Report 11344
30 November 1998

Earth Observing System (EOS)
Advanced Microwave Sounding Unit-A1
(EOS/AMSU-A)
EOS Software Test Report

Contract No: NAS5-32314
CDRL 217

Submitted to:

National Aeronautics and Space Administration
Goddard Space Flight Center
Greenbelt, Maryland 20771

Submitted by:

Aerojet
1100 West Hollyvale Street
Azusa, California 91702

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SECTION 1

INTRODUCTION

1.1 IDENTIFICATION

This is the *Software Test Report* for the software to be used in the Earth Observing System (EOS) Advanced Microwave Sounding Unit-A1 (AMSU-A1) instrument. This document is submitted in response to Contract NAS5-32314 as CDRL 217, Software Test Report. Refer to Figure 1 for the software documentation tree.

1.2 SCOPE

This document describes the results of the Formal Qualification Test (FQT) / Demonstration conducted on 10 November 1998 for the EOS/AMSU-A1 instrument.

1.3 PURPOSE AND OBJECTIVES

The purpose of the *Software Test Report* is to report on results of the functional, performance, and interface tests of the software.

1.4 DOCUMENT STATUS AND SCHEDULE

This is the final submittal of the EOS/AMSU-A *Software Test Report*. This test report will constitute the basis for final acceptance of the EOS/AMSU software.

1.5 DOCUMENT ORGANIZATION

The EOS/AMSU-A Software Documentation Tree is as shown in Figure 1.

Document	Doc. No.	CDRL No.
Software Management Plan	**10339**	**008**
Acquisition Activities Plan	10341	508
Software Standards and Procedures	---	402
Software Assurance Plan	10428	309
Configuration Management Plan	9803	005
Software Product Specifications	**—**	**306**
Software Concept Document	10432	306-1a
Software Requirements Specification	10457	306-2a
Software Architectural Design	10464	306-3a
Software Detailed Design Document	10463	306-5a
Firmware Support Manual	10466	306-7
Version Description Document	10467	306-8a
User's Guide	10443	306-10a
Firmware Product Specification	**—**	**306**
Firmware Concept Document	10436	306-1b
Firmware Requirements	10458	306-2b
Firmware Architectural Design	10460	306-3b
Firmware Detail Design Document	10387	306-5b
Firmware Version Description	10976	306-8b
Software/Firmware Test Plan	**10369/10352**	**033**
Software Test Procedures	AE-26602	415
Software Test Reports	10975/11344	217
Firmware Test Procedures	AE-26600	415
Firmware Test Reports	10974	217

Figure 1. EOS/AMSU-A Software Documentation Tree

SECTION 2

RELATED DOCUMENTATION

2.1 PARENT DOCUMENTS

The software test plan is the parent document to this test report as indicated in Figure 1.

2.2 APPLICABLE DOCUMENTS

The following documents are referenced or applicable to this test report. Unless otherwise specified, the latest issue is in effect.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NASA-DID-A200	Test Procedures Data Item Description
NASA-DID-R009	Minimum Contents for Test Report
GSFC 422-10-04	Earth Observing System (EOS) Instrument Project Software Acquisition Management Plan
422-11-12-01	General Interface Requirements Document (GIRD)

(Copies of NASA documents should be obtained from the NASA Scientific and Technical Information Facility, P.O. Box 8757, BWI Airport, Baltimore, MD 21240.)

AEROJET DOCUMENTS

Report 10369	EOS/AMSU-A Software Test Plan
AE-26602	Earth Observing System/Advanced Microwave Sounding Unit-A (EOS/AMSU-A) Special Test Equipment Software Test Procedures

2.3 INFORMATION DOCUMENTS

Report 10345	EOS/AMSU-A Project Plan, Including Project Organization Chart, WBS Diagram, and Task Description

(Copies of Aerojet documents should be obtained from Aerojet, CAGE 70143, P.O. Box 296, Azusa, California 91702-0296.)

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SECTION 3

TEST IDENTIFICATION AND PREPARATION

3.1 FORMAL QUALIFICATION TEST (FQT)

These tests were the Formal Qualification Test (FQT) of the EOS/AMSU-A1 software.

3.2 SOFTWARE PRODUCTS UNDER TEST

The software products tested were:

CSCI #	Software Description
N5 Initial Release	EOS/AMSU-A1 Special Test Equipment Software

3.3 DATE OF TEST

The test was conducted on 10 November 1998.

3.4 TEST TEAM MEMBERS

The tests were conducted by Al Cisneros, EOS/AMSU-A Software Engineer. Robert Schwantje is the EOS/AMSU-A Software Lead Engineer and the advisor for this test.

3.5 TEST WITNESSES

The tests were witnessed by:

John Allen Aerojet

3.6 ANOMALOUS CONDITIONS ENCOUNTERED AND RECOVERY PROCEDURES ATTEMPTED

In Test Cases 1 through 4, the A1 Raw Input Data Stream Values for byte 19 were other than expected. Step 7b. in each of these cases prints A1 Raw Input Data Stream Values which are then compared to the expected values shown in Table III of the Software Test Procedures (AE-26602C). In each case the print out shows byte 19's value as 154. Table III shows byte 19 as 152. This was due to a hardware change which relocated the PLO Redundancy status bit, thus changing the expected value to 154. This change was made after Table III was first generated. Table III will be updated to reflect this change.

In Test Case 1 step 4a, the value displayed for Reflector Position/Scene 12 2nd look was 32377. It should have been 16189 ± 8. Data value appears correctly in FULL prints. This was due to a shifting problem after obtaining Reflector Position data from the Science data section of the AMSU-A data stream. Reflector data needs to be shifted right 14 bits to obtain the correct value as done for FULL prints, but in this case was only shifted right 13 bits. Thus the value appeared twice the value it should have been. The software has now been corrected and Reflector Position data appears correctly. Testing then continued with no further anomalies.

SECTION 4

TEST STATUS AND SUMMARY OF RESULTS

4.1 CSCI N5

The tests demonstrated that the Special Test Equipment Software, CSCI N5 met all the requirements specified in the NASA General Interface Requirements Document (GIRD). The functionality of the following requirements was demonstrated. The tests demonstrated that the Instrument Control CSCI N5 met all the requirements as specified in the Software Requirements Specification, Aerojet Report 10457.

GIRD Paragraph	Requirement
9.2.2(2)	Command sending and verification
9.2.2(2)	Analyze data from AMSU-A
9.2.2(3)	"Real-time" data analysis
9.2.2(3)	Print out results
9.2.2(3)	Continuous disk recording
9.2.2(4)	Decommutate any word or channel test set and display with ID
9.2.2(5)	I/F with blackbody targets
9.2.2(6)	Test voltages and signals
9.2.2(8)	Include self-test

4.2 ACCEPTANCE CRITERIA

The Software Acceptance Review (SWAR), together with this test report, will be the basis for the acceptance of the Software CSCI N5 at the SWAR.

4.3 TEST DATA SHEETS AND DATA PRINTOUTS

Appendix A contains copies of the Test Data Sheets obtained during the FQT. Appendix B contains copies of Data Printouts from the AMSU-A1 FQT.

APPENDIX A

TEST DATA SHEETS

The following pages contain copies of the Test Data Sheets completed during the AMSU-A1 FQT.

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TEST DATA SHEET 1
TAPE IDENTIFICATION
(Paragraph 4.1)

ENTER TAPE LOADED:

E1.EXE;~~xx~~ e 40

Circle Software being validated: (A1) A2

Customer Representative _____ Engineer Al Cisneros
(Flight Hardware Only)

Quality Assurance M. Santos

Shop Order No.: 598513 Operation: 8710 Date: 10 November, 1998

TEST DATA SHEET 2
LOW-RATE SCIENCE DATA ACQUISITION
FULL SCAN MODE
(Paragraph 4.3)

Test	Expected Results Table Used	Fail	Pass
Case 1	III. A1 Raw Input Data Stream Values	(1)	
	IV. A2 Raw Input Data Stream Values		N/A
	V. A1 Temperature Sensor Limits		✓
	VI. A2 Temperature Sensor Limits		N/A
	VII. A1 Engineering Data		✓
	VIII. A2 Engineering Data		N/A
	XI. Reflector Positions A1-1		✓
	XII. Reflector Positions A1-2		✓
	XIII. Reflector Positions A2		N/A

NOTE: Place "N/A" for those tests not being tested.

NOTE: If discrepancy is found between the actual results and the expected results, attach the printout with the discrepancy circled or use comments area below to describe discrepancy.

COMMENTS:

(1) Table III Full Scale Expected value 152 bit Byte 19 Recorded value 154a JAA 11/10/98

(2) Step 4.3-4a Expected value 16189 ± 8 Actual value 32377 JAA 11/13/98

Circle Software being validated: (A1) A2

Customer Representative _____ Engineer Al Cisneros
(Flight Hardware Only)

Quality Assurance J. M. Santos

Shop Order No.: 598513 Operation: 8710 Date: 10 November, 1998

TEST DATA SHEET 3
LOW-RATE SCIENCE DATA ACQUISITION
WARM CAL MODE
(Paragraph 4.4)

Test	Expected Results Table Used	Fail	Pass
Case 2	III. A1 Raw Input Data Stream Values	(1)	
	IV. A2 Raw Input Data Stream Values		N/A
	V. A1 Temperature Sensor Limits		
	VI. A2 Temperature Sensor Limits		N/A
	VII. A1 Engineering Data		
	VIII. A2 Engineering Data		N/A
	XI. Reflector Positions A1-1		
	XII. Reflector Positions A1-2		
	XIII. Reflector Positions A2		N/A

NOTE: Place "N/A" for those tests not being tested.

NOTE: If discrepancy is found between the actual results and the expected results, attach the printout with the discrepancy circled or use comments area below to describe discrepancy.

COMMENTS:

(1) Table III Warm Scan Expected value 152 Byte 19. Recorded value 154. 11/10/98.

Circle Software being validated: (A1) A2

Customer Representative _____ Engineer Al Cisneros
(Flight Hardware Only)

Quality Assurance M. Santos

Shop Order No.: 598513 Operation: 8710 Date: 10 November, 1998

TEST DATA SHEET 4
LOW-RATE SCIENCE DATA ACQUISITION
COLD CAL MODE
(Paragraph 4.5)

Test	Expected Results Table Used	Fail	Pass
Case 3	III. A1 Raw Input Data Stream Values	①	
	IV. A2 Raw Input Data Stream Values		N/A
	V. A1 Temperature Sensor Limits		✓
	VI. A2 Temperature Sensor Limits		N/A
	VII. A1 Engineering Data		✓
	VIII. A2 Engineering Data		N/A
	XI. Reflector Positions A1-1		✓
	XII. Reflector Positions A1-2		✓
	XIII. Reflector Positions A2		N/A

NOTE: Place "N/A" for those tests not being tested.

NOTE: If discrepancy is found between the actual results and the expected results, attach the printout with the discrepancy circled or use comments area below to describe discrepancy.

COMMENTS:

Results of Cold Cal Positions 1 through 4 tests.
① Table III Cold Scan Expected value 152 Byte 19. Recorded value 154. JSA 11/10/98

Circle Software being validated: (A1) A2

Customer Representative _____ Engineer Al Cisneros
(Flight Hardware Only)

Quality Assurance M. Santos

Shop Order No.: 598513 Operation: 8710 Date: 16 November, 1998

TEST DATA SHEET 5
LOW-RATE SCIENCE DATA ACQUISITION
NADIR MODE
(Paragraph 4.6)

Test	Expected Results Table Used	Fail	Pass
Case 4	III. A1 Raw Input Data Stream Values	(1)	
	IV. A2 Raw Input Data Stream Values		N/A
	V. A1 Temperature Sensor Limits		✓
	VI. A2 Temperature Sensor Limits		N/A
	VII. A1 Engineering Data		✓
	VIII. A2 Engineering Data		N/A
	XI. Reflector Positions A1-1		✓
	XII. Reflector Positions A1-2		✓
	XIII. Reflector Positions A2		N/A

NOTE: Place "N/A" for those tests not being tested.

NOTE: If discrepancy is found between the actual results and the expected results, attach the printout with the discrepancy circled or use comments area below to describe discrepancy.

COMMENTS:

(1) Table III Nadir Expected value 152 Byte 19. Recorded value 154. JAS 11/10/98

Circle Software being validated: (A1) A2

Customer Representative _____ Engineer Al Cisneros
(Flight Hardware Only) Al Cisneros

Quality Assurance M. Santos

Shop Order No.: 598513 Operation: 8710 Date: 10 November, 1998

TEST DATA SHEET 6
UNPOWERED TEMPERATURES
(Paragraph 4.7)

Test	Expected Results Table Used	Fail	Pass
Case 5	IX. A1 Passive Analog Temperature Data X. A2 Passive Analog Temperature Data		✓ N/A

NOTE: Place "N/A" for those tests not being tested.

NOTE: If discrepancy is found between the actual results and the expected results, attach the printout with the discrepancy circled or use comments area below to describe discrepancy.

COMMENTS:

Circle Software being validated: (A1) A2

Customer Representative _____ Engineer Al Cisneros
(Flight Hardware Only) Al Cisneros

Quality Assurance M. Santos

Shop Order No.: 598513 Operation: 8710 Date: 10 November, 1998

TEST DATA SHEET 7
ERROR LIMITS
(Paragraph 4.8)

Test	Expected Results Table Used	Fail	Pass
Case 6	**NONE**	N/A	N/A

NOTE: Place "N/A" for those tests not being tested.

NOTE: If discrepancy is found between the actual results and the expected results, attach the printout with the discrepancy circled or use comments area below to describe discrepancy.

COMMENTS:

Could limit values be changed? Yes
Were errors messages received as outlined? Yes

Circle Software being validated: (A1) A2

Customer Representative _____ Engineer Al Cisneros
(Flight Hardware Only)

Quality Assurance M. Santos

Shop Order No.: 598513 Operation: 8710 Date: 10 November, 1998

TEST DATA SHEET 8
PLAYBACK
(Paragraph 4.9)

Test	Expected Results Table Used	Fail	Pass
Case 7	V. A1 Temperature Sensor Limits VI. A2 Temperature Sensor Limits		✓ N/A

NOTE: Place "N/A" for those tests not being tested.

NOTE: If discrepancy is found between the actual results and the expected results, attach the printout with the discrepancy circled or use comments area below to describe discrepancy.

COMMENTS:

Circle Software being validated: (A1) A2

Customer Representative _____ Engineer Al Cisneros
(Flight Hardware Only)

Quality Assurance M. Santos

Shop Order No.: 598513 Operation: 8710 Date: 10 November, 1998

TEST DATA SHEET 9
ENGINEERING DATA FROM TAPE
(Paragraph 4.10)

Test	Expected Results Table Used	Fail	Pass
Case 8	VII. A1 Engineering Data VIII. A2 Engineering Data		✓ N/A

NOTE: Place "N/A" for those tests not being tested.

NOTE: If discrepancy is found between the actual results and the expected results, attach the printout with the discrepancy circled or use comments area below to describe discrepancy.

COMMENTS:

Circle Software being validated: (A1) A2

Customer Representative _____ Engineer Al Cisneros
(Flight Hardware Only)

Quality Assurance M. Santos

Shop Order No.: 598513 Operation: 8710 Date: 10 November, 1998

TEST DATA SHEET 10
NEΔT/CTE
(Paragraph 4.11)

Test	Expected Results Table Used	Fail	Pass
Case 9	V. A1 Temperature Sensor Limits		✓
	VI. A2 Temperature Sensor Limits		N/A
	VII. A1 Engineering Data		✓
	VIII. A2 Engineering Data		N/A

NOTE: Place "N/A" for those tests not being tested.

NOTE: If discrepancy is found between the actual results and the expected results, attach the printout with the discrepancy circled or use comments area below to describe discrepancy.

COMMENTS:

Did formal test 9.1 pass using tables ~~VI~~ V & ~~VII~~ VII, "Pre-test 9.1" and "Formal 9.1" printouts ? Yes
Data OK → Did formal test 9.2 pass ? Data needs to be analyzed for correctness, 11/10/98
RSchmidt 11/11/98 Did formal test 9.3 pass using "Pre-test 9.3" and "Formal 9.3" printouts ? Yes
Did formal test 9.4 pass using "Pre-test 9.4" and "Formal 9.4" printouts ? Yes

Circle Software being validated: (A1) A2

Customer Representative _____ Engineer Al Cisneros
(Flight Hardware Only)

Quality Assurance M. Santos

Shop Order No.: 598513 Operation: 8710 Date: 10 November, 1998

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APPENDIX B

DATA PRINTOUTS FOR AMSU-A1

The following pages contain copies of the data printouts obtained during the AMSU-A1 FQT.

EOS A1-03 E1.EXE:43 FULL SCAN MODE P1 10-NOV-98 09:11:42 SCAN NUMBER 153
[5] SCIENCE DATA ELEMENT 388 REFL 1 2ND LOOK POS 12 32377
[6] CONTROL/STATUS ELEMENT 1 ANTENNA IN FULL SCAN MODE YES
[7] ENGINEERING ELEMENT 1 SIGNAL PROCESSOR +5 VDC 4.95

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	113	33	63	41	65	49	76	57	111
2	5	10	0	18	0	26	115	34	180	42	30	50	43	58	231
3	192	11	0	19	154	27	110	35	68	43	66	51	82	59	114
4	132	12	0	20	2	28	179	36	84	44	114	52	137	60	159
5	2	13	0	21	113	29	62	37	62	45	73	53	65	61	111
6	191	14	0	22	115	30	225	38	157	46	216	54	234	62	223
7	0	15	0	23	110	31	66	39	66	47	74	55	114	63	62
8	174	16	0	24	179	32	50	40	118	48	120	56	171	64	225

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN B965 CALC B965 SA28 155 SA29 288
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN
SELECT BUTTON 3

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Byte 19 not as expected

11/30/98

4.3-7a

11/10/98

4.3-7a

EOS A1_03 E1.EXE;43 SCIENCE DATA 10-NOV-98 09:11:45 PAGE 1
WARM CAL MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
1	PACKET ID		00001001	572	WARM CAL SAMPLE 17	CH 8	17012
2			00000101	574		CH 9	16674
3	PACKET LENGTH		00000010	576		CH 10	17013
4			10111111	578		CH 11	18908
5	UNIT SERIAL NUMBER		00000011	580		CH 12	19063
6			00000000	582		CH 13	19503
7	INSTRUMENT MODE/STATUS		10011010	584		CH 14	21141
8			00000010	586		CH 15	16875
10	REFLECTOR 1 POSITION 1		14521	588	REFLECTOR 1 POSITION 18		720
12	REFLECTOR 2 POSITION 1		14169	590	REFLECTOR 2 POSITION 18		367
14	REFL 1 POS 1 2ND LOOK		14521	592	REFL 1 POS 18 2ND LOOK		714
16	REFL 2 POS 1 2ND LOOK		14169	594	REFL 2 POS 18 2ND LOOK		362
18	WARM CAL SAMPLE 1	CH 3	16097	596	WARM CAL SAMPLE 18	CH 3	16106
20		CH 4	16946	598		CH 4	16952
22		CH 5	16308	600		CH 5	16308
24		CH 6	17492	602		CH 6	17496
26		CH 7	16029	604		CH 7	16031
28		CH 8	17014	606		CH 8	17013
30		CH 9	16670	608		CH 9	16672
32		CH 10	17010	610		CH 10	17008
34		CH 11	18904	612		CH 11	18905
36		CH 12	19064	614		CH 12	19064
38		CH 13	19499	616		CH 13	19481
40		CH 14	21129	618		CH 14	21135
42		CH 15	16874	620		CH 15	16875
44	REFLECTOR 1 POSITION 2		14677	622	REFLECTOR 1 POSITION 19		872
46	REFLECTOR 2 POSITION 2		14323	624	REFLECTOR 2 POSITION 19		519
48	REFL 1 POS 2 2ND LOOK		14671	626	REFL 1 POS 19 2ND LOOK		864
50	REFL 2 POS 2 2ND LOOK		14319	628	REFL 2 POS 19 2ND LOOK		513
52	WARM CAL SAMPLE 2	CH 3	16097	630	WARM CAL SAMPLE 19	CH 3	16098
54		CH 4	16947	632		CH 4	16952
56		CH 5	16306	634		CH 5	16310
58		CH 6	17492	636		CH 6	17490
60		CH 7	16030	638		CH 7	16032
62		CH 8	17014	640		CH 8	17013
64		CH 9	16672	642		CH 9	16671
66		CH 10	17014	644		CH 10	17012
68		CH 11	18904	646		CH 11	18907
70		CH 12	19056	648		CH 12	19066
72		CH 13	19488	650		CH 13	19501
74		CH 14	21117	652		CH 14	21136
76		CH 15	16875	654		CH 15	16875
78	REFLECTOR 1 POSITION 3		14830	656	REFLECTOR 1 POSITION 20		1022
80	REFLECTOR 2 POSITION 3		14474	658	REFLECTOR 2 POSITION 20		670
82	REFL 1 POS 3 2ND LOOK		14823	660	REFL 1 POS 20 2ND LOOK		1017
84	REFL 2 POS 3 2ND LOOK		14469	662	REFL 2 POS 20 2ND LOOK		664
86	WARM CAL SAMPLE 3	CH 3	16094	664	WARM CAL SAMPLE 20	CH 3	16098
88		CH 4	16946	666		CH 4	16950
90		CH 5	16311	668		CH 5	16317
92		CH 6	17491	670		CH 6	17489

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4.3.7a

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EOS A1_03 E1.EXE;43 SCIENCE DATA 10-NOV-98 09:11:45 PAGE 2

WARM CAL MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
94		CH 7	16031	672		CH 7	16031
96		CH 8	17012	674		CH 8	17011
98		CH 9	16676	676		CH 9	16673
100		CH 10	17008	678		CH 10	17007
102		CH 11	18911	680		CH 11	18907
104		CH 12	19074	682		CH 12	19079
106		CH 13	19491	684		CH 13	19506
108		CH 14	21126	686		CH 14	21153
110		CH 15	16876	688		CH 15	16874
112	REFLECTOR 1 POSITION 4		14984	690	REFLECTOR 1 POSITION 21		1177
114	REFLECTOR 2 POSITION 4		14625	692	REFLECTOR 2 POSITION 21		820
116	REFL 1 POS 4 2ND LOOK		14974	694	REFL 1 POS 21 2ND LOOK		1168
118	REFL 2 POS 4 2ND LOOK		14620	696	REFL 2 POS 21 2ND LOOK		815
120	WARM CAL SAMPLE 4	CH 3	16101	698	WARM CAL SAMPLE 21	CH 3	16102
122		CH 4	16945	700		CH 4	16945
124		CH 5	16308	702		CH 5	16309
126		CH 6	17494	704		CH 6	17490
128		CH 7	16030	706		CH 7	16033
130		CH 8	17012	708		CH 8	17013
132		CH 9	16673	710		CH 9	16673
134		CH 10	17006	712		CH 10	17011
136		CH 11	18909	714		CH 11	18901
138		CH 12	19073	716		CH 12	19082
140		CH 13	19499	718		CH 13	19489
142		CH 14	21149	720		CH 14	21135
144		CH 15	16875	722		CH 15	16872
146	REFLECTOR 1 POSITION 5		15133	724	REFLECTOR 1 POSITION 22		1330
148	REFLECTOR 2 POSITION 5		14775	726	REFLECTOR 2 POSITION 22		972
150	REFL 1 POS 5 2ND LOOK		15127	728	REFL 1 POS 22 2ND LOOK		1321
152	REFL 2 POS 5 2ND LOOK		14772	730	REFL 2 POS 22 2ND LOOK		966
154	WARM CAL SAMPLE 5	CH 3	16104	732	WARM CAL SAMPLE 22	CH 3	16102
156		CH 4	16946	734		CH 4	16946
158		CH 5	16309	736		CH 5	16311
160		CH 6	17491	738		CH 6	17494
162		CH 7	16030	740		CH 7	16031
164		CH 8	17012	742		CH 8	17016
166		CH 9	16671	744		CH 9	16673
168		CH 10	17010	746		CH 10	17008
170		CH 11	18896	748		CH 11	18905
172		CH 12	19072	750		CH 12	19077
174		CH 13	19483	752		CH 13	19499
176		CH 14	21126	754		CH 14	21136
178		CH 15	16876	756		CH 15	16875
180	REFLECTOR 1 POSITION 6		15285	758	REFLECTOR 1 POSITION 23		1479
182	REFLECTOR 2 POSITION 6		14929	760	REFLECTOR 2 POSITION 23		1121
184	REFL 1 POS 6 2ND LOOK		15279	762	REFL 1 POS 23 2ND LOOK		1473
186	REFL 2 POS 6 2ND LOOK		14925	764	REFL 2 POS 23 2ND LOOK		1118
188	WARM CAL SAMPLE 6	CH 3	16098	766	WARM CAL SAMPLE 23	CH 3	16100
190		CH 4	16946	768		CH 4	16944
192		CH 5	16307	770		CH 5	16310

WARM CAL MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
194		CH 6	17491	772		CH 6	17495
196		CH 7	16030	774		CH 7	16032
198		CH 8	17013	776		CH 8	17010
200		CH 9	16671	778		CH 9	16670
202		CH 10	17011	780		CH 10	17009
204		CH 11	18900	782		CH 11	18905
206		CH 12	19059	784		CH 12	19070
208		CH 13	19503	786		CH 13	19501
210		CH 14	21156	788		CH 14	21118
212		CH 15	16873	790		CH 15	16873
214	REFLECTOR 1 POSITION 7		15439	792	REFLECTOR 1 POSITION 24		1631
216	REFLECTOR 2 POSITION 7		15080	794	REFLECTOR 2 POSITION 24		1276
218	REFL 1 POS 7 2ND LOOK		15430	796	REFL 1 POS 24 2ND LOOK		1624
220	REFL 2 POS 7 2ND LOOK		15076	798	REFL 2 POS 24 2ND LOOK		1272
222	WARM CAL SAMPLE 7	CH 3	16092	800	WARM CAL SAMPLE 24	CH 3	16104
224		CH 4	16943	802		CH 4	16943
226		CH 5	16307	804		CH 5	16308
228		CH 6	17493	806		CH 6	17492
230		CH 7	16032	808		CH 7	16029
232		CH 8	17012	810		CH 8	17011
234		CH 9	16676	812		CH 9	16673
236		CH 10	17011	814		CH 10	17010
238		CH 11	18904	816		CH 11	18913
240		CH 12	19071	818		CH 12	19061
242		CH 13	19492	820		CH 13	19492
244		CH 14	21109	822		CH 14	21122
246		CH 15	16875	824		CH 15	16873
248	REFLECTOR 1 POSITION 8		15589	826	REFLECTOR 1 POSITION 25		1784
250	REFLECTOR 2 POSITION 8		15233	828	REFLECTOR 2 POSITION 25		1426
252	REFL 1 POS 8 2ND LOOK		15581	830	REFL 1 POS 25 2ND LOOK		1774
254	REFL 2 POS 8 2ND LOOK		15229	832	REFL 2 POS 25 2ND LOOK		1422
256	WARM CAL SAMPLE 8	CH 3	16096	834	WARM CAL SAMPLE 25	CH 3	16098
258		CH 4	16948	836		CH 4	16945
260		CH 5	16307	838		CH 5	16304
262		CH 6	17492	840		CH 6	17486
264		CH 7	16028	842		CH 7	16029
266		CH 8	17010	844		CH 8	17010
268		CH 9	16671	846		CH 9	16671
270		CH 10	17013	848		CH 10	17010
272		CH 11	18901	850		CH 11	18908
274		CH 12	19077	852		CH 12	19067
276		CH 13	19494	854		CH 13	19506
278		CH 14	21139	856		CH 14	21112
280		CH 15	16876	858		CH 15	16875
282	REFLECTOR 1 POSITION 9		15739	860	REFLECTOR 1 POSITION 26		1935
284	REFLECTOR 2 POSITION 9		15384	862	REFLECTOR 2 POSITION 26		1578
286	REFL 1 POS 9 2ND LOOK		15733	864	REFL 1 POS 26 2ND LOOK		1927
288	REFL 2 POS 9 2ND LOOK		15379	866	REFL 2 POS 26 2ND LOOK		1575
290	WARM CAL SAMPLE 9	CH 3	16099	868	WARM CAL SAMPLE 26	CH 3	16093
292		CH 4	16946	870		CH 4	16936

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WARM CAL MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
294		CH 5	16310	872		CH 5	16310
296		CH 6	17491	874		CH 6	17485
298		CH 7	16029	876		CH 7	16029
300		CH 8	17014	878		CH 8	17008
302		CH 9	16671	880		CH 9	16672
304		CH 10	17005	882		CH 10	17006
306		CH 11	18901	884		CH 11	18903
308		CH 12	19076	886		CH 12	19069
310		CH 13	19494	888		CH 13	19500
312		CH 14	21145	890		CH 14	21109
314		CH 15	16875	892		CH 15	16874
316	REFLECTOR 1 POSITION 10		15893	894	REFLECTOR 1 POSITION 27		2084
318	REFLECTOR 2 POSITION 10		15538	896	REFLECTOR 2 POSITION 27		1731
320	REFL 1 POS 10 2ND LOOK		15884	898	REFL 1 POS 27 2ND LOOK		2079
322	REFL 2 POS 10 2ND LOOK		15533	900	REFL 2 POS 27 2ND LOOK		1726
324	WARM CAL SAMPLE 10	CH 3	16103	902	WARM CAL SAMPLE 27	CH 3	16097
326		CH 4	16944	904		CH 4	16937
328		CH 5	16309	906		CH 5	16303
330		CH 6	17491	908		CH 6	17487
332		CH 7	16030	910		CH 7	16028
334		CH 8	17010	912		CH 8	17005
336		CH 9	16670	914		CH 9	16669
338		CH 10	17010	916		CH 10	17009
340		CH 11	18897	918		CH 11	18897
342		CH 12	19081	920		CH 12	19062
344		CH 13	19484	922		CH 13	19485
346		CH 14	21121	924		CH 14	21112
348		CH 15	16875	926		CH 15	16872
350	REFLECTOR 1 POSITION 11		16042	928	REFLECTOR 1 POSITION 28		2237
352	REFLECTOR 2 POSITION 11		15688	930	REFLECTOR 2 POSITION 28		1884
354	REFL 1 POS 11 2ND LOOK		16036	932	REFL 1 POS 28 2ND LOOK		2230
356	REFL 2 POS 11 2ND LOOK		15683	934	REFL 2 POS 28 2ND LOOK		1879
358	WARM CAL SAMPLE 11	CH 3	16098	936	WARM CAL SAMPLE 28	CH 3	16096
360		CH 4	16945	938		CH 4	16935
362		CH 5	16307	940		CH 5	16303
364		CH 6	17493	942		CH 6	17487
366		CH 7	16032	944		CH 7	16027
368		CH 8	17012	946		CH 8	17005
370		CH 9	16673	948		CH 9	16669
372		CH 10	17015	950		CH 10	17006
374		CH 11	18907	952		CH 11	18903
376		CH 12	19070	954		CH 12	19064
378		CH 13	19487	956		CH 13	19484
380		CH 14	21119	958		CH 14	21130
382		CH 15	16876	960		CH 15	16872
384	REFLECTOR 1 POSITION 12		16196	962	REFLECTOR 1 POSITION 29		2388
386	REFLECTOR 2 POSITION 12		15839	964	REFLECTOR 2 POSITION 29		2034
388	REFL 1 POS 12 2ND LOOK		16188	966	REFL 1 POS 29 2ND LOOK		2382
390	REFL 2 POS 12 2ND LOOK		15834	968	REFL 2 POS 29 2ND LOOK		2029
392	WARM CAL SAMPLE 12	CH 3	16100	970	WARM CAL SAMPLE 29	CH 3	16096

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WARM CAL MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
394		CH 4	16950	972		CH 4	16936
396		CH 5	16306	974		CH 5	16302
398		CH 6	17491	976		CH 6	17486
400		CH 7	16030	978		CH 7	16022
402		CH 8	17013	980		CH 8	17009
404		CH 9	16672	982		CH 9	16668
406		CH 10	17014	984		CH 10	17003
408		CH 11	18902	986		CH 11	18893
410		CH 12	19071	988		CH 12	19060
412		CH 13	19493	990		CH 13	19490
414		CH 14	21128	992		CH 14	21113
416		CH 15	16876	994		CH 15	16869
418	REFLECTOR 1 POSITION 13		16349	996	REFLECTOR 1 POSITION 30		2541
420	REFLECTOR 2 POSITION 13		15991	998	REFLECTOR 2 POSITION 30		2184
422	REFL 1 POS 13 2ND LOOK		16339	1000	REFL 1 POS 30 2ND LOOK		2533
424	REFL 2 POS 13 2ND LOOK		15986	1002	REFL 2 POS 30 2ND LOOK		2180
426	WARM CAL SAMPLE 13	CH 3	16096	1004	WARM CAL SAMPLE 30	CH 3	16089
428		CH 4	16945	1006		CH 4	16936
430		CH 5	16310	1008		CH 5	16303
432		CH 6	17493	1010		CH 6	17484
434		CH 7	16031	1012		CH 7	16026
436		CH 8	17015	1014		CH 8	17004
438		CH 9	16671	1016		CH 9	16664
440		CH 10	17012	1018		CH 10	17008
442		CH 11	18907	1020		CH 11	18891
444		CH 12	19067	1022		CH 12	19055
446		CH 13	19492	1024		CH 13	19485
448		CH 14	21112	1026		CH 14	21146
450		CH 15	16874	1028		CH 15	16871
452	REFLECTOR 1 POSITION 14		115	1030	REFLECTOR 1 COLD CAL POS		4132
454	REFLECTOR 2 POSITION 14		16140	1032	REFLECTOR 2 COLD CAL POS		3777
456	REFL 1 POS 14 2ND LOOK		107	1034	REFL 1 COLD CAL 2ND LOOK		4132
458	REFL 2 POS 14 2ND LOOK		16137	1036	REFL 2 COLD CAL 2ND LOOK		3777
460	WARM CAL SAMPLE 14	CH 3	16095	1038	COLD CAL DATA 1	CH 3	16093
462		CH 4	16945	1040		CH 4	16932
464		CH 5	16307	1042		CH 5	16302
466		CH 6	17494	1044		CH 6	17478
468		CH 7	16032	1046		CH 7	16021
470		CH 8	17012	1048		CH 8	17001
472		CH 9	16671	1050		CH 9	16663
474		CH 10	17011	1052		CH 10	17002
476		CH 11	18903	1054		CH 11	18884
478		CH 12	19069	1056		CH 12	19047
480		CH 13	19479	1058		CH 13	19485
482		CH 14	21123	1060		CH 14	21136
484		CH 15	16876	1062		CH 15	16869
486	REFLECTOR 1 POSITION 15		265	1064	COLD CAL DATA 2	CH 3	16092
488	REFLECTOR 2 POSITION 15		16295	1066		CH 4	16936
490	REFL 1 POS 15 2ND LOOK		259	1068		CH 5	16296
492	REFL 2 POS 15 2ND LOOK		16290	1070		CH 6	17482

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WARM CAL MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
494	WARM CAL SAMPLE 15	CH 3	16103	1072		CH 7	16024
496		CH 4	16945	1074		CH 8	17005
498		CH 5	16309	1076		CH 9	16664
500		CH 6	17491	1078		CH 10	17001
502		CH 7	16031	1080		CH 11	18893
504		CH 8	17013	1082		CH 12	19060
506		CH 9	16674	1084		CH 13	19481
508		CH 10	17010	1086		CH 14	21111
510		CH 11	18903	1088		CH 15	16869
512		CH 12	19077	1182	REFLECTOR 1 WARM CAL POS		8528
514		CH 13	19482	1184	REFLECTOR 2 WARM CAL POS		8178
516		CH 14	21119	1186	REFL 1 WARM CAL 2ND LOOK		8528
518		CH 15	16874	1188	REFL 2 WARM CAL 2ND LOOK		8178
520	REFLECTOR 1 POSITION 16		421	1190	WARM CAL DATA 1	CH 3	16111
522	REFLECTOR 2 POSITION 16		63	1192		CH 4	16954
524	REFL 1 POS 16 2ND LOOK		409	1194		CH 5	16317
526	REFL 2 POS 16 2ND LOOK		57	1196		CH 6	17498
528	WARM CAL SAMPLE 16	CH 3	16098	1198		CH 7	16038
530		CH 4	16949	1200		CH 8	17024
532		CH 5	16307	1202		CH 9	16674
534		CH 6	17491	1204		CH 10	17015
536		CH 7	16032	1206		CH 11	18909
538		CH 8	17014	1208		CH 12	19064
540		CH 9	16670	1210		CH 13	19494
542		CH 10	17010	1212		CH 14	21119
544		CH 11	18904	1214		CH 15	16878
546		CH 12	19064	1216	WARM CAL DATA 2	CH 3	16106
548		CH 13	19501	1218		CH 4	16953
550		CH 14	21129	1220		CH 5	16315
552		CH 15	16875	1222		CH 6	17499
554	REFLECTOR 1 POSITION 17		570	1224		CH 7	16038
556	REFLECTOR 2 POSITION 17		212	1226		CH 8	17022
558	REFL 1 POS 17 2ND LOOK		562	1228		CH 9	16677
560	REFL 2 POS 17 2ND LOOK		210	1230		CH 10	17017
562	WARM CAL SAMPLE 17	CH 3	16104	1232		CH 11	18918
564		CH 4	16947	1234		CH 12	19068
566		CH 5	16306	1236		CH 13	19490
568		CH 6	17493	1238		CH 14	21135
570		CH 7	16031	1240		CH 15	16880

WARM CAL MODE

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	16845	20.77
1092	SCAN MOTOR A1-2	17402	21.12
1094	FEED HORN A1-1	17151	21.69
1096	FEED HORN A1-2	17403	22.21
1098	RF MUX A1-1	17910	22.98
1100	RF MUX A1-2	18308	23.81
1102	LOCAL OSCILLATOR CHANNEL 3	19082	25.56
1104	LOCAL OSCILLATOR CHANNEL 4	19472	25.61
1106	LOCAL OSCILLATOR CHANNEL 5	18698	24.78
1108	LOCAL OSCILLATOR CHANNEL 6	18952	24.33
1110	LOCAL OSCILLATOR CHANNEL 7	18482	24.11
1112	LOCAL OSCILLATOR CHANNEL 8	19108	25.43
1114	LOCAL OSCILLATOR CHANNEL 15	19282	25.30
1116	PLLO #2	17655	22.52
1118	PLLO #1	20331	27.67
1120	1553 INTERFACE	13842	28.10
1122	MIXER/IF AMPLIFIER CHANNEL 3	18512	24.09
1124	MIXER/IF AMPLIFIER CHANNEL 4	18691	24.09
1126	MIXER/IF AMPLIFIER CHANNEL 5	18475	24.06
1128	MIXER/IF AMPLIFIER CHANNEL 6	18195	23.53
1130	MIXER/IF AMPLIFIER CHANNEL 7	17939	23.60
1132	MIXER/IF AMPLIFIER CHANNEL 8	18571	24.16
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	17700	22.81
1136	MIXER/IF AMPLIFIER CHANNEL 15	19121	25.51
1138	IF AMPLIFIER CHANNEL 11 THRU 14	18813	24.64
1140	IF AMPLIFIER CHANNEL 9	18949	24.73
1142	IF AMPLIFIER CHANNEL 10	18824	24.89
1144	IF AMPLIFIER CHANNEL 11	18340	23.09
1146	DC/DC CONVERTER	21038	28.28
1148	IF AMPLIFIER CHANNEL 13	17970	22.55
1150	IF AMPLIFIER CHANNEL 14	18324	23.66
1152	IF AMPLIFIER CHANNEL 12	18102	23.02
1154	RF SHELF A1-1	18486	24.06
1156	RF SHELF A1-2	18568	23.57
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	17439	22.12
1160	A1-1 WARM LOAD 1	21877	20.83
1162	A1-1 WARM LOAD 2	22353	20.91
1164	A1-1 WARM LOAD 3	21867	20.96
1166	A1-1 WARM LOAD 4	21941	20.93
1168	A1-1 WARM LOAD CENTER	22137	20.93
1170	A1-2 WARM LOAD 1	22284	21.10
1172	A1-2 WARM LOAD 2	22339	21.12
1174	A1-2 WARM LOAD 3	22353	21.10
1176	A1-2 WARM LOAD 4	22345	20.99
1178	A1-2 WARM LOAD CENTER	22343	21.09
1180	TEMP SENSOR REFERENCE VOLTAGE	25258	

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WARM CAL MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	YES
ANTENNA IN WARM CAL MODE	NO
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

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ENGINEERING DATA

DESCRIPTION			DEG C
A1-1 SCANNER MOTOR TEMPERATURE			20.1
A1-1 RF SHELF TEMPERATURE #1			20.9
A1-1 WARM LOAD TEMPERATURE			20.3
A1-2 SCANNER MOTOR TEMPERATURE			21.0
A1-2 RF SHELF TEMPERATURE #1			21.4
A1-2 WARM LOAD TEMPERATURE			20.5
A1-1 RF SHELF TEMPERATURE #2			20.7
A1-2 RF SHELF TEMPERATURE #2			21.1
DESCRIPTION		VALUE	MA/VOLTS
SIGNAL PROCESSOR	+5 VDC	22065	4.9
	+15 VDC	21805	15.1
	-15 VDC	21794	-15.0
SCAN DRIVE	+5 VDC	22140	4.9
	+15 VDC	22106	15.0
	-15 VDC	21836	-15.1
PLO	+15 VDC	22636	14.8
	-15 VDC	22065	-15.2
RECEIVER	+8 VDC	21839	7.9
MIXER/IF AMPLIFIER A1-1	+10 VDC	21427	10.0
A1-2	+10 VDC	21439	10.0
LO CHANNEL 6	+10 VDC	21405	10.0
7	+10 VDC	21452	10.0
SPARE		32767	327.7
LO CHANNEL 3	+10 VDC	21234	10.1
4	+10 VDC	21169	10.1
5	+10 VDC	21430	10.0
8	+10 VDC	21311	10.0
15	+15 VDC	22010	15.0
QUIET BUS CURRENT		16363	2245.7
A1-1 NOISY POWER BUS CURRENT		18899	60.5
A1-2 NOISY POWER BUS CURRENT		17610	56.4

WARM CAL MODE

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PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	72.16	601	293.45
	616	293.60	602	72.16
	617	293.51	603	293.48
	618	293.55	604	293.48
	619	293.60	605	293.44
	620	293.61	606	293.40
	621	293.63	607	293.41
FIXED TARGET	622	293.02	608	292.74
	623	293.00	609	292.78
	624	293.27	610	292.76
	625	293.06	611	292.28
	626	293.01	612	292.80
	627	293.09	613	292.91
	628	293.08	614	292.72
BASEPLATE	629	293.96	630	293.92
	631	293.89	632	293.70

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	19.98	537	20.31
	559	19.93	538	20.28
VARIABLE TARGET SHROUD	550	20.12	524	20.71
	551	20.14	525	20.73
FIXED TARGET N2	506	20.35	502	19.97
	507	20.47	503	20.36
VARIABLE TARGET N2	516	20.66	511	20.59
	517	0.00	512	20.68
HEATER N2	514	0.00	509	0.00
	515	0.00	510	0.00
FIXED TARGET FLOW METER	508	0.00	504	0.00
VARIABLE TARGET FLOW METER	518	0.00	513	0.00
BASEPLATE HEATER N2	519	0.00	520	0.00
BASEPLATE N2	521	0.00	522	0.00
BASEPLATE FLOW METER	523	0.00		
ADJUNCT RADIATORS	575	0.00	577	0.00
	579	0.00	581	0.00

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EOS      A1-03 E1.EXE;43  FULL SCAN MODE     P1 10-NOV-98 09:13:26  SCAN NUMBER    166
[ 5 ]  SCIENCE    DATA   ELEMENT   388      REFL 1 2ND LOOK POS   12       32377
[ 6 ]  CONTROL/STATUS    ELEMENT     1      ANTENNA IN FULL SCAN MODE       YES
[ 7 ]  ENGINEERING       ELEMENT     1      SIGNAL PROCESSOR       +5 VDC   4.95
                                 RADIOMETRIC DATA
                              BEAM POSITION  1
                          CH  DATA   CH  DATA   CH  DATA
                           3 16095    8 16999   13 19453
                           4 16928    9 16667   14 21155
                           5 16311   10 17006   15 16867
                           6 17482   11 18888
                           7 16020   12 19049
[ 21 ] UP                      [ 22 ] DOWN
ENGR OK        POWER    ON     CHECKSUM  IN A537 CALC A537    SA28    169 SA29    315
                        SCREEN ONLY [ 2 ]   PRINT   [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

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EOS      A1-03 E1.EXE;43  FULL SCAN MODE     P1 10-NOV-98 09:14:39  SCAN NUMBER    175
[ 5 ]  SCIENCE    DATA    ELEMENT  388       REFL 1 2ND LOOK POS  12      32377
[ 6 ]  CONTROL/STATUS     ELEMENT    1       ANTENNA IN FULL SCAN MODE         YES
[ 7 ]  ENGINEERING        ELEMENT    1       SIGNAL PROCESSOR        +5 VDC   4.95
                                RADIOMETRIC DATA
                                   CHANNEL    3
                     BP   DATA   BP   DATA   BP   DATA   BP   DATA

                      1   16092   9   16087  17   16087  25   16088
                      2   16090  10   16086  18   16086  26   16086
                      3   16088  11   16084  19   16087  27   16086
                      4   16087  12   16081  20   16090  28   16078
                      5   16086  13   16092  21   16090  29   16080
                      6   16086  14   16083  22   16091  30   16079
                      7   16086  15   16092  23   16086  CC   16077
                      8   16086  16   16087  24   16082  WC   16097
[ 21 ] UP                     [ 22 ] DOWN
ENGR OK         POWER    ON   CHECKSUM  IN 97DF CALC 97DF   SA28   178 SA29    333
                      SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
```

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EOS      A1-03 E1.EXE;43  FULL SCAN MODE    P1 10-NOV-98 09:15:35  SCAN NUMBER    182
[ 5 ]  SCIENCE   DATA     ELEMENT  388      REFL 1 2ND LOOK POS  12     32377
[ 6 ]  CONTROL/STATUS     ELEMENT    1      ANTENNA IN FULL SCAN MODE       YES
[ 7 ]  ENGINEERING        ELEMENT    1      SIGNAL PROCESSOR       +5 VDC   4.95

                                WARM CALIBRATE
                      CH  DATA   CH  DATA   CH  DATA   CH  DATA

                       3  16091   7  16010  10  16998  13  19442
                       3  16091   7  16013  10  17000  13  19449
                       4  16928   8  16994  11  18858  14  21063
                       4  16930   8  16994  11  18866  14  21064
                       5  16301   9  16665  12  19026  15  16858
                       5  16298   9  16666  12  19018  15  16860
                       6  17483
                       6  17482

ENGR OK        POWER     ON    CHECKSUM  IN 8F5F CALC 8F5F   SA28     184 SA29    346
                         SCREEN ONLY [ 2 ]   PRINT   [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
```

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EOS       A1-03 E1.EXE;43  FULL SCAN MODE    P1 10-NOV-98 09:15:59  SCAN NUMBER    185
[ 5 ] SCIENCE    DATA   ELEMENT   388        REFL 1 2ND LOOK POS  12       32377
[ 6 ] CONTROL/STATUS    ELEMENT     1        ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING       ELEMENT     1        SIGNAL PROCESSOR        +5 VDC   4.95
```

COLD CALIBRATE

CH	DATA	CH	DATA	CH	DATA	CH	DATA
3	16073	7	15999	10	16983	13	19420
3	16077	7	15997	10	16973	13	19418
4	16904	8	16971	11	18842	14	21039
4	16907	8	16972	11	18844	14	21015
5	16275	9	16652	12	18999	15	16849
5	16276	9	16650	12	19010	15	16849
6	17470						
6	17472						

```
ENGR OK         POWER     ON     CHECKSUM  IN 84ED CALC 84ED   SA28    188 SA29    353
                          SCREEN ONLY [ 2 ]   PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

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EOS    A1-03_E1.EXE;43 FULL SCAN MODE     P1 10-NOV-98 09:18:07  SCAN NUMBER    201
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12       32377
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   4.95

                                REFLECTOR POSITIONS   1
BP  LOOK 1  LOOK 2  BP  LOOK 1  LOOK 2  BP  LOOK 1  LOOK 2  BP  LOOK 1  LOOK 2
 1  14521   14521    9  15739   15733   17    571     562   25  1784    1774
 2  14677   14671   10  15893   15884   18    719     713   26  1935    1927
 3  14830   14823   11  16042   16036   19    872     865   27  2084    2078
 4  14984   14973   12  16196   16188   20   1022    1017   28  2237    2230
 5  15134   15127   13  16349   16339   21   1176    1168   29  2388    2382
 6  15286   15278   14    115     107   22   1330    1321   30  2541    2533
 7  15438   15430   15    265     259   23   1479    1473   CC  4133    4132
 8  15590   15581   16    421     409   24   1631    1624   WC  8528    8528
[ 21 ] UP                  [ 22 ] DOWN
ENGR OK         POWER   ON     CHECKSUM  IN 6D1F CALC 6D1F   SA28   203 SA29   384
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
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4.3.7K

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EOS    A1-03_E1.EXE;43 FULL SCAN MODE     P1 10-NOV-98 09:17:27 SCAN NUMBER    196
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12       32377
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   4.95

                                REFLECTOR POSITIONS   2
BP  LOOK 1  LOOK 2  BP  LOOK 1  LOOK 2  BP  LOOK 1  LOOK 2  BP  LOOK 1  LOOK 2
 1  14169   14169    9  15386   15380   17    213     210   25   1427    1422
 2  14323   14318   10  15538   15533   18    367     361   26   1578    1574
 3  14474   14469   11  15688   15683   19    518     513   27   1731    1726
 4  14625   14620   12  15840   15834   20    670     664   28   1883    1878
 5  14775   14772   13  15990   15985   21    821     815   29   2034    2029
 6  14929   14926   14  16139   16137   22    970     967   30   2184    2180
 7  15081   15076   15  16295   16290   23   1120    1119   CC   3779    3779
 8  15232   15228   16     61      56   24   1276    1272   WC   8178    8178
[ 21 ] UP                 [ 22 ] DOWN

ENGR OK          POWER    ON     CHECKSUM  IN 700F CALC 700F   SA28   199 SA29   375
 SELECT BUTTON 2          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
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4.3-7k

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```
EOS   A1-03 E1.EXE;43 FULL SCAN MODE     P1 10-NOV-98 09:18:55  SCAN NUMBER   207
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12      32377
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE      YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR        +5 VDC   4.95

                          SCIENCE   TEMPERATURES  1 TO 16
NO                      DATA   TEMP C      NO                      DATA   TEMP C

 1 SCAN MOTOR A1-1   16898      20.86       9 LO CHANNEL 5       19173      25.68
 2 SCAN MOTOR A1-2   17479      21.27      10 LO CHANNEL 6       19212      24.83
 3 FEED HORN A1-1    17367      22.10      11 LO CHANNEL 7       18874      24.86
 4 FEED HORN A1-2    17760      22.88      12 LO CHANNEL 8       19606      26.38
 5 RF MUX A1-1       18282      23.68      13 LO CHANNEL 15      19762      26.21
 6 RF MUX A1-2       18811      24.76      14 PLLO #2            18097      23.35
 7 LO CHANNEL 3      19591      26.52      15 PLLO #1            20898      28.74
 8 LO CHANNEL 4      19981      26.57      16 S.P.(1553 INTF)    14223      28.82
[ 21 ] UP                        [ 22 ] DOWN

ENGR OK        POWER   ON     CHECKSUM  IN 633D CALC 633D   SA28   210 SA29   397
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

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EOS   A1-03 E1.EXE;43 FULL SCAN MODE     P1 10-NOV-98 09:19:03  SCAN NUMBER    208
[ 5 ] SCIENCE   DATA  ELEMENT   388      REFL 1 2ND LOOK POS  12      32377
[ 6 ] CONTROL/STATUS  ELEMENT     1      ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT     1      SIGNAL PROCESSOR        +5 VDC   4.95

                          SCIENCE   TEMPERATURES 17 TO 32
NO                      DATA    TEMP C      NO                      DATA    TEMP C

17 MIXER IF CH 3       19026      25.07     25 IF AMP CH 11/14     19301      25.51
18 MIXER IF CH 4       19216      25.08     26 IF AMP CH 9         19442      25.49
19 MIXER IF CH 5       18987      25.03     27 IF AMP CH 10        19317      25.83
20 MIXER IF CH 6       18570      24.24     28 IF AMP CH 11        18673      23.72
21 MIXER IF CH 7       18348      24.37     29 DC/DC CONVERTER     21723      29.59
22 MIXER IF CH 8       19097      25.16     30 IF AMP CH 13        18299      23.17
23 MIXER IF CH 9/14    18059      23.49     31 IF AMP CH 14        18657      24.29
24 MIXER IF CH 15      19568      26.36     32 IF AMP CH 12        18436      23.65
[ 21 ] UP                              [ 22 ] DOWN

ENGR OK          POWER    ON     CHECKSUM  IN 60B9 CALC 60B9    SA28    211 SA29    399
                          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
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EOS    A1-03_E1.EXE;43 FULL SCAN MODE     P1 10-NOV-98 09:19:11  SCAN NUMBER    209
[ 5 ] SCIENCE   DATA  ELEMENT   388       REFL 1 2ND LOOK POS   12      32377
[ 6 ] CONTROL/STATUS  ELEMENT     1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT     1       SIGNAL PROCESSOR        +5 VDC   4.95

                          SCIENCE  TEMPERATURES 31 TO 46
NO                      DATA   TEMP C      NO                      DATA   TEMP C

31 IF AMP CH 14        18662      24.30     39 A1-1 WARM LOAD 4  21967      20.98
32 IF AMP CH 12        18444      23.66     40 A1-1 WARM LOAD C  22166      20.98
33 RF SHELF A1-1       18967      24.98     41 A1-2 WARM LOAD 1  22352      21.23
34 RF SHELF A1-2       19076      24.54     42 A1-2 WARM LOAD 2  22402      21.24
35 DETECTOR/PREAMP     17709      22.62     43 A1-2 WARM LOAD 3  22414      21.22
36 A1-1 WARM LOAD 1    21902      20.88     44 A1-2 WARM LOAD 4  22410      21.12
37 A1-1 WARM LOAD 2    22379      20.96     45 A1-2 WARM LOAD C  22409      21.22
38 A1-1 WARM LOAD 3    21892      21.01     THERMAL REFERENCE    25259
[ 21 ] UP                        [ 22 ] DOWN

ENGR OK        POWER    ON    CHECKSUM  IN 5C9B CALC 5C9B   SA28   212 SA29   401
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
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4,3-7m

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EOS   A1-03 E1.EXE;43 FULL SCAN MODE     P1 10-NOV-98 09:20:07  SCAN NUMBER    216
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12      32377
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.95

                              ENGINEERING  1 TO 18

 1 SIGNAL PROCESSOR          +5 VDC    4.95 10 MIXER/IF AMPLIFIER A1-1+10VDC  10.01
 2 SIGNAL PROCESSOR          +15VDC   15.06 11 MIXER/IF AMPLIFIER A1-2+10VDC  10.01
 3 SIGNAL PROCESSOR          -15VDC  -15.03 12 LOCAL OSCILLATOR-CH 6 +10 VDC  10.02
 4 ANTENNA DRIVE             +5  VDC   4.92 13 LOCAL OSCILLATOR-CH 7 +10 VDC  10.01
 5 ANTENNA DRIVE             +15VDC   14.95 14 SPARE                         327.67
 6 ANTENNA DRIVE             -15VDC  -15.06 15 LOCAL OSCILLATOR-CH 3 +10 VDC  10.06
 7 PLO                       +15VDC   14.78 16 LOCAL OSCILLATOR-CH 4 +10 VDC  10.08
 8 PLO                       -15VDC  -15.21 17 LOCAL OSCILLATOR-CH 5 +10 VDC  10.01
 9 RECEIVER                  +8  VDC   7.91 18 LOCAL OSCILLATOR-CH 8 +10 VDC  10.05
[ 21 ] UP                     [ 22 ] DOWN

ENGR OK          POWER   ON    CHECKSUM  IN 525B CALC 525B   SA28   218 SA29   414
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

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EOS    A1-03 E1.EXE:43 FULL SCAN MODE     P1 10-NOV-98 09:20:07  SCAN NUMBER    216
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12       32377
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   4.95

                                ENGINEERING  5 TO 22

 5 ANTENNA DRIVE            +15VDC  14.95 14 SPARE                              327.67
 6 ANTENNA DRIVE            -15VDC -15.06 15 LOCAL OSCILLATOR-CH 3 +10 VDC      10.06
 7 PLO                      +15VDC  14.78 16 LOCAL OSCILLATOR-CH 4 +10 VDC      10.08
 8 PLO                      -15VDC -15.21 17 LOCAL OSCILLATOR-CH 5 +10 VDC      10.01
 9 RECEIVER                  +8 VDC   7.91 18 LOCAL OSCILLATOR-CH 8 +10 VDC      10.05
10 MIXER/IF AMPLIFIER A1-1 +10VDC  10.01 19 LOCAL OSCILLATOR-CH15 +15 VDC      14.99
11 MIXER/IF AMPLIFIER A1-2 +10VDC  10.01 20 A1 QUIET BUS CURRENT                2244.3
12 LOCAL OSCILLATOR-CH 6 +10 VDC   10.02 21 A1-1 NOISY POWER BUS CURRENT          60.6
13 LOCAL OSCILLATOR-CH 7 +10 VDC   10.01 22 A1-2 NOISY POWER BUS CURRENT          56.6
[ 21 ] UP                    [ 22 ] DOWN

ENGR OK        POWER   ON    CHECKSUM  IN 525B CALC 525B   SA28   219 SA29   416
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
```

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```
EOS    A1-03_E1.EXE;43 FULL SCAN MODE     P1 10-NOV-98 09:21:27  SCAN NUMBER    226
[ 5 ] SCIENCE   DATA  ELEMENT   388       REFL 1 2ND LOOK POS  12       32377
[ 6 ] CONTROL/STATUS  ELEMENT     1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT     1       SIGNAL PROCESSOR          +5 VDC   4.95

                              INSTRUMENT STATUS

 1 ANTENNA IN FULL SCAN MODE        YES     8 RESET C&DH PROCESSOR              NO
 2 ANTENNA IN WARM CAL MODE         NO      9 PLO REDUNDANCY                    PLLO#1
 3 ANTENNA IN COLD CAL MODE         NO     10 --- BIT 10 SPARE                  NO
 4 ANTENNA IN NADIR MODE            NO     11 SCANNER 1 POWER                   YES
 5 COLD CAL. POSITION (LSB)         ZERO   12 SCANNER 2 POWER                   YES
 6 COLD CAL. POSITION (MSB)         ZERO   13 PLO#1 LOCK                        YES
 7 --- BIT 7 SPARE                  NO     14 PLO#2 LOCK                        YES
                                           15 ADC LATCHUP FLAG                  YES

ENGR OK        POWER   ON    CHECKSUM IN 47C9 CALC 47C9   SA28   229 SA29   435
 SELECT BUTTON 2          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL      [ 1 ] RETURN
```

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EOS    A1-03 E1.EXE;43 WARM CAL MODE      P1 10-NOV-98 09:24:55  SCAN NUMBER     15
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12       17051
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   4.95

                                DATA STREAM     1  TO   64
 NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA
   1      9    9      0   17      3   25     66   33     63   41     64   49     75   57     63
   2      3   10      0   18      0   26    155   34     88   42    249   50    102   58    225
   3    192   11      0   19    154   27     63   35     68   43     66   51     81   59     66
   4    231   12      0   20      4   28    225   36     49   44     62   52    178   60    155
   5      2   13      0   21     66   29     62   37     62   45     73   53     65   61     63
   6    191   14      0   22    155   30    194   38     80   46     61   54    181   62    225
   7      0   15      0   23     63   31     65   39     66   47     73   55     66   63     62
   8    174   16      0   24    225   32    244   40     63   48    228   56    155   64    191
[ 21 ] UP                          [ 22 ] DOWN

ENGR OK          POWER    ON    CHECKSUM  IN 53E1 CALC 53E1    SA28    255 SA29    487
                          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 3
```

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COLD CAL MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
1	PACKET ID		00001001	572	COLD CAL SAMPLE 17	CH 8	16960
2			00000011	574		CH 9	16633
3	PACKET LENGTH		00000010	576		CH 10	16956
4			10111111	578		CH 11	18749
5	UNIT SERIAL NUMBER		00000011	580		CH 12	18917
6			00000000	582		CH 13	19300
7	INSTRUMENT MODE/STATUS		10011010	584		CH 14	20876
8			00000100	586		CH 15	16821
10	REFLECTOR 1 POSITION 1		8525	588	REFLECTOR 1 POSITION 18		8525
12	REFLECTOR 2 POSITION 1		8176	590	REFLECTOR 2 POSITION 18		8176
14	REFL 1 POS 1 2ND LOOK		8525	592	REFL 1 POS 18 2ND LOOK		8525
16	REFL 2 POS 1 2ND LOOK		8176	594	REFL 2 POS 18 2ND LOOK		8176
18	COLD CAL SAMPLE 1	CH 3	16066	596	COLD CAL SAMPLE 18	CH 3	16074
20		CH 4	16884	598		CH 4	16886
22		CH 5	16216	600		CH 5	16217
24		CH 6	17457	602		CH 6	17455
26		CH 7	15952	604		CH 7	15950
28		CH 8	16959	606		CH 8	16960
30		CH 9	16633	608		CH 9	16635
32		CH 10	16958	610		CH 10	16955
34		CH 11	18749	612		CH 11	18744
36		CH 12	18916	614		CH 12	18919
38		CH 13	19302	616		CH 13	19292
40		CH 14	20914	618		CH 14	20911
42		CH 15	16821	620		CH 15	16821
44	REFLECTOR 1 POSITION 2		8525	622	REFLECTOR 1 POSITION 19		8525
46	REFLECTOR 2 POSITION 2		8176	624	REFLECTOR 2 POSITION 19		8176
48	REFL 1 POS 2 2ND LOOK		8525	626	REFL 1 POS 19 2ND LOOK		8525
50	REFL 2 POS 2 2ND LOOK		8176	628	REFL 2 POS 19 2ND LOOK		8176
52	COLD CAL SAMPLE 2	CH 3	16063	630	COLD CAL SAMPLE 19	CH 3	16066
54		CH 4	16884	632		CH 4	16888
56		CH 5	16219	634		CH 5	16215
58		CH 6	17455	636		CH 6	17453
60		CH 7	15953	638		CH 7	15951
62		CH 8	16958	640		CH 8	16958
64		CH 9	16634	642		CH 9	16634
66		CH 10	16952	644		CH 10	16955
68		CH 11	18754	646		CH 11	18754
70		CH 12	18920	648		CH 12	18911
72		CH 13	19303	650		CH 13	19303
74		CH 14	20926	652		CH 14	20923
76		CH 15	16820	654		CH 15	16820
78	REFLECTOR 1 POSITION 3		8525	656	REFLECTOR 1 POSITION 20		8525
80	REFLECTOR 2 POSITION 3		8176	658	REFLECTOR 2 POSITION 20		8176
82	REFL 1 POS 3 2ND LOOK		8525	660	REFL 1 POS 20 2ND LOOK		8525
84	REFL 2 POS 3 2ND LOOK		8176	662	REFL 2 POS 20 2ND LOOK		8176
86	COLD CAL SAMPLE 3	CH 3	16064	664	COLD CAL SAMPLE 20	CH 3	16066
88		CH 4	16886	666		CH 4	16885
90		CH 5	16216	668		CH 5	16213
92		CH 6	17455	670		CH 6	17453

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EOS A1_03 E1.EXE;43 SCIENCE DATA 10-NOV-98 09:25:03 PAGE 2
COLD CAL MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
94		CH 7	15948	672		CH 7	15949
96		CH 8	16957	674		CH 8	16952
98		CH 9	16631	676		CH 9	16634
100		CH 10	16953	678		CH 10	16955
102		CH 11	18746	680		CH 11	18745
104		CH 12	18913	682		CH 12	18897
106		CH 13	19297	684		CH 13	19305
108		CH 14	20897	686		CH 14	20916
110		CH 15	16821	688		CH 15	16821
112	REFLECTOR 1 POSITION 4		8525	690	REFLECTOR 1 POSITION 21		8525
114	REFLECTOR 2 POSITION 4		8176	692	REFLECTOR 2 POSITION 21		8176
116	REFL 1 POS 4 2ND LOOK		8525	694	REFL 1 POS 21 2ND LOOK		8525
118	REFL 2 POS 4 2ND LOOK		8176	696	REFL 2 POS 21 2ND LOOK		8176
120	COLD CAL SAMPLE 4	CH 3	16066	698	COLD CAL SAMPLE 21	CH 3	16067
122		CH 4	16886	700		CH 4	16884
124		CH 5	16215	702		CH 5	16213
126		CH 6	17455	704		CH 6	17453
128		CH 7	15951	706		CH 7	15947
130		CH 8	16960	708		CH 8	16956
132		CH 9	16632	710		CH 9	16632
134		CH 10	16954	712		CH 10	16955
136		CH 11	18754	714		CH 11	18752
138		CH 12	18903	716		CH 12	18912
140		CH 13	19290	718		CH 13	19290
142		CH 14	20909	720		CH 14	20902
144		CH 15	16822	722		CH 15	16820
146	REFLECTOR 1 POSITION 5		8525	724	REFLECTOR 1 POSITION 22		8525
148	REFLECTOR 2 POSITION 5		8176	726	REFLECTOR 2 POSITION 22		8176
150	REFL 1 POS 5 2ND LOOK		8525	728	REFL 1 POS 22 2ND LOOK		8525
152	REFL 2 POS 5 2ND LOOK		8176	730	REFL 2 POS 22 2ND LOOK		8176
154	COLD CAL SAMPLE 5	CH 3	16068	732	COLD CAL SAMPLE 22	CH 3	16066
156		CH 4	16883	734		CH 4	16882
158		CH 5	16214	736		CH 5	16215
160		CH 6	17462	738		CH 6	17456
162		CH 7	15951	740		CH 7	15949
164		CH 8	16958	742		CH 8	16959
166		CH 9	16635	744		CH 9	16634
168		CH 10	16955	746		CH 10	16951
170		CH 11	18748	748		CH 11	18759
172		CH 12	18909	750		CH 12	18915
174		CH 13	19301	752		CH 13	19296
176		CH 14	20899	754		CH 14	20923
178		CH 15	16821	756		CH 15	16821
180	REFLECTOR 1 POSITION 6		8525	758	REFLECTOR 1 POSITION 23		8525
182	REFLECTOR 2 POSITION 6		8176	760	REFLECTOR 2 POSITION 23		8176
184	REFL 1 POS 6 2ND LOOK		8525	762	REFL 1 POS 23 2ND LOOK		8525
186	REFL 2 POS 6 2ND LOOK		8176	764	REFL 2 POS 23 2ND LOOK		8176
188	COLD CAL SAMPLE 6	CH 3	16071	766	COLD CAL SAMPLE 23	CH 3	16066
190		CH 4	16882	768		CH 4	16883
192		CH 5	16216	770		CH 5	16217

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COLD CAL MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
194		CH 6	17455	772		CH 6	17453
196		CH 7	15950	774		CH 7	15948
198		CH 8	16960	776		CH 8	16955
200		CH 9	16633	778		CH 9	16634
202		CH 10	16956	780		CH 10	16952
204		CH 11	18748	782		CH 11	18751
206		CH 12	18925	784		CH 12	18919
208		CH 13	19297	786		CH 13	19293
210		CH 14	20930	788		CH 14	20908
212		CH 15	16821	790		CH 15	16822
214	REFLECTOR 1 POSITION 7		8525	792	REFLECTOR 1 POSITION 24		8525
216	REFLECTOR 2 POSITION 7		8176	794	REFLECTOR 2 POSITION 24		8176
218	REFL 1 POS 7 2ND LOOK		8525	796	REFL 1 POS 24 2ND LOOK		8525
220	REFL 2 POS 7 2ND LOOK		8177	798	REFL 2 POS 24 2ND LOOK		8176
222	COLD CAL SAMPLE 7	CH 3	16065	800	COLD CAL SAMPLE 24	CH 3	16067
224		CH 4	16888	802		CH 4	16882
226		CH 5	16219	804		CH 5	16217
228		CH 6	17458	806		CH 6	17454
230		CH 7	15951	808		CH 7	15950
232		CH 8	16960	810		CH 8	16958
234		CH 9	16633	812		CH 9	16636
236		CH 10	16955	814		CH 10	16954
238		CH 11	18745	816		CH 11	18747
240		CH 12	18907	818		CH 12	18911
242		CH 13	19293	820		CH 13	19293
244		CH 14	20905	822		CH 14	20877
246		CH 15	16820	824		CH 15	16821
248	REFLECTOR 1 POSITION 8		8525	826	REFLECTOR 1 POSITION 25		8525
250	REFLECTOR 2 POSITION 8		8176	828	REFLECTOR 2 POSITION 25		8176
252	REFL 1 POS 8 2ND LOOK		8525	830	REFL 1 POS 25 2ND LOOK		8525
254	REFL 2 POS 8 2ND LOOK		8176	832	REFL 2 POS 25 2ND LOOK		8176
256	COLD CAL SAMPLE 8	CH 3	16066	834	COLD CAL SAMPLE 25	CH 3	16066
258		CH 4	16885	836		CH 4	16885
260		CH 5	16219	838		CH 5	16213
262		CH 6	17457	840		CH 6	17455
264		CH 7	15951	842		CH 7	15951
266		CH 8	16957	844		CH 8	16955
268		CH 9	16632	846		CH 9	16631
270		CH 10	16952	848		CH 10	16954
272		CH 11	18757	850		CH 11	18748
274		CH 12	18910	852		CH 12	18921
276		CH 13	19288	854		CH 13	19293
278		CH 14	20899	856		CH 14	20906
280		CH 15	16821	858		CH 15	16821
282	REFLECTOR 1 POSITION 9		8525	860	REFLECTOR 1 POSITION 26		8525
284	REFLECTOR 2 POSITION 9		8176	862	REFLECTOR 2 POSITION 26		8176
286	REFL 1 POS 9 2ND LOOK		8525	864	REFL 1 POS 26 2ND LOOK		8525
288	REFL 2 POS 9 2ND LOOK		8176	866	REFL 2 POS 26 2ND LOOK		8176
290	COLD CAL SAMPLE 9	CH 3	16067	868	COLD CAL SAMPLE 26	CH 3	16066
292		CH 4	16886	870		CH 4	16884

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EOS A1_03 E1.EXE;43 SCIENCE DATA 10-NOV-98 09:25:03 PAGE 4
COLD CAL MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
294		CH 5	16216	872		CH 5	16217
296		CH 6	17456	874		CH 6	17457
298		CH 7	15948	876		CH 7	15950
300		CH 8	16956	878		CH 8	16959
302		CH 9	16633	880		CH 9	16636
304		CH 10	16954	882		CH 10	16953
306		CH 11	18750	884		CH 11	18744
308		CH 12	18918	886		CH 12	18919
310		CH 13	19292	888		CH 13	19300
312		CH 14	20902	890		CH 14	20904
314		CH 15	16823	892		CH 15	16821
316	REFLECTOR 1 POSITION 10		8525	894	REFLECTOR 1 POSITION 27		8525
318	REFLECTOR 2 POSITION 10		8176	896	REFLECTOR 2 POSITION 27		8176
320	REFL 1 POS 10 2ND LOOK		8525	898	REFL 1 POS 27 2ND LOOK		8525
322	REFL 2 POS 10 2ND LOOK		8176	900	REFL 2 POS 27 2ND LOOK		8176
324	COLD CAL SAMPLE 10	CH 3	16068	902	COLD CAL SAMPLE 27	CH 3	16065
326		CH 4	16885	904		CH 4	16883
328		CH 5	16218	906		CH 5	16214
330		CH 6	17456	908		CH 6	17456
332		CH 7	15947	910		CH 7	15949
334		CH 8	16961	912		CH 8	16962
336		CH 9	16635	914		CH 9	16633
338		CH 10	16954	916		CH 10	16956
340		CH 11	18749	918		CH 11	18751
342		CH 12	18915	920		CH 12	18920
344		CH 13	19283	922		CH 13	19298
346		CH 14	20896	924		CH 14	20892
348		CH 15	16823	926		CH 15	16822
350	REFLECTOR 1 POSITION 11		8525	928	REFLECTOR 1 POSITION 28		8525
352	REFLECTOR 2 POSITION 11		8176	930	REFLECTOR 2 POSITION 28		8176
354	REFL 1 POS 11 2ND LOOK		8525	932	REFL 1 POS 28 2ND LOOK		8525
356	REFL 2 POS 11 2ND LOOK		8176	934	REFL 2 POS 28 2ND LOOK		8176
358	COLD CAL SAMPLE 11	CH 3	16071	936	COLD CAL SAMPLE 28	CH 3	16059
360		CH 4	16884	938		CH 4	16890
362		CH 5	16216	940		CH 5	16218
364		CH 6	17458	942		CH 6	17453
366		CH 7	15947	944		CH 7	15953
368		CH 8	16960	946		CH 8	16957
370		CH 9	16633	948		CH 9	16636
372		CH 10	16952	950		CH 10	16957
374		CH 11	18753	952		CH 11	18747
376		CH 12	18916	954		CH 12	18918
378		CH 13	19310	956		CH 13	19311
380		CH 14	20909	958		CH 14	20897
382		CH 15	16822	960		CH 15	16820
384	REFLECTOR 1 POSITION 12		8525	962	REFLECTOR 1 POSITION 29		8525
386	REFLECTOR 2 POSITION 12		8176	964	REFLECTOR 2 POSITION 29		8176
388	REFL 1 POS 12 2ND LOOK		8525	966	REFL 1 POS 29 2ND LOOK		8525
390	REFL 2 POS 12 2ND LOOK		8176	968	REFL 2 POS 29 2ND LOOK		8176
392	COLD CAL SAMPLE 12	CH 3	16066	970	COLD CAL SAMPLE 29	CH 3	16068

COLD CAL MODE

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ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
394		CH 4	16886	972		CH 4	16884
396		CH 5	16218	974		CH 5	16221
398		CH 6	17451	976		CH 6	17455
400		CH 7	15949	978		CH 7	15952
402		CH 8	16962	980		CH 8	16954
404		CH 9	16637	982		CH 9	16632
406		CH 10	16951	984		CH 10	16958
408		CH 11	18748	986		CH 11	18754
410		CH 12	18923	988		CH 12	18920
412		CH 13	19306	990		CH 13	19303
414		CH 14	20908	992		CH 14	20896
416		CH 15	16821	994		CH 15	16821
418	REFLECTOR 1 POSITION 13		8525	996	REFLECTOR 1 POSITION 30		8525
420	REFLECTOR 2 POSITION 13		8176	998	REFLECTOR 2 POSITION 30		8176
422	REFL 1 POS 13 2ND LOOK		8525	1000	REFL 1 POS 30 2ND LOOK		8525
424	REFL 2 POS 13 2ND LOOK		8176	1002	REFL 2 POS 30 2ND LOOK		8177
426	COLD CAL SAMPLE 13	CH 3	16071	1004	COLD CAL SAMPLE 30	CH 3	16069
428		CH 4	16887	1006		CH 4	16885
430		CH 5	16220	1008		CH 5	16215
432		CH 6	17454	1010		CH 6	17451
434		CH 7	15950	1012		CH 7	15951
436		CH 8	16955	1014		CH 8	16958
438		CH 9	16634	1016		CH 9	16635
440		CH 10	16957	1018		CH 10	16960
442		CH 11	18752	1020		CH 11	18747
444		CH 12	18912	1022		CH 12	18914
446		CH 13	19290	1024		CH 13	19306
448		CH 14	20903	1026		CH 14	20900
450		CH 15	16820	1028		CH 15	16820
452	REFLECTOR 1 POSITION 14		8525	1030	REFLECTOR 1 COLD CAL POS		0E
454	REFLECTOR 2 POSITION 14		8176	1032	REFLECTOR 2 COLD CAL POS		0E
456	REFL 1 POS 14 2ND LOOK		8525	1034	REFL 1 COLD CAL 2ND LOOK		0E
458	REFL 2 POS 14 2ND LOOK		8176	1036	REFL 2 COLD CAL 2ND LOOK		0E
460	COLD CAL SAMPLE 14	CH 3	16065	1038	COLD CAL DATA 1	CH 3	0
462		CH 4	16887	1040		CH 4	0
464		CH 5	16216	1042		CH 5	0
466		CH 6	17454	1044		CH 6	0
468		CH 7	15950	1046		CH 7	0
470		CH 8	16962	1048		CH 8	0
472		CH 9	16633	1050		CH 9	0
474		CH 10	16948	1052		CH 10	0
476		CH 11	18754	1054		CH 11	0
478		CH 12	18914	1056		CH 12	0
480		CH 13	19308	1058		CH 13	0
482		CH 14	20911	1060		CH 14	0
484		CH 15	16823	1062		CH 15	0
486	REFLECTOR 1 POSITION 15		8525	1064	COLD CAL DATA 2	CH 3	0
488	REFLECTOR 2 POSITION 15		8176	1066		CH 4	0
490	REFL 1 POS 15 2ND LOOK		8525	1068		CH 5	0
492	REFL 2 POS 15 2ND LOOK		8176	1070		CH 6	0

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COLD CAL MODE

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ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
494	COLD CAL SAMPLE 15	CH 3	16065	1072		CH 7	0
496		CH 4	16889	1074		CH 8	0
498		CH 5	16216	1076		CH 9	0
500		CH 6	17452	1078		CH 10	0
502		CH 7	15949	1080		CH 11	0
504		CH 8	16956	1082		CH 12	0
506		CH 9	16632	1084		CH 13	0
508		CH 10	16954	1086		CH 14	0
510		CH 11	18745	1088		CH 15	0
512		CH 12	18911	1182	REFLECTOR 1 WARM CAL POS		0E
514		CH 13	19291	1184	REFLECTOR 2 WARM CAL POS		0E
516		CH 14	20923	1186	REFL 1 WARM CAL 2ND LOOK		0E
518		CH 15	16822	1188	REFL 2 WARM CAL 2ND LOOK		0E
520	REFLECTOR 1 POSITION 16		8525	1190	WARM CAL DATA 1	CH 3	0
522	REFLECTOR 2 POSITION 16		8176	1192		CH 4	0
524	REFL 1 POS 16 2ND LOOK		8525	1194		CH 5	0
526	REFL 2 POS 16 2ND LOOK		8176	1196		CH 6	0
528	COLD CAL SAMPLE 16	CH 3	16073	1198		CH 7	0
530		CH 4	16886	1200		CH 8	0
532		CH 5	16217	1202		CH 9	0
534		CH 6	17457	1204		CH 10	0
536		CH 7	15950	1206		CH 11	0
538		CH 8	16956	1208		CH 12	0
540		CH 9	16632	1210		CH 13	0
542		CH 10	16950	1212		CH 14	0
544		CH 11	18755	1214		CH 15	0
546		CH 12	18903	1216	WARM CAL DATA 2	CH 3	0
548		CH 13	19298	1218		CH 4	0
550		CH 14	20902	1220		CH 5	0
552		CH 15	16822	1222		CH 6	0
554	REFLECTOR 1 POSITION 17		8525	1224		CH 7	0
556	REFLECTOR 2 POSITION 17		8176	1226		CH 8	0
558	REFL 1 POS 17 2ND LOOK		8525	1228		CH 9	0
560	REFL 2 POS 17 2ND LOOK		8176	1230		CH 10	0
562	COLD CAL SAMPLE 17	CH 3	16064	1232		CH 11	0
564		CH 4	16888	1234		CH 12	0
566		CH 5	16214	1236		CH 13	0
568		CH 6	17455	1238		CH 14	0
570		CH 7	15951	1240		CH 15	0

COLD CAL MODE

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ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	16943	20.95
1092	SCAN MOTOR A1-2	17562	21.42
1094	FEED HORN A1-1	17556	22.45
1096	FEED HORN A1-2	18055	23.43
1098	RF MUX A1-1	18577	24.24
1100	RF MUX A1-2	19208	25.52
1102	LOCAL OSCILLATOR CHANNEL 3	19988	27.28
1104	LOCAL OSCILLATOR CHANNEL 4	20375	27.32
1106	LOCAL OSCILLATOR CHANNEL 5	19553	26.40
1108	LOCAL OSCILLATOR CHANNEL 6	19423	25.23
1110	LOCAL OSCILLATOR CHANNEL 7	19187	25.46
1112	LOCAL OSCILLATOR CHANNEL 8	19991	27.11
1114	LOCAL OSCILLATOR CHANNEL 15	20122	26.90
1116	PLLO #2	18452	24.02
1118	PLLO #1	21301	29.51
1120	1553 INTERFACE	14518	29.38
1122	MIXER/IF AMPLIFIER CHANNEL 3	19421	25.82
1124	MIXER/IF AMPLIFIER CHANNEL 4	19613	25.84
1126	MIXER/IF AMPLIFIER CHANNEL 5	19377	25.77
1128	MIXER/IF AMPLIFIER CHANNEL 6	18858	24.78
1130	MIXER/IF AMPLIFIER CHANNEL 7	18658	24.96
1132	MIXER/IF AMPLIFIER CHANNEL 8	19495	25.91
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	18336	24.01
1136	MIXER/IF AMPLIFIER CHANNEL 15	19904	27.00
1138	IF AMPLIFIER CHANNEL 11 THRU 14	19650	26.13
1140	IF AMPLIFIER CHANNEL 9	19798	26.04
1142	IF AMPLIFIER CHANNEL 10	19667	26.50
1144	IF AMPLIFIER CHANNEL 11	18936	24.22
1146	DC/DC CONVERTER	22164	30.44
1148	IF AMPLIFIER CHANNEL 13	18560	23.66
1150	IF AMPLIFIER CHANNEL 14	18917	24.78
1152	IF AMPLIFIER CHANNEL 12	18699	24.15
1154	RF SHELF A1-1	19302	25.61
1156	RF SHELF A1-2	19445	25.24
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	17905	22.99
1160	A1-1 WARM LOAD 1	21930	20.93
1162	A1-1 WARM LOAD 2	22409	21.02
1164	A1-1 WARM LOAD 3	21922	21.07
1166	A1-1 WARM LOAD 4	21995	21.04
1168	A1-1 WARM LOAD CENTER	22196	21.04
1170	A1-2 WARM LOAD 1	22418	21.36
1172	A1-2 WARM LOAD 2	22469	21.37
1174	A1-2 WARM LOAD 3	22478	21.35
1176	A1-2 WARM LOAD 4	22475	21.25
1178	A1-2 WARM LOAD CENTER	22475	21.35
1180	TEMP SENSOR REFERENCE VOLTAGE	25261	

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COLD CAL MODE

DESCRIPTION	STATUS
ANTENNA IN FULL SCAN MODE	NO
ANTENNA IN WARM CAL MODE	YES
ANTENNA IN COLD CAL MODE	NO
ANTENNA IN NADIR MODE	NO
COLD CAL. POSITION LSB	ZERO
COLD CAL. POSITION MSB	ZERO
PLO REDUNDANCY	PLLO # 1
SCANNER A1-1 POWER	ON
SCANNER A1-2 POWER	ON
PLLO #1 LOCK	YES
PLLO #2 LOCK	OFF
ADC LATCHUP FLAG	ONE

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ENGINEERING DATA

DESCRIPTION	DEG C
A1-1 SCANNER MOTOR TEMPERATURE	20.1
A1-1 RF SHELF TEMPERATURE #1	20.9
A1-1 WARM LOAD TEMPERATURE	20.3
A1-2 SCANNER MOTOR TEMPERATURE	21.0
A1-2 RF SHELF TEMPERATURE #1	21.4
A1-2 WARM LOAD TEMPERATURE	20.5
A1-1 RF SHELF TEMPERATURE #2	20.7
A1-2 RF SHELF TEMPERATURE #2	21.1

DESCRIPTION			VALUE	MA/VOLTS
SIGNAL PROCESSOR		+5 VDC	22058	5.0
		+15 VDC	21810	15.1
		-15 VDC	21795	-14.9
SCAN DRIVE		+5 VDC	22130	5.0
		+15 VDC	22103	15.0
		-15 VDC	21858	-14.9
PLO		+15 VDC	22620	14.9
		-15 VDC	22066	-15.0
RECEIVER		+8 VDC	21833	8.0
MIXER/IF AMPLIFIER	A1-1	+10 VDC	21425	10.1
	A1-2	+10 VDC	21436	10.1
LO CHANNEL 6		+10 VDC	21401	10.0
7		+10 VDC	21442	10.0
SPARE			32767	322.5
LO CHANNEL 3		+10 VDC	21252	10.1
4		+10 VDC	21174	10.1
5		+10 VDC	21415	10.1
8		+10 VDC	21309	10.1
15		+15 VDC	22013	15.1
QUIET BUS CURRENT			16405	2251.0
A1-1 NOISY POWER BUS CURRENT			124	15.8
A1-2 NOISY POWER BUS CURRENT			106	15.0

COLD CAL MODE

PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	72.16	601	293.45
	616	293.58	602	72.16
	617	293.50	603	293.50
	618	293.53	604	293.48
	619	293.58	605	293.44
	620	293.60	606	293.42
	621	293.61	607	293.42
FIXED TARGET	622	293.08	608	292.80
	623	293.08	609	292.85
	624	293.32	610	292.83
	625	293.12	611	292.36
	626	293.05	612	292.89
	627	293.15	613	292.98
	628	293.13	614	292.80
BASEPLATE	629	294.14	630	294.05
	631	294.01	632	293.90

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	19.97	537	20.31
	559	19.91	538	20.23
VARIABLE TARGET SHROUD	550	20.15	524	20.68
	551	20.13	525	20.72
FIXED TARGET N2	506	20.41	502	20.02
	507	20.45	503	20.32
VARIABLE TARGET N2	516	20.68	511	20.58
	517	0.00	512	20.69
HEATER N2	514	0.00	509	0.00
	515	0.00	510	0.00
FIXED TARGET FLOW METER	508	0.00	504	0.00
VARIABLE TARGET FLOW METER	518	0.00	513	0.00
BASEPLATE HEATER N2	519	0.00	520	0.00
BASEPLATE N2	521	0.00	522	0.00
BASEPLATE FLOW METER	523	0.00		
ADJUNCT RADIATORS	575	0.00	577	0.00
	579	0.00	581	0.00

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EOS   A1-03 E1.EXE;43  WARM CAL MODE       P1 10-NOV-98 09:25:27  SCAN NUMBER      19
[ 5 ] SCIENCE    DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12      17051
[ 6 ] CONTROL/STATUS   ELEMENT    1        ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING      ELEMENT    1        SIGNAL PROCESSOR       +5 VDC   4.95
                            RADIOMETRIC DATA
                         BEAM POSITION  1
                      CH  DATA   CH  DATA   CH  DATA
                       3 16067    8 16957   13 19306
                       4 16876    9 16631   14 20917
                       5 16209   10 16950   15 16818
                       6 17454   11 18747
                       7 15949   12 18911
[ 21 ] UP                 [ 22 ] DOWN
ENGR OK        POWER   ON     CHECKSUM  IN 5007 CALC 5007   SA28    259 SA29    495
 SELECT BUTTON 2       SCREEN ONLY [ 2 ]   PRINT   [ 3 ] FULL        [ 1 ] RETURN
```

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EOS      A1-03 E1.EXE;43  WARM CAL  MODE        P1 10-NOV-98 09:27:19  SCAN NUMBER     33
[ 5 ]   SCIENCE    DATA   ELEMENT   388         REFL 1 2ND LOOK POS  12       17051
[ 6 ]   CONTROL/STATUS    ELEMENT     1         ANTENNA IN FULL SCAN MODE          YES
[ 7 ]   ENGINEERING       ELEMENT     1         SIGNAL PROCESSOR          +5 VDC   4.95
```

RADIOMETRIC DATA
CHANNEL 3

BP	DATA	BP	DATA	BP	DATA	BP	DATA
1	16059	9	16061	17	16059	25	16063
2	16057	10	16066	18	16062	26	16063
3	16057	11	16066	19	16060	27	16066
4	16063	12	16058	20	16059	28	16060
5	16068	13	16064	21	16063	29	16059
6	16065	14	16060	22	16060	30	16060
7	16064	15	16063	23	16059	CC	0
8	16062	16	16055	24	16063	WC	0

```
[ 21 ] UP                        [ 22 ] DOWN
ENGR OK          POWER      ON       CHECKSUM  IN 418B CALC 418B   SA28    273 SA29    523
 SELECT BUTTON 2            SCREEN ONLY [ 2 ]    PRINT   [ 3 ] FULL        [ 1 ] RETURN
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[signature] 11/10/98

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EOS   A1-03 E1.EXE;43 WARM CAL MODE      P1 10-NOV-98 09:27:51  SCAN NUMBER     37
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12       17051
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.95

                          REFLECTOR POSITIONS   1
BP  LOOK 1  LOOK 2   BP  LOOK 1  LOOK 2   BP  LOOK 1  LOOK 2   BP  LOOK 1  LOOK 2
 1   8525    8525    9   8525    8525    17   8525    8525    25   8525    8525
 2   8525    8525   10   8525    8525    18   8525    8525    26   8525    8525
 3   8525    8525   11   8525    8525    19   8525    8525    27   8525    8525
 4   8525    8525   12   8525    8525    20   8525    8525    28   8525    8525
 5   8525    8525   13   8525    8525    21   8525    8525    29   8525    8525
 6   8525    8525   14   8525    8525    22   8525    8525    30   8525    8525
 7   8525    8525   15   8525    8525    23   8525    8525    CC     0E      0E
 8   8525    8525   16   8525    8525    24   8525    8525    WC     0E      0E
[ 21 ] UP                    [ 22 ] DOWN

ENGR OK        POWER   ON    CHECKSUM IN 3DC1 CALC 3DC1   SA28   276 SA29   530
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
```

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4.4-7g

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EOS   A1-03 E1.EXE;43 WARM CAL MODE      P1 10-NOV-98 09:27:59  SCAN NUMBER     38
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12      17051
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.95

                                REFLECTOR POSITIONS   2
BP  LOOK 1  LOOK 2   BP  LOOK 1  LOOK 2   BP  LOOK 1  LOOK 2   BP  LOOK 1  LOOK 2
 1   8177    8177     9   8177    8177    17   8176    8177    25   8177    8176
 2   8176    8177    10   8177    8177    18   8177    8177    26   8177    8177
 3   8177    8177    11   8177    8177    19   8177    8177    27   8177    8177
 4   8177    8177    12   8177    8177    20   8177    8177    28   8177    8177
 5   8177    8177    13   8177    8177    21   8177    8177    29   8177    8177
 6   8177    8177    14   8177    8177    22   8177    8177    30   8177    8177
 7   8177    8177    15   8177    8177    23   8177    8177    CC     0E      0E
 8   8177    8176    16   8177    8177    24   8177    8177    WC     0E      0E
[ 21 ] UP                 [ 22 ] DOWN

ENGR OK         POWER   ON     CHECKSUM  IN 3AC9 CALC 3AC9   SA28   278 SA29   533
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

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EOS    A1-03_E1.EXE;43 WARM CAL MODE      P1 10-NOV-98 09:28:47  SCAN NUMBER     44
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12       17051
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR        +5 VDC   4.95

                          SCIENCE   TEMPERATURES  1 TO 16
NO                      DATA    TEMP C       NO                      DATA    TEMP C
 1 SCAN MOTOR A1-1     16927      20.92        9 LO CHANNEL 5         19787      26.85
 2 SCAN MOTOR A1-2     17579      21.46       10 LO CHANNEL 6         19564      25.49
 3 FEED HORN A1-1      17689      22.70       11 LO CHANNEL 7         19386      25.84
 4 FEED HORN A1-2      18252      23.80       12 LO CHANNEL 8         20228      27.57
 5 RF MUX A1-1         18761      24.59       13 LO CHANNEL 15        20343      27.32
 6 RF MUX A1-2         19454      25.99       14 PLLO #2              18675      24.44
 7 LO CHANNEL 3        20233      27.74       15 PLLO #1              21538      29.97
 8 LO CHANNEL 4        20612      27.77       16 S.P.(1553 INTF)      14703      29.73
[ 21 ] UP                          [ 22 ] DOWN

ENGR OK         POWER    ON     CHECKSUM  IN 369F CALC 369F   SA28    283 SA29    544
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
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4.4-7i

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EOS   A1-03 E1.EXE;43 WARM CAL MODE      P1 10-NOV-98 09:28:47  SCAN NUMBER     44
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12      17051
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR        +5 VDC   4.95

                          SCIENCE  TEMPERATURES 17 TO 32
NO                      DATA   TEMP C      NO                      DATA   TEMP C
17 MIXER IF CH 3       19668      26.29    25 IF AMP CH 11/14     19868      26.51
18 MIXER IF CH 4       19865      26.31    26 IF AMP CH 9         20015      26.37
19 MIXER IF CH 5       19623      26.24    27 IF AMP CH 10        19886      26.91
20 MIXER IF CH 6       19044      25.14    28 IF AMP CH 11        19105      24.54
21 MIXER IF CH 7       18853      25.33    29 DC/DC CONVERTER     22410      30.91
22 MIXER IF CH 8       19745      26.39    30 IF AMP CH 13        18729      23.98
23 MIXER IF CH 9/14    18513      24.34    31 IF AMP CH 14        19085      25.10
24 MIXER IF CH 15      20112      27.39    32 IF AMP CH 12        18867      24.47
[ 21 ] UP                          [ 22 ] DOWN

ENGR OK         POWER   ON    CHECKSUM  IN 369F CALC 369F   SA28   284 SA29   545
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
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EOS   A1-03 E1.EXE;43 WARM CAL MODE      P1 10-NOV-98 09:28:55  SCAN NUMBER     45
[ 5 ] SCIENCE    DATA  ELEMENT  388      REFL 1 2ND LOOK POS  12       17051
[ 6 ] CONTROL/STATUS   ELEMENT    1      ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING      ELEMENT    1      SIGNAL PROCESSOR        +5 VDC   4.95

                          SCIENCE   TEMPERATURES 31 TO 46
NO                        DATA    TEMP C      NO                        DATA    TEMP C

31 IF AMP CH 14          19091      25.12     39 A1-1 WARM LOAD 4      22024      21.09
32 IF AMP CH 12          18875      24.48     40 A1-1 WARM LOAD C      22217      21.08
33 RF SHELF A1-1         19523      26.03     41 A1-2 WARM LOAD 1      22473      21.47
34 RF SHELF A1-2         19693      25.71     42 A1-2 WARM LOAD 2      22524      21.47
35 DETECTOR/PREAMP       18040      23.24     43 A1-2 WARM LOAD 3      22538      21.46
36 A1-1 WARM LOAD 1      21958      20.99     44 A1-2 WARM LOAD 4      22538      21.37
37 A1-1 WARM LOAD 2      22438      21.07     45 A1-2 WARM LOAD C      22532      21.46
38 A1-1 WARM LOAD 3      21946      21.11     THERMAL REFERENCE        25260
[ 21 ] UP                          [ 22 ] DOWN

ENGR OK          POWER    ON     CHECKSUM  IN 38C3 CALC 38C3    SA28    285 SA29    547
                          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
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EOS    A1-03_E1.EXE;43 WARM CAL MODE      P1 10-NOV-98 09:32:07  SCAN NUMBER      2
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12        17051
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   4.95

                              ENGINEERING  1 TO 18

 1 SIGNAL PROCESSOR        +5 VDC    4.95 10 MIXER/IF AMPLIFIER A1-1+10VDC  10.01
 2 SIGNAL PROCESSOR        +15VDC   15.06 11 MIXER/IF AMPLIFIER A1-2+10VDC  10.01
 3 SIGNAL PROCESSOR        -15VDC  -15.03 12 LOCAL OSCILLATOR-CH 6 +10 VDC  10.02
 4 ANTENNA DRIVE           +5 VDC    4.92 13 LOCAL OSCILLATOR-CH 7 +10 VDC  10.01
 5 ANTENNA DRIVE           +15VDC   14.95 14 SPARE                          327.67
 6 ANTENNA DRIVE           -15VDC  -15.06 15 LOCAL OSCILLATOR-CH 3 +10 VDC  10.06
 7 PLO                     +15VDC   14.78 16 LOCAL OSCILLATOR-CH 4 +10 VDC  10.08
 8 PLO                     -15VDC  -15.21 17 LOCAL OSCILLATOR-CH 5 +10 VDC  10.01
 9 RECEIVER                +8 VDC    7.91 18 LOCAL OSCILLATOR-CH 8 +10 VDC  10.05
[ 21 ] UP                   [ 22 ] DOWN

ENGR OK          POWER   ON     CHECKSUM  IN 237D CALC 237D   SA28   309 SA29   596
 SELECT BUTTON 2          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
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EOS   A1-03 E1.EXE;43 WARM CAL MODE      P1 10-NOV-98 09:32:16  SCAN NUMBER      3
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12       17051
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.95

                              ENGINEERING  5 TO 22

 5 ANTENNA DRIVE           +15VDC  14.94 14 SPARE                              327.67
 6 ANTENNA DRIVE           -15VDC -15.06 15 LOCAL OSCILLATOR-CH 3  +10 VDC    10.06
 7 PLO                     +15VDC  14.78 16 LOCAL OSCILLATOR-CH 4  +10 VDC    10.08
 8 PLO                     -15VDC -15.21 17 LOCAL OSCILLATOR-CH 5  +10 VDC    10.01
 9 RECEIVER                 +8 VDC   7.91 18 LOCAL OSCILLATOR-CH 8  +10 VDC    10.05
10 MIXER/IF AMPLIFIER A1-1 +10VDC  10.01 19 LOCAL OSCILLATOR-CH15  +15 VDC    14.99
11 MIXER/IF AMPLIFIER A1-2 +10VDC  10.01 20 A1 QUIET BUS CURRENT               2250.5
12 LOCAL OSCILLATOR-CH 6  +10 VDC  10.02 21 A1-1 NOISY POWER BUS CURRENT         0.2
13 LOCAL OSCILLATOR-CH 7  +10 VDC  10.01 22 A1-2 NOISY POWER BUS CURRENT         0.2
[ 21 ] UP                    [ 22 ] DOWN

ENGR OK        POWER   ON    CHECKSUM  IN 2185 CALC 2185   SA28   310 SA29   597
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
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EOS , A1-03_E1.EXE;43 WARM CAL MODE      P1 10-NOV-98 09:30:07  SCAN NUMBER     54
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12       17051
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.95

                          INSTRUMENT STATUS

 1 ANTENNA IN FULL SCAN MODE        NO      8 RESET C&DH PROCESSOR          NO
 2 ANTENNA IN WARM CAL MODE         YES     9 PLO REDUNDANCY                PLLO#1
 3 ANTENNA IN COLD CAL MODE         NO     10 --- BIT 10 SPARE              NO
 4 ANTENNA IN NADIR MODE            NO     11 SCANNER 1 POWER               YES
 5 COLD CAL. POSITION (LSB)         ZERO   12 SCANNER 2 POWER               YES
 6 COLD CAL. POSITION (MSB)         ZERO   13 PLO#1 LOCK                    YES
 7 --- BIT 7 SPARE                  NO     14 PLO#2 LOCK                    YES
                                           15 ADC LATCHUP FLAG              YES

ENGR OK          POWER   ON     CHECKSUM  IN 2EE9 CALC 2EE9   SA28   294 SA29   565
 SELECT BUTTON 2          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL      [ 1 ] RETURN
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EOS    A1-03_E1.EXE;43 COLD CAL MODE      P1 10-NOV-98 09:35:36  SCAN NUMBER     19
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12        8249
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   4.95

                                  DATA STREAM     1  TO   64
 NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA
    1     9     9     0    17     3    25    32    33    62    41    64    49    74    57    29
    2     3    10     0    18     0    26    59    34   244    42   201    50   190    58   119
    3   193    11     0    19   154    27    29    35    68    43    65    51    80    59    32
    4    55    12     0    20     8    28   117    36     4    44   249    52   250    60    59
    5     2    13     0    21    32    29    62    37    62    45    72    53    65    61    29
    6   191    14     0    22    59    30   154    38     5    46   179    54   131    62   119
    7     0    15     0    23    29    31    65    39    65    47    73    55    32    63    62
    8   174    16     0    24   119    32   155    40   246    48    66    56    57    64   155
[ 21 ] UP                        [ 22 ] DOWN

ENGR OK          POWER    ON     CHECKSUM  IN 93F7 CALC 93F7    SA28    335 SA29    647
                          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 3
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EOS A1_03 E1.EXE;43 SCIENCE DATA 10-NOV-98 09:35:42 PAGE 1
NADIR MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	NADIR SAMPLE 17 CH 8	16884
2		00000011	574	CH 9	16588
3	PACKET LENGTH	00000010	576	CH 10	16892
4		10111111	578	CH 11	18617
5	UNIT SERIAL NUMBER	00000011	580	CH 12	18770
6		00000000	582	CH 13	19121
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	20744
8		00001000	586	CH 15	16772
10	REFLECTOR 1 POSITION 1	4125	588	REFLECTOR 1 POSITION 18	4124
12	REFLECTOR 2 POSITION 1	3771	590	REFLECTOR 2 POSITION 18	3771
14	REFL 1 POS 1 2ND LOOK	4125	592	REFL 1 POS 18 2ND LOOK	4125
16	REFL 2 POS 1 2ND LOOK	3770	594	REFL 2 POS 18 2ND LOOK	3771
18	NADIR SAMPLE 1 CH 3	16026	596	NADIR SAMPLE 18 CH 3	16024
20	CH 4	16795	598	CH 4	16803
22	CH 5	16116	600	CH 5	16120
24	CH 6	17412	602	CH 6	17411
26	CH 7	15877	604	CH 7	15878
28	CH 8	16886	606	CH 8	16887
30	CH 9	16585	608	CH 9	16589
32	CH 10	16889	610	CH 10	16889
34	CH 11	18611	612	CH 11	18613
36	CH 12	18754	614	CH 12	18772
38	CH 13	19134	616	CH 13	19118
40	CH 14	20730	618	CH 14	20732
42	CH 15	16771	620	CH 15	16772
44	REFLECTOR 1 POSITION 2	4124	622	REFLECTOR 1 POSITION 19	4124
46	REFLECTOR 2 POSITION 2	3771	624	REFLECTOR 2 POSITION 19	3771
48	REFL 1 POS 2 2ND LOOK	4125	626	REFL 1 POS 19 2ND LOOK	4124
50	REFL 2 POS 2 2ND LOOK	3771	628	REFL 2 POS 19 2ND LOOK	3771
52	NADIR SAMPLE 2 CH 3	16027	630	NADIR SAMPLE 19 CH 3	16022
54	CH 4	16801	632	CH 4	16801
56	CH 5	16120	634	CH 5	16118
58	CH 6	17414	636	CH 6	17411
60	CH 7	15877	638	CH 7	15882
62	CH 8	16887	640	CH 8	16888
64	CH 9	16590	642	CH 9	16586
66	CH 10	16893	644	CH 10	16891
68	CH 11	18610	646	CH 11	18611
70	CH 12	18757	648	CH 12	18768
72	CH 13	19126	650	CH 13	19118
74	CH 14	20720	652	CH 14	20739
76	CH 15	16770	654	CH 15	16770
78	REFLECTOR 1 POSITION 3	4124	656	REFLECTOR 1 POSITION 20	4125
80	REFLECTOR 2 POSITION 3	3771	658	REFLECTOR 2 POSITION 20	3771
82	REFL 1 POS 3 2ND LOOK	4124	660	REFL 1 POS 20 2ND LOOK	4124
84	REFL 2 POS 3 2ND LOOK	3771	662	REFL 2 POS 20 2ND LOOK	3771
86	NADIR SAMPLE 3 CH 3	16029	664	NADIR SAMPLE 20 CH 3	16022
88	CH 4	16800	666	CH 4	16802
90	CH 5	16121	668	CH 5	16117
92	CH 6	17418	670	CH 6	17414

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EOS A1_03 E1.EXE;43 SCIENCE DATA 10-NOV-98 09:35:42 PAGE 2
NADIR MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
94		CH 7	15878	672		CH 7	15877
96		CH 8	16886	674		CH 8	16883
98		CH 9	16586	676		CH 9	16589
100		CH 10	16889	678		CH 10	16896
102		CH 11	18612	680		CH 11	18613
104		CH 12	18772	682		CH 12	18767
106		CH 13	19143	684		CH 13	19129
108		CH 14	20710	686		CH 14	20699
110		CH 15	16771	688		CH 15	16769
112	REFLECTOR 1 POSITION 4		4125	690	REFLECTOR 1 POSITION 21		4125
114	REFLECTOR 2 POSITION 4		3770	692	REFLECTOR 2 POSITION 21		3771
116	REFL 1 POS 4 2ND LOOK		4124	694	REFL 1 POS 21 2ND LOOK		4125
118	REFL 2 POS 4 2ND LOOK		3771	696	REFL 2 POS 21 2ND LOOK		3771
120	NADIR SAMPLE 4	CH 3	16027	698	NADIR SAMPLE 21	CH 3	16025
122		CH 4	16801	700		CH 4	16797
124		CH 5	16120	702		CH 5	16120
126		CH 6	17410	704		CH 6	17414
128		CH 7	15879	706		CH 7	15877
130		CH 8	16887	708		CH 8	16884
132		CH 9	16589	710		CH 9	16587
134		CH 10	16895	712		CH 10	16893
136		CH 11	18611	714		CH 11	18605
138		CH 12	18768	716		CH 12	18762
140		CH 13	19141	718		CH 13	19121
142		CH 14	20729	720		CH 14	20698
144		CH 15	16771	722		CH 15	16771
146	REFLECTOR 1 POSITION 5		4125	724	REFLECTOR 1 POSITION 22		4125
148	REFLECTOR 2 POSITION 5		3771	726	REFLECTOR 2 POSITION 22		3771
150	REFL 1 POS 5 2ND LOOK		4125	728	REFL 1 POS 22 2ND LOOK		4125
152	REFL 2 POS 5 2ND LOOK		3771	730	REFL 2 POS 22 2ND LOOK		3771
154	NADIR SAMPLE 5	CH 3	16023	732	NADIR SAMPLE 22	CH 3	16020
156		CH 4	16797	734		CH 4	16797
158		CH 5	16121	736		CH 5	16121
160		CH 6	17410	738		CH 6	17414
162		CH 7	15880	740		CH 7	15877
164		CH 8	16887	742		CH 8	16887
166		CH 9	16584	744		CH 9	16588
168		CH 10	16889	746		CH 10	16892
170		CH 11	18613	748		CH 11	18617
172		CH 12	18762	750		CH 12	18768
174		CH 13	19141	752		CH 13	19132
176		CH 14	20738	754		CH 14	20714
178		CH 15	16772	756		CH 15	16770
180	REFLECTOR 1 POSITION 6		4124	758	REFLECTOR 1 POSITION 23		4124
182	REFLECTOR 2 POSITION 6		3771	760	REFLECTOR 2 POSITION 23		3771
184	REFL 1 POS 6 2ND LOOK		4125	762	REFL 1 POS 23 2ND LOOK		4125
186	REFL 2 POS 6 2ND LOOK		3771	764	REFL 2 POS 23 2ND LOOK		3771
188	NADIR SAMPLE 6	CH 3	16025	766	NADIR SAMPLE 23	CH 3	16024
190		CH 4	16794	768		CH 4	16797
192		CH 5	16118	770		CH 5	16117

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ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
194		CH 6	17413	772		CH 6	17410
196		CH 7	15873	774		CH 7	15880
198		CH 8	16883	776		CH 8	16886
200		CH 9	16589	778		CH 9	16589
202		CH 10	16890	780		CH 10	16889
204		CH 11	18602	782		CH 11	18605
206		CH 12	18772	784		CH 12	18762
208		CH 13	19138	786		CH 13	19121
210		CH 14	20730	788		CH 14	20740
212		CH 15	16769	790		CH 15	16771
214	REFLECTOR 1 POSITION 7		4124	792	REFLECTOR 1 POSITION 24		4125
216	REFLECTOR 2 POSITION 7		3771	794	REFLECTOR 2 POSITION 24		3771
218	REFL 1 POS 7 2ND LOOK		4124	796	REFL 1 POS 24 2ND LOOK		4124
220	REFL 2 POS 7 2ND LOOK		3771	798	REFL 2 POS 24 2ND LOOK		3771
222	NADIR SAMPLE 7	CH 3	16022	800	NADIR SAMPLE 24	CH 3	16025
224		CH 4	16801	802		CH 4	16796
226		CH 5	16115	804		CH 5	16119
228		CH 6	17416	806		CH 6	17412
230		CH 7	15876	808		CH 7	15879
232		CH 8	16885	810		CH 8	16884
234		CH 9	16585	812		CH 9	16591
236		CH 10	16891	814		CH 10	16889
238		CH 11	18609	816		CH 11	18607
240		CH 12	18770	818		CH 12	18771
242		CH 13	19128	820		CH 13	19132
244		CH 14	20737	822		CH 14	20730
246		CH 15	16770	824		CH 15	16771
248	REFLECTOR 1 POSITION 8		4125	826	REFLECTOR 1 POSITION 25		4125
250	REFLECTOR 2 POSITION 8		3771	828	REFLECTOR 2 POSITION 25		3771
252	REFL 1 POS 8 2ND LOOK		4124	830	REFL 1 POS 25 2ND LOOK		4125
254	REFL 2 POS 8 2ND LOOK		3771	832	REFL 2 POS 25 2ND LOOK		3771
256	NADIR SAMPLE 8	CH 3	16024	834	NADIR SAMPLE 25	CH 3	16025
258		CH 4	16797	836		CH 4	16799
260		CH 5	16120	838		CH 5	16120
262		CH 6	17411	840		CH 6	17412
264		CH 7	15882	842		CH 7	15878
266		CH 8	16892	844		CH 8	16880
268		CH 9	16588	846		CH 9	16587
270		CH 10	16889	848		CH 10	16894
272		CH 11	18611	850		CH 11	18612
274		CH 12	18767	852		CH 12	18774
276		CH 13	19148	854		CH 13	19138
278		CH 14	20742	856		CH 14	20726
280		CH 15	16771	858		CH 15	16771
282	REFLECTOR 1 POSITION 9		4125	860	REFLECTOR 1 POSITION 26		4124
284	REFLECTOR 2 POSITION 9		3771	862	REFLECTOR 2 POSITION 26		3771
286	REFL 1 POS 9 2ND LOOK		4125	864	REFL 1 POS 26 2ND LOOK		4125
288	REFL 2 POS 9 2ND LOOK		3771	866	REFL 2 POS 26 2ND LOOK		3771
290	NADIR SAMPLE 9	CH 3	16026	868	NADIR SAMPLE 26	CH 3	16023
292		CH 4	16799	870		CH 4	16800

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NADIR MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
294		CH 5	16118	872		CH 5	16120
296		CH 6	17412	874		CH 6	17413
298		CH 7	15878	876		CH 7	15879
300		CH 8	16887	878		CH 8	16884
302		CH 9	16587	880		CH 9	16586
304		CH 10	16896	882		CH 10	16894
306		CH 11	18614	884		CH 11	18613
308		CH 12	18768	886		CH 12	18775
310		CH 13	19136	888		CH 13	19151
312		CH 14	20732	890		CH 14	20705
314		CH 15	16771	892		CH 15	16771
316	REFLECTOR 1 POSITION 10		4124	894	REFLECTOR 1 POSITION 27		4124
318	REFLECTOR 2 POSITION 10		3771	896	REFLECTOR 2 POSITION 27		3771
320	REFL 1 POS 10 2ND LOOK		4125	898	REFL 1 POS 27 2ND LOOK		4124
322	REFL 2 POS 10 2ND LOOK		3771	900	REFL 2 POS 27 2ND LOOK		3771
324	NADIR SAMPLE 10	CH 3	16020	902	NADIR SAMPLE 27	CH 3	16025
326		CH 4	16796	904		CH 4	16795
328		CH 5	16119	906		CH 5	16121
330		CH 6	17413	908		CH 6	17411
332		CH 7	15879	910		CH 7	15878
334		CH 8	16885	912		CH 8	16883
336		CH 9	16591	914		CH 9	16587
338		CH 10	16888	916		CH 10	16891
340		CH 11	18615	918		CH 11	18612
342		CH 12	18763	920		CH 12	18773
344		CH 13	19143	922		CH 13	19124
346		CH 14	20729	924		CH 14	20699
348		CH 15	16771	926		CH 15	16769
350	REFLECTOR 1 POSITION 11		4125	928	REFLECTOR 1 POSITION 28		4125
352	REFLECTOR 2 POSITION 11		3771	930	REFLECTOR 2 POSITION 28		3771
354	REFL 1 POS 11 2ND LOOK		4124	932	REFL 1 POS 28 2ND LOOK		4124
356	REFL 2 POS 11 2ND LOOK		3771	934	REFL 2 POS 28 2ND LOOK		3771
358	NADIR SAMPLE 11	CH 3	16024	936	NADIR SAMPLE 28	CH 3	16020
360		CH 4	16798	938		CH 4	16798
362		CH 5	16117	940		CH 5	16119
364		CH 6	17409	942		CH 6	17413
366		CH 7	15878	944		CH 7	15877
368		CH 8	16887	946		CH 8	16887
370		CH 9	16587	948		CH 9	16586
372		CH 10	16887	950		CH 10	16892
374		CH 11	18615	952		CH 11	18608
376		CH 12	18772	954		CH 12	18770
378		CH 13	19128	956		CH 13	19135
380		CH 14	20751	958		CH 14	20733
382		CH 15	16770	960		CH 15	16773
384	REFLECTOR 1 POSITION 12		4125	962	REFLECTOR 1 POSITION 29		4125
386	REFLECTOR 2 POSITION 12		3771	964	REFLECTOR 2 POSITION 29		3771
388	REFL 1 POS 12 2ND LOOK		4124	966	REFL 1 POS 29 2ND LOOK		4125
390	REFL 2 POS 12 2ND LOOK		3771	968	REFL 2 POS 29 2ND LOOK		3771
392	NADIR SAMPLE 12	CH 3	16023	970	NADIR SAMPLE 29	CH 3	16019

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ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
394		CH 4	16797	972		CH 4	16798
396		CH 5	16118	974		CH 5	16120
398		CH 6	17412	976		CH 6	17411
400		CH 7	15879	978		CH 7	15875
402		CH 8	16886	980		CH 8	16882
404		CH 9	16584	982		CH 9	16586
406		CH 10	16888	984		CH 10	16891
408		CH 11	18614	986		CH 11	18606
410		CH 12	18774	988		CH 12	18769
412		CH 13	19138	990		CH 13	19119
414		CH 14	20723	992		CH 14	20713
416		CH 15	16771	994		CH 15	16772
418	REFLECTOR 1 POSITION 13		4125	996	REFLECTOR 1 POSITION 30		4124
420	REFLECTOR 2 POSITION 13		3771	998	REFLECTOR 2 POSITION 30		3771
422	REFL 1 POS 13 2ND LOOK		4125	1000	REFL 1 POS 30 2ND LOOK		4125
424	REFL 2 POS 13 2ND LOOK		3772	1002	REFL 2 POS 30 2ND LOOK		3771
426	NADIR SAMPLE 13	CH 3	16027	1004	NADIR SAMPLE 30	CH 3	16021
428		CH 4	16798	1006		CH 4	16799
430		CH 5	16119	1008		CH 5	16118
432		CH 6	17414	1010		CH 6	17416
434		CH 7	15881	1012		CH 7	15876
436		CH 8	16887	1014		CH 8	16883
438		CH 9	16589	1016		CH 9	16586
440		CH 10	16893	1018		CH 10	16892
442		CH 11	18607	1020		CH 11	18610
444		CH 12	18768	1022		CH 12	18775
446		CH 13	19136	1024		CH 13	19134
448		CH 14	20745	1026		CH 14	20728
450		CH 15	16771	1028		CH 15	16771
452	REFLECTOR 1 POSITION 14		4124	1030	REFLECTOR 1 COLD CAL POS		0E
454	REFLECTOR 2 POSITION 14		3771	1032	REFLECTOR 2 COLD CAL POS		0EE
456	REFL 1 POS 14 2ND LOOK		4125	1034	REFL 1 COLD CAL 2ND LOOK		0EE
458	REFL 2 POS 14 2ND LOOK		3770	1036	REFL 2 COLD CAL 2ND LOOK		0EE
460	NADIR SAMPLE 14	CH 3	16028	1038	COLD CAL DATA 1	CH 3	0
462		CH 4	16800	1040		CH 4	0
464		CH 5	16121	1042		CH 5	0
466		CH 6	17412	1044		CH 6	0
468		CH 7	15883	1046		CH 7	0
470		CH 8	16888	1048		CH 8	0
472		CH 9	16589	1050		CH 9	0
474		CH 10	16888	1052		CH 10	0
476		CH 11	18608	1054		CH 11	0
478		CH 12	18770	1056		CH 12	0
480		CH 13	19130	1058		CH 13	0
482		CH 14	20714	1060		CH 14	0
484		CH 15	16771	1062		CH 15	0
486	REFLECTOR 1 POSITION 15		4124	1064	COLD CAL DATA 2	CH 3	0
488	REFLECTOR 2 POSITION 15		3771	1066		CH 4	0
490	REFL 1 POS 15 2ND LOOK		4124	1068		CH 5	0
492	REFL 2 POS 15 2ND LOOK		3771	1070		CH 6	0

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EOS A1_03 E1.EXE;43 SCIENCE DATA 10-NOV-98 09:35:42 PAGE 6
NADIR MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
494	NADIR SAMPLE 15	CH 3	16027	1072		CH 7	0
496		CH 4	16798	1074		CH 8	0
498		CH 5	16121	1076		CH 9	0
500		CH 6	17414	1078		CH 10	0
502		CH 7	15877	1080		CH 11	0
504		CH 8	16884	1082		CH 12	0
506		CH 9	16587	1084		CH 13	0
508		CH 10	16894	1086		CH 14	0
510		CH 11	18607	1088		CH 15	0
512		CH 12	18770	1182	REFLECTOR 1 WARM CAL POS		0E
514		CH 13	19129	1184	REFLECTOR 2 WARM CAL POS		0E
516		CH 14	20706	1186	REFL 1 WARM CAL 2ND LOOK		0E
518		CH 15	16772	1188	REFL 2 WARM CAL 2ND LOOK		0E
520	REFLECTOR 1 POSITION 16		4125	1190	WARM CAL DATA 1	CH 3	0
522	REFLECTOR 2 POSITION 16		3771	1192		CH 4	0
524	REFL 1 POS 16 2ND LOOK		4124	1194		CH 5	0
526	REFL 2 POS 16 2ND LOOK		3771	1196		CH 6	0
528	NADIR SAMPLE 16	CH 3	16021	1198		CH 7	0
530		CH 4	16799	1200		CH 8	0
532		CH 5	16121	1202		CH 9	0
534		CH 6	17412	1204		CH 10	0
536		CH 7	15878	1206		CH 11	0
538		CH 8	16885	1208		CH 12	0
540		CH 9	16589	1210		CH 13	0
542		CH 10	16894	1212		CH 14	0
544		CH 11	18609	1214		CH 15	0
546		CH 12	18771	1216	WARM CAL DATA 2	CH 3	0
548		CH 13	19129	1218		CH 4	0
550		CH 14	20739	1220		CH 5	0
552		CH 15	16771	1222		CH 6	0
554	REFLECTOR 1 POSITION 17		4125	1224		CH 7	0
556	REFLECTOR 2 POSITION 17		3771	1226		CH 8	0
558	REFL 1 POS 17 2ND LOOK		4125	1228		CH 9	0
560	REFL 2 POS 17 2ND LOOK		3771	1230		CH 10	0
562	NADIR SAMPLE 17	CH 3	16027	1232		CH 11	0
564		CH 4	16803	1234		CH 12	0
566		CH 5	16119	1236		CH 13	0
568		CH 6	17416	1238		CH 14	0
570		CH 7	15873	1240		CH 15	0

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ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	16940	20.94
1092	SCAN MOTOR A1-2	17639	21.57
1094	FEED HORN A1-1	17895	23.09
1096	FEED HORN A1-2	18542	24.35
1098	RF MUX A1-1	19070	25.17
1100	RF MUX A1-2	19864	26.78
1102	LOCAL OSCILLATOR CHANNEL 3	20635	28.50
1104	LOCAL OSCILLATOR CHANNEL 4	21006	28.52
1106	LOCAL OSCILLATOR CHANNEL 5	20182	27.60
1108	LOCAL OSCILLATOR CHANNEL 6	19796	25.93
1110	LOCAL OSCILLATOR CHANNEL 7	19716	26.47
1112	LOCAL OSCILLATOR CHANNEL 8	20618	28.31
1114	LOCAL OSCILLATOR CHANNEL 15	20705	28.00
1116	PLLO #2	19040	25.13
1118	PLLO #1	21923	30.71
1120	1553 INTERFACE	15015	30.32
1122	MIXER/IF AMPLIFIER CHANNEL 3	20083	27.07
1124	MIXER/IF AMPLIFIER CHANNEL 4	20283	27.11
1126	MIXER/IF AMPLIFIER CHANNEL 5	20031	27.01
1128	MIXER/IF AMPLIFIER CHANNEL 6	19354	25.72
1130	MIXER/IF AMPLIFIER CHANNEL 7	19182	25.95
1132	MIXER/IF AMPLIFIER CHANNEL 8	20162	27.18
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	18814	24.91
1136	MIXER/IF AMPLIFIER CHANNEL 15	20458	28.05
1138	IF AMPLIFIER CHANNEL 11 THRU 14	20224	27.15
1140	IF AMPLIFIER CHANNEL 9	20374	26.93
1142	IF AMPLIFIER CHANNEL 10	20242	27.59
1144	IF AMPLIFIER CHANNEL 11	19394	25.10
1146	DC/DC CONVERTER	22806	31.67
1148	IF AMPLIFIER CHANNEL 13	19015	24.52
1150	IF AMPLIFIER CHANNEL 14	19374	25.65
1152	IF AMPLIFIER CHANNEL 12	19159	25.02
1154	RF SHELF A1-1	19873	26.70
1156	RF SHELF A1-2	20080	26.45
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	18252	23.64
1160	A1-1 WARM LOAD 1	22009	21.09
1162	A1-1 WARM LOAD 2	22489	21.17
1164	A1-1 WARM LOAD 3	22002	21.22
1166	A1-1 WARM LOAD 4	22073	21.19
1168	A1-1 WARM LOAD CENTER	22274	21.19
1170	A1-2 WARM LOAD 1	22572	21.66
1172	A1-2 WARM LOAD 2	22620	21.66
1174	A1-2 WARM LOAD 3	22639	21.66
1176	A1-2 WARM LOAD 4	22637	21.56
1178	A1-2 WARM LOAD CENTER	22631	21.65
1180	TEMP SENSOR REFERENCE VOLTAGE	25261	

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PRT TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
VARIABLE TARGET	615	72.16	601	293.48
	616	293.60	602	72.16
	617	293.52	603	293.51
	618	293.54	604	293.50
	619	293.60	605	293.46
	620	293.61	606	293.43
	621	293.63	607	293.45
FIXED TARGET	622	293.12	608	292.88
	623	293.09	609	292.92
	624	293.36	610	292.90
	625	293.15	611	292.41
	626	293.10	612	292.94
	627	293.19	613	293.05
	628	293.17	614	292.86
BASEPLATE	629	294.34	630	294.21
	631	294.15	632	294.02

THERMOCOUPLE TEMPERATURES	A1-1 NO.	A1-1 DEG K	A1-2 NO.	A1-2 DEG K
FIXED TARGET SHROUD	558	20.03	537	20.35
	559	19.95	538	20.29
VARIABLE TARGET SHROUD	550	20.17	524	20.75
	551	20.18	525	20.76
FIXED TARGET N2	506	20.46	502	20.07
	507	20.46	503	20.34
VARIABLE TARGET N2	516	20.67	511	20.62
	517	0.00	512	20.67
HEATER N2	514	0.00	509	0.00
	515	0.00	510	0.00
FIXED TARGET FLOW METER	508	0.00	504	0.00
VARIABLE TARGET FLOW METER	518	0.00	513	0.00
BASEPLATE HEATER N2	519	0.00	520	0.00
BASEPLATE N2	521	0.00	522	0.00
BASEPLATE FLOW METER	523	0.00		
ADJUNCT RADIATORS	575	0.00	577	0.00
	579	0.00	581	0.00

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EOS   A1-03 E1.EXE;43 COLD CAL MODE      P1 10-NOV-98 09:36:23  SCAN NUMBER     25
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12        8249
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR        +5 VDC   4.95
                              RADIOMETRIC DATA
                                   BEAM POSITION  1
                              CH  DATA   CH  DATA   CH  DATA
                               3 16022    8 16882  13 19113
                               4 16797    9 16580  14 20707
                               5 16114   10 16884  15 16768
                               6 17411   11 18606
                               7 15874   12 18758
[ 21 ] UP                          [ 22 ] DOWN
ENGR OK          POWER   ON    CHECKSUM  IN 8CAF CALC 8CAF   SA28   340 SA29   658
 SELECT BUTTON 2          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
```

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4.5-7c

11/10/98

```
EOS      A1-03 E1.EXE;43  COLD CAL MODE     P1 10-NOV-98 09:37:20  SCAN NUMBER    32
[ 5 ]  SCIENCE    DATA    ELEMENT  388       REFL 1 2ND LOOK POS  12       8251
[ 6 ]  CONTROL/STATUS     ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ]  ENGINEERING        ELEMENT    1       SIGNAL PROCESSOR        +5 VDC   4.95
                                  RADIOMETRIC DATA
                                      CHANNEL   3
                          BP  DATA   BP  DATA   BP  DATA   BP  DATA
                           1  16014   9  16014  17  16022  25  16021
                           2  16020  10  16022  18  16019  26  16022
                           3  16018  11  16020  19  16022  27  16020
                           4  16019  12  16023  20  16019  28  16022
                           5  16017  13  16019  21  16023  29  16022
                           6  16022  14  16024  22  16022  30  16026
                           7  16021  15  16024  23  16022  CC      0
                           8  16023  16  16026  24  16021  WC      0
[ 21 ] UP                           [ 22 ] DOWN
ENGR OK          POWER    ON     CHECKSUM  IN 86CD CALC 86CD   SA28    348 SA29    673
                          SCREEN ONLY [ 2 ]    PRINT   [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
```

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4.5-7e

J Allen 11/10/98

```
EOS   A1-03 E1.EXE;43 COLD CAL MODE      P1 10-NOV-98 09:37:52  SCAN NUMBER     36
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12        8251
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.95
```

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REFLECTOR POSITIONS 1

BP	LOOK 1	LOOK 2	BP	LOOK 1	LOOK 2	BP	LOOK 1	LOOK 2	BP	LOOK 1	LOOK 2
1	4124	4125	9	4124	4125	17	4124	4125	25	4124	4124
2	4124	4124	10	4124	4124	18	4125	4124	26	4125	4124
3	4125	4124	11	4125	4124	19	4125	4124	27	4125	4125
4	4125	4125	12	4125	4125	20	4125	4125	28	4124	4125
5	4124	4125	13	4124	4125	21	4124	4125	29	4124	4124
6	4124	4124	14	4125	4124	22	4125	4124	30	4125	4124
7	4125	4124	15	4125	4125	23	4125	4125	CC	0E	0E
8	4125	4125	16	4125	4125	24	4124	4125	WC	0E	0E

```
[ 21 ] UP                    [ 22 ] DOWN

ENGR OK          POWER   ON     CHECKSUM  IN 8667 CALC 8667    SA28   352 SA29   681
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

4.5-7g

J. Allen 11/10/98

```
EOS    A1-03 E1.EXE:43 COLD CAL MODE      P1 10-NOV-98 09:38:09  SCAN NUMBER     38
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12        8249
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   4.95

                                REFLECTOR POSITIONS  2
BP  LOOK 1  LOOK 2  BP  LOOK 1  LOOK 2  BP  LOOK 1  LOOK 2  BP  LOOK 1  LOOK 2
 1   3771    3771    9   3771    3771   17   3771    3771   25   3771    3771
 2   3771    3771   10   3771    3771   18   3771    3771   26   3771    3771
 3   3771    3771   11   3771    3771   19   3771    3771   27   3771    3771
 4   3771    3771   12   3771    3771   20   3771    3771   28   3771    3771
 5   3771    3771   13   3771    3771   21   3771    3771   29   3771    3771
 6   3771    3771   14   3771    3771   22   3771    3771   30   3771    3771
 7   3771    3771   15   3771    3771   23   3771    3771   CC     0E      0E
 8   3771    3771   16   3771    3771   24   3771    3771   WC     0E      0E
[ 21 ] UP                    [ 22 ] DOWN

ENGR OK         POWER   ON     CHECKSUM  IN 842F CALC 842F   SA28   354 SA29   685
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
```

4.5-7a

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```
EOS   A1-03_E1.EXE;43 COLD CAL MODE      P1 10-NOV-98 09:38:48  SCAN NUMBER     43
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12        8251
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR        +5 VDC   4.95

                        SCIENCE  TEMPERATURES  1 TO 16
NO                     DATA   TEMP C      NO                     DATA   TEMP C

 1 SCAN MOTOR A1-1    16950      20.96      9 LO CHANNEL 5       20355      27.93
 2 SCAN MOTOR A1-2    17670      21.63     10 LO CHANNEL 6       19906      26.14
 3 FEED HORN A1-1     17985      23.26     11 LO CHANNEL 7       19863      26.75
 4 FEED HORN A1-2     18667      24.59     12 LO CHANNEL 8       20789      28.64
 5 RF MUX A1-1        19207      25.43     13 LO CHANNEL 15      20864      28.31
 6 RF MUX A1-2        20044      27.12     14 PLLO #2            19200      25.44
 7 LO CHANNEL 3       20815      28.84     15 PLLO #1            22093      31.03
 8 LO CHANNEL 4       21183      28.86     16 S.P.(1553 INTF)    15155      30.59
[ 21 ] UP                          [ 22 ] DOWN

ENGR OK          POWER    ON     CHECKSUM  IN 7BED CALC 7BED    SA28    358 SA29    694
                          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
```

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4-5-7C

11/10/98

```
EOS   A1-03_E1.EXE;43 COLD CAL MODE      P1 10-NOV-98 09:38:56  SCAN NUMBER     44
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12       8251
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR        +5 VDC   4.95

                          SCIENCE   TEMPERATURES 17 TO 32
NO                      DATA   TEMP C     NO                      DATA   TEMP C

17 MIXER IF CH 3       20274      27.43   25 IF AMP CH 11/14     20388      27.44
18 MIXER IF CH 4       20474      27.47   26 IF AMP CH 9         20540      27.18
19 MIXER IF CH 5       20220      27.37   27 IF AMP CH 10        20407      27.90
20 MIXER IF CH 6       19497      25.99   28 IF AMP CH 11        19533      25.36
21 MIXER IF CH 7       19335      26.24   29 DC/DC CONVERTER     22981      32.01
22 MIXER IF CH 8       20353      27.54   30 IF AMP CH 13        19152      24.78
23 MIXER IF CH 9/14    18955      25.18   31 IF AMP CH 14        19512      25.92
24 MIXER IF CH 15      20619      28.36   32 IF AMP CH 12        19297      25.28
[ 21 ] UP                        [ 22 ] DOWN

ENGR OK         POWER    ON    CHECKSUM  IN 7AED CALC 7AED   SA28   359 SA29   696
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

4.5-7c

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```
EOS   A1-03_E1.EXE;43 COLD CAL MODE      P1 10-NOV-98 09:39:04  SCAN NUMBER     45
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12        8249
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR        +5 VDC   4.95

                          SCIENCE  TEMPERATURES 31 TO 46
NO                      DATA   TEMP C     NO                      DATA   TEMP C

31 IF AMP CH 14        19517      25.92   39 A1-1 WARM LOAD 4    22101      21.24
32 IF AMP CH 12        19302      25.29   40 A1-1 WARM LOAD C    22302      21.25
33 RF SHELF A1-1       20042      27.02   41 A1-2 WARM LOAD 1    22622      21.75
34 RF SHELF A1-2       20268      26.81   42 A1-2 WARM LOAD 2    22673      21.76
35 DETECTOR/PREAMP     18359      23.84   43 A1-2 WARM LOAD 3    22684      21.75
36 A1-1 WARM LOAD 1    22036      21.14   44 A1-2 WARM LOAD 4    22680      21.65
37 A1-1 WARM LOAD 2    22517      21.22   45 A1-2 WARM LOAD C    22684      21.76
38 A1-1 WARM LOAD 3    22027      21.27   THERMAL REFERENCE      25262
[ 21 ] UP                        [ 22 ] DOWN

ENGR OK          POWER   ON    CHECKSUM  IN 7AAB  CALC 7AAB   SA28   360 SA29   698
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

4.5-7c

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```
EOS    A1-03 E1.EXE;43 COLD CAL MODE      P1 10-NOV-98 09:39:52  SCAN NUMBER     51
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12        8251
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR        +5 VDC   4.95

                              ENGINEERING  1 TO 18

 1 SIGNAL PROCESSOR        +5 VDC    4.94 10 MIXER/IF AMPLIFIER A1-1+10VDC  10.01
 2 SIGNAL PROCESSOR        +15VDC   15.06 11 MIXER/IF AMPLIFIER A1-2+10VDC  10.01
 3 SIGNAL PROCESSOR        -15VDC  -15.02 12 LOCAL OSCILLATOR-CH 6 +10 VDC  10.02
 4 ANTENNA DRIVE           +5 VDC    4.92 13 LOCAL OSCILLATOR-CH 7 +10 VDC  10.01
 5 ANTENNA DRIVE           +15VDC   14.94 14 SPARE                          327.67
 6 ANTENNA DRIVE           -15VDC  -15.06 15 LOCAL OSCILLATOR-CH 3 +10 VDC  10.06
 7 PLO                     +15VDC   14.79 16 LOCAL OSCILLATOR-CH 4 +10 VDC  10.08
 8 PLO                     -15VDC  -15.21 17 LOCAL OSCILLATOR-CH 5 +10 VDC  10.02
 9 RECEIVER                +8 VDC    7.91 18 LOCAL OSCILLATOR-CH 8 +10 VDC  10.05
[ 21 ] UP                   [ 22 ] DOWN

ENGR OK          POWER   ON     CHECKSUM  IN 74FB CALC 74FB   SA28   367 SA29   711
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
```

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4-5-9 11/10/98

```
EOS   A1-03 E1.EXE;43 COLD CAL MODE      P1 10-NOV-98 09:40:01  SCAN NUMBER     52
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12        8249
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.95

                              ENGINEERING  5 TO 22

 5 ANTENNA DRIVE          +15VDC  14.94 14 SPARE                              327.67
 6 ANTENNA DRIVE          -15VDC -15.06 15 LOCAL OSCILLATOR-CH 3  +10 VDC     10.06
 7 PLO                    +15VDC  14.79 16 LOCAL OSCILLATOR-CH 4  +10 VDC     10.08
 8 PLO                    -15VDC -15.21 17 LOCAL OSCILLATOR-CH 5  +10 VDC     10.02
 9 RECEIVER               +8 VDC   7.91 18 LOCAL OSCILLATOR-CH 8  +10 VDC     10.05
10 MIXER/IF AMPLIFIER A1-1+10VDC  10.01 19 LOCAL OSCILLATOR-CH15  +15 VDC     14.99
11 MIXER/IF AMPLIFIER A1-2+10VDC  10.01 20 A1 QUIET BUS CURRENT               2265.8
12 LOCAL OSCILLATOR-CH 6 +10 VDC  10.02 21 A1-1 NOISY POWER BUS CURRENT          0.2
13 LOCAL OSCILLATOR-CH 7 +10 VDC  10.01 22 A1-2 NOISY POWER BUS CURRENT          0.1
[ 21 ] UP                    [ 22 ] DOWN

ENGR OK        POWER   ON    CHECKSUM  IN 72A9 CALC 72A9   SA28   368 SA29   713
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
```

4.5-9

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```
EOS   A1-03 E1.EXE;43 COLD CAL MODE      P1 10-NOV-98 09:43:20  SCAN NUMBER     77
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12        7647
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR        +5 VDC   4.95

                              INSTRUMENT STATUS

 1 ANTENNA IN FULL SCAN MODE        NO     8 RESET C&DH PROCESSOR             NO
 2 ANTENNA IN WARM CAL MODE         NO     9 PLO REDUNDANCY                   PLLO#1
 3 ANTENNA IN COLD CAL MODE         YES   10 --- BIT 10 SPARE                 NO
 4 ANTENNA IN NADIR MODE            NO    11 SCANNER 1 POWER                 YES
 5 COLD CAL. POSITION (LSB)         ONE   12 SCANNER 2 POWER                 YES
 6 COLD CAL. POSITION (MSB)         ONE   13 PLO#1 LOCK                      YES
 7 --- BIT 7 SPARE                  NO    14 PLO#2 LOCK                      YES
                                          15 ADC LATCHUP FLAG                YES

ENGR OK         POWER   ON     CHECKSUM  IN 2C2F CALC 2C2F   SA28   393 SA29   764
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
```

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4.5-10

11/10/98

EOS A1-03 E1.EXE;43 COLD CAL MODE P1 10-NOV-98 09:45:04 SCAN NUMBER 90
[5] SCIENCE DATA ELEMENT 388 REFL 1 2ND LOOK POS 12 7647
[6] CONTROL/STATUS ELEMENT 1 ANTENNA IN FULL SCAN MODE YES
[7] ENGINEERING ELEMENT 1 SIGNAL PROCESSOR +5 VDC 4.95

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	29	33	62	41	64	49	74	57	27
2	3	10	0	18	0	26	223	34	179	42	174	50	73	58	39
3	193	11	0	19	154	27	27	35	67	43	65	51	80	59	29
4	126	12	0	20	104	28	39	36	232	44	214	52	117	60	223
5	2	13	0	21	29	29	62	37	61	45	72	53	65	61	27
6	191	14	0	22	223	30	136	38	216	46	79	54	99	62	39
7	0	15	0	23	27	31	65	39	65	47	72	55	29	63	62
8	174	16	0	24	39	32	120	40	203	48	235	56	223	64	137

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[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 23EB CALC 23EB SA28 405 SA29 788
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN
SELECT BUTTON 2

4.5-17 (Cold Cal Position 4)

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EOS   A1-03_E1.EXE;43 COLD CAL MODE      P1 10-NOV-98 09:48:08  SCAN NUMBER    113
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12        7945
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.95

                                  DATA STREAM    1  TO   64
 NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA
   1      9    9      0   17      3   25     31   33     62   41     64   49     74   57     28
   2      3   10      0   18      0   26      9   34    106   42    170   50     30   58     71
   3    193   11      0   19    154   27     28   35     67   43     65   51     80   59     31
   4    149   12      0   20     72   28     71   36    227   44    207   52     54   60      9
   5      2   13      0   21     31   29     62   37     61   45     72   53     65   61     28
   6    191   14      0   22      9   30    134   38    199   46     47   54     89   62     71
   7      0   15      0   23     28   31     65   39     65   47     72   55     31   63     62
   8    174   16      0   24     71   32     99   40    199   48    201   56      9   64    129
[ 21 ] UP                        [ 22 ] DOWN

ENGR OK          POWER   ON    CHECKSUM IN 160F CALC 160F   SA28    429 SA29    835
                 SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
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4.5-17 (Cold Cal Position 3)

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EOS   A1-03 E1.EXE;43 COLD CAL MODE      P1 10-NOV-98 09:49:36  SCAN NUMBER    124
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12        8095
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR        +5 VDC   4.95

                                DATA STREAM     1  TO   64
 NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA
   1      9    9      0   17      3   25     31   33     62   41     64   49     74   57     28
   2      3   10      0   18      0   26    159   34     96   42    166   50     17   58    221
   3    193   11      0   19    154   27     28   35     67   43     65   51     80   59     31
   4    160   12      0   20     40   28    221   36    222   44    198   52     40   60    159
   5      2   13      0   21     31   29     62   37     61   45     72   53     65   61     28
   6    191   14      0   22    159   30    133   38    195   46     35   54     83   62    221
   7      0   15      0   23     28   31     65   39     65   47     72   55     31   63     62
   8    174   16      0   24    221   32     95   40    188   48    193   56    159   64    133
[ 21 ] UP                          [ 22 ] DOWN

ENGR OK          POWER    ON     CHECKSUM  IN 9BF3 CALC 9BF3    SA28    440 SA29    858
                          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
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4.15-17 (Cold Cal Position 2)

J. Allen 11/10/98

EOS A1-03 E1.EXE:43 COLD CAL MODE P1 10-NOV-98 09:51:13 SCAN NUMBER 136
[5] SCIENCE DATA ELEMENT 388 REFL 1 2ND LOOK POS 12 8249
[6] CONTROL/STATUS ELEMENT 1 ANTENNA IN FULL SCAN MODE YES
[7] ENGINEERING ELEMENT 1 SIGNAL PROCESSOR +5 VDC 4.95

DATA STREAM 1 TO 64

NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA	NO	DATA
1	9	9	0	17	3	25	32	33	62	41	64	49	74	57	29
2	3	10	0	18	0	26	57	34	85	42	160	50	1	58	117
3	193	11	0	19	154	27	29	35	67	43	65	51	79	59	32
4	172	12	0	20	8	28	119	36	223	44	194	52	255	60	57
5	2	13	0	21	32	29	62	37	61	45	72	53	65	61	29
6	191	14	0	22	57	30	126	38	191	46	28	54	80	62	119
7	0	15	0	23	29	31	65	39	65	47	72	55	32	63	62
8	174	16	0	24	119	32	79	40	189	48	169	56	57	64	125

[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 219B CALC 219B SA28 451 SA29 880
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN
SELECT BUTTON 2

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4.15-17 (Cold Cal Position 1)

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EOS   A1-03_E1.EXE;43 NADIR MODE          P1 10-NOV-98 09:57:38  SCAN NUMBER     29
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12          665
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE        NO
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   5.51

                                DATA STREAM    1  TO   64
 NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA   NO   DATA
   1      9    9      0   17      3   25      2   33     62   41     64   49     73   57    127
   2      3   10      0   18      0   26    153   34    107   42    146   50    179   58    213
   3    193   11      0   19    154   27    127   35     67   43     65   51     79   59      2
   4    210   12      0   20     16   28    213   36    209   44    175   52    227   60    153
   5      2   13      0   21      2   29     62   37     61   45     71   53     65   61    127
   6    191   14      0   22    153   30    124   38    162   46    225   54     63   62    213
   7      0   15      0   23    127   31     65   39     65   47     72   55      2   63     62
   8    174   16      0   24    213   32     68   40    165   48    112   56    153   64    126
[ 21 ] UP                          [ 22 ] DOWN

ENGR OK          POWER   ON     CHECKSUM  IN 57AD CALC 57AD   SA28   497 SA29   964
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 3
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EOS A1_03 E1.EXE;43 SCIENCE DATA 10-NOV-98 09:57:42 PAGE 1
FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
1	PACKET ID	00001001	572	SCENE DATA BP 17 CH 8	16809
2		00000011	574	CH 9	16533
3	PACKET LENGTH	00000010	576	CH 10	16814
4		10111111	578	CH 11	18396
5	UNIT SERIAL NUMBER	00000011	580	CH 12	18549
6		00000000	582	CH 13	18882
7	INSTRUMENT MODE/STATUS	10011010	584	CH 14	20439
8		00010000	586	CH 15	16703
10	REFLECTOR 1 POSITION 1	332	588	REFLECTOR 1 POSITION 18	332
12	REFLECTOR 2 POSITION 1	16362	590	REFLECTOR 2 POSITION 18	16362
14	REFL 1 POS 1 2ND LOOK	332	592	REFL 1 POS 18 2ND LOOK	332
16	REFL 2 POS 1 2ND LOOK	16362	594	REFL 2 POS 18 2ND LOOK	16362
18	SCENE DATA BP 1 CH 3	15996	596	SCENE DATA BP 18 CH 3	15995
20	CH 4	16708	598	CH 4	16707
22	CH 5	15979	600	CH 5	15981
24	CH 6	17361	602	CH 6	17362
26	CH 7	15778	604	CH 7	15780
28	CH 8	16805	606	CH 8	16807
30	CH 9	16530	608	CH 9	16535
32	CH 10	16815	610	CH 10	16813
34	CH 11	18401	612	CH 11	18395
36	CH 12	18544	614	CH 12	18556
38	CH 13	18867	616	CH 13	18878
40	CH 14	20451	618	CH 14	20406
42	CH 15	16703	620	CH 15	16703
44	REFLECTOR 1 POSITION 2	332	622	REFLECTOR 1 POSITION 19	332
46	REFLECTOR 2 POSITION 2	16362	624	REFLECTOR 2 POSITION 19	16362
48	REFL 1 POS 2 2ND LOOK	332	626	REFL 1 POS 19 2ND LOOK	332
50	REFL 2 POS 2 2ND LOOK	16362	628	REFL 2 POS 19 2ND LOOK	16362
52	SCENE DATA BP 2 CH 3	15998	630	SCENE DATA BP 19 CH 3	15997
54	CH 4	16709	632	CH 4	16708
56	CH 5	15981	634	CH 5	15985
58	CH 6	17364	636	CH 6	17361
60	CH 7	15777	638	CH 7	15784
62	CH 8	16811	640	CH 8	16812
64	CH 9	16534	642	CH 9	16532
66	CH 10	16816	644	CH 10	16814
68	CH 11	18401	646	CH 11	18399
70	CH 12	18566	648	CH 12	18552
72	CH 13	18883	650	CH 13	18872
74	CH 14	20451	652	CH 14	20445
76	CH 15	16706	654	CH 15	16703
78	REFLECTOR 1 POSITION 3	332	656	REFLECTOR 1 POSITION 20	332
80	REFLECTOR 2 POSITION 3	16362	658	REFLECTOR 2 POSITION 20	16362
82	REFL 1 POS 3 2ND LOOK	332	660	REFL 1 POS 20 2ND LOOK	332
84	REFL 2 POS 3 2ND LOOK	16362	662	REFL 2 POS 20 2ND LOOK	16362
86	SCENE DATA BP 3 CH 3	15997	664	SCENE DATA BP 20 CH 3	15996
88	CH 4	16707	666	CH 4	16707
90	CH 5	15981	668	CH 5	15982
92	CH 6	17362	670	CH 6	17363

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ELEMENT	DESCRIPTION			VALUE	ELEMENT	DESCRIPTION			VALUE
94			CH 7	15781	672			CH 7	15780
96			CH 8	16813	674			CH 8	16809
98			CH 9	16535	676			CH 9	16531
100			CH 10	16819	678			CH 10	16820
102			CH 11	18404	680			CH 11	18399
104			CH 12	18560	682			CH 12	18546
106			CH 13	18884	684			CH 13	18880
108			CH 14	20441	686			CH 14	20436
110			CH 15	16703	688			CH 15	16703
112	REFLECTOR 1 POSITION 4			332	690	REFLECTOR 1 POSITION 21			332
114	REFLECTOR 2 POSITION 4			16362	692	REFLECTOR 2 POSITION 21			16362
116	REFL 1 POS 4 2ND LOOK			332	694	REFL 1 POS 21 2ND LOOK			332
118	REFL 2 POS 4 2ND LOOK			16362	696	REFL 2 POS 21 2ND LOOK			16362
120	SCENE DATA BP 4		CH 3	15996	698	SCENE DATA BP 21		CH 3	15997
122			CH 4	16706	700			CH 4	16705
124			CH 5	15979	702			CH 5	15981
126			CH 6	17360	704			CH 6	17362
128			CH 7	15778	706			CH 7	15781
130			CH 8	16805	708			CH 8	16809
132			CH 9	16531	710			CH 9	16534
134			CH 10	16817	712			CH 10	16819
136			CH 11	18401	714			CH 11	18397
138			CH 12	18543	716			CH 12	18560
140			CH 13	18877	718			CH 13	18867
142			CH 14	20435	720			CH 14	20430
144			CH 15	16704	722			CH 15	16704
146	REFLECTOR 1 POSITION 5			332	724	REFLECTOR 1 POSITION 22			332
148	REFLECTOR 2 POSITION 5			16362	726	REFLECTOR 2 POSITION 22			16362
150	REFL 1 POS 5 2ND LOOK			332	728	REFL 1 POS 22 2ND LOOK			332
152	REFL 2 POS 5 2ND LOOK			16362	730	REFL 2 POS 22 2ND LOOK			16362
154	SCENE DATA BP 5		CH 3	15995	732	SCENE DATA BP 22		CH 3	16000
156			CH 4	16706	734			CH 4	16703
158			CH 5	15978	736			CH 5	15984
160			CH 6	17362	738			CH 6	17361
162			CH 7	15775	740			CH 7	15780
164			CH 8	16809	742			CH 8	16808
166			CH 9	16534	744			CH 9	16532
168			CH 10	16814	746			CH 10	16818
170			CH 11	18400	748			CH 11	18401
172			CH 12	18565	750			CH 12	18551
174			CH 13	18870	752			CH 13	18883
176			CH 14	20447	754			CH 14	20430
178			CH 15	16706	756			CH 15	16703
180	REFLECTOR 1 POSITION 6			332	758	REFLECTOR 1 POSITION 23			332
182	REFLECTOR 2 POSITION 6			16362	760	REFLECTOR 2 POSITION 23			16362
184	REFL 1 POS 6 2ND LOOK			332	762	REFL 1 POS 23 2ND LOOK			332
186	REFL 2 POS 6 2ND LOOK			16362	764	REFL 2 POS 23 2ND LOOK			16362
188	SCENE DATA BP 6		CH 3	15998	766	SCENE DATA BP 23		CH 3	15996
190			CH 4	16707	768			CH 4	16709
192			CH 5	15981	770			CH 5	15983

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FULL SCAN MODE

ELEMENT	DESCRIPTION			VALUE	ELEMENT	DESCRIPTION			VALUE
194			CH 6	17364	772			CH 6	17364
196			CH 7	15781	774			CH 7	15779
198			CH 8	16806	776			CH 8	16813
200			CH 9	16536	778			CH 9	16535
202			CH 10	16818	780			CH 10	16815
204			CH 11	18401	782			CH 11	18396
206			CH 12	18544	784			CH 12	18546
208			CH 13	18864	786			CH 13	18877
210			CH 14	20406	788			CH 14	20437
212			CH 15	16704	790			CH 15	16704
214	REFLECTOR 1 POSITION	7		332	792	REFLECTOR 1 POSITION	24		332
216	REFLECTOR 2 POSITION	7		16362	794	REFLECTOR 2 POSITION	24		16362
218	REFL 1 POS 7	2ND LOOK		332	796	REFL 1 POS 24	2ND LOOK		332
220	REFL 2 POS 7	2ND LOOK		16362	798	REFL 2 POS 24	2ND LOOK		16362
222	SCENE DATA BP	7	CH 3	15999	800	SCENE DATA BP	24	CH 3	15997
224			CH 4	16707	802			CH 4	16704
226			CH 5	15983	804			CH 5	15986
228			CH 6	17363	806			CH 6	17362
230			CH 7	15781	808			CH 7	15779
232			CH 8	16809	810			CH 8	16806
234			CH 9	16534	812			CH 9	16531
236			CH 10	16813	814			CH 10	16814
238			CH 11	18402	816			CH 11	18400
240			CH 12	18566	818			CH 12	18548
242			CH 13	18886	820			CH 13	18876
244			CH 14	20448	822			CH 14	20423
246			CH 15	16704	824			CH 15	16703
248	REFLECTOR 1 POSITION	8		332	826	REFLECTOR 1 POSITION	25		332
250	REFLECTOR 2 POSITION	8		16362	828	REFLECTOR 2 POSITION	25		16362
252	REFL 1 POS 8	2ND LOOK		332	830	REFL 1 POS 25	2ND LOOK		332
254	REFL 2 POS 8	2ND LOOK		16362	832	REFL 2 POS 25	2ND LOOK		16362
256	SCENE DATA BP	8	CH 3	15997	834	SCENE DATA BP	25	CH 3	16002
258			CH 4	16711	836			CH 4	16707
260			CH 5	15983	838			CH 5	15989
262			CH 6	17363	840			CH 6	17361
264			CH 7	15781	842			CH 7	15778
266			CH 8	16811	844			CH 8	16809
268			CH 9	16535	846			CH 9	16535
270			CH 10	16816	848			CH 10	16812
272			CH 11	18401	850			CH 11	18395
274			CH 12	18566	852			CH 12	18554
276			CH 13	18872	854			CH 13	18864
278			CH 14	20428	856			CH 14	20439
280			CH 15	16703	858			CH 15	16702
282	REFLECTOR 1 POSITION	9		332	860	REFLECTOR 1 POSITION	26		332
284	REFLECTOR 2 POSITION	9		16362	862	REFLECTOR 2 POSITION	26		16362
286	REFL 1 POS 9	2ND LOOK		332	864	REFL 1 POS 26	2ND LOOK		332
288	REFL 2 POS 9	2ND LOOK		16362	866	REFL 2 POS 26	2ND LOOK		16362
290	SCENE DATA BP	9	CH 3	16001	868	SCENE DATA BP	26	CH 3	15996
292			CH 4	16708	870			CH 4	16706

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FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
294	CH 5	15987	872	CH 5	15985
296	CH 6	17365	874	CH 6	17367
298	CH 7	15777	876	CH 7	15779
300	CH 8	16812	878	CH 8	16808
302	CH 9	16536	880	CH 9	16530
304	CH 10	16819	882	CH 10	16820
306	CH 11	18396	884	CH 11	18396
308	CH 12	18559	886	CH 12	18558
310	CH 13	18874	888	CH 13	18860
312	CH 14	20454	890	CH 14	20436
314	CH 15	16703	892	CH 15	16702
316	REFLECTOR 1 POSITION 10	332	894	REFLECTOR 1 POSITION 27	332
318	REFLECTOR 2 POSITION 10	16362	896	REFLECTOR 2 POSITION 27	16362
320	REFL 1 POS 10 2ND LOOK	332	898	REFL 1 POS 27 2ND LOOK	332
322	REFL 2 POS 10 2ND LOOK	16362	900	REFL 2 POS 27 2ND LOOK	16362
324	SCENE DATA BP 10 CH 3	15998	902	SCENE DATA BP 27 CH 3	16001
326	CH 4	16709	904	CH 4	16711
328	CH 5	15984	906	CH 5	15983
330	CH 6	17364	908	CH 6	17366
332	CH 7	15779	910	CH 7	15779
334	CH 8	16811	912	CH 8	16808
336	CH 9	16534	914	CH 9	16535
338	CH 10	16817	916	CH 10	16814
340	CH 11	18404	918	CH 11	18396
342	CH 12	18545	920	CH 12	18563
344	CH 13	18865	922	CH 13	18882
346	CH 14	20444	924	CH 14	20445
348	CH 15	16703	926	CH 15	16703
350	REFLECTOR 1 POSITION 11	332	928	REFLECTOR 1 POSITION 28	332
352	REFLECTOR 2 POSITION 11	16362	930	REFLECTOR 2 POSITION 28	16362
354	REFL 1 POS 11 2ND LOOK	332	932	REFL 1 POS 28 2ND LOOK	332
356	REFL 2 POS 11 2ND LOOK	16362	934	REFL 2 POS 28 2ND LOOK	16362
358	SCENE DATA BP 11 CH 3	15995	936	SCENE DATA BP 28 CH 3	15995
360	CH 4	16711	938	CH 4	16710
362	CH 5	15987	940	CH 5	15987
364	CH 6	17367	942	CH 6	17363
366	CH 7	15777	944	CH 7	15779
368	CH 8	16811	946	CH 8	16814
370	CH 9	16535	948	CH 9	16535
372	CH 10	16816	950	CH 10	16813
374	CH 11	18403	952	CH 11	18393
376	CH 12	18555	954	CH 12	18548
378	CH 13	18883	956	CH 13	18870
380	CH 14	20440	958	CH 14	20423
382	CH 15	16703	960	CH 15	16703
384	REFLECTOR 1 POSITION 12	332	962	REFLECTOR 1 POSITION 29	332
386	REFLECTOR 2 POSITION 12	16362	964	REFLECTOR 2 POSITION 29	16362
388	REFL 1 POS 12 2ND LOOK	332	966	REFL 1 POS 29 2ND LOOK	332
390	REFL 2 POS 12 2ND LOOK	16362	968	REFL 2 POS 29 2ND LOOK	16362
392	SCENE DATA BP 12 CH 3	15998	970	SCENE DATA BP 29 CH 3	15999

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FULL SCAN MODE

ELEMENT	DESCRIPTION	VALUE	ELEMENT	DESCRIPTION	VALUE
394	CH 4	16706	972	CH 4	16708
396	CH 5	15984	974	CH 5	15982
398	CH 6	17364	976	CH 6	17363
400	CH 7	15777	978	CH 7	15776
402	CH 8	16805	980	CH 8	16806
404	CH 9	16537	982	CH 9	16536
406	CH 10	16810	984	CH 10	16812
408	CH 11	18392	986	CH 11	18399
410	CH 12	18554	988	CH 12	18550
412	CH 13	18874	990	CH 13	18876
414	CH 14	20437	992	CH 14	20460
416	CH 15	16703	994	CH 15	16704
418	REFLECTOR 1 POSITION 13	332	996	REFLECTOR 1 POSITION 30	332
420	REFLECTOR 2 POSITION 13	16362	998	REFLECTOR 2 POSITION 30	16362
422	REFL 1 POS 13 2ND LOOK	332	1000	REFL 1 POS 30 2ND LOOK	332
424	REFL 2 POS 13 2ND LOOK	16362	1002	REFL 2 POS 30 2ND LOOK	16362
426	SCENE DATA BP 13 CH 3	15996	1004	SCENE DATA BP 30 CH 3	15997
428	CH 4	16706	1006	CH 4	16707
430	CH 5	15987	1008	CH 5	15984
432	CH 6	17363	1010	CH 6	17363
434	CH 7	15779	1012	CH 7	15777
436	CH 8	16810	1014	CH 8	16808
438	CH 9	16531	1016	CH 9	16535
440	CH 10	16811	1018	CH 10	16816
442	CH 11	18406	1020	CH 11	18398
444	CH 12	18551	1022	CH 12	18554
446	CH 13	18877	1024	CH 13	18873
448	CH 14	20446	1026	CH 14	20434
450	CH 15	16704	1028	CH 15	16705
452	REFLECTOR 1 POSITION 14	332	1030	REFLECTOR 1 COLD CAL POS	0E
454	REFLECTOR 2 POSITION 14	16362	1032	REFLECTOR 2 COLD CAL POS	0E
456	REFL 1 POS 14 2ND LOOK	332	1034	REFL 1 COLD CAL 2ND LOOK	0E
458	REFL 2 POS 14 2ND LOOK	16362	1036	REFL 2 COLD CAL 2ND LOOK	0E
460	SCENE DATA BP 14 CH 3	16003	1038	COLD CAL DATA 1 CH 3	0
462	CH 4	16708	1040	CH 4	0
464	CH 5	15983	1042	CH 5	0
466	CH 6	17365	1044	CH 6	0
468	CH 7	15782	1046	CH 7	0
470	CH 8	16807	1048	CH 8	0
472	CH 9	16538	1050	CH 9	0
474	CH 10	16813	1052	CH 10	0
476	CH 11	18401	1054	CH 11	0
478	CH 12	18547	1056	CH 12	0
480	CH 13	18889	1058	CH 13	0
482	CH 14	20408	1060	CH 14	0
484	CH 15	16703	1062	CH 15	0
486	REFLECTOR 1 POSITION 15	332	1064	COLD CAL DATA 2 CH 3	0
488	REFLECTOR 2 POSITION 15	16362	1066	CH 4	0
490	REFL 1 POS 15 2ND LOOK	332	1068	CH 5	0
492	REFL 2 POS 15 2ND LOOK	16362	1070	CH 6	0

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FULL SCAN MODE

ELEMENT	DESCRIPTION		VALUE	ELEMENT	DESCRIPTION		VALUE
494	SCENE DATA BP 15	CH 3	15995	1072		CH 7	0
496		CH 4	16709	1074		CH 8	0
498		CH 5	15983	1076		CH 9	0
500		CH 6	17360	1078		CH 10	0
502		CH 7	15781	1080		CH 11	0
504		CH 8	16814	1082		CH 12	0
506		CH 9	16531	1084		CH 13	0
508		CH 10	16820	1086		CH 14	0
510		CH 11	18398	1088		CH 15	0
512		CH 12	18542	1182	REFLECTOR 1 WARM CAL POS		0E
514		CH 13	18870	1184	REFLECTOR 2 WARM CAL POS		0E
516		CH 14	20437	1186	REFL 1 WARM CAL 2ND LOOK		0E
518		CH 15	16704	1188	REFL 2 WARM CAL 2ND LOOK		0E
520	REFLECTOR 1 POSITION 16		332	1190	WARM CAL DATA 1	CH 3	0
522	REFLECTOR 2 POSITION 16		16362	1192		CH 4	0
524	REFL 1 POS 16 2ND LOOK		332	1194		CH 5	0
526	REFL 2 POS 16 2ND LOOK		16362	1196		CH 6	0
528	SCENE DATA BP 16	CH 3	15995	1198		CH 7	0
530		CH 4	16710	1200		CH 8	0
532		CH 5	15985	1202		CH 9	0
534		CH 6	17361	1204		CH 10	0
536		CH 7	15779	1206		CH 11	0
538		CH 8	16812	1208		CH 12	0
540		CH 9	16532	1210		CH 13	0
542		CH 10	16813	1212		CH 14	0
544		CH 11	18400	1214		CH 15	0
546		CH 12	18553	1216	WARM CAL DATA 2	CH 3	0
548		CH 13	18870	1218		CH 4	0
550		CH 14	20408	1220		CH 5	0
552		CH 15	16702	1222		CH 6	0
554	REFLECTOR 1 POSITION 17		332	1224		CH 7	0
556	REFLECTOR 2 POSITION 17		16362	1226		CH 8	0
558	REFL 1 POS 17 2ND LOOK		332	1228		CH 9	0
560	REFL 2 POS 17 2ND LOOK		16362	1230		CH 10	0
562	SCENE DATA BP 17	CH 3	16001	1232		CH 11	0
564		CH 4	16706	1234		CH 12	0
566		CH 5	15981	1236		CH 13	0
568		CH 6	17364	1238		CH 14	0
570		CH 7	15778	1240		CH 15	0

4.6--7a

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EOS A1_03 E1.EXE;43 SCIENCE DATA 10-NOV-98 09:57:42 PAGE 7
FULL SCAN MODE

4.6-7a

ELEMENT	DESCRIPTION	VALUE	TEMPERATURE DEG C
1090	SCAN MOTOR A1-1	17054	21.16
1092	SCAN MOTOR A1-2	17910	22.08
1094	FEED HORN A1-1	18495	24.22
1096	FEED HORN A1-2	19365	25.92
1098	RF MUX A1-1	19947	26.84
1100	RF MUX A1-2	20980	28.91
1102	LOCAL OSCILLATOR CHANNEL 3	21746	30.63
1104	LOCAL OSCILLATOR CHANNEL 4	22106	30.63
1106	LOCAL OSCILLATOR CHANNEL 5	21252	29.64
1108	LOCAL OSCILLATOR CHANNEL 6	20495	27.26
1110	LOCAL OSCILLATOR CHANNEL 7	20650	28.25
1112	LOCAL OSCILLATOR CHANNEL 8	21692	30.35
1114	LOCAL OSCILLATOR CHANNEL 15	21697	29.90
1116	PLLO #2	20042	27.04
1118	PLLO #1	22949	32.67
1120	1553 INTERFACE	15916	32.04
1122	MIXER/IF AMPLIFIER CHANNEL 3	21218	29.23
1124	MIXER/IF AMPLIFIER CHANNEL 4	21421	29.27
1126	MIXER/IF AMPLIFIER CHANNEL 5	21142	29.11
1128	MIXER/IF AMPLIFIER CHANNEL 6	20240	27.40
1130	MIXER/IF AMPLIFIER CHANNEL 7	20113	27.72
1132	MIXER/IF AMPLIFIER CHANNEL 8	21301	29.34
1134	MIXER/IF AMPLIFIER CH 9 THRU 14	19675	26.55
1136	MIXER/IF AMPLIFIER CHANNEL 15	21427	29.90
1138	IF AMPLIFIER CHANNEL 11 THRU 14	21203	28.88
1140	IF AMPLIFIER CHANNEL 9	21360	28.45
1142	IF AMPLIFIER CHANNEL 10	21224	29.46
1144	IF AMPLIFIER CHANNEL 11	20245	26.72
1146	DC/DC CONVERTER	23773	33.54
1148	IF AMPLIFIER CHANNEL 13	19861	26.13
1150	IF AMPLIFIER CHANNEL 14	20220	27.26
1152	IF AMPLIFIER CHANNEL 12	20010	26.64
1154	RF SHELF A1-1	20842	28.54
1156	RF SHELF A1-2	21159	28.50
1158	DETECTOR/PREAMPLIFIER ASSEMBLY	18876	24.82
1160	A1-1 WARM LOAD 1	22199	21.46
1162	A1-1 WARM LOAD 2	22691	21.56
1164	A1-1 WARM LOAD 3	22199	21.61
1166	A1-1 WARM LOAD 4	22268	21.57
1168	A1-1 WARM LOAD CENTER	22469	21.57
1170	A1-2 WARM LOAD 1	22924	22.34
1172	A1-2 WARM LOAD 2	22979	22.36
1174	A1-2 WARM LOAD 3	22995	22.36
1176	A1-2 WARM LOAD 4	22989	22.25
1178	A1-2 WARM LOAD CENTER	22990	22.35
1180	TEMP SENSOR REFERENCE VOLTAGE	25264	

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```
EOS   A1-03_E1.EXE;43 NADIR MODE          P1 10-NOV-98 09:58:02  SCAN NUMBER     32
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12          665
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE        NO
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR        +5 VDC   5.51
```

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RADIOMETRIC DATA

BEAM POSITION 1

CH	DATA	CH	DATA	CH	DATA
3	15993	8	16808	13	18883
4	16705	9	16530	14	20430
5	15992	10	16815	15	16701
6	17360	11	18396		
7	15778	12	18561		

```
[ 21 ] UP                    [ 22 ] DOWN
ENGR OK        POWER   ON    CHECKSUM  IN 5897 CALC 5897   SA28   501 SA29   971
 SELECT BUTTON 2            SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL      [ 1 ] RETURN
```

4.6 - 7c

J F Kelly 11/10/98

EOS A1-03 E1.EXE:43 NADIR MODE P1 10-NOV-98 09:59:38 SCAN NUMBER 44
[5] SCIENCE DATA ELEMENT 388 REFL 1 2ND LOOK POS 12 665
[6] CONTROL/STATUS ELEMENT 1 ANTENNA IN FULL SCAN MODE NO
[7] ENGINEERING ELEMENT 1 SIGNAL PROCESSOR +5 VDC 5.51

RADIOMETRIC DATA
CHANNEL 3

BP	DATA	BP	DATA	BP	DATA	BP	DATA
1	15995	9	15994	17	15993	25	15996
2	15996	10	15999	18	15995	26	15996
3	15992	11	15999	19	16000	27	15996
4	15996	12	15991	20	15997	28	16001
5	15997	13	16000	21	15994	29	15998
6	15998	14	16001	22	15994	30	15994
7	15998	15	15995	23	15992	CC	0
8	16000	16	15993	24	15993	WC	0

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[21] UP [22] DOWN

ENGR OK POWER ON CHECKSUM IN 5371 CALC 5371 SA28 513 SA29 995
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN
SELECT BUTTON 2

4.6 - 7e
11/10/98

```
EOS    A1-03_E1.EXE;43 NADIR MODE          P1 10-NOV-98 09:59:54 SCAN NUMBER     46
[ 5 ] SCIENCE   DATA  ELEMENT  388         REFL 1 2ND LOOK POS  12        665
[ 6 ] CONTROL/STATUS  ELEMENT    1         ANTENNA IN FULL SCAN MODE       NO
[ 7 ] ENGINEERING     ELEMENT    1         SIGNAL PROCESSOR          +5 VDC   5.51

                                REFLECTOR POSITIONS 1
BP  LOOK 1  LOOK 2  BP  LOOK 1  LOOK 2  BP  LOOK 1  LOOK 2  BP  LOOK 1  LOOK 2
 1    332     332   9    332     332   17    332     332   25    332     332
 2    332     332  10    332     332   18    332     332   26    332     332
 3    332     332  11    332     332   19    332     332   27    332     332
 4    332     332  12    332     332   20    332     332   28    332     332
 5    332     332  13    332     332   21    332     332   29    332     332
 6    332     332  14    332     332   22    332     332   30    332     332
 7    332     332  15    332     332   23    332     332   CC     0E      0E
 8    332     332  16    332     332   24    332     332   WC     0E      0E
[ 21 ] UP                    [ 22 ] DOWN

ENGR OK          POWER   ON    CHECKSUM IN 505D CALC 505D   SA28   515 SA29   999
 SELECT BUTTON 2          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
```

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11/10/98

4.6-7a

```
EOS   A1-03_E1.EXE;43 NADIR MODE          P1 10-NOV-98 10:00:02  SCAN NUMBER     47
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12        665
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE       NO
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   5.51

                                REFLECTOR POSITIONS  2
BP  LOOK 1  LOOK 2   BP  LOOK 1  LOOK 2   BP  LOOK 1  LOOK 2   BP  LOOK 1  LOOK 2
 1  16362   16362    9  16362   16362    17  16362   16362    25  16362   16362
 2  16362   16362   10  16362   16362    18  16362   16362    26  16362   16362
 3  16362   16362   11  16362   16362    19  16362   16362    27  16362   16362
 4  16362   16362   12  16362   16362    20  16362   16362    28  16362   16362
 5  16362   16362   13  16362   16362    21  16362   16362    29  16362   16362
 6  16362   16362   14  16362   16362    22  16362   16362    30  16362   16362
 7  16362   16362   15  16362   16362    23  16362   16362    CC      0E      0E
 8  16362   16362   16  16362   16362    24  16362   16362    WC      0E      0E
[ 21 ] UP                    [ 22 ] DOWN

ENGR OK          POWER   ON     CHECKSUM  IN 4CBB CALC 4CBB   SA28   516 SA29  1001
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

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```
EOS   A1-03_E1.EXE;43 NADIR MODE          P1 10-NOV-98 10:02:02  SCAN NUMBER     62
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12        665
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE       NO
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR        +5 VDC   5.51
```

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SCIENCE TEMPERATURES 1 TO 16

NO		DATA	TEMP C	NO		DATA	TEMP C
1	SCAN MOTOR A1-1	17085	21.22	9	LO CHANNEL 5	21438	30.00
2	SCAN MOTOR A1-2	17968	22.19	10	LO CHANNEL 6	20631	27.52
3	FEED HORN A1-1	18609	24.43	11	LO CHANNEL 7	20816	28.57
4	FEED HORN A1-2	19509	26.19	12	LO CHANNEL 8	21877	30.70
5	RF MUX A1-1	20105	27.14	13	LO CHANNEL 15	21869	30.23
6	RF MUX A1-2	21172	29.27	14	PLLO #2	20213	27.36
7	LO CHANNEL 3	21938	31.00	15	PLLO #1	23124	33.01
8	LO CHANNEL 4	22297	31.00	16	S.P.(1553 INTF)	16080	32.36

```
[ 21 ] UP                    [ 22 ] DOWN

ENGR OK        POWER   ON    CHECKSUM  IN 4639 CALC 4639   SA28   531 SA29  1032
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
```

4.6-7i

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4.6-7i

```
EOS   A1-03_E1.EXE;43 NADIR MODE          P1 10-NOV-98 10:02:26  SCAN NUMBER     65
[ 5 ] SCIENCE   DATA  ELEMENT   388       REFL 1 2ND LOOK POS  12        665
[ 6 ] CONTROL/STATUS  ELEMENT     1       ANTENNA IN FULL SCAN MODE       NO
[ 7 ] ENGINEERING     ELEMENT     1       SIGNAL PROCESSOR          +5 VDC   5.51

                          SCIENCE  TEMPERATURES 17 TO 32
NO                        DATA   TEMP C     NO                        DATA   TEMP C

17 MIXER IF CH 3         21430      29.65   25 IF AMP CH 11/14       21386      29.22
18 MIXER IF CH 4         21633      29.67   26 IF AMP CH 9           21547      28.74
19 MIXER IF CH 5         21348      29.51   27 IF AMP CH 10          21409      29.82
20 MIXER IF CH 6         20411      27.73   28 IF AMP CH 11          20412      27.04
21 MIXER IF CH 7         20292      28.06   29 DC/DC CONVERTER       23936      33.85
22 MIXER IF CH 8         21515      29.76   30 IF AMP CH 13          20025      26.44
23 MIXER IF CH 9/14      19842      26.86   31 IF AMP CH 14          20387      27.58
24 MIXER IF CH 15        21608      30.25   32 IF AMP CH 12          20177      26.96
[ 21 ] UP                          [ 22 ] DOWN

ENGR OK          POWER   ON    CHECKSUM  IN 44F1 CALC 44F1   SA28   534 SA29  1037
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
 SELECT BUTTON 2
```

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4.6-7c

```
EOS   A1-03 E1.EXE;43 NADIR MODE          P1 10-NOV-98 10:02:34  SCAN NUMBER     66
[ 5 ] SCIENCE   DATA  ELEMENT   388       REFL 1 2ND LOOK POS  12          665
[ 6 ] CONTROL/STATUS  ELEMENT     1       ANTENNA IN FULL SCAN MODE        NO
[ 7 ] ENGINEERING     ELEMENT     1       SIGNAL PROCESSOR          +5 VDC   5.51
```

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SCIENCE TEMPERATURES 31 TO 46

NO	DATA	TEMP C	NO	DATA	TEMP C
31 IF AMP CH 14	20391	27.59	39 A1-1 WARM LOAD 4	22319	21.66
32 IF AMP CH 12	20181	26.97	40 A1-1 WARM LOAD C	22517	21.67
33 RF SHELF A1-1	21030	28.89	41 A1-2 WARM LOAD 1	23015	22.52
34 RF SHELF A1-2	21367	28.90	42 A1-2 WARM LOAD 2	23068	22.53
35 DETECTOR/PREAMP	19004	25.06	43 A1-2 WARM LOAD 3	23082	22.53
36 A1-1 WARM LOAD 1	22250	21.56	44 A1-2 WARM LOAD 4	23075	22.42
37 A1-1 WARM LOAD 2	22738	21.65	45 A1-2 WARM LOAD C	23079	22.52
38 A1-1 WARM LOAD 3	22247	21.70	THERMAL REFERENCE	25264	

```
[ 21 ] UP                    [ 22 ] DOWN

ENGR OK        POWER   ON    CHECKSUM  IN 446D CALC 446D   SA28   535 SA29  1039
 SELECT BUTTON 2          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL      [ 1 ] RETURN
```

```
EOS   A1-03 E1.EXE;43 NADIR MODE          P1 10-NOV-98 10:03:38 SCAN NUMBER     74
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12        665
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE       NO
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR        +5 VDC   5.51

                              ENGINEERING  1 TO 18

 1 SIGNAL PROCESSOR        +5 VDC    4.94 10 MIXER/IF AMPLIFIER A1-1+10VDC  10.01
 2 SIGNAL PROCESSOR        +15VDC   15.06 11 MIXER/IF AMPLIFIER A1-2+10VDC  10.01
 3 SIGNAL PROCESSOR        -15VDC  -15.03 12 LOCAL OSCILLATOR-CH 6 +10 VDC  10.02
 4 ANTENNA DRIVE           +5 VDC    4.92 13 LOCAL OSCILLATOR-CH 7 +10 VDC  10.01
 5 ANTENNA DRIVE           +15VDC   14.93 14 SPARE                          327.67
 6 ANTENNA DRIVE           -15VDC  -15.06 15 LOCAL OSCILLATOR-CH 3 +10 VDC  10.06
 7 PLO                     +15VDC   14.79 16 LOCAL OSCILLATOR-CH 4 +10 VDC  10.08
 8 PLO                     -15VDC  -15.22 17 LOCAL OSCILLATOR-CH 5 +10 VDC  10.02
 9 RECEIVER                +8 VDC    7.91 18 LOCAL OSCILLATOR-CH 8 +10 VDC  10.05
[ 21 ] UP                   [ 22 ] DOWN

ENGR OK          POWER   ON     CHECKSUM  IN 40FB CALC 40FB   SA28    543 SA29  1055
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
```

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4-6-9 J. Fuller 11/10/98

```
EOS   A1-03 E1.EXE;43 NADIR MODE          P1 10-NOV-98 10:03:55 SCAN NUMBER     76
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12        665
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE       NO
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   5.51

                              ENGINEERING  5 TO 22

 5 ANTENNA DRIVE          +15VDC  14.94 14 SPARE                              327.67
 6 ANTENNA DRIVE          -15VDC -15.06 15 LOCAL OSCILLATOR-CH 3 +10 VDC   10.06
 7 PLO                    +15VDC  14.79 16 LOCAL OSCILLATOR-CH 4 +10 VDC   10.08
 8 PLO                    -15VDC -15.22 17 LOCAL OSCILLATOR-CH 5 +10 VDC   10.02
 9 RECEIVER                +8 VDC   7.91 18 LOCAL OSCILLATOR-CH 8 +10 VDC   10.05
10 MIXER/IF AMPLIFIER A1-1+10VDC  10.01 19 LOCAL OSCILLATOR-CH15 +15 VDC   14.99
11 MIXER/IF AMPLIFIER A1-2+10VDC  10.01 20 A1 QUIET BUS CURRENT             2261.6
12 LOCAL OSCILLATOR-CH 6 +10 VDC  10.02 21 A1-1 NOISY POWER BUS CURRENT       0.2
13 LOCAL OSCILLATOR-CH 7 +10 VDC  10.01 22 A1-2 NOISY POWER BUS CURRENT       0.1
[ 21 ] UP                        [ 22 ] DOWN

ENGR OK        POWER   ON    CHECKSUM IN 3F97 CALC 3F97   SA28   545 SA29  1059
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

4.6-9

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```
EOS   A1-03 E1.EXE;43 NADIR MODE          P1 10-NOV-98 10:04:51  SCAN NUMBER     83
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12          665
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE        NO
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   5.51
```

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INSTRUMENT STATUS

1	ANTENNA IN FULL SCAN MODE	NO	8	RESET C&DH PROCESSOR	NO
2	ANTENNA IN WARM CAL MODE	NO	9	PLO REDUNDANCY	PLLO#1
3	ANTENNA IN COLD CAL MODE	NO	10	--- BIT 10 SPARE	NO
4	ANTENNA IN NADIR MODE	YES	11	SCANNER 1 POWER	YES
5	COLD CAL. POSITION (LSB)	ZERO	12	SCANNER 2 POWER	YES
6	COLD CAL. POSITION (MSB)	ZERO	13	PLO#1 LOCK	YES
7	--- BIT 7 SPARE	NO	14	PLO#2 LOCK	YES
			15	ADC LATCHUP FLAG	YES

```
ENGR OK        POWER   ON     CHECKSUM  IN 3BE1 CALC 3BE1   SA28   551 SA29  1072
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

4.6 -10 11/10/98

EOS A1-03_E1.EXE;43 NADIR MODE P1 10-NOV-98 10:08:43 SCAN NUMBER 18
[5] SCIENCE DATA ELEMENT 388 REFL 1 2ND LOOK POS 12 665
[6] CONTROL/STATUS ELEMENT 1 ANTENNA IN FULL SCAN MODE NO
[7] ENGINEERING ELEMENT 1 SIGNAL PROCESSOR +5 VDC 5.51

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UNPOWERED THERMISTORS

NO	DATA	TEMP C
1	A1-1 SCAN MOTOR TEMPERATURE	20.93
2	A1-1 RF SHELF TEMPERATURE #1	26.21
3	A1-1 WARM LOAD TEMPERATURE	21.15
4	A1-2 SCAN MOTOR TEMPERATURE	22.58
5	A1-2 RF SHELF TEMPERATURE #1	29.64
6	A1-2 WARM LOAD TEMPERATURE	22.24
7	A1-1 RF SHELF TEMPERATURE #2	26.08
8	A1-2 RF SHELF TEMPERATURE #2	29.28

ENGR OK POWER ON CHECKSUM IN 29FF CALC 29FF SA28 580 SA29 1130
SCREEN ONLY [2] PRINT [3] FULL [1] RETURN
SELECT BUTTON 2

4.7-3 11/10/98

E1.EXE;43 ERROR MESSAGES

NO	QTY	ERROR MESSAGE	MAX ERROR	DATE	TIME
1	1	PREVIOUS COMMAND NOT ACCEPTED		10-NOV-98	09:55:30
2	10	RESOLVER ERROR FLAG SET		10-NOV-98	10:10:19

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4.8-6 11/16/98

```
EOS   A1-03_E1.EXE;43 FULL SCAN MODE     P1  3-NOV-98 03:34:00  SCAN NUMBER      4
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12      32377
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.94

                          SCIENCE   TEMPERATURES  1 TO 16
NO                      DATA   TEMP C      NO                      DATA   TEMP C

 1 SCAN MOTOR A1-1     17046      21.14      9 LO CHANNEL 5        25065      37.00
 2 SCAN MOTOR A1-2     17220      20.78     10 LO CHANNEL 6        23502      33.02
 3 FEED HORN A1-1      18778      24.76     11 LO CHANNEL 7        24809      36.31
 4 FEED HORN A1-2      18490      24.26     12 LO CHANNEL 8        25850      38.43
 5 RF MUX A1-1         23278      33.22     13 LO CHANNEL 15       24413      35.13
 6 RF MUX A1-2         24084      34.92     14 PLLO #2             26724      39.96
 7 LO CHANNEL 3        25853      38.56     15 PLLO #1             22974      32.72
 8 LO CHANNEL 4        26284      38.73     16 S.P.(1553 INTF)     20991      41.86
[ 21 ] UP                        [ 22 ] DOWN

ENGR OK         POWER   OFF   CHECKSUM  IN FFC7 CALC FFC7   SA28   678 SA29  1325
                        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

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4.9-11

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4.9-11

```
EOS   A1-03_E1.EXE;43  FULL SCAN MODE      P1   3-NOV-98 03:34:00   SCAN NUMBER      4
[ 5 ] SCIENCE    DATA  ELEMENT   388       REFL 1 2ND LOOK POS   12        32377
[ 6 ] CONTROL/STATUS   ELEMENT     1       ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING      ELEMENT     1       SIGNAL PROCESSOR          +5 VDC   4.94

                              SCIENCE   TEMPERATURES 17 TO 32
NO                          DATA    TEMP C      NO                          DATA    TEMP C
17 MIXER IF CH 3           24865      36.36     25 IF AMP CH 11/14         24157      34.96
18 MIXER IF CH 4           25102      36.34     26 IF AMP CH 9             24347      35.23
19 MIXER IF CH 5           24492      35.56     27 IF AMP CH 10            24199      35.21
20 MIXER IF CH 6           23850      34.31     28 IF AMP CH 11            23933      33.83
21 MIXER IF CH 7           23614      34.42     29 DC/DC CONVERTER         25812      37.50
22 MIXER IF CH 8           24919      36.34     30 IF AMP CH 13            23535      33.17
23 MIXER IF CH 9/14        22941      32.79     31 IF AMP CH 14            23902      34.33
24 MIXER IF CH 15          25260      37.30     32 IF AMP CH 12            23666      33.66
[ 21 ] UP                          [ 22 ] DOWN

ENGR OK          POWER   OFF   CHECKSUM  IN FFC7 CALC FFC7   SA28   678 SA29  1325
 SELECT BUTTON 2          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
```

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4.9-11

```
EOS   A1-03_E1.EXE;43 FULL SCAN MODE     P1  3-NOV-98 03:34:08  SCAN NUMBER      5
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12       32377
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.95

                        SCIENCE  TEMPERATURES 31 TO 46
NO                     DATA   TEMP C      NO                      DATA   TEMP C

31 IF AMP CH 14       23901      34.32    39 A1-1 WARM LOAD 4  23100      23.19
32 IF AMP CH 12       23665      33.66    40 A1-1 WARM LOAD C  23311      23.22
33 RF SHELF A1-1      24077      34.74    41 A1-2 WARM LOAD 1  23041      22.57
34 RF SHELF A1-2      24444      34.84    42 A1-2 WARM LOAD 2  23096      22.59
35 DETECTOR/PREAMP    22688      32.07    43 A1-2 WARM LOAD 3  23104      22.57
36 A1-1 WARM LOAD 1   23040      23.10    44 A1-2 WARM LOAD 4  23101      22.47
37 A1-1 WARM LOAD 2   23536      23.21    45 A1-2 WARM LOAD C  23120      22.60
38 A1-1 WARM LOAD 3   23024      23.22    THERMAL REFERENCE    25281
[ 21 ] UP                        [ 22 ] DOWN

ENGR OK          POWER    OFF   CHECKSUM  IN FFC7 CALC FFC7   SA28   678 SA29  1325
                          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

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```
EOS    A1-03_E1.EXE;43 FULL SCAN MODE     P1  4-NOV-98 06:36:28  SCAN NUMBER      4
[ 5 ] SCIENCE   DATA  ELEMENT  388         REFL 1 2ND LOOK POS  12      32377
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   4.95

                              ENGINEERING  1 TO 18

 1 SIGNAL PROCESSOR        +5 VDC    4.95 10 MIXER/IF AMPLIFIER A1-1+10VDC   10.01
 2 SIGNAL PROCESSOR        +15VDC   15.05 11 MIXER/IF AMPLIFIER A1-2+10VDC   10.01
 3 SIGNAL PROCESSOR        -15VDC  -15.03 12 LOCAL OSCILLATOR-CH 6 +10 VDC   10.02
 4 ANTENNA DRIVE           +5 VDC    4.92 13 LOCAL OSCILLATOR-CH 7 +10 VDC   10.00
 5 ANTENNA DRIVE           +15VDC   14.94 14 SPARE                          327.67
 6 ANTENNA DRIVE           -15VDC  -15.07 15 LOCAL OSCILLATOR-CH 3 +10 VDC   10.06
 7 PLO                     +15VDC   14.80 16 LOCAL OSCILLATOR-CH 4 +10 VDC   10.08
 8 PLO                     -15VDC  -15.23 17 LOCAL OSCILLATOR-CH 5 +10 VDC   10.02
 9 RECEIVER                +8 VDC    7.92 18 LOCAL OSCILLATOR-CH 8 +10 VDC   10.04
[ 21 ] UP                    [ 22 ] DOWN

ENGR OK          POWER   OFF   CHECKSUM  IN FFC7 CALC FFC7   SA28   678 SA29  1325
 SELECT BUTTON 2          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL       [ 1 ] RETURN
```

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4.10-10

11/10/98

```
EOS   A1-03_E1.EXE;43 FULL SCAN MODE     P1  4-NOV-98 06:36:36  SCAN NUMBER      5
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12       32377
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.95

                              ENGINEERING  5 TO 22

 5 ANTENNA DRIVE          +15VDC  14.94 14 SPARE                              327.67
 6 ANTENNA DRIVE          -15VDC -15.06 15 LOCAL OSCILLATOR-CH 3 +10 VDC  10.06
 7 PLO                    +15VDC  14.80 16 LOCAL OSCILLATOR-CH 4 +10 VDC  10.08
 8 PLO                    -15VDC -15.23 17 LOCAL OSCILLATOR-CH 5 +10 VDC  10.02
 9 RECEIVER                +8 VDC   7.92 18 LOCAL OSCILLATOR-CH 8 +10 VDC  10.04
10 MIXER/IF AMPLIFIER A1-1+10VDC  10.01 19 LOCAL OSCILLATOR-CH15 +15 VDC  14.99
11 MIXER/IF AMPLIFIER A1-2+10VDC  10.01 20 A1 QUIET BUS CURRENT             2275.9
12 LOCAL OSCILLATOR-CH 6 +10 VDC  10.02 21 A1-1 NOISY POWER BUS CURRENT      54.9
13 LOCAL OSCILLATOR-CH 7 +10 VDC  10.00 22 A1-2 NOISY POWER BUS CURRENT      50.9
[ 21 ] UP                 [ 22 ] DOWN

ENGR OK        POWER   OFF   CHECKSUM  IN FFC7 CALC FFC7   SA28   678 SA29  1325
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

14,10-10

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```
EOS    A1-03_E1.EXE;43  FULL SCAN MODE     P1   6-NOV-98 11:34:30   SCAN NUMBER      4
[ 5 ] SCIENCE    DATA   ELEMENT   388       REFL 1 2ND LOOK POS  12       32377
[ 6 ] CONTROL/STATUS    ELEMENT     1       ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING       ELEMENT     1       SIGNAL PROCESSOR          +5 VDC   4.95
```

WARM CALIBRATE

CH	DATA	CH	DATA	CH	DATA	CH	DATA
3	15887	7	15520	10	16462	13	17881
3	15886	7	15518	10	16472	13	17865
4	16316	8	16532	11	17437	14	19009
4	16320	8	16531	11	17442	14	19029
5	15842	9	16424	12	17735	15	16347
5	15843	9	16422	12	17731	15	16349
6	17188						
6	17191						

91/101

```
ENGR OK          POWER    OFF    CHECKSUM  IN FFC7 CALC FFC7    SA28    678 SA29  1325
                          SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
```

4.11.1.2-10

11/10/98

```
EOS   A1-03 E1.EXE;43 FULL SCAN MODE      P1  6-NOV-98 11:38:22  SCAN NUMBER     33
[ 5 ] SCIENCE    DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12      32377
[ 6 ] CONTROL/STATUS   ELEMENT    1       ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING      ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.94

                          SCIENCE  TEMPERATURES 14 TO 29
NO                        DATA   TEMP C    NO                        DATA   TEMP C
14 PLLO #2                26934    40.38    22 MIXER IF CH 8          25158    36.80
15 PLLO #1                23131    33.02    23 MIXER IF CH 9/14       23400    33.67
16 S.P.(1553 INTF)        21263    42.39    24 MIXER IF CH 15         25593    37.95
17 MIXER IF CH 3          25089    36.78    25 IF AMP CH 11/14        24429    35.49
18 MIXER IF CH 4          25317    36.76    26 IF AMP CH 9            24618    35.76
19 MIXER IF CH 5          24672    35.91    27 IF AMP CH 10           24468    35.73
20 MIXER IF CH 6          24314    35.21    28 IF AMP CH 11           24402    34.75
21 MIXER IF CH 7          24006    35.18    29 DC/DC CONVERTER        25595    37.08
[ 21 ] UP                          [ 22 ] DOWN

ENGR OK        POWER   OFF   CHECKSUM  IN FFC7 CALC FFC7   SA28   678 SA29  1325
 SELECT BUTTON 2              SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL      [ 1 ] RETURN
```

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4.11.1.2-13

11/10/98

```
EOS   A1-03_E1.EXE;43  FULL SCAN MODE     P1  6-NOV-98 11:38:38  SCAN NUMBER     35
[ 5 ] SCIENCE   DATA   ELEMENT  388       REFL 1 2ND LOOK POS  12       32377
[ 6 ] CONTROL/STATUS   ELEMENT    1       ANTENNA IN FULL SCAN MODE        YES
[ 7 ] ENGINEERING      ELEMENT    1       SIGNAL PROCESSOR        +5 VDC   4.95

                          SCIENCE  TEMPERATURES 30 TO 45
NO                      DATA   TEMP C     NO                      DATA   TEMP C

30 IF AMP CH 13        24005      34.08   38 A1-1 WARM LOAD 3    24006      25.15
31 IF AMP CH 14        24368      35.23   39 A1-1 WARM LOAD 4    24093      25.14
32 IF AMP CH 12        24140      34.59   40 A1-1 WARM LOAD C    24294      25.16
33 RF SHELF A1-1       24290      35.15   41 A1-2 WARM LOAD 1    23896      24.25
34 RF SHELF A1-2       24631      35.20   42 A1-2 WARM LOAD 2    23948      24.26
35 DETECTOR/PREAMP     23438      33.51   43 A1-2 WARM LOAD 3    23956      24.24
36 A1-1 WARM LOAD 1    24021      25.03   44 A1-2 WARM LOAD 4    23953      24.14
37 A1-1 WARM LOAD 2    24520      25.15   45 A1-2 WARM LOAD C    23973      24.27
[ 21 ] UP                          [ 22 ] DOWN

ENGR OK          POWER   OFF   CHECKSUM  IN FFC7 CALC FFC7   SA28   678 SA29  1325
                         SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL          [ 1 ] RETURN
 SELECT BUTTON 2
```

4.11.12-13

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```
EOS   A1-03 E1.EXE;43 FULL SCAN MODE      P1  6-NOV-98 11:38:46  SCAN NUMBER     36
[ 5 ] SCIENCE   DATA  ELEMENT  388        REFL 1 2ND LOOK POS  12      32377
[ 6 ] CONTROL/STATUS  ELEMENT    1        ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1        SIGNAL PROCESSOR          +5 VDC   4.95

                          SCIENCE  TEMPERATURES 31 TO 46
NO                      DATA   TEMP C     NO                      DATA   TEMP C
31 IF AMP CH 14        24369     35.24     39 A1-1 WARM LOAD 4   24092     25.13
32 IF AMP CH 12        24141     34.59     40 A1-1 WARM LOAD C   24294     25.16
33 RF SHELF A1-1       24292     35.16     41 A1-2 WARM LOAD 1   23896     24.25
34 RF SHELF A1-2       24629     35.20     42 A1-2 WARM LOAD 2   23948     24.26
35 DETECTOR/PREAMP     23439     33.51     43 A1-2 WARM LOAD 3   23957     24.24
36 A1-1 WARM LOAD 1    24021     25.03     44 A1-2 WARM LOAD 4   23949     24.13
37 A1-1 WARM LOAD 2    24523     25.15     45 A1-2 WARM LOAD C   23972     24.27
38 A1-1 WARM LOAD 3    24007     25.15     THERMAL REFERENCE     25282
[ 21 ] UP                        [ 22 ] DOWN

ENGR OK        POWER   OFF   CHECKSUM  IN FFC7 CALC FFC7   SA28   678 SA29  1325
 SELECT BUTTON 2        SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
```

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4.11.1.2-13 (also)

11/10/98

```
EOS   A1-03 E1.EXE;43 FULL SCAN MODE     P1  6-NOV-98 11:40:14  SCAN NUMBER     47
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12       32377
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR        +5 VDC   4.94

                              ENGINEERING  1 TO 18

 1 SIGNAL PROCESSOR        +5 VDC   4.94 10 MIXER/IF AMPLIFIER A1-1+10VDC  10.01
 2 SIGNAL PROCESSOR        +15VDC  15.05 11 MIXER/IF AMPLIFIER A1-2+10VDC  10.01
 3 SIGNAL PROCESSOR        -15VDC -15.03 12 LOCAL OSCILLATOR-CH 6 +10 VDC  10.02
 4 ANTENNA DRIVE           +5 VDC   4.93 13 LOCAL OSCILLATOR-CH 7 +10 VDC  10.00
 5 ANTENNA DRIVE           +15VDC  14.94 14 SPARE                         327.67
 6 ANTENNA DRIVE           -15VDC -15.06 15 LOCAL OSCILLATOR-CH 3 +10 VDC  10.06
 7 PLO                     +15VDC  14.79 16 LOCAL OSCILLATOR-CH 4 +10 VDC  10.07
 8 PLO                     -15VDC -15.24 17 LOCAL OSCILLATOR-CH 5 +10 VDC  10.02
 9 RECEIVER                +8 VDC   7.92 18 LOCAL OSCILLATOR-CH 8 +10 VDC  10.04
[ 21 ] UP                   [ 22 ] DOWN

ENGR OK        POWER   OFF   CHECKSUM  IN FFC7 CALC FFC7   SA28   678 SA29  1325
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

95/101

4.11.1.2-18 11/10/98

```
EOS   A1-03 E1.EXE;43 FULL SCAN MODE     P1  6-NOV-98 11:40:22  SCAN NUMBER     48
[ 5 ] SCIENCE   DATA  ELEMENT  388       REFL 1 2ND LOOK POS  12      32377
[ 6 ] CONTROL/STATUS  ELEMENT    1       ANTENNA IN FULL SCAN MODE       YES
[ 7 ] ENGINEERING     ELEMENT    1       SIGNAL PROCESSOR          +5 VDC   4.94

                                ENGINEERING  5 TO 22

 5 ANTENNA DRIVE            +15VDC  14.94 14 SPARE                          327.67
 6 ANTENNA DRIVE            -15VDC -15.06 15 LOCAL OSCILLATOR-CH 3 +10 VDC   10.06
 7 PLO                      +15VDC  14.79 16 LOCAL OSCILLATOR-CH 4 +10 VDC   10.08
 8 PLO                      -15VDC -15.24 17 LOCAL OSCILLATOR-CH 5 +10 VDC   10.02
 9 RECEIVER                  +8 VDC   7.92 18 LOCAL OSCILLATOR-CH 8 +10 VDC   10.04
10 MIXER/IF AMPLIFIER A1-1+10VDC  10.01 19 LOCAL OSCILLATOR-CH15 +15 VDC   14.99
11 MIXER/IF AMPLIFIER A1-2+10VDC  10.01 20 A1 QUIET BUS CURRENT             2278.2
12 LOCAL OSCILLATOR-CH 6 +10 VDC  10.02 21 A1-1 NOISY POWER BUS CURRENT      62.6
13 LOCAL OSCILLATOR-CH 7 +10 VDC  10.00 22 A1-2 NOISY POWER BUS CURRENT      58.0
[ 21 ] UP                    [ 22 ] DOWN

ENGR OK        POWER   OFF   CHECKSUM  IN FFC7 CALC FFC7   SA28   678 SA29  1325
                       SCREEN ONLY [ 2 ]  PRINT  [ 3 ] FULL        [ 1 ] RETURN
 SELECT BUTTON 2
```

4,11,12-18

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A1 IN FLIGHT WARM PATH CALIBRATION

E1.EXE;43 6-NOV-98 13:10:38

INST TEMP1	35.19	INST TEMP2	35.23		
SCENE TEMP1	297.26	COLD TEMP1	83.98	WARM TEMP1	298.33
SCENE TEMP2	297.56	COLD TEMP2	83.95	WARM TEMP2	297.43

CHANNEL	TW2P1	TC2P
3	-0.111	
4	-0.101	
5	-0.110	
6	0.223	
7	0.228	
8	-0.098	
9	0.246	
10	0.217	
11	0.233	
12	0.267	
13	0.238	
14	0.247	
15	0.204	

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[2] PRINT
SELECT BUTTON 2

[1] RETURN

4.1.1.2-21 "Formal Test 9.1" 11/10/98

A1 IN FLIGHT WARM PATH CALIBRATION

E1.EXE;40 5-NOV-98 09:57:33

INST TEMP1	34.65	INST TEMP2	35.34		
SCENE TEMP1	999.00	COLD TEMP1	83.80	WARM TEMP1	297.73
SCENE TEMP2	999.00	COLD TEMP2	83.91	WARM TEMP2	296.84

CHANNEL	TW2P1	TC2P
3	828.074	
4	828.671	
5	828.272	
6	814.946	
7	814.879	
8	827.989	
9	814.856	
10	814.185	
11	814.988	
12	815.248	
13	815.434	
14	815.808	
15	814.834	

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[2] PRINT
SELECT BUTTON 2

[1] RETURN

4.11.3.2-7 (Cycle 1)

A1 IN FLIGHT WARM PATH CALIBRATION

E1.EXE;40 5-NOV-98 10:14:39

INST TEMP1	34.55	INST TEMP2	35.34		
SCENE TEMP1	999.00	COLD TEMP1	83.82	WARM TEMP1	297.76
SCENE TEMP2	999.00	COLD TEMP2	83.91	WARM TEMP2	296.88

CHANNEL	TW2P1	TC2P
3	828.248	
4	828.655	
5	827.921	
6	815.045	
7	815.352	
8	828.312	
9	815.028	
10	815.069	
11	815.274	
12	815.644	
13	815.171	
14	816.274	
15	815.426	

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[2] PRINT
SELECT BUTTON 2

[1] RETURN

4.11.3.2-7 (Cycle 3)
11/10/98

A1 IN FLIGHT WARM PATH CALIBRATION

E1.EXE;40 5-NOV-98 10:26:58

INST TEMP1	34.52	INST TEMP2	35.33		
SCENE TEMP1	999.00	COLD TEMP1	83.82	WARM TEMP1	297.78
SCENE TEMP2	999.00	COLD TEMP2	83.91	WARM TEMP2	296.90

CHANNEL	TW2P1	TC2P
3	828.538	
4	828.648	
5	828.032	
6	816.083	
7	816.085	
8	828.328	
9	815.946	
10	815.427	
11	815.822	
12	815.820	
13	815.116	
14	815.601	
15	815.932	

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[2] PRINT
SELECT BUTTON 2

[1] RETURN

4.11.3.2-7 (Cycle 6)

11/30/98

A1 DELTA T AND CALIBRATION ACCURACY
E1.EXE;40 5-NOV-98 18:30:48 A1_03_CYCLE1_SUB1_T300_B15_A40PO.DAT

INST TEMP1	33.10	33.10	33.11	INST TEMP2	33.56	33.56	33.57
SCENE MIN TEMP1	999.00			COLD MIN TEMP1	83.77	WARM MIN TEMP1	297.86
SCENE AVG TEMP1	999.00			COLD AVG TEMP1	83.79	WARM AVG TEMP1	297.96
SCENE MAX TEMP1	999.00			COLD MAX TEMP1	83.81	WARM MAX TEMP1	298.00

CHANNEL	DELTA T	AC	RC		
3	0.257	719.635	0.171	SCENE MIN TEMP2	999.00
4	0.123	809.506	0.076	SCENE AVG TEMP2	999.00
5	0.179	719.649	0.120	SCENE MAX TEMP2	999.00
6	0.248	807.502	0.204		
7	0.315	717.705	0.268	COLD MIN TEMP2	83.89
8	0.175	809.356	0.134	COLD AVG TEMP2	83.92
9	0.238	717.849	0.209	COLD MAX TEMP2	83.97
10	0.218	807.523	0.175		
11	0.465	717.914	0.372	WARM MIN TEMP2	296.79
12	0.276	807.347	0.170	WARM AVG TEMP2	296.88
13	0.458	717.710	0.366	WARM MAX TEMP2	296.92
14	0.971	807.953	0.660		
15	0.133	718.065	0.092	LEAST SQ N	7

[2] PRINT
SELECT BUTTON 2

[1] RETURN

101/101

4.11.4.2 8

Journal list 9.4

11/30/98

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Report Documentation Page

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Systems Engineer (R. Platt)	8311	12/2/98
Design Assurance (E. Lorenz)	8331	12/2/98
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This is the *Software Test Report* for the software to be used in the Earth Observing System (EOS) Advanced Microwave Sounding Unit-A1 (AMSU-A1) instrument.

14. SUBJECT TERMS
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13. ABSTRACT (*Maximum 200 words*)

This is the EOS Software Test Report for the Integrated Advanced Microwave Sounding Unit-A (AMSU-A).

14. SUBJECT TERMS
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