542
FAILURE MODE-ELECTRICAL SHORT. REPORTED INTERMITTENT SHORT IN THE 0.8 VOLT DC POWER SUPPLY PLUG. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	27-3442 PRESSURE TRANSDUCER	UTP-PET 7-01731-5	640410	GD/C	YES NO	BOURNS 71724-0-10-752	690101
FAILURE MODE - OUT OF TOLERANCE. OPERATION WAS NOT WITHIN STATIC ERROR BAND LIMITS DURING INTERMEDIATE PROOF CYCLE FOLLOWING THE 5 MINUTE EXPOSURE TO PLUS 300 DEGREES F. S/N 401-1290. PET LOT 26. CORRECTIVE ACTION - NONE. THE OUT OF TOLERANCE CONDITION WAS NOT CONSIDERED SIGNIFICANT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-2161.2 POSITION TRANSDUCER	UTP-SLT 69-01005-1	640409	FACTORY	YES NO	SERVONIC 5041-0101	
FAILURE MODE-STRUCTURAL. A THIN METAL BAND WHICH CONTROLS THE WIPER POSITION BROKE DURING Z-AXIS VIBRATION TESTING. THIS CAUSED THE OUTPUT TO BE ERRATIC.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							890735

CORRECTIVE ACTION-NONE. THE FAILURE OCCURRED AFTER THE UNIT WAS SUBJECTED TO TESTING BEYOND THE DESIGN LEVEL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4537-F TLM CANISTER-RESISTOR	FAR 55-13666-035	146D 640408	FACTORY	YES NO		892612

FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE NOISE ON CHANNEL 9 AND A BOTH DISCREPANCIES WERE CAUSED BY POOR QUALITY CO MPONENT STRAIN-GAGE RESISTORS.

CORRECTIVE ACTION-AN ACCEPTABLE ALTERNATE RESISTOR P/N 66-75097-002 WILL REPLACE THE FAULTY P/N 75901-565 PART.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4640-F FREQUENCY DETECTOR CAPACITOR	FAR 69-11118-1	640407	FACTORY	YES GD/C NO		896194

FAILURE MODE-ELECTRICAL SHORT. UNIT WAS REJECTED FOR FAILURE TO RESPOND TO ADJUSTMENT. FAILURE WAS CONFIRMED AS CAU SED BY AN ELECTRICAL SHORT BETWEEN THE CASE OF CAPACITOR C-2 (PIN 81-34007-073) AND OUTPUT CONDUCTOR TERMINALS OF CR -1 AND CR-2.

CORRECTIVE ACTION-DESIGN CHANGE WAS MADE TO INCORPORATE INSULATION SLEEVING ON THE CAPACITORS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4341-C TLM CANISTER-TRANSMITTER	FAR 27-11541-945	195D 640407	FACTORY	YES BENDIX NO		892614

FAILURE MODE-OUT OF TOLERANCE. IMPROPER MEASUREMENTS WERE RECEIVED AT 6297V AND 6298V.

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4554-F DEMODULATOR MODULE	FAR 69-11110-801	640407	FACTORY	YES NO		

FAILURE MODE-OUT OF TOLERANCE. MODULE INTERNAL WIRING DISCOLORATION CAUSED BY THE PRESENCE OF CHLORIDES.

CORRECTIVE ACTION-RAR A-99-24-6299 RECOMMENDING THAT POTTING CURING CATALYST BE COMPATIBLE WITH ALL POLYETHYLENE SL

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SEVING USED WHICH WOULD ELIMINATE CHLORIDE FORMATION.							692528
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-1650.2 PRESSURE TRANSDUCER	UTP-PRT 69-01003-39	640407	GD/C	YES NO	BOURNS 2007571707	692320
FAILURE MODE-OUT OF SPECIFICATION. DURING THE POST 300 DEGREES F. PROOF CYCLE, THE MAXIMUM ERROR WAS PLUS 1.42 PERCENT OF FULL SCALE OUTPUT. THE ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT PLUS INSTRUMENT ERROR OF PLUS OR MINUS 0.15 PERCENT. THE VENDOR DETERMINED THAT THE DISCREPANCY WAS CAUSED BY PARTS NOT BEING TEMPERATURE STABILIZED COMPLETELY. CORRECTIVE ACTION-THE VENDOR STATED THAT P/N 69-01003-29, -31, -33, -35, AND -39 UNITS WILL BE 100 PERCENT TEMPERATURE CYCLED PRIOR TO FINAL TESTING, TO STABILIZE THE TRANSDUCERS. THIS WILL BE EFFECTIVE ON S/N 4071430 AND ON STARTING 20 JULY 1964.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4608-F DEMODULATOR-TRANSFORMER	FAR 27-01284-1	640406	FACTORY	NO NO	AC ELECTRONICS 982616	694567
FAILURE MODE-OUT OF TOLERANCE. TWO UNITS WERE REJECTED FOR IMPROPER TURNSRATIO. FAILURE WAS CONFIRMED AS CAUSED BY DAMAGED WINDING INSULATION RESULTING FROM EXCESSIVE APPLIED CURRENT. M/A 27-12328. CORRECTIVE ACTION-RESPONSIBLE TEST PERSONNEL WERE CAUTIONED IN USING PROPER TEST VOLTAGES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69A2176.1 TLM CANISTER	UTP-SLT 69-11100-1	640403	GD/C	YES NO		693246
FAILURE MODE-STRUCTURAL. TRANSMITTER AT 160 DEGREES F, SLT Z-AXIS RANDOM-SINE 12 GRMS SWEEP IN PROGRESS. RF POWER OUTPUT DROPPED TO ZERO FROM 8 WATTS WHEN SINUSOIDAL FREQUENCY REACHED 800 CPS. INVESTIGATION REVEALED EXTENSIVE STRUCTURAL DAMAGE INCLUDING, BROKEN TERMINAL PINS AND WIRES, BROKEN AND LOOSE RESISTORS AND CAPACITORS, A FRACTURE AND MISSING RIVETS IN THE METAL FRAME, LOOSE TIE DOWN SCREWS, ETC. THIS FAILURE WAS ATTRIBUTED TO INADEQUATE HARNESS WIRE LAYOUT AND TIE DOWNS. CORRECTIVE ACTION-REDESIGN OF THE HARNESS WIRE LAYOUT TO ADD ADDITIONAL TIE DOWNS, FOAM, AND OTHER SUPPORT AS REQUIRED TO PREVENT COMPONNENT MOVEMENT AND WIRE BREAKAGE, ESPECIALLY NEAR TERMINAL BOARDS AND CONNECTORS. ECP 7814, REF. FR694-2-216-C.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-A8-24-4563-F TLM CANISTER-RESISTOR	FAR 88-13666-035	1460 640406	FACTORY	YES NO		892605

FAILURE MODE-OUT OF TOLERANCE. CHANNEL E SEGMENTS 18 THROUGH 27 AND 57 THROUGH 69 MEASUREMENT A-1775 HAD EXCESSIVE BREAKUP CAUSED BY POOR ELECTRICAL CONNECTION BETWEEN THE RESISTANCE WIRE AND RESISTOR LEAD.

CORRECTIVE ACTION-MEMO FROM DESIGN GROUP DATED 640413 INDICATING THAT MISSILE 1460 IS THE LAST SLV ARTICLE TO USE THE P/N 88-75901-564 AND -565 RESISTOR STRAIN GAGE ACCOMPLISHED BY CIC 87463.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FR69C-3011.1 ANGULAR POSITION TRANSDUCER	UTP-QUAL/PPT 27-01616-7	640406	FACTORY	YES NO	SERVONIC 5031-0107	890762

FAILURE MODE-LEAK-EXTERNAL. ON THE IMMERSION TEST THE TRANSDUCER LEAKED IMMEDIATELY AFTER BEING PLACED IN WATER. ERROR ON POST IMMERSION TEST PROOF CYCLE WAS PLUS 8.96 AND MINUS 3.15 PERCENT. ALLOWED IS PLUS OR MINUS 0.75 PERCENT. LEAK WAS AT THE POINT WHERE THE CABLE ENTERS THE CASE AND WAS CAUSED BY ABUSE. S/N 3100002.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-LV-38-24-4439-F PRESSURE TRANSDUCER	FAR 7-01731-7	640406	FACTORY	YES NO	BOURNS T1724-0-15-752	890694

FAILURE MODE-CONTAMINATION. WHILE BEING CHECKED IN THE FACTORY, THE TRANSDUCER SHOWED ERRATIC OUTPUT OVER PART OF THE RANGE. EXAMINATION SHOWED THAT A LIGHT CONTACT FORCE EXISTED BETWEEN THE WIPER ARM AND THE RESISTIVE ELEMENT, AND THAT CONTAMINANTS WERE ON THE ELEMENT, RESULTING FROM AN IMPROPER CLEANING PROCESS.

CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR NOW HAS AN IMPROVED CLEANING PROCESS, AND IS GIVING 100 PER CENT INSPECTION TO WIPER ARM FORCE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	PAT-TP-69F-2167-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PAT 27-01558-55	640408	FACTORY	YES NO	WIANCKO 84103-21	

FAILURE MODE-OUT OF TOLERANCE. DURING INITIAL PROOF CYCLE, SPECIMEN S/N 3100098 OUTPUT DID NOT CHANGE WHEN EXERCISED AT PLUS 25 PSID. FAILURE WAS PROBABLY DUE TO OVERPRESSURIZATION BUT DEFINITE CAUSE WAS NOT ISOLATED.

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-GD/C AND VENDOR CONDUCTED FAILURE INVESTIGATION. TEST EQUIPMENT WAS RECHECKED AND TEST PERSONNEL WERE RE-INSTRUCTED.							890618
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4620-C TRANSFORMER	FAR 27-01529-1	111F 640404	FACTORY	YES NO	ACI ACI1235	890162
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED DURING CHECKOUT FOR EXCEEDING EXCITATION CURRENT VALUES BY 9 MILLI AMPERES. N/A 27-12412-11.							
CORRECTIVE ACTION-NONE. ANALYSIS WAS CANCELED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-3148 DIFFERENTIAL AMPLIFIER	FAR 27-01241-1	640404	FACTORY	YES NO	MAYBERRY 114-8	892495
FAILURE MODE-OUT OF TOLERANCE. OUTPUT IMPEDANCE APPEARED TO BE LOW.							
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69A2176.1 DATED 1 MAY 1984 TLM CANISTER-WIRING	UTP-SLT 69-11100-1	640403	GD/C	YES NO	GD/C 69-11100-1	891854
FAILURE MODE-FAIL DURING OPERATION. TEST SPECIMEN AT AMBIENT TEMPERATURE WITH X-AXIS RANDOM-SINE LEVEL-(12 GRMS) SW EEP IN PROGRESS-EXCESSIVE LINEARITY ERRORS NOTED FOR CHANNEL A AND E AFTER X-AXIS VIBRATION. MEASUREMENTS DIV AND U1 34X WERE LOST. WIRE B TO PIN 1 OF COMMUTATOR CONNECTOR J29 AND WIRES TO TERMINAL BOARD 4 PINS 23 AND 24 WERE BROKEN.							
CORRECTIVE ACTION-REDESIGN OF THE HARNESS WIRE LAYOUT TO ADD ADDITIONAL TIE DOWNS, FOAM, AND OTHER SUPPORT AS REQUI RED TO PREVENT MOVEMENT AND WIRE BREAKAGE, ESPECIALLY NEAR TERMINAL BOARDS AND CONNECTORS. ECP 7814 WAS SUBSEQUENTLY IMPLEMENTED AND ADDED TIE DOWN AND FOAM. REF. FR 694-2-216C.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4598-F DIFFERENTIAL-PRESSURE TRANSDUCER	FAR 67-93800-033	1950 640403	FACTORY	YES NO	SERVONIC	
FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER READ 7 PERCENT OUTPUT WITH ZERO PSID APPLIED. THE FAILURE WAS CAUSED BY A WEAKENED WIRE IN THE WIPER ASSEMBLY. THE WIRE WAS WEAKENED WHEN IT WAS CRUSHED DURING WELDING.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							890852

CORRECTIVE ACTION-THIS UNIT WAS BUILT IN AUGUST 1961. IN 1963, THE VENDOR IMPROVED HIS SPOT WELDING, SOLDERING AND CONTAMINATION CONTROL PROCEDURES. THE VENDOR DRAWING WAS CLARIFIED BY A NOTE AFTER THIS FAILURE. THE CLARIFICATION W AS INCLUDED IN SPECIFICATION CONTROL DRAWING 87-93900-003, REVISION-E, EFFECTIVE 30 NOVEMBER 1964.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69CE035 PRESSURE TRANSDUCER	UTP-PAT 69-01003-29	640403	6D/C	YES NO	BOURNS 2007371702	890166

FAILURE MODE - OUT OF TOLERANCE. DURING THE INITIAL PROOF CYCLE FOR PAT THE UNIT FAILED THE RESOLUTION TEST. THERE WERE 90 STEPS OUT OF A TOTAL OF 449 STEPS THAT WERE GREATER THAN .25 PERCENT FULL SCALE, AND THREE STEPS GREATER THA N .50 PERCENT. THE SPEC. ALLOWS 13 STEPS OF .25 PERCENT, AND ZERO STEPS OF .5G PERCENT. S/N 3040075.

CORRECTIVE ACTION - NONE. THE FAILURE COULD NOT BE CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4397-F TLM CANISTER-TRANSMITTER	FAR	640402	FACTORY	YES NO	BENDIX PACIFIC 3131966	894572

FAILURE MODE-ELECTRICAL SHORT. UNIT WAS REJECTED BECAUSE OF SHORT CIRCUIT BETWEEN 28 VDC AND COMMON GROUND. FAILURE WAS CONFIRMED AS CAUSED BY A MOMENTARY CONTACT BETWEEN A TERMINAL POST AND THE CASE. THE SHORT ONLY APPEARED WHILE THE UNIT WAS INSTALLED.

CORRECTIVE ACTION-VENDOR TOOK ACTION TO REDESIGN FOR GREATER CLEARANCE BETWEEN THE 28 VDC TERMINAL AND THE CASE. AD EQUATE INSULATION WILL ALSO BE INSTALLED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C-2040 PRESSURE TRANSDUCER	UTP-PAT 69-01003-31	640402	6D/C	YES NO	BOURNS 7007371703	890167

FAILURE MODE - OUT OF TOLERANCE. THE UNIT WAS OUT OF TOLERANCE 1) DURING THE POST X-AXIS VIBRATION PROOF CYCLE ON 4 -2-64 (PAT), 2) DURING THE INITIAL PROOF CYCLE OF THE PRT SATISFACTORY PERFORMANCE TEST. (3 PROCEDURAL STEPS WERE OU T OF TOLERANCE ON 4-3-64). S/N 3090441.

CORRECTIVE ACTION - NONE. THE FAILURES COULD NOT BE CONFIRMED.

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4617-C TRANSMITTER	FAR 27-01810-3	640401	FACTORY	YES NO	BENDIX-PACIFIC	890160
FAILURE MODE-FAIL DURING OPERATION. A CURRENT SURGE OF 3.4 TO 7.0 AMPERES WAS REPORTED WHEN 28VDC WAS APPLIED TO TH E PACKAGE. CORRECTIVE ACTION-NONE. ANALYSIS WAS NOT PERFORMED AT GD/C.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA8449/PE-4CO-05-263 OSCILLATOR	COMPOSITE-J FACT	2330 640331	12	YES NO		897780
FAILURE MODE-DRIFT-RFI CHANNEL E SUBCARRIER OSCILLATOR WAS DRIFTING DURING THE TEST. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-TELEMETRY PACKAGE REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4581-F BANDPASS FILTER	FAR 27-01295-8	640331	FACTORY	YES NO	APPLIED COMPON ENTS AC13030-5	894561
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR IMPROPER OUTPUT. FAILURE WAS CONFIRMED AS CAUSED BY A SHIFT IN THE SERIES RESONANT FREQUENCY. CORRECTIVE ACTION-VENDOR WILL ENCLOSE ALL UNITS IN A RIGID AND HERMETICALLY SEALED METAL CONTAINER, AFTER 12-1-63, TO PREVENT PRESSURE DAMAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C-2057 TEMPERATURE TRANSDUCER	UTP-PRT 7-01333-8	640331	GD/C	YES NO	LEWIS 368348	891031
FAILURE MODE-STRUCTURAL. DURING VIBRATION. TESTING. ELEMENT B OF THE TRANSDUCER OPENED. CORRECTIVE ACTION-SPECIFICATION REPORT 7-01833 PARAGRAPH 2.3 WAS REVISED TO SPECIFY MORE REALISTIC /REDUCED/ VIBRAT ION LEVELS /ECP 7897/.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-89-24-4587-F TRANSDUCER BELLOWS	FAR 27-01243-7	640331	FACTORY	NO NO	BOURNS 42011-0-100-78 2	886660

FAILURE MODE-STRUCTURAL. THE TRANSDUCER WAS REJECTED WHEN IT FAILED THE FUNCTIONAL TEST. THE FAILURE WAS CONFIRMED. THE 6 PERCENT UNIFORM ERROR IS ATTRIBUTED TO A BELLOWS CHARACTERISTIC CHANGE CAUSED BY OVERPRESSURIZATION. THIS OVERPRESSURIZATION MOST LIKELY OCCURRED DURING TRANSDUCER CLEANING, SINCE THE TRANSDUCER WAS NEVER ON A MISSILE.

CORRECTIVE ACTION-IN NOVEMBER 1963 INSPECTION PERSONNEL BEGAN COMPLYING WITH THE LATEST REVISION OF MS-63-248 FOR CLEANING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-4584-F COMPOSITE AMPLIFIER	FAR 27-01609-1	L11D 640330	FACTORY	YES NO	BENDIX 1063520	884563

FAILURE MODE-ERRATIC OPERATION. UNIT WAS REJECTED FOR NOISY OUTPUT. FAILURE BELIEVED CAUSED BY FAULTY INSTALLATION.

CORRECTIVE ACTION-PROCEDURES FOR SUBSYSTEM TROUBLESHOOTING WERE REVISED. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C-2037 TEMPERATURE TRANSDUCER	UTP-PRT 7-01633-5	640330	GD/C	NO NO	LEWIS 568348	881036

FAILURE MODE-OUT OF TOLERANCE. THE RESISTANCE OF BOTH ELEMENTS WAS OUT OF TOLERANCE DURING Y-AXIS VIBRATION. CAUSE OF FAILURE WAS THE REVERSE WIRING OF SEGMENTS OF THE RESISTANCE BRIDGE USED IN THE TEST SET-UP.

CORRECTIVE ACTION-THE TEST LAB WAS NOTIFIED OF THE PROBLEM AND ASKED TO DOUBLE CHECK SET-UP IN FUTURE TESTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-3D-24-4618-F SIGNAL CONDITIONER-SCREW	FAR 27-12014-807	640327	WTR	YES NO	GD/C	886161

FAILURE MODE-CONTAMINATION. FAILURE WAS CAUSED BY A LOOSE SCREW, FREE TO FALL INSIDE THE CANISTER.

CORRECTIVE ACTION-SHOP AND INSPECTION PERSONNEL WERE ADVISED OF THE FAILURE AND HAVE INSTITUTED IMPROVED CONTROLS BY USE OF LEAD SEALS AND SDI (BREAK OF INSPECTION) RECORDS.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4831-F FILTER	FAR 68-13666-635	1460 640324	FACTORY	YES NO	BENDIX	892617
FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE NOISE OF 10 PERCENT WHERE 8 PERCENT IS ALLOWED. CAUSED BY INSTALLATION OF IMPROPER OUTPUT FILTER.							
CORRECTIVE ACTION-CHANGE OUTPUT FILTER REQUIREMENT (GD/C DESIGN MEMO 549-3-64-69 DATED 640331).							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4522-C SUBCARRIER OSCILLATOR	FAR 7-01466-639	640324	FACTORY	YES NO	BENDIX 1041962-3-K	892596
FAILURE MODE-ERRATIC OPERATION. UNSTABLE OUTPUT.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9D-24-4566-F TRANSDUCER-WIRING	FAR 7-01414	110F 640324	WTR	YES NO	GD/C	892604
FAILURE MODE-ELECTRICAL OPEN CIRCUIT OF PIN C WIRE FROM POOR SOLDERING.							
CORRECTIVE ACTION-CERTIFICATION OF FACTORY SOLDERING PERSONNEL TO NASA SOLDERING SPECIFICATIONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4641-F PRESSURE TRANSDUCER	FAR 7-01731-5	640323	FACTORY	YES NO	BOURNS	891552
FAILURE MODE-CONTAMINATION. FAILURE COULD NOT BE RECONFIRMED BUT ANALYSIS DISCLOSED THAT UNIT WAS CONTAMINATED.							
CORRECTIVE ACTION-VENDOR WAS REQUESTED TO TAKE STEPS TO ELIMINATE CONTAMINATION IN THE PRESSURE TRANSDUCER.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-99-24-4827-F PRESSURE TRANSDUCER	FAR 7-01751-1	640325	FACTORY	YES NO	BOURNS 71724-0-0-732	890695
FAILURE MODE-OUT OF TOLERANCE. WHEN CHECKED IN THE STANDARDS LAB, THE STATIC ERROR EXCEEDED THE ALLOWABLE BAND NEAR THE UPPER END OF THE RANGE. FUNCTIONAL TESTS, DISASSEMBLY, AND EXAMINATION DID NOT REVEAL ANY DISCREPANCIES. CORRECTIVE ACTION-NONE. THE FAILURE WAS CONFIRMED, BUT THE CAUSE COULD NOT BE DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4577-C OSCILLATOR	FAR 27-11541-939	2040 640322		YES NO	BENDIX-PACIFIC	894539
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR DISTORTIONS OF SEGMENTS 1 AND 2 ON CHANNEL 13. CORRECTIVE ACTION-NONE. NO FAILURE ANALYSIS PERFORMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4599-F DIFFERENTIAL AMPLIFIER	FAR 27-01018-1	640321	FACTORY	YES NO	APPLIED ELECTR ONICS DC-1-018	894571
FAILURE MODE-ERRATIC OPERATION. UNIT WAS REJECTED FOR GAIN INSTABILITY. FAILURE WAS CONFIRMED BUT THE CAUSE WAS NOT DETERMINED. UNIT WAS DAMAGED DURING DISASSEMBLY ANALYSIS. CORRECTIVE ACTION-NONE.EXACT CAUSE OF FAILURE WAS NOT DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4585-F PRE-FLIGHT CALIBRATOR	FAR 27-13084-1	640321	FACTORY	YES NO	GD/C	892543
FAILURE MODE-ELECTRICAL SHORT CIRCUIT OF P1-B AND P1-S WAS FOUND DURING CHECKOUT. AN UNSPECIFIED JUMPER CAUSING THE SHORT CIRCUIT PLUS OTHER POOR QUALITY CONSTRUCTION WAS FOUND. THE MANUFACTURING TEST SET SHOULD REJECT THE DISCREPANCY, BUT DID NOT. CORRECTIVE ACTION-UPDATE OF MANUFACTURING TEST EQUIPMENT AND MANUFACTURING PROCEDURES.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4338-F EVENTS SIGNAL ASSEMBLY	FAR 27-12374-603	640320	FACTORY	YES NO	GD/C	692327
FAILURE MODE-ELECTRICAL SHORT. THE UNITS OUTPUT COULD NOT BE ADJUSTED TO THE REQUIRED ZERO VOLTAGE. CAUSED BY SHORT CIRCUITING OF TRANSFORMER T-1 LEAD Y TO RESISTOR R-12 AT TERMINATION 52 BOARD 1. CORRECTIVE ACTION-RAR A-99-24-6313 REQUESTING IMPROVED PACKAGING AND CLOSER INSPECTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-1650.2 PRESSURE TRANSDUCER	UTP-PAT 69-01005-39	640320	GD/C	YES NO	BOURNS 2007372707	692319
FAILURE MODE-OUT OF SPECIFICATION. DURING THE RESOLUTION TEST, 52.7 PERCENT OF THE 591 STEPS EXCEEDED 0.25 PERCENT OF FULL SCALE OUTPUT. ALLOWABLE TOLERANCE IS 3 PERCENT OF THE TOTAL STEPS EXCEEDING 0.25 PERCENT RESOLUTION. FAILURE ANALYSIS BY THE VENDOR INDICATED THAT THE OUT OF TOLERANCE CONDITION WAS CAUSED BY THE INSTALLATION OF A WRONG ELEMENT. CORRECTIVE ACTION-REVIEW OF THE VENDORS RECORDS ON OTHER UNITS INDICATES THAT FURTHER DISCREPANCIES OF THIS FAILURE ARE UNLIKELY. SEE YCAR 8271-64 AND CARR F-4194 SC-1.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-2178.1 TEMPERATURE TRANSDUCER	UTP-SLT 7-01649-1	640320	FACTORY	NO NO	ROSEMOUNT 134AC	690745
FAILURE MODE-OUT OF TOLERANCE. DURING ACCELERATION TEST (SLT), UNIT SHOWED 434.8 OHMS RESISTANCE AT -320 DEGREES F WHERE 434.6 OHMS ARE EXPECTED. FAILURE NOT CONFIRMED THE FAILURE WAS FOUND TO HAVE RESULTED FROM TEST EQUIPMENT CALIBRATION INACCURACY. CORRECTIVE ACTION-NONE REQUIRED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-98-53-055 PRESS TRANSDUCER	FAR 7-01720-8	AC-3 640320	ETR	YES NO	SERVONICS M-75	
FAILURE MODE-INTERNAL LEAK. THE UNIT FAILED WHEN THE OUTPUT READ 50 PERCENT LOW. THE FAILURE IS ATTRIBUTED TO BOURD ON TUBE LEAKAGE DUE TO IMPROPER FLUXING OF THE BRAZED ENDCAP.							

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CORRECTIVE ACTION-THE BOURDON TUBE DESIGN WAS MODIFIED AFTER THE ASSEMBLY DATE TO REQUIRE A WELDED CAP.							890664
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-A-A9-24-4623-F PRESSURE TRANSDUCER	FAR 27-01243-7	147F 640320	FACTORY	NO NO	BOURNS 42011-0-100-75 2	890647
FAILURE MODE-OUT OF TOLERANCE. DURING MISSILE CHECKOUT, THE TRANSDUCER OUTPUT WAS REPORTED TO BE OUT OF SPECIFICATI ON. EXAMINATION REVEALED NO FAULT, BUT IT WAS DETERMINED THAT GAGE PRESSURE HAD BEEN APPLIED INSTEAD OF ABSOLUTE. CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. PERSONNEL WERE CAUTIONED TO APPLY THE CORRECT INPUT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4601-F PRESSURE TRANSDUCER-ELECTRICAL CON ECTOR	FAR 27-01243-9	640320	FACTORY	YES NO	BOURNS 42011-0-150-75 2	890651
FAILURE MODE-OUT OF TOLERANCE, OUTPUT OF THE TRANSDUCER WAS REPORTED TO BE LOW. THE FAILURE WAS CAUSED BY PORES IN THE SOLDER BOND OF THE ELECTRICAL CONNECTOR. PREVIOUS ANALYSES HAVE SHOWN THAT THE PORES WERE A RESULT OF HEAT APPLI ED TO THE RIVET SEAL OF THE TRANSDUCER CASE. CORRECTIVE ACTION-EFFECTIVE 20 OCTOBER 1963 THE VENDOR STATED THAT HE WOULD TAKE THE FOLLOWING ACTION. A BALL SEAL IS REPLACING THE RIVET SEAL ON THESE PRESSURE TRANSDUCERS TO REDUCE HEATING THE SOLDER AND TO PROVIDE A MORE RELIABL E SEAL. THIS IS BEING DONE BECAUSE HEATING OF THE RIVET SEAL PRODUCES A DEFECTIVE JOINT IN THE ELECTRICAL CONNECTOR TO CASE SOLDER JOINT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-1795-1 TRANSDUCER	UTP-PRT 27-01552-13	640320	GD/C	YES NO	WIANCKO PZ-4106-13	890163
FAILURE MODE - OUT OF TOLERANCE. DURING POST PROOF CYCLE OF Y-AXIS TEMPERATURE - VIBRATION TEST, THE SPECIMEN OUTPU T EXCEEDED THE ALLOWABLE TOLERANCE OF PLUS OR MINUS 1.0 PERCENT FSO. THE MAXIMUM ERROR WAS 1.28 PERCENT FSO. INSTRUM ENTATION ERROR IS PLUS OR MINUS 0.21 PERCENT FSO. S/N 3110114. CORRECTIVE ACTION - NONE. NO OTHER OUT OF TOLERANCE CONDITIONS OCCURRED DURING THE REMAINDER OF THE PRT TESTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-2166.2 PRESSURE TRANSDUCER	UTP-PRT 69-01004-23	640319	FACTORY	NO NO	BOURNS 2023203001	
FAILURE MODE-OUT OF TOLERANCE. ON FOUR SEPERATE TESTS, AN ERROR WAS REPORTED TO BE GREATER THAN ALLOWED. THREE OF T HE TESTS WERE PERIODIC RE-EVALUATION TESTS AND ONE WAS A STRESS LIMIT TEST. ALL FOUR TESTS WERE CONDUCTED ON ONE TRA							

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NSDUCER.							990752
CORRECTIVE ACTION-NONE. QUESTIONABLE TEST EQUIPMENT, SETUP AND TECHNIQUE ARE INDICATED INSTEAD OF PRODUCT FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4548-C COMMUTATOR, MOTOR	FAR	640316	FACTORY	YES NO	BENDIX 1006495-48	992833
FAILURE MODE-OUT OF TOLERANCE. GEAR MOTOR WAS RUNNING FAST.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4575-F DETECTOR POTENTIOMETER	FAR 69-11118-1	7108 640318	FACTORY	YES NO	SPECTROL	991436
FAILURE MODE-ELECTRICAL OPEN. THE FREQUENCY DETECTOR OUTPUT WAS 8.467 VOLTS DC. THE REQUIRED OUTPUT IS 8.50 PLUS OR MINUS 0.025 VOLTS DC. THE FAILURE WAS CAUSED BY POTENTIOMETER R-6 BEING BURNED OPEN BY EXCESSIVE CURRENT. NORMAL CURRENT SURGES, WHEN THE EQUIPMENT IS TURNED ON, BURN THESE POTENTIOMETERS OUT IN A LARGE NUMBER OF INSTANCES. THE POTENTIOMETER WAS A SPECTROL MODEL-60, 66-75163-011.							
CORRECTIVE ACTION-SPECTROL FOUND A FAULTY FIXTURE CAUSED RESISTANCE WIRE BREAKS. THE FIXTURE WAS CORRECTED. SPECTROL MODEL-60, 100-KILO HM WAS DECLARED INACTIVE FOR NEW DESIGN ON 15 FEB. 1965, AND REMOVED FROM THE PREFERRED PARTS LIST IN MARCH 1964.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4537-F PRESSURE TRANSDUCER	FAR 7-01725-11	640317	FACTORY	YES NO	BOURNS 42013-0-50-752	993324
FAILURE MODE-OUT OF SPECIFICATION. STATIC ERROR BAND WAS PLUS 3.0 PCT WHEN PLUS OR MINUS 1.0 PERCENT WAS REQUIRED. FAILURE CONFIRMED. CAUSED BY PRESSURE SURGES INDUCED WHILE CLEANING THE TRANSDUCER AFTER CALIBRATION. TRANSDUCER RANGE IS 0-50 PSIA. THE SYRING TYPE CLEANERS USED ARE CAPABLE OF PRODUCING PRESSURE SURGES OF UP TO 800 PSIA.							
CORRECTIVE ACTION-60/C REVISED MPS 63.24 TO SPECIFY CAUTION AGAINST OVERPRESSURIZATION DURING CLEANING. BOURNS TOOK SIMILAR ACTION AND INSTITUTED A CALIBRATION CHECK AFTER CLEANING.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4533-F REGULATOR ASSEMBLY TRANSISTOR	FAR 69-11117-1	640317	FACTORY	YES NO		893801
FAILURE MODE-OUT OF TOLERANCE DUE TO A LOW OUTPUT VOLTAGE. FAILURE ANALYSIS FOUND A FAULTY Q-1 TRANSISTOR (2N656) I N THE REGULATOR CIRCUIT. CORRECTIVE ACTION-PREPOTTING ELECTRICAL TEST SPECIFIED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4727-F TRANSMITTER	FAR	640317	FACTORY	YES NO	BENDIX PACIFIC	893039
FAILURE MODE-ERRATIC OPERATION. THE INITIAL FREQUENCY WAS 238.8 MEGACYCLES; AFTER 3 MINUTES OF OPERATION THE FREQUE NCY JUMPED TO 240.152 MEGACYCLES. CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR-69C-2033.1 PRESSURE TRANSDUCER	UTP-SLT 69-01003-39	640317	FACTORY	YES NO	BOURNS 200737I702	893771
FAILURE MODE-OUT OF TOLERANCE. DURING SLT Z- AXIS VIBRATION-TEMPERATURE TEST; THE TRANSDUCER WAS OUT OF TOLERANCE A T THREE FREQUENCIES. S/N 2110714. CORRECTIVE ACTION-NONE. THE FAILURE OCCURRED AFTER THE TRANSDUCER WAS SUBJECTED TO TESTING BEYOND THE DESIGN LEVEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4367-F ACCELEROMETER TRANSDUCER	FAR 7-01413-5	640317	FACTORY	YES NO	BORG-WARNER 97478	893653
FAILURE MODE-CONTAMINATION. THE UNIT FAILED WHEN THE OUTPUT WAS 1.48 VOLTS AC RMS. THE SPECIFICATION ALLOWS 1.01 TO 1.23 VOLTS AC RMS. THE FAILURE WAS CAUSED BY RUST CONTAMINATION IN THE SENSING HEAD. RUST RESULTED FROM THE ACID-BA SE SOLDER USED FOR SEALING THE SENSING HEAD HOUSING. CORRECTIVE ACTION-THE VENDOR CHANGED FROM ACID-BASE SOLDER TO ROSIN-BASE SOLDER ON 19 OCTOBER 1962. SDC INITIATED A SURVEY 111-64 TO REMOVE FROM USE ALL ACCELEROMETER TRANSDUCERS (P/N 7-01413-5) MADE BEFORE OCTOBER 1962.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4528-F RELAY ASSEMBLY	FAR 87-11673-1	146D 640316	FACTORY	YES NO		892615
FAILURE MODE-ELECTRICAL SHORT CIRCUIT OF PINS C AND D. WIRE CONNECTORS OF PINS C AND D WERE FORCED TO ELECTRICAL CO NTACT BY POTTING. CORRECTIVE ACTION-RAR LV-99-24-4286 REQUESTING IMPROVED POTTING TECHNIQUES TO PREVENT RECURRENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4393-F ELBOW BRACKET-TRANSDUCER	FAR 69-11606-1	711G 640316	FACTORY	YES GD/C NO		891562
FAILURE MODE-CONTAMINATION UNIT FAILED DUE TO A CLOGGED AIR PASSAGE CAUSED BY AN EXCESS OF BRAZING MATERIAL NEAR AS YSP. CORRECTIVE ACTION-EXISTING STOCK RE-INSPECTED. INSPECTION PROCEDURES CHANGE TO REQUIRE INSPECTION AFTER WELDING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA8426/PS-4CO-03-263 TLM CANISTER	COMPOSITE-B FACT	263D 640313	ETR-12	YES 263D NO		897699
FAILURE MODE-ERRATIC OPERATION. SHORT DURATION DECREASES IN RF1 CHANNEL 14 INFORMATION FREQUENCY BAND OCCURRED DURI NG THE TEST. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PAT-TP-69F-2167-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PAT 27-01958-21	640312	FACTORY	YES WIANCKO NO		890636
FAILURE MODE-ELECTRICAL SHORT. DURING INITIAL PROOF CYCLE, UNIT S/N 3120198 SHOWED GENERAL ERROR OF -0.66 PERCENT. FAILURE WAS CAUSED BY NO.2 LEAD FROM PICKUP INTERFERING WITH ARMATURE PADS. CORRECTIVE ACTION-GD/C AND VENDOR CONDUCTED FAILURE REVIEW. ADDITIONAL UNITS WERE EXAMINED BUT NO DISCREPANCIES FOU ND. VENDOR TIGHTENED QC INSPECTION OF LEAD INSTALLATION.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4536-F DETECTOR-REACTOR	FAR 69-01018-1	640311	FACTORY	YES NO	GD/C	893198
FAILURE MODE-ELECTRICAL OPEN CIRCUIT FROM BROKEN COIL WIRE ATTRIBUTED TO POOR QUALITY ASSEMBLY WORKMANSHIP. TWO SIM ILAR REACTOR FAILURES ARE REPORTED. CORRECTIVE ACTION-RAR A-99-24-8291 DOCUMENTS THE ACTION. COGNIZANT PERSONNEL WERE ALERTED OF THE MALPRACTICE AND WE RE REQUESTED TO USE GREATER CARE IN THE ASSEMBLY OF THIS PART. DESIGN CHANGES WERE REQUESTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4535-F REACTOR	FAR 69-01018-1	640311	FACTORY	YES NO	GD/C	893127
FAILURE MODE-ELECTRICAL SHORT. ZERO RESISTANCE MEASURED AT THE REACTORS TERMINALS CAUSED BY MALPOSITIONED COIL. CORRECTIVE ACTION-RAR A-99-24-8291 DOCUMENTS REQUESTED DESIGN CHANGES WHICH CREATE IMPROVED COIL ASSEMBLY TECHNIQUE S.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4552-F COMMUTATOR	FAR 87-01387-5	640311	FACTORY	YES NO	FIFTH DIMENSIO N R25C-123	892534
FAILURE MODE-ELECTRICAL OPEN. EXCESSIVE NOISE SPIKING CAUSED BY THE DIFFERENTIAL AMPLIFIER INPUT OPEN CIRCUIT. CORRECTIVE ACTION-RAR SLV-99-24-8226 RECOMMENDING MODIFICATION OF TELEPACKS TO INCLUDE JUMPER WIRE BETWEEN THE NEGA TIVE PEDESTAL SEGMENTS OF THE COMMUTATOR RINGS USED FOR DIFFERENTIAL AMPLIFIER INPUT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4579-F COMMUTATOR-MOTOR	FAR 55-01171-21	640310	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-261	894560
FAILURE MODE-STRUCTURAL. UNIT WAS REJECTED FOR EXCESSIVE UNIT SPEED. FAILURE WAS CONFIRMED AS CAUSED BY RANDOM CHAN GES IN INTERNAL FRICTION LOADS CAUSING CHANGES IN DRIVE MOTOR SPEED. CORRECTIVE ACTION-NONE. RECOMMENDED CORRECTIVE ACTIONS FOR REDESIGN AND PRODUCTION RUN-IN WERE DISAPPROVED.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4844-F DETECTOR POTENTIOMETER	FAR 99-11118-1	640310	FACTORY	YES NO	SPECTROL 60	892531

FAILURE MODE-OUT OF TOLERANCE. POORLY SOLDERED POTENTIOMETER RESISTANCE ELEMENT LEAD WIRE JUNCTION.

CORRECTIVE ACTION-RAR SLV-99-24-8251 RECOMMENDING SURVEY REPLACEMENT OF THE SPECTROL MODEL 60 POTENTIOMETERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4526-F PRESSURE TRANSDUCER	FAR 27-01243-9	136F 640310	FACTORY	YES NO	COLVIN 401-A-15-75	890656

FAILURE MODE-STRUCTURAL. THE UNIT FAILED WHEN THE TELEMETRY OUTPUT INDICATED ZERO PERCENT INFORMATION BANDWIDTH, WH EREAS TEN PERCENT IS EXPECTED. FAILURE OF THE TRANSDUCER WAS CAUSED BY INSUFFICIENT SOLDER ON THE CASE WELD TO MAINT AIN THE VACUUM SEAL. THE VENDOR BELIEVES THAT THE UNIT WAS DISTORTED OR MISHANDLED AFTER SHIPPING.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-2161 ANGULAR DISPLACEMENT TRANSDUCER	UTP-PAT 69-01003-1	640310	GD/C	YES NO	SERVONICINST.I NC. 5041-0101	890168

FAILURE MODE - OUT OF TOLERANCE. DIMENSION C MEASURED 3.08 INCHES. ALLOWABLE LIMITS ARE 2.97 TO 3.03 INCHES. S/N 31 10060.

CORRECTIVE ACTION - NONE. NEW UNIT PLACED IN TEST PRIOR TO COMPLETION OF DIMENSIONAL INVESTIGATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69A2176.1 DATED 1 MAY 1964 CRYSTAL RECTIFIER CIRCUIT BOARD	UTP-PRT 57-13537-3	640309	GD/C	YES NO	GD/C	893600

FAILURE MODE-STRUCTURAL. OUT OF TOLERANCE WHEN TEST SPECIMEN WAS AT 160 DEG F, Z-AXIS RANDOM-SINE 10 GRMS SWEEP IN PROGRESS. NO CALIBRATION OUTPUT WAS OBTAINED ON CHANNELS 5, 6, 7, 8, 9, AND 10 WITH 27.5 VDC APPLIED TO J1-M. THIS W AS CAUSED BY POOR INSTALLATION OF CONFORMAL COATING THAT ALLOWED A CAPACITOR TO BREAK LOOSE FROM THE CRYSTAL RECTIFI ER MODULE.

CORRECTIVE ACTION-DEPARTMENT 143-3, GD/A INSPECTION, HAS ALERTED THE LINE INSPECTORS TO ENFORCE THE MPS FOR APPLIC ATION OF CONFORMAL COATING. REF. FR-654-2-169 SUPPLEMENT A.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4864-F RADIO FREQUENCY AMPLIFIER	FAR 87-01012-8	640309	FACTORY	YES NO	BENDIX 1977064-4A	892544
FAILURE MODE-OUT OF TOLERANCE. THE AMPLIFIERS RF OUTPUT REPORTEDLY FLUCTUATED BETWEEN ZERO AND SEVEN WATTS WHERE A CONSTANT SEVEN WATTS IS REQUIRED. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR-69A2176.1 CONVERTER-CIRCUIT	UTP-PRT 55-13538-5	640309	GD/C	YES NO	GD/C 55-13538-5	891859
FAILURE MODE-OUT OF TOLERANCE. TEST SPECIMEN AT 160 DEG F, Z-AXIS RANDOM-SINE 10 GRMS SWEEP IN PROGRESS. NO CALIBRATION OUTPUT ON CHANNELS 5, 6, 7, 8, 9, AND 10 WITH 27.5 VDC APPLIED TO J 1-M. THIS WAS CAUSED BY NO CONFORMAL COATING APPLIED TO SUPPORT ONE CAPACITOR (R4) AND ONE RESISTOR (R6) THAT BROKE LOOSE ON FREQUENCY TO DC CONVERTER. CORRECTIVE ACTION-DEPARTMENT 143-3, GD/A INSPECTION, HAS ALLERTED THE LINE INSPECTORS TO ENFORCE THE MPS FOR APPLICATION OF CONFORMAL COATING. REF. FR-654-2-169 SUPPLEMENT A.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR-69A2176.1 CALIBRATOR CAPACITOR	UTP-PRT 27-12291-1	640309	GD/C	YES NO	GD/C	891763
FAILURE MODE-STRUCTURAL. THE TEST SPECIMEN WAS AT 160 DEGREES F, Z-AXIS RANDOM/SINE 10 G(RMS) SWEEP WAS IN PROGRESS. NO CALIBRATION OUTPUT WAS OBSERVED ON CHANNELS 5, 6, 7, 8, 9 AND 10 WITH 27.5 VDC APPLIED TO J1-M. INVESTIGATION REVEALED BROKEN LEADS ON CAPACITORS C-1 AND C-3 CAUSED BY IMPROPER APPLICATION OF CONFORMAL COATING. CORRECTIVE ACTION-GD/C INSPECTION HAS ALERTED THE LINE INSPECTORS TO ENFORCE THE MPS FOR APPLICATION OF CONFORMAL COATING. REF. FR-654-2-169 SUPP A.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-1649 PRESSURE TRANSDUCER	UTP-PRT 69-01003-13	640309	GD/C	YES NO	BOURNS 2004206304	
FAILURE MODE-ERRATIC OPERATION. EXCESSIVE SPIKING DURING RANDOM/SINE VIBRATION IN X, Y AND Z AXIS /Y AND Z AXIS ON S-12-64/. SPIKING WAS ALSO EXCESSIVE ON SUBSEQUENT SINE ONLY VIBRATION TEST. FAILURE WAS NOT CONFIRMED AT VENDORS PLANT AND COMPARISON WITH PRESHIPMENT RECORDS SHOWED NO DETERIORATION. NO PROVABLE EXPLANATION FOR THIS DISCREPANCY. CAUSE OF FAILURE MAY HAVE BEEN DUE TO TEST EQUIPMENT BUT THIS CANNOT BE REAFFIRMED.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							691124

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	PAT-TP-69F-1798-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PAT 27-01552-13	640309	FACTORY	YES NO	WIANCKO P2-4106-13	690636

FAILURE MODE-CONTAMINATION. DURING INITIAL PROOF CYCLE, UNIT OUTPUTS WERE ALL BETWEEN 1.369 AND 1.392 VDC WHERE 5.0 VDC PLUS OR MINUS 1.0 PERCENT F.S.V. WAS EXPECTED. FAILURE CAUSED BY CONTAMINATION IN SENSING HEAD. (S/N 3110137).

CORRECTIVE ACTION-GD/C AND VENDOR INVESTIGATED THE PROBLEM BUT COULD NOT ISOLATE THE SOURCE OF CONTAMINATION. GD/C AND VENDOR QC WERE ALERTED TO WATCH FOR RECURRENCE OF THIS TYPE OF FAILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-A9-24-4503-F HARNESS	FAR 27-11409-3	640308	FACTORY	YES NO	GD/C	690928

FAILURE MODE-STRUCTURAL. ELECTRICAL OPEN CIRCUIT BETWEEN PLUG J3016, PIN A AND PLUG P3P4, PIN T CAUSED BY KINKING OF THE FLEXIBLE CONDUIT DURING ENGINE GIMBALLING. AN ADDITIONAL OPEN CIRCUIT HAD OCCURRED BETWEEN PINS D AND A OF PLUG J3016. THIS BREAK WAS CAUSED BY FLEXING OF THE HARNESS AT THE CONNECTOR AND WAS FACILITATED BY SOLDER WICKING.

CORRECTIVE ACTION-GENERAL IMPROVEMENT UPDATING OF MANUFACTURING AND INSPECTION TECHNIQUES DOCUMENTED IN RAR LV-A9-24-8271.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-A9-24-4513-F PRESSURE TRANSDUCER	FAR 27-01366-29	350D 640308	FACTORY	NO NO	SERVONICS	690659

FAILURE MODE-STRUCTURAL. THE UNIT EXHIBITED OUT OF TOLERANCE READINGS AT ZERO PRESSURE INPUT AND AT 3000 PSI INPUT TO THE SYSTEM. THE FAILURE, RESULTING IN A POSITIVE ZERO SHIFT, IS ATTRIBUTED TO EXPOSURE TO PRESSURE IN EXCESS OF THE DESIGNED LIMIT, RESULTING IN PERMANENT DISTORTION OF THE BOURDON TUBE. THE TRANSDUCER OVERPRESSURIZATION PROBLEM IS APPARENTLY TIED IN WITH THE HYDRAULIC TANK, HYDRAULIC PUMP AND RISE-OFF DISCONNECT STAGING FAILURES.

CORRECTIVE ACTION-ATLAS WEAPON SYSTEM DESIGN IS STUDYING THE PROBLEM. ALSO, SURVEY 47-64 WAS RELEASED 4 MAY 1964 TO CHECK BOOSTER AND SUSTAINER TANKS FOR SIGNS OF OVERPRESSURIZATION, AND HYDRAULIC RETURN STAGING DISCONNECTS FOR PROPER MATING.

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR-69C-2087.1 TEMPERATURE TRANSDUCER	UTP-PRT 7-01653-5	640306	60/C	YES NO	ROSEMOUNT	891037
FAILURE MODE-OPEN/ELECT./. ELEMENT B /PINS D-E/ OPENED DURING PRT X-AXIS VIBRATION. THE BREAK OCCURRED IN THE PLATINUM WIRE AT THE CONNECTION POINT TO THE LEAD WIRE. FAILURE WAS DUE TO INADEQUATE SUPPORT OF THE UPPER ELEMENT. CORRECTIVE ACTION-VENDOR INCORPORATED A DESIGN CHANGE TO PROVIDE BETTER ELEMENT SUPPORT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	692161 POSITION TRANSDUCER	UTP-DUAL/PPT 69-01005-1	640306	FACTORY	YES NO	SERVONIC 5041-0101	890734
FAILURE MODE-OUT OF TOLERANCE. AFTER 20,000 CYCLES OF THE LIFE TEST, THE OBSERVED ERROR WAS PLUS 1.25 AND MINUS 2.48 PERCENT. ALLOWED IS PLUS OR MINUS 2.06 PERCENT INCLUDING MEASURING INSTRUMENT ERROR. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4501-C SUBCARRIER OSCILLATOR	FAR 7-01488-827	640305	FACTORY	YES NO	BENDIX 1050702-13-K	893202
FAILURE MODE-OUT OF TOLERANCE. THE SUBCARRIER OSCILLATOR REPORTEDLY FAILED BY INDICATING A NARROW BANDWIDTH. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4534-F SUBCARRIER OSCILLATOR POTENTIOMETE R	FAR 27-01332-105	640305	FACTORY	YES NO	BENDIX 1069093-3-6	892894
FAILURE MODE-ELECTRICAL OPEN. INSUFFICIENT OSCILLATOR RANGE CAUSED BY OPEN WINDING IN THE OUTPUT VOLTAGE POTENTIOMETER. SEVEN SIMILAR POTENTIOMETER FAILURES ARE REPORTED. CORRECTIVE ACTION-RAR NZ-AS-24-0101 INITIATED THE IMPROVED VENDOR QUALITY CONTROL OF THE FAULTY POTENTIOMETER.							

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4525-F OSCILLATOR	FAR 58-01174-115	640305	FACTORY	YES NO	BENDIX 1062141-8-8	892589
FAILURE MODE-ELECTRICAL SHORT. OUTPUT OF 0.001 VOLT AC WAS MEASURED WHEN 0.048 VOLT AC WAS EXPECTED. CAUSED FROM PO OR QUALITY SOLDERING INTERMITTENTLY SHORT CIRCUITING OSCILLATOR COMPONENTS. CORRECTIVE ACTION-RAR LV-99-24-6261 REQUESTING VENDOR IMPROVED TECHNIQUES AND INSPECTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-3011.1 ANGULAR POSITION TRANSDUCER	UTP-QUAL/PPT 27-01616-7	640305	FACTORY	YES NO	SERVONIC 8031-0107	890701
FAILURE MODE-OUT OF TOLERANCE. THE MEASURED ERROR BAND WAS PLUS 0.07 AND MINUS 1.04 PERCENT. ALLOWED IS PLUS OR MINUS 0.75 PERCENT AND THE INSTRUMENT ERROR IS 0.06 PERCENT. S/N 3100002. CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED BY STANDARDS LAB.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-99-24-4843F ACCELEROMETER TRANSDUCER	FAR 7-01413-5	3500 640305		YES NO	BORG-WARNER 9747-8	890670
FAILURE MODE-CONTAMINATION. THIS IS AN ACCELEROMETER MEASURING MISSILE LONGITUDINAL ACCELERATION. DURING A TEST ON 3500 IT HAD NO OUTPUT. CONTAMINATION WAS FOUND ON THE VIBRATING WIRE HEAD, THE RESULT OF USING AN ACID CORE SOLDER FLUX. CORRECTIVE ACTION-THE FAILURE WAS CONFIRMED. THE VENDOR DISCONTINUED THE USE OF ACID CORE SOLDER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4500-F BUSSING ASSEMBLY	FAR 69-11201-5	640305	FACTORY	YES NO	GD/C	892690
FAILURE MODE-ELECTRICAL OPEN CIRCUIT BETWEEN PINS SHALL R AND 8. THE ENDS OF TWO WIRES MAKING UP THE RESISTANCE ELEMENT OF THE BUS ASSEMBLY BECAME LOOSE FROM PROBABLE OVERHEATING DURING SOLDERING. CORRECTIVE ACTION-ALL COGNIZANT ASSEMBLY AND INSPECTION PERSONNEL WERE ALERTED OF THE FAILURE AND CAUTIONED TO USE GREATER CARE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-1880.2 PRESSURE TRANSDUCER-SCREW	UTP-PRT 69-01003-39	640308	6D/C	YES NO	BOURNS 2007372707	891361

FAILURE MODE-OUT OF TOLERANCE. DURING THE POST MINUS 100 DEGREES F TEMPERATURE PROOF CYCLE, THE ERROR BAND WAS OUT OF TOLERANCE. THE OUTPUT ERRORS WERE PLUS 1.09 PERCENT AND MINUS 2.32 PERCENT AT 2100 PSIA, AND PLUS 2.26 PERCENT AN D MINUS 1.33 PERCENT AT 3150 PSIA. THE ALLOWED ERROR IS PLUS OR MINUS 1.0 PERCENT. ON THE SPECIAL CONTINUITY PLOT AF TER TEMPERATURE TEST ON 5 MARCH 1964; THE OUTPUT OF THE UNIT SHOWED 4.5 PERCENT HYSTERESIS. FAILURE ANALYSIS BY THE VENDOR INDICATED THAT THE OUT OF TOLERANCE CONDITION WAS CAUSED BY A LOOSE BEARING. THE BEARING SET SCREW HAD NOT BE EN TIGHTENED SUFFICIENTLY DURING MANUFACTURE.

CORRECTIVE ACTION-THE VENDOR IS AWARE OF THE NECESSITY FOR MAINTAINING TIGHTER CONTROL. SEE VCAR 6264-64 AND CARR-F -4173 SC-1.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C2176.2 POWER CHANGEOVER SWITCH	UTP-PRT 55-01017-3	640230	6D/C	YES NO	KINETICS CORPO RATION M692	893244

FAILURE MODE-FAIL DURING OPERATION. BENCH TEST AT ROOM AMBIENT FOLLOWING PRT TEMPERATURE-VIBRATION AND RADIO INTERF ERENCE TEST. CALIBRATOR HAD NO OUTPUT, CAUSED BY POWER CHANGEOVER SWITCH FREEZING IN EXTERNAL COMMAND POSITION PREVE NTING CALIBRATION DURING PRT TESTING.

CORRECTIVE ACTION-SPEC. CONTROL DRAWING WAS REVISED ON 9 OCTOBER 1964 BY CHANGE C TO CLARIFY THE CONTROL MOTOR DUTY CYCLE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69AE176.1 SIGNAL CONDITIONER CIRCUIT BOARD	UTP-PRT 69-11116-1	640228	6D/C	YES NO	6D/C	893603

FAILURE MODE-OUT OF TOLERANCE WHEN TEST SPECIMEN WAS AT AMBIENT TEMPERATURE, X-AXIS RANDOM-SINE 10 GRMS IN PROGRESS . CHANNEL 6, MEASUREMENT S209V, WAS FOUND TO BE NON LINEAR DURING PROOF CYCLE FOLLOWING X-AXIS RANDOM-SINE VIBRATION . THIS WAS CAUSED BY INSUFFICIENT CONFORMAL COATING TO PROPERLY HOLD C-1 AND R-35 SIGNAL CONDITIONER COMPONENTS.

CORRECTIVE ACTION-A DRAWING CHANGE WAS MADE AS A RESULT OF REVIEW OF MPS 77.1088 TO CLARIFY EXTENT OF CONFORMAL COA TING ABOUT R35. REF. FR 654-2-216A.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4511-F AMPLIFIER-WIRING	FAR 27-01018-3	640228	FACTORY	YES NO	MAYBERRY	692603

FAILURE MODE-OUT OF TOLERANCE. 70 PERCENT BANDWIDTH INFORMATION WAS RECEIVED WHEN MORE THAN 100 PERCENT IS EXPECTED . THE FAILURE WASCONFIRMED BUT WAS NOT VALID AGAINST 27-12385-883 SIGNAL CONDITIONER. FAILURE DUE TO IMPROPER AMPLIF IER WIRING.

CORRECTIVE ACTION-GD/C IMPROVED QUALITY CONTROL OF VENDOR FINAL VISUAL INSPECTION TO ASSURE THAT INSTALLATION IS IN ACCORDANCE WITH APPLICABLE DRAWINGS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR-69A2178.1 POWER SUPPLY CIRCUIT BOARD	UTP-PRT 27-01611-1	640228	GD/C	YES NO	BENDIX 3130896-2	691660

FAILURE MODE-ELECTRICAL OPEN. TEST SPECIMEN AT 70 DEG F, Y-AXIS RANDOM-SINE 10 GRMS SWEEP TO BE STARTED AFTER EQUAL IZATION. TRANSMITTER OUTPUT R.F. POWER DROPPED FROM 10 TO 2.5 WATTS AND MODULATION COULD NOT BE DETECTED ON THE R.F. CARRIER. THIS WAS CAUSED BY AN INTERMITTENT OPEN IN THE 28 VDC. INPUT LEAD TO 28 VDC FOUND BROKEN DUE TO SOLDER WIC KING AND A SHARP HARNESS BEND EXCEEDING DESIGN.

CORRECTIVE ACTION-DEPT. 549-3 INFORMED VENDOR TO PREVENT VIOLATION OF MINIMUM BEND RADIUS AND PROPOSED REDESIGN OF THE CASE AT FACI TO GIVE NECESSARY CLEARANCE PREVENTING SHARP HARNESS BENDS. REFERENCE. FR-634-2-168 SUPPLEMENT A.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4490-C OSCILLATOR	FAR 7-01488-883	640227	FACTORY	YES NO	BENDIX TO 41963-2-X	693000

FAILURE MODE-ERRATIC OPERATION. SUBCARRIER OSCILLATOR FAILED DURING VIBRATION TESTING WHEN THE UNIT INDICATED SPIKI NG AND FREQUENCY WAS UNSTABLE. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY SLV RELIABILITY CONTROL.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-9D-24-4556-F THERMOCOUPLE WIRE	FAR 113143	351D 640227	WTR	YES NO		

FAILURE MODE-ELECTRICAL SHORT. CIRCUIT BETWEEN CONDUCTOR AND SHIELD CAUSED BY TEFLON DYE POCKETS PERMITTING INADEQU ATE MECHANICAL INSULATION SUPPORT ON FIRE DETECTION MEASUREMENT PIGTST.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							092607

CORRECTIVE ACTION-RAR LV-80-24-6334 REQESTING DISCONTINUANCE OF DYE COLORING AND REVISSION OF MIL-W-5845-B TO INCLU DE CURRENT STATE OF THE ART IN THERMOCOUPLE WIRE MANUFACTURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-4344-C COMMUTATOR, MOTOR	FAR	640227	FACTORY	YES NO	BENDIX/RECDE A ND REECE 1086485-35,45, 65	091577

FAILURE MODE-OUT OF TOLERANCE. 4 D-C GEARMOTORS FAILED DUE TO SLOW SPEEDS OR INTERMITTENT OPERATION. FAILURE ANALYS IS WAS WAIVED BY SLV RELIABILITY CONTROL.

CORRECTIVE ACTION-NONE SINCE FAILURE ANALYSIS WAS WAIVED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4519-F PRESSURE TRANSDUCER	FAR 7-01731-9	138F 640226	FACTORY	YES NO	BOURNS 71724-0-35-752	093560

FAILURE MODE-FAIL DURING OPERATION. UNIT OUT PUT FLUCTUATED WHEN HYDRAULIC PRESSURE WAS APPLIED. FAILURE NOT CONFIR MED. IT IS SUSPECTED THAT SINUSOIDAL PRESSURE FLUCTUATION WITHIN THE SYSTEM CAUSED THE REPORTED FAILURE.

CORRECTIVE ACTION-INITIATE DESIGN EVALUATION TO DETERMINE TRANSDUCER STABILITY CHARACTERISTICS FOR THIS APPLICATION . TAKE PRECAUTION NOT TO REJECT TRANSDUCERS FLUCTATING DUE TO PRESSURE VARIATIONS. THESE PARTS WILL BE PUT ON RELIAB ILITY WAIVER TWX.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-89-24-4493-C ELECTRICAL FILTER	FAR 7-11333-5	640226	FACTORY	YES NO		092091

FAILURE MOD. ERRATIC OPERATION. LIMITER FILTER FAILED DURING ELECTRICAL TESTS WHEN IT HAD AN INTERMITTENT OUTPUT ON CHANNELS 1,2 AND 3. FAILURE ANALYSIS WAS CANCELED UPON WAIVER BY SLV RELIABILITY CONTROL.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4491-F COMMUTATOR-MOTOR	FAR 87-12385-003	3500 640226	FACTORY	YES NO		

FAILURE MODE-OUT OF TOLERANCE. AUXILIARY SIGNAL CONDITIONER FAILED WHEN CHANNELS 16, 17 AND 18 COMMUTATOR SPEEDS WE RE IN EXCESS OF SPECIFIED SPEEDS. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A SHIFT IN THE TORQUE LOAD ON THE COMMUTAT

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SYSTEM SUB-SYSTEM	TEAT/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
O. MOYCR. THE COMMUTATOR, COMMON TO ALL THREE CHANNELS, WAS REJECTED BY INSPECTION.							892732
CORRECTIVE ACTION-REQUESTED VENDOR TO SUBJECT COMMUTATORS TO A 80 HOUR BURN-IN PERIOD AND TEMPERATURE CYCLE THEN DU RING CHECKOUT TESTS. ALSO REQUESTED COMMUTATION SPEED TOLERANCES BE WIDENED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4543-F FREQUENCY DETECTOR-POTENTIOMETER	FAR 69-11118-1	640225	FACTORY	YES NO	SPECTROL 60	893189
FAILURE MODE-ELECTRICAL OPEN. OUTPUT VOLTAGE COULD NOT BE ADJUSTED WITHIN TOLERANCE DUE TO OPEN CIRCUITED POTENTION ETER R-6.							
CORRECTIVE ACTION-RAR SLV-99-24-8231 RECOMMENDING SURVEY AND REMOVAL OF SPECTROL MODEL-60 AND REPLACEMENT WITH HIGH ER CURRENT RATED POTENTIOMETER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4484-C CONVERTER	FAR 27-12232-5	640225	FACTORY	YES NO		892892
FAILURE MODE-ERRATIC OPERATION. TWO AC-DC CONVERTERS FAILED TO REMAIN STABLE WHILE VARYING RMS INPUT VOLTAGE FROM 5 .0 VOLTS TO 0.2 VOLTS. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY SLV RELIABILITY CONTROL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4505 PRESSURE TRANSDUCER	FAR 7-01731-9	640224	FACTORY	YES NO	BOURNS 71724-0-35-752	893327
FAILURE MODE-OUT OF SPECIFICATION. UNIT WAS REPORTED TO HAVE A STATIC ERROR BAND 01.85 PCT WHEN A MAXIMUM OF PLUS O .5 MINUS 1.0 PERCENT IS REQUIRED.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4540-F POWER SUPPLY-TRANSDUCER	FAR 85-13663-1	640224	FACTORY	YES NO		
FAILURE MODE-OUT OF TOLERANCE. LOWER LIMIT ADJUSTMENT TO 16 VOLTS COULD NOT BE ACHIEVED. TRANSISTOR Q1 ELECTRODE HA							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
D POOR WELD. CORRECTIVE ACTION-IMPLEMENTATION OF WELD INTEGRITY TECHNIQUES AND TEST SAMPLING.							892893
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-89-24-4548-F DETECTOR-POTENTIOMETER	FAR 89-11118-1	840222	FACTORY	YES NO	SPECTROL 60	892533
FAILURE MODE-ELECTRICAL OPEN. ELECTRICAL OPEN OF POTENTIOMETER R-6 DUE TO HIGH CURRENT RESISTIVE ELEMENT BURNING. E LEMENT WIRE IS INADEQUATE FOR SMALLEST CURRENT SURGE. CORRECTIVE ACTION-RAR SLV-89-24-3251 RECOMMENDING SURVEY REPLACEMENT OF THE SPECTROL MODEL 60 POTENTIOMETERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69A2176.1DATED 1 MAY 1984 COMMUTATOR	UTP-PRT 27-01636-5	840221	60/C	YES NO	FIFTH DIMENSIO N MRXD-461	893601
FAILURE MODE-OUT OF TOLERANCE WHEN TEST SPECIMEN WAS AT AMBIENT ROOM TEMPERATURE, X-AXIS RANDOM-SINE 10 GRMS SWEEP IN PROGRESS. NO OUTPUT WAS OBTAINED FROM CHANNEL 11 OF COMMUTATOR. CAUSE DUE TO IMPROPER FASTENING OF THE SNAP RING TO DRIVE SPINDLE AND ROTOR DURING MANUFACTURING PROCESS. CORRECTIVE ACTION-VENDOR OF THE COMMUTATOR WAS CONTACTED ON 5 JUNE 1984 AND REQUESTED TO TAKE ACTION TO INSURE THAT ALL SNAP RINGS INSTALLED ON COMMUTATOR SPINDLES WERE PROPERLY SECURED. REF. FR-654-2-216, AND 654-2-64-224 (MEMO) D ATED 5 JUNE 1984.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR-69A2176.1 POWER SUPPLY INDUCTOR	UTP-PRT 88-13540-8	840221	60/C	YES NO	60/C	893526
FAILURE MODE-ELECTRICAL. OPEN OF POWER SUPPLY MODULE AT 70 DEGREES F X-AXIS RANDOM-SINE 10 GRMS SWEEP. FAILURE OCCU RRED AT 0 CPS. THE POWER SUPPLY OUTPUT ON PIN J7-U DROPPED FROM 5.02 VDC TO 0.0 VDC, DUE TO A BROKEN LEAD ON THE L1 INDUCTOR. THIS WAS CAUSED BY INSUFFICIENT CONFORMAL COATING WHERE NO FILLETS WERE FORMED TO SUPPORT THE BODY OF THE INDUCTOR CORRECTIVE ACTION-DEPT. 861-4 REQUESTED A SURVEY TO REMOVE AND REWORK ALL 89-11100-1 AND 89-11300-1 UNITS INSTALLED ON MISSILES OR IN STOCK. REWORK TO BE IN ACCORDANCE WITH LATEST ECN INCORPORATED ON DRAWING THAT APPLIES TO CONFORM AL COATING. DEPT. 141-3 ALERTED INSPECTION TO INSPECT BETTER FOR PROPER APPLICATION OF CONFORMAL COATING (REF. 654-2-169 SUPP. A). ECA							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4583-F DETECTOR-WIRING	FAR 89-11118-1	640221	FACTORY	YES NO		002532

FAILURE MODE-ELECTRICAL SHORT. COULD NOT ADJUST OUTPUT. CAUSED BY SHORT CIRCUITING OF LEAD F TO DETECTOR MOUNTING S TUD VIA METALLIC CIRCUIT BOARD HOLE IDENTIFICATION TAB.

CORRECTIVE ACTION-RAR SLV-99-24-6297 REQUESTING REMOVAL OF THE HOLE IDENTIFICATION TAB AFTER CIRCUIT BOARD DRILLING .

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4547-F DETECTOR-WIRING	FAR 89-11118-1	640221	FACTORY	YES NO		002530

FAILURE MODE-ELECTRICAL SHORT. NO VOLTAGE OUTPUT CAUSED BY ELECTRICAL SHORT CIRCUITING OF TERMINAL PIN F TO THE DET ECTOR MOUNTING STUD VIA METALLIC CIRCUIT BOARD HOLE IDENTIFICATION TAB.

CORRECTIVE ACTION-AVO TO PRODUCTION DEPARTMENT REQUESTING REMOVAL OF THE HOLE IDENTIFICATION TAB AFTER CIRCUIT BOAR D DRILLING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4317-F PITCH AND YAW RATE DEMODULATOR	FAR 87-12367-5	640220	FACTORY	YES NO		002601

FAILURE MODE-OUT OF TOLERANCE. INABILITY TO ADJUST THE OUTPUT TO ZERO VOLTS DC.

CORRECTIVE ACTION-NONE. SINCE FAILURE WAS UNCONFIRMED AND NO ABNORMALITIES WERE OBSERVED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4509-F PRESSURE TRANSDUCER	FAR 7-01731-9	138F 640220	FACTORY	YES NO	BOURNS 71724-0-35-752	

FAILURE MODE-ERRATIC OPERATION. UNIT INDICATED A SPIKED OUTPUT WHILE 3000 PSI HYDRAULIC PRESSURE WAS APPLIED. REPOR TED FAILURE WAS BELIEVED TO BE CAUSED BY 400 CYCLE DITHER FROM THE HYDRAULIC ACTUATOR VALVE. VIBRATION LEVELS AT THE AREA OF THIS MEASUREMENT ARE MORE DEMANDING THAN THE TRANSDUCER SPECIFICATION.

CORRECTIVE ACTION-A DESIGN EVALUATION WAS REQUESTED FOR TRANSDUCER USED FOR THIS MEASUREMENT (H33P) TO DETERMINE TH EIR SUITABILITY FOR THIS APPLICATION. IT WAS ALSO REQUESTED THAT ACTION BE TAKEN TO REDUCE THE REJECTION OF TRANSDUC

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ERS FAILING FOR THE ABOVE CAUSE. THESE TRANSDUCERS WERE PLACED ON THE RELIABILITY WAIVER TWX.							891362
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69A2176.1 CALIBRATOR MODULE	UTP-PAT 27-12291-1	640219	GD/C	YES NO	GD/C	893602
FAILURE MODE-OUT OF TOLERANCE WHEN TEST SPECIMEN WAS AT AMBIENT ROOM TEMPERATURE DURING BENCH TESTS OF PAT AND PRT. REPETITION RATE OF CALIBRATOR WAS 1.8 TO 1.8 CPS WHICH IS OUT OF TOLERANCE. CORRECTIVE ACTION-CORRECTIVE ACTION REQUEST NO. 8300 WAS PROCESSED TO INSPECTION SUPERVISION REQUESTING THAT ACTION BE TAKEN TO PREVENT PLACING CALIBRATORS IN STOCK THAT ARE NOT WITHIN THE SPECIFIED REQUIREMENTS. REF. FR 654-2-216-A.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4546-F DETECTOR POTENTIOMETER	FAR 69-11116-1	640219	FACTORY	YES NO	SPECTROL MODEL	892536
FAILURE MODE-ELECTRICAL OPEN. THE UNITS OUTPUT WAS ZERO CAUSED BY AN OPEN R-6 POTENTIOMETER. LEAKY HEADER SEAL PERMITTED POTTING COMPOUND TO ENTER THE POTENTIOMETER CAUSING AN OPEN CIRCUIT CONDITION. CORRECTIVE ACTION-RJR SLV-99-24-8251 RECOMMENDING SURVEY REPLACEMENT OF THE SPECTROL MODEL 60 POTENTIOMETERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4604-F TLM CANISTER-TRANSMITTER	FAR 27-13234-3	2450 640218	FACTORY	YES NO		894566
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED FOR NOISE ON THE INFORMATION BANDWIDTH CAUSED BY A FAULTY TRANSMITTER. CORRECTIVE ACTION-VENDOR FOR TRANSMITTER REVISED HIS TEST PROCEDURES TO ELIMINATE PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GD/AAGU63-001-8/FC-CO-01-0013-016	COMPOSITE-FACTORY 27-13234-3	2450 640217		YES NO		
FAILURE MODE-ERRATIC OPERATION. CHANNEL 11 OF TELEMETER NO. 2 HAD 7 PCT NOISE. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEM LEVEL AND COMPOSITE RETESTING REQUIRED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-FAILURE ISOLATED TO TRANSMITTER SECTION OF TELEMETER NO. 2. REPLACED TELEMETER NO. 2.							899643
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4467-F DEMODULATOR/POTENTIOMETER	FAR 69-11110-5	640217	FACTORY	YES NO		893645
FAILURE MODE-ERRATIC OPERATION. OUTPUT COULD NOT BE ADJUSTED TO REQUIRED 2.5 PLUS OR MINUS 0.025 VDC. FAILURE DUE TO OPEN WINDING ON POTENTIOMETER R-4 CAUSED BY EXCESSIVE CURRENT WHICH WAS PROBABLY CAUSED BY CONNECTING THE DEMODULATOR TO TEST SET WITH POWER ON.							
CORRECTIVE ACTION-TESTING PERSONNEL CAUTIONED TO FOLLOW E.D.P. EXACTLY TO AVOID REPETITION OF THIS FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4471-F DETECTOR-POTENTIOMETER	FAR 69-11118-1	640217	FACTORY	YES NO		893642
FAILURE MODE-OPEN (ELECT). CHANNEL 9 WAVERED AT 70 SECONDS DURING PRODUCTION VIBRATION TESTING. FAILURE CAUSED BY DEMODULATION ASSEMBLY (69-11110) AUDIOFREQ DETECTOR POTENTIOMETER MANDRELS BEING OPEN CIRCUITED.							
CORRECTIVE ACTION-POTENTIOMETER REPLACED BY NEW IMPROVED 100K POTENTIOMETER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4486-F AMPLIFIER WIRING	FAR 95-01173-1 E	640217	FACTORY	YES NO	MAYBERRY 166-1A	892994
FAILURE MODE-ELECTRICAL OPEN. DIFFERENTIAL AMPLIFIER FAILED WHEN IT HAD NO OUTPUT. FAILED WAS CONFIRMED AND ATTRIBUTED TO THE SIGNAL GROUND PIN 10 NOT BEING SOLDERED IN THE CIRCUIT.							
CORRECTIVE ACTION-RECOMMENDED VENDOR REVISE THE CHECKOUT PROCEDURES WHERE NECESSARY TO PREVENT RECURRENCE OF THIS TYPE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4449-C DIFFERENTIAL AMPLIFIER	FAR 87-01241-1	250D 640213	FACTORY	YES NO	MAYBERRY 114-8	
FAILURE MODE-OUT OF TOLERANCE. NOISE IN ACCESS OF 7 PERCENT IBW OBSERVED ON CHANNEL 14. C3-UNITS).							

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CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							693436
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4449-C DIFFERENTIAL AMPLIFIER-3	FAR 27-01241-1	SEE BELO W 640213	FACTORY	YES NO	MAYBERRY 114-8	692657
FAILURE MODE-ERRATIC OPERATION. NOISE IN ACCESS OF 7 PERCENT IBW ON CHANNEL 14. 3 AMPLIFIERS FAILED IN THIS MODE IN CONNECTION WITH VEHICLES 2500 AND 1960. FAILURE NOT CONFIRMED.							
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4550-F DEMODULATOR	FAR 27-13535-1	640213	FACTORY	YES NO		692329
FAILURE MODE-OUT OF TOLERANCE. ELECTRICAL MISMATCH BETWEEN THE DEMODULATOR AND THE NEXT ASSEMBLY. WHEN TESTED INDEP ENDENTLY THE UNIT WAS WITHIN TOLERANCE.							
CORRECTIVE ACTION-NONE. SINCE THE NEXT ASSEMBLY WAS NOT AVAILABLE FOR SYSTEM TESTING THE EXACT FAILURE CAUSE WAS NO T DETERMINED AND NO MEANINGFUL CORRECTIVE ACTION CAN BE TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PPT-TP-69F-1795.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-QUAL/PPT 27-01552-13	640213	FACTORY	YES NO	WIANCKO P2-4106-13	690629
FAILURE MODE-OUT OF TOLERANCE. DURING CONTINUOUS WAVE CONDUCTED INTERFERENCE PORTION OF MIL-I-26600, HIGHEST INTERF ERENCE LEVEL AT 240 KC EXCEEDED SPECIFICATION LIMITS ABOUT 21 DB ABOVE 1 MICRO-VOLT. FAILURE WAS CAUSED BY INADEQUAT E DESIGN WHICH MADE NO PROVISION FOR FILTERING THE SECOND HARMONIC OF THE TRANSDUCER OSCILLATOR. (S/N 3110114).							
CORRECTIVE ACTION-GD/C CONTACTED VENDOR AND REDESIGN WAS ACCOMPLISHED BY ADDING AN RFI FILTER TO ALL DASH NUMBERS O F 27-01552 TRANSDUCERS. GD/C ACTION IS IDENTIFIED IN ECP 7677 (27-01552-13 IS NOW A 27-01552-51-FILTER INCORPORATED) .							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4458-6 DIFFERENTIAL AMPLIFIER	FAR 27-01241-1	1950 640211	FACTORY	YES NO	MAYBERRY 114-8	
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 14 NOISE WAS 80 PERCENT WHEN 7 PERCENT MAX IS ALLOWED.							

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CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							691551
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FR69C-2166.2 PRESSURE TRANSDUCER	UTP-PAT 69-01004-23	640211	FACTORY	YES NO	BOURNS 2023203001	690755
FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER OUTPUT WAS HIGH AT ALL PRESSURES. A TOTAL OF FOUR CYCLES WERE RUN AND THE MAXIMUM ERROR (ON THE LAST CYCLE) WAS 1.68 PERCENT. THE FAILURE WAS CAUSED BY IMPROPER COMPENSATION FOR EFFECTS OF TEMPERATURE VARITATION. CORRECTIVE ACTION-THE VENDOR HAS BEEN NOTIFIED OF THIS CONDITION AND IMPROVED PERFORMANCE BY THE VENDORS QUALITY CONTROL FUNCTION IS EXPECTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4483-C DEMODULATOR	FAR 7-12077-801	640210	FACTORY	YES NO		692993
FAILURE MODE-FAIL DURING OPERATION. DEMODULATOR ASSEMBLY FAILED DURING ELECTRICAL TESTING WHEN IT HAD NO OUTPUT. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY SLV RELIABILITY CONTROL. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	MZ-A9-24-4516-F DIFFERENTIAL AMPLIFIER DIODE	FAR 27-12762-807	640210	FACTORY	YES NO	BENDIX	692602
FAILURE MODE-ELECTRICAL OPEN. LESS THAN ZERO ISW WHEN ZERO AND 100 PERCENT WAS EXPECTED. OPEN CIRCUITED DIFFERENTIAL AMPLIFIER DIODE WAS THE FAILURE CAUSE. CORRECTIVE ACTION-NONE. THE FAILED DIODE WAS INADVERTANTLY DAMAGED DURING FAILURE ANALYSIS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	69-3140 PRESSURE TRANSDUCER	UTP-PET 7-01731-3	640210	60/C	NO NO	BOURNS 71724-0-10-752	
FAILURE MODE - OUT OF TOLERANCE. THE UNIT WOULD NOT SHOW AN OUTPUT BEYOND 81 PERCENT FSV/R. S/N 309-1108. PET LOT 25. FAILURE WAS DUE TO MALFUNCTION OF THE RATIOMETER IN THE TEST EQUIPMENT.							

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CORRECTIVE ACTION - TEST EQUIPMENT WAS REPAIRED. NO FURTHER ACTION DEEMED NECESSARY.							690169
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69A2176.1 COMMUTATOR	UTP-PRT 87-01636-8	640208	GD/C	YES NO	FIFTH DIMENSIO M MRXD-461	691740
FAILURE MODE-OUT OF TOLERANCE. TEST SPECIMEN SKIN TEMPERATURE WAS MAINTAINED AT 0 DEGREES F IN TEST CHAMBER. COMMUTATOR SPEED FOR CHANNEL 11 WAS BELOW MINIMUM OF 2.5-40 PERCENT RPS, SPEED WAS 2.03 RPS AND 2.17 RPS DUE TO COMMUTATOR MOTOR SPEED SLOWING DOWN AT COLD TEMPERATURES.							
CORRECTIVE ACTION-TEST PROCEDURE AND RELIABILITY TEST OUTLINE OPERATING TEMPERATURE REQUIREMENTS FOR 69-11100 TELEPAK ASSEMBLY WERE CHANGED FROM 0 DEGREES F TO REFLECT POD-MOUNTED EQUIPMENT TEMPERATURES OF 40 TO 80 DEGREES F. SPECIFICATION CONTROL DRAWING WAS ALSO CHANGED. REF. FR-654-2-216-A AND MEMO 654-2-64-224 ON 8 JUNE 1964.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4434-C COMMUTATOR	FAR 87-11244-1	640207	FACTORY	YES NO	BENDIX 1047382	691509
FAILURE MODE-ERRATIC OPERATION. COMMUTATOR OPERATED INTERMITTENTLY.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PAT-TF-69F-2167-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PAT 87-01552-21	640207	FACTORY	NO NO	WIANCKO PZ-4106-21	690635
FAILURE MODE-OUT OF TOLERANCE. DURING PROOF CYCLE PRIOR TO TEMPERATURE-VIBRATION TEST, UNIT S/N 3050033 SHOWED MAX OUT OF TOLERANCE OF PLUS 46.02 PERCENT DURING THIRD PRESSURE RUN WHERE PLUS OR MINUS 1.0 PERCENT IS ALLOWABLE. FAILURE WAS DUE TO ACCIDENTAL OVERPRESSURIZATION DURING PROOF CYCLE.							
CORRECTIVE ACTION-GD/C MODIFIED TEST SETUP TO INCORPORATE HARD LINE SYSTEM INSTEAD OF FLEXIBLE LINES USED IN CALIBRATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4445-F DETECTOR-POTENTIOMETER	FAR 69-11116-1	640208	FACTORY	YES NO	SPECTROL GD	
FAILURE MODE-ELECTRICAL OPEN. OUTPUT OF THE DETECTOR COULD NOT BE ADJUSTED. POTENTIOMETER R-6 WAS OPEN CIRCUITED. FAILURE OF THE DETECTOR WAS DUE TO THE GROUND SIDE OF THE POTENTIOMETER BEING OPEN INTERNALLY. A BAD SOLDER CONNECTIO							

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
N WAS FOUND AT ONE END OF THE POTENTIOMETER. CORRECTIVE ACTION-RAR SLV-99-24-6851 REQUESTED THE USE OF SPECTROL MODEL 60 POTENTIOMETERS BE DISCONTINUED BY ASTRO NAUTICS.							694002
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4450-C SUBCARRIER OSCILLATOR	FAR 7-01488-861	250D 640206	FACTORY	YES NO	BENDIX 1041962-4-2	693719
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4451-C SUBCARRIER OSCILLATOR	FAR 7-01488-861	640206	FACTORY	YES NO	BENDIX 1041962-4-2	692832
FAILURE MODE-DRIFT. OUTPUT FREQ DRIFTED 300 CPS. CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4473-C TRANSDUCER, INSTRUMENTATION	FAR 7-01720-8	138F 640E06	SAN DIEG O	YES NO	BOURNS	692039
FAILURE MODE-ELECTRICAL OPEN. TRANSDUCER FOR MEASUREMENT F145P INDICATED AN OPEN CIRCUIT BETWEEN PINS C AND A AND A LSO BETWEEN PINS C AND B. FAILURE ANALYSIS WAS CANCELLED PER TWX 64-61-001. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4583-C COMMUTATOR MOTOR	FAR	204D 640E05	FACTORY	YES NO	BENDIX 1096465-6	
FAILURE MODE-ERRATIC OPERATION. UNIT WAS REJECTED BECAUSE OF ERRATIC COMMUTATOR SPEED.							

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CORRECTIVE ACTION-NONE. NO FAILURE ANALYSIS PERFORMED.							894962
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4454-C AMPLIFIER AND FILTER ASSEMBLY	FAR 27-12202-1	195D 640205	FACTORY	YES NO		893706
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4444C OSCILLATOR	FAR 27-01268-11	640204	FACTORY	YES NO	BENDIX 1050263-8-6A	894003
FAILURE MODE-OUT OF TOLERANCE. OUTPUT FREQUENCY WAS MEASURED TO BE 3054 CPS. THE FREQUENCY SHOULD BE 3000 PLUS OR M INUS 15 CPS. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4482-C OSCILLATOR	FAR 27-01269-41	640204	FACTORY	YES NO	BENDIX 1052094-E-6-A	892990
FAILURE MODE-OUT OF TOLERANCE. SUBCARRIER OSCILLATOR FAILED DURING ELECTRICAL TESTING WHEN THE AMPLITUDE AND BAND E DGES COULD NOT BE ADJUSTED AND THE OUTPUT CONTROL HAD NO EFFECT ON VARIATION OF FREQUENCY OUTPUT. FAILURE ANALYSIS W AS CANCELED UPON WAIVER BY SLV RELIABILITY CONTROL. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4481-C OSCILLATOR	FAR 27-01268-37	640204	FACTORY	YES NO	BENDIX-PACIFIC 1050263-10-T-A	892989
FAILURE MODE-OUT OF TOLERANCE. SUBCARRIER OSCILLATOR FAILED DURING ELECTRICAL TESTING WHEN THE OUTPUT AND BAND EDGE S WOULD NOT ADJUST. FAILURE ANALYSIS WAS CANCELED UPON WAIVER BY SLV RELIABILITY CONTROL. CORRECTIVE ACTION-NONE.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4488-F OSCILLATOR	FAR 87-01607-129	640203	FACTORY	YES NO	BENDIX-PACIFIC 3131193-156	892995
FAILURE MODE-ERRATIC OPERATION. SUBCARRIER OSCILLATOR FAILED WHEN ITS OUTPUT WAS REPORTED ERRATIC. FAILURE WAS NOT CONFIRMED. CORRECTIVE ACTION-REQUESTED A FUNCTIONAL TEST BE PERFORMED ON UNITS SUSPECTED OF FAILING AFTER REMOVAL FROM THEIR T OP ASSEMBLY AND BEFORE REJECTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4480-F TRANSDUCER, INSTRUMENTATION	FAR 7-01723-11	640203	SAN DIEG O	YES NO	BOURNS 42013-0-50-752	892065
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. TRANSDUCER INDICATED A STATIC ERROR OF PLUS 1.76 PERCENT. THE SPECI FICATION IS PLUS OR MINUS 1.0 PERCENT. FAILURE WAS ATTRIBUTED TO OVERPRESSURIZATION RESULTING IN A POSITION ZERO SHI FT. CORRECTIVE ACTION-REQUESTED APPROPRIATE PERSONNEL TAKE STEPS TO PREVENT RECURRENCE OF THIS FAILURE MODE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4442-C OSCILLATOR	FAR 7-01488-661	640203	FACTORY	YES NO	BENDIX 1041962-4Z	891499
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. NO FREQUENCY OUTPUT WITH AN INPUT STIMULUS APPLIED. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4495 TRANSDUCER, INSTRUMENTATION	FAR 69-01003-39	640200	SAN DIEG O	YES NO	BOURNS	
FAILURE MODE-ERRATION OPERATION. TWO TRANSDUCERS FOR MEASUREMENT M33P INDICATED SPIKING AND OUTPUT VARIATIONS. FAIL URES WERE NOT CONFIRMED. POSSIBLE CAUSE OF THE REPORTED FAILURE COULD BE SUBJECTING THE TRANSDUCER TO SUSTAINED VIBR ATION LEVELS WHICH WOULD CAUSE ITS PERFORMANCE TO DETERIORATE. ANOTHER POSSIBLE CAUSE COULD BE DUE TO THE WIPER CONT ACT TRYING TO FOLLOW THE SINUSOIDAL PRESSURE FLUCTUATION. WHILE RAPIDLY SWEEPING BACK AND FORTH, THE WIPER MAY BE SK IMMING UP ON THE OIL FILM AND PERIODICALLY LIFTING OFF THE POTENTIOMETER COIL. THIS CONDITION WOULD PRODUCE THE UNDE SIRED SPIKING.							

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CORRECTIVE ACTION-FAILURES NOT CONFIRMED. SLV INSTRUMENTATION DESIGN GROUP IS PROPOSING AN ELECTRICAL FILTER TO REM OVE M33P TRANSDUCER OUTPUT SPIKING. THE FFILTER NETWORK WILL BE INSTALLED IN THE TRANSDUCER HARNESS. FILTERING OUT T HE SPIKING SHOULD NOT DEGRADE PRESSURE DATA.							692066
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-14-210-F TRANSDUCER-PRESSURE-WIRING	FAR 55-01107-63	350-D 640131	FACTORY	YES NO	COLVIN 401-6-4-75	693381
FAILURE MODE-ELECTRICAL LEAK AT PLUG. CAUSED BY A CRACKED SOLDER JOINT BETWEEN THE STAINLESS STEEL PRESSURE PORT AN D THE BRASS CASE. CRACK DUE TO IMPROPER SOLDER JOINT PREPARATION BY THE VENDOR.							
CORRECTIVE ACTION-VENDOR REQUESTED TO REVIEW SOLDER PREPARATION TECHNIQUES TO PRECLUDE FAILURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4507-C POWER SUPPLY	FAR 27-01228-1	640131	FACTORY	YES NO	BENDIX 1046173-2-A	693126
FAILURE MODE-FAILED DURING OPERATION. TIME. THE POWER SUPPLY HAD NO 160-VOLT DC OUTPUT.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS CANCELLED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4508-C POWER SUPPLY	FAR 27-12991-1	640131	FACTORY	YES NO	BENDIX 1046173-2A	691742
FAILURE MODE-OUT OF TOLERANCE. A MONITOR VOLTAGE OF 1.269 VDC WAS RECEIVED (EXPECTED WAS -1.140V DC).							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4420-F PRE FLIGHT CALIBRATOR-RELAY	FAR 27-13094-1	640130	FACTORY	YES NO		693359
FAILURE MODE-CONTAMINATION. OUTPUT WAS ZERO. THE FAILURE WAS CAUSED BY A SHORT BETWEEN PIN 7 OF RELAY K-1 AND CASE GROUND. THE SHORT WAS CAUSED BY A SOLDER GLOBULE.							
CORRECTIVE ACTION-PRODUCTION AND INSPECTION PERSONNEL CAUTIONED TO EXERCISE GREATER CARE TO PRECLUDE RECURRENCE.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4493-F OSCILLATOR	FAR 27-01353-11	640130	FACTORY	YES NO	BENDIX 1063017-11	692999
FAILURE MODE-ERRATIC OPERATION. SUBCARRIER OSCILLATOR MODULE ASSEMBLY FAILED DURING VIBRATION TESTING WHEN 25 TO 50 PERCENT OF BANDWIDTH SPIKING WAS INDICATED ON THE OSCILLATOR OUTPUT. CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4465 DIFFERENTIAL AMPLIEFER, WIRING	FAR 55-01120-3	640130	FACTORY	YES NO	HAYBERRY 128-1A	692829
FAILURE MODE-OPEN (ELECT). SECTION A OUTPUT WAS 9 MV WHEN 0.8 MV IS EXPECTED. FAILURE CAUSED BY AN OPEN 28 VOLT POWER LEAD TO SECTION A. CORRECTIVE ACTION-ASSEMBLY TECHNIQUES IMPROVED TO INSURE ADEQUATE LEAD SUPPORT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-90-24-4504-F HARNESS ASSEMBLY	FAR 27-11413-327	2650 640130	WTR	YES NO	GD/C	692616
FAILURE MODE-ELECTRICAL OPEN CIRCUIT IN CONNECTOR 98-40137-002 AT PIN B TO THE B-1 YAW ACTUATOR. CORRECTIVE ACTION-ALERT COGNIZANT FACTORY PERSONNEL OF THE FAILURE AND INSTRUCTION OF THE CORRECT ASSEMBLY METHOD.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FT48370/P1-SCO-02-05 OSCILLATOR	COMPOSITE-J FACT	5E 640129	11	YES NO		697529
FAILURE MODE-DRIFT. RF 3 CHANNEL 6 OSCILLATOR DRIFTED 15 PCT TOWARD THE LOW FREQUENCY SIDE OF THE BAND. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-4409-F TRANSMITTER-POWER SUPPLY	FAR 27-01611-1	640129	FACTORY	YES NO	BENDIX-PACIFIC 3130696-2	692996
FAILURE MODE-SHORT (ELECT). THE TRANSMITTER POWER SUPPLY FAILED WHEN IT DID NOT INDICATE A 225 VOLT DC OUTPUT WITH 27.5 VOLTS DC APPLIED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE 225 VOLT OUTPUT BEING SHORTED. THIS CAUSED THE DIODES WITHIN THE UNIT TO BE DESTROYED. CAUSE OF THE INTERNAL SHORT IS NOT KNOWN. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4434C DIFFERENTIAL AMPLIFIER	FAR 27-01241-1	640129	FACTORY	YES NO	HAYBERRY 114-8	691644
FAILURE MODE-FAILED DURING OPERATION. AMPLIFIER HAD NO OUTPUT. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FR69C-2161.1 POSITION TRANSDUCER	UTP-DUAL/PPT 69-01003-1	640129	FACTORY	YES NO	SERVONIC 3041-0101	690736
FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER WAS NOT LINEAR AND HAD LOW ELEMENT RESISTANCE AFTER THE FIRST 10,000 CYCLES OF THE LIFE TEST. NO CAUSE WAS DETERMINED AND OTHER UNITS DID NOT REPEAT THE CONDITION. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FR69C-2165.2 TEMPERATURE TRANSDUCER	UTP-PRT 7-01664-23	640129	FACTORY	YES NO	ROSEMOUNT 150FD	690741
FAILURE MODE-OUT OF SPECIFICATION. DURING BASIC PROOF CYCLE, TIME RESPONSE WAS 2.0 SECONDS TO INDICATE 63.2 PERCENT OF A TEMPERATURE STEP CHANGE WHERE 0.5 SECOND MAXIMUM IS ALLOWED. THE FAILURE WAS CAUSED BY EXCESSIVE GLASS COATING COVERING THE RESISTANCE ELEMENT (FAILURE RECONFIRMED BY RETEST ON 640220). CORRECTIVE ACTION-GD/C INFORMED THE VENDOR OF TEST RESULTS. THE VENDOR REVISED INSPECTION TECHNIQUES TO INSURE CORRECT THICKNESS OF GLASS COATING ON RESISTANCE ELEMENT AND INSTITUTED A SAMPLING TIME CONSTANT TEST PROGRAM.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4478-F TRANSMITTER	FAR 69-01149-3	640128	FACTORY		TEXAS INSTRUME NTS 435578-7	693964
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. TELEMETRY TRANSMITTER FAILED WHEN IT HAD NO OUTPUT. FAILURE WAS NO T CONFIRMED. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4497-F DETECTOR-WIRING	FAR 69-11118-1	640128	FACTORY	YES NO		691764
FAILURE MODE-SHORT (ELECT). THE FREQUENCY DETECTOR FAILED WHEN IT HAD NO OUTPUT DURING TESTING. SUBSEQUENT TESTING REVEALED THAT THE FAILURE WAS CAUSED BY A SHORT CIRCUIT BETWEEN THE MOUNTING STUD AND THE OUTPUT LEAD ON CIRCUIT BOA RD 69-1111-7. THE SHORT WAS CAUSED BY THE OUTPUT LEAD TOUCHING A SECTION OF THE ETCHED CIRCUIT BOARD (A HOLE-NUMBER IDENTIFICATION), WHILE THE OTHER END OF THE HOLE-NUMBER WAS CRIMPED UNDER THE MOUNTING STUD. CORRECTIVE ACTION-THE ASSEMBLY PERSONNEL WERE INSTRUCTED TO REMOVE THE HOLE-NUMBER IDENTIFICATIONS FROM THE CIRCUIT BOARD AFTER THE UNIT IS ASSEMBLED AND BEFORE POTTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FRQSC-2041.2 PRESSURE TRANSDUCER	UTP-SLT 69-01003-33	640128	FACTORY	YES NO	BOURNS 2007371705	690758
FAILURE MODE-OUT OF TOLERANCE. DURING PORTIONS OF THE TEMPERATURE-SINE/RANDOM VIBRATION TEST, THE TRANSDUCER OUTPUT SHOWED NOISE IN EXCESS OF SPECIFICATION. CORRECTIVE ACTION-NONE. STRESS LIMIT TESTING IS IN EXCESS OF DESIGN REQUIREMENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4423-C COMMUTATOR	FAR 27-12313-823	10F 640127	FACTORY	YES NO	BENDIX	693711
FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR SPEED WAS 4.51 CPS WHEN 8 CPS IS EXPECTED. CORRECTIVE ACTION-NONE. ANALYSIS WAIVED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4427-C COMMUTATOR	FAR 27-12305-025	640127	FACTORY	YES NO	BENDIX	892831

FAILURE MODE-OUT OF TOLERANCE. SPEED WAS 2.16 RPS DURING VIBRATION, WHEREAS 2.5 RPS PLUS OR MINUS 5 PERCENT IS REQU IRED. FAILURE ANALYSIS OF THE COMMUTATOR WAS WAIVED BY SLV RELIABILITY CONTROL.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PAT-TP-69F-2167-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PAT 27-01552-21	640127	FACTORY	NO NO	WIANCKO P2-4106-21	890634

FAILURE MODE-OUT OF TOLERANCE. DURING ACCELERATION TEST WITH INPUT OF 20 PSID (REF. PRESSURE 750 PSIG) UNIT S/N 305 0033, OUTPUT WAS OUT OF TOLERANCE FROM MINUS 0.58 TO PLUS 2.74 PERCENT FS. MAX ERROR PLUS 3.52 PERCENT FS WHERE ALLO WABLE ERROR IS PLUS OR MINUS 1.5 PERCENT. FAILURE WAS CAUSED BY TEST SET-UP DIFFICULTY IN MAINTAINING 750 PSIG REF. PRESSURE.

CORRECTIVE ACTION-CD/C CONDUCTED FAILURE REVIEW AND REVISED TEST PROCEDURE TP-69F-2167-1 BY DELETING THE 750 PSIG R EFERENCE PRESSURE REQUIREMENT DURING ACCELERATION TESTING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4472-F TRANSDUCER, INSTRUMENTATION	FAR 69-01003-31	640125	SAM DIEG O	YES NO	BOURNS 2007371703	892036

FAILURE MODE-ELECTRICAL OPEN. TRANSDUCER FOR MEASUREMENT P60P INDICATED 100 PERCENT INFORMATION BANDWIDTH WHEN 4 PE RCENT WAS EXPECTED. RESISTANCE CHECKS REVEALED AN OPEN CIRCUIT BETWEEN PINS A AND C. MICROSCOPIC EXAMINATION OF THE RESISTANCE ELEMENT SHOWED THE ELEMENT HAD BURNT OPEN. THE TYPICAL HIGH CURRENT GLOBULAR FORMATION WAS FOUND ON THE E NDS OF THE OPEN WIRES. APPARENTLY AN ERRONEOUS VOLTAGE WAS APPLIED TO THE TRANSDUCER.

CORRECTIVE ACTION-REQUESTED CHECKOUT TROUBLESHOOTING PROCEDURES AND TECHNIQUES BE REVIEWED TO PRECLUDE THE POSSIBIL ITY OF APPLYING EXCESSIVE VOLTAGES TO THE TRANSDUCER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-99-24-4459 PRESSURE TRANSDUCER	FAR 7-01731-7	640124	FACTORY	YES NO	BOURNS T17E4-0-15-7SE	

FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER FAILED WHEN THERE WAS NO OUTPUT VOLTAGE AT PROOF PRESSURE. POSITIONS OF THE DOUBLE WIPER AND MANDREL PERMITTED DISENGAGEMENT BEFORE PROOF PRESSURE WAS REACHED. THE WIPER AND MANDREL WER E INCORRECTLY ASSEMBLED.

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							899087

CORRECTIVE ACTION-VENDOR REVISED INSPECTION PROCEDURE TO SHOW FULL VOLTAGE OUTPUT AT PROOF PRESSURE AND REPAIRED TH EIR X-Y PLOTTER, USED TO CHECK OUT THESE TRANSDUCERS, WHICH WAS IMPROPERLY WIRED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-98-24-4408-C SUBCARRIER OSCILLATOR	FAR 7-01488-881	640124	FACTORY	YES NO	BENDIX 1041962-4-2	893332

FAILURE MODE-OUT OF SPECIFICATION. WITH INPUT OF -0.18 VOLTS OUTPUT FREQUENCY WAS 31,662 CPS WHEN 31,845 PLUS OR MI NUS 45 CPS IS EXPECTED.

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS CANCELLED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-98-24-4407-F POWER SUPPLY-WIRING	FAR 27-12991-1	1990 640123	ETR	YES NO	BENDIX-PACIFIC 1046173-2-A	892737

FAILURE MODE-OUT OF TOLERANCE. POWER SUPPLY FAILED WHILE INSTALLED IN A TELEMETRY PACKAGE. UNIT HAD NO OUTPUT BELOW 54 DEGREES FAHRENHEIT. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE LEADS TO THE RESISTOR R-102 BEING REVERSED.

CORRECTIVE ACTION-RECOMMENDED VENDOR REVIEW INSPECTION PROCEDURES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-4448 TRANSDUCER, BRACKET	FAR 7-01723-13	640123	FACTORY	YES NO	BOURNS 42013-0-100-75 2	892118

FAILURE MODE-ERRATIC OPERATION. TRANSDUCER WAS ERRATIC DURING A ROUTINE PERIODIC CALIBRATION. FAILURE WAS ATTRIBUTE D TO EXTREMELY LOW WIPER ARM TENSION WHICH WAS CAUSED BY INCOMPLETE ASSEMBLY OF THE MANDREL SUPPORTING BRACKET. THE MANDREL SUPPORTING BRACKET WAS FOUND ONLY PARTIALLY SUPPORTED. THE FREE END OF THE BRACKET SHOULD HAVE BEEN SNUGGED DOWN, DRAWING THE MANDREL INTO THE WIPER ARM, INCREASING WIPER ARM TENSION TO WORKABLE VALUES. INSTEAD, THE TENSION WAS VERY LOW AT THE LOW-PRESSURE END OF THE MANDREL, GRADUALLY INCREASING AS THE HIGH PRESSURE END IS REACHED, THERE BY ACCOUNTING FOR ERRATIC OPERATION PREDOMINANTLY AT THE LOW END. STAKING LACQUER ON THE SCREW HEADS PROVES THE PRO BLEM EXISTED BEFORE FINAL CHECKOUT BY THE VENDOR.

CORRECTIVE ACTION-VENDOR HAS TAKEN STEPS TO PRECLUDE FAILURES DUE TO LOW WIPER ARM TENSION BY CHECKING FOR A 5 PLUS OR MINUS ONE-HALF GRAM TENSION.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PET-TP-2-0280.1 PRESSURE TRANSDUCER	UTP-PET 7-01731-1	640123	FACTORY	NO NO	BOURNS 71724-0-0-750	690760
FAILURE MODE-OUT OF TOLERANCE. STATIC ERROR BAND WAS OUT OF TOLERANCE 0.23 AND 0.79 PERCENT FSV/R OVER THE SPECIFIED LIMIT. THE FAILURE WAS NOT CONFIRMED. FAILURE WAS FOUND DUE TO HUMAN ERROR AND/OR TEST EQUIPMENT ACCURACY.							
CORRECTIVE ACTION-NONE. NO FAILURE. TEST LAB PERSONNEL WERE ADVISED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4417-C POWER CHANGEOVER SWITCH	FAR 7-01722-3	640122	FACTORY	YES NO	KINETICS M172-4	693357
FAILURE MODE-FAIL DURING OPERATION. FAILED TO OPERATE AT 40 DEGREES F.							
CORRECTIVE ACTION-NONE. ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4498 DETECTOR-POTENTIOMETER	FAR 88-11118-1	640122	FACTORY	YES NO	SPECTROL 60	692990
FAILURE MODE-OUT OF SPECIFICATION. FREQUENCY DETECTOR FAILED WHEN THE OUTPUT COULD NOT BE ADJUSTED TO THE SPECIFICATION REQUIREMENT OF 5.000 PLUS OR MINUS 0.005 VOLTS DC. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE POTENTIOMETER R-6 BEING BURNED OUT.							
CORRECTIVE ACTION-RECOMMENDED A SURVEY BE INITIATED TO REMOVE AND REPLACE SPECTROL MODEL-60 POTENTIOMETERS WITH HIGHER CURRENT CAPACITY POTENTIOMETERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4463-F SUBCARRIER OSCILLATOR	FAR 88-01174-137	10F 640122	FACTORY	YES NO	BENDIX 1068141-A6	691903
FAILURE MODE-ERRATIC OPERATION. NOISE AND SPIKING UP TO 50 PERCENT IBW.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-1510-F PRESSURE TRANSDUCER	FAR 7-01781-9	2960 640122	FACTORY	YES NO	BOURNS 71724-0-35-752	691360

FAILURE MODE-OPEN, ELECTRICAL. UNIT INDICATED AN OPEN WHEN NOT PRESSURIZED AND HYDRAULIC PRESSURE WAS APPLIED TO TH E MISSILE. FAILURE NOT CONFIRMED, HOWEVER IT IS BELIEVED THE VIBRATION LEVELS AT THE AREA OF INSTALLATION MAY EXCEED DESIGN SPECS. THE MOUNTING BRACKET WAS NOT INSTALLED PER BLUE PRINT.

CORRECTIVE ACTION-IT WAS REQUESTED THAT THE BRACKET BE INSTALLED PER BLUE PRINT. ENGINEERING IS PREPARING A TEST TO OL TO MONITOR AND DETERMINE G LEVELS OF VIBRATION AT POINT OF INSTALLATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-9B-24-4332-F CHANGEOVER SWITCH	FAR 7-01782-3	640121	FACTORY	YES NO	KINETICS K-172-4	692923

FAILURE MODE-CONTAMINATION. THREE POWER CHANGEOVER SWITCHES FAILED BECAUSE OF THEIR FAILURE TO TRANSFER ELECTRICALL Y OR BECAUSE OF INTERMITTENT ELECTRICAL TRANSFER. FAILURES WERE CONFIRMED AND WERE DUE TO A HEAVY APPLICATION OF SIL ICON GREASE ON THE PINS AND SOCKETS, CAUSING INTERMITTENT OPERATION OF THE SWITCHES AT AMBIENT TEMPERATURE AND A GRE ATER DEGREE OF DISCONTINUITY AT LOWER TEMPERATURES.

CORRECTIVE ACTION-RECOMMENDED THE APPROPRIATE DESIGN GROUP INVESTIGATE THE SPECIFICATION FOR THIS SWITCH WITH REFER ENCE TO OPERATIONAL TEMPERATURE REQUIREMENTS AND SHORTENED LIFE CYCLE TEST TO ALLOW ELIMINATION OF THE LUBRICANT ON CONTACTS. ALSO RECOMMENDED ALL SWITCHES BE SUBJECTED TO ZERO OPERATIONAL TEMPERATURE, USING ONLY THOSE PASSING AS RE PLACEMENT PARTS. RECOMMENDED VENDOR CHANGE MANUFACTURING PROCESSES TO ELIMINATE EXCESS LUBRICATION AND LUBRICANTS PR ONE TO AGE HARDENING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-9D-24-4459-F TRANSDUCER, INSTRUMENTATION STRAP	FAR 7-01783-11	2850 640121	WTR	YES NO	CEC 4-360-NA-50	692118

FAILURE MODE-ERRATIC OPERATION. TRANSDUCER FOR MEASUREMENT FIP EXHIBITED ERRATIC BEHAVIOR DURING AN END-TO-END CHEC K. ANALYSIS REVEALED STATIC ERROR OF -2.31 PERCENT WHEN IPLUS OR MINUS 1.0 PERCENT IS ALLOWED. HOWEVER, THE REPORTED FAILURE COULD NOT BE CONFIRMED. THE NEGATIVE STATIC ERROR WAS ATTRIBUTED TO THE STRAP CONNECTING THE WIPER MECHANIS M TO THE BELLOWS BEING EXCESSIVELY BENT. THE WIPER COUNTERWEIGHT WAS FOUND LOOSE AND COULD HAVE BENT THE STRAP BY LO DGING AGAINST THE CASE DURING PRESSURIZATION. INVESTIGATION ALSO SHOWED WEAR STREAKS ON THE RESISTANCE MANDREL, SOLD ER CONNECTIONS BETWEEN ELECTRICAL PLUG WIRES WERE OF POOR QUALITY WITH BROKEN STRANDS; ONE TERMINAL APPARENTLY BROKE OFF AND THE WIRE WAS SOLDERED TO THE SHORT STUB. AT AMBIENT CONDITIONS THE WIPER WAS RIDING ON THE END SUPPORT OF T HE MANDREL.

CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED. CONVAIR HAS NOT PURCHASED ANY TRANSDUCERS FROM THIS VENDOR S INCE MAY 1960 AND NONE ARE PRESENTLY IN STOCK.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PAT-TP-69F-2187-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PAT 27-01552-21	640120	FACTORY	NO NO	WIANCKO P2-4106-21	990633

FAILURE MODE-OUT OF TOLERANCE. UNIT S/N 3050033 WAS OUT OF TOLERANCE AT 12 POINTS DURING CALIBRATION PORTION OF SAT ISFACTORY PERFORMANCE TEST. FAILURE WAS MOST PROBABLY CAUSED BY HUMAN ERROR SINCE FINAL CALIBRATION RUN SHOWED ALL P OINTS WELL WITHIN THE ALLOWABLE PLUS AND MINUS 1 PERCENT TOLERANCE.

CORRECTIVE ACTION-GD/C CONDUCTED FAILURE REVIEW AND ALLOWED TESTING TO CONTINUE ON SAME UNIT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA8355/P2-4C0-04-199 POWER SUPPLY-RF 1 PACKAGE	COMPOSITE-B FACT	1990 640117	12	YES NO		993273

FAILURE MODE-ERRATIC OPERATION. RF 1 PACKAGE FAILED TO TRANSMIT SEVERAL TIMES WHEN IT WAS TURNED ON. INVESTIGATION REVEALED THAT ONE OF THE POWER SUPPLIES WOULD NOT OPERATE AT LOW TEMPERATURES.

SYSTEM EFFECT-OPERATION DOES NOT START. RF 1 PACKAGE DID NOT COME ON UPON COMMAND FROM RF PANEL. SWITCH WAS CYCLED SEVERAL TIMES AND PROPER OPERATION WAS OBTAINED.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-RF PACKAGE S/N 112-0015 WAS SENT TO LAB FOR REPLACEMENT OF POWER SUPPLY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-9D-24-4440-F SIGNAL CONDITIONER TRANSISTOR	FAR 27-12590-013	2850 640117	WTR	YES NO		993717

FAILURE MODE-ELECTRICAL OPEN. NO OUTPUT ON MEASUREMENT P528D. FAILURE WAS CAUSED BY TRANSISTOR Q-1 BASE TO COLLECTO R JUNCTION OPENING AT LOW TEMPERATURE.

CORRECTIVE ACTION-RAR LV-9D-24-6248 WAS WRITTEN TO THE SYSTEM DESIGN GROUP, RECOMMENDING INVESTIGATION OF POSSIBLE REPLACEMENT TRANSISTORS FOR THIS APPLICATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4456-F COMMUTATOR	FAR 27-12305-003	3510 640117	FACTORY	NO YES		

FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR RATE WAS 10.52 RPS WHEN 10.5 RPS MAXIMUM IS ALLOWED. FAILURE CAUSED BY A SHIFT IN ELECTROMECHANICAL CHARACTERISTICS OF THE COMMUTATOR.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE.							893689
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C2177.1 TRANSDUCER SEAL	UTP-PRT 7-01649-9	640117	GD/C	YES NO	ROSEMOUNT 134A6	892215
FAILURE MODE-LEAK-EXTERNAL. THE TRANSDUCER LEAKED EXCESSIVELY WHEN 1500 PSIA WAS APPLIED. THE LEAKAGE WAS PAST THE TRANSDUCER SEAL.							
CORRECTIVE ACTION-NONE. THE LEAKAGE PAST THE SEAL DOES NOT FALL WITHIN THE SCOPE OF THE SPECIFICATION CONTROL DRAWI NG AND WHEN CONSIDERED AS AN INSTALLATION IS ACCEPTABLE TO DESIGN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4443 CALIBRATOR	FAR 7-12222-5	640117	FACTORY	YES NO		891498
FAILURE MODE-ERRATIC OPERATION. THREE POSITIVE PULSES WERE BEING GENERATED TO ONE NEGATIVE PULSE. NORMAL OPERATION COMPRISES ALTERNATE POSITIVE AND NEGATIVE PULSES. FAILURE ANALYSIS OF THIS IN FLIGHT CALIBRATOR WAS WAIVED BY SLV RE LIABILITY CONTROL.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR-69C-2037.1 TEMPERATURE TRANSDUCER-ORING	UTP-PRT T-01633-5	640117	GD/C	NO NO	ROSEMOUNT	891154
FAILURE MODE-LEAK EXTERNAL. THE SPECIMEN LEAKED AT 1000 PSIA. THIS WAS CAUSED BY A BROKEN O-RING. AFTER THE O-RING WAS REPLACED, IT BEGAN LEAKING AT 2500 PSIA.							
CORRECTIVE ACTION-NO FAILURE. LEAKAGE BETWEEN THE O-RING AND THE TEST FIXTURE IS NOT TO BE CONSIDERED A FAILURE OF THE TRANSDUCER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-2178.1 TEMPERATURE TRANSDUCER SEALS	UTP-PRT T-01649-11	640117	FACTORY	YES NO	ROSEMOUNT 134AC	
FAILURE MODE-LEAK-EXTERNAL. DURING INITIAL EXAMINATION OF UNIT, EXCESSIVE LEAKAGE OCCURRED AT 2000 PSIA WHERE 2.5 C C/MIN IS ALLOWABLE AT 3000 PSIA. THE FAILURE WAS DUE TO THE STAINLESS STEEL O-RING BEING INCAPABLE OF SEALING MINOR SURFACE DISCONTINUITIES.							

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							898747

CORRECTIVE ACTION-THE ALLOWABLE LEAKAGE RATE WAS RAISED TO 10 CC/MIN AND THE LEAKAGE CHECK ADDED THROUGH THE HEAD O NLY, ON EACH TEST SPECIMEN FOLLOWING COMPLETION OF TESTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-2165.2 TEMPERATURE TRANSDUCER	UTP-PRT 7-01684-23	640117	FACTORY	YES NO	ROSEMOUNT 150FD	898742

FAILURE MODE-LEAK-EXTERNAL. DURING EXAMINATION OF THE PRODUCT, THE UNIT LEAKED EXCESSIVELY AT 6000 PSIA. THE FAILUR E WAS PROBABLY CAUSED BY SEAL SURFACE DISCONTINUITIES IN THE SPECIMEN.

CORRECTIVE ACTION-THE ALLOWABLE LEAKAGE RATE WAS RAISED FROM 2.5 CC/MIN TO 10 CC/MIN AND THE LEAKAGE CHECK ADDED TH ROUGH THE HEAD ONLY, ON EACH TEST SPECIMEN FOLLOWING COMPLETION OF TESTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PPT-TP-69F-1795-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-QUAL/PPT 27-01552-13	640117	FACTORY	NO NO	WIANCKO P2-4106-13	898828

FAILURE MODE-OUT OF TOLERANCE. DURING MIL-I-26600 RFI TEST IN 250 KC TO 1.65 MC RANGE, OUTPUT WAS OUT OF SPECIFICAT ION. FAILURE DETERMINED TO BE CAUSED BY TEST EQUIPMENT NOT BEING AS SPECIFIED IN MIL-I-26600. (S/N 3110114).

CORRECTIVE ACTION-NONE REQUIRED FOR TRANSDUCER. TEST EQUIPMENT REVISED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4466-F LIMITER FILTER	FAR 27-12406-3	640116	FACTORY	YES NO		898825

FAILURE MODE-OUT OF TOLERANCE. AC OUTPUT WAS 0.005 VOLTS WHEN 0.047 PLUS OR MINUS 0.005 IS EXPECTED.

[redacted]

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4445-F DETECTOR-POTENTIOMETER	FAR 69-11118-1	640116	FACTORY	YES NO	SPECTROL M0060	

[redacted]

FAILURE MODE-OUT OF TOLERANCE. POORLY SOLDERED POTENTIOMETER RESISTANCE ELEMENT LEAD WIRE JUNCTION.

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	P/S OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-RAR SLV-99-24-6251 RECOMMENDING SURVEY REPLACEMENT OF THE SPECTROL MODEL 60 POTENTIOMETERS.							692537
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	CT-99-24-3024-P POWER SUPPLY	FAR 55-13540-5	640118	SANDIEGO	YES YES		692115
FAILURE MODE-FAIL DURING OPERATION. TRANSDUCER POWER SUPPLY EMITTED SMOKE FROM WITHIN THE HOUSING. RESISTOR R-21, A 124 OHM 1 PERCENT 1/8 WATT RESISTOR, WAS FOUND BURNED, DARKLY DISCOLORED, AND HAD DROPPED IN VALUE FROM 124 OHMS TO 120 OHMS. TESTS OF THE RESISTOR IN AND OUT OF THE CIRCUIT INDICATE THE MALFUNCTION WAS NOT PRODUCED INTERNALLY TO THE POWER SUPPLY. FAILURE WAS ATTRIBUTED TO A 28 VOLT DC EXTERNAL APPLICATION TO CONNECTOR PIN 8, ALTHOUGH THE CONDITIONS FOR MISAPPLICATION WERE NOT DETERMINED.								
CORRECTIVE ACTION-RECOMMENDED REVIEW OF ALL POSSIBILITIES OF ERRONEOUS SWITCH POSITIONING OR POWER CONNECTIONS. ALSO REVIEW OF ALL TESTS, TEST EQUIPMENT, AND TEST PROCEDURES APPLICABLE TO THIS POWER SUPPLY TO DETERMINE POSSIBLE MISAPPLICATION OF 28 VOLT DC TO CONNECTOR PIN 8.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4394-C IN-FLIGHT CALIBRATOR	FAR 7-12222-5	640118	FACTORY	YES NO		692086
FAILURE MODE-ERRATIC OPERATION. DID NOT PROVIDE ALTERNATE POSITIVE AND NEGATIVE PULSES AS REQUIRED.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-4409-F RELAY ASSEMBLY-COMM CONT	FAR 27-12411-3	640114	FACTORY	YES NO		693353
FAILURE MODE-FAIL DURING OPERATION. DURING VIBRATION OF NEXT ASSEMBLY PACKAGE, RELAY INDICATED CHATTER ON CONTACTS 10 AND 12. FAILURE DUE TO HIGH CONTACT RESISTANCE RESULTING FROM WEAR OR POSSIBLE CONTAMINATION.							
CORRECTIVE ACTION-NONE. RELAY CONTACTS 10 AND 12 WERE DAMAGED DURING ANALYSIS AND EXACT CAUSE OF HIGH CONTACT RESISTANCE WAS NOT DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4415-F PRESSURE TRANSDUCER	FAR 7-01720-5	640114		YES SERVONICS NO M-75		
FAILURE MODE-STRUCTURAL. FAILURE WAS CAUSED BY A LEAKING BOURDON TUBE. FAILURE RESULTED FROM IMPROPER BRAZING OF TH							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
E BOURDON TUBE.							691557
CORRECTIVE ACTION-VENDOR REVIEWED AND MODIFIED CLEANING, BRAZING, AND PRESSURE TESTING TECHNIQUES FOR UNITS MANUFAC TURED AFTER JANUARY 1963.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4432-F POWER CHANGEOVER SWITCH	FAR 7-01722-3	640114	FACTORY	YES NO	KINETICS M172A	691508
FAILURE MODE-OPEN (ELECT). THE POWER CHANGEOVER SWITCH SHOWED AN OPEN CIRCUIT BETWEEN P4 AND P5 WHEN SWITCHED TO IN TERNAL POSITION.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-A9-24-4464 PRESSURE TRANSDUCER	FAR 27-01366-29	296-D 640113	FACTORY	NO 005 NO	SERVONIC M-172-2	690061
FAILURE MODE-STRUCTURAL. THE TRANSDUCER (MEASUREMENT M601P) FAILED TO HAVE AN OUTPUT WHEN PRESSURE WAS APPLIED. CAU SE OF FAILURE WAS OVERPRESSURIZATION, PERMANENTLY DISTORTING THE SENSING ELEMENT.							
CORRECTIVE ACTION-REQUEST INITIATED TO TRACE THE ACTIVITIES OF THE TRANSDUCER IN ORDER TO LOCATE WHERE OVERPRESSURI ZATION OCCURRED AND TAKE APPROPRIATE ACTION TO PREVENT RECURRENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-2161.1 POSITION TRANSDUCER	UTP-QUAL/PPT 69-01003-1	640111	FACTORY	NO NO	SERVONIC 5041-0101	690737
FAILURE MODE-ELECTRICAL OPEN. THE TRANSDUCER HAD NO OUTPUT BECAUSE OF BURNED WIRES ON THE ELEMENT. THIS WAS DUE TO A TESTING ERROR.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4462-F POWER CHANGEOVER SWITCH	FAR 7-01722-3	640110	AMR	YES NO	KINETICS M-172-4	
FAILURE MODE-CONTAMINATION, INTERMITTENT POWER OUTPUT OBSERVED. FAILURE CAUSED BY HEAVY APPLICATION OF GREASE ON P1							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
NB AND SOCKETS.							893646
CORRECTIVE ACTION-NO CORRECTIVE ACTION DEEMED NECESSARY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4412-F DIFFERENTIAL AMPLIFIER, WIRING	FAR 85-01120-3	640110	FACTORY	YES YES	MAYBERRY 128-1A	893553
FAILURE MODE-OPEN (ELECTRICAL). CHANNEL 11, SEGMENT 21 ZERO. CALIBRATE PULSE INDICATED 0 PERCENT IBM SPIKE. FAILURE CAUSED BY AMPLIFIER INPUT BEING OPEN CIRCUITED WITH NEGATIVE VOLTAGEAPPLIED TO OUTPUT.							
CORRECTIVE ACTION-ENGINEERING DRAWINGS CHANGED TO CALL OUT A JUMPER BETWEEN NEGATIVE PEDESTAL OF THE COMMUTATOR RIN GS USED FOR DIFFERENTIAL AMPLIFIER INPUT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4368-C OSCILLATOR	FAR 27-01269-9	640110	FACTORY	YES NO	BENDIX 105209-7-GA	893216
FAILURE MODE-OUT OF TOLERANCE. THE SUBCARRIER OSCILLATOR FAILED WHEN THE FREQUENCY COULD NOT BE ADJUSTED TO 2.158 P LUS 4 CPS AS REQUIRED BY EOP 330.335.13.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-90-24-4457-F SIGNAL CONDITIONER-SWITCH	FAR 27-12590-615	285D 640110	FACTORY	YES NO		893069
FAILURE MODE-STRUCTURAL. ERRATIC OPERATION OF THE DC POWER TRANSFER SWITCH. CAUSE DUE TO UNLOADED OF SPRING CONTACT NOT BEING POSITIONED TO ALLOW FOR WEAR OF SLIDING CONTACT SURFACES WHICH CAUSED AN OPEN MOTOR SUPPLY CIRCUIT WITH INTERRUPTION OF SWITCHING CAPABILITIES.							
CORRECTIVE ACTION-SOCKET REPLACED WITH NEW 4 PRONG BERYILLUM SOCKET.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4385-C OSCILLATOR	FAR 7-01488-683	250D 640109	FACTORY	YES NO	BENDIX TO 41963-2-X	
FAILURE MODE-DRIFT. FREQ FOUND TO BE DRIFTING.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							893570

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4387-C TLM RF CANISTER-TRANSMITTER	FAR 27-11541-935	2500 640109	FACTORY	YES NO	BENDIX	893563

FAILURE MODE-OUT OF SPECIFICATION. CHANNEL 15 AND 18 OPERATED OUT OF SPECIFIED FREQ RANGE. FAILURE NOT CONFIRMED.

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-3014-C COMMUTATOR, MOTOR	FAR	640109	FACTORY	YES NO	REED AND REESE 1096485-48	892114

FAILURE MODE-ERRATIC OPERATION. COMMUTATOR MOTOR OPERATED INTERMITTENTLY. FAILURE ANALYSIS WAS WAIVED BY CENTAUR RELIABILITY.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4351-F COMMUTATOR	FAR 27-01636-5	640109	FACTORY	YES NO	FIFTH DIMENSIO N	891058

FAILURE MODE-CONTAMINATION. TELEPAK FAILED WHEN THE CHANNEL 11 COMMUTATOR INDICATED 1.88 RPS WHEN THE MINIMUM ALLOWABLE SPEED IS 2.25 RPS. FAILURE WAS CONFIRMED. CAUSE OF FAILURE WAS ATTRIBUTED TO THE GEARTRAIN BEING CONTAMINATED WITH METAL PARTICLES WHICH SLOWED THE COMMUTATOR.

CORRECTIVE ACTION-REQUESTED VENDOR REVISE NECESSARY MANUFACTURING AND QUALITY CONTROL PROCEDURES TO PREVENT CONTAMINATION OF THE GEARBOX.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR-69C-2038.1 PRESSURE TRANSDUCER	UTP-PRT 69-01008-29	640109	FACTORY	YES NO	BOURNS 2007371702	

FAILURE MODE-CONTAMINATION. THE TRANSDUCER OUTPUT WAS DISCONTINUOUS. THE CAUSE OF THE DISCONTINUITY WAS FOUND TO BE CONTAMINATION ON THE WIPER PATH. S/N 3090501.

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
							693772

CORRECTIVE ACTION-THE VENDOR CHANGED TESTING PROCEDURE TO DETECT DISCONTINUITIES OF THIS TYPE AND ALSO CHANGED CLEANING PROCEDURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4388-C OSCILLATOR	FAR 7-01468-827	2500 640108	FACTORY	YES NO	BENDIX 1087918-10	693582

FAILURE MODE-DRIFT. CHANNEL 13 FREQ FOUND UNSTABLE AND DRIFTING. FAILURE NOT CONFIRMED.

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4388-C TLM RF CANISTER-TRANSMITTER	FAR 27-11541-935	2500 640108	FACTORY	YES NO	BENDIX	693584

FAILURE MODE-OUT OF SPECIFICATION. CHANNEL 13 OUT OF FREQ BAND. FAILURE NOT CONFIRMED.

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4418-F CRYSTAL RECTIFIER-TRANSFORMER	FAR 27-01373-1	640108	FACTORY	YES NO	APPLIED COMPON ENTS ACI-2176	693358

FAILURE MODE-SHORT (ELECT). PINS 3 AND 4 OF SECONDARY WINDING INDICATED A SHORT.

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PAT-TP-69F-2167-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PAT 27-01552-21	640108	FACTORY	YES NO	WIANCKO P2-4106-21	

FAILURE MODE-OUT OF SPECIFICATION. DURING EXAMINATION OF PRODUCT, THE HIGH PRESSURE PORT FITTING WAS FOUND DIMENSIONALLY OUT OF TOLERANCE AT 0.622 INCHES WHERE 0.676 TO 0.696 INCHES IS REQUIRED. DISCREPANCY RESULTED FROM VENDOR DRAWING CHANGE CYCLE AND GD/C SPECIFICATION CHANGE CYCLE. (S/N 3050033).

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-GD/C AND VENDOR REVIEWED DRAWINGS. GD/C SPECIFICATION WAS REVISED TO AGREE WITH LATEST VENDOR DRAWING.							896632
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AGU63-001-2FC-CO-01-0008-008 OSCILLATOR-SUBCARRIER	COMPOSITE-FACTORY 27-11541-935	2500 640107	FACTORY	YES NO		897903
FAILURE MODE-OUT OF SPECIFICATION. CHANNEL 18 OPERATED 1 TO 2 PCT FBW BEYOND THE LOW FREQUENCY BAND EDGE. SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND A PARTIAL COMPOSITE RETEST WERE REQUIRED. CORRECTIVE ACTION-THE TELEMETER WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4382-C TRANSDUCER POWER SUPPLY	FAR 27-11624-801	640107	FACTORY	YES NO		896023
FAILURE MODE-OUT OF SPECIFICATION. THE TRANSDUCER POWER SUPPLY DRIFTED OUT OF SPECIFICATION ON THE HIGH SIDE. CAUSE UNKNOWN. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4446-F REGULATOR ASSEMBLY POTENTIOMETER	FAR 69-11117-1	2450 640107	FACTORY	NO NO	SPECTROL M0060	893709
FAILURE MODE-FAIL DURING OPERATION. BIAS OUTPUT COULD NOT BE ADJUSTED TO 2.5 VOLTS DC. IN THE MINIMUM POSITION, OUTPUT WAS 0.965 VOLT DC. IN THE MAXIMUM POSITION, OUTPUT WAS 5.975 VOLTS DC. WHILE ATTEMPTING TO ADJUST OUTPUT, VOLTAGE WOULD JUMP FROM MINIMUM TO MAXIMUM. THE FAILURE WAS DUE TO THE SPECTROL MODEL 60 BEING BURNED. THIS WAS CAUSED WHEN THE MODULE WAS PLUGGED INTO THE TEST SET WITH POWER ON. CORRECTIVE ACTION-AN AVO WAS DELIVERED TO TESTING DEPARTMENT SUPERVISION, REQUESTING TESTING PERSONNEL BE DIRECTED TO FOLLOW THE EOP EXACTLY, TO AVOID REPETITION OF THIS MODE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4460-C ACCELEROMETER AMPLIFIER	FAR 27-01238-1	1350 640106	FACTORY	YES NO	STATHAM CA3-12	
FAILURE MODE-ERRATIC OPERATION. OUTPUT WAS ERRATIC.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							891542

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS CANCELLED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-A9-24-4340-F TRANSMITTER	FAR UNKNOWN	640105	FACTORY	YES NO	BENDIX-PACIFIC	891579

FAILURE MODE-ERRATIC OPERATION. DURING PRECOMPOSITE TESTING THE TELEPAK CARRIER FREQUENCY WAS OBSERVED TO SHIFT. MALFUNCTIONING OCCURRED AFTER POWER WAS SWITCHED FROM EXTERNAL TO INTERNAL. FAILURE WAS CONFIRMED AND WAS ATTRIBUTED TO THE TRANSMITTER BEING OUT OF ADJUSTMENT. THIS CONDITION OCCURRED SOMETIME AFTER THE UNIT WAS ADJUSTED BY BENDIX-PACIFIC AND MAY HAVE BEEN CAUSED BY EITHER A DRIFT CONDITION EXISTING IN THE TRANSMITTER DESIGN OR THE LOCKSCREWS ON THE BOTTOM OF THE TRANSMITTER BEING TURNED AT ASTRONAUTICS OR BENDIX-PACIFIC.

CORRECTIVE ACTION-VENDOR WILL TORQUE PAINT LOCKSCREWS AFTER TRANSMITTER ADJUSTMENT TO PREVENT INADVERTENT CHANGE IN TRANSMITTER TUNING. REQUESTED VENDOR TO TIGHTEN TOLERANCE ON THE DIFFERENCE BETWEEN MODULATED AND UNMODULATED CARRIER FREQUENCY. REQUESTED ASTRONAUTICS TELEMETRY DESIGN TO ADD A FREQUENCY TEST TO APPLICABLE EOPS; RECORDING MODULATED AND UNMODULATED CARRIER FREQUENCY, SO ANY FUTURE FAILURES INVOLVING DRIFT CAN BE IDENTIFIED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4430 ELECTRICAL FILTER	FAR 69-01015-1	640104	FACTORY	YES NO		891510

FAILURE MODE-STRUCTURAL. THE CHOKE COIL, L-1 WAS FOUND TO HAVE AN ELECTRICAL OPEN IN ITS CIRCUIT. THE OPEN WAS DUE TO A BROKEN LEAD AT THE BASE OF PIN-2 THE LEAD WAS PROBABLY SHEARED OFF DURING MANUFACTURING. IMPROPER POSITIONING OF THE WIRE BEFORE SOLDER WAS APPLIED COULD HAVE LED TO THIS CONDITION.

CORRECTIVE ACTION-RAR SLV-99-24-8242 WAS ISSUED REQUESTING RESPONSIBLE PERSONNEL TO IMPROVE ASSEMBLY AND INSPECTION PROCEDURES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4375-C OSCILLATOR	FAR 67-01268-5	640102	FACTORY		BENDIX 1050263-5-6A	892366

FAILURE MODE-ERRATIC OPERATION. SUBCARRIER OSCILLATOR FAILED WHEN ITS OUTPUT WAS ERRATIC DURING VIBRATION TESTING. FAILURE ANALYSIS WAS CANCELED DUE TO WAIVER BY SLV RELIABILITY CONTROL.

CORRECTIVE ACTION-NONE.

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4367-C OSCILLATOR	FAR 27-02169-61	640102	FACTORY	YES NO	1052094-12-TA	893215
FAILURE MODE-OUT OF TOLERANCE. THE SUBCARRIER OSCILLATOR FAILED WHEN THE FREQUENCY COULD NOT BE ADJUSTED TO THE LOW FREQUENCY SPECIFICATION OF 9884 PLUS 80 CPS REQUIRED BY EOP 550.555. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-2041.2 PRESSURE TRANSDUCER	UTP-PRT 69-01003-35	640102	FACTORY	YES NO	BOURNS 2007371705	890759
FAILURE MODE-LEAK-EXTERNAL. MAXIMUM TOLERANCE DURING TEMPERATURE-VIBRATION TEST OF 3.5 PERCENT WAS EXCEEDED. AN ERROR OF 4.39 PERCENT WAS MEASURED. LOW OUTPUT DURING PRE AND POST VIBRATION PROOF CYCLES (1-6-64 AND 1-7-64 RESPECTIVELY) CONFIRMED A DATA SHIFT. THE SHIFT WAS DUE TO A LOSS OF REFERENCE PRESSURE CAUSED BY A LOOSE SEAL. THE SEAL CONSISTS OF A COPPER BALL AND A HOLDING SCREW. CORRECTIVE ACTION-THE VENDOR REPLACED THE ALLEN-TYPE HOLDING SCREW WITH A SPLINE TYPE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4477-F TRANSDUCER, INSTRUMENTATION	FAR 7-01720-5	130F 640101	SAN DIEG 0	YES NO	BOURNS 73511-0-35-752	892062
FAILURE MODE-ELECTRICAL OPEN. TRANSDUCER FOR MEASUREMENT M130P WAS FOUND TO HAVE AN OPEN CONDITION FROM PINS B TO C AND PINS A TO C. PIN A TO B WAS CONTINUOUS. PIN A IS THE WIPER ARM, AND PINS B AND C ARE EACH END OF THE RESISTOR. THE WIPER ARM APPEARED TO BE STUCK, HOWEVER, THE DISCONTINUITY WAS AT PIN C AND THE RESULT OF A BROKEN WIRE ON THE RESISTANCE MANDREL. THE CAUSE OF THE BROKEN WIRE COULD NOT BE DETERMINED. THERE IS A POSSIBILITY THAT THE RESIDUAL STRESSES IN THE RESISTANCE MANDREL WERE NOT COMPLETELY RELIEVED WHICH IN TURN COULD HAVE CAUSED THE BROKEN WIRE. CORRECTIVE ACTION-NOTIFIED VENDOR OF THE POSSIBILITY RESIDUAL STRESSES WERE NOT COMPLETELY RELIEVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4421-F POWER SUPPLY	FAR 27-01811-1	631231	FACTORY	YES NO	BENDIX PACIFIC 3130896-2/TPP-119	
FAILURE MODE-SHORT (ELECT). CIRCUIT BREAKER OPENED INDICATING A SHORT IN 28 VDC POWER SUPPLY.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							883360
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4369-C VIDEO AMPLIFIER	FAR 27-01278-1	631231	FACTORY	YES NO	BENDIX	888094
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 11 AND 12 INDICATED NOISE UP TO 8 PERCENT IDW WHEN 5 PERCENT IS MAXIMUM ALLOWED. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4441-F DETECTOR POTENTIOMETER	FAR 69-11118-1	631231	FACTORY	YES NO		891497
FAILURE MODE-STRUCTURAL. OUTPUT VOLTAGE COULD NOT BE ADJUSTED TO THE SPEC. VOLTAGE. FAILURE WAS CAUSED BY POTTING COMPOUND PRESSURE FORCING A SEPARATION OF ONE LEAD OF POTENTIOMETER R-6 FROM ITS CORRESPONDING TERMINAL. CORRECTIVE ACTION-RARLV-99-24-8240 WAS WRITTEN, RECOMMENDING QUALITY CONTROL BE INCREASED IN THE ASSEMBLY OF THESE DETECTORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4455-F SUBCARRIER OSCILLATOR	FAR 55-01174-115	631230	FACTORY	YES NO	BENDIX 1062141-6-6	891645
FAILURE MODE-OUT OF TOLERANCE. THE OSCILLATOR FREQUENCY INCREASED TO 3099 CPS. THE SPEC. REQUIREMENTS ARE 3000 PLUS OR MINUS 30 CPS. THE EXACT CAUSE OF FAILURE WAS NOT ISOLATED AS THE FAILURE DISAPPEARED DURING DEPOTTING OF THE UNIT. CORRECTIVE ACTION-SINCE THE EXACT CAUSE OF FAILURE WAS NOT ISOLATED, NO SPECIFIC CORRECTIVE ACTION WAS RECOMMENDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR-27-3090 VOLTAGE CONTROLLED OSCILLATOR	UTP-PET 27-01268-8	631230	60/C	YES NO	BENDIX PACIFIC 1050263-8-6-A	
FAILURE MODE-FAIL DURING OPERATION. DURING INITIAL ACCEPTANCE TEST PORTION OF PET LOT NO. 4, OPEN CIRCUIT OUTPUT VOLTAGE READ 5.8VRMS WHERE REQUIREMENT IS 4.0 VRMS MINIMUM. CAUSE UNKNOWN, BUT BENDIX WAS REQUESTED TO CHECK TEST SET UP.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							699961

CORRECTIVE ACTION-OSCILLATOR REJECTED TO BENDIX AND ANOTHER SPECIMEN OBTAINED FOR PET LOT 4 TEST. REF. FPR F-5039-MT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4369-F OSCILLATOR-POTENTIOMETER	FAR 27-01607-115	631227	FACTORY	YES NO	BENDIX 3131153-86	699363

FAILURE MODE-OPEN (ELECT). OSCILLATOR FAILED WHEN ITS NOISE LEVEL INDICATED 15 TO 20 PERCENT WITH A 2.5 VOLT DC INPUT. THE MAXIMUM ALLOWED IS 5 PERCENT. FAILURE WAS CONFIRMED AND DUE TO THE SENSITIVITY POTENTIOMETER HAVING ONE SIDE OF THE WIPER WIRE LOOSE FROM ITS SOLDER CONNECTION.

CORRECTIVE ACTION-RECOMMENDED THAT THE VENDOR TAKE CORRECTIVE ACTION TO PREVENT RECURRENCE OF THIS FAILURE MODE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4431F DEMODULATOR-CIRCUIT BOARD	FAR 69-11110-5	631227	FACTORY	YES NO	GD/C	692500

FAILURE MODE-ERRATIC OPERATION. POTENTIOMETER A1-R1 COULD NOT BE ADJUSTED TO GIVE A VOLTAGE OUTPUT OF 2.500 PLUS OR MINUS 0.025 VOLTS DC. THIS WAS CAUSED BY LAND 575 PLATED HOLE BEING OPEN CIRCUITED AND THE ELECTRICAL CONNECTION NOT HAVING SOLDER ON BOTH SIDES OF THE BOARD. TWO CONDITIONS CONTRIBUTED TO THIS. (A) THE BELOW STANDARD PLATE THROUGH HOLE, AND (B) THE DESIGN NOT ALLOWING COMPLETE INSPECTION.

CORRECTIVE ACTION-SPECTROL. CIRCUIT BOARDS 69-11114-9 SURVEYED FOR REINSPECTION OF PLATED HOLES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SF-99-24-32077F OSCILLATOR	FAR 7-01664-887	631226	SD-FAC	YES YES	BENDIX 1040639-77	695372

FAILURE MODE-TWO OSCILLATORS REPORTEDLY FAILED WHEN INSTALLED IN TELEPAK 27-11841. FAILURE NOT CONFIRMED IN OSCILLATOR. TELEPAK 27-11841 NOT FAILURE ANALYZED.

CORRECTIVE ACTION-NO CORRECTIVE ACTION WAS TAKEN BECAUSE THE FAILURE COULD NOT BE CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4364-F COMMUTATOR-SCREW	FAR 55-81171-9	631226	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-254	

FAILURE MODE-STRUCTURAL. COMMUTATOR OPERATED INTERMITTENTLY. FAILURE WAS CONFIRMED AND CAUSED BY A LOOSE SCREW SECU

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RING THE ROTOR TO THE GEAR CASE ENDPLATE. THE SCREW WAS NOT PROPERLY TIGHTENED DURING COMMUTATOR ASSEMBLY, ALLOWING IT TO FALL INTO THE GEAR CASE AFTER 22 HOURS OF OPERATION AT ASTRONAUTICS. CORRECTIVE ACTION-RECOMMENDED THAT THE VENDOR IMPROVE INSPECTION PROCEDURES DURING COMMUTATOR ASSEMBLY TO PREVENT R ECURRENCE OF THIS TYPE OF FAILURE.							093817
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4337-C ELECTRICAL FILTER	FAR 7-11333-5	631219	FACTORY	YES NO		092092
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. LIMITER FILTER FAILED WHEN CHANNELS 1,2 AND 3 HAD NO OUTPUT. FAILU RE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL. CORRECTIVE ACTION-NONE DUE TO WAIVER OF FAILURE ANALYSIS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4336-C ELECTRICAL FILTER	FAR 7-11333-5	631219	FACTORY	YES NO		092091
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. LIMITER FILTER FAILED WHEN CHANNELS 1,2 AND 3 HAD NO OUTPUT. FAILU RE ANALYSIS WAS WAIVED BY SLV RELIABILITY CONTROL. S/N 110, N/A 33-13337. CORRECTIVE ACTION-NONE DUE TO WAIVER OF FAILURE ANALYSIS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-3016.1 PRESSURE TRANSDUCER	UTP-PAT 59-01003-21	631219	FACTORY	NO NO	BOURNS 2007371702	080776
FAILURE MODE-OUT OF TOLERANCE. DURING THE RESPONSE TIME TEST, THE OVERSHOOT WAS MEASURED AS 50 PERCENT. ALLOWED IS 10 PERCENT. THE OVERSHOOT WAS THE RESULT OF THE TEST SET UP WHICH RESULTED IN A SHOCK TUBE EFFECT. THIS WAS NOT A TR ANSDUCER FAILURE. CORRECTIVE ACTION-NONE.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4392-C TELEMETRY TRANSMITTER	FAR 27-12651-5	2&D 631218	WTR	YES NO	UED 20814-M	893585
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT. FAILURE NOT CONFIRMED. CORRECTIVE ACTION-ANALYSIS PERFORMED BY AIR FORCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4305-C OSCILLATOR	FAR 7-01488	631218	SAN DIEG 0	YES NO	BENDIX 7-01488	891913
FAILURE MODE-DRIFT. THREE OSCILLATORS FAILED WHEN OUTPUT FREQUENCY DRIFTED WITH A STABLE INPUT VOLTAGE. FAILURE ANALYSIS WAS WAIVED PER TWX 63-61-003. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4297-F AC-DC CONVERTER/TRANSISTOR	FAR 27-12232-3	631218	FACTORY	YES NO		891443
FAILURE MODE-ELECTRICAL SHORT. OUTPUT WOULD NOT VARY WITH CHANGE IN INPUT FREQUENCY. FAILURE CONFIRMED. CAUSE WAS TRANSISTOR Q4 (2N335) SHORTING FROM BASE TO COLLECTOR. REASON FOR TRANSISTOR SHORTING COULD NOT BE DETERMINED. REPLACEMENT OF Q4 RESTORED PROPER OPERATION. CORRECTIVE ACTION-NONE. REASON FOR TRANSISTOR FAILURE COULD NOT BE DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3223-F OSCILLATOR	FAR 7-01664-861	631217	FACTORY	YES	BENDIX 93548	892473
FAILURE MODE-ERRATIC OPERATION. THE OSCILLATOR COULD NOT BE ADJUSTED TO ITS PRESCRIBED FREQUENCY WITH NOMINAL VOLTAGE APPLIED. CORRECTIVE ACTION-THE RELIABILITY FAILURE ANALYSIS GROUP INITIATED CORRECTIVE ACTION; RECOMMENDING THAT IN THE FUTURE THE ENTIRE TELEMETRY PACKAGE BE IRD AND SENT FOR FAILURE ANALYSIS. THE OSCILLATOR FAILED WITHIN THE PACKAGE. THE FAILURE COULD NOT BE CONFIRMED.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	/P1-6CO-01-137 OSCILLATOR	COMPOSITE-J FACT	137F 631216	11	YES NO		897471

FAILURE MODE-OUT OF TOLERANCE. RF 1 CHANNEL 8 WAS AT 44 PCT FSW WHEN 50 PCT WAS EXPECTED.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-INSUFFICIENT EVIDENCE AVAILABLE BUT IT IS BELIEVED THE PROBLEM WAS DUE TO A SHIFT IN THE SUB CARR IER OSCILLATOR WHICH WAS SUBSEQUENTLY ADJUSTED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	/P1-6CO-01-137 TLM CANISTER-WIRING	COMPOSITE-J FACT	137F 631216	ETR-11	YES NO		897470

FAILURE MODE-OUT OF TOLERANCE. ASCO AND MFCO BLIPS DID NOT APPEAR ON CHANNEL 1-6 WHEN THOSE FUNCTIONS WERE TRANSMIT TED.

SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-INSUFFICIENT EVIDENCE AVAILABLE BUT IT IS BELIEVED THE PROBLEM WAS DUE TO FAULTY WIRING WITHIN TH E TELEMETRY CANISTER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4424-F RF POWER AMPLIFIER/TUBE V-2	FAR 27-01612-5	631216	FACTORY	YES BENDIX PACIFIC NO 1077064-4A		892997

FAILURE MODE-OUT OF TOLERANCE. OUTPUT WAS 6 WATTS WHEN 7 WATTS MINIMUM IS EXPECTED. FAILURE CAUSED BY FAULTY VACUUM TUBE.

CORRECTIVE ACTION-ALL SUBSEQUENT UNITS BUILT BY VENDOR WILL INCLUDE TUBES WHICH HAVE BEEN OPERATED THROUGH A RUN IN TEST PRIOR TO INSTALLATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4319-C CALIBRATOR, WIRING	FAR 27-11610-623	631216	FACTORY	YES GD/C NO		

FAILURE MODE-OPEN (ELECT). AN OPEN CONDITION WAS REPORTED BETWEEN J4P AND J24. CONTINUITY WAS EXPECTED. FAILURE NOT CONFIRMED BECAUSE FAILURE ANALYSIS WAS WAIVED.

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							891020
CORRECTIVE ACTION-NONE. (FAILURE ANALYSIS) WAIVED, REF. MEMO FROM W.J. MALONEY, DATED 13 DEC. 1963.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4329-C COMMUTATOR	FAR 58-01171-23	2960 631214	SAN DIEG 0	YES NO	FIFTH DIMENSIO M MRXD-419	891024
FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR FAILED WHEN THE DISTANCE BETWEEN THE LEADING EDGES OF TWO CONSECUTIVE MAS TER PULSES ON OSCILLOGRAPH RECORD WAS 4.67 INCHES WHEREAS 4.75 TO 5.55 INCHES IS REQUIRED. FAILURE ANALYSIS WAS CANC ELLED UPON LEARNING THAT THE TELEPAK WAS REMOVED FROM THE MISSILE DUE TO EXTENDED OPERATION WITHOUT COOLING. LACK OF COOLING WAS THE APPARENT CAUSE OF FAILURE.							
CORRECTIVE ACTION-NONE, SINCE FAILURE ANALYSIS WAS NOT PERFORMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-90-24-4355-F SIGNAL CONDITIONER	FAR 27-12385-881	2270 631214	WTR	NO YES		891056
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. AUXILIARY SIGNAL CONDITIONER FAILED WHEN CHANNEL 13 SEGMENT 7, THAT MONITORS MEASUREMENT T165T, INDICATED 130 PERCENT BANDWIDTH WHEN 90 PERCENT WAS EXPECTED. ALSO, THE IMPEDANCE BETWE EN PINS 6 AND H ON PLUG 4J3 READ 1123 OHMS, WHEREAS THE REPLACEMENT CONDITIONER MEASURED 527 OHMS AT THE SAME PINS. FAILURE WAS NOT CONFIRMED. THE REPORTED FAILURE WAS CAUSED BY CONDITIONS EXTERNAL TO THE SIGNAL CONDITIONER PACKAGE. THE 527 OHMS REPORTEDLY MEASURED BETWEEN PINS 6 AND H ON PLUG 4J3 WAS PROBABLY BETWEEN PINS 6 AND H ON PLUG 4P3 WHE RE THE VALUE WOULD BE CORRECT.							
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4436-F TRANSDUCER, INSTALLATION	FAR 7-01723-13	631213	SAN DIEG 0	YES NO	BOURNS 42013-0-100-75 2	892107
FAILURE MODE-ELECTRICAL OPEN. TRANSDUCER WAS REPORTED TO HAVE AN OPEN WINDING. FAILURE WAS ATTRIBUTED TO MIGRATING CONTAMINATION CAUSING DISCONTINUITIES IN TRANSDUCER OUTPUT.							
CORRECTIVE ACTION-VENDOR HAS REVISED TRANSDUCER CLEANING METHODS TO ELIMINATE CONTAMINATION.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4320-C COMMUTATOR	FAR 27-12305-811	631213	FACTORY	YES NO	BENDIX	001621
FAILURE MODE--STRUCTURAL. COMMUTATOR REPORTED TO HAVE A CHIPPED SEGMENT CAUSING EXCESSIVE WEAR ON BRUSHES.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED; REF. MEMO FROM M. J. MALONEY DATED 13 DECEMBER 1963.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PFT-TP-69F1795-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-QUAL/PPT 27-01932-13	631213	FACTORY	NO NO	WIANCKO P2-4106-13	000627
FAILURE MODE-OUT OF TOLERANCE. DURING RFI TEST, OUTPUT AT 0-PSID WAS 5.358 VOLTS WHERE 0.0 VOLTS WAS SPECIFIED. FAILURE DUE TO INADVERTENT OVERPRESSURIZATION DURING TEST. (S/N 3060041).							
CORRECTIVE ACTION-RFI LAB TEST PROCEDURES CHANGED TO DELETE PRESSURE TESTING DURING RFI TESTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4373-F AMPLIFIER	FAR 27-01612	631212	FACTORY	YES NO	BENDIX 1077064-3-A	003362
FAILURE MODE-OUT OF SPECIFICATION. RADIO FREQUENCY AMPLIFIER FAILED WHEN ITS OUTPUT INDICATED ONLY 6 WATTS. OUTPUT CANNOT BE LESS THAN 7 WATTS. FAILURE WAS CONFIRMED; HOWEVER, THE EXACT CAUSE WAS NOT DETERMINED.							
CORRECTIVE ACTION-RECOMMENDED THAT VENDOR REVIEW THE FAILURE ANALYSIS AND ALSO STUDY THE FEASABILITY OF INSTITUTING A BURN-IN TIME FOR EACH AMPLIFIER BEFORE SHIPMENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4315-F COMMUTATOR, MOTOR	FAR	631212	FACTORY	YES NO	BENDIX-MONTROS E 1096405	003650
FAILURE MODE-CONTAMINATION. TWO DC GEARMOTORS FAILED WHEN THEY EXHIBITED VARIATIONS IN SPEED. FAILURES WERE CONFIRMED AND ATTRIBUTED TO MATERIAL MIGRATION BETWEEN THE GOVERNOR CONTACTS, CAUSING ERRATIC SPEED REGULATION.							
CORRECTIVE ACTION-REQUESTED REPLACEMENT OF THE HEAVYWEIGHT COMMUTATOR WITH A LIGHTWEIGHT COMMUTATOR.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4361-F AMPLIFIER, WIRING	FAR 27-01444-3	631812	FACTORY	YES NO	APPLIED ELECTR ONICS	883349

FAILURE MODE-SHORT (ELECT). THE DIFFERENTIAL AMPLIFIER FAILED WHILE INSTALLED IN THE TOP PACKAGE SIGNAL CONDITIONER WHEN OUTPUT WAS ZERO VOLTS DC. EXPECTED OUTPUT IS 5.0 PLUS OR MINUS 0.10 VOLTS DC. FAILURE WAS CONFIRMED AND WAS CAUSED BY A SOLDER CONNECTION PROTRUDING THROUGH THE POTTING MATERIAL AND TOUCHING THE CASE OF THE DIFFERENTIAL AMPLIFIER.

CORRECTIVE ACTION-VENDOR INFORMED OF FAILURE. TIGHTER INSPECTION IS BEING CONDUCTED AND THICKER INSULATION WILL BE USED DURING MANUFACTURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4330-F AMPLIFIER	FAR 27-01444-3	631812	FACTORY	YES YES	KINETICS 27-01444-3	882922

FAILURE MODE-ERRATIC OPERATION. DIFFERENTIAL AMPLIFIER FAILED WHEN THE OUTPUT WAS FOUND TO BEERRATIC AND THE OUTPUT OF CHANNEL 1 WOULD NOT ADJUST. FAILURE NOT CONFIRMED

CORRECTIVE ACTION-NOTIFIED RESPONSIBLE TEST PERSONNEL OF THE RESULTS OF THIS FAILURE ANALYSIS. NO SPECIFIC CORRECTIVE ACTION WAS TAKEN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4306-F TLM CANISTER	FAR 27-11541-935	2500 631211	FACTORY	YES NO	BENDIX	883712

FAILURE MODE-OUT OF TOLERANCE. TELEMETRY PACKAGE FAILED WHEN CHANNEL E INDICATED EXCESSIVE NOISE OF 6 PERCENT OF INFORMATION BANDWIDTH.

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-3018.1 PRESSURE TRANSDUCER	UTP-PAT 59-01003-21	631211	FACTORY	NO NO	BOURNS 2004206306	

FAILURE MODE-OUT OF TOLERANCE. DURING THE RESPONSE TIME TEST, THE OVERSHOOT WAS MEASURED AS 52 PERCENT. ALLOWED IS 10 PERCENT. THE OVERSHOOT WAS THE RESULT OF THE TEST SETUP WHICH RESULTED IN A SHOCK TUBE EFFECT. THIS WAS NOT A TRANSDUCER FAILURE. S/N 3080129.

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CORRECTIVE ACTION-NONE.							098777
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4282-F RF TRANSMITTER-WIRING	FAR 87-01610-1	631210	FACTORY	YES NO	BENDIX 3131107-3	091448
FAILURE MODE-CONTAMINATION. UNIT HAD NO OUTPUT. FAILURE CONFIRMED. CAUSE WAS EXCESSIVE SOLDER IN THE DOUBLER STAGE SHORTING THE FEED THROUGH TO GROUND.							
CORRECTIVE ACTION-REQUESTED VENDOR TO TIGHTEN INSPECTION TECHNIQUES. VENDOR REPLIED THAT INSPECTION PROCEDURES WERE ADEQUATE BUT THAT THIS UNIT SOMEHOW MISSED FINAL INSPECTION. IN THE FUTURE, ALL ASSEMBLIES MUST FIRST BE STAMPED BY VENDOR INSPECTION PRIOR TO BEING ACCEPTED BY GD/C INSPECTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4337-F SIGNAL CONDITIONER-RESISTOR	FAR 87-12478-1	631210	FACTORY	YES NO		091088
FAILURE MODE-OUT OF TOLERANCE. SUMMATION NETWORK FAILED EOP 330.770.8, PARAGRAPH 5.2, BY READING 0.336 VOLT DC WHEN 0 PLUS OR MINUS 0.002 VOLT DC IS EXPECTED. POTTING WAS ALSO CRACKED BY THE MOUNTING BRACKET. FAILURE WAS CONFIRMED AND WAS CAUSED BY OVERHEATING OF RESISTOR R-17, RESULTING IN REDUCED RESISTANCE. THIS CHANGE IN RESISTANCE PRODUCED AN UNBALANCED BRIDGE NETWORK, CAUSING AN EXCESSIVE VOLTAGE AT THE OUTPUT OF THE BRIDGE.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4380-F SUBCARRIER OSCILLATOR	FAR 7-01488-881	2500 631209	FACTORY	YES NO	BENDIX 1041962-4-2 TO E 31	086024
FAILURE MODE-STRUCTURAL. DUE TO A BROKEN WIRE, THE SUBCARRIER OSCILLATOR INDICATED INTERMITTENT OUTPUT. THE BREAK WAS POSSIBLY THE RESULT OF METAL FATIGUE CAUSED BY EXCESSIVE HANDLING.							
CORRECTIVE ACTION-PRODUCTION PERSONNEL WERE CAUTIONED TO TAKE CARE IN HANDLING OF PARTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4384-C OSCILLATOR	FAR 7-01488-887	631209	FACTORY	YES NO	BENDIX 1030702-13K/TO E30	
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT FROM OSCILLATOR.							

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							093976
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4380-F POWER SUPPLY	FAR 27-01228	031209	FACTORY	YES NO	BENDIX 1046173-2-A	093350
FAILURE MODE-OUT OF TOLERANCE. POWER SUPPLY FAILED WHEN THE 108 VOLT OUTPUT MONITOR MEASURED 0.748 VOLT DC WHEN 1.4 11 TO 1.469 VOLTS DC IS EXPECTED. CAUSE OF FAILURE COULD NOT BE DETERMINED SINCE THE FAILURE COULD NOT BE DUPLICATED LONG ENOUGH TO ISOLATE THE PROBLEM AREA. A BROKEN POTENTIOMETER COULD HAVE CAUSED THE FAILURE BUT IT MAY HAVE BEEN BROKEN DURING REMOVAL FROM THE CIRCUIT.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4391-C IN-FLIGHT CALIBRATOR	FAR 7-12222-8	031209	FACTORY	YES NO		092083
FAILURE MODE-ERRATIC OPERATION. FAILED TO PRODUCE ALTERNATE POSITIVE AND NEGATIVE PULSES. PRODUCED NEGATIVE PULSES ONLY.							
CORRECTIVE ACTION-NONE. FAILURE ANALYSIS WAIVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4309-F AMPLIFIER	FAR 55-01120-3	031209	FACTORY	YES NO	MAYBERRY 128-1A	091910
FAILURE MODE-ERRATIC OPERATION. DIFFERENTIAL AMPLIFIER FAILED WHILE INSTALLED IN A TELEMETRY PACKAGE. OUTPUT WAS NO N-LINEAR. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE DIFFERENTIAL AMPLIFIER BEING ADJUSTED TO 5 VOLTS DC IN THE SAT URATED CONDITION (BEYOND ITS MAXIMUM VOLTAGE GAIN CAPABILITY).							
CORRECTIVE ACTION-APPROPRIATE FACTORY PERSONNEL NOTIFIED OF THIS CONDITION AND GAIN ADJUSTMENT PROCEDURE REVISED TO PREVENT RECURRENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4522-F DIFFERENTIAL AMPLIFIER	FAR 27-01444-3	031208	FACTORY	NO NO	KENETICS 27-01443-3	
FAILURE MODE-FAIL DURING OPERATION. 2 UNITS REPORTED FAILED BECAUSE ZERO ADJ. COULD NOT BE MADE. FAILURES CONFIRMED							

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, CAUSED BY NO OUTPUT FROM CHANNEL NO 8 RESULTING FROM AN EXCESSIVE AMOUNT OF VOLTAGE BEING APPLIED TO THE INPUTS. CORRECTIVE ACTION-A 500 OHM RESISTOR WAS ADDED TO TET TEST SET TO PREVENT SURGES AT POWER ON.							891602
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PPT-TP-69F-1795.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-DUAL/PPT 27-01532-13	651209	FACTORY	YES NO	WIANCKO P2-4106-13	890626
FAILURE MODE-ELECTRICAL OPEN. AT START OF FREQUENCY RESPONSE TEST, OUTPUT RIPPLE WAS 450 MV WHERE 50 MV ARE ALLOWAB LE. FAILURE WAS CAUSED BY A BROKEN WELD IN ELECTRICAL PACKAGE. (S/N 31101114). CORRECTIVE ACTION-VENDOR INCREASED INSPECTION OF WELDS AND INSTITUTED 100 PERCENT CHECK OF UNITS FOR OUTPUT RIPPLE DURING IAT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-A-99-24-4423 ACCELEROMETER TRANSDUCER	FAR 7-01413-9	651206	FACTORY	YES NO	BORG-WARNER 9747-8	890612
FAILURE MODE-DRIFT. THE TRANSDUCER WAS REJECTED BECAUSE THE OUTPUT FREQUENCY ERROR WAS GREATER THAN THE ALLOWABLE T OLERANCES. THE FAILURE WAS THE RESULT OF A SLACKENING OF THE VIBRATING WIRE ASSEMBLY DUE TO AGING CAUSING A DROP IN FREQUENCY OF VIBRATION. CORRECTIVE ACTION-RAR-A-99-24-8229 RECOMMENDED DESIGN GROUP REVISE SPEC CONTROL DWG REDUCING ORIGINAL ENDPOINT TOLE RANCES SO AN EVENTUAL FREQUENCY CREEP WILL NOT SHIFT THE OUTPUT BEYOND TLM CHANNEL LIMITS. DESIGN REPLIED THAT NO AC TION WOULD BE TAKEN BECAUSE OF THE COST INVOLVED AND THE FACT OF NO FAILURE RATE IN THIS MODE. (GD/C LTR. 64-373-1-P -25 DATED 640324). A MEMO WAS SENT TO DESIGN GROUP FURTHER CLARIFYING NEED FOR CORRECTIVE ACTION (GD/C LTR. DEPT. 14 6-1 DATED 640421).							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-19-24-4311-F TRANSDUCER, INSTRUMENTATION	FAR 7-01720-5	651206	SAN DIEG O	YES NO	SERVONIC H-75	890103
FAILURE MODE-FAIL DURING OPERATION. TRANSDUCER FOR MEASUREMENT H140P FAILED DURING FACTORY CHECKOUT WHEN THE ELECTR ICAL CONNECTOR CAME LOOSE AND ROTATED IN THE TRANSDUCER BODY. THE CONNECTOR BROKE LOOSE AT ITS SOLDER JOINT DUE TO L ACK OF SOLDER ADHESION. CORRECTIVE ACTION-VENDOR WAS REQUESTED TO REVIEW AND UPDATE SOLDERING TECHNIQUES TO PREVENT RECURRENCE OF THIS PROB LEM.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4476-F TRANSDUCER, INSTRUMENTATION	FAR 7-01723-11	631206	SAN DIEG O	YES NO	BOURNS 42013-0-50-752	892061

FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER INDICATED A NEGATIVE STATIC ERROR OF MINUS 18.23 PERCENT DURING ROUTINE C ALIBRATION. IN THE YEAR SINCE THE DATE OF MANUFACTURE, AIR LEAKAGE THROUGH THE GLASS ELECTRICAL CONNECTOR INCREASED INTERNAL PRESSURE FROM ZERO TO 9 PSIA, CAUSING THE NEGATIVE ERROR. THE ACCEPTANCE TEST DATA OF 18NOV62 SHOWED THE NE GATIVE STATIC ERROR WAS ALREADY AT THE MAXIMUM PERMITTED BY SPECIFICATIONS. THE LOCATION OF THE LEAKAGE PATHS THROUG H THE GLASS AND THE LACK OF CHIPS, CRACKS, OR DAMAGE, INDICATED PORCSITY IN THE GLASS INSULATOR RATHER THAN CONNECTO R DAMAGE CAUSED THE FAILURE.

CORRECTIVE ACTION-RECOMMENDED TESTS BE CONDUCTED TO ASSURE THE ABSENCE OF LEAKAGE PATHS INTO THE CASE, AS THIS MAY CAUSE A SHIFT IN REFERENCE PRESSURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4474-F TRANSDUCER, INSTRUMENTATION	FAR 7-01723-11	631206	SAN DIEG O	YES NO	BOURNS 42013-0-50-752	892060

FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER INDICATED EXCESSIVE NEGATIVE STATIC ERROR DURING ROUTINE CALIBRATION. FAI LURE WAS NOT CONFIRMED. REPORTED FAILURE MAY HAVE BEEN DUE TO THE USE OF INCORRECT CALIBRATION TECHNIQUES OR TO THE USE OF FAULTY EQUIPMENT.

CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED.REQUESTED APPROPRIATE PERSONNEL THAT IN A FAILURE OF THIS TYPE THE TECH NIQUES AND EQUIPMENT USED BE RECHECKED BEFORE TRANSDUCERS ARE REJECTED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4468-F TRANSDUCER, INSTRUMENTATION	FAR 7-01723-11	631206	SAN DIEG O	YES NO	BOURNS 42013-0-50-752	892057

FAILURE MODE-OUT OF TOLERANCE. THREE TRANSDUCERS INDICATED POSITIVE STATIC ERRORS FROM PLUS 1.56 TO PLUS 3.92 PERCE NT. THE MAXIMUM ALLOWABLE IS PLUS OR MINUS 1.0 PERCENT. TWO OF THE TRANSDUCERS FAILED DUE TO OVERPRESSURIZATION OCCU RRING DURING THE VENDORS CLEANING PROCESS. THE THIRD FAILED DUE TO THE BALL BEING PULLED OUT OF ITS SOCKET. EITHER A SHIFT IN THE BALL PUSHROD POSITION, OR TILTING OF THE BALL SOCKET HALF, ALLOWED BY CRACKED SOLDER JOINTS, COULD BE RESPONSIBLE FOR THE POSITIVE SHIFT. THE SOLDER JOINTS WERE DAMAGED BY ROUGH HANDLING OR BY DROPPING THE TRANSDUCER.

CORRECTIVE ACTION-SURVEY 82-63, REVISION A, PURGING ALL INSTALLED, IN STOCK, AND SPARE UNITS FOR A TEST CALLED OUT BY THE ENGINEERING DEPARTMENT PER MEMO 577-6-582 WAS APPROVED 25 OCT 63. THE VENDOR HAS INITIATED NEW CLEANING PROCE DURES WHICH SHOULD ELIMINATE THE OVERPRESSURIZATION PROBLEM. MISSILE CHECKOUT PERSONNEL WERE CAUTIONED AGAINST OVERP RESSURIZATION OF THE TRANSDUCERS.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-2161.1 POSITION TRANSDUCER	UTP-DUAL/PPT 69-01005-1	631206	FACTORY	YES NO	SERVONIC 5041-0101	690730
FAILURE MODE-ELECTRICAL OPEN. THE TRANSDUCER INDICATED AN OPEN CIRCUIT BETWEEN 80 AND 90 PERCENT OF ITS RANGE DUE T O A BROKEN LEAD WIRE TO THE WIPER. THE METHOD OF SOLDERING AND THEN POTTING TO RELIEVE STRESS WAS NOT ADEQUATE. CORRECTIVE ACTION-THE VENDOR CHANGED SOLDERING AND POTTING PROCEDURES AND ALSO MOVED THE JOINT TO FACILITATE INSPEC TION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PPT-TP-69F-1795.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-DUAL/PPT 27-01552-.3	631206	FACTORY	NO NO	WIANCKO P2-4106-13	690625
FAILURE MODE-OUT OF TOLERANCE. DURING ALTITUDE AND POST ALTITUDE TEST, THE UNIT EXCEEDED ALLOWABLE ERROR BAND. FAIL URE FOUND DUE TO INADVERTENT OVERPRESSURIZATION BY FAULTY TEST EQUIPMENT. (S/N 305-0025). CORRECTIVE ACTION-TEST PROCEDURE AND SET-UP MODIFIED TO PREVENT REOCCURRENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PPT-TP-69F-1795.1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-DUAL/PPT 27-01552-13	631205	FACTORY	YES NO	WIANCKO P2-4106-13	690624
FAILURE MODE-OUT OF TOLERANCE. DURING POST ACCELERATION PROOF CYCLE, ERROR BAND WAS 0.1 PERCENT OVER READOUT ALLOWA NCE. OPERATION CONSIDERED MARGINAL (NO DATA SHIFT INDICATED, S/N 305-0025). CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-98-24-4328-F AMPLIFIER, CIRCUIT BOARD	FAR 35-01120-5	631204	FACTORY	YES NO	MAYBERRY 126-15	692821
FAILURE MODE-SHORT (ELECTRICAL). DIFFERENTIAL AMPLIFIER FAILED WHEN PINS 4 AND 6 WERE OBSERVED TO BE ELECTRICALLY S HORTED. FAILURE WAS CONFIRMED AND WAS CAUSED BY THE WIRE TO PIN 4 BEING PUNCTURED BY PIN 6. CORRECTIVE ACTION-RECOMMENDED THE VENDOR ENLARGE THE CIRCUIT BOARD TO ALLOW ADEQUATE ROOM FOR PIN CLEARANCE. VENDOR REPLIED THAT NEW MOUNTING TECHNIQUES ARE BEING INITIATED TO PREVENT THIS PROBLEM FROM RECURRING.							

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-98-84-4E84-F TLM CANISTER	FAR 27-11541-935	2500 631204	FACTORY	YES NO	BENDIX 27-11541-935	898754
FAILURE MODE-FAIL DURING OPERATION. 5 TO 7 PCT NOISE WAS REPORTED ON CHANNELS 15 AND 6. CAUSE-MOST PROBABLY MISSILE TEST CABLING. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	69C-2057 TEMPERATURE TRANSDUCER	UTP-PRT 7-01633-5	631204	60/C	YES NO	LEWIS 968348	891183
FAILURE MODE-SHORT (ELECT). INSULATION RESISTANCE DURING HIGH TEMPERATURE-HUMIDITY TEST WAS LESS THAN 20 MEGOHMS. THIS WAS CAUSED BY IMMERSING IN WATER PRIOR TO THIS TEST FOR A CALIBRATION AT 32 DEGREES F. CORRECTIVE ACTION-A VINYL BAG WILL BE USED TO KEEP LIQUIDS OUT OF THE PROBE DURING CALIBRATIONS IN ICE WATER. ALSO THE TRANSDUCER WILL BE AIR DRIED AT 150 DEGREES F. FOR 30 MINUTES AFTER IMMERSION IN LIQUIDS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FR-69C-2035.1 PRESSURE TRANSDUCER	UTP-PRT 69-01003-29	631204	FACTORY	YES NO	BOURNS 2007371702	890773
FAILURE MODE-LEAK-EXTERNAL. DURING PREVIBRATION PROOF CYCLE, THE TRANSDUCER OUTPUT SHIFTED 3 PERCENT AT ALL POINTS. THIS WAS DUE TO A SMALL LEAK IN THE SOLDER JOINT OF THE ELECTRICAL CONNECTOR. THIS WAS CAUSED BY FAULTY SOLDERING. S/N 3090477. CORRECTIVE ACTION-ARRANGEMENTS HAVE BEEN MADE FOR ALL SOLDERING TO BE CONTROLLED BY MSFC-PROC-158B(NASA SOLDERING REQUIREMENTS), AND ALL SOLDERING PERSONNEL TO BE CERTIFIED BY NASA CERTIFIED INSTRUCTORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FET-TP-2-0564.1A PRESSURE TRANSDUCER	UTP-PET 27-01243-9	631204	FACTORY	YES NO	COLVIN 401-A-15-75	890760
FAILURE MODE-OUT OF TOLERANCE. THE UNIT FAILED RESOLUTION TEST WHEN 5.2 PERCENT OF STEPS EXCEEDED 0.25 PERCENT RESOLUTION. ONE STEP WAS 0.6 PERCENT FSV/R. CORRECTIVE ACTION-THE RESOLUTION TEST WAS REVIEWED AND THE REQUIREMENT WAS REVISED TO 3 PERCENT FSV/R.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4358-F SIGNAL CONDITIONER-RESISTORS	FAR 87-18478-1	631203	FACTORY	YES NO		693814

FAILURE MODE-OUT OF TOLERANCE. SUMMATION NETWORK FAILED EOP 330.770.9, PARAGRAPHS 5.2 AND 5.4, BY READING 0.33 AND 0.39 VOLT DC, RESPECTIVELY, WHEN 0 PLUS OR MINUS 0.002 AND 0.050-.002 VOLT DC ARE EXPECTED. FAILURE WAS CONFIRMED AND CAUSED BY THE OVERHEATING OF RESISTORS R-14 AND R-17, RESULTING IN REDUCTION IN RESISTANCE. THIS CHANGE IN RESISTANCE PRODUCED AN UNBALANCED BRIDGE NETWORK WHICH RESULTED IN AN EXCESSIVE VOLTAGE AT THE OUTPUT OF THE BRIDGE.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-276-F AMPLIFIER, CONNECTOR	FAR 87-01241-1	631203	FACTORY	NO YES	JAYBERRY 114-8	692495

FAILURE MODE-OUT OF TOLERANCE. THE DIFFERENTIAL AMPLIFIER REPORTEDLY FAILED WHEN CHANNEL 12 HAD 10 TO 12-PERCENT NOISE. DIFFERENTIAL AMPLIFIER PASSED THE NOISE TEST AS A COMPONENT, BUT WAS REJECTED BECAUSE THE TELEMETRY PACKAGE NOISE WAS REDUCED TO AN ACCEPTABLE LEVEL BY REPLACING THIS UNIT. REPORTED FAILURE WAS NOT CONFIRMED. THE REPORTED FAILURE WAS APPARENTLY CAUSED BY A DISCREPANCY WITHIN THE TELEMETRY PACKAGE OR BY A POOR ELECTRICAL CONNECTION CORRECTED WHEN THE DIFFERENTIAL AMPLIFIER WAS REPLACED.

CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. RECOMMENDED THAT TELEPAK FROM WHICH THIS UNIT WAS REMOVED BE EXAMINED FOR POSSIBLE DEFECTS THAT WOULD EXPLAIN THE FAILURE REPORTED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-21-4266-F COMMUTATOR BRUSH	FAR	2500 631202	FACTORY	YES NO	REED AND REESE 1096485-58	692733

FAILURE MODE-STRUCTURAL. CHANNELS 15 AND 16 HAD NO COMMUTATION. FAILURE CONFIRMED CAUSE-MOTOR OVERHEATING DUE TO EXCESSIVE BRUSH WEAR.

CORRECTIVE ACTION-NONE. HEAVYWEIGHT TELEPACKS ARE BEING PHASED OUT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4343-F PRESSURE TRANSDUCER	FAR 87-01386-39	296-D 631202	FACTORY	YES NO	SERVONIC	

FAILURE MODE-STRUCTURAL. FAILURE WAS CAUSED BY A LEAKING BOURDON TUBE RESULTING FROM STRESS-CORROSION CRACKING AT THE TUBE BASE. A SOLDER JOINT AT THE WIPER END ALSO FAILED DUE TO A LOW STRENGTH JOINT.

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							691956

CORRECTIVE ACTION-BOURDON TUBE DESIGN WAS CHANGED TO A WELDED END CONFIGURATION. EACH UNIT WAS CYCLED 200 TIMES UND ER 3000 PSI. SOLDERING FLUX WAS CHANGED AND BOURDON TUBES LEAK TESTED WITH HELIUM GAS. THE FOREGOING WAS ACCOMPLISHE D PRIOR TO JUNE 1963.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-2161.1 POSITION TRANSDUCER	UTP-DUAL/PPT 69-01008-1	631202	FACTORY	YES NO	SERVONIC 3041-0101	690739

FAILURE MODE-OUT OF SPECIFICATION. NO SPLIT LOCK WASHER WAS SUPPLIED AND THERE WAS NO ARROW POINTING TO THE FINE AD JUSTING SCREW.

CORRECTIVE ACTION-VENDOR WILL IMPROVE FINAL INSPECTION AT FACTORY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4313-F AMPLIFIER POTENTIOMETER	FAR 27-01238-1	631129	FACTORY	YES NO	STATHAM CA3-12	693660

FAILURE MODE-OPEN (ELECT). AMPLIFIER FAILED WHEN THE GAIN-ADJUSTMENT POTENTIOMETER DID NOT CHANGE THE OUTPUT LEVEL. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE WIPER BEING BROKEN IN THE GAIN-ADJUST POTENTIOMETER.

CORRECTIVE ACTION-VENDOR HAS INITIATED CORRECTIVE ACTION TO PREVENT RECURRENCE OF THIS FAILURE MODE AT THE MANUFACT URING LEVEL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4362-F CALIBRATOR TRANSISTORS	FAR 7-12222-5	631127	FACTORY	YES NO		693348

FAILURE MODE-OUT OF TOLERANCE. INFLIGHT CALIBRATOR FAILED WHEN ONLY POSITIVE PULSES WERE BEING GENERATED. AFTER FUL L WARMUP NO PULSES WERE GENERATED. FAILURE WAS CONFIRMED AND CAUSED BY USING TRANSISTORS OF DIFFERENT GAIN CHARACTER ISTICS IN THE BALANCED FLIP-FLOP CIRCUIT.

CORRECTIVE ACTION-RECOMMENDED THAT THE APPLICABLE BLUEPRINT BE AMENDED, REQUIRING TRANSISTORS OF THE SAME GAIN CHAR ACTERISTICS BE USED IN THE BALANCED FLIP-FLOP CIRCUIT.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-4288-F POWER CHANGEOVER SWITCH BEARING	FAR 27-01722-3	631127	FACTORY	YES NO	KINETICS K-172-4	691618
FAILURE MODE-FAIL DURING OPERATION. UNIT WOULD NOT SWITCH FROM INTERNAL TO EXTERNAL, FAILURE CONFIRMED. CAUSE, DENOTED GALL BEARINGS ON THE WORM GEAR. REASON FOR FAILURE COULD NOT BE DETERMINED. CORRECTIVE ACTION-NONE. INFORMATION RAR A-99-24-8163 WAS SENT TO VENDOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	PET-TP-2-0364-1A PRESSURE TRANSDUCER	UTP-PET 27-01243-9	631128	FACTORY	NO NO	BOURNS 42011-0-150-752	690764
FAILURE MODE-OUT OF SPECIFICATION. DURING EXAMINATION OF THE PRODUCT, UNIT WAS NOT TO ENGINEERING DRAWING DUE TO THE DIAMETER OF THE MACHINED END BEING MEASURED AS 0.830 INCHES WHEN PRINT CALLOUT WAS 1.062 INCHES. VENDOR DRAWING WAS DETERMINED TO BE IN ERROR. CORRECTIVE ACTION-GD/C INSTITUTED CORRECTION OF THE VENDOR DRAWING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4288-F AMPLIFIER, WIRING	FAR 55-01180-8	631125	FACTORY	YES NO	MAYBERRY 128-18	693502
FAILURE MODE-OPEN(ELECT). SECTION A HAD NO OUTPUT. FAILURE CONFIRMED. FAILURE WAS DUE TO AN OPEN WIRE AT INTERNAL RECEPTACLE, PIN 2. CORRECTIVE ACTION-ALL PERSONNEL ASSOCIATED WITH THE AMPLIFIER CONSTRUCTION WERE CAUTIONED TO USE GREATER CARE. THE CASE INTERIORS ARE NOW FILLED WITH FOAM TO ADD SUPPORT TO RECEPTACLE LEADS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4300-F AMPLIFIER-CRYSTAL RECTIFIER	FAR 27-12382-803	631125	FACTORY	YES NO		691619
FAILURE MODE-SHORT (ELECT). UNIT OUTPUT COULD NOT BE ADJUSTED BELOW 5.0 VDC. FAILURE CONFIRMED. CAUSE-SHORT BETWEEN RESISTOR R11 AND TERMINAL 8 OF TRANSFORMER T-1. CORRECTIVE ACTION-ALL PERSONNEL ASSOCIATED WITH CONSTRUCTION OF THIS UNIT WERE INFORMED OF FAILURE AND URGED TO INCREASE THE QUALITY OF THEIR WORK.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-280-C SUBCARRIER OSCILLATOR MODULE ASSY- PIN	FAR 27-01383-11	1160 651125	FACTORY	YES NO	BENDIX	891868

FAILURE MODE-OPEN ELECTRICAL. THIS SUBCARRIER OSCILLATOR MODULE ASSEMBLY REPORTEDLY FAILED DURING MANUFACTURING TESTING FOR ELECTRICAL TEST CTP 85. THE INDICATION OF FAILURE WAS AN ELECTRICAL OPEN BETWEEN PLUG J-5 PIN 4, AND PLUG J-1 PIN 13. FUNCTIONAL TESTING CONFIRMED THE REPORTED FAILURE. THE ANALYSIS WAS CANCELED DUE TO A DIRECTIVE FROM J.B. ONA, CENTAUR RELIABILITY, DATED NOVEMBER 19, 1963. THIS DIRECTIVE REQUIRED CANCELLATION BEFORE THE ANALYSIS COULD BE COMPLETED.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4334-F AMPLIFIER	FAR 27-12571-913	651125	FACTORY	NO NO		891057

FAILURE MODE-OUT OF SPECIFICATION. TELEMETRY CANISTER FAILED DURING REWORK WHEN THE FREQUENCY DEVIATIONS ON ALL CHANNELS WERE OUT OF SPECIFICATION LIMITS. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A LOW GAIN OF THE VIDEO AMPLIFIER RESULTING FROM ADJUSTMENT WITH FAULTY TEST EQUIPMENT AT ETR.

CORRECTIVE ACTION-RECOMMENDED TEST LABORATORY AT ETR NOT OPEN TELEMETRY CANISTERS FOR ADJUSTMENT, OR AS AN ALTERNATE, TEST EQUIPMENT CALIBRATION AND VALIDATION REQUIREMENTS BE INCREASED FROM EVERY 180 DAYS TO EVERY 90 DAYS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR-69C-2035.1 PRESSURE TRANSDUCER	UTP-PAT 69-01003 29	651125	FACTORY	NO NO	BOURNS 800757170Z	890774

FAILURE MODE-OUT OF TOLERANCE. ON THE POST VIBRATION PROOF CYCLE THE ERROR (1.29 PERCENT) WAS GREATER THAN ALLOWABLE.

CORRECTIVE ACTION-NONE. THIS WAS NOT A FAILURE. REVISION B TO SPEC. CONTROL DRAWING HAD PREVIOUSLY BEEN RELEASED (9-25-63) CHANGING THE ALLOWABLE STATIC ERROR BAND TO PLUS OR MINUS 1.0 PERCENT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC	LV-99-24-4397 F IN-FLIGHT CALIBRATOR/TRANSISTOR	FAR 27-11616-623	2160 651123	FACTORY	YES NO		

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							893434

CORRECTIVE ACTION-REPLACED 2N327A TYPE TRANSISTORS WITH TYPE 2N328A.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4238F CALIBRATOR/TRANSISTOR	FAR 7-12222-9	2160 631123	FACTORY	YES NO		893897

FAILURE MODE-OUT OF TOLERANCE. CHANNEL 8 INFLIGHT CALIBRATOR WAS REPORTED TO HAVE A SPLIT IN THE 100 PCT PULSE. FAILURE CONFIRMED. CAUSE INSUFFICIENT GAIN OF TRANSISTOR 84 (2N327A).

CORRECTIVE ACTION-2N328A TRANSISTORS WERE MADE REPLACEMENTS FOR THE 2N327A TYPE VIA ECN AB TO B/P 87-12222. TYPE 2N 328A HAVE A CURRENT GAIN OF 18 AS COMPARED TO 9. FOR THE 2N327A TYPE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SLV-99-24-4293 POSITION TRANSDUCER	FAR 69-01003-1	360 631122	FACTORY	YES NO	SERVONIC 5401-0101	898039

FAILURE MODE-STRUCTURAL. TWO TRANSDUCERS FAILED WHEN THE CLAMPING SCREWS BROKE WHILE MAKING TRANSDUCER ADJUSTMENTS. FAILURE RESULTED FROM BENDING AND FATIGUE OF THE SCREWS BECAUSE THE KNURLED SHAFT OF THE COUPLING ADAPTER WAS TOO SMALL TO PROVIDE SECURE CLAMPING.

CORRECTIVE ACTION-THE SHAFT DIAMETER ON THE 69-11514 COUPLING ADAPTER CHANGED FROM 0.187 PLUS OR MINUS 0.015 TO 0.187 PLUS 0.004, MINUS 0.002 INCH DIAMETER. A-9 ADAPTER WAS CREATED WITH THE NEW TOLERANCE TO REPLACE THE -7 ADAPTER. C1C23615 WAS ISSUED TO CHECK ALL -7 PART. IF OVERSIZE, REWORK TO -9. IF UNDERSIZE, SCRAP THE PART.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4249-F RECTIFIER	FAR 27-11623-3	2160 631122	FACTORY	YES NO		893098

FAILURE MODE-OUT OF TOLERANCE. OUTPUT OF CRYSTAL RECTIFIER WAS REPORTED OUT OF TOLERANCE. FAILURE CONFIRMED. CAUSE-RECTIFIER WAS APPARENTLY SET UP WITHOUT SUFFICIENT WARM UP OR CHANGE IN COMPONENT VALUES.

CORRECTIVE ACTION-RESISTORS USED IN THIS UNIT WERE DISCONTINUED FROM USE BECAUSE THEY WERE SENSITIVE TO TEMPERATURE CHANGES NO DRIFT PROBLEMS WERE APPARENT IN UNITS UTILIZING THE NEW RESISTORS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4333-F OSCILLATOR	FAR 7-01488-827	631122	FACTORY	YES NO	BENDIX 10S0702-13-K	

FAILURE MODE-FAIL DURING OPERATION. SUBCARRIER OSCILLATOR FAILED WHEN THE FREQUENCY CHANGED 20 TO 30 CPS. FAILURE M

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AS CONFIRMED AND ATTRIBUTED TO THE CHANGING CHARACTERISTICS OF THE V-1 MODULATOR VACUUM TUBE.							998984
CORRECTIVE ACTION-NONE. SINCE THE BENDIX ROUND TELEMETRY CANISTER IS BEING REPLACED WITH A NEW LIGHTWEIGHT BENDIX T ELEPAK WHEREIN THIS OSCILLATOR IS NO LONGER USED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A8-24-4862-F TLM CANISTER	FAR 27-11841-833	2160 631122	FACTORY	YES NO	BENDIX 27-11841-833	998736
FAILURE MODE-FAIL DURING OPERATION. CHANNEL 18 WAS REPORTED OUT OF TOLERANCE, LOW BY 140CPS.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4393-F COMMUTATOR	FAR 27-01636-8	631122	FACTORY	YES NO	FIFTH DEMENSIO N MRXD-461	991652
FAILURE MODE-OPEN (ELECT). EXCESSIVE SPIKING ON LEADING EDGE OF SEGMENT 27 CHANNEL 11. FAILURE CAUSED BY DIFF AMPLI FIER INPUT BEING OPEN CIRCUITED WITH NEGATIVE VOLTAGE APPLIED TO OUTPUT.							
CORRECTIVE ACTION-DESIGN CHANGE CALLING OUT A JUMPER BETWEEN NEGATIVE PEDESTAL SEGMENTS OF COMMUTATOR RINGS USED FO R DIFF AMPLIFIER INPUT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4411-F SUBCARRIER OSCILLATOR-POTENTIOMETE R	FAR 27-01332-137	631121	FACTORY	YES NO	BENDIX 1069093-A-9/TO E300	993334
FAILURE MODE-OPEN (ELECT). UNSTABLE OUTPUT FREQUENCY. FAILURE CAUSED BY BREAKS IN WINDING OF R18 POTENTIOMETER.							
CORRECTIVE ACTION-VENDOR HAS IMPROVED QUALITY CONTROL TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-3005-C TRANSDUCER	FAR 7-01633-8	1260 631119	ETR	YES NO	LEWIS 568348	
FAILURE MODE-NONE. THE ELECTRICAL CONNECTOR BROKE FROM THE TRANSDUCER CASE AT THE SOLDER JOINT. FAILURE ANALYSIS WA S CANCELED.							

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							892113

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-68-24-3008-C TEMPERATURE TRANSDUCER	FAR 7-01633-5	1260 631118	ETR	YES NO	LEWIS ENG.	891804

FAILURE MODE-STRUCTURAL. CONNECTOR CAME LOOSE FROM THE TRANSDUCER CASE AT THE SOLDER JOINT.

CORRECTIVE ACTION-NONE. AVO FROM CENTAUR RELIABILITY DATED 631227 CANCELLED FAILURE ANALYSIS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4308-F AMPLIFIER	FAR 38-01120-3	631116	SAN DIEG O	YES NO	MAYBERRY 128-1A	891911

FAILURE MODE-ERRATIC OPERATION. DIFFERENTIAL AMPLIFIER FAILED WHILE INSTALLED IN A TELEPAK. OUTPUT WAS NON-LINEAR. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE DIFFERENTIAL AMPLIFIER BEING ADJUSTED TO 5 VOLTS DC IN THE SATURATED CONDITION (BEYOND ITS MAXIMUM VOLTAGE GAIN CAPABILITY).

CORRECTIVE ACTION-CAUTION NOTES WERE ADDED TO PROCEDURE 27-28338 REV. E, SPECIFYING PRECISE DIFFERENTIAL AMPLIFIER GAIN ADJUSTMENT PROCEDURES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4295-F OSCILLATOR	FAR 27-12571-913	5E 631115	FACTORY	YES NO	BENDIX 1036900-801	890704

FAILURE MODE-OUT OF TOLERANCE. CHANNEL 6OSCILLATOR WAS REPORTED OPERATING 20 PERCENT FBW FROM THE BAND EDGE. BAND EDGE PLUS OR MINUS 10 PERCENT FBW IS EXPECTED. FAILURE CONFIRMED BUT CAUSE OF FAILURE NOT DETERMINED.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA69-0080/F6-MO-02-OACE TLM CANISTER	COMPOSITE-FRD/DPL	1260 631114	ETR-66A	YES NO

FAILURE MODE-FAIL DURING OPERATION. NO COMMUTATION ON RF 1;CHANNEL 18.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-NONE. CORRECTIVE ACTION-CANISTER WAS REPLACED. INSUFFICIENT INFORMATION TO DETERMINE EXACT NATURE OF FAILURE.							007895
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4334-F ELECTRICAL FILTER, INDUCTOR	FAR 27-01295-1	651114	FACTORY	YES NO	APPLIED COMPON ENT AC13030-1	002925
FAILURE MODE-OUT OF SPECIFICATION. BANDPASS FILTER FAILED WHILE INSTALLED IN A LIMITER FILTER WHEN OUTPUT WAS LOW. FAILURE WAS CONFIRMED AND WAS APPARENTLY CAUSED BY RELAXATION OF THEINDUCTOR LAMINATIONS, RESULTING IN A CHANGE IN T HE RESONANT FREQUENCY. N/A 27-12287-3 LIMITER FILTER. CORRECTIVE ACTION-VENDOR INDICATED ALL FUTURE BANDPASS FILTERS OF THIS PART NUMBER WILL BE INCLOSED IN METAL CONTAI NERS. THIS METHOD WILL PREVENT CHANGES IN INTERNAL POTTI . PRESSURES DUE TO RELAXATION OF THE CASE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4303-C ELECTRICAL FILTER	FAR 27-01295-1	651114	SAN DIEG O	YES NO	HERMETIC 954-2145-400	001914
FAILURE MODE-OUT OF SPECIFICATION. BANDPASS FILTER FAILED WHEN THE OUTPUT WAS FOUND TO BE 11 DECIBELS BELOW PEAK RE SPONSE. SPECIFICATIONS REQUIRE A MINIMUM OF 15 DECIBELS BELOW PEAK. FAILURE ANALYSIS WAS WAIVED PER TWX 63-61-006. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4314 TRANSMITTER	FAR 27-01272-15	651113	FACTORY	YES NO	BENDIX 10520G0-12-2-A	003639
FAILURE MODE-OUT OF TOLERANCE. TRANSMITTER, WHILE INSTALLED IN A TELEPAK,FAILED WHEN THE OUTPUT FROM THE RADIO FREQ UENCY AMPLIFIER WAS FOUND TO BE ONLY 3.28 WATTS INSTEAD OF THE REQUIRED MINIMUMOF 4.5 WATTS. FAILURE WAS NOT CONFIRM ED. CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4308-F AMPLIFIER	FAR	2160 651113	FACTORY	YES YES	BENDIX 1051260	
FAILURE MODE-OUT OF TOLERANCE. CHANNEL ECOULD NOT BE BROUGHT INTO TOLERANCE, WHEN INSTALLED IN TELPAK 27-11541-833							

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							893579

CORRECTIVE ACTION-FAILURE NOT CONFIRMED AT AMPLIFIER LEVEL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4321-F TLM CANISTER-AMPLIFIER	COMPOSITE-FACTORY 87-11941-635	2100 631113	FACTORY	YES NO	BENDIX 1096170	893023

FAILURE MODE-OUT OF TOLERANCE. CHANNEL 11 OF ASSOCIATED TELEMETER DISPLAYED EXCESSIVE NOISE. FAILURE CONFIRMED. CAUSE- HARMONIC PICKUP FROM THE CHANNEL E MULTIVIBRATOR.

CORRECTIVE ACTION-ENGINEERING IS INVESTIGATING THE POSSIBILITY OF ADDING A HIGH BAND PASS FILTER TO CHANNEL E CIRCUITRY TO CORRECT THIS PROBLEM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-2040.1 PRESSURE TRANSDUCER	UTP-PRT 69-01003-31	631113	60/C	NO NO	BOURNS 2007371703	892350

FAILURE MODE-OUT OF SPECIFICATION. DURING THE CALIBRATION PORTION OF PROOF CYCLE B AT 16 PSIA, THE MAXIMUM ERROR WAS 1.067 PERCENT. SPECIFICATION IS 1.0 PERCENT.

CORRECTIVE ACTION-NONE. THIS UNIT IS NOT OUT OF TOLERANCE. THE SPECIFICATION IS 1.0 PERCENT NOT 1.000 PERCENT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4224-F TRANSMITTER	FAR 87-12058-1	9E 631111	FACTORY	YES NO		893079

FAILURE MODE-OUT OF TOLERANCE. THE TRANSMITTING SET WAS REJECTED WHEN CHANNEL A HAD CROSS-COUPLING BETWEEN A AND C WHEN C WAS AT 5 VOLTS DC AND WHEN E WAS AT ZERO VOLTS. ALSO, CHANNELS A AND E INDICATED CROSS-COUPLING. THE FAILURE WAS DUE TO THE HIGH RC DEVIATIONS OF CHANNELS C AND E. THE CAUSE FOR THE HIGH DEVIATIONS WAS NOT DETERMINED. THERE ARE TWO POSSIBLE CAUSES. 1. THE DEVIATIONS SHIFTED AFTER BEING SET UP WHEN THE PACKAGE WAS TESTED BEFORE INSTALLATION ON THE MISSILE OR 2. THE TEST SET WAS NOT IN CALIBRATION AT THE TIME OF PACKAGE TEST.

CORRECTIVE ACTION-NONE.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4316-F POWER SUPPLY	FAR 99-13540-8	631111	FACTORY	YES NO		693657
FAILURE MODE-OPEN (ELECT). TRANSDUCER POWER SUPPLY FAILED DURING VIBRATION TESTING WHEN THE OUTPUT WAS ERRATIC. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A BROKEN LEAD TO THE L-1 INPUT FILTER. THE BROKEN LEAD WAS CAUSED BY VIBRATION. CORRECTIVE ACTION-REQUESTED DESIGN AND ASSEMBLY PERSONNEL TO INVESTIGATE THE DESIGN AND ASSEMBLY OF THESE COMPONENTS TO ASSURE THAT PRINTS AND PROCEDURES ARE ADEQUATE TO PREVENT UNSUPPORTED COMPONENTS FROM BEING SUBJECTED TO UNDUE VIBRATORY STRESSES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-E4-4260 COMMUTATOR BRUSHES	FAR 27-12508-3	5E 631108	FACTORY	YES NO	BENDIX 1096485	693095
FAILURE MODE-CONTAMINATION LEADING TO ERRATIC OPERATION. UNIT WAS REPORTED TO OPERATE INTERMITTENTLY. FAILURE CONFIRMED. [illegible]-EXCESSIVE MOTOR BRUSH CARBON CONTAMINATING THE GOVERNOR CONTACTS OF THE GEAR TRAIN. CORRECTIVE ACTION-A RECOMMENDATION WAS SENT TO VENDOR TO USE A MORE RELIABLE MOTOR. VENDOR REPLY NOT AVAILABLE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-2040.1 PRESSURE TRANSDUCER	UTP-PRT 69-01003-31	631108	SD/C	NO NO	BOURNS 2007371703	692541
FAILURE MODE-OUT OF SPECIFICATION. ONE PRESSURE STEP BETWEEN 41 AND 43 PSIA EXCEEDED THE RESOLUTION TOLERANCE OF 0.5 PERCENT. CORRECTIVE ACTION-NONE. AFTER CONSIDERING THE EQUIPMENT ERROR, THE STEP WAS NOT CONSIDERED OUT OF TOLERANCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4298-F TRANSDUCER, INSTALLATION ELECTRONIC TUBE	FAR 7-01751-9	631108	SAN DIEG O	YES NO	BOURNS 71T24-0-35-752	
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. TWO TRANSDUCERS FOR MEASUREMENT M140P WERE OUT OF CALIBRATION. THE FAILURE OF ONE TRANSDUCER WAS NOT CONFIRMED. BOTH FAILURES OCCURRED BECAUSE THE PARTS HAD BEEN IN STORAGE WITHOUT ANY EXERCISING OF THEIR BOURDON TUBES IN TWO YEARS. FROM THE ANALYSIS TEST RESULTS THE GENERAL TREND OF THE PERCENTAGE ERROR KEPT DROPPING AS THE TRANSDUCERS WERE EXERCISED. BOURDON TUBES CHARACTERISTICALLY ARE KNOWN FOR THEIR HYSTERESIS AND THE FACT THEY TEND TO TAKE A SET IF THEY ARE DORMANT. A BOURDON TUBE THAT HAS BEEN IN STORAGE FOR TWO YEARS SHOULD BE EXERCISED APPROXIMATELY TEN TIMES BEFORE USING OR CALIBRATION TESTING.							

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							891888
CORRECTIVE ACTION-NONE. TRANSDUCERS OF THIS PART NUMBER ARE REQUIRED TO OPERATE WITHIN SPECIFICATIONS EVEN AFTER LONG INACTIVITY, INDICATING DEFICIENT BOURDON TUBES IN THE PRESENT ANALYSIS. SINCE THE MANUFACTURE OF THESE PARTICULAR UNITS, HOWEVER, THE VENDOR HAS INITIATED QUALITY CONTROL AND MANUFACTURING IMPROVEMENTS TO ELIMINATE THIS FAILURE MODE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-A-AS-24-4276 PRESSURE TRANSDUCER	FAN 7-01720-3	3E 631107	FACTORY	NO NO	BOURNS 73311-0-10-752	896083
FAILURE MODE-ELECTRICAL OPEN. THE TRANSDUCER (MEASUREMENT P27P) FAILED WHEN THE WIPER ARM ELEMENT WAS FOUND OPEN UNDER AMBIENT TEMPERATURE. FAILURE WAS CAUSED BY EXCESSIVE CURRENT TO THE WANDREL AND WIPER ARM, CAUSING THE WANDREL WINDING TO MELT.							
CORRECTIVE ACTION-RECOMMENDED FACTORY PERSONNEL BE ADVISED OF THE FAILURE AND ACTION BE TAKEN TO ASSURE EXCESSIVE CURRENT IS NOT APPLIED TO THE TRANSDUCER DURING TESTING PROCEDURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4307-F CALIBRATOR	FAR 35-13937-807	631107	FACTORY	YES NO	BENDIX-PACIFIC 1047387	891912
FAILURE MODE-OUT OF TOLERANCE. CALIBRATOR FAILED WHEN THE NEGATIVE PEDESTAL VOLTAGE COULD NOT BE ADJUSTED TO WITHIN SPECIFICATIONS. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A DEFECTIVE DESIGN OF THE R-7 POTENTIOMETER. THE WIPER ARM IS COMING IN CONTACT WITH THE SOLDER PAD.							
CORRECTIVE ACTION-REQUESTED BENDIX-PACIFIC NOTIFY THE POTENTIOMETER MANUFACTURER TO OBTAIN CORRECTIVE ACTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4287-F DEMODULATOR-TRANSFORMER	FAR 27-01284-1	631106	FACTORY	YES NO	AC ELECTRONICS 27-01284-1	895501
FAILURE MODE-SHORT(ELECT). THE CHANNEL UTILIZING THIS PART HAD LOW GAIN. FAILURE CONFIRMED. THE FAILURE WAS DUE TO A SHORTED INTERWINDING OF THE PRIMARY BETWEEN TERMINALS 1 AND 2.							
CORRECTIVE ACTION-NONE. REASON FOR THE INTERWINDING SHORT COULD NOT BE DETERMINED.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4342 ELECTRICAL CONNECTOR	FAR	631106	FACTORY	YES NO	MICRODOT P32-215	691978
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. TELEMETRY PACKAGE INDICATED NO POWER OUTPUT WHEN A MINIMUM OF 3.0 WATTS IS REQUIRED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A POORLY FABRICATED COAXIAL CABLE CONNECTOR P-48. CORRECTIVE ACTION-REQUESTED VENDOR OF TELEMETRY PACKAGE, TEXAS INSTRUMENTS, TO IMPROVE RECEIVING INSPECTION, AND TO NOTIFY MANUFACTURER OF THE CONNECTOR, MICRODOT, OF THE FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-A9-24-4210-F COMMUTATOR	FAR 27-12782-803	E47D 631104	FACTORY	YES NO		692668
FAILURE MODE-OUT OF TOLERANCE. THE TELEMETRY PACKAGE WAS REJECTED WHEN THE COMMUTATOR SPEEDS FOR CHANNELS 13, A, AN D E, WERE SLOW. THE FAILURE WAS DUE TO DRIFT IN THE ELECTRICAL MECHANICAL PARAMETERS OF THE COMMUTATOR. THIS PARAMET ER SHIFT COULD BE CAUSED BY BEARINGS, COMMUTATOR WIPER, GEARS, AND BREAKING-IN DURING OPERATION. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-A9-24-4211-F OSCILLATOR-POTENTIOMETER	FAR 27-12782-803	E47D 631104	FACTORY	YES NO	BENDIX	692667
FAILURE MODE-ELECTRICAL OPEN. CHANNEL 13 OF THE TELEMETRY PACKAGE BECAME VERY WEAK, APPEARING TO BE INVERTED AND RU NNING AT TWICE ITS EXPECTED FREQUENCY. FAILURE WAS CAUSED BY AN OPEN WINDING IN THE POTENTIOMETER OF THE SUBCARRIER OSCILLATOR. CORRECTIVE ACTION-BENDIX-PACIFIC ENGINEERING WORKED WITH MINELCO ENGINEERING IN IMPROVING THE POTENTIOMETER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4324-F TRANSDUCER, INSTRUMENTATION	FAR 7-01649-13	E47D 631104	SAN DIEG O	YES NO	ROSEMOUNT 134CF	
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. THE OUTPUT SIGNAL CAUSED TELEMETRY CHANNEL 11, SEGMENT 38, TO INDIC ATE LESS THAN ZERO PERCENT INFORMATION BANDWIDTH WHEN GREATER THAN 100 PERCENT WAS EXPECTED. THE RESISTANCE OF THE T RANSDUCER BETWEEN PINS A AND B WAS 800 OHMS WHEN APPROXIMATELY 1670 OHMS WAS EXPECTED. FAILURE WAS ATTRIBUTED TO THE TRANSDUCER SHORTING TO CASE GROUND; HOWEVER, THE EXACT CAUSE COULD NOT BE FOUND.							

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CORRECTIVE ACTION-VENDOR WAS REQUESTED TO TAKE NECESSARY ACTION TO ASSURE HIGHER QUALITY WIRE JOINTS IN THE TRANSDUCER CASE, AND GENERAL IMPROVEMENT IN TRANSDUCER QUALITY TO PREVENT ELEMENT SHORTS.							892106
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	CT-88-24-279-C ACCELEROMETER	FAR 88-01178-1	1260 831102	ETR36A	NO NO	KISTLER 302-2N PLUS OR MINUS .8-2-1	891566
FAILURE MODE-OUT OF TOLERANCE. THIS ACCELEROMETER REPORTEDLY FAILED WHEN IT WAS FOUND EXCESSIVELY NOISY. TELETYPE MESSAGE 500 035-038 HZA, DATED DECEMBER 2, 1983, STATES THE ACCELEROMETER WAS FOUND ACCEPTABLE FOR FLIGHT BY SITE ENGINEERING PERSONNEL AT ETR. THE FAILURE ANALYSIS IS CANCELED. CORRECTIVE ACTION-FAILURE NOT CONFIRMED. SINCE THE PART WILL NOT BE RECEIVED FOR FAILURE ANALYSIS, THIS ANALYSIS IS CANCELED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4273-F CALIBRATOR TRANSISTOR	FAR 7-12222-3	831102	FACTORY	YES NO		891353
FAILURE MODE-OUT OF TOLERANCE. OUTPUT WAS ERRATIC, NOT SEQUENTIALLY POSITIVE AND NEGATIVE AS REQUIRED. FAILURE CONFIRMED. CAUSE-LOW CURRENT GAIN CHARACTERISTIC OF TRANSISTOR Q-4 (2N327A). CORRECTIVE ACTION-TRANSISTORS TYPE 2N327A WERE REPLACED WITH TYPE 2N328A HAVING A HIGHER CURRENT GAIN CHARACTERISTIC.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-4370-F CONVERTER	FAR 27-12370-603	831101	FACTORY	YES NO		895504
FAILURE MODE-SHORT(ELECT). THREE AC-DC CONVERTERS FAILED WHEN THEY COULD NOT BE ADJUSTED TO 0 TO 5 VOLTS DC WITH A 500 TO 750 CPS SIGNAL APPLIED. OUTPUT WAS A CONSTANT 10.5 VOLTS DC. FAILURES WERE CONFIRMED AND ATTRIBUTED TO THE 28 VOLT DC B PLUS BEING SHORTED TO GROUND IN THE TOP PACKAGE. CORRECTIVE ACTION-RECOMMENDED THAT THE TEST GROUP SUPERVISION EMPHASIZE THE NEED FOR EXTREME CAUTION IN HANDLING UNITS DURING TESTING TO AVOID REPETITION OF THIS MODE OF FAILURE.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4371-F ELECTRICAL REGULATOR	FAR 27-12408-1	631101	FACTORY	YES NO		695803
FAILURE MODE-SHORT(ELECT). THE REGULATOR ASSEMBLY FAILED DURING PRE-PRODUCTION TESTING WHEN NO OUTPUT WAS OBTAINED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE 28 VOLT DC B PLUS BEING SHORTED TO GROUND IN THE TOP PACKAGE.							
CORRECTIVE ACTION-RECOMMENDED THAT THE TEST GROUP SUPERVISION EMPHASIZE THE NEED FOR EXTREME CAUTION IN HANDLING UN ITS DURING TESTING TO AVOID REPETITION OF THIS MODE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4246-F OSCILLATOR	FAR 27-11541-933	631101	FACTORY	YES NO	BENDIX 27-11541-933	692927
FAILURE MODE-FAIL DURING OPERATION. CHANNEL 11 INDICATER 9 TO 6 PERCENT IBW NOISE. FAILURE CONFIRMED. CAUSED BY IND UCTIVE PICKUP FROM THE SQUARE WAVE, 900 CYCLE OUTPUT OF THE CH. E OSCILLATOR.							
CORRECTIVE ACTION-THE 27-11541 PACKAGE IS BEING PHASED OUT. ITS COUNTERPART 55-13537 USED ON CENTAUR BOOSTERS WILL BE EQUIPED WITH BAND PASS FILTERS TO ALLEVIATE THIS PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4240F TRANSDUCER, INSTRUMENTATION	FAR 7-01723-11	631101	FACTORY	YES NO	BOURNS 42013-0-50-752	691609
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER ERROR BAND WAS PLUS 1.78 PERCENT WHEN PLUS OR MINUS 1.0 PERCENT IS ALLOWE D. FAILURE WAS CAUSED BY OVERPRESSURIZATION RESULTING IN A CHANGE IN THE BELLOWS SPRING RATE AND INCREASED TRAVEL. T HE EVENT RESPONSIBLE FOR THE OVERPRESSURIZATION COULD NOT BE DETERMINED; HOWEVER, IT WAS POSSIBLE THAT IT MAY HAVE B EEN DONE DURING CLEANING OF THE TRANSDUCER.							
CORRECTIVE ACTION-CAUTIONED TRANSDUCER CLEANING PERSONNEL TO EXERCISE CARE WHEN CLEANING LOW-RANGE PRESSURE TRANSDU CERS AND NOT TO APPLY EXCESSIVE PRESSURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4294F COMMUTATOR-MOTOR/GEAR	FAR	631101	FACTORY	YES NO	BENDIX 1096483	
FAILURE MODE-FAIL DURING OPERATION. GEAR MOTOR FAILED TO OPERATE. THE FAILURE WAS CONFIRMED. CAUSE WAS FAULTY GEAR TRAINS DUE TO EXCESSIVE SCRATCHING AND WEARING OF INTERNAL PARTS. THREE UNITS WERE CHECKED UNDER THIS F.A.R. ALL THR EE FAILED FOR THE SAME REASONS AND ALL THREE FAILURES WERE CONFIRMED.							

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							891444

CORRECTIVE ACTION-NONE. REPLACEMENT OF HEAVYWEIGHT COMMUTATORS WITH LIGHTWEIGHT UNITS WAS NOT ECONOMICALLY JUSTIFIABLE. REF. AVO TO H.O. STORY FROM H.J. MALONEY DATED 8 MARCH 1964.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SLV-99-24-4377-F DETECTOR-POTENTIOMETER	FAR 69-11118-1	651101	FACTORY	YES NO	SPECTROL	891886

FAILURE MODE-OUT OF TOLERANCE. OUTPUT VOLTAGE COULD NOT BE ADJUSTED TO 5.0 PLUS OR MINUS 0.005 VDC SPECIFICATION FAILURE CAUSED BY FAULTY POTENTIOMETER R-6.

CORRECTIVE ACTION-POTENTIOMETER MADE INACTIVE FOR FUTURE DESIGN AND IS NO LONGER BEING PURCHASED DUE TO EXCESSIVE FAILURE RATE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-A9-24-4203-F OSCILLATOR	FAR 27-11541-953	2160 651100	FACTORY	YES NO	BENDIX 1045630-5	893880

FAILURE MODE-DRIFT. THE TELEMETRY CANISTER CHANNEL-15 OUTPUT FREQUENCY WAS 3 PERCENT BELOW THE HIGH-AND LOW-FREQUENCY TOLERANCE BAND LIMITS. THE FAILURE WAS CONFIRMED. FAILURE WAS CAUSED BY DRIFT IN OUTPUT CAUSED BY AN INADEQUATE BURN IN TEST.

CORRECTIVE ACTION-THE FAILED CHANNEL-15 OSCILLATOR DRIFTED OUTSIDE THE TOLERANCE BAND IN A MANNER SIMILAR TO MANY OTHER OSCILLATORS. THIS RESULTED IN A NEW BURN-IN PROCEDURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4372-F DEMODULATOR TRANSFORMER	FAR 7-18077-801	651031	FACTORY	YES NO		893903

FAILURE MODE-OPEN(ELECT). DEMODULATOR ASSEMBLY FAILED DURING ELECTRICAL TESTING AFTER POTTING. THE PRIMARY CIRCUIT OF TRANSFORMER T-1 WAS OPEN. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A LACK OF SOLDER ON TERMINAL 1 OF TRANSFORMER T-1. CONSEQUENTLY, THE LEAD FROM THE PRIMARY WINDING WAS NOT CONNECTED TO TERMINAL 1.

CORRECTIVE ACTION-REQUESTED MANUFACTURING DEPARTMENT TO IMPROVE QUALITY CONTROL OF THE MANUFACTURING PROCESS.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4229-F OSCILLATOR POTENTIOMETER	FAR 27-11541-933	651031	FACTORY	YES NO	BENDIX	892160

FAILURE MODE-FAIL DURING OPERATION. CHANNEL NO.13 INDICATED 7 PCT IBW NOISE. FAILURE WAS CONFIRMED AND ATTRIBUTED T O AN ARCING DEVIATION POTENTIOMETER WITHIN THE CHANNEL E OSCILLATOR.

CORRECTIVE ACTION-CHANNEL E OSCILLATOR WAS REPLACED CORRECTING CHANNEL 13 NOISE PROBLEM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4310-F CALIBRATOR	FAR 88-13666-823	651031	SAN DIEG O	YES NO	BENDIX-PACIFIC 1047387	891909

FAILURE MODE-ERRATIC OPERATION. CALIBRATOR FAILED WHEN IT INDICATED AN INTERMITTENT CHANNEL E NEGATIVE PEDESTAL VOL TAGE. FAILURE COULD NOT BE CONFIRMED.

CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4281-F DIFFERENTIAL AMPLIFIER	FAR 27-01241-1	651031	FACTORY	YES NO	MAYBERRY 114-8	891060

FAILURE MODE-CONTAMINATION. 7-8 PERCENT NOISE WAS INDICATED ON CHANNEL 12 OF ASSOCIATED TELPAK. FAILURE WAS CONFIRM ED. CAUSE WAS BREAKDOWN OF GOLD PLATING ON ITS ELECTRICAL CONNECTOR DUE TO CORROSION.

CORRECTIVE ACTION-MAYBERRY WILL IMPROVE PACKAGING TO PREVENT PIN CONTACT WITH ATMOSPHERE. GOLD PLATING OF PINS WILL BE INCREASED FROM 30 TO 100 MICRO INCH.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4168-F DEMODULATOR TRANSFORMER	FAR 27-12591-5	651030	FACTORY	YES NO		894001

FAILURE MODE-ELECTRICAL OPEN. OUTPUT COULD NOT BE ADJUSTED TO 0.0 VDC. DUE TO OPEN LEAD IN THE PRIMARY OF T-1. (REF ERENCE PHASE TRANSFORMER).

CORRECTIVE ACTION-NONE. PRECISE REASON FOR THE OPEN WIRE COULD NOT BE DETERMINED.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SF-A8-24-4196-F COMMUTATOR MOTOR-SPRING	FAR 27-11541-933	216D 631030	FACTORY	YES NO	BENDIX	891388

FAILURE MODE-STRUCTURAL. THE TELEMETRY PACKAGE FAILED WHEN THE CHANNEL-E COMMUTATOR OPERATED INTERMITTENTLY. THE FAILURE WAS CAUSED BY A DEFORMED COMMUTATOR MOTOR BRUSH SPRING BINDING ON THE MOTOR CASE.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SF-99-24-4200-F COMMUTATOR	FAR 27-11541-933	216D 631030	FACTORY	YES NO	BENDIX 1045630-5	891321

FAILURE MODE-CONTAMINATION. THE TELEMETRY CANISTER WAS REJECTED WHEN THE CHANNEL-11 OUTPUT HAD NOISE OF 5 TO 6 PERCENT OF THE INFORMATION BANDWIDTH. THE SPECIFICATION ALLOWS A MAXIMUM OF 5 PERCENT NOISE. THE 2.5 CPS COMMUTATOR SEGMENTS WERE DIRTY, CAUSING THE NOISE IN THE CHANNEL-11 OUTPUT. DURING FAILURE ANALYSIS A BROKEN BRUSH IN THE COMMUTATOR CAUSED THE OUTPUT FROM CHANNEL-18 TO CEASE. ALSO, NOISE ON CHANNEL-14 WAS CAUSED BY THE DIRTY COMMUTATOR.

CORRECTIVE ACTION-MEMO 548-3-64-10 PROPOSES TO ELIMINATE EXCESSIVE CHANNEL-11 NOISE CAUSED BY HIGHER HARMONICS FEEDING THROUGH THE CHANNEL-E SUBCARRIER OSCILLATOR. THE CONTROLLING DESIGN GROUP APPROVED BANDPASS FILTERS FOR THIS PURPOSE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-2040.1 PRESSURE TRANSDUCER	UTP-PAT 69-01003-31	631029	60/C	NO NO	BOURNS 2007371703	898349

FAILURE MODE-OUT OF SPECIFICATION. MAXIMUM ERROR AT 400 AND 580 PSIA WERE MINUS 1.014 AND MINUS 1.049 RESPECTIVELY. TOLERANCE IS MINUS 1.0 PERCENT.

CORRECTIVE ACTION-THIS UNIT WAS NOT OUT OF SPECIFICATION. THE SPECIFICATION IS NOT 1.000 PERCENT BUT IS 1.0 PERCENT

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4230-F BANDPASS FILTER CAPACITOR	FAR 27-01898-1	631029	FACTORY	YES NO	APPLIED COMPON ENTS AC13030-1	

FAILURE MODE-OUT OF TOLERANCE. OUTPUT OF FILTER WAS 0.084VAC, 0.077 TO 0.113 VAC WAS EXPECTED. FAILURE NOT CONFIRMED BECAUSE WHEN DISASSEMBLED, ONE OF THE INDUCTORS WAS FOUND DEFORMED WITH A HOLE BURNED IN ONE OF ITS CAPACITORS.

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE. DAMAGE TO THE BANDPASS FILTER WAS SUSTAINED PRIOR TO FAILURE ANALYSIS. A VALID ANALYSIS COULD NOT BE MADE.							698169
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	6908166 PRESSURE TRANSDUCER	UTP-DUAL/PPT 69-0100-23	631029		YES NO	BOURNS 2023203001	698754
FAILURE MODE-OUT OF TOLERANCE. A FAILURE WAS REPORTED WHEN THE OBSERVED ERROR BAND WAS PLUS 0.14 AND MINUS 0.98 PERCENT. ALLOWABLE IS PLUS OR MINUS 0.75 PERCENT. THE UNIT WAS RETESTED AND THE OBSERVED ERROR BAND WAS PLUS 0 AND MINUS 5.06 PERCENT. THE READOUT ACCURACY WAS 0.87 PERCENT. CORRECTIVE ACTION-NONE. THE OUT OF SPECIFICATION WAS CONSIDERED MINOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	AA63-0045/P1-802-00-135 COMMUTATOR MOTOR	COUNTDOWN	136F 631029	11 -1200	YES NO		698617
FAILURE MODE-FAIL DURING OPERATION. THE SRP8 COMMUTATOR MOTOR FOR CHANNEL 12 OF RP3 STOPPED OPERATING DURING THE COUNTDOWN. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. DATA FROM ALL NINE MEASUREMENTS ON REF CHANNEL 12 WAS LOST THROUGHOUT FLIGHT. VEHICLE EFFECT-NONE CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-81-24-4243-F OSCILLATOR/TUBE	FAR	631028	FACTORY	YES NO	BENDIX 1040659-11M	698930
FAILURE MODE-OUT OF SPECIFICATION. OSCILLATOR WOULD NOT ADJUST TO REQUIRED FREQUENCY. FAILURE CONFIRMED. CAUSED BY CHANGE OF OSCILLATOR TUBE (TYPE 6111) OPERATING CHARACTERISTICS. CORRECTIVE ACTION-NONE. UNIT WITHIN WHICH THIS OSCILLATOR IS INSTALLED HAS SINCE BEEN WAIVERED FROM FAILURE ANALYSIS.							

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	LV-AB-24-4177-P	FAR 27-11541-933	2160 831025	FACTORY	YES NO	BENDIX 1045830-5	881858

FAILURE MODE-CONTAMINATION. THE TELEPAK FAILED WHEN CHANNEL 18 WAS OUT OF SPEC, CHANNEL 16 OUTPUT WAS LOW, AND CHANNEL 14 HAD SPIKING. THE SPIKING WAS CAUSED BY CONTAMINATION OF THE COMMUTATOR SEGMENTS WITH CONDUCTING CARBON RESIDUE FROM THE COMMUTATOR BRUSHES. THE CHANNEL 18 AND 16 FAILURES WERE ISOLATED TO THE VIDEO AMPLIFIER, BUT FAILURE ANALYSIS COULD NOT CONFIRM THE FAILURE.

CORRECTIVE ACTION-THE SPIKING PROBLEM ASSOCIATED WITH THE OUTPUT OF CHANNEL 14 WAS CORRECTED BY CLEANING THE COMMUTATOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSDUCER, INSTRUMENTATION ERS	LV-99-24-4241-F	FAR 7-01723-13	831025	FACTORY	YES NO	BOURNS 42012-0-100-75 2	881810

FAILURE MODE-EXTERNAL LEAK. TRANSDUCER INDICATED A STATIC ERROR BAND OF-1.29 PERCENT WHEN PLUS OR MINUS 1.0 PERCENT WAS EXPECTED. FAILURE WAS ATTRIBUTED TO LOSS OF INTERNAL REFERENCE PRESSURE. LEAKAGE FROM THE AMBIENT AREA INTO THE CASE RAISED THE REFERENCE PRESSURE RESULTING IN LOWER TRANSDUCER OUTPUT.

CORRECTIVE ACTION-NONE, SINCE THE LOCATION OF THE LEAKAGE INTO THE TRANSDUCER CASE COULD NOT BE FOUND.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC R.F. AMPLIFIER WIRING ERS	LV-99-24-4288-F	FAR 27-01618-1	831025	FACTORY	YES NO	BENDIX 1077064-3A	881330

FAILURE MODE-ELECTRICAL OPEN. CHANNELS 1,2,3, 5,7 AND 8 DEVELOPED NOISE DURING VIBRATION TESTING. FAILURE CONFIRMED. CAUSE-INTERMITTENT SOLDER CONNECTION BETWEEN R-1 AND C-3.

CORRECTIVE ACTION-BENDIX WAS REQUESTED TO REVIEW ALL TECHNIQUES ASSOCIATED WITH THIS PART TO ELIMINATE A RECURRENCE OF THIS TYPE PROBLEM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CRYSTAL RECTIFIER-TRANSFORMER ERS	A-99-24-4259-F	FAR 27-01378-1	831025	FACTORY	YES NO	CALMAG 34C948	

FAILURE MODE-ELECTRICAL OPEN. UNIT WAS REPORTED TO HAVE INTERMITTENT PRIMARY. FAILURE CONFIRMED. CAUSE WAS BROKEN WIRE AT BASE OF T-2.

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
	CORRECTIVE ACTION-SINCE THE MOST LIKELY REASON FOR THE FAILURE WAS STRESS ON THE TERMINAL DURING THE POTTING PROCES S. THE VENDOR WAS NOTIFIED OF FAILURE MODE. VENDORS REPLY WAS THAT FORMERLY TERMINAL BOARDS WERE SOLDERED PRIOR TO B EING FASTENED DOWN. /THIS COULD BE POSSIBLE CAUSE OF FAILURE/ EFFECTIVE FEB. 8, 1964, ALL TERMINAL BOARDS WILL BE FA STENED PRIOR TO CONNECTING LEADS.						891061
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	60A63-1077/LS-401-00-224 TRANSDUCER	FLIGHT	2240 631023	PALC 2-3 32	YES NO		890283
	FAILURE MODE-ERRATIC OPERATION. HEAD SUPPRESSION VALVE POSITION DATA DISPLAYED TWO OPENING EXCURSIONS BETWEEN 32.4 AND 40 SECONDS AND BETWEEN 81.6 AND 93.2 SECONDS. THIS DATA IS NOT SUPPORTED BY OTHER MEASURED PARAMETERS. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4269-F DIFFERENTIAL AMPLIFIER TRANSISTOR	FAR 27-01018-5	631024	FACTORY	YES NO	HAYBERRY 147-1	893969
	FAILURE MODE-OUT OF TOLERANCE. THE AMPLIFIERS OUTPUT DID NOT DROP TO ZERO WITH THE INPUT SHORTED. A FUNCTIONAL TEST OF THE AMPLIFIER REVEALED THE OUTPUT WAS 250 MILLIVOLTS DC WITH THE INPUT SHORTED. FAILURE WAS CAUSED BY A CHANGE I N CURRENT GAIN OF TRANSISTOR Q-4. CORRECTIVE ACTION-RAR LV-99-24-6128 INITIATED. VENDOR CHANGED TRANSISTORS TO TYPE 2N2280.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4235-F DEMODULATOR	FAR 7-12077-5	1350 631024	FACTORY	YES NO		892933
	FAILURE MODE-SHORT-ELECTRICAL. PIN 19 OF CANNON CONNECTOR READ 2.2 KILOHMS WHEN AN OPEN WAS EXPECTED. FAILURE CONFI RMED, BUT THE EXACT CAUSE IS UNKNOWN. SHORT WAS LIFTED UPON DEPOTTING THE CANNON CONNECTOR AND SHORTING SUBSTANCE CO ULD NOT BE LOCATED. CORRECTIVE ACTION-NONE. EXACT CAUSE OF SHORT WAS NOT DETERMINED.						

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4248F BANDPASS FILTER, WIRING	FAR 7-11333-5	631023	FACTORY	YES NO		002932

FAILURE MODE-FAIL DURING OPERATION. UNIT HAD NO OUTPUT. FAILURE CONFIRMED. CAUSED BY AN IMPROPER SOLDER CONNECTION BETWEEN CAPACITOR C-8 AND COLLECTOR OF TRANSISTOR Q-2.

CORRECTIVE ACTION-NEW SOLDERING TECHNIQUES ARE NOW EMPLOYED AND AN ADDITIONAL INSPECTION IS NOW PERFORMED PRIOR TO INSTALLATION OF SUB COMPONENTS INTO THE FILTER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4244-F LIMITER FILTER, WIRING	FAR 27-12287-3	631025	FACTORY	YES NO	APPLIED COMPONENTS	002931

FAILURE MODE-OPEN (ELECT). CHANNEL 4 HAD NO OUTPUT. FAILURE CONFIRMED. CAUSED BY LACK OF SOLDER ON A CONNECTION OF FILTER FL-3. OPEN APPARENTLY OCCURRED AFTER RECEIVING INSPECTION AND MANUFACTURING TESTING.

CORRECTIVE ACTION-MANUFACTURER (APPLIED COMPONENTS) HAS INITIATED A CHANGE TO PRODUCTION PLANNING, TO CALL OUT AN INSPECTION OF SOLDER JOINTS BEFORE ENCAPSULATING. REF. VCAR 4247-65.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	LV-99-24-4220-F FILTER, ELECTRICAL	FAR 7-11333-5	2500 631023	FACTORY	YES NO		002683

FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT WAS OBTAINED FROM THE BANDPASS FILTER WHEN NORMAL INPUT SIGNALS WERE APPLIED.

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	69-2040.1 PRESSURE TRANSDUCER	GTP-PAT 69-01003-31	631023	60/C	NO NO	BOURNS	002336

FAILURE MODE-OUT OF SPECIFICATION. MORE THAN 3 PERCENT OF THE TOTAL OF STEPS EXCEED 0.25 PERCENT RESOLUTION. TOLERANCE MAXIMUM IS 18 STEPS. SIXTEEN (16) STEPS EXCEEDED 0.25 PERCENT RESOLUTION.

CORRECTIVE ACTION-NONE. THIS IS NOT A FAILURE. IF 18 STEPS ARE EXACTLY 3 PERCENT OF THE TOTAL NUMBER OF STEPS, THEN [illegible] STEPS WOULD BE ONLY 3.2 PERCENT. THIS THEN WOULD FALL WITHIN THE SPEC. ALLOWABLE.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NZ-99-24-4348 COMMUTATOR	FAR 55-01171-81	631023	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-861	891888

FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR FAILED WHEN ITS SPEED WAS 2.63RPS WHEREAS 2.625 RPS IS THE MAXIMUM ALLOWE D. FAILURE WAS CONFIRMED AND WAS ATTRIBUTED TO A REDUCTION IN MOTOR AND GEARING FRICTION, OCCURRING AS THE RESULT OF RUN-IN SINCE COMMUTATOR MANUFACTURE, ALLOWING THE COMMUTATOR TO RUN FAST.

CORRECTIVE ACTION-RECOMMENDED THE VENDOR SUBJECT THE COMMUTATOR IN ITS FINAL CONFIGURATION TO 50 HOURS OF OPERATION DURING PRODUCTION TO BREAK IN THE MOTOR, GEARS, ETC.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-4197-F OSCILLATOR-TUBE, ELECTRONIC	FAR 55-13537-809	1350 631023	FACTORY	YES YES	BENDIX	891486

FAILURE MODE-OUT OF TOLERANCE. THE TELEMETRY PACKAGE FAILED WHEN CHANNELS E AND 11 HAD EXCESSIVE NOISE, CHANNEL-A W AS OUT OF BAND ON THE LOW FREQUENCY SIDE, AND CHANNEL-A CROSSCOUPLED INTO CHANNEL 13 WHEN DESTRUCT INHIBIT WAS PROGR AMMED. THE LOW FREQUENCY OF CHANNEL-A WAS CAUSED BY THE DRIFTING CHANNEL-A SUBCARRIER OSCILLATOR. THE CROSSCOUPLING WAS CAUSED BY LOW-SUBCARRIER DEVIATION VOLTAGE OF THE CHANNEL 13 OSCILLATOR AND THE LOW FREQUENCY OF CHANNEL-A. THE DRIFTING CHANNEL-A SUBCARRIER OSCILLATOR WAS CAUSED BY CHANGING CHARACTERISTICS OF THE MODULATOR TUBE, TYPE 8111.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-4197-F COMMUTATOR	FAR 55-13537-809	1350 631023	FACTORY	YES NO	BENDIX	891509

FAILURE MODE-CONTAMINATION. THE TELEMETRY PACKAGE FAILED WHEN CHANNELS-E AND 11 HAD EXCESSIVE NOISE, CHANNEL-A WAS OUT OF BAND ON THE LOW FREQUENCY SIDE, AND CHANNEL-A CROSSCOUPLED INTO CHANNEL 13 WHEN DESTRUCT INHIBIT WAS PROGRAMM ED. THE EXCESSIVE NOISE ON CHANNELS E AND 11 WAS CAUSED BY DIRTY COMMUTATOR SEGMENTS.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4254-F OSCILLATOR/RESISTOR	FAR 7-01488-863	631023	FACTORY	YES NO	BENDIX TGE31	

FAILURE MODE-ERRATIC OPERATION. UNIT HAD ERRATIC OUTPUT. FAILURE CONFIRMED. CAUSE WAS CHANGE OF RESISTANCE OF R14.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							891982

CORRECTIVE ACTION-NONE. REASON FOR RESISTANCE CHANGE COULD NOT BE DETERMINED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC AMPLIFIER ERS	A-88-24-4330-F	FAR 27-01444-3	631023	FACTORY	YES NO	KINETICS M798	891959

FAILURE MODE-OUT OF TOLERANCE. DIFFERENTIAL AMPLIFIER FAILED WHEN IT WOULD NOT NULL BELOW 0.015 VOLT DC. SPECIFIED NULL IS 0.000 PLUS OR MINUS 0.003 VOLT DC. FAILURE WAS NOT CONFIRMED. CAUSE OF REPORTED FAILURE ATTRIBUTED TO A FLOATING GROUND IN THE TEST EQUIPMENT.

CORRECTIVE ACTION-OLD TEST SET WAS REPLACED WITH A NEW TEST SET HAVING AN EARTH GROUNDING SYSTEM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER-TRANSMITTER ERS	AX63-0003-1350/FC-CO-01-0302-004	COMPOSITE-FACTORY	1350 631022		YES NO		889638

FAILURE MODE-ERRATIC OPERATION. CHANNELS E AND 11 OF TELEMETER NO. 1 INDICATED A NOISE LEVEL OF 6 TO 7 PCT IBW; 3 PCT IBWIS ALLOWED. THE CHANNEL A MASTER PULSE AND 100 PCT CALIBRATE PULSE, WERE FROM 1 TO 2 PCT FBW BEYOND THE LOW FREQUENCY BAND EDGE. MEASUREMENT D7V; MONITORED ON CHANNEL A; INDICATED EXCESSIVE CROSS-COUPLING INTO CHANNEL 13 WHEN DESTRUCT INHIBIT WAS PROGRAMMED.

SYSTEM EFFECT-ERRATIC OPERATION.

VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEMS LEVEL AND COMPOSITE TESTING REQUIRED.

CORRECTIVE ACTION-REPLACED TELEMETER NO. 1.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TEMPERATURE TRANSDUCER O-RING ERS	FR69C2177.1	UTP-PRT 7-01649-9	631022	60/C	YES NO	ROSEMOUNT 134A6	892103

FAILURE MODE-LEAKAGE-EXTERNAL. DURING SATISFACTORY PERFORMANCE TEST THE TEST SPECIMEN LEAKED 15CC IMMEDIATELY WHILE UNDER PRESSURE OF 3000 PSIA OF GHE. THE ALLOWABLE TOLERANCE IS 2.5CC/MIN. CAUSED BY SCRATCHES IN THE O-RING SEAT WHICH WERE CAUSED BY NOT LUBRICATING THE O-RINGS DURING TEST INSTALLATION.

CORRECTIVE ACTION-TESTING TO CONTINUE WITH REPLACEMENT UNIT. TESTING AGENCY HAS BEEN ADVISED OF THE NECESSITY OF FOLLOWING THE TEST PROCEDURE. REF-FRR-654-2-052.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A8-24-4176-F CANNISTER	FAR 27-11618-823	2160 631022	FACTORY	NO NO	60C	691981

FAILURE MODE-OUT OF SPECIFICATION. THE TELEMETRY ACCESSORY CANISTER FAILED WHEN A SIMULATED TEMPERATURE MEASUREMENT WAS TEN PERCENT HIGHER THAN THE SIMULATED VALUE. THE ALLOWABLE TOLERANCE IS 5 PERCENT. THE CANISTER FAILURE WAS NOT CONFIRMED. ANALYSIS SHOWED THAT THE FAILURE WAS CAUSED BY MISHANDLING OF THE SIMULATOR RESISTOR, CRACKING THE RESISTOR LEAD.

CORRECTIVE ACTION-PERSONNEL ENGAGED IN THE INSTALLATION OF SIMULATOR RESISTORS IN THE TELEMETRY SYSTEM WERE CAUTIONED NOT TO USE RESISTORS WITH SEVERELY DENT LEADS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A8-24-4171-F COMMUTATOR, MOTOR	FAR 27-11541-833	2160 631022	FACTORY	YES NO	BENDIX	691947

FAILURE MODE-OUT OF SPECIFICATION. THE TELEMETRY RF 1 CANISTER FAILED WHEN THE 30 RPS MOTOR WAS CALCULATED TO BE RUNNING AT 35 RPS. FAILURE WAS CAUSED BY THE CONTACTS OF THE GOVERNOR ON THE 30 RPS MOTOR STICKING CLOSED DUE TO ARCING AND PITTING ON THE CONTACT SURFACE. ARCING WAS CAUSED BY MECHANICAL GRINDING OF THE SOFT BRUSHES IN THE MOTOR CAUSING CURRENT TO FLOW IN EXCESS OF THE CONTACT RATING.

CORRECTIVE ACTION-NONE. CORRECTIVE ACTION CONTROL CENTER IS PLANNING TO REQUEST A SURVEY OF ALL REED AND REESE MOTORS REMAINING IN HEAVYWEIGHT TELEMETER PACKAGES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR-69C-2037.1 TEMPERATURE TRANSDUCER-O-RING	UTP-PRT 7-01633-8	631022	60/C	YES NO	ROSEMOUNT	691536

FAILURE MODE-LEAK EXTERNAL. THE SPECIMEN LEAKED 15CC IN 15 SECONDS. THE TOLERANCE IS 1.0 CC/MIN. THE O-RING SEATING SURFACE WAS SCRATCHED DUE TO NOT BEING LUBRICATED WHEN INSTALLED IN THE TEST FIXTURE.

CORRECTIVE ACTION-LAB PERSONNEL WERE REQUESTED TO LUBRICATE THE O-RINGS PER THE TEST PROCEDURE DURING FUTURE TESTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-21 8.1 TEMPERATURE TRANSDUCER	UTP-PRT 7-01648-11	631022	FACTORY	YES NO	ROSEMOUNT 134AC	

FAILURE MODE-LEAK-EXTERNAL. DURING INITIAL EXAMINATION OF PRODUCT, SPECIMEN LEAKED 15 CC/MIN WHERE 2.5 CC/MIN IS ALLOWABLE. THE FAILURE WAS DUE TO A SCRATCH ON A CHAMFERED SURFACE OF THE UNIT.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							899746

CORRECTIVE ACTION-THE ALLOWABLE LEAKAGE RATE WAS RAISED TO 10 CC/MIN AND THE LEAKAGE CHECK ADDED THROUGH THE HEAD O NLY, ON EACH TEST SPECIMEN FOLLOWING COMPLETION OF TESTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-2165.1 TEMPERATURE TRANSDUCER	UTP-PRT 7-01664-23	831DEC	FACTORY	YES NO	LEWIS 868306	899743

FAILURE MODE-LEAK-EXTERNAL. DURING EXAMINATION OF THE PRODUCT, THE SPECIMEN LEAKED 15CC IN 10 SECONDS WHEN 2.5 CC/M IN IS ALLOWABLE. THE FAILURE WAS DETERMINED TO BE CAUSED BY A SCRATCH ON THE O-RING MATING SURFACE.

CORRECTIVE ACTION-GD/C INSTITUTED ADDITIONAL INSTRUCTIONS TO INSURE PROPER INSTALLATION OF TRANSDUCER IN THE LEAK T EST FIXTURE. THE ALLOWABLE LEAKAGE RATE WAS RAISED TO 10 CC/MIN AND LEAKAGE CHECK ADDED THROUGH THE HEAD ONLY, ON EA CH TEST SPECIMEN FOLLOWING COMPLETION OF TESTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX63-0003-1990/FC-CO-02-0006-005 COMMUTATOR MOTOR	COMPOSITE-FACTORY 27-11541-937	1990 831019		YES NO		899642

FAILURE MODE-ERRATIC OPERATION- CHANNELS 11, 15 AND 16 INDICATED EXCESSIVE COMMUTATOR SPEED VARIATIONS DUE TO A FAU LTY COMMUTATOR MOTOR.

SYSTEM EFFECT-ERRATIC OPERATION.

VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND PARTIAL COMPOSITE. RETEST WAS REQUIRED.

CORRECTIVE ACTION-THE COMMUTATOR MOTOR WAS REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA63-0039/P3-403-00-197 TLM CANISTER	COUNTDOWN 27-11541-531	1970 831018	ETR-13 -3240	YES NO		899647

FAILURE MODE-FAIL DURING OPERATION. CHANNEL 18 FAILED TO OPERATE DURING WARMUP FOR SCT NO 2.

SYSTEM EFFECT-OPERATION DOES NOT START. NO INDICATION OF CHANNEL 18 SUBCARRIER OSCILLATOR WAS SEEN.

VEHICLE EFFECT-COUNTDOWN DELAYED 48 MINUTES.

CORRECTIVE ACTION-CANISTER REPLACED-IR906606.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	P1-6CO-03-136 OSCILLATOR	COMPOSITE-J FACT	136F 651018	11	YES NO		097838

FAILURE MODE-OUT OF TOLERANCE. POSSIBLE SUBCARRIER OSCILLATOR SHIFT.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA63-0045/P1-6CO-03-136 COMMUTATOR MOTOR	COMPOSITE-J FACT	136F 651018	11	YES NO		096814

FAILURE MODE-FAIL DURING OPERATION. DURING JOINT FACT THE 8 RPS COMMUTATOR MOTOR FOR CHANNELS 12 AND 13 OF RF 1 SLOWED TO 3 RPS.

SYSTEM EFFECT-OPERATION TOO LOW. DATA PROCESSING WOULD HAVE BEEN DIFFICULT.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-TELEMETRY CANISTER WAS REMOVED AND REPLACED. MOTOR WAS REMOVED FROM THE FAILED CAN AND REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4452-F TRANSDUCER, INSTRUMENTATION	FAR 7-01783-11	651018	SAN DIEG O	YES NO	BOURNS 420130-30-752	092117

FAILURE MODE-ERRATIC OPERATION. 4 TRANSDUCERS EXHIBITED A POSITIVE SHIFT GREATER THAN THE ALLOWABLE PLUS OR MINUS 1.0 PERCENT STATIC ERROR. ANALYSIS REVEALED NO INTERNAL DISCREPANCIES; THEREFORE, THE FAILURES WERE ATTRIBUTED TO OVERPRESSURIZATION.

CORRECTIVE ACTION-ENGINEERING DEPARTMENT PERFORMED A SURVEY PER MEMO 577-6-852 WHICH CALLED FOR THE PURGING OF ALL INSTALLED, IN STOCK AND SPARE UNITS (SURVEY 82-63, REVISION A). VENDOR HAS INITIATED NEW CLEANING PROCEDURES WHICH SHOULD ELIMINATE RECURRENCE OF THIS FAILURE MODE. MISSILE CHECKOUT PERSONNEL WERE CAUTIONED AGAINST OVERPRESSURIZATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4271-F TRANSDUCER, INSTRUMENTATION	FAR 7-01783-11	651018	FACTORY	YES NO	BOURNS 42013-0-30-752	

FAILURE MODE-STRUCTURAL. TRANSDUCER EXHIBITED AN ERRATIC OUTPUT FAILURE WAS DUE TO A COMBINATION OF THE CASE PRESSU

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
RE BEING AT ATMOSPHERIC INSTEAD OF ZERO AND THE BALL OF THE BALL-AND-SOCKET CONNECTION BEING PARTIALLY PULLED OUT OF THE SOCKET. WITH THE CASE REFERENCE PRESSURE LOST, THE WIPER ARM WAS NEAR THE END OF THE RESISTANCE MANDREL. WHEN A VACUUM WAS DRAWN TO PERFORM A CALIBRATION TEST, THE PRESSURE-SENSING BELLOWS ATTEMPTED TO PULL THE WIPER ARM APPROX IMATELY ONE-THIRD FARTHER DOWN THE MANDREL. IN THIS INSTANCE THE BALL WAS PULLED OUT OF THE SOCKET. EXTENSIVE LEAK T ESTS FAILED TO REVEAL THE LOCATION OF THE LEAK CAUSING THE CASE REFERENCE PRESSURE TO BE LOST, HOWEVER, IT WAS CONC LUDED LEAKAGE OCCURRED THROUGH THE WELDED AREAS AT EACH END OF THE TRANSDUCER CASE. CORRECTIVE ACTION-VENDOR HAS ESTABLISHED A WELDING SCHOOL SO THAT WELDING PERSONNEL CAN BE TRAINED, TESTED AND CERT IFIED IN CORRECT WELDING TECHNIQUES.							691184
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FR69C-3018.1 PRESSURE TRANSDUCER	UTP-PAT 69-01003-21	631018	FACTORY	NO NO	BOURNS 2004206306	690778
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER OUTPUT AT AMBIENT PRESSURE WAS 26.67 PERCENT. IT SHOULD HAVE BEEN 9.8 PER CENT. THE FAILURE WAS DUE TO OVER PRESSURIZATION. THIS OCCURRED AFTER IT HAD LEFT THE STANDARDS LABORATORY. S/N 306-0269. CORRECTIVE ACTION-A ONE POINT OUTPUT CHECK OF THE TRANSDUCERS IS BEING MADE AFTER CLEANING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-4206-F BUS WIRE	FAR 69-11201-801	1990 631017	FACTORY	YES NO		692691
FAILURE MODE-ELECTRICAL OPEN. AN OPEN CIRCUIT WAS INDICATED BETWEEN PINS SHALL E TO K OF THE BUSSING ASSEMBLY. FAIL URE WAS DUE TO THE COPPER WIRE NOT BEING STRIPPED OF ITS VARNISH COATING BEFORE INSERTION INTO PIN K. CORRECTIVE ACTION-FACTORY PERSONNEL WERE NOTIFIED OF THE FAILURE AND CAUTIONED TO EXERCISE MORE CARE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4193-F OSCILLATOR	FAR 27-11541-931	1970 631017	13	YES NO	BENDIX 1043630	691312
FAILURE MODE-FAIL DURING OPERATION. THE TELEMETRY CANISTER FAILED WHEN THE CHANNEL-13 OSCILLATOR HAD NO OUTPUT. THE FAILURE WAS NOT CONFIRMED BECAUSE THE FAILED PART WAS REMOVED FROM THE CANISTER AND REPLACED WITH A GOOD PART BEFOR E FAILURE ANALYSIS. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-66-24-294-F TEMPERATURE TRANSDUCER	FAR 27-01287-5	1-3 631017	3-4	YES NO	TRANSONICS	000396

FAILURE MODE-OUT OF EXPECTED TEST VALUE. DATA ABRUPTLY WENT OFF SCALE HIGH AT MES PLUS 340 SECONDS. MEASUREMENT CAN E ON SCALE AFTER THE TEST. ANALYSIS COULD NOT CONFIRM FAILURE. HOWEVER, A STRESS FAILURE OF THE COIL WIRE DUE TO TEN SION WAS CAUSING AN OPEN CIRCUIT CONDITION IN THE TRANSDUCER.

CORRECTIVE ACTION-A.) VENDOR REVIEW COIL WINDING INSPECTION AND B.) DESIGN GROUP EXAMINE THE LIMITING ELEMENTS OF E XCESSIVE HEAT, CURRENT, VIBRATION, AND INSTALLATION AS BEING INDIVIDUAL OR COMBINED CAUSES OF FAILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69-2040.1 PRESSURE TRANSDUCER	UTP-PAT 69-01003-31	631016	40/C	NO NO	BOURNS 2007371703	002336

FAILURE MODE-OUT OF SPECIFICATION. AVERAGE RESPONSE TIME WITH 4 TESTS, 15.2 MILLISEC. SPECIFICATION IS 15.0 MILLISE CONDS.

CORRECTIVE ACTION-NONE. RESPONSE TIME OF THE TEST EQUIPMENT IS 0.3 MILLISEC. THEREFORE, UNIT IS WITHIN SPECIFICATIO N.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-90-24-4188-F COMMUTATOR	FAR 27-12642-603	224D 631016	WTR	YES NO	UNITED ELECTRO DYNAMICS 143646	001019

FAILURE MODE-CONTAMINATION. THE SIGNAL CONVERTER FAILED WHEN THE NEGATIVE GATE WAS SHIFTING IN A RANDOM PATTERN. TH E FAILURE WAS CAUSED BY PARTICLES OF POTTING COMPOUND GETTING BETWEEN THE WIPER AND THE COMMUTATOR SURFACE. THE POTT ING COMPOUND CAME FROM THE UPPER PORTION OF THE COMMUTATOR WHERE THE COMMUTATOR SEGMENT WIRES ARE SECURED IN THE ASS EMBLY.

CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN. THE VENDOR STATES THAT POTTING COMPOUND FLAKING CAN ONLY BE CAUSED BY REMOVAL AND REASSEMBLY OF THE ENDCAP OF THE COMMUTATOR. THERE IS NO PROOF THAT THE ENDCAP HAD NOT BEEN REMOVED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4192-C AMPLIFIER	FAR 27-11884-3	265D 631016	FACTORY	NO NO		

FAILURE MODE-OUT OF SPEC. THE MAG-AMP OUTPUT OF THE MAGNETIC AMPLIFIER ASSEMBLY WAS 25 PERCENT OF FULL BANDWIDTH WH EN 75 PERCENT WAS EXPECTED. THE FAILURE ANALYSIS WAS CANCELLED BECAUSE THE ASSEMBLY HAD BEEN CALIBRATED TO THE WRONG VOLTAGE, AND THEREFORE WOULD NOT OPERATE WITHIN SPEC.

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							691313

CORRECTIVE ACTION-THE CALIBRATION DOCUMENT WAS UPDATED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-298-C PRESSURE TRANSDUCER	FAR 58-01107-63	651015	FACTORY	YES NO	COLVIN 401-6-4-75	690395

FAILURE MODE-LEAK EXTERNAL. GD/C STANDARDS LAB FOUND THIS TRANSDUCER TO BE LEAKING AROUND THE BASE OF THE ELECTRICA L CONNECTOR.

CORRECTIVE ACTION-ANALYSIS CANCELLED BY CENTAUR RELIABILITY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4374-F OSCILLATOR ELECTRONIC TUBE	FAR 27-11541-933	2160 651014	FACTORY	YES NO	BENDIX 303-0038	693563

FAILURE MODE-ERRATIC OPERATION. THE CHANNEL 4 OSCILLATOR TRANSMITTED A RANDOM FREQUENCY. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A DEFECTIVE VACUUM TUBE IN THE OSCILLATOR. THE EXACT CAUSE OF FAILURE COULD NOT BE DETERMINED DUE TO I NADVERTENT DESTRUCTION OF THE VACUUM TUBE DURING FAILURE ANALYSIS.

CORRECTIVE ACTION-NO SPECIFIC CORRECTIVE ACTION WAS TAKEN DUE TO THE DESTRUCTION OF THE VACUUM TUBE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4223-F CALIBRATOR-TRANSISTOR	FAR 27-12291-1	651014	FACTORY	YES NO		693878

FAILURE MODE-OUT OF TOLERANCE. THE CALIBRATOR FAILED WHEN OPERATION TIME WAS ZERO SECONDS. THE CALIBRATOR SHOULD OP ERATE FROM 15 TO 35 SECONDS, ACCORDING TO EOP 330.409. FAILURE ANALYSIS DID NOT CONFIRM THE OPERATING TIME OF ZERO S ECONDS. THE CALIBRATOR WAS FOUND TO HAVE A SLIGHTLY HIGH OPERATING TIME. THIS WAS CAUSED BY A LEAKY BASE TO EMITTER B-S TRANSISTOR. THE TRANSISTOR ALSO HAD A LOW CURRENT GAIN. THE CAUSE OF THE TRANSISTOR FAILURE IS NOT KNOWN.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4231-F OSCILLATOR POTENTIOMETER	FAR 7-01664-883	651014	FACTORY	YES NO	BENDIX 1040639-107	

FAILURE MODE-OUT OF SPECIFICATION. OUTPUT WAS TOO HIGH FOR A GIVEN INPUT STIMULUS. ADJUSTING DEVIATION POTENTIOMETE

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R HAD NO EFFECT. FAILURE WAS CONFIRMED AND ATTRIBUTED TO A FAULTY SOLDER CONNECTION. CORRECTIVE ACTION-VENDOR WAS INFORMED OF FAILURE MODE AND REQUESTED TO REVIEW SOLDERING TECHNIQUES.							888879
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4270-F CALIBRATOR	FAR 87-12881-1	681014	FACTORY	YES NO		891337
FAILURE MODE-OUT OF TOLERANCE. OPERATION TIME WAS 37 SECONDS WHEN 18 TO 35 SECONDS IS ALLOWED. FAILURE CONFIRMED. C ALIBRATOR DURING ANALYSIS FAILED TO WORK DUE TO LOW GAIN OF TRANSISTOR Q4. Q4 HAD EXCESSIVE LEAKAGE (BASE TO EMITTER) RESULTING FROM SPIKE BEING APPLIED TO BY THE CALIBRATOR. CORRECTIVE ACTION-DIODES (TYPE 2N910) WERE ADDED ACROSS BASE TO EMITTER OF Q3 AND Q4, LIMITING NEGATIVE SPIKES TO A MAXIMUM OF 5 VDC.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4413-F MAGNETIC AMPLIFIER	FAR 80-07900-017	681012	FACTORY	YES NO	MICRO MAGNETIC 12-101-4	893356
FAILURE MODE-FAIL DURING OPERATION. THE MAGNETIC AMPLIFIER DID NOT OPERATE AT TEMPERATURES BELOW 55 DEGREES F. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4346-F AMPLIFIER ELECTRICAL CONNECTOR	FAR 87-11804-3	2830 681012	FACTORY	YES NO		893077
FAILURE MODE-ELECTRICAL OPEN, LEADING TO ERRATIC OPERATION. MAGNETIC AMPLIFIER ASSEMBLY FAILED DURING FINAL FACTORY CHECKOUT WHEN ITS OUTPUT VARIED WITH TEMPERATURE CHANGES. FAILURE WAS CONFIRMED AND ATTRIBUTED TO CONNECTOR P3839 B EING CONNECTED BUT NOT SOLDERED IN THE CIRCUIT, THEREBY CAUSING AN OPEN CIRCUIT WITH TEMPERATURE CHANGES. CORRECTIVE ACTION-MANUFACTURING AND INSPECTION PERSONNEL WERE INFORMED OF THE FAILURE AND REQUESTED TO IMPROVE QUA ITY CONTROL OF THE UNIT.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-4184-F CHANGEOVER SWITCH	FAR 7-01722-3	1990 631012	FACTORY	YES NO	GDC	691088

FAILURE MODE-CONTAMINATION. THE TELEMETRY ACCESSORY PACKAGE, 27-11616-839, FAILED WHEN THE PREFLIGHT CALIBRATION OC CURRED DURING THE INTERNAL SEQUENCE. IT SHOULD OCCUR ONLY DURING EXTERNAL SEQUENCE. FAILURE WAS CAUSED BY PINS P12 A ND P10 OF THE POWER CHANGEOVER SWITCH ROTHARING CONTACT WHEN ACTIVATED. THIS WAS CAUSED BY GREASE ON THE CONTACTS CO NCEALING AT LOW TEMPERATURES.

CORRECTIVE ACTION-NONE. NO GREASE HAS BEEN USED IN SWITCHES P/N 7-01722-3, MANUFACTURED AFTER MARCH 1983.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4285-F BANDPASS FILTER	FAR 27-01295-1	631011	FACTORY	YES NO	APPLIED COMPON ENTS AC13030-1	693300

FAILURE MODE-OUT OF SPECIFICATION. THE UNIT FAILED TO MEET SPECIFICATION OF EOP 330.411. THE FAILURE WAS DUE TO AN INCOMPATIBILITY BETWEEN EOP 330.411 AND THE SPECIFICATION CONTROL DRAWING 27-01295.

CORRECTIVE ACTION-EOP 330.411 WAS CORRECTED TO AGREE WITH THE SPECIFICATION CONTROL DRAWING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SLV-99-24-4223-F FILTER, WIRING	FAR 69-01013-1	631011	FACTORY	YES NO		693681

FAILURE MODE-OPEN (ELECT). FOUR REACTORS FAILED IN THEIR NEXT ASSEMBLY, THE FREQUENCY DETECTOR, WHEN THEY WERE FOUN D OPEN ELECTRICALLY. THE FAILURES WERE CONFIRMED. THEY WERE CAUSED BY OPEN CIRCUITS BETWEEN THE PINS AND THE WIRES O F THE WINDINGS. THE OPEN CIRCUIT WAS CAUSED BY INADEQUATE APPLICATION OF HEAT AND SOLDER, IMPROPER POSITIONING OF TH E WIRE, OR IMPROPER CLEANING OF THE WIRE.

CORRECTIVE ACTION-FACTORY PERSONNEL CONCERNED WERE SENT TO GDC SOLDERING SCHOOL. TIGHTER CONTROLS ARE BEING EXERCIS ED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4217-F PRESSURE TRANSDUCER	FAR 7-01720-8	1990 631011	FACTORY	YES NO	BOURNS 73911-0-35-732	

FAILURE MODE-CONTAMINATION. NO OUTPUT. FAILURE CAUSED BY FIBERS OR POTTING COMPOUND LODGING BETWEEN WIPER AND MANDR EL.

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CORRECTIVE ACTION-VENDOR IMPROVED CLEANING FACILITIES AND PRACTICES ON 20 MAR 63. LAST OF THESE UNITS RECEIVED IN M AY 62.							002970
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LT-99-24-4248-F OSCILLATOR/TUBE	FAR 7-01664-863	631011	FACTORY	YES NO	BENDIX 1040659-107	002929
FAILURE MODE-FAIL DURING OPERATION. OSCILLATOR OPERATED INTERMITTENTLY AT POWER APPLICATION. FAILURE CONFIRMED. CAU SED BY CHANGE OF V2 (OSCILLATOR TUBE) CHARACTERISTICS.							
CORRECTIVE ACTION-NONE. UNIT WITHIN WHICH THIS OSCILLATOR IS INSTALLED HAS SINCE BEEN WAIVERED FROM FAILURE ANALYSI S.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4233F BANDPASS FILTER/CAPACITOR	FAR 27-01293-7	631011	FACTORY	YES NO	APPLIED COMPON ENTS AC13030-7	002934
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED WHEN OUTPUT WAS LOW. FAILURE WAS CONFIRMED AND ATTRIBUTE TO A CHAN GE IN VALUE OF THE SERIES RESONANT CAPACITOR AND/OR A CHANGE IN INDUCTOR VALUE.							
CORRECTIVE ACTION-APPLIED COMPONENTS HAS INDICATED, THAT AFTER 1 JUNE 1963 ALL UNITS WILL BE TEMPERATURE CYCLED TO ISOLATE UNIT T CHANGE VALUES. THOSE UNITS DISPLAYING A CHANGE WILL NOT BE ACCEPTED FOR SHIPMENT TO GD/C.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BLV-99-24-4339-F ELECTRICAL FILTER	FAR 27-01293-7	631011	FACTORY	YES NO	APPLIED COMPON ENTS AC1-3030-7	002893
FAILURE MODE-OPEN (ELECT). BANDPASS FILTER FAILED WHEN OUTPUT WAS INTERMITTENT. FAILURE WAS CONFIRMED AND DUE TO AN OPEN CIRCUIT OF THE SERIES-RESONANT INDUCTOR LEAD AS A RESULT OF PRESSURES ON THE CASE DURING HANDLING, TESTING, OR INSTALLATION IN THE LIMITER FILTER.							
CORRECTIVE ACTION-VENDOR HAS INDICATED ALL FUTURE BANDPASS FILTERS OF THIS PART NUMBER WILL BE ENCLOSED IN A METAL CONTAINER. THIS WILL PREVENT DAMAGE TO INTERNAL PARTS DUE TO EXTERNAL PRESSURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-99-24-4179-F AMPLIFIER.	FAR	631011	FACTORY	NO NO	BENDIX 1086170	
FAILURE MODE-OUT OF SPECIFICATION. THE AMPLIFIER HAD AN OUTPUT OF 4.0 WATTS. THE SPECIFICATION MINIMUM IS 4.5 WATTS							

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. THE FAILURE WAS NOT CONFIRMED. IT WAS LEARNED DURING ANALYSIS THAT AN EXTERNAL LOAD WAS USED DURING ORIGINAL TESTI NG. THE EOP CALLS FOR THE TEST TO BE MADE WITH NO EXTERNAL LOAD ON THE AMPLIFIER. IMPROPER TESTING METHODS CAUSED TH E REJECTION OF THE AMPLIFIER. CORRECTIVE ACTION-FAILURE NOT CONFIRMED. AN AVOID VERBAL ORDER FORM WAS SENT TO TESTING DEPARTMENT SUPERVISION ON 2 5 OCTOBER 1983 REQUESTING TESTING PERSONNEL BE CAUTIONED TO FOLLOW CORRECT PROCEDURES.							881940
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-81-24-4252-F COMMUTATOR/CONNECTOR	FAR 87-01251-1	831011	FACTORY	YES NO	BENDIX 10570298	881063
FAILURE MODE-CONTAMINATION. UNIT WAS REPORTED TO HAVE THE A SECTION ODD AND EVEN SEGMENTS SHORTED TOGETHER. FAILURE WAS CONFIRMED. CAUSE BY CONTAMINATION IN THE INPUT CONNECTOR. CORRECTIVE ACTION-TECHNICIANS AND INSPECTORS WERE INFORMED TO BE MORE CAREFUL IN CONNECTING AND INSPECTING ELECTRIC AL CONNECTORS TO ELIMINATE FAIL- URES DUE TO CONTAMINATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-LV-A8-24-4226 PRESSURE TRANSDUCER	FAR 87-93000-033	1990 831010	FACTORY	YES NO	SERVONIC L-84	883359
FAILURE MODE-OUT OF EXPECTED TEST VALUE. THE TRANSDUCER (MEASUREMENT P116P) FAILED WHEN OUTPUT VOLTAGE WAS REPORTED AS BEING TOO HIGH. CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A8-24-4212-F PRESSURE TRANSDUCER	FAR 7-01723-11	1990 831010	FACTORY	YES NO	BOURNS 42013-0-30-752	882874
FAILURE MODE-OUT OF SPECIFICATION. OUTPUT MEASURED 41 PERCENT IBW WHEN 30 PERCENT IBW IS EXPECTED. A POSITIVE 13.3 PERCENT ERROR WAS FOUND DURING TESTING WHEN PLUS OR MINUS 1.0 PERCENT IS ALLOWED. FAILURE CAUSED BY OVERPRESSURIZATI ON OF THE TRANSDUCER. CORRECTIVE ACTION-PROCEDURES AND METHODS REVIEWED FOR AMBIGUITY OR POSSIBLE MISINTERPRETATION. BUT NONE WERE FOUND.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-4174-F PRESSURE TRANSDUCER	FAR 7-01723-13	1550 651010	FACTORY	YES NO	CONSOLIDATED E LECTRO DYN 4-200-MA-100	002971

FAILURE MODE-STRUCTURAL. UNIT INDICATED AN OPEN CONDITION THROUGHOUT TESTING. REPORTED FAILURE NOT CONFIRMED. HOWEV ER, ERRATIC OUTPUT FOUND DURING ANALYSIS. IT IS CONCLUDED THE UNIT WAS VIBRATION SENSITIVE PRIOR TO VIBRATION TESTIN G AND THAT WIPER DRIVING LINK SCREW WAS LOOSENED DURING VIBRATION CAUSING UNIT TO FAIL.

CORRECTIVE ACTION-NONE. VENDOR NO LONGER MAKING THIS TRANSDUCER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4237-F DEMODULATOR/TRANSFORMER	FAR 27-12SE6-1	651010	FACTORY		002926

FAILURE MODE-ELECTRICAL SHORT. PEAK TO PEAK OUTPUT VOLTAGE WAS 1.9 VOLTS WHEN 3.15V P/P WAS SPECIFIED. FAILURE VERI FIED. CAUSED 3" X BURNED AND SHORTED PORTION OF THE PRIMARY OF T-3.

CORRECTIVE ACTION-NONE. DAMAGE OF BURNED AREA WAS SO EXTENSIVE THAT THE EXACT CAUSE OF FAILURE COULD NOT BE DETERMI NED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4219-F CALIBRATOR-RELAY	FAR 7-12223-3	651010	FACTORY	YES NO	002966A

FAILURE MODE-ERRATIC OPERATION. THE IN-FLIGHT CALIBRATOR FAILED WHEN CALIBRATE PULSES WERE INTERMITTENTLY MISSING. FAILURE WAS CAUSED BY THE DEFECTIVE K-4 RELAY.

CORRECTIVE ACTION-NONE. CAUSE OF RELAY FAILURE NOT DETERMINED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4232-F AC-DC CONVERTER	FAR 27-12SE2-3	651010	FACTORY	YES NO	002971

FAILURE MODE-DRIFT. OUTPUT DRIFTED 0.006 VDC. MAX. DRIFT ALLOWED IS 0.001 VDC. FAILURE COULD NOT BE CONFIRMED.

CORRECTIVE ACTION-NONE. FAILURES COULD NEITHER BE DUPLICATED NOR EVIDENCE OF FAILURE FOUND.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4238-F TRANSDUCER, INSTRUMENTATION	FAR 7-01720-8	631010	FACTORY	YES NO	BOURNS 73311-0-35-752	891608
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER INDICATED A NEGATIVE STATIC ERROR OF -1.72 PERCENT. FAILURE WAS NOT CONFIRMED AND NO SUPPOSITION OF THE CAUSE OF THE REPORTED FAILURE WAS MADE. CORRECTIVE ACTION-NONE. FAILURE NON CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4251-F OSCILLATOR	FAR 7-01664-851	631010	FACTORY	YES NO	BENDIX TOE41	891064
FAILURE MODE-FAIL DURING OPERATION. UNIT HAD NO OUTPUT. FAILURE WAS CONFIRMED. DURING ANALYSIS FAILURE MODE CORRECTED ITSELF AND DID NOT RECURR. NO EVIDENCE COULD BE FOUND AS TO THE PROBABLE CAUSE. CORRECTIVE ACTION-NONE. FAILURE DISAPPEARED AND COULD NOT BE CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4176-F RELAY	FAR 27-11873-1	1990 631007	FACTORY	YES NO	GDC	891949
FAILURE MODE-OUT OF TOLERANCE. ASSEMBLY HAD NO CONTINUITY BETWEEN PINS D AND F WITH THE COIL ENERGIZED. ANALYSIS SHOWEDTHAT THREE JUMPER WIRES IN THE RELAY WERE MISSING. RELAY TYPE 88-73900-189. CORRECTIVE ACTION-PLANNING PAPER 27-11873-1, BOI, WAS RELEASED, CALLING FOR AN ADDITIONAL ELECTRICAL CHECK OF THE RELAY ASSEMBLY BEFORE POTTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4204-F FILTER-TRANSFORMER	FAR 27-12406-3	631007	FACTORY	YES NO	GDC	
FAILURE MODE-ELECTRICAL OPEN. THE LIMITER FILTER OUTPUT COULD NOT BE ADJUSTED ABOVE 4.3 MILLIVOLTS AC, WHEREAS 287MILLIVOLTS AC ARE SPECIFIED. AN OPEN CIRCUIT IN THE SECONDARY WINDING OF TRANSFORMER T-1 RESULTED IN LOSS OF GROUND REFERENCE, CAUSING THE FAILURE. THE TRANSFORMER COULD HAVE FAILED AS A RESULT OFMANUFACTURING DEFECT OR BY MISAPPLICATION OF VOLTAGES. THE MISWIRING OF CAPACITOR C-3 APPARENTLY HAD NO EFFECT ON THE FAILURE. N/A 27-12390. CORRECTIVE ACTION-IN AN EFFORT TO PREVENT SIMILAR WIRING DISCREPANCIES, FACTORY PERSONNEL WERE NOTIFIED OF THE FAIL							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
UAL AND ITS CAUSE.							891319
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4196-F CONVERTER-CAPACITOR	FAR 87-12858-5	631007	FACTORY	YES NO	GDC	891310
FAILURE MODE-CONTAMINATION. THE AC-DC CONVERTER WAS REMOVED FROM THE TOP PACKAGE AFTER CAPACITOR C-1 ALLEGEDLY BURNED OUT. THE C-1 FAILURE WAS NOT CONFIRMED. HOWEVER, THE C-8 CAPACITOR WAS BEING SHORTED-OUT BY A GRAY PASTY SUBSTANCE. THIS CONTAMINATION ALSO PARTIALLY SHORTED THE TERMINALS OF TRANSISTOR Q-1, 2N-335. THE SOURCE OF THE CONTAMINATION WAS NOT FOUND. CORRECTIVE ACTION-SHOP AND INSPECTION PERSONNEL WERE CAUTIONED TO TAKE EXTREME CARE TO SAFEGUARD AGAINST CONTAMINATING ELECTRONIC PACKAGES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SP-A9-24-4203 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 87-93900-033	1990 631006	FACTORY	YES NO	SERVONIC L-64	894881
FAILURE MODE-STRUCTURAL. THE TRANSDUCER FAILED WHEN IT READ 79 PERCENT OUTPUT WITH ZERO PSID APPLIED. OVERPRESSURIZATION AT THE LOW PORT CAUSED PERMANENT DISTORTION OF THE BELLOWS AND SHIFTED THE 0-PSID OF THE WIPER IN A POSITIVE DIRECTION. METAL PARTICLES WERE ALSO FOUND INSIDE THE TRANSDUCER CASE. CORRECTIVE ACTION-RECOMMENDED GD/C APPROPRIATE PERSONNEL BE INFORMED OF THE CAUSE OF FAILURE AND ACTION BE TAKEN TO PRECLUDE RECURRENCE. ALSO RECOMMENDED CONSIDERATION BE GIVEN TO PURGING THIL TRANSDUCER STOCK FOR CONTAMINATED UNITS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4230F OSCILLATOR/TUBE-ELECTRONIC	FAR 7-01488-827	631006	FACTORY	YES NO	BENDIX Y-01488-827	891065
FAILURE MODE-ERRATIC OPERATION. OSCILLATOR DISPLAYED A NON LINEAR OUTPUT FREQUENCY. FAILURE CONFIRMED CAUSE' EXACT CAUSE UNKNOWN SINCE V1 OSCILLATOR TUBE WAS DAMAGED DIRING FAILURE ANALYSIS. PROBLEM WAS ISOLATED TO THE V1 OSCILLATOR TUBE BEFORE IT WAS DAMAGE AND THE MOST LIKELY CAUSE WAS NON LINEAR VARIATIONS OF THE 1A GRID CURRENT. CORRECTIVE ACTION-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4213-F PRESSURE TRANSDUCER	FAR 7-01720-5	1990 631005	FACTORY	YES NO	BOURNS 73511-0-35-752	692975
FAILURE MODE-OUT OF TOLERANCE. NO OUTPUT INDICATED. REPORTED FAILURE NOT CONFIRMED HOWEVER INTERMITTENT OPENS THROU GH THE WIPER OCCURRED. THESE WERE APPARENTLY CAUSED BY OUT OF TOLERANCE CLEARANCES IN VIBRATION DAMPING MECHANISM.							
CORRECTIVE ACTION-NONE. THIS TRANSDUCER NO LONGER BEING MANUFACTURED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-A9-24-4213-F PRESSURE TRANSDUCER	FAR 7-01720-5	1990 631005	FACTORY	YES NO	BOURNS 73511-0-35-752	691369
FAILURE MODE-FAIL DURING OPERATION. UNIT WAS REPORTED TO HAVE NO OUTPUT. FAILURE NOT CONFIRMED. HOWEVER WIPER ARM L IFTOFF WAS EVIDENT WHEN VIBRATED AT 100 CPS AND 10 GS.							
CORRECTIVE ACTION-VENDOR WAS REQUESTED TO REVIEW CONSTRUCTION TECHNIQUES AND TO IMPROVE THE VIBRATION DAMPING QUALI TIES OF THE TRANSDUCERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4272-C LIMITER FILTER ASSEMBLY	FAR 27-12287-1	631004	FACTORY	YES NO	GD/C	691386
FAILURE MODE-OUT OF TOLERANCE. THE FL-2 FILTER COMPONENT WAS REPORTED OUT OF TOLERANCE. FAR WAS CANCELLED BECAUSE U NIT WAS RECEIVED FOR ANALYSIS MISSING THE FL-2 FILTER.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4027-F COMMUTATOR-MOTOR	FAR	631003		YES NO	BENDIX 1096485-65	694413
FAILURE MODE-CONTAMINATION. 80 RPS COMMUTATOR WAS OBSERVED TO BE INTERMITTANT. FAILURE COULD NOT BE DIRECTLY CONFIR MED. HAND TURNING OF THE GEAR TRAIN DISCLOSED A SLIGHT BINDING EFFECT. PLANETARY GEARS WERE CLEANED. BINDING EFFECT THEN DISAPPEARED.							
CORRECTIVE ACTION-VENDOR INFORMED OF PROBLEM AND REQUESTED APPROPRIATE CORRECTIVE ACTION BE TAKEN.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-59-24-4211-F POWER SUPPLY-CAPACITOR	FAR 87-12991-1	631003	FACTORY	YES NO	BENDIX 1048178-3-A	593882

FAILURE MODE-OUT OF TOLERANCE. THE POWER SUPPLY CALIBRATOR INPUT WAS 0.0 TO -0.02 VOLT DC WHEREAS -0.250 VOLT DC WA S EXPECTED. AN 80-MILLIVOLT RMS SIGNAL WAS OBSERVED ACROSS RESISTOR R-114, A 10-OHM REFERENCE RESISTOR. THE FAILURE WAS CAUSED BY CAPACITORS C-110 AND C-111 BEING INCORRECTLY INSTALLED IN THE CIRCUIT, RESULTING IN CROSSCOUPLING OF T HE 108-VOLT POWER SUPPLY CIRCUIT INTO THE 279-VOLT CIRCUIT.

CORRECTIVE ACTION-BENDIX CHANGED TEST PROCEDURE BPB-4DT-2020, TO REQUIRE RIPPLE MEASUREMENTS ON ALL OUTPUT VOLTAGES

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-90-24-4255 TRANSDUCER, INSTRUMENTATION	FAR 7-01783-13	2240 631003	WTR	YES NO	BOURNS 4-380-HA-100	591611

FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER WAS NON-LINEAR AT THE LOW END OF THE SCALE. THE ORIGINAL CALIBRATION SHEE T OF JUNE 18, 1963 SHOWED THE TRANSDUCER OUTSIDE OF STATIC-ERROR-BAND REQUIREMENTS AND SHOULD HAVE BEEN REJECTED AT THAT TIME. ANALYSIS CONFIRMED THE PRESENT FAILURE; HOWEVER, CAUSE OF FAILURE WAS NOT DETERMINED.

CORRECTIVE ACTION-RECOMMENDED PERSONNEL INVOLVED WITH CALIBRATION OF PRESSURE TRANSDUCERS BE INFORMED OF REJECTION REQUIREMENTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-99-24-4183- OSCILLATOR-POTENTIOMETER	FAR 7-01664-853	631003	FACTORY	YES NO	BENDIX 1040659-3-T	591504

FAILURE MODE-FAIL DURING OPERATION. THE OSCILLATOR FAILED WHEN CHANNEL-3 HAD NO OUTPUT. THE OSCILLATOR HAD NO OUTPU T WHEN RECEIVED FOR FAILURE ANALYSIS, DUE TO THE POTENTIOMETER BEING SET FOR NO OUTPUT. HOWEVER, OUTPUT COULD EASILY BE ADJUSTED WITHIN SPECIFICATION REQUIREMENTS BY ADJUSTING THE POTENTIOMETER ACCORDING TO THE EOP.

[redacted] CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-99-24-4190-F OSCILLATOR	FAR 7-01664-853	631003	FACTORY	YES NO	BENDIX 1040659-6-T	

[redacted] FAILURE MODE-FAIL DURING OPERATION. THERE WAS NO OUTPUT FROM CHANNEL 6 OSCILLATOR.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							891514
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4172-F PRESSURE TRANSDUCER	FAR 27-01586-35	631002	FACTORY	YES NO	SERVONICS H-172-4	892970
FAILURE MODE-STRUCTURAL. STATIC ERROR BAND WAS REPORTED TO BE -4.88 PCT. FAILURE CONFIRMED. CAUSE- CRACK IN THE ARE A WHERE THE BOURDON TUBE IS BRAZED TO THE TRANSDUCER BASE. CORRECTIVE ACTION-VENDOR NOW USING A FLUX COATED SILVER BRAZING ALLOY AND FEELS CONSIDE-ABLE IMPROVEMENT WILL BE RE ALIZED. THE H-172 SERIES WERE ALSO REDESIGNED TO FREE THE BRAZED AREA FROM THE EXTERNAL PRESSURE FITTING ELIMINATING TORQUE FROM THIS AREA.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4315-F COMMUTATOR MOTOR	FAR	631002	FACTORY	YES NO	BENDIX 1096485	891446
FAILURE MODE-CONTAMINATION. SPEED VARIATIONS WERE OBSERVED DURING VIBRATION TESTING. 2 UNITS WERE CHECKED UNDER THI S F.A.R. FAILURES WERE CONFIRMED. CAUSE W. CARBON DUST AROUND ARMATURES AND PITTED GOVERNOR CONTACTS. AFTER MOTORS WERE CLEANED AND GOVERNOR CONTACTS BURNISHED, SPEED VARIATIONS WERE WITHIN TOLERANCE. CORRECTIVE ACTION-RAR LV-99-24-3104 WAS WRITTEN REQUESTING REPLACEMENT OF HEAVYWEIGHT COMMUTATORS WITH A LIGHTWEIGH T VERSION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-4170-F COMMUTATOR	FAR 27-11541-937	1990 631000	FACTORY	YES NO	BENDIX 1445630-5	891958
FAILURE MODE-CONTAMINATION. THE TELEMETRY PACKAGE FAILED WHEN CHANNELS 11, 15, AND 16 DISPLAYED EXCESSIVE COMMUTATO R SPEED VARIATION. THE FAILURES WERE CAUSED BY EXCESSIVE AMOUNTS OF MOTOR BRUSH CARBON IN THE GEAR TRAIN AND ON THE GOVERNOR CONTACTS. CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA8231/PS-4CO-08-197 POWER CHANGEOVER SWITCH	COMPOSITE-J FACT	1970 630830	15 PLUS 800	YES NO		
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. AFTER THE PLUS COUNT IT WAS INDICATED THAT TELEMETRY COULD NOT BE							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
RETURNED TO EXTERNAL POWER. SYSTEM EFFECT-OPERATION TOO LONG. SYSTEM WOULD NOT SWITCH TO EXTERNAL. VEHICLE EFFECT-COMPOSITE DELAYED. CORRECTIVE ACTION-CANISTER SENT TO TELEMETRY LAB FOR CHECKOUT.							898861
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDU ERS	LV-99-24-4209-C COMMUTATOR	FAR 27-11242-859	2500 630930	FACTORY	YES NO	BENDIX-PACIFIC 1043644	898869
FAILURE MODE-ERRATIC OPERATION. THE 5-RPS COMMUTATOR FAILED EOP 330.329.10, PARAGRAPH 13, IN THE TOP PACKAGE WHEN C HANNEL 14 HAD EXCESSIVE NOISE. THE UNIT WAS OPENED BY SHOP PERSONNEL AND A BURNED SEGMENT WAS OBSERVED AT SECTION A-52. THE BURNED SEGMENT HAD OCCURRED AT SOME UNDETERMINED TIME PRIOR TO THE TEST, THEREFORE THE CAUSE OF THE FAILURE CANNOT BE DETERMINED. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SF-99-24-4153-F POWER SUPPLY	FAR 27-18991-1	2640 630930	FACTORY	YES NO	BENDIX-PACIFIC AND GDC 1046173-2A	891823
FAILURE MODE-FAIL DURING OPERATION. THE TELEMETRY POWER SUPPLY FAILED WHEN THE SUBCARRIER OSCILLATOR PLATE VOLTAGE READ ZERO. THE REPORTED ZERO OUTPUT VOLTAGE FOR THE 108-VOLT OUTPUT WAS NOT VERIFIED. TELEMETRY POWER SUPPLY FAILURE WAS CAUSED BY THE 108-VOLT OUTPUT BEING SHORTED. THE ACTUAL CAUSE FOR FAILURE COULD NOT BE FOUND SINCE THE TOP PACKAGE WAS NOT RECEIVED FOR FAILURE ANALYSIS. CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4197-F TRANSMITTER-SCREW	FAR 27-01810	2320 630930	FACTORY	YES NO	BENDIX-PACIFIC 3131107-TXV-30 0	
FAILURE MODE-STRUCTURAL. THE TELEMETRY TRANSMITTER FAILED IN THE RF 1 TELEMETRY CANISTER DURING PRODUCTION VIBRATIO N, BY INDICATING NOISE OF APPROXIMATELY 60 CPS AND 8 PERCENT OF FULL BANDWIDTH ON CHANNEL 1. THE FAILURE WAS UNCONFI RMED, BUT, A LUG WAS MISSING FROM INSIDE THE TRANSMITTER. THE VENDOR TORQUE PAINT SEAL HAD NOT BEEN BROKEN. A SCREW ON THE OUTSIDE OF THE TRANSMITTER WAS MISSING. A 60/C DESIGN GROUP HAD PURCHASED THE UNIT. THEREFORE, 60/C RECEIVING INSPECTION WAS BYPASSED. CORRECTIVE ACTION-UNCONFIRMED FAILURE. AN AVO WAS ISSUED TO THE 60/C DESIGN GROUP CONCERNING THEIR ERROR. IN FEBRUA							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
AT 1963 BENDIX-PACIFIC INSPECTION ADDED CLOSE INSPECTION OF LUGS BEFORE MOUNTING THE COVER.							891505
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-4139-F OSCILLATOR	FAR 87-01269-8	630927	FACTORY	YES NO	BENDIX 1038094-7-6A	891515
FAILURE MODE-DRIFT. THE SUBCARRIER OSCILLATOR DRIFTED AS MUCH AS 40 CPS FROM CENTER FREQUENCY. THE TOLERANCE IS PLU S OR MINUS 11 CPS. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-89-24-4111-F POWER SUPPLY	FAR 87-01288-1	630928	FACTORY	YES NO	BENDIX-PACIFIC 1046173-2-A	893413
FAILURE MODE-SHORT (ELECTRICAL). PIN B INDICATED A SHORT WITH PIN A ON RECEPTACLE J-48. POSSIBLE CAUSE IS A SHORT I N THE POWER SUPPLY OR EXTERNALCIRCUITRY ON TWO UNITS. CORRECTIVE ACTION-VENDOR CONTACTED AND INCORPORATING CHANGES TO DRAWINGS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA8249/PS-4CO-05-197 TLM CANISTER	COMPOSITE-B FACT 87-11541-913	1970 630926	ETR-13	YES NO		893239
FAILURE MODE-ERRATIC OPERATION. A NUMBER OF SEGMENTS ON TELEMETRY CHANNEL 14 WERE NOISY. SEGMENTS ASSOCIATED WITH L OX TANK SKIN TEMPS HAD POSITIVE AND NEGATIVE SPIKES. ZERO CALIBRATION PULSE HAD A POSITIVE SPIKE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COMPOSITE DELAYED. CORRECTIVE ACTION-CANISTER SENT TO TELEMETRY LAB. CORRECTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA-8249/PS-4CO-05-197 TLM CANISTER	COMPOSITE-B FACT 87-11616-823	1970 630926	ETR-13	YES YES		
FAILURE MODE-OUT OF SPECIFICATION. ON EXTERNAL POWER ESIV, 400 CYCLE AC PHASE A, INDICATED 112 VOLTS WHILE PANEL ME TER READ 114.6. SWITCHING TO INTERNAL, ESIV ROSE TO 114.4. VOLTAGE DROP ACROSS CHANGEOVER SWITCH WAS DETERMINED TO B E NORMAL. PREVIOUS TESTING HAD SHOWN SIMILAR DISCREPANCIES. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							693239
VEHICLE EFFECT-NONE. NO EFFECT INDICATED. CORRECTIVE ACTION-PROBLEM UNDER INVESTIGATION. A TELEM ACCESSORY PKG HAS BEEN SENT TO TELEM LAB FOR CHECKOUT FOR TH IS REASON.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-19-24-4156-F OSCILLATOR-WIRING	FAR 65-01174-135	630925	FACTORY	YES NO	BENDIX 1062141-176 TO E 305	691681
FAILURE MODE-FAIL DURING OPERATION. THE VOLTAGE CONTROLLED OSCILLATOR FAILED WHEN ITS OUTPUT FREQUENCY BAND EDGES C OULD NOT BE ADJUSTED DUE TO LOW OUTPUT. THE FAILURE WAS CAUSED BY A BROKEN WIRE THAT CONNECTED THE WIPER OF R-19, TH E OUTPUT POTENTIOMETER, TO THE TEST JACK. SOME OF THE WIRE STRANDS HAD BEEN BROKEN DURING WIRE STRIPPING, AND HEAT C AUSED THE REST TO BREAK. CORRECTIVE ACTION-EFFECTIVE 25 NOVEMBER 1963 THE VENDOR USES THERMAL STRIPPERS ON ALL WIRE, AND 100 PERCENT MICROSC OPIC INSPECTION IS DONE ON ALL SOLDER JOINTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4191-F PRESSURE TRANSDUCER	FAR 27-01380-39	2330 630924	FACTORY	YES NO	SERVONIC 2091-0909	692873
FAILURE MODE-INTERNAL LEAK. NO OUTPUT INDICATED. FAILURE CAUSED BY PRESSURE BUILDUP IN THE HERMETICALLY SEALED CASE DUE TO GAS LEAKAGE THROUGH BRAZED JOINT AT BASE OF BOURDON TUBE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NZ-09-24-4158-F AMPLIFIER-TRANSISTOR	FAR 27-01444-3	2330 630924	FACTORY	YES NO	FINETICS	691508
FAILURE MODE-FAIL DURING OPERATION. THE DIFFERENTIAL AMPLIFIER FAILED TO ADJUST TO 5.000 PLUS OR MINUS 0.30 VOLTS D C AS REQUIRED BY EOP 330.771, PARAGRAPH 5.12. FAILURE WAS DUE TO THE B-3 TRANSISTOR WHICH HAD EXCESSIVE EMITTER TO B ASE LEAKAGE. THE CAUSE OF LEAKAGE WAS NOT DETERMINED. CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-Z4-4186-F PRESSURE TRANSDUCER	FAR 87-01356-39	233U 630924	FACTORY	YES NO	SERVONICS 2091-0909	691371

FAILURE MODE-STRUCTURAL. UNIT WAS REPORTED TO HAVE NO OUTPUT. FAILURE CONFIRMED. CAUSE CRACK IN BRAZED AREA OF THE BOURDON TUBE AND PRESSURE FITTING.

CORRECTIVE ACTION-UNIT HAD NOT BEEN INSPECTED TO VENDORS REVISED PROCEDURE BECAUSE IT HAD BEEN MADE PRIOR TO THE REVISION. GREATER CARE WILL BE TAKEN IN THE FUTURE TO DETECT LEAKY TRANSDUCERS AT THE VENDOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-99-Z4-4136F DETECTOR-POTENTIOMETER	FAR 89-11118-1	630923	FACTORY	YES NO		695305

FAILURE MODE-OPEN (ELECT). UNIT COULD NOT BE ADJUSTED TO THE REQUIRED 5.0 VDC OUTPUT. FAILURE WAS CONFIRMED AND WAS CAUSED BY AN OPEN WIRE WINDING OF POTENTIOMETER R-8 (88-75263-011).

CORRECTIVE ACTION-NONE. THIS WAS THE ONLY FAILURE OF ITS KIND AND THIS POTENTIOMETER IS BEING PHASED OUT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-Z4-4258-F LIMITER FILTER	FAR	197D 630921	ETR	YES NO	BENDIX 1045903-2	693096

FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REPORTED OUT OF TOLERANCE. N/A 87-11541-931.

CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-A9-Z4-4150-F CONNECTOR WIRING	FAR 87-13411-807	227D 630921	FACTORY	YES NO		

FAILURE MODE-OPEN (ELECT). THE CONNECTOR WAS OPEN BETWEEN PINS B AND SHALL K. FAILURE WAS CONFIRMED AND WAS DUE TO AN UNSOLDERED CONNECTION BETWEEN THE COPPER WIRE FROM PIN B AND THE CONSTANTAN WIRE FROM PIN SHALL K. THE TWO WIRES WERE NOT PROPERLY TWISTED MECHANICALLY BEFORE THE ATTEMPTED SOLDERING OPERATION, AND FLUX WAS FOUND BETWEEN THE WIRES.

CORRECTIVE ACTION-SOLDER INSPECTORS WERE INSTRUCTED TO -1. INSPECT UNDER AT LEAST A THREE POWER MAGNIFICATION 2. NOT PERMIT ROSIN RESIDUE OR SILVER SOLDER FLUX ON SOLDERED CONNECTIONS 3. USE INSTRUCTIONS RECEIVED IN SOLDERING SCHOO

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L 4. ACCEPT SOLDERED PARTS IN ACCORDANCE WITH BLUEPRINTS 5. ACCEPT PARTS AND JOINTS IN ACCORDANCE WITH APPLICABLE MA NUFACTURING STANDARDS REQUIREMENTS.							891873
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4194-F AMPLIFIER	FAR 27-01289-3	133F 630920	FACTORY	YES NO	BENDIX 1060680-1-C	893311
FAILURE MODE-ELECTRICAL SHORT. THE RF AMPLIFIER HAD EXCESSIVE CURRENT. A SHORT IN THE SCREEN CIRCUIT BETWEEN INDUCT OR L-10 AND RESISTOR R-5 RESULTED IN THE EXCESSIVE CURRENT FLOW. THE SHORT EXISTED WHERE A TERMINAL CONTACTED THE IN SIDE SURFACE OF THE BLOWER-MOUNTED CASE COVER WHEN IT WAS TIGHTENED. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4407-F AMPLIFIER-CAPACITOR	FAR 27-12561-1	630918	FACTORY	YES NO	UED	893331
FAILURE MODE-STRUCTURAL. POWER OUTPUT DECLINED STEADILY. FAILURE WAS CAUSED BY A CRACKED CAPACITOR IN THE OUTPUT PO WER AMPLIFIER. CRACKING CAUSED BY OVER TORQUE. CORRECTIVE ACTION-FUTURE UNITS TO BE VISUALLY INSPECTED PRIOR TO SEALING. ALL CAPACITORS THAT MUST BE TORQUED TO LI MIT WILL BE REPLACED BY NEXT HIGHER RANGE CAPACITOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PPI-TF-69C-1793-3 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-DUAL/PFT 27-01952-13	630918	FACTORY	YES NO	MIANCKO P2-4106-13	890823
FAILURE MODE-OUT OF TOLERANCE. DURING PROOF CYCLE, UNIT WAS OUT OF ERROR BAND. CAUSE OF FAILURE NOT DOCUMENTED. (S/ N 305-0014). CORRECTIVE ACTION-VENDOR REWORKED ALL UNITS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4110-F COMMUTATOR WASHER	FAR 55-01171-9	103F 630917	FACTORY	YES NO	FIFTH DEMENSIO N	
FAILURE MODE-OUT OF SPECIFICATION. COMMUTATOR SPEED DECREASED FROM 3 TO 1.7 RPS AT START OF VIBRATION. THE FAILURE WAS CAUSED BY A DEFORMED WASHER WHICH PREVENTED THE MOTOR BRUSH FROM RIDING FIRMLY ON THE COMMUTATOR RING DURING VIB RATION.							

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							899414
CORRECTIVE ACTION-THE VENDOR INSTITUTED A VERY TIGHT INSPECTION PROGRAM DURING MANUFACTURE OF THE MOTORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-59-24-4148-F INPUT CONNECTOR LEAD WIRE	FAR 58-01148-3	1990 630917	FACTORY	YES NO	TEXAS INSTRUME NTS 433578-7	899827
FAILURE MODE-STRUCTURAL. INTERMITTENT CONTACT OF A BROKEN LEAD WIRE TO PIN 9 OF INPUT CONNECTOR CAUSED BREAKUP OF C HANNEL 1 THROUGH 8 OUTPUTS.							
CORRECTIVE ACTION-VENDOR ADVISED TO TAKE ACTION TO PREVENT RECURRENCE. THOROUGH VISUAL INSPECTION TO LOCATE THIS TY PE OF PROBLEM BEFORE ACCEPTANCE OF THE UNIT WAS CALLED FOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-AB-24-4188-F PRESSURE TRANSDUCER	FAR 27-01366-39	2330 630917	FACTORY	YES NO	SERVONIC H-172-9	892972
FAILURE MODE-LEAK, INTERNAL. OUTPUT WAS 0.38 VDC WHEN 0.48 VDC MINIMUM IS ALLOWED. FAILURE ATTRIBUTED TO PRESSURE B UILDUP IN SEALED CASE DUE TO LEAKAGE THROUGH BRAZE ON FREE END OF BOURDON TUBE.							
CORRECTIVE ACTION-THIS UNIT REPLACED WITH REDESIGNED UNIT WHICH INCORPORATES A FURTHER REVISION OF BRAZING TECHNIQU ES AND MATERIALS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAT-TP-69F-2167-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PAT 27-01552-21	630917	FACTORY	YES NO	WIANCKO PE-4106-21	890331
FAILURE MODE-LEAK-EXTERNAL. DURING EXAMINATION OF PRODUCT, UNIT LEAKED BETWEEN SIDE AND COVER PLATE (S/N 30800611). FAILURE WAS CAUSED BY FAULTY PRESSURE SEAL.							
CORRECTIVE ACTION-VENDOR REDESIGNED AND REWORKED ALL UNITS. MODIFICATION CONSISTED OF SUBSTITUTING SILVER TINNED CO PPER WIRE FOR COPPER WIRE AND A CHANGE IN SOLDERING METHOD.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-59-24-4207-F POWER SUPPLY	FAR 59-13663-1	1990 630913	FACTORY	NO NO		
FAILURE MODE-ERRATIC OPERATION. CHANNELS 8, 9, 10, AND 11 FLUCTUATED OUT OF BAND DUE TO AN ERRATIC REGULATED POWER SUPPLY OUTPUT. A LACK OF COOLING DURING PRODUCTION VIBRATION TESTING CAUSED THE FAILURE.							

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							892899

CORRECTIVE ACTION-NONE. THE REGULATED POWER SUPPLY IS PROPERLY HEAT SINKED WHEN IT IS IN THE TELEMETRY PACKAGE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-3213-F COMMUTATOR-BRUSHES	FAR	630918	FACTORY	YES NO	BENDIX 1086489-39	892474

FAILURE MODE-OUT OF TOLERANCE. MOTOR SPEED TOO HIGH. CAUSED BY BRUSH WEAR.

CORRECTIVE ACTION-EFFECTIVE MAY 23,1963 TIGHTER CONTROL OF BRUSH MATERIAL WAS STARTED BY THE VENDOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-89-24-4157-F OSCILLATOR-TUBE, ELECTRONIC	FAR 7-01488-039	2160 630914	FACTORY	YES NO	BENDIX 1041962-3-K	891659

FAILURE MODE-ERRATIC OPERATION. THE VOLTAGE CONTROLLED OSCILLATOR FAILED WHILE ITS TOP PACKAGE WAS UNDERGOING FINAL ELECTRICAL TESTS, BY INDICATING AN INTERMITTENT OUTPUT. THE FAILURE COULD NOT BE DUPLICATED IN ANALYSIS, HOWEVER, T HE BROKEN GROUND RETURN LEAD FOR THE V-2 TUBE FILAMENT PROBABLY CAUSED INTERMITTENT OPERATION.

CORRECTIVE ACTION-VENDOR INSPECTION PERSONNEL WERE REQUESTED TO USE EXTREME CAUTION WHEN CORRELATING SEAL, DRESS AN D HANDLING TUBE LEADS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A3-24-4107 DIFFERENTIAL AMPLIFIER CAPACITOR	FAR SS-13537-809	1350 630913	FACTORY	YES NO	BENDIX	895416

FAILURE MODE-OUT OF SPECIFICATION. THE LEADING EDGE OF CHANNEL 12 100 PERCENT CALIBRATION PULSE WAS EXCESSIVELY ROU ND. THE FAILURE WAS CAUSED BY A TEMPERATURE SENSITIVE CAPACITOR IN THE DIFFERENTIAL AMPLIFIER.

CORRECTIVE ACTION-THE CAPACITOR WAS REPLACED. ALSO, THE VENDOR INDICATED EXTENSIVE IMPROVEMENTS IN MANUFACTURING TE CHNIQUES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-89-24-4130-F DIFFERENTIAL AMPLIFIER POTENTIOMET ER	FAR SS-01120-8	630913		YES NO	HAYBERRY TRA-52	

FAILURE MODE-OUT OF SPECIFICATION. THE UNIT WAS OBSERVED TO SHIFT IN OUTPUT 120 MILIVOLTS IN ONE MINUTE. THE FAILUR E WAS CONFIRMED AND ATTRIBUTED TO 2 CAUSES. 1.) POOR DESIGN OF UNIT, IN THAT 1 OHM CHANGE ON THE 1000 OHM OUTPUT POT

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ENTIOMETER CAUSED 67 MILIVOLT CHANGE IN OUTPUT. 2) SPECIFICATION CONTROL DRAWING ON UNIT REQUIRES STABILITY OF 150 M ILLIVOLTS DUE TO DRIFT, EOP 55-330.66 WHICH SETS UP THE TOP PACKAGE ALLOWS ONLY 100 MV OF DRIFT.							898304
CORRECTIVE ACTION-VENDOR INITIATED A DESIGN CHANGE FOR UNITS S/N 129 AND ON. FOR THE EXISTING UNITS THE EOP WAS CHA NGED TO ALLOW 150 MV OF DRIFT, WHICH AGREES WITH THE SPECIFICATION CONTROL DRAWING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SP-99-24-4162 PRESSURE TRANSDUCER	FAR 87-01243-7	630912	FACTORY	YES NO	COLVIN 401-A-10-75	894836
FAILURE MODE-STRUCTURAL. THE TRANSDUCER (MEASUREMENT PAD) FAILED WHEN A LEAK WAS OBSERVED AT THE LOCATING PIN. THE PIN HAD BEEN FORCED INTO THE CASE BREAKING THE BRAZE AT ITS BASE.							
CORRECTIVE ACTION-VENDOR CHANGED THE DESIGN OF THE PIN JOINT. THE HOLE IS NOW DRILLED ONLY PARTIALLY THRU THE CASE. THE PIN IS BOTTOMED IN THE HOLE BEFORE SILVER BLAZING FROM THE OUTSIDE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4163-F AMPLIFIER	FAR 55-01120-5	1990 630912	FACTORY	YES NO	MAYBERRY TRA-52	891845
FAILURE MODE-FAIL DURING OPERATION. THE DIFFERENTIAL AMPLIFIER HAD NO OUTPUT ON CHANNEL-A. THE DIFFERENTIAL AMPLIFI ER FAILURE WAS CAUSED BY FAILURE OF TRANSISTORS Q-9 AND Q-10 FROM MISAPPLICATION OF VOLTAGES OR BY A SHORT CIRCUIT F THE OUTPUT.							
CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4158-F REGULATOR, ELECTRICAL-TRANSISTOR	FAR 69-11117-1	630912	FACTORY	YES YES	GDC	891803
FAILURE MODE-FAIL DURING OPERATION. THE REGULATOR ASSEMBLY FAILED DURING EOP 330.733 WHEN RESISTOR R-8 AND TRANSIST OR Q-1 EXPLODED. ANALYSIS SHOWED THAT EXCESSIVE CURRENT THROUGH THE JUNCTIONS OF TRANSISTOR Q-1 CAUSED OVERHEATING, AND PRODUCED SHORT CIRCUITS IN THE TRANSISTOR. THE CAUSE OF THE OVERHEATING WAS NOT DETERMINED. THE FAILURE MAY HAVE BEEN CAUSED BY A DEFECTIVE TRANSISTOR OR BY AN IMPROPER SETTING OF THE LOAD BANK DURING TESTING.							
CORRECTIVE ACTION-PERSONNEL HAVE BEEN INSTRUCTED TO USE CARE WHEN TESTING THE REGULATOR ASSEMBLY.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SP-99-24-4161 PRESSURE TRANSDUCER	FAR 27-01243-7	630912	FACTORY	YES NO	COLVIN 401-A-10-75	000723

FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER (MEASUREMENT P4F) FAILED WHEN A STATIC ERROR OF-3.286 PERCENT WAS OBSERVED AT 80 PSIA. FAILURE WAS THE RESULT OF 1) WIPER COUNTERBALANCING NUT WAS NOT CEMENTED TO ITS STUD; 2) A COLD SOLDER JOINT ATTACHED THE WIRE AT THE HI-PRESSURE END OF THE MANDREL TO THE RESISTANCE WINDINGS AND; 3) THE WIPER CAME ABREAST OF THE LOWEST END OF THE COLD SOLDER JOINT AT APPROX 0.8 V OUTPUT.

CORRECTIVE ACTION-VENDOR CORRECTED CONDITIONS THAT ALLOWED TRANSDUCER TO BE SHIPPED WITH AN UNCEMENTED COUNTERBALANCE NUT. VENDOR IMPROVED QC OF SOLDERING PROCESS AND A CERTIFIED NASA INSTRUCTOR NOW TRAINS SOLDERING PERSONNEL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PPT-TP-69F-1795-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-QUAL/PPT 27-01552-13	630912	FACTORY	NO NO	WIANCKO P2-4106-13	000622

FAILURE MODE-OUT OF TOLERANCE. DURING INITIAL PROOF CYCLE, UNIT STATIC ERROR EXCEEDED 1 PERCENT AT 3.0 AND 3.5 PSID. FAILURE FOUND DUE TO TEST EQUIPMENT CALIBRATION ERROR (S/N 305-0016).

CORRECTIVE ACTION-NONE REQUIRED ON SPECIMEN. TEST EQUIPMENT REVALIDATED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PPT-TP-69F-1795-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-QUAL/PPT 27-01552-51	630912	FACTORY	NO NO	WIANCKO P2-4106-13	000603

FAILURE MODE-OUT OF TOLERANCE. DURING INITIAL PROOF CYCLE, UNIT STATIC ERROR EXCEEDED 1 PERCENT AT 3.0 AND 3.5 PSID. FAILURE FOUND DUE TO TEST EQUIPMENT CALIBRATION ERROR (S/N 305-0015).

CORRECTIVE ACTION-NONE REQUIRED ON SPECIMEN. TEST EQUIPMENT REVALIDATED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4140-C DEMODULATOR	FAR 27-12375-601	630910	FACTORY	YES NO		

FAILURE MODE-FAILED DURING OPERATION. R19 POTENTIOMETER COULD NOT BE ADJUSTED. THE FAILURE WAS NOT CONFIRMED; HOWEVER, ANALYSIS SHOWED ADJUSTMENT OF R8 PRODUCED NO CHANGE IN THE DEMODULATOR OUTPUT. CAUSE OF THE FAILURE WAS UNDETERMINED.

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CORRECTIVE ACTION-NONE. ANALYSIS TERMINATED BECAUSE MANUFACTURING CONTRACT CONTAINED NO COVERAGE FOR FAILURE ANALYS IS. ALSO THE PART NUMBER WAS FOUND TO BE OBSOLETE WITH NO FURTHER USE.							693518
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4148-F COMMUTATOR WIRING	FAR 27-12387-9	650909	FACTORY	R-45FIFTH-DEMENSIO C-12M 3		693510
FAILURE MODE-SHORT (ELECT). NEGATIVE OUTPUT GATE WAS ERRATIC. FAILURE WAS CAUSED BY A LOOSE BRUSH WIRE WHICH CAUSED AN INTERMITTENT SHORT CIRCUIT OF THE COMMUTATOR SEGMENTS. CORRECTIVE ACTION-NONE. WHEN THE UNIT WAS RETURNED TO THE VENDOR FOR EVALUATION, THE WIPER ARM COULD NOT BE FOUND.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PPT-TF-69F-1795-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-QUAL/PPT 27-31552-13	650909	FACTORY	YES NO	WIANCKO P2-4106-13	690681
FAILURE MODE-LEAK-EXTERNAL. DURING -65 DEG F, TEST UNIT EXHIBITED EXTERNAL LEAKAGE. (S/N 305-0014). CORRECTIVE ACTION-VENDOR REDESIGNED AND REWORKED ALL UNITS. MODIFICATION CONSISTED OF SUBSTITUTING SILVER TINNED CO PPER WIRE FOR COPPER WIRE AND A CHANGE IN SOLDERING METHOD.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4135-F TRANSVERTER, DIODE	FAR 27-12369-9	650907	FACTORY	YES NO		693506
FAILURE MODE-OPEN (ELECT). THE UNIT HAD 179 MV OF NOISE ON THE PLUS 28 VDC OUTPUT. 150 MV OF NOISE IS THE MAXIMUM A LLOWED. FAILURE WAS CONFIRMED AND WAS FOUND TO BE CAUSED BY AN OPEN DIODE (RR-5) TYPE 1N645. IT WAS ALSO DETERMINED THAT THE FAILURE OCCURRED DURING FABRICATION. CORRECTIVE ACTION-FABRICATION TECHNIQUES WERE REVIEWED AND THE ASSEMBLER WAS URGED TO USE EXTREME CAUTION WHEN INST ALLING GLASS DIODES INTO CIRCUIT BOARDS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-90-24-4180-F SIGNAL CONVERTER-COMMUTATOR	FAR 27-12899-806	650904	MTR	YES NO	UNITED ELECTRO DYNAMICS	
FAILURE MODE-CONTAMINATION. THE SIGNAL CONVERTER FAILED WHEN THE MASTER PULSE OF CHANNEL 18 WAS DISCOVERED TO BE SP LITTING. THE FAILURE WAS NOT CONFIRMED. HOWEVER, A PARTICLE IN THE COMMUTATOR COULD HAVE BEEN LODGED IN SUCH A POSIT ION AS TO INTERRUPT CONTINUITY BETWEEN THE COMMUTATOR AND THE WIPER. THE PARTICLE COULD HAVE BEEN DISLODGED DUE TO V							

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IBRATION DURING SHIPMENT. CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.							881948
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-248-P CONVERTER-RESISTOR R-6	FAR 27-12232-3	1260 650903	FACTORY	YES NO	60/C	881367
FAILURE MODE-OUT OF TOLERANCE. THE AC-DC CONVERTER REPORTEDLY FAILED WHEN OUTPUT VOLTAGE AT 700 CPS WAS 0.475 VOLT DC. WHERE SPECIFICATION TOLERANCES REQUIRED 0.500 PLUS OR MINUS 0.004 VOLT DC. FAILURE WAS CONFIRMED. OSCILLATION WAS CAUSED BY RESISTOR R-6 BEING OPEN CIRCUITED, ALLOWING AN IMPROPER FEEDBACK SIGNAL. RESISTOR R-6 WAS OPEN CIRCUITED BECAUSE OF FAILURE TO SOLDER THE RESISTANCE WIRE AT THE TERMINAL AT ONE END INSIDE OF THE RESISTOR. CORRECTIVE ACTION-REQUEST HYCOR DIVISION OF INTERNATIONAL RESISTANCE, TO REVISE MANUFACTURING, QUALITY-CONTROL, AND ACCEPTANCE PROCEDURES ASSOCIATED WITH THE SOURCE PART NUMBER 2080, 100 KILOHM, PLUS OR MINUS 1 PERCENT RESISTOR TO PREVENT REOCCURRENCE OF THIS SAME FAILURE MODE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-90-21-244-P STRAIN-GAGE CIRCUIT BOARD-RESISTOR R-50	FAR 35-13667-5	1260 650900	ETR	YES NO	60/C	881560
FAILURE MODE-STRUCTURAL. THE STRAIN GAGE CIRCUIT BOARD WAS FOUND TO BE INTERMITTENT. FAILURE WAS CONFIRMED. RESISTOR R-50 WAS FOUND TO HAVE A CRACKED RESISTIVE ELEMENT. THIS CRACKED RESISTIVE WIRE WAS BUILT INTO THE RESISTOR DURING MANUFACTURE. NO CONCLUSION CAN BE DRAWN REGARDING THE TELEMETRY PACKAGE FAILURE SINCE THE CIRCUIT BOARD WAS NOT TESTED ON A SYSTEMS LEVEL. CORRECTIVE ACTION-THE RESISTOR MANUFACTURER, C B COMPONENT INC., SHOULD BE NOTIFIED OF THIS FAILURE AND SHOULD BE REQUESTED TO REVIEW QUALITY-CONTROL PROCEDURES FOR THIS ITEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4096-F CALIBRATOR RELAY	FAR 7-12222-5	650328	FACTORY	YES NO		
FAILURE MODE-ERRATIC OPERATION. THE IN-FLIGHT CALIBRATOR FAILED WHEN THE POSITIVE CALIBRATE PULSES FOR ONE CHANNEL WERE MISSING. FAILURE WAS CONFIRMED. THE NORMALLY CLOSED CONTACTS 2 AND 9 OF RELAY K-4 FAILED TO ENERGIZE BECAUSE THE CONTACT POLES HAD CHANGED POSITIONS WITH RESPECT TO THE POLE ACTUATOR. THE POLES WERE ALSO BENT EITHER DURING RELAY ASSEMBLY BY THE VENDOR OR DURING INSTALLATION IN THE CALIBRATOR BY 60/A. CORRECTIVE ACTION-ASTRONAUTICS INITIATED DESIGN CORRECTIVE ACTION BY RECOMMENDING THE GLASS BASE BE KEYED TO THE RE							

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LAY CASE TO PREVENT INADVERTENT MISINDEXING OR SUBSEQUENT ROTATION OF THE GLASS BASE. VENDOR REPLIED THAT THE DAMAGE OCCURRED WHEN THE RELAY WAS DISASSEMBLED. NO FURTHER CORRECTIVE ACTION TAKEN.							893283
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4137-F OSCILLATOR-TUBE	FAR 7-01468-501	630828	FACTORY	YES NO		893803
FAILURE MODE-DRIFT. FREQ WAS DRIFTING UPWARD. FAILURE CAUSED BY UNSTABLE MODULATOR TUBE. CORRECTIVE ACTION-ROUND TELEMETRY CANISTER REPLACED WITH NEW LIGHTWEIGHT PACKAGE USING SOLID STATE OSCILLATOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-90-24-4160-F PRESSURE TRANSDUCER	FAR 7-01723-11	630829	PMR	YES BOURNS NO 42013-0-50-752		892966
FAILURE MODE-STRUCTURAL. OUTPUT DID NOT GO TO ZERO. FAILURE ATTRIBUTED TO EXPOSURE TO PRESSURE IN EXCESS OF DESIGN LIMIT WHICH RESULTED IN PERMANENT PRESSURE ELEMENT DISTORTION. CORRECTIVE ACTION-PERSONNEL ADVISED TO TAKE EXTRA PRECAUTIONS WHEN PRESSURIZING A SYSTEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-237 SUBCARRIER OSCILLATOR	FAR 27-01332-123	1160 630828	FACTORY	YES BENDIX NO 1069093-12-C		891569
FAILURE MODE-OUT OF SPECIFICATION. THE SUBCARRIER OSCILLATOR FAILED WHEN UNIT WAS TESTED PER CENTAUR TEST PROCEDURE 55 MAXIMUM OUTPUT OBTAINED DURING TEST WAS 2.5 VOLTS RMS. THE SPECIFICATION REQUIREMENT ON PAGE 7, PARAGRAPH 4.4E, CALLS FOR AN OUTPUT AMPLITUDE FROM CHANNEL-12 OF 3 VOLTS RMS AT 10.5 KILOCYCLES. THE FAILURE WAS NOT CONFIRMED. THE MOST PROBABLE CAUSE OF THE REPORTED FAILURE WAS EXCESSIVE LOADING FROM IMPROPER SETUP OF TEST EQUIPMENT USED. CORRECTIVE ACTION-CENTAUR TEST PROCEDURE 55 SHOULD BE REVISED TO PROVIDE A MORE DETAILED DIAGRAM OF THE REQUIRED TEST SETUP. THE USE OF A CATHODE FOLLOWER TUBE CIRCUIT, BETWEEN THE UNIT AND THE TEST EQUIPMENT SHOULD BE SPECIFIED IN THE TEST PROCEDURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LV-99-24-4218-F FILTER, ELECTRICAL-CAPACITOR	FAR 7-11333-5	2800 630827	FACTORY	YES NO		
FAILURE MODE-STRUCTURAL. THE BANDPASS FILTER FAILED IN THE BACKUP TELEMETRY CANISTER DURING PRODUCTION VIBRATION WHEN THE CHANNEL 1 OUTPUT VOLTAGE DRIFTED APPROXIMATELY 50 PERCENT AND THE 400 CPS SINE WAVE WAS DISTORTED. THE FAILURE IS ATTRIBUTED TO FLEXING OF THE TANTALUM CAPACITOR LEADS DURING VIBRATION.							

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							892665
CORRECTIVE ACTION-TANTALUM CAPACITORS WERE CEMENTED TO THE BOARD TO PROVIDE MORE SUPPORT. RESISTORS R-21 AND R-23 W ERE RELOCATED. AN INVESTIGATION WILL BE MADE TO DETERMINE IF MORE SPACE CAN BE TOLERATED BETWEEN CIRCUIT BOARDS TO P RECLUDE POSSIBLE SHORTING OF SOLDER CONNECTIONS AND WIRE LEADS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	6901850 PRESSURE TRANSDUCER	UTP-QUAL/PPT 68-01001-39	630827	6D/C	YES NO	BOURNS 2007371707	892716
FAILURE MODE-OUT OF SPECIFICATION. DURING THE RESOLUTION TEST ON 27 AUGUST 1963, 6.6 PERCENT OF THE 470 STEPS EXCEE DED 0.25 PERCENT. ALLOWABLE TOLERANCE IS . PERCENT OF THE TOTAL STEPS EXCEEDING 0.25 PERCENT RESOLUTION. TESTING CON TINUED BECAUSE THIS IS NOT OUT OF SPEC WHEN TEST EQUIPMENT READ OUT ERROR IS CONSIDERED. ON 4 SEPTEMBER 1963, DURING THE PROOF CYCLE WHICH FOLLOWS THE SHIPPING SHOCK TEST, THE MAXIMUM ERROR WAS MINUS 1.3 PERCENT OF FULL SCALE VOLTAG E RATIO. THIS IS OUT OF TOLERANCE. THE SHIPPING SHOCK REQUIREMENT WAS DELETED AS A TEST REQUIREMENT AND TESTING CONT INUED. ON 11 SEPTEMBER 1963, AFTER 12,012 CYCLES OF LIFE TEST, THE UNIT WAS BEING CONNECTED TO CONTINUE CYCLING AND THE 10 VOLT EXCITATION VOLTAGE WAS ACCIDENTALLY APPLIED BETWEEN PIN A AND PIN B CAUSING EXCESSIVE CURRENT FLOW, BURN ING OUT THE ELEMENT. CORRECTIVE ACTION-THE UNIT WAS REJECTED ON IR NUMBER 930198.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4155-F OSCILLATOR	FAR 7-01488-039	630827	FACTORY	YES NO	BENDIX TOE-31	891880
FAILURE MODE-OUT OF SPEC. THE OSCILLATOR FAILED IN THE NEXT ASSEMBLY WHEN THE DEVIATION OUTPUT VOLTAGE WAS 0.1 VOLT . IT SHOULDHAVE BEEN 2.05 VOLTS PLUS OR MINUS 5 PERCENT. FAILURE OF THE OSCILLATOR WAS NOT CONFIRMED. THEMOST LIKELY CAUSE OF THE OSCILLATOR FAILING WAS THAT IT WAS TRIGGERED INTO OPERATION DUE TO THE SHORT TIME BETWEEN FILAMENT A N D PLATE VOLTAGE APPLICATION. CORRECTIVE ACTION-GDC DESIGNGROUPS REVIEWED THE OSCILLATOR FILAMENT AND PLATE VOLTAGE TIME DELAY REQUIREMENTS. THE 30-SECOND TIME DELAY WAS FOUND SUFFICIENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4123-F OSCILLATOR	FAR 7-01488-007	630827	FACTORY	YES NO	BENDIX 1041860-7-T	
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED WHEN IT COULD NOT BE ADJUSTED TO WITHIN THE HIGH FREQUENCY TOLERAN CE OF EOP 530.329.10. FAILURE COULD NOT BE CONFIRMED.							

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CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							891026
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4151-F TRANSDUCER POWER SUPPLY, CAPACITOR	FAR SS-13540-8	630428	FACTORY	YES NO	GD/C	891001
FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER POWER SUPPLY WOULD BECOME INTERMITTENT AFTER A SHORT WARMUP. THE FAILURE WAS CONFIRMED. THE FAILURE WAS CAUSED BY AN INTERNAL BROKEN CONNECTION IN CAPACITOR C-3 OF THE CHOPPER CIRCUIT. THE CAPACITOR IS A DEARBORN 0.1 MICROFARAD CAPACITOR. CORRECTIVE ACTION-THE CAPACITOR MANUFACTURER HAS ADDED CONTROLS TO REGULATE TIME AND HEAT USED TO BOND THE PIGTAIL TO THE WINDING IN ORDER TO IMPROVE MANUFACTURE OF THE CAPACITOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9601050 PRESSURE TRANSDUCER	UTP-DUAL/PPT 89-01003-39	630824	GD/C	YES NO	BOURNS 2007371707	892317
FAILURE MODE-ELECTRICAL OPEN. DURING THE RESOLUTION TEST, IT WAS DISCOVERED THAT THE ELEMENT WAS OPEN ELECTRICALLY. THE EXACT CAUSE OF FAILURE IS UNKNOWN. IT MAY HAVE BEEN CAUSED BY AN IMPROPER TEST SETUP. CORRECTIVE ACTION-THE UNIT WAS REJECTED ON IR NUMBER 900867.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4106-F ABSOLUTE PRESSURE SWITCH	FAR 87-44900-358	630823	FACTORY	YES NO	BOURNS 7173E-0-5.6-00 0	893417
FAILURE MODE-CONTAMINATION. THE RESISTANCE BETWEEN ELECTRICAL CONNECTOR PINS A AND C WAS 18 OHMS (2.8 OHMS MAXIMUM IS ALLOWED). FAILURE CAUSED BY CONTAMINANT LAYER BUILDUP ON THE RESISTANCE MANDREL CORRECTIVE ACTION-THE VENDOR CHANGED THE CLEANING PROCESS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4131-F COMMUTATOR GEAR MOTOR	FAR	630823	FACTORY	YES NO	BENDIX 1096465-55	
FAILURE MODE-CONTAMINATION. THE UNIT WAS REJECTED WHEN AN ABRUPT INCREASE IN SPEED FROM 10.0 RPS TO 10.43 RPS WAS OBSERVED. EXACT FAILURE MODE COULD NOT BE CONFIRMED, HOWEVER, THE MOTOR SPEED WAS EXCESSIVE. THE MOTOR GOVERNOR CONTACTS WERE OUT OF ADJUSTMENT DUE TO METAL MIGRATION AND THE FORMING OF PITS ON THE GOVERNOR CONTACTS.							

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CORRECTIVE ACTION-GOVERNOR CONTACTS WERE BURNISHED AND RESET. VENDOR WAS REQUESTED TO HAVE A DESIGN REVIEW OF THE M OTOR. (REF. PAR SP-66-24-3977).							698266
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-66-24-4077-F POWER SUPPLY	FAR 55-13536-605	1330 630323	FACTORY	YES NO		698177
FAILURE MODE-OUT OF TOLERANCE. DURING FACTORY TELEMETRY SYSTEM TESTING, PREFLIGHT CALIBRATIONS WERE NOT SUFFICIENT FOR USE AS ZERO AND 100 PERCENT CALIBRATIONS FOR RF 1, CHANNELS 4 THROUGH 10. CALIBRATION PULSES WERE TOO NARROW. FA ILURE WAS CONFIRMED. THE PULSE WIDTH WAS 35 MILLISECONDS WHEN 50 TO 100 MILLISECONDS WAS EXPECTED. CAUSE WAS ATTRIBU TED TO SPIKING GENERATED BY THE TRANSDUCER POWER SUPPLY, REDUCING THE PULSE WIDTH OF THE INFLIGHT CALIBRATOR. CORRECTIVE ACTION-REQUESTED A FILTER BE ADDED TO THE INPUT CIRCUIT OF THE TRANSDUCER POWER SUPPLY. ALSO RECOMMENDED THE INFLIGHT CALIBRATOR PULSE WIDTH BE CHECKED AT A COMPONENT LEVEL AND AT A PACKAGE LEVEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-66-24-4116-F PRESSURE TRANSDUCER	FAR T-01731-9	630421	FACTORY	NO NO	BOURNS	693184
FAILURE MODE-OUT OF TOLERANCE REPORTED ON TWO TRANSDUCERS. THE TRANSDUCERS WERE WITHIN THE ERROR BAND REQUIREMENTS. THE FAILURES WERE REPORTED BECAUSE CALIBRATION PERSONNEL WERE NOT AWARE OF THE 2 PERCENT EXCLUSION AT EACH END OF T HE PLOT. CORRECTIVE ACTION-FAILURE NOT CONFIRMED. GD/C CALIBRATION PERSONNEL WERE REINSTRUCTED OF THE ERROR BAND LIMITATIONS AND REJECTION CRITERIA.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4078-C PRESSURE TRANSDUCER	FAR T-01732-3	630821	FACTORY	YES NO	BOURNS	693123
FAILURE MODE-OUT OF TOLERANCE. THE UNITS ERROR BAND WAS PLUS 0.41 AND MINUS 1.08 PERCENT COMPARED TO PLUS OR MINUS 0.9 PERCENT REQUIRED. CORRECTIVE ACTION-NONE SINCE REL MEMO 65-61-171 DIRECTED THAT FAILURE ANALYSIS ACTIVITIES BE MINIMIZED ON ATLAS WEA PON TELEMETRY SYSTEMS.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4118-F PRESSURE TRANSDUCER	FAR 27-01388-39	630821	FACTORY	YES NO	SERVONIC	691116

FAILURE MODE-OUT OF SPECIFICATION. TRANSDUCER EXHIBITED STATIC ERROR OF A MINUS 2.24 PERCENT. ALLOWABLE ERROR IS PLUS OR MINUS 1.0 PERCENT. FAILURE IS ATTRIBUTED TO LOSS OF CORRECT REFERENCE PRESSURE DUE TO THE REFERENCE VOLUME BECOMING PRESSURIZED.

CORRECTIVE ACTION-RAR SP-99-24-4011 RECOMMENDING THAT THE VENDOR BE INFORMED OF THE FAILURE AND OF THE OVERPRESSURIZED CASE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4147-F PRESSURE TRANSDUCER	FAR 7-01720-5	2850 630821	FACTORY	YES NO	SERVONIC	691003

FAILURE MODE-STRUCTURAL. UNIT EXHIBITED A POSITIVE STATIC ERROR THROUGHOUT THE OPERATING RANGE. FAILURE ATTRIBUTED TO OVER PRESSURIZATION AND ROUGH HANDLING.

CORRECTIVE ACTION-RAR SP-99-24-4056 INFORMED RESPONSIBLE GD/C PERSONNEL OF THE ANALYSIS RESULTS, WITH CAUTION EMPHASIZING THE SERIOUSNESS OF ROUGH HANDLING.

INSTRUMEN ATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4141-F PRESSURE TRANSDUCER	FAR 7-01720-5	630821	FACTORY	YES NO	BOURNS	690926

FAILURE MODE-CONTAMINATION. THREE TRANSDUCERS WERE OUT OF TOLERANCE ON ERROR BANDS AS REPORTED BY STANDARDS LABORATORY. THESE UNIT FAILURES WERE ATTRIBUTED TO COTTON FIBERS FOUND WITHIN THE UNIT AND TO POTENTIOMETER SHORTED TURNS RESULTING FROM WEAR.

CORRECTIVE ACTION-VENDOR ACTION HAS REMOVED THE USE OF COTTON FIBER PIPE CLEANERS FROM HIS OPERATION. SHORTED TURNS WERE CONSIDERED CAUSED BY NORMAL SERVICE WEAR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4115-F PRESSURE TRANSDUCER	FAR 7-01731-5	630821	FACTORY	YES NO	BOURNS	

FAILURE MODE-CONTAMINATION. ERRATIC OPERATION POSSIBLY CAUSED BY A LIGHT INTERFERENCE ON THE ELEMENT DUE TO A FILM ON THE ELEMENT. THIS FILM FORMS AS A RESULT OF THE VENDOR RINSING THE ELEMENT WITH CITRIC ACID. EXERCISING POSSIBLY WORE OFF THE FILM.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							890700
CORRECTIVE ACTION-FAILURE NOT CONFIRMED. THE VENDOR HAS CHANGED THE RINSING AGENT FROM CITRIC ACID TO DISTILLED WAT ER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-4063-F CONVERTER WIRING	FAR 27-12642-803	2240 630617	FACTORY	YES NO	UNITED ELECTRO -DYNAMICS 14364-6	891958
FAILURE MODE-OUT OF EXPECTED TEST VALUE. SIGNAL CONVERTER FAILED DURING FACTORY CHECKOUT TESTING WHEN TELEMETRY REC ORDS INDICATED SUSTAINER CUTOFF AT VERNIER CUTOFF (CHANNEL 14, SEGMENTS 8 AND 13). FAILURE WAS CONFIRMED. FAILURE WA S ATTRIBUTED TO AN IMPROPERLY ROUTED WIRE RESULTING IN SEGMENTS 8 AND 13 BEING COMMON TO SEGMENT 13 INPUT AND SEGMEN T 8 INPUT BEING OPEN CIRCUITED. CORRECTIVE ACTION-RECOMMENDED THE APPROPRIATE PRODUCTION AND INSPECTION PERSONNEL BE INFORMED OF THE CAUSE OF FAILU RE AND POST MODIFICATION CHECKOUT PROCEDURES BE CHANGED WHERE NECESSARY TO DETECT IMPROPER WIRING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-09-24-4E02-F OSCILLATOR-FILTER, ELECTRICAL	FAR 55-01174-933	630818	FACTORY	YES NO	BENDIX	891380
FAILURE MODE-OUT OF TOLERANCE. THE SUBCARRIER OSCILLATOR HAD A MAXIMUM OUTPUT OF 0.037 VOLT AC. SPECIFIED LIMITS AR E 0.039 TO 0.049 VOLT AC. THE FAILURE WAS CAUSED BY A DEFECTIVE FILTER WHICH HAD AN OUTPUT IMPEDANCE OF APPROXIMATEL Y TWICE THE REQUIRED VALUE. CORRECTIVE ACTION-THE SPECIFICATION DRAWING WILL BE REVISED SHOWING THE OUTPUT MONITOR LOAD LIMITS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-NF-09-24-4072C PRESSURE TRANSDUCER	FAR 27-01386-29	232-D 630815	FACTORY	YES NO	SERVONIC M-172-2	890719
FAILURE MODE-ELECTRICAL OPEN. THE TRANSDUCER WAS REJECTED WHEN AN INTERMITTENT OPEN CONDITION WAS EXPERIENCED. ANAL YSIS WAS CANCELLED BY ATLAS WEAPON SYSTEM PROJECT OFFICE STATING TRANSDUCER FAILURES IN THE NIKE-ZEUS PROGRAM ARE NO T TO BE ANALYZED. CORRECTIVE ACTION-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	38DE166 PRESSURE TRANSDUCER	UTP-QUAL/PPT 69-01004-23	630813	FACTORY	YES NO	BOURNS 2023203001	690795

FAILURE MODE-STRUCTURAL. DURING THE INITIAL ACCEPTANCE CALIBRATION, THE ERROR WAS MINUS 1.72 PERCENT. THE FAILURE WAS CAUSED BY A METAL FOIL COVERING ON THE SENSING HEAD (FORMING A HERMETIC SEAL) DETACHING AND ACTING LIKE A SECOND DIAPHRAM.

CORRECTIVE ACTION-AN EPOXY SEAL WAS SUBSTITUTED FOR THE METAL FOIL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-A9-24-6057F SIGNAL CONVERTER COMMUTATOR	FAR 27-12642-803	2240 630813	FACTORY	YES NO	UNITED ELECTRO DYNAMICS 14184	693706

FAILURE MODE-CONTAMINATION. INTERMITTENT NOISE OF UP TO 10 PERCENT INFORMATION BANDWITH WAS REPORTED ON SUBCARRIER CHANNEL 15 WHEN THE ALLOWABLE LIMIT IS 5 PERCENT. THE 10 PERCENT IBW NOISE LEVELS ON CHANNEL 15 WERE NOT CONFIRMED. VISUAL EXAMINATION OF THE COMMUTATOR DID REVEAL NUMEROUS SMALL CONTAMINANT PARTICLES WHICH PROBABLY CAUSED THE NOISE ORIGINALLY RECORDED.

CORRECTIVE ACTION-RAR SPA9-24-3981 WAS ISSUED REQUESTING DC COMMUTATORS USING GLOBE MOTORS BE PURGED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-A9-24-4112-F ABSOLUTE PRESSURE TRANSDUCER	FAR 7-01731-9	2240 630813	FACTORY	YES NO	BOURNS	691002

FAILURE MODE-OUT OF TOLERANCE. UNITS OUTPUT BANDWIDTH ERROR WAS 3.5 PERCENT, MAXIMUM DEVIATION IS PLUS OR MINUS 1.0 PERCENT. ERROR CAUSE WAS ATTRIBUTED TO EXCESSIVE CLEARENCE BETWEEN BOURDON TUBE BOTTOM AND THE PHENOLIC BLOCK.

CORRECTIVE ACTION-RAR SP-A9-24-6004 RECOMMENDING REVIEW OF MANUFACTURING AND QUALITY CONTROL TECHNIQUES TO PREVENT FAILURE MODE RECURRENCE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-69-24-4087-F OSCILLATOR POTENTIOMETER	FAR 88-01174-115	630812	FACTORY	YES NO	BENDIX 1082141-88	

FAILURE MODE-OPEN (ELECT). THE SUBCARRIER OSCILLATOR FAILED DURING FACTORY CHECKOUT WHEN THE AMPLITUDE COULD NOT BE ADJUSTED. FAILURE WAS CONFIRMED. ANALYSIS SHOWED OUTPUT AMPLITUDE WAS 14 VOLTS PEAK TO PEAK. CAUSE WAS ATTRIBUTED TO AN OPEN CIRCUIT IN OUTPUT POTENTIOMETER R-19 AT APPROXIMATELY THE 2000 OHM POINT. INVESTIGATIVE DAMAGE TO THE WINDING PROHIBITED EXACT LOCATION OF THE OPEN CIRCUIT.

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							891691
CORRECTIVE ACTION-SINCE THE EXACT CAUSE OF THE FAILURE COULD NOT BE FOUND, MEANINGFUL CORRECTIVE ACTION CANNOT BE T AKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-4104-F LIMITER FILTER ASSEMBLY	FAR 27-12300-1	630811	FACTORY	YES NO		893420
FAILURE MODE-ERRATIC OPERATION. UNDESIRED MODULATION WAS INDICATED IN CHANNEL B. THE FAILURE WAS NOT CONFIRMED. HOW EVER, UNAUTHORIZED REPAIR OF THE UNIT HAD BEEN MADE AND THE WRONG TYPE SCREWS HAD BEEN REPLACED IN THE BASE PLATE.							
CORRECTIVE ACTION-THE CORRECT SCREWS WERE INSTALLED IN THE BASE PLATE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-4102-C	FAR 27-12762-803	630810	FACTORY	YES NO	BENDIX	893223
FAILURE MODE-OUT OF TOLERANCE. TELEPAK FAILED IN FINAL CHECKOUT AREA WHEN CHANNEL A, SEGMENT Y READ NEGATIVE. THE P ROPER READING IS 50 PERCENT OF THE REFERENCE VOLTAGE. FAILURE ANALYSIS WAS NOT PERFORMED, INSTEAD, THE TELEPAK WAS R EWORKED PER BLUEPRINT. FOLLOWING REWORK THE REPORTED FAILURE DISAPPEARED.							
CORRECTIVE ACTION-THE TELEPAK WAS REWORKED PER BLUEPRINT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-NF-89-24-4073C PRESSURE TRANSDUCER	FAR 27-01245-7	630809	FACTORY	YES NO	COLVIN 401-A-10-75	890780
FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER FAILED WHEN OUTPUT VOLTAGE WAS ABOVE SPECIFICATION LIMITS AT AN INPUT PRESSURE OF 20 PSIA. ANALYSIS WAS CANCELLED BY ATLAS WEAPONS SYSTEM PROJECT OFFICE STATING, TRANSDUCER FAILURES IN THE A AE-ZEUS PROGRAM ARE NOT TO BE ANALYZED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA63-0045/P1-6MO-01-136 TELEMETRY CANISTER	COMPOSITE-FRD/DPL	136F 630808	11	YES NO		

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI QTY	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD OF 40 MINUTES WAS REQUIRED TO REPLACE RF 2 AND 3. CORRECTIVE ACTION-TELEMETRY CANISTERS REPLACED.							096815
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4132-C TLM CANISTER	FAR 87-11541-013	630808	ETR	NO NO	BENDIX 87-11541-013	095307
FAILURE MODE-FAIL DURING OPERATION-28 VDC WAS INADVERTANTLY APPLIED TO THE 6.2 VDC CIRCUITRY. NO FAILURE ANALYSIS W AS PERFORMED SINCE FAILURE WAS CAUSED BY MISAPPLICATION OF POWER. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4139-F PRESSURE TRANSDUCER	FAR 7-01732-8	630807	FACTORY	NO NO	BOURNS	093117
FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE OUTPUT VOLTAGE MEASUREMENTS WERE REPORTED ON FOUR TRANSDUCERS BY STANDARDS LABORATORY. THESE PARTS WERE TESTED AND FOUND TO BE OPERATING WITHIN TOLERANCE. THE REPORTED FAILURE WAS DUE TO ERR ONEOUS CALCULATION DURING CALIBRATION. CORRECTIVE ACTION-COGNIZANT GD/C PERSONNEL WERE INFORMED OF THE RESULTS OF THIS ANALYSIS AND WERE INFORMED OF THE C ORRECT METHOD IN DETERMINING STATIC ERROR BAND.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A3-24-4056-F SUSTAINER ENGINE LOX TRANSDUCER	FAR 7-01649-13	23ED 630807	FACTORY	YES NO	ROSEMOUNT ENGR	092798
FAILURE MODE-OPEN (ELECT). OPEN CONDITION INDICATED. REPORTED FAILURE NOT CONFIRMED HOWEVER A SHORT WAS FOUND IN A/ B TEMP ELEMENT. CORRECTIVE ACTION-VENDOR PERSONNEL ALERTED TO WORKMANSHIP PROBLEM. IN-PROCESS INSPECTION ESTABLISHED TO CHECK ALL S OLDER JOINTS.							

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SYSTEM/ SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-68-24-4068-F OSCILLATOR	FAR 7-01488-661	630807	FACTORY	YES NO	BENDIX TOE-31	881869

FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR FAILED WHEN IT COULD NOT BE ADJUSTED TO 31,845 PLUS OR MINUS 148 CPS WHEN -0.2 VOLT DC WAS APPLIED TO UNIT. THE FREQUENCY READINGS OBTAINED WERE FROM 31,895 TO 32,010 CPS. FAILURE WAS NOT CONFIRMED, HOWEVER. DUE TO THE WIDE FREQUENCY BANDWIDTH SLIGHT DIFFICULTY WAS EXPERIENCED IN ADJUSTING THE OSCILLATOR WITHIN SPECIFICATIONS.

CORRECTIVE ACTION-NONCONFIRMATION OF THE REPORTED FAILURE WAS BROUGHT TO THE ATTENTION OF TESTING PERSONNEL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-68-24-3553F OSCILLATOR	FAR 27-01268-15	630807	FACTORY	YES NO	BENDIX TOE-44	881871

FAILURE MODE- OUT OF TOLERANCE. OSCILLATOR WAS REJECTED WHEN IT DRIFTED IN EXCESS OF 16 CPS. THE TOLERANCE IS PLUS OR MINUS 8CPS. FAILURE ANALYSIS WAS TERMINATED BECAUSE THE INVESTIGATING ENGINEER APPLIED EXCESSIVE FILIMENT VOLTAGE TO THE UNIT, DAMAGING IT TO A POINT WHERE NO VALID TEST RESULTS COULD BE OBTAINED.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-68-24-4138-F OSCILLATOR/2 UNITS	FAR 7-01488-661	630806	FACTORY	YES NO	BENDIX 1041962-2	883311

FAILURE MODE-OUT OF SPECIFICATION. OSCILLATOR FREQUENCY DRIFTED TO 28330 CPS WHEN 28155 PLUS OR MINUS 148 CPS IS SPECIFIED. THE FAILURE WAS CAUSED BY AGING OF THE CIRCUIT COMPONENTS IN THE MODULATOR STAGE.

CORRECTIVE ACTION-NEW TEST PROCEDURE FOR BURN IN OF OSCILLATOR MODULES IS BEING USED. APPROPRIATE EOPS ARE BEING REVISED TO CALL FOR BURN IN TEST TO BE ACCOMPLISHED PRIOR TO COMPONENT TESTING OF THE TELEMETRY PACKAGE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-68-24-4057-F POWER SUPPLY, TRANSFORMER	FAR 27-11541-919	43F 630806	FACTORY	YES NO	1046173-2-A 1046113-2-A	

FAILURE MODE-OUT OF SPECIFICATION. POWER SUPPLY FAILED DURING MISSILE CHECKOUT WHEN ITS OUTPUT EXCEEDED EOP 330.329 .10 SPECIFICATION TOLERANCES. FAILURE WAS CONFIRMED. ANALYSIS SHOWED THE 300 VOLT D-C OUTPUT MEASURED 324.8 VOLTS D-C WITH THE 850 VOLT D-C SECTION UNLOADED. MAXIMUM ALLOWABLE IS 324 VOLTS DC. HIGH OUTPUT WAS ATTRIBUTED TO TRANSFORMER T-201 WHICH HAD AN EXCESSIVE TURNS RATIO COMPARED TO THE CALCULATED TURNS RATIO REQUIRED TO OBTAIN THE CORRECT VOLTAGE OUTPUT.

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							895230
CORRECTIVE ACTION-REQUESTED VENDOR TO REVISE PERTINENT QUALITY CONTROL AND ACCEPTANCE PROCEDURES TO PREVENT RECURRENCE OF THIS FAILURE MODE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-4046-F AMPLIFIER-CAPACITOR	FAR 27-11841-919	2830 630805	FACTORY	YES NO	BENDIX-PACIFIC	894466
FAILURE MODE-ELECTRICAL SHORT. 28 VOLT INPUT TO PACKAGE SHORTED TO GROUND. TWO POSSIBLE CAUSES FOR FAILURE ARE DAMAGED WIRE OR FLAW IN THE INSULATION AND CONTAMINATION IN THE AREA FORMING AN ARC PATH CAUSING A SHORT CIRCUIT. PRIMARY FAILURE CAUSED DESTRUCTION OF 2 TRANSISTORS IN PWR AMPLIFIER FORMING A SHORT CIRCUIT BETWEEN 28 VOLT INPUT AND GROUND.							
CORRECTIVE ACTION-SURVEY 72-33 REMOVED ALL POWER SUPPLIES CONTAINING QUESTIONABLE CAPACITORS FROM THE SYSTEM. MODIFICATIONS REMOVED 850 VOLT LINE AND INSTALLED GROMMETS ON CAPACITORS C201 AND C202.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	NZ-99-24-3573-F PRESSURE TRANSDUCER	FAR 27-01306-33	630805	FACTORY	YES NO	SERVONIC	891554
FAILURE MODE-STRUCTURAL. UNIT FAILED DUE TO LEAKAGE AT THE BOURDON TUBE BASE. LEAKAGE WAS CAUSED BY VOIDS AND SEPARATION IN THE BRAZED JOINT. UNIT HAD NOT BEEN LEAK TESTED.							
CORRECTIVE ACTION-VENDOR PERFORMED REVIEW OF BRAZING TECHNIQUES AND ARE EVALUATING A NEW FLUX COATED SILVER BRAZING ALLOY. VENDOR IS CONDUCTING EXTENSIVE INVESTIGATION WITH THEIR ENGINEERING AND QUALITY DEPARTMENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-A8-24-4082-F PRESSURE TRANSDUCER	FAR 7-01720-5	137F 630805	FACTORY	YES NO	SERVONIC	891019
FAILURE MODE-OUT OF TOLERANCE. EXCESSIVE DISTORTION CAUSED BY 1. HIGH FREQUENCY RIPPLE IN THE HYDRAULIC SYSTEM CAUSING WIPER OSCILLATION ACROSS THE RESISTANCE WINDING AND 2. POTENTIOMETER WEAR DAMAGE.							
CORRECTIVE ACTION-ECP 409.30 RELEASE REQUIRING GAS PRECHARGE OF BOOSTER AND SUSTAINER HYDRAULIC ACCUMULATORS OF 2500 PSIG.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4061-F ABSOLUTE PRESSURE TRANSDUCER	FAR 7-01751-9	137F 630603	FACTORY	YES NO	BOURNS	891818

FAILURE MODE-OUT OF TOLERANCE. THE UNIT DEMONSTRATED 10 PERCENT NOISE, WHEREAS 5 PERCENT NOISE IS ALLOWABLE. FAILURE WAS ATTRIBUTED TO AN OUT OF TOLERANCE CLEARANCE BETWEEN THE BOURDON TUBE AND THE VIBRATION DAMPING PLATE THUS PREVENTING SILICONE OIL DAMPING.

CORRECTIVE ACTION-VENDOR HAS INITIATED 100 PERCENT DAMPING PLATE CLEARANCE AND VIBRATION TESTING OF UNITS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-99-24-4144-F OSCILLATOR RESISTOR	FAR 7-01864-835	630603	FACTORY	YES NO	BENDIX TOE41	893309

FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR WAS NON-LINEAR. CENTER FREQUENCY WAS 7394 CPS WHEN 7350 PLUS MINUS 20 CPS WAS EXPECTED. FAILURE WAS DUE TO EXCESSIVE SIGNAL VOLTAGE AND IMPROPER RESISTANCE VALUE FOR R-6.

CORRECTIVE ACTION-CHECKOUT PERSONNEL WERE INFORMED OF OVERVOLTAGE. VENDOR WAS INFORMED OF THE USE OF INPROPER COMPONENTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-A9-24-4045-F TLM CANISTER, WIRING	FAR 27-11541-919	2630 630603	FACTORY	YES NO	BENDIX	894467

FAILURE MODE-OUT OF TOLERANCE. CHANNEL 14 VARIED ABOVE AND BELOW SPECIFIED LIMITS. SEG 29 PRODUCED NEG GOING PULSE. FAILURE CAUSED BY IMPROPERLY SOLDERED WIRE AT TERMINAL B17.

CORRECTIVE ACTION-NONE. COMMITMENTS FOR THIS PRODUCT HAVE BEEN MET HOWEVER CONDITION WAS NOTED TO ASSURE AGAINST RECURRENCE ON FUTURE ASSEMBLIES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-AF-24-4050 AUXILIARY SIGNAL CONDITIONER	FAR 27-12385-887	630603	FACTORY	YES NO		

FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. CHANNEL 13 SEGMENT 8, A TEMPERATURE READING, GAVE AN OUT OF TOLERANCE READING AND SEGMENT 23 (THE 100 PERCENT CALIBRATION PLUS) WENT DOWN TO 83 PERCENT. FAILURE WAS CAUSED BY THE 360 OHM LOAD RESISTOR NOT BEING IN PLACE WHEN THE TEST WAS RUN.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-CAUTION TEST PERSONNEL TO ASSURE THAT PROPER CONFIGURATION IS ESTABLISHED BEFORE PERFORMING TESTS							883640
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA63-0045/P1-8CO-02-138 SUBCARRIER OSCILLATORS	COMPOSITE-J FACT	136F 630802	11	YES NO		896211
FAILURE MODE-OUT OF TOLERANCE. SUBCARRIER OSCILLATORS FOR CHANNELS 4,8,9, AND 10 OF RF 1 WERE NOTED TO HAVE CENTER FREQUENCY SHIFT. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. SIGNALS WERE FROM 58 PCT TO 68 PCT IBW WHEN 50 PCT IBW WAS EXPECTED. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-RF 1 WAS REMOVED AND REPLACED. THE OSCILLATORS WERE READJUSTED IN THE TELEMETRY LAB.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA63-0045/P1-8CO-02-138 COMMUTATOR-WIRING	COMPOSITE-B FACT	136F 630802	11	YES NO		896218
FAILURE MODE-SHORT (ELECT). GROUNDED PIGTAIL WIRE WAS ERRONEOUSLY CONNECTED TO A MEASUREMENT SIGNAL INPUT IN THE COMMUTATOR ASSEMBLY (MEAS. ISSOV). SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. ARMA MEASUREMENT I 930 V INDICATED ZERO VOLTS WHEN A NOMINAL 5 VOLTS WAS EXPECTED. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-PROBLEM WAS CORRECTED BY REMOVING THE WIRE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A8-24-4047-F OSCILLATOR	FAR 7-01488-861	263D 630802	FACTORY	YES BENDIX NO TOE-31		894465
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 15 OPERATED ABOVE HIGH FREQ BAND EDGE. FIRST AT 28 PERCENT AND LATER LEVELED OFF AT 18 PERCENT. FAILURE CAUSED BY AGEING COMPONENTS IN MODULATOR STAGE. CORRECTIVE ACTION-ROUND CANS REPLACED BY NEW LIGHTWEIGHT CANS USING TRANSISTORIZED OSCILLATORS. BURN-IN PROCEDURE WRITTEN. BURN-IN TO BE ACCOMPLISHED PRIOR TO COMPONENT TESTING OF TELEMETRY PACKAGE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	P/I OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4038-C SIGNAL CONVERTER	FAR 27-12874-603	630802	FACTORY	YES NO		693647

FAILURE MODE-FAILED DURING OPERATION. NO VOLTAGE OUTPUT WHEN THERE SHOULD HAVE BEEN 5 VOLTS OUTPUT. ANALYSIS WAS CANCELLED PER WAIVER DOCUMENT 63-61-00[illegible] DATED JULY 24, 1963.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4099 ELECTRICAL FILTER	FAR 27-12882-3	630731	FACTORY	YES NO		693220

FAILURE MODE-OUT OF SPECIFICATION. THE LIMITER FILTER FAILED WHEN THE OUTPUT OF CHANNEL 2, AT THE HIGH END OF THE RESONANCE CURVE, WAS 7.2 MV (MAXIMUM ALLOWABLE IS 6.46 MV). THE FAILURE WAS CONFIRMED. CAUSE WAS ATTRIBUTED TO THE CHANNEL 2 BANDPASS FILTER WHOSE INDUCTORS CHANGED INDUCTANCE VALUES WITH PRESSURE OR TEMPERATURE APPLIED.

CORRECTIVE ACTION-RESULTS OF FAILURE ANALYSIS WERE SENT TO VENDOR WHO REPLIED THAT ALL FUTURE UNITS WILL BE TEMPERATURE CYCLED AFTER FINAL PRODUCTION TESTING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	P1-6C0-01-136 TLM CANISTER	COMPOSITE-B FACT	136F 630730	ETR-11	YES NO		697541

FAILURE MODE-SHORT ELECT-A SHORT IN THE TELEMETRY PACKAGE CAUSED INCORRECT DATA TRANSMISSION OF MEASUREMENT 1830V, PITCH RESOLVER SIGNAL.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-CANISTER REPAIRED AND REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4086-F FILTER, WIRING	FAR 7-11333-3	630729	FACTORY	YES NO		

FAILURE MODE-OUT OF TOLERANCE. BANDPASS FILTER FAILED DURING MANUFACTURING BENCH TEST WHEN CHANNEL 3 DEVIATION VOLTAGE COULD NOT BE ADJUSTED. FAILURE WAS CONFIRMED. OUTPUT OF CHANNEL 3 WAS INTERMITTENT DURING ANALYSIS. FAILURE WAS CAUSED BY HIGH RESISTANCE ELECTRICAL CONNECTIONS WHICH WERE A RESULT OF NOT SOLDERING THE CONNECTIONS ON THE BOTTOMS OF THE CIRCUIT BOARDS.

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							891498

CORRECTIVE ACTION-NONE. SINCE THE MANUFACTURE OF THIS BANDPASS FILTER NEW SOLDERING TECHNIQUES HAVE BEEN INITIATED WHICH SHOULD PREVENT THIS TYPE OF FAILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4023-F TELEMETRY CANISTER	FAR 27-11841-919	630729	FACTORY	YES NO		891066

FAILURE MODE-ERRATIC OPERATION. CANISTER EXHIBITED A LOW CHANNEL 14 READING AND SEGMENT 29 OF CHANNEL 14 WAS OPEN. FAILURES WERE CAUSED BY POOR WORKMANSHIP IN FINAL CHECKOUT OF THE CANISTER AND INSUFFICIENT INSPECTION AT THAT STAGE .

CORRECTIVE ACTION-AN AVO DATED JULY 31, 1963, WAS ISSUED TO INSPECTION SUPERVISION REQUESTING THEY IMPROVE QUALITY CONTROL IN THE FINAL CHECKOUT AREA. THE CORRECTIVE ACTION AVO WAS INCORPORATED IN INSPECTION PROCEDURES IN THE AFFECTED AREAS AND WAS PUT INTO EFFECT.

INSTRUMENTATION-A/B TELEMEYRY SET AND TRANSDUC ERS	FAR-SP-A9-24-4021 TEMPERATURE TRANSDUCER	FAR 7-01684-23	2630 630729	FACTORY	YES LEWIS NO 568386		890715

FAILURE MODE-ELECTRICAL OPEN. THE TRANSDUCER FAILED WHEN THE RESISTANCE MEASURED 80 OHMS AT ROOM TEMPERATURE WHEN IT SHOULD HAVE MEASURED 520 OHMS. THE FAILURE WAS THE RESULT OF FRAYED INSULATION CAUSING A SHORT CIRCUIT ACROSS THE BASE RESISTANCE.

CORRECTIVE ACTION-THE VENDOR WAS REQUESTED TO DEVISE A MORE SUITABLE MEANS OF INSULATING WIRES. SINCE MANUFACTURE OF THIS TRANSDUCER, THE VENDOR HAS MADE IMPROVEMENTS IN TECHNIQUE AND EQUIPMENT ELIMINATING THIS PROBLEM. VENDOR WAS ALSO REQUESTED TO INVESTIGATE SPOT WELDING TO ATTACH THE WIRES TO THE ELECTRICAL CONNECTOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4100-F AMPLIFIER ELECTRONIC TUBE	FAR 27-01612-1	630727	FACTORY	YES BENDIX NO 1077064-3-C		885226

FAILURE MODE-OUT OF TOLERANCE RADIO FREQUENCY TELEMETRY AMPLIFIER INDICATED AN OUTPUT BETWEEN ZERO AND 4.5 WATTS WHEN EOP 330.762 REQUIRES NOT LESS THAN 7 WATTS. FAILURE WAS CONFIRMED. BOTH PUSH-PULL OUTPUT TUBES WERE INOPERATIVE-V-2 DUE TO A SHORTED FILAMENT AND A SLIGHTLY GASSY CONDITION, AND V-3 DUE TO A BROKEN ENVELOPE SHORTED FILAMENT, DAMAGED CATHODE, AND A FUSION HOLE IN THE ANODE. FAILURE OF V-3 THE PRIMARY CAUSE OF FAILURE, WAS DUE TO A HIGH RESISTANCE CATHODE COATING AGGREVATED BY EXCESSIVE CURRENT AND POWER APPLICATION.

CORRECTIVE ACTION-RECOMMENDED THE VENDOR INVESTIGATE THE OPERATING CONDITIONS APPLIED TO THE CK7978 TUBES USED AND REDUCE CURRENT LEVELS AND POWER DISSIPATIONS WITHIN SAFE LIMITS.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	P3-4CO-01-197 TLM CANISTER	COMPOSITE-B FACT	197D 630726	ETR-13	YES NO		693834

FAILURE MODE-ERRATIC OPERATION. CHANNEL 14, NEGATIVE GATE LEVEL SIGNAL, WAS BREAKING UP. THIS IS ATTRIBUTABLE TO TH E TELEMETRY CANISTER.

SYSTEM EFFECT-ERRATIC OPERATION DATA USABLE ONLY WITH EXTREME DIFFICULTY IN DECOMMUTATION.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4048-C OSCILLATOR	FAR 27-12573-901	137F 630726	FACTORY	YES NO		694464

FAILURE MODE-DRIFT. CHANNEL 4 OSCILLATOR DRIFTED OUT OF TOLERANCE.

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS CANCELLED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4049-C TLM CANISTER	FAR 27-12573-931	137F 630726	FACTORY	YES NO		694465

FAILURE MODE-FAIL DURING OPERATION. NO POWER OUTPUT. FAILURE NOT CONFIRMED.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4079-F HARNESS UMBILICAL PLUG	FAR 27-62702-823	166D 630726	FACTORY	YES NO		692178

FAILURE MODE-CONTAMINATION. HARNESS ASSEMBLY FAILED WHEN AN INTERMITTENT CIRCUIT WAS OBSERVED BETWEEN PIN 43 OF UMB ILICAL PLUG J-1007 AND PIN 6 OF CONNECTOR P-173 DURING CHECKOUT FOLLOWING INSTALLATION IN FINAL ASSEMBLY. FAILURE WA S CONFIRMED AND ATTRIBUTED TO LARGE QUANTITIES OF THE SEALANT PERMATEX ON THE FACEPLATES OF THE UMBILICAL PLUG. APPL ICATIONS WERE MADE BY THE VENDOR DURING MANUFACTURE AND BY ASTRONAUTICS PERSONNEL DURING TWO SURVEYS.

CORRECTIVE ACTION-RECOMMENDED APPROPRIATE FACTORY PERSONNEL BE INFORMED OF THE FAILURE MODE AND THAT STRICT ADHEREN CE TO MB 81.02.5 IS NECESSARY TO PREVENT EXCESSIVE USE OF PERMATEX. VENDOR CORRECTIVE ACTION HAS BEEN TAKEN.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-4068-F COMMUTATOR MOTOR	FAR 59-01171-23	2240 630126	FACTORY	YES NO	FIFTH DIMENSIO N MRXD-149	691059

FAILURE MODE-OUT OF TOLERANCE. TWO COMMUTATORS FAILED WHEN THEIR SPEEDS WERE 5.32 RPS AND 5.56 TO 5.58 RPS. A MAXIMUM SPEED OF 5.25 RPS IS ALLOWED. CAUSE ATTRIBUTED TO A DECREASE IN MOTOR AND GEARING FRICTION SINCE PRODUCTION, THUS ALLOWING THE MOTORS TO RUN FAST. THE FAILURES WERE CONFIRMED.

CORRECTIVE ACTION-RECOMMENDED THE COMMUTATORS, IN THEIR FINAL CONFIGURATION, BE SUBJECTED TO 50 HOURS OF OPERATION DURING PRODUCTION TO BREAK IN THE MOTOR, GEARS, ETC. ALSO RECOMMENDED THE ZENER DIODES AND TRANSISTOR BE TEMPERATURE CYCLED FOR STABILITY BEFORE BEING INSTALLED IN THE COMMUTATORS. THE ZENER DIODES SHOULD ALSO BE SELECTED FOR A COMMUTATOR SPEED OF 4.75 TO 4.80 RPS TO ALLOW FOR ANY ADDITIONAL SPEEDUP OF THE COMMUTATORS WHICH MIGHT OCCUR DURING SUBSEQUENT OPERATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4093-F PRESSURE TRANSDUCER	FAR 7-01720-5	157F 630726	FACTORY	YES NO	BOURNS	691000

FAILURE MODE-ELECTRICAL OPEN CIRCUIT BETWEEN POTENTIOMETER WIPER PIN A AND MANDREL PINS B AND C. THE ELECTRICAL DISCREPANCY WAS NOT CONFIRMED BUT DISASSEMBLY FOUND COTTON FIBERS WITHIN THE UNIT. COTTON PIPE CLEANERS ARE USE BY THE VENDOR IN HIS CLEANING DURING ASSEMBLY PROCEDURE.

CORRECTIVE ACTION-THE VENDOR HAS DISCONTINUED THE USE OF PIPE CLEANERS. THIS ACTION WAS PART OF GENERAL QUALITY CONTROL IMPROVEMENT PROGRAM AT THE VENDOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SP-09-R4-4105 DIFFERENTIAL PRESSURE TRANSDUCER	FAR 87-03900-033	630726	FACTORY	YES NO	SERVONIC MODEL L-64	690721

FAILURE MODE-STRUCTURAL. THE TRANSDUCER WAS REJECTED BECAUSE OF AN ERRATIC OUTPUT. THE ERRATIC OUTPUT WAS CAUSED BY A DAMAGED BRAZE JOINT IN THE TRIANGULAR STRUCTURE OF THE WIPER, REDUCING THE STRUCTURE RIGIDITY. CONTAMINANTS WERE ALSO PRESENT ON THE TRANSDUCER MECHANISM.

CORRECTIVE ACTION-THE VENDOR WAS REQUESTED TO IMPROVE QC AND MANUFACTURING PROCESSES TO ASSURE ALL BRAZE JOINTS ARE SOUND AND TO ASSURE CLEAN ASSEMBLY.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SP-99-24-4064 ACCELEROMETER TRANSDUCER	FAR T-01413-8	630726	FACTORY	NO NO	BORG-WARNER 9747-B	690717

FAILURE MODE-OUT OF TOLERANCE. TWO TRANSDUCERS FAILED WHEN THE OUTPUT VOLTAGE WAS 0.95 V AND 0.98 V. THE SPECIFIED VOLTAGE IS 1.01 TO 1.23.

CORRECTIVE ACTION-FAILURE NOT CONFIRMED. IT WAS FOUND THAT THE VOLTMETER USED FOR REJECTION OF THESE UNITS DID NOT HAVE THE ACCURACY OF VOLTMETERS USED FOR FAILURE ANALYSIS. DURING OPERATIONAL CHECKOUT, THE STDS. LAB. WILL USE MORE ACCURATE INSTRUMENTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SP-99-24-4061 PRESSURE TRANSDUCER	FAR 27-01243-7	630726	FACTORY	YES NO	COLVIN 401-A-10-75	690716

FAILURE MODE-STRUCTURAL. TWO TRANSDUCERS FAILED WHEN THE RESISTANCE BETWEEN PINS A AND C WAS INFINITE. THE FAILURE WAS CAUSED BY THE RESISTANCE WIRES ON THE COIL BEING BROKEN. THE WIRES PROBABLY BROKE AS A RESULT OF STRESSES IMPARTED DURING MANUFACTURE.

CORRECTIVE ACTION-VENDOR REPORTED THE WINDING OPERATION WAS REVIEWED AND WAS PERFORMING SATISFACTORILY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SP-99-24-4065 PRESSURE TRANSDUCER	FAR 27-01243-7	630726	FACTORY	YES NO	COLVIN 401-A-10-75	690716

FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER FAILED WHEN THE OUTPUT WAS ERRATIC. CAUSE OF THE FAILURE WAS NOT FOUND. PITTING OF THE WIPER BEARING SURFACE COULD HAVE BEEN THE CAUSE.

CORRECTIVE ACTION-THE VENDOR WAS REQUESTED TO DISCUSS DISCREPANCIES WITH FACTORY PERSONNEL. IT WAS RECOMMENDED THAT INSPECTORS REJECT SPINDLES WITH PITTED SURFACES. VENDOR ALSO ADVISED THAT CLOSER INSPECTION WOULD BE MAINTAINED DURING ASSEMBLY OF THE SPINDLE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-21-4069-F PRESSURE SWITCH MANDREL	FAR 67-44800-357	630723	FACTORY	YES NO	BOURNS 71731-0-4.7-00 0	

FAILURE MODE-CONTAMINATION. ABSOLUTE PRESSURE SWITCH FAILED DURING CALIBRATION WHERE IT HAD 4 OHMS WIPER RESISTANCE WHEN THE MAXIMUM ALLOWED IS 2 OHMS. FAILURE WAS CONFIRMED; HOWEVER, AFTER REPEATED PRESSURE CYCLING THE WIPER RESISTANCE DID NOT EXCEED ONE OHM. EXACT CAUSE WAS NOT FOUND; ALTHOUGH IT APPEARS FAILURE WAS DUE TO A CONTAMINANT LAYER BUILDUP ON THE RESISTANCE MANDREL.

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							893404

CORRECTIVE ACTION-SINCE THE MANUFACTURE OF THIS UNIT, THE VENDOR HAS INITIATED A NEW CLEANING PROCESS WHICH ELIMINATES THE CONTAMINANT BUILDUP ON THE MANDREL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-4127-F PRESSURE TRANSDUCER	FAR 7-01723-11	630725	FACTORY	NO NO	BOURNS	893125

FAILURE MODE- THE UNITS ERROR BAND WAS REPORTED OUT OF TOLERANCE. FAILURE ANALYSIS FOUND NO OUT OF TOLERANCE MEASUREMENTS. THE REPORTED FAILURE WAS ATTRIBUTED TO POSSIBLE MISUSE OF CALIBRATION TECHNIQUES OR FAULTY TEST EQUIPMENT.

CORRECTIVE ACTION-INFORMING COGNIZANT PERSONNEL OF THE RESULTS OF THIS ANALYSIS, AND RECOMMENDING THAT FUTURE TYPICAL FAILURES BE RECHECKED PRIOR TO PART REJECTION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-4070-F PRESSURE SWITCH MANDREL	FAR 67-44900-359	630725	SAN DIEG O	YES NO	BOURNS 71731-0-20-000	892919

FAILURE MODE-CONTAMINATION. ABSOLUTE PRESSURE SWITCH FAILED DURING CALIBRATION WHERE IT HAD 4 OHMS WIPER RESISTANCE WHEN THE MAXIMUM ALLOWED IS 2 OHMS. FAILURE WAS CONFIRMED, HOWEVER, AFTER REPEATED PRESSURE CYCLING THE WIPER RESISTANCE DID NOT EXCEED ONE OHM. EXACT CAUSE WAS NOT FOUND, ALTHOUGH IT APPEARS FAILURE WAS DUE TO A CONTAMINANT LATER BUILDUP ON THE RESISTANCE MANDREL.

CORRECTIVE ACTION-THE VENDOR HAS INITIATED A NEW CLEANING PROCESS WHICH ELIMINATES THE CONTAMINANT BUILDUP ON THE MANDREL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-4075-F	FAR 7-01649-13	630726	FACTORY	YES NO	ROSEMOUNT ENGR REC MODEL 134C F	892605

FAILURE MODE-LEAK. ELEMENT A INSULATION RESISTANCE AT 100 VDC WAS 10 MEGOHMS WHEN 20 MEGOHMS MINIMUM IS REQUIRED. CAUSE ATTRIBUTED TO A HUMIDITY SOAK INDICATING A LEAK IN THE HERMETICALLY SEALED HEAD. LOCATION OF LEAK NOT FOUND BUT PROBABLY EMANATED THROUGH SOLDER JOINT BETWEEN ELECTRICAL PLUG AND HEAD.

CORRECTIVE ACTION-WORKMANSHIP PROBLEM BROUGHT TO ATTENTION OF THOSE CONCERNED AND IN-PROCESS INSPECTION ESTABLISHED TO CHECK ALL SOLDER JOINTS. VENDOR IS ALSO EVALUATING THIS TYPE UNIT IN EFFORT TO CORRECT ANY OTHER POSSIBLE CAUSES OF REDUCED INSULATION RESISTANCE.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PPT-FR-6901849 PRESSURE TRANSDUCER	UTP-PRT 60-01003-13	630725	GD/C	NO NO	BOURNS 2004206304	691844
FAILURE MODE-OUT OF SPECIFICATION. EXPERIMENTAL ERROR BAND WAS PLUS 0. MINUS 2.1 PER CENT DURING 300 DEGREE F. HOT TEST. ALLOWABLE ERROR IS PLUS 2.0, MINUS 2.0 PER CENT. POST 300 DEGREE F. HOT TEST THE EXPERIMENTAL ERROR BAND WAS P LUS 0.2, MINUS 1.2 PER CENT. ALLOWABLE ERROR IS PLUS 1.0, MINUS 1.0 PER CENT. DIFFERENCES ARE WITHIN THE READABILITY OF TEST EQUIPMENT. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4121F OSCILLATOR	FAR 27-01352-137 AND -145	630725	FACTORY	YES NO	BENDIX 1069093-A-6 AN D -E-6	691824
FAILURE MODE-FAIL DURING OPERATION. UNITS FAILED IN THE FACTORY WHEN NO DEVIATION IN FREQUENCY WAS APPARENT TO APPL IED VOLTAGES. FAILURES WERE NOT CONFIRMED HOWEVER BOTH UNITS INDICATED EXCESSIVE FREQUENCY OUTPUT IN RELATION TO INP UT VOLTAGES. FAILURE WAS ATTRIBUTED TO AGEING OF THE ASSOCIATED COMPONENTS. CORRECTIVE ACTION-NONE. BASIC TELEMETER /ROUND CANISTER/ ARE BEING SUPERCEDED BY A LIGHTWEIGHT TRANISTORIZED VERSIO N.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SP-99-24-4126 PRESSURE TRANSDUCER	FAR 27-01243-9	630725	FACTORY	NO NO	BOURNS 42011-0-150-T5 2	690722
FAILURE MODE-FAIL TO OPERATE AT PRESCRISED TIME. THE TRANSDUCER FAILED WHEN NO OUTPUT WAS OBTAINED THROUGHOUT THE E NTIRE PRESSURE RANGE. CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED. REPORTED FAILURE RESULTED FROM USE OF INCORRECT CALIBRATION TECHNIQUES OR USE OF FAULTY EQUIPMENT. IT WAS RECOMMENDED THAT TECHNIQUES AND EQUIPMENT BE RECHECKED BEFORE REJECTING TRANSDUC ERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	N2-A8-24-4026-F AMPLIFIER, RESISTER	FAR 27-12762-803	2100 630724		YES NO	BENDIX	
FAILURE MODE-FAILED DURING OPERATION. CHANNEL 11- 100 PCT CAL. PULSE INDICATED 37 PCT. IBW WHEN 96 PCT. IBW IS EXPE CTED. FAILURE WAS CONFIRMED AND CAUSED BY THE FRACTURE OF THE OUTPUT LOADING RESISTOR R11. FRACTURE WAS ATTRIBUTED T O OVER HEATING DURING SOLDERING.							

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							893567
CORRECTIVE ACTION-RECOMMENDED TO VENDOR TO IMPROVE SOLDERING AND INSPECTION TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-4101F CHANGEOVER SWITCH	FAR 7-01788-3	630723	FACTORY	NO NO	KINETICS M178-4	893224
FAILURE MODE-ERRATIC OPERATION. THE POWER CHANGEOVER SWITCH FAILED DURING THE ELECTRICAL AND VIBRATION TESTS OF THE TOP PACKAGE. CONTACT PINS P3 AND P6 WERE REPORTED TO BE LOOSE, RESULTING IN THE UNIT CHATTERING DURING ACTUATION. FAILURE WAS NOT CONFIRMED. THE INDICATED FAILURE MAY HAVE BEEN DUE TO EITHER NOISY DC LINE VOLTAGE OR INCORRECT USE OF PROCEDURES.								
CORRECTIVE ACTION-FACTORY PERSONNEL WERE ADVISED OF THE RESULTS OF THIS FAILURE ANALYSIS. CLOSER AND REPEATED TESTING WILL BE PERFORMED WHENEVER A FAILURE OCCURS IN THE FACTORY TO PRECLUDE THE REJECTION OF A GOOD COMPONENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-4059F AMPLIFIER-TRANSFORMER	FAR 27-01841-1	630721	FACTORY	YES NO	MAYBERRY 114-8	893543
FAILURE MODE-FAILED DURING OPERATION. AMPLIFIER OUTPUT DISPLAYED 8 PCT FBW NOISE. 7 PCT NOISE IS ALLOWED. FAILURE WAS CONFIRMED AND RESULTED FROM A NOISY AND MICROPHONIC INPUT TRANSFORMER.							
CORRECTIVE ACTION-EFFECTIVE 1 JULY 1963. VENDOR REDESIGNED AMPLIFIER USING A TRANSFORMER WITH LESS INHERENT NOISE CHARACTERISTICS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-A9-24-4051F AUXILIARY SIGNAL CONDITIONER-AMPLIFIER	FAR 27-12383-887	2240 630722	FACTORY	YES NO	MAYBERRY	893707
FAILURE MODE-OUT OF TOLERANCE. SYSTEM TESTS SHOWED SEGMENT 25 OF CHANNEL 18 WAS OUTSIDE THE ALLOWED SPECIFICATION FREQUENCY TOLERANCE. CHANNEL 18 HAD EXCESSIVE SPIKING IN ONE NEGATIVE GATE. HIGH SEGMENT PULSES WERE CAUSED BY HIGH OUTPUT FROM THE DIFFERENTIAL AMPLIFIER WHICH EXCEEDED SPECIFICATION MAXIMUM TOLERANCE BY 0.40 VOLT. A COLD SOLDER JOINT CAUSED THIS CONDITION.							
CORRECTIVE ACTION-R.C. CORRECTIVE ACTION WAS STARTED BY REQUESTING THE AMPLIFIER VENDOR (MAYBERRY ELECTRONICS) BE INFORMED OF THE CAUSE OF FAILURE. COLD SOLDER JOINTS AND POOR SOLDERING TECHNIQUE USED IN THE MANUFACTURE OF THE DIFFERENTIAL AMPLIFIER.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-JA-24-4065-F AMPLIFIER	FAR 80-07900-098	630722	FACTORY	YES NO	SCIONICS MCS-101	891680

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE AMPLIFIER, WITH ITS NEXT ASSEMBLY TRANSDUCER, HAD NO OUTPUT. F AILURE WAS CONFIRMED, HOWEVER, THE CAUSE OF FAILURE COULD NOT BE DETERMINED DUE TO DISCONTINUANCE OF ANALYSIS AS A R ESULT OF CANCELLATION OF CONTRACTUAL COVERAGE.

CORRECTIVE ACTION-NO ACTION COULD BE TAKEN SINCE THE CAUSE OF FAILURE WAS NOT DETERMINED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4080-F CONVERTER DIODE	FAR 27-12374-803	630722	FACTORY	YES NO		891483

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THIS EVENTS-SIGNALS ASSEMBLY WOULD NOT OSCILLATE AFTER IT WAS POTT ED AND INSTALLED IN THE NEXT ASSEMBLY. IT WAS SUSPECTED DIODE CR-11 WAS OUT OF TOLERANCE. FAILURE WAS CONFIRMED. UNI T WOULD ONLY OSCILLATE AT 130 DEGREES F OR HIGHER. DIODE CR-11 CHARACTERISTICS WERE ALWAYS WITHIN SPECIFICATIONS. FA ILURE WAS CONCLUDED TO BE DUE TO AN OVER-OPTIMISTIC CIRCUIT DESIGN PLACING OVER-CONFIDENCE IN A SEMI-CONDUCTOR DEVIC E WHOSE PARAMETERS ARE NOT FULLY SPECIFIED.

CORRECTIVE ACTION-REQUESTED A DESIGN STUDY OF THE OSCILLATOR CIRCUIT BE CONDUCTED TO FACILITATE A MORE RELIABLE CIR CUIT USING COMPONENTS WHOSE PARAMETERS ARE FULLY KNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4117-F OSCILLATOR/TUBE	FAR 7-01488-838	2630 630719	FACTORY	YES NO	BENDIX 1041968-3K	893418

FAILURE MODE-ERRATIC OPERATION. OUTPUT INDICATED A CHANGE IN FREQUENCY WITH A CONSTANT INPUT OR CONTROL VOLTAGE. FA ILURE CAUSED BY CHANGING CHARACTERISTICS OF MODULATOR TUBE V-1, TYPE 6111.

CORRECTIVE ACTION-BURN-IN OF SUBCARRIER OSCILLATOR MODULES, AND REVISION OF PERTINENT EOPS SO THIS BURN IN PROCEDUR E CAN BE ACCOMPLISHED BEFORE COMPONENT TESTING OF THE TELEMETRY PACKAGE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4146-F PRESSURE TRANSDUCER	FAR 7-01751-8	630719	FACTORY	YES NO	BOURNS	

FAILURE MODE-ERRATIC OPERATION FROM FLUCTUATING OUTPUT VOLTAGE AT THE TRANSDUCERS UPPER RANGE. THE DISCREPANCY WAS CAUSED BY LOW CONTACT FORCE OF THE BOTTOM HALF OF THE DUAL CONTACT WIPER ALLOWING IT TO LEAVE THE MANDREL.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							692562
CORRECTIVE ACTION-VENDOR ACTION PERFORMS 100 PERCENT FINAL INSPECTION FOR WIPER CONTACT FORCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PPT-FR-6901649 PRESSURE TRANSDUCER	UTP-PRT 69-01003-18	630719	60/C	YES NO	BOURNS 2004206304	691125
FAILURE MODE-OUT OF SPECIFICATION. X-AXIS VIBRATION TEST EXPERIMENTAL ERROR BAND WAS +2.5 PERCENT AND -3.9 PERCENT. ALLOWABLE IS + OR - 2.3 PERCENT. EXCESS ERROR DUE TO IMPROPER COUNTER WEIGHTS. POST VIBRATION PROOF CYCLE WAS SATIS FACTORY.							
CORRECTIVE ACTION-VENDOR RECALLED UNITS TO SOLVE THE VIBRATION PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-69-24-4103-F OSCILLATOR	FAR 7-01498-883	630718	FACTORY	NO NO	BENDIX-PACIFIC 1041863-2-X	695222
FAILURE MODE-FAIL DURING OPERATION. THE OSCILLATOR FAILED MANUFACTURING TESTING BY INDICATING A NO-OUTPUT CONDITION . FAILURE ANALYSIS COULD NOT BE PERFORMED DUE TO AN INADVERTENT SHORTING OF THE FILAMENT POWER SUPPLY DURING SETUP F OR ANALYSIS. THIS INTRODUCED AN ELECTRICAL TRANSIENT TO THE SYSTEM.							
CORRECTIVE ACTION-NONE SINCE FAILURE ANALYSIS WAS NOT PERFORMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4007-F PRESSURE TRANSDUCER	FAR 7-01780-5	136F 630718	FACTORY		BOURNS T3511-0-35-752	693577
FAILURE MODE-ERRATIC OPERATION. ALL 3 UNITS INDICATED INTERMITTENT OPEN CIRCUITS WHEN MISSILE HYDRAULIC SYSTEM WAS OPERATING AND WHEN LOW HELIUM PRESSURE WAS APPLIED. EVIDENCE OF FIBER CONTAMINATION FOUND HOWEVER IT IS UNLIKELY THI S WOULD CAUSE 3 FAILURES IN SUCCESS.ON. SINCE EACH UNIT WAS ATTACHED TO SAME WIRING HARNESS AN ELECT MALFUNCTION IS MORE PROBABLE CAUSE OF FAILURES.							
CORRECTIVE ACTION-PERSONNEL ALERTED TO POSSIBLE ELECTRICAL SYSTEM MALFUNCTION. VENDOR NO LONGER USING PIPE CLEANERS FOR CLEANING IN EFFORT TO ELIMINATE FIBER CONTAMINATION. FAILURE NOT CONFIRMED. *A							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	BP-88-24-4060-F FILTER-CAPACITOR	FAR 27-12668-3	630718	FACTORY	YES NO	APPLIED COMPONENTS ACT 3030-3	003564

FAILURE MODE-FAILED DURING OPERATION. OUTPUT OF CHANNEL NO. 2 WAS 7.2 MV WHEN 6.46 MV OR LESS WAS EXPECTED. FAILURE WAS CONFIRMED. CAUSED BY A POOR SOLDER CONNECTION OF PARALLEL RESONANT CAPACITOR OF THE MINIATURE BYPASS FILTER.

CORRECTIVE ACTION-VENDOR NOTIFIED AND AGREED TO TEMPERATURE CYCLE THE UNIT AND RECHECK.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-A8-24-4041-F TLM CANISTER-OSCILLATOR	FAR 27-11541-919	2630 630717	FACTORY	YES NO	BENDIX	002672

FAILURE MODE-FAIL DURING OPERATION. DURING SYSTEM TESTS CHANNEL 15 INDICATED DEVIATION OF 18-20 PERCENT FULL BANDWIDTH FROM HIGH FREQUENCY BAND EDGE. CHANNEL 16 WAS MARGINAL 17-18 PERCENT. CHANNEL 15 FAILURE CAUSED BY OSCILLATOR CIRCUIT SENSITIVE TO RESISTANCE AND TEMPERATURE CHANGES. CHANNEL 16 AND 17 FEED CONTROL WAS OUT OF ADJUSTMENT.

CORRECTIVE ACTION-NEW PROCEDURE WRITTEN FOR BURN-IN OF MODULES. EOP3 REVISED TO CALL FOR BURN-IN TO BE ACCOMPLISHED PRIOR TO COMPONENT TESTING OF THE TELEMETRY PACKAGE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	BP-A83-24-4006-F OSCILLATOR-ELECTRONIC TUBE	FAR 27-11541-919	2630 630715	FACTORY	YES NO	BENDIX	001103

FAILURE MODE-OUT OF TOLERANCE. PACKAGE FAILED ON MISSILE WHEN CHANNEL 15 OPERATED BEYOND ITS BAND LIMIT. FAILURE OF THE PACKAGE WAS DUE TO FAILURE OF THE OSCILLATOR. OSCILLATOR FAILURE (DRIFTING FREQUENCY OUTPUT) WAS ATTRIBUTED TO CHANGING CHARACTERISTICS OF THE MODULATOR TUBE V-1.

CORRECTIVE ACTION-NONE. THE PRESENT BENDIX ROUND TELEMITRY CANISTER IS BEING REPLACED WITH A NEW LIGHTWEIGHT BENDIX TELEPAK. THIS OSCILLATOR IS NOT USED ON THE NEW TELEPAK.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-88-24-4071-F AMPLIFIER DIODE	FAR 27-01192-1	630715	FACTORY	YES NO	GULTON FT8150	

FAILURE MODE-OUT OF SPECIFICATION. THE AMPLIFIER FAILED FOR HAVING EXCESS NOISE ON THE OUTPUT. WITH THE INPUT SHORTED BY A 1000 PICOFARAD CAPACITOR, AND A GAIN OF 10. THE STATIC NOISE LEVEL WAS 87 MILLIVOLTS RMS. THE MAXIMUM ALLOWABLE NOISE UNDER THIS CONDITION IS 12 MILLIVOLTS. FAILURE WAS CONFIRMED AND CAUSED BY A SOFT-KNEE ZENER DIODE (1N763) IN TURN CAUSED BY BREAKDOWN OF THE CRYSTAL STRUCTURE.

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							892880

CORRECTIVE ACTION-RECOMMENDED THE AMPLIFIER VENDOR REVIEW THE DESIGN OF THE AMPLIFIER CIRCUIT AND OPERATING POINT O F THE ZENER DIODE, SELECT A ZENER DIODE WITH LEAKAGE CURRENT SPECIFICATIONS WELL BELOW THE OPERATING POINT OF THE ZE NER, AND REVIEW AND IMPROVE THE QUALITY OF ZENER DIODES USED ON THESE AMPLIFIERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3382-F POWER SUPPLY TRANSISTORS	FAR 27-12581-607	137F 630715	FACTORY	YES NO		892578

FAILURE MODE-SHORT (ELECT). TRANSDUCER POWER SUPPLY 2 INDICATED NO OUTPUT DURING FACTORY CHECKOUT OF THE TELEMETRY ACCESSORY PACKAGE ABOARD MISSILE 137F. FAILURE WAS CONFIRMED, HOWEVER, THE EXACT CAUSE COULD NOT BE DETERMINED. ANAL YSIS SHOWED THE Q-2 AND Q-3 TRANSISTORS HAD SHORTED BASE TO EMITTERS WHICH COULD BE DUE TO EITHER A COMPONENT FAILUR E OF Q-2, OR A SHORTED OR OVERLOADED OUTPUT FROM THE POWER SUPPLY.

CORRECTIVE ACTION-NONE. CAUSE OF FAILURE COULD NOT BE DETERMINED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4010-C PRESSURE TRANSDUCER 2	FAR 7-01723-11	630715	FACTORY	YES BOURNS NO	42013-0-50-752	892604

FAILURE MODE-OUT OF SPECIFICATION. STATIC ERROR BAND FOR BOTH UNITS WAS OUTSIDE THE PLUS OR MINUS 1.0 PERCENT ALLOW ED.

CORRECTIVE ACTION-NONE. FAILURE ANALYSIS CANCELLED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-4091-F HARNESS	FAR 55-14501-5	135D 630711	FACTORY	YES BENDIX NO	6E-10-6W-101	895589

FAILURE MODE-OPEN (ELECT). HARNESS PLUG FAILED WHEN THE HARNESS WIRE CONNECTED TO PIN A ON PLUG P3106 HAD INTERMITT ENT CONTINUITY DURING MISSILE CHECKOUT. FAILURE WAS CONFIRMED. ANALYSIS REVEALED THE WIRE TO PIN A HAD ONLY 3 OF THE 19 STRANDS IN SOLDERED CONTACT WITH THE REST CUT OR STRETCHED DURING ASSEMBLY AND POTTING. CAUSE OF FAILURE THUS AT TRIBUTED TO FAULTY ASSEMBLY OF PLUG P3106.

CORRECTIVE ACTION-ASTRONAUTICS INFORMED COGNIZANT FACTORY PERSONNEL OF ANALYSIS RESULTS AND REQUESTED APPROPRIATE A CTION TO PREVENT RECURRENCE OF THE PROBLEM.

GENERAL DYNAMICS
CONVAIR DIVISION

15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PRT-TP-69F-2167-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-PRT 27-01558-21	630711	FACTORY	YES NO	WIANCKO P2-4106-21	000633

FAILURE MODE-OUT OF TOLERANCE. UNIT S/N 3050008 WAS OUT OF TOLERANCE ON ALL READINGS DURING PROOF CYCLE. FAILURE WAS DUE TO WRONG EPOXY USED IN FABRICATION.

CORRECTIVE ACTION-VENDOR REDESIGNED ALL UNITS WITH NEW EPOXY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4058-F OSCILLATOR, RESISTOR	FAR	630709		YES NO	BENDIX 1050263-6-6A	007520

FAILURE MODE-ERRATIC OPERATION. OSCILLATOR FAILED DURING A BENCH TEST DUE TO EXCESSIVE NOISE AND ERRATIC OPERATION DURING VIBRATION TESTS IN THE Y-AXIS. FAILURE WAS CAUSED BY A VIBRATION SENSITIVE R-3 RESISTOR. THIS RESISTOR, WHEN VIBRATED AT APPROXIMATELY 1 KILOCYCLE PER SECOND, SHOWED A VARYING RESISTANCE SUFFICIENT TO CAUSE A 40 CPS CHANGE IN FREQUENCY OUTPUT WHEN INSTALLED IN THE OSCILLATOR.

CORRECTIVE ACTION-RAR A-99-24-3908 WAS WRITTEN DETAILING THE RESULTS OF THE FAILURE ANALYSIS AND THE VENDOR WAS INFORMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-90-24-3583-F SIGNAL CONDITIONER	FAR 27-12585-879	2010 630709	WTR	YES NO		003973

FAILURE MODE-OUT OF TOLERANCE DURING CHECKOUT OF THERMOCOUPLE INSTALLATION. THE 100 PERCENT TEMPERATURE CALIBRATION PULSE SHOWED APPROXIMATELY 6 VOLTS DC ON THE OSCILLOSCOPE WHEN 5.0 PLUS OR MINUS 0.1 VOLTS DC IS EXPECTED. FAILURE WAS NOT CONFIRMED. THE UNIT OPERATED PERFECTLY DURING FAILURE ANALYSIS.

CORRECTIVE ACTION-UNKNOWN. THE REPORTED FAILURE WAS DISCUSSED WITH RESPONSIBLE PERSONNEL AT WTR AND A REQUEST MADE FOR RE-EXAMINATION OF FAILURE TEST RESULTS AND INSPECTION OF ASSOCIATED INSTRUMENTATION USED. WTR RESPONDED WITH TAPED RESULTS OF THE FAILURE AS EVIDENCE. NO EQUIPMENT OR INSTRUMENTATION DISCREPANCIES WERE FOUND. NO FURTHER CORRECTIVE ACTION TAKEN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-4029-F PRESSURE TRANSDUCER	FAR 27-01566-33	2320 630709	FACTORY	YES NO	SERVONIC H-172-4	

FAILURE MODE-INTERNAL LEAK. VOLTAGE OUTPUT OUT OF SPECIFICATION. FAILURE CAUSED BY LEAKAGE OF SYS PRESSURE INTO THE CASE. LEAKAGE OCCURRED THROUGH POROS BRAZING BETWEEN BOURDON TUBE AND PRESSURE INLET TIP.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							892802
CORRECTIVE ACTION-UNIT REDESIGNED BY VENDOR MAKING BRAZED SECTION INDEPENDENT OF FITTING AREA. NEW BRAZING TECHNIQU E BEING EVALUATED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PPT-TP-69F-1795-1 DIFFERENTIAL PRESSURE TRANSDUCER	UTP-QUAL/PPT 27-01552-13	630709	FACTORY	YES NO	WIANCKO PS-4106-13	880620
FAILURE MODE-OUT OF TOLERANCE. TWO SPECIMENS EXHIBITED OUT OF TOLERANCE OUTPUT DURING INITIAL PROOF CYCLE. FAILURE WAS NEGATIVE LINEAR SHIFT DUE TO WRONG EPOXY USED IN FABRICATION. (S/N 305-0012 AND 305-0015). CORRECTIVE ACTION-VENDOR REDESIGNED ALL UNITS WITH NEW EPOXY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GD/AGS-0476/C1-303-00-69 WIRING CIRCUITS-SIGNAL CONDITIONER	FLIGHT 27-12813-3	69E 630703	576C 126.76	YES NO		888867
FAILURE MODE-ERRATIC OPERATION. REPLACEMENT OF SEVERAL TELEMETRY COMPONENTS DURING COUNTDOWN INCLUDED SIGNAL CONDIT IONER FROM VEHICLE 24E. INCOMPATIBILITY OF WIRING CONFIGURATIONS CAUSED IMPROPER OPERATION. SYSTEM EFFECT-ERRATIC OPERATION. DIFFERENCE IN WIRING CONFIGURATIONS BETWEEN ORIGINAL AND REPLACEMENT SIGNAL CONDIT IONERS CAUSED LOSS OF 8 ITEMS OF TELEMETRY DATA, INTERFERENCE BETWEEN CHANNELS, INTERMODULATION AND OSCILLATOR FREQU ENCY DEVIATIONS OUT OF BAND. VEHICLE EFFECT-NONE EXCEPT LOSS OF DATA. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	8F-80-24-4124-F TRANSMITTER ELECTRONIC TUBE	FAR 27-12651-1	630702	WTR	YES NO	UNITED ELECTRO DYNAMICS 14383-H	891574
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED WHEN POWER OUTPUT DROPPED TO 1.3 WATTS. APPROX. 25WATTS IS EXPECTE D. FAILURE WAS CONFIRMED AND FOUND TO BE CAUSED BY GASEOUS POWER AMPLIFIER FINAL OUTPUT TUBE. CORRECTIVE ACTION-NONE. TUBE FAILURE WAS DETERMINED TO BE OF RANDOM NATURE AND NOT INDICATIVE OF A FAILURE TREND. N O OTHER FAILURES OF THIS KIND HAD BEEN REPORTED TO DATE.							

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CONVAIR DIVISION

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-A-99-24-3871 PRESSURE TRANSDUCER	FAR 87-01366-29	45F 630702	FACTORY	NO NO	SERVONIC M-172-2	890714

FAILURE MODE-STRUCTURAL. THREE TRANSDUCERS FAILED WHEN THEY EXHIBITED A POSITIVE STATIC ERROR ABOVE THE ALLOWABLE 1 .0 PERCENT FULL SCALE. THE FAILURE WAS THE RESULT OF OVERPRESSURIZATION ABOVE THE DESIGNED LIMIT CAUSING A PERMANENT DISTORTION OF THE PRESSURE ELEMENT.

CORRECTIVE ACTION-GD/C REQUESTED CHECKOUT AND TROUBLE-SHOOTING PROCEDURES AND TECHNIQUES BE REVIEWED TO PRECLUDE TH E POSSIBILITY OF INTRODUCING EXCESSIVE PRESSURE INTO THE HYDRAULIC SYSTEM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4122F OSCILLATOR	FAR 7-01864-855	630628	FACTORY	YES NO	BENDIX 7-01864-855	891025

FAILURE MODE-FAIL DURING OPERATION. UNIT WAS REJECTED WHEN A NEGATIVE SPIKE OCCURRED DURING VIBRATION TESTING PER E OP 330.329.11. FAILURE COULD NOT BE DUPLICATED.

CORRECTIVE ACTION-NONE. FAILURE COULD NOT BE DUPLICATED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9601850 PRESSURE TRANSDUCER	UTP-GUAL/PPT 89-01005-39	630626	GD/C	YES NO	BOURNS 2007371707	892316

FAILURE MODE-OUT OF SPECIFICATION. IN THE RESOLUTION TEST OF 28 JUNE 1963, THERE WERE 386 DISCRETE STEPS, 157 OF WH ICH EXCEEDED 0.25 PERCENT. SIX STEPS EXCEEDED 0.5 PERCENT. ON 2 JULY 1963, DURING THE PROOF CYCLE FOLLOWING ADDITION AL HIGH TEMPERATURE TESTS, THE MAXIMUM ERROR BAND WAS OUT OF TOLERANCE. THE MAXIMUM ERROR WAS 1.3 PERCENT AT 98 PERC ENT OF FULL SCALE VOLTAGE RATIO. THE FAILURE WAS COORDINATED WITH THE VENDOR WHO CONFIRMED THE FAILURE.

CORRECTIVE ACTION-THE VENDOR IS PLANNING CORRECTIVE ACTION. THE VENDOR REWORKED THE PART.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4002F TRANSMITTER	FAR 87-01396-11	630624	FACTORY	YES NO	UNITED ELECTRO DYNAMICS 20120	

FAILURE MODE-STRUCTURAL. TRANSMITTER FAILED DURING FINAL FACTORY CHECKOUT. OUTPUT POWER FLUCTUATED BETWEEN 2.0 AND 4.0 WATTS. FAILURE WAS CAUSED BY THREE TUNING COILS BEING LOOSE IN THE TRANSMITTER CASE. THIS WAS PROBABLY DUE TO A SEVERE LATERAL SHOCK CAUSED BY MISHANDLING.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE VENDOR AGREED TO ANCHOR THE TUNING COILS MORE SECURELY ON THE TWO TRANSMITTERS REMAINING TO BE DELIVERED. AN AVO, DATED JULY 29, 1965, TO THE SUPERVISORS OF THE FINAL ASSEMBLY AREA, INFORMED THEM OF THE INDICATED CAUSE OF FAILURE, AND REQUESTED MORE CAREFUL HANDLING OF THE SIX TRANSMITTERS COMPRISING ALL THE TRANSMITTERS OF THIS TYPE ORDERED.							001649
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3550F OSCILLATOR SUBCARRIER	FAR 88-13557-013	1260 630622	FACTORY	YES BENDIX NO		003234
FAILURE MODE-FAIL DURING OPERATION-DURING COMPOSITE TEST CHANNEL NO. 7 INDICATED ERRATIC VARIATIONS OF UP TO 5 PCT IBM. FAILURE COULD NOT BE CONFIRMED NEITHER ABOARD THE MISSILE NOR DURING EXTENSIVE COMPONENT LEVEL TESTING. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3549C AMPLIFIER	COMPOSITE-FACTORY 55-13668-023	1260 630622	FACTORY	YES NO		003233
FAILURE MODE-STRUCTURAL. BREAKUP WAS INDICATED ON CHANNEL C, SEGMENTS 71 TO 83 AND CHANNEL E, SEGMENTS 15 TO 27 AND 57-69. FAILURE WAS CONFIRMED VIA TESTING ON THE MISSILE AND ISOLATED TO CHANNEL E AC STRAIN GUAGE AMPLIFIER. NO ATTEMPT AT FAILURE ANALYSIS WAS MADE DUE TO LACK OF A BACKUP PACKAGE AND REPLACEMENT AMPLIFILR. CORRECTIVE ACTION-NONE. UNIT WAS SHIPPED AS IS TO BE REPLACED AND REWORKED WHEN A BACKUP PACKAGE BECAME AVAILABLE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4034-F POWER SUPPLY-DIODE	FAR 55-13535-3	2630 630622	FACTORY	YES NO		004470
FAILURE MODE-FAIL DURING OPERATION. SMOKE OBSERVED COMING FROM COMMUTATOR POWER SUPPLY WHEN POWER WAS APPLIED. FAILURE CAUSED BY FAULTY TRANSISTOR AND DIODE. CORRECTIVE ACTION-INCREASE QUALITY CONTROL DURING ASSEMBLY OF THE POWER SUPPLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX69-0003-1260/FC-CO-05-0508-003 OSCILLATOR	COMPOSITE-FACTORY	1260 630621		YES NO		
FAILURE MODE-DRIFT. CHANNEL 7 RF NO. 1 (BOOSTER NO. 1 PITCH), DISPLAYED UNEXPECTED LEVEL SHIFTS UP TO 8 PERCENT IBM							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
. BELIEVED DUE TO A FAULTY OSCILLATOR. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING AND SYSTEMS LEVEL TESTING REQUIRED. CORRECTIVE ACTION-THE TELEMETRY CANISTER WAS RETURNED TO COMPONENTS AREA AND CHANNEL 7 OSCILLATOR WAS REPLACED. FAILURE ANALYSIS ON REMOVED OSCILLATOR DID NOT CONFIRM THE FAILURE.							899634
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX63-0003-1260/FC-CO-03-0502-003 TLM CANISTER	COMPOSITE-FACTORY	1250 630621	FACTORY	YES NO		899614
FAILURE MODE-ERRATIC OPERATION. R.F. NO. 2 CHANNEL C SEGMENTS 71 TO 83, MEASUREMENT A1668, AND CHANNEL E SEGMENTS 1 5 TO 27 AND 57 TO 69 MEASUREMENT A1775 DISPLAYED ERRATIC OPERATION INTERMITTENTLY DURING THE TEST. PROBLEM WAS ISOLATED TO THE TELEPAK. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED. CORRECTIVE ACTION-NO REPLACEMENT WAS AVAILABLE AT TIME OF TEST. AN IR WAS INITIATED AND THE TELEPAK WAS LEFT ON THE BOOSTER FOR FURTHER TESTING AND SHIPMENT. TELEPAK TO BE REPAIRED OR REPLACED WHEN PARTS OR REPLACEMENT BECAME AVAILABLE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	3P-99-24-4089-F OSCILLATOR	FAR 7-01664-835	630621	FACTORY	YES NO	BENDIX TOE-41	895231
FAILURE MODE-OUT OF SPECIFICATION. DURING VIBRATION OF THE TELEMETRY CANISTER THE CHANNEL 11 OSCILLATOR INDICATED INTERMITTENT NOISE OF 1.1 TO 6 PERCENT INFORMATION BANDWITH WHEN 4 PCT IS THE MAXIMUN ALLOWED. FAILURE WAS NOT CONFIRMED. NO DEFINITE CAUSE OF FAILURE WAS FOUND HOWEVER, THE REPORTED FAILURE MAY HAVE BEEN DUE TO THE OSCILLATOR NOT BEING FASTENED DOWN TIGHTLY IN ITS NEXT ASSEMBLY. CORRECTIVE ACTION-TELEMETRY TEST PERSONNEL WERE NOTIFIED OF THE FINDINGS OF THIS ANALYSIS AND WERE REQUESTED TO USE GREATER CARE IN THE PREPARATION AND TESTING OF TELEMETRY CANISTERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3536F TLM CANISTER-RECTIFIER	FAR 27-12581-807	630620	FACTORY	YES NO		
FAILURE MODE-OUT OF TOLERANCE. 2 UNITS WERE ANALYZED FOR THE SAME PROBLEM. OUTPUTS OF THE DUAL CRYSTAL RECTIFIER WERE BELOW THE 2.5 VDC PLUS OR MINUS 0.088 VDC REQUIRED WITH 115 VAC 400 CYCLES INPUT. FAILURES WERE CONFIRMED. HOWEVER, THEY WERE ATTRIBUTED TO IMPROPER ADJUSTMENT OF THE RECTIFIERS PRIOR TO INSTALLATION. AFTER READJUSTMENT THE DUAL RECTIFIER OUTPUTS WERE SATISFACTORY.							

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SYSTEM SUB-SYSTEM	TCST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							693774

CORRECTIVE ACTION-PERIOD OF TEST SET VALIDATION WAS REVIEWED TO INSURE AGAINST PACKAGE SETUP WITH FAULTY EQUIPMENT. TEST SET WAS FOUND ADEQUATE. TECHNICIANS WERE INSTRUCTED TO TAKE GREATER CARE, IN THE FUTURE, WHEN ADJUSTING THE DU AL RECTIFIERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3593-F PRESSURE TRANSDUCER	FAR 7-01723-11	830619	FACTORY	YES NO	CEC 4-380AMA-9A	691553

FAILURE MODE-STRUCTURAL. UNIT FAILED DUE TO LEAKAGE CAUSED BY A DEFORMED O-RING AND A CRACKED SOLDER JOINT IN THE C ANISTER. THE O-RING WAS DEFORMED BECAUSE OF AN IMPROPERLY MACHINED O-RING SEAT.

CORRECTIVE ACTION-NONE. VENDOR HAS DISCONTINUED MANUFACTURE OF THIS ITEM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3575-F COMMUTATOR	FAR 55-01171-9	45F 830618	FACTORY	YES NO	FIFTH DIMENSIO N	695974

FAILURE MODE-CONTAMINATION. DURING FACTORY CHECKOUT THE CHANNEL 12 COMMUTATOR RAN ERRATICALLY. FAILURE WAS CONFIRME D. THE COMMUTATOR WAS ERRATIC WITHIN THE SPECIFICATION SPEED BAND. THE CAUSE WAS ATTRIBUTED TO METALLIC PARTICLES PA SSING THROUGH MATING GEARS IN THE GEAR BOX.

CORRECTIVE ACTION-REQUESTED MANUFACTURER OF COMMUTATOR TO ASSURE NECESSARY MANUFACTURING AND QUALITY CONTROL PROCED URES TO PREVENT RECURRENCE OF THIS FAILURE MODE. REQUESTED ENGINEERING TO REVISE ACCEPTANCE TEST PROCEDURES TO REQUI RE COMMUTATORS OF THIS TYPE NOT TO EXCEED A FRAME-TO-FRAME COMMUTATOR SPEED VARIATION OF MORE THAN 0.5 PERCENT OF TH E RATED COMMUTATOR SPEED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4108 CALIBRATOR POTENTIOMETER	FAR 27-11341-919	263D 830616	FACTORY	YES NO	BENDIX 1047387	695415

FAILURE MODE-STRUCTURAL. CHANNEL E NEGATIVE PEDESTAL CHANGED FROM 7 TO 9 PERCENT BANDWIDTH. CHANNEL 11 AND 16 NEGAT IVE PEDESTALS ALSO CHANGED. THE FAILURE WAS CAUSED BY A POTENTIOMETER WITH 3 MISSING WIPER ARMS.

CORRECTIVE ACTION-THE VENDOR WAS NOTIFIED AND CAUTIONED TO TIGHTEN INSPECTION PROCEDURES.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	D/F DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3817-F OSCILLATOR	FAR 87-12573-808	630616	FACTORY	YES NO	BENDIX 1036900-805	895833

FAILURE MODE-OUT OF TOLERANCE. SUBCARRIER OSCILLATOR FOR CHANNEL B DRIFTED OUT OF TOLERANCE. FAILURE NOT CONFIRMED.

CORRECTIVE ACTION-NONE. OSCILLATOR DRIFT WAS FOUND TO BE WITHIN TOLERANCE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4033-F OSCILLATOR-POTENTIOMETER	FAR 87-01807-117	630616	FACTORY	YES NO	BENDIX PACIFIC 3131153-9-6	894469

FAILURE MODE-FAIL DURING OPERATION. DURING BENCH TESTING THE FREQ. DEVIATION COULD NOT BE CONTROLLED BY ADJUSTMENT OF THE OSCILLATOR OUTPUT VOLTAGE POTENTIOMETER. FAILURE CAUSED BY LOOSE WIPER ASSEMBLY OF THE POTENTIOMETER.

CORRECTIVE ACTION-VENDOR INDICATED IMPROVEMENTS OF THE POTENTIOMETER HAVE BEEN INCORPORATED WHICH REDUCE THE POSSIBILITY OF RECURRENCE OF THE FAILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3518-F OSCILLATOR TUBE/TYPE-6111	FAR 55-13537-813	1260 630615	FACTORY	YES NO	BENDIX-PACIFIC	895411

FAILURE MODE-OUT OF SPECIFICATION. CHANNEL A AND E WERE OUT-OF-BAND, CAUSED BY A SHIFT IN VACUUM TUBE PARAMETERS. THE FAILURE WAS CONFIRMED.

CORRECTIVE ACTION-ECP 7424 WAS PRESENTED TO THE AIR FORCE PROPOSING A CHANGE TO SOLID STATE OSCILLATORS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3518-F COMMUTATOR GEAR MOTOR	FAR 55-13537-813	1200 630615	FACTORY	YES NO	REED AND REESE	895410

FAILURE MODE-CONTAMINATION. CHANNEL E COMMUTATOR WAS INTERMITTENT CAUSED BY EXCESSIVE CARBON DUST THROUGHOUT THE UNIT.

CORRECTIVE ACTION-ECP 7424 WAS PRESENTED TO THE AIR FORCE PROPOSING A CHANGE TO COMMUTATORS HAVING A HIGHER DEGREE OF RELIABILITY.

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4017 COMMUTATOR, MOTOR	FAR	630614	FACTORY	YES NO	BENDIX 1096483-3-5	093650

FAILURE MODE-CONTAMINATION. MOTOR OVERSPED DURING MANUFACTURING TESTING. DISASSEMBLY SHOWED THE MIGRATION OF METAL WAS APPARENT ON BOTH SETS OF CONTACTS. FAILURE WAS CAUSED BY METAL MIGRATION BETWEEN THE GOVERNOR CONTACTS, CAUSING THE CONTACTS TO MAINTAIN ELECTRICAL CONTINUITY TOO LONG TO REGULATE SPEED WITHIN SPECIFICATIONS.

CORRECTIVE ACTION-RARS A-99-24-3904 AND A-99-24-3985 WERE PREVIOUSLY ISSUED, RECOMMENDING A DESIGN REVIEW OF THE MOTOR. SPEED TOLERANCES WERE SUBSEQUENTLY REVISED FROM PLUS OR MINUS 5 TO PLUS OR MINUS 8 PERCENT AS OF OCTOBER 23, 1963.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX63-0003-1260/FC-CO-02-0802-003 TLM CANISTOR	COMPOSITE-FACTORY	1260 630613	FACTORY	YES NO		099633

FAILURE MODE-OUT OF TOLERANCE. RF NO. 1 CHANNEL A WAS OPERATING BELOW THE LOW FREQUENCY BAND EDGE.

SYSTEM EFFECT-OPERATION TOO LOW. CHANNEL A WAS OPERATING BELOW THE LOW FREQUENCY BAND EDGE.

VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEMS LEVEL AND POST-COMPOSITE TESTING REQUIRED.

CORRECTIVE ACTION-REPLACED FAULTY TELEMETRY CANISTER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3508-F TLM CANISTER-OSCILLATOR	FAR 27-12571-913	136F 630613	FACTORY	NO NO	BENDIX 27-01257-801	097483

FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. CHANNEL 9 OUTPUT WAS 59 PCT BAND WIDTH AT CENTER FREQUENCY STIMULUS WHEN 49 PCT WAS EXPECTED. THE CHANNEL 9 OSCILLATOR WAS APPARENTLY CALIBRATED AT CENTER FREQUENCY, USING 1.875 VDC INPUT INSTEAD OF THE REQUIRED 2.5 VDC.

CORRECTIVE ACTION-SINCE PROCEDURE USED TO CALIBRATE THIS PACKAGE REQUIRES 2.5 VDC BE USED FOR CENTER FREQUENCY ADJUSTMENT OF CHANNEL 9, AND SINCE APPROPRIATE PERSONNEL ARE NOW AWARE OF THE DISCREPANCY, NO FURTHER CORRECTIVE ACTION IS NECESSARY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	96D1850 PRESSURE TRANSDUCER	UTP-QUAL/PPT 68-01003-39	630613	6D/C	YES NO	BOURNS 2007371707	

FAILURE MODE-OUT OF SPECIFICATION. ON 13 JUNE 1963, THE RESOLUTION CHECK REVEALED 447 DISCRETE STEPS OF WHICH 44 EXCEEDED 0.25 PERCENT. TWO STEPS EXCEEDED TWICE THE SPECIFIED RESOLUTION. DURING THE SECOND CALIBRATION CYCLE, ONE POI

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NT EXCEEDED THE ALLOWED ERROR BAND BY 0.1 PERCENT. THE POINT WAS 8.1 PERCENT OF FULL SCALE VOLTAGE RATIO, WHEN IT SH OULD BE 2.0 PLUS OR MINUS 1.0 PERCENT. ON 18 JUNE 1983, THE UNIT EXPERIENCED UPWARD SHIFT AFTER THE HIGH TEMPERATURE TEST, WHICH PLACED THE ERROR BAND OUT OF TOLERANCE. CORRECTIVE ACTION-THE UNIT WAS REJECTED ON IR NUMBER 830108 AND RETURNED TO THE VENDOR FOR REWORK.							892347
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4019F COMMUTATOR, MOTOR	FAR	830612	FACTORY	YES NO	BENDIX 1096485-6-8	893649
FAILURE MODE-OUT OF SPECIFICATION LIMITS. MOTOR FAILED DUE TO UNDERSPEED DURING VIBRATION TESTING. FAILURE WAS C AUSED BY MIGRATION OF CARBON BRUSH MATERIAL INTO THE GEAR ASSEMBLY, WHERE IT COMBINED WITH THE LUBRICANT PRESENT TO MAKE A GRINDING COMPOUND, THAT WITH NORMAL ROTATION OF THE GEARS, WORE OUT THE ASSEMBLY. WEAR CONTINUED TO A POINT W HERE BINDING CAUSED THE MOTOR TO SLOW UP. CORRECTIVE ACTION-RAR SP-99-24-3977 WAS ISSUED TO INVESTIGATE THE GEAR MOTOR FAILURE PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4000-F PRESURE TRANSDUCER	FAR 7-01731-9	830611	PHR	NO NO	BOURNS 71724-0-35-75E	892797
FAILURE MODE-OPEN (ELECT). UNIT FOUND TO HAVE AN OPEN CIRCUIT. FAILURE CONSISTING OF AN OPEN PLATINUM ELEMENT ATTRI BUTED TO EXCESSIVE VOLTAGE BEING APPLIED. CORRECTIVE ACTION-PERSONNEL CAUTIONED REGARDING EXCESSIVE VOLTAGE TO PREVENT RECURRENCE OF THIS FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-5532F CONVERTER-TRANSISTOR	FAR 27-12651	45F 830610	FACTORY	YES NO	U. E. D. 14363H	896090
FAILURE MODE-FAIL DURING OPERATION. NO RF OUTPUT WAS EVIDENT. INVESTIGATION REVEALED THAT THE FUSE TO THE INPUT OF THE POWERCONVERTER 27-14322 WAS BLOWN AND THAT 2 DELCO 2N1100 TRANSISTORS IN THE CHOPPER CIRCUIT WERE FAULTY. MEASUR EMENT OF THE TRANSISTOR SWITCHING VOLTAGE REVEALING EXCESSIVE SPIKING AND CONSEQUENT BREAKDOWNOF THE TRANSISTOR. CORRECTIVE ACTION-RECOMMENDED THAT THE VENDOR INCORPORATE PROTECTIVE CIRCUITRY FOR TRANSIENT SUPPRESSION IN HIS DES IGN OF THE DC TO DC CONVERTER.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	HG-99-24-3521-F TLM CANISTER	FAR 37-1E290-815	630610	FACTORY	YES NO		885265
FAILURE MODE-ERRATIC OPERATION. THE TELEPAK OPERATED ERRATICALLY; HOWEVER, THE FAILURE WAS NOT CONFIRMED. CORRECTIVE ACTION-THE PACKAGE WAS SUCCESSFULLY CALIBRATED WHERE NECESSARY AND SINCE NO INDICATION OF PART FAILURE W AS DISCOVERED, NO FURTHER CORRECTIVE ACTION WAS TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3518-F TRANSMITTER	FAR 37-1E372-847	136F 630610	FACTORY	YES NO	BENDIX-PACIFIC	885232
FAILURE MODE-OUT OF TOLERANCE. SPIKING UP TO 30 PERCENT IBW AND 8 PERCENT IBW NOISE ON CHANNEL 12. ACCEPTABLE NOISE LEVEL IS 5 PERCENT IBW. FAILURE NOT CONFIRMED. CORRECTIVE ACTION-NONE. CHANNEL 12 DEVIATION WAS READJUSTED WHICH REDUCED NOISE TO ACCEPTABLE LEVEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	JP-99-24-3560-F POWER SUPPLY	FAR 55-13540-1	630608	FACTORY	NO NO		885393
FAILURE MODE-OUT OF TOLERANCE. DURING ELECTRICAL TESTING TRANSDUCER POWER SUPPLY INDICATED A NOISE LEVEL OF 10 MILL IVOLTS WHEN THE ALLOWABLE LEVEL IS 5 MILLIVOLTS. FAILURE WAS NOT CONFIRMED. THE REPORTED FAILURE WAS DUE TO SPECIFIC ATION MISINTERPRETATION BY TESTING PERSONNEL. CORRECTIVE ACTION-PERSONNEL RESPONSIBLE FOR DISASSEMBLING PARTS PRIOR TO SHIPMENT FOR FAILURE ANALYSIS WERE INSTRUC TED THAT TAMPERING COULD DESTROY THE ORIGINAL CAUSE OF FAILURE AS WELL AS ADDING NEW DISCREPANCIES. THE EOP WAS DISC USSED WITH TEST PERSONNEL TO DETERMINE IF ANY CLARIFICATION WAS NEEDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3567-F OSCILLATOR-TUBE	FAR T-01466-839	630607	FACTORY	YES NO	BENDIX 1041962-3-K	
FAILURE MODE-OUT OF TOLERANCE. THE OSCILLATOR BECAME UNSTABLE DURING MANUFACTURING TESTS. FAILURE WAS CONFIRMED. OS CILLATOR DID NOT STABILIZE AT CENTER FREQUENCY OF 70,000 PLUS OR MINUS 526 CPS BUT DRIFTED FROM 71,868 TO 71,733 CPS IN 1.5 HOURS. FAILURE WAS DUE TO CHANGING CHARACTERISTIC OF THE MODULATOR TUBE V-1 (TYPE 6111).							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE PRESENT BENDIX ROUND TELEMETRY CANISTER IS BEING REPLACED WITH A NEW LIGHTWEIGHT BENDIX TELEP AK WHEREIN THIS OSCILLATOR IS NO LONGER USED.							890010
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-89-24-3554-F OSCILLATOR / RESISTOR	FAR 87-01488-661	830807	SANDIEGO	YES NO	BENDIX TDE31	891060
FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR WAS REJECTED WHEN IT DRIFTED 500 CPS ABOVE THE HIGH FREQUENCY BANDEDGEPLU S OR MINUS 184 CPS IS ALLOWED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO AGEING OF THE MODULATOR STAGE COMPONENTS. NAM ELY RS RESISTOR. CORRECTIVE ACTION-REPLACE THE BENDIX ROUND CANISTER WITH A LIGHTWEIGHT TRANS- ISTORIZED VERSION. FOR EXISTING ROUND CANISTER MODULES, AN EXTENDED BURN PROCEDURE (TD-7-01488) IS BEING WRITTEN TO CATCH THOSE OSCILLATORS SUBJECT TO EX CESSIVE DRIFT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-A9-24-3537-F OSCILLATOR	FAR 85-89700-639	830608	FACTORY	YES NO	TEXAS INSTRUME NTS 423202-13	890018
FAILURE MODE-FAIL DURING OPERATION-IT WAS REPORTED THAT THE SCO HAD NO OUTPUT. FUNCTIONAL TEST OF THE OSCILLATOR FA ILED TO DISCLOSE ANY PROBLEMS. CORRECTIVE ACTION-NONE-FAILURE COULD NOT BE CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-92-24-4128-F OSCILLATOR/TUBE ELECTRONIC	FAR 7-01884-659	830606	FACTORY	YES NO	BENDIX 1040659-67	891027
FAILURE MODE-FAIL DURING OPERATION. UNIT WAS REJECTED WHEN NOISE AND DISTORTION DEVELOPED DURING VIBRATION TESTING. FAILURE WAS CONFIRMED AND RESULTED FROM A VIBRATION SENSITIVE ELECTRON TUBE/5718/. REASON FOR TUBE BEING SENSITIVE COULD NOT BE DETERMINED. CORRECTIVE ACTION-VENDOR WAS REQUESTED TO BE MORE SELECTIVE IN CHOOSING COMPONENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-A-A9-24-3531 PRESSURE TRANSDUCER	FAR 87-01843-9	45F 830806	FACTORY	YES NO	BOURNS 42011-0-150-75 8	

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
UNT THE ELECTRICAL RECEPTACLE ONTO THE TRANSDUCER ALLOWED LOSS OF THE REFERENCE VACUUM, RESULTING IN THE TRANSDUCER HAVING A LOW OUTPUT THROUGHOUT ITS OPERATING RANGE. CORRECTIVE ACTION-THE VENDOR WAS REQUESTED TO IMPROVE QC METHODS TO PREVENT PORES IN THE SOLDER CONNECTIONS.							690710
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-NZ-3D-24-3561 PRESSURE TRANSDUCER	FAR 27-01366-29	1980 630606	VAFB	YES NO	SERVONIC M-172-2	690711
FAILURE MODE-ELECTRICAL OPEN. THE TRANSDUCER FAILED WHEN IT EXHIBITED AN INTERMITTENT OPEN CONDITION. FAILURE WAS C AUSED BY A LONGITUDINAL MOVEMENT OF THE WIPER ASSEMBLY DURING VIBRATION, CAUSING AN OPEN CIRCUIT DUE TO THE WIPER LI FTING OFF THE RESISTANCE ELEMENT. CORRECTIVE ACTION-GD/C INITIATED A VIBRATION TEST TO REJECT VIBRATION SENSITIVE TRANSDUCERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-38-24-3552-F OSCILLATOR	FAR 27-01268-88	630605	SAN DIEG O	YES NO	BENDIX TOE 44	691072
FAILURE MODE- FAIL TO OPERATE AT PRESCRIBED TIME. OSCILLATOR WAS REJECTED FOR NO OUTPUT. FAILURE COULD NOT BE DUPLI CATED. HOWEVER, DURING VISUAL INSP. A PORTION OF THE GLASS ENVELOP OF V2 WAS BROKEN. DUE TO THE METHOD OF FABRICATIO N. THIS PROBLEM HAD NO EFFECT ON THE OPERATION OF THE OSCILLATOR. CORRECTIVE ACTION-FAILURE NOT CONFIRMED. THE VENDOR WAS INFORMED CONCERNING HIS FABRICATION TECHNIQUE. TIGHTER INSP ECTION AND IMPROVED WORKMANSHIP WERE RECOMMENDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A99-24-3514-F TRANSMITTER-POWER SUPPLY	FAR 27-12373-801	1369 630603	FACTORY		BENDIX-PACIFIC	693100
FAILURE MODE-FAIL DURING OPERATION. NO RF OUTPUT FROM TELEMETRY PACKAGE. FAILURE CAUSED BY POWER SUPPLY FAILURE. CORRECTIVE ACTION-FUTURE PROPOSALS WILL SPECIFY PACKAGES OTHER THAN 27-01237. THE LIGHT WEIGHT PACKAGE TO BE SPECIF IED USES A REDESIGNED POWER SUPPLY. DESIGN CHANGES ON THE OLD HEAVY WEIGHT PACKAGE WOULD NOT BE INCORPORATED UNTIL L ATE IN THE SERIES AND WOULD NOT JUSTIFY THE ADDITIONAL COST.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3402-F HARNESS	FLIGHT SS-14301-5	1260 630601	FACTORY	YES NO		691301

FAILURE MODE-OUT OF TOLERANCE. DURING A RUN OF THE TELEMETRY SYSTEM CHECKOUT A LOW OUTPUT WAS FOUND ON CHANNEL 1E1. THE TROUBLE WAS ISOLATED TO HARNESS P/N SS-14301-5. PIN A OF PLUG J3098 WAS FOUND TO HAVE A LOOSE WIRE. A CONSIDERABLE NUMBER OF STRANDS OF THE WIRE WERE CUT, AND THE REMAINDER WERE TWISTED OR TORQUED OFF.

CORRECTIVE ACTION-RECOMMENDED ASSEMBLY PERSONNEL BE MADE AWARE OF THE FAILURE AND CLOSER INSPECTION BE PERFORMED BEFORE POTTING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3400F LIMITER FILTER INDUCTOR	FAR 27-12682-3	630329	FACTORY	YES NO		691647

FAILURE MODE-STRUCTURAL. CHANNEL 2 DIDNOT ATTENUATE THE SIGNAL ENOUGH AT THE HIGH FREQUENCY END OF THE BANDPASS FILTER. OUTPUT OF THE FILTER WAS 7.0 MILLIVOLTS INSTEAD OF 0.05. SEPARATION OF THE INDUCTOR LAMINATIONS CAUSED A CHANGE IN INDUCTANCE, RESULTING IN IMPROPER BANDPASS CHARACTERISTICS OF THE FILTER.

CORRECTIVE ACTION-FAILURE ANALYSIS RECOMMENDED A SURVEY OF THE EXISTING STOCK AT CONVAIR BE CONDUCTED TO DETERMINE IF THE BANDPASS CHARACTERISTICS OF THESE FILTERS MEET SPEC. CONTROL DRAWING 27-01295.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3558 OSCILLATOR	FAR 27-01268-7	630329	FACTORY	YES NO	BENDIX 1050263-66A	691087

FAILURE MODE-FAIL DURING OPERATION. UNIT FAILED DURING VIBRATION OF ITS TELEMETRY PACKAGE, BY DISPLAYING SPIKING AND DISTORTION. FAILURE COULD NOT BE CONFIRMED. RECORDS OF THE PACKAGE HISTORY SHOW THAT J-26 P13 (INPUT PIN TO THE OSCILLATOR) HAD A BAD SOLDER CONNECTION AND THAT J-26 HAD BEEN CRACKED AND REPLACED. FAILURE WAS ASSUMED TO BE CAUSED BY THIS CONDITION.

CORRECTIVE ACTION-NONE. FAILURE COULD NOT BE CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3559F COMMUTATOR	FAR 27-01387-9	630328	SAN DIEG 0	YES NO	FIFTH DIMENSIO N	

FAILURE MODE-CONTAMINATION. DURING BENCH CHECKOUT, COMMUTATOR RAN AT 7.46 RPS WHILE 9.25 RPS IS THE LOWEST IN-TOLERANCE SPEED FOR THIS NOMINAL 10 RPS COMMUTATOR. FAILURE WAS CONFIRMED. FAILURE WAS CAUSED BY EITHER CARBON GRINDINGS IN THE GEAR MOTOR OR METALLIC GRINDINGS IN THE GEAR TRAIN. METALLIC FOREIGN MATERIAL INDICATES INADEQUATE QUALITY CO

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
NTROL BY THE VENDOR							092400
CORRECTIVE ACTION-VENDOR REQUESTED TO IMPROVE QUALITY CONTROL AND INSPECTION PROCEDURES DURING COMMUTATOR ASSEMBLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-84-3471-F SIGNAL CONDITIONER-CIRCUIT BOARD	FAR 27-12813-1	84E 630527	FACTORY	YES NO	UNITED ELECTRO DYNAMICS 27-12813-1	092909
FAILURE MODE-OUT OF TOLERANCE. SIGNAL CONDITIONER OUTPUTS FROM SUBCARRIER CHANNELS 14 AND 15 WERE EXCESSIVELY NOISY AND INDICATED FAILURE OF THE COMMUTATOR AMPLIFIERS. EXCESSIVE NOISE WAS CAUSED BY 3 MISSING GROUND WIRE CONNECTIONS IN THE P/N 27-12813-7 CIRCUIT BOARD OF THE SIGNAL CONDITIONER. THE 3 MISSING CONNECTIONS WERE FROM TBB-2 TO P103-31 , TBB-22 TO P104-44 AND P104-22 TO P104-45.							
CORRECTIVE ACTION-REQUESTED VENDOR QUALITY CONTROL CORRECTIVE ACTION BE TAKEN TO INSURE THIS MODE OF FAILURE DOES N OT RECUR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-90-84-3391-F POWER SUPPLY DIODE	FAR 27-12651-3	630527	1-2	YES NO	UNITED ELECTRO DYNAMICS	092174
FAILURE MODE-FAIL DURING OPERATION. FAILED WHEN TRANSMITTER CEASED TO OPERATE AFTER APPROXIMATELY EIGHT MINUTES OF OPERATION. FAILURE WAS CONFIRMED. CAUSE ATTRIBUTED TO DIODE FAILURE IN THE 425 VOLT D-C POWER SUPPLY SECTION. THIS C AUSED A SECONDARY FAILURE OF THE 2N1100 TRANSISTOR.							
CORRECTIVE ACTION-NO CORRECTIVE ACTION WAS INITIATED AS AIR FORCE IS HAVING FURTHER ANALYSIS CONDUCTED ELSEWHERE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP89-84-3546F OSCILLATOR-RESISTOR	FAR 7-01468-827	630527	SAN DIEG O	YES NO	BENDIX 1050702-13-K	091881
FAILURE MODE-DRIFT. OSCILLATOR BECAME UNSTABLE WHILE BEING CHECKED IN TELEMETRY PKG. REPORTED INSTABILITY PROBLEM W AS NOT CONFIRMED. BUT TESTING REVEALED THAT THE HIGH FREQ. END COULD NOT BE ADJUSTED TO SPECS. BY CHANGING THE VALUE OF R-8, BIASING RESISTOR FOR V1, THE OSCILLATOR COULD THEN BE ADJ. TO SPECS. FAILURE ATTRIBUTED TO AGING OF R-8 CAU SING THE OSCILLATOR TO DRIFT.							
CORRECTIVE ACTION-NONE. SINCE THE ROUND CAN TELEMETER IS BEING REPLACED BY THE LIGHTWEIGHT SQUARE CAN. THE LIGHTWEI GHT CANS HAVE ADJUSTABLE BIASING RESISTORS.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3488-F ELECTRICAL CONNECTOR	FAR UNKNOWN	126D 630526	FACTORY	NO NO		888737
FAILURE MODE-STRUCTURAL. FAILURE LED TO ERRATIC OPERATION. TELEMETRY ACCESSORY PACKAGE INDICATED AN INTERMITTENT CO NDITION DUE TO THE ENLARGEMENT OF THE FEMALE RECEPTACLE A OF THE RECEPTACLE 8J1. THE LIP AREA OF THE FEMALE PINS WER E BENT OR ENLARGED DUE TO AN OVERSIZE PROBE BEING USED DURING TESTING OF THE PACKAGE. CORRECTIVE ACTION-REQUESTED FACTORY PERSONNEL BE INSTRUCTED TO USE THE PROPER TEST ACCESSORIES WHEN PERFORMING TEST S ON TELEMETRY EQUIPMENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3523-F AUDIO FREQUENCY FILTER	FAR 27-12860-1	630523	FACTORY	YES NO		889418
FAILURE MODE-STRUCTURAL. FAILURE CAUSED BY BROKEN SLEEVING, PROBABLY BROKEN DURING POTTING PROCESS AND POOR LEAD DR OSS BEFORE POTTING. CORRECTIVE ACTION-DIMENSION OF MOLD EXTENDED TO PREVENT CONTACT OF THE WIRES. INSPECTION TEST SPECIFIED FOR FILTER ASSEMBLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-4013F OSCILLATOR POTENTIOMETER	FAR 27-01259-41	630523	FACTORY	YES NO	BENDIX 1052094-12-TA	893263
FAILURE MODE-OPEN (ELECT). DURING MANUFACTURING TEST, IT WAS NOT POSSIBLE TO ADJUST THE FREQUENCY OF THE LOWER BAND EDGE. THE POTENTIOMETER WAS REMOVED FROM THE ASSEMBLY AND WAS FOUND TO HAVE BROKEN STRANDS OF WIRE NEAR THE CENTER OF ITS WIRE WOUND RESISTANCE ELEMENT. THE FAILURE WAS ATTRIBUTED TO AN OPEN SENSITIVITY POTENTIOMETER. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-A-99-24-3569 PRESSURE TRANSDUCER	FAR 7-01750-1	630523	FACTORY	YES NO	BOURNS 42016-0-150-75 8	
FAILURE MODE-STRUCTURAL. THE TRANSDUCER FAILED WHEN THE STATIC ERROR BAND WAS PLUS 0.41; MINUS 4.4 PERCENT. MAXIMUM ALLOWABLE IS PLUS MINUS 2.5 PERCENT. IMPROPER WELDING CAUSED A CRACK IN THE OUTER SEAM OF THE BELLOWS.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECT.-E ACTION-VENDOR REQUESTED TO IMPROVE WELDING TECHNIQUES. VENDOR STARTED SCHOOL ON 640106 FOR ALL WELDERS.							690712
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-A-99-24-3570 PRESSURE TRANSDUCER	FAR 7-01731-1	630523	FACTORY	YES NO	BOURNS 71724-0-6-752	690713
FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER FAILED WHEN THE STATIC ERROR BAND WAS PLUS 1.08; MINUS 0.46 PERCENT. THE MAXIMUM ALLOWABLE IS PLUS OR MINUS 0.75 PERCENT. THE OIL WAS SEALED IN THE UNIT WHILE IT WAS ABOVE AMBIENT TEMPE RATURE. THE OIL COOLING TO AMBIENT TEMPERATURE CREATED A PRESSURE LESS THAN AMBIENT PRESSURE, CREATING A POSITIVE ER ROR. CORRECTIVE ACTION-THE VENDOR WAS REQUESTED TO TAKE ACTION TO PREVENT RECURRENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3586-F AMPLIFIER	FAR 27-01609-1	630521	FACTORY	NO NO	BENDIX TAA-303	695972
FAILURE MODE-OUT OF TOLERANCE. DURING FACTORY CHECKOUT THE UNIT WAS REPORTED TO HAVE GIVEN LOW OUTPUT PLUS UNDESIRE D OSCILLATIONS. LOW OUTPUT WAS NOT CONFIRMED; HOWEVER, THE OSCILLATIONS WERE PRESENT WHEN THE UNIT WAS TESTED IN THE TELEMETRY PACKAGE. THE CAUSE WAS ATTRIBUTED TO A TEST EQUIPMENT PROBLEM. CORRECTIVE ACTION-RAR SP-99-24-3581 WAS ISSUED SO THE TEST EQUIPMENT DESIGN GROUP WILL BECOME COGNIZANT OF THESE UN WANTED OSCILLATIONS APPARENTLY CAUSED BY THE JACK MOUNTING SCREWS MAKING UNDESIRED ELECTRICAL CONTACT WITH THE CASE OF THE UNIT BEING TESTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3587-F OSCILLATOR	FAR 27-01268-3	630521	FACTORY	YES NO	BENDIX 1050263-4-6A	698173
FAILURE MODE-ERRATIC OPERATION. TWO OSCILLATORS FAILED DURING VIBRATION TESTING BY INDICATING DISTORTION AND SPIKIN G. FAILURE COULD NOT BE CONFIRMEDEITHER IN A BENCH TEST OR WHILE INSTALLED IN ITS TELEPAK. TEST EQUIPMENT WAS PROVEN SATISFACTORY. SECOND FAILURE WAS GDC P/N 27-01268-F, BENDIX 1050263-6-6A. CORRECTIVE ACTION-NONE. FAILURE COULD NOT BE CONFIRMED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-3542F FILTER	FAR 27-01295-1	630521	FACTORY	YES NO	APPLIED COMPONENTS AC13030-1	891222
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. OUTPUT AT 370 CYCLES WAS MORE THAN THE MAX. 3DB DOWN FROM PEAK OUTPUT. PROBLEM WAS CONFIRMED AND ATTRIBUTED TO RELAXATION OF INDUCTOR LAMINATIONS, CAUSING A CHANGE IN INDUCTANCE. THIS RESULTED IN IMPROPER BANDPASS CHARACTERISTICS.							
CORRECTIVE ACTION-VENDOR AGREED TO TEMPERATURE CYCLE ALL FILTERS AFTER FINAL PRODUCTION. FAR GROUP ALSO RECOMMENDED THAT EXISTING STOCK BE SURVEYED TO DETERMINE ACCEPTABLE UNITS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-3544F FILTER	FAR 27-01295-5	630521	SANDIEGO		APPLIED COMPONENTS AC13030-5	891220
FAILURE MODE-OUT OF TOLERANCE. OUTPUT AT 675 CYCLES WAS MORE THAN THE MAX. 3DB DOWN FROM PEAK OUTPUT. PROBLEM WAS CONFIRMED AND ATTRIBUTED TO RELAXATION OF INDUCTOR LAMINATIONS CAUSING A CHANGE IN INDUCTANCE. THIS RESULTED IN IMPROPER BANDPASS CHARACTERISTICS.							
CORRECTIVE ACTION-VENDOR WAS NOTIFIED AND AGREED TO TEMPERATURE CYCLE ALL UNITS AFTER FINAL PRODUCTION. A SURVEY OF EXISTING STOCK WAS ALSO RECOMMENDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-3543F FILTER	FAR 27-01295-5	630521	SANDIEGO	YES NO	APPLIED COMPONENTS AC13030-5	891219
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. 2 UNITS WERE INVESTIGATED VIA THIS REPORT. OUTPUTS AT 675 CYCLES WERE MORE THAN THE MAX. 3DB FROM PEAK OUTPUTS. PROBLEMS WERE CONFIRMED AND ATTRIBUTED TO RELAXATION OF INDUCTOR LAMINATIONS, CAUSING CHANGES IN INDUCTANCE. THIS RESULTED IN IMPROPER BANDPASS CHARACTERISTICS.							
CORRECTIVE ACTION-VENDOR AGREED TO TEMPERATURE CYCLE ALL UNITS AFTER FINAL PRODUCTION. A SURVEY OF EXISTING STOCK WAS ALSO RECOMMENDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	NZ-99-24-3473-F PRESSURE TRANSDUCER	FAR 27-01386-33	630520	FACTORY	YES NO	SERVONIC M-172-4	
FAILURE MODE-OUT OF SPECIFICATION. OUTPUT READ 69 PERCENT IBW WHEN 77 PLUS OR MINUS 3 IS EXPECTED.							

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							892779
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3572 COMMUTATOR-MOTOR	FAR	630516	FACTORY	YES NO	BENDIX 1096485-48	896014
FAILURE MODE-OUT OF TOLERANCE. THE D-C GEARMOTOR FAILED WHEN IT OVERSPEEDED DURING MANUFACTURING TESTING. FAILURE W AS CONFIRMED. MOTOR OPERATED AT 3.33 RPS WHEN 3.25 IS THE MAXIMUM ALLOWED. CAUSE WAS ATTRIBUTED TO BURNED AND PITTED CENTRIFUGAL SPEED-CONTROL CONTACTS.							
CORRECTIVE ACTION-UNKNOWN STUDIES ARE IN PROGRESS TO SEE IF THERE IS ANY JUSTIFICATION FOR BROADENING THE MOTOR SPE ED SPECIFICATIONS. FURTHER CORRECTIVE ACTION AWAITS THE OUTCOME OF THESE STUDIES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3527F BANDPASS FILTER	FAR 27-01295-3	630516	FACTORY	YES NO	APPLIED COMPON ENTS ACI 3030-3	893393
FAILURE MODE-OUT OF TOLERANCE. BANDPASS FILTER HAS MAX. OUTPUT BETWEEN 518 AND 602 CYCLES. UNIT FAILED EOP 330.504. OUTPUT AT 675 CYCLES EXCEEDED THE MAX. OF 17.8 PERCENT OF ITS PEAK OUTPUT. FAILURE WAS NOT CONFIRMED. UNIT BY ITSEL F MET ALL SPECS OF 27-01295. PROBLEM WAS IN NOT ALLOWING SUFFICIENT TOLERANCE FOR THE UNIT WHEN INSTALLED IN ITS FIN AL ENVIRONMENT.							
CORRECTIVE ACTION-CHANGE LETTER B TO EOP 330. 504, WAS RELEASED CHANGING TOLERANCE AT 675 CYCLES FROM 17.8PCT TO 19 PCT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3528-F BANDPASS FILTER	FAR 27-01295-3	630516	FACTORY	YES NO	APPLIED COMPON ENTS ACI-3030-3	893392
FAILURE MODE-OUT OF TOLERANCE. BANDPASS FILTER HAS MAXIMUM OUTPUT BETWEEN 518 AND 602 CYCLES. UNIT FAILED EOP 330. 504-OUTPUT AT 675 CYCLES EXCEEDED THE MAX. OF 17.8PCT OF ITS PEAK OUTPUT. FAILURE WAS NOT CONFIRMED. UNIT BY ITSELF MET ALL SPECS. OF 27-01295. PROBLEM WAS IN NOT ALLOWING SUFFICIENT TOLERANCE FOR THE UNIT WHEN INSTALLED IN ITS FINA L ENVIRONMENT.							
CORRECTIVE ACTION-CHANGE LETTER B OF EOP 330. 504 WAS RELEASED CHANGING THE TOLERANCE AT 675 CYCLES FROM 17.8PCT TO 19.8PCT.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3497-F POWER SUPPLY	FAR 27-01387-15	650516	FACTORY	YES NO	TEXAS INSTRUME NTS 450116-2	893093

FAILURE MODE-OUT OF TOLERANCE. THE 200 VOLT MONITOR OUTPUT READ 1.43 VOLTS WHEREAS 1.30 PLUS OR MINUS 0.10 VOLTS IS REQUIRED. FAILURE WAS ATTRIBUTED TO A TOLERANCE BUILDUP RATHER THAN TO ANY CHANGE IN THE POWER SUPPLY. THIS POWER SUPPLY HAS A HISTORY OF HAVING MARGINAL OUTPUTS.

CORRECTIVE ACTION-RECOMMENDED THE UNIT BE RETURNED TO THE VENDOR FOR REWORK TO LOWER THE 200 VOLT DC MONITOR OUTPUT TO A VALUE NEARER THE NOMINAL VALUE OF 1.30 VOLTS SO THE UNIT IS NO LONGER MARGINAL. HOWEVER, AFTER DISCUSSION WITH OTHER GROUPS IT IS BELIEVED THE PROBLEM LIES IN THE AGING OF THE COMPONENTS RATHER THAN IN A DESIGN DEFICIENCY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3451-C BAND PASS FILTER	FAR 27-01293-5	650515	FACTORY	YES NO	ACI 3030-5	893394

FAILURE MODE-OUT OF SPECIFICATION. THE UNIT FAILED TO MEET EOP 550.504, PER IR 893678, WHEN IT PEAKED BELOW SPECIFICATION. NO ANALYSIS PERFORMED SINCE FAILURE WAS IN THE RECEIVING INSPECTION.

CORRECTIVE ACTION-NONE INITIATED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4042-F OSCILLATOR-RESISTOR	FAR 27-01607-115	1580 650513	FACTORY	YES NO	BENDIX-PACIFIC 3131133-8-6	894468

FAILURE MODE-OPEN (ELECT). NO OUTPUT OBSERVED. FAILURE CAUSED BY CRACKED RESISTOR IN COLLECTOR BIAS CIRCUITRY.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3498-F POWER SUPPLY	FAR 55-13333-3	650513	FACTORY	YES NO		

FAILURE MODE-FAIL DURING OPERATION. THE R-8 POTENTIOMETER WAS OPEN AT THE ZENER DIODE END AND HAD NO EFFECT ON THE OUTPUT. WIRE 1 WAS BROKEN AT E2 AND E8 JUNCTIONS. TRANSISTOR Q-4 WAS GROUNDED DUE TO THE INSULATING WASHER EXTENDING BEYOND THE SIDES OF THE TRANSISTOR AND UNDER THE ADJACENT TRANSISTOR. THE TRANSISTOR MOUNTING SCREW WAS COCKED AND GROUNDED THE TEFLON INSULATING SLEEVE TO THE HEAT SINK.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-RECOMMENDED INSERTING A CURRENT LIMITING RESISTOR BETWEEN THE ZENER DIODE AND THE R-8 POTENTIOMET ER TO PREVENT THE EXISTING PROBLEM. ALSO RECOMMENDED A DEFINITE LENGTH BE DETERMINED FOR THE INTERNAL WIRING TO ALLO W ACCESS TO INTERNAL PARTS.							891743
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3379-F OSCILLATOR	FAR 7-01664-651	630512	FACTORY	YES NO	BENDIX 1049639-47	896016
FAILURE MODE-OU OF TOLERANCE. DURING FACTORY PREVIBRATION CHECKOUT OF THE TELEMETRY PACKAGE, CHANNEL 4 EXHIBITED E XCESSIVE NOISE. FAILURE WAS NOT CONFIRMED, HOWEVER, THE OSCILLATOR WAS FOUND TO BE NON-LINEAR DUE TO AGING OF THE EL ECTRON TUBES. CORRECTIVE ACTION-NONE. BENDIX LIGHTWEIGHT TELEPAKS USING TRANSISTORIZED OSCILLATORS INSTEAD OF TUBE TYPE OSCILLATO RS WILL BE USED ON FUTURE CENTAUR BOOSTERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3460-F POWER SUPPLY-WIRING	FAR 55-13540-3	630511	FACTORY	YES NO		892621
FAILURE MODE-ELECTRICAL OPEN. TRANSDUCER POWER SUPPLY FAILED WHEN NO OUTPUT COULD BE MEASURED AT THE 5.1 VOLT TRANS DUCER EXCITATION OUTPUT. FAILURE WAS CONFIRMED AND ATTRIBUTED TO THE INABILITY OF THE CHOPPER TO FUNCTION NORMALLY. THIS CONDITION RESULTED FROM POOR SOLDER CONNECTIONS IN THE CHOPPER CIRCUIT. THE FAULTY CONNECTIONS WERE AT THE JUNC TION OF R-6 AND BASE OF Q-3, R-6 AND THE COLLECTOR OF Q-4, AND R-8 AND THE BASE OF Q-5. CORRECTIVE ACTION-REQUESTED IMPROVED WORKMANSHIP PRACTICES BE STRESSED TO APPLICABLE PERSONNEL IN ORDER TO MINIMIZE FUTURE FAILURES OF THIS NATURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-I541F AMPLIFIER-TUBE	FAR 87-01612-3	630310	SAN DIEG O	YES NO	BENDIX 1077064-3	895775
FAILURE MODE-OUT OF TOLERANCE. OUTPUT OF THE AMPLIFIER WAS 1.2 WATTS. 7.0 WATTS IS THE MINIMUM ALLOWED. FAILURE WAS CONFIRMED. CAUSED BY DEFECTIVE VACUUM TUBES V2 AND V3. THE INDICATIONS WERE THAT THEY HAD BEEN OVER HEATED. CORRECTIVE ACTION-ASTRONAUTICS LAB PERSONNEL WERE REQUESTED TO INSURE THAT SUFFICIENT POC COOLING IS AVAILABLE AND OPERATING PRIOR TO OPERATING THE AMPLIFIERS.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-3330-F SIGNAL CONDITIONER, INVERTER	FAR 27-12598-3	630810	FACTORY	YES NO		893591

FAILURE MODE-OUT OF SPECIFICATION. INVERTER WAS REJECTED BECAUSE POT, R14 (ADJ. FOR TLM MEASUREMENT U91V) SHAFT WAS FROZEN AFTER POTTING. FAILURE WAS CONFIRMED. IT WAS DISCOVERED THAT BOURNS POT MODEL NO. 200L-1-202 WAS BEING USED WHICH IS NOT SPECIFIED AS BEING SEALED AGAINST ENTRY OF POTTING. INVERTER HAS LIMITED EFFECTIVITY.

CORRECTIVE ACTION-BOURNS POT. MODEL 224L-1-202 HAS SIMILAR CHARACTERISTICS AND IS SPECIFIED AS BEING SEALED AGAINST POTTING ENTRY. IT WAS RECOMMENDED THAT THIS PART BE USED IN THE FUTURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3310-F AC/DC CONVERTER TRANSISTOR	FAR 27-12232-3	630510	FACTORY	YES NO		892171

FAILURE MODE-OUT OF TOLERANCE. OUTPUT VOLTAGE WAS UNSTABLE FOR AN INPUT OF 0.2 VOLT RMS, 90 CPS. FAILURE CAUSED BY A LOW BETA TRANSISTOR.

CORRECTIVE ACTION-NONE. NEW OR EFFECTIVITIES USING LIGHTWEIGHT TELEMETRY WILL NOT USE THIS PART.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3363 CALIBRATOR-TRANSISTOR	FAR 7-12222-3	630507	FACTORY	YES NO		896017

FAILURE MODE-ERRATIC OPERATION. THE CALIBRATOR GAVE SIX POSITIVE PULSES FOR EVERY NEGATIVE PULSE WHEN ALTERNATE POSITIVE AND NEGATIVE PULSES WERE EXPECTED. FAILURE WAS CONFIRMED. FAILURE WAS DUE TO TRANSISTOR Q4 HAVING A LOW CURRENT GAIN CAUSING RELAY K3 TO DROP OUT EARLY.

CORRECTIVE ACTION-UNKNOWN. REPORT INITIATED REQUESTING REPLACEMENT OF THE 2N327A TRANSISTOR WITH A HIGHER CURRENT GAIN TRANSISTOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3361-F OSCILLATOR	FAR 27-01607-117	630507	FACTORY	YES NO	BENDIX PACIFIC 3131133-9-6	

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING BENCH TESTS THE OSCILLATOR WAS INOPERATIVE. FAILURE WAS NOT CONFIRMED. THE UNIT FUNCTIONED PROPERLY DURING ALL FAILURE ANALYSIS TESTING.

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CORRECTIVE ACTION-THE REJECTING DEPARTMENT WAS NOTIFIED OF THE PROPER PROCEDURE TO FOLLOW WHEN A UNIT IS SUSPECTED TO HAVE FAILED.							899396
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3568-F COMMUTATOR-MOTOR	FAR	630508	FACTORY	YES NO	BENDIX 1096485-38	898013
FAILURE MODE-OUT OF TOLERANCE. THE D-C GEARMOTOR FAILED WHEN IT RAN OVERSPEED DURING MANUFACTURING TESTING. FAILURE WAS CONFIRMED. MOTOR INDICATED SPEED OF FROM 3.44 TO 3.52 RPS WHEN A MAXIMUM OF 2.625 RPS IS ALLOWED. HOWEVER, MOTOR SLOWED TO IN-TOLERANCE SPEED AFTER 10 MINUTES OPERATION. CAUSE ATTRIBUTED POSSIBLY TO STICKING CENTRIFUGAL SPEED-CONTROL CONTACTS. EXACT CAUSE UNCERTAIN. CORRECTIVE ACTION-UNKNOWN. STUDIES ARE IN PROGRESS TO SEE IF THERE IS ANY JUSTIFICATION FOR BROADENING MOTOR SPEED SPECIFICATION. FURTHER CORRECTIVE ACTION AWAITS THE OUTCOME OF THESE STUDIES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3540F SUBCARRIER OSCILLATOR	FAR 27-01268-11	630503	FACTORY	YES NO	BENDIX 1030263-86A	895236
FAILURE MODE-DRIFT. OSCILLATOR DRIFTED PLUS OR MINUS 35CPS WHEN PLUS OR MINUS 15CPS MAXIMUM IS ALLOWED. FAILURE WAS CONFIRMED AND ATTRIBUTED TO INSTABILITY OF OSCILLATOR TUBE V-1. CORRECTIVE ACTION-NONE. REDESIGN COULD NOT BE ACCOMPLISHED UNTIL TOO LATE IN THE PROGRAM TO MAKE IT ECONOMICALLY FEASIBLE. A NEW TRANSISTORIZED VERSION WILL BE AVAILABLE BY THEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SF-99-24-3458-F OSCILLATOR-TUBE	FAR 7-01458-561	2100 630503	FAC	YES NO	BENDIX 1041962-4-Z	898024
FAILURE MODE-FAIL DURING OPERATION. FAILURE ANALYSIS DID NOT CONFIRM THE FAILURE BUT THE UNIT DID EXHIBIT EXCESSIVE DRIFT. THE EXCESSIVE DRIFT WAS CAUSED BY A FAULTY V-1 MODULATOR TUBE. CORRECTIVE ACTION-BENDIX ROUND CANISTER TO BE REPLACED WITH A NEW LIGHTWEIGHT PACKAGE-WAP M-00060.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3435-C TLM CANISTER	FAR 27-12762-803	2100 630503	FACTORY	YES NO	BENDIX	
FAILURE MODE-FAILED DURING OPERATION. THE TELEPAK DID NOT GIVE A RADIO FREQUENCY OUTPUT AS REQUIRED BY SPECIFICATIONS.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							696007
CORRECTIVE ACTION-NONE-SINCE THE TELEPAK WAS REPAIRED AND TESTED BEFORE FAILURE ANALYSIS PERSONNEL WERE PRESENT, PR OPER FAILURE ANALYSIS WAS VOIDED AND THE ANALYSIS WAS CANCELED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-99-24-4033-F OSCILLATOR-TRANSISTOR	FAR 27-01610	2100 630303	FACTORY	YES NO	BENDIX PACIFIC 3131107 MODEL TXU300	694471
FAILURE MODE-FAIL DURING OPERATION. NO RF OUTPUT OBSERVED. FAILURE CAUSED BY IMPROPER BIAS IN OSCILLATOR CIRCUIT AN D TRANSISTOR SHOWED SIGNS OF MOISTURE WITHIN ITS CASE.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3488-F OSCILLATOR	FAR 7-01488-861	630503	FACTORY	YES NO	BENDIX 1041962-4-Z	693098
FAILURE MODE-DRIFT. SUBCARRIER OSCILLATOR OUTPUT WAS INTERMITTENT. FAILURE WAS NOT CONFIRMED. HOWEVER, THE OSCILLAT OR DID EXHIBIT EXCESSIVE FREQUENCY DRIFT THAT WOULD RESULT IN AN OUT OF TOLERANCE OUTPUT. THE DRIFT WAS CAUSED BY A FAULTY V-1 MODULATOR TUBE, TYPE 6111, WHICH EXHIBITED UNSTABLE EMISSION CURRENT BECAUSE OF DETERIORATED OXIDE COATIN G ON THE CATHODE.							
CORRECTIVE ACTION-NONE. A NEW BENDIX LIGHTWEIGHT TELEMETRY PACKAGE USING A SOLID STATE OSCILLATOR CIRCUIT WHICH ELI MINATES THIS PROBLEM IS REPLACING THE ROUND BENDIX TELEMETRY CANISTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3555F REGULATOR ASSEMBLY - TRANSISTOR Q3	FAR 27-11334-3	630503	FACTORY	YES NO		691068
FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED WHEN 5.0 VDC OUTPUT COULD NOT BE REGULATED. MALFUNCTION WAS DISCOV ERED AFTER ENCAPSULATION. PRIOR TO THAT TIME THE UNIT FUNCTIONED PROPERLY. FAILURE WAS CONFIRMED AND ATTRIBUTED TO L OW GAIN OF TRANSISTOR Q3. THE REASON FOR THE LOW GAIN OF Q3 COULD NOT BE DETERMINED.							
CORRECTIVE ACTION-NONE. SINCE THE REASON FOR Q3 FAILURE COULD NOT BE DETERMINED.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX63-0003-2100/FC-CO-01-0013-011 TLM CANISTER	COMPOSITE-FACTORY 27-12762-803	2100 630502		YES NO		898603

FAILURE MODE-OUT OF TOLERANCE. CHANNEL 11, SEGMENT 29 (100 PCT BRIDGE CALIBRATE), INDICATED 88 PCT IBW WHEN 96 PCT IBW WAS EXPECTED AND MEASUREMENT P14T (1-11-37) INDICATED 86 .CT IBW WHEN 93 PCT WAS EXPECTED.

SYSTEM EFFECT-OPERATION TOO LOW.

VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEM LEVEL AND COMPOSITE RETESTING REQUIRED.

CORRECTIVE ACTION-REPLACED TELEMETRY CANISTER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3578-F COMMUTATOR-MOTOR	FAR	630502	FACTORY	YES BENDIX NO 1096483-48		898013

FAILURE MODE-FAIL DURING OPERATION. THE D-C GEARMOTOR FAILED WHEN IT CEASED TO FUNCTION DURING VIBRATION TEST OF TH E TELEMETRY CANISTER ASSEMBLY. FAILURE WAS NOT CONFIRMED, HOWEVER, PIECES OF CARBON GRINDINGS FOUND IN THE MOTOR COU LD HAVE LODGED SO AS TO BLOCK TURNING OF THE MOTOR. SUBSEQUENT VIBRATORY OR ROTARY MOTION MAY HAVE DISLODGED THE PAR TICLES AND REDUCED THEM TO A SMALLER UNOBSTRUCTIVE SIZE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-99-24-3440-F PREFLIGHT CALIBRATOR	FAR 27-12261-1	630502	ETR	NO NO		898506

FAILURE MODE-OUT OF TOLERANCE. CALIBRATOR WAS REMOVED PER SURVEY 34-68. CALIBRATOR RATTLE WAS CONFIRMED AND CAUSED BY RELAY WHICH WAS NORMAL FOR THIS TYPE RELAY.

CORRECTIVE ACTION-A REDESIGN OF THE PREFLIGHT CALIBRATOR TO ACHIEVE CONFORMANCE WITH MIL-S-19500B.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-99-24-3519-F BANDPASS FILTER	FAR 7-11333-5	630502	FACTORY	YES AC ELECTRONICS NO		[redacted]

FAILURE MODE-SHORT (ELECT). OUTPUT FROM CHANNEL 2 WAS INTERMITTENT. OUTPUT VOLTAGE VARIED WHEN THE CASE WAS TAPPED. CAUSE WAS ATTRIBUTED TO UNINSULATED WIRES TOUCHING, PRODUCING A SHORTED CONDITION.

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CORRECTIVE ACTION-VENDOR WAS CAUTIONED TO TAKE CARE IN LEAD DRESSING PROCEDURES BEFORE POTTING. ALSO RECOMMENDED WA S THE USE OF INSULATED WIRES.							693264
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-88-24-4008F AMPLIFIER, WIRING	FAR 27-01198-1	75F 630502	SYCAMORE	YES NO	SULTON FT-A150	693102
FAILURE MODE-ELECTRICAL OPEN. AMPLIFIER FAILED DURING CHECKOUT BEFORE A HOT FIRING. OUTPUT WAS EXCESSIVELY NOISY. A MPLIFIER WAS OPENED AND DEPOTTED. THE BLUE LEAD FROM THE POSITIVE SIDE OF THE 22 MICROFARAD 15 VOLT CAPACITOR WAS FO UND BROKEN LOOSE. MICROSCOPIC EXAMINATION OF THE BREAK SHOWED MORE THAN 78 PERCENT OF THE CROSS SECTION OF THE WIRE WAS COVERED WITH SOLDER.							
CORRECTIVE ACTION-VENDOR WAS INFORMED OF THE FAILURE; HE STATED NASA TYPE SOLDERING WAS NOW BEING ACCOMPLISHED AND THIS TYPE OF DEFECT SHOULD NO LONGER OCCUR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3491-F OSCILLATOR	FAR 27-01268	630501	FACTORY	YES NO	BENDIX-PACIFIC 1050263-11-MA	693069
FAILURE MODE-STRUCTURAL. OSCILLATOR OUTPUT COULD NOT BE ADJUSTED DUE TO THE OUTPUT POTENTIOMETER BEING FROZEN. THE EXACT CAUSE OF THE FAILURE COULD NOT BE DETERMINED SINCE THE EVIDENCE WAS DESTROYED DURING OPENING OF THE UNIT.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3494-F OSCILLATOR/RESISTOR	FAR 27-01268-57	630501	FACTORY	YES NO	BENDIX PACIFIC 105-0263-10-T-A	692476
FAILURE MODE-OUT OF TOLERANCE. THE OUTPUT POTENTIOMETER COULD NOT BE ADJUSTED FOR THE REQUIRED VOLTAGE DEVIATION. T HE UNIT HAD EXCEEDED ITS USEFUL LIFE AND THE POTENTIOMETER WAS STICKING SO TIGHTLY THAT TO INCREASE THE TORQUE ON A SCREWDRIVER WOULD DESTROY THE UNIT.							
CORRECTIVE ACTION-ALL FUTUREPROPOSALS WILL SPECIFY PACKAGES OTHER THAN27-01268-57.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-3503-F AMPLIFIER, WIRINGMM41X12	FAR 88-01173-1	630500	SD	YES NO	RAYBERRY	
FAILURE MODE-ERRATIC OPERATION. 6 AMPLIFIERS REJECTED. FAILURES CONFIRMED. THE ANALYSIS SECTION DATA SHOWS EACH CHA NNEL TO BE EXCESSIVELY NOISY AND AMPLIFIERS TO BE MICROPHONIC UNDER VIBRATION. COLD SOLDER JOINTS FOUND IN THE AMPLI							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
FIER COULD HAVE CAUSED ERRATIC AMPLIFIER OPERATION. CORRECTIVE ACTION-RAR BP-A9-24-3864, 18 JUNE 1963 REQUESTED THE VENDOR STUDY THE NOISE PROBLEM AND MODIFY THE AMPLIFIER DESIGN TO USE NONVIBRATION SENSITIVE COMPONENTS. THE VENDOR WAS ALSO REQUESTED TO TAKE CORRECTIVE ACTION TO PREVENT RECURRENCE OF COLD-SOLDER CONNECTIONS. VENDOR REDESIGNED AMPLIFIERS AND STARTED NEW SOLDERING TECHNIQUES ON 1 JULY 1963.							898106
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NZ-98-24-3508-F AMPLIFIER, POTENTIOMETER	FAR 27-01609	630430	FACTORY	YES YES	BENDIX	902170
FAILURE MODE-OPERATION DOES NOT START. GAIN CONTROL POTENTIOMETER DID NOT FUNCTION PROPERLY AS THE AMPLIFIER OUTPUT WAS CONSTANT AT VARIOUS POTENTIOMETER SETTINGS. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED. ADJUSTMENT PROCEDURE WAS REVIEWED AND FOUND ADEQUATE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AGU63-001-11/FC-CO-02-0071-001 TLM CANISTER, HARNESS	COMPOSITE-FACTORY 69-11100-5	7101 630429		YES NO	BENDIX	899921
FAILURE MODE-FAILED DURING OPERATION. TELEMETRY NO. 2 CHANNEL 6 WAS MONITORING 115VAC PHASE A WHEN PHASE C WAS INTENDED TO BE MONITORED, DUE TO A WIRING ERROR IN TELEMETER NO. 1. (REF IR 972966) SYSTEM EFFECT-NONE. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEM LEVEL AND COMPOSITE RETEST REQUIRED. CORRECTIVE ACTION- TLM CANISTER WAS REMOVED AND REWORKED TO CORRECT INTERNAL WIRING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-90-24-3474-C TRANSMITTER	FAR 27-12651-3	630427	WTR	YES NO	UNITED ELECTRO DYNAMICS 14363-1H	902324
FAILURE MODE-FAIL DURING OPERATION. TELEMETRY SIGNALS FROM THE MISSILE SUDDENLY STOPPED DURING A RUN OF PROCEDURE 27-84448-1. FAILURE ANALYSIS WAS CANCELED. THE TRANSMITTER WAS SENT TO THE VENDOR FOR FAILURE ANALYSIS. CORRECTIVE ACTION-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3432-F COMMUTATOR/MOTOR	FAR 27-12642-803	2120 630426	FACTORY	YES NO	U.E.D. 14364-8	898009

FAILURE MODE-CONTAMINATION. 10 RPS COMMUTATOR SHOWED TOO MUCH SPEED VARIATION. THE COMMUTATOR MOTOR WAS DISASSEMBLED AND LARGE QUANTITIES OF CARBON WERE FOUND IN AND AROUND THE SPEED GOVERNOR CONTACT AREA. THE CONTACT POINTS SHOWED SIGNS OF BURNING AND PITTING

CORRECTIVE ACTION-UNKNOWN-IT WAS REQUESTED THAT DC COMMUTATORS BE PURGED AND ONLY AC COMMUTATORS BE USED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	GD/A63-0120/P1-601-00-135 TRANSMITTER-TELEMETRY RF NO.2	COUNTDOWN	135F 630426	ETR	YES NO		893719

FAILURE MODE-FAIL DURING OPERATION. TELEMETRY RF NO.2 DROPPED OUT.

SYSTEM EFFECT-ERRATIC OPERATION.

VEHICLE EFFECT-COUNTDOWN DELAYED. A 30-MINUTE HOLD WAS CALLED TO REPLACE RF NO.2.

CORRECTIVE ACTION-TELEMETRY RF NO.2 WAS REMOVED AND REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3467-C COMMUTATOR-MOTOR	FAR NONE	630428	FACTORY	YES NO	REED AND REESE 1098485-38	898516

FAILURE MODE-ERRATIC OPERATION. 2.3 RPS D-C GEARMOTOR OPERATED INTERMITTENTLY. FAILURE ANALYSIS WAS CANCELED SINCE THE REED AND REESE GEARMOTOR IS NO LONGER BEING MANUFACTURED.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3430-F BAND PASS FILTER	FAR 27-01295-3	630424	FACTORY	YES NO	HERMETIC SEAL 954-5200-400	

FAILURE MODE-OPEN (ELECTRICAL). THE BANDPASS FILTER FAILED WHEN THE LIMITER FILTER OUTPUT WAS GREATER THAN THE MAXIMUM SPECIFIED. THE BANDPASS FILTER WAS OPENED AND A COLD SOLDER CONNECTION WAS FOUND. TWO CAPACITORS WERE BROKEN DURING THE ANALYSIS SO NO FURTHER TESTING COULD BE PERFORMED. THE FAILURE WAS CAUSED BY THE COLD SOLDER JOINT.

CORRECTIVE ACTION-RAR A-99-24-3421 INITIATED QC CORRECTIVE ACTION BY RECOMMENDING CHANGES IN THE VENDOR INSPECTION

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
PROCEDURES.							898100
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3444-F BAND PASS FILTERS	FAR 27-01295-3	630423	SAN DI=S O	YES NO	APPLIED COMPON ENTS AC13030-3	898181
FAILURE MODE-STRUCTURAL. TWO LIMITER-FILTERS DID NOT PASS EOP 330.804 PARAGRAPH 6.16.1. REQUIRING THE OUTPUT AT 675 CPS BE NOT MORE THAN 17.6 PERCENT OF THE PEAK OUTPUT. THE INDUCTORS WERE DISASSEMBLED AND SEVERAL LAMINATIONS WERE FOUND SEPARATED. CORRECTIVE ACTION-SURVEY ALL 27-01295 BAND PASS FILTERS IN STOCK TO THE REQUIREMENTS OF THE SPEC CONTROL DRAWING. T EST THE BAND PASS FILTERS IMMEDIATELY BEFORE INSTALLATION IN LIMITER FILTERS. VENDOR WAS NOTIFIED TO TAKE ACTION TO PREVENT LAMINATIONS OF INDUCTORS FROM SEPARATING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-90-24-4032-F SIGNAL CONDITIONER	FAR 27-12385-871	1190 630422	WTR	YES NO	27-12385-871	894472
FAILURE MODE-FAIL DURING OPERATION. NO INDICATION FROM MEASUREMENT ASIGT. CORRECTIVE ACTION-UNKNOWN. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3429-F SIGNAL CONDITIONER/COMMUTATOR	FAR 27-12642-803	2120 630419	FACTORY	YES NO	U.E.D. 14364-9	898008
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 14 COMMUTATOR RAN INTERMITTENTLY. THE SET SCREWS SECURING THE GEAR TO THE SH AFT IN THE COMMUTATOR WERE NOT TIGHT. CORRECTIVE ACTION-VENDOR REVISED HIS QUALITY CONTROL AND INSPECTION PROCEDURES TO PREVENT RECURRENCE OF THIS MODE O F FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	/F1-6CO-02-135	COMPOSITE-J FACT	135F 630419	11 20	YES NO		
FAILURE MODE-OUT OF TOLERANCE. RF4 INTRODUCED FEED BACK INTO RF1 MEASUREMENT 83050 B1 YAW, IN THE FORM OF SMALL AMP LITUDE OSCILLATIONS FROM 80 TO 90 SECONDS. THIS ALSO OCCURRED ON TEST F1-6CO-01-135 (FROM 85 TO 86 SECONDS). SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							897480
VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-146-P ACCELEROMETER	FAR 27-01877-23	630419	FACTORY	YES NO	GULTON KA-1006K	893119
FAILURE MODE-ELECTRICAL OPEN CIRCUIT FROM BROKEN PICKUP LEAD WIRE AT PIN CONTACT. CORRECTIVE ACTION-RECOMMENDED IMPROVED INSTALLATION PROCEDURES AT GD/C AND BETTER VENDOR QUALITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-140-P TEMPERATURE TRANSDUCER	FAR 7-01635-9	630419	FACTORY	YES NO	LEWIS ENG. 868340	893103
FAILURE MODE-STRUCTURAL FAILURE OF THE CERAMIC SENSING ELEMENT MANDREL. VISUAL INSPECTION FOUND THE MANDREL WAS CRACKED. THE DAMAGE PROBABLY OCCURRED BY IMPROPER HANDLING. CORRECTIVE ACTION-RECOMMENDED THAT GD/C PERSONNEL EXERCISE GREATER CARE IN HANDLING, OPERATING, AND TESTING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3398-F TLM CANISTER-RESISTOR	FAR 27-11616-823	197-D 630418	FAC	YES NO	GD/C	886478
FAILURE MODE-OUT OF TOLERANCE. THE PRE-FLIGHT CALIBRATOR GAVE OFF 2 POSITIVE PULSES IN SEQUENCE WHEN THEY SHOULD HAVE BEEN ALTERNATELY POSITIVE AND NEGATIVE. THE FAILURE WAS TRACED TO A 3.9 MEGOHM RESISTOR WHICH WAS OUT OF ITS REQUIRED PLUS OR MINUS 5 PCT. TOLERANCE. ALSO A COLD SOLDER JOINT WAS NOTED ON THE RESISTOR LEAD. CORRECTIVE ACTION-VENDOR LITERATURE TO BE INVESTIGATED TO FIND A RESISTOR WITH TIGHTER TOLERANCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX63-0003-197D/FC-CO-03-0001-001 CALIBRATOR RELAY	COMPOSITE-FACTORY 27-11616-823	197D 630417		YES NO		
FAILURE MODE-ERRATIC OPERATION. TWO POSITIVE (100 PCT) PRE- FLIGHT CALIBRATION PULSES WERE OBSERVED IN SEQUENCE AT VARIOUS TIMES DURING THE CALIBRATION PORTION OF THE TEST. ALSO, THE INTERVAL BETWEEN SOME OF THE PULSES WAS LESS THAN THE MINIMUM OF 6 SECONDS ALLOWED. THIS CONDITION WAS CAUSED BY A FAULTY CALIBRATION RELAY IN THE ACCESSORY PACKAGE .							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							899649
SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED. CORRECTIVE ACTION-THE ACCESSORY PACKAGE WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-A8-24-3523-F AMPLIFIER-TRANSFORMER	FAR 55-01173-1	630418	FACTORY	YES NO	HAYBERRY 166-1	893418
FAILURE MODE-OPEN (ELECT). OUTPUT VOLTAGE DISAPPEARED DURING VIBRATION. WITH 5 MILLIVOLTS IN THE OUTPUT WAS .5 VOLTS PEAK TO PEAK WHEN 5.0 PLUS OR MINUS .5 WAS SPECIFIED. CORRECTIVE ACTION-AMPLIFIERS REDESIGNED WITH A NEW TRANSFORMER. COLD SOLDERING JOINTS CORRECTED BY NEW SOLDERING TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-90-24-3433-F SIGNAL CONDITIONER-WIRING	FAR 27-12842-801	1190 630412	VAFB	YES NO	U.E.D. 14364-6	897976
FAILURE MODE-ELECTRICAL OPEN. THE VOLTAGE REGULATOR OUTPUT WAS 26 VDC INSTEAD OF 20 VOLTS DC. AN ELECTRICAL CONNECTION BETWEEN A POTENTIOMETER AND A RESISTOR WAS FOUND NOT CONNECTED. THE WIRE WAS TINNED BUT NEVER SOLDERED. CORRECTIVE ACTION-VENDOR WAS NOTIFIED TO IMPROVE HIS QUALITY CONTROL AND INSPECTION DURING PRODUCTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-90-24-3464-F TRANSMITTER CAPACITOR	FAR 55-01149-3	630412	FACTORY	YES NO	TEXAS INSTRUM NTS 435378-7	892517
FAILURE MODE-FAIL DURING OPERATION. TRANSMITTER FAILED WHEN THE OUTPUT POWER WAS LOST DURING VIBRATION OF THE TELEMETRY PACKAGE. FAILURE WAS ATTRIBUTED TO CAPACITOR C-115 WHICH WAS SHORTED DIRECTLY TO GROUND, THUS PREVENTING THE CRYSTAL SIGNAL FROM GETTING TO THE OSCILLATOR CIRCUIT AND GIVING A NO OUTPUT INDICATION. THE CAPACITOR WAS A TEXAS INSTRUMENTS CAPACITOR, SYM-8, 151. CORRECTIVE ACTION-RECOMMENDED VENDOR IMPROVE THE WORKMANSHIP OF THESE CAPACITORS BEFORE THEY ARE INSTALLED IN THE TRANSMITTERS.							

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SYSTEM SUB-SYSTEN	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3364-F OSCILLATOR	FAR 27-11541-913	197-D 630410	FACTORY	YES NO	BENDIX	696330
FAILURE MODE-OUT OF TOLERANCE. THE CHANNEL 18 OSCILLATOR WAS OUT OF TOLERANCE ON THE LOW BAND EDGE. THE OSCILLATOR WAS RAN FOR 24 HOURS TO STABILIZE IT. THEN IT WAS RE-ADJUSTED AND FREQUENCY REMAINED WITHIN SPECIFICATION LIMITS. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3416 DIFFERENTIAL AMPLIFIER	FAR 27-12479-1	630410	FACTORY	NO NO	KINETICS #7-12479-1	696020
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT ON CHANNELS 1 AND 2. TEST SET TET 3950 SERIAL NUMBER 2 APPLIED EXCESSIVE VOLTAGE AND CAUSED A CAPACITOR, DIODE AND INDUCTOR TO FAIL. CORRECTIVE ACTION-ALL TESTING WILL BE DONE ON TEST SET TET 3053 WHICH DOES NOT SUPPLY AN OVERVOLTAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3366-F TLM CANISTER	FAR 27-11541-913	197-D 630409	FACTORY	NO NO	BENDIX	696063
FAILURE MODE-ERRATIC OPERATION-SPIKING ON CHANNEL 14 WAS CAUSED BY AN INCORRECT CONNECTION AT THE GROUND STATION. NO DISCREPANCY EXISTED ON THE AIRBORNE EQUIPMENT. CORRECTIVE ACTION-ALL PERSONNEL CONNECTED WITH THE TESTS AT THE GROUND STATION WERE INSTRUCTED IN THE PROPER USE OF THE TEST EQUIPMENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4090-F CONVERTER CIRCUIT BOARD	FAR 27-12642-601	1190 630405	WTR	YES NO	UNITED ELECTRO DYNAMICS ADK17	695286
FAILURE MODE-SHORT (ELECT). SIGNAL CONVERTER FAILED DURING PROCEDURE 27-94443-1 AT WTR WHEN SEGMENTS 15-6, 14-12 AND 14-14 WERE NOISY. FAILURE WAS CONFIRMED. FAILURE ANALYSIS INDICATED NOISE ON ALL SEGMENTS OF CHANNELS 14 AND 15. CAUSE WAS ATTRIBUTED TO THE -20 VOLT LINE SHORTING TO A BARE WIRE PROTRUDING FROM ITS INSULATION. THE WIRE WAS TRACED TO PIN A OF A-114, THE SIGNAL GROUND TEST POINT. CORRECTIVE ACTION-REQUESTED ASTRONAUTICS INSPECTION OF THE WHOLE CIRCUIT BOARD AFTER MODIFICATION.							

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX63-0003-197D/FC-CO-01-0021-001 TLM CANISTER	COMPOSITE-FACTORY 87-11341-913	197D 630404	FACTORY	YES NO		000641

FAILURE MODE-OUT OF TOLERANCE. CHANNEL 15 OPERATES 2 PCT TO 3 PCT BELOW THE LOW FREQUENCY BAND EDGE.

SYSTEM EFFECT-OPERATION TOO LOW.

VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEM LEVEL AND COMPOSITE RETESTING REQUIRED.

CORRECTIVE ACTION-REPLACED TELEMETRY R.F. NO. 1 CANISTER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-99-24-3592-F OSCILLATOR-TUBE	FAR 87-11341-913	197-D 630404	FACTORY	YES NO	BENDIX 1040962-42	000329

FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR FOR CHANNEL 15 WAS OUT OF BAND ON THE LOW-FREQUENCY SIDE. SUBSEQUENT TESTING VERIFIED THE FAILURE AND PIN POINTED THE FAILURE AS EXCESSIVE DRIFT OF THE NO. 2 SECTION OF THE V-1 TUBE.

CORRECTIVE ACTION-NONE. THE CAUSE OF THE EXCESSIVE DRIFT OF THE V-1 TUBE COULD NOT BE FOUND.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	N2-99-24-3463-F DEMODULATOR	FAR 37-13536-1	630404	CONVAIR	YES NO		002494

FAILURE MODE-OUT OF TOLERANCE. OUTPUT OF THE DEMODULATOR BECAME ERRATIC DURING VIBRATION TESTING WHEN THE NOISE LEVEL WAS APPROXIMATELY 20 PERCENT. SPECIFICATIONS ALLOW A MAXIMUM OF 4 PERCENT NOISE. FAILURE WAS ATTRIBUTED TO AN IMPROPER SOLDER CONNECTION BETWEEN THE LEAD AND TERMINAL OF CHOKE L-2 IN CHANNEL 2.

CORRECTIVE ACTION-RECOMMENDED VENDOR OF THE CHOKE ASSEMBLY REVIEW SOLDERING TECHNIQUES AND INSPECTION PROCEDURES TO DETERMINE WHAT CHANGES ARE NECESSARY TO PREVENT RECURRENCE OF THIS TYPE OF FAILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3445-F AMPLIFIER	FAR	630403	FACTORY	YES NO	BENDIX 1077064-3A	

FAILURE MODE-OUT OF SPECIFICATION. THE AMPLIFIER REPORTEDLY FAILED WITH AN OUTPUT OF 6.9 WATTS WHEN THE OUTPUT SHOULD BE 7.0 WATTS MINIMUM. THE AMPLIFIER WAS FUNCTIONALLY TESTED FOR 3 HOURS, AND THE OUTPUT WAS 9 WATTS. THE REPORTED FAILURE WAS NOT CONFIRMED. A FUNCTIONAL AND VISUAL CHECK FAILED TO REVEAL ANY MALFUNCTIONS OR DEFECTS.

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CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN SINCE THE FAILURE WAS NOT CONFIRMED.							893911
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A99-24-3465F CALIBRATOR	FAR 27-12291-1	2000 630403	FACTORY	NO NO	GD/C 27-12291-1	891862
FAILURE MODE-FAILED TO OPERATE AT THE PRESCRIBED TIME. THE RELAYS IN THE IN-FLIGHT CALIBRATION UNIT FAILED TO OPERATE WHEN SUPPLIED WITH NOMINAL VOLTAGE. THE FAILURE WAS NOT CONFIRMED.							
CORRECTIVE ACTION-REJECTING DEPARTMENT INFORMED THE REPORTED FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	69C-2040.3 PRESSURE TRANSDUCER.	UTP-PRT 69-01003-31	630402	GD/C	NO NO	BOURNS 2007371703	892342
FAILURE MODE-OUT OF SPECIFICATION. OBSERVED MAXIMUM ERROR WAS PLUS 1.41 PERCENT. ALSO, ON 4-3-63, A MAXIMUM ERROR OF PLUS 1.29 PERCENT WAS OBSERVED. SPECIFIED TOLERANCE IS PLUS 1.0 PERCENT AND THE INSTRUMENT ERROR IS 0.14 PERCENT. ON THE RESOLUTION TEST (4-3-63) 13.7 PERCENT OF THE DISCRETE STEPS WERE GREATER THAN 0.25 PERCENT FSO AND 2 WERE GREATER THAN 0.50 PERCENT FSO. SPECIFIED IS NOT OVER 3 PERCENT AND NOT OVER ZERO RESPECTIVELY.							
CORRECTIVE ACTION-NONE. FAILURES WERE NOT CONFIRMED AT VENDORS FACTORY OR AT GD/C AFTER THEIR RETURN. ATTRIBUTED TO HUMAN ERROR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3454-F TRANSMITTER ELECTRONIC TUBE	FAR 27-01272-15	630401	FACTORY	YES NO	BENDIX 1052060-12-2-A	891931
FAILURE MODE-ERRATIC OPERATION. TRANSMITTER FAILED WHEN IT OPERATED INTER-MITTENTLY. THE FAILURE WAS CONFIRMED AND ATTRIBUTED TO A DEFECTIVE TUBE. THE PLATE RESISTANCE OF THE TUBE HAD DECREASED BY APPROXIMATELY 100 KILOHMS. THE TUBE HAD NO SHORT BUT WAS INCOMPATIBLE WITH THE REST OF THE CIRCUIT. THE TUBE WAS A V35702 TYPEPENTODE. M/A 27-11541							
CORRECTIVE ACTION-RECOMMENDED VENDOR TAKE ACTION TO PREVENT FAILURES OF THIS MODEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-99-24-3389-F TRANSDUCER-WIRING	FAR 27-01277-15	75-F 630329	SYC	YES NO	GULTON KA-10066	
FAILURE MODE-OPEN (ELECT). THE ACCELEROMETER CONSISTS OF A SENSING HEAD AND A TRANSISTORIZED AMPLIFIER. A BROKEN WIRE TO PIN A OF THE CONNECTOR WAS FOUND.							

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							898332
CORRECTIVE ACTION-GD/C REQUESTED PROTECTIVE SLEEVING BE ADDED AT WIRE LEAD TERMINATION BECAUSE OF SEVERE BENDING AT THIS POINT DURING ASSEMBLY OF THE AMPLIFIER. DOCUMENTED IN RAR SP-86-24-3772.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	M6-98-24-3396-1	FAR 87-93900-148	130-D 830329	ETR, CON PL 14	YES NO	BOURNS 200-6092-008	897933
FAILURE MODE-ERRATIC OPERATION. AN ACCELEROMETER CIRCUIT SHOWED A REPEATED INTERMITTENT OPEN.							
CORRECTIVE ACTION-NONE COULD BE TAKEN. SINCE THE ACCELEROMETER WAS NOT FAILURE ANALYZED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-3490-F OSCILLATOR	FAR 27-01268-3	830328	FACTORY	YES NO	BENDIX-PACIFIC 1050263-4-6-A	893090
FAILURE MODE-DRIFT. SUBCARRIER OSCILLATOR OUTPUT FREQUENCY WAS FOUND TO DRIFT.							
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-98-24-4214-F OSCILLATOR	FAR 27-01664-851	216D 830328	FACTORY	YES NO	BENDIX	892664
FAILURE MODE-OUT OF TOLERANCE. THE OSCILLATOR HAD A SHIFT IN THE BANDWIDTH OF 6 PERCENT. THE SPECIFIED LIMITS ARE N O MORE THAN A 4 PERCENT SHIFT. ALTHOUGH A SHIFT IN OSCILLATOR FREQUENCY OCCURRED DURING INITIAL TESTING OF THE UNIT, THE REPORTED FAILURE OR THE OSCILLATOR DUE TO VIBRATION WAS NOT CONFIRMED.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SP-90-24-3438 PRESSURE TRANSDUCER	FAR 27-01243	190D 830328	PALCB-5	YES NO	COLVIN 401-A-10-75	
FAILURE MODE-EXTERNAL LEAK. THE TRANSDUCER FAILED WHEN IT LEAKED FUEL. DURING INSTALLATION OF THE TRANSDUCER TO THE MISSILE, THE LOCATING PIN ON THE TRANSDUCER WAS NOT ALIGNED WITH THE MOUNTING BRACKET LOCATING HOLE. THIS MISALIGNM ENT CAUSED A BREAK IN THE PIN-TO-CASE BRAZE JOINT, CAUSING THE LEAKAGE.							

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							000709

CORRECTIVE ACTION-SITE PERSONNEL WERE INFORMED OF THE FAILURE AND WERE DIRECTED TO TAKE ACTION TO PREVENT RECURRENCE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-3424 CONNECTOR-WIRING	FAR 27-12385-51	2650 630327	FACTORY	YES NO	BENDIX-PACIFIC 313-628-9	007913

FAILURE MODE-ELECTRICAL OPEN. JUMPER WIRE MISSING BETWEEN PINS 9 AND 10 OF RECEPTACLE J-1.

CORRECTIVE ACTION-VENDOR REVIEWED MANUFACTURING OUTLINES AND INSPECTION TECHNIQUES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-3447-F TELEMETRY POWER SUPPLY-TRANSFORMER	FAR 27-01228-1	630326	FACTORY	YES NO	BENDIX 1046173-2A	008111

FAILURE MODE-SHORT (ELECTRICAL). THE UNIT FAILED DURING ACCEPTANCE TESTING WHEN EXCESSIVE INPUT POWER WAS OBSERVED. FUNCTIONAL TESTING CONFIRMED THE FAILURE. THE UNIT DREW EXCESSIVE CURRENT. EXAMINATION OF THE TRANSMITTER SHOWED EVIDENCE OF OVERHEATING. THE EXCESS CURRENT CONDITION IS ATTRIBUTED TO A SHORT IN THE PRIMARY WINDING.

CORRECTIVE ACTION-RAR A-99-24-3806 INFORMED THE VENDOR OF FAILURE AND RECOMMENDED INSPECTION OF THIS TYPE TRANSFORMER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-3413-F LIMITER FILTER ASSEMBLY	FAR 27-12300-5	630326	FACTORY	YES NO	GD/C	008404

FAILURE MODE-OUT OF TOLERANCE. NO OUTPUT AFTER 1 HOUR AND 15 MINUTES OF OPERATION IN THE TELEMETRY PACKAGE. FAILURE CAUSED BY TANTALUM CAPACITOR BEING INSTALLED WITH REVERSED POLARITY. THIS CAUSED TRANSISTOR FAILURE.

CORRECTIVE ACTION-NEW EOP RELEASED TO CHECK AND RECORD REQUIREMENTS PRIOR TO INSTALLATION INTO THE TELEMETRY PACKAGE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-3408-F OSCILLATOR-WIRING	FAR 27-01268-59	136F 630328	FACTORY	YES NO	BENDIX 1030263-11-T-A	

FAILURE MODE-STRUCTURAL. NO OUTPUT DURING VIBRATION TEST. FILAMENT WIRE CONNECTION BROKE TO TUBE V-1 CAUSING FAILURE.

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							893101

CORRECTIVE ACTION-BURN-IN ADDED AS A TEST REQUIREMENT FOR THE SUBCARRIER OSCILLATOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-99-E4-3364-F HARNESS-CONNECTOR	FAR 27-17262-1	TSD 630322	WTR	YES NO		896092

FAILURE MODE-ERRATIC OPERATION. WIRE WAS NOT FULLY INSERTED IN THE PIN BACKSIDE OF THE PLUG BEFORE SOLDERING. A LOO SE BACKSHELL ALLOWED SOLDER TO BREAK WHEN THE HARNESS WAS FLEXED.

CORRECTIVE ACTION-SOLDERING TECHNIQUES WERE UPDATED AND ALL PERSONNEL CONCERNED WERE SHOWN THE EFFECTS OF A POOR SO LDER JOINT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-E4-3407F OSCILLATOR-WIRING	FAR 27-12573-895	135F 630322	FACTORY	YES BENDIX NO 1030263-5-6-A		897910

FAILURE MODE-ELECTRICAL SHORT. FAILURE WAS CAUSED BY WIRE BEING PINCHED AND SHORTING TO GROUND.

CORRECTIVE ACTION-VENDOR IMPROVED MANUFACTURING AND INSPECTION PROCEDURES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-E4-3363-F OSCILLATOR-TUBE	FAR 27-11541-813	197-D 630322	FACTORY	YES BENDIX NO		897201

FAILURE MODE-ERRATIC OPERATION CAUSED BY AN UNSTABLE VACUUM TUBE WITHIN THE OSCILLATOR.

CORRECTIVE ACTION-A PROGRAM WAS INITIATED TO BURN-IN SUBCARRIER OSCILLATORS TO ELIMINATE THEIR UNSTABLE CHARACTERIS TICS. TEST PROCEDURES AND EOPS HAVE BEEN REVISED TO IMPLEMENT THIS PROGRAM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-A9-E0-E24-F ENGINE VALVE POSITION TRANSDUCER	FAR	TSD 630322	FACTORY	YES ROCKETDYNE NO		894845

FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER WAS 20 PERCENT HIGH. TRANSDUCER WAS REPLACED.

CORRECTIVE ACTION-UNKNOWN. DEFERRED TO ROCKETDYNE.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AOJ63-0054/02-601-00-63 TLM CANISTER	FLIGHT	83F 830321	OSTF-2 0	YES NO	GD/C	898468

FAILURE MODE-ERRATIC OPERATION. TELEMETRY SYSTEM OPERATION WAS MARGINAL DUE TO A SEVERE NOISE PROBLEM.

SYSTEM EFFECT-ERRATIC OPERATION. RECEIVED SIGNAL WAS HIGH AND OF GOOD QUALITY INDICATING THAT THE NOISE WAS GENERATED BY THE AIRBORNE TELEMETRY SYSTEM.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3425F AMPLIFIER	FAR 87-12806-1	154D 830321	FACTORY	YES NO	ASTRONAUTICS	897914

FAILURE MODE-OUT OF SPECIFICATION. DURING EOP TESTING AMPLIFIER WOULD NOT ZERO. PROBLEM OCCURRED BECAUSE OF AN EXTREMELY HIGH GAIN SETTING IN THE GAIN POTENTIOMETER. THE AMPLIFIER OPERATED NORMALLY AFTER GAIN SETTING WAS MADE PRIOR TO ZERO SETTING.

CORRECTIVE ACTION-EOP WAS REVISED TO SHOW GAIN SETTING PRIOR TO ZERO SETTING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3370-F COMMUTATOR-SOLDER CONNECTION	FAR	197-D 830320	FACTORY	YES NO	BENDIX 1096483-38	898331

FAILURE MODE-ERRATIC OPERATION. A COLD SOLDER JOINT CONNECTING THE BLACK POWER LEAD TO ABRUSHHOLDER WAS FOUND.

CORRECTIVE ACTION-VENDOR WAS INFORMED OF THE FAILURE AND REQUESTED TO IMPROVE THEIR SOLDERING TECHNIQUE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3853F PRESSURE TRANSDUCER	FAR 7-01731-5	830319	FACTORY	YES NO	BOURNS 71724-0-10-752	

FAILURE MODE-LEAK. OUTPUT VOLTAGE WAS BELOW SPECIFICATION. FAILURE WAS DUE TO LEAKAGE AT THE BOURDON TUBE-TO PRESSURE-PORT BRAZE JOINT. LEAKAGE AT THIS JOINT ALLOWED HIGH PRESSURE TO ENTER THIS EVACUATED AND HERMETICALLY SEALED UNIT, CAUSING A LOW-OUTPUT VOLTAGE READING.

CORRECTIVE ACTION-VENDOR STATED BRAZING HAS BEEN UPGRADED ON ALL BOURNS INSTRUMENTS AS A RESULT OF PERSONNEL ATTEND

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ING HANDY AND HARMON BRAZING INSTRUCTION AND SUBSEQUENT IN PLANT INSTRUCTION.							692724
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3399 DEMODULATOR	FAR 7-12077-13	630319	FACTORY	YES NO		691646
FAILURE MODE-OUT OF TOLERANCE. COMPONENT FAILED WHEN ITS GAIN WAS HIGH OUT OF SPECIFICATION AFTER POTTING. CHANNEL 1 SHOWED TOO HIGH A GAIN DURING THE HIGH GAIN TESTS. DEMODULATOR FAILURE WAS DUE TO THE UNBALANCE IN THE CHANNEL 1 D IODE BRIDGE NETWORK. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-99-24-3397-F DIFFERENTIAL AMPLIFIER/WIRING/	FAR 27-12479-3	630318	FACTORY	YES NO	KINETICS M738	693976
FAILURE MODE-OPEN (ELECT). CHANNEL 2 COULD NOT BE ADJUSTED AWAY FROM A CONSTANT OUTPUT OF 0.785 VOLTS DC. THE STRAN DED LEAD, CARRYING THE 28 VOLT DC INPUT TO THE CHANNEL 2 POWER INPUT (E-1), HAD SEPARATED FROM THE CIRCUIT BOARD TER MINAL RESULTING FROM A DEFECTIVE SOLDER JOINT. CORRECTIVE ACTION-SD/C REQUESTED THE VENDOR TO IMPROVE QUALITY CONTROL AND INSPECTION PROCEDURES AS DOCUMENTED IN R AR-BP-99-24-3776.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3408-F OSCILLATOR-POTENTIOMETER	FAR 27-01268-15	5-E 630314	FACTORY	YES NO	BENDIX 1050265-10-6-A	697912
FAILURE MODE-ELECTRICAL OPEN. OUTPUT WAS UNSTABLE WHEN THE OSCILLATOR WAS TAPPED LIGHTLY. FAILURE CAUSED BY INTERMI TTENT POTENTIOMETER WIPER CONTACT. CORRECTIVE ACTION-VENDOR IMPROVED INSPECTION PROCEDURES TO INSPECT ALL POTENTIOMETER OF THIS TYPE 100 PCT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-24-3401F FILTER	FAR 27-12202-1	630314	FACTORY	YES NO		
FAILURE MODE-SHORT (ELECT). THE AMPLIFIER AND FILTER ASSEMBLY FAILED WHEN IT SHOWED NO OUTPU. WHEN INSTALLED IN THE HEAT ASSEMBLY. THE AMPLIFIER FUNCTIONED PROPERLY, BUT THE BANDPASS FILTER DISPLAYED NO OUTPUT FOR ALL INPUTS. FAILU RE OF THE AMPLIFIER AND FILTER ASSEMBLY WAS DUE TO AN INTERNAL SHORT CIRCUIT IN THE SEALED FILTER.							

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							891640

CORRECTIVE ACTION-FAILURE ANALYSIS REQUESTED THE FILTER VENDOR BE REQUIRED TO IMPROVE QUALITY CONTROL PROCEDURES, F ILTER BE MODIFIED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3446-F OSCILLATOR TUBE ELECTRONIC	FAR 57-01253-5	630313	FACTORY	YES NO	BENDIX 1041962-3-K	896110

FAILURE MODE-ERRATIC OPERATION. THE FREQUENCY OF THE OSCILLATOR WAS UNSTABLE AND SENSITIVE TO VIBRATION. REPLACEMEN T OF THE TUBES ELIMINATED THE CONDITIONS. THE FAILURE WAS CAUSED BY CHANGES IN THE TUBE CHARACTERISTICS.

CORRECTIVE ACTION-RAR A-99-24-3520 WAS GENERATED. THIS RAR RECOMMENDS THAT THE CIRCUIT BE DESIGNED TO COMPENSATE FO R SUCH CHANGES IN TUBE CHARACTERISTICS OR ESTABLISH A RECYCLE PERIOD FOR CHANGING TUBES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MX-90-24-3597-F TLM CANISTER-TRANSMITTER	FAR 57-12786-603	1930 630313	WTR	YES NO	BENDIX-PACIFIC	892178

FAILURE MODE-ERRATIC OPERATION. DURING CHECKOUT OF THE TELEPAK, THE CARRIER FREQUENCY VARIED OVER A TWO MEGACYCLE R ANGE. FAILURE WAS CONFIRMED. CAUSE WAS ATTRIBUTED TO THE TRANSMITTER NOT BEING TUNED PROPERLY. THE TRANSMITTER IS TU NED BY ADJUSTING THE OUTPUT FREQUENCY TO THE LOW SIDE OF THE OPTIMUM FREQUENCY SETTING. THIS CAUSES TEST POINT 2 TO BE NEGATIVE WITH RESPECT TO TEST POINT 1 THEREBY ENABLING THE DISCRIMINATOR PORTION OF THE TRANSMITTER TO LOCK ONTO THE CORRECT FREQUENCY. THE VENDOR DOES NOT USE THIS METHOD.

CORRECTIVE ACTION-VENDOR WAS REQUESTED TO INCLUDE THE PRACTICE OF TUNING TEST POINT 2 NEGATIVE COMPARED TO TEST POI NT 1 IN CHECKOUT PROCEDURES FOR THE TRANSMITTER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3372-F POWER SUPPLY/CAPACITOR	FAR 57-01273-3	630313	FACTORY	YES NO	BENDIX 1951440-4-3	891223

FAILURE MODE-SHORT /ELECTRICAL/. THE POWER SUPPLY UNIT DREW INPUT CURRENT IN EXCESS OF 8.0 AMPERE SPEC. ALLOWANCE. SECTION 2 DREW 5.0 AMPERES AT 12V DC APPLIED /SPEC IS 8.0 AMPERES AT 28V DC/. A MALLORY 8 MFD 170 WVDC CAPACITOR /C-113 IN THE 150V OUTPUT CIRCUIT/ WAS SHORTED.

CORRECTIVE ACTION-RAR A-99-24-3402 WAS SENT TO THE VENDOR.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3308-F TLM CALIBRATER	FAR 87-18575-838	135F 630312	FACTORY	YES NO	BENDIX PACIFIC	697907
FAILURE MODE-OUT OF TOLERANCE. DURING FACTORY CHECKOUT; THE OUTPUT OF CHANNEL 11 WAS HIGH, BUT COULD NOT BE CONFIRMED BY FUNCTIONAL TESTING.							
CORRECTIVE ACTION-NONE. REPORTED FAILURE COULD NOT BE CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NZ-99-24-3352-F POWER SUPPLY-WIRING	FAR 58-13540-3	630311	FACTORY	YES NO		695310
FAILURE MODE-OPEN-ELECTRICAL. OPEN WAS CAUSED BY A HIGH RESISTANCE SOLDER CONNECTION.							
CORRECTIVE ACTION-TRAINING IN ACCEPTABLE SOLDERING TECHNIQUES WAS COMPLETED BY ALL PERSONNEL IN ELECTRONIC PRODUCTION TO IMPROVE QUALITY AND WORKMANSHIP.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NZ-99-24-4016-F OSCILLATOR/RESISTOR	FAR 87-01607-111	630311	FACTORY	YES NO	BENDIX 3131153-8-6	691070
FAILURE MODE-DRIFT. OSCILLATORS CENTER FREQUENCY DRIFTED FROM 1700 TO 1674 CPS DURING VIBRATION TESTING. FAILURE NOT CONFIRMED, HOWEVER THE OSCILLATOR FAILED THE SPECIFIED TEMPERATURE TEST IN THE LAB. TEMPERATURE COMPENSATING RESISTOR FAILURE CAUSED THE OSCILLATOR TO FAIL THE SPECIFIED TEMPERATURE TEST.							
CORRECTIVE ACTION-NONE. THE CAUSE OF FAILURE WAS NOT DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NZ-99-24-4025-F VIDEO AMPLIFIER, POTENTIOMETER	FAR 87-01609-1	630310	FACTORY	YES NO	BENDIX 1063520	697207
FAILURE MODE-FAIL DURING OPERATION. GAIN CONTROL POTENTIOMETER WAS REPORTED INOPERATIVE.							
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4184-F POWER SUPPLY-RESISTOR	FAR SS-13540-3	630310	FACTORY	YES NO	60/C	691944

FAILURE MODE-ELECTRICAL SHORT. THE TRANSDUCER POWER SUPPLY FAILED WHEN ADJUSTMENT OF RESISTOR R-19 WOULD NOT BRING THE MINUS 1.25 VOLTS DC WITHIN SPEC. ALSO, RESISTOR R-21 WAS BURNED OPEN ELECTRICALLY. THE FAILURE WAS CONFIRMED. THE RESISTOR WAS PROBABLY DAMAGED AS A RESULT OF AN OVERLOAD OR SHORT IN THE MINUS 1.25-VOLT CIRCUIT.

CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AGJ63-0046/B3-401-00-102 TLM CANISTER	COUNTDOWN	1020 630309	WTR-B-3 -1444	YES NO		698420

FAILURE MODE-FAIL DURING OPERATION-DURING THE COUNTDOWN AT T-7 MINUTES EXCESSIVE CURRENT DRAIN WAS NOTED IN CONNECTION WITH THE IRSS KIT. POWER WAS SWITCHED TO INTERNAL AND THE TELEMETRY SYSTEM FAILED.

SYSTEM EFFECT-OPERATION STOPS PREMATURELY. NO TELEMETRY DATA WAS TRANSMITTED DURING THE REMAINDER OF THE COUNTDOWN OR DURING THE FLIGHT.

VEHICLE EFFECT-NONE. FAILURE ANALYSIS OF THE FLIGHT FAILURE WAS HAMPERED BY LACK OF DATA.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX65-0003-135F/FC-CO-02-0011-081 TLM CANISTER	COMPOSITE-FACTORY 27-12373-695	135F 650[illegible]		YES NO	BENDIX	698399

FAILURE MODE-ERRATIC OPERATION. RF NO. 3 CHANNEL 10 INDICATED EXCESSIVE SPIKING AND NOISE CAUSED BY FAILURE OF RF 3.

SYSTEM EFFECT-ERRATIC OPERATION.

VEHICLE EFFECT-COMPOSITE DELAYED OR RESCHEDULED. SYSTEM AND COMPOSITE RETEST REQUIRED.

CORRECTIVE ACTION-TELEMETER 3 RADIO FREQUENCY AIRBORNE PACKAGE WAS REPLACED. PROPER OPERATION WAS VERIFIED DURING COMPOSITE RETEST.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-99-24-3268-F TELEMETRY PACKAGE POWER CHANGE OVE R SWITCH	FAR 27-12290-815	1300 630308	FACTORY	YES NO	KINETICS	

FAILURE MODE-ERRATIC OPERATION-POWER CHANGEOVER SWITCH FAILED TO RETURN TO EXTERNAL POSITION. THE FUNCTIONAL TESTING REVEALED THAT THE SWITCH WAS OPERATING BUT THAT THE MONITOR CONTACT WAS NOT MAKING CONTACT. FAILURE ANALYSIS REVEA

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LED A BROWN MATERIAL ON THE MONITOR CONTACTS. THE FAILURE WAS DUE TO THE SWITCH. THE CAUSE OF FAILURE OF THE SWITCH WAS NOT DETERMINED DUE TO LOSS OF EVIDENCE WHILE UNSOLDERING. CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN BECAUSE THE CAUSE OF FAILURE WAS DESTROYED WHEN SWITCH WAS OPENED.							698818
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-88-24-3894-F TELEMETRY TAPE RECORDER	FAR	135F 630308	FACTORY	YES NO	APPLIED MAGNET ICS 410-001	697824
FAILURE MODE-FAILED DURING OPERATION. DURING CHECKOUT, THE OUTPUT OF THE TAPE RECORDER HAD ZERO OUTPUT. THE TAPE RECORDER MOTOR WAS NOT PRODUCING A TORQUE SUFFICIENT TO TURN THE TAPE AND TAPE ADHERES TO THE RECORD AND TRANSMITTING HEADS WHEN THE TAPE IS STOPPED. CORRECTIVE ACTION-THE VENDOR IS INSTALLING A DIFFERENT INVERTER TO INCREASE THE DRIVING MOTOR OUTPUT POWER. THEY ARE INCREASING THE PRESSURE BETWEEN THE MAGNETIC TAPE DRIVING ROLLER AND PRESSURE ROLLER PERMITTING THE MOTOR TO CREATE SUFFICIENT FORCE TO FREE THE TAPE FROM AN ADHERED CONDITION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A88-24-33C9 DIFFERENTIAL AMPLIFIER POTENTIOMET ER	FAR 27-01444-3	630307	FACTORY	YES NO	KINETICS K-798	697824
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. UNIT WOULD NOT NULL AS REQUIRED BY SPECIFICATION. THE FAILED COARSE GAIN ADJUSTMENT POTENTIOMETER, REFERRED TO AS R-2 ON THE VENDORS DRAWING, CAUSED THE FAILURE. THERE WAS AN OPEN CIRCUIT BETWEEN THE SLIDE CONTACT AND THE RESISTANCE STRIP TERMINAL. CORRECTIVE ACTION-VENDOR WAS INFORMED OF THE CAUSE OF FAILURE AND REQUESTED TO TAKE NECESSARY ACTION TO PREVENT RECURRENCE OF THIS MODE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3393-F DISPLACEMENT DEMODULATOR-WIRING	FAR 27-12368-5	208D 630307	FACTORY	YES NO	GD/C	696462
FAILURE MODE-OUT OF SPECIFICATION. ON TEST, THE INPUT SIGNAL WOULD DROP FROM 1.47 VOLTS AC TO NEARLY ZERO. SPECIFICATION REQUIRES THE 1.47 VOLTAGE TO REMAIN CONSTANT. THE VOLTAGE DROP INDICATED A Q-1 (SN333) TRANSISTOR SHORT. ACTUALLY THE LEADS WERE REVERSED. CORRECTIVE ACTION-UNKNOWN.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3356-F REGULATOR ASSEMBLY, TRANSISTOR	FAR 27-11384-5	630607	FACTORY	YES NO		698977
FAILURE MODE-FAIL DURING OPERATION. ERRATIC OPERATION WAS CAUSED BY A DAMAGED TRANSISTOR. CAUSE OF DAMAGE WAS NOT D ETERMINED. CORRECTIVE ACTION-RECOMMEDATIONS WERE MADE BY FAILURE ANALYSIS TO MODIFY POTTING PROCESSES TO PREVENT POSSIBLE DAMA GE TO TRANSISTORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3258-F DEMODULATOR-WIRING	FAR 27-12077-5	630306	FACTORY	YES NO	ASTRONAUTICS 27-12077-5	696117
FAILURE MODE-SHORT (ELECTRICAL). THE DEMODULATOR FAILED WHEN A 15 OHM SHORT CIRCUIT WAS FOUND BETWEEN THE 400 CYCLE INPUT AND THE CORNER MOUNTING STUD. A BURNED PATH BETWEEN THE MOUNTING STUD AND AN ADJACENT SOLDER AREA. ANALYSIS O F THE BURNED PATH INDICATED THAT THE SHORT CIRCUIT WAS CAUSED EITHER BY SOLDER OR A STRAND OF WIRE IN CONTACT WITH T HE STUD. THIS FAILURE COULD HAVE BEEN DETECTED IN FINAL USE CONFIGURATION. CORRECTIVE ACTION-CLOSER INSPECTION AND INCREASED PRECAUTION TO SEE THAT EXISTING PROCEDURES ARE ADHERED TO.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3489-F OSCILLATOR WIRING	FAR 27-01607-921	630306	FACTORY	YES NO	BENDIX-PACIFIC 3131153-11-AA	693060
FAILURE MODE-ELECTRICAL OPEN. BECAME INTERMITTENT DURING VIBRATION TESTING. FAILURE WAS ATTRIBUTED TO THE RED LEAD TO THE FILTER BEING BROKEN. THIS LEAD SUPPLIES THE COLLECTOR VOLTAGE FOR Q-3. CORRECTIVE ACTION-REQUESTED VENDOR REVIEW SOLDERING AND POTTING TECHNIQUES AND ALSO REVIEW ITS INSPECTION PROCEDURE .							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3280F COMMUTATOR	FAR 27-12573-695	133F 630305	FACTORY	YES NO	BENDIX	
FAILURE MODE-CONTAMINATION. SUBCARRIER CHANNEL 10 MASTER PULSE DISPLAYED NEGATIVE SPIKING AND SUBCARRIER CHANNEL 8 OSCILLATOR FREQUENCY DRIFTED OUT OF SPECIFICATION. THE CHANNEL 8 DRIFT WAS NOT CONFIRMED. THE CHANNEL 10 PROBLEM WAS CAUSED BY COMMUTATOR CONTAMINATION.							

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							897974

CORRECTIVE ACTION-VENDOR LINE PERSONNEL WERE CAUTIONED AGAINST USING COMMUTATOR BRUSHES WITHOUT FIRST CHECKING FOR LOOSE FIBERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	80-M9-24-3239-F MAGNETIC AMPLIFIER	FAR 80-07900-017	630305	FACTORY	YES NO	MICRONAC 12-101-4	898112

FAILURE MODE-OUT OF SPECIFICATION. THE MAGNETIC AMPLIFIER FAILED WHEN FOUND TO BE OPERATING IN A SUBASSEMBLY CALIBRATED FOR 2.4 VOLTS DC WHEN IT SHOULD HAVE BEEN CALIBRATED FOR 8 VOLTS DC. FUNCTIONAL TESTS SHOWED THE UNIT TO BE CALIBRATED FOR 2.4 VOLTS DC OUTPUT. THE FAILURE WAS CAUSED BY FOLLOWING THE WRONG CALIBRATION NOTE ON THE BLUEPRINT.

CORRECTIVE ACTION-AN AVO WAS WRITTEN TO THE CALIBRATING GROUP REQUESTING THAT THE PERSONNEL PERFORMING THE CALIBRATION BE EXTREMELY CAREFUL TO USE THE CORRECT PROCEDURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3369F TRANSDUCER	FAR 7-01720-5	135F 630305	FACTORY	YES NO	SERVONICS M-75	898768

FAILURE MODE-ERRATIC OPERATION. SPIKING AND DISTORTION UP TO 13 PERCENT OF THE INFORMATION BANDWIDTH OCCURRED. FAILURE WAS ATTRIBUTED TO WIPER LIFTOFF AT RESONANCE DUE TO LOW WIPER CONTACT PRESSURE.

CORRECTIVE ACTION-VCAR 4076-65 WAS WRITTEN REQUESTING THE VENDOR BE INFORMED OF THE FAILURE MODE AND APPROPRIATE QUALITY CONTROL ACTION BE TAKEN DURING MANUFACTURE AND ASSEMBLY TO INSURE PROPER WIPER CONTACT PRESSURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3279F COMMUTATOR	FAR 27-12572-845	135F 630304	FACTORY	YES NO	BENDIX	897973

FAILURE MODE-CONTAMINATION. CHANNEL 13 MASTER PLUSE HAD NEGATIVE SPIKING UP TO 100 PERCENT LSW. CHANNEL 11 HAD VARYING NEGATIVE GATE. PROBLEMS WERE CAUSED BY CONTAMINATION IN THE CHANNEL 11 AND 13 COMMUTATORS.

CORRECTIVE ACTION-VENDOR LINE PERSONNEL WERE CAUTIONED AGAINST USING COMMUTATOR BRUSHES WITHOUT FIRST CHECKING FOR LOOSE FIBERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3341-F OSCILLATOR	FAR 27-11541-913	1970 630304	FACTORY	YES NO	

FAILURE MODE-OUT OF SPECIFICATION. CHANNEL 4 OSCILLATOR WAS OUT OF ADJUSTMENT AND CHANNEL 18 AND E OSCILLATORS EXIB

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
ITEO INSTABILITY.							897021
CORRECTIVE ACTION-GD/C INITIATED CORRECTIVE ACTION IN WAP M030080 ISSUED TO REPLACE THE ROUND BENDIX TELEMETRY CANI STER WITH THE LIGHTWEIGHT BENDIX TELEMETRY PACKAGE WHICH UTILIZES A MORE RELIABLE OSCILLATOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-99-24-3252P CALIBRATOR-TRANSISTOR	FAR 27-12291-1	1300 650304	FACTORY	YES NO	TEXAS INSTRUME NTS	897612
FAILURE MODE-OUT OF TOLERANCE. PREFLIGHTCALIBRATOR OPERATING FOR 14.6 SECONDS WHERE 25 PLUS OR MINUS 10 SECONDS IS EXPECTED IN TELEPAK 27-12290-015. EXAMINATION OF THE CALIBRATOR SHOWED R2, C1, AND Q2 TO BE LOW IN VALUE BUT WITHIN TOLERANCE. REPLACEMENT OF THESE COMPONENTS WITH UNITS WITH NOMINAL VALUES BROUGHT THE OPERATING TIME TO 20 SECONDS W HICH IS NOMINAL. THE FAILURE OF THE PREFLIGHT CALIBRATOR WAS DUE TO A BUILDUP OF TOLERANCES. CORRECTIVE ACTION-RAR MG-99-24-3728 WAS WRITTEN REQUESTING A WORST CASE ANALYSIS OF THE PREFLIGHT CALIBRATOR (27-12 291-1) CIRCUIT. RE-EVALUATION IN THE SELECTION OF COMPONENTS USED AND A TIGHTENING OF THE INDIVIDUAL COMPONENT TOLER ANCES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX63-0003-1300/FC-CO-03-0004-022 CALIBRATOR	COMPOSITE-FACTORY	1300 630302		YES NO		899637
FAILURE MODE-FAIL DURING OPERATION. THE PREFLIGHT CALIBRATION DURATION WAS LESS THAN 15 SECOND MINIMUM ALLOWED. SYSTEM EFFECT-OPERATION STOP PREMATURELY. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SYSTEMS LEVEL AND COMPOSITE RETESTING REQUIRED. CORRECTIVE ACTION-THE TELEPAK WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX63-0003-135F/FC-CO-01-0011-031 TLM CANISTER	COMPOSITE-FACTORY 27-12572-845	135F 630301		YES BENDIX NO		898401
FAILURE MODE-FAIL DURING OPERATION. BANDWIDTH OF RF2 CHANNEL 11 ATTENUATED WHEN SUSTAINER AND VERNIER CUTOFF DISCRE TES WERE ACTUATED. ALSO SPIKING WAS OBSERVED ON THE NEGATIVE GATE OF CHANNEL 13 CAUSED BY FAILURE OF RF 2. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE RETEST REQUIRED. CORRECTIVE ACTION-TELEMETER 2 RADIO FREQUENCY AIRBORNE PACKAGE WAS REPLACED. PROPER OPERATION WAS VERIFIED DURING C OMPOSITE RETEST.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX63-0003-135F/FC-CO-01-0011-031 TLM CANISTER	COMPOSITE-FACTORY 27-12480-8	135F 630301		YES NO		898400
FAILURE MODE-ERRATIC OPERATION. NEGATIVE GATE SEGMENT 4 OF RF NO. 1 CHANNEL A INDICATED 12 PER CENT IBW VARIATIONS THROUGHOUT THE TEST. EXACT CAUSE OF FAILURE WAS NOT DETERMINED. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE RESCHEDULED. COMPOSITE RETEST REQUIRED. CORRECTIVE ACTION-NEGATIVE VARIATIONS COULD NOT BE DUPLICATED AND DID NOT RECUR DURING SUBSEQUENT TESTING. RF 1 WAS CONSIDERED ACCEPTABLE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX63-0003-135F/FC-CO-01-0011-031 TRANSMITTER	COMPOSITE-FACTORY 27-12573-895	135F 630301	FACTORY	YES NO	BENDIX	898474
FAILURE MODE-ERRATIC OPERATION. RF NO. 3 CHANNEL 10 OPERATED INTERMITTENTLY THROUGHOUT THE TEST. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. RF3 CH10 WOULD BE INTERMITTANT. VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE RETEST REQUIRED. CORRECTIVE ACTION-RF3 WAS REPLACED. PROPER OPERATION WAS VERIFIED DURING COMPOSITE RETEST.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3486-F COMMUTATOR-MOTOR	FAR	630301	FACTORY	YES NO	BENDIX-MONTROS E 1096483-45	898477
FAILURE MODE-OUT OF TOLERANCE. FIVE MOTORS WERE REJECTED FOR HIGH SPEED, LOW SPEED AND FAILURE TO OPERATE. NONE OF THESE FAILURES WERE CONFIRMED. CORRECTIVE ACTION-NONE. THE FAILURES WERE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3298-F TELEMETRY TAPE RECORDER	FAR	134F 630228	11	YES NO	APPLIED MAGNET ICS 410-001	
FAILURE MODE-FAILED DURING OPERATION. DURING CHECK-OUT, THE TAPE RECORDER HAD ZERO OUTPUT. THE TAPE RECORDER MOTOR WAS NOT PRODUCING A TORQUE SUFFICIENT TO TURN THE TAPE. THE TAPE ADHERES TO THE RECORD AND TRANSMITTING HEADS WHEN THE TAPE IS STOPPED.							

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							897806

CORRECTIVE ACTION-THE VENDOR IS INSTALLING A DIFFERENT INVERTER TO INCREASE THE DRIVING MOTOR OUTPUT POWER. THEY AR E INCREASING THE PRESSURE BETWEEN THE MAGNETIC TAPE DRIVING ROLLER AND PRESSURE ROLLER PERMITTING THE MOTOR TO CREAT E SUFFICIENT FORCE TO FREE THE TAPE FROM AN ADHERED CONDITION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NZ-90-24-3291-F TLM CANISTER	FAR 27-12762-903	630228	WTR	NO YES		893369

FAILURE MODE-ERRATIC OPERATION. WTR TEST RESULTS INDICATED ERRATIC OUTPUT AND THE CENTER FREQUENCY OUTSIDE OF SPECI FICATION LIMITS.

CORRECTIVE ACTION-FUNCTIONAL TESTING OF THE TELEPAK DID NOT CONFIRM THE FAILURE,THEREFORE IT WAS REQUESTED THAT OTH ER CIRCUITS ASSOCIATED WITH TELEPAK, THAT COULD CAUSE THE FAILURE INDICATED, BE CHECKED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-88-24-136F PRESSURE TRANSDUCER	FAR 27-01243-7	630228	S-4	YES NO	BOURNS 42011-0-100-75 2	890392

FAILURE MODE-ERRATIC OPERATION. CE LH2 PUMP PRESSURE TRANSDUCER WAS TRANSMITTING ERRATIC DATA. FAILURE COULD NOT BE CONFIRMED IN LAB. HOWEVER, POTENTIOMETER WIPER ARM PRESSURE WAS ONLY 2 GRAMS (3 TO 4 GRAMS NORMAL).

CORRECTIVE ACTION-VENDOR TO REVIEW PROCEDURES FOR SETTING AND MEASURING THE CONTACT FORCE ON POT-TYPE TRANSDUCERS A ND WHERE TO PROCEDURES. REF. VENDOR CORRECTIVE ACTION REQUEST 3302-63.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-5536-F RELAY	FAR 27-11560-3	1390 630227	FACTORY	YES NO	ELGIN NATL. WA TCH CO.	897922

FAILURE MODE-ELECTRICAL OPEN. THE RESISTANCE BETWEEN PINS 1 AND 12 OF THE RELAY IS SPECIFIED AT 10 K OHM. MEASUREME NT INDICATED AN OPEN CIRCUIT. EXAMINATION OF THE RELAY DETECTED SMALL SOLDER SPLASHES ON BOTH SETS OF CONTACTS WHICH INTERFERRED WITH NORMAL OPERATION OF THE RELAY

CORRECTIVE ACTION-THE VENDOR WAS CONTACTED AND REPORTED THAT THE SOLDER SPLASHES OCCURRED DURING THE HANDSEALING PR OCESS AND THAT THE METHOD OF SEALING RELAYS WAS CHANGED TO INDUCTION SEALING ELIMINATING THIS TYPE OF FAILURE.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3418F RADIOFREQUENCY AMPLIFIER	FAR 27-01289	630227	FACTORY	YES NO	BENDIX PACIFIC	898019
FAILURE MODE-OUT OF SPECIFICATION. LOW POWER OUTPUT AT OPTIMUM TRANSMITTING FREQUENCY. FAILURE WAS NOT CONFIRMED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3360-F TRANSVERTER ASSEMBLY-DIODE	FAR 27-12594-5	630227	FACTORY	YES NO		891285
FAILURE MODE-OUT OF TOLERANCE. VOLTAGE DEVELOPED BY ZENER DIODE WAS LOW. GLASS ON DIODE WAS DAMAGED POSSIBLE CAUSE WAS ATTRIBUTED TO POTTING TECHNIQUES.							
CORRECTIVE ACTION-RECOMMENDATIONS WERE MADE BY FAILURE ANALYSIS TO MODIFY POTTING PROCESSES TO PREVENT POSSIBLE DAMAGE TO DIODES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-NZ-99-24-3288 PRESSURE TRANSDUCER	FAR 27-01366-29	200-0 630227	FACTORY	YES NO	SERVONIC 841A-60-75	890702
FAILURE MODE-OUT OF EXPECTEDTEST VALUE. THE TRANSDUCER, DESIGNATED MEASUREMENT P88P, SENSES THRUST CHAMBER PRESSURE. IT WAS REPORTEDLY FAILED WHEN THE TAPE INDICATED NOISE.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3367-F AMPLIFIER	FAR 27-01444-5	43F 630228	FACTORY	YES NO	AEC 340-4-10	897819
FAILURE MODE-OUT OF SPECIFICATION. DURING BENCH TEST: 8 AMPLIFIERS EXIBITED NOISE IN EXCESS OF SPECIFICATION LIMITS.							
CORRECTIVE ACTION-THE VENDOR WAS NOTIFIED OF THE FAILURE TO COMPLY TO MIL-I-26600. ALL AVAILABLE AEC AMPLIFIERS WERE RETURNED TO THE VENDOR FOR REWORK.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	P1-6CO-02-134 TLM CANISTER-TRANSMITTER	COMPOSITE-J FACT	134F 630228	ETR	YES NO		896877
FAILURE MODE-OUT OF TOLERANCE. RF3 CAUSED INTERFERENCE ON RF1AND DATA FROM RF4 PACKAGE WAS EXTREMELY NOISY AND SIGNAL LEVEL WAS VERY LOW. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. INTERFERENCE OBSERVED ON RF1 DATA. RF4 DATA UNUSABLE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACED RF3 PACKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-JA-24-131-P PRESSURE TRANSDUCER	FAR 98-01110-9	630225	FACTORY	YES NO	COLVIN 401-D-15-75	893122
FAILURE MODE-STRUCTURAL. LOW OUTPUT VOLTAGE DUE TO A SCRATCH ON THE RESISTANCE MANDREL WINDING ALLOWING EXCESSIVE WIPER ARM WEAR OF THE WINDINGS AND RESULTING SHORT CIRCUITED TURNS. CORRECTIVE ACTION-ALERTING THE VENDOR OF THIS QUALITY DISCREPANCY AND REQUESTING HIS IMPROVED INSPECTION TECHNIQUES							
INSTRUMENTATION-A/C TELEMETRY SET AND TRANSDUC ERS	A-99-24-3513-F TLM CANISTER/OSCILLATOR	FAR 27-12572-243	135F 630225	FACTORY	YES NO	BENDIX-PACIFIC	893099
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A SUBCARRIER OSCILLATOR INDICATED 18 PERCENT IBW WHEN 30 PERCENT IBW IS EXPECTED. POSSIBLE CAUSE OF FAILURE DUE TO AGING DURING PROLONGED NON-USE. CORRECTIVE ACTION-IN VIEW OF COST INVOLVED IT IS NOT ADVISEABLE TO PROCESS ANY CHANGE TO THE OSCILLATORS. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3363 PRESSURE TRANSDUCER	FAR 7-01783-11	630223	FACTORY	YES NO	BOURNS 42013-0-80-758	
FAILURE MODE-CONTAMINATION. OUTPUT WAS OPEN AT TWO PRESSURE POINTS. OPENING OF THE ELECTRICAL OUTPUT IS ATTRIBUTED TO THE WIPER ARM LIFTING OFF THE MANDRELL WHEN IT PASSED OVER CONTAMINANTS ON THE MANDREL. LOW WIPER ARM TENSION CONTRIBUTED TO THE FAILURE.							

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CORRECTIVE ACTION-THE WIPER TENSION IS NOW SET AT 5 PLUS OR MINUS 1/2 GRAM. THE ELEMENT CLEANING PROCESS HAS BEEN C HANGED TO UTILIZE SODA BLAST AND A DISTILLED WATER RINSE.							892976
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3348-F AMPLIFIER-CAPACITOR	FAR 37-01444-3	210D 630223	FACTORY	NO NO	KINETICS	897010
FAILURE MODE-FAIL DURING OPERATION-AMPLIFIER HAD NO OUTPUT. UPON EXAMINATION THE C-8 CAPACITOR AND CR-14 DIODE HAD FAILED IN BOTH SECTIONS OF THE AMPLIFIER. FAILURE WAS DUE TO OVER VOLTAGE FROM THE TEST SET. CORRECTIVE ACTION-TET 3950 S/N 2 TEST SET HAS BEEN REJECTED FOR FURTHER USE UNTIL THE SWITCHING CIRCUIT HAS BEEN RE DESIGNED TO PREVENT RECURRENCE OF THIS MODE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-4173-F OSCILLATOR	FAR 7-01488-827	630221	FACTORY	YES NO	BENDIX	891897
FAILURE MODE-FAIL DURING OPERATION. THE VOLTAGE-CONTROLLED OSCILLATOR HAD TOO HIGH A FREQUENCY AND A POTENTIOMETER ADJUSTMENT INOPERATIVE. THE FAILURES WERE NOT CONFIRMED. CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-A-90-24-3437 ACCELEROMETER TRANSDUCER	FAR 7-01413-3	R4E 630221	OSTF-1	YES NO	BORG-WARNER 9747-B	880708
FAILURE MODE-ELECTRICAL SHORT. THE TRANSDUCER FAILED WHEN A SHORT CIRCUIT TO GROUND WITHIN THE TRANSDUCER WAS FOUND . A HEATER LEAD WIRE EXTENDED THRU THE SOLDER LUG TO CONTACT THE GROUNDED CASE. FAILURE WAS THE RESULT OF POOR SOLDE RING. CORRECTIVE ACTION-THE VENDOR INSTITUTED TOTAL QC PROCEDURES TO ALLEVIATE POOR WORKMANSHIP OR MISSED OPERATIONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-14-178-F CABLE-SHIELDED	FAR 27-81826-917	134-F 630219	ETR	YES NO	GD/C	
FAILURE MODE-SHORT (ELECT). INSULATION RESISTANCE WAS FOUND TO BE 3800 MEGOHMS AT 600 V. D. C.							

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							898827
CORRECTIVE ACTION-NONE-FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3257-F DEMODULATOR	FAR 27-12077-13	630219	FACTORY	YES NO	CONVAIR 27-12077-13	898113
FAILURE MODE-OUT OF TOLERANCE. CHANNEL B GAIN WAS TOO LOW AFTER POTTING. THE UNIT IS BAKED AFTER POTTING FOR SEVERAL HOURS AT 130 DGF. FUNCTIONAL TESTS SHOWED THE GAIN TO BE 1.43 WHEN THE SPECIFICATION CALLS 1.100 PLUS OR MINUS 0.055. THE DEMODULATOR EXHIBITED POOR TEMPERATURE STABILITY AND REPEATABILITY. THE TEMPERATURE SENSITIVITY INDICATES THAT THE BAKING PERIOD MAY CAUSE A SHIFT IN GAIN. CORRECTIVE ACTION-RAR A-99-24-3723 WAS ISSUED RECOMMENDING TIGHTER PREPOTTING TOLERANCES ON THE DEMODULATOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-99-24-3302F PRESSURE TRANSDUCER	FAR 27-01366-39	2000 630219	FACTORY	YES NO	SERVONICS M-172-9	898783
FAILURE MODE-STRUCTURAL. THE OUTPUT WAS 6 PERCENT LOW, AND EXCESSIVE STIKING WAS OBSERVED. TRANSDUCER FAILURE WAS CAUSED BY THE WIPER ELEMENT. THE ELEMENT WAS SCRATCHED, AND CAUSED EXCESS WEAR ON THE RESISTANCE WINDING. PARTICLES OF THE WINDING LODGED BETWEEN THE TURNS AND SHORTED IT OUT. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-093-F POWER CHANGEOVER SWITCH	FAR 7-01722-3	630219	FACTORY	YES NO	KINETICS M-172-4	891003
FAILURE MODE-OPEN (ELECTRICAL). HIGH CONTACT RESISTANCE BETWEEN CONTACTS P1-P2, P5-P6AND P8-P9. THE FAILURE WAS FROM EXCESSIVE APPLICATION OF SILICONE CONTACT LUBRICANT. CORRECTIVE ACTION-THE VENDOR WAS INFORMED OF THE DISCREPANCY AND ITS CAUSE. THE VENDOR ADVISED GD/C OF THE DISCONTINUANCE OF THE LUBRICANT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-98-24-120-P DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01207-3	1180 630219	ETR-36A	YES NO	BOURNS 509115-0-3-732	
FAILURE MODE-CONTAMINATION. ELECTRICAL OPEN CIRCUIT BETWEEN PINS B TO C AND A TO C. ATTRIBUTED TO THE PRESSURE TAP NOT MAKING CONTACT WITH THE RESISTANCE ELEMENT AT PIN C.							

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							891001

CORRECTIVE ACTION-IT WAS RECOMMENDED THAT THE PRESSURE TAP BE SOLDERED TO THE RESISTIVE ELEMENT, RATHER THAN DEPEND ING ON THE STAKING COMPOUND NOW USED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	P1-6CQ-01-134 TAPE RECORDER	COMPOSITE-B FACT 27-01687-1	134F 630218	1E	YES NO	APP. MAG. CORP .	896874

FAILURE MODE-FAIL DURING OPERATION. THE TAPE IN THE RF4 TIME TRANSPOSITION TELEMETRY PACKAGE WAS NOT TURNING ON THE TRANSPORT.

SYSTEM EFFECT-OPERATION DOES NOT START. DATA NOT RECEIVED SINCE TAPE IN RF4 PACKAGE WAS NOT TURNING ON THE TRANSPOR T.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-TAPE LAPSTAN WAS ADJUSTED AFTER THE TEST.

INSTRUMEN ATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-90-24-2GS IN-FLIGHT CALIBRATOR	FAR 7-12222-5	116D 630218	ETR	YES NO	GD/C	891970

FAILURE MODE-OUT OF SPECIFICATION. IN-FLIGHT CALIBRATOR REPORTED TO HAVE FAILED WHEN THE CALIBRATOR SHOWED POSITIVE PULSES ONLY WHEN ALTERNATE POSITIVE AND NEGATIVE PULSES WERE EXPECTED. THE REPORTED FAILURE WAS NOT CONFIRMED. AT N O TIME DURING THE ANALYSIS DID THE IN-FLIGHT CALIBRATOR MALFUNCTION.

CORRECTIVE ACTION-FAILURE NOT CONFIRMED. TWX SANCAP 7-418 WAS SENT TO ETR INFORMING THEIR PERSONNEL OF THE RESULTS OF THIS ANALYSIS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-90-24-3295-F COMMUTATOR	FAR 55-13537-813	126D 930815	FACTORY	YES NO	BENDIX-PACIFIC	897925

FAILURE MODE-FAIL DURING OPERATION. CHANNELS A AND C HAD NO COMMUTATION DURING FACTORY CHECK OUT. FAILURE WAS DUE T O COMMUTATOR FAILURE.

CORRECTIVE ACTION-THE COMMUTATOR MOTORS ARE BEING REMOVED FROM STOCK AND ANOTHER MOTOR WILL BE USED.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3431-F DEMODULATOR	FAR 27-12367-801	630215		YES NO	GD/C	895385

FAILURE MODE-OUT OF TOLERANCE- THE OUTPUT NOISE LEVEL FROM THE DEMODULATOR WAS MORE THAN THE MAXIMUM SPECIFIED IN E OP 330.251.2. THE SPECIFICATION DOCUMENT 27-01288 ALLOWED A LARGER NOISE LEVEL TOLERANCE THAN THE EOP CALLED OUT.

CORRECTIVE ACTION-THE EOP NOISE LEVEL REQUIREMENT WAS FOUND TO BE INCORRECT. THE DESIGN GROUP WAS REQUESTED TO HAVE EOP 330.251.2 CHANGED TO AGREE WITH SPECIFICATION DOCUMENT 27-01288.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	M2-90-24-3432-F	FAR 27-12768-801	1680 630214	WTR	YES NO	BENDIX PACIFIC AND GD/A	898627

FAILURE MODE-CONTAMINATION. THE TELEMETRY PACKAGE FAILED DUE TO LOW OUTPUT POWER, OUT OF FREQUENCY, AND INOPERATIVE CHANNEL C. EXAMINATION REVEALED WATER HAD ENTERED THE PACKAGE. THE PACKAGE WAS CORRODED INTERNALLY.

CORRECTIVE ACTION-RAR M2-90-24-3835 REQUESTED THAT THE TELEMETRY PACKAGE BE MOISTURE SEALED. RAR M2-90-24-3917 RECOMMENDED CHANGES TO BE INCORPORATED IN THE TRANSMITTER TUNING PROCEDURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3214F TAPE RECORDER	FAR 27-01837-1	134F 630214	FACTORY	YES NO	APPLIED MAGNET ICS 410001	898491

FAILURE MODE-FAIL DURING OPERATION. ZERO OUTPUT. FAILURE WAS CAUSED BY THE MAGNETIC TAPE ADHERING TO THE RECORDING AND TRANSMITTING HEADS.

CORRECTIVE ACTION-ENGINEERING CHANGE NOTICE 175998 WAS ISSUED DOCUMENTING THE INCREASING OF MOTOR POWER BY THE VENDOR TO CREATE SUFFICIENT FORCE ON THE TAPE TO FREE IT FROM ADHERANCE TO THE RECORDER AND TRANSMITTING HEADS. PRESENT STOCK TO BE RETURNED TO THE VENDOR ON AN AS-FAILED BASIS TO INCORPORATE THESE CHANGES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3329-F CIRCUIT BOARD	FAR 27-12478-1	630214	SD-FAC	NO NO	GD/C	

FAILURE MODE-UNIT WAS OUT OF SPECIFICATION. THE OUTPUT VOLTAGE WAS NOT WITHIN SPECIFICATION. FAILURE ANALYSIS DID NOT CONFIRM THE FAILURE. INVESTIGATION REVEALED THAT A FAULTY DIGITAL VOLTMETER CAUSED THE UNIT TO BE REJECTED.

SYSTEM/ SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE FAULTY VOLTMETER WAS REPLACED.							695368
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3268-F SWITCH	FAR	630214	FACTORY	YES NO	UNITED ELECTRO DYNAMICS 14364-6	691970
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. THE SIGNAL CONVERTER ASSEMBLY FAILED WHEN THE COMMUTATOR SWITCH MALFUNCTIONED. THE SWITCH ACTUATING PLUNGER TURNED 90 DEGREES CAUSING THE FLAPPER TO OPERATE LATERALLY TO NORMAL CONTACT OPERATION. CORRECTIVE ACTION-THIS IS AN AIR FORCE SUPPLIED ITEM. A MEMORANDUM WAS SENT TO AIR FORCE OC STATING THAT THIS PROBLEM SHOULD BE SOLVED BY AN ENGINEERING ORDER COVERING A DRILLING OPERATION AND THE USE OF A PIN TO INDEX THE SWITCH.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-SP-99-24-3283 PRESSURE TRANSDUCER	FAR 27-01386-29	1260 630214	FACTORY	YES NO	SERVONIC M-172-2	690701
FAILURE MODE-LEAK-EXTERNAL. DURING FACTORY CALIBRATION, THE TRANDUCERS WERE FOUND TO HAVE TOO LARGE A STATIC ERROR. A LEAK AT THE BOURDON TUBE BRAZES CAUSED THE CASE TO BECOME PRESSURIZED, COUNTERACTING PRESSURE WITHIN THE TUBE, CAUSING THE TRANSDUCER TO BE OUT OF CALIBRATION. CORRECTIVE ACTION-THE VENDOR INITIATED A LEAK- DETECTION PROCEDURE TO PRECLUDE THE CONDITION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-106-F CRYSTAL RECTIFIER ASSEMBLY RESISTO R	FAR 37-13537-3	630212	FACTORY	YES NO		693116
FAILURE MODE-OUT OF TOLERANCE. THE DC OUTPUT WAS BELOW SPECIFICATION DUE TO IMPROPER RESISTOR R-16 VALUE. RESISTOR MARKING INDICATED 21.5K OHMS PLUS OR MINUS 1 PERCENT ACTUAL VALUE WAS 23.314K OHMS. [redacted] CORRECTIVE ACTION-RAR CT-99-24-3745 REQUESTING THE RESISTOR VENDOR TO IMPROVE HIS QUALITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	S*-99-24-3472-F PRESSURE TRANSDUCER	FAR 7-01720-1	1970 630218	FACTORY	YES NO	BOURNS 7511-0-0-752	
[redacted] FAILURE MODE-CONTAMINATION. OUTPUT WAS LOW. WIPER ARM WAS OPEN CIRCUITED FROM RESISTANCE ELEMENT CAUSING ZERO OUTPUT. CONTAMINATION OBSERVED DURING ANALYSIS IS PROBABLE CAUSE OF FAILURE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-VENDOR INITIATED A PROCEDURE FOR THE ELIMINATION AND CONTROL OF PARTICLE CONTAMINATION EFFECTIVE 20 MAR 63.							002780
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3482-F OSCILLATOR/RESISTOR	FAR 7-01488-827	630218	FACTORY	YES NO	BENDIX PACIFIC 1050702-13-K	002479
FAILURE MODE-OUT OF TOLERANCE. FAILURE ANALYSIS DETERMINED THE CAUSE OF FAILURE, OSCILLATOR COULD NOT BE ADJUSTED TO WITHIN SPECIFICATIONS, TO THE IMPROPER VALVE OF BIASING RESISTOR R-8. THE RESISTOR WAS AS SPECIFIED, HOWEVER, THE WRONG OHMIC VALVE HAD BEEN SELECTED BY THE VENDOR. CORRECTIVE ACTION-RELIABILITY ACTION REPORT A-99-24-3482 WAS WRITTEN REQUESTING ALL SUBCARRIER OSCILLATIONS MANUFACTURED DURING AND BEFORE 1961 BE PURGED FROM STOCK. TEST PROCEDURE TD7-01488 BECAME EFFECTIVE IN OCTOBER 9,1963 TO BURN-IN SUBCARRIER OSCILLATORS TO REDUCE DRIFT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-MG-99-24-3278 ACCELEROMETER TRANSDUCER	FAR 7-01413-5	1440 630212	FACTORY	YES NO	BORG WARNER 9747B	000700
FAILURE MODE-OUT OF TOLERANCE. THE ACCELEROMETER FAILED DURING FACTORY C/O WHEN THE OUTPUT WAS TOO HIGH. FAILURE ANALYSIS WAS CANCELLED BECAUSE THE PART WAS NOT RECEIVED. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3324-F SIGNAL CONDITIONER-AMPLIFIER	FAR 27-12479-3	1970 630211	FACTORY	YES NO	KINETICS K798	007889
FAILURE MODE-FAIL DURING OPERATION. THE OUTPUT WOULD NOT ZERO PROPERLY. FAILURE ANALYSIS REVEALED THE SIGNAL CONDITIONER(WHICH THE AMPLIFIER IS INSTALLED INTO) WAS NOT BEING PROPERLY GROUNDED TO THE TEST SET. CORRECTIVE ACTION-TCA NO.6 DATED MARCH 1, 1963 TO EOP NO.330.239.4 PROVIDES FOR AN IMPROVED METHOD OF GROUNDING THE SIGNAL CONDITIONER TO THE TEST SET.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	N2-9D-24-3482-F TLM CANISTER	FAR 27-12762-601	162D 630211	WTR	YES NO	BENDIX-PACIFIC AND 6D/A	696826

FAILURE MODE-ERRATIC OPERATION. FAILURE DUE TO CORROSION RESULTING FROM WATER ENTERING THE CANISTER.

CORRECTIVE ACTION-RAR N2-9D-24-3835 REQUESTED THAT THE TELEMETRY PACKAGE BE MOISTURE SEALED. RAR-N2-9D-24-3917 RECOMMENDED CHANGES TO BE INCORPORATED IN THE TRANSMITTER TUNING PROCEDURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-112-P DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01287-3	630211	ETR	YES NO	BOURNS	693121

FAILURE MODE-ELECTRICAL OPEN CIRCUIT THROUGH STRUCTURAL IMPERFECTIONS. THE PRESSURE TAP WHICH ACTUATES THE VARIABLE RESISTANCE WAS NOT MAKING CONTACT WITH THE RESISTANCE.

CORRECTIVE ACTION-STAKING COMPOUND IS USED TO JOIN THE PRESSURE TAP TO THE RESISTANCE ELEMENT WHERE AS SOLDERING IS RECOMMENDED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-111-P DIFFERENTIAL PRESSURE TRANSDUCER	FAR 27-01287-3	630211	ETR	YES NO	BOURNS	693120

FAILURE MODE-ELECTRICAL OPEN CIRCUIT THROUGH STRUCTURAL IMPERFECTIONS. THE PRESSURE TAP WHICH ACTUATES THE VARIABLE RESISTANCE WAS NOT MAKING CONTACT WITH THE RESISTANCE.

CORRECTIVE ACTION-STAKING COMPOUND IS USED TO JOIN THE PRESSURE TAP TO THE RESISTANCE ELEMENT WHEREAS SOLDERING IS RECOMMENDED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-117-F PRESSURE TRANSDUCER	FAR 7-01783-13	116D 630211	ETR	YES NO	CEC	692373

FAILURE MODE-OUT OF TOLERANCE. THE UNIT INDICATED 12 PSIG WHEN 15 PSIG WAS APPLIED. FAILURE ANALYSIS FOUND SEVERAL COLD SOLDER JOINTS IN THE UNIT WHICH CAUSED THE DISCREPANCY.

CORRECTIVE ACTION-RECOMMENATION THAT ACTION TO ELIMINATE POOR SOLDER WORKMANSHIP BE ACCOMPLISHED BY VENDOR QUALITY CONTROL.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-110-P PRESSURE TRANSDUCER	FAR 7-01723-13	1160 630210	ETR	YES NO	BOURNS 42013-0-100-75 2-	692574
FAILURE MODE-ERRATIC OPERATION. TRANSDUCER WAS REPORTED TO BE FLUCTUATING OUT OF TOLERANCE.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-113-P PRESSURE TRANSDUCER	FAR 27-01297-3	1160 630208	ETR	YES NO	BOURNS	692572
FAILURE MODE-CONTAMINATION. ERRATIC OPERATION PROBABLY CAUSED BY CONTAMINANTS LODGING ON THE ELEMENT.							
CORRECTIVE ACTION-CONTAMINATION WAS SUSPECTED AS ENTERING THE UNIT DURING CLEANING OR FROM UNCLEAN PRESSURE LINES T O THE UNIT. A REQUEST WAS MADE ASKING THAT GREATER CARE BE TAKEN TO PREVENT FOREIGN MATERIAL FROM ENTERING THE ELEME NT AREA.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-092-P ACCELEROMETER AMPLIFIER-TRANSISTOR	FAR 27-01277-53	630208	FACTORY	YES NO	GULTON	692561
FAILURE MODE-OUT OF TOLERANCE. THE AMPLIFIER GAIN DECREASED 42 PERCENT AFTER TWO MINUTES OF WARMUP. THE MAXIMUM ALL OWED GAIN DECREASE IS 5 PCT. FAILURE IS ATTRIBUTED TO THE EXCESSIVE COLLECTOR-EMITTER LEAKAGE OF A 2N1273 TRANSITRON TRANSISTOR.							
CORRECTIVE ACTION-WAR CT-99-24-3705 REQUESTING VENDOR ACTION TO IMPROVE HIS RECEIVING INSPECTION TO REJECT MARGINAL TRANSISTORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3328F AMPLIFIER	FAR 27-01609-1	67F 630207	FACTORY	NO NO	BENDIX 1063320	
FAILURE MODE-OUT OF TOLERANCE. UNITS OUTPUT WAS .5 VOLTS WHEN A MINIMUM OF 2.56 VOLTS WAS REQUIRED. FAILURE ANALYSI S REVEALED THE OUTPUT TRANSISTOR AND ITS EMITTER RESISTOR WERE DAMAGED BY EXCESSIVE HEAT CAUSED BY IMPROPER CONNECTI ONS TO THE OUTPUT OF THE UNIT.							
CORRECTIVE ACTION-SUPERVISION OF COGNIZANT DEPARTMENTS CAUTIONED THEIR PERSONNEL TO EXERCISE CAUTION IN TESTING. NA							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
HOLING, AND CHECKING THESE UNITS.							007690
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3269-F OSCILLATOR	FAR 7-01488-881	630207	FACTORY	YES NO	BENDIX 1041962-42	009368
FAILURE MODE-DRIFT. THE OSCILLATOR OUTPUT FREQUENCY DRIFTED OUT OF SPECIFICATION WHEN THE INTERNAL COMPONENTS CHANG ED SUFFICIENTLY SINCE CHECKOUT.							
CORRECTIVE ACTION-RECOMMENDATION TO REVIEW IN-HOUSE PROCEDURES FOR COMPONENT ACCOUNTABILITY SO THE OSCILLATORS COUL D BE PERIODICALLY RECYCLED TO THE VENDORS PLANT FOR RECALIBRATION. THE DESIGN DEPARTMENT HAS REPLACED THIS TELEPAK C ONTAINING THIS OSCILLATOR WITH A NEW LIGHTWEIGHT TELEPAK.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-88-24-144-F PRESSURE TRANSDUCER	FAR Y-01732-5	1160 630207	ETR	YES NO	BOURNS	002576
FAILURE MODE-ERRATIC OPERATION. WITH VOLTAGE SPIKES MEASURING 6 PERCENT OF FULL SCALE AT 800 TO 900 PSIA. THE PROBA BLE CAUSE WAS THE COMBINED VARRIABLE WIPER ARM TENSION; (4 TO 8 GRAMS) AND SILACONE OIL FILMING AIDING THE INTERMITT ANT WIPER CONTACT.							
CORRECTIVE ACTION-NONE, SINCE THE TRUE FAILURE CAUSE IS UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-88-24-3458-F AMPLIFIER, WIRING	FAR 27-01192-1	630206	CONVAIR	YES NO	GULTON FT-8150	001933
FAILURE MODE-ELECTRICAL SHORT. AMPLIFIER FAILED WHEN A 60 CYCLE OUTPUT WAS OBSERVED WITH NO INPUT. FAILURE WAS CONF IRMED AND ATTRIBUTED TO IMPROPER SOLDERING BY THE VENDOR; CAUSING THE OUTPUT OF TRANSISTOR Q-7 TO BE SHORTED TO PLUS 18 VOLTS DC, RESULTING IN IMPROPER AMPLIFIER OUTPUT.							
CORRECTIVE ACTION-REQUESTED VENDOR TAKE ACTION TO IMPROVE INSPECTION PROCEDURES DURING AMPLIFIER ASSEMBLY TO PREVEN T THIS TYPE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3328-F CONVERTER, TRANSISTOR	FAR 55-13534-5	1520 630204	SO-FACTO RY	YES NO	GD/C	
FAILURE MODE-ELECTRICAL SHORT. THE INPUT VOLTAGE OF THE LIGHTWEIGHT MERCURY TELEMETRY PACKAGE DROPPED 178 MILLIVOLT S WHEN THE CONVERTER ASSEMBLY WAS INSTALLED. THE EOP STATES THE VOLTAGE SHOULD NOT DROP MORE THAN 18 MILLIVOLTS. FAI							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
LURE ANALYSIS REVEALED A SHORTED Q-1 TRANSISTOR. CORRECTIVE ACTION-THE TRANSISTOR FAILURE WAS PROBABLY CAUSED BY EXCESSIVE INPUT VOLTAGE BEING APPLIED DURING TESTIN G OF THE UNIT. REVISION A TO EOP 330.410 DATED MARCH 7, 1965 INCORPORATES CHANGES IN TESTING PROCEDURES TO PRECLUDE RECURRENCE OF THIS PROBLEM.							897691
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-2198-F AMPLIFIER	FAR 80-07900-098	116D 630201	FACTORY	YES NO	SCIONICS MCB 101	898304
FAILURE MODE-ERRATIC OPERATION. THE UNIT FAILED DURING SYSTEM CHECKOUT. FUNCTIONAL TESTING SHOWED THAT AN AMPLIFIER WAS UNSTABLE AND ERRATIC AT THE 8.9 AND 10 MV INPUT SETTINGS. THE EXACT DEFECTIVE COMPONENT WAS NOT FOUND AS THE AM PLIFIER WAS RETURNED TO THE VENDOR. CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN AS CAUSE OF FAILURE WAS NOT FOUND. FOLLOW UP ACTION WAS TAKEN ON ANOTH ER AMPLIFIER WITH THE SAME MODE OF FAILURE. SEE FAR SP-A9-24-3383P.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3321-F FILTER-CAPACITOR	FAR 27-12682-3	1930 630201	80-FAC	YES NO		897897
FAILURE MODE-ELECTRICAL OPEN. THE OUTPUT WAS ZERO REGARDLESS OF THE POSITION OF POTENTIOMETER 1R108 OR THE APPLIED FREQUENCY. CAPACITOR C-1 WAS FOUND TO BE OPEN CAUSED BY A COLD SOLDER JOINT. CORRECTIVE ACTION-POTENTIOMETERS 1R108 AND 2R108 WERE CHANGED TO AGREE WITH DRAWING 27-12682 BY TVA NO.3 DATED APRI L 2, 1963. CAPACITOR MANUFACTURER REDUCED LEAD SIZE TO PRECLUDE UNDUE STRESSES AT THE FOIL JOINT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3505-F SIGNAL CONDIT.OMER	FAR 27-12590-619	139D 630201	SD	NO NO		897489
FAILURE MODE-OUT OF TOLERANCE. REPORTED MEASUREMENT E613V INDICATED 38 PERCENT IBW WHEN 46 PERCENT WAS EXPECTED. FA ILURE NOT CONFIRMED. CORRECTIVE ACTION-UNKNOWN.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-AS-24-3275-F PRESSURE TRANSDUCER TELEMETRY	FAR T-01780-5	1960 650201	FACTORY	YES NO	SENSONICS M-78	892782

FAILURE MODE-CONTAMINATION. UNIT OUTPUT SPIKED 10 TO 15 PCT WHILE PRESSURIZED AT 3000 PSI HYDRAULIC PRESSURE. FAILU RE NOT CONFIRMED HOWEVER ANALYSIS REVEALED RUBBER LIKE PARTICLES IN THE WINDING AND BASE OF THE RESISTIVE ELEMENT.

CORRECTIVE ACTION-FACTORY PEOPLE INFORMED TO TAKE PRECAUTION THAT TEST CONDITION RESPONSES ARE NOT THE REASON FOR R EJECTING TRANSDUCERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3283F SIGNAL CONDITIONER.	FAR 27-12374-603	1830 650200	FACTORY	YES NO	GD/C	897911

FAILURE MODE-OUT OF TOLERANCE. TWO ASSEMBLIES REPORTEDLY FAILED WHEN INTERMITTENT OR NO OUTPUT WAS OBSERVED DURING CHECKOUT OF THE SIGNAL CONDITIONER. THE ASSEMBLIES ARE HEAT SENSITIVE. DIODE CR-11 OPERATES OUT OF SPECIFICATION AFT ER THE ASSEMBLY HAS BEEN OPERATED FOR AN EXTENDED PERIOD.

CORRECTIVE ACTION-EOP WAS CHANGED TO LIMIT TESTING TO 3 MINUTES MAXIMUM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AP-99-24-3336-F OSCILLATOR	FAR 27-01358-9	1260 650131	FACTORY	YES NO	BENDIX-PACIFIC 1069093-A-6	897981

FAILURE MODE-OUT OF TOLERANCE. THE OSCILLATOR WOULD NOT ADJUST TO THE LOW FREQUENCY LIMIT DURING MANUFACTURING TEST ING. EXAMINATION OF THE UNIT REVEALED TWO CAPACITORS NEARLY TOUCHING. IT WAS FOUND THAT WITH A RESISTANCE OF 47 K OH M BETWEEN THE CAPACITORS THE FAILURE COULD BE DUPLICATED.

CORRECTIVE ACTION-THE CAPACITORS WERE CHANGED TO A GLASS FUSION-SEALED TYPE IN DECEMBER 1961. THE OSCILLATOR IN THI S REPORT WAS BUILT BEFORE THAT DATE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3292-F SIGNAL CONDITIONER	FAR 27-12365-663	1390 650131	ETR	NO NO	

FAILURE MODE-ERRATIC OPERATION. THE NEGATIVE GATE OF CHANNEL 13 WAS NOISY. A FUNCTIONAL TEST INDICATED THE SIGNAL C ONDITIONER WAS OPERATING PROPERLY AND THE NOISE WAS BEING GENERATED FROM AGE EQUIPMENT.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE THE NOISE WAS INTRODUCED BY AN EXTERNAL SOURCE.							897823
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	CT-SB-24-092-F TRANSDUCER	FAR 27-01243-9	1160 630130	36A	YES NO	BOURNS 42011-D-150-752	890594
FAILURE MODE-LEAK-EXTERNAL. TRANSDUCER WAS READING 0.7 VOLTS LOWER THAN SPEC REQUIREMENTS. ANALYSIS INDICATED THAT FAILURE RESULTED FROM A SMALL LEAK AT THE SOLDER SEAL OF THE EVACUATION TUBE WHICH ALLOWED PARTIAL LOSS OF REFERENCE PRESSURE. CORRECTIVE ACYION-VENDOR PROCEDURE FOR SEALING CHANGED FROM SOLDER SEALING TO RESISTANCE WELDING OF A RIVET INTO THE EVACTION TUBE. REF. RELIABILITY ACTION REPORT SP-A9-24-3856.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-SP-30-24-3254 PRESSURE TRANSDUCER	FAR 27-01243-7	630129	11	YES NO	COLVIN 401-A-10-75	890698
FAILURE MODE-INTERNAL LEAK. TRANSDUCER READ 5 PSIG LOW THROUGHOUT ITS RANGE BECAUSE OF A SMALL LEAK AT THE SOLDER SEAL OF THE BELLOWS EVACUATION TUBE. CORRECTIVE ACTION-FAILURE WAS CONFIRMED. VENDOR WAS REQUESTED TO 1) IMPROVE SOLDER SEAL PROCESS; 2) IMPROVE METHOD FOR CHECKING LEAKS AND 3) STORE TRANSDUCERS A MINIMUM OF ONE WEEK BEFORE CHECKING FOR LEAKS. THE VENDOR REPLIED COMPLIANCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	MF-A9-24-3263-F PRESSURE TRANSDUCER	FAR 27-01386-39	1980 630128	FACTORY	YES NO	SERVONIC H-172-9	891560
FAILURE MODE-ERRATIC OPERATION. EXCESSIVE SPIKING. THE TRANSDUCER FAILED DURING NORMAL MISSILE CHECKOUT VIBRATION, WHICH CAN EXCEED THE MAX DESIGN LEVEL. THIS SAME UNIT WOULD FAIL TO MEET MINIMUM G LEVELS DUE TO DESIGN DEFICIENCY INVOLVING LOW WIPER TENSION, EXCESS WIPER CONTACT MASS, AND UNDAMPED BOURDON TUBES. CORRECTIVE ACTION-VENDOR REDESIGNED THE TRANSDUCERS TO WITHSTAND THE HIGHEST G LEVELS SPECIFIED. 100 PERCENT SOURCE INSPECTION FOR VIBRATION SENSITIVITY BEING PERFORMED AT VENDOR PLANT.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3136-F COMMUTATOR-MOTOR	FAR 27-12373-605	135F 630127	FACTORY	YES NO	BENDIX-PACIFIC	897915

FAILURE MODE-CONTAMINATION. CHANNEL 10 COMMUTATOR WOULD NOT RUN. THE COMMUTATOR SEGMENTS OF THE MOTOR WERE COVERED WITH EXCESSIVE CARBON. THE MOTOR BRUSHES WERE EXAMINED AND FOUND TO HAVE EXCESSIVE BRUSH WEAR.

CORRECTIVE ACTION-COMMUTATOR MOTOR PROBLEM WAS DISCUSSED WITH BENDIX-PACIFIC. THE MOTOR WITH THE REPORT WAS GIVEN T O BENDIX. BENDIX-PACIFIC CONTACTED BENDIX-MONTROSE AND THEY WOULD BEGIN LIFE TESTS TO STUDY A SOLUTION TO MOTOR BRU H WEAR PROBLEMS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	99-20-212F TLM CANISTER-VALVE	FAR 55-40259-1	630125	FACTORY	YES NO	ZERO MFG. CO. ZSP6-822,P.2.5 V2.5	895585

FAILURE MODE-FAIL DURING OPERATION. CANISTE! PRESSURE CONTROL VALVE IS INOPERATIVE. MODIFIED FROM STANDARD PART 55-3090)-180

CORRECTIVE ACTION-THIS PART WILL NOT BE USED IN ANY NEW DESIGNS. (APRIL 8, 1963). THE GDC PROPELLANT LOADING SYSTEM GROUP WILL USE THIS PART FOR THE REMAINDER OF THE NIKE-ZEUS PROGRAM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-A9-24-3273-F PRESSURE TRANSDUCER	FAR 27-01386-39	1930 630124	FACTORY	YES NO	SERVONICS NONE	892796

FAILURE MODE-ERRATIC OPERATION. UNIT DISPLAYED 5 PCT OSCILLATIONS AND AN UNEXPECTED 7 PCT LEVEL SHIFT. FAILURE PART IALLY CONFIRMED. CAUSE -SPIKING OUTPUT RESULTED FROM LOW WIPER TENSION. EXCESS WIPER CONTACT MASS AND UNDAMPED BOURD ON TUBE. THE 7 PCT LEVEL SHIFT WAS NOT CONFIRMED.

CORRECTIVE ACTION-VENDOR REDESIGNED TRANSDUCERS DASH NO. 27 THRU 41. SPECIFICATIONS OF NEW DASH NO. TRANSDUCERS ARE SUCH THAT THIS PROBLEM SHOULD NOT RECUR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3284-F SIGNAL CONDITIONER-TRANSISTOR	FAR 27-12374-803	630125	FACTORY	YES NO	CONVAIR	

FAILURE MODE-ERRATIC OPERATION, DURING FACTORY CHECKOUT, THE EVENTS SIGNALASSEMBLY P/N 27-12380-815 OUTPUT WAS ERRA T.C DUE TO A COLD-SOLDER JOINT AT THE JUNCTION OF THE EMITTER POST AND THE CONNECTOR TO THE CRYSTAL WITHIN THE 81 TR ANSISTOR

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							893364

CORRECTIVE ACTION-NONE. TRANSISTOR IS A MULTI-SOURCE COMPONENT AND GDC WAS UNABLE TO DETERMINE THE MANUFACTURE OF T HE FAULTY TRANSISTOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	M6-A8-24-3172F TRANSDUCER, INSTRUMENTATION	FAR 7-01720-3	1300 630123	SAN DIEG O	YES NO	BOURNS	891316

FAILURE MODE-ERRATIC OPERATION. AT 3000 PSIA PRESSURE 30 TO 40 PERCENT SPIKING OCCURRED. FAILURE WAS NOT CONFIRMED. THE REPORTED FAILURE WAS EITHER EXTERNAL TO THE TRANSDUCER OR WAS INTERNAL UNDER A SPECIAL CONDITION SUCH AS SUBJEC TING THE TRANSDUCER TO PROLONGED VIBRATION AT A FIXED FREQUENCY AND AT A CRITICAL G-LEVEL.

CORRECTIVE ACTION-REQUESTED ADDITIONAL MISSILE SYSTEM STUDIES AND TESTS TO DETERMINE THE MAGNITUDE AND FREQUENCY OF VIBRATIONS OCCURRING DURING MISSILE CHECKOUT. THE RESULTS OF THESE TESTS WILL PERMIT MEANINGFUL DESIGN CORRECTIVE A CTION TO ELIMINATE THE SOURCE OF THIS RECURRENT FAILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-98-24-143-P PRESSURE TRANSDUCER	FAR 7-01723-11	1160 630122	ETR	YES NO	BOURNS 42013-0-50-752	892575

FAILURE MODE-OUT OF TOLERANCE. 8.3 PSIA WAS OBSERVED WHERE 6 PSIA WAS EXPECTED. LOW TENSION POTENTIOMETER WIPER ARM CAUSED ERRONEOUS OUTPUT.

CORRECTIVE ACTION-RECOMMENDED THAT THE VENDOR BE INFORMED OF THE DISCREPANCY AND DIRECTED TO REVIEW HIS ASSEMBLY AN D INSPECTION PROCEDURES. IT WAS SUGGESTED THAT THE VENDOR INCREASE THE WIPER ARM TENSION AT LEAST 5 GRAMS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-93-24-3317-F TLM CANISTER, DIODE	FAR 27-12374-303	2010 630122	FACTORY	YES NO	GD/C	891606

FAILURE MODE-FAIL DURING OPERATION. THREE FAILURES WERE CAUSED BY DEFECTIVE COMPONENTS AND BROKEN PARTS. UNITS COUL D NOT BEADJUSTED TO ZERO.

CORRECTIVE ACTION-INSPECTION PERSONNEL WERE ADVISED BY SUPERVISION OF THE IMPORTANCE OF CLOSE ADHERENCE TO EXISTING PROCEDURE.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-A-AB-24-3270 PRESSURE TRANSDUCER	FAR 87-01388-39	69E 630122	FACTORY	YES YES	SERVONIC	890899

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE TRANSDUCER REPORTEDLY FAILED WHEN NO OUTPUT WAS RECEIVED FROM PIN A. THE HARNESS WAS SATISFACTORY AND PRESSURE VARIATIONS (FULL RANGE) CAUSED NO OUTPUT. THIS TRANSDUCER MEASURES SUST. ENGINE HYD. PUMP INLET PRESSURE (MEASUREMENT H189P).

CORRECTIVE ACTION-FAILURE NOT CONFIRMED. RELIABILITY FAILURE ANALYSIS GROUP REQUESTED INVESTIGATION OF POSSIBLE EXT ERNAL CAUSE OF REPORTED FAILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3272-F SUBCARRIER OSCILLATOR	FAR 87-01269-9	630121	FACTORY	YES NO	BENDIX 105294-7-6A	893897

FAILURE MODE-FAIL DURING OPERATION. FREQUENCY SHIFTS 5 TO 10 PERCENT OF INFORMATION BAND WITH WERE OBSERVED AND EXC ESSIVE NOISE OCCURRED WITH 2.5 VOLT D.C. INPUT. POOR GROUND CONNECTION IN FILTER NETWORK CAUSED PROBLEM.

CORRECTIVE ACTION-VENDOR SUPPLIED IMPROVED INSTRUCTION DOCUMENTS AND TRAINING AIDS FOR IMPROVED WORKMANSHIP.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-99-24-109-F PRESSURE TRANSDUCER	FAR 7-01723-11	116D 630121	ETR	YES NO	BOURNS 42013-0-50-752	892938

FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER OUTPUT INDICATED 2.8 TOO HIGH, WITH 9 PSIG APPLIED. THE FAILURE MAY HAVE BEEN CAUSED BY AN INCORRECTLY ADJUSTED BELLOWS STOP, CAUSING THE WIPER ASSEMBLY COLLAR TO SLIP UPWARDS DURING VACUUM TESTING OF THE TRANSDUCER. THIS WOULD STRETCH THE BELLOW AS IN OVERPRESSURIZATION. THE VENDOR DID NOT PROVE THAT TH E TRANSDUCER WAS OVERPRESSURIZED BY GDC.

CORRECTIVE ACTION-RAR SP-98-24-3748 REQUESTED VENDOR DESIGN AND QUALITY CONTROL ACTION TO PREVENT COLLAR SLIPPAGE D UE TO LOOSE SET SCREW OR INCORRECT ADJUSTMENT OF THE BELLOWS STOP.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NZ-A9-24-3261-F PRESSURE TRANSDUCER	FAR 87-01388-39	193D 630121	FACTORY	YES NO	SERVONIC	

FAILURE MODE-ERRATIC OPERATION. 18 PERCENT SPIKING OBSERVED DURING COMPOSITE RUN. THIS TRANSDUCER HAD A KNOWN DESIG N DEFECIENCY INVOLVING LOW WIPER TENSION, EXCESSIVE WIPER TIP MASS, AND AN UNDAMPED BOURDON TUBE.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-IN STOCK TRANSDUCERS VIBRATION TESTED. VENDOR REDESIGNED THE TRANSDUCER.							691363
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A99-24-3487-F COMMUTATOR-MOTOR	FAR	630118	FACTORY	YES NO	BENDIX MONTROS E 1096483	692472
FAILURE MODE-OUT OF TOLERANCE. TWELVE (12) WERE REJECTED FOR OVERSPEED, UNDERSPEED AND FAILURE TO START. FAILURE ANALYSIS CONCLUDED THAT TOO MANY PROBLEMS EXISTED ON THIS PACKAGE TO DO OTHER THAN ORDER A NEW P/N PACKAGE. CORRECTIVE ACTION-ALL FUTURE PURCHASES WILL SPECIFY PACKAGES OTHER THAN THIS P/N 27-01237.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-99-24-3335-F OSCILLATOR	FAR 27-01352-945	630117	80-FAC	YES NO	BENDIX 1089083-E-AA	693369
FAILURE MODE-UNIT FAILED DURING OPERATION BY LOADING DOWN THE COMPOSITE LINE. FAILURE ANALYSIS DID NOT CONFIRM THE FAILURE. DIRT WAS PRESENT IN THE CONNECTOR AND COULD HAVE CAUSED THE FAILURE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-99-24-3301-F OSCILLATOR	FAR 27-12290-819	630117	FACTORY	YES NO	TEXAS INSTRUME NTS 425202-25	693371
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. THE OSCILLATOR OUTPUT FREQUENCY WENT OUT OF TOLERANCE DURING FACTORY TESTING BUT COULD NOT BE CONFIRMED BY FUNCTIONAL TESTING. CORRECTIVE ACTION-UNKNOWN. REPORTED FAILURE COULD NOT BE CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3192-F COMMUTATOR-WIRING	FAR 27-12388-863	139-D 630116	FAC	YES NO	FIFTH DIM	
FAILURE MODE-OUT OF SPECIFICATION. THE NOISE LEVEL WAS ABOVE SPECIFICATION LIMITS, DUE TO BREAKAGE OF STRANDED WIRE (SEPARATED AT SOLDER JOINT) FOR J-3 PIN ZP AND A CRACK IN THE COPPER TERMINAL AND SOLDER AT J-2, PIN 89 IN THE COMMUTATOR.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-REQUESTED VENDOR (FIFTH DIMENSION) TO REVIEW THEIR SOLDERING TRAINING PROGRAM AND IMPROVE THEIR I NSPECTION PROCEDURE . (SEE SD/C SP-99-24-3690).							897482
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3446-F PRESSURE TRANSDUCER	FAR 7-01849-7	182D 830116	PNR	YES NO	ROSEMOUNT 134A6	898781
FAILURE MODE-STRUCTURAL. ELECTRICAL CONNECTOR FOUND BROKEN FROM TRANSDUCER HEAD. IT WAS CONCLUDED THAT EITHER THE M ATING CONNECTOR WAS OVER TORQUED OR DAMAGED DURING CHECKOUT.							
CORRECTIVE ACTION-VENDOR IS CHANGING TO A WELDED CONNECTOR ON ALL FUTURE ORDERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-3260-F PRESSURE TRANSDUCER	FAR 7-01731-9	199D 830115	FACTORY	YES NO	BOURNS 71724-0-35-752	891915
FAILURE MODE-OUT OF TOLERANCE. STATIC ERROR BAND WAS -4.08 PERCENT WHEN PLUS OR MINUS 1.0 PERCENT IS ALLOWED. CAUSE OF FAILURE WAS 17 SHORTED TURNS OF ELEMENT WIRE CAUSED BY A DEEP GOUGE IN THE ELEMENT. THIS COULD ONLY OCCURRED DUR ING VENDOR ASSEMBLY OF THE PART.							
CORRECTIVE ACTION-VENDOR INITIATED A SERIES OF IMPROVED WORKMANSHIP STANDARDS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3162-F TLM CANISTER-WIRING	FAR 87-12571-699	135F 830114	FACTORY	YES NO		898038
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. A 28 VDC MONITOR POINT FOR CHECKOUT WAS INOPERATIVE. A JUMPER WIRE WITHIN THE TRANSMITTER WAS MISSING THE JUMPER WAS ADDED BY MODIFICATION BUT WAS NOT INSTALLED BY THE FACTORY.							
CORRECTIVE ACTION-A REQUIREMENT TO RING OUT ALL PACKAGES AFTER MODIFICATION WAS IMPOSED ON INSPECTION TO VERIFY THA T ADDED JUMPERS AND WIRES HAVE BEEN INCORPORATED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3320-F TRANSVERTER-TRANSISTOR	FAR 87-12594-5	200D 830114	FACTORY	YES NO		
FAILURE MODE-ELECTRICAL OPEN. UNITWAS REJECTED AS HAVING NO OUTPUT. FAILURE ANALYSIS REVEALED TRANSISTOR Q-4 HAD AN OPEN BASE LEAD. TRANSISTORS Q-1 AND Q-2 HAD GAINS ABOVE THEIR SPECIFIED LIMITS. N/A 87-12590-815 SIGNAL CONDITIONER							

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							887883
CORRECTIVE ACTION-INSPECTION PERSONNEL WERE NOTIFIED OF THE FAILURE. AN INVESTIGATION DID NOT REVEAL ANY REASON FOR POTTING TEMPERATURES TO CAUSE PHYSICAL DAMAGE TO COMPONENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3102-F BUS ASSEMBLY	FAR 27-12462-1	630114	FACTORY	YES NO	GD/A	895319
FAILURE MODE-OPEN-ELECTRICAL. THE BUS ASSEMBLY FAILED WHEN PIN Y WAS FOUND OPEN. A 100 OHM RESISTOR HAD NEVER BEEN INSTALLED.							
CORRECTIVE ACTION-INSPECTION AND SHOP WERE MADE COGNIZANT OF THIS DISCREPANCY AND WERE INSTRUCTED TO WITNESS CAREFULLY THE ELECTRICAL CHECKS BEFORE AND AFTER POTTING OF BUS ASSEMBLIES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3173F COMMUTATOR-MOTOR	FAR N/A 27-12315	630114	FACTORY	YES NO	BENDIX-MONTROS E 1098485-48	895209
FAILURE MODE-OUT OF TOLERANCE. DURING MANUFACTURING TESTING OF THE TELEMETRY PACKAGE, THE MOTOR SPEED WAS 5.27 RPS AND SPECIFICATIONS ALLOW 5.0 PLUS OR MINUS 0.25 RPS.							
CORRECTIVE ACTION-INCREASED THE SPEED TOLERANCE FROM PLUS OR MINUS 5 PERCENT TO PLUS OR MINUS 6 PERCENT TO MINIMIZE REJECTIONS OF THESE MOTORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-3264-F PRESSURE TRANSDUCER	FAR 7-01720-5	1260 630114	FACTORY	YES NO	SERVONIC M-75	891359
FAILURE MODE-STRUCTURAL. STATIC ERROR WAS -8.04 PERCENT. FAILURE CAUSED BY ENTRAPMENT OF PRESSURIZED AIR OR HYDRAULIC FLUID BETWEEN BOURDON TUBE AND CASE CAUSING COUNTERACTION OF PORT PRESSURE CAUSING TRANSDUCER TO READ LOW. ANALYSIS SHOWED 2 PINHOLE LEAKS IN THE BRAZED END OF BOURDON TUBE CAUSED BY POOR VENDOR BRAZE.							
CORRECTIVE ACTION-VENDOR INCORPORATED NEW PROCEDURES TO PREVENT RECURRENCE OF THE FAILURE EFFECTIVE 16 DEC 62.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-A9-24-3146F FILTER, ELECTRICAL-CAPACITOR	FAR 27-11111-838	630114	FACTORY	YES NO	GDC	
FAILURE MODE-OUT OF TOLERANCE. THE ABORT SENSING CONTROL UNIT WAS REJECTED WHEN THE RISETIME FOR THE LIQUID OXYGEN							

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SWITCH TELEMETRY MEASUREMENT WAS OBSERVED TO BE UNUSUALLY LONG. THE FAILURE WAS ATTRIBUTED TO AN INCORRECT CAPACITOR INSTALLED IN THE TELEMETRY FILTER. CORRECTIVE ACTION-MANUFACTURING AND INSPECTION PERSONNEL WERE ADVISED OF THE INSTALLATION ERROR. TIGHTER SURVEILLANCE IS BEING MAINTAINED IN THE ELECTRONICS MANUFACTURING AREA.							695325
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3348-F POWER SUPPLY-TUBE	FAR 27-01273-893	630111	FACTORY	YES NO	BENDIX-PACIFIC 1051440-4-B	695366
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE-THE SUBCARRIER OSCILLATOR TUBE PLATE VOLTAGE WAS REPORTEDLY READING HIGH. THE VOLTAGE REGULATOR TUBE V-101 WAS DISCOVERED NOT TO BE OPERATING PROPERLY. THE TUBE WAS FOUND TO BE CRACKED , CAUSE OF CRACK UNKNOWN. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3168-F COMMUTATOR	FAR 27-12578-843	134-F 630104		YES NO		695086
FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR SPEED IMPROPER. FAILURE WAS NOT CONFIRMED. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-99-24-3256-F CRYSTAL RECTIFIER-WIRING	FAR 27-12782-801	630104	FACTORY	YES NO	BENDIX	696114
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A SEGMENT 7 WAS READING ABOUT 15 PERCENT LOW DURING TELEMETRY SYSTEM CHECKOUT. THE CRYSTAL RECTIFIER WAS REPLACED AND OPERATION WAS FOUND TO BE SATISFACTORY. THE CRYSTAL RECTIFIER SOLDER JOINTS WERE EXAMINED AND FOUND TO BE POOR. OPERATION AFTER RESOLDERING WAS NORMAL. THE FAILURE WAS CAUSED BY POOR SOLDER JOINTS. CORRECTIVE ACTION-CONVAIR NOW REQUIRES THE TRAINING AND CERTIFICATION OF ALL ELECTRONIC TECHNICIANS, INSPECTORS, AND ASSEMBLY PERSONNEL IN A SOLDERING TECHNIQUE SCHOOL.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3134-F AMPLIFIER DIFFERENTIAL	FAR 87-01444-3	630103	FACTORY	YES NO	KINETICS M798	891878

FAILURE MODE-FAIL DURING OPERATION. THREE AMPLIFIERS OSCILLATED DUE TO SENSITIVITY TO THE SIGNAL CONDITIONER LOAD.

CORRECTIVE ACTION-ALL DIFFERENTIALAMPLIFIERS OF P/N 87-01444-3 MADE BY KINETICS WITH S/N BELOW 61 WERE PURGED FROM STOCK AND RETURNED TO VENDOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3144F CONNECTOR-WIRING	FAR 87-18373-895	134F 630103	FACTORY	YES NO	BENDIX 1056900-805	891327

FAILURE MODE-STRUCTURAL. FAILED WHEN CHANNEL C DID NOT RESPOND TO VOLTAGE INPUT STIMULUS. THE FAILURE WAS CAUSED BY A BROKEN WIRE AT THE SOLDER CONNECTION FOR PIN J OF PLUG 103U1J6.

CORRECTIVE ACTION-QUALITY CONTROL IS MAINTAINING SURVEILLANCE OF PROCEDURAL ADHERANCE. SUBASSEMBLY PROCEDURES WERE REVIEWED TO INSURE PROPER INSTALLATION OF ALL EQUIPMENT. RESPONSIBLE PERSONNEL WERE INSTRUCTED IN THE IMPORTANCE OF PROPER HANDLING OF EQUIPMENT AND PARTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3233-C COMMUTATOR-GEAR MOTOR	FAR 85-13556-3	630102	FACTORY	YES NO	REED AND REESE 1096483-63	895367

FAILURE MODE-ERRATIC OPPERATION DURING FACTORY CHECKOUT. FAILURE WAS NOT ANALYZED AS THIS GEARMOTOR WAS PURGED FRO M STOCK.

CORRECTIVE ACTION-NONE. THIS GEARMOTOR IS NO LONGER BEING MANUFACTURED AND HAS BEEN PURGED FROM STOCK.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3177-F AMPLIFIER-DIFFERENTIAL	FAR 87-01444-3	630102	FACTORY	YES NO	KINETICS M798	

FAILURE MODE-FAIL DURING OPERATION. DIFFERENTIAL AMPLIFIER HOULD NOT ZERO. AMPLIFIER FAILURE WAS DUE TO IMPROPER GR OUNDING OF THE AMPLIFIER TO TEST SET.

CORRECTIVE ACTI -NONE-CORRECTIVE ACTION HAD BEEN TAKEN BY INCLUSION OF TCA-1 TO EOP 330.771 PROVIDING A BETTER GRO

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
UNDING METHOD.							692313
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3248-F TRANSDUCER	FAR 7-01731-9	134F 630102	FACTORY	YES YES	BOURNS 71724-0-39-752	691607
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER FOR MEASUREMENT H33P INDICATED 80 PERCENT WHEN 86 PERCENT WAS EXPECTED. F AILURE WAS NOT CONFIRMED. REPORTED FAILURE MUST HAVE BEEN EXTERNAL TO THE TRANSDUCER. CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3191F COMMUTATOR BRUSH	FAR 27-01368-3	630102	FACTORY	YES NO	FIFTH DIM. R28C-131	691224
FAILURE MODE-OPEN /ELECTRICAL/. THE LONG-WIRE CENTER BRUSH WAS BURNED AND PARTIALLY MELTED. NINE SEGMENTS SHOWED OP EN. IT IS POSSIBLE THAT 28V DC CAN BE APPLIED TO THE INFORMATION /ODD NUMBERED/ SEGMENTS OF THE COMMUTATOR. EVEN NUM BERED SEGMENTS ARE CONNECTED TO NEGATIVE PEDESTAL VOLTAGE. COMMUTATOR BRUSHES MAKE BEFORE THEY BREAK. THEREFORE, IT IS POSSIBLE FOR INFORMATION SEGMENTS TO BE DIRECTLY CONNECTED TO NEGATIVE PEDESTAL VOLTAGE PRODUCING EXCESSIVE CURRE NT TO BURN BRUSHES AND SEGMENTS. CORRECTIVE ACTION-A DESIGN CHANGE WAS MADE BY INSERTING A 33 KILOHM RESISTOR BETWEEN THE EVEN NUMBERED SEGMENTS AND THE GROUND TO LIMIT THE CURRENT. CHANGE-V, DATED 1-3-63 ON VENDOR DWG PB-3493-101.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3150-F TAPE RECORDER	FAR 27-01637-1	134-F 621230	FACTORY	YES NO	APPLIED MAGNET IC	697979
FAILURE MODE-FAIL DURING OPERATION AFTER A 2-HOUR CONTINUOUS OPERATION THE TAPE RECORDER WAS STOPPED FOR 30 MINUTES . TELEMETRY PACKAGE AND FRICTION HEAT SOFTENED THE TAPE OXIDE COATING BONDING AGENT, PERMITTING THE TAPE TO ADHERE T O THE RECORDING AND TRANSMITTING HEADS. CORRECTIVE ACTION-THE TAPE RECORDER VENDOR IS INSTALLING A DIFFERENT INVERTER TO INCREASE THE DRIVING MOTOR OUTPUT POWER TO CREATE SUFFICIENT FORCE ON THE MAGNETIC TAPE TO FREE IT FROM AN ADHERED POSITION ON THE RECORDING AND TRANS MITTING HEADS.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-66-24-3212F OSCILLATOR	FAR 7-01664-853	250D 621220	FACTORY	NO NO	BENDIX-PACIFIC	898397

FAILURE MODE-DRIFT. OSCILLATOR DRIFT CAUSED INCONSISTENT DATA.

CORRECTIVE ACTION-NONE. THE REPORTED FAILURE WAS NOT CONFIRMED. MISINTERPRETATION OF THE SPECIFICATIONS CAUSED THE PART TO BE REJECTED. THE SPEC. CONTROL DRAWING WAS CHANGED TO CLARIFY THE DESIGN CRITERIA PERTAINING TO GRADUAL VERS US ABRUPT SHIFTS IN THE OSCILLATOR FREQUENCIES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-66-24-3141F OSCILLATOR	FAR 7-01488-827	621226	FACTORY	YES NO	BENDIX 1041981-13-K	898099

FAILURE MODE-OUT OF SPECIFICATION. OSCILLATOR COULD NOT BE ADJUSTED TO MEET SPECIFICATION. VACUUM TUBE CHANGED CHAR ACTERISTICS.

CORRECTIVE ACTION-CHANGE TO LIGHTWEIGHT TELEMETRY CANISTER WITH SOLID STATE OSCILLATOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3234-F TRANSDUCER	FAR 7-01731-9	134F 621226	FACTORY	YES NO	BOURNS 71724-0-35-752	891806

FAILURE MODE-CONTAMINATION. TRANSDUCER FOR MEASUREMENT H33P INDICATED 12 PERCENT TELEMETRY INFORMATION BANDWIDTH DI STORTION WHEN ZERO WAS EXPECTED. FAILURE WAS NOT CONFIRMED; HOWEVER, A LONG FIBER FOUND IN THE SILICONE OIL COULD HA VE CAUSED THE REPORTED FAILURE BY LODGING BETWEEN THE WIPER AND THE RESISTANCE COIL.

CORRECTIVE ACTION-REQUESTED THE VENDOR REEXAMINE THE TRANSDUCER CLEANING PROCEDURES AND INVESTIGATE THE CLEANLINESS OF THE SILICONE OIL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-66-24-3135F HARNESS	FAR 87-11464-821	139D 621220	FACTORY	YES NO		

FAILURE MODE-OPEN CIRCUIT. WIRE T1203A22 WAS FOUND OPEN BETWEEN PIN P OF PLUG 2P2 AND PIN T OF PLUG 3P8. SINCE WIRE WAS BROKEN INSIDE POTTING, IT WAS DAMAGED DURING ASSEMBLY.

CORRECTIVE ACT[illegible]-APPROPRIATE PERSONNEL WERE INFORMED OF THE DISCREPANCY, AND THE IMPORTANCE OF FOLLOWING THE INSPE

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CTION PROCEDURES TO PREVENT THIS TYPE OF FAILURE.							697978
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3101-F AMPLIFIER-CAPACITOR	FAR 27-01444-3	621219	FACTORY	YES NO	KINETICS M-798	693314
FAILURE MODE-OPEN-ELECTRICAL. DIFFERENTIAL AMPLIFIER FAILED WHEN IT HAD NO OUTPUT FROM EITHER CHANNEL AFTER VIBRATI ON. AMPLIFIER FAILURE WAS DUE TO A SHORT CIRCUIT OF CAPACITOR C-8 DURING VIBRATION. CORRECTIVE ACTION-A VIBRATION REQUIREMENT, IN ACCORDANCE WITH MANUFACTURING SPECIFICATION TO BE ADDED TO THE RECEIV ING INSPECTION PROCEDURE FOR THIS AMPLIFIER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3112-F CONNECTOR, ELECT-PIN	FAR 27-12573-895	134F 621218	FACTORY	YES NO	BENDIX	693792
FAILURE MODE-FAIL DURING OPERATION. THE TELEPAK FAILED WHEN THERE WAS A LOSS OF COMMUTATION ON SUBCARRIER CHANNEL 1 0. THE FAILURE WAS CAUSED BY THE MISALIGNMENT OF THE MALE CONNECTOR ON THE DIFFERENTIAL AMPLIFIER. TARNISHING OF THE CONNECTOR PINS WAS A POSSIBLE CONTRIBUTING CAUSE OF FAILURE. CORRECTIVE ACTION-THE AMPLIFIER HAS BEEN COMPLETELY REPACKAGED. THE NEW UNITS CONTAIN A TWO-PIECE ALUMINUM CASTING PROVIDING VERY RIGID MOUNTING SURFACES FOR THE CONNECTOR. SPECIFICATION CONTROL DRAWING 27-01241 WAS REVISED TO REQU IRE USE OF THE DA-15P, A115, CONNECTOR. THIS CONNECTOR HAS GOLD PLATING 100 MICROINCHES THICK. ALSO, THESE OLD TELEP AKS ARE BEING PHASED OUT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3111-F COMMUTATOR-MOTOR	FAR 27-12573-895	134F 621217	FACTORY	YES NO	BENDIX	693793
FAILURE MODE-OUT OF TOLERANCE. THE COMMUTATOR MOTOR SPEED WAS RECORDED AT 2.372 RPS WHEREAS THE SPEED SHOULD BE 2.5 RPS PLUS OR MINUS 0.5 PERCENT. THE FAILURE IS ATTRIBUTED TO EXTREME BRUSH WEAR. CORRECTI /E ACTION-THESE REED AND REESE MOTORS HAVE BEEN REPLACED BY A NEWER MODEL BY ANOTHER VENDOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A3L62-0047/L2-401-00-131 TRANSMITTER-POWER SUPPLY	FLIGHT	1310 621217	1-2 -37	YES NO	AM/DKT-17	
FAILURE MODE-SHOR (ELECTRICAL). IT WAS CONCLUDED THAT THE MOST PROBABLE CAUSE OF THE LOSS OF TELEMETRY WAS A SHORT ING TYPE FAILURE WITHIN THE AM/DKT-17 TRANSMITTER POWER SUPPLY. THE ELECTRICAL SHORT IN THE TRANSMITTER RESULTED IN							

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
OPENING OF A 15-AMP SLOW BLOW POWER INPUT FUSE WHICH CAUSED THE LOSS OF R-F ENERGY TRANSMISSION. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. VEHICLE EFFECT-NONE. HOWEVER, LACK OF TELEMETRY DATA PREVENTED EVALUATION OF THE FLIGHT FAILURE. CORRECTIVE ACTION-THE AN/DKT-17 TRANSMITTER WAS MODIFIED TO INCLUDE AN IMPROVED TRANSMITTER POWER SUPPLY.							000175
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-99-24-3146F SIGNAL CONDITIONER	FAR 27-12782-801	188D 621217	FACTORY	YES NO	BENDIX	001323
FAILURE MODE-OPEN (ELECT). FAILED WHEN CALIBRATION PULSES WERE LOST ON CHANNELS 11, 13, AND C. FAILURE WAS CONFIRMED AND WAS CAUSED BY A LOOSE FLAKE OF PAINT PREVENTING PIN 18 OF THE SIGNAL CONDITIONER MODULE FROM MAKING PROPER CONTACT. CORRECTIVE ACTION-PERSONNEL WERE CAUTIONED TO INSURE CLEANLINESS OF PACKAGES. TO FURTHER INSURE CLEANLINESS, ALL UNITS IN PRODUCTION AREAS ARE NOW BEING COVERED WHEN NOT IN WORK.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-9D-24-3165F CONNECTOR-WIRING	FAR	131-D 621214	WTR	YES NO	BENDIX PC06E-8-4S	000021
FAILURE MODE-SHORT (ELECT) BETWEEN PINS A AND B ON THE CONNECTOR SHORTED 5VDC EXCITATION TO GROUND. SHORT RESULTED FROM POOR SOLDERING TECHNIQUES. CORRECTIVE ACTION-FINDINGS OF THE FAILURE ANALYSIS WERE REVIEWED WITH INSPECTION AND ELECTRICAL HARNESS PERSONNEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3222-F TLM CANISTER	FAR 27-12572-843	134F 621215	FACTORY	YES NO	BENDIX PACIFIC 27-12572-843	000308
FAILURE MODE-FAIL DURING OPERATION. CHANNEL E HAD NO NEGATIVE GATE. FAILURE ANALYSIS DETERMINED THAT THE CANISTER WAS FUNCTIONING PROPERLY. CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							

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CONVAIR DIVISION

15 JUN 1966

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-9D-24-3164F SIGNAL CONDITIONER	FAR 27-18580-817	1510 621213	WTR	NO YES		697934

FAILURE MODE-SHORT(ELECT). EXITATION VOLTAGE IN THE SIGNAL CONDITIONER REPORTED AS ZERO WHEN 8VDC WAS EXPECTED.

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-3304F OSCILLATOR	FAR 7-01664-835	1260 621212	80	YES NO	BENDIX-PACIFIC 1040659-11M	696477

FAILURE MODE-OUT OF SPECIFICATION. THE 7.35-KC. OSCILLATOR WAS REPORTED NONLINEAR. FAILURE CONFIRMED.

CORRECTIVE ACTION-REQUESTED A SURVEY TO BE CONDUCTED ON ALL SUBCARRIER OSCILLATORS OF THE VACUUM-TUBE-TYPE MANUFACTURED BEFORE 1961. REQUEST OSCILLATORS FALLING IN THIS CATEGORY BE PURGED FROM STOCK.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-9D-24-3176-F CONNECTOR-WIRING	FAR N/A 27-11408-811	621211	WTR	YES NO	BENDIX PT07E-8-4S	693210

FAILURE MODE-OPEN (ELECT). THE REPORTED FAILURE WAS AN INTERMITTENT CONNECTION AT PIN B. THE WIRE WAS FOUND TO BE BROKEN.

CORRECTIVE ACTION-INSPECTION AND MANUFACTURING PERSONNEL WERE MADE COGNIZANT OF THE DISCREPANCY AND WERE INSTRUCTED TO INSURE REJECTION OF ELECTRICAL CABLES THAT HAVE BROKEN WIRES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-A9-24-3153 PRESSURE TRANSDUCER SEAL	FAR 27-01243-9	1960 621211	FACTORY	YES NO	BOURNS 45011-0-150-782	690726

FAILURE MODE-LEAK-EXTERNAL. THE OUT PUT WAS 5 PERCENT IBW, 10 PERCENT WAS EXPECTED. THE CAUSE OF FAILURE WAS LOSS OF REFERENCE PRESSURE AT THE EVACUATION TUBE DUE TO AN INADEQUATE SEAL.

CORRECTIVE ACTION-THE PROCEDURE FOR SEALING MODEL 420 TRANSDUCERS WAS CHANGED FROM SOLDER SEALING TO RESISTANCE WELDING OF A RIVET INTO THE EVACUATION ORIFICE.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-88-24-3240-F OSCILLATOR	FAR 7-01644-451	621210	FACTORY	YES NO	BENDIX PACIFIC 1040699-4T	899399
FAILURE MODE-OUT OF SPECIFICATION. OSCILLATOR HAD LOW OUTPUT. PROBLEM CAUSED BY TUBE AGING.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-88-24-3233-C OSCILLATOR	FAR 7-01488-883	621210	FACTORY	YES NO	BENDIX 1041965-2X	893297
FAILURE MODE-ERRATIC OPERATION DURING FACTORY CHECKOUT. THE OSCILLATOR DISPLAYED AN INTERMITTENT OUTPUT. CAUSE OF F AILURE WAS NOT DETERMINED AS OSCILLATOR WAS NOT RECIEVED FOR FAILURE ANALYSIS.							
CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-88-24-3159-F PRESSURE TRANSDUCER	FAR 87-01243-9	134F 621210	FACTORY	NO NO	BOURNS 42011-0-150-75 2	890789
FAILURE MODE-OUT OF SPECIFICATION. TRANSDUCER WAS 100 PERCENT ABOVE SPECIFICATION AT 75 PSIG. FAILURE WAS BELIEVED CAUSED BY OVERPPRESSURIZATION.							
CORRECTIVE ACTION-FACTORY PERSONNEL WERE ALERTED TO THE OVERPRESSURIZATION AND HAVE BEEN INSTRUCTED TO EXERCISE GRE ATER CARE IN PERFORMING THE PRESSURE TESTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A8-24-3152F PRESSURE TRANSDUCER	FAR 87-93900-033	1180 621210	FACTORY	YES NO	SERVONIC L-64	890787
FAILURE MODE-ERRATIC OPERATION. WITH BOTH PRESSURE LINES DISCONNECTED, 7 PERCENT IBW WAS OBTAINED. WITH THE HIGH PR ESSURE LINE CONNECTED, 7 PERCENT WAS OBTAINED WHEN 30 PERCENT IS REQUIRED. TAPPING THE LINE CAUSED 35 PERCENT IBW.							
CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-813-F COMMUTATOR MOTOR BEARING	FAR	5E 621209	AMR	YES NO	REED AND REESE 1096485-35	691975
FAILURE MODE-FAIL DURING OPERATION. UNIT WAS PRODUCING A LOUD HIGH PITCHED NOISE. FAILURE CONFIRMED. CAUSE-2 BAD BEARINGS IN THE MOTOR. CORRECTIVE ACTION-RAR 98-24-637 RECOMMENDED THAT THIS TYPE MOTOR BE REPLACED WITH A MORE RELIABLE UNIT. UNIT IS BEING REPLACED WITH A BENDIX MONTROSE TYPE EFFECTIVE AS OF 1 DECEMBER 1961.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX62-0070/FC-4CO-04-0502-002 TRANSDUCER-TLM	COMPOSITE-FACTORY	116D 621208		YES NO		699769
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE BULKHEAD DIFFERENTIAL PRESSURE READING TOO HIGH. CAUSED BY FAULTY TRANSDUCER. SYSTEM EFFECT-NONE. VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST COMPOSITE TESTING REQUIRED TO VERIFY SATISFACTORY OPERATION AFTER REPLACEMENT. CORRECTIVE ACTION-THE TRANSDUCER WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	XF-90-24-3187-F OSCILLATOR-DIODE	FAR 27-12762-901	161D 621207	WTR	YES NO	60/C 203-0107	698303
FAILURE MODE-OUT OF TOLERANCE. VOLTAGE ACROSS DIODE IN936 HAD DECREASED FROM A NOMINAL VALUE TO APPROX. 2.9 VOLTS. THIS LOWER VOLTAGE TO THE MULTIVIBRATOR CIRCUIT CAUSED THE FREQUENCY TO INCREASE. THE OPERATING CURRENT THROUGH THE DIODE WAS 9.2 MILLIAMPERES. (SERIES REGULATOR CIRCUIT). CORRECTIVE ACTION-VENDOR REQUESTED TO TIGHTEN B.C.(SEE VENDOR CORRECTIVE ACTION REQUEST 3673-63, DATED 3-8-63).							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3232-F TLM CANISTER/TTT	FAR 27-12413-819	10-F 621207	FACTORY	YES NO		
FAILURE MODE-FAILED DURING OPERATION. OUTPUT AMPLITUDE WAS TOO LOW FOR PROPER RECORDING OF DATA. PACKAGE WAS RETESTED ON THE COMPONENT LEVEL AND REPORTED DISCREPANCY COULD NOT BE CONFIRMED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NO CORRECTIVE ACTION WAS TAKEN AS THE REPORTED FAILURE WAS NOT CONFIRMED.							697757
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3122F OSCILLATOR	FAR 27-11541-903	250D 621207	FACTORY	YES NO	BENDIX 1045830	693705
FAILURE MODE-ERRATIC OPERATION. THE TELEPAK FAILED WHEN EXCESSIVE NOISE LEVEL OCCURRED ON SUBCARRIER CHANNEL 15. TH E NOISE WAS CAUSED BY AN IMPROPERLY ADJUSTED OUTPUT OF THE SUBCARRIER OSCILLATOR. INADEQUATE TEST METHODS IN PRODUCT ION CHECKOUT RESULTED IN MALADJUSTMENT. CORRECTIVE ACTION-TELEMETERING CHECKOUT PERSONNEL WERE INSTRUCTED IN THE ADJUSTMENT OF THE CHANNEL-15 OSCILLATOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3119F COMMUTATOR-MOTOR	FAR 27-11541-903	250D 621207	FACTORY	YES NO	BENDIX PACIFIC	693706
FAILURE MODE-OUT OF TOLERANCE. THE TELEMETRY PACKAGE HAD A CHANNEL E COMMUTATOR SPEED OF 28.4 RPS. THE ALLOWABLE TO LERANCE IS 30 RPS PLUS OR MINUS 5 PERCENT. THE FAILURE WAS DUE TO THE REED AND REESE COMMUTATOR MOTOR. CORRECTIVE ACTION-THE REED AND REESE COMMUTATOR MOTOR IS BEING REPLACED WITH ONE MANUFACTURED BY ANOTHER VENDOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3185F AMPLIFIER DIFFERENTIAL DIODE	FAR 27-01444-3	621208	FACTORY	YES NO	KINETICS K798	693271
FAILURE MODE-FAIL DURING OPERATION. AMPLIFIER FAILURE WAS DUE TO A ELECTRICALLY LEAKY ZENER DIODE. CORRECTIVE ACTION-NONE-ONLY THE MODE OF DIODE FAILURE IS KNOWN AND NOT THE CAUSE. NO EVIDENCE WAS FOUND TO EXPLAIN WHY DIODE CHARACTERISTICS HAD CHANGED BETWEEN THE TIME THE AMPLIFIER PASSED RECEIVING INSPECTION AND THE TIME OF FAI LURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MS-99-24-3116P CANISTER	FAR 27-12290-813	621208	FACTORY	YES NO		
FAILURE MODE-CONTAMINATION. THE TELEMETRY CANISTER WAS REJECTED BECAUSE THERE WAS FUNGUS THROUGHOUT THE CANISTER. T HE FUNGUS, WHICH WAS IDENTIFIED AS CORROSION, WAS CAUSED BY MOISTURE GETTING INSIDE THE CANISTER.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							693788

CORRECTIVE ACTION-IT WAS REQUESTED THAT A DESICANT BE PLACED INSIDE THE CANISTER ALSO. THE VENDOR WAS REQUESTED TO REVIEW TREATMENT PROCEDURES OF THE MAGNESIUM CASTING AND ELIMINATE THE NECESSITY OF HANDLING THE CASTING DURING TREA TMENT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX62-0071/FC-CO-03-0006-002 CALIBRATOR-RELAY	COMPOSITE-FACTORY 87-11616-823	2500 021203		YES NO		698129

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE 100PCT FBW INFLIGHT CALIBRATION PULSE ON CH. 8 WAS NOT PRESENT , DUE TO A FAULTY CALIBRATION RELAY IN THE ACCESSORY PACKAGE.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE RETESTING WAS REQUIRED.

CORRECTIVE ACTION-THE ACCESSORY CANISTER WAS REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX62-0071/FC-CO-03-0006-002 POWER SUPPLY	COMPOSITE-FACTORY 87-11541-905	2500 021203		YES NO		698130

FAILURE MODE-ERRATIC OPERATION. CHANNEL 15 INDICATED NOISE AND INTERMITTANT SPIKING ON SEGMENT 85(TRANSDUCER POWER SUPPLY VOLTAGE).

SYSTEM EFFECT-ERRATIC OPERATION.

VEHICLE EFFECT-COMPOSITE DELAYED.

CORRECTIVE ACTION-TELEMETER WAS REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA62-0106/P1-601-00-21 RF CANISTER NO.2 BATTERY SQUIB CIR CUIT	COUNTDOWN	21F 021203	11 -7860	YES NO		693924

FAILURE MODE-ELECTRICAL OPEN. BATTERY FAILED TO ACTIVATE BECAUSE SQUIB CIRCUIT WAS OPEN.

SYSTEM EFFECT-OPERATION DOES NOT START. BATTERY NOT ACTIVATED.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-BATTERY REPLACED IN8467TE.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AASS-0108/P1-601-00-21 RF CANISTER NO.2	COUNTDOWN 27-12372-037	21F 681208	11 -3300	YES NO	BENDIX	693923

FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE-ATTENUATION OF RF2 CHANNEL 12 NEGATIVE PEDESTAL WHEN ADF PODS ARE FUNCTIONING.

SYSTEM EFFECT-ERRATIC OPERATION OF RF 2 CHANNEL 12.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-CANISTER REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3300-F LIMITER FILTER	FAR 27-12406-3	681203	FACTORY	YES NO		693370

FAILURE MODE-OUT OF TOLERANCE. AFTER POTTING. THE OUTPUT VOLTAGE PEAKED AT 9686 LPS AND TOLERANCE IS IN THE RANGE OF 9712 CPS TO 11200 CPS. LIMITER FILTER WAS FUNCTIONALLY TESTED AND THE VOLTAGE OUTPUT WAS PEAKED AT A FREQUENCY OF 9752 CPS BY ADJUSTING THE FREQUENCY-ADJUST POTENTIOMETER R-5.

CORRECTIVE ACTION-UNKNOWN. LIMITER FILTER OPERATED SATISFACTORYILY BY PERFORMING A NORMAL ADJUSTMENT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-04-4122-F FILTER, POTENTIOMETER	FAR 27-12406-3	681203	FACTORY	YES 6D/C NO		691512

FAILURE MODE-STRUCTURAL. THE LIMITER FILTER WAS REJECTED AFTER POTTING WHEN THE OUTPUT VOLTAGE COULD NOT BE ADJUSTED BY TRIMPOT R-5. THE MALFUNCTION OF R-5 WAS DUE TO THE WIPER ARM BEING STUCK TO THE RESISTANCE COIL.

CORRECTIVE ACTION-INSPECTION PERSONNEL WERE NOTIFIED OF THE DISCREPANCY WITH EMPHASIS ON IMPORTANCE OF THE UNITS BEING PROPERLY ASSEMBLED BEFORE THE POTTING PROCESS AS HEAT GENERATED DURING THE POTTING PROCESS MAY DAMAGE THE POTENTIOMETER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SD-90-24-3301-F SIGNAL CONDITIONER	FAR 27-12388-671	1190 681204	WTR	NO NO	BENDIX	

FAILURE MODE-OUT OF TOLERANCE. THE 100 PERCENT REFERENCE PULSE READ 1/2 VDC INSTEAD OF 5.0. VDC FAILURE UNCONFIRMED. PROCEDURE SHOULD HAVE BEEN 0.5 VDC.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							896418
CORRECTIVE ACTION-NONE. NO FAILURE OCCURRED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3136F OSCILLATOR	FAR 27-12762-801	1020 621203	FACTORY	YES NO	BENDIX-PACIFIC	891547
FAILURE MODE-OUT OF TOLERANCE. THE TELEMETRY CANISTER FAILED WHEN IT WAS REPORTED THAT THE CHANNEL 9 OSCILLATOR WAS NOISY AND OUT OF FREQUENCY. THE FREQUENCY WAS 933 CPS WHEN IT SHOULD HAVE BEEN 1300 CPS. A COMBINATION OF WORKMANSH IP PROBLEMS IN THE OSCILLATOR CONTRIBUTED TO THE FAILURE. LOOSE SOLDER WAS LEFT INSIDE THE CASE. LANDS WERE NOT COMP LETELY COVERED WITH SOLDER. INSULATION MATERIAL WAS NOT CLOSE ENOUGH TO THE SOLDER. THE WIRE WAS WICKED BY SOLDER.							
CORRECTIVE ACTION-VENDOR INSPECTION AND LINE PERSONNEL WERE MADE AWARE OF THE FAILURE AND ITS CAUSES. ALSO, A SEPAR ATE AREA HAS BEEN SET UP FOR POTTING AND REWORK OPERATIONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3143-F OSCILLATOR	FAR 85-87900-036	621203	FACTORY	YES NO	TEXAS INSTRUME NT 425202-10	891159
FAILURE MODE-FAIL DURING OPERATION. FAILED WHEN THE OUTPUT FREQUENCY REMAINED FIXED AT 1032 CPS REGARDLESS OF INPUT STIMULUS. FAILURE WAS CONFIRMED. THE CAUSE OF FAILURE COULD NOT BE FOUND DUE TO THE LACK OF VENDOR TECHNICAL INFORM ATION AND THE DESTRUCTION OF COMPONENTS IN THE ATTEMPT TO DEPOT.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3117F AMPLIFIER-WIRING	FAR 27-01275	621200	FACTORY	YES NO	BENDIX 1051269-1A	893787
FAILURE MODE-ERRATIC OPERATION. THE VIDEO AMPLIFIER FAILED DURING VIBRATION TESTING OF THE TELEMETRY PACKAGE WHEN A LL VIDEO AMPLIFIER CHANNELS WERE OPERATING INTERMITTENTLY. THE FAILURE WAS DUE TO THE POOR LOCATION OF THE YELLOW IN PUT WIRE CONNECTING R1 AND R12. THE WIRE ALSO LACKED THE USUAL TIEDOWN.							
CORRECTIVE ACTION-THE VENDOR ELIMINATED THE NOISE PROBLEM IN THE VIDEO AMPLIFIER BY REMOVING THE TIE BETWEEN THE CO AXIAL CABLE AND THE YELLOW LEAD WIRE, AND BY TYING THE YELLOW LEAD TO A RIGID MEMBER TO KEEP IT FROM VIBRATING.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-3169-F TRANSDUCER, INSTRUMENTATION	FAR 7-01720-5	621200	ETR	YES NO	BOURNS	891601
FAILURE MODE-CONTAMINATION. 3 TRANSDUCERS FAILED DUE TO AN OPEN OUTPUT CIRCUIT FAILURES WERE NOT CONFIRMED. HOWEVER , THE REPORTED FAILURES MAY HAVE BEEN OF AN INTERMITTENT NATURE DUE TO THE PRESENCE OF CONTAMINANTS FOUND IN THE TRA NSDUCERS. THESE SOLDER SPLASHES AND FIBERS COULD HAVE CAUSED THE POTENTIOMETER WIPER ARM TO LIFT OFF THE MANDREL AND INDIATE AN OPEN CONDITION. THESE CONTAMINANTS ARE A RESULT OF POOR VENDOR QUALITY CONTROL. CORRECTIVE ACTION-SINCE THE MANUFACTURE OF THIS TRANSDUCER, THE VENDOR HAS INITIATED QUALITY CONTROL PROCEDURES AND CLEANING TECHNIQUES WHICH SHOULD ELIMINATE THIS TYPE OF FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3170-F TRANSDUCER, INSTRUMENTATION	FAR 7-01720-5	621130	FACTORY	NO NO	BOURNS	891316
FAILURE MODE-ERRATIC OPERATION. TRANSDUCER INDICATED AN INTERMITTENT WIPER ARM OPEN DURING AN END-TO-END CHECK. CON TINUITY WAS LOST WHEN THE TRANSDUCER WAS TAPPED LIGHTLY. FAILURE WAS CAUSED BY IMPROPER TESTING OF THE TRANSDUCER. T APPING THE TRANSDUCER CAUSED OHMMETER LEADS TO JUMP, BREAK CONTACT WITH THE TRANSDUCER PIN, AND GIVE AN OPEN INDICAT ION. CORRECTIVE ACTION-REQUESTED PERSONNEL USE IMPROVED TESTING TECHNIQUES AND METHODS TO PREVENT THIS PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	P1-6CO-01-21 TLM CANISTER	COMPOSITE-B FACT	21F 621128	ETR-11	YES YES		893237
FAILURE MODE-ERRATIC OPERATION. SPIN MOTOR TEST OUTPUT, WAS ERRATIC THROUGHOUT THE TEST. MOST OF THE MEASUREMENT CH ANGES WERE NOT OF A NATURE TO INDICATE VALID GYRO SPEED ERRORS. SYSTEM EFFECT-ERRATIC OPERATION. MEASUREMENT 8384X, SPIN MOTOR TEST OUTPUT, WAS ERRATIC THROUGHOUT THE TEST. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-INVESTIGATE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3143-F OSCILLATOR-DIODE	FAR 27-01607-115	188D 621128	FACTORY	YES NO	BENDIX-PACIFIC 3131153-8-[illegible]	
FAILURE MODE-ERRATIC OPERATION. THE OSCILLATOR FAILED WHEN IT HAD AN ERRATIC OUTPUT. THE FAILURE WAS DUE TO DIODE C R-1 BEING NOISY. A WIRE STRAND FOUND IN THE POTTING, ALTHOUGH UNDESIRABLE, WAS NOT THE CAUSE OF FAILURE.							

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							691326
CORRECTIVE ACTION-VENDOR INSPECTION AND LINE PERSONNEL WERE MADE AWARE OF THE FAILURE. EFFECTIVE 8 FEBRUARY 1963 A SEPARATE AREA WAS SET UP FOR POTTING AND REWORK OPERATIONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-99-24-3101-F SWITCH-PRESSURE	FAR 87-44900-498	1300 621127	FACTORY	NO NO	SERVONICS P-20-4	693764
FAILURE MODE-OUT OF TOLERANCE THE DIFFERENTIAL-PRESSURE SWITCH WOULD NOT ACTUATE WITHIN THE SPECIFICATION TOLERANCE OF 2.5 PLUS OR MINUS 0.5 PSID. THE FAILURE WAS THE RESULT OF INCORRECT GDC STANDARDS LABORATORY CALIBRATION TECHNIQUES USED TO DEFINE THE SWITCH SET POINT. CORRECTIVE ACTION-THE GD/C STANDARDS LABORATORY WAS REQUESTED TO TAKE ACTION TO INSURE THAT THE PRESSURE SWITCH AMPERAGE LIMIT IS NOT EXCEEDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-99-24-3103F TLM CANISTER	FAR 87-12762-601	1820 621128	FACTORY	YES NO	BENDIX	693768
FAILURE MODE-OUT OF TOLERANCE. THE REPORTED SYMPTOM OF THE TELEPAK FAILURE WAS AN UPWARD SHIFT OF 1.0 MEGACYCLES IN TRANSMITTER OUTPUT FREQUENCY. THE FAILURE WAS NOT CONFIRMED. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-99-24-3102-F SWITCH-PRESSURE	FAR 87-44900-498	1300 621122	FACTORY	YES NO	SERVONICS P-20-4	693763
FAILURE MODE-OUT OF TOLERANCE. THE DIFFERENTIAL-PRESSURE SWITCH WOULD NOT ACTUATE WITHIN THE SPECIFIED TOLERANCE OF 2.5 PLUS OR MINUS 0.5 PSID. THE FAILURE WAS NOT CONFIRMED. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3114-F COMMUTATOR-MOTOR	FAR	2300 621121	FACTORY	YES NO	REED AND REESE 1096483-38	
FAILURE MODE-OUT OF TOLERANCE. THE D. C. GEARMOTOR FAILED WHEN THE OUTPUT SPEED WAS TOO SLOW. THE SLOW OUTPUT SPEED							

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IS ATTRIBUTED TO ARMATURE BRUSH CARBON CREATING A RESISTANCE BETWEEN THE GOVERNOR POINTS. CORRECTIVE ACTION-NONE. REED AND REESE D. C. GEARMOTORS ARE NO LONGER BEING PURCHASED.							893790
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3318-F FILTER	FAR 88-13666-823	1160 621119	FACTORY	YES NO		897882
FAILURE MODE-OUT OF TOLERANCE. THE RF POWER OUTPUT WAS 1 WATT WHEN 3 WATTS WAS EXPECTED. FAILURE ANALYSIS REVEALED THE R F FILTER WAS OUT OF ADJUSTMENT. CORRECTIVE ACTION-VENDOR WAS NOTIFIED OF FAILURE AND REQUESTED TO REVIEW CHECKOUT PROCEDURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3414F AMPLIFIER	FAR 27-01229-3	135F 621115	FACTORY	YES NO	BENDIX PACIFIC 1080680-1-C	897909
FAILURE MODE-FAIL DURING OPERATION. AMPLIFIER REPORTEDLY DREW EXCESSIVE CURRENT. FAILURE WAS CAUSED BY THE VACUUM TUBE BEING IMPROPERLY INSTALLED IN ITS SOCKET. CORRECTIVE ACTION-NONE. VENDOR REVIEWED PROBLEM BUT COULD NOT DETERMINE HOW MISINSTALLATION OCCURRED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3239-F POWER SUPPLY, TRANSISTER	FAR 27-01273-3	621113	FACTORY	YES NO	BENDIX-PACIFIC 1051440-4B	895306
FAILURE MODE-SHORT(ELECTRICAL). INPUT CURRENT WAS 7.0 AMPERES WHEN 5.0 AMPERES WAS EXPECTED. TWO SHORTED TRANSISTORS CAUSED FAILURE. CORRECTIVE ACTION-NONE. CAUSE OF TRANSISTOR FAILURE COULD NOT BE FOUND.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3204-F TRANSDUCER	FAR 7-01783-11	1960 621118	FACTORY	YES NO	BOURNS 42013-0-50-752	
FAILURE MODE-STRUCTURAL. TRANSDUCER FOR MEASUREMENT PIP INDICATED AN OUTPUT OF 0.678 VOLT DC WHILE THE MAXIMUM OUTPUT ALLOWABLE WAS 0.850 VOLT DC. FAILURE WAS DUE TO OVERPRESSURIZATION WHICH COULD HAVE OCCURRED WHEN THE TRANSDUCER WAS CLEANED OR WHEN IT WAS CHECKED WHILE ON THE MISSILE.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							891604

CORRECTIVE ACTION-CAUTIONED CLEANING PERSONNEL TO EXERCISE CARE NOT TO APPLY EXCESSIVE PRESSURE TO LOW-RANGE PRESSURE TRANSDUCERS. ALSO INITIATED REQUIREMENTS THAT A GAUGE PROTECTOR USED TO CHECK A TRANSDUCER UNDER TEST MUST NOT HAVE A HIGHER PSI RATING THAN THE MAXIMUM OPERATING RANGE OF THE TRANSDUCER UNDER TEST.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	CT-99-24-061-F PRESSURE TRANSDUCER	FAR 88-01107-65	621115	FACTORY	YES NO	COLVIN 401-6-4-75	890903

FAILURE MODE-OUT OF TOLERANCE. THREE OF THESE TRANSDUCERS WERE REJECTED BY GD/C RECEIVING AND INSPECTION FOR BEING OUT OF TOLERANCE. FAILURE MODE COULD NOT BE DETERMINED.

CORRECTIVE ACTION-AF QUALITY CONTROL REQUESTED THAT TRANSDUCERS BE RETURNED TO THE VENDOR. NO CORRECTIVE ACTION TAKEN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-3078F TAPE RECORDER	FAR 27-12413-619	10F 621114	FACTORY	YES NO		893030

FAILURE MODE-ERRATIC OPERATION. THE RF4 TELEMETRY CANISTER HAD A LOW DISTORTED OUTPUT. ANALYSIS SHOWED THE MAGNETIC TAPE TO BE BROKEN AT THE SPLICE.

CORRECTIVE ACTION-NONE, DESIGN IS IN THE PROCESS OF REPLACING THE CANISTER WITH ANOTHER TYPE EMPLOYING A MORE RELIABLE TAPE RECORDER. THE UNIT DISCUSSED ABOVE IS NO LONGER BEING MANUFACTURED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-3069-F CALIBRATOR-RELAY	FAR 7-12222-5	2300 621113	FACTORY	YES NO		893103

FAILURE MODE-CONTAMINATION. THE IN FLIGHT CALIBRATOR GAVE A NEGATIVE 100 PERCENT CALIBRATION PULSE ON CHANNEL 5 WHEN IT SHOULD HAVE BEEN POSITIVE. FAILURE NOT CONFIRMED, HOWEVER, A NYLON SHAVING ATTACHED TO THE ROTOR OF RELAY K-5 INDICATED THAT IT WAS POSSIBLE FOR IT TO HAVE LODGED BETWEEN THE NORMALLY OPEN CONTACTS OF THE RELAY.

CORRECTIVE ACTION-RELAY VENDOR INSPECTION OF NYLON MACHINED PARTS HAS TIGHTENED. IN ADDITION, A NEW DESIGN ELIMINATING ORGANIC MATERIALS IN THE CONTACT AREAS, IS BEING DEVELOPED.

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM'AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3161-F VOLTAGE-CONTROL OSCILLATOR	FAR 27-01268-39	621112	FACTORY	YES NO	BENDIX 1050263-11-T-A	893316

FAILURE MODE-ERRATIC OPERATION. OUTPUT VOLTAGE WAS REPORTED VARYING FROM 0 TO 0.522 VOLT. FAILURE WAS NOT CONFIRMED . EXTENSIVE TESTING INDICATED FAILURE COULD HAVE BEEN ATTRIBUTED TO INCORRECT TESTING.

CORRECTIVE ACTION-NONE SINCE THE FAILURE WAS NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-90-24-3071-F SIGNAL CONDITIONER-WIRING	FAR 27-12590-817	1310 621112	WTR	YES NO	GDC	893185

FAILURE MODE-OPEN (ELECTRICAL). THE SIGNAL CONDITIONER FAILED WHEN PIN A OF SP3 WAS FOUND OPEN-CIRCUITED. THE FAILU RE WAS CAUSED BY A MISSING WIRE BETWEEN TB1-27 AND TB1-28. THE ABSENCE OF THE WIRE WAS NOT DISCOVERED IN MANUFACTURI NG TESTING BECAUSE THE TEST EQUIPMENT WILL NOT SHOW SUCH AN ERROR.

CORRECTIVE ACTION-PARAGRAPH 3.16. WAS ADDED TO EOP 330.231.2 TO CHECK THE TEST POINTS ON CONNECTOR 3J3.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3110-F AMPLIFIER	FAR 27-01526	2630 621111	FACTORY	YES NO	SPEIDEL 003-6008	893784

FAILURE MODE-CONTAMINATION. THE RECORDING AMPLIFIER GAVE NO OUTPUT FROM THE BIAS-ERASE OSCILLATOR. THE FAILURE WAS CAUSED BY A POOR CONNECTION OF AMPLIFIER PIN-D, ERASE OSCILLATOR FILTERED POWER. THE PIN WAS COVERED WITH POTTING CO MPOUND THAT PREVENTED GOOD CONTACT.

CORRECTIVE ACTION-EFFECTIVE 3 MARCH 1965 THE VENDOR POTS ALL AMPLIFIERS WITH MATING CONNECTORS ATTACHED, AND 100 PE RCENT INSPECTION IS PERFORMED AFTER POTTING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-99-24-3154-F OSCILLATOR-POTENTIOMETER	FAR 27-01607-119	621111	FACTORY	YES NO	BENDIX 3131153-106	

FAILURE MODE-OPEN (ELECT). THE SUBCARRIER OSCILLATOR DISPLAYED NOISE IN EXCESS OF FOUR PERCENT ON THE NOISE SCALE D URING CHECKOUT OF THE TELEMETRY PACKAGE. THE FAILURE WAS CAUSED BY THE OUTPUT ADJUSTMENT POTENTIOMETER WHICH HAD TWO BREAKS IN THE RESISTANCE WIRE. THE BREAKS WERE PROBABLY DUE TO THE WIPER ENGAGING LOOSE TURNS OF RESISTANCE WIRE.

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE. THE VENDOR FEELS THAT THIS IS A RANDOM FAILURE, AND THAT NO CHANGE IS REQUIRED.							693784
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA62-0104/F1-601-00-16 SUBCARRIER OSCILLATOR	COUNTDOWN	16F 621107	11 -125	YES NO		693784
FAILURE MODE-ERRATIC OPERATION. RF2 CHANNEL 3 WAS NOTED TO BE STEPPING RANDOMLY. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM MEASUREMENT I 528V, ROLL RESOLVER SIGNAL, WAS INVALID. VEHICLE EFFECT-COUNTDOWN DELAYED. TEN MINUTE HOLD CALLED. CORRECTIVE ACTION-DECISION MADE TO PROCEED WITH EXISTING CONDITION AS THE MEASUREMENT WAS DUPLICATED ON A COMMUTATE D CHANNEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AQJ62-0112/F1-601-00-16 TRANSMITTER	FLIGHT	16F 621107	ETR 48	YES NO		691527
FAILURE MODE-ERRATIC OPERATION. DURING THE PERIOD OF 48.8 TO 73.5 SECONDS, INTERMITTENT NOISE BURSTS DETERIORATED T HE GENERAL DATA QUALITY ON ALL CHANNELS OF RF NO. 3. THE NOISE APPARENTLY ORIGINATED FROM THE TRANSMITTER. SYSTEM EFFECT-ERRATIC OPERATION. DATA ON ALL CHANNELS DETERIORATED BY NOISE (RF NO.3). VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NI-A9-24-310-F PRESSURE TRANSDUCER	FAR 27-01386-33	160-D 621105	FACTORY	YES	SERVONIC H-172-4	691553
FAILURE MODE-STRUCTURAL. CAUSE OF FAILURE WAS A POORLY BRAZED BOURDON TUBE ALLOWING INTERNAL PRESSURE TO BUILD UP G REATER THAN AMBIENT. CORRECTIVE ACTION-VENDOR ACTION REVISED TEST PROCEDURES TO REQUIRE A LEAK CHECK OF EACH BOURDON TUBE USING HELIUM G AS AS A MEDIUM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3113F MOTOR	FAR	621101	FACTORY	YES NO	BENDIX-MONTROS E 1096485-45	
FAILURE MODE-OUT OF TOLERANCE. THE COMMUTATOR MOTOR ROTATED AT A SPEED OF 5.48 TO 5.49 RPS, INSTEAD OF 5 RPS. THE F							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
LUCTUATING SPEED WAS CAUSED BY CHANGES IN MOTOR ROTOR RESISTANCE, BRUSH RESISTANCE, BRUSH DUST RESISTANCE ACROSS THE COMMUTATOR SEGMENTS AND BY STICKY GOVERNOR CONTACTS ERODED BY ARCING. CORRECTIVE ACTION-THE TOLERANCE WAS CHANGED FROM PLUS OR MINUS 5 PERCENT TO PLUS OR MINUS 8 PERCENT.							893791
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NZ-90-24-3140F OSCILLATOR-TRANSISTOR	FAR 27-12762-801	1600 621029	WTR	YES BENDIX NO		893793
FAILURE MODE-FAIL DURING OPERATION. THE TELEPAK FAILED WHEN THERE WAS A LOSS OF SIGNALS FROM SUBCARRIER 11. THE FAILURE WAS CAUSED BY THE MISMATCH OF THE TWO TRANSISTORS IN THE MULTIVIBRATOR CIRCUIT OF THE SUBCARRIER OSCILLATOR. OTHER DISCREPANCIES WERE FOUND, BUT DID NOT CONTRIBUTE TO THE FAILURE. CORRECTIVE ACTION-GDC INITIATED DESIGN CHANGES TO MOISTURE PROOF THE TELEPAK. CRITICISM AND DIFFICULTY REPORT 63-08 10 WAS ISSUED TO OBTAIN A CHANGE PROVIDING FOR USE OF LOCTITE TO SECURE THE SCREW FOUND LOOSE IN THE TELEPAK.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3052-F OSCILLATOR-COMMUTATOR MOTOR	FAR 27-11541-903	2500 621027	FACTORY	YES BENDIX NO		891937
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 15 WAS REPORTED TO HAVE ITS VOLTAGE-CONTROLLED OSCILLATOR OUT OF BAND WIDTH. CHANNEL 11 WAS REPORTED TO HAVE ITS COMMUTATOR RUNNING SLOW. THE CHANNEL 11 COMMUTATOR MOTOR HAD EXCEEDED ITS LIFETIME GUARANTEE BY 3 HOURS. CORRECTIVE ACTION-THE OSCILLATOR WAS READJUSTED AND OPERATED SATISFACTORLY. COMMUTATOR MOTORS BY THIS VENDOR (REED AND REESE) ARE TO BE REPLACED BY BENDIX MOTORS WHICH HAVE A LONGER ANTICIPATED LIFE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AOJ62-0070/A1-401-00-159 TLM CANISTER-COAX	FLIGHT 27-01337-17	1590 621026	WTR-A-1 300.06	NO NO		895531
FAILURE MODE-OPEN(ELECT) LOSS OF TELEMETRY APPARENTLY DUE TO LOSS OF CONTINUITY IN WIRING BETWEEN TELEMETER TRANSMITTER AND ANTENNA WHEN SUSTAINER TANK WAS DESTROYED. IT WAS NOTED THAT OTHER INDEPENDENT RF SYSTEMS(PASSENGER POD TLM AND GUIDANCE BEACONS) CONTINUED TO FUNCTION FOR SEVERAL ADDITIONAL SECONDS. SYSTEM EFFECT-LOSS OF ALL ATLAS TELEMETRY DATA. VEHICLE EFFECT-NONE. POST-RETROROCKET DATA NOT RECEIVED. LOSS OF SUSTAINER TANK BY SELF-DESTRUCTION BELIEVED RESULT OF RETROROCKET FIRING IMPINGEMENT. CORRECTIVE ACTION-NONE FOR TLM SYSTEM. BAFFLING TO DEFLECT RETROROCKET BLAST FROM TANK.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-3051-F PRESSURE TRANSDUCER	FAR 27-01366-39	621028	FACTORY	YES NO	SERVONICS	69291[illegible]
FAILURE MODE-OUT OF SPECIFICATION. IT WAS REPORTED THAT THE TRANSDUCER EXHIBITED A 8 PERCENT INFORMATION BAND WIDTH VARIATION AT A FREQUENCY OF APPROXIMATELY 1.75 CPS. CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-9D-24-3157F COMMUTATOR, MOTOR	FAR 27-12642-1	110D 621024	WTR	YES NO	UNITED ELECTRODYAMICS	697960
FAILURE MODE-CONTAMINATION. WHEN THE CHANNEL 14 COMMUTATOR MOTOR WAS CHECKED WITH A STROBOSCOPE THE SPEED WAS FOUND TO VARY FROM 0 TO 5.5 RPS. THE GOVERNOR CONTACTS WERE COVERED WITH A FINE WHITE POWDER CAUSING THE CONTACTS TO STAY OPEN. CORRECTIVE ACTION-THE GOVERNOR CONTACTS WERE BURNISHED AND THE SPEED WAS ADJUSTED. THE MOTOR THEN OPERATED NORMALLY. VENDOR INFORMED OF FAILURE AND ASKED TO INSURE THAT RESIDUAL SALTS ARE NOT LEFT ON GOVERNOR CONTACTS. VENDOR BELIEVES CONTAMINATION IS THE RESULT OF NORMAL WEAR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	NZ-99-24-3063-F OSCILLATOR-TRANSISTOR	FAR 27-12762-801	176D 621024	FACTORY	YES NO	BENDIX	691132
FAILURE MODE-ERRATIC OPERATION. THE TELEPAK FAILED WHEN IT HAD EXCESSIVE NOISE ON SUBCARRIER OSCILLATOR CHANNEL 5. THE NOISE WAS THE RESULT OF UNSTABLE FREQUENCY OUTPUT CAUSED BY GAIN MISMATCH OF THE TWO TRANSISTOR FLIP-FLOP OSCILLATOR CIRCUIT. THE TRANSISTOR THAT CAUSED THE PROBLEM WAS NOT DETERMINED. CORRECTIVE ACTION-NONE. THE VENDOR REVIEWED THE DISCREPANCY, BUT COULD NOT EXPLAIN THE APPARENT CHANGE IN TRANSISTOR CHARACTERISTICS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-3074-F WIRING	FAR 27-12573-893	10F 621023	FACTORY	YES NO		
FAILURE MODE-SHORT (ELECT). THE TELEMETRY CANISTER FAILED WHEN THE 5-VOLT CALIBRATION VOLTAGE WAS MISSING ON CHANNEL 18. A RESISTANCE CHECK WAS MADE, WHILE THE CANISTER WAS STILL ON THE MISSILE, AND PIN C OF 10341J8, THE CALIBRATOR OUTPUT, WAS SHORTED TO GROUND. THE FAILURE WAS CONFIRMED. A WIRING ERROR HAD RESULTED IN A WIRE RUNNING FROM TB1 PIN A21 TO TB2 PIN B18, WHICH ACCOUNTED FOR THE LACK OF 5-VOLT CALIBRATION VOLTAGE.							

SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
							893851

CORRECTIVE ACTION-NONE. THE ANALYSIS WAS CANCELLED BECAUSE OF LACK OF AUTHORIZED FUNDING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-3203-F TRANSDUCER, INSTRUMENTATION POTENTIOMETER	FAR 7-01723-11	131D 621023	FACTORY	YES NO	BOURNS 42013-0-50-752	891603

FAILURE MODE-OUT OF TOLERANCE. TWO TRANSDUCERS FOR MEASUREMENT FIP HAD HIGH OUTPUT READINGS. CAUSE WAS DETERMINED TO BE DUE TO HIGH RESISTANCE READINGS OF THE POTENTIOMETERS WHICH IN TURN WERE CAUSED BY THE TRANSDUCER DRIVELINK BALL NOT STAYING FIRMLY SEATED IN THE WIPER ARM BALL SOCKET. THE BALL SOCKET CLAMP WAS NOT CLAMPED TIGHTLY ENOUGH AROUND THE DRIVELINK BALL.

CORRECTIVE ACTION-RECOMMENDED VENDOR CORRECT THE PROBLEM BY TIGHTENING THE CLAMP AROUND THE DRIVELINK BALL TO PROVIDE A GREATER HOLDING FORCE ON THE BALL. THE VENDOR IS INSTITUTING CHANGES IN THE TRANSDUCER DESIGN USING THE BALL-AND-SOCKET TYPE DRIVE LINKAGE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-5034-F TELEMETRY ACCESSORY PACKAGE	FAR 27-12581-3	10F 621022	FACTORY	YES NO		892767

FAILURE MODE-OUT OF SPECIFICATION. THE FOLLOWING DISCREPANCIES WERE REPORTED. (1) 100 PERCENT CALIBRATION WAS 0.4 VOLTS INSTEAD OF 5.0 VOLTS (2) CHANNELS 1-E, 2-11, 2-C AND 2-12 OUTPUTS WERE 10 PERCENT OF EXPECTED VALUES. (3) CHANNEL 3-11 OUTPUT WAS 75 PERCENT OF EXPECTED VALUE.

CORRECTIVE ACTION-NONE. FAILURES WERE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-5039 WIRE	FAR 27-12571-877	10F 621020		YES NO	BENDIX	892766

FAILURE MODE-OPEN (ELECT). IT WAS REPORTED THAT THE 28 VOLTS NEEDED FROM PIN Y OF 1J7 WAS MISSING. THIS WAS BECAUSE THE WIRE WHICH FURNISHED THE 28 VOLTS (CONNECTOR 1J7 PIN J TO PIN F) WAS MISSING. THIS WIRE WAS OMITTED DURING MODIFICATION OF THE CANISTER.

CORRECTIVE ACTION-ADDITIONAL TEST PROCEDURES AFTER CANISTER MODIFICATION WILL BE INITIATED. INCLUDED IS A RING OUT OF THE PACKAGES BY INSPECTION.

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AOJ62-0054/P1-601-00-14 TLM CANISTER	FLIGHT	14F 621019	ETR-15 0.	YES NO		896169
FAILURE MODE-OUT OF TOLERANCE. TELEMETRY RF 4 DISPLAYED A NOISE CONTENT OF APPROXIMATELY 10 TO 15 PERCENT FSW. CONSIDERED TO HAVE BEEN GENERATED BY THE INFLIGHT RECORDING AND TRANSMISSION SYSTEM. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. NO DATA WAS LOST BUT SYSTEMS ANALYSES WERE MORE DIFFICULT BECAUSE OF THE HIGH NOISE CONTENT. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-99-24-3047F OSCILLATOR RESISTOR	FAR 27-01352-945	1300 621019		YES BENDIX-PACIFIC NO		891956
FAILURE MODE-OUT OF TOLERANCE. FREQUENCY OF THE OSCILLATOR WAS TOO HIGH. WHEN ADJUSTED IT INCREASED DURING A TEMPERATURE TEST. ONE BAD SOLDER JOINT AND TWO RESISTORS WITH HIGH TEMPERATURE COEFFICIENT WERE FOUND IN THE OSCILLATOR. IN THE FILTER PORTION OF THE OSCILLATOR, TWO COLD SOLDER JOINTS AND A BROKEN GLASS ISOLATOR WERE FOUND. FAILURE WAS ATTRIBUTED TO THE HIGH TEMPERATURE COEFFICIENT OF THE RESISTORS. CORRECTIVE ACTION-THE VENDOR OF THE FILTER HAS BEEN CHANGED. THE VENDOR OF THE OSCILLATOR STATES THAT THE TWO RESISTORS WHICH EXHIBIT HIGH TEMPERATURE COEFFICIENTS ARE USED FOR TEMPERATURE COMPENSATION. THE HIGH TEMPERATURE COEFFICIENT IS A NORMAL PARAMETER FOR THESE RESISTORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-9924-3109-F FILTER	FAR 27-11541-903	621019	FACTORY	YES BENDIX NO		893761
FAILURE MODE-ERRATIC OPERATION. THE TELEMETRY PACKAGE HAD EXCESSIVE NOISE IN CHANNELS 15 AND 63 AND DISTORTION IN CHANNEL 14. THE FAILURE IS ATTRIBUTED TO THE INSTALLATION OF AN INCORRECT LIMITER FILTER IN THE PACKAGE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-99-24-3171F TRANSDUCER, INSTRUMENTATION	FAR 7-01720-8	621018	FACTORY	YES BOURNS NO		
FAILURE MODE-CONTAMINATION. TRANSDUCER WOULD NOT GIVE AN OUTPUT SIGNAL WHEN PRESSURE WAS APPLIED TO THE PRESSURE PORT OF THE TRANSDUCER.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							690868
CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED, HOWEVER, THE FAILURE MAY HAVE BEEN OF AN INTERMITTENT NATURE CAU SED BY CONTAMINANT PARTICLES FOUND IN THE TRANSDUCER OIL. THESE PARTICLES COULD HAVE CAUSED THE POTENTIOMETER WIPER ARM TO LIFT OFF THE MANDREL AND PRODUCE THE SPIKING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX62-0071/FC-CO-01-0008-002 FILTER-ELECTRICAL 30KC LIMITER FIL TER.	COMPOSITE-FACTORY	2500 621016		YES NO		690120
FAILURE MODE-FAIL DURING OPERATION. DISTORTION ON CHANNEL 14 WAS EVIDENT DURING THE RSC INHIBIT FUNCTION DUE TO A F AULTY 30KC LIMITER FILTER IN THE TELEMETER WHICH ALLOWED INTERCHANNEL MODULATION DISTORTION. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE ABORTED AND RESCHEDULED. SYSTEM AND COMPOSITE RETESTING WERE REQUIRED. CORRECTIVE ACTION-THE 30KC LIMITER FILTER WAS REPLACED AND THE TELEPACK REINSTALLED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NZ-90-24-3200-F TRANSDUCER, INSTRUMENTATION	FAR 7-01649-13	1590 621016	WTR	YES NO	ROSEMOUNT 133CF	691602
FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER READ OUT OF TOLERANCE. FAILURE WAS NOT CONFIRMED. THE MOST PROBABLE CAUSE OF THE REPORTED FAILURE COULD HAVE BEEN A POOR CONNECTION IN THE ELECTRICAL CIRCUIT BETWEEN THE TRANSDUCER AND THE RECORDING INSTRUMENT. THIS WOULD TEND TO PLACE MORE RESISTANCE IN SERIES WITH THE TRANSDUCER ELEMENTS AND WOULD CAUS E THE RECORDING INSTRUMENT TO READ HIGH OR ACT AS IF THE TRANSDUCER WAS READING A HIGHER TEMPERATURE THAN IT SHOULD. CORRECTIVE ACTION-FIELD PERSONNEL AT ETR WERE INFORMED OF THE ANALYSIS AND REQUESTED TO CHECK ALL THE EXTERNAL CIRC UIT CONNECTORS FOR CORROSION, DENT PINS AND OTHER HIGH-RESISTANCE-CAUSING DISCREPANCIES BEFORE THEY ARE CONNECTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3323-F TRANSMITTER	FAR 27-01328-9	2010 621015	SD-FAC	NO NO	GILFILLAN 100882	
FAILURE MODE-FAIL DURING OPERATION. THE UNIT EXHIBITED ZERO OUTPUT WHEN TWO WATTS OUTPUT WAS EXPECTED. THE FAILURE WAS NOT CONFIRMED. THE TRANSMITTER WAS MOST LIKELY REJECTED BECAUSE A DE-COUPLING DEVICE WAS NOT USED DURING TESTING . CORRECTIVE ACTION-USE OF A DE-COUPLING DEVICE WHILE TESTING IS NOW REQUIRED IN A NEW E.O.P. 330.818.8 ISSUED FEB. 1							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
1 1965.							897899
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3079F SWITCH,CHANGEOVER-MOTOR	FAR 27-01206-801	621010	FACTORY	YES NO	KINETICS M-145-7	898849
FAILURE MODE-OPEN(ELEC.) THE CHANGEOVER SWITCH WOULD NOT SWITCH FROM THE INTERNAL TO EXTERNAL POSITION. THE SWITCH OPERATED INTERMITTENTLY BECAUSE ONE OF THE CARBON BRUSHES IN THE MOTOR WAS BOUND IN ITS SLOT AND COULD NOT MAKE SATISFACTORY CONTACT WITH THE ARMATURE DUE TO A DEFORMED SPACER. THE SPACER WAS DEFORMED BY AN EXCESSIVELY THICK RUBBER-LIKE INSULATING WASHER. CORRECTIVE ACTION-EFFECTIVE 31 DEC. 1962 THE MOTOR ASSEMBLY PROCEDURES WERE REVISED TO TRIM EACH RUBBER INSULATING WASHER SO THAT IT WILL BE FLUSH WITH THE END-BELL, THEREBY REMOVING ANY POSSIBLE PRESSURE ON THE INSULATOR OR THE BRUSH.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-A-99-24-3332 PRESSURE TRANSDUCER	FAR 27-01243-7	TDF 621009	PLATTSBU RG	YES NO	COLVIN 401-A-10-75	899704
FAILURE MODE-CONTAMINATION. THE TRANSDUCER WAS REJECTED FOR ERRATIC OUTPUT. CONTAMINATION ON THE RESISTANCE WINDING OF THE POTENTIOMETER CAUSED THE WIPER TO BE LIFTED OFF THE WINDING. ARCING OCCURRED, LEAVING A BURNT AREA ON THE WINDING. FIBER AND SOLDER SPLASHES WERE FOUND ON THE RESISTANCE WINDING AND ON THE INSIDE OF THE CASE. CORRECTIVE ACTION-IT WAS RECOMMENDED THAT THE VENDOR BE REQUESTED TO 1) IMPROVE CLEANLINESS, 2) FIND CAUSE OF THE CRIMPED INSULATION ON THE WIPER ARM LEAD AND 3) INITIATE MORE STRINGENT INSPECTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3037-F TAPE RECORDER/TTT	FAR 27-12713-919	21F 621006	FACTORY	YES NO		891398
FAILURE MODE-OUT OF TOLERANCE. THE REPORTED DISCREPANCY WAS EXCESSIVE NOISE (UP TO 10 PERCENT OF INDICATED BANDWIDTH) ON CHANNELS 12, 13 AND A ON THE MAGNETIC TAPE IN THE RECORDER. CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-81-A9-24-3330 PRESSURE TRANSDUCER	FAR 7-01737-8	2500 621006	FACTORY	YES NO	SERVONIC D-92	
FAILURE MODE-STRUCTURAL. THE TRANSDUCER FAILED WHEN THE EXCITATION VOLTAGE INPUT LEAD CONNECTED TO PIN B WAS FOUND							

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OPEN CIRCUITED. CAUSE OF THE FAILURE WAS OVERSTRESSING AND FRACTURE OF THE WIRE IN TENSION. CORRECTIVE ACTION-A MEMO WAS SENT TO FACTORY PERSONNEL REGARDING MISHANDLING OF TRANSDUCERS.							890706
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-99-24-3040-F CALIBRATOR TIMER	FAR 55-13868-823	1160 321003	FACTORY	YES NO	TEXAS INSTRUME NTS	891993
FAILURE MODE-OUT OF TOLERANCE. REPORTEDLY THE PREFLIGHT CALIBRATOR FOR CHANNELS 1, 2, 3, 12 AND 13 OPERATED FOR ONLY 12.6 SECONDS WHEN A MINIMUM OF 15 SECONDS IS REQUIRED. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-SP-99-24-3374 TEMPERATURE TRANSDUCER	FAR 7-01664-3	1160 621004	FACTORY	YES NO	LEWIS 56836A	890707
FAILURE MODE-STRUCTURAL. THE TRANSDUCER FAILED DURING FINAL CHECKOUT WHEN THE ELECTRICAL RECEPTACLE SEPARATED FROM THE TRANSDUCER CASE. FAILURE WAS THE RESULT OF ABUSIVE HANDLING DURING MISSILE CONSTRUCTION AND MAINTENANCE. CORRECTIVE ACTION-SUPERVISION WAS INFORMED OF CORRECT HANDLING METHODS FOR PARTS AND MATERIALS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	A-99-24-3199-F TRANSDUCER, INSTRUMENTATION	FAR 7-01720-8	ZIF 621003	FACTORY	YES NO	BOURNS 73511-0-35-752	891600
FAILURE MODE-STRUCTURAL. TRANSDUCER HAD AN OPEN CONDITION IN THE POTENTIOMETER WIPER ARM OUTPUT CIRCUIT. A BREAK IN THE WIPER ARM CIRCUIT WAS LOCATED AT THE POINT WHERE THE WIRE EXITS FROM A SHELLAC-FILLED PLASTIC FEEDTHROUGH IN THE UPPER MANDREL. THE BREAK WAS CAUSED BY THE WIRE BEING OVERSTRESSED IN A TORQUING MODE. THE SECTION OF THE WIRE IN THE PLASTIC TUBE WAS HELD RIGID BY THE BONDING SHELLAC WHILE THE OTHER END OF THE WIRE WAS ROTATED. THE BONDING SHELLAC IN THE PLASTIC FEEDTHROUGH WAS INDICATIVE OF POOR WORKMANSHIP AND QUALITY CONTROL. CORRECTIVE ACTION-SINCE THE MANUFACTURE OF THIS TRANSDUCER, THE VENDOR HAS INITIATED QUALITY CONTROL PROCEDURES AND CLEANING METHODS WHICH SHOULD ELIMINATE THIS TYPE OF FAILURE.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3005F VOLTAGE-CONTROL OSCILLATOR-WIRE	FAR 88-01174-131	621002	FACTORY	YES NO	BENDIX-PACIFIC	891494

FAILURE MODE-STRUCTURAL. A 0.61 VOLT OUTPUT WAS MEASURED WHEN 0.648 PLUS OR MINUS 0.005 VOLTS IS REQUIRED. THIS WAS DUE TO AN OPEN CIRCUIT BETWEEN PIN 3 (POWER INPUT) AND THE CIRCUIT, PROBABLY CAUSED BY A BROKEN WIRE.

CORRECTIVE ACTION-NONE. THE VENDOR WOULD NOT TAKE CORRECTIVE ACTION SINCE THEY DID NOT PERFORM THE FAILURE ANALYSIS

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3042-F OSCILLATOR CAPACITOR	FAR 27-12651-1	157D 621001	FACTORY	YES NO	UNITED ELECTRO DYNAMICS	891955

FAILURE MODE-ELECTRICAL SHORT. IT WAS REPORTED THE TRANSMITTER POWER OUTPUT DROPPED TO ZERO AFTER A FEW MINUTES WAR M UP. THIS WAS DUE TO THE VARICAP USED IN THE VARIABLE FREQUENCY OSCILLATOR (VFO) SHORTING TO THE CASE. THIS CAUSED A FREQUENCY SHIFT.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	F2-4CO-03-215 COMMUTATOR-RF1 CHANNEL E	COMPOSITE-B FACT 27-11541-695	215D 620928	12	YES NO	GD/C	893382

FAILURE MODE-FAIL DURING OPERATION. THE COMMUTATOR FOR RF1 CHANNEL E STOPPED DURING THE FIRST LOOP TEST.

SYSTEM EFFECT-OPERATION STOPS PREMATURELY. TELEMETRY STOPPED SUPPLYING DATA ON RF1 CHANNEL E.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-THE PACKAGE WAS TAPPED LIGHTLY, COMMUTATION BEGAN, AND THIS PROBLEM DID NOT OCCUR AGAIN DURING TH E TEST.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FAR-NZ-A9-24-3345 PRESSURE TRANSDUCER	FAR 27-01386-29	161D 620928	FACTORY	YES NO	SERVONIC H-172-2	

FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER REPORTEDLY FAILED WHEN IT GAVE AN INTERMITTENT OUTPUT. THE NOISE OR SPIKING RESULTS FROM WIPER ARM BOUNCE CAUSED BY VIBRATION.

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CORRECTIVE ACTION-THE VENDOR REDESIGNED THE TRANSDUCER, PER VCP27-01386-B-VCP-003, WHICH WAS ACCEPTED BY GD/C 63020 1.							890705
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-A9-24-4022-C PRESSURE TRANSDUCER	FAR 27-01386-39	181D 620927	FACTORY	YES NO	SERVONIC H 172-8	892603
FAILURE MODE-ERRATIC OPERATION. UP TO 15 PERCENT SPIKING OBSERVED. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-3041-F TLM CANISTER-POWER SUPPLY	FAR 27-12290-813	113D 620927	ETR	YES NO		891934
FAILURE MODE-OUT OF TOLERANCE. THE TELEPAK REPORTEDLY HAD LOW 115 AND 28 VOLT OUTPUTS AND THE 115 VOLT OUTPUT CONTAINED EXCESSIVE NOISE SPIKES. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3039-F OSCILLATOR	FAR 27-12573-869	18F 620927	FACTORY	YES NO	BENDIX	891369
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 6 SUBCARRIER OSCILLATOR REPORTEDLY SHIFTED 20 CPS AND CHANNEL 10 REPORTEDLY INDICATED EXTREME SIGNAL BREAKUP AND VARIATIONS. THE CHANNEL 10 FAILURE WAS NOT CONFIRMED. THE CHANNEL 2 SHIFT WAS PERHAPS DUE TO INSUFFICIENT WARM UP PRIOR TO ADJUSTMENT. CORRECTIVE ACTION-PERSONNEL WERE INSTRUCTED TO BE SURE THAT THE WARM UP PERIODS STIPULATED IN PROCEDURES ARE OBSERVED AT ALL TIMES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-A9-24-3473-F PRESSURE TRANSDUCER	FAR 27-01386-33	181D 620926	FACTORY	YES NO	SERVONIC H-172-4	892777
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT WITH 500 PSIG APPLIED. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3023F TELEMETRY ACCESSORY PACKAGE/RECTIF IER	FAR 27-12581-805	16E 620924	FACTORY	YES NO		893632
FAILURE MODE-OUT OF TOLERANCE. THE OUTPUT VOLTAGE FROM THE DUAL RECTIFIER ASSEMBLY WITHIN THE PACKAGE WAS REPORTED OUT OF TOLERANCE. A PROCEDURE DISCREPANCY IN EOP 330.360.2; TCA 19 RESULTED IN IMPROPER ADJUSTMENT. CORRECTIVE ACTION-RECTIFIER WAS CORRECTLY ADJUSTED. EOP 330.360.2; TCA 19 WAS CORRECTED TO REFLECT THE PROPER DUAL RECTIFIER ASSEMBLY ADJUSTMENT BY EOP TCA 20, DATED 620920.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SN-A9-24-3023F AUXILIARY SIGNAL CONDITIONER	FAR 27-12583-847	3500 620921	FACTORY	YES NO		893469
FAILURE MODE-OUT OF TOLERANCE. THE REPORTED DISCREPANCY WAS CHANNEL 15, CAUSING EXCESSIVE NOISE ON CHANNELS 14 AND 15. CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NO CORRECTIVE ACTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3010F TELEMETRY PACKAGE/WIRE	FAR 27-12573-869	16F 620920	FACTORY	NO NO	BENDIX	891926
FAILURE MODE-OUT OF TOLERANCE. UNIT FAILED BY HAVING NO 28 VDC ON PIN AB OF CONNECTOR 10[illegible] VIJB. THIS WAS CAUSED BY A BURNT OPEN WIRE WHICH WAS DUE TO THE USE OF A FAULTY, UNAUTHORIZED, SHORTING PLUG. CORRECTIVE ACTION-ALL UNAUTHORIZED SHORTING PLUGS WERE REMOVED. PERSONNEL WERE INSTRUCTED NOT TO USE UNAUTHORIZED P LUGS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AOJ62-0047/P1-604-00-08 COMMUTATOR	COUNTDOWN	8F 620919		YES NO		
FAILURE MODE-OUT OF SPECIFICATION. RF PACKAGES NO. 1 AND NO. 2 COMMUTATORS RUNNING AT SLOW SPEEDS PRIOR TO START OF COUNTDOWN. SYSTEM EFFECT-OPERATION TOO LOW. RF NO. 1 AND NO. 2 COMMUTATORS RUNNING AT SLOW SPEEDS. VEHICLE EFFECT-COUNTDOWN DELAYED. START OF COUNTDOWN DELAYED TO REPLACE RF PACKAGES NO. 1 AND NO. 2. LEAKING FUEL V OLUTE TEE ALSO REPLACED DURING DELAY.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-UNKNOWN.							898222
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AOJ62-0047/P1-804-00-08 POWER SUPPLY, CIRCUIT BREAKER	COUNTDOWN	8F 820918	11 -1260	YES NO		898221
FAILURE MODE-FAIL DURING OPERATION. CIRCUIT BREAKER IN TELEMETRY POWER SUPPLY NO. 2 DROPPED OUT. CAUSE UNKNOWN. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. DROP OUT OF POWER SUPPLY NO. 2 CIRCUIT BREAKER RESULTED IN LOSS OF PACKA GES. VEHICLE EFFECT-COUNTDOWN ABORTED AND RE-SCHEDULED. HOLD CALLED TO INVESTIGATE LOSS OF FILAMENT VOLTAGE. DURING HOLD , MEASUREMENT M140P FOUND TO BE INTERMITTENT AND THAT STAGING CAMERA BATTERIES, 5-HOUR STAND ACTIVATION LIMIT, HAD E XPIRED. RESOLUTION TIME OF THESE PROBLEMS NECESSITATED ABORT OF COUNTDOWN. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3022F TAPE RECORDER/TTT	FAR	16E 820918	FACTORY	YES NO		893443
FAILURE MODE-OUT OF TOLERANCE. THE REPORTED DISCREPANCY WAS EXCESSIVE NOISE ON ALL CHANNELS. CORRECTIVE ACTION-FAILURE NOT CONFIRMED. NOISE LEVEL MEASURED AT 17 MV. THE MAXIMUM ALLOWABLE PER THE GD/A SPECIFIC ATION CONTROL DRAWING 27-01328 WAS 22 MV.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3010F TELEMETRY PACKAGE/WIRE	FAR 27-12573-889	16F 820918	FACTORY	NO NO	BENDIX	891925
FAILURE MODE-OUT OF TOLERANCE. UNIT FAILED BY HAVING NO OUTPUT EXCEPT ON CHANNELS 3 AND 4. THIS WAS CAUSED BY A BUR NT OPEN WIRE WHICH WAS DUE TO THE USE OF A FAULTY, UNAUTHORIZED, SHORTING PLUG. CORRECTIVE ACTION-ALL UNAUTHORIZED SHORTING PLUGS WERE REMOVED. PERSONNEL WERE INSTRUCTED NOT TO USE UNAUTHORIZED P LUGS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3060-F POWER SUPPLY	FAR 27-01873-5	820917	FACTORY	YES NO	BENDIX	
FAILURE MODE-OUT OF SPECIFICATION. THE PLATE MONITOR VOTAGE READ 1.308 VOLTS AT 100 DEGREES F WHEN IT SHOULD HAVE R							

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LEAD BETWEEN 1.116 AND 1.284 VOLTS. THIS WAS DUE TO THE IMPROPER INSTALLATION OF A HIGH TEMPERATURE COEFFICIENT RESIS TOR DURING MANFACTURE. CORRECTIVE ACTION-THE VENDOR HAS REVISED THE SYSTEM FOR RELEASING COMPONENTS TO THE ASSEMBLY AREA TO PRECLUDE ERROR S OF THIS TYPE.							892761
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SF-A9-24-3038-F HARNESS	FAR 88-14306-601	116D 620917	FACTORY	YES NO	GDC	892608
FAILURE MODE-ELECTRICAL OPEN. WIRE T804N22 WAS FOUND TO HAVE AN OPEN CIRCUIT BETWEEN CONNECTORS J 3185 PIN J AND P3 020 PIN B. THE CONNECTION BETWEEN PIN J OF CONNECTOR J3188 AND WIRE T804N22 WAS FOUND TO BE FAULTY AS A RESULT OF IN PROPER SOLDERING TECHNIQUE. THE POOR SOLDERING WAS PERFORMED WHEN THE CABLE WAS REWORKED BECAUSE OF A DESIGN CHANGE. CORRECTIVE ACTION-REWORK OF INDIVIDUAL WIRES IN POTTED PLUGS IS PROHIBITED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	P1-6CO-02-08 TLM CANISTER	COMPOSITE-B FACT	8F 620910	ETR-11	YES NO		893219
FAILURE MODE-FAIL DURING OPERATION. NEGATIVE GATE LEVEL ON RF3 CHANNEL 11 WAS LOST. COMMUTATOR AND POWER SUPPLY FOR THIS DATA WAS LOCATED IN RF 1 PACKAGE AND FAILURE WAS IN THIS PACKAGE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. RECEIVED IMPROPER DATA SIGNALS DUE TO LOSS OF RF 3 CHANNEL 11 NEGATIVE GATE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACED RF 1 PACKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-98-24-3478-F PRESSURE TRANSDUCER	FAR 7-01720-5	113D 620910	ANR	YES NO	SERVONICS M-75	
FAILURE MODE-CONTAMINATION. PRESSURE PORT OBSERVED TO HAVE A RUST COLORED CONTAMINATION COATING ON ITS BORE. CONTAM INATION DUE TO RUSTING OR CORROSION OF STAINLESS STEEL PRESSURE PASSAGES. CORROSION DUE TO MOISTURE ATTACK ON THE UN STABILIZED STAINLESS STEEL AIDED BY WEAKENING OF CORROSION RESISTIVITY. THIS WAS DUE TO CARBIDE PRECIPITATION IN THE STEEL AND THE POSSIBLE PRESENCE OF BRAZING FLUX. CORRECTIVE ACTION-IT WAS SUGGESTED THE VENDOR USE A STABILIZED TYPE 321 OR 347 STAINLESS STEEL AND ALSO TO CHECK BR							

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ATING PROCEDURE TO INSURE FLUX IS CLEANED FROM UNIT AFTER BRAZING AND THAT NO OTHER CORROSION PROMOTING STEPS ARE PE RFORMED.							692770
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-A8-24-048-C COMMUTATOR	FAR 27-03187-8	1260 620910	FACTORY	NO NO	FIFTH DIMENSIO N	692811
FAILURE MODE-OUT OF TOLERANCE. REPORTED LOSS OF SYNCHRONIZATION. CORRECTIVE ACTION-NONE. FAILURE ANALYSIS CANCELED SINCE TELEMETRY ENGINEERS FOUND THE REPORTED FAILURE CAUSED BY MI SINTERPRETING TEST PROCEDURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-3034-F TRANSMITTER	FAR 27-01525-8	620909	ETR	YES NO	GILFILLAN 100681-2-5	693705
FAILURE MODE-OUT OF TOLERANCE. UNIT FAILED WHEN THE FREQUENCY WAS FOUND TO BE BELOW THE ALLOWABLE LOWER LIMIT BY 6 KC. THE FAILURE WAS CONFIRMED. THE UNSTABLE OUTPUT FREQUENCY WAS AFFECTED BY TEMPERATURE. CORRECTIVE ACTION-NONE. THE ANALYSIS WAS CANCELLED BECAUSE OF LACK OF AUTHORIZED FUNDING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	NZ-00-24-3028F TRANSMITTER-AMPLIFIER	FAR 27-01537	1590 620909	FACTORY	YES NO	BENDIX	693831
FAILURE MODE-ERRATIC OPERATION. FAILURE WAS MARKED BY INTERMITTENT LOW OUTPUT. THIS WAS DUE TO IMPROPER TUNING OF T HE DRIVER AMPLIFIER OUTPUT CIRCUIT. CORRECTIVE ACTION-AS NO EVIDENCE WAS OBTAINABLE AS TO WHEN AND WHERE THE TRANSMITTER AMPLIFIER CIRCUIT BECAME DETUN ED, NO CORRECTIVE ACTION COULD BE RECOMMENDED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-3072F TRANSMITTER	FAR 27-01525-1	620908	ETR	YES NO	GILFILLAN 100681-2-1	
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE TELEMETRY TRANSMITTER FAILED WHEN THE CARRIER FREQUENCY DID NO T RESPOND TO A MODULATED SIGNAL. THE TRANSMITTER OPERATED SATISFACTORILY DURING FAILURE ANALYSIS.							

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CORRECTIVE ACTION-NONE. SINCE THE FAILURE COULD NOT BE VERIFIED.							693693
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	M6-99-24-3049-F COMMUTATOR MOTOR	*AR 85-01185-9	620808	FACTORY	YES NO	GENERAL DEVICE B	691988
FAILURE MODE-SHORT (ELECT). TESTS SHOWED THE NEGATIVE GATE SEGMENTS OF THE COMMUTATOR TO BE SHORTED TO THE SIGNAL S EGMENTS. THIS WAS DUE TO THE ROTOR BRUSHES SLIDING OFF THE CHANNEL SEGMENTS AND RIDING BETWEEN TWO CHANNELS. THE BRU SHES WERE BENT AND MADE CONTACT WITH TWO SEGMENTS. THE END PLAY IN THE MOTOR ALLOWED THE BRUSHES TO SLIDE OFF THE SE GMENTS. THIS END PLAY WAS DUE TO THE ABSENCE OF A LOCK RING ON THE GEAR TRAIN SHAFT. CORRECTIVE ACTION-INCREASED INSPECTION AND MANUFACTURING ATTENTION TO ROTOR SHAFT PLAY AND RETAINING RING BY THE VE NDOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	P1-6CO-01-06 TRANSMITTER-RF 4 TLM PACKAGE	COMPOSITE-B FACT	6F 620907	ETR	YES NO		693218
FAILURE MODE-FAIL DURING OPERATION. MODULATOR IN RF 4 PACKAGE FAILED DURING TEST. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. DATA TRANSMISSION CEASED WHEN DEVIATION AND MODULATION WAS LOST ON RF 4 DUE TO FAILED MODULATOR. VEHICLE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED. CORRECTIVE ACTION-REMOVE RF 4 PACKAGE AND SEND TO LAB FOR TESTS. INSTALL ANOTHER CANISTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3038 OSCILLATOR/WIRING	FAR 27-01358-148	1160 620907	FACTORY	YES NO	BENDIX PACIFIC	691391
FAILURE MODE-STRUCTURAL. THE OSCILLATOR REPORTEDLY SHIFTED FREQUENCY 40 PERCENT. THIS FREQUENCY SHIFT WAS DUE TO TH REE BROKEN WIRES WITHIN THE OSCILLATOR. CORRECTIVE ACTION-THE VENDOR IMPROVED WORKMANSHIP AND INSPECTION TECHNIQUES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-3038F PRESSURE TRANSDUCER/0 TO 3800 PSIA	FAR 27-01366-39	1610 620906	FACTORY	YES NO	SERVONICS	
*AILURE MODE-OPEN (ELECT). THE TRANSDUCER REPORTEDLY FAILED WHEN AN AMBIENT READING COULD NOT BE OBTAINED.							

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							003033
CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-2937 HARNESS ASSEMBLY/RESISTOR	FAR 27-11408-839	620903	FACTORY	YES NO		001456
FAILURE MODE-STRUCTURAL. OPEN CIRCUITS WERE FOUND BETWEEN PIN N OF 4P7 AND PIN LOWER CASE R OF 305U3P4 AND BETWEEN PIN B OF 4P7 AND PIN LOWER CASE P OF 305U1P1. THESE WERE DUE TO BROKEN RESISTERS IN TWO PERMANENT SPLICES LOCATED AT STATION 931 QUAD 4.							
CORRECTIVE ACTION-MANUFACTURING SPECIFICATION (MS) 25.43A WAS CHANGED TO PROHIBIT SPLICES IN AREAS THAT ARE SUBJECTED TO MECHANICAL STRAIN WHEN INSTALLED. A SURVEY WAS CONDUCTED TO INSPECT SLV MISSILES FOR SPLICES IN AREAS WHERE HARNESSES ARE SUBJECTED TO MECHANICAL STRAIN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-98-24-4012F SUBCARRIER OSCILLATOR MODULATOR TU BE	FAR 7-01488-861	620903	FACTORY	YES NO	BENDIX PACIFIC 1041962-4-Z	001073
FAILURE MODE-DRIFT. OSCILLATOR FAILED IN THE FACTORY WHEN THE FREQUENCY OF THE OSCILLATOR WAS REPORTED TO BE DRIFTING. FAILURE WAS CAUSED BY AN UNSTABLE MODULATOR TUBE, TYPE 6111.							
CORRECTIVE ACTION-CONVAIR INITIATED CHANGE TO REPLACE THE ROUND BENDIX TELEMETRY CANNISTER WITH THE NEW LIGHTWEIGHT BENDIX TELEMETRY PACKAGE. NEW PACKAGE WILL USE A MORE RELIABLE SOLID STATE OSCILLATOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-98-24-3190F ACCELEROMETER	FAR 27-01237-1	620904	ETR	YES NO	STATHAM AJ43A-3-350	003075
FAILURE MODE-OPEN (ELECT). THE FAILURE WAS CAUSED BY BREAKAGE OF THE STRAIN-GAGE FILAMENT WIRE BETWEEN PINS 3 AND 4. UNIT HAD BEEN SCRAPED BY A SHARP OBJECT DURING MANUFACTURE.							
CORRECTIVE ACTION-VENDOR REQUESTED TO IMPROVE QUALITY CONTROL ON THIS ITEM AND QD/C INSPECTION REQUIRED TO INTENSIFY ACCEPTANCE INSPECTION.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	H6-98-24-3015F SUBCARRIER OSCILLATOR-WIRE	FAR 27-01352-925	620830	ETR	YES NO	BENDIX	896200
FAILURE MODE-ERRATIC OPERATION. THE INTERMITTENT OUTPUT WAS DUE TO A LOOSE WIRE WHICH WAS HELD IN PLACE WITH POTTIN G COMPOUND. THIS FAILURE COULD ALSO HAVE BEEN CONTRIBUTED TO BY A FILM COATING ON THE CONNECTOR PINS. CORRECTIVE ACTION-THE VENDOR SET UP A SEPARATE AREA FOR POTTING AND REWORK OPERATIONS. NO CORRECTIVE ACTION FOR CON NECTOR FILM COATING SINCE OCCURRENCE OF DISCREPANCY IS UNKNOWN.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3018F WIRING	FAR 27-11758-5	1470 620830	FACTORY	YES NO	GDA/BENDIX PTIH-8-4 P11/10 11	892661
FAILURE MODE-OPEN (ELECTRICAL) A BREAK WAS DISCOVERED BETWEEN JACK J2E AND JUNCTION SHELL. FUNCTIONAL TESTING WAS N OT NECESSARY AS BREAK WAS VISIBLE AND DUE TO POOR INSTALLATION OR CARELESS HANDLING. CORRECTIVE ACTION-UNIT WAS PLACED ON THE REPETITIVE DISCREPANCY LIST LOG 2321 AREA A STATION 11. THIS BRINGS PROBLE M TO THE ATTENTION OF MFG PERSONNEL ALERTING FOR PROPER HANDLING AND INSTALLATION OF ASSEMBLY.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	H6-98-24-3015F SUBCARRIER OSCILLATOR	FAR 27-01352-925	620830	ETR	YES NO	BENDIX 1069043-13AA	891255
FAILURE MODE-CONTAMINATION. DURING TESTS IN TLM LAB AT SITE, UNIT PRODUCED AN INTERMITTENT OUTPUT. FAILURE WAS CONF IRMED DURING VIBRATION. FINDING WAS CONFIRMED DURING FREQUENCY ADJUSTMENT POTENTIOMETER TO THE TERMINAL BOARD. ALSO FILM COATING ON CONNECTING PINS MAY HAVE CONTRIBUTED TO THE FAILURE. CORRECTIVE ACTION-PER VENDORS LETTER FEB. 8, 1965, A SEPARATE AREA WAS SET UP FOR POTTING AND REWORK OPERATIONS AND INSPECTION AND FACTORY PERSONNEL WERE CAUTIONED OF WORKMANSHIP.						
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-98-24-3080F COMMUTATOR-MOTOR	FAR	620827	ETR-N3	YES NO	BENDIX 1086483-38	
FAILURE MODE-FAIL DURING OPERATION. THE 2.5 RPS MOTOR FAILED DURING A SYSTEM TEST. IT FAILED BECAUSE OF A COLD-SOLD ER JOINT AT THE JUNCTION OF THE BRUSH AND THE INPUT POWER LEAD. THE PRIMARY CAUSE OF FAILURE IS DUE TO POOR MANUFACT URING TECHNIQUES AND OPERATING PROCEDURES.							

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CORRECTIVE ACTION-THE VENDOR STATES THAT ENPHASIS HAS BEEN PLACED ON THEIR PRE-SEAL INSPECTION OF THE UNIT, AND THA T STRICT SURVEILLANCE WILL PREVAIL.							693648
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-294F COMMUTATOR-WIRING	FAR 27-12571-503	141 620826	FACTORY	YES NO	BENDIX	693333
FAILURE MODE-SHORT ELECT. CAUSED BY WIRE SHIELD TOUCHING TERMINAL B-16 ON S RPS COMMUTATOR CAUSING SHORT CIRCUIT.							
CORRECTIVE ACTION-EFFECTIVE WITH S/N 143, VENDOR P/N 1030292 S RPS COMMUTATOR, BENDIX-PACIFIC CORPORATION, INITIATE D A BROOMSTITCH TIE APPLIED TO KEEP WIRE BUNDLES FLAT TO ELIMINATE POSSIBLITY OF PINCHING THEM WHEN ASSEMBLY IS CLOS ED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA62-0081/P2-402-00-179 COMMUTATOR	COUNTDOWN 27-11541-879	1790 620826	12 -0760	YES NO	BENDIX	694378
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. CHANNEL 11 COMMUTATION DID NOT OCCUR WHEN TELEMETRY WAS TURNED O N.							
SYSTEM EFFECT-OPERATION DOES NOT START. CHANNEL 11 COMMUTATED SIGNAL WAS NOT OBTAINED.							
CORRECTIVE ACTION-TELEMETRY CANISTER WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-3097F AMPLIFIER	FAR 27-12792-1	620824	12	YES NO	GULTON KA-1006F	693765
FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER AND AMPLIFIER MATCHED SET FAILED DURING RUNNING OF PROCEDURE 27-9356 T-BASIC WHEN A 60-CYCLE OSCILLATION WAS DETECTED IN THE SET. DUE TO AN ERROR IN TESTING, RESULTING IN THE APPLICATION OF AN OVERVOLTAGE, THE AMPLIFIER SUSTAINED DAMAGE AND COULD NOT BE REPAIRED TO FUNCTION PROPERLY							
CORRECTIVE ACTION-NONE. THE COMPONENT WAS DAMAGED DURING FAILURE ANALYSIS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3030-F COMMUTATOR MOTOR	FAR	2150 620824	FACTORY	YES NO	BENDIX	
FAILURE MODE-STRUCTURAL. THE SPEED OF THE COMMUTATOR WAS EXCESSIVE. THE EXCESSIVE SPEED WAS DUE TO WELDED CENTRIFUG							

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AL SWITCH CONTACTS IN THE MOTOR CAUSED BY EMBRITTLEMENT OF THE SPRING MATERIAL AND CONTAMINATION OF CONTACT POINTS B Y PARTICLES WORN FROM THE MOTOR BRUSHES. THE MOTOR BRUSH WEAR WAS EXCESSIVE. CORRECTIVE ACTION-THE VENDOR CHANGED THE SPRING MATERIAL TO PREVENT EMBRITTLEMENT. THE EXCESSIVE BRUSH WEAR WAS DUE TO USE OF NON-CONFORMING BRUSH MATERIAL. THIS MATERIAL WAS REMOVED FROM STOCK AND CORRECTIVE ACTION TAKEN TO PREVEN T RECURRENCE.							691360
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-59-24-291F HARNESS	FAR 27-11408-855	1480 620824	FACTORY	YES NO		691385
FAILURE MODE-STRUCTURAL. NO CONTINUITY BETWEEN PIN P OF PLUG 4P7 AND WIRE T4167A22. THE WIRE HAD BEEN BROKEN IN TEN SION APPARENTLY DUE TO FLEXING. CORRECTIVE ACTION-SHOP PERSONNEL WERE REINSTRUCTED TO COMPLY WITH MANUFACTURING PROCESS SPECIFICATION (MPS) 21.15 A ND OTHER APPLICABLE DOCUMENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ETR P2-4CO-0 TLM CANISTER	COMPOSITE-B FACT 27-11541-879	1730 620822	ETR-12	YES BENDIX NO		693735
FAILURE MODE-ERRATIC OPERATION. DURING THE TEST A VARYING TELEMETRY SIGNAL STRENGTH WAS OBSERVED FOR RF1. SYSTEM EFFECT-ERRATIC OPERATION. RF1 HAD A VARYING SIGNAL STRENGTH. VEHICLE EFFECT-COMPOSITE P2-SCHEDULED. TEST WAS RE-RUN AS A RESULT OF THIS PROBLEM AND AN ELECTRICAL POWER PROBLEM. CORRECTIVE ACTION-THE TELEMETRY PACKAGE WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ETR LOCAL REPORT/P2-4CO-04-179 OSCILLATOR	COMPOSITE-B FACT 27-11541-881	1730 620822	12	YES GD/C NO		693736
FAILURE MODE-DRIFT RF1 CHANNEL IS SHIFTED OUT OF BAND ON THE LOW FREQUENCY SIDE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ACCELEROMETER ERS	8P-A9-24-3058-F	FAR 7-01413-3	148D 620821	FACTORY	YES NO	BORG-WARNER 94478	898898

FAILURE MODE-CONTAMINATION. THE UNIT HAD AN OUTPUT VOLTAGE OF LESS THAN 0.1 VOLT. THE REQUIRED OUTPUT IS 1.12 VOLTS . THE OPEN STATIC WIRE CAUSED THE UNIT TO MALFUNCTION. THE OPEN STATIC WIRE WAS THE RESULT OF CORROSIVE ACTION. SINC E NO LEAKS WERE DETECTED, THE CORROSION WAS DUE TO EITHER IMPROPER CLEANING PRIOR TO ASSEMBLY OR TO A LEAK AFTER ASS EMBLY THAT CORRODED SHUT.

CORRECTIVE ACTION-THE VENDOR TOOK THE FOLLOWING CORRECTIVE ACTION TO PREVENT CONTAMINATION OF THE ACCELEROMETER HEA D. 1. STRICTER CONTROL OF ALL PHASES OF SOLDERING; SPOT WELDING; AND SEALING. 2. ELIMINATION OF ACID FLUX IN SOLDERI NG OPERATIONS. 3. 100 PERCENT LEAK TEST. 4. MICROSCOPIC EXAMINATION OF WIRE STRINGING AND STATIC WIRE BEFORE FINAL A SSEMBLY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	8P-99-24-3014F	FAR	215D 620820	FACTORY	YES NO	REED AND REESE 1096485-48	898036

FAILURE MODE-ERRATIC OPERATION. FACTORY TESTING REPORTED UNIT RAN INTERMITTENTLY CAUSING FAILURE OF TELEPAK. FAILUR E COULD NOT BE CONFIRMED DURING 6 HOURS OF CONTINOUS TESTING.

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SRPS COMMUTATOR DC MOTOR ERS	8P-99-24-3014F	FAR	215D 620820	FACTORY	YES NO	REED AND REESE	898943

FAILURE MODE-ERRATIC OPERATION. THE MOTOR REPORTEDLY RAN INTERMITTENTLY CAUSING FAILURE OF TELEPAK UNIT.

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SRPS COMMUTATOR DC MOTOR ERS	RA-99-24-3013F	FAR	215D 620820	FACTORY	YES NO	REED AND REESE	898944

FAILURE MODE-ERRATIC OPERATION. THE MOTOR REPORTEDLY RAN INTERMITTENTLY CAUSING FAILURE OF TELEPAK UNIT.

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	FAR-A-8M-24-3315 PRESSURE TRANSDUCER	FAR 27-01243-7	46F 620818	SCHILLIN 6	YES NO	BOURNS 42011-0-100-752	890703

FAILURE MODE-ERRATIC OPERATION. THE TRANSDUCER FAILED WHEN IT GAVE VARYING READINGS. THE VARYING READINGS WERE CAUSED BY THE DRIVELINK BALL SLIPPING OUT OF THE SOCKET AND BEING HELD IN THE WRONG POSITION BY THE CLAMP.

CORRECTIVE ACTION-THE VENDOR INSTITUTED CHANGES IN DESIGN AND INCORPORATED CHANGES ON ALL BALL-AND SOCKET TYPE TRANSDUCERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	NZ-A9-24-3043-F PRESSURE TRANSDUCER	FAR 27-01386-39	160D 620816	FACTORY	YES NO	SERVONICS	892901

FAILURE MODE-OUT OF TOLERANCE. SIX TRANSDUCERS FAILED BECAUSE OF EXCESSIVE SPIKING. LOW WIPER ARM TENSION AND EXCESS MASS AT THE TIP CAUSED RESONANCE AT CERTAIN FREQUENCIES. THIS CAUSED ERRATIC AND SPURIOUS OUTPUT VOLTAGES.

CORRECTIVE ACTION-ENGINEERING REQUESTED THE VENDOR TO REDESIGN THE TRANSDUCER. THE VENDOR COMPLETED DESIGN EVALUATION AND WILL SUBMIT A VENDOR CHANGE PROPOSAL FOR ENGINEERING APPROVAL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-A9-24-292F COMMUTATOR	FAR 27-12768-601	160D 620815		YES NO		891363

FAILURE MODE-OUT OF TOLERANCE. THE COMMUTATOR SPEEDS REPORTEDLY EXCEEDED THE ACCEPTABLE TOLERANCES DURING SYSTEM TESTING.

CORRECTIVE ACTION-NONE. THE COMMUTATOR SPEEDS WERE ALLOWABLE PER MEMO 540-S-62-150 (DATED 15 AUGUST 1962) WHICH CHANGES THE ACCEPTABLE COMMUTATOR SPEEDS FROM NOMINAL PLUS OR MINUS 5 PCT TO NOMINAL PLUS 5 PCT MINUS 10 PCT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	SP-30-24-3048-F ACCELEROMETER	FAR 7-01413-5	620615	WTR-A1	YES NO	BORG-WARNER 97478	

FAILURE MODE-OUT OF TOLERANCE. THE UNIT FAILED WHEN ITS OUTPUT VOLTAGE WAS TOO HIGH. THE FAILURE WAS MOST LIKELY DUE TO AGING AND BURN-IN.

CORRECTIVE ACTION-EFFECTIVE 28 NOVEMBER 1962, ALL NEW ACCELEROMETERS PRODUCED BY BORG-WARNER WILL BE OPERATED A MIN

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IMUM OF FIFTEEN HOURS BEFORE CALIBRATION IN THE VENDORS FACTORY IN ORDER TO MINIMIZE DRIFTING DUE TO AGING AND BURN-IN.							000657
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-84-3064-F COMMUTATOR-TRANSISTOR	FAR 27-01367-9	620609	ETR	YES NO	FIFTH DIMENSIO N	000656
FAILURE MODE-FAIL DURING OPERATION. THE UNIT FAILED TO OPERATE DURING CHECKOUT. THE FAILURE WAS DUE TO A TRANSISTOR THAT HAD AN OPEN BASE DUE TO OVERCURRENT. THE CAUSE OF THE OVERCURRENT WAS NOT DETERMINED. THERE WERE ALSO WIRE STRANDS AND SMALL QUANTITIES OF SOLDER INSIDE THE UNIT IN THE AREA OF THE PINS. CORRECTIVE ACTION-FIFTH DIMESION INFORMED GDC THAT THEIR QUALITY-CONTROL DEPT. IS NOW MORE FULLY DEVELOPED AND FORMALIZED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	F1-6CO-03-07 SWITCH	COMPOSITE-B FACT	TF 620807	ETR-11	YES YES		002035
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE SWITCHING UNIT FOR THE STAGING STUDIES INSTRUMENTATION DID NOT FUNCTION PROPERLY. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. THE SWITCHING UNIT FOR THE STAGING STUDIES INSTRUMENTATION DID NOT FUNCTION PROPERLY. THEREFORE, THE INSTRUMENTATION SYSTEM DID NOT PROVIDE THE PROPER DATA. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-CHANGED SWITCH BUT PROBLEM NOT CORRECTED. NO OTHER INFORMATION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA62-0CY1/F1-6CO-03-07 TELEMETRY SWITCH UNIT RELAY	COMPOSITE-B FACT	TF 620804	11	YES NO		004039
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. TELEMETRY SWITCH UNIT FAILED TO OPERATE BECAUSE OF BURNED RELAY. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. COMMUTATORS, WHICH HAD BEEN RUNNING ON EXTERNAL POWER, STOPPED. VEHICLE EFFECT-COMPOSITE DELAYED. CORRECTIVE ACTION-RF PACKAGE REMOVED AND REPLACED. CORRECTIVE ACTION ON PACKAGE CONSISTED OF REPLACING SWITCH UNIT.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-3004-F ACCELEROMETER TRANSDUCER	FAR 7-01415-5	1310 620730	FACTORY	YES NO	B.J. ELECTRONI CS	000653

FAILURE MODE-CONTAMINATION. THE UNIT FAILED WHEN IT HAD NO OUTPUT. AN OPEN STATIC WIRE CAUSED LOSS OF ELECTRICAL OU TPUT. THE STATIC WIRE OPENED BECAUSE OF CORROSIVE ACTION. A POOR SOLDER SEAL ALLOWED MOISTURE TO ENTER THE ACCELEROM ETER HEAD..

CORRECTIVE ACTION-EFFECTIVE OCTOBER 1962. THE VENDOR ABANDONED THE USE OF ACID-CORE SOLDER AND BEGAN A 100 PERCENT HELIUM LEAK CHECK OF THE ACCELEROMETERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX62-0032/FC-4CO-01D-160 COMMUTATOR	COMPOSITE-FACTORY 27-12762-801	160D 620727		YES NO		000639

FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR SPEEDS FOR CHANNELS 13, A AND C WERE BELOW THE MINIMUM REQUIRED.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE. TELEMETRY SYSTEM IRREGULARITIES WAIVED BY THE PROCURING ACTIVITY TO EXPEDITE SHIPMENT AND WAS CORRECTED AT THE LAUNCH SITE.

CORRECTIVE ACTION-REPLACED TELEPAK.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MS-A9-24-3003-F PRESSURE TRANSDUCER	FAR 7-01731-9	113D 620727	FACTORY		BOURNS	002902

FAILURE MODE-OPEN (ELECT). THE FAILURE REPORTED ERRATIC OUTPUTS, AND WAS DUE TO AN INTERMITTENTLY OPEN RESISTANCE W INDING. THE OPEN APPEARED TO BE DUE TO EXCESSIVE CURRENT THROUGH THE RESISTANCE ELEMENT.

CORRECTIVE ACTION-PERSONNEL WERE INFORMED OF THE CAUSE OF THE FAILURE AND WERE INSTRUCTED NOT TO USE EQUIPMENT SUCH AS SIMPSON TYPE OHM METERS WHICH COULD CAUSE EXCESSIVE ELEMENT CURRENT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MS-A9-24-281-F PRESSURE TRANSDUCER	FAR 7-01780-2	113D 620727	FACTORY		SERVIONIC	

FAILURE MODE-OUT OF TOLERANCE. THE TRANSDUCER REPORTEDLY INDICATED AN OSCILLATION AT A RATE OF 0.8 TO 1.0 CPS.

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CORRECTIVE ACTION-THE FAILURE WAS NOT CONFIRMED. NO CORRECTIVE ACTION TAKEN.							892906
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A90-24-3001F COMMUTATOR	FAR 27-12642-801	124D 620724	WTR	NO NO	UNITED ELECTRO DYNAMIC 14364-6	898499
FAILURE MODE-FAIL DURING OPERATION. NO OUTPUT COULD BE OBTAINED FROM COMMUTATOR SEGMENT 4 ON SUBCARRIER CHANNEL 14. FAILURE WAS NOT CONFIRMED BY FAILURE ANALYSIS TESTS. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-90-24-3001F SIGNAL CONVERTER	FAR 27-12642-801	124D 620724	WTR	YES NO	UNITED ELECTRO DYNAMICS	891827
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. REPORTEDLY NO READING COULD BE OBTAINED FROM THE TEST POINT CONNECTED TO COMMUTATOR SEGMENT 4 ON SUBCARRIER CHANNEL 14. CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3068-F RELAY	FAR 86-73006-001	620723	FACTORY	YES NO	C.P.CLARE 989668	883654
FAILURE MODE-FAIL DURING OPERATION. TWO RELAYS FAILED WHEN THE CONTACTS CLOSED INTERNALLY DURING A VIBRATION TEST. THE FAILURES WERE CAUSED BY EXCESSIVE CURRENT GOING THROUGH THE RELAY CONTACTS. THE REASON FOR APPLICATION OF EXCESSIVE CURRENT WAS NOT FOUND. CORRECTIVE ACTION-NONE, SINCE THE CAUSE OF THE RELAY FAILURES WAS NOT FOUND.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX82-0030/FC-4CO-06-113 TLM CANISTER	COMPOSITE-FACTORY 27-12290-811	113D 620722		YES NO		
FAILURE MODE-ERRATIC OPERATION - DISPLACEMENT GYRO MEASUREMENTS ON CHANNEL E SEGMENTS 33, 35 AND 37, INDICATED DISTORTION AND UNEXPECTED AMPLITUDE VARIATIONS DURING COMPOSITE TESTING. THIS CONDITION IS CAUSED BY THE HIGH INPUT IMPEDANCE OF THE DEMODULATORS, COMMUTATOR SHORTING TIME, AND THE NEGATIVE GATE ISOLATION RESISTANCE. THIS IS COMMON TO ALL LIGHT WEIGHT MERCURY TELEPAKS. SYSTEM EFFECT-ERRATIC OPERATION, OUTPUT MEASUREMENTS DISTORTED.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							899709

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-ECP 7092 INITIATED WHICH INCLUDES A DESIGN CHANGE TO REMEDY THIS CONDITION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3408F OSCILLATOR	FAR 27-01269-61	620722	FACTORY	YES NO	BENDIX-PACIFIC	899461

FAILURE MODE-ERRATIC OPERATION. THE OUTPUT SIGNAL BECAME ERRATIC. THE FAILURE WAS NOT CONFIRMED.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3021F VOLTAGE CONTROL OSCILLATOR	FAR 27-01268-63	620720	FACTORY	YES NO	BENDIX PACIFIC	899778

FAILURE MODE-OUT OF TOLERANCE-UNIT REPORTEDLY HAD UP TO 7 PERCENT NOISE DURING VIBRATION TESTING.

CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED IN THAT NO NOISE WAS MEASURED. HOWEVER, FREQUENCY DRIFT WAS EXCESSIVE D UE TO DRIFT IN TUBE V1 (RAYTHEON 6922). NO CORRECTIVE ACTION WAS REQUIRED AS BOTH THE TUBE AND THE UNIT WERE OVER 2 YEARS OLD.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3066F OSCILLATOR	FAR 7-01488-827	620720	FACTORY	YES NO	BENDIX-PACIFIC 1050702-13K	899855

FAILURE MODE-ERRATIC OPERATION. OSCILLATOR OUTPUT WAS NON-LINEAR ON THE HIGH FREQUENCY SIDE. THE FAILURE WAS DUE TO NORMAL AGEING OF THE COMPONENTS USED, (TUBES AND RESISTORS).

CORRECTIVE ACTION-NONE. THE AIR FORCE WILL NOT ALLOW ADDITIONAL OUTLAYS FOR NEW OSCILLATORS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3084F SIGNAL AMPLIFIER-COAX	FAR 27-01273-1	620720	FACTORY	YES NO	BENDIX-PACIFIC 1051269-1	

FAILURE MODE-FAIL DURING OPERATION. THE SIGNAL AMPLIFIER FAILED WHEN NOISE WAS REPORTED ON ALL CHANNELS DURING VIBR ATION TESTS. ANALYSIS SHOWED THAT THE COAXIAL CABLE AND THE YELLOW INPUT WIRE WERE NOT PROPERLY TIED DOWN TO OVERCOM E RESONANCE.

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							893646
CORRECTIVE ACTION-THE VENDOR INDICATED THAT HE WOULD REMOVE THE PHYSICAL TIE BETWEEN THE TWO LEADS, AND PHYSICALLY TIE THE YELLOW LEAD TO A RIGID MEMBER TO KEEP IT FROM VIBRATING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3088F OSCILLATOR	FAR 27-01268-13	2080 620720	FACTORY	YES NO	BENDIX-PACIFIC 1050263-96A	893693
FAILURE MODE-OUT OF TOLERANCE. THREE OSCILLATORS FAILED DURING PRODUCTION TESTING OF THE TELEMETRY PACKAGES OF MISSILES 2080, 1870 AND 45F, WHEN OUT-OF- TOLERANCE CONDITIONS WERE OBSERVED. THE REPORTED FAILURES WERE NOT CONFIRMED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3091F OSCILLATOR	FAR 27-01268-31	2000 620720	FACTORY	YES NO	BENDIX-PACIFIC 1050263-12-TA	893690
FAILURE MODE-FAIL DURING OPERATION. THE OSCILLATOR FAILED DURING MANUFACTURING TESTING OF THE TELEMETRY PACKAGE WHEN THE OUTPUT COULD NOT BE ADJUSTED. THE REPORTED FAILURE WAS NOT CONFIRMED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3089F OSCILLATOR	FAR 27-01268-3	620720	FACTORY	YES NO	BENDIX-PACIFIC 1050263-46A	893692
FAILURE MODE-OUT OF TOLERANCE. TWO OSCILLATORS FAILED DURING MANUFACTURING VIBRATION TESTING WHEN OUT-OF-TOLERANCE CONDITIONS WERE OBSERVED. THE REPORTED FAILURES WERE NOT CONFIRMED.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3090F OSCILLATOR	FAR 27-01268-19	1830 620720	FACTORY	YES NO	BENDIX-PACIFIC 1050263-11-TA	
FAILURE MODE-FAIL DURING OPERATION. TWO VOLTAGE CONTROL OSCILLATORS FAILED DURING MANUFACTURING VIBRATION TESTING WHEN ONE HAD NO OUTPUT AND THE OTHER HAD 5 PERCENT DISTORTION AND 3 PERCENT FULL BANDWIDTH SHIFT. THE REPORTED FAILURES WERE NOT CONFIRMED.							

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							893691

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3038F OSCILLATOR	FAR 27-01268-69	1970 620720	FACTORY	YES NO	BENDIX-PACIFIC 1050263-11-MA	893689

FAILURE MODE-ERRATIC OPERATION. TWO OSCILLATORS FAILED DURING MANUFACTURING VIBRATION TESTING WHEN ONE INDICATED NO ISE UP TO 14 PERCENT AND THE OTHER HAD FREQUENCY DRIFT FROM 8.5 KC TO 8.9 KC. THESE OSCILLATORS WERE FOR 1970 AND 87 F. THE REPORTED FAILURES WERE NOT CONFIRMED.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3034-F OSCILLATOR, WIRING	FAR 27-01268-11	620720	FACTORY	YES NO	BENDIX-PACIFIC	893521

FAILURE MODE-OPEN, ELECTRICAL. THE TELEMETRY PACKAGE OUTPUT SIGNAL BECAME ERRATIC DUE TO THE OSCILLATOR ERRATIC OUT PUT. THIS WAS CAUSED BY A BREAK AT THE JUNCTION BETWEEN COIL L-1 AND THE EXTERNAL LEAD IN WIRE.

CORRECTIVE ACTION-VENDOR REQUIRED TO MAKE A MORE RIGID INSPECTION OF THESE OSCILLATORS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3026-F VOLTAGE CONTROLLED OSCILLATOR-VACU UM TUBE	FAR 7-01664-857	620720	FACTORY	YES NO	BENDIX	893523

FAILURE MODE-ERRATIC OPERATION. THE OSCILLATOR WAS NON-LINEAR AT CENTER FREQUENCIES. THIS WAS DUE TO A DEFECTIVE OS CILLATOR TUBE V-2 (SYLVANIA TYPE 6111).

[redacted] CORRECTIVE ACTION-NONE. A MORE RELIABLE EQUIVALENT TUBE WAS NOT AVAILABLE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3005F OSCILLATOR-WIRING	FAR 58-01174-131	620720	FACTORY	YES NO	BENDIX PACIFIC 1062141-166	

[redacted] FAILURE MODE-OPEN (ELECTRICAL). ONLY 0.61 VOLT OUTPUT WAS MEASURED WHEN 0.840 PLUS OR MINUS 0.005 IS REQUIRED. THI S WAS CAUSED BY AN OPEN WIRE IN THE POTTING.

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							893249
CORRECTIVE ACTION-NO CORRECTIVE ACTION WAS TAKEN BY VENDOR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A99-24-3011F VOLTAGE CONTROLLED OSCILLATOR	FAR 7-01664-051	620720	FACTORY	YES NO	BENDIX 1040659-4T	893248
FAILURE MODE-ERRATIC OPERATION. POSITIVE AND NEGATIVE SPIKES WERE NOTED UP TO 15 PCT OF AMPLITUDE.							
CORRECTIVE ACTION-AVO ISSUED TO FACTORY PERSONNEL TO INSURE TIGHT TESTING CABLE CONNECTIONS AND THOROUGH TESTING OF REPLACEMENT UNITS. FAILURE WAS NOT CONFIRMED OR DUPLICATED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-3045-F VOLTAGE CONTROLED TELEMETRY OSCILL ATOR	FAR 27-01268-9	620720	FACTORY	YES NO	BENDIX-PACIFIC	891929
FAILURE MODE-ERRATIC OPERATION. OUTPUT SIGNALS BECAME ERRATIC.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3050-F OSCILLATOR-REGISTOR	FAR 27-01268-3	620720	FACTORY	YES NO	BENDIX-PACIFIC	891180
FAILURE MODE-OPEN (ELECT). THERE WAS NO OUTPUT SIGNAL FROM THE OSCILLATOR. THE CAUSE WAS ISOLATED TO AN OPEN RESIST OR (R-17). THE RESISTOR DID NOT APPEAR TO HAVE OPENED AS THE RESULT OF AN OVER LOAD.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-273F COMMUTATOR MOTOR	FAR 27-10388-841	1360 620716	FACTORY	YES NO	104700-8	897206
FAILURE MODE-OUT OF TOLERANCE DUE TO EXCESSIVE COMMUTATOR MOTOR SPEED.							
CORRECTIVE ACTION-EOP 330-474-01 CHANGED TO COMPLY WITH SPEC. CONTROL DWG. 27-41010-1.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-84-3437-F RELAY	FAR 66-75000-006	820718	FACTORY	YES NO	UNION SWITCH A NO SIGNAL UNS29754-032	894093

FAILURE MODE-OUT OF TOLERANCE. RELAY OPERATING TIME AFTER BEING ENERGIZED WAS REPORTED OUT OF TOLERANCE. N/A 7-1222 2-5.

CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED BY TEST AND PHYSICAL EXAMINATION REVEALED NO DISCREPANCIES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-98-84-3077F COMMUTATOR MOTOR	FAR 87-11841-611	820716	ETR-H	YES NO	BENDIX-MONTROS E 1096485-35	895186

FAILURE MODE-STRUCTURAL. THE COMMUTATOR MOTOR FAILED WHEN AN RPM FLUCTUATION WAS OBSERVED. ANALYSIS SHOWED THAT THE MOTOR SPEED WAS VARIABLE, HIGH, AND OUT OF SPEC. THE FAILURE WAS CAUSED BY A PAIR OF GOVERNOR SWITCH CONTACTS WELDED TOGETHER AT ONE EDGE.

CORRECTIVE ACTION-BENDIX PACIFIC STATED THAT THE PROBLEM WAS DUE TO HYDROGEN EMBRITTLEMENT, RESTRICTING GOVERNOR CONTACT MOVEMENT. THE SUPPLIER INITIATED A MATERIAL CHANGE IN DECEMBER 1981.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A9H-84-273F PRESSURE TRANSDUCER	FAR 87-01243-9	47F 820714	LAFB	YES NO	COLVIN	897526

FAILURE MODE-EXTERNAL LEAK IN SEALED CHAMBER RESULTING IN TRANSDUCER READING GAUGE INSTEAD OF ABSOLUTE.

CORRECTIVE ACTION-VENDOR INITIATED PROCEDURE EFFECTIVE MAY 14 1983 WHERE ALL ABSOLUTE UNITS WILL HAVE A SHELF LIFE OF AT LEAST 7 DAYS BETWEEN EVACUATION AND ACCEPTANCE TESTING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-84-280F POWER SUPPLY CAPACITOR	FAR 87-11859-5	820708	FACTORY	YES NO	

FAILURE MODE-SHORT (ELECT). NO OUTPUT WAS RECEIVED ALTHOUGH 40 VOLTS WAS REQUIRED. THIS WAS DUE TO THE CASES OF CAPACITORS C1 AND C2 BEING SHORTED TOGETHER. THIS APPEARED TO BE CONTRIBUTED TO BY THE PHYSICAL LAYOUT.

CORRECTIVE ACTION-NONE. THE POWER SUPPLY IS OBSOLETE. SIMILAR DESIGNS STILL ACTIVE WILL BE REVIEWED FOR THIS DEFECT

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
AND CORRECTED IF REQUIRED.							893264
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-280F POWER SUPPLY	FAR 27-11559-5	620709	FACTORY	YES NO		891283
FAILURE MODE-SHORT (ELECTRICAL). MECHANICAL SHORT BETWEEN C1 AND C2 CASES. CORRECTIVE ACTION-NONE. UNIT OBSOLETE. NO FURTHER REQUIREMENTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	HG-A9-24-295F DIFFERENTIAL PRESSURE TRANSDUCER	FAR 87-93900-033	1130 620709	FACTORY	YES NO	SERVONICS	890634
FAILURE MODE-ELECTRICAL SHORT. THE UNIT FAILED WHEN A 5 PERCENT CHANGE IN THE OUTPUT READING OCCURRED. THE FAILURE WAS CONFIRMED. A PERMANENT SHIFT OF 2.3 PERCENT WAS OBSERVED AT THE 3.0 PSI POINT. THE INCREASE IN OUTPUT VOLTAGE AT THE 3.0 PSI POINT OCCURRED AS A RESULT OF SHORTED TURNS AT APPROXIMATELY THE 8.4 PSI POINT. THE SHORTED TURNS OCCURRED AS A RESULT OF THE WIPER ARM PEENING THE COIL DURING VIBRATION. CORRECTIVE ACTION-THE VENDOR MODIFIED THE TRANSDUCERS SO THEY ARE CAPABLE OF PASSING THE HIGHEST G-LEVEL REQUIRED IN SPECIFICATION 27-01445.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SF-A9-24-3029F COMMUTATOR/REGULATOR	FAR 27-12762-601	1600 620708	FACTORY	YES NO	FIFTH DIMENSIO N	891390
FAILURE MODE-ELECTRICAL OPEN. CHANNELS 13, A AND C INDICATED NO COMMUTATION. FAILURE WAS CONFIRMED AND WAS DUE TO AN OPEN BASE-EMITTER JUNCTION OF TRANSISTOR 2N730 IN THE REGULATOR CIRCUIT. CORRECTIVE ACTION-THE CAUSE OF THE FAILURE WAS NOT DETERMINED. NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SF-A9-24-3029F COMMUTATOR/REGULATOR	FAR 27-12762-601	1600 620708		YES NO	FIFTH DIMENSIO N	
FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR SPEED WAS TOO FAST. IT WAS FOUND THAT THE SPEED WAS OUT OF SPECIFICATION WITH 30 VDC APPLIED. THIS WAS DUE TO THE VOLTAGE SETTING ON THE MOTOR BY THE VENDOR.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-THE VENDOR IMPROVED THE VOLTAGE REGULATOR AND THE SPEED TOLERANCE WERE INCREASED TO A MORE REALIS TIC VALUE. REFER TO MEMO 548-3-62-166 DATED 621106.							691307
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-278F POWER SUPPLY	FAR 27-11339-5	620706	SAN DIEG O	YES NO		692033
FAILURE MODE-SHORT (ELECTRICAL). SHORT BETWEEN C2 CASE AND TRANSFORMER TERMINAL 6. CORRECTIVE ACTION-NONE. UNIT OBSOLETE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-276F POWER SUPPLY CAPACITOR	FAR 27-11139-5	620706	FACTORY	YES NO		691436
FAILURE MODE-SHORT (ELECT). NO OUTPUT WAS RECEIVED ALTHOUGH 40 VOLTS WAS REQUIRED. THIS WAS DUE TO THE CASE OF CAPA CITOR C2 BEING SHORTED TO GROUND. THIS APPEARED TO BE CONTRIBUTED TO BY THE PHYSICAL LAYOUT. CORRECTIVE ACTION-NONE. THE POWER SUPPLY IS OBSOLETE. SIMILAR DESIGNS STILL ACTIVE WILL BE REVIEWED FOR THIS DEFECT AND CORRECTED IF REQUIRED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-A9-24-268F TLM CANISTER	FAR 27-12290-611	1130 620705	FACTORY	YES NO		696666
FAILURE MODE-ERRATIC OPERATION-DURING TELEMETRY CHECKS SLIGHT SPIKING WAS OBSERVED ON THE MASTER PULSE FOR SUBCARRI ER CHANNEL A. NO SPIKING WAS OBSERVED IN TESTS WHEN OUTPUTS OF ALL CHANNELS WERE VIEWED BY OSCILLOSCOPE AND SPECIAL ANALOG RECORDS. CORRECTIVE ACTION-NONE-FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MZ-99-24-278C SUBCARRIER OSCILLATOR	FAR 27-12762	1600 620705	FACTORY	NO NO		
FAILURE MODE-OUT OF TOLERANCE. CHANNEL 11 SUBCARRIER OSCILLATOR SIGNAL INDICATED IMPROPER BANDWIDTH AND DISTORTED W AVEFORM. THESE WERE SUBSEQUENTLY FOUND TO HAVE BEEN CAUSED BY FAULTY FACTORY TEST EQUIPMENT.							

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CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							891367
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-90-24-271F SIGNAL CONDITIONER	FAR 27-12890-809	820703	WTR	YES NO		898886
FAILURE MODE-CONTAMINATION. DURING A SIMULATED COUNTDOWN THE SIGNAL CONDITIONER WAS IN OPERATIVE, DUE TO BALL BEARINGS LODGED BETWEEN THE GEARS. CORRECTIVE ACTION-EFFECTIVE AUG 8 1962 THE VENDOR INITIATED THE USE OF VISUAL AIDS FOR INSPECTION PRIOR TO SEALING THE SWITCHES OF WHICH THERE ARE THREE IN SUBJECT CONDITIONER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-90-24-271F POWER CHANGEOVER SWITCH BEARING	FAR	820703	WTR	YES NO	KINETICS	892067
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. POWER CHANGEOVER SWITCH FAILED DUE TO A BALL FROM A BEARING LODGING BETWEEN THE GEARS. THE BEARING WAS EITHER IMPROPERLY INSTALLED OR DEFECTIVE. CORRECTIVE ACTION-THE VENDOR INITIATED THE USE OF VISUAL AIDS FOR INSPECTION PRIOR TO SEALING THE SWITCHES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-90-24-283F SIGNAL CONDITIONER-COMMUTATOR	FAR 27-12242-8	1150 820631	WTR	YES NO	UNITED ELECTRO DYNAMICS	896490
FAILURE MODE-FAIL DURING OPERATION. THE 10 RPS COMMUTATOR HAD PASSED ITS USEFUL LIFE SPAN. CORRECTIVE ACTION-NONE							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-90-24-283-F COMMUTATOR, MOTOR	FAR	1150 820631	WTR	YES NO	UNITED ELECTRO DYNAMICS AN/DKT-18	891366
FAILURE MODE-OUT OF TOLERANCE. THE 10 RPS MOTOR MALFUNCTIONED BY OPERATING INTERMITTENTLY. THIS WAS CAUSED BY ERRODED AND PITTED GOVERNOR CONTACTS. THE USEFULL LIFE OF THE COMMUTATOR HAD APPARENTLY BEEN EXCEEDED. CORRECTIVE ACTION-NONE. THE COMMUTATOR IS NOW OBSOLETE.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-90-24-284P PRESSURE TRANSDUCER	FAR 7-01732-5	620628	WTR	YES NO	BOURNS	892879
FAILURE MODE-LEAK INTERNAL. AN OPEN RESISTANCE WAS FOUND DURING A CONTINUITY CHECK. A LEAK IN THE BOURDON TUBE CAUSED ENTRAPPED GAS UNDER PRESSURE IN THE CASE WHICH CAUSED THE WIPER ARM TO RIDE OVER THE STOP AND BECOME DEFORMED, THEREBY OPENING THE CIRCUIT. CORRECTIVE ACTION-THE VENDOR HAS INITIATED HIGH PRESSURE LEAK CHECKING.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-90-24-282-F PRESSURE TRANSDUCER	FAR 7-01720-5	1450 620621	ETR	YES NO	BOURNS	892900
FAILURE MODE-CONTAMINATION. THE FAILURE WAS NOTED AS AN OPEN READING BETWEEN PINS A AND C. THIS WAS CAUSED BY A FIBER LODGED BETWEEN THE RESISTANCE COIL AND THE WIPER ARM. CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-90-24-299F SIGNAL CONVERTER	FAR 27-12642	57F 620619	WTR	YES NO	UNITED ELECTRO DYNAMIC 14362-M	893331
FAILURE MODE-FAILED DURING OPERATION WHEN TESTS ON MAPCHE DISCLOSED 400 CPS. INTERFERENCE IN THE OUTPUTS OF ALL SUB CARRIER CHANNELS. FAILURE ANALYSIS DID NOT CONFIRM FAILURE AS REPORTED. MODIFICATIONS PER ECP 9016 HAD NOT BEEN ACCOMPLISHED PRIOR TO REPORT I.R. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-90-24-299F SIGNAL CONVERTER	FAR 27-12642	57F 620619		YES NO	UNITED ELECTRO DYNAMICS	891364
FAILURE MODE-OUT OF TOLERANCE. MAPCHE EQUIPMENT DISCLOSED 400 CPS INTERFERENCE IN THE OUTPUTS OF ALL SUBCARRIER CHANNELS. CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED. THE INTERFERENCE MAY HAVE BEEN DUE TO IMPROPER GROUNDING.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AX62-0030/AR141-0-1-113/FC-4CO-02- 113 TLM CANISTER	COMPOSITE-FACTORY 27-12E90-011	1130 620613		YES NO		000337

FAILURE MODE-OUT OF TOLERANCE-VARIATIONS UP TO 5 PER CENT IBW WERE INDICATED ON TLM MEASUREMENTS FOR PITCH, YAW AND ROLL DISPLACEMENT GYROS, BUT WERE NOT EVIDENT ON ENGINE FEED BACK TRANSDUCERS. THIS WAS ATTRIBUTED TO SIGNAL CONDIT IONING CIRCUITRY IN TELEMETRY CANISTER.

SYSTEM EFFECT-ERRATIC OPERATION-TLM SIGNALS WERE VARING UP TO 5 PER-CENT OF IBW.

VEHICLE EFFECT-COMPOSITE DELAY.

CORRECTIVE ACTION-ECP 7092 WHICH IS SCHEDULED AS A POST ACCEPTANCE TASK WILL, CORRECT THIS CONDITION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-3073C TAPE RECORDER	FAR	620309	ETR	YES NO	SPEIDEL 87.5-1	003852

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING TESTING THE TAPE IN THE TAPE-RECORDER MAGAZINE WAS FOUND JA MMED BETWEEN THE CAPSTAN AND IDLER WHEEL. THE TAPE AND RECORDER MOTOR CAN WEAR TO THE POINT WHERE THE TAPE CAN FAIL BY JAMMING. THIS WOULD HAPPEN WHEN THE USEFUL LIFE OF THE RECORDER WAS EXCEEDED. THERE WAS NO FAILURE ANALYSIS.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-98-24-237F OSCILLATOR-POTENTIOMETER	FAR 27-01352-125	1330 620604	ETR	YES NO	BENDIX PACIFIC	000798

FAILURE MODE-FAILS TO OPERATE AT PRESCRIBED TIME DURING SYSTEM CHECKOUT. POSSIBLE FAILURE OF POTENTIOMETER CIRCUIT.

CORRECTIVE ACTION-VENDOR INSTITUTED A TWO STAGE PROGRAM OF POTENTIOMETER IMPROVEMENT THAT BECAME EFFECTIVE IN THE S PRING OF 1961, BY CHANGES IN POTENTIOMETER MATERIAL USED, MANUFACTURING, AND INSPECTION PROCEDURES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-98-24-237F OSCILLATOR	FAR 27-01352-125	1330 620604	ETR	YES NO	BENDIX PACIFIC	

FAILURE MODE-ERRATIC OPERATION. DURING SYSTEM CHECKOUT S/N101789 WAS INTERMITTENT POSSIBLE FAILURE OF POTENTIOMETER CIRCUIT.

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CORRECTIVE ACTION-VENDOR INSTITUTED A TWO STAGE PROGRAM OF POTENTIOMETER IMPROVEMENT THAT BECAME EFFECTIVE IN THE S PRING 1961, BY CHANGES IN POTENTIOMETER MATERIAL USED, MANUFACTURING, AND INSPECTION PROCEDURES.							898703
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-272F AMPLIFIER	FAR 27-01016-1	620530	FACTORY	YES YES NO	APPLIED ELECTR ONICS DC-1-016	898025
FAILURE MODE-OUT OF TOLERANCE. WITH NEGATIVE INPUT THE OUTPUT WOULD NOT EXCEED 1.8 VOLTS SPEC. REQUIRES 5 VOLTS. CORRECTIVE ACTION-UNKNOWN. CAUSE OF FAILURE COULD NOT BE DETERMINED							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-A9-24-272-F DIFFERENTIAL D-C AMPLIFIER	FAR 27-01016-1	620530	FACTORY	YES NO	APPLIED ELECTR ONICS	891800
FAILURE MODE-OUT OF TOLERANCE. LOW AMPLITUDE PULSE READINGS WERE OBSERVED ON 7 OF 17S TERMINALS AND NEGATIVE-GOING PULSE READINGS ON 3 OTHER TERMINALS. CORRECTIVE ACTION-NONE. DAMAGE DURING TROUBLE SHOOTING PROHIBITED LOCATING THE EXACT CAUSE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-28-24-266F TRANSMITTER	FAR 33-01148-3	107D 620521	ETR	NO NO	TEXAS INSTRUME NTS 455578-7	898689
FAILURE MODE-OUT OF TOLERANCE. DUE TO BEING OFF CENTER FREQUENCY BY 32KC AS DETERMINED BY THE RANGE GROUND STATION. DURING OPERATION OF THE MISSILE PER. ECP 27-90533-OR. TESTS IN ETR TELEMETRY LAB. INDICATED OFF CENTER FREQUENCY BY 11.2 SPEC. MAX. ALLOWABLE 23KC. FAILURE WAS NOT CONFIRMED. CORRECTIVE ACTION-CAUSE OF REPORTED FAILURE FOUND TO BE FAULTY TEST EQUIPMENT WHICH HAS SINCE BEEN REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-265F OSCILLATOR	FAR 27-01330-1	620518	FACTORY	YES NO	SOLID STATE EL ECTRONICS C-1109	
FAILURE MODE-OUT OF TOLERANCE. DURING TESTING IN FACTORY UNIT OUTPUT WAS LOW AND INTERMITTENT. CAUSED BY POOR SOLDE R CONNECTION BONDING A CRYSTAL INPUT WIRE TO THE 100KC CRYSTAL IN THE TANK CIRCUIT OF THE OSCILLATOR.							

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CORRECTIVE ACTION-THE VENDOR SLOWED THE CONVEYOR BELT DOWN TO PROVIDE AN IMPROVED HEAT CYCLE IN BONDING CRYSTAL LEA D TO CRYSTAL.							898890
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-6D-24-277-F PRESSURE TRANSDUCER/0-100 PSIA	FAR 7-01723-13	620518	MTR	YES NO	CEC	898980
FAILURE MODE-LEAK INTERNAL. THE TRANSDUCER REPORTEDLY READ APPROXIMATELY 1.23 PERCENT WITH 9 PSIG IN THE FUEL TANK. A READING OF 24 PERCENT IS REQUIRED. THIS WAS DUE TO A LEAK INSIDE THE SEALED CHAMBER. IT IS CONCLUDED THAT THE LEA K OCCURRED AT THE SOLDER SEAL.							
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-9B-24-270F POWER CHANGEOVER SWITCH	FAR 27-01206-5	620503	ETR	YES NO	KINETICS	898987
FAILURE MODE-OPEN (SELECT) - OCCURED DURING SWITCHING FROM EXTERNAL TO THE INTERNAL MODE. TROUBLE SHOOTING INDICATED MOTOR COIL WAS OPEN CIRCUITED-FAILURE WAS CONFIRMED WHEN MOTOR COIL WAS FOUND BURNED OPEN DUE TO EXCESSIVE PASSAGE OF CURRENT.							
CORRECTIVE ACTION-TWX SENT TO ETR WARNING COGNIZANT PERSONNEL TO CONFORM TO TEST OPERATIONS PER PROCEDURES- ENGINEE RING WILL MAINTAIN SURVEILLANCE OF POWER CHANGEOVER SWITCHES, EFFECTIVE AUG 6 1962.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-025-F 2.5 RPS COMMUTATOR	FAR 27-01187-3	1040 620424	AIR	NO NO	FIFTH DIMENSIO N	898810
FAILURE MODE-FAILED DURING OPERATION. DUE TO FAILURE OF POWER INPUT TRANSISTOR 2N656. PROBABLE TRANSISTOR FAILURE W AS DUE TO REVERSE VOLTAGE APPLICATION DURING BENCH TEST.							
CORRECTIVE ACTION-PROVIDE SITE PERSONNEL WITH CORRECT TEST EQUIPMENT AND OPERATING PROCEDURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE62-0447/PE-4MO-00-133 TELEMETRY ACCESSORY PACKAGE	COMPOSITE-FRD/DPL	1330 620420	ETR-12	YES NO		
FAILURE MODE-FAIL DURING OPERATION-TELEMETRY ACCESSORY PACKAGE HAD TO BE REPLACED.							

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							898217

VEHICLE EFFECT-UNKNOWN.

CORRECTIVE ACTION-REPLACED TELEMETRY ACCESSORY PACKAGE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-98-24-261-F PRESSURE TRANSDUCER	FAR 7-01731-5	620418	ETR	YES NO	BOURNS	898981

FAILURE MODE-OUT OF SPECIFICATION. A CALIBRATION CHECK INDICATED THAT THE PRESSURE WAS 25 PSI LOWER THAN NORMAL AT 757 PSI LEVEL OF THE BOOSTER CONTROL PNEUMATIC REGULATOR OUTPUT. THIS TRANSDUCER WAS ACCEPTED ON THE BASIS OF A VEND OR DATA SHEET AND APPARENTLY WAS OUT OF TOLERANCE WHEN RECEIVED.

CORRECTIVE ACTION-MS 63-24 AB WAS RELEASED, CLARIFYING CALIBRATION AND CLEANING REQUIREMENTS FOR THIS TRANSDUCER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	PRESSURE TRANSDUCER	FAR 7-01732-3	1040 620411	ANR	YES NO	BOURNS	891917

FAILURE MODE-CONTAMINATION. OUTPUT OF ONE TRANSDUCER WAS LOW AND THE OTHER WAS FLUCTUATING PLUS OR MINUS 50 PSI. BO TH FAILURES CONFIRMED. LOW OUTPUT CAUSED BY ADJUSTMENT BELOW SPECIFIED TOLERANCE FLUCTUATING OUTPUT CAUSED BY A FIBE R RIDING UNDER THE WIPER CAUSING WIPER TO LIFT AWAY FROM RESISTANCE ELEMENT.

CORRECTIVE ACTION-VENDOR CORRECTIVE ACTION WAS TAKEN BY RIGID QUALITY CONTROL INSPECTION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AG-98-24-258F COMMUTATOR, MOTOR	FAR	1330 620409	ETR	YES NO	BENDIX MONTROS E 1096465-43	898794

FAILURE MODE-ERRATIC OPERATION. DURING FLIGHT ACCEPTANCE COMPOSITE TEST COUNTDOWN, THERE APPEARED TO BE A SECOND SI GNAL ON THE RF-1 CARRIER. FAILURE NOT CONFIRMED POSSIBLY RF INTRODUCED THROUGH NOISE OF MOTOR.

CORRECTIVE ACTION-NONE, FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-98-24-250-F AMPLIFIER	FAR SS-01173-1	620328	ETR	YES YES	MAYBERRY	

FAILURE MODE-OUT OF TOLERANCE. CHANNEL A SECTION OF THE DIFFERENTIAL AMPLIFIER HAD A LOW OUTPUT OF 0.9 VOLT RMS INS

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
TEAD OF THE SPECIFIED 1.77 VOLTS RMS. THE AMPLIFIER AND A REPLACEMENT COULD NOT BE ADJUSTED, TENDING TO PLACE SUSPIC ION ON THE REST OF THE PACKAGE. FAILURE WAS NOT CONFIRMED. CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							898138
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-98-24-034-C 20 VOLT REGULATOR	FAR 27-01353-1	620324	ETR	YES NO	BENDIX	898338
FAILURE MODE-OUT OF TOLERANCE. WITH AN INPUT OF 27 VOLTS DC THE REGULATOR OUTPUT WAS 58 VOLTS DC. THE EXPECTED OUTP UT IS 20 VOLTS DC. CORRECTIVE ACTION-NONE. THE FAILED PART WAS NEVER RECEIVED BY GD/C SAN DIEGO FOR FAILURE ANALYSIS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-90-24-252F CONNECTOR	FAR 27-12242-5	1100 620320	WTR	YES NO	UNITED ELECTRO DYNAMICS 11121	898772
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING SYSTEM CHECKOUT, TRANSMITTER HAD NO OUTPUT. FAILURE WAS CON FIRMED. DUE TO CONNECTOR J5 WITH LOOSE PIN. CORRECTIVE ACTION-DESIGN GROUP ANSWER TO RAR A90-24-660 ON 21 MAY 1966. AN/DKT-15 TRANSMITTER HAS BEEN REPLACED BY AN/DKT-17 TRANSMITTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA62-0045/P6-4CO-04-F1 TLM CANISTER	COMPOSITE-J FACT	1040 620317	ETR-36A 294.5	NO NO		893687
FAILURE MODE-ERRATIC OPERATION. A BURST OF SLIPS OCCURRED ON THE TELEMETRY CHANNELS MONITORING JETTISON INSULATION COMMAND AND FAIRING THRUSTER BOTTLES COMMAND FROM 294.5 TO 494.5 SECONDS. A SIMILAR OCCURRANCE WAS OBSERVED ON P6-4C O-01-F1 (REF AA62-0040). THIS WAS CAUSED BY FEEDBACK FROM THE GANTRY TEST RACK. SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. TELEMETRY CHANNELS MONITORING TWO COMMAND FUNCTIONS INDICATED IMPROPER DIS CRETES DURING THE TEST. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE. PROBLEM WILL NOT OCCUR WITH UMBILICAL EJECTED.							

GENERAL DYNAMICS
CONVAIR DIVISION

15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA62-0041/P6-4CO-02-F1 TLM CANISTER	COMPOSITE-J FACT	104D 620308	58/ETR	YES YES		691401

FAILURE MODE-OUT OF TOLERANCE. TELEMETERED DATA INDICATED A 2 PER CENT IBW OSCILLATION IN THE B1 YAW/ROLL DATA. THI S WAS ALSO OBSERVED ON TEST P6-4CO-01-F1 (REF. AA62-0040).

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS TELEMETERED DATA INDICATED A 2 PERCENT IBW OSCILLATION IN THE B1 YAW-ROLL DAT A. THIS ALSO OCCURRED ON TEST P6-4CO-01-F1 (REF. AA62-0043).

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-E4-240F AMPLIFIER CAPACITOR	FAR 27-12382-5	620301	SAN DIEG 0	YES NO		692110

FAILURE MODE-OUT OF TOLERANCE. ISOLATION AMPLIFIER AND CRYSTAL RECTIFIER IDENTIFIED AS FAILED WHEN A GRAPH OF INPUT VOLTAGE VERSUS OUTPUT VOLTAGE WAS 0.26 VOLT FROM A STRAIGHT LINE DRAWN BETWEEN THE ENDPOINTS. SPECIFICATIONS REQUIR E THE GRAPH TO BE WITHIN 0.1 VOLT OF THE STRAIGHT LINE DRAWN BETWEEN THE END POINTS. CAUSE OF FAILURE WAS FOUND TO B E A FAULTY CAPACITOR CE, A 100 MICROFARAD, 15 VDC POROUS TANTALUM TYPE. CAUSE OF THE CAPACITOR FAILURE, HOWEVER, COU LD NOT BE DETERMINED.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-98-24-249-F AMPLIFIER DEMODULATOR	FAR 27-01010-1	620300	ETR	YES NO	MAYBERRY	692111

FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. TWO DC AMPLIFIERS FAILED DURING TROUBLESHOOTING OF THE TELEMETRY PA CKAGE. ONE AMPLIFIER OUTPUT COULD NOT BE ADJUSTED INTO TOLERANCE. THE BROWN AND WHITE WIRES FROM THE CONNECTOR PINS 5 AND 6 WERE REVERSED. INTERMITTENT CONTINUITY OCCURRED DUE TO THE BROWN WIRE, THE NEGATIVE INPUT LEAD, BEING DAMAGE D BETWEEN ONE OF THE MOUNTING STUDS AND THE CIRCUIT BOARD. THE WIRE INSULATION WAS ALSO BROKEN. BOTH AMPLIFIERS INDI CATED A POSITIVE INPUT ON PIN 5 WITH RESPECT TO PIN 6 WHICH WAS NORMAL. HOWEVER, WHEN THE POLARITY WAS REVERSED THE OUTPUT CONTINUED TO BE POSITIVE AT A LESSER AMPLITUDE WHEN A NEGATIVE OUTPUT WAS EXPECTED. THE CAUSE OF THE FAILURES WAS THEN FOUND TO BE A DESIGN DEFICIENCY IN THE DEMODULATOR CIRCUITS OF BOTH AMPLIFIERS.

CORRECTIVE ACTION-NO CORRECTIVE ACTION IS REQUIRED OF THE DESI.. DEFICIENCY OF THE DEMODULATOR CIRCUITS SINCE THE V ENDOR HAS BEGUN INITIATING THE CHANGE. HOWEVER, THE REVERSED AND BROKEN WIRES AS A RESULT OF POOR WORKMANSHIP NECESS ITATED RECOMMENDATION OF IMPROVED VENDOR QUALITY CONTROL PROCEDURES.

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SF-98-24-249-F OSCILLATOR ELECTRONIC TUBE	FAR 27-01664-061	620228	ETR	YES NO	BENDIX-PACIFIC UNKNOWN	892109

FAILURE MODE-ERRATIC OPERATION. OSCILLATOR OUTPUT CENTER FREQUENCY TRACE WAS NON-LINEAR WHEN THE OSCILLATOR WAS ADJ USTED WITHIN BAND LIMITS. FAILURE WAS CAUSED BY THE CHANGE OF CHARACTERISTICS OF THE CONTROL TUBE V1 (5719) DUE TO A GING. THIS CAUSED A SHIFT IN THE NORMAL FREQUENCY OF THE TANK CIRCUIT WHICH IS IN SERIES WITH THE CONTROL TUBE. WHEN THE TUBE CHARACTERISTICS CHANGE IT IS NECESSARY TO CHANGE THE VALUES OF THE R9 AND R15 RESISTORS TO RETURN THE TANK CIRCUIT TO THE DESIRED CENTER FREQUENCY LINEARITY.

CORRECTIVE ACTION-RECOMMENDED INITIATING A CIRCUIT DESIGN CHANGE THAT WOULD MAKE THE CIRCUIT LESS SENSITIVE TO THE CONTROL TUBE CHARACTERISTICS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-98-24-223-F 70 KC OSCILLATOR TUBE	FAR 27-13537-3	620227	ETR	YES NO	BENDIX	892539

FAILURE MODE-DRIFT. OSCILLATOR FREQUENCY DRIFT DUE TO FAULTY MODULATOR TUBE WHICH HAD EXCEEDED ITS LIFE EXPECTANCY.

CORRECTIVE ACTION-REFURBISH OSCILLATOR IF EXPECTED TO SERVE BEYOND THE DESIGN LIFE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA62-0030/P3-901-00-40 COMMUTATOR	COUNTDOWN 27-15571-877	40E 620213	13 -2700	YES NO		896230

FAILURE MODE-FAIL DURING OPERATION. COMMUTATOR ON CHANNEL 13 OF TELEMETRY NO.1 FAILED. (NO SPECIFIC DETAILS GIVEN).

SYSTEM EFFECT-ERRATIC OPERATION. NO COMMUTATION ON CHANNEL 13.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-CANISTER WAS REMOVED AND REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-243-F COMMUTATOR-BRUSHES	FAR	40E 620213	AHR	YES NO	REED AND REESE 1096485-45	

FAILURE MODE-STRUCTURAL. CHANNEL 13 DID NOT INDICATE COMMUTATION, MOTOR OPER[illegible]K INTERMITTENT. FAILURE CAUSED BY E XCESSIVE BRUSH WEAR WHICH RESULTED IN CARBON DEPOSITS BETWEEN THE CONTACTS OF THE SPEED CONTROL.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							891943
CORRECTIVE ACTION-MOTOR BEING REPLACED WITH BENDIX MONTROSE MOTOR, EFFECTIVE DEC 62.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-240-F TLM CANISTER, DIODE	FAR 87-12581-3	40E 820212	ETR	YES NO	TEXAS INSTRUME HTS 1N755A	891941
FAILURE MODE-FAIL DURING OPERATION. THE TEMPERATURE BRIDGE CIRCUIT IN ACCESSORY CANISTER HAD LOW OUTPUT. DIODE CR-2 HAD BROKEN DOWN. CAUSE DUE TO EXCESSIVE CURRENT WHICH WAS CAUSED BY BURNED OUT SECTION C WIPER OR HUMAN ERROR.							
CORRECTIVE ACTION-NONE SINCE EXACT CAUSE OF EXCESSIVE CURRENT WAS NOT DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AR141-0-3-21/FC-6CO-03-021 TLM CANISTER	COMPOSITE-FACTORY 87-12572-017	21F 820200		YES NO	BENDIX	890091
FAILURE MODE-ERRATIC OPERATION-CHANNEL 13 OF RFS INDICATED A NEGATIVE GATE OF 13 PER CENT OBW WHEN A GATE OF 80 PER CENT WAS EXPECTED. ALSO CHANNEL 12 INDICATED NOISE OF UP TO 6 PERCENT FBW. ALSO REPAIRED FOLLOWING FC. 6CO-03-021 AN D FC-6CO-04-021 COMPOSITE TESTS SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE RESCHEDULED-COMPOSITE RE-RAN TO SHOW SATISFACTORY SYSTEM OPERATION.							
CORRECTIVE ACTION-RF CANISTER IR/D (FTR 16518) (FTR18485) AND (FTR 1848).							891938
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-90-24-239-F SIGNAL CONDITIONER-POWER	FAR 87-12563-011	112D 820206	WTR	YES NO		
FAILURE MODE-ERRATIC OPERATION. THE 5-VOLT POWER SUPPLY OUTPUT FLUCTUATED BEYOND ALLOWABLE TOLERANCES.							
CORRECTIVE ACTION-NONE SINCE FAILURE COULD NOT BE VERIFIED OR DUPLICATED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-90-24-239-F CONVERTER-TRANSISTOR	FAR 87-12360-009	44E 820208	PMR	NO NO		
FAILURE MODE-OUT OF EXPECTED TEST VALUE. OUTPUT INDICATED ENGINE PUMPS WERE OPERATING AT 100 PERCENT WHEN INFACT TH EY WERE NOT OPERATING. CAUSE OF FAILURE DUE TO 3 FAULTY AC TO DC CONVERTERS WHICH RESULTED FROM TRANSISTOR Q3 (2N338) BEING OVERHEATED. OVERHEATING DUE TO VOLTAGE REVERSAL ON 50VDC INPUT LINE CAUSD BY HUMAN ERROR.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							881468
CORRECTIVE ACTION-PERSONNEL ADVISED TO USE MORE CARE WHEN MAKING ELECTRICAL CONNECTIONS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA-62-0074/P1-6CO-01-07 TLM CANISTER-WIRING	COMPOSITE-B FACT 87-12301-3	7F 620202	ETR-11	YES NO	BENDIX	884060
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. RF 1 CHANNEL 7 WAS MALFUNCTIONING. (NO SPECIFIC DATA AS TO NATURE OF PROBLEM). CAUSE OF PROBLEM WAS TRACED TO WIRING ERROR MADE DURING MODIFICATION OF THE PACKAGE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM THE MEASUREMENT ON THIS CHANNEL WAS INVALID. VEHICLE EFFECT-COMPOSITE DELAYED. CORRECTIVE ACTION-RF1 REMOVED AND REPLACED. WIRING ERROR CORRECTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA62-0074/P1-6CO-01-07 COMMUTATOR	COMPOSITE-B FACT	7F 620202	11	YES NO		884061
FAILURE MODE-OUT OF TOLERANCE. BIAS ON CHANNEL 11 DATA DUE TO MISALIGNMENT OF COMMUTATOR. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM CHANNEL 11 WAS INVALID. VEHICLE EFFECT-COMPOSITE DELAYED. CORRECTIVE ACTION-RF PACKAGE WAS REMOVED AND REPLACED. PACKAGE WAS REPAIRED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-015-P 40 KC OSCILLATOR-WIRING	FAR 87-01358-041	620202	ETR	YES NO	BENDIX	892340
FAILURE MODE-ELECTRICAL OPEN. BROKEN WIRE AT RESISTOR R19. FAILURE ATTRIBUTED TO SUBSTANDARD WORKMANSHIP. CORRECTIVE ACTION-SAR A-9B-24-637 RECOMMENDING VENDOR NOTIFICATION OF POOR WORKMANSHIP.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	CT-9B-24-014-F TRANSDUCER POWER SUPPLY	FAR 87-11624-5	620124	ETR	NO NO	GD/C	
FAILURE MODE-OUT OF TOLERANCE. OUTPUT EXCEEDED ALLOWABLE NOISE LEVEL (140 MV NOISE VERSUS 40 MV ALLOWED).							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							008541

CORRECTIVE ACTION-FAILURE WAS NOT CONFIRMED. THE REPORTED FAILURE WAS DUE TO HUMAN ERROR BY USE OF THE WRONG INSTRU MENTS. PERSONNEL WERE ADVISED TO USE TRUE RMS METER FOR MAKING THE MEASUREMENT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE62-0075/83-401-00-132 TELEMETRY PLUS 5VDC XDUCER POWER S UPPLY	FLIGHT	1320 020125	ETR-15 135	YES NO		007566

FAILURE MODE-FAIL DURING OPERATION. THE 5-VOLT TRANSDUCER POWER SUPPLY FAILED AT 139.17 SECONDS. BELIEVED CAUSED BY SHORTING THE VERNIER YAW ENGINE POSITION TRANSDUCERS DUE TO AERODYNAMIC HEATING. VERNIER ENGINE TRANSDUCER WIRING W AS NOT WRAPPED FOR THIS FLIGHT.

SYSTEM EFFECT-OPERATION STOPS PREMATURELY. 34 OF THE 51 INSTRUMENTED MEASUREMENTS WERE LOST AT THAT TIME.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-235-F VOLTAGE REGULATOR-TRANSISTOR	FAR	020119	AMR	YES NO	BENDIX 1031250	003637

FAILURE MODE-SHORT (ELECT). OUTPUT VOLTAGE SAME AS INPUT INSTEAD OF SPECIFIED 20 VDC. FAILURE CAUSED BY SHORTED TRA NSISTOR Q1(2N1481). TRANSISTOR FAILURE PROBABLY DUE TO OVERLOAD OR SHORT OF OUTPUT VOLTAGE.

CORRECTIVE ACTION-NONE. THIS SECONDARY FAILURE DUE TO OVERLOAD OR HUMAN ERROR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-234-F OSCILLATOR/WIRING	FAR	020119	AMR	YES NO	BENDIX 1069093-14-AA	003641

FAILURE MODE-OPEN (ELECTICAL). NO OUTPUT. FAILURE CAUSED BY BROKEN LEAD FROM RESISTOR R19 TO GROUND. LEAD BROKEN DU RING POTTING.

CORRECTIVE ACTION-VENDOR PERSONNEL ADVISED TO PAY PARTICULAR ATTENTION TO SOLDERED JOINTS AND WIRES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	H6-98-24-209-F CRYSTAL RECTIFIER	FAR 87-12403-1	020119		YES NO		

FAILURE MODE-OUT OF TOLERANCE. WITH 115V400 CYCLE INPUT APPLIED, NO OUTPUT VOLTAGE WAS MEASURED. CAUSE OF FAILURE D

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
UE TO RECTIFIER NOT BEING PROPERLY ADJUSTED PRIOR TO TORQUE PAINTING THE ADJUSTMENT SCREW. CORRECTIVE ACTION-QUALITY CONTROL TAKING MEASURES TO IMPROVE QUALITY CONTROL ON THIS ITEM.							891848
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE62-0074/B2-401-00-123 COMMUTATOR MOTOR ASSEMBLY.	FLIGHT	1230 620117	B-2	YES NO		897818
FAILURE MODE-OUT OF SPECIFICATION. RF1 SUBCARRIER 15 COMMUTATOR SPEED VARIED BETWEEN 5.5 AND 10 RPS. PLANNED RATE W AS 10 RPS. THIS PROBLEM WAS ATTRIBUTED TO A RANDOM FAILURE OF THE COMMUTATOR MOTOR ASSEMBLY. SYSTEM EFFECT-ERRATIC OPERATION. HOWEVER, NO DATA WAS LOST. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-9B-24-236-F PRESSURE TRANSDUCER	FAR 7-01731-5	1210 620115	AMR	YES NO	BOURNS	891919
FAILURE MODE-LEAK INTERNAL. TRANSDUCER FOUND LEAKING DURING LEAK CHECK. FAILURE DUE TO A CRACK IN THE SOLDER AT THE ELECTRICAL RECEPTACLE. CRACKED SOLDER RESULTED FROM MISHANDLING. CORRECTIVE ACTION-PERSONNEL ALERTED TO EXERCISE MORE CARE WHEN HANDLING THESE TRANSDUCERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-3214-F COMMUTATOR-BRUSHES	FAR	620109	FACTORY	YES NO	BENDIX 1096483-35	892470
FAILURE MODE-OUT OF TOLERANCE. MOTOR SPEED TOO HIGH. CAUSED BY BRUSH WEAR. CORRECTIVE ACTION-NONE. THE FAILURES WERE NOT CONFIRMED BY FAILURE ANALYSIS. INFORMATION CONTAINED IN THE FAR WAS S ENT TO SUPPORT PUBLICATIONS TO INSURE COMPATIBILITY WITH APPLICABLE OPERATIONAL TECHNICAL ORDERS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MC-A9-24-217-F PRESSURE TRANSDUCER	FAR 7-01720-8	1070 620107	FACTORY	YES NO	SERVONICS	
FAILURE MODE-CONTAMINATION. MEASUREMENT HSSP INDICATED VARIATIONS OF SPIKING UP TO 13 PERCENT. CAUSE OF FAILURE DUE							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	FRI OTH	VENDOR NAME VENDOR PART NO	
TO FOREIGN MATTER ON TRANSDUCER RESISTANCE WINDING AND IS CONSIDERED A MANUFACTURING DEFECT. CORRECTIVE ACTION-VENDOR ALERTED TO IMPROVE WORKMANSHIP AND QUALITY CONTROL.							891920
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AR141-0-3-161/FC-6CO-02-016 COMMUTATOR	COMPOSITE-FACTORY 27-12572-617	16F 620106		YES NO	BENDIX	890062
FAILURE MODE-ERRATIC OPERATION-THE COMMUTATOR SPEED FOR CHANNELS 12 AND 13 OF RF NO. 2 VARIED THRU OUT THE TEST. SYSTEM EFFECT-NONE. VEHICLE EFFECT-COMPOSITE RESCHEDULED-RE-RUN OF COMPOSITE MADE. CORRECTIVE ACTION-THE RF PACKAGE WAS IR/D AND REPAIRED AND REINSTALLED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AG-09-24-233-F CALIBRATOR	FAR	1210 620106	AMR	YES NO	BENDIX PACIFIC 1047387	891934
FAILURE MODE-ERRATIC OPERATION. CALIBRATOR SHOWED APPROX. 10 PERCENT RIPPLE ON OUTPUT. CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA62-0017/P2-4CO-02-121 TLM CANISTER	COMPOSITE-J FACT	121D 620105	ETR-12	YES NO		891249
FAILURE MODE-OUT OF TOLERANCE. 100 CPS NOISE WAS OBSERVED ON SYNC PULSES ON ALL COMMUTATED CHANNELS. MAGNITUDE OF N OISE WAS APPROXIMATELY 20-25 PERCENT ISW. THIS WAS OBSERVED ON TEST P2-4CO-01-121 ALSO. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. ALL COMMUTATED CALIBRATION SYNC PULSES WERE DISTORTED BY NOISE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-TELEMETRY CANISTER WAS REMOVED AFTER TEST. FURTHER INVESTIGATION REVEALED THE PROBLEM TO BE IN TH E ACCESSORY PACKAGE AND IT WAS SUBSEQUENTLY REPLACED.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AR141-0-3-16/FC-6CO-02-016 TLM CANISTER, HARNESS	COMPOSITE-FACTORY 27-12871-029	18F 611257		YES NO	BENDIX	899063

FAILURE MODE-ERRATIC OPERATION-TLM MEASUREMENTS INDICATED SUPER-IMPOSED MODULATIONS DURING THE TEST. PLUG P7 IN THE RF PACKAGE WAS FOUND TO CONTAIN LONG PIGTAIL WHICH CAUSED THE INTERFERENCE.

SYSTEM EFFECT-ERRATIC OPERATION-SHORTING PIG-TAIL LEADS CAUSED ERRATIC SIGNAL MODULATION.

VEHICLE EFFECT-COMPOSITE RESCHEDULED. RE-RUN OF COMPOSITE REQUIRED.

CORRECTIVE ACTION-THE PIG-TAILS WERE SHORTENED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-1275/LR-401-00-114 SIGNAL CONDITIONER	FLIGHT	114D 611222	1-2 142.28	YES NO	GD CONVAIR	896353

FAILURE MODE-OUT OF EXPECTED TEST VALUE. SYNC AND 100 PCT CALIBRATION PULSE OF CHANNEL 13 DROPPED TO 0.25 V AND REMAINED FOR DURATION OF FLIGHT. ALSO 80 PCT CALIBRATION PULSE OF CHANNELS 14 AND 15 DROPPED TO ZERO AT 273.43 SECONDS AND REMAINED THERE FOR REST OF FLIGHT.

SYSTEM EFFECT-OPERATION TOO LOW. MEASUREMENTS DERIVING TRANSDUCER EXCITATION VOLTAGES FROM CHANNEL 14 AND 15 TRANSDUCER POWER SUPPLY WERE LOST.

VEHICLE EFFECT-NONE. VEHICLE AND MISSION UNAFFECTED BY LOSS OF DATA.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-1282P1-801-00-06 TRANSMITTER RF NO.1	FLIGHT	6F 611220	11 260	YES NO		897431

FAILURE MODE-FAIL DURING OPERATION. TELEMETRY GROUND STATIONS INDICATED A DROP IN RECEIVED SIGNAL STRENGTH AS WELL AS APPARENT LOSS OF SIGNAL MODULATION. PROBABLY DUE TO SHIFT OF CARRIER FREQUENCY.

SYSTEM EFFECT-OPERATION STOPS PRENATURELY. DATA TELEMETERED VIA RF 1 WAS LOST AFTER 260 SECONDS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-AB-24-232-F POWER CHANGEOVER SWITCH/MOTOR	FAR T-01782-3	611018	FACTORY	NO NO	KINETICS H17B-4	

FAILURE MODE-OPEN (ELECT). SWITCH FAILED TO OPERATE. FAILURE CAUSED BY OPEN ARMATURE OF THE MOTOR. ARMATURE FAILURE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
ATTRIBUTED TO INCORRECT APPLICATION OF 28 VDC POWER. CORRECTIVE ACTION-PERSONNEL CAUTIONED TO USE EXTRA CARE WHEN CHECKING THESE SWITCHES AND WHEN APPLYING POWER.							893634
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-AB-24-231-F POWER CHANGEOVER SWITCH/MOTOR	FAR 27-01206-8	611215	FACTORY	NO NO	KINETICS	891383
FAILURE MODE-OPEN (ELECT). SWITCH FAILED TO OPERATE. FAILURE CAUSED BY AN OPEN ARMATURE OF MOTOR. ARMATURE FAILURE ATTRIBUTED TO INCORRECT APPLICATION OF 28 VDC POWER. CORRECTIVE ACTION-PERSONNEL CAUTIONED TO USE EXTRA CARE WHEN CHECKING THESE SWITCHES AND WHEN APPLYING POWER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AR141-0-1-121/FC-4CO-02-121 TLM CANISTER	COMPOSITE-FACTORY 27-11541-869	121D 611209		YES NO	BENDIX	899633
FAILURE MODE-TOLERANCE. TELEMETRY MEASUREMENT 854R (YAW RATE GYRO 816.) INDICATED 0 PERCENT IBW WHEN 46 PERCENT IBW WAS EXPECTED. SYSTEM EFFECT-OPERATION TOO LOW. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED. CORRECTIVE ACTION-THE R.F. PACKAGE WAS REMOVED AND REPLACED. THE PROBLEM DID NOT RECUR AT COMPONENT LEVEL TESTS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-92-24-224-F OSCILLATOR/POTENTIOMETER	FAR 27-01268-7	611206	ETR	YES NO	BENDIX 1050263-6-6-A	891471
FAILURE MODE-OPEN (ELECT). NO OUTPUT VOLTAGE. FAILURE DUE TO AN INTERMITTENT SLIDER CONTACT ON POTENTIOMETER R2. CORRECTIVE ACTION-VENDOR IMPROVED QUALITY CONTROL AND INSPECTION PROCEDURES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-227-F SUBCARRIER OSCILLATOR	FAR 27-01268-57	611207	AMR	YES NO	BENDIX 1050263-10TA	
FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR COULD NOT BE ADJUSTED TO WITHIN SPECIFICATION. FREQ WAS OUT OF TOLERANCE BUT AFTER OSCILLATOR WAS TUNED PER SPEC THE FAILURE COULD NOT BE DUPLICATED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							891364
CORRECTIVE ACTION-NONE. PERSONNEL REQUESTED TO USE HANDBOOK OF OPERATING AND MAINTANANCE INSTRUCTIONS WHEN ADJUSTIN G OSCILLATORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-A9-24-241-F RECTIFIER ASSEMBLY	FAR 27-12403-1	1070 611205	FACTORY	YES NO		891942
FAILURE MODE-CONTAMINATION. OUTPUT WAS INTERMITTENT IT IS BELIEVED THAT LOOSE SOLDER BALLS AND SPLASHES FOUND DURIN G EXAMINATION CAUSED A SHORT CIRCUIT RESULTING IN THE REPORTED FAILURE. CORRECTIVE ACTION-FAILURE NOT CONFIRMED. PERSONNEL ALERTED TO IMPROVE WORKMANSHIP AND QUALITY CONTROL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AR141-U-1-121/FC-4CO-01-121 TLM CANISTER-COMMUTATOR	COMPOSITE-FACTORY 27-11541-869	1210 611134		YES BENDIX NO		889632
FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR SPEED FOR CHANNELS 15 AND 16 WAS 9.43 RPS WHEN 10 +- 0.5 RPS WAS EXPECTED . THE MASTER PULSES ON ALL COMMUTATED CHANNELS INDICATED DISTORTION AT VARIOUS TIMES DURING THE TEST. CHANNELS 13 AN D 15 OPERATED AT GREATER THAN 10 PERCENT FBW FROM THE LOW FREQUENCY BAND EDGE. THESE PROBLEMS WERE CAUSED BY A FAULT Y R.F. PACKAGE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEMS LEVEL AND COMPOSITE RETESTS REQUIRED. CORRECTIVE ACTION-REPLACED FAULTY R.F. PACKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-223-F OSCILLATOR/POTENTIOMETER	FAR 27-01268-3	611204	ANR	YES BENDIX NO 1050263-46A		891362
FAILURE MODE-OPEN (ELECT). NO OUTPUT VOLTAGE. FAILURE DUE TO INTERMITTENT SLIDER CONTACT ON POTENTIOMETER R2. CORRECTIVE ACTION-NONE. ANALYSIS CANCELLED DUE TO LACK OF FUNDING.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-222-F DC AMPLIFIER-WIRING	FAR 27-01241-1	35E 611208	ETR	YES NO	HAYBERRY	891998

FAILURE MODE-FAIL DURING OPERATION. REJECTED AS THE CAUSE OF NO OUTPUT VOLTAGE ON CHANNEL A SEGMENT 29. FAILURE CONFIRMED. CAUSE-COLD SOLDER CONNECTION AT JUNCTION OF D8, R16, R17 AND C10.

CORRECTIVE ACTION-VENDOR NOW EMPLOYING IMPROVED SOLDERING AND INSPECTION TECHNIQUES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-1190/P3-502-00-35 TAPE RECORDER-AMPLIFIER	FLIGHT	35E 611201	13	YES NO		897435

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME- NO USABLE DATA WAS OBTAINED FROM THE DELAYED TRANSMISSION TELEMETRY SYSTEM.

SYSTEM EFFECT-OPERATION DOES NOT START-THE MISSILE WAS LAUNCHED WITH THIS TELEMETRY SYSTEM(RE 4) IN THE NO-GO CONDITION. THE PROBLEM WAS ISOLATED TO THE TAPE RECORDER AND PLAYBACK REPRODUCER AMPLIFIER SINCE AN UNMODULATED CARRIER SIGNAL WAS RECEIVED BY GROUND STATION RECEIVERS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0202/P3-502-00-35 TAPE RECORDER-AMPLIFIER	COUNTDOWN	35E 611201	13 -420	YES NO	BENDIX	894041

FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. DURING LAUNCH COUNTDOWN THE RF4 TELEMETRY PACKAGE FAILED TO MODULATE THE CARRIER FREQUENCY. CAUSE WAS MOST LIKELY DUE TO FAILURE IN THE AIRBORNE TAPE RECORDER AND PLAYBACK AMPLIFIER.

SYSTEM EFFECT-OPERATION DOES NOT START. NO VALID DATA WAS RECEIVED FROM THE RF4 TELEMETRY PACKAGE. 12 MEASUREMENTS WERE LOST DURING FLIGHT.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-NONE. THE VEHICLE WAS LAUNCHED WITH RF4 INOPERATIVE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-216-F COMMUTATOR GEAR MOTOR BRUSHES	FAR	35E 611201	AMR	YES NO	REED REESE 1098483-75	

FAILURE MODE-STRUCTURAL. MOTOR FAILED TO OPERATE. FAILURE CONFIRMED. CAUSE-EXCESSIVE BRUSH WEAR FILLING THE MOTOR W

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
ITH CARBON DUST. CORRECTIVE ACTION-EFFECTIVE 1 DECEMBER 1961 THESE UNITS ARE BEING REPLACED WITH BENDIX MONTROSE TYPE.							891961
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-21-218-F COMMUTATOR GEARMOTOR BRUSHES	FAR	55E 611201	AMR	YES NO	REED AND REESE 1096483-48	891977
FAILURE MODE-STRUCTURAL. MOTOR FAILED TO OPERATE. FAILURE CONFIRMED. CAUSE-EXCESSIVE BRUSH WEAR FILLING THE MOTOR W ITH CARBON DUST. CORRECTIVE ACTION-EFFECTIVE 1 DECEMBER 1961 THESE UNITS ARE BEING REPLACED BY BENDIX MONTROSE TYPE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-21-192F R.F AMPLIFIER CAPACITOR	FAR 27-01229-2	611200	ETR	YES NO	BENDIX	891972
FAILURE MODE-FAIL DURING OPERATION. PLATE CURRENT WAS REPORTED IN EXCESS OF 300 MA. AND THE GRID CURRENT WAS ZERO. FAILURE CONFIRMED. CAUSE, DETUNING OF GRID CAPACITOR C-2 AND PLATE TANK CAPACITOR C8 SINCE CALIBRATED. UNIT WAS TUNE D AND OPERATED SATISFACTORILY. CORRECTIVE ACTION-IT WAS RECOMMENDED THAT SITE PERSONNEL TUNE THE RF AMP. PER 27-01229 SHEET 2 PRIOR TO CHECKOUT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	8P-90-24-204-F CONNECTOR	FAR 27-11404-3	1100 611130	WTR	YES NO		897504
FAILURE MODE-FAIL DURING OPERATION. PIN BECAME LOOSENED OR DISLODGED FROM PLUG HOUSING AND WAS MISSING. PINS IN PLU G TYPE WERE NOT SECURELY FASTENED IN PLACE AS SLEEVE HAD BECOME DISLODGED AND WAS MISSING. A FORCE OF LESS THAN 3 LBS . WOULD REMOVE PINS. CORRECTIVE ACTION-RECOMMEND REDESIGN OF HARNESS BUT COGNIZANT DESIGN GROUP STATED ONLY SIX MORE MISSILES ARE INVOLV ED AND DIFFICULTY CAN BE OVERCOME BY EXERCISING ADDITIONAL CARE IN INSTALLATION. HARNESS HAS BEEN REDESIGNED FOR LAT ER VEHICLES. (SM27-0006-134NOON).							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-214-F OSCILLATOR-POTENTIOMETER	FAR 87-01269-33	35E 611129	ANR	YES NO	BENDIX 1052094-A-6-A	891976
FAILURE MODE-OUT OF TOLERANCE. UNIT INDICATED 1 VOLT OF NOISE WITH PEAKS UP TO 4.0V. FAILURE CONFIRMED. CAUSE-INTERMITTENT WIPER OF POTENTIOMETER RED.							
CORRECTIVE ACTION-VENDOR INFORMED. EFFECTIVE SEPT. 1968 ALL POTENTIOMETERS WILL BE TORTURE TESTED PRIOR TO SHIPMENT. TORTURE TEST INCLUDES TEMP. CYCLING, SHOCK AND VIBRATION REACTION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-219-F COMMUTATOR GEAR MOTOR BRUSHES	FAR	35E 611125	ANR	YES NO	REED REESE 1096485-35	891973
FAILURE MODE-STRUCTURAL. MOTOR FAILED TO OPERATE. FAILURE CONFIRMED. CAUSE-EXCESSIVE BRUSH WEAR FILLING THE MOTOR HOUSING WITH CARBON DUST.							
CORRECTIVE ACTION-EFFECTIVE 1 DECEMBER 1981 THESE UNITS ARE BEING REPLACED WITH BENDIX MONTROSE TYPE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-226-F SUBCARRIER OSCILLATOR	FAR	611120	ANR	YES NO	BENDIX 1069093-16-6	891385
FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR COULD NOT BE ADJUSTED TO WITHIN SPECIFICATION. FAILURE CONFIRMED BUT CAUSE WAS NOT DETERMINED.							
CORRECTIVE ACTION-NONE. CAUSE OF FAILURE NOT DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-220-F COMMUTATOR GEAR MOTOR BRUSHES	FAR	4F 611116	ANR	YES NO	REED AND REESE 1096485-35	891978
FAILURE MODE-STRUCTURAL. UNIT STOPPED DURING A TANKING EXERCISE. FAILURE CONFIRMED. CAUSE-EXCESSIVE BRUSH WEAR FILLING THE MOTOR HOUSING WITH CARBON DUST.							
CORRECTIVE ACTION-EFFECTIVE 1 DECEMBER 1981 THESE UNITS ARE BEING REPLACED WITH BENDIX MONTROSE TYPE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0169/P1-8CO-01-04 WIRING CABLE	COMPOSITE-J FACT	4F 611113	11	YES NO		895707

FAILURE MODE-ELECTRICAL SHORT. CHANNEL 87 OF THE ASC (PITCH STEERING RESOLVER) READ ZERO OUTPUT DURING GIMBAL TRAVE L. DETERMINED TO BE A SHORT IN TELEMETRY CABLE 302J6.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-ASC S/N 7150047 WAS REPLACED. CHECKOUT INDICATED THE NEW UNIT HAD THE SAME PROBLEM AND FURTHER IN VESTIGATION REVEALED THAT TELEMETRY CABLE 302J6 WAS SHORTING THE CHANNEL TO GROUND.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-90-24-203-F SIGNAL CONDITIONER-CHANGEOVER SWIT CH	FAR 27-12590-80	1140 611110	WTR	YES NO		897503

FAILURE MODE-FAIL DURING OPERATION. POWER CHANGEOVER SWITCH BECAME INOPERATIVE. SWITCH A-13 FAILED OPEN AS GEAR AND SHAFT DRIVING SWITCHING SECTION DISENGAGED FROM MOTOR DRIVE GEAR. BALL BEARING ON END OF SHAFT DISINTEGRATED. MOTOR BRUSH SPRING WAS LOOSE. FURTHER ANALYSIS STOPPED AS PART RELEASED BACK TO VAFB.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	BP-90-24-203-F SIGNAL CONDITIONE, POWER CHANGEOVE R SWITCH	FAR 27-12590-80	1140 611110	PWR	YES NO		891421

FAILURE MODE-STRUCTURAL. POWER CHANGEOVER SWITCH FOUND INOPERATIVE FROM INTERNAL TO EXTERNAL POWER. FAILURE DUE TO DISINTEGRATED BALL BEARING IN MOTOR CIRCUIT OF A13 CHANGEOVER SWITCH CAUSE OF DISINTEGRATED BALL BEARING NOT DETERMI NED.

CORRECTIVE ACTION-NONE. HOWEVER, RELIABILITY IS TO KEEP SIGNAL CONDITIONER UNDER SURVEILANCE FOR FUTURE FAILURES OF THIS TYPE TO DETERMINE IF ANY FUTURE CORRECTIVE ACTION IS NECESSARY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-98-24-197-F OSCILLATOR-TUBE	FAR	1170 611109	ETR	YES BENDIX NO 1041962-4-Z		

FAILURE MODE-DRIFT, OSCILLATOR DRIFTED OUT OF BAND DURING CHECKOUT. A CRITICAL CONTROL CIRCUIT PLUS THE EFFECTS OF PART AGEING (2 TO 3 YEARS)COMBINED TO CAUSE THIS TYPE OF FAILURE. TUBE V1, TYPE 6111.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							697500

CORRECTIVE ACTION-IT WAS RECOMMENDED THAT THE PART BE REFURBISHED. THIS TYPE OSCILLATOR IS VERY SENSITIVE AND WAS D ESIGNED FOR SHORT TERM STABILITY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-207-F TRANSDUCER POWER SUPPLY, DIODE	FAR 27-11527-3	32E 611109	ANR	YES NO		691994

FAILURE MODE-ERRATIC OPERATION. VOLTAGE ON 5 VOLT SECTION DROPPED FROM 5 TO 2.2 VOLTS. FAILURE CAUSED BY FAULTY ZEN ER DIODE TYPE 650C0. CAUSE OF DIODE FAILURE NOT DETERNINED BUT BELIEVED DUE TO HIGH AMBIENT TEMPERATURE.

CORRECTIVE ACTION-NONE. FIRST KNOWN FAILURE OF THIS TYPE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-9B-24-195-F TRANSMITTER HARNESS	FAR 33-01149-3	611107	ETR	YES NO	TEXAS INSTRUME NT	694277

FAILURE MODE-ELECTRICAL SHORT. OUTPUT DROPPED DURING CHECKOUT BECAUSE TRANSISTOR Q109 AND RESISTOR R127 FAILED POSS IBLY DUE TO A WEDGED WIRE SHORTING AND OPENING LEADS. INSULATED SLEEVING ON THIS WIRE WAS SHORT.

CORRECTIVE ACTION-VENDOR WAS NOTIFIED OF POSSIBLE SHORT SLEEVE PROBLEM. VENDOR ASSEMBLY AND INSPECTION PERSONNEL WE RE CAUTIONED AS OF 26 JANUARY 1962.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AAS1-0186/P4-4CO-02-93 CRYSTAL RECTIFIER	COMPOSITE-J FACT 27-12290-003	93D 611106	14 NOT STAT ED	YES NO	TEXAS INST.	690226

FAILURE MODE-ELECTRICAL OPEN. CRYSTAL RECTIFIER IN RF PACKAGE HAD AN OPEN CIRCUIT.

SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. MEASUREMENT ESIV DID NOT ACTIVATE CAUSING LOSS OF 400 CYCLE PHASE A VOLTAGE D ATA.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-CORRECTED AFTER TEST.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-223-F POWER SUPPLY, TRANSISTOR	FAR 27-12412-1	611108	ANR	YES YES		

FAILURE MODE-FAIL DURING OPERATION, NO 140 OR 20 VOLT OUTPUT INDICATED. FAILURE DUE TO FAULTY TRANSISTORS Q1 (2N486

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
), Q2 (2N1131), AND Q3 (S36). TRANSISTOR FAILURE DUE TO EXCESSIVE VOLTAGE BEING APPLIED TO POWER SUPPLY RESULTING IN EXCESSIVE CURRENT WHICH BURNED THE TRANSISTORS. CORRECTIVE ACTION-NONE. PERSONNEL AT ANR COULD FIND NO EXTERNAL CAUSE FOR FAILURE. UNIT UNDER SURVEILANCE FOR FUTUR E FAILURE.							898396
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-156-F AMPLIFIER	FAR 27-01229-3	811100	ETR	YES NO		898623
FAILURE MODE-ERRATIC OPERATION. UNSTABLE PLATE AND GRID CURRENTS NOTED DURING CHECKOUT. SHOCK L( )DING COULD INDUCE INTERMITTENT OPERATION. POSSIBLE POOR GROUND CONNECTION NOTED DURING VISUAL INSPECTION. CORRECTIVE ACTION-VENDOR REQUESTED TO IMPROVE QUALITY CONTROL. VENDOR ACTION TAKEN 3-31-62.							
INSTRU :ENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-98-24-174-F COMMUTATOR-BRUSH	FAR	1179 811100	ETR	YES REED AND REESE NO 1038485-33		898262
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. MOTOR WOULD NOT RUN WHEN POWER APPLIED DUE TO BRUSH PROBLEM. USE OF POOR QUALITY BRUSHES RESULTED IN EXCESSIVE BRUSH WEAR. CORRECTIVE ACTION-MOTORS ARE TO BE REPLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTIO N WAS EFFECTIVE IN DECEMBER 1961).							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0183/P4-4CO-01-93 SIGNAL CONDITIONER RESISTOR	COMPOSITE-B FACT 27-12290-903	930 811031	14 NOT STAT ED	YES TEXAS INST. NO		898224
FAILURE MODE-OUT OF EXPECTED TEST VALUE. VOLTAGE LEVEL CHANGE OF AUTOPILOT CLOCK MEASUREMENT OUTPUT WAS 0.1 VOLT IN STEAD OF 5 VOLTS EXPECTED. TROUBLE FOUND TO BE AN EXTRA RESISTANCE CONNECTED IN CIRCUIT. NOT STATED WHETHER IN CONDI TIONER OR HARNESS TO CONDITIONER. SYSTEM EFFECT-OPERATION TOO LOW. VOLTAGE LEVEL OF DISCRETE ON/OFF SIGNAL BELOW NORMAL. VEHICLE EFFECT-NONE. CORRECTI E ACTION-EXTRA RESISTANCE REMOVED AFTER TEST COMPLETED.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	M6-9B-24-186-F TRANSDUCER POWER SUPPLY, TRANSISTO R	FAR 68-13540-3	611026	ETR	YES NO		889834
FAILURE MODE-CONTAMINATION. OUTPUT DROPPED FROM 4.8 VOLTS TO 3.7 VOLTS IN 16 SECONDS. CAUSE DUE TO 2 FAULTY TRANSIS TORS Q1(2N456) AND Q4(2N1044). POSSIBLY CAUSED BY SOLDER SPECK CONTAMINATION. CORRECTIVE ACTION-INSPECTION PERSONNEL CAUTIONED TO WATCH PARTICULARLY FOR SOLDER SPECK CONTAMINATION DURING ASSEMB LY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-9B-24-199-F SUBCARRIER OSCILLATOR TUBE	FAR	117D 611026	AMR	YES NO	BENDIX 1041962-4-2	891812
FAILURE MODE-OUT OF TOLERANCE. OUTPUT FREQ COULD NOT BE ADJUSTED WITHIN SPEC. FAILURE DUE TO AGING OF PARTS AND CON TROL TUBE V1 (6111) IN CRITICAL CONTROL CIRCUIT. CORRECTIVE ACTION-SINCE OSCILLATOR IS 2 TO 3 YEARS OLD IT WAS RECOMMENDED THAT IT BE REFURBISHED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-9B-24-198-F OSCILLATOR TUBE	FAR	117D 611026	ETR	YES NO	BENDIX 1041962-3-K	891813
FAILURE MODE-OUT OF TOLERANCE. OUTPUT FREQ COULD NOT BE ADJUSTED WITHIN SPEC. FAILURE DUE TO AGING OF PARTS AND CON TROL TUBE V1 (6111) IN CRITICAL CONTROL CIRCUIT. CORRECTIVE ACTION-SINCE OSCILLATOR IS 2 TO 3 YEARS OLD IT WAS RECOMMENDED THAT IT BE REFURBISHED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0273/FC-4CO-02-119 SIGNAL CONDITIONER DEMODULATOR	COMPOSITE-FACTORY	119D 611025		YES NO		889415
FAILURE MODE-FAIL DURING OPERATION-MEASUREMENT 883D:YAW DISPLACEMENT GYRO SIGNAL, DID NOT INDICATE A MOVEMENT THRU OUT THE TEST. THE YAW DEMODULATOR IN THE SIGNAL CONDITIONER WAS FOUND TO BE FAULTY. SYSTEM EFFECT-OPERATION DOES NOT START. NO OUTPUT DATA FROM MEASUREMENT 883D DUE TO FAULTY DEMODULATOR. VEHICLE EFFECT-COMPOSITE RESCHEDULED-COMPOSITE WAS RERAN. CORRECTIVE ACTION-THE SIGNAL CONDITIONER WAS REPLACED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERR	AR141-0-5-11/FC-6CO-08-011 COMMUTATOR	COMPOSITE-FACTORY 27-12571-629	11F 611023		YES NO	BENDIX	888078

FAILURE MODE-OUT OF TOLERANCE. THE COMMUTATOR FOR CHANNEL A OF RF NO. 1 OPERATED BELOW THE MINIMUM SPEED ALLOWED. THE RF PACKAGE S/N 108-0027, WAS REMOVED AND REPLACED WITH S/N 108-0028.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE SYSTEM TEST REQUIRED TO SHOW PROPER OPERATION.

CORRECTIVE ACTION-PACKAGE IR/D AND REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERR	A-9B-24-194-F 5 KC OSCILLATOR	FAR	611023	ETR	YES NO	BENDIX 1030263-8-6A	894091

FAILURE MODE-FAIL DURING OPERATION. CHANNEL 5 THROUGH E DEVIATED LOW. OSCILLATOR WAS FOUND OUT OF ADJUSTMENT AND FUNCTIONED ACCEPTABLY WHEN ADJUSTED.

CORRECTIVE ACTION-FIELD PERSONNEL WERE REQUESTED TO ADJUST THIS TYPE OF OSCILLATOR PER THE BENDIX HANDBOOK.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERR	9B-24-184-F PRESSURE TRANSDUCER	FAR T-01731-5	117D 611023	ETR	YES NO	BOURNS	891821

FAILURE MODE-CONTAMINATION. INTERMITTENT OSCILLATION. FAILURE CAUSED BY FOREIGN MATTER UNDER THE WIPER PROBABLY INTRODUCED DURING ASSEMBLY.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERR	RA-9B-24-221F OSCILLATOR RESISTOR	FAR	117D 611023	AMR	YES NO	BENDIX 1040659-7-T	891979

FAILURE MODE-ELECTRICAL OPEN. CHANNEL 7 BECAME ERRATIC AND NOISY DURING COUNTDOWN. FAILURE CONFIRMED. CAUSE-BROKEN LEAD OF RESISTOR R12 AND AGEING OF OSCILLATOR TUBE V1.

CORRECTIVE ACTION-UNIT WAS 2 TO 3 YEARS OLD AND IT WAS REFURBISHED.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-9B-24-210-F COMMUTATOR	FAR 87-11248-833	117D 611019	ANR	YES NO	BENDIX	881874

FAILURE MODE-ERRATIC OPERATION. CHANNEL 14 SHOWED SEG 17 AND 21 POSITIVE AND SEG 47 AND 51 NEGATIVE BELOW GATING. C ONCLUDED THAT CAUSE OF FAILURE WAS OTHER PARTS ASSOCIATED WITH COMMUTATOR OR ASSOCIATED CIRCUITS. EVIDENCE OF POOR M ORKMANSHIP AND QUALITY CONTROL WAS DISCOVERED.

CORRECTIVE ACTION-FAILURE NOT CONFIRMED. EFFORTS BEING MADE TO IMPROVE WORKMANSHIP AND QUALITY CONTROL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AR141-0-3-11/FC-6CO-01-011 COMMUTATOR	COMPOSITE-FACTORY 87-12878-817	11F 611017		YES NO	BENDIX	881048

FAILURE MODE-FAIL TO OPERATE AT THE PRESCRIBED TIME. TLM SEGMENT 51; CHANNEL A OF RF NO. 2 INDICATED ZERO IBW WHILE SEGMENT 21 WHICH IS CONNECTED TO SEGMENT 51 INDICATED THE CORRECT RESPONSE THE RF PACKAGE WAS REMOVED AND REPLACED.

SYSTEM EFFECT-IMPROPER ANALOG SIGNAL-TLM SYSTEM DID NOT TRANSMIT CHANNEL A SEGMENT 51 SIGNAL.

VEHICLE EFFECT-COUNTDOWN OR COMPOSITE DELAYED. POST COMPOSITE SYSTEM TEST REQUIRED TO SHOW PROPER OPERATION OF RF S YSTEM.

CORRECTIVE ACTION-PACKAGE IR/D AND REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA9B-24-185-F CALIBRATOR	FAR 7-12222-8	117D 611017	ETR	YES NO		883407

FAILURE MODE-ERRATIC OPERATION. NEGATIVECALIBRATOR SIGNAL OBSERVED TO BE ERRATIC ON ALL DIRECT CHANNELS ON RF-1. FA ILURE WAS NOT CONFIRMED.

CORRECTIVE ACTION-SITE PERSONNEL REQUESTED TO CHECK ASSOCIATED CIRCUITS TO DETERMINE THAT NO HUMAN ERROR WAS INVOLV ED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-200-F OSCILLATOR-TUBE	FAR	117D 611016	ETR	YES NO	BENDIX 1041962-3-K	

FAILURE MODE-ERRATIC OPERATION. UNIT COULD NOT BE ADJUSTED TO PROPER FREQUENCY DURINGCHECKOUT. A CRITICAL CONTROL C IRCUIT PLUS THE EFFECT OF PART AGEING (2 TO 3 YEARS) COMBINED TO CAUSE THIS TYPE FAILURE. TUBE V1, TYPE 6111.

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
							897491

CORRECTIVE ACTION-IT WAS RECOMMENDED THAT THIS PART BE REFURBISHED. THIS TYPE OF OSCILLATOR IS VERY SENSITIVE AND W AS DESIGNED FOR SHORT TERM STABILITY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-208-F DC DIFFERENTIAL AMPLIFIER	FAR 87-01841-1	611014	AMR	YES NO	HAYBERRY	891038

FAILURE MODE-ERRATIC OPERATION. OUTPUT PULSES HAD EXTRENELY POOR RISE TIME CHARACTERISTICS. FAILURE NOT CONFIRMED. FAILURE COULD BE DUPLICATED ONLY WITH LOW INPUT VOLTAGE AND THEREFORE IT IS ASSUMED THE UNIT WAS OPERATED WITH LOWER THAN SPECIFIED INPUT VOLTAGE.

CORRECTIVE ACTION-PERSONNEL REQUESTED TO CHECK INPUT VOLTAGE WHICH SHOULD BE 28 PLUS OR MINUS 2 VDC. ANALYSIS CANCE LLED DUE TO LACK OF FUNDING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-9B-24-198-F OSCILLATOR-WIRING	FAR	117D 611010	ETR	YES NO	BENDIX 1041962-42	897493

FAILURE MODE-ERRATIC OPERATION. UNSTABLE OUTPUT FREQUENCY OCCURRED DURING CHECKOUT. ANALYSIS SHOWED COLD SOLDER JOI NT AT PIN 7 OF TUBE SIX WAS CHANGING MULTIVIBRATOR BIAS. NORMAL OPERATION RESUMED WITH REPAIR OF JOINT.

CORRECTIVE ACTION-VENDOR INCREASED INSPECTION TO MINIMIZE SOLDERING ERRORS BY USING 7-30X MICROSCOPES. ACTION EFFEC TIVE 13, FEB. 1962.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-9B-24-201-F OSCILLATOR-TUBE	FAR	117D 611010	ETR	YES NO	BENDIX 1040659-4-T	897492

FAILURE MODE-ERRATIC OPERATION. UNIT COULD NOT BE ADJUSTED TO PROPER OUTPUT FREQUENCY DURING CHECKOUT. A CRITICAL C ONTROL CIRCUIT PLUS THE EFFECT OF AGEING (2 TO 3 YEARS) COMBINED TO CAUSE THIS TYPE OF FAILURE. TUBE V1, TYPE 5Y1G.

CORRECTIVE ACTION-IT WAS RECOMMENDED THAT THIS PART BE REFURBISHED. THIS TYPE OF OSCILLATOR IS VERY SENSITIVE AND W AS DESIGNED FOR SHORT TERM STABILITY.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-181F OSCILLATOR/TUBE ELECTRONIC	FAR	611010	AMR	YES NO	BENDIX 1041962-3-R	892764

FAILURE MODE-ERRATIC OPERATION. OUTPUT FREQUENCY WAS UNSTABLE. FAILURE CONFIRMED. CAUSED BY INADEQUATE CONTACT OF T HE V1 CONTROL TUBE WITH ITS SOCKET. FAILURE MODE WAS LOST UPON REMOVAL OF V1 AND WHEN REINSERTED. OPERATION WAS NORM AL.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	RA-98-24-202-F SUBCARRIER OSCILLATOR TUBE	FAR	1170 611010	AMR	YES NO	BENDIX 1040638-47	891420

FAILURE MODE-OUT OF TOLERANCE. OUTPUT COULD NOT BE ADJUSTED OVER FULL BANDWIDTH. FAILURE DUE TO UNUSUAL EFFECT OF C ONTROL TUBE V1 (5718) ON OSCILLATOR FREQ AND DEVIATION.

CORRECTIVE ACTION-SINCE THIS OSCILLATOR IS 2 TO 3 YEARS OLD IT WAS RECOMMENDED THAT IT BE REFURBISHED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0153/P2-4CO-01-117 WIRING	COMPOSITE-B FACT	1170 611006	12	YES NO		894046

FAILURE MODE-OUT OF TOLERANCE. WIRING ERROR RESULTED IN A NUMBER OF MEASUREMENTS ON A 2.4 VOLT CHANNEL BEING EXCITE D BY 0.8 VOLT TRANSDUCER POWER SUPPLY.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM MEASUREMENTS INVALID.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0972/GDAP3-501-00-50 INSTRUMENTATION BEACON	FLIGHT	30E 611005	ETR-13	NO NO	

FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. LARGER THAN ANTICIPATED NOISE IN THE ANGLE TRACKING AND LATERAL RAT E DATA WAS RECORDED DURING FLIGHT.

SYSTEM EFFECT-NONE. THE LARGER THAN ANTICIPATED NOISE HAD NO ADVERSE EFFECT! ON SYSTEM PERFORMANCE.

VEHICLE EFFICT-NONE.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-NONE.							897583
INSTRUMENTATION-A/E TELEMETRY SET AND TRANSDUC ERS	65-24-102-F COMMUTATOR MOTOR	FAR	611004	ETR	YES NO	REED AND REESE 1096485-48	893028
FAILURE MODE-FAILED DURING OPERATION-FAILED DURING CANISTER CHECKOUT DUE TO LOW ROTATIONAL SPEED. A SHAFT BEARING H AD SLIPPED FROM HOUSING. A SHAFT KEEPER WAS MISSING, ONE WRONG END PLATE SCREW USED AND ONE MISSING. CORRECTIVE ACTION-RESPONSIBILITY COULD NOT BE ISOLATED BUT THIS TYPE MOTOR IS BEING REPLACED DUE TO REPETITIVE FAIL URE HISTORY. BENDIX MONTROSE MOTORS ARE BEING INSTALLED ON A RETROFIT PROGRAM. ACTION EFFECTIVE IN DECEMBER 1961.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-65-24-103-F COMMUTATOR-BRUSH	FAR	25E 610929	ETR	YES NO	REED AND REESE 1096485-65	893306
FAILURE MODE-FAIL DURING OPERATION. THE MOTOR FAILED TO START DUE TO EXCESSIVELY WORN BRUSHES. CORRECTIVE ACTION-THE REED AND REESE MOTOR WAS REPLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT REPLACEMENT PROGRA M TO REPLACE FAILED MOTORS WAS EFFECTIVE IN DECEMBER 1961.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0146P1-502-00-25 COMMUTATOR	COUNTDOWN	25E 610929	11 -4200	YES NO		893807
FAILURE MODE-ERRATIC OPERATION. DURING SECOND LAUNCH ATTEMPT, THE REPLACEMENT RFS TELEMETRY PACKAGE SHOWED NO COMMU TATION FROM THE CHANNEL E COMMUTATOR. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COUNTDOWN ABORTED. NO SECOND SPARE PACKAGE AVAILABLE FOR IMMEDIATE REPLACEMENT. CORRECTIVE ACTION-ABORT COUNTDOWN AND AWAIT DELIVERY OF A SECOND SPARE RFS PACKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-65-24-103-F OSCILLATOR CIRCUIT BOARD	FAR 27-01268-15	610923	ETR	YES NO	BENDIX TOE44	
FAILURE MODE-FAIL DURING OPERATION. CHANNELS 1 THRU 10 OF TELEPAK WERE REPORTED NOISY. FAILURE WAS CONFIRMED. CAUSE WAS LOOSE TERMINAL ON THE PRINTED CIRCUIT BOARD.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							891573

CORRECTIVE ACTION-VENDOR HAS REPLACED MANUALLY OPERATED SOLDERING EQUIPMENT WITH AIR OPERATED EQUIPMENT CAPABLE OF MICRO ADJUSTMENT. THIS EQUIPMENTS AFFORDS A HIGHER UNIFORMITY OF SOLDERING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0181/FC-4CO-02-093 TLM CANISTER	COMPOSITE-FACTORY	93D 810920		YES NO		899631

FAILURE MODE-OUT OF TOLERANCE. CHANNEL NO. 11 MONITORING MEASUREMENT 8393W (PROGRAMMER CLOCK OUTPUT) DEFLECTED OUT OF BAND WITH EACH PROGRAMMER CLOCK PULSE OUTPUT. THIS CONDITION RESULTED BECAUSE CHANNEL 11 WAS BEING UTILIZED TO MONITOR A SIGNAL OF GREATER THAN 5.0 VDC WITHOUT A VOLTAGE DIVIDER CONDITIONING CIRCUIT.

SYSTEM EFFECT-OPERATION TOO HIGH.

VEHICLE EFFECT-NONE- NO RETESTING WAS REQUIRED.

CORRECTIVE ACTION-CIC 11983 WAS INITIATED TO INSTALL THE APPROPRIATE DIVIDER ON CHANNEL 11 AND WAS ACCOMPLISHED IN THE FIELD PRIOR TO FLIGHT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0695/FC-6CO-01-010 DEMODULATOR	COMPOSITE-FACTORY	10F 810920		YES NO		899063

FAILURE MODE-FAIL DURING OPERATION-TLM MEASUREMENT 8630 INDICATED TORQUING OF THE YAW DISPLACEMENT GYRO WHEN A TORQUING SIGNAL WAS NOT BEING SENT. THE YAW DEMODULATOR IN THE TLM ACCESSORY PACKAGE WAS FAULTY.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. RE-RUN OF COMPOSITE MADE.

CORRECTIVE ACTION-THE ACCESSORY PACKAGE WAS REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-206-F COMMUTATOR MOTOR BRUSHES	FAR	25E 810920	AMR	YES NO	REED AND REESE 1096485-53	891983

FAILURE MODE-OUT OF TOLERANCE. CHANNEL A COMMUTATION WAS SLOW. FAILURE CAUSED BY EXCESSIVE WEAR OF MOTOR BRUSHES.

CORRECTIVE ACTION-MOTOR BEING REPLACED WITH BENDIX MONTROSE MOTOR EFFECTIVE DEC 61.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	90-24-190F SIGNAL CONDITIONER	FAR 27-12590-5	1050 610920	WTR	YES NO	GD/C	891816

FAILURE MODE-FAIL DURING OPERATION. THE -22VDC OUTPUT WAS ONLY -3 TO -5VDC. FAILURE CONFIRMED AND ISOLATED TO THE A-8 TRANSVERTER MODULE. THE A-8 MODULE WOULD FAIL ONLY BELOW PLUS 28VDC INPUT LEVEL. AN URGENT REQUEST FROM VAFB, FOR THE SIGNAL CONDITIONER WAS COMPLIED WITH AND THEREFORE THE REASON FOR THE A-8 MODULE FAILURE WAS NOT DETERMINED.

CORRECTIVE ACTION-THIS WAS THE FIRST FAILURE OF THIS NATURE; SINCE THE CAUSE WAS NOT DETERMINED DUE TO SHIPMENT OF THE UNIT TO VAFB, PRIOR TO COMPLETION OF FAR, THIS ITEM WAS KEPT UNDER SURVEILLANCE BY THE RELIABILITY GROUP.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-187F TRANSDUCER POWER SUPPLY, RESISTER	FAR 27-11587-3	610915	ETR	NO NO		895068

FAILURE MODE-OUT OF TOLERANCE. DURING CHECKOUT AS VOLTAGE OUTPUT COULD NOT BE ADJUSTED TO 5 VDC BY ADJUSTMENT OF RESISTOR R-8. RESISTOR R8 AND DIODE CR13 WERE FOUND TO HAVE FAILED. THEY WERE CONFIRMED AS HAVING BEEN OVERLOADED EXTERNALLY.

CORRECTIVE ACTION-ETR FIELD PERSONNEL WILL TAKE PREVENTIVE MEASURES TO PREVENT FUTURE FAILURES CAUSED BY EXTERNAL OVERLOADING OF THE POWER SUPPLY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-187F TRANSDUCER POWER SUPPLY	FAR 27-11587-3	610915	AMR	YES NO		892763

FAILURE MODE-FAIL DURING OPERATION. A STABLE 5.0 VDC COULD NOT BE OBTAINED BY ADJUSTMENT OF R-8. FAILURE WAS CONFIRMED. CAUSED BY BURNED RESISTOR R-8 AND OPEN DIODE CR-13. THESE COMPONENTS FAILED BECAUSE THE POWER SUPPLY HAD BEEN OVERLOADED.

[redacted] CORRECTIVE ACTION-AMR PERSONNEL STATED THAT PREVENTATIVE MEASURES WILL BE TAKEN TO PREVENT A RECURRANCE OF THIS TYPE FAILURE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A9-24-181-F PRESSURE TRANSDUCER	FAR 7-01720-5	87 610911	FACTORY	YES BOURNS INC NO	

[redacted] FAILURE MODE-FAIL DURING OPERATION. FAILED TO INDICATE AT ANY PRESSURE. FAILURE CAUSED BY POOR WORKMANSHIP AND QUALITY CONTROL. RESISTANCE ELEMENT FRAYED ON ONE END. WIRES WERE TOUCHING THE MANDREL CAUSED A SHORT CIRCUIT. OPEN BETWEEN WIPER A AND PIN C DUE TO EXCESSIVE CURRENT WHICH INDICATES THAT CIRCUIT WAS OVERLOADED.

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							891922

CORRECTIVE ACTION-VENDOR ALERTED TO IMPROVE WORKMANSHIP AND QUALITY CONTROL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AW-24-180F PRESSURE TRANSDUCER	FAR 7-01720-5	8F 610831	FACTORY	YES NO	SERVONIC	891923

FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER FAILED TO INDICATE SIGNAL ARM SHORTED TO GROUND. FAILURE CAUSED BY TRANSDUCER BEING OUT OF TOLERANCE AND RESISTANCE ELEMENT WAS BADLY WORN AT THE WIPER AREA.

CORRECTIVE ACTION-NONE, SINCE THIS IS THE FIRST KNOWN FAILURE OF THIS TYPE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-163-F HARNESS	FAR 27-11390-5	26E 610822	15	YES NO		896632

FAILURE MODE-SHORT (ELECTRICAL), DUE TO WIRE SPLICE 7687822 BEING GROUNDED TO THE SHIELD. ATTRIBUTED TO IMPROPER MANUFACTURE.

CORRECTIVE ACTION-RAR 98-24-640 REQUESTED QUALITY CONTROL TO IMPROVE CONSTRUCTION TECHNIQUES AND INSPECTION PROCEDURES. CORRECTIVE ACTION CANCELLED 3-20-63 DUE TO LACK OF FUNDING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-169-F COMMUTATOR-BRUSH	FAR	610821	ETR	YES NO	REED AND REESE 1096485-35	896630

FAILURE MODE-FAILED DURING OPERATION, MOTOR FAILED DURING A SYSTEM CHECKOUT DUE TO A BRUSH PROBLEM.

CORRECTIVE ACTION-THE MOTOR IS TO BE REPLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1961.)

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0834/FC-6CO-01-008 OSCILLATOR	COMPOSITE-FACTORY	8F 610819		YES NO		

FAILURE MODE-DRIFT. THE RF NO. 2 CHANNEL 8 OSCILLATOR FREQUENCY SHIFTED.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. SHIFT IN OSCILLATOR FREQUENCY WILL RESULT IN LOSS OF DATA.

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							888393
VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING REQUIRED TO SHOW PROPER OPERATION. CORRECTIVE ACTION-THE RF PACKAGE WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0269/FC-ECO-04-040 TLM CANISTER	COMPOSITE-FACTORY	40E 610818		YES NO	BENDIX	899408
FAILURE MODE-FAIL DURING OPERATION-TLM MEASUREMENT 8630 INDICATED EXTRANEOUS MOVEMENTS AND TLM MEASUREMENT F246P INDICATED AN OPEN. THE TLM ACCESSORY PACKAGE WAS FOUND TO BE FAULTY AND WAS REPLACED. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. ERRATIC SIGNALS AND AN OPEN FOUND IN TLM SYSTEM. VEHICLE EFFECT-COMPOSITE DELAYED. TLM PACKAGE REPLACED. CORRECTIVE ACTION-ACCESSORY PACKAGE WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0115/PE-4CO-03-111 COMMUTATOR MOTOR	COMPOSITE-J FACT 87-11541-841	111D 610814	1E	YES NO		893755
FAILURE MODE-OUT OF EXPECTED TEST VALUE. 10 RPS COMMUTATOR MOTOR FOR RF1 CHANNELS 15 AND 16 RAN SLOW. SPEED VARIED AS LOW AS 7.5 PPS WHEREAS NOMINAL SPEED IS 10 PPS PLUS OR MINUS 0.5. SYSTEM EFFECT-OPERATION TOO LOW. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-MOTOR WRITTEN UP ON IR64526; AND REPLACED AFTER TEST.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-98-24-177P CALIBRATOR-TRANSISTOR	FAR T-1222E-5	86D 610910	ETR	YES NO		898278
FAILURE MODE-FAIL DURING OPERATION. DURING A J-FACT TEST, THE CALIBRATION PULSE WAS ON CONTINUOUSLY. THE TRANSISTOR WAS CONTAMINATED AND COULD BE MADE TO OPERATE INTERMITTANTLY UNTIL IT FAILED COMPLETELY AFTER ONE HOUR. CORRECTIVE ACTION-RAM MG-98-24-[illegible]RECOMMENDED IMPROVE QUALITY CONTROL. INSPECTION SUPERVISION AND PERSONNEL WERE SH[illegible]OWNPHOTOGRAPHS OF DEFECTIVE WORKMANSHIP.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	M6-9B-24-176F CALIBRATOR-WIRING	FAR 7-12888-9	880 610610	ETR	YES NO		898261

FAILURE MODE-FAIL DURING OPERATION. CALIBRATOR OUTPUT FAILED DURING J-FACT TEST DUE TO TRANSISTOR Q 9 SHORTING TO C ASE CAUSED BY FAULTY SOLDERING AND TWO RESISTORS WHICH HAD CHANGED IN VALUE.

CORRECTIVE ACTION-RAR M6-9B-24-632 REQUESTED IMPROVED QUALITY CONTROL AND WORKMANSHIP. INSPECTION SUPERVISION AND P ERSONNEL WERE SHOWN PHOTOGRAPH OF DEFECTIVE WORKMANSHIP.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0111/P6-ACMO-03-104/CB COMMUTATOR MOTOR	COMPOSITE-PRD/DPL	1040 610610	36A	YES NO		894791

FAILURE MODE-OUT OF SPECIFICATION. THE CHANNEL E COMMUTATOR VARIED IN SPEED FROM 20 TO 2: RPS. NOMINAL SPEED IS 30 RPS.

SYSTEM EFFECT-OPERATION TOO LOW.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-REPLACE COMMUTATOR MOTOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0275/FC-4CO-02-116 OSCILLATOR	COMPOSITE-FACTORY	1160 610809		YES NO		898790

FAILURE MODE-OUT OF TOLERANCE. CHANNEL 6 OSCILLATOR HAD SHIFTED FREQUENCY.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. THE TLM OSCILLATOR FOR CHANNEL 6 HAD SHIFTED FREQUENCY.

VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST COMPOSITE TEST REQUIRED AFTER REPAIR OF TLM RF PKG.

CORRECTIVE ACTION-TLM PKG REMOVED FOR REPAIR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0275/FC-4CO-01-116 CALIBRATION-RELAY	COMPOSITE-FACTORY	1160 610808		YES NO		

FAILURE MODE-FAIL DURING OPERATION. TLM MEASUREMENT 82860 INDICATED ZERO IBM THRU OUT THE TEST. THE SIGNAL WAS NOT RECEIVED BY THE CHANNEL OSCILLATOR BECAUSE OF A FAULTY PRE-FLIGHT CALIBRATION RELAY IN THE ACCESSORY PACKAGE.

SYSTEM EFFECT-NONE.

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SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
VEHICLE EFFECT-COMPOSITE RESCHEDULED. CORRECTIVE ACTION-THE ACCESSORY PACKAGE WAS REMOVED FROM THE MISSILE AND WAS REPAIRED.							899791
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0103/P6-4CNO-02-104/C2 TLM CANISTER	COMPOSITE-FRD/DPL	104D 610804	ETR-36A -210	YES NO		894790
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. TELEMETRY WOULD NOT GO INTERNAL ON COMMAND. TEST WAS RUN ON EXTE RNAL. SYSTEM EFFECT-OPERATION DOES NOT START. VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD TIME 8 MINUTES. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TR..NSDUC ERS	A-98-24-170-F COMMUTATOR-BRUSH	FAR	21-E 610728	ETR	YES NO	REED AND REESE 1098483-48	890629
FAILURE MODE-FAIL DURING OPERATION. THIS MOTOR FAILED TO OPERATE DURING A COUNTDOWN. MOTOR FAILURE WAS DUE TO A BRU SH PROBLEM. CORRECTIVE ACTION-THE MOTOR IS TO BE REPLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACT ION WAS EFFECTIVE IN DECEMBER 1961.)							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-144 OSCILLATOR	FAR 27-01268-7	21E 610728	ETR	NO NO	BENDIX	887481
FAILURE MODE-ERRATIC OPERATION. EXCESSIVE NOISE DETECTED DURING COUNTDOWN-FAILURE COULD NOT BE CONFIRMED IN FACTORY COMPONENT CHECKOUT. CORRECTIVE ACTION-NONE-FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0094/P1-501-00-21 TRANSMITTER	COUNTDOWN	21F 610728	11	YES NO		
FAILURE MODE-FAIL DURING OPERATION-AT T-70 MINUTES, THE 8 RPS COMMUTATION ON CHANNELS 12 AND 13 RF NO.1 WAS LOST. A FTER RF NO. 1 WAS CHANGED, CHANNEL 12 APPEARED AT THE NEGATIVE GATING LEVEL ALSO RPS CHANNELS 6 AND 7 WERE NOISY.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							693751

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-COUNTDOWN DELAYED-A HOLD WAS CALLED TO REPLACE RF NO. 1.

CORRECTIVE ACTION-BOTH PACKAGES REPLACED PRIOR TO LAUNCH.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-144 OSCILLATOR-TUBE	FAR 7-01488-651	1110 610727	ETR	YES NO	BENDIX	698091

FAILURE MODE-SHORT (ELECT) DISCOVERED IN FREQUENCY CONTROL TUBE CAUSE OF FAILURE NOT CONCLUSIVELY DETERMINED.

CORRECTIVE ACTION-NONE. FIRST KNOWN PROBLEM OF THIS TYPE. NO ACTION CONSIDERED NECESSARY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A6-9B-24-171-F COMMUTATOR-BRUSH	FAR	1110 610726	ETR	YES NO	REED AND REESE 1096485-48	698627

FAILURE MODE-FAIL DURING OPERATION. MOTOR FAILED DURING A COUNTDOWN DUE TO A BRUSH PROBLEM.

CORRECTIVE ACTION-THE MOTOR IS TO BE REPLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1961.)

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-143 COMPOSITE SIGNAL AMPLIFIER-TRANSIS TOR	FAR 27-01279-1	610726	FACTORY	YES NO	BENDIX	698022

FAILURE MODE-ERRATIC OPERATION-EXCESSIVE NOISE WAS GENERATED BY DEFECTIVE TRANSISTOR. A SOLDER SPLASH INSIDE THE TRANSISTOR CASE LEAD FORMED A CAPACITIVE LINK WITH THE TRANSISTOR CASE.

CORRECTIVE ACTION-VENDOR WAS REQUESTED TO PERFORM 100 PERCENT FLUOROSCOPIC EXAMINATION AND 100 PERCENT ELECTRICAL TESTING OF THE TRANSISTORS PRIOR TO INSTALLATION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0003/P3-6CO-01-02 TLM CANISTER	COMPOSITE-B FACT	2F 610726	ETR-13	YES NO	

FAILURE MODE-OUT OF TOLERANCE. TLM 2 DISPLAYED NOISY RF OUTPUT. (NO FURTHER DATA).

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-ERRATIC OPERATION. DATA WAS OBSCURED BY NOISE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-CANISTER REMOVED AND SENT TO TLH LAB WHERE PROBLEM WAS CORRECTED.							003766
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9K-24-145 PRESSURE TRANSDUCER	FAR 27-01243-7	19E 610724	FAFB	NO YES	BOURNS	000726
FAILURE MODE-ERRATIC OPERATION. THE FUEL TANK PRESSURE INDICATION DROPPED ABRUPTLY FROM A NORMAL 17 TO 18 PSIG TO 7 TO 8 PSIG AND LATER RETURNED TO 17 TO 18 PSIG WHERE IT STABILIZED. IT WAS CONCLUDED THAT THE CAUSE WAS EXTERNAL TO THE TRANSDUCER. CORRECTIVE ACTION-NONE. THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-9B-24-172-F COMMUTATOR-BRUSH	FAR	21E 610720	ETR	YES NO	REED AND REESE 1198485-45	000628
FAILURE MODE-FAIL DURING OPERATION. THE MOTOR FAILED DURING COUNTDOWN DUE TO A BRUSH PROBLEM. CORRECTIVE ACTION-THE MOTOR IS TO BE REPLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1961.)							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	MG-9B-24-151-F OSCILLATOR	FAR	610717	ETR	YES NO	BENDIX 1040659-107	000622
FAILURE MODE-ERRATIC OPERATION. UNSTABLE OUTPUT FREQUENCY AND NOISY OUTPUT DURING VIBRATION. CAUSED BY BROKEN WIRE AT PIN 13 AND A GROUNDED WIRE AT PIN 1 OF TUBE V1. CORRECTIVE ACTION-VENDOR WAS NOTIFIED OF POOR WORKMANSHIP. VENDOR ACKNOWLEDGED THAT STEPS WERE BEING TAKEN TO PRECLUDE RECCURRENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AG-9B-24-168-F COMMUTATOR	FAR	1110 610718	ETR	NO NO	REED AND REESE 1098468-37	
FAILURE MODE-ERRATIC OPERATION. MOTOR WAS SLOW AND ERRATIC DURING A SYSTEM CHECKOUT.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
							898643

CORRECTIVE ACTION-FAILURE COULD NOT BE DUPLICATED DURING ANALYSIS. THE MOTOR IS TO BE REPLACED WITH A BENDIX MONTRO SE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1965.)

INSTRUMENTATION-../B TELEMETRY SET AND TRANSDUC ERS	AE61-0452/FC-6CO-02-006 OSCILLATOR	COMPOSITE-FACTORY	6F 610714		YES NO		898398

FAILURE MODE-OUT OF TOLERANCE. CHANNEL NO. 4 OF RF NO. 2 INDICATED AN OUT OF TOLERANCE READING FOR MEASUREMENT 1530 V. IT WAS FOUND THAT THE OSCILLATOR CENTER FREQUENCY HAD CHANGED.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. IMPROPER DATA TRANSMITTED.

VEHICLE EFFECT-COMPOSITE DELAYED. ADDITIONAL POST-COMPOSITE TESTING PERFORMED.

CORRECTIVE ACTION-THE RF PACKAGE WAS REMOVED AND REPAIRED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-98-24-173-F COMMUTATOR	FAR	610705	ETR	NO NO	REED AND REESE 1098485-38	898642

FAILURE MODE-ERRATIC OPERATION. INTERMITTENT OPERATION OCCURRED DURING SYSTEM CHECKOUT.

CORRECTIVE ACTION-FAILURE COULD NOT BE CONFIRMED BUT EXCESSIVE ERODED BRUSH MATERIAL WAS FOUND. MOTORS ARE TO BE RE PLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1965.)

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0253/FC-6CO-01-005 TLM CANISTER	COMPOSITE-FACTORY	5F 610701		YES NO	BENDIX	898436

FAILURE MODE-OUT OF TOLERANCE. MEASUREMENT 1530V INDICATED 100 PERCENT IBW ON THE COMMUTATED CHANNEL WHEN THE CONTI NUOUS CHANNEL INDICATED 72 PERCENT. A MAXIMUM DEVIATION OF 9 PERCENT OF THE FORMER IS PERMITTED.

SYSTEM EFFECT-NONE. CONTINUOUS SIGNAL IS BACKED UP BY THE COMMUTATED SIGNAL.

VEHICLE EFFECT-COMPOSITE RESCHEDULED. COMPOSITE RETEST PERFORMED.

CORRECTIVE ACTION-THE TLM PACKAGE WAS REPAIRED.

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0263/FC-SCO-01-008 TLM CANISTER	COMPOSITE-FACTORY	SF 810701	ETR-19	YES NO	BENDIX	698438
FAILURE MODE-FAIL DURING OPERATION. THE MASTER PULSE FOR CHANNEL C OF RF NO 1, INDICATED 0 PERCENT IBW WHEN 100 PER CENT IBW WAS EXPECTED. SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS. THE MASTER PULSE FOR CHANNEL C WAS NOT PROPER AND WOULD MAKE DATA RETRIVAL EXTREMELY HARD. VEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE TESTS REQUIRED TO DEMONSTRATE PROPER OPERATION. CORRECTIVE ACTION-THE RF PACKAGE WAS REMOVED AND REPAIRED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-130 OSCILLATOR	FAR 27-01269-11	22E 810630	ETR	YES NO	BENDIX	397977
FAILURE MODE-FAILED DURING OPERATION. OSCILLATOR WAS REJECTED FOR NO CHANNEL 8 SUBCARRIER SIGNAL. THE FAILURE COULD NOT BE CONFIRMED. CORRECTIVE ACTION-NONE, SINCE THE FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-142 FILTER ASSEMBLY, WIRING	FAR 27-12300-1	810829	FACTORY	YES NO		898021
FAILURE MODE-OPEN (ELECTRICAL). THE OUTPUT VOLTAGE CONTROL POTENTIOMETER WAS FOUND OPEN DUE TO SOLDER CONNECTION PULLING LOOSE. CORRECTIVE ACTION-PERSONNEL WERE ALERTED TO MAINTAIN SURVEILLANCE ON THIS PART IN AN EFFORT TO DETECT A RECURRENCE OF THIS FAILURE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-159-F R.F. SWITCH	FAR	111D 810828	ETR	YES NO	TRANSCO PRODUC TS CO. 11300-30	
FAILURE MODE-OPEN (ELECTRICAL). SWITCH WOULD NOT OPERATE DUE TO CORROSION AND AN OPEN COIL AT THE POSITIVE TERMINAL CAUSED BY AN INADEQUATELY SEALED UNIT.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-VENDOR WAS REQUESTED TO PROVIDE IMPROVED SEALING OF THE COAXIAL CONNECTOR.							898633
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	58-24-138 HARNESS	FAR	22E 610628	ETR	YES NO		898093
FAILURE MODE-OPEN (ELECT) THE HARNESS FAILED A PULL TEST RESULTING IN BREAKING OF VARIOUS STRANDS. FAILURE IS ATTRIBUTED TO POOR WORKMANSHIP. CORRECTIVE ACTION-UNKNOWN. INSPECTION WAS INSTRUCTED TO ASSURE THAT DISCREPANCIES OF THIS TYPE DO NOT OCCUR AGAIN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-A9-24-167-F COMMUTATOR-BRUSH	FAR	610623	SAN DIEG O	YES NO	REED AND REESE 1096483-58	898631
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. MOTOR WOULD NOT START DURING CHECKOUT DUE TO POOR BRUSH CONTACT CAUSED BY EXCESSIVE BRUSH WEAR. A POOR QUALITY BRUSH INITIATED FAILURE. CORRECTIVE ACTION-THE MOTOR IS TO BE REPLACED WITH A BENDIX MONTROSE MOTOR. A RETROFIT PROGRAM IS PLANNED. (THE ACTION WAS EFFECTIVE IN DECEMBER 1965.)							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0013/FC-4CO-010-008 COMMUTATOR-MOTOR	COMPOSITE-FACTORY	08D 610820		YES NO		898658
FAILURE MODE-OUT OF TOLERANCE. CHANNELS A, C AND E COMMUTATOR MOTOR INDICATED VARIATIONS IN SPEED. NOISE OF UP TO 8 PCT IBW OCCURED ON CHANNELS A AND C. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED. CORRECTIVE ACTION-THE COMMUTATOR MOTOR WAS REPLACED AND COMMUTATOR ASSEMBLY WAS CLEANED. DURING SUBSEQUENT TESTS THE MOTOR AGAIN FAILED AND WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	58-24-137 OSCILLATOR	FAR 27-01269-41	17C 610820	ETR	YES BENDIX NO		
FAILURE MODE-ERRATIC OPERATION. DURING SYSTEM CHECKOUT THE OSCILLATOR OUTPUT VOLTAGE WAS LOW AT THE CENTER FREQUENCY. CAUSE NOT DETERMINED.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME / VENDOR PART NO	
							893663
CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0282/FC-8CO-08-004 COMMUTATOR	COMPOSITE-FACTORY	4F 610616		YES NO		898439
FAILURE MODE-ELECTRICAL SHORT. THE NEGATIVE PEDESTAL OF RF. NO. 1 CHANNEL 12 WAS 10 PERCENT OF BAND WIDTH. A VALUE OF 20 PERCENT IS EXPECTED. SYSTEM EFFECT-IMPROPER ANALOG SIGNAL-PARTIAL SHORT OF TLM COMMUTATOR CAUSED LOW SIGNAL OUTPUT. VEHICLE EFFECT-COMPOSITE DELAYED. POST COMPOSITE TESTING REQUIRED TO DEMONSTRATE PROPER OPERATION. CORRECTIVE ACTION-THE CANISTER WAS REMOVED AND A PARTIAL SHORT WAS CLEARED FROM THE COMMUTATOR ASSEMBLY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-131-F COMMUTATOR-BRUSH	FAR	17E 610612	ETR	YES REED AND REESE NO 1096485-35		898305
FAILURE MODE-FAIL DURING OPERATION. NO INDICATION OF CHANNEL 10 COMMUTATOR ROTATION DURING SYSTEM CHECKOUT DUE TO POOR BRUSH CONTACT DUE TO IMPROPER POSITION OF THE BRUSH SPRING. CORRECTIVE ACTION-PROCESS OF REPLACING THESE MOTORS EFFECTIVE DEC. 1961.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A-99-24-133F COMMUTATOR	FAR 87-12305-809	17E 610608	ETR-11	YES BENDIX NO		893342
FAILURE MODE-SHORT (ELECT). COMMUTATOR HAD AN INTERMITTENT SHORT BETWEEN SEGMENTS C47 AND C51. FAILURE NOT CONFIRMED. IT IS PROBABLE THAT A LOOSE WIRE OR A FOREIGN MATTER MAY HAVE BEEN SHORTING THE CIRCUIT IN THE VICINITY OF THE JACK, WHEREUPON THE PARTICLE BECAME DISLODGED AFTER TROUBLESHOOTING. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	DA493/01-501-00-27 HARNESS	COUNTDOWN	27E 610608	OSTF1	YES NO		
FAILURE MODE-ERRATIC OPERATION-CAUSED BY FEEDBACK OF INSTRUMENTATION SIGNALS INTO THE GUIDANCE SYSTEM COMPUTER.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							898269

SYSTEM EFFECT-IMPROPER DISCRETE SIGNALS.

VEHICLE EFFECT-COUNTDOWN ABORTED. GUIDANCE FAIL ILLUMINATED RED.

CORRECTIVE ACTION-INSTRUMENTATION CHANGED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-13R OSCILLATOR	FAR 27-12371-1	17K 810602	ETR	NO NO	BENDIX 1052094-76A	898349

FAILURE MODE-ERRATIC OPERATION. DURING SYSTEM CHECKOUT RF-1 EXHIBITED EXCESSIVE NOISE ON CHANNEL SEVEN. CAUSE WAS I SOLATED TO THE SUBCARRIER OSCILLATOR. FAILURE NOT CONFIRMED.

CORRECTIVE ACTION-NONE, SINCE THE FAILURE WAS NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0274/FC-4CO-03-111 POWER SUPPLY	COMPOSITE-FACTORY	111D 810514		YES NO		899534

FAILURE MODE-FAIL DURING OPERATION-THE NEGATIVE GATE OF CHANNEL 14, RF NO.1 INDICATED EXCESSIVE DISTORTION THROUGHO UT THE TEST. THIS WAS CAUSED BY A FAULTY NEGATIVE GATE POWER SUPPLY.

SYSTEM EFFECT-ERRATIC OPERATION-TLM SYSTEM WOULD TRANSMIT ERRATIC OR DISTORTED SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-POST-ACCEPTANCE REWORK WILL INCORPORATE A FILTER ASSEMBLY TO ALLEVIATE THIS PROBLEM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-13B HARNESS	FAR 27-12236-5	810511	13	YES NO		897494

FAILURE MODE-OPEN (ELECTRICAL). FAILURE WAS DUE TO AN OPEN CIRCUIT IN WIRE V211A22. THIS WIRE IS BETWEEN PIN AA OF CONNECTOR 102V1P2 AND PIN 1 OF CONNECTOR 100P2. FAILURE OF THE SPLICE WAS CAUSED BY POOR WORKMANSHIP RESULTING FROM THE USE OF AN IMPROPER CRIMPING TOOL.

CORRECTIVE ACTION-UNKNOWN.

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PA. NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0088/P3-SCO-01-10 COMMUTATOR	COMPOSITE-B FACT	18E 810811	13	YES NO		899869
FAILURE MODE-FAIL DURING OPERATION. COMMUTATION ON RF 1, CHANNEL A LOST DURING TEST. CAUSE UNKNOWN. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. CHANNEL A COMMUTATION STOPPED PREMATURELY. VEHICLE EFFECT-COUNTDOWN DELAYED. TEST DELAYED TO REPLACE RF 1 PACKAGE. CORRECTIVE ACTION-REPLACE RF 1 PACKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-126 COMMUTATOR-MOTOR	FAR	18E 810811	ETR	YES REED AND REESE NO 1096485-5-5		899344
FAILURE MODE-FAILED DURING OPERATION. DURING SYSTEMS CHECKOUT THE MOTOR WAS REJECTED FOR FAILURE TO START. ANALYSIS DISCLOSED THAT BOTH BRUSHES WERE WORN SO SHORT THAT THE BRUSH SPRINGS WERE RESTING ON THE TOP EDGE OF BRUSH HOLDER SLOTS. FAILURE WAS CAUSED BY WORN BRUSHES WHICH RESULTED IN THE LOSS OF BRUSH PRESSURE AND INCREASED BRUSH CONTACT RESISTANCE. CORRECTIVE ACTION-CONVAIR IS NOW REPLACING THE STEM MOTORS WHEN OPERATING TIME EXCEEDS 50 HOURS AND ON A PRIOR TO FLIGHT BASIS BECAUSE OF BRUSH LIFE PROBLEMS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0274/FC-4CO-01-111 COMMUTATOR MOTOR	COMPOSITE-FACTORY	1110 810508		YES NO		899536
FAILURE MODE-FAIL DURING OPERATION-THE CHANNEL E COMMUTATOR INDICATED A SPEED OF 38.0 RPS WHEN A MAXIMUM OF 31.5 RPS IS ALLOWABLE. THIS CONDITION WAS ATTRIBUTED TO SPEED VARIATIONS OF THE COMMUTATOR MOTOR. SYSTEM EFFECT-NONE. COMMUTATOR SPEED DID NOT HINDER COMPOSITE EVALUATION. VEHICLE EFFECT-NONE. COMMUTATOR SPEED TO BE ADJUSTED AT THE TIME OF OTHER POST-ACCEPTANCE REWORK. CORRECTIVE ACTION-UNIT IR/D AND REWORKED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0182/FC-3CO-01-038 COMMUTATOR MOTOR	COMPOSITE-FACTORY	36E 810503		YES BENDIX NO		
FAILURE MODE-ERRATIC OPERATION. RF NO. 3 CHANNEL 11 INDICATED EXCESSIVE COMMUTATOR SPEED VARIATIONS AND CHANNEL 12 INDICATED PERCENT NOISE.							

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1986

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-ERRATIC OPERATION. COMMUTATOR SPEED HAD EXCESSIVE SPEED VARIATIONS. VEHICLE EFFECT-COMPOSITE RESCHEDULED. COMPOSITE RERAN. CORRECTIVE ACTION-UNIT IR/D AND REPLACED.							889400
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	88-24-128 COMMUTATOR-MOTOR	FAR	SPE 810501	ETR	YES NO	REED AND REESE 1096485	885378
FAILURE MODE-ERRATIC OPERATION. DURING A COMPOSITE TEST THE MOTOR SLOWED DOWN, STOPPED MOMENTARILY, THEN RESTARTED. DISASSEMBLY DISCLOSED THAT THE MOTOR BRUSHES WERE WORN SO SHORT THAT THE BRUSH SPRINGS WERE RESTING ON THE TOP EDGE OF THE BRUSH HOLDERS. FAILURE WAS CAUSED BY THE WORN BRUSHES AND THE RESULTING LOSS OF POSITIVE CONTACT BETWEEN THE BRUSHES AND COMMUTATOR SEGMENTS. CORRECTIVE ACTION-CONVAIR IS NOW RECORDING COMMUTATOR ASSEMBLY OPERATING TIME AND REPLACING COMMUTATOR MOTORS WHEN TOTAL OPERATING TIME EXCEEDS 50 HOURS							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0061/P1-[illegible]CO-03-1R COMMUTATOR	COMPOSITE-J FACT	12[illegible] 810428	11	YES NO		885697
FAILURE MODE-ERRATIC OPERATION. DURING THE FACT THE 8 RPS COMMUTATOR IN RF NO.1 STOPPED FOR 30 SECONDS AND STARTED AGAIN SYSTEM EFFECT-OPERATION STOPS PREMATURELY. THE RF NO. 1 8 RPS COMMUTATOR STOPPED FOR 30 SECONDS DURING THE FACT AND THEN STARTED AGAIN. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-THE RF NO. 1 PACKAGE WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0245/P4-401-00-100 SUBCARRIER OSCILLATOR	COUNTDOWN P[illegible] 12890-3	1000 810[illegible]23	14 -8400	YES NO	TEXAS INST.	893662
[redacted] FAILURE MODE-OUT OF EXPECTED TEST VALUE. OUTPUT OF CHANNEL 11 SUBCARRIER OSCILLATOR WAS LOW. DETAILS NOT AVAILABLE. SYSTEM EFFECT-OPERATION TOO LOW. CHANNEL 11 OUTPUT BELOW NORMAL LEVEL. [redacted] VEHICLE EFFECT-NONE. RF 1 TELEPAK REPLACED DURING A HOLD CALLED FOR ANOTHER REASON. IT IS NOT CLEAR WHETHER OR NOT A SPECIAL HOLD WOULD HAVE BEEN CALLED FOR THIS REPLACEMENT. CORRECTIVE ACTION-REPLACE RF 1 TELEPAK.							

GENERAL DYNAMICS
CONVAIR DIVISION

15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	63-24-ELF SUBCARRIER OSCILLATOR POTENTIOMETE R	FAR 87-12290-3	610416	ETR	YES NO	BENDIX PACIFIC 1069093-11-9	999810

FAILURE MODE-OUT OF SPECIFICATION. OSCILLATORS WERE REJECTED WHEN THE OUTPUT VOLTAGE COULD NOT BE ADJUSTED WITHIN S PECIFIED TOLERANCES. THE ADJUSTMENT POTENTIOMETERS REPORTEDLY WERE ABNORMALLY SENSITIVE. THE FAILURES WERE CAUSED BY THE DEFECTIVE R-19 POTENTIOMETERS.

CORRECTIVE ACTION-CONVAIR IN CONJUNCTION WITH THE VENDOR HAS PURGED ALL STOCK AND CANISTERS IN USE, OF OSCILLATORS CONTAINING THE UNRELIABLE POTENTIOMETERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0015/FC-4CO-05-068 IN FLIGHT CALIBRATOR	COMPOSITE-FACTORY	880 610413		NO NO		999861

FAILURE MODE-ERRATIC OPERATION. IMPROPER PICK-UP IN BATTERY SIMULATOR. THIS CAUSED ERRATIC OPERATION OF TELEMETRY I N FLIGHT CALIBRATOR.

SYSTEM EFFECT-ERRATIC OPERATION.

VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED.KEY CORRECTIVE ACTION-A BATTERY WAS USED AS AN INTERNAL SOURCE TO OBTAIN SATISFACTORY RESULTS.

CORRECTIVE ACTION-A BATTERY WAS USED AS AN INTERNAL SOURCE TO OBTAIN SATISFACTORY RESULTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0015/FC-4CO-05-068 TLM CANISTER	COMPOSITE-FACTORY	880 610413		YES NO		999859

FAILURE MODE-ERRATIC OPERATION. CHANNELS A AND C INDICATED EXCESSIVE DISTORTION ON THE MASTER PULSE. CONDITION WAS STILL PRESENT AFTER REPLACING TELEMETRY CANNISTER. THE DISTORTION DID NOT SERIOUSLY AFFECT DATA REDUCTION.

SYSTEM EFFECT-ERRATIC OPERATION.

VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED.

CORRECTIVE ACTION-REPLACED TELEMETRY CANISTER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0275/FC-3CO-04-055 TLM CANISTER-CONNECTOR	COMPOSITE-FACTORY	ESE 610401	FACTORY	YES NO		

FAILURE MODE-CONTAMINATION. OPERATION RF NO. 6 CHANNEL 10 INDICATED ERRATIC VARIATIONS AND DISTORTIONS OF UP TO 10 PCT ISW. THESE WERE CAUSED BY METAL PARTICLES IN TELEMETRY PLUG EPS.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							896668
SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED. CORRECTIVE ACTION-PLUG EPE WAS CLEANED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0273/FC-SCO-04-028 TLM CANISTER-WIRING	COMPOSITE-FACTORY	25E 610401	FACTORY	YES NO		896669
FAILURE MODE-ELECTRICAL SHORT. CHANNEL 8 OF RF NO. 3 WAS CONNECTED TO SEGMENT 25, CHANNEL 11, RF NO. 3, CAUSING A N EGATIVE SPIKE ON CHANNEL 8 AT EVERY REVOLUTION OF CHANNEL 11 COMMUTATOR. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. POST-COMPOSITE TESTING REQUIRED. CORRECTIVE ACTION-A GROUNDING PIGTAIL WAS REMOVED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0333/FC-SCO-01-028 TRANSMITTER	COMPOSITE-FACTORY	26E 610329	FACTORY	YES NO		896317
FAILURE MODE-ERRATIC OPERATION-TELEMETER NO. 3 CHANNEL 11 DISPLAYED EXCESSIVE NOISE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS CHANNEL 11 DATA WAS DEGRADED AND/OR LOST. VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE RETESTS WERE REQUIRED. CORRECTIVE ACTION-TLM RF NO. 3 CANISTER WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0273/FC-SCO-01-025 OSCILLATOR	COMPOSITE-FACTORY	25E 610328		YES BENDIX NO		897350
FAILURE MODE-OUT OF TOLERANCE. RF NO. 3 CHANNEL 10 INDICATED INTERMODULATION DISTORTION COUPLED FROM ARMA STRING FR EQUENCIES. THE CANISTER WAS REMOVED, INVESTIGATION SHOWED THAT CHANNEL 10 OSCILLATOR WAS FAULTY AND THAT THE FREQUEN CY DEVIATIONS OF CHANNELS 13, A, C, AND E WERE OUT OF TOLERANCE. ALSO CHANNEL 8 OSCILLATOR WAS FAULTY. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS-TLM OUTPUT DISTORTED AND OFF FREQUENCY. VEHICLE EFFECT-COMPOSITE RESCHEDULED. RE-RUN OF SYSTEM TEST MADE AND ALSO COMPOSITE TEST RE-RAN. CORRECTIVE ACTION-TME CANISTER WAS READJUSTED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0273/FC-3CO-01-023 COMMUTATOR	COMPOSITE-FACTORY	23E 610322		YES NO	BENDIX	886351

FAILURE MODE-OPEN (ELECT.) SEGMENT 48 OF CHANNEL 11, RF NO. 3, INDICATED AN OPEN CONDITION DURING THE TEST. THE PIG-TAIL FOR THIS SEGMENT WAS NOT PROPERLY CONNECTED.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. IMPROPER SIGNAL TRANSMITTED BY THIS SEGMENT.

VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE SYSTEM TEST AND RERUN OF COMPOSITE MADE TO SHOW PROPER OPERATION.

CORRECTIVE ACTION-PIG-TAIL REGROUNDED CORRECTLY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-123 COMMUTATOR MOTOR	FAR	16E 610321	ETR	YES NO	REED AND REESE 1086583-35	897525

FAILURE MODE-ERRATIC OPERATION. DURING CHECKOUT THE MOTOR INTERMITTENTLY FAILED TO START. FAILURE WAS CAUSED BY A WORN NEGATIVE BRUSH WHICH SUBSEQUENTLY RESULTED IN POOR BRUSH TO COMMUTATOR SEGMENT CONTACT.

CORRECTIVE ACTION-CONVAIR IS NOW RECORDING COMMUTATOR OPERATING TIME AND, ACCORDING TO THE VENDORS RECOMMENDATION, REPLACING MOTORS WHEN TOTAL OPERATING TIME EXCEEDS 50 HOURS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-112 COMMUTATOR, MOTOR	FAR	12E 610310	ETR	YES NO	REED AND REESE	893806

FAILURE MODE-STRUCTURAL. DURING SYSTEM CHECKOUT THE MOTOR EXHIBITED INTERMITTENT OPERATION. DISASSEMBLY DISCLOSED THAT THE NEGATIVE BRUSH SPRING WAS BENT FORCING THE BRUSH AGAINST THE SIDE OF THE BRUSH HOLDER INSTEAD OF TOWARDS THE COMMUTATOR SEGMENTS. MOTOR FAILURE WAS CAUSED BY THE BENT BRUSH SPRING.

CORRECTIVE ACTION-CONVAIR IS NOW RECORDING COMMUTATOR OPERATING TIME AND REPLACING COMMUTATOR MOTORS WHEN OPERATING TIME EXCEEDS 50 HOURS BECAUSE OF RELATED BRUSH PROBLEMS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-122 DIFFERENTIAL AMPLIFIER	FAR 87-01241-1	610308	ETR	YES NO	RAYBERRY	

FAILURE MODE-ERRATIC OPERATION DURING TLM CHECKOUT. THE AMPLIFIER WAS REJECTED FOR CAUSING EXCESSIVE NOISE ON CHANNEL 12 OUTPUT. THE EXACT CAUSE OF FAILURE WAS NOT DETERMINED. THE FAILURE WAS PROBABLY CAUSED BY MINOR CHANGES IN THE FEEDBACK CIRCUIT COMPONENTS WHICH GENERATED THE EXTRANEOUS NOISE.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							894613

CORRECTIVE ACTION-NONE. THIS FAILURE IS CONSIDERED TO BE AN ISOLATED INCIDENT AS THIS IS THE FIRST KNOWN OCCURENCE OF THE PROBLEM. THE EXACT CAUSE OF FAILURE CANNOT BE DETERMINED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-E4-119 DIFFERENTIAL AMPLIFIER RESISTOR	FAR 87-01241-1	610EE7		YES NO	MAYBERRY	894619

FAILURE MODE-OUT OF SPECIFICATION. DURING CANISTER CHECKOUT, THE 2.5 VOLT OUTPUT OF THE AMPLIFIER COULD NOT BE ADJUSTED BELOW 3.1 VOLTS. THE RESISTANCE OF RESISTER R-15 WAS 150K OHMS INSTEAD OF 100K OHMSAS SPECIFIED BY VENDOR DRAWINGS. FAILURE OF THE AMPLIFIER WAS CAUSED BY THE INSTALLATION OF THE INCORRECT RESISTER IN THE FEEDBACK CIRCUIT.

CORRECTIVE ACTION-VENDOR HAS BEEN NOTIFIED TO INITIATE APPROPRIATE QUALITY CONTROL CORRECTIVE ACTION.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0055/FC-4CO-01-100 TLM CANISTER	COMPOSITE-FACTORY 87-12290-3	1000 610EE5		YES NO		899436

FAILURE MODE-OUT OF TOLERANCE- DIV (RBC CUTOFF OUTPUT) INDICATED GREATER THAN 100 PERCENT IBW WHEN AFC WAS SENT.

SYSTEM EFFECT-OPERATION TOO HIGH- SIGNAL CAUSED BANDWITH OF TRANSMISSION TO BE EXCEEDED. WOULD CAUSE NOISE OR CROSS - TALK IN ADJACENT CHANNELS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-MEASUREMENT DIV (RBC CUTOFF OUTPUT) AND M28X (ABORT SYSTEM SIGNAL) WILL BE INTERCHANGED PRIOR TO FLIGHT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE80-0256/P3-801-00-09 TRANSDUCER	FLIGHT	9E 610EE4	ETR-13 110	NO YES	

FAILURE MODE-OUT OF EXPECTED TEST VALUE-TELEMETRY DATA INDICATED THAT THE V8 VERNIER ENGINE DRIFTED ONE DEGREE DURING BOOSTER PHASE. THIS DRIFT IS ATTRIBUTED TO AERODYNAMIC HEATING OF THE TELEMETRY VERNIER POSITION TRANSDUCER OR THE FEEDBACK TRANSDUCER WHICH ARE LOCATED WITHIN THE VERNIER FAIRING.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS-AERODYNAMIC HEATING OF THE TELEMETRY TRANSDUCER WOULD PRODUCE IMPROPER ANALOG SIGNALS TO THE TELEMETRY PACKAGE. (A SIMILAR EFFECT WOULD RESULT FROM HEATING THE V8 FEEDBACK TRANSDUCER).

VEHICLE EFFECT-NONE-THE INDICATED DRIFT HAD NO APPARENT EFFECT ON VEHICLE PERFORMANCE. THE RE-ENTRY VEHICLE IMPACTED IN THE PLANNED TARGET AREA.

CORRECTIVE ACTION-FUTURE VEHICLES WILL HAVE PRODUCTION TYPE COVER PLATES OVER THE VERNIER PITCH CLAMSHELL FAIRING C

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
LEARANCE CUTOUTS TO DECREASE AERODYNAMIC IMPINGEMENT INSIDE THE FAIRING.							895779
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-113 TRANSMITTER	FAR	9E 610224	ETR	YES NO	BENDIX 1052060-12-R-B	895343
FAILURE MODE-DRIFT. THE TRANSMITTER WAS SUSPECTED OF DRIFTING IN FREQUENCY DURING MISSILE COUNTDOWN. A CHECK IN THE LAB SHOWED NORMAL OPERATION AND NO DRIFT. FAILURE NOT CONFIRMED. CORRECTIVE ACTION-DUE TO THE INFREQUENCY OF THIS FAILURE NO CORRECTIVE ACTION WILL BE TAKEN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0021/P3-801-00-09 TLM CANISTER	COUNTDOWN	9E 610224	ETR-13 -210	YES NO		893814
FAILURE MODE-ERRATIC OPERATION. NOISE PROBLEM ON TELEMETRY LINK 3. APPARENTLY RESULT OF SPURIOUS COUPLING WITHIN TELEMETRY SYSTEM. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD AND RECYCLE CALLED TO INVESTIGATE TELEMETRY PROBLEM AND REPLACE MAIN MISSILE BATTERY WHICH EXHIBITED FLUCTUATING VOLTAGE. ADDITIONAL RECYCLE CALLED TO REPLACE RF NO.2 CANISTER IN SUCCESSFUL ATTEMPT TO ELIMINATE LINK 3 NOISE PROBLEM. TOTAL HOLD TIME WAS 183 MINUTES. CORRECTIVE ACTION-REPLACE RF 2 CANISTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-109 COMMUTATOR, MOTOR	FAR	9E 610222	ETR	YES NO	REED AND REESE 1096483-35	893510
FAILURE MODE-FAILED DURING OPERATION. DURING CHECKOUT THE MOTOR FAILED TO START. FAILURE NOT CONFIRMED. THE MOTOR STARTED WHEN THE CANISTER WAS JARRED BY A TECHNICIAN. CORRECTIVE ACTION-NONE, SINCE THE FAILURE WAS NOT CONFIRMED AND THE CAUSE OF FAILURE NOT CONCLUSIVELY ESTABLISHED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-115 SUB CARRIER OSCILLATOR	FAR	9TD 610217	ETR	YES NO	BENDIX-PACIFIC 1041998-3K	
FAILURE MODE-DRIFT. CHANNELS A AND E SCO FREQUENCIES DRIFTED TO HIGHER VALUES.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							894618
CORRECTIVE ACTION-NONE, SINCE THE FAILURE WAS NOT VERIFIED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0022/P4-4CO-03-07 SUBCARRIER OSCILLATORS	COMPOSITE-B FACT	67D 610816	14	YES NO		893884
FAILURE MODE-DRIFT. TELEMETRY DATA INDICATED THAT CHANNEL A AND E FREQUENCIES HAD DRIFTED TOWARD THE HIGH FREQUENCY BAND EDGES. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COMPOSITE DELAYED. CORRECTIVE ACTION-TELEMETRY PACKAGE WAS REPLACED. (CORRECTIVE ACTION ON PACKAGE UNKNOWN).							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0007/FC-5CO-01-021 OSCILLATOR	COMPOSITE-FACTORY	21E 610130	FACTORY	YES NO		896314
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE- CHANNEL 10 OPERATED 19 PCT FSW BELOW THE EXPECTED. VALUE, DUE TO DRIFT OF THE SUBCARRIER OSCILLATOR. SYSTEM EFFECT-OPERATION TOO LOW. VEHICLE EFFECT-COMPOSITE RESCHEDULED-PARTIAL COMPOSITE RETEST WAS REQUIRED. CORRECTIVE ACTION-THE SUBCARRIER OSCILLATOR WAS ADJUSTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0011/P3-503-00-08 CONNECTOR	COUNTDOWN	8E 610124	13 -4200	YES NO		893972
FAILURE MODE-CONTAMINATION. MOISTURE IN PLUG 302P8 CAUSED BIAS SHIFT ON CHANNEL 3C. SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. BIAS SHIFT OF DATA ON CHANNEL 3C. VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD CALLED TO INVESTIGATE PROBLEM. PLUG 302P8 PURGED TO RESTORE PROPER OPERATION . TOTAL HOLD TIME WAS 70 MINUTES. CORRECTIVE ACTION-PURGE CONNECTOR OF MOISTURE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-84-108 CANISTER	FAR 87-18871-809	8E 810123	ETR	YES NO	BENDIX-PACIFIC	893908

FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. DURING PRECOUNT OPERATIONAL CHECKS THE CANISTER EXHIBITED RANDOM VARIATIONS IN THE OUTPUT SIGNAL LEVEL AND DEVIATIONS. FAILURE NOT CONFIRMED.

CORRECTIVE ACTION-NONE. SINCE THE CAUSE OF THE FAILURE WAS NOT DETERMINED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0011/P3-501-00-08 COMMUTATOR	COUNTDOWN	8E 810119	13 -000	YES NO		893976

FAILURE MODE-FAIL DURING OPERATION. COMMUTATION CEASES ON RF 3.

SYSTEM EFFECT-OPERATION STOPS PREMATURELY. RF 3 COMMUTATION STOPS PREMATURELY.

VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD CALLED TO CHANGE RF 3 CANISTER. TOTAL HOLD TIME WAS 118 MINUTES AND COUNT RECYCLED TO T-70.

CORRECTIVE ACTION-REPLACE RF 3 CANISTER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA61-0011/P3-501-00-08 COMMUTATOR	COUNTDOWN	8E 810119	13 -000			893973

FAILURE MODE-FAIL DURING OPERATION. COMMUTATION CEASES ON RF 1 CHANNEL 11.

SYSTEM EFFECT-OPERATION STOPS PREMATURELY. RF 1 CHANNEL 11 COMMUTATION STOPS PREMATURELY.

VEHICLE EFFECT-COUNTDOWN ABORTED AND RE-SCHEDULED. HOLD CALLED TO INVESTIGATE LOSS OF COMMUTATION AND PROBLEM WITH LOX TANKING MAIN PUMP. COUNTDOWN ABORTED DUE TO LACK OF TIME TO CORRECT TELEMETRY PROBLEM.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-84-103 COMMUTATOR, MOTOR	FAR	8E 810119	ETR	YES NO	REED AND REESE 1098483-38	

FAILURE MODE-STRUCTURAL. THREE MOTORS FAILED WHILE INSTALLED ON THE MISSILE. DISASSEMBLY DISCLOSED THAT BOTH MOTOR BRUSHES WERE WORN SO SHORT THAT THE BRUSH SPRINGS WERE NOT EFFECTIVE. FAILURE OCCURED BECAUSE OF WORN BRUSHES AND SUBSEQUENT POOR CONTACT BETWEEN THE BRUSH AND COMMUTATOR SEGMENTS.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-CONVAIR IS NOW RECORDING COMMUTATOR MOTOR OPERATING TIME AND, ON THE BASIS OF THE VENDORS RECOMME NDATION, REPLACING THE MOTORS WHEN TOTAL OPERATING TIME EXCEEDS 50 HOURS.							693502
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0013/FC-4CO-01-104 RATE GYRO DEMODULATOR	COMPOSITE-FACTORY	1040 810108		YES NO		693336
FAILURE MODE-FAILED DURING OPERATION-YAW RATE GYRO SIGNAL INDICATED UNEXPECTED VARIATIONS OF UP TO 4 PER CENT IBW W ITH OUTPUT OF RATE GYROS GROUNDED. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE DELAYED- POST COMPOSITE TESTS REQUIRED TO SHOW SATISFACTORY OPERATION. CORRECTIVE ACTION-FAULTY RATE GYRO DEMODULATOR REPLACED IN TLM ACCESSORY PACKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-103 SUBCARRIER OSCILLATOR-TUBE	FAR 27-01268-5	810108	ETR	YES NO	BENDIX-PACIFIC	693503
FAILURE MODE-ERRATIC OPERATION. DURING CHECKOUT THE OSCILLATOR REPORTEDLY EXHIBITED HIGH AND ERRATIC OUTPUT FREQUEN CY WITH A CONSTANT INPUT SIGNAL. FREQUENCY CONTROL TUBE, V1 WAS GASSY. IT WAS NOTED THAT THE TUBE HAD A CRACKED TIP. FAILURE WAS CAUSED BY THE DEFECTIVE TUBE. CORRECTIVE ACTION-NONE, THE FAILURE IS CONSIDERED AN ISOLATED INCIDENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE61-0015/FC-4CO-01-083 TLM CANISTER	COMPOSITE-FACTORY	880 601218		YES NO		693618
FAILURE MODE-OUT OF TOLERANCE. THE COMMAND OUTPUTS, AUTOMATIC FUEL CUTOFF (AFCO) AND MANUAL FUEL CUTOFF (MFCO), EXC EEDED THE 8.4 VOLT LIMIT. THIS WAS A DESIGN ERROR AND REPEATED FOR SIX COMPOSITES. SYSTEM EFFECT-OPERATION TOO HIGH. VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING WAS REQUIRED. CORRECTIVE ACTION-DESIGN ERROR CORRECTED AFTER SIX COMPOSITES.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-085 POWER SUPPLY, RESISTOR	FAR	9E 601213	ETR	YES NO	BENDIX 1091440	698685

FAILURE MODE-OUT OF TOLERANCE. DURING SYSTEM CHECKOUT, CANISTER EXHIBITED AN UNMODULATED OUTPUT. TESTING ISOLATED THE CAUSE TO THE POWER SUPPLY AND A VISUAL CHECK DISCLOSED BURNED RESISTORS IN THE 150 V DC CIRCUIT. THE POWER SUPPLY FAILED BECAUSE THE POTTING WHICH MECHANICALLY SECURES THE RESISTOR IN PLACE, RESTRICTED THE HEAT DISSIPATION OF THE RESISTOR.

CORRECTIVE ACTION-NONE, SINCE FAILURE OF THIS POWER SUPPLY WAS A FIRST OCCURRANCE OF THIS TYPE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	DA239/03-48M-01-09 CONNECTOR-WIRING	COMPOSITE-FRD/DPL	99D 601210	83	YES NO		693606

FAILURE MODE-OPEN. ELECTRICAL. NO TELEMETRY SIGNAL RECEIVED INDICATING GYRO DISPLACEMENT.

SYSTEM EFFECT-OPERATION DOES NOT START. NO MOVEMENT OF THE DISPLACEMENT GYROS DURING THE LOOP TEST.

VEHICLE EFFECT-COUNTDOWN DELAYED.

CORRECTIVE ACTION-P102 PLUGGED INTO GYRO CANISTER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-102 AMPLIFIER	FAR 27-01229-3	8E 601209	ETR	YES NO	BENDIX-PACIFIC TAV8	693493

FAILURE MODE-CONTAMINATION. DURING SYSTEM CHECKOUT, THE AMPLIFIER EXHIBITED NO OUTPUT. DISASSEMBLY DISCLOSED A SMALL PIECE OF CONTAMINATION LYING ACROSS THREE PLATES OF THE GRID TUNING CAPACITOR, C-2. THE FAILURE WAS CAUSED BY THE FOREIGN MATERIAL, WHICH RESULTED IN INTERMITTENT SHORTING OF THE CAPACITOR PLATES.

CORRECTIVE ACTION-SINCE THE ORIGIN OF THE CONTAMINATION COULD NOT BE DETERMINED, THE VENDOR AND CONVAIR PERSONNEL WILL BE REQUESTED TO IMPROVE THEIR CLEANLINESS PRACTICES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-101 TRANSDUCER, INSTRUMENTATION	FAR 7-01703-13	9D 601208	ETR	YES NO	CONSOLIDATED E LECTRODYNAMICS	

FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER FOR MEASUREMENT F3P GAVE A FALSE FULL SCALE INDICATION. FAILURE WAS CAUSED BY A DEFECTIVE SOLDER JOINT BETWEEN THE HOUSING AND THE BASE PLATE WHICH ALLOWED THE APPLIED PRESSURE TO EQUALIZE WITH THE REFERENCE PRESSURE, RESULTING IN ZERO OUTPUT VOLTAGE.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							891317
CORRECTIVE ACTION-NONE. THIS PART NUMBER TRANSDUCER IS NO LONGER USED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE60-0730/P3-B0E-00-04 TELEMETER CANISTER	COUNTDOWN 87-12571-3	4E 681129	13 -0200	YES NO	CONVAIR	895606
FAILURE MODE-ERRATIC OPERATION. DEVIATION OF RFI TELEMETER NOTED DURING GUIDANCE AUTOPILOT COMPATIBILITY TEST. NO D ETAILS AVAILABLE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. G.A.P. TEST DATA QUESTIONABLE BECAUSE OF ERRATIC RFI OPERATION. VEHICLE EFFECT-COUNTDOWN DELAYED. HOLD CALLED TO REPLACE TELEMETER RFI. G.A.P. TEST HAD TO BE RERUN AFTER NEW TELEM ETER PACKAGE INSTALLED. CORRECTIVE ACTION-RFI CANISTER REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-097 AMPLIFIER	FAR 87-12579-1	681123	ETR	YES NO	BENDIX	898698
FAILURE MODE-OUT OF TOLERANCE. FREQUENCY CHANNELS COULD NOT BE ADJUSTED. THE TROUBLE WAS ISOLATED TO THE AMPLIFIER. CORRECTIVE ACTION-NONE, SINCE THE CAUSE OF FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE60-1007/FC-4CO-0E-090 TLM CANISTER	COMPOSITE-FACTORY	-0D 681116		NO NO		898613
FAILURE MODE-OUT OF TOLERANCE. THE NEGATIVE GATING SEGMENTS OF CHANNEL 14 WERE 10 PERCENT PDW FROM THE HIGH FREQUEN CY BAND EDGE. THIS PROBLEM WAS CAUSED BY THE 6.5 VDC POWER SUPPLY IN THE POWER DISTRIBUTION TRAILER BEING SET TOO LO W. SYSTEM EFFECT-OPERATION TOO HIGH. VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING WAS REQUIRED. CORRECTIVE ACTION-SET 6.5 VDC POWER TO CORRECT LEVEL IN POWER DISTRIBUTION TRAILER.							

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SYSTEM *SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-E4-098 CALIBRATOR-SCREWS	FAR 87-11016-681	601114	ETR	YES NO		693507

FAILURE MODE-OUT OF TOLERANCE. CANISTER WAS OPENED AT AHR TO INCORPORATE A MODIFICATION AND IT WAS NOTED THAT THE I N FLIGHT CALIBRATOR SUB ASSEMBLY WAS LOOSE. IT WAS CONCLUDED THAT THE DISCREPANCY OCCURED AS A RESULT OF HUMAN ERRON S ON THE PART OF SHOP AND INSPECTION PERSONNEL.

CORRECTIVE ACTION-CONVAIR SHOP AND INSPECTION PERSONNEL HAVE BEEN INFORMED IN DETAIL OF THE INCIDENT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-E4-107 POWER SUPPLY, TRANSISTOR	FAR	83D 601102	ETR	YES BENDIX NO 1046173-2A		693504

FAILURE MODE-ELECTRICAL SHORT. DURING TLM SYSTEM CHECKOUT CANISTER HAD NO OUTPUT. POWER SUPPLY WAS FOUND TO BE THE CAUSE. THE INTERNAL POWER CHANGE OVER SWITCH FAILED AS A RESULT OF THE HIGH CURRENT DRAW BY THE POWER SUPPLY. POWER TRANSISTORS Q 201 AND Q 202 WERE SHORTED EMMITTER TO COLLECTOR AND EMMITER TO COLLECTOR BASE.

CORRECTIVE ACTION-VENDOR WAS REQUESTED TO INTENSIFY INSPECTION AND TESTING OF THE ITEM PART AND INCORPORATED TRANSI STORS PER FAR 9B-E4-051.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-099 TRANSMITTER	FAR	3E 601005	ETR	YES BENDIX NO 1052060-12-2-B		693509

FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. THE TRANSMITTER EXHIBITED EXTRANEOUS FREQUENCIES IN ITS OUTPUT. TES TING AT SAN DIEGO CONFIRMED THE REPORTED CONDITIONS, HOWEVER, COMPARABLE DATA FROM A TEST PERFORMED ON A SIMILAR TRA NSMITTER, WHICH WAS KNOWN TO BE GOOD, WERE NOT SIGNIFICANTLY DIFFERENT. IT WAS CONCLUDED THAT THE ITEM TRANSMITTER W AS NORMAL.

CORRECTIVE ACTION-NONE, SINCE THE ANALYSIS DISCLOSED THE TRANSMITTER OPERATION TO BE SATISFACTORY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA50-0108/F3-801-00-03 TLM CANISTER	FRF	3E 601003	ETR-13	YES NO	

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING FIRST FRF ALL TELEMETERED DATA WAS LOST. NO INDIVIDUAL COMP ONENT WAS ISOLATED.

SYSTEM EFFECT-OPERATION DOES NOT START. TELEMETRY SYSTEM FAILED TO OPERATE.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							691918

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-THE ENTIRE TELEMETRY TRANSMISSION SYSTEM WAS REPLACED. SUBSEQUENT TESTS WERE NORMAL.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	P3-24-100 TLM CANISTER	FAR 87-11017-1	3E 600827	ETR	YES NO		693501

FAILURE MODE-ERRATIC OPERATION. DURING A STATIC FIRING THE TLM SYSTEM OUTPUT EXHIBITED EXCESSIVE NOISES. THE TLM SYSTEM NOISE DISAPPEARED SOON AFTER ENGINE CUTOFF. THE TLM SYSTEM EXCEPT FOR THE RF CANISTERS WAS REJECTED. NONE OF THE INDIVIDUAL COMPONENTS TESTED WAS RESPONSIBLE FOR THE REPORTED FAILURE.

CORRECTIVE ACTION-NONE, SINCE THE FAILURE WAS NOT CONFIRMED AND THE EXACT CAUSE OF FAILURE NOT DETERMINED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA60-0108/P3-S01-00-03 TLM CANISTER	FRF	3E 600923	ETR-13	YES NO		693803

FAILURE MODE-FAIL DURING OPERATION. DURING THE FIRST FRF ALL DATA WAS LOST. FAILURE COULD NOT BE ISOLATED TO ANY ONE COMPONENT IN THE RF TRANSMISSION SYSTEM.

SYSTEM EFFECT-ERRATIC OPERATION. ALL DATA WAS LOST.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-THE ENTIRE TRANSMISSION SYSTEM WAS REPLACED. ALSO, FACTORY TORQUE PAINTED, BUT LOOSE, ALJAX CONNECTORS WERE FOUND.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-086 POWER SUPPLY, TRANSISTOR	FAR	30D 600919	ETR	YES BENDIX NO 1046173-2-A		696666

FAILURE MODE-SHORT(ELECT.) POWER SUPPLY WAS INTERNALLY SHORTED. FAILURE ORIGINATED IN TRANSISTOR Q203.

CORRECTIVE ACTION-THE VENDOR HAS REQUESTED TO INITIATE CORRECTIVE ACTION FOR THIS PROBLEM PER FAR 98-24-051.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-083 COMMUTATOR, MOTOR	FAR	76D 600916	ETR	YES REED AND REESE NO 1098483-43		

FAILURE MODE-FAIL DURING OPERATION. DURING CANISTER CHECKOUT AT LAB. THE MOTOR FAILED TO OPERATE. ANALYSIS SHOWED A

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
HIGH RESISTANCE, APPROXIMATELY 10K EXISTED IN THE ARMATURE CIRCUIT OF THE MOTOR. DISASSEMBLY DISCLOSED AN EXCESSIVE AMOUNT OF FREE BRUSH MATERIAL IN THE BRUSH RETAINING BLOCK AND A HEAVY FILM OF BRUSH MATERIAL ADHERING TO THE COMMUTATOR SEGMENTS. CORRECTIVE ACTION-THE VENDOR IS NOW INSTALLING A NEW TYPE MOTOR FROM A DIFFERENT SOURCE.							888884
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	AE60-0T4491-401-00-76 TLM CANISTER-TRANSMITTER	FLIGHT	790 600916	ETR-11 38	YES NO		897765
FAILURE MODE-ERRATIC OPERATION. DATA SIGNALS FROM RF 1 WERE REPEATEDLY INTERRUPTED BY NOISE. BELIEVED DUE TO A FAULTY TRANSMITTER. DATA FROM OTHER RFS WERE FREE OF NOISE. SYSTEM EFFECT-ERRATIC OPERATION. NOISE RESULTED IN UNUSABLE DATA ON THE ARMA DIGITAL CHANNEL AND SOME DATA ON OTHER SYSTEMS WAS LOST. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	98-24-092 SUBCARRIER OSCILLATOR	FAR Y-01488	790 600615	ETR	YES BENDIX NO 1041962-4-Z		888667
FAILURE MODE-OUT OF TOLERANCE. DURING CHECKOUT THE OSCILLATOR EXHIBITED HIGH OUTPUT FREQUENCY. CORRECTIVE ACTION-NONE, SINCE THE FAILURE WAS NOT CONFIRMED AND THE CAUSE OF THE FAILURE NOT DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUCERS	AA60-0039/P4-401-0079 OSCILLATOR	COUNTDOWN	790 600915	14	YES IRE NO		893978
FAILURE MODE-OUT OF TOLERANCE. DURING PRE-COUNT OF ATTEMPTED LAUNCH, THE TELEMETRY RF PACKAGE OSCILLATOR FOR CHANNEL 1S WAS FOUND TO BE UNSTABLE. SYSTEM EFFECT-ERRATIC OPERATION. OSCILLATOR FREQUENCY UNSTABLE. VEHICLE EFFECT-COUNTDOWN DELAYED. CORRECTIVE ACTION-REPLACE THE RF TELEMETRY PACKAGE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE60-078483-401-00-47 TRANSDUCER, CIRCUIT	FLIGHT	470 600912	5768-3 109	YES NO		898104

FAILURE MODE-SHORT (ELECT). A SHORT IN ONE OF THE TRANSDUCERS OR INSTRUMENTATION CIRCUITRY RESULTED IN FAILURE OF T HE TRANSDUCER POWER SUPPLY AT 109 SECONDS.

SYSTEM EFFECT-OPERATION STOPS PREMATURELY. DATA FROM 30 MEASUREMENTS WHICH USED THE TRANSDUCER POWER SUPPLY WAS LOS T.

VEHICLE EFFECT-NONE. EVALUATION OF A PROPULSION PROBLEM WAS MADE EXTREMELY DIFFICULT AS DATA WAS RECOVERED FROM ONL Y 12 MEASUREMENTS WHICH DID NOT USE THIS POWER.

CORRECTIVE ACTION-ISOLATION RESISTORS WERE ADDED IN THE INSTRUMENTATION CIRCUITY TO PREVENT A SHORT FROM AFFECTING THE TRANSDUCER POWER SUPPLY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE60-0611/FC-4CO-08-077 OSCILLATOR	COMPOSITE-FACTORY	770 600908		YES NO		899617

FAILURE MODE-OUT OF TOLERANCE. CHANNEL E WAS OPERATING BEYOND THE LOW FREQUENCY BAND EDGE DUE TO OUT OF ADJUSTED OS CILLATOR.

SYSTEM EFFECT-OPERATION TOO LOW.

VEHIC EFFECT-COMPOSITE RESCHEDULED. POST- COMPOSITE TESTING WAS REQUIRED.

CORRECTIVE ACTION-READJUSTED THE CHANNEL E OSCILLATOR.

INSTRUMENTATION-A/B TELEMETRY SET ..40 TRANSDUC ERS	AC60-0724/FC-4CO-02-083 TLM CANISTER	COMPOSITE-FACTORY	830 600901		NO NO		899864

FAILURE DE-OUT OF TOLERANCE. CHANNEL 14 EXCEEDED BANDWITH LIMITS DURING VARIOUS PARTS OF THE TEST. CHANNELS 13 AN D 15 WERE 5 PCT FRM FROM EXCEEDING THEIR BAND LIMITS. FILAMENT VOLTAGE SUPPLIED BY POWER DISTRIBUTION TRAILER WAS TO O LOW.

SYSTEM EFFECT-ERRATIC OPERATION.

VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SATISFACTORY OPERATION CONFIRMED ON SUBSEQUENT COMPOSITE.

CORRECTIVE ACTION-POWER DISTRIBUTION TRAILER VOLTAGE PROPERLY ADJUSTED.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-084 TLM CANISTER	FAR	3E 630801	ETR	YES NO	BENDIX 1032060-12-2-8	898896
FAILURE MODE-FAIL DURING OPERATION. THE CANISTER EXHIBITED NO OUTPUT DURING SYSTEM CHECKOUT. FAILURE MOST PROBABLY CORRECTED DURING ANALYSIS, SINCE EXACT CAUSE OF FAILURE COULD NOT BE DETERMINED.							
CORRECTIVE ACTION-NONE SINCE THE EXACT CAUSE OF FAILURE COULD NOT BE DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-081 COMMUTATOR, SCREWS	FAR 27-12371-5	600817	ETR	YES NO	BENDIX	898893
FAILURE MODE-OUT OF SPECIFICATION. CANISTER WAS OPENED AT TLM. LAB., TWO I/8 RPS COMMUTATOR MOUNTING SCREWS WERE LY ING LOOSE INSIDE. THE REMAINING TWO SCREWS WERE LOOSE.							
CORRECTIVE ACTION-CONVAIR HAS REITERATED THE IMPORTANCE OF GOOD WORKMANSHIP AND ADEQUATE INSPECTION TO COGNIZANT PE RSONNEL.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-076 POWER SUPPLY	FAR	4E 600804	ETR	YES NO	BENDIX 1031440-5-8	898890
FAILURE MODE-ELECTRICAL SHORT. DURING SYSTEM CHECKOUT THE POWER SUPPLY EXHIBITED NO OUTPUT. INVESTIGATION SHOWED TH AT THE POWER SUPPLY WAS SHORT CIRCUITED INTERNALLY. THE DIRECT CAUSE OF THE FAILURE WAS NOT DEFINITELY ESTABLISHED.							
CORRECTIVE ACTION-NONE, SINCE THE EXACT CAUSE OF THE FAILURE WAS NOT DETERMINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	90-24-073 COMMUTATOR	FAR	37D 600720	WTR	YES NO	UNITED ELECTRO DYNAMICS 27-12242-1	894420
FAILURE MODE-ELECTRICAL OPEN. DURING CHECKOUT THE TRANSMITTER FAILED TO OPERATE ON CHANNEL 18. APPARENTLY DUE TO AN INOPERATIVE 10 RPS COMMUTATOR MOTOR. DISASSEMBLY DISCLOSED THAT APPROXIMATELY 40 PCT OF THE BRUSH FACES WERE NOT IN CONTACT WITH THE MOTOR COMMUTATOR SEGMENTS. THE BRUSHES HAD NOT BEEN PROPERLY RUN IN.							
CORRECTIVE ACTION-VENDOR TO INVESTIGATE AND CORRECT BRUSH RUN -IN PROCEDURE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE60-0812/FC-4CO-01-080 TELEMETRY ACCESSORY PACKAGE FILTER	COMPOSITE-FACTORY	800 800725		YES NO		899863

FAILURE MODE-FAILURE DURING OPERATION. MEASUREMENTS A6090, A6100, A6120, A6200 AND A6210 SENDING NODE ACCELEROMETER S, COULD NOT BE EVALUATED QUANTITATIVELY DUE TO A DESIGN PROBLEM INVOLVING THE FILTERS ASSOCIATED WITH THESE MEASUREMENTS. ACCELEROMETERS A6090 AND A6190 WERE FOUND TO BE FAULTY ON POST-COMPOSITE TESTING.

SYSTEM EFFECT-ERRATIC OPERATION.

VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. PROPER OPERATION CONFIRMED ON SUBSEQUENT COMPOSITE HOWEVER TWO ACCELEROMETER S WERE FOUND TO BE FAULTY.

CORRECTIVE ACTION-NEW FILTERS WERE DESIGNED AND INSTALLED IN THE ACCESSORY PACKAGE. NO REPLACEMENTS AVAILABLE FOR F AULTY ACCELEROMETERS A6090 AND A6190. NO FURTHER TESTING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE60-0812/FC-4CO-01-80 CONNECTOR-ELECT	COMPOSITE-FACTORY	800 800725		YES NO		899857

FAILURE MODE-ELECTRICAL OPEN. MEASUREMENT A5221 INDICATED 13 PCT IBW WHEN 0 PCT WAS EXPECTED. A PIN PERTINENT TO TH E CIRCUITY FOR MEASUREMENT A5221 WAS BROKEN IN RECEPTACLE 2V3.

SYSTEM EFFECT-OPERATION TOO HIGH.

VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SATISFACTORY POST-COMPOSITE TESTING ACCOMPLISHED.

CORRECTIVE ACTION-THE TELEMETRY ACCESSORY PACKAGE WAS REMOVED AND RECEPTACLE 2V3 REPLACED.

INSTRUMENTATION-A/3 TELEMETRY SET AND TRANSDUC ERS	AA60-0058/P1-4CO-01-60 TRANSDUCER	COMPOSITE-B FACT	660 800719	11 69	YES NO		892682

FAILURE MODE-SHORT (ELECT). POOR CONNECTION IN B1 YAW TRANSDUCER PLUG CAUSED SHORTING OF TELEMETRY NO. 1 POWER SUPP LY.

SYSTEM EFFECT-ERRATIC OPERATION. AT APPROXIMATELY 69 SECONDS THE POWER SUPPLY WAS SHORTED OUT AND REMAINED IN THAT CONDITION UNTIL BOOSTER CUTOFF.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN. THE TRANSDUCER WAS REMOVED AND REPLACED.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	66-24-068 VALVE-TRANSDUCER CHECKOUT	FAR 27-01279-1	2E 600706	SYCAMORE	YES NO	JAMES, POND AN D CLARK 27-01279-1	891187

FAILURE MODE-LEAK. DURING CALIBRATION OF THE TRANSDUCER, 8000 PSI NITROGENWAS APPLIED TO THE CALIBRATE PORT OF THE ITEN VALVE. INTERNAL LEAKAGE ALLOWED THE HIGH PRESSURE GAS TO ENTER THE HYDRAULIC SYSTEM. LEAKAGE WAS CAUSED BY CUTTING OF THE POPPET DYNAMIC O-RING BY TRAVEL PAST THE TRANSDUCER PORT DURING POPPET ACTUATION. TOTAL OF SIX FAILURES IDENTIFIED ON THIS FAR.

CORRECTIVE ACTION-PROCEDURES HAVE BEEN MODIFIED TO INCLUDE (1) PROHIBITING ACTUATION OF THE VALVE POPPET WITH GREATER THAN 10 PSIG ON THE SYSTEM PORT. (2) VENTING OF THE SYSTEM PRIOR TO CALIBRATION OF THE TRANSDUCER. ALL VALVES IN THE VENDOR STOCK ARE BEING MODIFIED TO INCLUDE-(A) INCREASED CHAMFER ON THE TRANSDUCER PORT. (B) INCREASED LENGTH OF THE POPPET TO INSURE POSITIVE SEAL AT HIGH PRESSURES.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA60-0034/P1-401-00-60 TELEMETRY RF NO 2	COUNTDOWN	600 600630	ETR-11	YES NO		894448

FAILURE MODE-ERRATIC OPERATION. TELEMETRY RF NO. 2 DATA BECAME NOISY DURING THE LAUNCH ATTEMPT.

SYSTEM EFFECT-ERRATIC OPERATION. NOISE CAUSED LOSS OF DATA ON RF NO. 2.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-CANISTER WAS REMOVED AND REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS POWER SOURCE	AE60-0537/P3-402-00-27 POWER SUPPL"	FLIGHT	2FD 600627	ETR-12 328.6	YES NO		896719

FAILURE MODE-FAIL DURING OPERATION. AT 328.6 SECONDS THE 2.4 AND 0.8 VOLT POWER SUPPLIES DROPPED TO APPROXIMATELY 2 5 PERCENT IBM.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. NO TELEMETRY COVERAGE ON MEASUREMENTS UTILIZING THE 2.4 AND 0.8 VOLT POWER SUPPLY. LITTLE DATA WAS LOST HOWEVER, SINCE THE MAJORITY OF THE MISSILE SYSTEMS WERE NO LONGER IN ACTIVE OPERATION AT THAT TIME.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-NONE.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA60-0046/PE-4CO-01-27 STROBE LIGHT WIRING	COMPOSITE-B FACT	270 600618	12	YES NO		894013

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. SWITCHOVER OF CHANNEL E FROM COMMUTATED MODE TO CONTINUOUS MODE TO OBSERVE STROBE LIGHT OPERATION DID NOT OCCUR BECAUSE OF A WIRING ERROR.

SYSTEM EFFECT-OPERATION DOES NOT START. MONITORING OF STROBE LIGHT OPERATION DID NOT START.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-WIRING ERROR WAS CORRECTED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	DA029/B3-4MO-01-B3 CONNECTOR-WIRING	COMPOSITE-FRD/DPL	B3 600618	5768-3	NO NO		897224

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. BROKEN WIRE IN CONNECTOR.

SYSTEM EFFECT-OPERATION DOES NOT START. INOPERATIVE TELEMETRY TRANSMITTER.

VEHICLE EFFECT-COMPOSITE DELAYED.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE60-0463/FC-4CO-01-32 TLM CANISTER-WIRING	COMPOSITE-FACTORY	320 600611		YES NO		899856

FAILURE MODE-FAILURE TO OPERATE AT PRESCRIBED TIME. MEASUREMENTS P347X SUSTAINER CUTOFF RELAY LOCKIN AND P77X VERNIER CUTOFF RELAY- FAILED TO INDICATE THEIR BLIP FUNCTIONS UPON ACTIVATION OF THEIR RESPECTIVE RELAYS. WIRING ERROR IN RF CANISTER- P347X AND P77X- NOT WIRED.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SATISFACTORY POST-COMPOSITE TESTING WAS PERFORMED.

CORRECTIVE ACTION-THE RF CANISTER WAS REMOVED AND WIRING WAS INSTALLED FOR MEASUREMENTS P347X AND P77X.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE60-0468/FC-4CO-01-32 VERNIER POSITION TRANSDUCERS HARNE SS	COMPOSITE-FACTORY	320 600611		YES NO		

FAILURE MODE-FAILURE DURING OPERATION. MEASUREMENTS S2S1D V2 YAW AND S2S9D V2 PITCH ROLL-INDICATED MOVEMENT IN REVERSE FROM WHICH WAS EXPECTED. THE HARNESS HAD NOT BEEN MODIFIED TO THE PROPER CONFIGURATION.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COMPOSITE RE-SCHEDULED. SATISFACTORY POST COMPOSITE TESTING WAS PERFORMED. CORRECTIVE ACTION-CORRECTED HARNESS WIRING TO PROPER CONFIGURATION.							000034
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE60-0321/P1-401-00-94 TRANSMITTER	COUNTDOWN	34D 600611	ETR-11	YES NO		000123
FAILURE MODE-ERRATIC OPERATION. TELEMETRY RF3 SIGNAL STRENGTH WAS VARYING FROM 1000 TO 8000 MICROVOLTS. SYSTEM EFFECT-ERRATIC OPERATION, DEGRADATION OF DATA FROM RF3 OCCURRED. VEHICLE EFFECT-COUNTDOWN DELAYED. CORRECTIVE ACTION-REPLACED TRANSMITTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-061 TRANSDUCER, INSTRUMENTATION	FAR 7-01723-11	42D 600600	ETR	YES NO	CONSOLIDATED E LECTRODYNAMICS UNKNOWN	001037
FAILURE MODE-ERRATIC OPERATION. TRANSDUCER FOR MEASUREMENT PIP INDICATED AN INTERMITTENT OUTPUT. CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE60-0320/P4-401-00-48 CONDITIONER- SIGNAL	FLIGHT	45D 600524	AMR 14	YES NO		000286
FAILURE MODE-ERRATIC OPERATION. INVERTER AC VOLTAGE DATA APPEARED TO BE ERRATIC ALTHOUGH IT STAYED WITHIN SPECIFICATION. THE ERRATIC DATA WAS NOT REFLECTED IN USER SYSTEMS AND IS THEREFORE CONSIDERED TO BE ERRONEOUS DATA. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-058 TRANSDUCER, INSTRUMENTATION	FAR 7-01723-13	45D 600510	SAN DIEG O	YES NO	CONSOLIDATED E LECTRODYNAMICS	
FAILURE MODE-ERRATIC OPERATION. TRANSDUCER WAS REPORTED TO HAVE ERRATIC OUTPUT FROM 11 TO 13 PSIG.							

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							891641

CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-E4-093 AMPLIFIER, CAPACITOR	FAR	54D 600428	EIR	YES NO	BENDIX TAVS	889669

FAILURE MODE-ELECTRICAL SHORT. WHILE ACTING AS A SUPPORT FUNCTION FOR GUIDANCE SYSTEM CHECKOUT, THE AMPLIFIER EXHIBITED LOW POWER OUTPUT. INVESTIGATION DISCLOSED THAT A SCREEN BYPASS CAPACITOR, C-6 WAS SHORTED. FAILURE WAS CAUSED BY THE SHORTED CAPACITOR WHICH REDUCED THE SCREEN TO GROUND RESISTANCE AND RESULTED IN BIAS CHANGES IN THE CIRCUIT.

CORRECTIVE ACTION-CONVAIR HAS INFORMED THE VENDOR OF THE DISCREPANCY AND WILL MAINTAIN SURVEILLANCE OVER THE COMPONENT SO THAT ADDITIONAL CORRECTIVE ACTION MAY BE TAKEN IF WARRANTED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE60-0364/FC-4CO-01-71 HARNESS	COMPOSITE-FACTORY	71D 600427		YES NO		889668

FAILURE MODE-OUT OF TOLERANCE. THE ERROR RATIO DEMODULATOR OUTPUT, MEASUREMENT V91V, RF NO.1 CHANNEL A, SEGMENTS 19 AND 49, WAS NOT MONITORED DURING THE COMPOSITE TEST DUE TO AN INCORRECTLY WIRED TELEMETRY HARNESS.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-COMPOSITE RESCHEDULED. PROPER OPERATION CONFIRMED ON SUBSEQUENT COMPOSITE.

CORRECTIVE ACTION-THE HARNESS WAS RE-WORKED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AE60-0364/FC-4CO-01-71 TLM CAMISTER	COMPOSITE-FACTORY	71D 600427		YES NO		889630

[redacted] FAILURE MODE-DRIFT MEASUREMENT R2570 (SUSTAINER PITCH) INDICATED A 3 PERCENT ABRUPT SHIFT TOWARD THE HIGH FREQUENCY BAND EDGE AND DID NOT REGAIN ITS ORIGINAL LEVEL (R*NO. 1, CHANNEL 5). THE SAME MEASUREMENT MONITORED ON RF NO. 2, CHANNEL 11, SEGMENT 21 DID NOT SHOW THIS CONDITION. THE EXACT CAUSE WAS UNKNOWN

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-NONE.

[redacted] CORRECTIVE ACTION-CHANNEL 5 OF RF NO. 1 FUNCTIONED NORMALLY ON NUMEROUS RETESTS AND THEREFORE WAS CONSIDERED SATISFACTORY

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE CATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS POWER SOURCE	AE6G-0364/FC-4CO-01-71 TLM CANISTER	COMPOSITE-FACTORY	71D 600427		YES NO		899619
FAILURE MODE-FAIL DURING OPERATION. MEASUREMENT 1341V (CONTROL M22.8 PWR SUP) CHANNEL 12, SEGMENT 13, RF NO. 1, MANIFESTED SPIKING UP TO 10 PERCENT IBM. THE EXACT CAUSE WAS UNKNOWN. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING WAS REQUIRED. CORRECTIVE ACTION-REPEATED RETESTS COULD NOT DUPLICATE THIS CONDITION.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-064 OSCILLATOR-WIRING	FAR	48D 600408	ETR	YES NO	BENDIX 1052094-AGA	894422
FAILURE MODE-ELECTRICAL SHORT. DURING SYSTEM CHECKOUT OSCILLATOR REPORTEDLY EXHIBITED INTERMITTENT OUTPUT. FAILURE COULD NOT BE CONFIRMED. DISASSEMBLY FOUND A ONE INCH PIECE OF WIRE LOOSE BETWEEN THE TERMINAL BOARD AND OSCILLATOR C HASSIS. IT WAS CONCLUDED THAT THE WIRE HAD GENERATED A SHORT CIRCUIT BETWEEN TERMINAL PINS CAUSING THE FAILURE. CORRECTIVE ACTION-VENDOR TO INTENSIFY HIS INSPECTION SURVEILLANCE OF THIS COMPONENT AND IMPROVE HIS QUALITY CONTROL PRACTICES.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-050 POWER CHANGE OVER SWITCH	FAR 7-01722-3	48D 600322	ETR	NO NO	KINETICS	890281
FAILURE MODE-ELECTRICAL OPEN. TELEMETRY CANISTER COULD NOT BE TRANSFERRED TO INTERNAL POWER. FAILURE WAS DUE TO A B URNED OUT MOTOR ARMATURE WINDING CAUSED BY CONDITIONS EXTERNAL TO THE SWITCH. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA50-0018/P1-4CO-01-48 TELEMETRY CANNISTER	COMPOSITE-J FACT 87-12220-3	48D 600322	11	YES NO		
FAILURE MODE-OUT OF EXPECTED TEST VALUE. TELEMETRY PACKAGE RF2 HAD 40 PERCENT NOISE LEVEL OUTPUT. SYSTEM EFFECT-ERRATIC OPERATION. TELEMETER OUTPUT OBSCURED BY NOISE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-NONE. CORRECTIVE ACTION-TELEMETER PACKAGE REPLACED. IR493484.							894018
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AA60-0130/PR-4BN-03-58	COMPOSITE-FRD/DPL	55D 600321	1E	NO NO		893988
FAILURE MODE-CONTAMINATION. NUMEROUS SENSING LINES AND TRANSDUCERS IN THE FUEL TANK PRESSURIZING SYSTEM AND THE PU SYSTEM WERE CONTAMINATED WITH FUEL AS A RESULT OF OVERFILLING THE FUEL TANK. SYSTEM EFFECT-CONTAMINATION. VEHICLE EFFECT-COMPOSITE AND TANKINGS DELAYED AND RESCHEDULED. CORRECTIVE ACTION-LINES AND COMPONENTS REMOVED, CLEANED, AND REINSTALLED OR REPLACED. SOME LINES AND COMPONENTS PURGED IN PLACE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-057 COMMUTATOR	FAR 27-12E14-1	490 600317	ETR	YES BENDIX NO		6.6239
FAILURE MODE-ELECTRICAL SHORT. COMMUTATED CHANNEL OUTPUTS WERE ERRATIC. TESTS SHOWED A 60 OHM SHORT EXISTED BETWEEN A NEGATIVE PEDESTAL SEGMENT AND A BLOCK OF INFORMATION SEGMENTS IN SECTION A OF THE COMMUTATOR. A SHORT CIRCUIT OCCURRED WITHIN THE POTTING MATERIAL DIRECTLY BETWEEN SEGMENTS 31 AND 32. CORRECTIVE ACTION-VENDOR TO INTENSIFY INSPECTION SURVEILLANCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-060 TRANSMITTER-TUBE ELECTRONIC	FAR	600316	ETR	YES BENDIX NO 1032060-11-2B		894419
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. DURING CHECKOUT THE CANISTER EXHIBITED NO OUTPUT. TROUBLE WAS ISOLATED TO V-3, THE QUADRUPLER TUBE, WHICH WAS FOUND TO HAVE LOW EMISSION. TUBE V-3 WAS SUBSEQUENTLY REPLACED AND THE TRANSMITTER OPERATED SATISFACTORILY. CORRECTIVE ACTION-UNKNOWN. THE CAUSE OF THE TUBE FAILURE WAS NOT DETERMINED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TRANSMITTER ERS	FTA877/P1-4GS-00-42	COUNTDOWN	420 600308	ETR-11	YES NO		893122
FAILURE MODE-OUT OF TOLERANCE. CHANNEL A WAS NOISY AND HAD SLIGHT CENTER FREQUENCY DRIFT. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COUNTDOWN DELAYED. CORRECTIVE ACTION-REPLACED TRANSMITTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SUBCARRIER OSCILLATOR-CIRCUIT ERS	98-24-042	FAR	200 600300	ETR	YES NO	BENDIX 1040659-11M	893022
FAILURE MODE-ELECTRICAL OPEN. SUBCARRIER OSCILLATOR FOUND TO HAVE NO VOLTAGE OUTPUT. PIN 6 WHICH NORMALLY WOULD HAV E CONNECTED THE HEATER GROUND OF TUBE V-8 TYPE 6111, TO THE OSCILLATOR CIRCUIT GROUND, WAS NOT IN GOOD ELECTRICAL CO NTACT WITH THE OSCILLATOR INTERNAL PRINTED GROUND CIRCUIT IN WHICH THE PIN WAS MOUNTED. CORRECTIVE ACTION-CONVAIR IS TAKING CORRECTIVE ACTION WITH THE VENDOR TO INTENSIFY HIS INSPECTION SURVEILLANCE ON T HIS COMPONENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	98-24-046	FAR	290 600300	ETR	YES NO	REED AND REESE 1096485-4S	893277
FAILURE MODE-OUT OF TOLERANCE. DATA INDICATED THE MOTOR WAS RUNNING BELOW REQUIRED SPEED. TESTS DISCLOSED THAT THE MOTOR WAS RUNNING AT 2.5 RPS AND NOISY. DISASSEMBLY DISCLOSED MOTOR OUTPUT DRIVE GEAR RUBBING HEAVILY ON THE PLANET GEAR SUPPORT PLATE. CORRECTIVE ACTION-VENDOR TO INTENSIFY INSPECTION SURVEILLANCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	98-24-045	FAR	600300	ETR	YES NO	REED AND REESE 1096485-6S	
FAILURE MODE-ELECTRICAL OPEN. THE MOTOR OPERATED BELOW THE REQUIRED SPEED. THE MOTOR RAN AT 26.6 RPS ANALYSIS DISCL OSED THAT AN ARMATURE CONDUCTOR COMMUTATOR SEGMENT CONNECTION WAS NOT SOLDERED AT THE SEGMENT, WHICH RESULTED IN AN INTERMITTENT ELECTRICAL CONNECTION.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							000267
CORRECTIVE ACTION-VENDOR TO INTENSIFY INSPECTION SURVEILLANCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	68-24-031 POWER SUPPLY, TRANSISTOR	FAR	420 600225	ETR	YES NO	BENDIX 1031440-28	000282
FAILURE MODE-FAILED DURING OPERATION. POWER SUPPLY EXHIBITED NO OUTPUT DURING CHECKOUT PROCEDURES. EMITTER PIN OF Q 202, AN AMPLIFIER TRANSISTOR, HAD BURNED OPEN. AMPLIFIER TRANSISTORS Q203 AND Q204 HAD BASE TO COLLECTOR AND EMITTER TO COLLECTOR SHORTS. IT IS BELIEVED THAT THE PRIMARY CAUSE OF FAILURE WAS AN INTERNAL COMPONENT MALFUNCTION.							
CORRECTIVE ACTION-VENDOR TO INTENSIFY INSPECTION AND TESTING OF SUBJECT PART AND TRANSISTORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	68-24-048 COMMUTATOR	FAR 27-12222-5	600224	ETR	YES NO	BENDIX	000279
FAILURE MODE-STRUCTURAL. FAILURE DUE TO INADEQUATE STRENGTH OF SOFT SOLDERED COUPLER LAPJOINT AND IMPROPER SERVICING OR ASSEMBLY TECHNIQUES.							
CORRECTIVE ACTION-LAP JOINT NOW BEING SILVER BRAZED TO INCREASE STRENGTH OF JOINT. IMPROVED COMMUTATOR SERVICING INSTITUTED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	68-24-038 OSCILLATOR	FAR	420 600222	ETR	YES NO	BENDIX 1050263-56A	000278
FAILURE MODE-FAIL DURING OPERATION. THE OSCILLATOR EXHIBITED NO OUT PUT DURING SYSTEM CHECKOUT.							
CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	68-24-035 OSCILLATOR-POTENTIOMETER	FAR	420 600215	ETR	YES NO	BENDIX 1050263-66A	
FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR EXHIBITED LOW AMPLITUDE OUTPUT. OUTPUT POTENTIOMETER, R-20, COULD NOT BE ADJUSTED. ANALYSIS SHOWED THAT THE WIPER WAS POSITIONED AT ONE EXTREME OF ITS TRAVEL AND A SHOULDER OF THE ADJUSTING SLOT WAS BROKEN. CAUSE OF FAILURE DUE TO HIGH RESISTANCE BETWEEN THE WIPER AND WINDING OF THE OUTPUT POTENTIOMETER.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							898260
CORRECTIVE ACTION-IMPROVED OSCILLATOR ADJUSTING METHODS TO REDUCE THE POSSIBILITY OF DAMAGE TO THE ADJUSTING SLOT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-089 OSCILLATOR	FAR	420 600210	ETR	YES NO	BENDIX 1050265-11WA	894421
FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR EXHIBITED NON LINEAR CHARACTERISTICS DURING SYSTEMS CHECKOUT. CAUSE OF FAILURE WAS NOT DETERMINED. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-049 COMMUTATOR	FAR	490 600208	ETR	YES NO	REED AND REESE 1096485-45	898273
FAILURE MODE-FAIL DURING OPERATION. MOTOR STOPPED DURING CHECKOUT OPERATIONS. CORRECTIVE ACTION-NONE FAILURE NOT CONFIRMED. TESTS SHOWED THE MOTOR OPERATION TO BE SATISFACTORY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-052 POWER SUPPLY	FAR	600208	ETR	YES NO	BENDIX TFP104	894418
FAILURE MODE-ERRATIC OPERATION. THE POWER SUPPLY REPORTEDLY HAD ERRATIC AND UNSTABLE OUTPUT. FAILURE NOT CONFIRMED. BELIEVED CAUSED BY SO CES EXTERNAL TO THE POWER SUPPLY. CORRECTIVE ACTION-UNKNOWN. FAILURE NOT CONFIRMED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-048 COMMUTATOR	FAR	600208	ETR	YES NO	BENDIX	
FAILURE MODE-STRUCTURAL. DATA SHOWED ROTATIONAL SPEED TO BE LOW. LAPJOINT IN COUPLER WAS UNSOLDERED AND SCRATCHED. FAILURE WAS DUE TO INADEQUATE STRENGTH OF THE SOFT SOLDERED LAP JOINT AND IMPROPER SERVICING OR ASSEMBLY TECHNIQUES.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							898266

CORRECTIVE ACTION-COUPLER LAP JOINT NOW BEING SILVER BRAZED TO INCREASE STRENGTH OF JOINT. CONVAIR HAS TAKEN STEPS TO IMPROVE COMMUTATOR SERVICING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	68-24-038 TLM SUBCARRIER OSCILLATOR. TUBE V-2. TYPE 6111	FAR	2UD 600200	ETR	YES NO	BENDIX PACIFIC 1040639-11M	894631

FAILURE MODE-DRIFT. OUTPUT FREQUENCY DRIFTED DURING APPLICATION OF CONSTANT VOLTAGE.

CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN AS FAILURE HISTORY DID NOT REVEAL OTHER FAILURES OF TYPE 6111 TUBE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-054 OSCILLATOR	FAR	51D 600128	ETR	YES NO	BENDIX 1041960-7T	898293

FAILURE MODE-ERRATIC OPERATION. OSCILLATOR EXHIBITED EXCESSIVE FREQUENCY DEVIATION ON THE LOW SIDE OF THE BAND. DIS ASSEMBLY DISCLOSED THAT CAPACITOR C-4 HAD AN EXCESSIVELY HIGH DISSIPATION FACTOR (11 PCT), ULTIMATELY DISSIPATING EX CESSIVE POWER, RESULTING IN NO OUTPUT.

CORRECTIVE ACTION-VENDOR INFORMED OF THE CAPACITOR DISCREPANCY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA6564/P4-4CO-01-29 COMMUTATOR MOTOR	COMPOSITE-B FACT	29D 600128	14	YES NO		894440

FAILURE MODE-ERRATIC OPERATION. COMMUTATION RATE OF TELEMETRY CHANNEL 13 WAS CONSTANTLY CHANGING DURING TEST.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-COMMUTATOR DRIVE MOTOR WAS REPLACED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA556-/P4-4CO-01-29 TLM CANISTER	COMPOSITE-B FACT	29D 600128	ETR-14	YES NO		

FAILURE MODE-OUT OF TOLERANCE. RANDOM NOISE WAS EXPERIENCED ON SUBCARRIER A THROUGHOUT TEST.

SYSTEM EFFECT-ERRATIC OPERATION.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							003004
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR MOTOR ERS	FTA6564/P4-4CO-01-29	COMPOSITE-B FACT	29D 600128	14	YES NO		003006
FAILURE MODE-OUT OF TOLERANCE. SUBCARRIER 13 COMMUTATION RATE WAS CHANGING DURING TEST. AT END OF TEST WAS RUNNING AT 2.0 RPS. NOMINAL RATE IS 5.0 RPS. SYSTEM EFFECT-ERRATIC OPERATION. COMMUTATION RATE FOR SUBCARRIER 13 WAS CONSTANTLY CHANGING AND SLOWING DOWN DURING TEST. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-COMMUTATOR DRIVE MOTOR WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC TLM CANISTER ERS	FTA6564/P4-4CO-01-29	COMPOSITE-B FACT	29D 600128	ETR-14 D	NO NO		003005
FAILURE MODE-OUT OF TOLERANCE INTERFERENCE ON ALL TELEMETRY CHANNELS DURING UMBILICAL EJECTION. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC SWITCH CHANGEOVER-MOTOR ERS	90-24-075	FAR	600108	WTR	YES NO	27-12590-3	004418
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. SIGNAL CONDITIONER FAILED TO TRANSFER 28 VDC POWER FROM INTERNAL TO EXTERNAL. POWER CHANGE OVER SWITCH MOTOR FAILURE CAUSED THE PROBLEM. CORRECTIVE ACTION-UNKNOWN. VENDOR INFORMED OF PROBLEM.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	88-24-037	FAR	150 600100	ETR	YES NO	BENDIX 1048830-3	
FAILURE MODE-OUT OF SPECIFICATION.DURING CHECKOUT THE REPETITIC RATE OF CHANNEL E COMMUNICATION WAS FLUCTUATING. D							

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ISASSEMBLY OF THE COMMUTATOR ASSEMBLY SHOWED THAT THE MECHA ICAL COUPLER HAD SEPARATED AT THESOLDERED SEAM AND ALLOW ED THE COUPLER TO RUB ON THE COMMUTATOR HOUSING. CORRECTIVE ACTION-CONVAIR IS TAKING CORRECTIVE ACTION TO HAVE THE VENDOR MONITOR HIS COMMUTATOR ASSEMBLY AREA FOR T HIS DISCREPANCY.							899104
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-034 TELEMETRY COMMUTATOR ASSEMBLY-SO R PS	FAR	200 600100	ETR	YES NO	BENDIX 1047382A	895671
FAILURE MODE-OUT OF SPECIFICATION. DURING CHECKOUT OF THE TLM CANISTERS AT ETR TLM LAB, THE COMMUTATOR ASSEMBLY OPE RATED WITH AN AUDIBLE GRINGING SOUND. DISASSEMBLY OF THE COMMUTATOR ASSEMBLY DISCLOSED WEARON THE THIN STEEL DISC WH ICH IS USED TO RETAIN THE MOVEABLE PARTS OF THE PLANETARY GEAR SYSTEM IN THE MOTOR SPEED REDUCTION SECTION. THE DISC WAS ALSO WARPED. THE AUDIBLE NOISE WAS CAUSED BY THE RUBBING OF THE PLANET GEARS AGAINST THE RETAINER DISC. THE PRO XIMITY OF THE PLANET GEARS TO THE RETAING DISC IS SUCH THAT A SLIGHT DISC WARPAGEOR ASSEMBLY ALIGNMENT WILL INCREASE THE PRESSUREOF CONTACT. CORRECTIVE ACTION-CONVAIR IS TAKING CORRECTIVE ACTION WITH VENDOR TO ELIMINATE THIS PROBLEM AREA.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-040 TLM SUBCARRIER OSCILLATOR	FAR	420 600100	ETR	YES NO	BENDIX PACIFIC 1052094-126A	894829
FAILURE MODE-SHORT (ELECT.). THE SENSITIVITY POTENTIOMETER DID NOT EXCERCISE FREQUENCY CONTROL OVER ITS COMPLETE RA NGE DUE TO PIN CONNECTED AT HIGH POTENTIAL END OF POT WHICH HAD BEEN SHORTED TO GROUND BY EXTRANEOUS SOLDER. CORRECTIVE ACTION-VENDOR TO INTENSITY INSPECTION SURVEILLANCE ON THIS COMPONENT.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-034 COMMUTATOR, MOTOR	FAR	440 600100		YES NO	REED AND REESE 1096483-88	894814
[redacted] FAILURE MODE-STRUCTURAL. DURING CHECKOUT OF THE TLM CANISTERS AT ETR TLM LAB, THE COMMUTATOR MOTOR OPERATED WITH AN AUDIBLE GRINDING SOUND. DISASSEMBLY OF THE MOTOR DISCLOSED THAT THE STEEL RETAINING DISK IN THE MOTOR HAD A SURFACE SCRATCH WHICH CAUSED THE OPPOSITE SIDE TO PROTRUDE BEYOND THE NORMAL POSITION. [redacted] CORRECTIVE ACTION-THE PROXIMITY OF THE PLANET GEARS TO THE RETAINING DISK IS SUCH THAT A SLIGHT DISK WARPAGE OR ASS Y, MISALIGNMENT WILL INCREASE THE PRESSURE OF CONTACT, AND THERBY INTENSIFY THE AUDIPLE SOUND. CONVAIR IS TAKING COR RECTIVE ACTION WITH THE VENDOR TO ELIMINATE THIS PROBLEM AREA.							

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-033 COMMUTATOR-MOTOR	FAR	600 893000	ETR	YES NO	REED AND REESE 1038483-33	894609

FAILURE MODE-CONTAMINATION. THE RESISTANCE OF THE MOTOR ARMATURE CIRCUIT WAS FOUND TO BE ABNORMALLY HIGH AND SMALL MOVEMENT OF THE BRUSHES IN THE DIRECTION OF THE ROTOR AXIS WOULD VARY THE RESISTANCE. DISASSEMBLY OF THE MOTOR SHOWED THAT A FILM OF ADHERING BRUSH MATERIAL WAS ON THE MOTOR COMMUTATOR.

CORRECTIVE ACTION-CONVAIR WILL MAINTAIN SURVEILLANCE OF THIS TYPE OF PROBLEM AND WILL INITIATE CORRECTIVE ACTION WITH THE VENDOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AZH-27-484/FC-4CO-01-51 COMMUTATOR-WIRING	COMPOSITE-FACTORY	510 591222	FACTORY	YES NO		893506

FAILURE MODE-OUT OF EXPECTED TEST VALUE. MEASUREMENTS S2610(V2 YAW) AND S2390(V2 PITCH ROLL) CHANNEL E, SEGMENTS 3 AND 33 AND ALSO 17 AND 47, INDICATED THE SAME ENGINE MOVEMENTS. THE TWO SEGMENTS WERE FOUND TO HAVE BEEN JUMPERED TOGETHER. PCRAGE WAS REWKD.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. V2 YAW AND V2 PITCH ROLL INDICATED THE SAME. CROSS COUPLED AT COMMUTATOR.

VEHICLE EFFECT-COMPOSITE DELAYED. POST-COMPOSITE TEST REQUIRED AFTER REWORK TO VERIFY PROPER OPERATION.

CORRECTIVE ACTION-THE ACCESSORY PACKAGE WAS REMOVED AND REWORKED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA6450/P3-46N-01-40 TLM CANISTER-WIRING	COMPOSITE-FRD/DPL	400 591214	ETR	YES NO		891636

FAILURE MODE-ERRATIC OPERATION. CHANNEL C SYNC PULSE WAS ERRATIC DUE TO A LOOSE WIRE IN THE TELEMETRY PACKAGE.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM CHANNEL C WAS ADVERSELY AFFECTED.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-PACKAGE WAS REPAIRED IN THE TELEMETRY LAB.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-031 COMMUTATOR	FAR	390 591800	ETR	NO NO	BENDIX 1047302	

FAILURE MODE-OUT OF TOLERANCE. OPERATED BELOW THE REQUIRED SPEED. FAILURE NOT CONFIRMED. BELIEVED THAT EXCESSIVE TOLERANCE OF THE MOTOR COMMUTATOR TOTAL INDICATED RADIUS AND THE USE OF AN INCORRECT GRADE OF BRUSHES ARE THE MAIN CONTRIBUTING CAUSES OF THE FAILURE.

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							899102

CORRECTIVE ACTION-CONVAIR IS MAINTAINING SURVEILLANCE OF THIS TYPE OF FAILURE AND WILL INITIATE CORRECTIVE ACTION W ITH THE VENDOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-031 COMMUTATOR-MOTOR	FAR	200 591200	ETR	YES NO	REED AND REESE 1036485	893670

FAILURE MODE-OUT OF TOLERANCE. THE COMMUTATOR MOTOR WAS TESTED AND THE REPORTED FAILURE COULD NOT BE DUPLICATED. DI SASSEMBLY OF THE MOTOR DISCLOSED THAT THERE WAS AN EXCESSIVE QUANTITY OF FREE BRUSH MATERIAL IN THE BRUSH RETAINING END CAP. IT IS BELIEVED THAT EXCESSIVE TOLERANCE OF THE MOTOR COMMUTATOR TOTAL INDICATED RADIUS AND THE USE OF AN IN CORRECT GRADE OF BRUSHES ARE THE MAIN CONTRIBUTING CAUSES OF THE FAILURES.

CORRECTIVE ACTION-CONVAIR IS MAINTAINING SURVEILLANCE OF THIS TYPE OF FAILURE AND WILL INITIATE CORRECTIVE ACTION W ITH THE VENDOR.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-032 COMMUTATOR-MOTOR	FAR	591200	ETR	YES NO	REED AND REESE 1096483-53	894690

FAILURE MODE-OPEN (ELECT). THE MOTOR WAS DISASSEMBLED AND FAILURE ANALYSIS DISCLOSED THAT AN ARMATURE CONDUCTOR WAS BROKEN AT THE FRONT END TURN. THE BROKEN CONDUCTOR CAUSED AN OPEN CIRCUIT BETWEEN THE COMMUTATOR SEGMENT AND THE AR MATURE CIRCUIT, RESULTING IN MOTOR FAILURE.

CORRECTIVE ACTION-CONVAIR NOTIFIED THE VENDOR THAT A MANUFACTURING DISCREPANCY WAS THE INDIRECT CAUSE OF THE FAILUR E.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AZM-27-407/PC-4CO-45	COMPOSITE-FACTORY	430 591110	FACTORY	YES NO		898491

[redacted] FAILURE MODE-OUT OF EXPECTED TEST VALUE. TLM MEASUREMENT 82560 (SUBSTAINER YAW) CHANNEL 4 WAS OPERATING AT 63 PCT IB W INSTEAD OF THE EXPECTED 50 PCT. IBW PRIOR TO SUBSTAINER ACTIVATION AFTER STAGING.

SYSTEM EFFECT-OPERATION TOO HIGH.

CORRECTIVE ACTION-EOP 330.36A WAS ACCOMPLISHED CORRECTING THIS IRREGULARITY.

[redacted]

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA6340/P4-4CO-01-20 CIRCUITS-TLM ACCESSORY PACKAGE	COMPOSITE-B FACT	200 691029	14	YES NO		098404

FAILURE MODE-OUT OF SPECIFICATION. CROSS COUPLING IN TELEMETRY ACCESSORY PACKAGE RESULTED IN ERRONEOUS DATA.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. TELEMETRY DATA OF RATE GYRO INFORMATION IMPROPERLY REFLECTED GUIDANCE STEERI NG COMMANDS DUE TO CROSS COUPLING IN TELEMETRY ACCESSORY PACKAGE.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-REPLACED TELEMETRY ACCESSORY PACKAGE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	A7M-27-369/FC-4CO-01-40 STAGING DISCONNECT PLUG-WIRING	COMPOSITE-FACTORY	400 691016	FACTORY	YES NO		095508

FAILURE MODE-FAIL DURING OPERATION-TWELVE MEASUREMENTS INDICATED ERRONEOUS OUTPUTS BECAUSE THE STAGING PLUG P3004 W AS FOUND TO BE LOOSE.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. TLM MEASUREMENTS WERE ERRONEOUS BECAUSE OF A LOOSE STAGING PLUG.

VEHICLE EFFECT-COMPOSITE RESCHEDULED. RERUN OF COMPOSITE MADE.

CORRECTIVE ACTION-NOT KNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS POWER SOURCE	A1C-27-081/PS-401-00-22 POWER SUPPLY	FLIGHT	220 691009	ETR-13 141.3	YES NO		096938

FAILURE MODE-SHORT (ELECT). FROM 141.3 TO 147.3 SECONDS AND 298.8 TO 900 SECONDS THE TRANSDUCER POWER SUPPLY DROPPE D SIGNIFICANTLY AND FLUCTUATED INTERMITTENTLY. PROBABLY CAUSED BY A SHORT IN A TRANSDUCER OR ASSOCIATED CIRCUITRY.

SYSTEM EFFECT-ERRATIC OPERATION. INTERFERENCE WAS NOTED ON ALL MEASUREMENTS USING THAT POWER SUPPLY.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	DF-24-047 TRANSDUCER, INSTRUMENTATION	FAR T-01751-8	691009	SAN DIEG O	YES NO	BOURNS INSTRUM ENTS, INC	

FAILURE MODE-ERRATIC OPERATION. TRANSDUCER OUTPUT APPEARED TO OSCILLATE AND WAS SLUGGISH IN RESPONSE.

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							691639

CORRECTIVE ACTION-NONE. FAILURE WAS NOT CONFIRMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA6178/P2-301-00-08 POWER SUPPLY	FRF	9C 590824	1E/ETR -760	YES NO		692799

FAILURE MODE-FAIL DURING OPERATION. POWER SUPPLY FAILED.

SYSTEM EFFECT-OPERATION STOPS PREMATURELY. TELEMETRY RECEPTION WAS LOST AT THE GROUND STATION.

VEHICLE EFFECT-COUNTDOWN DELAYED. 155 MINUTES HOLDD 37 MINUTES RECYCLE.

CORRECTIVE ACTION-CHANGED RF PACKAGE AND POWER SUPPLY.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA6175/P2-301-00-09 OSCILLATOR TELEMETRY PACKAGE	FRF	9C 590824	1E/ETR	YES NO		692800

FAILURE MODE-OUT OF TOLERANCE. OSCILLATOR OUT OF ADJUSTMENT.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. FALSE DATA MEASUREMENT P1070, SUSTAINER YAW.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-NONE. VEHICLE WAS DESTROYED DURING TEST.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS POWER SOURCE	AZC-27-078/P3-404-00-17 POWER SUPPLY	FLIGHT	17D 590818	ETR-15 138.6	YES NO		698937

FAILURE MODE-SHORT ELECT. AT 138.6 SECONDS THE TRANSDUCER POWER SUPPLY OUTPUT DROPPED SHARPLY, THEN FLUCTUATED UNTIL 187.6 SECONDS WHEN IT RETURNED TO NORMAL. ATTRIBUTED TO A MINOR SHORT IN THE TRANSDUCER OR WIRING ASSOCIATED WITH MEASUREMENT P6200, FUEL STAGING VALVE SEPARATION. FLUCTUATIONS OF LESSER MAGNITUDES WERE NOTED BETWEEN 8 AND 34.3 SECONDS.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. THE OUTPUTS OF THE TRANSDUCERS EXCITED BY THAT POWER SUPPLY WERE CONSIDERED QUALITATIVE ONLY DURING THAT TIME INTERVAL.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-NONE.

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INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AZ-27-084/AB-402-00-18 POWER SUPPLY-WIRING	FLIGHT	120 590509	A-2 112.3	YES NO		000200
FAILURE MODE-ELECTRICAL SHORT. THE TRANSDUCER POWER SUPPLY OUTPUT VOLTAGE DROPPED TO ZERO VOLTS FROM 112.3 TO 194.9 SECONDS, INDICATING A SHORT IN THE INSTRUMENTATION CIRCUIT. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. LOSS OF ALL TELEMETRY MEASUREMENTS BETWEEN 112.3 AND 194.9 SECONDS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA6132/P3-4CO-02-17 BRIDGE CIRCUIT WIRING	COMPOSITE-B FACT	170 590831	13	YES NO		001015
FAILURE MODE-ELECTRICAL SHORT. EXCITATION VOLTAGE FOR ALL TEMPERATURE MEASUREMENTS WAS LOST. THE TEMPERATURE BRIDGE WAS GROUNDED. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM ALL TEMPERATURE MEASUREMENTS WERE LOST. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA6199/P1-4CO-01-15 TLM CANISTER	COMPOSITE-B FACT	150 590817	ETR-11	YES NO		000103
FAILURE MODE-OUT OF SPECIFICATION. RF1 CHANNEL A WAS EXTREMELY NOISY. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. RF1 CHANNEL A WAS EXTREMELY NOISY. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA6199/P1-4CO-01-15 COMMUTATOR	COMPOSITE-B FACT	150 590817	11	YES NO		
FAILURE MODE-ERRATIC OPERATION. RF1 CHANNELS A AND C WERE CHANGING COMMUTATION RATE. THIS CHANGING COMMUTATION RATE MADE IT IMPOSSIBLE TO PROPERLY DECOMMUTATE THESE CHANNELS. SYSTEM EFFECT-ERRATIC OPERATION. DATA ANALYSIS WAS DIFFICULT.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							893910

VEHICLE EFFECT-NONE.

CORR CTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	93-24-089 TRANSDUCER; INSTRUMENTATION	FAR 7-01780-1	14D 390800	ETR	YES NO	SERVONIC INSTR UMENTS INC	892078

FAILURE MODE-CONTANINATION. TRANSDUCER LOCATED NEAR THE LOWER FAIRING OF VERNIER 1 ENGINE EXPLODED AT LIQUID OXYGEN START TANK PRESSURIZATION DURING A STATIC TEST. A HOLE WAS BLOWN IN THE OUTER SHELL AND THE BOURDON TUBE AND DAMPIN G FLUID WERE BLOWN OUT-SEVERAL SIMILAR TRANSDUCERS WERE EXAMINED AND FOUND TO HAVE OIL NOT COMPATIBLE WITH LIQUID OX YGEN IN THE PRESSURE FITTING. IT WAS THIS NON-COMPATIBILITY OF CONTANINANT AND LIQUID OXYGEN THAT CAUSED THE FAILURE RESULTING IN AN IMPACT SENSITIVE CONDITION. IT IS KNOWN FROM STATIC TESTS THAT A PRESSURE SPIKE IS PRESENT AT THE T IME OF LIQUID OXYGEN START TANK PRESSURIZATION.

CORRECTIVE ACTION-CONVAIR HAS REJECTED ALL TRANSDUCERS OF THIS PART NUMBER IN THE FIELD. THEY WILL RETURN TO SAN DI EGO FOR CLEANING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ZM-Y-678/FC-3CO-02-11 TLM CANISTER	COMPOSITE-FACTORY	11C 390619		YES NO	BENDIX	891967

FAILURE MODE-OUT OF TOLERANCE. CALIBRATION SEGMENT 23 ON CHANNEL C OF RF 2 WAS OUT OF BAND FOR 300 SECONDS. THE SIN C PULSE WAS OUT OF BAND FOR 7 SECONDS AT START OF TEST. POSSIBLE CAUSE-INSUFFICIENT WARM-UP OR HIGHER THAN NORMAL IN PUT VOLTAGE.

SYSTEM EFFECT-IMPROPER ANALOG SIGN AL. THE CALIBRATION SIGNAL WAS TOO HIGH. THIS WOULD CAUSE ERROR IN DATA.

VEHICLE EFFECT-COMPOSITE DELAYED.

CORRECTIVE ACTION-NONE. CONSIDERED ACCEPTABLE DUE TO PROPER OPERATION DURING PREVIOUS FACTORY TESTING.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AZM-27-272/FC-4CO-03-2E TLM CANISTER-RECTIFIER	COMPOSITE-FACTORY	62D 390609		YES NO	

[redacted]

FAILURE MODE-OUT OF TOLERANCE. TELEMETER ACCESSORY PACKAGE NOT PROPERLY CALIBRATED. INVERTER OUTPUT VOLTAGE INDICAT ED 5 VAC HIGHER THAN WAS OBTAINED FROM DIRECT LINE MEASUREMENTS.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

[redacted]

VEHICLE EFFECT-COMPOSITE RESCHEDULED.

CORRECTIVE ACTION-RECALIBRATED CRYSTAL RECTIFIER ASSEMBLY WITHIN TELEMETRY ACCESSORY PACKAGE. PROPER OPERATION VERI

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
FIED DURING COMPOSITE RETEST.							891964
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-0E0 R.F. AMPLIFIER TAV-8 MOTOR	FAR	3D 590300	ETR	YES NO	BENDIX PACIFIC 1049686	894687
FAILURE MODE-OPERATION STOPS PREMATURELY DUE TO INADEQUATE DESIGN OF THE WESTERN GEAR BLOWER MOTOR. CORRECTIVE ACTION-BENDIX HAS CONTRACTED TO HAVE A MOTOR OF BETTER DESIGN BUILT TO THEIR SPECIFICATION BY THE MOTOR VENDOR, WESTERN GEAR.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	9B-24-019 100 WATT R.F. AMPLIFIER TAV-5	FAR	7C 590300	ETR	YES NO	BENDIX-PACIFIC 1026672-1	894629
FAILURE MODE-FAIL DURING OPERATION-THE OUTPUT TUNING CAPACITOR OF THE TAV-5 HAD OVERHEATED AND OPENED. THE TAV-5 FAILED BECAUSE THE FINAL TUNING STAGE WAS DETUNED DUE TO THE CAPACITOR CHANGING VALUE FROM THE TEMPERATURES WITHIN THE TAV-5 OR FROM DETUNING OF THE CIRCUITRY, EXTERNAL TO THE TAV-5. CORRECTIVE ACTION-A NEW TYPE OF TUNING CAPACITOR IS BEING USED IN D SERIES R.F. AMPLIFIERS, WHICH WILL TOLERATE HIGHER TEMPERATURES. BASE PERSONNEL WERE INSTRUCTED TO NOT OPERATE TAV-5 AMPLIFIERS WITH IMPROPER EXTERNAL LOADS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	AZH-27-827/FC-4CO-02-14 INFLIGHT CALIBRATOR	COMPOSITE-FACTORY	14D 590422		YES NO		898352
FAILURE MODE-OUT OF TOLERANCE. THE ACCESSORY PACKAGE WAS REWORKED DUE TO AN INFLIGHT CALIBRATOR MALFUNCTION ON CHANNEL 9. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. A FAULTY CALIBRATOR WOULD RESULT IN ERRORS IN THE VALUE OF REDUCED DATA. VEHICLE EFFECT-COMPOSITE RESCHEDULED. COMPOSITE RETEST REQUIRED. CORRECTIVE ACTION-ACCESSORY PACKAGE WAS REPAIRED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA 4700/P3-401-00-05 MOTOR	FRF	3D 590327	13	YES NO		
FAILURE MODE-FAIL DURING OPERATION. COOLING FAN MOTOR OPERATION WAS INTERMITTENT CAUSING EXCESSIVE HEATING OF TAV 8 FINAL POWER AMPLIFIER.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-HIGH TEMPERATURE ENVIRONMENT. OVER HEATING OF FINAL POWER AMPLIFIER. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPAIRED FAN MOTOR.							891147
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA 4700/P3-401-00-03 COMMUTATOR	FRF	3D 590327	13	YES NO		891144
FAILURE MODE-OUT OF TOLERANCE. COMMUTATION RATES FOR CHANNELS 11 AND E FLUCTUATED IN SPEED OUTSIDE SPECIFIED LIMITS SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-CHANGED COMMUTATOR MOTORS.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA 4700/P3-401-00-03 AMPLIFIER	FRF	3D 590327	13	NO NO		891145
FAILURE MODE-FAIL DURING OPERATION. EXCESSIVE HEATING OF THE TAV 3 FINAL POWER AMPLIFIER CAUSED BY AN INTERMITTENT COOLING FAN MOTOR. DISCOVERED WHEN CANISTER WAS OPENED TO REPLACE COMMUTATOR MOTORS. SYSTEM EFFECT-NONE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACED AMPLIFIER FOR SYSTEM CONFIDENCE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ZM-7-671/FC-3CO-01-09 POWER SUPPLY	COMPOSITE-FACTORY	9C 590320	FACTORY	YES NO		898203
FAILURE MODE-ERRATIC OPERATION-ERRATIC EXCITATION DETERMINED AT TWO TELEMETRY MEASUREMENTS (P61D AND 853R). TRACED TO POWER SUPPLY. SYSTEM EFFECT-ERRATIC OPERATION. FAULTY POWER SUPPLY CAUSED ERRATIC SIGNALS TO BE TRANSMITTED. VEHICLE EFFECT-COMPOSITE DELAYED OR RE-SCHEDULED. COMPLETE COMPOSITE RETEST PERFORMED. CORRECTIVE ACTION-TRANSDUCER POWER SUPPLY REPLACED.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERR	AZM-27-180/FC-4CO-01A-05 COMMUTATOR	COMPOSITE-FACTORY	5D 590220		YES NO	BENDIX	891969

FAILURE MODE-OUT OF TOLERANCE. COMMUTATOR SPEED WAS 7 AND ONE-HALF PERCENT BELOW MINIMUM TOLERANCE.

SYSTEM EFFECT-NONE.

VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST COMPOSITE RETEST VERIFIED ACCEPTABLE OPERATION.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERR	FTA4596/P2-3BM-02-05 SUBCARRIER OSCILLATOR	COMPOSITE-5 FACT	9C 590213	12 50	YES NO		892709

FAILURE MODE-ERRATIC OPERATION. RF1 CHANNEL A SUBCARRIER OSCILLATOR HAD A SHIFT IN FREQUENCY FOR ABOUT 10 SECONDS D URING THE PLUS COUNT.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERR	AZM-27-178/FC-4CO-01-05 TLM CANISTER	COMPOSITE-FACTORY	3D 590210		NO NO		895957

FAILURE MODE-OUT OF TOLERANCE. 6289Y DECODER MESSAGE READ 94 PCT IDW (82 PCT SPECIFIED) EXCEPT DURING SYNC. ERROR, AT WHICH TIME IT READ 72 PCT. (0 PCT. EXPECTED). THE VOLTAGE OUT OF THE DECODER IS NEGATIVE, WHILE THE SEGMENT USED FOR THIS MEASUREMENT WAS DESIGNED FOR A POSITIVE INPUT.

VEHICLE EFFECT-COMPOSITE RESCHEDULED. POST-COMPOSITE TESTING REQUIRED.

CORRECTIVE ACTION-TELEMETRY DESIGN PERSONNEL DEVELOPED A METHOD OF INTERPRETING THE INFORMATION PRESENTED ON THIS S EGMENT. (READ THE SEGMENT AS IF A POSITIVE VOLTAGE WERE APPLIED; MULTIPLY THIS RESULT BY THREE (3) AND SUBTRACT FROM 100 PCT) THIS VALUE SHOULD CORRESPOND TO ACTUAL DECODER OUTPUT. THIS CONDITION PREVAILED ON 3D, 5D, 7D AND 11D.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERR	FTA 4578/P1-2G2-03-11 COMMUTATOR	COUNTDOWN	11D 590204	11 -780	YES NO		

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. THE RF 3 CHANNEL C AND E COMMUTATORS FAILED TO OPERATE.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-OPERATION DOES NOT START. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE.							891138
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	98-24-014 POWER CHANGEOVER SWITCH	FAR 7-01733-1	4C 590200	ETR	YES NO	KINETICS M-199-1	899103
FAILURE MODE-FAILED TO OPERATE AT PRESCRIBED TIME. WHEN SWITCH WAS DRIVEN TO INTERNAL POSITION, PIN PORTION OF THE S2 CONTACT WAS NOT MAINTAINING CONTACT WITH THE SPRING LOADED PORTION OF THE SOCKET. ALTHOUGH THE PIN WAS STILL INSERTED WELL INTO THE SOCKET. CORRECTIVE ACTION-VENDOR NOTIFIED OF DISCREPANCY VENDOR WILL LENGTHEN THE PIN PORTION OF S2 OR ADJUST THE STROKE OF THE PIN MOUNTING BOARD, SO AS TO INSURE THAT DURING THE NORMAL CYCLIC LIFE OF THE SWITCH THE S2 PIN WILL REMAIN IN CONTACT WITH THE SPRING LOADED PORTION OF THE SOCKET.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4575/P2-302-00-04 TLM CANISTER	COUNTDOWN	4C 590123	ETR-12 -4200	YES NO		893603
FAILURE MODE-OUT OF TOLERANCE. AFTER RECYCLING TO T-70 AND DETANKING, WHILE CHECKING NEW BATTERIES BY TELEMETRY OPERATION, EXCITATION TO SUBCARRIERS A AND E OF RF1 WAS FOUND ABOUT HALF OF NORMAL. SYSTEM EFFECT-OPERATION TOO LOW. VEHICLE EFFECT-COUNTDOWN DELAYED. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4516/P2-302-00-3 TLM CANISTER	COUNTDOWN	3C 591223	ETR-12 -360	YES NO		896536
FAILURE MODE-FAIL DURING OPERATION. TELEMETRY RF1 CHANNEL C WAS LOST. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. RF1 CHANNEL C INOPERATIVE. LAUNCHED VEHICLE WITHOUT THIS CHANNEL. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC WIRING ERS	ZC-Y-215/P2-302-00-03	FLIGHT	3C 581223	12 149.4	YES NO		896676

FAILURE MODE-ELECTRICAL SHORT. POWER SUPPLY VOLTAGES DROPPED FROM 8.32 AND 0.87 VOLTS TO 0.83 AND 0.18 VOLTS RESPEC TIVELY. CAUSE CONCLUDED TO BE SHORT IN WIRING TO SUSTAINER CONTROL HE BOTTLE PRESSURE TRANSDUCER OCCURRING DURING BO OST SECTION JETTISON. POSSIBLE FAULT IN ROUTING OF WIRING ALLOWED DAMAGE TO WIRE AT JETTISON.

SYSTEM EFFECT-ERRATIC OPERATION. VOLTAGES SUPPLIED TO TRANSDUCERS EXCITED BY THIS POWER SUPPLY WERE NOT NOMINAL DUR ING SUSTAINER AND VERNIER PHASES SO THAT THE TRANSDUCER OUTPUTS(32) WERE QUESTIONABLE AND SPECIAL PROCESSING WAS REQ UIRED FOR PARTIAL RECOVERY OF AFFECTED DATA.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-INSTALLED ISOLATION PROTECTION BETWEEN TLM POWER SUPPLY AND TRANSDUCERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC COMMUTATOR ERS	ZC-Y-215/P2-302-00-03	FLIGHT	3C 581223	12 128.9	YES GC CONVAIR NO		896677

FAILURE MODE-FAIL DURING OPERATION. RF 2 CHANNEL 13 COMMUTATOR CEASED OPERATION. REASON FOR FAILURE NOT DETERMINED.

SYSTEM EFFECT-OPERATION STOPS PREMATURELY. FAILURE OF RF 2 COMMUTATOR RESULTED IN LOSS OF 21 TELEMETRY MEASUREMENTS 20 OF WHICH WOULD HAVE OPERATED DURING SUSTAINER PHASE IF NOT LOST.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC CONNECTOR-WIRING ERS	FTA-4411/P4-203-00-12	COUNTDOWN	12B 581128	14 -10200	YES NO		896636

FAILURE MODE-ELECTRICAL OPEN. PLUG P17E AT THE ACCESSORY PACKAGE WAS NOT PROPERLY INSTALLED AND CERTAIN SIGNALS WER E NOT PRESENT ON TELEMETRY.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. CALIBRATE PULSES MISSING ON SUBCARRIERS 10 AND 13, AND RATE GYRO BIAS WAS MI SSING.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-PLUGS WERE TIGHTENED.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA 4404/P4-208-00-12 TRANSDUCER-TELEMETRY	FRF	128 581124	14	YES NO		881153

FAILURE MODE-SHORT (ELECT). A SHORT IN TELEMETRY MEASUREMENT U8DP, LO2 TANK HEAD, RESULTED IN AN ERRATIC SUPPLY OF EXCITATION VOLTAGE AND BIAS VOLTAGE TO OTHER MEASUREMENTS.

SYSTEM EFFECT-ERRATIC OPERATION. ERRATIC FLUCTUATIONS AND LOSS OF DATA ON PRESSURE MEASUREMENTS AND CALIBRATE SEGMENTS ON RF2 CHANNEL 13 AND OF RATE GYRO BIAS LEVELS ON RF2 CHANNEL 2 WERE NOTED THROUGHOUT THE TEST.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-DEVELOPED NEW CIRCUITRY IN THE TELEMETRY ACCESSORY PACKAGE TO PROVIDE SEPARATE SUPPLIES OF EXCITATION VOLTAGE TO U8DP, AND OTHER MEASUREMENTS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA 4410/P4-201-00-12 CONNECTOR	FRF	128 581121	14 -7200	YES NO		881152

FAILURE MODE-SHORT (ELECT). AN EXCITATION VOLTAGE WIRE WAS SHORTED TO GROUND DUE TO A LOOSE CANNON PLUG.

SYSTEM EFFECT-OPERATION STOPS PREMATURELY. TRANS- MISSION OF USABLE DATA FROM RF1 CHANNELS 10 AND 13 STOPPED DUE TO LOSS OF EXCITATION VOLTAGE TO THESE CHANNELS.

VEHICLE EFFECT-COUNTDOWN DELAYED. 105 MINUTE HOLD. HOLD WAS LENGTHY DUE TO DIFFICULTY IN GETTING POD DOORS OPEN. APPROXIMATELY 45 MINUTES WAS DUE TO TELEMETRY.

CORRECTIVE ACTION-TIGHTENED CANNON PLUG.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ZC-T-207/P1-206-00-9 INSTRUMENTATION CIRCUITRY	FLIGHT	98 581117	11 164	YES NO		896341

FAILURE MODE-SHORT (ELECT). LOSS OF RF2 TRANSDUCER POWER SUPPLY PROBABLY AS A RESULT OF A SHORT IN A TRANSDUCER OR INSTRUMENTATION CIRCUITRY.

SYSTEM EFFECT-ERRATIC OPERATION. DATA FROM RF 2 WAS LOST.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-AS A RESULT OF THIS AND OTHER TRANSDUCER POWER SUPPLY PROBLEMS, ISOLATION RESISTORS WERE ADDED IN THE INSTRUMENTATION CIRCUITRY TO PREVENT SHORTS IN THE MEASUREMENTS FROM AFFECTING THE POWER SUPPLY.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTN	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ZM-7-654/FC-3CO-01B-88 AMPLIFIER	COMPOSITE-FACTORY	5C 581118		YES NO		897406

FAILURE MODE-OUT OF TOLERANCE. RF NO. 1 CHANNEL E; WAS OUT OF BAND ON LOW FREQUENCY SIDE.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. POSSIBLE LOSS OF CHANNEL E DATA.

VEHICLE EFFECT-COMPOSITE DELAYED OR RESCHEDULED.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4323/P1-203-00-9 RF1 COMMUTATORS	FRF	9B 581027	11	YES NO		891770

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. RF1 SUBCARRIERS 10 AND 11 COMMUTATORS DID NOT RUN DURING THE TEST.

SYSTEM EFFECT-OPERATION DOES NOT START. RF1 SUBCARRIERS 10 AND 11 COMMUTATED DATA WAS NOT OBTAINED.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ZM-7-648/FC-3CO-01-04 DEMODULATOR	COMPOSITE-FACTORY	4C 581025		YES NO		897837

FAILURE MODE-FAIL DURING OPERATION-MEASUREMENT P5280 (SUSTAINER MAIN FUEL VALVE) RF 2, CHANNEL C, SEGMENT 45, INDICATED 15 PCT IBM, 400 CYCLE OSCILLATIONS DUE TO A FAULTY DEMODULATOR IN THE ASSESSORY PACKAGE.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS-FAULTY DEMODULATOR CAUSED IMPROPER VALVE POSITION SIGNALS TO BE TRANSMITTED.

VEHICLE EFFECT-COMPOSITE RESCHEDULED.

CORRECTIVE ACTION-THE ACCESSORY PACKAGE WAS REPLACED. SYSTEM AND COMPOSITE RETESTING WAS PERFORMED.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4322/P1-202-00-9 CHANGEOVER SWITCH	FRF	9B 581024	11	YES NO		

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. RF3 DID NOT RESPOND TO THE SWITCH TO INTERNAL POWER SIGNAL AND RF3 WAS RUN ON EXTERNAL POWER DURING THE TEST. APPARENT CAUSE OF THE PROBLEM WAS A RANDOM FAILURE OF THE TELEMETRY POWER SUPPLY WHICH CONTAINS THE MOTOR OPERATED CHANGE OVER SWITCH.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							891884
SYSTEM EFFECT-OPERATION DOES NOT START. SYSTEM DID NOT TRANSFER TO INTERNAL. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACE TELEMETRY POWER SUPPLY AFTER TEST.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4255/P4-203-00-8 TLM CANISTER	COUNTDOWN	68 560914	ETR -9000	YES NO		892634
FAILURE MODE-OUT OF TOLERANCE. RF 4 INTERFERENCE POSSIBLY FROM RF1. 26 MINUTES LATER TELEMETRY GO. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4256/P4-202-00-8 COMMUTATOR	COUNTDOWN	68 560911	14 -300	YES NO		891870
FAILURE MODE-FAIL DURING OPERATION. COMMUTATION LOST ON RF2 CHANNEL A. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. COMMUTATION LOST ON RF2 CHANNEL A. VEHICLE EFFECT-COUNTDOWN DELAYED. 4 MINUTE HOLD, 30 MINUTE RECYCLE. CHANNEL A LOSS CONTRIBUTED TO TEST TERMINATION. CORRECTIVE ACTION-REPLACED RF2 PACKAGE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4252/P4-201-00-08 INSTRUMENTATION CIRCUIT	FRF	68 5809C8	14ETR 5	YES YES		893273
[redacted] FAILURE MODE-SHORT (ELECT.). TLM MEASUREMENT D7V, RANGE SAFETY COMMAND RECEIVER NO. 1 SIGNAL STRENGTH, INDICATED IN TERMITTENT OPERATION. THE SIGNAL STRENGTH INDICATED BY THIS MEASUREMENT DROPPED TO ZERO 8 SEC. AFTER ENGINE START. 3 0 SEC. AFTER ENGINE SHUTDOWN MEASUREMENT RETURNED TO PREVIOUS SATISFACTORY LEVEL. SYSTEM EFFECT-ERRATIC OPERATION. TLM MEASUREMENT D7V INDICATED INTERMITTENT OPERATION. VEHICLE EFFECT-NONE. [redacted] CORRECTIVE ACTION-CORRECTIVE ACTION UNKNOWN.							

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ZC-7-204/P1-203-00-03 ELECTRICAL HARNESS	FLIGHT	5B 560826	11 113	YES NO	60 CONVAIR	896697

FAILURE MODE-ELECTRICAL SHORT. 180 VOLT DC POWER TO RF1 TRANSDUCERS DROPPED FROM 184 V TO 10 V AT 113 SECONDS AND R EMAINED AT THAT LEVEL UNTIL BOOSTER JETTISON AT WHICH TIME VOLTAGE RETURNED TO 184 VOLT DC. PROBLEM APPARENTLY CAUSE D BY SHORT IN WIRING IN BOOSTER SECTION WHICH CLEARED UPON JETTISON OF BOOSTER.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. LOW VOLTAGE SUPPLY TO CHANNELS 1-13 AND 1-A TRANSDUCERS CAUSED LOSS OF MEASU REMENTS USING THIS VOLTAGE. BETWEEN 150 AND 160 SECONDS THE TRANSDUCER POWER SUPPLY TO SAME CHANNELS FLUCTUATED BETW EEN 80 AND 100 PERCENT POSSIBLY BECAUSE OF SOME DAMAGE DURING SHORT.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4186/P1-202-00-05 TLM CANISTER	PRF	5B 560820	11/ETR 5.5	YES NO		893303

FAILURE MODE-ERRATIC OPERATION. B1 YAW/ROLL ENGINE POSITION INDICATED A 4.14 DEGREES NEGATIVE SHIFT 5.7 SECONDS AFT ER MAINSTAGE AND A 0.96 DEGREE POSITIVE SHIFT AT ENGINE CUTOFF WHICH WAS NOT SUBSTANTIATED BY LANDLINE DATA. SUBSEQU ENT CHECKS OF THE TELEMETRY TRANSDUCER, MECHANICAL COUPLING, AND ELECTRICAL CABLING REVEALED NO ABNORMALITIES.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. TELEMETRY INDICATED ENGINE MOTION NOT SUBSTANTIATED BY LANDLINE.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ZM-7-616-1/FC-2CO-01-11 TLM CANISTER	COMPOSITE-FACTORY	11B 560802		YES NO		893375

FAILURE MODE-ERRATIC OPERATION. THE MASTER PULSE OF RF 1 CHANNEL A INDICATED BREAKUP DURING THE TEST.

SYSTEM EFFECT-ERRATIC OPERATION-TLM UNIT TRANSMITTED ERRATIC SIGNALS DURING COMPOSITE.

VEHICLE EFFECT-COMPOSITE RESCHEDULED. SYSTEM AND COMPOSITE RE-TESTING WAS REQUIRED.

CORRECTIVE ACTION-TELEMETRY PACKAGE WAS REPLACED.

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4147/P3-202-00-4 TRANSDUCER-WIRING	COUNTDOWN	4B 580729	ETR -9400	YES NO		891869
FAILURE MODE-OPEN (ELECT). DURING TELEMETRY TESTING MEASUREMENT F246P DID NOT OPERATE. AFTER TEST IT WAS FOUND THAT THE TRANSDUCER CIRCUIT WAS OPEN DUE TO NO GROUND. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COUNTDOWN DELAYED. TOTAL DELAY WAS 174 MINUTES DUE TO THIS PROBLEM. CORRECTIVE ACTION-TRANSDUCER WAS REPLACED AND OPERATION WAS STILL UNSATISFACTORY. FURTHER INVESTIGATION REVEALED AN OPEN CIRCUIT DUE TO NO GROUND. A GROUND WAS SUPPLIED AND THE TRANSDUCER OPERATED SATISFACTORILY.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4101/P1-208-00-3 COMMUTATOR	COUNTDOWN	3B 580710	11 -420	YES NO		897641
FAILURE MODE-FAIL DURING OPERATION. CHANNEL E ON RF2 STOPPED COMMUTATING. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. COMMUTATION ON CHANNEL E RF2 STOPPED PRIOR TO FLIGHT. VEHICLE EFFECT-COUNTDOWN DELAYED. 4 MINUTE HOLD. CORRECTIVE ACTION-LAUNCH WITHOUT RF2 CHANNEL E.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ZC-7-200/P1-208-00-3 COMMUTATOR-CHANNEL E ON RF2	FLIGHT	3B 580719	11 -25-200	YES NO		896849
FAILURE MODE-FAIL DURING OPERATION. THE COMMUTATOR FOR CHANNEL E ON RF2 FAILED AT T-7 HOURS DURING THE COUNTDOWN. THE COMMUTATOR WAS APPARENTLY STUCK ON A NEGATIVE PEDESTAL. SYSTEM EFFECT-OPERATION TOO LOW. THE DECISION WAS MADE TO LAUNCH WITH CHANNEL E ON RF2 INOPERATIVE. AS A RESULT THERE WERE NO DATA FROM THIRTEEN MEASUREMENTS ON CHANNEL E DURING THE FLIGHT. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA4017/P1-203-00-3 COMMUTATOR	FRF	3B 580827	11/ETR	YES NO		
FAILURE MODE-ERRATIC OPERATION. RF2 CH 1B, A, C, AND E SHOWED A VARYING SPEED DURING THIS TEST.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							003343
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	EK-1028/TEST 14-302-A2 TRANSDUCER B1 INLET TEMP	CAPTIVE	580606	1-4 14	YES NO		003023
FAILURE MODE-ELECTRICAL OPEN. BOOSTER/SUSTAINER OPERATION TEST SCHEDULE FOR 40 SECONDS WAS TERMINATED AT 14 SECONDS AS B1 TURBINE INLET TEMPERATURE INDICATED VALUE IN EXCESS OF 1400 DEGREES F REDLINE FOR THIS PARAMETER. POST INSPECTI[illegible] REVEALED THAT TRANSDUCER FOR THIS MEASUREMENT HAD OPENED. SYSTEM EFFECT-NONE. VEHICLE EFFECT-PREMATURE PROPULSION CUTOFF. PLANNED RUN DURATION WAS 40 SECONDS. ACTUAL WAS 14.78 SECONDS. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2866/P2-102-00-16 TLM CANISTER	FRF	16A 580522	12/ETR	YES NO		003309
FAILURE MODE-ERRATIC OPERATION. THE 100 PCT CALIBRATE PULSE ON RF NO.3 CHANNEL 12 WAS CHANGING AMPLITUDE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. THE FLUCTUATING CALIBRATE PULSE MADE AUTOMATIC DECOMMUTATION IMPOSSIBLE. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2838/P2-101-00-16 TLM CANISTER	FRF	16A 580418	12/ETR -6700	YES NO		003330
FAILURE MODE-FAIL DURING OPERATION. LOST CHANNEL C ON BOTH RF NO. 1 AND RF NO.2. ALSO LOST NEGATIVE VOLTAGE SUPPLY TO CHANNEL C ON RF NO.2. SYSTEM EFFECT-OPERATION STOPS PREMATURELY. LOST CHANNEL C ON BOTH RF NO.1 AND RF NO.2. ALSO LOST NEGATIVE VOLTAGE SUPPLY TO CHANNEL C ON RF NO.2. VEHICLE EFFECT-COUNTDOWN DELAYED. 90 MINUTES HOLD. CORRECTIVE ACTION-CHANGED RF NO.1 AND NO.2. ALSO CHANGED RF NO.2 TRANSDUCER POWER SUPPLY.							

GENERAL DYNAMICS
CONVAIR DIVISION

18 JUN 1968

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2838/P2-101-00-16 CALIBRATOR-RF NO.1	FRF	16A 280416	12/ETR	YES NO		893389

FAILURE MODE-FAIL DURING OPERATION. RF1 CHANNEL 12 LOST CALIBRATE PULSES YIELDING NO QUANTITATIVE DATA.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-NONE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2829/P2-1CO-01-16 COMMUTATOR	COMPOSITE-B FACT	16A 280404	12	YES NO		891033

FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. RF2 CHANNELS 10 AND 11 COMMUTATORS WERE RUNNING AT HALF SPEED.

SYSTEM EFFECT-OPERATION TOO LOW. AUTOMATIC DECOMMUTATION NOT POSSIBLE DUE TO SLOW SPEED.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-REPLACE CANISTER.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2798/P4-104-00-15 CHANGEOVER SWITCH	COUNTDOWN	15A 280328	14 -10320	YES NO		897474

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. APPARENTLY A FAULTY INTERNAL-EXTERNAL SWITCH FOR THE NO 1 TRANSDUCER POWER SUPPLY FAILED TO BREAK CONTACT WHEN SWITCHOVER WAS INITIATED.

SYSTEM EFFECT-OPERATION DOES NOT START. TELEMETRY NO 1 TRANSDUCER POWER SUPPLY FAILED TO TRANSFER TO EXTERNAL UPON COMMAND.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-PERFORMED TWO ADDITIONAL SWITCHOVERS WHICH WERE SUCCESSFUL. DECISION MADE TO PROCEED WITH TEST AND NOT CHANGE THE POWER SUPPLY PACKAGE.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA 2710/P4-103-00-15 CANISTER	FRF	15A 280322	14 -10360	YES NO		

FAILURE MODE-FAIL DURING OPERATION. THE NEGATIVE PEDESTAL ON RF2 CHANNEL-A WAS LOST.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA SIGNALS FROM RF2 CHANNEL-A WERE NOT USABLE DUE TO LOSS OF NEGATIVE PEDE

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
STAL. VEHICLE EFFECT-COUNTDOWN DELAYED. 90 MINUTE HOLD. CORRECTIVE ACTION-REPLACED RF8 PACKAGE.							891075
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2741/P4-1CO-01-13 POWER SUPPLY, TELEMETRY RF8	COMPOSITE-B FACT	15A 380310	14	YES NO		891052
FAILURE MODE-FAIL DURING OPERATION. THE TRANSDUCER EXCITATION VOLTAGE FOR RF8 CHANNEL A WAS LOST. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. ALL MEASUREMENTS ON RF8 CHANNEL A FAILED TO PROVIDE DATA. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACE RF CANISTER.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2645/P2-103-00-11 TLM CANISTER	COUNTDOWN	11A 380225	ETR-12 -540	YES NO		896589
FAILURE MODE-FAIL DURING OPERATION. RF NO. 4 LOST MODULATION. SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. LOSS OF MODULATION WOULD HAVE CAUSED LOSS OF DATA. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-NONE. MENT WITHOUT MODULATION ON RF 4. REPORT INDICATED THAT DATA FROM RF 4 WAS QUANTITATIVE.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2548/P2-102-00-13 TLM CANISTER	COUNTDOWN	13A 380207	ETR-12 -15300	YES NO		897476
FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. RF1 CHANNEL 1 INOPERATIVE. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-COUNTDOWN DELAYED. CORRECTIVE ACTION-UNKNOWN.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2479/PE-106-00-10 HARNESS-VERNIER TRANSDUCER TO RF 1	COUNTDOWN	10A 680107	ETR-12 -16000	YES NO		697389

FAILURE MODE-OPEN (ELECT). THE VERNIER THRUST CHAMBER PRESSURE MEASUREMENT WAS NOT WORKING DURING TELEMETRY TEST. I NVESTIGATION REVEALED THE PROBLEM EXISTED IN THE HARNESS.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. LOSS OF VERNIER THRUST CHAMBER PRESSURE DATA.

VEHICLE EFFECT-COUNTDOWN DELAYED. 3 HOUR AND 8 MINUTE HOLD.

CORRECTIVE ACTION-REPAIRED A BROKEN TRANSDUCER WIRE BUT PROBLEM PERSISTED. REPLACED RF 1 PACKAGE BUT PROBLEM PERSIS TED. A NEW HARNESS WAS INSTALLED FROM THE TRANSDUCER TO RF 1 WHICH SATISFACTORILY RESOLVED THE PROBLEM.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2339/PE-103-00-10 TLM CANISTER	FRF	10A 671210	12/ETR	YES NO		693347

FAILURE MODE-OUT OF TOLERANCE. DISPLACEMENT AND RATE GYRO SIGNALS MONITORED ON RF NO 1, CHANNELS 10 AND 11, EXPERIE NCED INTERFERENCE FROM VIBRATION MEASUREMENTS MONITORED ON CHANNEL E, RF NO 3 FAILED, CHANNELS 13 OF RFNO 1 WAS EXCE SSIVELY NOISY AND CALIBRATION SEGMENTS ON CHANNEL 10 OF RF NO 2 WERE MISSING.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2339/PE-103-70-10 POWER SUPPLIES	FRF	10A 671210	12/ETR	YES NO		693317

FAILURE MODE-OUT OF TOLERANCE. TRANSDUCER POWER SUPPLIES AFFECTING CHANNELS 12, 13, AND A ON RF NO. 2 WERE VERY LOW AND VARYING THROUGHOUT TEST.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2319/PE-102-00-10 TLM CANISTER	FRF	10A 671127	12/ETR	YES NO		

FAILURE MODE-OUT OF TOLERANCE. THE CALIBRATE SEGMENTS ON CHANNEL 10, RF NO 2, WERE LOST AND RF NO 3 FAILED COMPLETE

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
LY AT ENGINE SHUTDOWN. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							893518
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2262/P2-1CO-01-10 COMMUTATOR-RF1 CHANNEL 12	COMPOSITE-B FACT	10A 571114	12	YES NO		891048
FAILURE MODE-OUT OF TOLERANCE. RF1 CHANNEL 12 EXHIBITED NOISY CHARACTERISTICS. APPARENT CAUSE WAS THE COMMUTATOR. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-COMMUTATOR WAS REPLACED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2262/P2-1CO-01-10 BRIDGE CIRCUIT	COMPOSITE-B FACT	10A 571114	12	YES NO		891049
FAILURE MODE-FAIL DURING OPERATION. RF3 CHANNEL 10 EXHIBITED NO COMMUTATION CHARACTERISTICS DUE TO FAULTY TEMPERATU RE BRIDGE CIRCUIT. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DATA FROM RF3 CHANNEL 10 WAS NOT OBTAINED DUE TO LOSS OF COMMUTATION. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-RF3 CHANNEL 10 TEMPERATURE BRIDGE CIRCUIT REPAINED.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA2262/P2-1CO-01-10 TRANSMITTER-RF2 CHANNEL A.	COMPOSITE-B FACT	10A 571114	12	YES NO		891047
FAILURE MODE-OUT OF TOLERANCE. RF2 CHANNEL A WAS SUFFICIENTLY OFF CENTER FREQUENCY TO CAUSE CROSS MODULATION ON SYN C AND CALIBRATE PULSES. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-RETUNED SUBCARRIER.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	EM-667/1-A; 111-08-02	CAPTIVE	8A 570887	1-A	NO NO		000312
FAILURE MODE-FAIL DURING OPERATION. THE THREE R.F. SYSTEMS WERE NOISY DUE TO PICK-UP WHEN GE EQUIPMENT TURNED ON. SYSTEM EFFECT-ERATIC OPERATION. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	EM-514/111-07-L1 TELEMETRY TRANSMITTER	CAPTIVE	3A 570828	8-1	YES NO		000620
FAILURE MODE-OUT OF SPECIFICATION OR TOLERANCE. THE QUALITY OF DATA WAS POOR. SOME DATA WERE LOST DUE TO FAILURE AND EXCESSIVE NOISE. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ZC-7-084-4A/P4-... 01-00-04 TRANSMITTER-RF NO. 2	COUNTDOWN	4A 570807	14	YES NO		001550
FAILURE MODE-FAIL DURING OPERATION. DIFFICULTY WAS EXPERIENCED AT T-260 MINUTES WITH THE NO.2 TELEMETER. SYSTEM EFFECT-UNKNOWN. VEHICLE EFFECT-COUNTDOWN ABORTED AND RESCHEDULED. COUNTDOWN WAS ABORTED AT T-260 MINUTES AND RESCHEDULED. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA1701/P4-102-00-04	FRF	4A 570803	14/ETR	YES NO		
FAILURE MODE-OUT OF TOLERANCE. THE 100 PCT CALIBRATE PULSE ON CHANNEL 13, RF NO.1, WAS OUT OF BAND. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.							

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							893326
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	EM-433/108-D-4 HARNESS-NUT	CAPTIVE	3A S70327	S1 27	YES NO		895998
FAILURE MODE-ERRATIC OPERATION. SEVERAL MEASUREMENTS BECAME ERRATIC. THE B-NUT ATTACHMENT FOR THE INSTRUMENTATION L INE FROM THESE FUEL INJECTION MANIFOLD TO THE TRANSDUCER WAS BACKED OFF AT THE ATTACHMENT TO THE MANIFOLD. THIS ALLO WED FUEL TO BE SPRAYED INTO THE ENGINE COMPARTMENT. SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. SEVERAL TRACES BECAME ERRATIC BEFORE THE END OF THE TEST DUE TO WIRING DAMAGE . VEHICLE EFFECT-FIRE. A FIRE WAS STARTED IN THE B2 ENGINE COMPARTMENT. PRINCIPLE DAMAGE WAS TO WIRING IN THE B2 COMP ARTMENT. A FUEL VALVE CONTROL LINE BURNED THROUGH CAUSING A DECAY IN FUEL FLOW AND AN INCREASE IN THE MIXTURE RATIO. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	EM-4068-1,107-3 YLH CANISTER	CAPTIVE	3A S70325	SYCAMORE 119	YES NO		892146
FAILURE MODE-OUT OF TOLERANCE. SYSTEM EFFECT-ERRATIC OPERATION. EXTREME NOISE WAS PRESENT ON ALL GAINS LEVELS OF CHANNEL E, RF1 AND RF2. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA1750/P1-1CO-01-04 COMMUTATOR	COMPOSITE-B FACT	4A S70310	14/ETR	YES NO		892593
FAILURE MODE-OUT OF TOLERANCE. RF 1 CHANNEL E HAD NO COMMUTATION THROUGHOUT TEST. SYSTEM EFFECT-IMPROPER ANALOG SIGNAL. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-REPLACE RF 1 CANNISTER.							

GENERAL DYNAMICS
CONVAIR DIVISION

15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	FTA1750/P4-1CO-01-04 SUBCARRIER OSCILLATOR	COMPOSITE-B FACT	4A 670510	14/ETR	YES NO		692582

FAILURE MODE-OUT OF TOLERANCE. THE SUBCARRIER OSCILLATORS FOR CHANNELS 10 AND 11 ON RF 2 AND CHANNEL 10 ON RF 3 WER E OPERATING OUTSIDE THE FREQUENCY BAND LIMITS. ALSO CALIBRATION PULSES WERE NOISY AND ERRATIC.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. DECOMMUTATION NOT POSSIBLE.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-REPLACED CANISTERS.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	EM-384/104-1 TRANSMITTER	CAPTIVE	8A 670321	S-1	YES NO		696605

FAILURE MODE-OUT OF TOLERANCE.

SYSTEM EFFECT-ERRATIC OPERATION. NOISE WAS PRESENT ON RF 3, CHANNELS 10,11,13, A, C AND E. HIGH NOISE ON SYNC PULSE , COMMUTATOR SEGMENTS BARELY DISTINGUISHABLE, CHANNELS A, C AND E WERE OUT OF BAND AND EXHIBITED INTERMODULATION.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-UNKNOWN

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	SP-99-24-3330F POWER CHANGEOVER SWITCH	FAR 7-01765-3	1440 65	FACTORY	YES KINETICS NO M-177-4		697908

FAILURE MODE-UNIT OPERATED ERRATICALLY. FAILURE ANALYSIS REVEALED A HARD SPOT ON ONE OF THE BRUSHS OF THE MOTOR.

CORRECTIVE ACTION-NO CORRECTIVE ACTION WAS TAKEN BUT THE VENDOR STATED THAT A BRUSH CHANGE WAS INITIATED IN 1959 AN D ALL UNITS MANUFACTURED SINCE THEN HAVE BRUSHES WITH HIGHER SILVER CONTENT.

INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	ZM-7-648/FC-3CO-01-04 TLM CANISTER	COMPOSITE-FACTORY	4C		YES BENDIX NO		[redacted]

FAILURE MODE-FAIL TO OPERATE AT PRESCRIBED TIME. MEASUREMENT D12X (RSC NO. 1 DESTRUCT) DID NOT DEFLECT AND 40-CYCLE , 8 PCT. IBM NOISE WAS EVIDENT. CAUSE IS UNKNOWN, BUT THE PROBLEM WAS ISOLATED TO THE ACCESSORY PACKAGE.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. MEASUREMENT DID NOT INDICATE ACTUATION AND WAS NOISY.

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
VEHICLE EFFECT-COMPOSITE RESCHEDULED. CORRECTIVE ACTION-THE ACCESSORY CANISTER WAS REPLACED. SYSTEM AND COMPOSITE RETESTING WAS REQUIRED.							897851
INSTRUMENTATION-A/B TELEMETRY SET AND TRANSDUC ERS	LMSD-445082-2/P4-4CO-02-45	COMPOSITE-J FACT 800411	48D	14	YES NO		894019
FAILURE MODE-ERRATIC OPERATION. SHIFTS IN DATA LEVEL WERE NOTED ON SEVERAL TELEMETRY CHANNELS. EXACT CAUSE NOT KNOW N BUT ATTRIBUTED TO INTERFERENCE LEVELS PRESENT ON SIGNAL GROUND CIRCUITS. SYSTEM EFFECT-IMPROPER ANALOG SIGNALS. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-FLUCTUATIONS MINIMIZED BY ADDITION OF A STRUCTURE GROUND.								
INSTRUMENTATION-A/B ANTENNA AND COUPLER	GDC/BKF63-061/B1-401-00-125 RING COUPLER COAX CABLE	FLIGHT	125D 650929	WTR-B-1	YES YES		899149
FAILURE MODE-ERRATIC OPERATION. POSSIBLE ADP RF CABLING PROBLEM OR A LOOSE COAX CABLE TO THE RING COUPLER CAUSED AD P MOD IV SIGNAL STRENGTH TO DROP BELOW DATA RECOVERY LEVEL. POSSIBLE PROBLEM COULD BE IN THE ADP TRANSMITTER OR CABL ING WHICH WOULD PLACE PROBLEM RESPONSIBILITY ON AERONUTRONICS. SYSTEM EFFECT-OPERATION TOO LOW. SIGNAL STRENGTH TOO LOW TO RECORD DATA BETWEEN COUNTDOWN AND PLUS 22 SECONDS AND A FTER PLUS 122 SECONDS ANOTHER DROP IN SIGNAL STRENGTH CAUSED DATA LOSS FOR THE REMAINDER OF THE FLIGHT. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-SPECIAL CHECKS OF INSTRUMENTATION WERE INCORPORATED AT EARLIER POINT IN COUNTDOWN SUCH THAT CORRE CTIVE ACTION COULD BE TAKEN IF PROBLEMS SHOULD OCCUR.								
INSTRUMENTATION-A/B ANTENNA AND COUPLER	GDC/BKF63-054/L4-701-00-7111 ANTENNA	FLIGHT 27-12507	7111 650803	WTR-2-4 293.81	YES NO		
FAILURE MODE-OUT OF TOLERANCE. DROPOUT OF OF DATA IN THE VICINITY OF PAYLOAD SEPARATION DUE TO LOOK ANGLE WHICH OCC URS AT THIS TIME WHEN THE VEHICLE REACHES AN ATTITUDE WHERE THE VEHICLE ANTENNA PATTERN LOOK-ANGLE CLOSELY APPROXIMA TES ONE OF THE NULLS IN THE PATTERN OF THE ANTENNA ARRAY. SYSTEM EFFECT-ERRATIC OPERATION. DROPOUT OF DATA FROM 293.81 TO 299.13 SECONDS AS RECORDED BY THE WTR TRACKING STAT ION. DATA HOWEVER WAS RECOVERED DURING THIS PERIOD BY THE BACK-UP SYSTEM WITH THE EXCEPTION OF A 0.2 SECOND DROP OUT BETWEEN 297.3 AND 297.5. VEHICLE EFFECT-NONE. HOWEVER SINCE THE DROP-OUT IS IN THE VICINITY OF PAYLOAD SEPARATION THIS CONDITION COULD EFFEC T THE EVALUATION OF SEPARATION IF THE DROP-OUT OCCURS THEN. CORRECTIVE ACTION-1) TRACK AUD RECORD DATA FOR FALC FLIGHTS FROM THE KEARNY MESA PLANT, SAN DIEGO. 2) STUDY THE TRA								

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME / VENDOR PART NO	
NSMITTER RADIATION PATTERN-ECP 3484.							888940
INSTRUMENTATION-A/B ANTENNA AND COUPLER	68C3671.1 ANTENNA	UTP-PRT 87-12507-5	641209	GD/C	YES NO	GD/C 87-12507-5	891857
FAILURE MODE-OUT OF TOLERANCE. DURING EXAMINATION OF THE ANTENNA ASSEMBLY, A DIMENSIONAL OUT-OF-TOLERANCE WAS MEASURED. INVESTIGATION REVEALED THAT THIS PARTICULAR DIMENSION IS A FUNCTION OF THE POD CONTOUR AND AN EXACT DIMENSION CANNOT BE DETERMINED. CORRECTIVE ACTION-THE SPEC CONTROL DRAWING WAS REVISED TO ALLOW FOR THIS PROBLEM.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	SLV-A9-24-4908-F ANTENNA ASSEMBLY-WIRING	FAR 87-12507-601	7109 641104	FACTORY	YES NO	CREATIVE ENGINEERING	893448
FAILURE MODE-OUT OF TOLERANCE. THE TELEMETRY VSWR WAS OUT OF TOLERANCE. THIS WAS DUE TO PROBE MISALIGNMENT, POOR SOLDER CONNECTIONS, AND A CRACK IN THE CONNECTOR SHELL. CORRECTIVE ACTION-ALL ASSEMBLIES IN STOCK RETURNED FOR RETEST.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	GDA/BKF84-042/L4-701-00-7102 RING COUPLER CONNECTOR	FLIGHT	7102 640923	WTR-2-4 52	YES YES		899935
FAILURE MODE-FAIL DURING OPERATION. POSSIBLY CONNECTOR PROBE IN RING COUPLER LOOSENED UNDER VIBRATIONAL STIMULUS. SYSTEM EFFECT-ERRATIC OPERATION. LOOSENING OF CONNECTOR PROBE CAUSED RF NO. 1 SIGNAL STRENGTH FLUCTUATIONS (APPROXIMATELY 12 DB PEAK-TO-PEAK). VEHICLE EFFECT-NONE. DATA RETRIEVAL VIA RF NO. 1 NOT AFFECTED. IT SHOULD BE NOTED THAT RANGE SAFETY COMMAND SYSTEM (RSC) USES RING COUPLER OF IDENTICAL DESIGN, EXCEPT THAT RSC UNIT IS SMALLER. THEREFORE, THE RSC UNIT COULD HAVE THE SAME PROBLEMS AS THE TELEMETRY SYSTEM RING COUPLER. CORRECTIVE ACTION-AS A RESULT OF RING COUPLER PROBLEMS DURING STRESS LIMIT TESTING OF UTP, REQUEST FOR DESIGN IMPROVEMENT OF RING COUPLER WAS SUBMITTED TO CUSTOMER. THE DESIGN IMPROVEMENT WILL LESSEN POSSIBILITY OF LOOSE CONNECTOR PROBE WITHIN RING COUPLER. REQUEST WAS NOT APPROVED. CLOSER ADHERENCE TO CONNECTOR INSTALLATION DRAWING RE-EMPHASIZED TO QC AND INSPECTION.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	FTA8471/P3-4CO-02-216 ANTENNA	COMPOSITE-B FACT	2160 640702	ETR-13	NO NO		
FAILURE MODE-ERRATIC OPERATION. VARIATIONS IN TELEMETRY SIGNAL STRENGTH WERE OBSERVED AT HANGAR J GROUND STATION. SIGNAL INTERFERENCE WAS BEING CAUSED BY SERVICE TOWER DECK CONFIGURATION.							

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
							897457

SYSTEM EFFECT-ERRATIC OPERATION. SIGNAL STRENGTH LEVELS PRIOR TO AND THROUGHOUT THE TEST, AS OBSERVED AT THE HANGAR J GROUND STATION VARIED FROM 2.2 K MICROVOLTS TO NOISE. DATA WAS LOST DURING THE PERIODS OF EXTREMELY LOW SIGNAL STRENGTH. SIMILAR OCCURRENCES WERE NOTED ON TEST PS-460-03-216,A J FACT.

VEHICLE EFFECT-NONE.

CORRECTIVE ACTION-FOR MAJOR TESTS PERFORMED WITH TOWER AROUND THE VEHICLE, THE SERVICE TOWER DECKS IN PROXIMITY TO TLM ANTENNA WERE STORED IN RETRACTED POSITION.

INSTRUMENTATION-A/B ANTENNA AND COUPLER	69A2144.1 RING COUPLER CIRCUIT BOARD	UTP-SLT 69-11210-3	640326	GD/C	YES GD/C NO		892224

FAILURE MODE-OPEN (ELECT). THE OUTPUT OF J2 WAS LOW AND VSWR AT J1 WAS OUT OF TOLERANCE INDICATING INTERMITTENT OPENS DURING X-AXIS SLT RANDOM/SINE VIBRATION-TEMPERATURE-ALTITUDE TEST. (SLT LEVEL VIBRATION, TEMPERATURE MINUS 40 DEGREES F, ALTITUDE INM HG). EXAMINATION REVEALED THAT THE SOLDER JOINT BETWEEN THE CIRCUIT BOARD RIBBON AND THE EYELET WAS CRACKED.

CORRECTIVE ACTION-NONE. THE UNIT IS A QUALIFIED PART HAVING SUCCESSFULLY COMPLETED THE PAT/PRT REQUIREMENTS OF THE UNIFIED TEST PLAN. THIS FAILURE OCCURRED DURING SLT, THE LEVELS OF WHICH ARE BEYOND THE DESIGN SPECIFICATION REQUIREMENTS. REF. FRR 296.

INSTRUMENTATION-A/B ANTENNA AND COUPLER	69A2144.1 RING COUPLER	UTP-PAT 69-11210-3	640319	GD/C	YES GD/C NO		892227

FAILURE MODE-OUT OF TOLERANCE. DURING EXAMINATION OF THE PRODUCT THE DIMENSIONS FOR THE SCREW HOLES WHICH ARE USED TO ASSEMBLE THE COVER TO THE HOUSING WERE OUT OF TOLERANCE.

CORRECTIVE ACTION-NONE. THESE DIMENSIONAL OUT OF TOLERANCES ARE MINOR AND HAVE NO EFFECT ON THE OPERATION OF THE UNIT. FURTHERMORE, THERE IS DOUBT THAT THESE MEASUREMENTS CAN BE READ ACCURATELY SINCE THESE MEASUREMENTS ARE MADE OVER THE SCREWS, WASHERS, AND LOCKWIRE. REF. FRR 322.

INSTRUMENTATION-A/B ANTENNA AND COUPLER	69A2144.1 RING COUPLER CIRCUIT BOARD	UTP-PRT 69-11210-3	640306	GD/C	YES GD/C NO		

FAILURE MODE-OPEN (ELECT). THE OUTPUT POWER DROPPED AND THE REFLECTED POWER INCREASED INDICATING INTERMITTENT OPENS DURING THE Z-AXIS RANDOM/SINE VIBRATION- TEMPERATURE-ALTITUDE TEST. (PRT LEVEL VIBRATION, TEMPERATURE MINUS 25 DEGREES F, ALTITUDE 1 MM HG). EXAMINATION REVEALED THAT THE SOLDER JOINT BETWEEN THE CIRCUIT BOARD RIBBON AND THE EYELET WAS CRACKED.

CORRECTIVE ACTION-ECP YYBS CREATED THE DASH-3 CONFIGURATION WHICH CHANGED THE EYELET TO ONE THAT IS SWAGED TO GO DE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
GREES ON THE RIBBON SIDE OF THE CIRCUIT BOARD TO ALLOW FOR A BETTER SOLDER FILLET AND STRONGER JOINT. SPACERS WERE A LSO ADDED BETWEEN CASE HALVES TO PREVENT MOTION DURING VIBR/TION. THE DASH-3 PASSED THE PRT TEST. REF. FRR 278.							692226
INSTRUMENTATION-A/B ANTENNA AND COUPLER	LV-A9-24-4561-F POWER DIVIDER-CONNECTOR	FAR 61-65800-002	640331	FACTORY	YES NO	MICRO LABORATO RY	692326
FAILURE MODE-ELECTRICAL SHORT CAUSED BY DIELECTRIC BREAKDOWN AT 800 VOLTS RMS WHERE BREAKDOWN SHOULD NOT OCCUR BELO W 1300 VOLTS RMS. METALLIC CONTAMINATION IN THE HN CONNECTORS CAUSED THE FAILURE. CORRECTIVE ACTION-RAR LV-A9-24-6295 REQUESTED THE SERIALIZATION, ROUTINE CALIBRATION AND THE CAUTIONING OF PERSONNE L AGAINST IMPROPER HANDLING AND STORAGE OF THE UNITS.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	69AX034 ANTENNA	UTP-SLT 27-12507-1	640511	GD/C	YES NO	CREATIVE ENGIN EERING 27-12507-1	691790
FAILURE MODE-STRUCTURAL. DURING SLT Y-AXIS RANDOM/SINE VIBRATION (SINE 6.256 RMS, RANDOM .125 G SQUARE PER CPS). TH E SOLID METAL SHIELD OF THE AIJAX PHASING CABLE CRACKED. CORRECTIVE ACTION-NONE. SHIELD CRACK ATTRIBUTED TO FATIGUE DUE TO PREVIOUS PAT AND PHT VIBRATION TESTS AND HIGHER S TRESS DURING SLT. (REF. FRR 220).							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	69AX144.1 RING COUPLER CIRCUIT BOARD	UTP-PRT 69-11210-1	640225	GD/C	YES NO	GD/C	392222
FAILURE MODE-STRUCTURAL. THE REFLECTED POWER AT INPUTS J1 AND J4 DEVELOPED INTERMITTENT OPENS DURING X-AXIS RANDOM/ SINE VIBRATION-TEMPERATURE -ALTITUDE TEST. (PRT LEVEL VIBRATION, TEMPERATURE MINUS 25 DEGREE F, ALTITUDE 1MM HG). EX AMINATION REVEALED THE SOLDER JOINT BETWEEN THE CIRCUIT BOARD RIBBON AND THE EYELET WAS CRACKED. CORRECTIVE ACTION-ECP 7693 CREATED THE DASH-3 CONFIGURATION WHICH EMPLOYED THE USE OF SILVER-FILLED EPOXY TO LOCK T HE TNC CONNECTOR IN A FIRM POSITION. THE CHANGE ALSO INCLUDED THE USE OF A BACK-UP NUT ON THE THREADED BASE OF THE T NC CONNECTOR. PRELIMINARY TESTS WERE RUN AND THE PART PASSED. REF. FRR 183A							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	A-A9-24-4453-F DIPLEX COUPLER	FAR 7-11678-807	136F 640131	FACTORY	YES NO		
FAILURE MODE-OUT OF TOLERANCE. VOLTAGE STANDING WAVE RATIO WAS 4.0 TO 1 WHEN 2.0 TO 1 MAXIMUM IS ALLOWED. FAILURE C AUSED BY COUPLER NOT BEING TUNED.							

GENERAL DYNAMICS
CONVAIR DIVISION

15 JUN 1966

DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
CORRECTIVE ACTION-PROCEDURE CHANGED TO INSURE COUPLER TUNING.							893024
INSTRUMENTATION-A/B ANTENNA AND COUPLER	69A2144 RING COUPLER	UTP-QUAL/PPT 69-11210-1	631230	GD/C	YES NO	GD/C	892223
FAILURE MODE-OUT OF TOLERANCE. DURING THE EMI TEST THE UNIT EXCEEDED BY 10DB THE RADIATED POWER INTERFERENCE LIMIT OF 32 DB ABOVE 1 MICROVOLT AT 260MC. CORRECTIVE ACTION-SPECIFICATION DEVIATION T000-65 WAS APPROVED TO ALLOW FOR THE EMI OUT OF TOLERANCE.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	69A2144 RING COUPLER CIRCUIT BOARD	UTP-QUAL/PPT 69-11210-1	631125	GD/C	YES NO	GD/C	892223
FAILURE MODE-OPEN (ELECT). FOLLOWING THE SHOCK TEST, CONNECTOR J2 DEVELOPED AN INTERMITTENT OPEN. THE CAUSE OF THE MALFUNCTION WAS A COLD SOLDER JOINT BETWEEN THE CONNECTOR AND THE CIRCUIT BOARD EYELET. INVESTIGATION REVEALED THAT AN IMPROPER PLANNING CARD WAS ISSUED, RESULTING IN A WRONG SOLDERING SPECIFICATION MPS APPLICATION. CORRECTIVE ACTION-ALL PARTS FABRICATED TO DATE WERE IRD FOR SURVEY. THOSE THAT DID NOT PASS THE SURVEY INSTRUCTIONS WERE REWORKED TO MPS 44.01.14. ACTION WAS ALSO INITIATED TO HAVE ALL UNITS SUBJECTED TO ACCEPTANCE VIBRATION TESTIN G, INCLUDING THE 69-38012-1 RING COUPLER. REF. FIR 078.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER TELEMETRY SET AND TRANSDUC ERS	GD483-1092/P1-602-00-138 ANTENNA	FLIGHT	136F 631026	ETR-11			898312
FAILURE MODE-ERRATIC OPERATION. DATA WAS LOST ON RF 1, RF 2 AND RF 3 DURING THE PERIOD OF MAXIMUM DYNAMIC PRESSURE THIS WAS CAUSED BY LOSS OF TRANSMITTER MODULATION CAUSED IN TURN BY FAILURE OF RFBONDING ON THE POD DOORS. SYSTEM EFFECT-ERRATIC OPERATION. VEHICLE EFFECT-NONE. CORRECTIVE ACTION-UNKNOWN.							
INSTRUMENTATION-A/B ANTENNA AND COUPLER	LV-99-14-209-F COAXIAL ASSEMBLY	FAR 95-64500-029	631009	FACTORY	YES NO	GD/C	
FAILURE MODE-OUT OF TOLERANCE WITH RESPECT TO INSERTION LOSS. MEASURED 0.80DB AS OPPOSED TO REQUIRED 0.60DB. THIS C ABLE WAS DESIGNED FOR AC-2 ONLY. POSITION OF TAIL PIPE ANTENNA WAS CHANGED ON AC-3 AND ON.							

SYSTEM / SUB-SYSTEM	TEST/REPORT NUMBER / FAILED COMPONENT NAME	DIF DATA SOURCE / PART NUMBER	VEHICLE / DATE DIF	SITE / TIME DIF	PRI / OTH	VENDOR NAME / VENDOR PART NO	
							893380

CORRECTIVE ACTION-NONE-THIS CABLE NO LONGER USED.

INSTRUMENTATION-A/B ANTENNA AND COUPLER	69A2034 ANTENNA	UTP-PRT 27-12507-1	630909	GD/C	YES NO	CREATIVE ENGRG 27-12507-1	891740

FAILURE MODE-OUT OF TOLERANCE. DURING EXAMINATION OF THE ANTENNA ASSEMBLY, THE SEALING AROUND THE CAVITY FEED WAS F OUND PEALED AWAY. THE IDENTIFICATION NUMBERS WERE PRINTED ON TOP OF ONE ANOTHER. THE PAPER PACKING MATERIAL WAS IMBE DDED IN THE COATING ON THE UNDER SIDE OF THE ANTENNA. THE UNDERSIDE OF THE MOUNTING FLANGE SHOWED AFFECTS OF MOISTUR E AND ONE DIMENSION WAS OUT OF TOLERANCE.

CORRECTIVE ACTION-QC INFORMED OF THE POOR WORKMANSHIP AND ADVISED TO EXERCISE CLOSER SURVEILLANCE AT VENDOR FACILIT Y. THE DIMENSIONAL OUT OF TOLERANCE WAS NOT CONSIDERED CRITICAL. PRT TESTING CONTINUED. (REF. FRR019).

INSTRUMENTATION-A/B ANTENNA AND COUPLER	SP-A9-24-4032-F ANTENNA-CONNECTOR	FAR 81-63900-002	630710	FACTORY	YES NO	MICROLAB	895221

FAILURE MODE-CONTAMINATION. THE ANTENNA POWER DIVIDER FAILED WHEN THE INSERTION LOSS FROM ONE SIDE OF THE POWER DIV IDER WAS OUT OF SPECIFICATIONS HIGH. FAILURE WAS NOT CONFIRMED, HOWEVER, FOREIGN PARTICLES FOUND INSIDE THE CONNECTO RS OF THE POWER DIVIDER COULD HAVE CAUSED THE FAILURE IF ANY OF LARGER SIZE HAD BEEN PRESENT AT TIME OF FAILURE.

CORRECTIVE ACTION-PERSONNEL RESPONSIBLE FOR INSPECTION OF THE POWER DIVIDER WERE NOTIFIED OF THE CONTAMINANT POSSIB ILITY AND WERE REQUESTED TO BE ON THE ALERT FOR CONTAMINANTS.

INSTRUMENTATION-A/B ANTENNA AND COUPLER	A09-24-3539F RING COUPLER CONNECTOR	COMPOSITE-FACTORY 7-11500-8	45F 630603	FACTORY	YES NO		897700

FAILURE MODE-OUT OF TOLERANCE. UNIT WAS REJECTED IN THE FACTORY WHEN THE MEASURED DB LOSS WAS 7.5 DB. 6.0 DB IS THE MAX. ALLOWED. FAILURE COULD NOT BE CONFIRMED. THE HIGHEST READING OBTAINED IN 9 TESTS WAS 3.3 DB. THE CONDITION WAS DUPLICATED BY LOOSENING ONE OF THE RF CONNECTORS SLIGHTLY. IT WAS ASSUMED THAT THIS WAS THE POSSIBLE REASON FOR FAI LURE.

SYSTEM EFFECT-ERRATIC OPERATION.

VEHICLE EFFECT-COMPOSITE DELAYED.

CORRECTIVE ACTION-NONE.

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM-AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B ANTENNA AND COUPLER	NZ-99-24-3512-F STUB TUNER	FAR 27-61348-3	2000 630205	FACTORY	YES NO		893091

FAILURE MODE-FAIL DURING OPERATION. DURING CHECKOUT A 10 DECIBEL LOSS WAS DETECTED WHEN 6.5 DECIBELS WAS EXPECTED.

CORRECTIVE ACTION-NONE. FAILURE NOT CONFIRMED.

INSTRUMENTATION-A/B ANTENNA AND COUPLER	AP-90-24-3160F POWER DIVIDER	FAR 81-65900-002	131-D 621204	WTR	NO NO	NICROLAB 93300M	896084

FAILURE MODE-OUT OF SPECIFICATION IN POWER OUTPUT. DISCREPANCY ATTRIBUTED TO A MALFUNCTION OF ASSOCIATED EQUIPMENT IN TELEMETRY SYSTEM.

CORRECTIVE ACTION-NONE, SINCE THE FAILURE WAS NOT CONFIRMED.

INSTRUMENTATION-A/B ANTENNA AND COUPLER	A-99-24-3196F DIPLEX COUPLER	FAR Y-11878-605	621011	ETR	YES YES	GD/C	896107

FAILURE MODE-SHORT (ELECTRICAL). THE DIPLEXER SHORT REPORTEDLY CAUSED DAMAGE TO A TRANSMITTER. THE DIPLEXER WAS EXAMINED AND NO ABNORMAL CONDITIONS WERE FOUND. ALL TEST RESULTS WERE WITHIN SPECIFICATION. THE REPORTED FAILURE WAS NOT CONFIRMED. DAMAGE TO TRANSMITTER COULD HAVE BEEN CAUSED BY A POOR CONNECTION BETWEEN TRANSMITTER AND DIPLEXER.

CORRECTIVE ACTION-NO CORRECTIVE ACTION TAKEN SINCE THE FAILURE WAS NOT CONFIRMED AND OTHER SYSTEM COMPONENTS WERE NOT AVAILABLE FOR TESTING.

INSTRUMENTATION-A/B ANTENNA AND COUPLER	AE62-0076/01-504-00-68 ANTENNA	FLIGHT	66E 620228	WTR 110	YES NO		897664

[redacted] FAILURE MODE-FAIL DURING OPERATION. THE TELEMETRY SYSTEM SIGNAL WAS INTERRUPTED BETWEEN 110 AND 126 SECONDS PROBABLY CAUSED BY ATMOSPHERIC IONIZATION OF THE ANTENNA DUE TO INSUFFICIENT ANTENNA BONDING.

SYSTEM EFFECT-IMPROPER ANALOG SIGNALS.

VEHICLE EFFECT-NONE.

[redacted] CORRECTIVE ACTION-NONE, SECONDARY FAILURE.

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER * FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B ANTENNA AND COUPLER	AA81-0148/P1802-00-28 ANTENNA-TRANSMITTER	COUNTDOWN	25E 810923	ETR-11 -300.	YES NO		883808

FAILURE MODE-CONTAMINATION. DURING SECOND LAUNCH ATTEMPT, RFS TELEMETRY INDICATED EXCESSIVE NOISE LEVEL. EXACT CAUSE OF NOISE UNKNOWN. POSSIBLE CAUSE WAS POOR RF BONDING DUE TO PAINT ON BONDING STRIPS. BONDING WAS CLEANED.

SYSTEM EFFECT-ERRATIC OPERATION.

VEHICLE EFFECT-COUNTDOWN DELAYED. LOX WAS DETANKED AND RFS TELEMETRY PACKAGE REPLACED. COUNT WAS RECYCLED TO T-4200 SECONDS.

CORRECTIVE ACTION-RFS TELEMETRY PACKAGE REPLACED. REPLACEMENT ITEM SUBSEQUENTLY ALSO FAILED AND COUNTDOWN WAS ABORTED SINCE NO FURTHER SPARES AVAILABLE. BONDING POINTS CLEANED.

INSTRUMENTATION-A/B ANTENNA AND COUPLER	98-24-121 RING COUPLER-WIRING	FAR 7-11500-3	16E 810314	ETR-13	YES NO		894612

FAILURE MODE-OUT OF TOLERANCE. FAILURE WAS DUE TO HIGH INSERTION LOSS AND LOW ISOLATION DUE TO POOR CLEANING AND TINNING OF THE PINS FROM RECEPTACLES J-17 AND J-18 AND INSUFFICIENT SOLDER USED TO MAKE CONNECTION FROM THESE PINS TO THE LOWER BOARD CIRCUIT LANDS.

CORRECTIVE ACTION-EQUIPMENT OPERATIONS PROCEDURE 330.67.1 WAS PUBLISHED, INITITATING A TESTING PROCEDURE OF RING COUPLERS DURING THE APPLICATION OF A COMPLEX WAVE VIBRATION. ACTION WAS TAKEN BY CONVAIR TO INCORPORATE SIX PROCEDURES INTO PLANNING PAPERS. A NEW HEAT SINK WAS DESIGNED AND FABRICATED.

INSTRUMENTATION-A/B ANTENNA AND COUPLER	98-24-114 ANTENNA-WIRING	FAR 87-60019	13E 810310	ETR 13	YES NO		894617

FAILURE MODE-STRUCTURAL. THERE SYSTEM CARRIER DEVIATION FAILED DURINGCOUNTDOWN. THE CARRIER DEVIATION DROPPED TO ZERO AT STAGE 2 PRESSURIZATION AND LIQUID OXYGEN TANKED. RF BONDING SHIELD AROUND THE PERIPHERY OF THE ANTENNA WAS NOT CONTRACTINGPROPERLY. THE RFS DEVIATION WAS DUE TO POOR BONDING AT THE PERIPHERY OF THE ANTENNA, POD 1 AND THE HINGE SIDE OF POD 1 DOOR. FAILURE ALSO DOCUMENTED IN REPORT AA81-0032/ P3-501-00-13 CAUSING COUNTDOWN ABORTAND RESCHEDULE.

CORRECTIVE ACTION-REPETATIVE DISCREPANCY REPORTS WERE ISSUED IN DEPT 771 BY DEPT 280-1 TO CHECK BONDING FINGER CONTACTS TO THE MISSILE TANK IN THE L/H AND R/H, PODS. A PLANNING CHANGE REQUEST DATED 20 MARCH 81, WAS SUBMITTED REQUESTING AN ADDED OPERATION IN THE POD DOOR AND FAIRING INSTALLATIONS TO CHECK FOR METAL-TO-METAL CONTACT OF BONDING FINGERS TO TANK SKIN.

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DIFFICULTIES REVIEW-INSTRUMENTATION SYSTEM*AIRBORNE

SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO	
INSTRUMENTATION-A/B ANTENNA AND COUPLER	FTA2182/P4-102-00-06 DIPLEX COUPLER	COUNTDOWN	6A 570923	ETR-14 -18600	YES NO		896830

FAILURE MODE-FAIL DURING OPERATION. OPERATION OF RF 1 AND 4 CAUSED TRACKING BEACONS TO BE FREE-RUNNING AND NO-GO. T ROUBLE WAS TRACED TO DIPLEX COUPLER FOR RFS 1 AND 4.

SYSTEM EFFECT-ERRATIC OPERATION. FAULTY DIPLEX COUPLER CAUSED RF INTERFERENCE WITH TRACKING BEACONS.

VEHICLE EFFECT-COUNTDOWN DELAYED. 180 MINUTE HOLD. 8 MINUTE RECYCLE.

CORRECTIVE ACTION-REPLACED DIPLEXER.

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SYSTEM SUB-SYSTEM	TEST/REPORT NUMBER FAILED COMPONENT NAME	DIF DATA SOURCE PART NUMBER	VEHICLE DATE DIF	SITE TIME DIF	PRI OTH	VENDOR NAME VENDOR PART NO