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JPL Contract 952028

# A Study Program on the Development of a Mathematical Model(s) for Microbial Burden Prediction

## Final Report

## Volume III

## Appendices

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A STUDY PROGRAM ON THE DEVELOPMENT OF MATHEMATICAL  
MODEL(S) FOR MICROBIAL BURDEN PREDICTION

JPL Contract 952028

Final Report

Volume III, Appendices

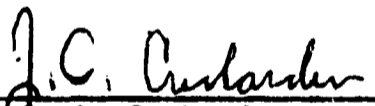
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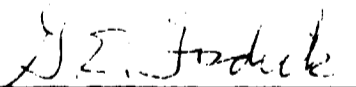
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## FOREWORD

This document represents the final technical report on JPL Contract 952028, A Study Program on the Development of Mathematical Model(s) for Microbial Burden Prediction. This report was prepared in accordance with the requirements established by the subject contract. The final report is submitted in three (3) volumes:

Volume I	Technical Report
Volume II	User's Manual for the Microbial Burden Prediction Program
Volume III	Appendices

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## APPENDIX I

Appendix I contains a summary of assumptions made during the development of the burden prediction model. These assumptions are:

1. Within the context of planetary launch vehicles as they are currently conceived or forecast, any such vehicle will require a probe system.
2. Such a probe system will include, but not be limited to, the following major systems:
  - a. Lander or Surface Module
  - b. Entry Package
  - c. Deorbit Module
  - d. Canister
  - e. Adapter
3. The probe systems will be manufactured, assembled and Flight Acceptance Tested (as defined by specification) by either the probe Prime Contractor or a Sub-contractor.
4. The assembly and test of such a probe will take place at two (2) locations, the Prime Contractor's Facility and the mission launch site (nominally ETR).
5. Periodic assays of the probe hardware may be made during the assembly and test sequence.

## APPENDIX 1 (Continued)

6. Normal assembly will take place in a Class 100 clean room environment; test operations will take place in a Class 100 or dirtier environment.
7. In "Clean" areas, environment and personnel access will be controlled and, to some degree, monitored on a periodic basis.
8. The sample size of the sum (product, etc.) of two distributions is at least equal to the smaller of the two sample sizes. (A considerable savings in assay work is likely to result if the exact relationship can be determined).
9. The sensitivity of the output to a given parameter can be multiplied by the desired output sample size to get an approximation for the sample size of the parameter. (Again, a savings in assay work is likely to result if the exact relationship can be determined.)
10. In order to simulate the "plateau" phenomenon, it was necessary to assume that organisms remain (alive) on a given surface a certain average length of time and then are (somehow) lost. A value of 100 hours seems approximately correct for exposed surfaces, but no data could be found for mated and occluded surfaces. The latter was assumed to be 1000 hours.



## APPENDIX I (Continued)

11. A first-order model was assumed for the fallout-"die-off" process on surfaces:

$$B' = B e^{-t/v} + AvR (1 - e^{-t/v})$$

12. The formula for fallout rate ( $R = f_1 gc$ ) has some experimental verification (Ref. 34), but may not be appropriate in all circumstances.
13. The fallout velocity ( $f_1$ ) is assumed constant in a given environment, and is otherwise assumed to be a well-defined measurable quantity.
14. It is assumed that a meaningful value can be assigned to the local increase in airborne concentration of organisms due to the (transient) presence of people or equipment. In this relation, the concentration is assumed to decrease exponentially, with distance from the source:  $c = Qe^{-\lambda d}$ , where  $\lambda$  is an undetermined factor.
15. Burden transfer by contact is assumed to be represented by the formula:

$$B' = B - \frac{S_2 a}{2A} B + \frac{S_1 a}{2} b_t$$

This model assumes that the surface retention factors  $S_1$  and  $S_2$  can be assigned to surfaces instead of pairs of surfaces (i.e., the interaction is negligible).

## APPENDIX I (Continued)

16. The computer program accounts for contact at the end of an operation even though the contact may actually have occurred at intervals throughout the operation. It is assumed that this difference is negligible. (If not, the operation can easily be separated into shorter operations).
17. Contact is assumed to occur almost instantaneously.
18. It is assumed that merely keeping track of the total burden on each surface of each part (or zone) is sufficient; this burden is then considered uniformly distributed over that surface. (The zones must be chosen so small that this is acceptable.)

APPENDIX II.

Appendix II contains a summary of reference documents used during the development of the microbial burden prediction model. These documents were identified from the literature search and from the functional analyses performed on the Capsule Bus System.

<u>Reference Number</u>	<u>Reference Description</u>
1	<u>Mariner Venus 1967 Spacecraft Assembly</u> , Jet Propulsion Laboratory Procedure MV67 100.2, Jet Propulsion Laboratory, Pasadena, California, 12 July 1967.
2	<u>Test and Operation Plan, Ranger Block II</u> , TOP3R 001.03, Jet Propulsion Laboratory, Pasadena, California, 1964.
3	<u>Test and Operations Plan, Mariner C</u> , TOPCM 001.04, Jet Propulsion Laboratory, Pasadena, California, August 1964.
4	<u>Voyager Capsule Preliminary Design</u> , FR-22-103 (Contract No. 952001), Volumes II-IV, Martin Marietta Corporation, Denver, Colorado, 31 August 1967.
5	"Factory-to-Launch Preferred Flow Diagrams", <u>Voyager Capsule Preliminary Design</u> , FR-22-103 (Contract No. 952001), Volume II, Section IV, Figure 29, Pages 71/72, Martin Marietta Corporation, Denver, Colorado, 31 August 1967.
6	"Capsule Bus System Test Program", <u>Voyager Capsule Preliminary Design</u> , FR-22-103 (Contract No. 952001), Volume II, Section IV, Martin Marietta Corporation, Denver, Colorado, 31 August 1967.
7	"Capsule Bus System", <u>Voyager Capsule Preliminary Design</u> , FR-22-103 (Contract No. 952001) Volume II, Section I, Martin Marietta Corporation, Denver, Colorado, 31 August 1967.
8	"Capsule Bus System Implementation Plan", <u>Voyager Capsule Preliminary Design</u> , FR-22-103 (Contract No. 952001), Volume II, Section III, Martin Marietta Corporation, Denver, Colorado, 31 August 1967.
9	Bleakley, J. W., et al, "Evaluation of the Efficiency of a Class 100 Laminar Flow Clean Room for Viable Contamination Cleanup", <u>Report SC-RR-66-385</u> , Sandia Corporation, Albuquerque, New Mexico, September 1966.
10	Bond, R. G., et al, <u>Basic Studies in Environmental Microbiology as Related to Planetary Quarantine</u> , Progress Report. University of Minnesota, Minneapolis, Minnesota, November 1966.

<u>Reference Number</u>	<u>Reference Description</u>
11	Cornell, R. G., <u>Biostatistics of Space Exploration: Microbiology and Sterilization</u> , Florida State University, Tallahassee, Florida, February 1966.
12	Cornell, R. G., "Variation in Measurements of Microbial Loads", <u>Technical Report No. 2</u> , Florida State University, Tallahassee, Florida, February 1966.
13	Cornell, R. G., <u>Biostatistics of Space Exploration: Microbiology and Sterilization</u> , Florida State University, Tallahassee, Florida, August 1966.
14	Cown, W. B. and Kethley, T. W., "Dispersion of Airborne Bacteria in Clean Room", <u>Proceedings of the Fifth Annual AACC Meeting</u> , Georgia Institute of Technology, Atlanta, Georgia, April 1966.
15	Duguid, J. P. and Wallace, A. T., "Air Infection with Dust Liberated from Clothing", <u>The Lancet</u> , November 1948.
16	Ernst, R. R. and Kretz, A. P., <u>Compatibility of Sterilization and Contamination Control with Application to Spacecraft Assembly</u> , Wilmot-Castle Co., Rochester, New York, 1964.
17	Favero, M. S., et al, <u>Microbial Contamination in Conventional and Laminar Flow Clean Rooms</u> , Phoenix Field Station, USPHS, Phoenix, Arizona, April 1966.
18	Henshelwood, C., "Decline and Death of Bacterial Populations", <u>Nature</u> , Vol. 167, No. 4252, April 1951.
19	Kapell, G. F., "Experimental Assembly and Sterilization Laboratory (EASL) Operations: Phase I", <u>Jet Propulsion Laboratory Technical Report No. 32-941</u> , Jet Propulsion Laboratory, Pasadena, California, April 1966.
20	Kereluk, Karl, <u>Microbiological Contamination in Clean Rooms and Bioclean Rooms</u> , AACC Fourth Annual Meeting, Miami Beach, Florida, May 1965.
21	McDade, J. J., "The Microbiological Profile of Clean Rooms", <u>Jet Propulsion Laboratory SPS No. 37-29</u> , Vol. IV., Jet Propulsion Laboratory, Pasadena, California, September 1965
22	McDade, J. J., et al, "A Microbiological Survey of Hughes Aircraft Company Facilities Involved in the Assembly and/or Testing of Surveyor Spacecraft", <u>Jet Propulsion Laboratory SPS No. 37-32</u> , Vol. IV., Jet Propulsion Laboratory, Pasadena, California, March 1965.

<u>Reference Number</u>	<u>Reference Description</u>
23	McDade, J. J., "Clean Room Concept in the Control of Microorganisms", <u>Bacteriological Proceedings</u> , 1966.
24	Michaelson, G. S., <u>The Bacteriology of "Clean Rooms"</u> , University of Minnesota, Minneapolis, Minnesota, September 1965.
25	Michaelson, G. S., et al, <u>The Bacteriology of "Clean Rooms"</u> , University of Minnesota, Minneapolis, Minnesota, July 1966.
26	Paik, W. W., et al, "Survival of Surface - Exposed Microorganisms in Spacecraft Assembly Areas", <u>Bacteriological Proceedings</u> , 1966.
27	Paik, W. W., et al, "Microbiological Survey of Environmentally Controlled Areas", <u>Jet Propulsion Laboratory SPS No. 37-41</u> , Vol. IV., Jet Propulsion Laboratory, Pasadena, California, October 1966.
28	Portner, D. M., et al, "Microbial Control in Assembly Areas Needed for Spacecraft Sterilization", <u>Air Engineering</u> , Vol. 7, No. 10, October 1965.
29	Portner, D. M., <u>Protection Branch Reports Nos. 1-64, 10-64, 1-65 and 11-65</u> , Physical Defense Division, Fort Dietrick, Fredrick, Maryland, July 1964 through December 1965.
30	Powers, E. M., "Microbial Profile of Laminar Flow Clean Rooms", <u>Report No. X-600-65-308</u> , Goddard Space Flight Center, Langley Field, Virginia, September 1965.
31	Thomae, F. W. and Bengson, H. H., "Maintaining Environmental Control Requirements for Fabrication and Assembly of Sterile Space Vehicles", <u>Proceedings of the Institute for Environmental Sciences</u> , April 1965.
32	Tritz, G. J., et al, <u>Levels of Microbial Contamination in the Environments Used for Assembly and Test of Lunar Spacecraft</u> , Sterility Control Laboratory, Kennedy Space Center, October 1966.
33	Whitfield, W. J., "Microbiological Studies of Laminar Flow Rooms", <u>Sandia Report SC-DC-66-2277</u> , Sandia Corp., Albuquerque, New Mexico, September 1966.
34	Portner, D. M., "The Level of Microbial Contamination in a Clean Room During a One Year Period", <u>Protection Branch Report on Test 11-65</u> , Physical Defense Division, Fort Dietrick, Fredrick, Maryland, 4 December 1964.

<u>Reference Number</u>	<u>Reference Description</u>
35	Portner, D. M., "Microbial Contamination Obtained on Surfaces Exposed to Room Air or Touched by the Human Hand", <u>Protection Branch Report on Test 1-64</u> , Physical Defense Division, Fort Dietrick, Fredrick, Maryland, 22 July 1963.
36	Paik, W. W., Christensen, M. R., and Stern, J. A., "Microbial Survey of Environmentally Controlled Areas", <u>Jet Propulsion Laboratory Space Programs Summary 37-41</u> , Vol. IV., Jet Propulsion Laboratory, Pasadena, California, August 1 - September 30, 1966.
37	Austin, Philip, and Timmerman, Stewart, <u>Design and Operation of Clean Rooms</u> , Business News Publishing Company, Detroit, Michigan, 1965.
38	Fish, B. R. (Ed.), <u>Surface Contamination</u> , Pergamon Press, Glasglow, Scotland, 1967.
39	Corn, Morton, and Stein, Felix, "Mechanisms of Dust Redispersions", <u>Surface Contamination</u> , E. G. Fish, (Ed.), Pergamon Press, Glasglow, Scotland, 1967.
40	Davies, C. N., "Aerosol Properties Related to Surface Contamination", <u>Surface Contamination</u> , E. B. Fish, (Ed.), Pergamon Press, Glasglow, Scotland, 1967.
41	Dixon, W. J. and Massey, F. J., <u>Introduction to Statistical Analysis</u> , 2nd Edition, McGraw-Hill Book Co., Inc., New York, 1957.
42	Arnold, F. E., et al, "Preliminary Report on Microbiological Studies in a Laminar Downflow Clean Room", Report No. SC-RR-65-47, Sandia Corporation, Albuquerque, New Mexico, January 1965.
43	Favero, M. S., <u>Microbiological Contamination Control: A State of the Art Report</u> , Biological Contamination Control Committee, AACC, Phoenix, Arizona, April 1965.
44	Anon., "Symposium on the Survival of Bacteria", <u>Applied Microbiology</u> , Vol. 26, No. 3, December 1963.
45	Anon., "Contamination Control Considerations for Designers and Manufacturing Engineers", Report No. SC-4-65-88, Sandia Corporation, Albuquerque, New Mexico, April 1965.

## APPENDIX III

### Capsule Bus System Functional Analyses

Appendix III contains the results of all functional analyses performed on the Capsule Bus System, during the burden prediction model development program. These results are presented in two (2) different formats to facilitate their use. The formats used are tabular presentation and flow charts.

Appendix III is divided into two (2) sections. Section 1 contains the FIRST and SECOND levels of activity identified from the generalized Capsule Bus System Assembly and Test Sequence.

Section 2 contains a description of all four (4) levels of activity which must be performed to assemble and test the Capsule Bus System; these data are presented in tabular form and they describe the work performed at each level.

A. Section 1 - Operational Analyses for the Flight Capsule Assembly and Test (FIRST and SECOND Levels)

Section 1 contains the FIRST and SECOND levels of activity identified from the generalized Capsule Bus System Assembly and Test Sequence. FIRST level activity is presented in Table III.1; SECOND level activity is presented in Table III.2. In addition, Section 1 contains the FIRST and SECOND levels of activity, in flow chart form. FIRST level activity is presented in Figure III.1; SECOND level activity is presented in Figure III.2.



TABLE III.1  
OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

MAJOR LEVEL OPERATION DESCRIPTION	STEP NO.	FIRST LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I - CONTRACTOR FACILITY OPERATIONS	A	Vernier module assembly & test					
	B	Deorbit module assembly & test					
	C	Aeroshell assembly & test					
	D	Canister & adapter assembly & test					
	E	Parachute truss assembly & test					
	F	Lander module (vernier module/ ESP/SL simulator/parachute truss integration) assembly & test					
	G	Descent module (lander module/ aeroshell integration) assembly & test					
	H	Entry module (descent module/ deorbit module integration) assembly & test					
	I	Preparation flight capsule configuration (aft canister & adapter integration) assembly & test					
	J	Launch/cruise flight capsule configuration (forward canister integration) assembly & test					
	K	Flight capsule system (surface laboratory integration) assembly & test					

TABLE III.1 (Continued)

OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

MAJOR LEVEL OPERATION DESCRIPTION	STEP NO.	FIRST LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.) PERFORM. ELAPSED
II - LAUNCH SITE OPERATIONS	A	Flight Capsule System Receiving & Inspection				
	B	Planetary Vehicle (Flight Capsule/Spacecraft Mating) Marriage				
	C	Flight Capsule System Explosive Safe Area Assembly & Test				

TABLE III.2  
OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.A VERNIER MODULE ASSEMBLY & TEST	1	Vernier module positioning					
	2	Propulsion subsystem test preparation					
	3	Propulsion subsystem ambient functional tests					
	4	Cabling subsystem preparation					
	5	Cabling subsystem installation					
	6	Cabling subsystem/OSE interconnection					
	7	Cabling subsystem checkout					
	8	Cabling subsystem/OSE disconnection					
	9	Guidance & control subsystem preparation					
	10	Guidance & control subsystem installation					
	11	Guidance & control subsystem/OSE interconnection					
	12	Guidance & control subsystem checkout					
	13	Guidance & control subsystem/OSE disconnection					
	14	Command & sequencing subsystem preparation					
	15	Command & sequencing subsystem installation					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.A VERNIER MODULE ASSEMBLY & TEST (CONTINUED)	16	Command & sequencing subsystem/ OSE interconnection					
	17	Command & sequencing subsystem checkout					
	18	Command & sequencing subsystem/ OSE disconnection					
	19	Power subsystem preparation					
	20	Power subsystem installation					
	21	Power subsystem/OSE inter- connection					
	22	Power subsystem checkout					
	23	Power subsystem/OSE disconnection					
	24	Telemetry subsystem preparation					
	25	Telemetry subsystem installation					
	26	Telemetry subsystem/OSE interconnection					
	27	Telemetry subsystem checkout					
	28	Telemetry subsystem/OSE disconnection					
	29	Pyrotechnics subsystem (simulated squibs) preparation					
30	Pyrotechnics subsystem (simulated squibs) installation						

TABLE III.2 (Continued)

OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.) PERFORM. ELAPSED
I.A VERNIER MODULE ASSEMBLY & TEST (CONTINUED)	31	Pyrotechnics subsystem (simulated squibs)/OSE interconnection				
	32	Pyrotechnics subsystem (simulated squibs) checkout				
	33	Pyrotechnics subsystem (simulated squibs)/OSE disconnection				
	34	Thermal control subsystem preparation				
	35	Thermal control subsystem installation				
	36	Thermal control subsystem/OSE interconnection				
	37	Thermal control subsystem checkout				
	38	Thermal control subsystem/OSE disconnection				
	39	Lander legs preparation				
	40	Lander legs installation				
	41	Lander legs/OSE interconnection				
	42	Lander legs checkout				
	43	Lander leg/OSE disconnection				
	44	Parachute truss positioning				
	45	Parachute truss installation				

TABLE III.2 (Continued)  
OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.A VERNIER MODULE ASSEMBLY & TEST (CONTINUED)	46	Parachute truss installation checkout					
	47	Vernier module integrated sub-system functional test preparation					
	48	Vernier module integrated sub-system ambient functional test performance					
	49	Vernier module vibration/acoustics test preparation					
	50	Vernier module vibration/acoustics test performance					
	51	Vernier module thermal vacuum test preparation					
	52	Vernier module thermal vacuum test performance					
	53	Vernier module EMI test preparation					
	54	Vernier module EMI test performance					
	55	Vernier module other environmental test preparation					
	56	Vernier module other environmental test performance					
	57	Vernier module/flight capsule integration preparation					

TABLE III.2 (Continued)  
OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.B DEORBIT MODULE ASSEMBLY & TEST	1	Deorbit module positioning					
	2	Propulsion subsystem/OSE interconnection					
	3	Propulsion subsystem checkout					
	4	Propulsion subsystem/OSE disconnection					
	5	Cabling subsystem preparation					
	6	Cabling subsystem installation					
	7	Cabling subsystem/OSE interconnection					
	8	Cabling subsystem checkout					
	9	Cabling subsystem/OSE disconnection					
	10	Telemetry subsystem preparation					
	11	Telemetry subsystem installation					
	12	Telemetry subsystem/OSE interconnection					
	13	Telemetry subsystem checkout					
	14	Telemetry subsystem/OSE disconnection					
	15	Pyrotechnic subsystem (simulated squibs) preparation					
	16	Pyrotechnic subsystem (simulated squibs) installation					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.B DEORBIT MODULE ASSEMBLY & TEST (CONTINUED)	17	Pyrotechnic subsystem (simulated squibs)/OSE interconnection					
	18	Pyrotechnic subsystem (simulated squibs) checkout					
	19	Pyrotechnic subsystem (simulated squibs)/OSE disconnection					
	20	Thermal control subsystem preparation					
	21	Thermal control subsystem installation					
	22	Thermal control subsystem/OSE interconnection					
	23	Thermal control subsystem checkout					
	24	Thermal control subsystem/OSE disconnection					
	25	Deorbit module integrated subsystem functional test preparation					
	26	Deorbit module integrated subsystem ambient functional test performance					
	27	Deorbit module vibration/acoustics test preparation					
	28	Deorbit module vibration/acoustics test performance					



**TABLE III.2 (Continued)**  
**OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST**

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.) PERFORM. ELAPSED
<b>I.B</b> <b>DEORBIT MODULE ASSEMBLY &amp; TEST</b> <b>(CONTINUED,</b>	29	Deorbit module thermal vacuum test preparation				
	30	Deorbit module thermal vacuum test performance				
	31	Deorbit module EMI test preparation				
	32	Deorbit module EMI test performance				
	33	Deorbit module other environmental test preparation				
	34	Deorbit module other environmental test performance				
	35	Deorbit module/flight capsule integration preparation				

TABLE III.2 (Continued)

OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.C AEROSHELL ASSEMBLY & TEST	1	Aeroshell positioning					
	2	Guidance & control subsystem preparation					
	3	Guidance & control subsystem installation					
	4	Guidance & control subsystem/ OSE interconnection					
	5	Guidance & control subsystem checkout					
	6	Guidance & control subsystem/ OSE disconnection					
	7	Cabling subsystem preparation					
	8	Cabling subsystem installation					
	9	Cabling subsystem/ OSE interconnection					
	10	Cabling subsystem checkout					
	11	Cabling subsystem/ OSE disconnection					
	12	Pyrotechnic subsystem (simulated squibs) preparation					
	13	Pyrotechnic subsystem (simulated squibs) installation					
	14	Pyrotechnic subsystem (simulated squibs)/ OSE interconnection					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.C AEROSHELL ASSEMBLY & TEST (CONTINUED)	15	Pyrotechnic subsystem (simulated squibs) checkout					
	16	Pyrotechnic subsystem (simulated squibs)/OSE disconnection					
	17	Thermal control subsystem preparation					
	18	Thermal control subsystem installation					
	19	Thermal control subsystem/OSE interconnection					
	20	Thermal control subsystem checkout					
	21	Thermal control subsystem/OSE disconnection					
	22	Entry science subsystem preparation					
	23	Entry science subsystem installation					
	24	Entry science subsystem/OSE interconnection					
	25	Entry science subsystem checkout					
	26	Entry science subsystem/OSE disconnection					
	27	Aeroshell integrated subsystem ambient functional test preparation					

TABLE III. (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	ARPA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.C AEROSHELL ASSEMBLY & TEST (CONTINUED)	28	Aeroshell integrated subsystem ambient functional test performance					
	29	Aeroshell vibration/acoustics test preparation					
	30	Aeroshell vibration/acoustics test performance					
	31	Aeroshell thermal vacuum test preparation					
	32	Aeroshell thermal vacuum test performance					
	33	Aeroshell EMI test preparation					
	34	Aeroshell EMI test performance					
	35	Aeroshell other environmental test preparation					
	36	Aeroshell other environmental test performance					
	37	Aeroshell/flight capsule integration preparation					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

I. D	FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
							PERFORM.	ELAPSED
I. D CANISTER & ADAPTER ASSEMBLY & TEST		1	Canister and adapter positioning					
		2	Canister and adapter environmental test preparation					
		3	Canister and adapter environmental test performance					
		4	Forward/aft canister and adapter separation test preparation					
		5	Forward/aft canister and adapter separation test performance					
		6	Aft canister and adapter positioning					
		7	Aft canister and adapter alignment check preparation					
		8	Aft canister and adapter alignment check					
		9	Forward canister positioning					
		10	Forward canister alignment check preparation					
		11	Forward canister alignment check					
		12	Aft canister and adapter positioning					
		13	Cabling subsystem preparation					
		14	Cabling subsystem installation					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.D CANISTER & ADAPTER ASSEMBLY & TEST (CONTINUED)	15	Cabling subsystem/OSE inter-connection					
	16	Cabling subsystem checkout					
	17	Cabling subsystem/OSE disconnection					
	18	Power subsystem preparation					
	19	Power subsystem installation					
	20	Power subsystem/OSE inter-connection					
	21	Power subsystem checkout					
	22	Power subsystem/OSE disconnection					
	23	Telemetry subsystem preparation					
	24	Telemetry subsystem installation					
	25	Telemetry subsystem/OSE inter-connection					
	26	Telemetry subsystem checkout					
	27	Telemetry subsystem/OSE disconnection					
	28	Pyrotechnic subsystem (simulated squibs) preparation					
	29	Pyrotechnic subsystem (simulated squibs) installation					
30	Pyrotechnic subsystem (simulated squibs)/OSE interconnection						

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.D CANISTER & ADAPTER ASSEMBLY & TEST (CONTINUED)	31	Pyrotechnic subsystem (simulated squibs) checkout					
	32	Pyrotechnic subsystem (simulated squibs)/OSE disconnection					
	33	Thermal control subsystem preparation					
	34	Thermal control subsystem installation					
	35	Thermal control subsystem/OSE interconnection					
	36	Thermal control subsystem checkout					
	37	Thermal control subsystem/OSE disconnection					
	38	Forward canister positioning					
	39	Thermal control subsystem preparation					
	40	Thermal control subsystem installation					
	41	Thermal control subsystem/OSE interconnection					
	42	Thermal control subsystem checkout					
	43	Thermal control subsystem/OSE disconnection					

TABLE III.2 (Continued)  
OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.D CANISTER & ADAPTER ASSEMBLY & TEST (CONTINUED)	44	Forward/aft canister & adapter positioning					
	45	Forward/aft canister and adapter mating					
	46	Canister and adapter integrated subsystem test preparation					
	47	Canister and adapter integrated subsystem ambient functional test performance					
	48	Canister and adapter vibration/acoustics test preparation					
	49	Canister and adapter vibration/acoustics test performance					
	50	Canister and adapter thermal vacuum test preparation					
	51	Canister and adapter thermal vacuum test performance					
	52	Canister and adapter EMI test preparation					
	53	Canister and adapter EMI test performance					
	54	Canister and adapter other environmental tests preparation					
	55	Canister and adapter other environmental tests performance					
	56	Forward/aft canister and adapter separation					



TABLE III.2 (Continued)  
OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.D CANISTER & ADAPTER ASSEMBLY & TEST (CONTINUED)	57	Aft canister and adapter/flight capsule integration preparation					
	58	Forward canister/flight capsule integration preparation					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

I.E PARACHUTE TRUSS ASSEMBLY & TEST	FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
							PERFORM.	ELAPSED
		1	Parachute truss positioning					
		2	Cabling subsystem preparation					
		3	Cabling subsystem installation					
		4	Cabling subsystem/OSE interconnection					
		5	Cabling subsystem checkout					
		6	Cabling subsystem/OSE disconnection					
		7	Pyrotechnic subsystem (simulated squibs) preparation					
		8	Pyrotechnic subsystem (simulated squibs) installation					
		9	Pyrotechnic subsystem (simulated squibs)/OSE interconnection					
		10	Pyrotechnic subsystem (simulated squibs) checkout					
		11	Pyrotechnic subsystem (simulated squibs)/OSE disconnection					
		12	Thermal control subsystem preparation					
		13	Thermal control subsystem installation					
		14	Thermal control subsystem/OSE interconnection					
		15	Thermal control subsystem checkout					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FLIGHT LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.) PERFORM. ELAPSED
1.E PARACHUTE TRUSS ASSEMBLY & TEST (CONTINUED)	16	Thermal control subsystem/OSE disconnection				
	17	Aerodynamic decelerator simulator preparation				
	18	Aerodynamic decelerator simulator installation				
	19	Aerodynamic decelerator simulator/OSE interconnection				
	20	Aerodynamic decelerator simulator checkout				
	21	Aerodynamic decelerator simulator/OSE disconnection				

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.F LANDER MODULE ASSEMBLY AND TEST	1	Prepare vernier module to commence assembly and test of a lander module.					
	2	Entry science subsystem pre-paration					
	3	Entry science subsystem installation.					
	4	Entry science subsystem/OSE interconnection.					
	5	Entry science subsystem test performance.					
	6	Entry science subsystem/OSE disconnection.					
	7	Surface laboratory simulator preparation.					
	8	Surface laboratory simulator installation.					
	9	Surface laboratory simulator/ OSE interconnection.					
	10	Surface laboratory simulator checkout.					
	11	Surface laboratory simulator/ OSE disconnection.					
	12	Parachute truss positioning.					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.F (CONTINUED) LANDER MODULE ASSEMBLY AND TEST	13	Parachute truss installation.					
	14	Parachute truss installation checkout.					
	15	Lander module mass property test preparation.					
	16	Lander module mass property test performance.					
	17	Lander module integration tests preparation.					
	18	Lander module integration tests performance.					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.G DESCENT MODULE ASSEMBLY AND TEST	1	Prepare lander module to commence assembly and test of a descent module.					
	2	Aeroshell positioning.					
	3	Aeroshell installation.					
	4	Aeroshell installation checkout.					
	5	Descent module mass property test preparation.					
	6	Descent module mass property test performance.					
	7	Descent module integration tests preparation.					
	8	Descent module integration tests performance.					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.H ENTRY MODULE ASSEMBLY AND TEST	1	Prepare descent module to commence assembly and test of an entry module.					
	2	Deorbit module positioning.					
	3	Deorbit module installation.					
	4	Deorbit module installation checkout.					
	5	Entry module mass property test preparation.					
	6	Entry module mass property test performance.					
	7	Entry module integration tests preparation.					
	8	Entry module integration tests performance.					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.I PREPARATION FLIGHT CAPSULE CONFIGURATION ASSEMBLY AND TEST	1	Prepare entry module to commence assembly and test of a preperation flight capsule configuration.					
	2	Aft canister and adapter positioning.					
	3	Aft canister and adapter installation.					
	4	Aft canister and adapter installation checkou.					
	5	Preparation flight capsule configuration mass property test preparation.					
	6	Preparation flight capsule configuration mass property test performance.					
	7	Preparation flight capsule configuration integration tests preparation.					
	8	Preparation flight capsule configuration integration tests performance.					



TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I. J LAUNCH/CRUISE FLIGHT CAPSULE CONFIGURATION ASSEMBLY AND TEST	1	Prepare prepreparation flight capsule configuration to commence assembly and test of a launch/cruise flight capsule configuration.					
	2	Forward canister positioning.					
	3	Forward canister installation.					
	4	Forward canister installation checkout.					
	5	Launch/cruise flight capsule configuration mass property test preparation.					
	6	Launch/cruise flight capsule configuration mass property test performance.					
	7	Launch/cruise flight capsule configuration integration tests preparation.					
	8	Launch/cruise flight capsule configuration integration tests performance.					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.K FLIGHT CAPSULE SYSTEM ASSEMBLY AND TEST	1	Prepare launch/cruise flight capsule configuration to commence assembly and test of a flight capsule system.					
	2	L/C flight capsule EMI test preparation.					
	3	L/C flight capsule EMI test performance.					
	4	L/C flight capsule performance verification test preparation.					
	5	L/C flight capsule performance verification tests.					
	6	L/C flight capsule launch flight dynamics simulation test preparation & test performance.					
	7	L/C flight capsule performance verification test preparation.					
	8	L/C flight capsule performance verification tests.					
	9	L/C flight capsule space simulation test preparation.					
	10	L/C flight capsule space simulation test performance.					
	11	L/C flight capsule separation test preparation.					

TABLE III.2 (Continued)  
OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.K (Continued)  FLIGHT CAPSULE SYSTEM ASSEMBLY AND TEST	12	L/C flight capsule separation test performance					
	13	L/C flight capsule descent vibration simulation test preparation.					
	14	L/C flight capsule descent vibration simulation test performance.					
	15	L/C flight capsule performance verification test preparation.					
	16	L/C flight capsule performance verification test.					
	17	Surface laboratory simulator removal from L/C flight capsule configuration.					
	18	Surface laboratory preparation.					
	19	Surface laboratory positioning.					
	20	Surface laboratory installation.					
	21	Surface laboratory installation checkout.					
	22	Flight capsule system performance verification test preparation.					
	23	Flight capsule system performance verification test.					
	24	Flight capsule system MARS orbit test preparation.					

TABLE III.2 (Continued)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I. K (Continued) FLIGHT CAPSULE SYSTEM ASSEMBLY AND TEST	25	Flight capsule system MARS orbit test performance.					
	26	Flight capsule system performance verification test preparation.					
	27	Flight capsule system performance verification test.					
	28	Flight capsule system entry and land simulation test preparation.					
	29	Flight capsule system entry and land simulation test performance.					
	30	Flight capsule system performance verification test preparation.					
	31	Flight capsule system performance verification test.					
	32	Flight capsule system landed configuration EMI test preparation.					
	33	Flight capsule system landed configuration EMI test.					
	34	Flight capsule system performance verification test preparation.					

**TABLE III.2 (Continued)**  
**OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST**

<u>FIRST</u> LEVEL OPERATION DESCRIPTION	STEP NO.	<u>SECOND</u> LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
<b>I. K (Continued)</b>  <b>FLIGHT CAPSULE SYSTEM ASSEMBLY AND TEST</b>	35	Flight capsule system performance verification test.					
	36	Flight capsule system positioning.					
	37	Flight capsule system disassembly (major modules).					
	38	Flight capsule system Bio-assay (major modules).					
	39	Flight capsule system ETO decontamination as required (major modules).					
	40	Flight capsule system positioning (major modules).					
	41	Flight capsule system parachute truss installation.					
	42	Flight capsule system parachute truss installation checkout.					
	43	Flight capsule system surface laboratory installation.					
	44	Flight capsule system surface laboratory installation checkout.					
	45	Flight capsule system aeroshell installation.					
	46	Flight capsule system aeroshell installation checkout.					

TABLE III.2 (Continued)  
OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
I.K (Continued) FLIGHT CAPSULE SYSTEM ASSEMBLY AND TEST							
	47	Flight capsule system deorbit module installation.					
	48	Flight capsule system deorbit module installation checkout.					
	49	Flight capsule system aft canister and adapter installation.					
	50	Flight capsule system aft canister and adapter installation checkout.					
	51	Flight capsule system/OSE interconnection.					
	52	Flight capsule system performance test.					
	53	Flight capsule system/OSE disconnection.					
	54	Flight capsule system forward canister installation.					
	55	Flight capsule system forward canister installation checkout.					
	56	Flight capsule system pack and ship to KSC.					

**TABLE III.2 (Continued)**  
**OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST**

<u>FIRST LEVEL OPERATION DESCRIPTION</u>	<u>STEP NO.</u>	<u>SECOND LEVEL OPERATION DESCRIPTION</u>	<u>EQUIPMENT REQUIRED</u>	<u>AREA ENVIRON.</u>	<u>PERSONNEL REQUIRED</u>	<u>TIME EST. (HRS.)</u>	
						<u>PERFORM.</u>	<u>ELAPSED</u>
<b>II - A</b>							
<b>FLIGHT CAPSULE SYSTEM RECEIVING &amp; INSPECTION</b>	1	Flight Capsule System Unpacking					
	2	Flight Capsule System Visual Inspection					
	3	Flight Capsule System Canister Seal and Leak Check					
	4	Flight Capsule System Performance Verification Test Preparation					
	5	Flight Capsule System Performance Verification Test					

TABLE III.2 (Continued)

OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
II - B PLANETARY VEHICLE MARRIAGE	1	Flight Capsule System Transporting into Planetary Vehicle Integration Facility					
	2	Flight Capsule System Positioning					
	3	Spacecraft Positioning					
	4	Planetary Vehicle Assembly					
	5	Planetary Vehicle Alignment Verification					
	6	Planetary Vehicle Combined System Test Preparation					
	7	Planetary Vehicle Combined System Test					
	8	Planetary Vehicle Disassembly					



TABLE III.2 (CONTINUED)  
 OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
II.C FLIGHT CAPSULE SYSTEM EXPLOSIVE SAFE AREA ASSEMBLY AND TEST	1	Flight capsule system transporting into explosive safe area					
	2	Flight capsule system positioning					
	3	Flight capsule system canister removal					
	4	RF link test preparation					
	5	RF link test performance					
	6	Pyrotechnic subsystem (squibs) installation					
	7	Power subsystem (flight batteries) installation					
	8	Propulsion subsystem (Propellant and pressurants) loading preparation					
	9	Propulsion subsystem (propellant and pressurants) loading					
	10	Propulsion subsystem leak test preparation					
	11	Propulsion subsystem leak test performance					
	12	Science subsystem calibration preparation					
	13	Science subsystem calibration performance					

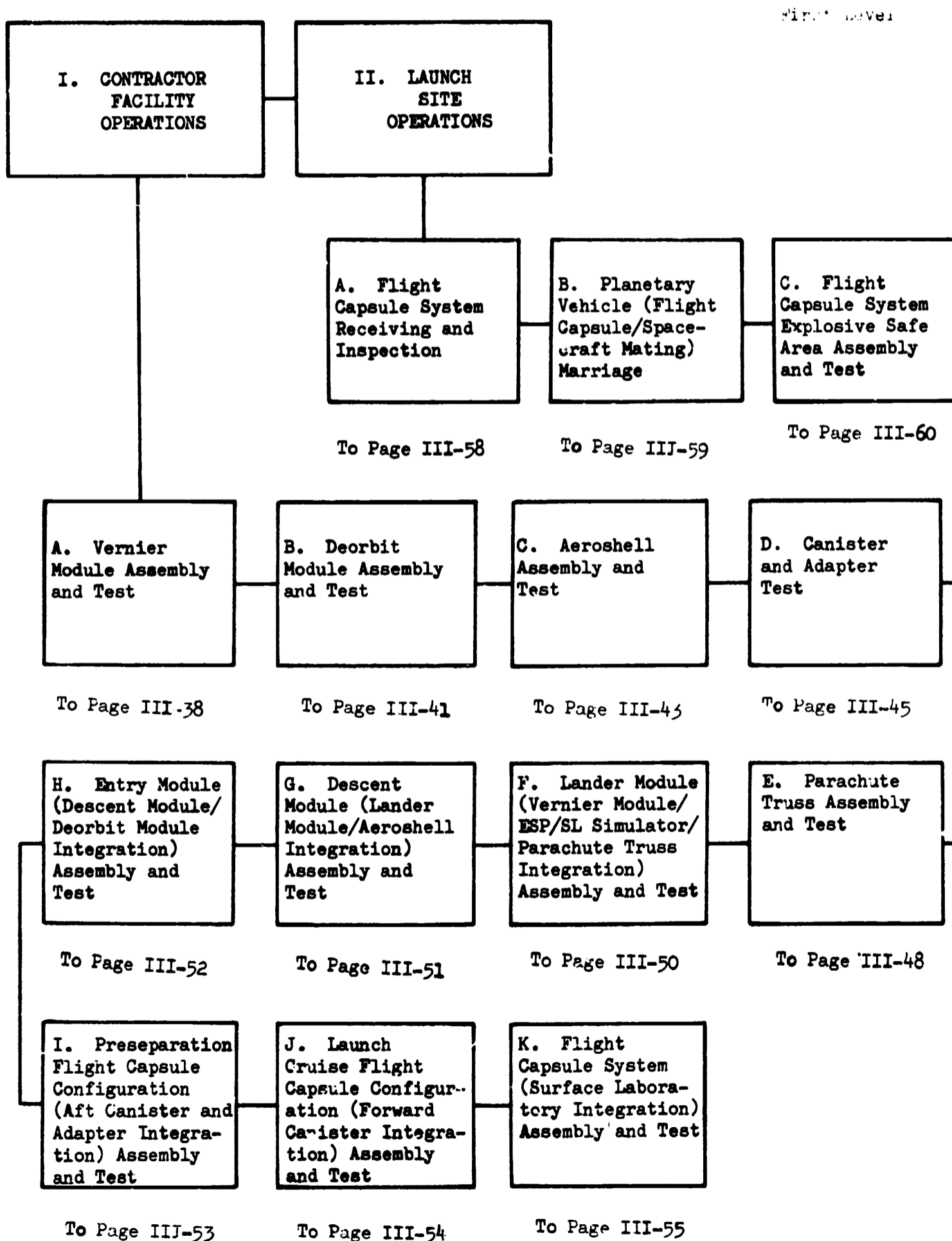
TABLE III.2 (CONTINUED)

## OPERATIONAL ANALYSIS FOR FLIGHT CAPSULE ASSEMBLY AND TEST

FIRST LEVEL OPERATION DESCRIPTION	STEP NO.	SECOND LEVEL OPERATION DESCRIPTION	EQUIPMENT REQUIRED	AREA ENVIRON.	PERSONNEL REQUIRED	TIME EST. (HRS.)	
						PERFORM.	ELAPSED
II.C FLIGHT CAPSULE SYSTEM EXPLOSIVE SAFE AREA ASSEMBLY AND TEST	14	Flight capsule system bioassessment					
	15	Flight capsule system canister installation					
	16	Flight capsule system seal and leak check					
	17	Flight capsule system performance verification test preparation					
	18	Flight capsule system performance verification test					

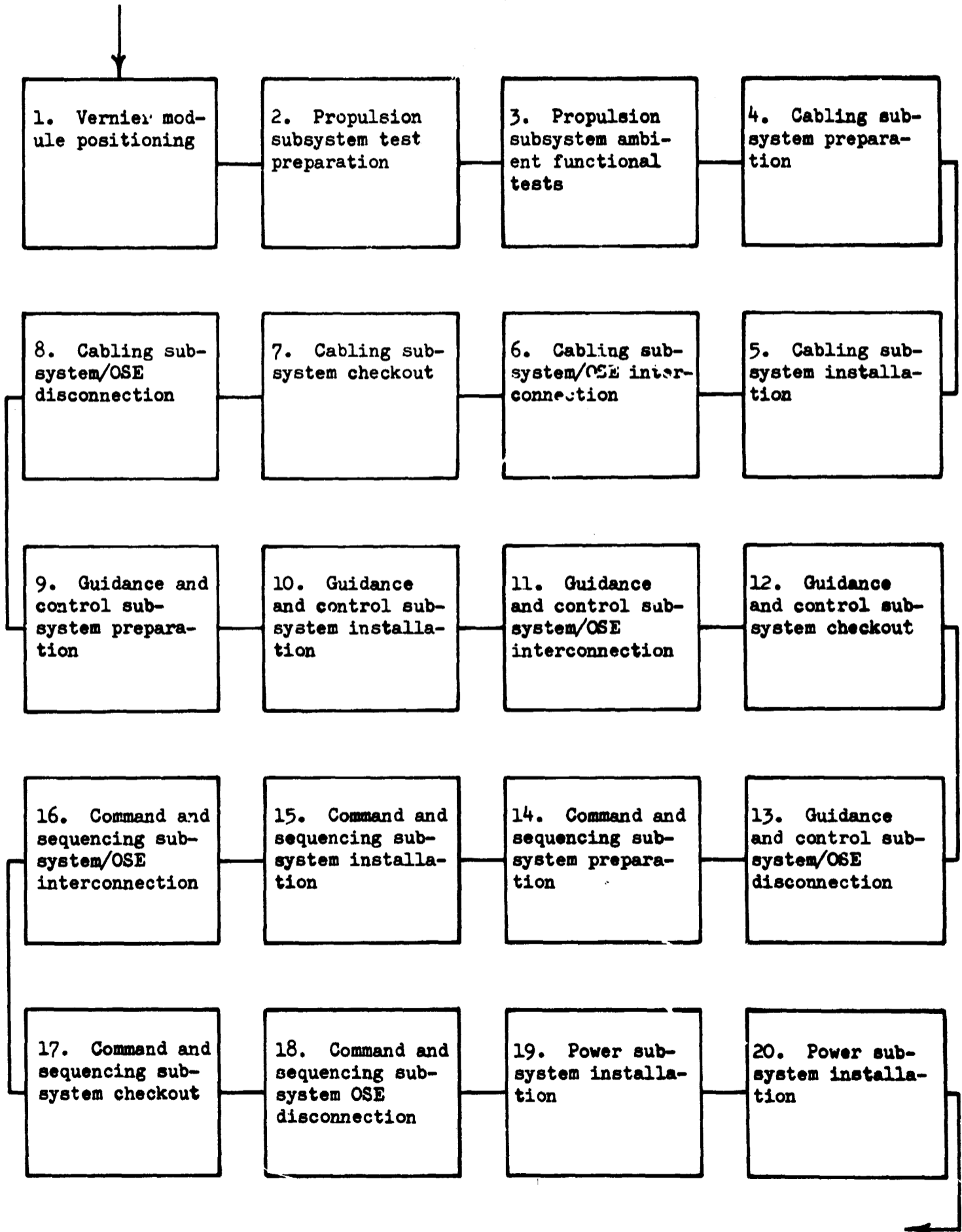
FIGURE III.1

FLIGHT CAPSULE ASSEMBLY AND TEST OPERATIONAL ANALYSIS  
FLOW CHART



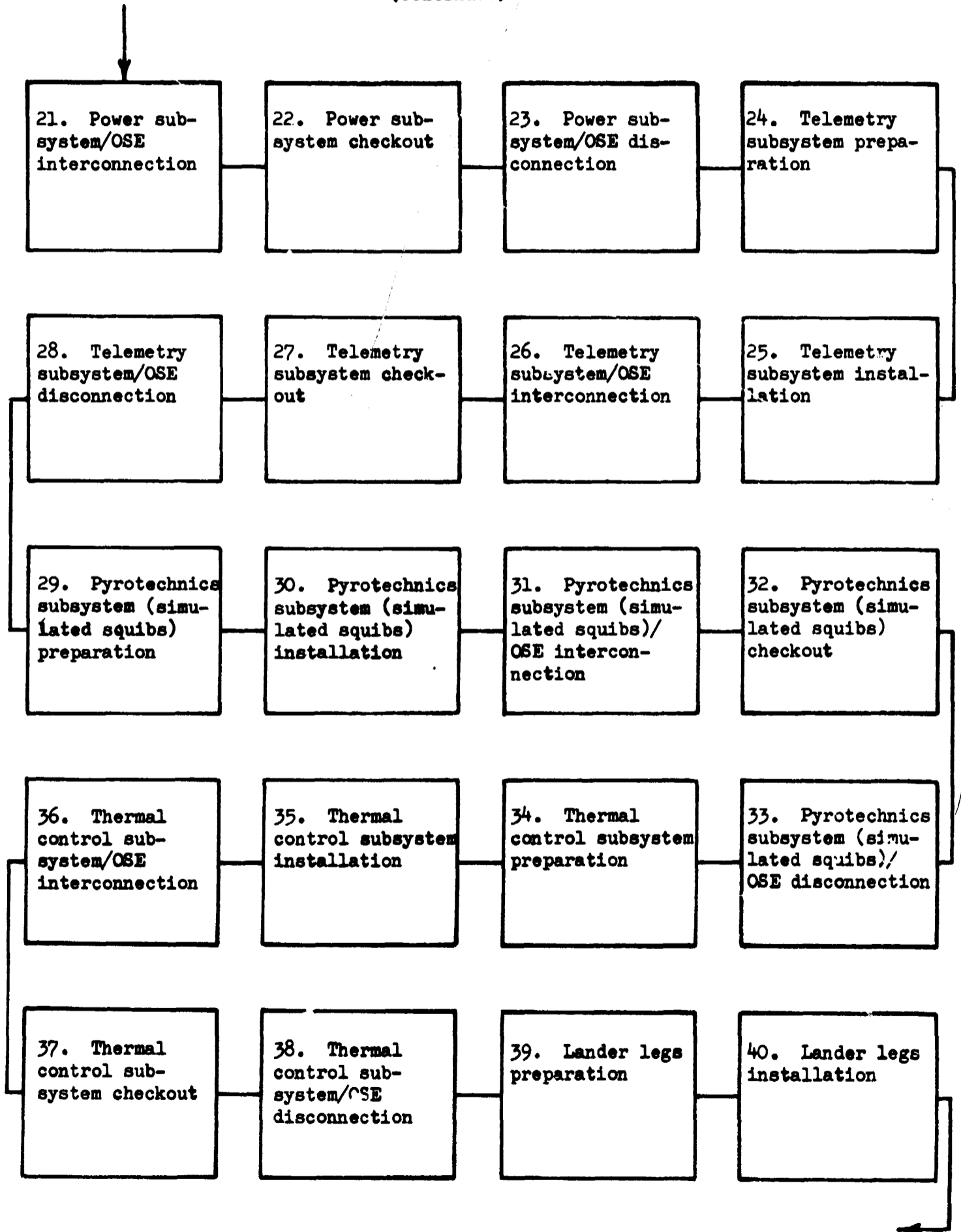
I.A. VERNIER MODULE ASSEMBLY AND TEST

Second Level



I.A. VERNIER MODULE ASSEMBLY AND TEST  
(Continued)

Second Level



I.A. VERNIER MODULE ASSEMBLY AND TEST  
(Continued)

Second Level

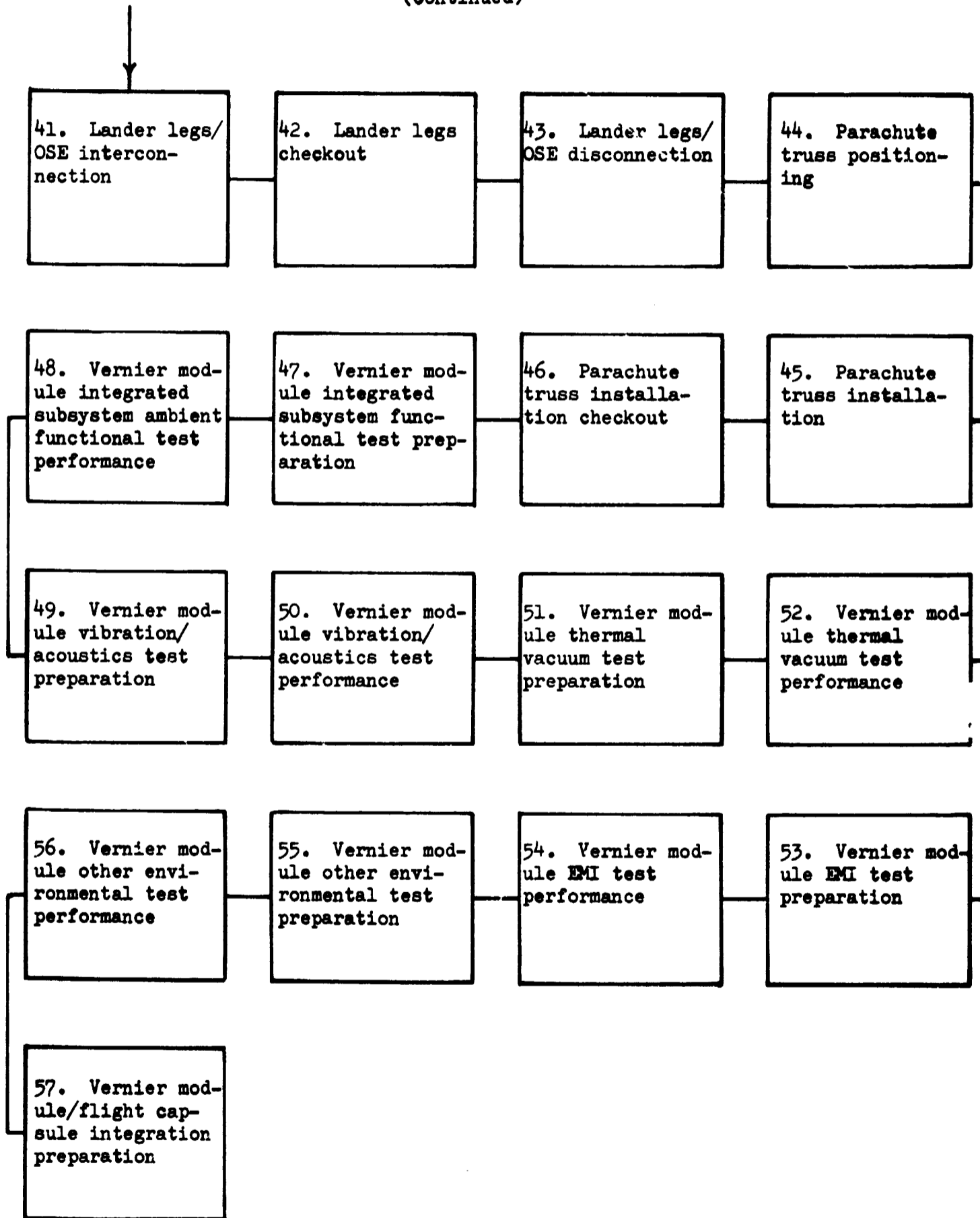
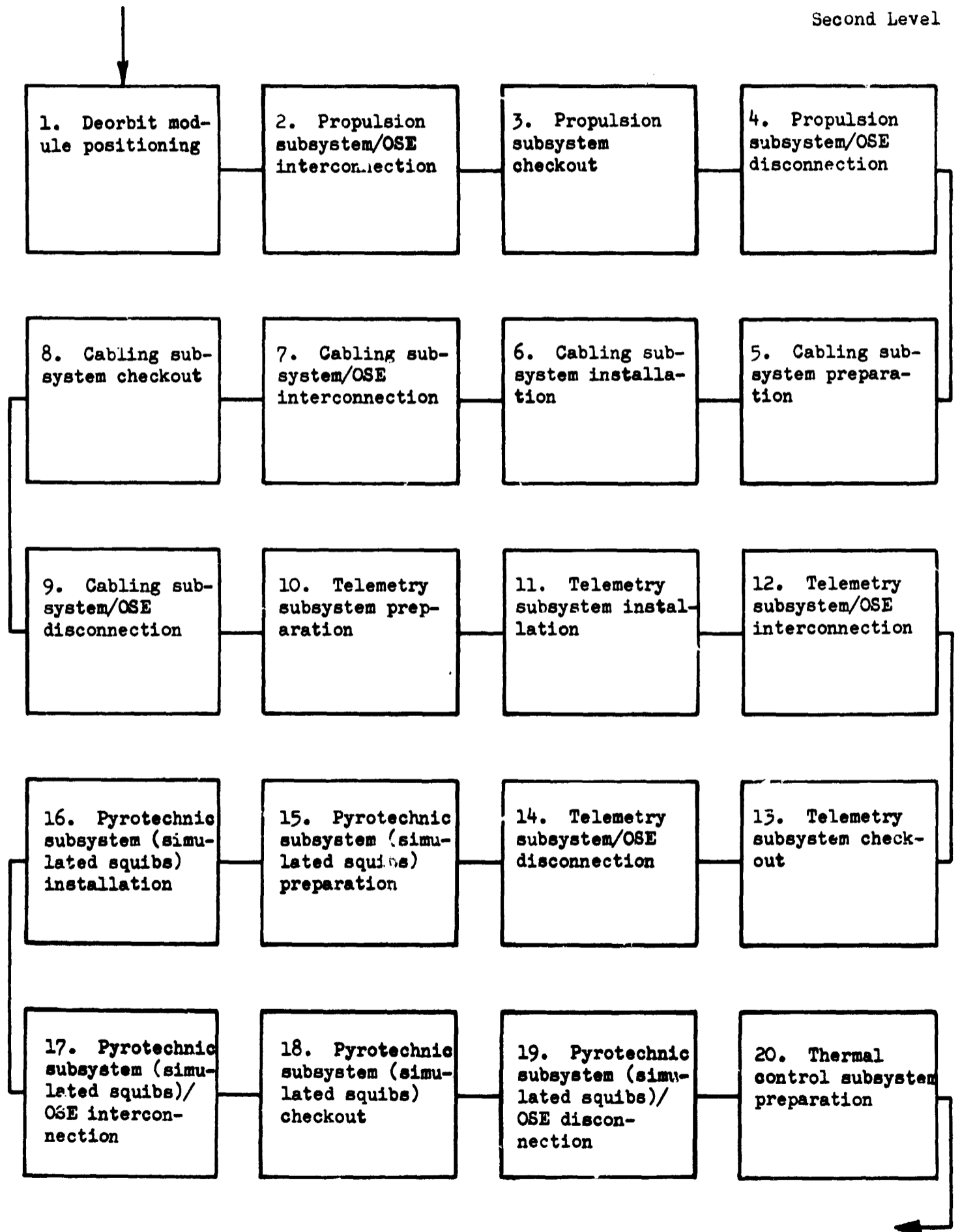


FIGURE III.2

I.B. DEORBIT MODULE ASSEMBLY AND TEST

III-41

Second Level



I.B. DEORBIT MODULE ASSEMBLY AND TEST  
(Continued)

Second Level

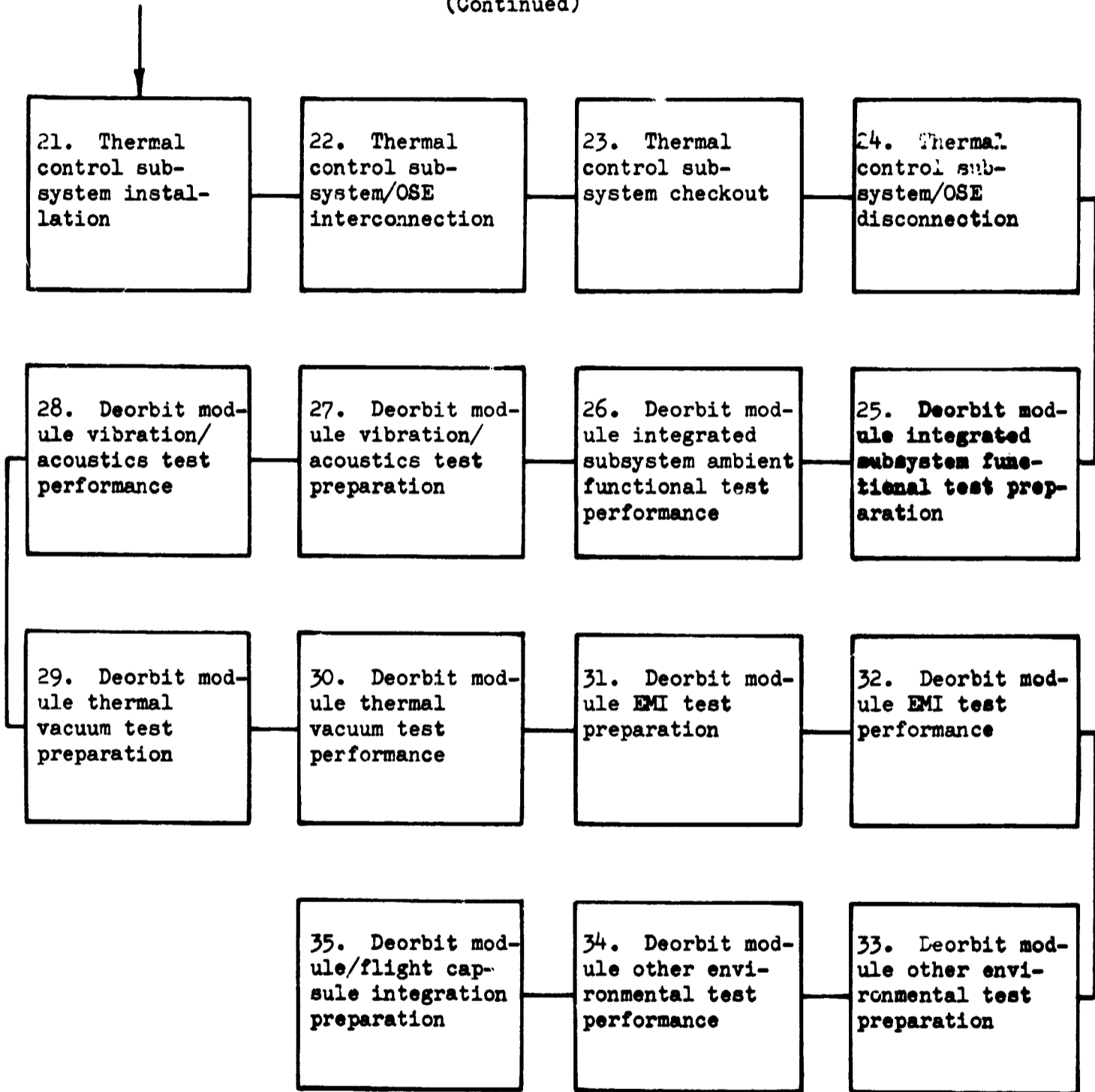




FIGURE III.2  
I.C. AEROSHELL ASSEMBLY AND TEST

III-43

Second Level

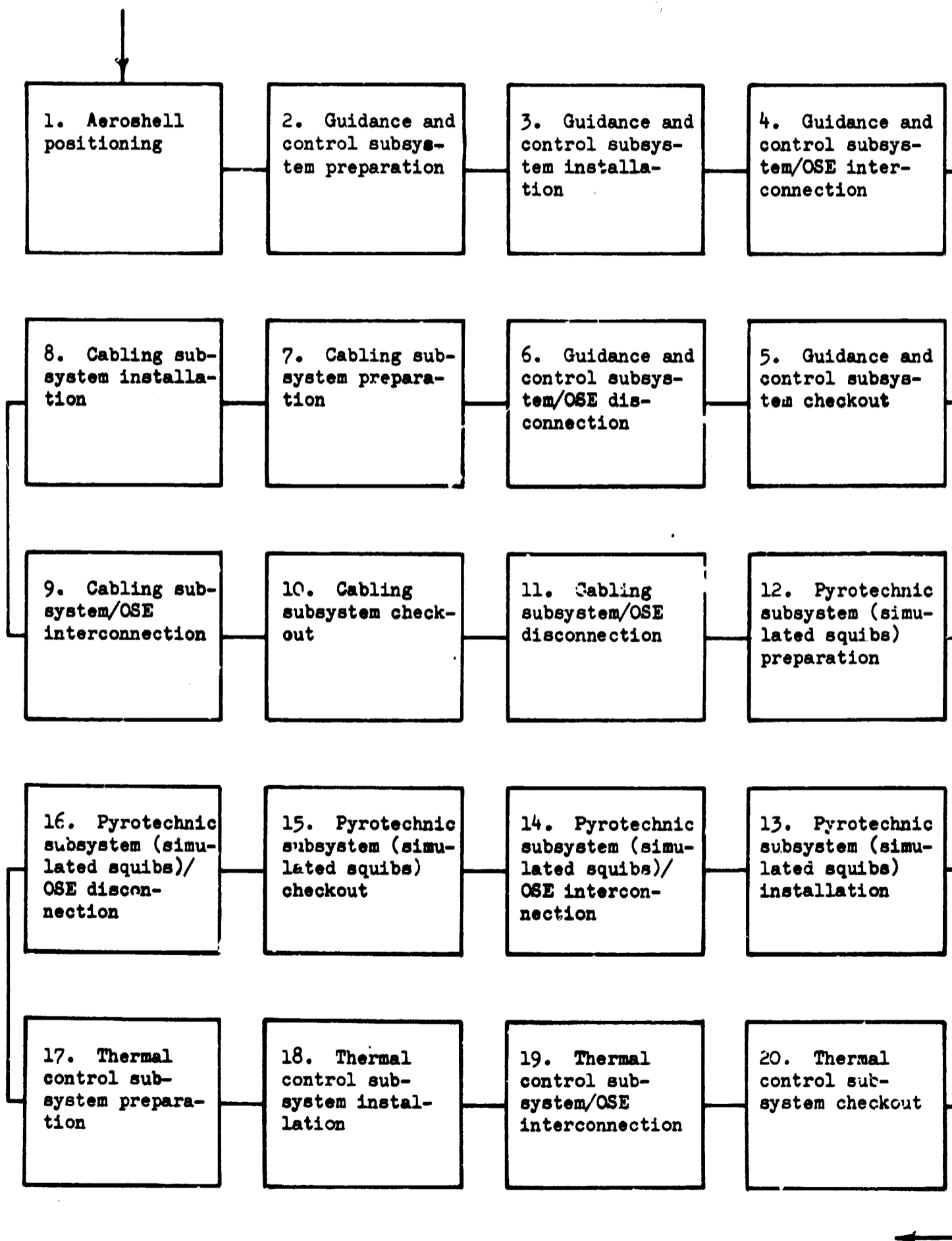


FIGURE III.2

I.C. AEROSHELL ASSEMBLY AND TEST  
(Continued)

III-44

Second Level

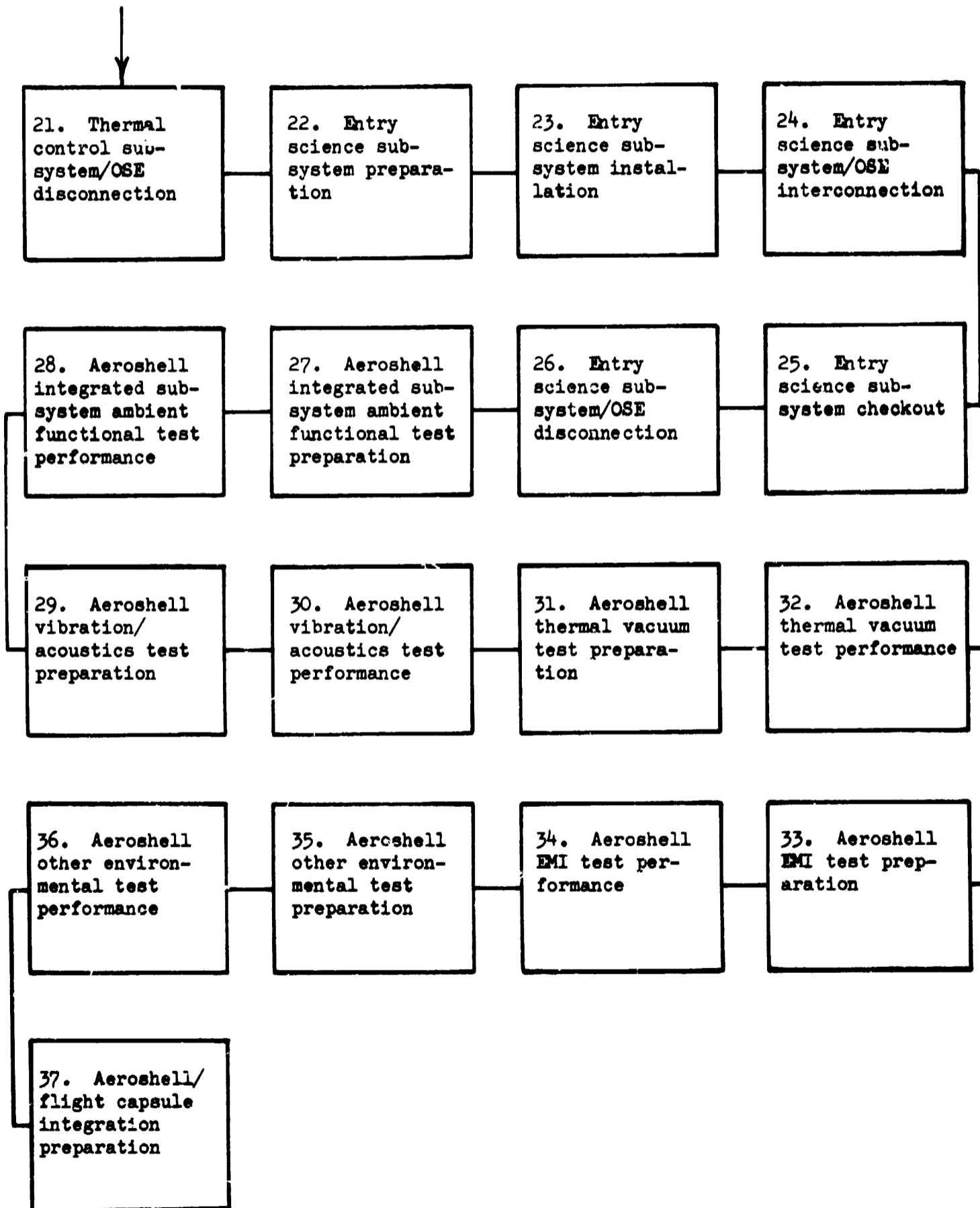


FIGURE III.2

III-45

I.D. CANISTER AND ADAPTER ASSEMBLY AND TEST

Second Level

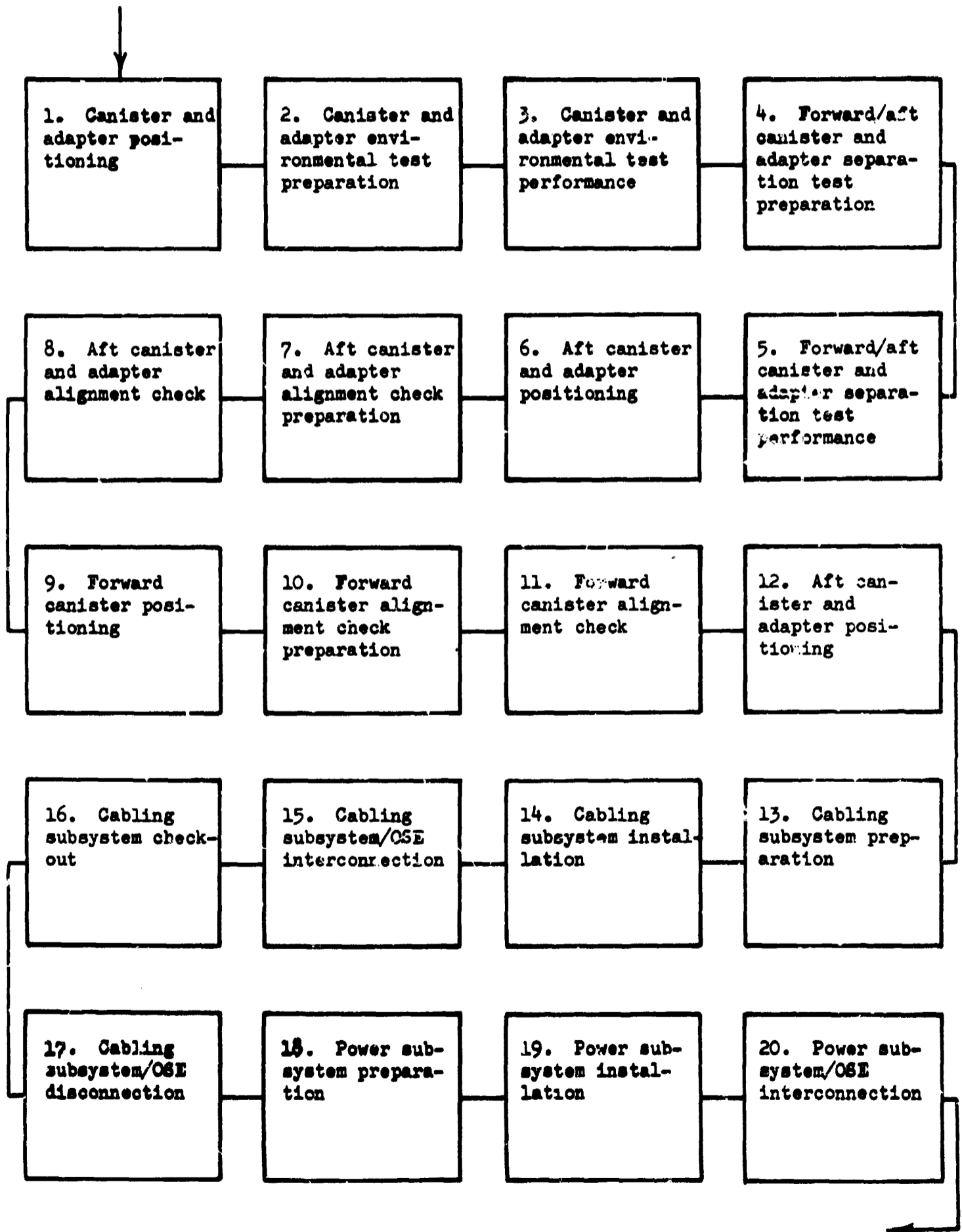


FIGURE III.2

III-46

I.D. CANISTER AND ADAPTER ASSEMBLY AND TEST  
(Continued)

Second Level

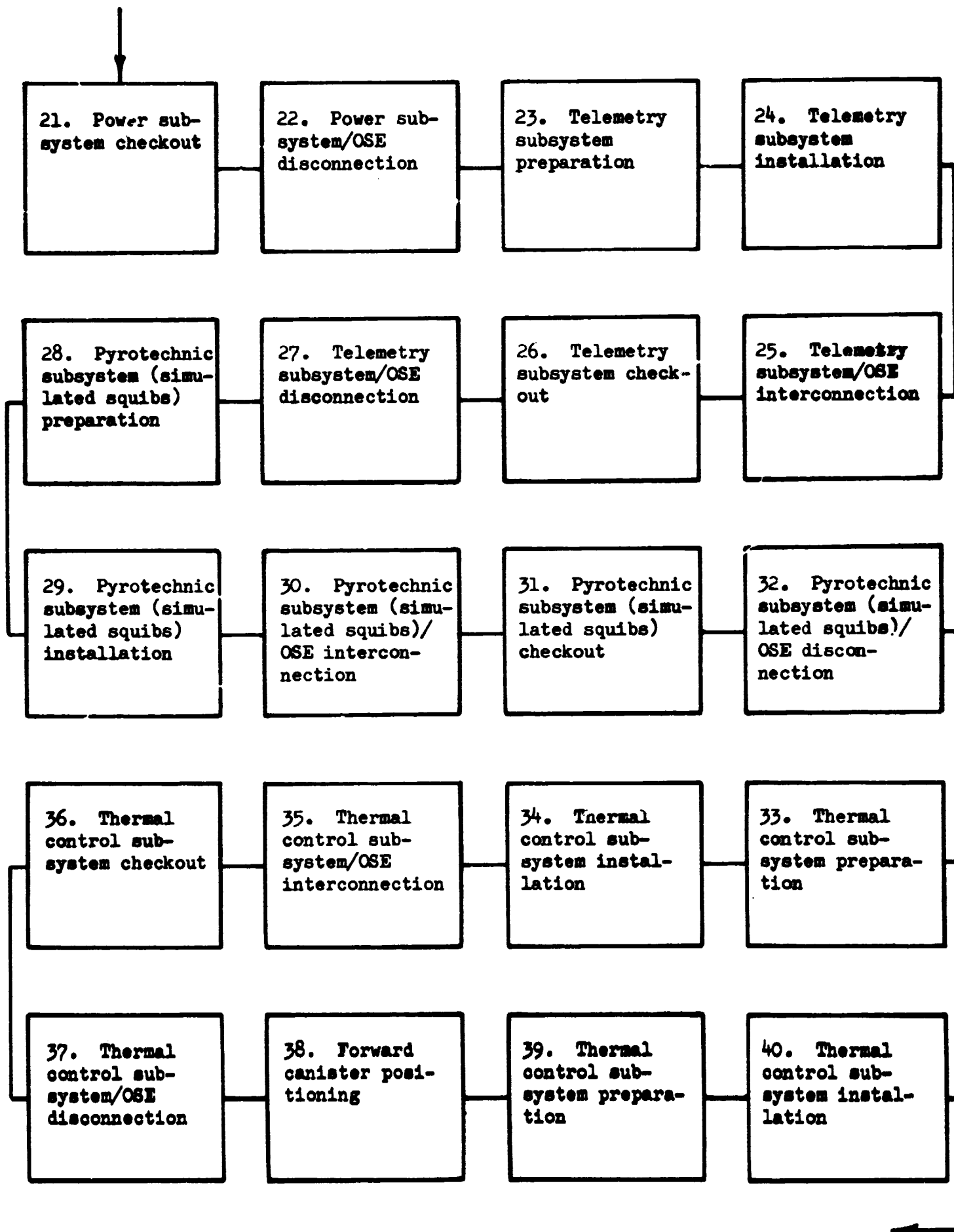
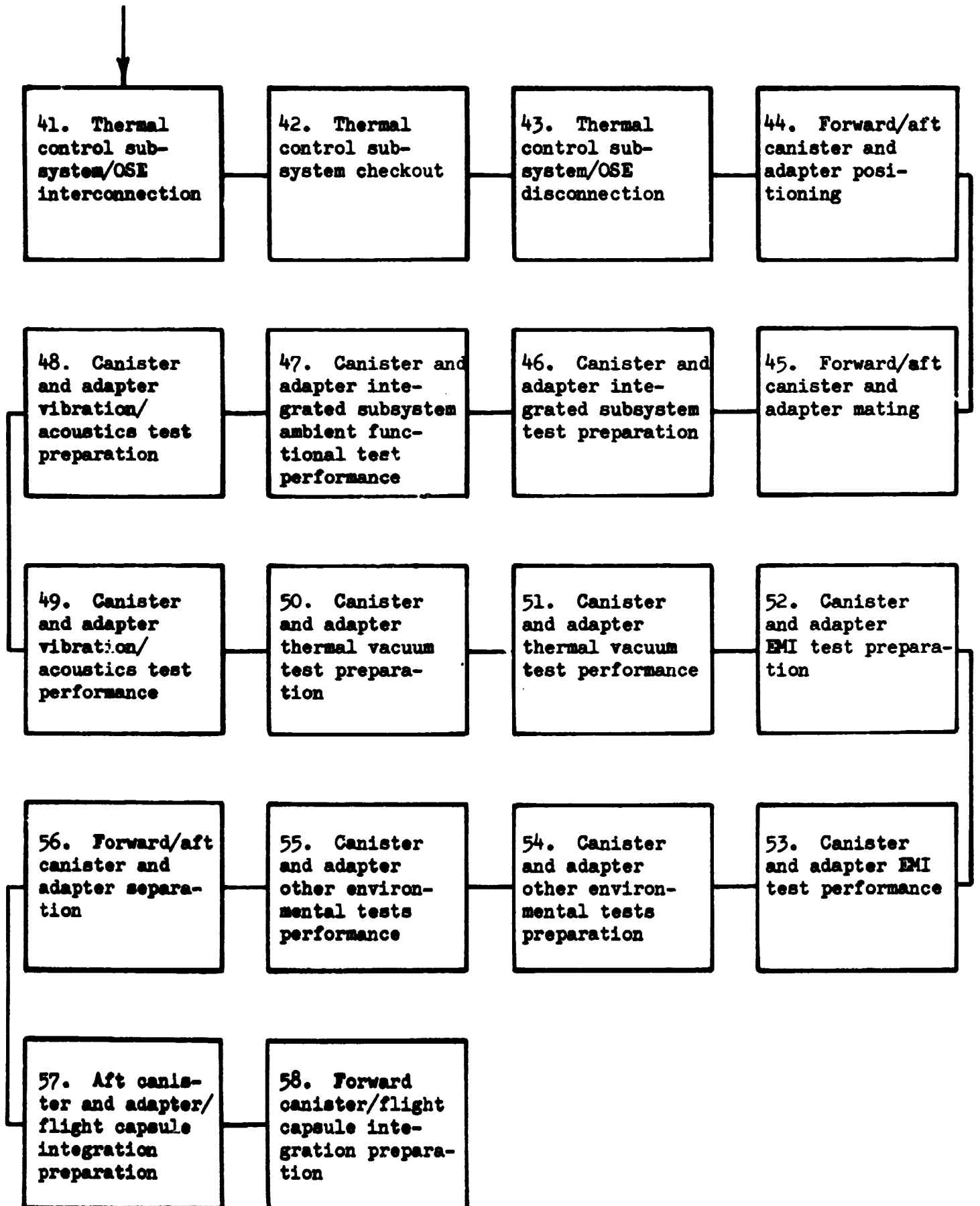


FIGURE III.2

III-47  
Second Level

I.D. CANISTER AND ADAPTER ASSEMBLY AND TEST  
(Continued)



I.E. PARACHUTE TRUSS ASSEMBLY AND TEST

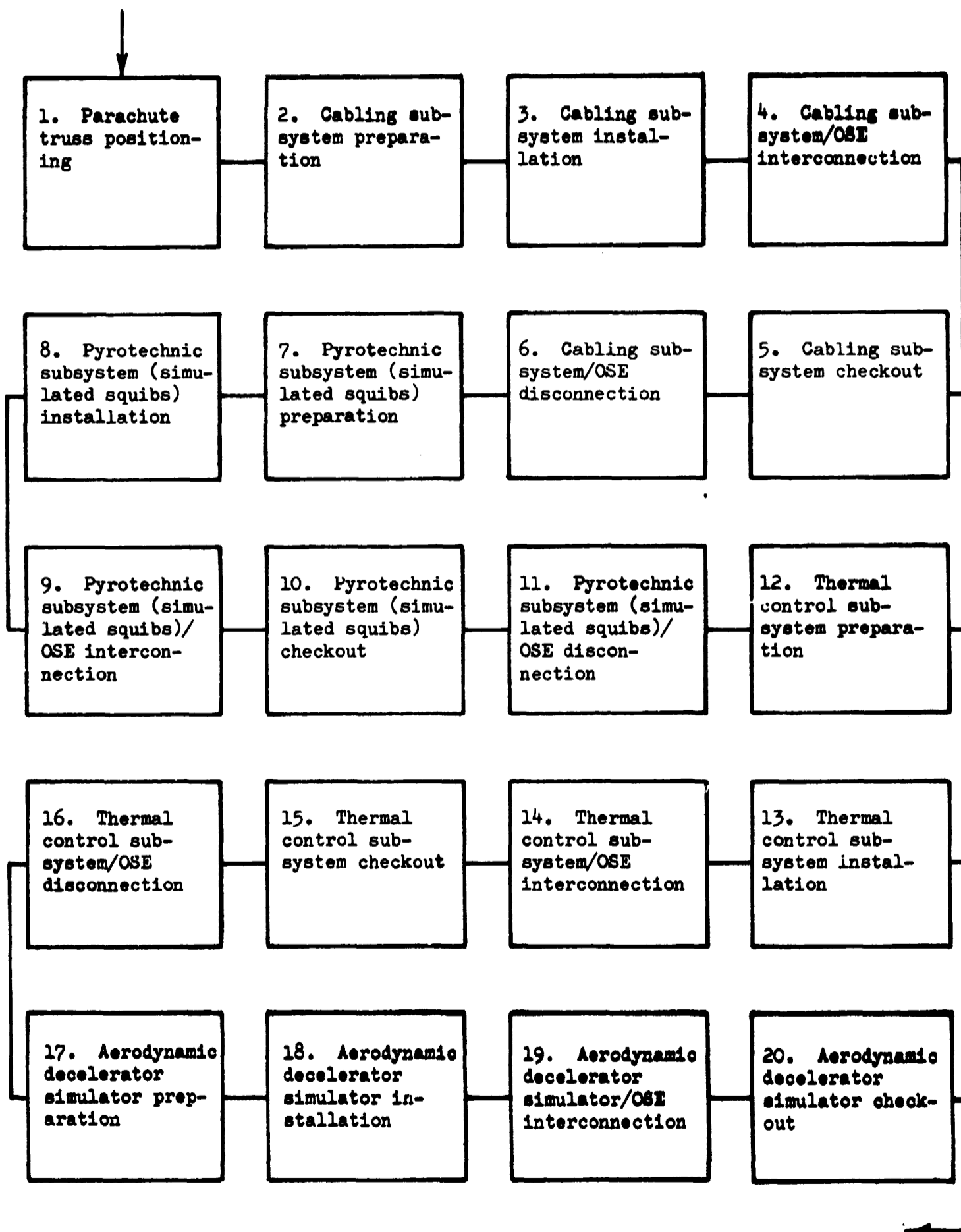
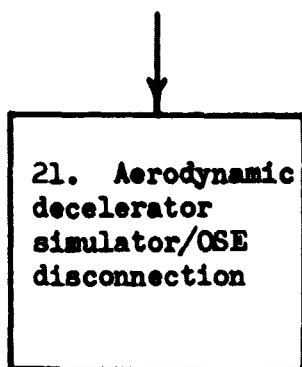


FIGURE III.2

I.E. PARACHUTE TRUSS ASSEMBLY AND TEST  
(Continued)

III-49  
Second Level



I.F. LANDER MODULE ASSEMBLY AND TEST

III-50  
Second Level

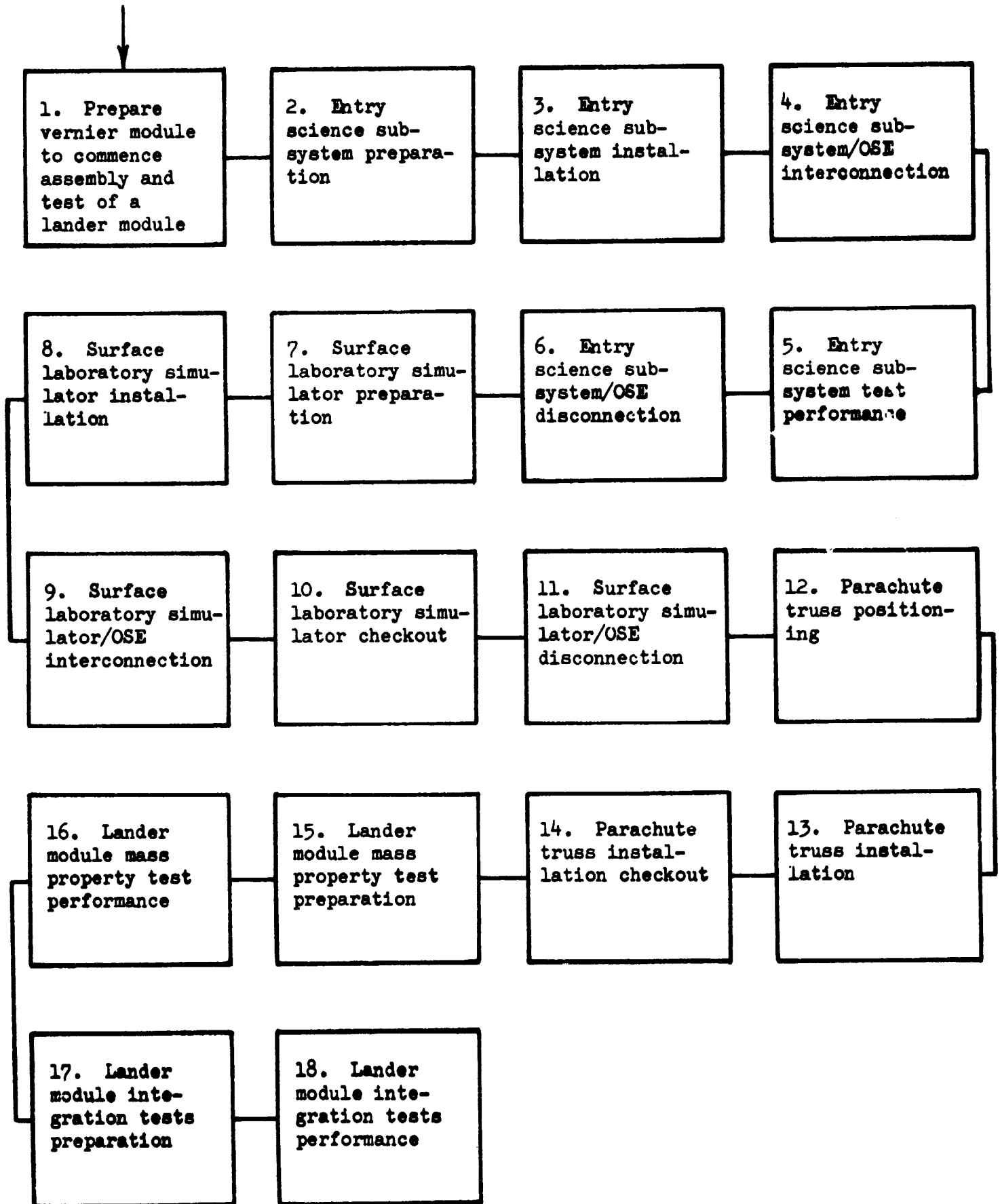




FIGURE III.2

I.G. DESCENT MODULE ASSEMBLY AND TEST

III-51  
Second Level

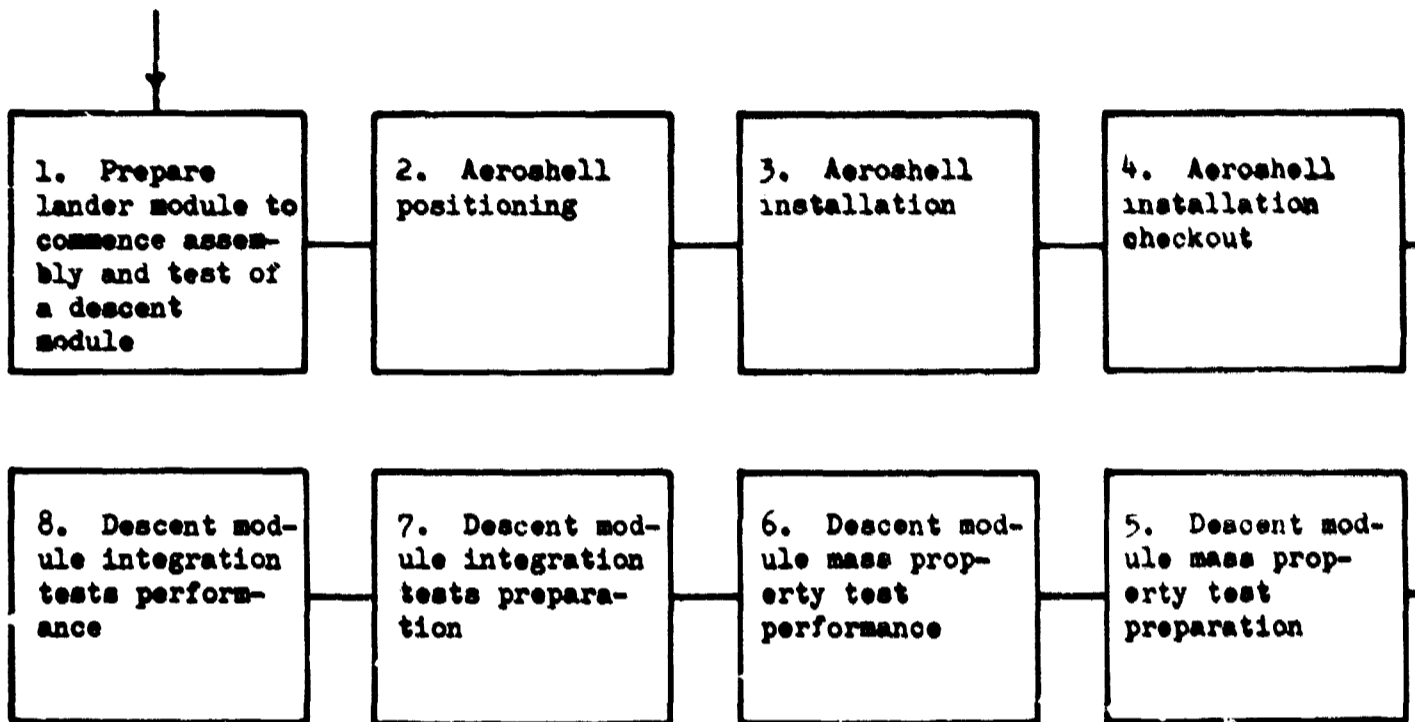


FIGURE III:2  
I.H. ENTRY MODULE ASSEMBLY AND TEST

Second Level III-52

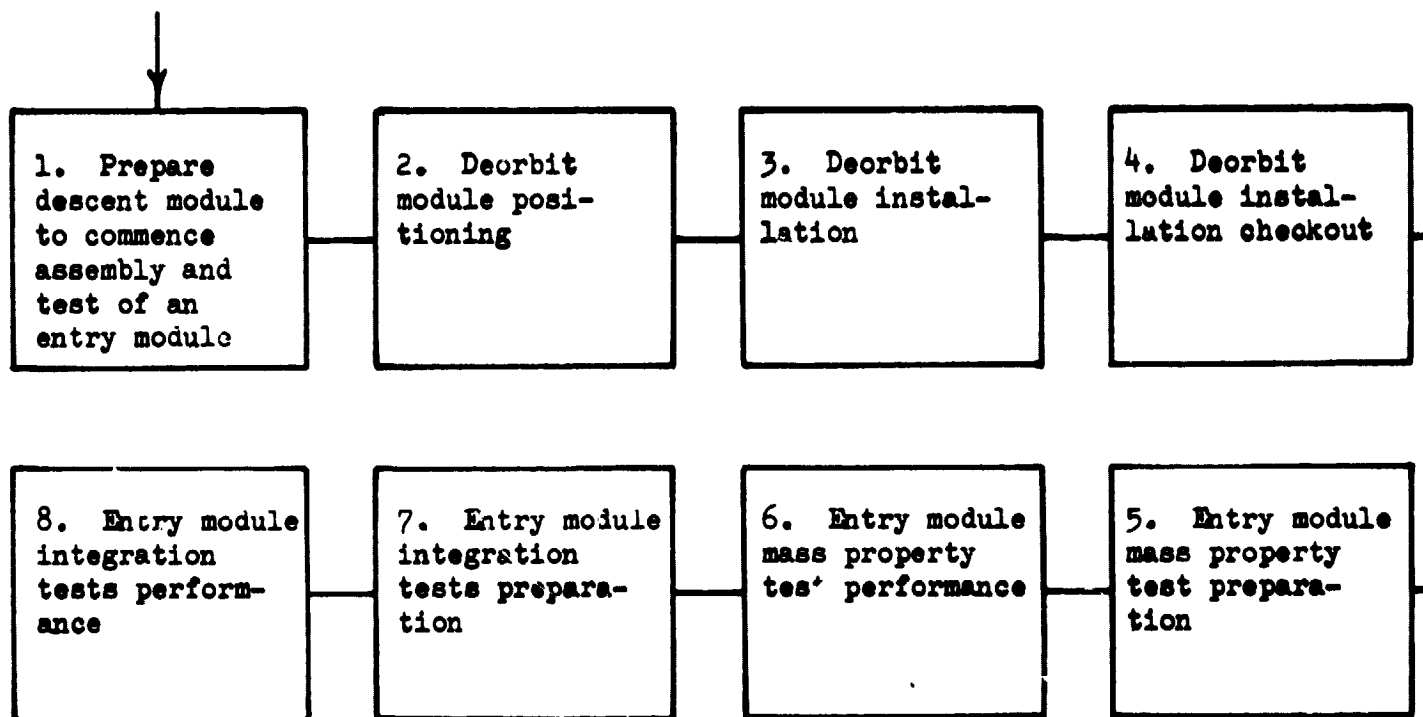
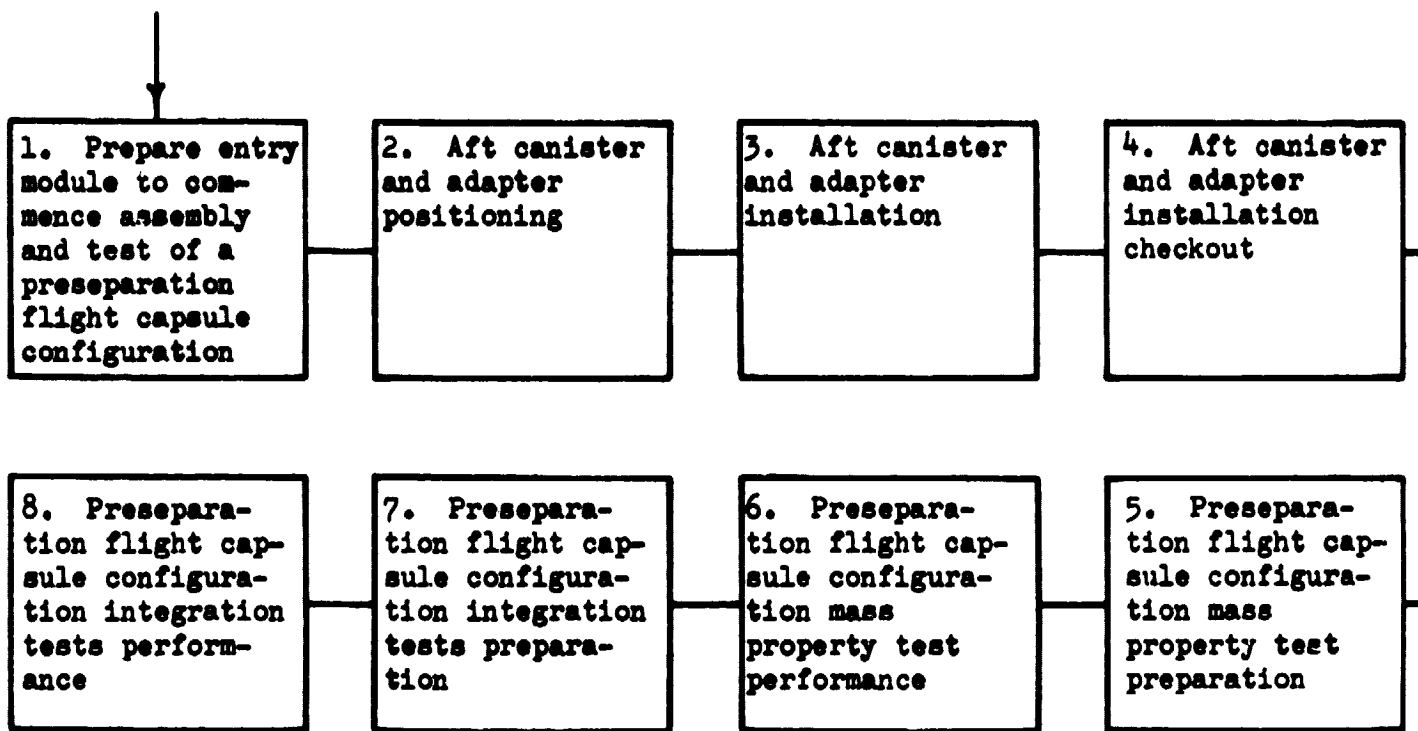


FIGURE III.2

I.I. PRESEPARATION FLIGHT CAPSULE CONFIGURATION ASSEMBLY AND TEST



I.J. LAUNCH/CRUISE FLIGHT CAPSULE CONFIGURATION ASSEMBLY AND TEST

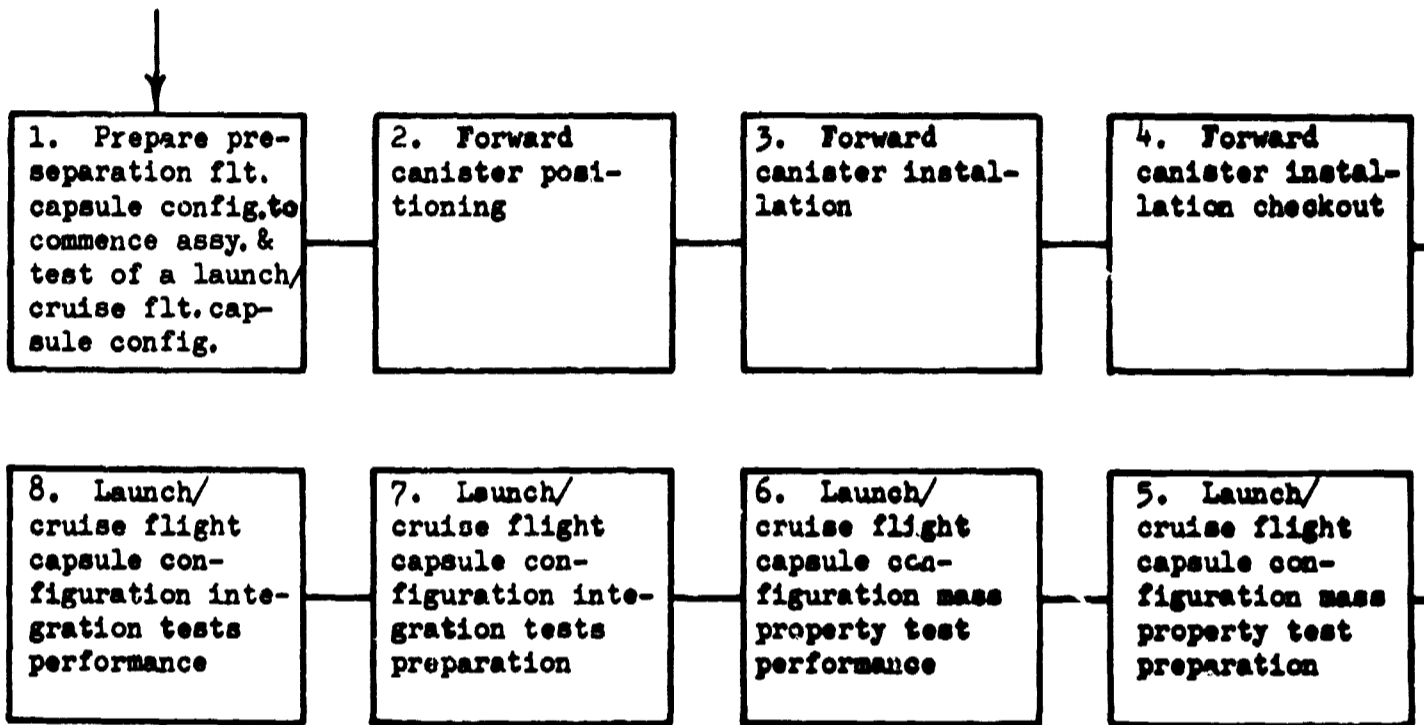


FIGURE III.2

I.K. FLIGHT CAPSULE SYSTEM ASSEMBLY AND TEST

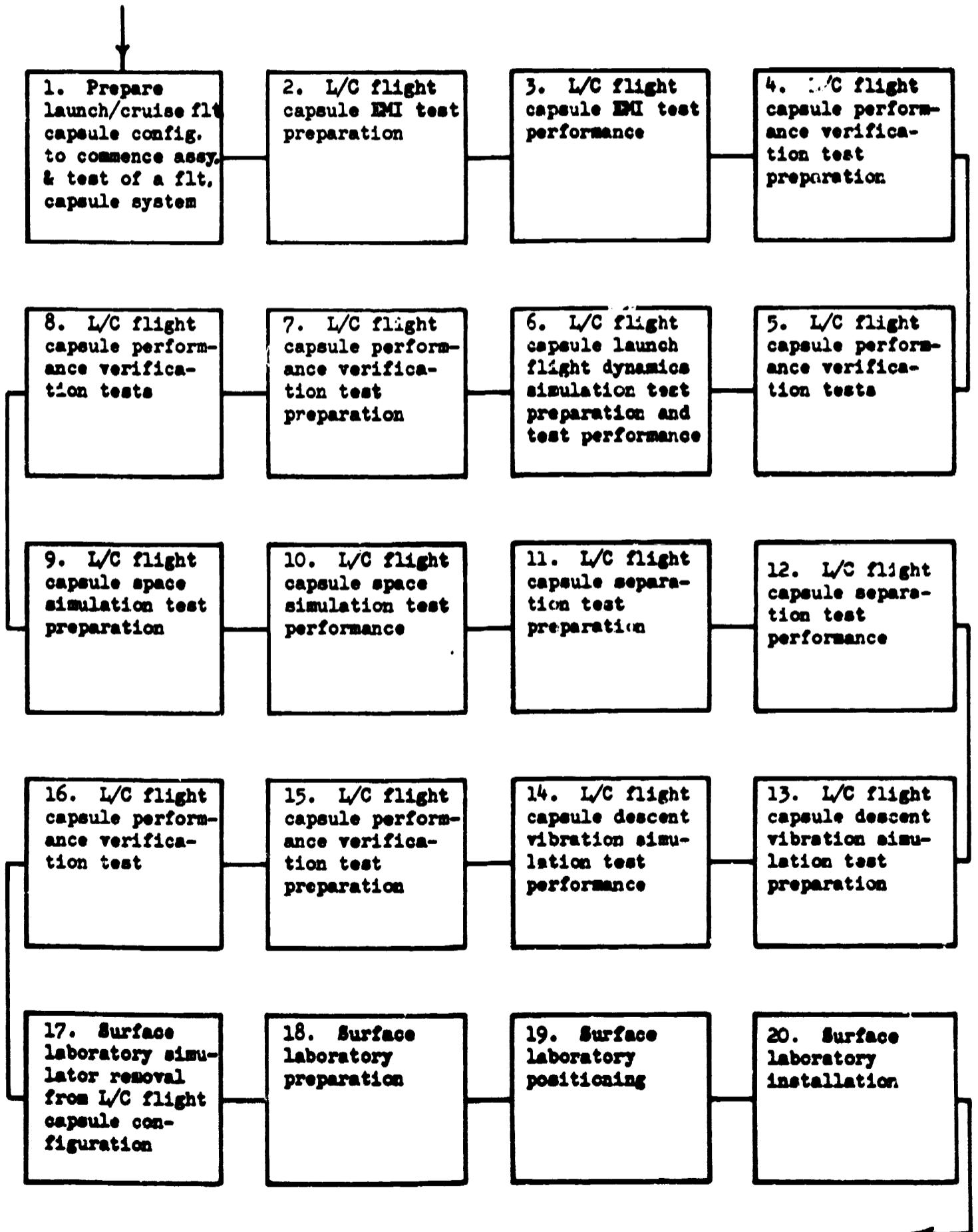


FIGURE 11.2

I.K. FLIGHT CAPSULE SYSTEM ASSEMBLY AND TEST  
(Continued)

Second Level III-56

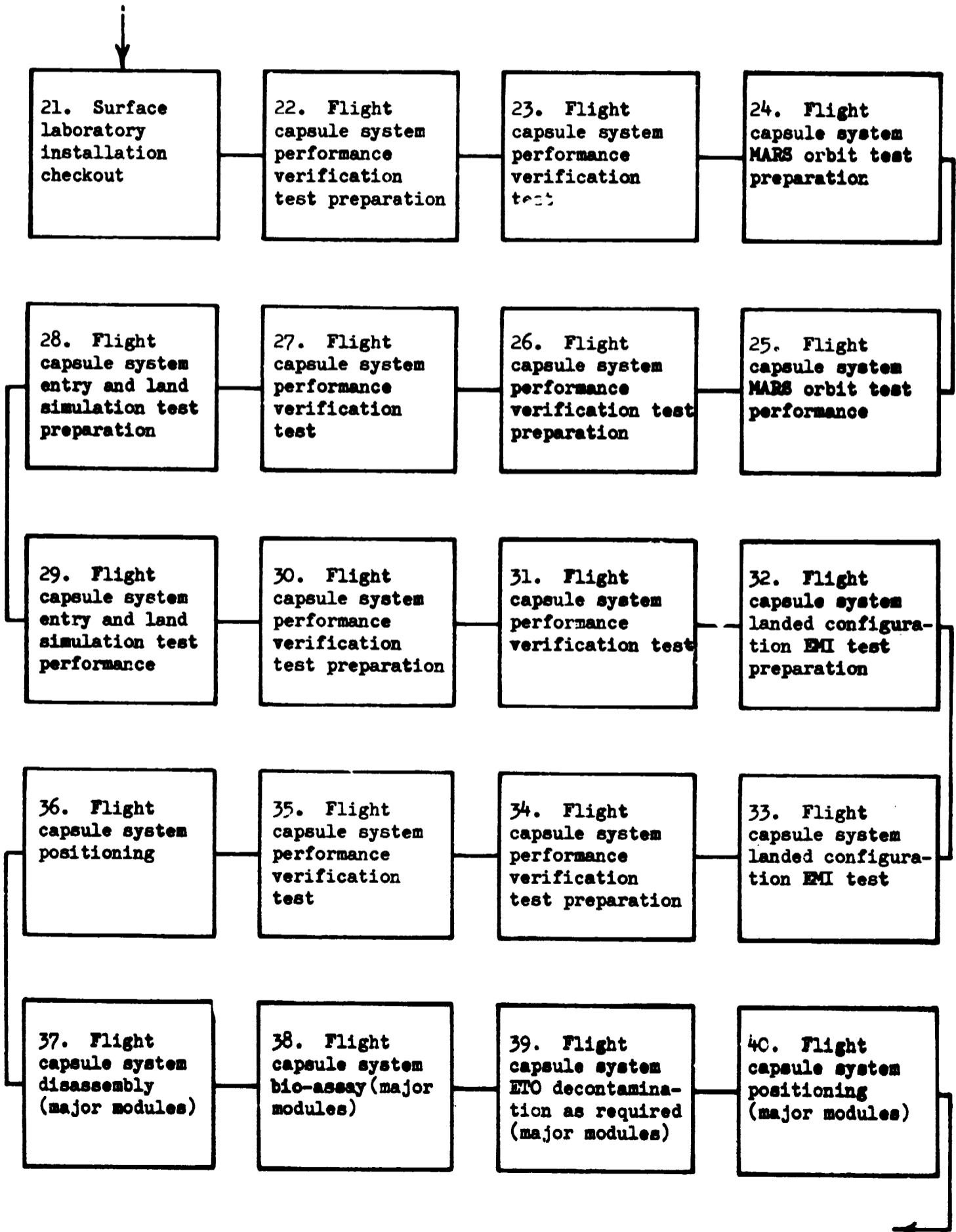


FIGURE III.2

I.K. FLIGHT CAPSULE SYSTEM ASSEMBLY AND TEST  
(Continued)

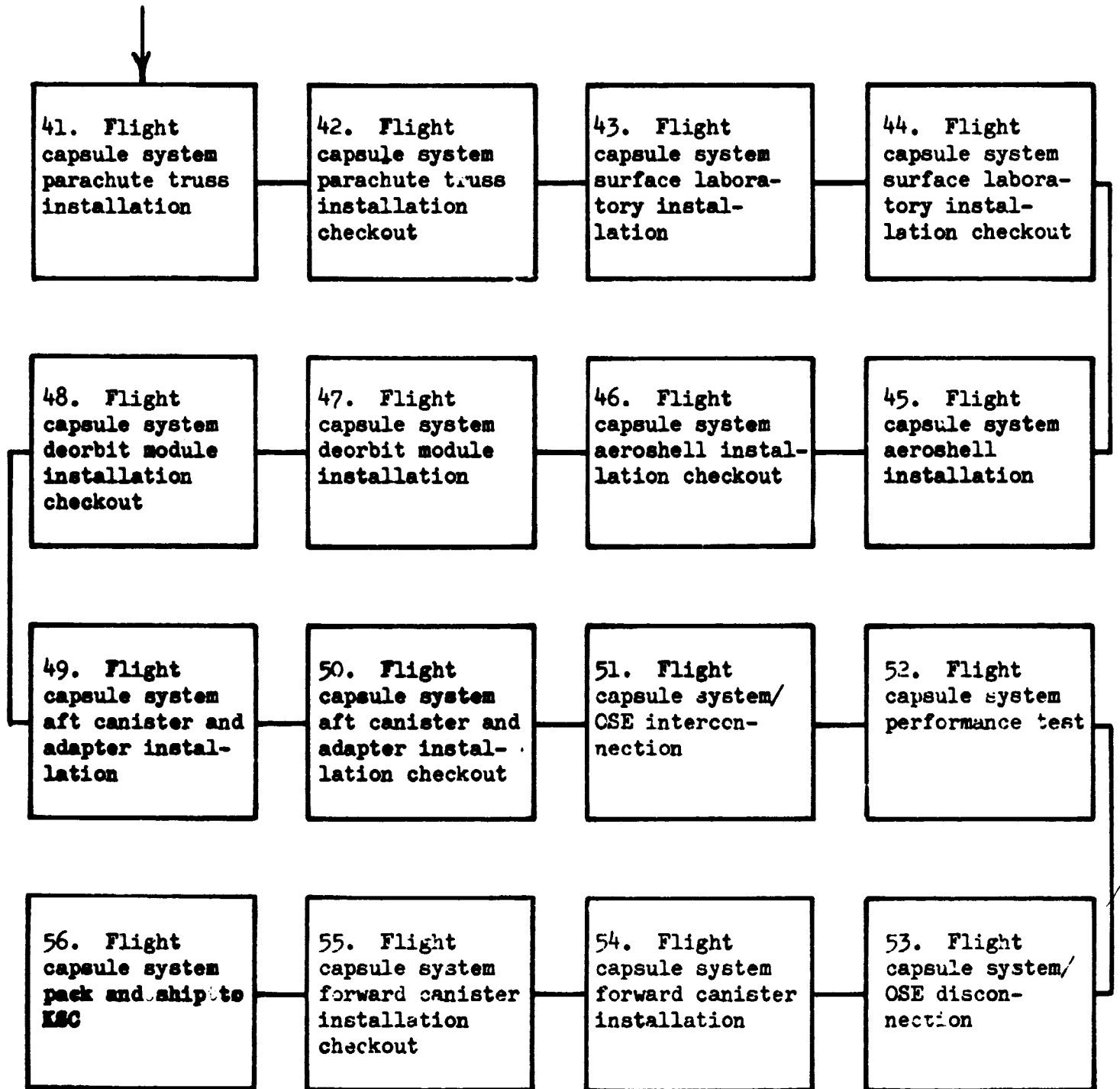


FIGURE III.2  
II.A. FLIGHT CAPSULE SYSTEM RECEIVING AND INSPECTION

Second Level  
III-58

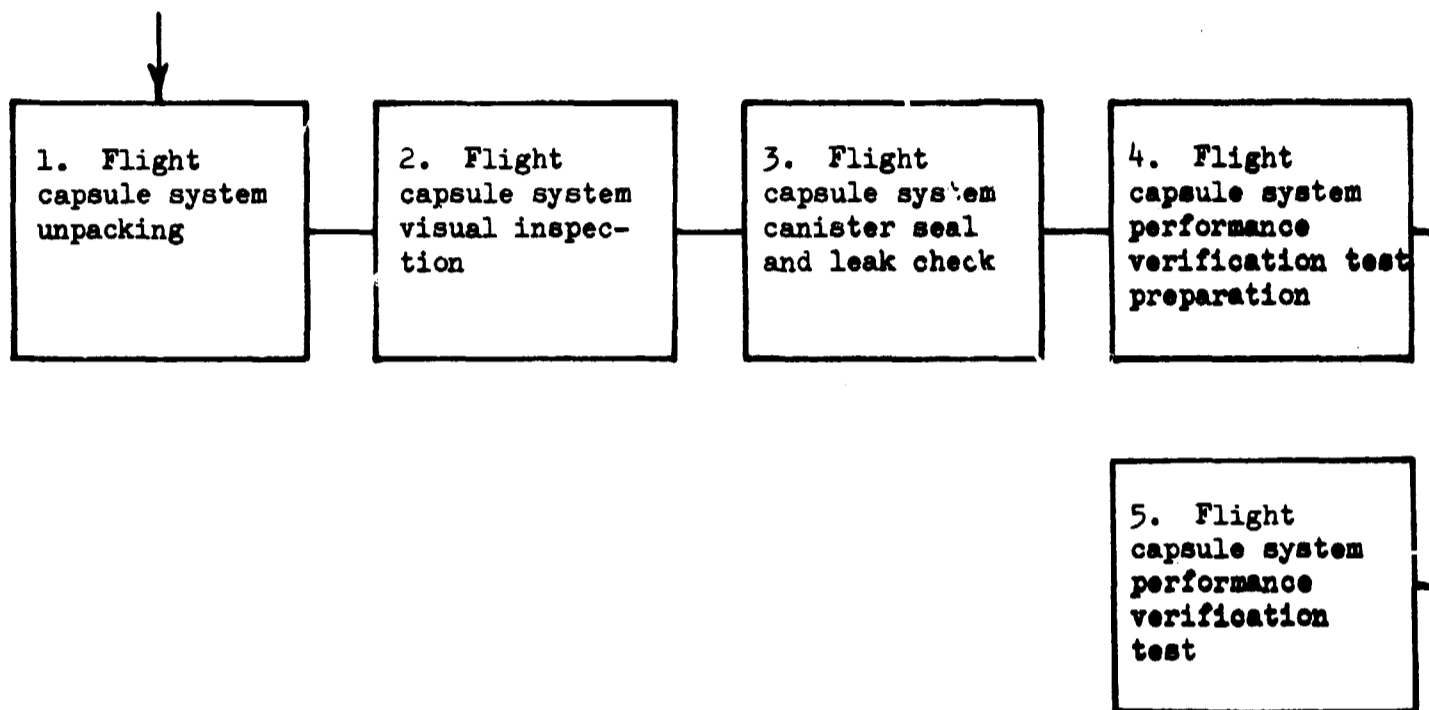
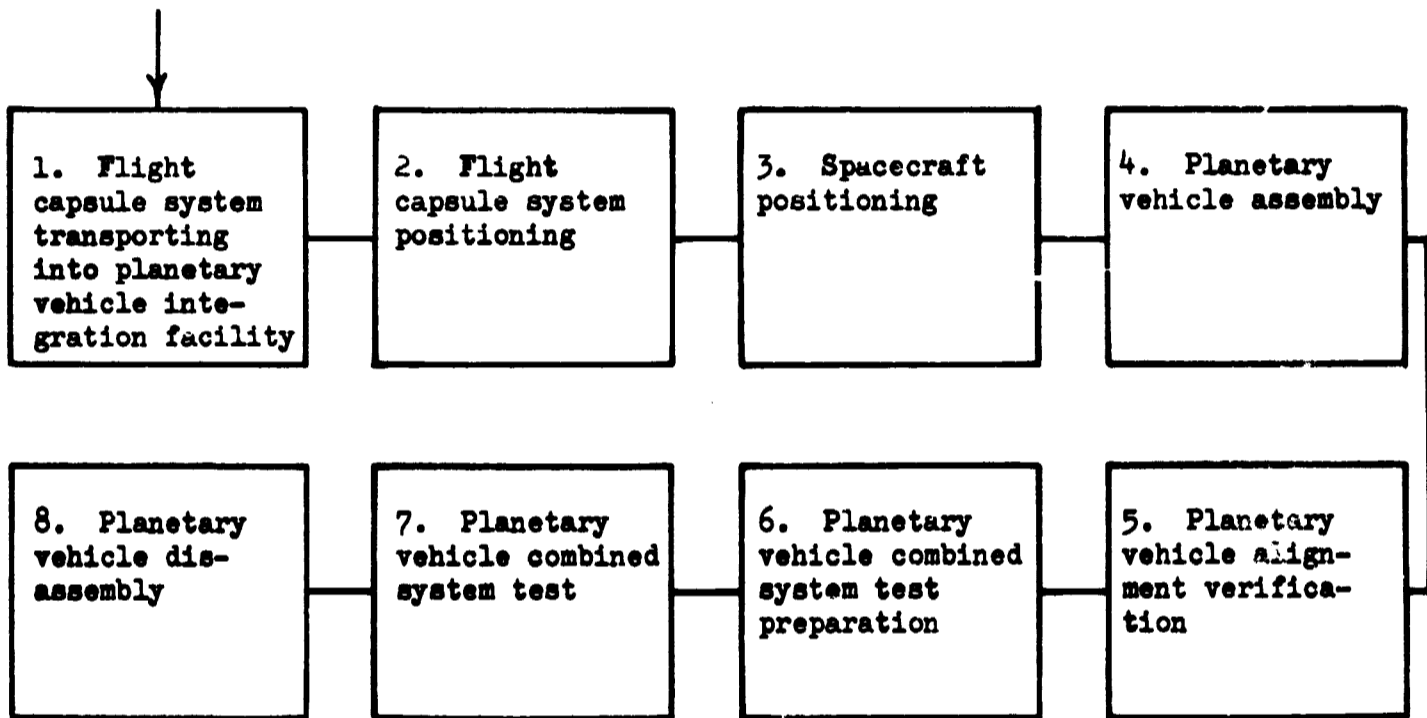




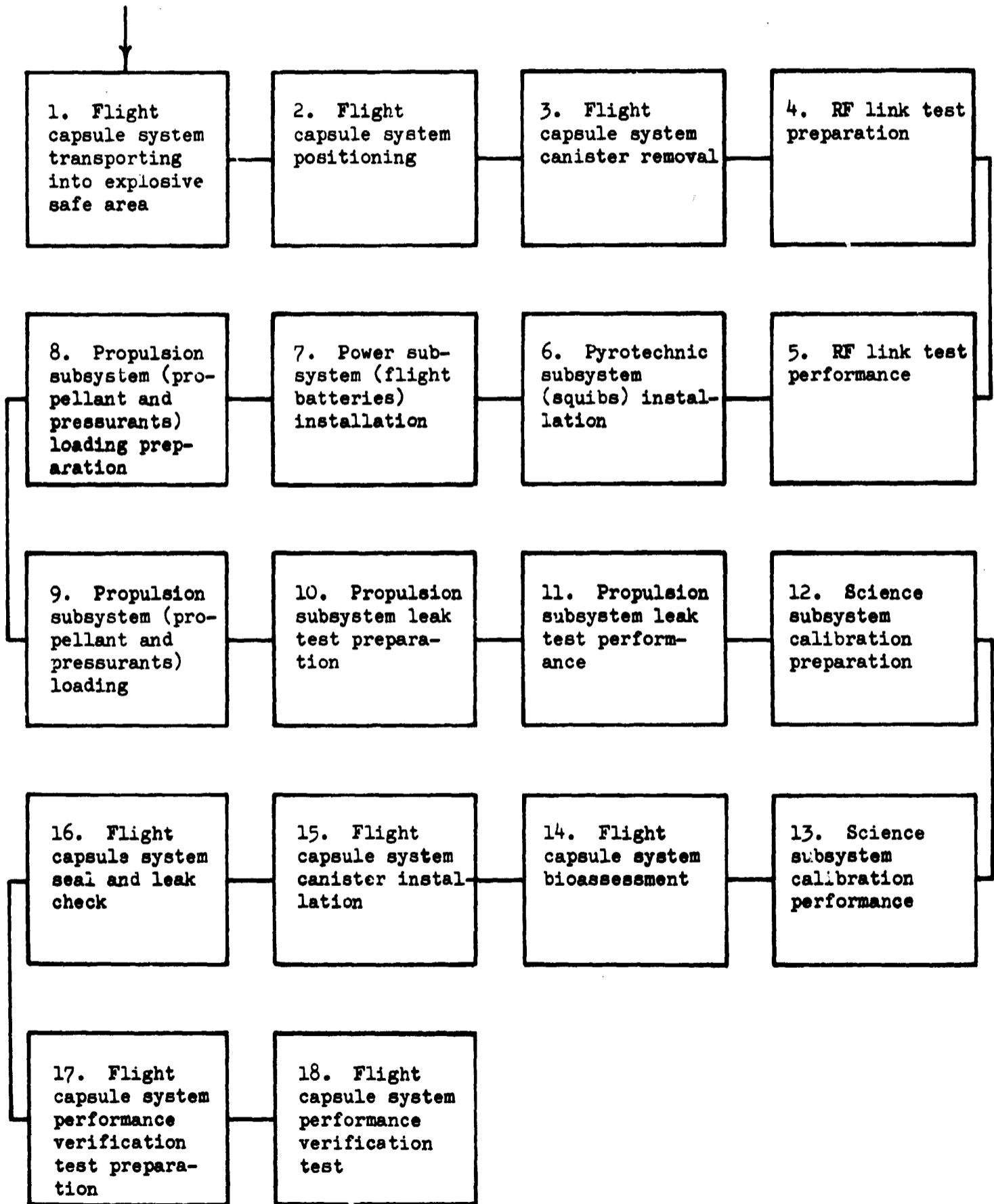
FIGURE III.2

II.B. PLANETARY VEHICLE MARRIAGE

III-59  
Second Level



II.C. FLIGHT CAPSULE SYSTEM EXPLOSIVE SAFE AREA ASSEMBLY AND TEST



## B. Section 2 - Capsule Bus System Detailed Functional Analysis

Section 2 contains a tabular description of four (4) levels of activity which must be performed to assemble and test the Capsule Bus System. These data are presented in tabular form and they describe the work performed at each level. In addition to identifying the levels of activity, the results of the functional analysis reflect several other considerations which are important in the assembly and testing of the Capsule Bus System. These considerations involve the identification of work location (i.e., Pasadena), major module (i.e., Vernier Module), hardware (i.e., Vernier Structure) and the subsystem being operated upon (i.e., Structure and Mechanisms).

In the front of the table, prior to the assembly and test sequence proper, each activity level and assembly consideration is identified. Identification is done by numeric, alpha or alpha-numeric codes. These precise codes are used in the assembly and test sequence description and, once assigned, their meaning does not change.

In order to make it possible to identify any of the four (4) activity levels and the associated considerations (subsystem, hardware, etc.), an indenture system was adopted. Each of the eight (8) indenture levels identifies an activity level or one of the considerations associated with the assembly and test sequence. For instance, in Table III.3, indenture level 1 identifies the site at which the work is being performed. Indenture level 2 identifies the FIRST level of activity in the Capsule Bus System general sequence. Indenture level 3 identifies the module being assembled. Indenture level 4 identifies the subsystem on which work is being performed. Indenture level 5

the hardware which is being used in the module assembly. Indenture levels 6-8 identify the SECOND, THIRD and FOURTH Levels of activity identified from the general sequence. Adherence to this indenture system makes it possible, at any point in the assembly and test sequence, to determine activity level, work location, the major module, the subsystem and the hardware which are involved.

TABLE III.3

## CAPSULE BUS SYSTEM DETAILED FUNCTIONAL ANALYSIS

III-63

1	VOYAGER TEST CASE (Pasadena Operations)	Level 1
1	A VERNIER MODULE ASSEMBLY + TEST	Level 2
1	1 SUBSYSTEM POSITIONING	Level 6
1	1.1 MANEUVER	Level 7
9	LIFT WITH MSPF	Level 8
1	VERNIER STRUCTURE	Level 3, 5
9	VERNIER PROPULSION S/S	Level 4
2	2 POSITION OVERHEAD CRANE	
1	VERNIER STRUCTURE	
2	1.2 ATTACHMENT	
3	ATTACH CRANE HOOKS	
1	VERNIER STRUCTURE	
3	1.3 TRANSPORT	
4	HOIST WITH CRANE	
1	VERNIER STRUCTURE	
5	MOVE WITH CRANE	
1	VERNIER STRUCTURE	
6	LOWER WITH CRANE	
1	VERNIER STRUCTURE	
4	1.4 DETACHMENT	
7	DETACH CRANE HOOKS	
1	VERNIER STRUCTURE	
5	1.5 INSPECTION	
8	VISUAL INSPECTION	
1	VERNIER STRUCTURE	
2	4 SUBSYSTEM/OSE INTERCONNECTION	
1	4.1 A/B S/S-OSE E/CONN	
12	CONNECT CABLES, HOSES, ETC	
9	VERNIER PROPULSION S/S	
2	4.2 A/B S/S-OSE M/CONN	
12	CONNECT CABLES, HOSES, ETC	
9	VERNIER PROPULSION S/S	
3	5 SUBSYSTEM FUNCTIONAL TESTING	
1	5.1 S/S TEST PROC. SEQ	
14	FUNCTIONAL TESTING	
9	VERNIER PROPULSION S/S	
4	6 SUBSYSTEM/OSE DISCONNECTION	
1	6.1 A/B S/S-OSE E/DSCN	
13	DISCONNECT CABLES, ETC.	
9	VERNIER PROPULSION S/S	
2	6.2 A/B S/S-OSE M/DSCN	
13	DISCONNECT CABLES, ETC.	
9	VERNIER PROPULSION S/S	
5	1 SUBSYSTEM POSITIONING	
1	1.1 MANEUVER	
9	LIFT WITH MSPF	
11	VERNIER MOD. CABLING S/S	
2	2 POSITION OVERHEAD CRANE	
11	VERNIER MOD. CABLING S/S	
2	1.2 ATTACHMENT	
3	ATTACH CRANE HOOKS	
11	VERNIER MOD. CABLING S/S	
3	1.3 TRANSPORT	
4	HOIST WITH CRANE	
11	VERNIER MOD. CABLING S/S	
5	MOVE WITH CRANE	
11	VERNIER MOD. CABLING S/S	
6	LOWER WITH CRANE	
11	VERNIER MOD. CABLING S/S	
4	1.4 DETACHMENT	
7	DETACH CRANE HOOKS	

TABLE III.3 (Continued)

III-64

		11	VERNIER MOD. CABLING S/S
5	1.5		INSPECTION
		A	VISUAL INSPECTION
		11	VERNIER MOD. CABLING S/S
A	2		SUBSYSTEM PREPARATION
	1	2.1	S/S INTEG FNL TEST
		12	CONNECT CABLES, HOSES, ETC
		11	VERNIER MOD. CABLING S/S
		14	FUNCTIONAL TESTING
		11	VERNIER MOD. CABLING S/S
		13	DISCONNECT CABLES, ETC.
		11	VERNIER MOD. CABLING S/S
7	3		SUBSYSTEM INSTALLATION
	1	3.1	S/S COMPONENT PLACE
		1	MOVE ASSEMBLY MANUALLY
		11	VERNIER MOD. CABLING S/S
	2	3.2	S/S COMP ATTACH
		15	INSERT SCREW, BOLT, ETC.
		11	VERNIER MOD. CABLING S/S
	3	3.3	S/S COMP INTERCONNECT
		12	CONNECT CABLES, HOSES, ETC
		11	VERNIER MOD. CABLING S/S
A	4		SUBSYSTEM/USE INTERCONNECTION
	1	4.1	A/B S/S-USE E/CONN
		12	CONNECT CABLES, HOSES, ETC
		11	VERNIER MOD. CABLING S/S
9	5		SUBSYSTEM FUNCTIONAL TESTING
	1	5.1	S/S TEST PROC. SEQ
		14	FUNCTIONAL TESTING
		11	VERNIER MOD. CABLING S/S
10	6		SUBSYSTEM/USE DISCONNECTION
	1	6.1	A/B S/S-USE E/DSCN
		13	DISCONNECT CABLES, ETC.
		11	VERNIER MOD. CABLING S/S
11	2		SUBSYSTEM PREPARATION
	1	2.1	MANUEVER
		1	MOVE ASSEMBLY MANUALLY
		17	CONTROL ELECTRONICS S/A
		10	PLACE IN HANDLING CONTNR
		17	CONTROL ELECTRONICS S/A
	2	2.2	TRANSPORT
		11	MOVE IN HANDLING CONTNR
		17	CONTROL ELECTRONICS S/A
		19	REMOVE FRM HANDLING CONTNR
		17	CONTROL ELECTRONICS S/A
	3	2.3	INSPECTION
		A	VISUAL INSPECTION
		17	CONTROL ELECTRONICS S/A
		1	MOVE ASSEMBLY MANUALLY
		17	CONTROL ELECTRONICS S/A
	4	2.4	S/A FUNCT. TEST
		12	CONNECT CABLES, HOSES, ETC
		17	CONTROL ELECTRONICS S/A
		14	FUNCTIONAL TESTING
		17	CONTROL ELECTRONICS S/A
		13	DISCONNECT CABLES, ETC.
		17	CONTROL ELECTRONICS S/A
		1	MOVE ASSEMBLY MANUALLY
		17	CONTROL ELECTRONICS S/A
	5	2.5	S/A HURN IN TEST
		12	CONNECT CABLES, HOSES, ETC
		17	CONTROL ELECTRONICS S/A

TABLE III.3 (Continued)

	14	FUNCTIONAL TESTING	
		17 CONTROL ELECTRONICS S/A	
	13	DISCONNECT CABLES, ETC.	
		17 CONTROL ELECTRONICS S/A	
	1	MOVE ASSEMBLY MANUALLY	
		17 CONTROL ELECTRONICS S/A	
6	2.6	S/A UNIT INTEGRATE	
	1	MOVE ASSEMBLY MANUALLY	
		17 CONTROL ELECTRONICS S/A	
	15	INSERT SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	16	TIGHTEN SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	15	INSERT SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	16	TIGHTEN SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	15	INSERT SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	16	TIGHTEN SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	15	INSERT SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	16	TIGHTEN SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	12	CONNECT CABLES, HOSES, ETC.	
		17 CONTROL ELECTRONICS S/A	
	1	MOVE ASSEMBLY MANUALLY	
		17 CONTROL ELECTRONICS S/A	
7	2.7	S/A UNIT FNL TEST	
	12	CONNECT CABLES, HOSES, ETC.	
		17 CONTROL ELECTRONICS S/A	
	14	FUNCTIONAL TESTING	
		17 CONTROL ELECTRONICS S/A	
	13	DISCONNECT CABLES, ETC.	
		17 CONTROL ELECTRONICS S/A	
	1	MOVE ASSEMBLY MANUALLY	
		17 CONTROL ELECTRONICS S/A	
8	2.8	S/A UNIT VIBR TEST	
	15	INSERT SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	16	TIGHTEN SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	15	INSERT SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	16	TIGHTEN SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	12	CONNECT CABLES, HOSES, ETC.	
		17 CONTROL ELECTRONICS S/A	
	14	FUNCTIONAL TESTING	
		17 CONTROL ELECTRONICS S/A	
	13	DISCONNECT CABLES, ETC.	
		17 CONTROL ELECTRONICS S/A	
	17	LOUSEN SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	18	REMOVE SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	17	LOUSEN SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	18	REMOVE SCREW, BOLT, ETC.	
		17 CONTROL ELECTRONICS S/A	
	1	MOVE ASSEMBLY MANUALLY	

TABLE III.3 (Continued)

III-66

		17 CONTROL ELECTRONICS S/A
9	2.9	S/A UNIT TVAC TEST
	12	CONNECT CABLES, HOSES, ETC
		17 CONTROL ELECTRONICS S/A
	14	FUNCTIONAL TESTING
		17 CONTROL ELECTRONICS S/A
	13	DISCONNECT CABLES, ETC.
		17 CONTROL ELECTRONICS S/A
	1	MOVE ASSEMBLY MANUALLY
		17 CONTROL ELECTRONICS S/A
10	2.10	S/A UNIT F.M.U TEST
	12	CONNECT CABLES, HOSES, ETC
		17 CONTROL ELECTRONICS S/A
	14	FUNCTIONAL TESTING
		17 CONTROL ELECTRONICS S/A
	13	DISCONNECT CABLES, ETC.
		17 CONTROL ELECTRONICS S/A
	1	MOVE ASSEMBLY MANUALLY
		17 CONTROL ELECTRONICS S/A
11	2.11	S/A UNIT DISASSEMBLY
	13	DISCONNECT CABLES, ETC.
		17 CONTROL ELECTRONICS S/A
	17	LOOSEN SCREW, BOLT, ETC.
		17 CONTROL ELECTRONICS S/A
	18	REMOVE SCREW, BOLT, ETC.
		17 CONTROL ELECTRONICS S/A
	1	MOVE ASSEMBLY MANUALLY
		17 CONTROL ELECTRONICS S/A
	17	LOOSEN SCREW, BOLT, ETC.
		17 CONTROL ELECTRONICS S/A
	18	REMOVE SCREW, BOLT, ETC.
		17 CONTROL ELECTRONICS S/A
	1	MOVE ASSEMBLY MANUALLY
		17 CONTROL ELECTRONICS S/A
	17	LOOSEN SCREW, BOLT, ETC.
		17 CONTROL ELECTRONICS S/A
	18	REMOVE SCREW, BOLT, ETC.
		17 CONTROL ELECTRONICS S/A
	1	MOVE ASSEMBLY MANUALLY
		17 CONTROL ELECTRONICS S/A
	17	LOOSEN SCREW, BOLT, ETC.
		17 CONTROL ELECTRONICS S/A
	18	REMOVE SCREW, BOLT, ETC.
		17 CONTROL ELECTRONICS S/A
	1	MOVE ASSEMBLY MANUALLY
		17 CONTROL ELECTRONICS S/A
12	2	SUBSYSTEM PREPARATION
	1	2.1 MANEUVER
		1 MOVE ASSEMBLY MANUALLY
		18 COMPUTER S/A
	10	PLACE IN HANDLING CONTAINER
		18 COMPUTER S/A
	2	2.2 TRANSPORT
		11 MOVE IN HANDLING CONTAINER
		18 COMPUTER S/A
		19 REMOVE FROM HANDLING CONTAINER
		18 COMPUTER S/A
	3	2.3 INSPECTION
		8 VISUAL INSPECTION
		18 COMPUTER S/A
		1 MOVE ASSEMBLY MANUALLY
		18 COMPUTER S/A



TABLE III.3 (Continued)

4	2.4	S/A FUNCT. TEST
	12	CONNECT CABLES, HOSES, ETC 18 COMPUTER S/A
	14	FUNCTIONAL TESTING 18 COMPUTER S/A
	13	DISCONNECT CABLES, ETC. 18 COMPUTER S/A
	1	MOVE ASSEMBLY MANUALLY 18 COMPUTER S/A
5	2.5	S/A BURN IN TEST
	12	CONNECT CABLES, HOSES, ETC 18 COMPUTER S/A
	14	FUNCTIONAL TESTING 18 COMPUTER S/A
	13	DISCONNECT CABLES, ETC. 18 COMPUTER S/A
	1	MOVE ASSEMBLY MANUALLY 18 COMPUTER S/A
6	2.6	S/A UNIT INTEGRATE
	1	MOVE ASSEMBLY MANUALLY 18 COMPUTER S/A
	15	INSERT SCREW, BOLT, ETC. 18 COMPUTER S/A
	16	TIGHTEN SCREW, BOLT, ETC. 18 COMPUTER S/A
	15	INSERT SCREW, BOLT, ETC. 18 COMPUTER S/A
	16	TIGHTEN SCREW, BOLT, ETC. 18 COMPUTER S/A
	15	INSERT SCREW, BOLT, ETC. 18 COMPUTER S/A
	16	TIGHTEN SCREW, BOLT, ETC. 18 COMPUTER S/A
	15	INSERT SCREW, BOLT, ETC. 18 COMPUTER S/A
	16	TIGHTEN SCREW, BOLT, ETC. 18 COMPUTER S/A
	12	CONNECT CABLES, HOSES, ETC 18 COMPUTER S/A
	1	MOVE ASSEMBLY MANUALLY 18 COMPUTER S/A
7	2.7	S/A UNIT FNL TEST
	12	CONNECT CABLES, HOSES, ETC 18 COMPUTER S/A
	14	FUNCTIONAL TESTING 18 COMPUTER S/A
	13	DISCONNECT CABLES, ETC. 18 COMPUTER S/A
	1	MOVE ASSEMBLY MANUALLY 18 COMPUTER S/A
8	2.8	S/A UNIT VIBR TEST
	15	INSERT SCREW, BOLT, ETC. 18 COMPUTER S/A
	16	TIGHTEN SCREW, BOLT, ETC. 18 COMPUTER S/A
	15	INSERT SCREW, BOLT, ETC. 18 COMPUTER S/A
	16	TIGHTEN SCREW, BOLT, ETC. 18 COMPUTER S/A
	12	CONNECT CABLES, HOSES, ETC 18 COMPUTER S/A
	14	FUNCTIONAL TESTING

TABLE III.3 (Continued)

		18 COMPUTER S/A
	13	DISCONNECT CABLES, ETC. 18 COMPUTER S/A
	17	LOOSEN SCREW, BOLT, ETC. 18 COMPUTER S/A
	18	REMOVE SCREW, BOLT, ETC. 18 COMPUTER S/A
	17	LOOSEN SCREW, BOLT, ETC. 18 COMPUTER S/A
	18	REMOVE SCREW, BOLT, ETC. 18 COMPUTER S/A
	1	MOVE ASSEMBLY MANUALLY 18 COMPUTER S/A
9	2.9	S/A UNIT TVAC TEST
	12	CONNECT CABLES, HOSES, ETC. 18 COMPUTER S/A
	14	FUNCTIONAL TESTING 18 COMPUTER S/A
	13	DISCONNECT CABLES, ETC. 18 COMPUTER S/A
	1	MOVE ASSEMBLY MANUALLY 18 COMPUTER S/A
10	2.10	S/A UNIT EMU TEST
	12	CONNECT CABLES, HOSES, ETC. 18 COMPUTER S/A
	14	FUNCTIONAL TESTING 18 COMPUTER S/A
	13	DISCONNECT CABLES, ETC. 18 COMPUTER S/A
	1	MOVE ASSEMBLY MANUALLY 18 COMPUTER S/A
11	2.11	S/A UNIT DISASSEMBL
	13	DISCONNECT CABLES, ETC. 18 COMPUTER S/A
	17	LOOSEN SCREW, BOLT, ETC. 18 COMPUTER S/A
	18	REMOVE SCREW, BOLT, ETC. 18 COMPUTER S/A
	1	MOVE ASSEMBLY MANUALLY 18 COMPUTER S/A
	17	LOOSEN SCREW, BOLT, ETC. 18 COMPUTER S/A
	18	REMOVE SCREW, BOLT, ETC. 18 COMPUTER S/A
	1	MOVE ASSEMBLY MANUALLY 18 COMPUTER S/A
	17	LOOSEN SCREW, BOLT, ETC. 18 COMPUTER S/A
	18	REMOVE SCREW, BOLT, ETC. 18 COMPUTER S/A
	1	MOVE ASSEMBLY MANUALLY 18 COMPUTER S/A
	17	LOOSEN SCREW, BOLT, ETC. 18 COMPUTER S/A
	18	REMOVE SCREW, BOLT, ETC. 18 COMPUTER S/A
	1	MOVE ASSEMBLY MANUALLY 18 COMPUTER S/A
12	2	SUBSYSTEM PREPARATION
	1	2.1 MANUEVER
	10	PLACE IN HANDLING CONTAN
	19	INERTIAL MEAS. UNIT S/A

TABLE III.3 (Continued)

- 1 MOVE ASSEMBLY MANUALLY  
19 INERTIAL MEAS.UNIT S/A
- 2 2.2 TRANSPORT
  - 11 MOVE IN HANDLING CONTNR  
19 INERTIAL MEAS.UNIT S/A
  - 19 REMOVE FRM HNDLNG CONTNR  
19 INERTIAL MEAS.UNIT S/A
- 3 2.3 INSPECTION
  - A VISUAL INSPECTION  
19 INERTIAL MEAS.UNIT S/A
  - 1 MOVE ASSEMBLY MANUALLY  
19 INERTIAL MEAS.UNIT S/A
- 4 2.4 S/A FUNCT. TEST
  - 12 CONNECT CABLES,HOSES,ETC  
19 INERTIAL MEAS.UNIT S/A
  - 14 FUNCTIONAL TESTING  
19 INERTIAL MEAS.UNIT S/A
  - 13 DISCONNECT CABLES,ETC.  
19 INERTIAL MEAS.UNIT S/A
  - 1 MOVE ASSEMBLY MANUALLY  
19 INERTIAL MEAS.UNIT S/A
- 5 2.5 S/A BURN IN TEST
  - 12 CONNECT CABLES,HOSES,ETC  
19 INERTIAL MEAS.UNIT S/A
  - 14 FUNCTIONAL TESTING  
19 INERTIAL MEAS.UNIT S/A
  - 13 DISCONNECT CABLES,ETC.  
19 INERTIAL MEAS.UNIT S/A
  - 1 MOVE ASSEMBLY MANUALLY  
19 INERTIAL MEAS.UNIT S/A
- 6 2.6 S/A UNIT INTEGRATE
  - 1 MOVE ASSEMBLY MANUALLY  
19 INERTIAL MEAS.UNIT S/A
  - 15 INSERT SCREW,BOLT,ETC.  
19 INERTIAL MEAS.UNIT S/A
  - 16 TIGHTEN SCREW,BOLT,ETC.  
19 INERTIAL MEAS.UNIT S/A
  - 15 INSERT SCREW,BOLT,ETC.  
19 INERTIAL MEAS.UNIT S/A
  - 16 TIGHTEN SCREW,BOLT,ETC.  
19 INERTIAL MEAS.UNIT S/A
  - 15 INSERT SCREW,BOLT,ETC.  
19 INERTIAL MEAS.UNIT S/A
  - 16 TIGHTEN SCREW,BOLT,ETC.  
19 INERTIAL MEAS.UNIT S/A
  - 15 INSERT SCREW,BOLT,ETC.  
19 INERTIAL MEAS.UNIT S/A
  - 16 TIGHTEN SCREW,BOLT,ETC.  
19 INERTIAL MEAS.UNIT S/A
  - 12 CONNECT CABLES,HOSES,ETC  
19 INERTIAL MEAS.UNIT S/A
  - 1 MOVE ASSEMBLY MANUALLY  
19 INERTIAL MEAS.UNIT S/A
- 7 2.7 S/A UNIT FNL TEST
  - 12 CONNECT CABLES,HOSES,ETC  
19 INERTIAL MEAS.UNIT S/A
  - 14 FUNCTIONAL TESTING  
19 INERTIAL MEAS.UNIT S/A
  - 13 DISCONNECT CABLES,ETC.  
19 INERTIAL MEAS.UNIT S/A
  - 1 MOVE ASSEMBLY MANUALLY  
19 INERTIAL MEAS.UNIT S/A

TABLE III.3 (Continued)

8	2.8	S/A UNIT VIBR TEST
	15	INSERT SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	16	TIGHTEN SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	15	INSERT SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	16	TIGHTEN SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	12	CONNECT CABLES,HOSES,ETC 19 INERTIAL MEAS.UNIT S/A
	14	FUNCTIONAL TESTING 19 INERTIAL MEAS.UNIT S/A
	13	DISCONNECT CABLES,ETC. 19 INERTIAL MEAS.UNIT S/A
	17	LOOSEN SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	18	REMOVE SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	17	LOOSEN SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	18	REMOVE SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	1	MOVE ASSEMBLY MANUALLY 19 INERTIAL MEAS.UNIT S/A
9	2.9	S/A UNIT TVAC TEST
	12	CONNECT CABLES,HOSES,ETC 19 INERTIAL MEAS.UNIT S/A
	14	FUNCTIONAL TESTING 19 INERTIAL MEAS.UNIT S/A
	13	DISCONNECT CABLES,ETC. 19 INERTIAL MEAS.UNIT S/A
	1	MOVE ASSEMBLY MANUALLY 19 INERTIAL MEAS.UNIT S/A
10	2.10	S/A UNIT EMU TEST
	12	CONNECT CABLES,HOSES,ETC 19 INERTIAL MEAS.UNIT S/A
	14	FUNCTIONAL TESTING 19 INERTIAL MEAS.UNIT S/A
	13	DISCONNECT CABLES,ETC. 19 INERTIAL MEAS.UNIT S/A
	1	MOVE ASSEMBLY MANUALLY 19 INERTIAL MEAS.UNIT S/A
11	2.11	S/A UNIT DISASSMHL
	13	DISCONNECT CABLES,ETC. 19 INERTIAL MEAS.UNIT S/A
	17	LOOSEN SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	18	REMOVE SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	1	MOVE ASSEMBLY MANUALLY 19 INERTIAL MEAS.UNIT S/A
	17	LOOSEN SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	18	REMOVE SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	1	MOVE ASSEMBLY MANUALLY 19 INERTIAL MEAS.UNIT S/A
	17	LOOSEN SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A
	18	REMOVE SCREW,BOLT,ETC. 19 INERTIAL MEAS.UNIT S/A

TABLE III.3 (Continued)

		1	MOVE ASSEMBLY MANUALLY
		19	INERTIAL MEAS. UNIT S/A
	17		LOOSEN SCREW, BOLT, ETC.
		19	INERTIAL MEAS. UNIT S/A
	18		REMOVE SCREW, BOLT, ETC.
		19	INERTIAL MEAS. UNIT S/A
		1	MOVE ASSEMBLY MANUALLY
		19	INERTIAL MEAS. UNIT S/A
14	2		SUBSYSTEM PREPARATION
	1	2.1	MANUEVER
		10	PLACE IN HANDLING CONTAN
		20	TOLR S/A
		1	MOVE ASSEMBLY MANUALLY
		20	TOLR S/A
	2	2.2	TRANSPORT
		11	MOVE IN HANDLING CONTANR
		20	TOLR S/A
		19	REMOVE FRM HNDLNG CONTNR
		20	TOLR S/A
	3	2.3	INSPECTION
		8	VISIJAL INSPECTION
		20	TOLR S/A
		1	MOVE ASSEMBLY MANUALLY
		20	TOLR S/A
	4	2.4	S/A FUNCT. TEST
		12	CONNECT CABLES, HOSES, ETC
		20	TOLR S/A
		14	FUNCTIONAL TESTING
		20	TOLR S/A
		13	DISCONNECT CABLES, ETC.
		20	TOLR S/A
		1	MOVE ASSEMBLY MANUALLY
		20	TOLR S/A
	5	2.5	S/A BURN IN TEST
		12	CONNECT CABLES, HOSES, ETC
		20	TOLR S/A
		14	FUNCTIONAL TESTING
		20	TOLR S/A
		13	DISCONNECT CABLES, ETC.
		20	TOLR S/A
		1	MOVE ASSEMBLY MANUALLY
		20	TOLR S/A
	6	2.6	S/A UNIT INTEGRATE
		1	MOVE ASSEMBLY MANUALLY
		20	TOLR S/A
		15	INSERT SCREW, BOLT, ETC.
		20	TOLR S/A
		16	TIGHTEN SCREW, BOLT, ETC.
		20	TOLR S/A
		15	INSERT SCREW, BOLT, ETC.
		20	TOLR S/A
		16	TIGHTEN SCREW, BOLT, ETC.
		20	TOLR S/A
		15	INSERT SCREW, BOLT, ETC.
		20	TOLR S/A
		16	TIGHTEN SCREW, BOLT, ETC.
		20	TOLR S/A
		15	INSERT SCREW, BOLT, ETC.
		20	TOLR S/A
		16	TIGHTEN SCREW, BOLT, ETC.
		20	TOLR S/A
		12	CONNECT CABLES, HOSES, ETC

TABLE III.3 (Continued)

		20 TOLR S/A
	1	MOVE ASSEMBLY MANUALLY
		20 TOLR S/A
7	2.7	S/A UNIT FNL TEST
	12	CONNECT CABLES, HOSES, ETC
		20 TOLR S/A
	14	FUNCTIONAL TESTING
		20 TOLR S/A
	13	DISCONNECT CABLES, ETC.
		20 TOLR S/A
	1	MOVE ASSEMBLY MANUALLY
		20 TOLR S/A
8	2.8	S/A UNIT VIBR TEST
	15	INSERT SCREW, BOLT, ETC.
		20 TOLR S/A
	16	TIGHTEN SCREW, BOLT, ETC.
		20 TOLR S/A
	15	INSERT SCREW, BOLT, ETC.
		20 TOLR S/A
	16	TIGHTEN SCREW, BOLT, ETC.
		20 TOLR S/A
	12	CONNECT CABLES, HOSES, ETC
		20 TOLR S/A
	14	FUNCTIONAL TESTING
		20 TOLR S/A
	13	DISCONNECT CABLES, ETC.
		20 TOLR S/A
	17	LOOSEN SCREW, BOLT, ETC.
		20 TOLR S/A
	18	REMOVE SCREW, BOLT, ETC.
		20 TOLR S/A
	17	LOOSEN SCREW, BOLT, ETC.
		20 TOLR S/A
	18	REMOVE SCREW, BOLT, ETC.
		20 TOLR S/A
	1	MOVE ASSEMBLY MANUALLY
		20 TOLR S/A
9	2.9	S/A UNIT TVAC TEST
	12	CONNECT CABLES, HOSES, ETC
		20 TOLR S/A
	14	FUNCTIONAL TESTING
		20 TOLR S/A
	13	DISCONNECT CABLES, ETC.
		20 TOLR S/A
	1	MOVE ASSEMBLY MANUALLY
		20 TOLR S/A
10	2.10	S/A UNIT EMU TEST
	12	CONNECT CABLES, HOSES, ETC
		20 TOLR S/A
	14	FUNCTIONAL TESTING
		20 TOLR S/A
	13	DISCONNECT CABLES, ETC.
		20 TOLR S/A
	1	MOVE ASSEMBLY MANUALLY
		20 TOLR S/A
11	2.11	S/A UNIT DISASSEMBL
	13	DISCONNECT CABLES, ETC.
		20 TOLR S/A
	17	LOOSEN SCREW, BOLT, ETC.
		20 TOLR S/A
	18	REMOVE SCREW, BOLT, ETC.
		20 TOLR S/A

TABLE III.3 (Continued)

- 1 MOVE ASSEMBLY MANUALLY
  - 20 TOLR S/A
- 17 LOOSEN SCREW,BOLT,ETC.
  - 20 TOLR S/A
- 18 REMOVE SCREW,BOLT,ETC.
  - 20 TOLR S/A
- 1 MOVE ASSEMBLY MANUALLY
  - 20 TOLR S/A
- 17 LOOSEN SCREW,BOLT,ETC.
  - 20 TOLR S/A
- 18 REMOVE SCREW,BOLT,ETC.
  - 20 TOLR S/A
- 1 MOVE ASSEMBLY MANUALLY
  - 20 TOLR S/A
- 17 LOOSEN SCREW,BOLT,ETC.
  - 20 TOLR S/A
- 18 REMOVE SCREW,BOLT,ETC.
  - 20 TOLR S/A
- 1 MOVE ASSEMBLY MANUALLY
  - 20 TOLR S/A
- 15 2 SUBSYSTEM PREPARATION
  - 1 2.1 MANFUVER
    - 10 PLACE IN HANDLING CONTAN
      - 21 AMR S/A
    - 1 MOVE ASSEMBLY MANUALLY
      - 21 AMR S/A
  - 2 2.2 TRANSPORT
    - 11 MOVE IN HANDLING CONTAIR
      - 21 AMR S/A
    - 19 REMOVE FRM HNDLNG CONTR
      - 21 AMR S/A
  - 3 2.3 INSPECTION
    - 8 VISUAL INSPECTION
      - 21 AMR S/A
    - 1 MOVE ASSEMBLY MANUALLY
      - 21 AMR S/A
  - 4 2.4 S/A FUNCT. TEST
    - 12 CONNECT CABLES,HOSES,ETC
      - 21 AMR S/A
    - 14 FUNCTIONAL TESTING
      - 21 AMR S/A
    - 13 DISCONNECT CABLES,ETC.
      - 21 AMR S/A
    - 1 MOVE ASSEMBLY MANUALLY
      - 21 AMR S/A
  - 5 2.5 S/A BURN IN TEST
    - 12 CONNECT CAHLES,HOSES,ETC
      - 21 AMR S/A
    - 14 FUNCTIONAL TESTING
      - 21 AMR S/A
    - 13 DISCONNECT CABLES,ETC.
      - 21 AMR S/A
    - 1 MOVE ASSEMBLY MANUALLY
      - 21 AMR S/A
  - 6 2.6 S/A UNIT INTEGRATE
    - 1 MOVE ASSEMBLY MANUALLY
      - 21 AMR S/A
    - 15 INSERT SCREW,BOLT,ETC.
      - 21 AMR S/A
    - 16 TIGHTFN SCREW,BOLT,ETC.
      - 21 AMR S/A
    - 15 INSERT SCREW,BOLT,ETC.
      - 21 AMR S/A

TABLE III.3 (Continued)

	16	TIGHTEN SCREW, BOLT, ETC.	21 AMR S/A
	15	INSERT SCREW, BOLT, ETC.	21 AMR S/A
	16	TIGHTEN SCREW, BOLT, ETC.	21 AMR S/A
	15	INSERT SCREW, BOLT, ETC.	21 AMR S/A
	16	TIGHTEN SCREW, BOLT, ETC.	21 AMR S/A
	12	CONNECT CABLES, HOSES, ETC	21 AMR S/A
	1	MOVE ASSEMBLY MANUALLY	21 AMR S/A
7	2.7	S/A UNIT FNL TEST	
	12	CONNECT CABLES, HOSES, ETC	21 AMR S/A
	14	FUNCTIONAL TESTING	21 AMR S/A
	13	DISCONNECT CABLES, ETC.	21 AMR S/A
	1	MOVE ASSEMBLY MANUALLY	21 AMR S/A
8	2.8	S/A UNIT VIBR TEST	
	15	INSERT SCREW, BOLT, ETC.	21 AMR S/A
	16	TIGHTEN SCREW, BOLT, ETC.	21 AMR S/A
	15	INSERT SCREW, BOLT, ETC.	21 AMR S/A
	16	TIGHTEN SCREW, BOLT, ETC.	21 AMR S/A
	12	CONNECT CABLES, HOSES, ETC	21 AMR S/A
	14	FUNCTIONAL TESTING	21 AMR S/A
	13	DISCONNECT CABLES, ETC.	21 AMR S/A
	17	LOUSEN SCREW, BOLT, ETC.	21 AMR S/A
	18	REMOVE SCREW, BOLT, ETC.	21 AMR S/A
	17	LOUSEN SCREW, BOLT, ETC.	21 AMR S/A
	18	REMOVE SCREW, BOLT, ETC.	21 AMR S/A
	1	MOVE ASSEMBLY MANUALLY	21 AMR S/A
9	2.9	S/A UNIT TVAC TEST	
	12	CONNECT CABLES, HOSES, ETC	21 AMR S/A
	14	FUNCTIONAL TESTING	21 AMR S/A
	13	DISCONNECT CABLES, ETC.	21 AMR S/A
	1	MOVE ASSEMBLY MANUALLY	21 AMR S/A
10	2.10	S/A UNIT EMU TEST	
	12	CONNECT CABLES, HOSES, ETC	21 AMR S/A
	14	FUNCTIONAL TESTING	21 AMR S/A



TABLE III.3 (Continued)

- 13 DISCONNECT CABLES, ETC.  
21 AMR S/A
- 1 MOVE ASSEMBLY MANUALLY  
21 AMR S/A
- 11 2.11 S/A UNIT DISASSEMBL  
13 DISCONNECT CABLES, ETC.  
21 AMR S/A
- 17 LOOSEN SCREW, BOLT, ETC.  
21 AMR S/A
- 18 REMOVE SCREW, BOLT, ETC.  
21 AMR S/A
- 1 MOVE ASSEMBLY MANUALLY  
21 AMR S/A
- 17 LOOSEN SCREW, BOLT, ETC.  
21 AMR S/A
- 18 REMOVE SCREW, BOLT, ETC.  
21 AMR S/A
- 1 MOVE ASSEMBLY MANUALLY  
21 AMR S/A
- 17 LOOSEN SCREW, BOLT, ETC.  
21 AMR S/A
- 18 REMOVE SCREW, BOLT, ETC.  
21 AMR S/A
- 1 MOVE ASSEMBLY MANUALLY  
21 AMR S/A
- 17 LOOSEN SCREW, BOLT, ETC.  
21 AMR S/A
- 18 REMOVE SCREW, BOLT, ETC.  
21 AMR S/A
- 1 MOVE ASSEMBLY MANUALLY  
21 AMR S/A
- 16 2 SUBSYSTEM PREPARATION
  - 1 2.1 MANUEVER
    - 1 MOVE ASSEMBLY MANUALLY  
22 GUID + CONT BASE FRAME
    - 10 PLACE IN HANDLING CONTAN  
22 GUID + CONT BASE FRAME
  - 2 2.2 TRANSPORT
    - 11 MOVE IN HANDLING CONTANR  
22 GUID + CONT BASE FRAME
    - 19 REMOVE FRM HNDLNG CONTR  
22 GUID + CONT BASE FRAME
  - 3 2.3 INSPECTION
    - 8 VISUAL INSPECTION  
22 GUID + CONT BASE FRAME
    - 1 MOVE ASSEMBLY MANUALLY  
22 GUID + CONT BASE FRAME
- 17 2 SUBSYSTEM PREPARATION
  - 1 2.3 INSPECTION
    - 8 VISUAL INSPECTION  
23 TDLR ANTENNA
    - 1 MOVE ASSEMBLY MANUALLY  
23 TDLR ANTENNA
- 18 2 SUBSYSTEM PREPARATION
  - 1 2.17 S/S BENCH INTEGRAT
    - 1 MOVE ASSEMBLY MANUALLY  
22 GUID + CONT BASE FRAME
    - 12 CONNECT CABLES, HOSES, ETC  
22 GUID + CONT BASE FRAME
  - 2 2.18 S/S INTEG FNL TEST
    - 12 CONNECT CABLES, HOSES, ETC  
22 GUID + CONT BASE FRAME

TABLE III.3 (Continued)

- 14 FUNCTIONAL TESTING
  - 22 GUID + CONT BASE FRAME
- 13 DISCONNECT CABLES, ETC.
  - 22 GUID + CONT BASE FRAME
- 3 7.19 S/S INTEG DISASSY
  - 13 DISCONNECT CABLES, ETC.
    - 22 GUID + CONT BASE FRAME
  - 17 LOOSEN SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 18 REMOVE SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 10 PLACE IN HANDLING CONTAN
    - 22 GUID + CONT BASE FRAME
  - 17 LOOSEN SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 18 REMOVE SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 10 PLACE IN HANDLING CONTAN
    - 22 GUID + CONT BASE FRAME
  - 17 LOOSEN SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 18 REMOVE SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 10 PLACE IN HANDLING CONTAN
    - 22 GUID + CONT BASE FRAME
  - 17 LOOSEN SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 18 REMOVE SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 10 PLACE IN HANDLING CONTAN
    - 22 GUID + CONT BASE FRAME
  - 17 LOOSEN SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 18 REMOVE SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 10 PLACE IN HANDLING CONTAN
    - 22 GUID + CONT BASE FRAME
  - 17 LOOSEN SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 18 REMOVE SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 10 PLACE IN HANDLING CONTAN
    - 22 GUID + CONT BASE FRAME
  - 17 LOOSEN SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 18 REMOVE SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 10 PLACE IN HANDLING CONTAN
    - 22 GUID + CONT BASE FRAME
  - 17 LOOSEN SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 18 REMOVE SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 10 PLACE IN HANDLING CONTAN
    - 22 GUID + CONT BASE FRAME
  - 17 LOOSEN SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 18 REMOVE SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 10 PLACE IN HANDLING CONTAN
    - 22 GUID + CONT BASE FRAME
  - 17 LOOSEN SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 18 REMOVE SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME
  - 10 PLACE IN HANDLING CONTAN
    - 22 GUID + CONT BASE FRAME
  - 17 LOOSEN SCREW, BOLT, ETC.
    - 22 GUID + CONT BASE FRAME

TABLE III.3 (Continued)

		22 GUID + CONT BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.
		22 GUID + CONT BASE FRAME
	10	PLACE IN HANDLING CONTAN
		22 GUID + CONT BASE FRAME
	17	LOUSEN SCREW,BOLT,ETC.
		22 GUID + CONT BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.
		22 GUID + CONT BASE FRAME
	10	PLACE IN HANDLING CONTAN
		22 GUID + CONT BASE FRAME
	17	LOUSEN SCREW,BOLT,ETC.
		22 GUID + CONT BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.
		22 GUID + CONT BASE FRAME
	10	PLACE IN HANDLING CONTAN
		22 GUID + CONT BASE FRAME
	17	LOUSEN SCREW,BOLT,ETC.
		22 GUID + CONT BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.
		22 GUID + CONT BASE FRAME
	10	PLACE IN HANDLING CONTAN
		22 GUID + CONT BASE FRAME
	11	MOVE IN HANDLING CONTANR
		22 GUID + CONT BASE FRAME
19	3	SUBSYSTEM INSTALLATION
	1	3.1 S/S COMPONNT PLACE
		1 MOVE ASSEMBLY MANUALLY
		22 GUID + CONT BASE FRAME
	2	3.2 S/S COMP ATTACH
		15 INSERT SCREW,BOLT,ETC.
		22 GUID + CONT BASE FRAME
	3	3.3 S/S COMP INTRCNECT
		12 CONNECT CABLES,HOSES,ETC
		22 GUID + CONT BASE FRAME
20	4	SUBSYSTEM/OSE INTERCONNECTION
	1	4.1 A/B S/S-OSE E/CONN
		12 CONNECT CABLES,HOSES,ETC
		22 GUID + CONT BASE FRAME
21	5	SUBSYSTEM FUNCTIONAL TESTING
	1	5.1 S/S TEST PROC. SEQ
		14 FUNCTIONAL TESTING
		22 GUID + CONT BASE FRAME
22	6	SUBSYSTEM/OSE DISCONNECTION
	1	6.1 A/B S/S-OSE E/DSCN
		13 DISCONNECT CABLES,ETC.
		22 GUID + CONT BASE FRAME
23	2	SUBSYSTEM PREPARATION
	1	2.1 MANEUVER
		1 MOVE ASSEMBLY MANUALLY
		25 COMM + SEQ BASE FRAME
		10 PLACE IN HANDLING CONTAN
		25 COMM + SEQ BASE FRAME
	2	2.2 TRANSPORT
		11 MOVE IN HANDLING CONTANR
		25 COMM + SEQ BASE FRAME
		19 REMOVE FRM HNDLNG CONTNR
		25 COMM + SEQ BASE FRAME
	3	2.3 INSPECTION
		8 VISUAL INSPECTION
		25 COMM + SEQ BASE FRAME
		1 MOVE ASSEMBLY MANUALLY



TABLE III.3 (Continued)

	1	MOVE ASSEMBLY MANUALLY	
		25 COMM + SEQ BASE FRAME	
	15	INSERT SCREW,BOLT,ETC.	
		25 COMM + SEQ BASE FRAME	
	16	TIGHTEN SCREW,BOLT,ETC.	
		25 COMM + SEQ BASE FRAME	
	1	MOVE ASSEMBLY MANUALLY	
		25 COMM + SEQ BASE FRAME	
	15	INSERT SCREW,BOLT,ETC.	
		25 COMM + SEQ BASE FRAME	
	16	TIGHTEN SCREW,BOLT,ETC.	
		25 COMM + SEQ BASE FRAME	
	12	CONNECT CABLES,HOSES,ETC	
		25 COMM + SEQ BASE FRAME	
	1	MOVE ASSEMBLY MANUALLY	
		25 COMM + SEQ BASE FRAME	
7	2.13	B/F UNIT FNL TEST	
	12	CONNECT CABLES,HOSES,ETC	
		25 COMM + SEQ BASE FRAME	
	14	FUNCTIONAL TESTING	
		25 COMM + SEQ BASE FRAME	
	13	DISCONNECT CABLES,ETC.	
		25 COMM + SEQ BASE FRAME	
	1	MOVE ASSEMBLY MANUALLY	
		25 COMM + SEQ BASE FRAME	
8	2.14	B/F UNIT VIH TEST	
	15	INSERT SCREW,BOLT,ETC.	
		25 COMM + SEQ BASE FRAME	
	16	TIGHTEN SCREW,BOLT,ETC.	
		25 COMM + SEQ BASE FRAME	
	15	INSERT SCREW,BOLT,ETC.	
		25 COMM + SEQ BASE FRAME	
	16	TIGHTEN SCREW,BOLT,ETC.	
		25 COMM + SEQ BASE FRAME	
	12	CONNECT CABLES,HOSES,ETC	
		25 COMM + SEQ BASE FRAME	
	14	FUNCTIONAL TESTING	
		25 COMM + SEQ BASE FRAME	
	13	DISCONNECT CABLES,ETC.	
		25 COMM + SEQ BASE FRAME	
	17	LOOSEN SCREW,BOLT,ETC.	
		25 COMM + SEQ BASE FRAME	
	18	REMOVE SCREW,BOLT,ETC.	
		25 COMM + SEQ BASE FRAME	
	17	LOOSEN SCREW,BOLT,ETC.	
		25 COMM + SEQ BASE FRAME	
	18	REMOVE SCREW,BOLT,ETC.	
		25 COMM + SEQ BASE FRAME	
	1	MOVE ASSEMBLY MANUALLY	
		25 COMM + SEQ BASE FRAME	
9	2.15	B/F UNIT TVAC TEST	
	12	CONNECT CABLES,HOSES,ETC	
		25 COMM + SEQ BASE FRAME	
	14	FUNCTIONAL TESTING	
		25 COMM + SEQ BASE FRAME	
	13	DISCONNECT CABLES,ETC.	
		25 COMM + SEQ BASE FRAME	
	1	MOVE ASSEMBLY MANUALLY	
		25 COMM + SEQ BASE FRAME	
10	2.16	B/F UNIT EMI TEST	
	12	CONNECT CABLES,HOSES,ETC	
		25 COMM + SEQ BASE FRAME	

TABLE III.3 (Continued)

- 14 FUNCTIONAL TESTING
  - 25 COMM + SEQ BASE FRAME
- 13 DISCONNECT CABLES, ETC.
  - 25 COMM + SEQ BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY
  - 25 COMM + SEQ BASE FRAME
- 24 3 SUBSYSTEM INSTALLATION
  - 1 3.1 S/S COMPONENT PLACE
    - 1 MOVE ASSEMBLY MANUALLY
    - 25 COMM + SEQ BASE FRAME
  - 2 3.2 S/S COMP ATTACH
    - 15 INSERT SCREW, BOLT, ETC.
    - 25 COMM + SEQ BASE FRAME
  - 3 3.3 S/S COMP INTERCONNECT
    - 12 CONNECT CABLES, HOSES, ETC
    - 25 COMM + SEQ BASE FRAME
- 25 4 SUBSYSTEM/OSE INTERCONNECTION
  - 1 4.1 A/B S/S-OSE E/CONN
    - 12 CONNECT CABLES, HOSES, ETC
    - 25 COMM + SEQ BASE FRAME
- 26 5 SUBSYSTEM FUNCTIONAL TESTING
  - 1 5.1 S/S TEST PROC. SEQ
    - 14 FUNCTIONAL TESTING
    - 25 COMM + SEQ BASE FRAME
- 27 6 SUBSYSTEM/OSE DISCONNECTION
  - 1 6.1 A/B S/S-OSE E/DSCN
    - 13 DISCONNECT CABLES, ETC.
    - 25 COMM + SEQ BASE FRAME
- 2A 2 SUBSYSTEM PREPARATION
  - 1 2.1 MANEUVER
    - 1 MOVE ASSEMBLY MANUALLY
    - 26 PWR DIST(C/B) BASE FRAME
    - 10 PLACE IN HANDLING CONTAN
    - 26 PWR DIST(C/B) BASE FRAME
  - 2 2.2 TRANSPORT
    - 11 MOVE IN HANDLING CONTANR
    - 26 PWR DIST(C/B) BASE FRAME
    - 19 REMOVE FRM HNDLNG CONTR
    - 26 PWR DIST(C/B) BASE FRAME
  - 3 2.3 INSPECTION
    - 8 VISUAL INSPECTION
    - 26 PWR DIST(C/B) BASE FRAME
    - 1 MOVE ASSEMBLY MANUALLY
    - 26 PWR DIST(C/B) BASE FRAME
  - 4 2.4 S/A FUNCT. TEST
    - 12 CONNECT CABLES, HOSES, ETC
    - 26 PWR DIST(C/B) BASE FRAME
    - 14 FUNCTIONAL TESTING
    - 26 PWR DIST(C/B) BASE FRAME
    - 13 DISCONNECT CABLES, ETC.
    - 26 PWR DIST(C/B) BASE FRAME
    - 1 MOVE ASSEMBLY MANUALLY
    - 26 PWR DIST(C/B) BASE FRAME
  - 5 2.5 S/A BURN IN TEST
    - 12 CONNECT CABLES, HOSES, ETC
    - 26 PWR DIST(C/B) BASE FRAME
    - 14 FUNCTIONAL TESTING
    - 26 PWR DIST(C/B) BASE FRAME
    - 13 DISCONNECT CABLES, ETC.
    - 26 PWR DIST(C/B) BASE FRAME
    - 1 MOVE ASSEMBLY MANUALLY
    - 26 PWR DIST(C/B) BASE FRAME

- 6 2.12 S/A B/F INTEGRATN
  - 1 MOVE ASSEMBLY MANUALLY
    - 26 PWR DIST(C/B) BASE FRAME
  - 15 INSERT SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 16 TIGHTEN SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 1 MOVE ASSEMBLY MANUALLY
    - 26 PWR DIST(C/B) BASE FRAME
  - 15 INSERT SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 16 TIGHTEN SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 1 MOVE ASSEMBLY MANUALLY
    - 26 PWR DIST(C/B) BASE FRAME
  - 15 INSERT SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 16 TIGHTEN SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 1 MOVE ASSEMBLY MANUALLY
    - 26 PWR DIST(C/B) BASE FRAME
  - 15 INSERT SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 16 TIGHTEN SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 1 MOVE ASSEMBLY MANUALLY
    - 26 PWR DIST(C/B) BASE FRAME
  - 15 INSERT SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 16 TIGHTEN SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 1 MOVE ASSEMBLY MANUALLY
    - 26 PWR DIST(C/B) BASE FRAME
  - 15 INSERT SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 16 TIGHTEN SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 1 MOVE ASSEMBLY MANUALLY
    - 26 PWR DIST(C/B) BASE FRAME
  - 15 INSERT SCREW,BOLT,ETC.
    - 26 PWR DIST(C/B) BASE FRAME
  - 16 TIGHTEN SCREW,BOLT,ETC.
    - 16 PARACHUTE TRUSS CABLING
  - 1 MOVE ASSEMBLY MANUALLY
    - 16 PARACHUTE TRUSS CABLING
  - 15 INSERT SCREW,BOLT,ETC.
    - 16 PARACHUTE TRUSS CABLING
  - 16 TIGHTEN SCREW,BOLT,ETC.
    - 16 PARACHUTE TRUSS CABLING
  - 1 MOVE ASSEMBLY MANUALLY
    - 16 PARACHUTE TRUSS CABLING
  - 15 INSERT SCREW,BOLT,ETC.
    - 16 PARACHUTE TRUSS CABLING
  - 16 TIGHTEN SCREW,BOLT,ETC.
    - 16 PARACHUTE TRUSS CABLING
  - 12 CONNECT CABLES,HOSES,ETC
    - 16 PARACHUTE TRUSS CABLING
  - 1 MOVE ASSEMBLY MANUALLY
    - 26 PWR DIST(C/B) BASE FRAME
- 7 2.13 B/F UNIT FNL TEST
  - 12 CONNECT CABLES,HOSES,ETC
    - 26 PWR DIST(C/B) BASE FRAME

TABLE III.3 (Continued)

	14	FUNCTIONAL TESTING	
		26 PWR DIST(C/B) BASE FRAME	
	13	DISCONNECT CABLES, ETC.	
		26 PWR DIST(C/B) BASE FRAME	
	1	MOVE ASSEMBLY MANUALLY	
		26 PWR DIST(C/B) BASE FRAME	
8	2.14	B/F UNIT VIH TEST	
	15	INSERT SCREW, BOLT, ETC.	
		26 PWR DIST(C/B) BASE FRAME	
	16	TIGHTEN SCREW, BOLT, ETC.	
		26 PWR DIST(C/B) BASE FRAME	
	15	INSERT SCREW, BOLT, ETC.	
		26 PWR DIST(C/B) BASE FRAME	
	16	TIGHTEN SCREW, BOLT, ETC.	
		26 PWR DIST(C/B) BASE FRAME	
	12	CONNECT CABLES, HOSES, ETC	
		26 PWR DIST(C/B) BASE FRAME	
	14	FUNCTIONAL TESTING	
		26 PWR DIST(C/B) BASE FRAME	
	13	DISCONNECT CABLES, ETC.	
		26 PWR DIST(C/B) BASE FRAME	
	17	LOOSEN SCREW, BOLT, ETC.	
		26 PWR DIST(C/B) BASE FRAME	
	18	REMOVE SCREW, BOLT, ETC.	
		26 PWR DIST(C/B) BASE FRAME	
	17	LOOSEN SCREW, BOLT, ETC.	
		26 PWR DIST(C/B) BASE FRAME	
	18	REMOVE SCREW, BOLT, ETC.	
		26 PWR DIST(C/B) BASE FRAME	
	1	MOVE ASSEMBLY MANUALLY	
		26 PWR DIST(C/B) BASE FRAME	
9	2.15	B/F UNIT TVAC TEST	
	12	CONNECT CABLES, HOSES, ETC	
		26 PWR DIST(C/B) BASE FRAME	
	14	FUNCTIONAL TESTING	
		26 PWR DIST(C/B) BASE FRAME	
	13	DISCONNECT CABLES, ETC.	
		26 PWR DIST(C/B) BASE FRAME	
	1	MOVE ASSEMBLY MANUALLY	
		26 PWR DIST(C/B) BASE FRAME	
10	2.16	B/F UNIT EMI TEST	
	12	CONNECT CABLES, HOSES, ETC	
		26 PWR DIST(C/B) BASE FRAME	
	14	FUNCTIONAL TESTING	
		26 PWR DIST(C/B) BASE FRAME	
	13	DISCONNECT CABLES, ETC.	
		26 PWR DIST(C/B) BASE FRAME	
	1	MOVE ASSEMBLY MANUALLY	
		26 PWR DIST(C/B) BASE FRAME	
29	2	SUBSYSTEM PREPARATION	
	1	2.1 MANUEVER	
		1 MOVE ASSEMBLY MANUALLY	
		27 PYRO CONT(C/B) BASE FRAME	
	10	PLACE IN HANDLING CONTAN	
		27 PYRO CONT(C/B) BASE FRAME	
	2	2.2 TRANSPORT	
		11 MOVE IN HANDLING CONTANR	
		27 PYRO CONT(C/B) BASE FRAME	
	19	REMOVE FRM HNDLNG CONTNR	
		27 PYRO CONT(C/B) BASE FRAME	
	3	2.3 INSPECTION	
		8 VISUAL INSPECTION	



TABLE III.3 (Continued)

		27 PYRO CONT(C/B)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		27 PYRO CONT(C/B)BASE FRAME
4	2.4	S/A FUNCT. TEST
	12	CONNECT CABLES,HOSES,ETC
		27 PYRO CONT(C/B)BASE FRAME
	14	FUNCTIONAL TESTING
		27 PYRO CONT(C/B)BASE FRAME
	13	DISCONNECT CABLES,ETC.
		27 PYRO CONT(C/B)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		27 PYRO CONT(C/B)BASE FRAME
5	2.5	S/A BURN IN TEST
	12	CONNECT CABLES,HOSES,ETC
		27 PYRO CONT(C/B)BASE FRAME
	14	FUNCTIONAL TESTING
		27 PYRO CONT(C/B)BASE FRAME
	13	DISCONNECT CABLES,ETC.
		27 PYRO CONT(C/B)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		27 PYRO CONT(C/B)BASE FRAME
6	2.12	S/A B/F INTEGRATN
	1	MOVE ASSEMBLY MANUALLY
		27 PYRO CONT(C/B)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		27 PYRO CONT(C/B)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		27 PYRO CONT(C/B)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		27 PYRO CONT(C/B)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		27 PYRO CONT(C/B)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		27 PYRO CONT(C/B)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		27 PYRO CONT(C/B)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		27 PYRO CONT(C/B)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		27 PYRO CONT(C/B)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		27 PYRO CONT(C/B)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		27 PYRO CONT(C/B)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		27 PYRO CONT(C/B)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		27 PYRO CONT(C/B)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		27 PYRO CONT(C/B)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		27 PYRO CONT(C/B)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		27 PYRO CONT(C/B)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		27 PYRO CONT(C/B)BASE FRAME

TABLE III.3 (Continued)

	16	TIGHTEN SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	1	MOVE ASSEMBLY MANUALLY	
		27 PYRO CONT(C/B)BASE	FRAME
	15	INSERT SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	16	TIGHTEN SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	1	MOVE ASSEMBLY MANUALLY	
		27 PYRO CONT(C/B)BASE	FRAME
	15	INSERT SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	16	TIGHTEN SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	12	CONNECT CABLES, HOSES, ETC	
		27 PYRO CONT(C/B)BASE	FRAME
	1	MOVE ASSEMBLY MANUALLY	
		27 PYRO CONT(C/B)BASE	FRAME
7	2.13	B/F UNIT FNL TEST	
	12	CONNECT CABLES, HOSES, ETC	
		27 PYRO CONT(C/B)BASE	FRAME
	14	FUNCTIONAL TESTING	
		27 PYRO CONT(C/B)BASE	FRAME
	13	DISCONNECT CABLES, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	1	MOVE ASSEMBLY MANUALLY	
		27 PYRO CONT(C/B)BASE	FRAME
8	2.14	B/F UNIT VIB TEST	
	15	INSERT SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	16	TIGHTEN SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	15	INSERT SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	16	TIGHTEN SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	12	CONNECT CABLES, HOSES, ETC	
		27 PYRO CONT(C/B)BASE	FRAME
	14	FUNCTIONAL TESTING	
		27 PYRO CONT(C/B)BASE	FRAME
	13	DISCONNECT CABLES, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	17	LOOSEN SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	18	REMOVE SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	17	LOOSEN SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	18	REMOVE SCREW, BOLT, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	1	MOVE ASSEMBLY MANUALLY	
		27 PYRO CONT(C/B)BASE	FRAME
9	2.15	B/F UNIT TVAC TEST	
	12	CONNECT CABLES, HOSES, ETC	
		27 PYRO CONT(C/B)BASE	FRAME
	14	FUNCTIONAL TESTING	
		27 PYRO CONT(C/B)BASE	FRAME
	13	DISCONNECT CABLES, ETC.	
		27 PYRO CONT(C/B)BASE	FRAME
	1	MOVE ASSEMBLY MANUALLY	
		27 PYRO CONT(C/B)BASE	FRAME
10	2.16	B/F UNIT EMI TEST	

TABLE III.3 (Continued)

	12	CONNECT CABLES, HOSES, ETC	
		27 PYRO CONT(C/B) BASE FRAME	
	14	FUNCTIONAL TESTING	
		27 PYRO CONT(C/B) BASE FRAME	
	13	DISCONNECT CABLES, ETC.	
		27 PYRO CONT(C/B) BASE FRAME	
	1	MOVE ASSEMBLY MANUALLY	
		27 PYRO CONT(C/B) BASE FRAME	
30	2	SUBSYSTEM PREPARATION	
	1	2.1 MANUEVER	
		1 MOVE ASSEMBLY MANUALLY	
		28 PWR DIST(E/P) BASE FRAME	
	10	PLACE IN HANDLING CONTAN	
		28 PWR DIST(E/P) BASE FRAME	
	2	2.2 TRANSPORT	
		11 MOVE IN HANDLING CONTANR	
		28 PWR DIST(E/P) BASE FRAME	
	19	REMOVE FRM HNDLNG CONTNR	
		28 PWR DIST(E/P) BASE FRAME	
	3	2.3 INSPECTION	
		8 VISUAL INSPECTION	
		28 PWR DIST(E/P) BASE FRAME	
		1 MOVE ASSEMBLY MANUALLY	
		28 PWR DIST(E/P) BASE FRAME	
	4	2.4 S/A FUNCT. TEST	
		12 CONNECT CABLES, HOSES, ETC	
		28 PWR DIST(E/P) BASE FRAME	
		14 FUNCTIONAL TESTING	
		28 PWR DIST(E/P) BASE FRAME	
		13 DISCONNECT CABLES, ETC.	
		28 PWR DIST(E/P) BASE FRAME	
		1 MOVE ASSEMBLY MANUALLY	
		28 PWR DIST(E/P) BASE FRAME	
	5	2.5 S/A BURN IN TEST	
		12 CONNECT CABLES, HOSES, ETC	
		28 PWR DIST(E/P) BASE FRAME	
		14 FUNCTIONAL TESTING	
		28 PWR DIST(E/P) BASE FRAME	
		13 DISCONNECT CABLES, ETC.	
		28 PWR DIST(E/P) BASE FRAME	
		1 MOVE ASSEMBLY MANUALLY	
		28 PWR DIST(E/P) BASE FRAME	
	6	2.12 S/A B/F INTEGRATN	
		1 MOVE ASSEMBLY MANUALLY	
		28 PWR DIST(E/P) BASE FRAME	
	15	INSERT SCREW, BOLT, ETC.	
		28 PWR DIST(E/P) BASE FRAME	
	16	TIGHTEN SCREW, BOLT, ETC.	
		28 PWR DIST(E/P) BASE FRAME	
		1 MOVE ASSEMBLY MANUALLY	
		28 PWR DIST(E/P) BASE FRAME	
	15	INSERT SCREW, BOLT, ETC.	
		28 PWR DIST(E/P) BASE FRAME	
	16	TIGHTEN SCREW, BOLT, ETC.	
		28 PWR DIST(E/P) BASE FRAME	
		1 MOVE ASSEMBLY MANUALLY	
		28 PWR DIST(E/P) BASE FRAME	
	15	INSERT SCREW, BOLT, ETC.	
		28 PWR DIST(E/P) BASE FRAME	
	16	TIGHTEN SCREW, BOLT, ETC.	
		28 PWR DIST(E/P) BASE FRAME	
		1 MOVE ASSEMBLY MANUALLY	

- 28 PWR DIST(E/P) BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
28 PWR DIST(E/P) BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
28 PWR DIST(E/P) BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
28 PWR DIST(E/P) BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
28 PWR DIST(E/P) BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
28 PWR DIST(E/P) BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 12 CONNECT CABLES,HOSES,ETC  
28 PWR DIST(E/P) BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
28 PWR DIST(E/P) BASE FRAME
- 7 2.13 H/F UNIT FNL TEST
- 12 CONNECT CABLES,HOSES,ETC  
28 PWR DIST(E/P) BASE FRAME
- 14 FUNCTIONAL TESTING  
28 PWR DIST(E/P) BASE FRAME
- 13 DISCONNECT CABLES,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
28 PWR DIST(E/P) BASE FRAME
- 8 2.14 H/F UNIT VIB TEST
- 15 INSERT SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 12 CONNECT CABLES,HOSES,ETC  
28 PWR DIST(E/P) BASE FRAME
- 14 FUNCTIONAL TESTING  
28 PWR DIST(E/P) BASE FRAME
- 13 DISCONNECT CABLES,ETC.

TABLE III.3 (Continued)

- 28 PWR DIST(E/P) BASE FRAME
- 17 LOOSEN SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 18 REMOVE SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 17 LOOSEN SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 18 REMOVE SCREW,BOLT,ETC.  
28 PWR DIST(E/P) BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
28 PWR DIST(E/P) BASE FRAME
- 9 2.15 B/F UNIT TVAC TEST
  - 12 CONNECT CABLES,HOSES,ETC  
28 PWR DIST(E/P) BASE FRAME
  - 14 FUNCTIONAL TESTING  
28 PWR DIST(E/P) BASE FRAME
  - 13 DISCONNECT CABLES,ETC.  
28 PWR DIST(E/P) BASE FRAME
  - 1 MOVE ASSEMBLY MANUALLY  
28 PWR DIST(E/P) BASE FRAME
- 10 2.16 B/F UNIT EMI TEST
  - 12 CONNECT CABLES,HOSES,ETC  
28 PWR DIST(E/P) BASE FRAME
  - 14 FUNCTIONAL TESTING  
28 PWR DIST(E/P) BASE FRAME
  - 13 DISCONNECT CABLES,ETC.  
28 PWR DIST(E/P) BASE FRAME
  - 1 MOVE ASSEMBLY MANUALLY  
28 PWR DIST(E/P) BASE FRAME
- 31 2 SUBSYSTEM PREPARATION
  - 1 2.1 MANEUVER
    - 1 MOVE ASSEMBLY MANUALLY  
29 PYRO CONT(E/P)BASE FRAME
    - 10 PLACE IN HANDLING CONTAN  
29 PYRO CONT(E/P)BASE FRAME
  - 2 2.2 TRANSPORT
    - 11 MOVE IN HANDLING CONTANR  
29 PYRO CONT(E/P)BASE FRAME
    - 19 REMOVE FRM HNDLNG CONTNR  
29 PYRO CONT(E/P)BASE FRAME
  - 3 2.3 INSPECTION
    - 8 VISUAL INSPECTION  
29 PYRO CONT(E/P)BASE FRAME
    - 1 MOVE ASSEMBLY MANUALLY  
29 PYRO CONT(E/P)BASE FRAME
  - 4 2.4 S/A FUNCT. TEST
    - 12 CONNECT CABLES,HOSES,ETC  
29 PYRO CONT(E/P)BASE FRAME
    - 14 FUNCTIONAL TESTING  
29 PYRO CONT(E/P)BASE FRAME
    - 13 DISCONNECT CABLES,ETC.  
29 PYRO CONT(E/P)BASE FRAME
    - 1 MOVE ASSEMBLY MANUALLY  
29 PYRO CONT(E/P)BASE FRAME
  - 5 2.5 S/A BURN IN TEST
    - 12 CONNECT CABLES,HOSES,ETC  
29 PYRO CONT(E/P)BASE FRAME
    - 14 FUNCTIONAL TESTING  
29 PYRO CONT(E/P)BASE FRAME
    - 13 DISCONNECT CABLES,ETC.  
29 PYRO CONT(E/P)BASE FRAME
    - 1 MOVE ASSEMBLY MANUALLY

		29 PYRO CONT(E/P)BASE FRAME
6	2.12 S/A B/F INTEGRATN	
	1 MOVE ASSEMBLY MANUALLY	
		29 PYRO CONT(E/P)BASE FRAME
	15 INSERT SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	16 TIGHTEN SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	1 MOVE ASSEMBLY MANUALLY	
		29 PYRO CONT(E/P)BASE FRAME
	15 INSERT SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	16 TIGHTEN SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	1 MOVE ASSEMBLY MANUALLY	
		29 PYRO CONT(E/P)BASE FRAME
	15 INSERT SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	16 TIGHTEN SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	1 MOVE ASSEMBLY MANUALLY	
		29 PYRO CONT(E/P)BASE FRAME
	15 INSERT SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	16 TIGHTEN SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	1 MOVE ASSEMBLY MANUALLY	
		29 PYRO CONT(E/P)BASE FRAME
	15 INSERT SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	16 TIGHTEN SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	1 MOVE ASSEMBLY MANUALLY	
		29 PYRO CONT(E/P)BASE FRAME
	15 INSERT SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	16 TIGHTEN SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	1 MOVE ASSEMBLY MANUALLY	
		29 PYRO CONT(E/P)BASE FRAME
	15 INSERT SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	16 TIGHTEN SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	1 MOVE ASSEMBLY MANUALLY	
		29 PYRO CONT(E/P)BASE FRAME
	15 INSERT SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	16 TIGHTEN SCREW,BOLT,ETC.	
		29 PYRO CONT(E/P)BASE FRAME
	12 CONNECT CABLES,HOSES,ETC	
		29 PYRO CONT(E/P)BASE FRAME
	1 MOVE ASSEMBLY MANUALLY	
		29 PYRO CONT(E/P)BASE FRAME
7	2.13 H/F UNIT FNL TEST	
	12 CONNECT CABLES,HOSES,ETC	

TABLE III.3 (Continued)

		29 PYRO CONT(E/P)BASE	FRAME
14	FUNCTIONAL TESTING	29 PYRO CONT(E/P)BASE	FRAME
13	DISCONNECT CABLES, ETC.	29 PYRO CONT(E/P)BASE	FRAME
1	MOVE ASSEMBLY MANUALLY	29 PYRO CONT(E/P)BASE	FRAME
8	2.14 B/F UNIT VIB TEST		
15	INSERT SCREW, BOLT, ETC.	29 PYRO CONT(E/P)BASE	FRAME
16	TIGHTEN SCREW, BOLT, ETC.	29 PYRO CONT(E/P)BASE	FRAME
15	INSERT SCREW, BOLT, ETC.	29 PYRO CONT(E/P)BASE	FRAME
16	TIGHTEN SCREW, BOLT, ETC.	29 PYRO CONT(E/P)BASE	FRAME
12	CONNECT CABLES, HOSES, ETC	29 PYRO CONT(E/P)BASE	FRAME
14	FUNCTIONAL TESTING	29 PYRO CONT(E/P)BASE	FRAME
13	DISCONNECT CABLES, ETC.	29 PYRO CONT(E/P)BASE	FRAME
17	LOOSEN SCREW, BOLT, ETC.	29 PYRO CONT(E/P)BASE	FRAME
18	REMOVE SCREW, BOLT, ETC.	29 PYRO CONT(E/P)BASE	FRAME
17	LOOSEN SCREW, BOLT, ETC.	29 PYRO CONT(E/P)BASE	FRAME
18	REMOVE SCREW, BOLT, ETC.	29 PYRO CONT(E/P)BASE	FRAME
1	MOVE ASSEMBLY MANUALLY	29 PYRO CONT(E/P)BASE	FRAME
9	2.15 B/F UNIT TVAC TEST		
12	CONNECT CABLES, HOSES, ETC	29 PYRO CONT(E/P)BASE	FRAME
14	FUNCTIONAL TESTING	29 PYRO CONT(E/P)BASE	FRAME
13	DISCONNECT CABLES, ETC.	29 PYRO CONT(E/P)BASE	FRAME
1	MOVE ASSEMBLY MANUALLY	29 PYRO CONT(E/P)BASE	FRAME
10	2.16 B/F UNIT EMI TEST		
12	CONNECT CABLES, HOSES, ETC	29 PYRO CONT(E/P)BASE	FRAME
14	FUNCTIONAL TESTING	29 PYRO CONT(E/P)BASE	FRAME
13	DISCONNECT CABLES, ETC.	29 PYRO CONT(E/P)BASE	FRAME
1	MOVE ASSEMBLY MANUALLY	29 PYRO CONT(E/P)BASE	FRAME
32	2 SUBSYSTEM PREPARATION		
1	2.3 INSPECTION		
8	VISUAL INSPECTION	29 PYRO CONT(E/P)BASE	FRAME
1	MOVE ASSEMBLY MANUALLY	29 PYRO CONT(E/P)BASE	FRAME
33	2 SUBSYSTEM PREPARATION		
1	2.3 INSPECTION		
8	VISUAL INSPECTION	29 PYRO CONT(E/P)BASE	FRAME
1	MOVE ASSEMBLY MANUALLY	29 PYRO CONT(E/P)BASE	FRAME

TABLE III.3 (Continued)

34	2	SUBSYSTEM PREPARATION
1	2.17	S/S BENCH INTEGRAT
	1	MOVE ASSEMBLY MANUALLY
		26 PWR DIST(C/B) BASE FRAME
15		INSERT SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
16		TIGHTEN SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		26 PWR DIST(C/B) BASE FRAME
15		INSERT SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
16		TIGHTEN SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		26 PWR DIST(C/B) BASE FRAME
15		INSERT SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
16		TIGHTEN SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		26 PWR DIST(C/B) BASE FRAME
15		INSERT SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
16		TIGHTEN SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		26 PWR DIST(C/B) BASE FRAME
15		INSERT SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
16		TIGHTEN SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		26 PWR DIST(C/B) BASE FRAME
15		INSERT SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
16		TIGHTEN SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		26 PWR DIST(C/B) BASE FRAME
15		INSERT SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
16		TIGHTEN SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		26 PWR DIST(C/B) BASE FRAME
15		INSERT SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME
16		TIGHTEN SCREW,BOLT,ETC.
		26 PWR DIST(C/B) BASE FRAME





TABLE III.3 (Continued)

	18	REMOVE SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	10	PLACE IN HANDLING CONTAN	26 PWR DIST(C/B) BASE FRAME
	17	LOOSEN SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	10	PLACE IN HANDLING CONTAN	26 PWR DIST(C/B) BASE FRAME
	17	LOOSEN SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	10	PLACE IN HANDLING CONTAN	26 PWR DIST(C/B) BASE FRAME
	17	LOOSEN SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	10	PLACE IN HANDLING CONTAN	26 PWR DIST(C/B) BASE FRAME
	17	LOOSEN SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	10	PLACE IN HANDLING CONTAN	26 PWR DIST(C/B) BASE FRAME
	17	LOOSEN SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	10	PLACE IN HANDLING CONTAN	26 PWR DIST(C/B) BASE FRAME
	17	LOOSEN SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	10	PLACE IN HANDLING CONTAN	26 PWR DIST(C/B) BASE FRAME
	17	LOOSEN SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	10	PLACE IN HANDLING CONTAN	26 PWR DIST(C/B) BASE FRAME
	17	LOOSEN SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	10	PLACE IN HANDLING CONTAN	26 PWR DIST(C/B) BASE FRAME
	11	MOVE IN HANDLING CONTANR	26 PWR DIST(C/B) BASE FRAME
35	3	SUBSYSTEM INSTALLATION	
	1	3.1 S/S COMPONNT PLACE	
		1 MOVE ASSEMBLY MANUALLY	26 PWR DIST(C/B) BASE FRAME
	2	3.2 S/S COMP ATTACH	
		15 INSERT SCREW,BOLT,ETC.	26 PWR DIST(C/B) BASE FRAME
	3	3.3 S/S COMP INTRCNECT	
		12 CONNECT CABLES,HOSES,ETC	26 PWR DIST(C/B) BASE FRAME
36	4	SUBSYSTEM/OSE INTERCONNECTION	
	1	4.1 A/B S/S-OSE E/CONN	
		12 CONNECT CABLES,HOSES,ETC	26 PWR DIST(C/B) BASE FRAME

TABLE III.3 (Continued)

37	5	SUBSYSTEM FUNCTIONAL TESTING	
	1	5.1 S/S TEST PROC. SEQ	
		14 FUNCTIONAL TESTING	26 PWR DIST(C/B) BASE FRAME
38	6	SUBSYSTEM/OSE DISCONNECTION	
	1	6.1 A/B S/S-OSE E/DSCN	
		13 DISCONNECT CABLES, ETC.	26 PWR DIST(C/B) BASE FRAME
39	2	SUBSYSTEM PREPARATION	
	1	2.1 MANUEVER	
		1 MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
		10 PLACE IN HANDLING CONTAN	35 TELEMETRY BASE FRAME
	2	2.2 TRANSPORT	
		11 MOVE IN HANDLING CONTANR	35 TELEMETRY BASE FRAME
		19 REMOVE FRM HNDLNG CONTNR	35 TELEMETRY BASE FRAME
	3	2.3 INSPECTION	
		8 VISUAL INSPECTION	35 TELEMETRY BASE FRAME
		1 MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
	4	2.4 S/A FUNCY. TEST	
		12 CONNECT CABLES, HOSES, ETC	35 TELEMETRY BASE FRAME
		14 FUNCTIONAL TESTING	35 TELEMETRY BASE FRAME
		13 DISCONNECT CABLES, ETC.	35 TELEMETRY BASE FRAME
		1 MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
	5	2.5 S/A BURN IN TEST	
		12 CONNECT CABLES, HOSES, ETC	35 TELEMETRY BASE FRAME
		14 FUNCTIONAL TESTING	35 TELEMETRY BASE FRAME
		13 DISCONNECT CABLES, ETC.	35 TELEMETRY BASE FRAME
		1 MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
	6	2.12 S/A B/F INTEGRATN	
		1 MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
		15 INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
		16 TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
		1 MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
		15 INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
		16 TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
		1 MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
		15 INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
		16 TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
		1 MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME

- 35 TELEMETRY BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
35 TELEMETRY BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
35 TELEMETRY BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
35 TELEMETRY BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
35 TELEMETRY BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
35 TELEMETRY BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 12 CONNECT CABLES,HOSES,ETC  
35 TELEMETRY BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
35 TELEMETRY BASE FRAME
- 7 2.13 B/F UNIT FNL TEST
- 12 CONNECT CABLES,HOSES,ETC  
35 TELEMETRY BASE FRAME
- 14 FUNCTIONAL TESTING  
35 TELEMETRY BASE FRAME
- 13 DISCONNECT CABLES,ETC.  
35 TELEMETRY BASE FRAME
- 1 MOVE ASSEMBLY MANUALLY  
35 TELEMETRY BASE FRAME
- 8 2.14 B/F UNIT VIR TEST
- 15 INSERT SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 15 INSERT SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 16 TIGHTEN SCREW,BOLT,ETC.  
35 TELEMETRY BASE FRAME
- 12 CONNECT CABLES,HOSES,ETC  
35 TELEMETRY BASE FRAME
- 14 FUNCTIONAL TESTING  
35 TELEMETRY BASE FRAME
- 13 DISCONNECT CABLES,ETC.

TABLE III.3 (Continued)

		35 TELEMETRY BASE FRAME
17		LOOSEN SCREW,BOLT,ETC.
		35 TELEMETRY BASE FRAME
18		REMOVE SCREW,BOLT,ETC.
		35 TELEMETRY BASE FRAME
17		LOOSEN SCREW,BOLT,ETC.
		35 TELEMETRY BASE FRAME
18		REMOVE SCREW,BOLT,ETC.
		35 TELEMETRY BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		35 TELEMETRY BASE FRAME
9	2.15	B/F UNIT TVAC TEST
	12	CONNECT CABLES,HOSES,ETC
		35 TELEMETRY BASE FRAME
	14	FUNCTIONAL TESTING
		35 TELEMETRY BASE FRAME
	13	DISCONNECT CABLES,ETC.
		35 TELEMETRY BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		35 TELEMETRY BASE FRAME
10	2.16	H/F UNIT EMI TEST
	12	CONNECT CABLES,HOSES,ETC
		35 TELEMETRY BASE FRAME
	14	FUNCTIONAL TESTING
		35 TELEMETRY BASE FRAME
	13	DISCONNECT CABLES,ETC.
		35 TELEMETRY BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		35 TELEMETRY BASE FRAME
40	2	SUBSYSTEM PREPARATION
	1	2.3 INSPECTION
		8 VISUAL INSPECTION
		36 TRANSDUCERS
		1 MOVE ASSEMBLY MANUALLY
		36 TRANSDUCERS
41	2	SUBSYSTEM PREPARATION
	1	2.17 S/S BENCH INTEGRAT
		1 MOVE ASSEMBLY MANUALLY
		35 TELEMETRY BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		35 TELEMETRY BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		35 TELEMETRY BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		35 TELEMETRY BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		35 TELEMETRY BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		35 TELEMETRY BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		35 TELEMETRY BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		35 TELEMETRY BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		35 TELEMETRY BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		35 TELEMETRY BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		35 TELEMETRY BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		35 TELEMETRY BASE FRAME
	1	MOVE ASSEMBLY MANUALLY

TABLE III.3 (Continued)

		35 TELEMETRY BASE FRAME
15	INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
16	TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
1	MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
15	INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
16	TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
1	MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
15	INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
16	TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
1	MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
15	INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
16	TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
1	MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
15	INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
16	TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
1	MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
15	INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
16	TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
1	MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
15	INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
16	TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
1	MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
15	INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
16	TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
1	MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
15	INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
16	TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
1	MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
15	INSERT SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
16	TIGHTEN SCREW, BOLT, ETC.	35 TELEMETRY BASE FRAME
1	MOVE ASSEMBLY MANUALLY	35 TELEMETRY BASE FRAME
2	2.18 S/S INTEG FNL TEST	35 TELEMETRY BASE FRAME
12	CONNECT CABLES, HOSES, ETC.	35 TELEMETRY BASE FRAME
14	FUNCTIONAL TESTING	35 TELEMETRY BASE FRAME
13	DISCONNECT CABLES, ETC.	35 TELEMETRY BASE FRAME



TABLE III.3 (Continued)

			35 TELEMETRY BASE FRAME
	17	LOOSEN SCREW, BOLT, ETC.	
			35 TELEMETRY BASE FRAME
	18	REMOVE SCREW, BOLT, ETC.	
			35 TELEMETRY BASE FRAME
	10	PLACE IN HANDLING CONTAIN	
			35 TELEMETRY BASE FRAME
	17	LOOSEN SCREW, BOLT, ETC.	
			35 TELEMETRY BASE FRAME
	18	REMOVE SCREW, BOLT, ETC.	
			35 TELEMETRY BASE FRAME
	10	PLACE IN HANDLING CONTAIN	
			35 TELEMETRY BASE FRAME
	17	LOOSEN SCREW, BOLT, ETC.	
			35 TELEMETRY BASE FRAME
	18	REMOVE SCREW, BOLT, ETC.	
			35 TELEMETRY BASE FRAME
	10	PLACE IN HANDLING CONTAIN	
			35 TELEMETRY BASE FRAME
	11	MOVE IN HANDLING CONTAINR	
			35 TELEMETRY BASE FRAME
42	3	SUBSYSTEM INSTALLATION	
	1	3.1 S/S COMPONENT PLACE	
		1 MOVE ASSEMBLY MANUALLY	
			35 TELEMETRY BASE FRAME
	2	3.2 S/S COMP ATTACH	
		15 INSERT SCREW, BOLT, ETC.	
			35 TELEMETRY BASE FRAME
	3	3.3 S/S COMP INTERCONNECT	
		12 CONNECT CABLES, HOSES, ETC	
			35 TELEMETRY BASE FRAME
43	4	SUBSYSTEM/USE INTERCONNECTION	
	1	4.1 A/B S/S-USE E/CONN	
		12 CONNECT CABLES, HOSES, ETC	
			35 TELEMETRY BASE FRAME
44	5	SUBSYSTEM FUNCTIONAL TESTING	
	1	5.1 S/S TEST PROC. SEQ	
		14 FUNCTIONAL TESTING	
			35 TELEMETRY BASE FRAME
45	6	SUBSYSTEM/USE DISCONNECTION	
	1	6.1 A/B S/S-USE E/DSCN	
		13 DISCONNECT CABLES, ETC.	
			35 TELEMETRY BASE FRAME
46	2	SUBSYSTEM PREPARATION	
	1	2.3 INSPECTION	
		8 VISUAL INSPECTION	
			46 UHF DUAL TRANSMITTER B.F
		1 MOVE ASSEMBLY MANUALLY	
			46 UHF DUAL TRANSMITTER B.F
47	2	SUBSYSTEM PREPARATION	
	1	2.3 INSPECTION	
		8 VISUAL INSPECTION	
			47 ANTENNA + COUPLER
		1 MOVE ASSEMBLY MANUALLY	
			47 ANTENNA + COUPLER
48	3	SUBSYSTEM INSTALLATION	
	1	3.1 S/S COMPONENT PLACE	
		1 MOVE ASSEMBLY MANUALLY	
			46 UHF DUAL TRANSMITTER B.F
	2	3.2 S/S COMP ATTACH	
		15 INSERT SCREW, BOLT, ETC.	
			46 UHF DUAL TRANSMITTER B.F



TABLE III.3 (Continued)

	3	3.3	S/S COMP INTRCNCT
		12	CONNECT CABLES,HOSES,ETC
		46	UHF DUAL TRANSMITTER B.F
49	4		SUBSYSTEM/OSE INTERCONNECTION
	1	4.1	A/B S/S-OSE E/CONN
		12	CONNECT CABLES,HOSES,ETC
		46	UHF DUAL TRANSMITTER B.F
50	5		SUBSYSTEM FUNCTIONAL TESTING
	1	5.1	S/S TEST PROC. SEQ
		14	FUNCTIONAL TESTING
		46	UHF DUAL TRANSMITTER B.F
51	6		SUBSYSTEM/OSE DISCONNECTION
	1	6.1	A/B S/S-OSE E/DSCN
		13	DISCONNECT CABLES,ETC.
		46	UHF DUAL TRANSMITTER B.F
52	2		SUBSYSTEM PREPARATION
	1	2.3	INSPECTION
		8	VISUAL INSPECTION
		37	PRESS.CARTRIDGE EED
		1	MOVE ASSEMBLY MANUALLY
		37	PRESS.CARTRIDGE EED
53	2		SUBSYSTEM PREPARATION
	1	2.3	INSPECTION
		8	VISUAL INSPECTION
		38	DETONATOR EED
		1	MOVE ASSEMBLY MANUALLY
		38	DETONATOR EED
54	3		SUBSYSTEM INSTALLATION
	1	3.1	S/S COMPONNT PLACE
		1	MOVE ASSEMBLY MANUALLY
		37	PRESS.CARTRIDGE EED
	2	3.2	S/S COMP ATTACH
		15	INSERT SCREW,BOLT,ETC.
		37	PRESS.CARTRIDGE EED
	3	3.3	S/S COMP INTRCNCT
		12	CONNECT CABLES,HOSES,ETC
		37	PRESS.CARTRIDGE EED
55	4		SUBSYSTEM/OSE INTERCONNECTION
	1	4.1	A/B S/S-OSE E/CONN
		12	CONNECT CABLES,HOSES,ETC
		37	PRESS.CARTRIDGE EED
56	5		SUBSYSTEM FUNCTIONAL TESTING
	1	5.1	S/S TEST PROC. SEQ
		14	FUNCTIONAL TESTING
		37	PRESS.CARTRIDGE EED
57	6		SUBSYSTEM/OSE DISCONNECTION
	1	6.1	A/B S/S-OSE E/DSCN
		13	DISCONNECT CABLES,ETC.
		37	PRESS.CARTRIDGE EED
58	2		SUBSYSTEM PREPARATION
	1	2.3	INSPECTION
		8	VISUAL INSPECTION
		41	HEATER BLANKETS
		1	MOVE ASSEMBLY MANUALLY
		41	HEATER BLANKETS
59	2		SUBSYSTEM PREPARATION
	1	2.3	INSPECTION
		8	VISUAL INSPECTION
		42	THERMOSTATS
		1	MOVE ASSEMBLY MANUALLY
		42	THERMOSTATS
60	3		SUBSYSTEM INSTALLATION

TABLE III.3 (Continued)

- 1 3.1 S/S COMPONENT PLACE
  - 1 MOVE ASSEMBLY MANUALLY
    - 41 HEATER BLANKETS
- 2 3.2 S/S COMP ATTACH
  - 15 INSERT SCREW, BOLT, ETC.
    - 41 HEATER BLANKETS
- 3 3.3 S/S COMP INTERCONNECT
  - 12 CONNECT CABLES, HOSES, ETC.
    - 41 HEATER BLANKETS
- 61 4 SUBSYSTEM/USE INTERCONNECTION
  - 1 4.1 A/B S/S-USE E/CONN
    - 12 CONNECT CABLES, HOSES, ETC.
      - 41 HEATER BLANKETS
- 62 5 SUBSYSTEM FUNCTIONAL TESTING
  - 1 5.1 S/S TEST PROC. SEQ
    - 14 FUNCTIONAL TESTING
      - 41 HEATER BLANKETS
- 63 6 SUBSYSTEM/USE DISCONNECTION
  - 1 6.1 A/B S/S-USE E/DSCN
    - 13 DISCONNECT CABLES, ETC.
      - 41 HEATER BLANKETS
- 64 2 SUBSYSTEM PREPARATION
  - 1 2.1 MANUEVER
    - 1 MOVE ASSEMBLY MANUALLY
      - 2 LANDER LEGS
    - 10 PLACE IN HANDLING CONTAN
      - 2 LANDER LEGS
  - 2 2.2 TRANSPORT
    - 11 MOVE IN HANDLING CONTANR
      - 2 LANDER LEGS
    - 19 REMOVE FRM HNDLNG CONTNR
      - 2 LANDER LEGS
  - 3 2.3 INSPECTION
    - 8 VISUAL INSPECTION
      - 2 LANDER LEGS
    - 1 MOVE ASSEMBLY MANUALLY
      - 2 LANDER LEGS
- 65 3 SUBSYSTEM INSTALLATION
  - 1 3.1 S/S COMPONENT PLACE
    - 1 MOVE ASSEMBLY MANUALLY
      - 2 LANDER LEGS
  - 2 3.2 S/S COMP ATTACH
    - 15 INSERT SCREW, BOLT, ETC.
      - 2 LANDER LEGS
  - 3 3.3 S/S COMP INTERCONNECT
    - 12 CONNECT CABLES, HOSES, ETC.
      - 2 LANDER LEGS
- 66 4 SUBSYSTEM/USE INTERCONNECTION
  - 1 4.1 A/B S/S-USE E/CONN
    - 12 CONNECT CABLES, HOSES, ETC.
      - 2 LANDER LEGS
- 67 5 SUBSYSTEM FUNCTIONAL TESTING
  - 1 5.1 S/S TEST PROC. SEQ
    - 14 FUNCTIONAL TESTING
      - 2 LANDER LEGS
- 68 6 SUBSYSTEM/USE DISCONNECTION
  - 1 6.1 A/B S/S-USE E/DSCN
    - 13 DISCONNECT CABLES, ETC.
      - 2 LANDER LEGS
- 2 B DEORBIT MODULE ASSEMBLY + TEST
  - 1 1 SUBSYSTEM POSITIONING
    - 1 1.1 MANUEVER

	9	LIFT WITH MSPF	
		3 DFORBIT STRUCTURE	
	2	POSITION OVERHEAD CRANE	
		3 DFORBIT STRUCTURE	
2	1.2	ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		3 DFORBIT STRUCTURE	
3	1.3	TRANSPORT	
		4 HOIST WITH CRANE	
		3 DFORBIT STRUCTURE	
		5 MOVE WITH CRANE	
		3 DFORBIT STRUCTURE	
		6 LOWER WITH CRANE	
		3 DFORBIT STRUCTURE	
4	1.4	DETACHMENT	
		7 DETACH CRANE HOOKS	
		3 DFORBIT STRUCTURE	
5	1.5	INSPECTION	
		8 VISUAL INSPECTION	
		3 DFORBIT STRUCTURE	
2 4		SUBSYSTEM/OSE INTERCONNECTION	
	1	4.1 A/B S/S-OSE E/CONN	
		12 CONNECT CABLES, HOSES, ETC	
		10 DFORBIT PROPULSION S/S	
	2	4.2 A/B S/S-OSE M/CONN	
		12 CONNECT CABLES, HOSES, ETC	
		10 DFORBIT PROPULSION S/S	
3 5		SUBSYSTEM FUNCTIONAL TESTING	
	1	5.1 S/S TEST PROC. SEQ	
		14 FUNCTIONAL TESTING	
		10 DFORBIT PROPULSION S/S	
4 6		SUBSYSTEM/OSE DISCONNECTION	
	1	6.1 A/B S/S-OSE E/DSCN	
		13 DISCONNECT CABLES, ETC.	
		10 DFORBIT PROPULSION S/S	
	2	6.2 A/B S/S-OSE M/DSCN	
		13 DISCONNECT CABLES, ETC.	
		10 DFORBIT PROPULSION S/S	
5 1		SUBSYSTEM POSITIONING	
	1	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
		13 DFORBIT MOD. CABLING S/S	
	2	1.5 INSPECTION	
		8 VISUAL INSPECTION	
		13 DFORBIT MOD. CABLING S/S	
6 2		SUBSYSTEM PREPARATION	
	1	2.18 S/S INTEG PNL TEST	
		12 CONNECT CABLES, HOSES, ETC	
		13 DFORBIT MOD. CABLING S/S	
		14 FUNCTIONAL TESTING	
		13 DFORBIT MOD. CABLING S/S	
		13 DISCONNECT CABLES, ETC.	
		13 DFORBIT MOD. CABLING S/S	
7 3		SUBSYSTEM INSTALLATION	
	1	3.1 S/S COMPONENT PLACE	
		1 MOVE ASSEMBLY MANUALLY	
		13 DFORBIT MOD. CABLING S/S	
	2	3.2 S/S COMP ATTACH	
		15 INSERT SCREW, BOLT, ETC.	
		13 DFORBIT MOD. CABLING S/S	
	3	3.3 S/S COMP INTERCONNECT	
		12 CONNECT CABLES, HOSES, ETC	

TABLE III.3 (Continued)

		13 DFORBIT MOD. CABLING S/S
A	4	SUBSYSTEM/OSE INTERCONNECTION
	1	4.1 A/B S/S-OSE E/CONN
		12 CONNECT CABLES, HOSES, ETC
		13 DFORBIT MOD. CABLING S/S
9	5	SUBSYSTEM FUNCTIONAL TESTING
	1	5.1 S/S TEST PROC. SEQ
		14 FUNCTIONAL TESTING
		13 DFORBIT MOD. CABLING S/S
10	6	SUBSYSTEM/OSE DISCONNECTION
	1	6.1 A/B S/S-OSE E/DSCN
		13 DISCONNECT CABLES, ETC.
		13 DFORBIT MOD. CABLING S/S
11	2	SUBSYSTEM PREPARATION
	1	2.3 INSPECTION
		8 VISUAL INSPECTION
		36 TRANSDUCERS
		1 MOVE ASSEMBLY MANUALLY
		36 TRANSDUCERS
12	3	SUBSYSTEM INSTALLATION
	1	3.1 S/S COMPONNT PLACE
		1 MOVE ASSEMBLY MANUALLY
		36 TRANSDUCERS
	2	3.2 S/S COMP ATTACH
		15 INSERT SCREW, BOLT, ETC.
		36 TRANSDUCERS
13	5	SUBSYSTEM FUNCTIONAL TESTING
	1	5.1 S/S TEST PROC. SEQ
		14 FUNCTIONAL TESTING
		36 TRANSDUCERS
14	6	SUBSYSTEM/OSE DISCONNECTION
	1	6.1 A/B S/S-OSE E/DSCN
		13 DISCONNECT CABLES, ETC.
		36 TRANSDUCERS
15	2	SUBSYSTEM PREPARATION
	1	2.3 INSPECTION
		8 VISUAL INSPECTION
		37 PRESS. CARTRIDGE EED
		1 MOVE ASSEMBLY MANUALLY
		37 PRESS. CARTRIDGE EED
16	2	SUBSYSTEM PREPARATION
	1	2.3 INSPECTION
		8 VISUAL INSPECTION
		38 DETONATOR EED
		1 MOVE ASSEMBLY MANUALLY
		38 DETONATOR EED
17	3	SUBSYSTEM INSTALLATION
	1	3.1 S/S COMPONNT PLACE
		1 MOVE ASSEMBLY MANUALLY
		39 PYROTECHNIC SQUIBS
	2	3.2 S/S COMP ATTACH
		15 INSERT SCREW, BOLT, ETC.
		39 PYROTECHNIC SQUIBS
	3	3.3 S/S COMP INTRONECT
		12 CONNECT CABLES, HOSES, ETC
		39 PYROTECHNIC SQUIBS
18	4	SUBSYSTEM/OSE INTERCONNECTION
	1	4.1 A/B S/S-OSE E/CONN
		12 CONNECT CABLES, HOSES, ETC
		39 PYROTECHNIC SQUIBS
19	5	SUBSYSTEM FUNCTIONAL TESTING
	1	5.1 S/S TEST PROC. SEQ

TABLE III.3 (Continued)

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		14 FUNCTIONAL TESTING	
		39 PYROTECHNIC SQUIBS	
20	6	SUBSYSTEM/USE DISCONNECTION	
	1	6.1 A/B S/S-USE E/DSCN	
		13 DISCONNECT CABLES, ETC.	
		39 PYROTECHNIC SQUIBS	
21	2	SUBSYSTEM PREPARATION	
	1	2.3 INSPECTION	
		8 VISUAL INSPECTION	
		41 HEATER BLANKETS	
		1 MOVE ASSEMBLY MANUALLY	
		41 HEATER BLANKETS	
22	2	SUBSYSTEM PREPARATION	
	1	2.3 INSPECTION	
		8 VISUAL INSPECTION	
		42 THERMOSTATS	
		1 MOVE ASSEMBLY MANUALLY	
		42 THERMOSTATS	
23	3	SUBSYSTEM INSTALLATION	
	1	3.1 S/S COMPONENT PLACE	
		1 MOVE ASSEMBLY MANUALLY	
		41 HEATER BLANKETS	
		42 THERMOSTATS	
	2	3.2 S/S COMP ATTACH	
		15 INSERT SCREW, BOLT, ETC.	
		41 HEATER BLANKETS	
		42 THERMOSTATS	
	3	3.3 S/S COMP INTERCONNECT	
		12 CONNECT CABLES, HOSES, ETC.	
		41 HEATER BLANKETS	
		42 THERMOSTATS	
24	4	SUBSYSTEM/USE INTERCONNECTION	
	1	4.1 A/B S/S-USE E/CONN	
		12 CONNECT CABLES, HOSES, ETC.	
		41 HEATER BLANKETS	
		42 THERMOSTATS	
25	5	SUBSYSTEM FUNCTIONAL TESTING	
	1	5.1 S/S TEST PROC. SEQ	
		14 FUNCTIONAL TESTING	
		41 HEATER BLANKETS	
		42 THERMOSTATS	
26	6	SUBSYSTEM/USE DISCONNECTION	
	1	6.1 A/B S/S-USE E/DSCN	
		13 DISCONNECT CABLES, ETC.	
		41 HEATER BLANKETS	
		42 THERMOSTATS	
27	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		3 DEORBIT STRUCTURE	
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		3 DEORBIT STRUCTURE	
		5 MOVE WITH CRANE	
		3 DEORBIT STRUCTURE	
		6 LOWER WITH CRANE	
		3 DEORBIT STRUCTURE	
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
		3 DEORBIT STRUCTURE	
28	14	MAJOR MODULE/USE INTERCONNECTION	
	1	14.1 SM/MM-USE E/CONN	

TABLE III.3 (Continued)

		12	CONNECT CABLES, HOSES, ETC	
		3	DFORBIT STRUCTURE	
	2	14.2	SM/MM-USE M/CONN	
		12	CONNECT CABLES, HOSES, ETC	
		3	DFORBIT STRUCTURE	
29	7		SUBSYSTEM INTEGRATION TEST	
	1	7.1	INT S/S FNL TEST	
		14	FUNCTIONAL TESTING	
		3	DFORBIT STRUCTURE	
30	16		MAJOR MODULE/USE DISCONNECTION	
	1	16.1	SM/MM-USE E/DISCNN	
		13	DISCONNECT CABLES, ETC.	
		3	DFORBIT STRUCTURE	
	2	16.2	SM/MM-USE M/DISCNN	
		13	DISCONNECT CABLES, ETC.	
		3	DFORBIT STRUCTURE	
31	1		SUBSYSTEM POSITIONING	
	1	1.2	ATTACHMENT	
		3	ATTACH CRANE HOOKS	
		3	DFORBIT STRUCTURE	
	2	1.3	TRANSPORT	
		4	HOIST WITH CRANE	
		3	DFORBIT STRUCTURE	
		5	MOVE WITH CRANE	
		3	DFORBIT STRUCTURE	
		6	LOWER WITH CRANE	
		3	DFORBIT STRUCTURE	
	3	1.4	DETACHMENT	
		7	DETACH CRANE HOOKS	
		3	DFORBIT STRUCTURE	
32	14		MAJOR MODULE/USE INTERCONNECTION	
	1	14.1	SM/MM-USE E/CONN	
		12	CONNECT CABLES, HOSES, ETC	
		3	DFORBIT STRUCTURE	
	2	14.2	SM/MM-USE M/CONN	
		12	CONNECT CABLES, HOSES, ETC	
		3	DFORBIT STRUCTURE	
33	17		MAJOR MODULE VIBRATION/ACOUSTIC TEST	
	1	17.1	SM/MM VIR/AC TEST	
		14	FUNCTIONAL TESTING	
		3	DFORBIT STRUCTURE	
34	16		MAJOR MODULE/USE DISCONNECTION	
	1	16.1	SM/MM-USE E/DISCNN	
		13	DISCONNECT CABLES, ETC.	
		3	DFORBIT STRUCTURE	
	2	16.2	SM/MM-USE M/DISCNN	
		13	DISCONNECT CABLES, ETC.	
		3	DFORBIT STRUCTURE	
35	1		SUBSYSTEM POSITIONING	
	1	1.2	ATTACHMENT	
		3	ATTACH CRANE HOOKS	
		3	DFORBIT STRUCTURE	
	2	1.3	TRANSPORT	
		4	HOIST WITH CRANE	
		3	DFORBIT STRUCTURE	
		5	MOVE WITH CRANE	
		3	DFORBIT STRUCTURE	
		6	LOWER WITH CRANE	
		3	DFORBIT STRUCTURE	
	3	1.4	DETACHMENT	
		7	DETACH CRANE HOOKS	
		3	DFORBIT STRUCTURE	

TABLE III.3 (Continued)

36	14	MAJOR MODULE/OSE INTERCONNECTION
	1	14.1 SM/MM-OSE E/CONN
		12 CONNECT CABLES, HOSES, ETC
		3 DEORBIT STRUCTURE
	2	14.2 SM/MM-OSE M/CONN
		12 CONNECT CABLES, HOSES, ETC
		3 DEORBIT STRUCTURE
37	18	MAJOR MODULE THERMAL VACUUM TEST
	1	18.1 SM/MM TVAC TEST
		14 FUNCTIONAL TESTING
		3 DEORBIT STRUCTURE
38	16	MAJOR MODULE/OSE DISCONNECTION
	1	16.1 SM/MM-OSE E/DISCNN
		13 DISCONNECT CABLES, ETC.
		3 DEORBIT STRUCTURE
	2	16.2 SM/MM-OSE M/DISCNN
		13 DISCONNECT CABLES, ETC.
		3 DEORBIT STRUCTURE
39	1	SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		3 DEORBIT STRUCTURE
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE
		3 DEORBIT STRUCTURE
		5 MOVE WITH CRANE
		3 DEORBIT STRUCTURE
		6 LOWER WITH CRANE
		3 DEORBIT STRUCTURE
	3	1.4 DETACHMENT
		7 DETACH CRANE HOOKS
		3 DEORBIT STRUCTURE
40	14	MAJOR MODULE/OSE INTERCONNECTION
	1	14.1 SM/MM-OSE E/CONN
		12 CONNECT CABLES, HOSES, ETC
		3 DEORBIT STRUCTURE
	2	14.2 SM/MM-OSE M/CONN
		12 CONNECT CABLES, HOSES, ETC
		3 DEORBIT STRUCTURE
41	19	MAJOR MODULE EMI TEST
	1	19.1 SM/MM EMI TEST
		14 FUNCTIONAL TESTING
		3 DEORBIT STRUCTURE
42	16	MAJOR MODULE/OSE DISCONNECTION
	1	16.1 SM/MM-OSE E/DISCNN
		13 DISCONNECT CABLES, ETC.
		3 DEORBIT STRUCTURE
	2	16.2 SM/MM-OSE M/DISCNN
		13 DISCONNECT CABLES, ETC.
		3 DEORBIT STRUCTURE
3	C	AEROSHELL ASSEMBLY + TEST
	1	1 SUBSYSTEM POSITIONING
		1 1.1 MANEUVER
		9 LIFT WITH MSPF
		5 AEROSHELL STRUCTURE
		2 POSITION OVERHEAD CRANE
		5 AEROSHELL STRUCTURE
	2	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		5 AEROSHELL STRUCTURE
	3	1.3 TRANSPORT
		4 HOIST WITH CRANE

TABLE III.3 (Continued)

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		5 AFROSHELL STRUCTURE
	5	MOVE WITH CRANE
		5 AFROSHELL STRUCTURE
	6	LOWER WITH CRANE
		5 AFROSHELL STRUCTURE
4	1.4	DETACHMENT
	7	DETACH CRANE HOOKS
		5 AFROSHELL STRUCTURE
5	1.5	INSPECTION
	8	VISUAL INSPECTION
		5 AFROSHELL STRUCTURE
2	2	SUBSYSTEM PREPARATION
	1	2.3 INSPECTION
		8 VISUAL INSPECTION
		24 AMR ANTENNA
		1 MOVE ASSEMBLY MANUALLY
		24 AMR ANTENNA
3	3	SUBSYSTEM INSTALLATION
	1	3.1 S/S COMPONENT PLACE
		1 MOVE ASSEMBLY MANUALLY
		24 AMR ANTENNA
	2	3.2 S/S COMP ATTACH
		15 INSERT SCREW, BOLT, ETC.
		24 AMR ANTENNA
	3	3.3 S/S COMP INTERCONNECT
		12 CONNECT CABLES, HOSES, ETC
		24 AMR ANTENNA
4	4	SUBSYSTEM/OSE INTERCONNECTION
	1	4.1 A/B S/S-OSE E/CONN
		12 CONNECT CABLES, HOSES, ETC
		24 AMR ANTENNA
5	5	SUBSYSTEM FUNCTIONAL TESTING
	1	5.1 S/S TEST PROC. SEQ
		14 FUNCTIONAL TESTING
		24 AMR ANTENNA
6	6	SUBSYSTEM/OSE DISCONNECTION
	1	6.1 A/B S/S-OSE E/DSCN
		13 DISCONNECT CABLES, ETC.
		24 AMR ANTENNA
7	1	SUBSYSTEM POSITIONING
	1	1.1 MANUEVER
		9 LIFT WITH MSPF
		14 AFROSHELL CABLING S/S
	2	POSITION OVERHEAD CRANE
		14 AFROSHELL CABLING S/S
	2	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		14 AFROSHELL CABLING S/S
	3	1.3 TRANSPORT
		4 HOIST WITH CRANE
		14 AFROSHELL CABLING S/S
		5 MOVE WITH CRANE
		14 AFROSHELL CABLING S/S
		6 LOWER WITH CRANE
		14 AFROSHELL CABLING S/S
	4	1.4 DETACHMENT
		7 DETACH CRANE HOOKS
		14 AFROSHELL CABLING S/S
	5	1.5 INSPECTION
		8 VISUAL INSPECTION
		14 AFROSHELL CABLING S/S
8	2	SUBSYSTEM PREPARATION



TABLE III.3 (Continued)

	1	2.18	S/S INTEG FNL TEST
		12	CONNECT CABLES, HOSES, ETC
		14	AFROSHELL CABLING S/S
		14	FUNCTIONAL TESTING
		14	AFROSHELL CABLING S/S
		13	DISCONNECT CABLES, ETC.
		14	AFROSHELL CABLING S/S
9	3		SUBSYSTEM INSTALLATION
	1	3.1	S/S COMPONENT PLACE
		1	MOVE ASSEMBLY MANUALLY
		14	AFROSHELL CABLING S/S
	2	3.2	S/S COMP ATTACH
		15	INSERT SCREW, BOLT, ETC.
		11	VERNIER MOD. CABLING S/S
	3	3.3	S/S COMP INTERCONNECT
		12	CONNECT CABLES, HOSES, ETC
		11	VERNIER MOD. CABLING S/S
10	4		SUBSYSTEM/USE INTERCONNECTION
	1	4.1	A/B S/S-USE E/CONN
		12	CONNECT CABLES, HOSES, ETC
		11	VERNIER MOD. CABLING S/S
11	5		SUBSYSTEM FUNCTIONAL TESTING
	1	5.1	S/S TEST PROC. SEQ
		14	FUNCTIONAL TESTING
		11	VERNIER MOD. CABLING S/S
12	6		SUBSYSTEM/USE DISCONNECTION
	1	6.1	A/B S/S-USE E/DSCN
		13	DISCONNECT CABLES, ETC.
		11	VERNIER MOD. CABLING S/S
13	2		SUBSYSTEM PREPARATION
	1	2.3	INSPECTION
		8	VISUAL INSPECTION
		58	ENTRY QUAD MASS SPECT
		1	MOVE ASSEMBLY MANUALLY
		58	ENTRY QUAD MASS SPECT
14	2		SUBSYSTEM PREPARATION
	1	2.3	INSPECTION
		8	VISUAL INSPECTION
		59	ENTRY TV CAMERA UNIT
		1	MOVE ASSEMBLY MANUALLY
		59	ENTRY TV CAMERA UNIT
15	2		SUBSYSTEM PREPARATION
	1	2.3	INSPECTION
		8	VISUAL INSPECTION
		60	SIGNAL CONDITIONER
		1	MOVE ASSEMBLY MANUALLY
		60	SIGNAL CONDITIONER
16	2		SUBSYSTEM PREPARATION
	1	2.3	INSPECTION
		8	VISUAL INSPECTION
		61	TOTAL TEMP. SENSOR
		1	MOVE ASSEMBLY MANUALLY
		61	TOTAL TEMP. SENSOR
17	2		SUBSYSTEM PREPARATION
	1	2.3	INSPECTION
		8	VISUAL INSPECTION
		62	STAGNATION TEMP SENSOR
		1	MOVE ASSEMBLY MANUALLY
		62	STAGNATION TEMP SENSOR
18	2		SUBSYSTEM PREPARATION
	1	2.3	INSPECTION
		8	VISUAL INSPECTION

63 STAG. PRESS. TRANSDUCER  
 1 MOVE ASSEMBLY MANUALLY  
 63 STAG. PRESS. TRANSDUCER  
 19 2 SUBSYSTEM PREPARATION  
 1 2.17 S/S BENCH INTEGRAT  
 1 MOVE ASSEMBLY MANUALLY  
 58 ENTRY QUAD MASS SPECT  
 15 INSERT SCREW,BOLT,ETC.  
 58 ENTRY QUAD MASS SPECT  
 16 TIGHTEN SCREW,BOLT,ETC.  
 58 ENTRY QUAD MASS SPECT  
 1 MOVE ASSEMBLY MANUALLY  
 58 ENTRY QUAD MASS SPECT  
 15 INSERT SCREW,BOLT,ETC.  
 58 ENTRY QUAD MASS SPECT  
 16 TIGHTEN SCREW,BOLT,ETC.  
 58 ENTRY QUAD MASS SPECT  
 1 MOVE ASSEMBLY MANUALLY  
 58 ENTRY QUAD MASS SPECT  
 15 INSERT SCREW,BOLT,ETC.  
 58 ENTRY QUAD MASS SPECT  
 16 TIGHTEN SCREW,BOLT,ETC.  
 58 ENTRY QUAD MASS SPECT  
 1 MOVE ASSEMBLY MANUALLY  
 59 ENTRY TV CAMERA UNIT  
 15 INSERT SCREW,BOLT,ETC.  
 59 ENTRY TV CAMERA UNIT  
 16 TIGHTEN SCREW,BOLT,ETC.  
 59 ENTRY TV CAMERA UNIT  
 1 MOVE ASSEMBLY MANUALLY  
 59 ENTRY TV CAMERA UNIT  
 15 INSERT SCREW,BOLT,ETC.  
 59 ENTRY TV CAMERA UNIT  
 16 TIGHTEN SCREW,BOLT,ETC.  
 59 ENTRY TV CAMERA UNIT  
 1 MOVE ASSEMBLY MANUALLY  
 60 SIGNAL CONDITIONER  
 15 INSERT SCREW,BOLT,ETC.  
 60 SIGNAL CONDITIONER  
 16 TIGHTEN SCREW,BOLT,ETC.  
 60 SIGNAL CONDITIONER  
 1 MOVE ASSEMBLY MANUALLY  
 60 SIGNAL CONDITIONER  
 15 INSERT SCREW,BOLT,ETC.  
 60 SIGNAL CONDITIONER  
 16 TIGHTEN SCREW,BOLT,ETC.  
 61 TOTAL TEMP. SENSOR  
 1 MOVE ASSEMBLY MANUALLY  
 61 TOTAL TEMP. SENSOR  
 15 INSERT SCREW,BOLT,ETC.  
 61 TOTAL TEMP. SENSOR  
 16 TIGHTEN SCREW,BOLT,ETC.  
 61 TOTAL TEMP. SENSOR  
 1 MOVE ASSEMBLY MANUALLY  
 61 TOTAL TEMP. SENSOR  
 15 INSERT SCREW,BOLT,ETC.  
 61 TOTAL TEMP. SENSOR  
 16 TIGHTEN SCREW,BOLT,ETC.  
 62 STAGNATION TEMP SENSOR  
 1 MOVE ASSEMBLY MANUALLY  
 62 STAGNATION TEMP SENSOR  
 15 INSERT SCREW,BOLT,ETC.

TABLE III.3 (Continued)

	62 STAGNATION TEMP SENSOR
16	TIGHTEN SCREW,BOLT,ETC.
	62 STAGNATION TEMP SENSOR
1	MOVE ASSEMBLY MANUALLY
	62 STAGNATION TEMP SENSOR
15	INSERT SCREW,BOLT,ETC.
	63 STAG. PRESS. TRANSDUCER
16	TIGHTEN SCREW,BOLT,ETC.
	63 STAG. PRESS. TRANSDUCER
1	MOVE ASSEMBLY MANUALLY
	63 STAG. PRESS. TRANSDUCER
15	INSERT SCREW,BOLT,ETC.
	63 STAG. PRESS. TRANSDUCER
16	TIGHTEN SCREW,BOLT,ETC.
	63 STAG. PRESS. TRANSDUCER
1	MOVE ASSEMBLY MANUALLY
	63 STAG. PRESS. TRANSDUCER
15	INSERT SCREW,BOLT,ETC.
	63 STAG. PRESS. TRANSDUCER
16	TIGHTEN SCREW,BOLT,ETC.
	63 STAG. PRESS. TRANSDUCER
12	CONNECT CABLES,HOSES,ETC
	63 STAG. PRESS. TRANSDUCER
2	2.18 S/S INTEG FNL TEST
	12 CONNECT CABLES,HOSES,ETC
	59 ENTRY TV CAMERA UNIT
14	FUNCTIONAL TESTING
	59 ENTRY TV CAMERA UNIT
13	DISCONNECT CABLES,ETC.
	59 ENTRY TV CAMERA UNIT
3	2.19 S/S INTEG DISASSY
	13 DISCONNECT CABLES,ETC.
	58 ENTRY QUAD MASS SPECT
17	LOUSEN SCREW,BOLT,ETC.
	58 ENTRY QUAD MASS SPECT
18	REMOVE SCREW,BOLT,ETC.
	58 ENTRY QUAD MASS SPECT
10	PLACE IN HANDLING CONTAN
	58 ENTRY QUAD MASS SPECT
17	LOOSEN SCREW,BOLT,ETC.
	58 ENTRY QUAD MASS SPECT
18	REMOVE SCREW,BOLT,ETC.
	58 ENTRY QUAD MASS SPECT
10	PLACE IN HANDLING CONTAN
	59 ENTRY TV CAMERA UNIT
17	LOUSEN SCREW,BOLT,ETC.
	59 ENTRY TV CAMERA UNIT
18	REMOVE SCREW,BOLT,ETC.
	59 ENTRY TV CAMERA UNIT
10	PLACE IN HANDLING CONTAN
	59 ENTRY TV CAMERA UNIT
17	LOOSEN SCREW,BOLT,ETC.
	59 ENTRY TV CAMERA UNIT
18	REMOVE SCREW,BOLT,ETC.
	59 ENTRY TV CAMERA UNIT
10	PLACE IN HANDLING CONTAN
	59 ENTRY TV CAMERA UNIT
17	LOOSEN SCREW,BOLT,ETC.
	60 SIGNAL CONDITIONER
18	REMOVE SCREW,BOLT,ETC.
	60 SIGNAL CONDITIONER
10	PLACE IN HANDLING CONTAN

TABLE III.3 (Continued)

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		60 SIGNAL CONDITIONER
17		LOOSEN SCREW,BOLT,ETC.
		60 SIGNAL CONDITIONER
18		REMOVE SCREW,BOLT,ETC.
		60 SIGNAL CONDITIONER
10		PLACE IN HANDLING CONTAN
		60 SIGNAL CONDITIONER
17		LOOSEN SCREW,BOLT,ETC.
		60 SIGNAL CONDITIONER
18		REMOVE SCREW,BOLT,ETC.
		60 SIGNAL CONDITIONER
10		PLACE IN HANDLING CONTAN
		61 TOTAL TEMP. SENSOR
17		LOOSEN SCREW,BOLT,ETC.
		61 TOTAL TEMP. SENSOR
18		REMOVE SCREW,BOLT,ETC.
		61 TOTAL TEMP. SENSOR
10		PLACE IN HANDLING CONTAN
		61 TOTAL TEMP. SENSOR
17		LOOSEN SCREW,BOLT,ETC.
		61 TOTAL TEMP. SENSOR
18		REMOVE SCREW,BOLT,ETC.
		61 TOTAL TEMP. SENSOR
10		PLACE IN HANDLING CONTAN
		61 TOTAL TEMP. SENSOR
17		LOOSEN SCREW,BOLT,ETC.
		62 STAGNATION TEMP SENSOR
18		REMOVE SCREW,BOLT,ETC.
		62 STAGNATION TEMP SENSOR
10		PLACE IN HANDLING CONTAN
		62 STAGNATION TEMP SENSOR
17		LOOSEN SCREW,BOLT,ETC.
		62 STAGNATION TEMP SENSOR
18		REMOVE SCREW,BOLT,ETC.
		63 STAG. PRESS. TRANSDUCER
10		PLACE IN HANDLING CONTAN
		63 STAG. PRESS. TRANSDUCER
17		LOOSEN SCREW,BOLT,ETC.
		63 STAG. PRESS. TRANSDUCER
18		REMOVE SCREW,BOLT,ETC.
		63 STAG. PRESS. TRANSDUCER
10		PLACE IN HANDLING CONTAN
		63 STAG. PRESS. TRANSDUCER
17		LOOSEN SCREW,BOLT,ETC.
		63 STAG. PRESS. TRANSDUCER
18		REMOVE SCREW,BOLT,ETC.
		63 STAG. PRESS. TRANSDUCER
10		PLACE IN HANDLING CONTAN
		63 STAG. PRESS. TRANSDUCER
11		MOVE IN HANDLING CONTANR
		63 STAG. PRESS. TRANSDUCER
20	3	SUBSYSTEM INSTALLATION
	1	3.1 S/S COMPONNT PLACE
		1 MOVE ASSEMBLY MANUALLY.
		59 ENTRY TV CAMERA UNIT
	2	3.2 S/S COMP ATTACH
		15 INSERT SCREW,BOLT,ETC.
		59 ENTRY TV CAMERA UNIT
	3	3.3 S/S COMP INTRCNECT
		12 CONNECT CABLES,HOSES,ETC
		59 ENTRY TV CAMERA UNIT
21	4	SUBSYSTEM/0SE INTERCONNECTION

TABLE III.3 (Continued)

	1	4.1	A/R S/S-OSE E/CONN	
		12	CONNECT CABLES, HOSES, ETC	
		59	ENTRY TV CAMERA UNIT	
22	5		SUBSYSTEM FUNCTIONAL TESTING	
	1	5.1	S/S TEST PROC. SEQ	
		14	FUNCTIONAL TESTING	
		59	ENTRY TV CAMERA UNIT	
23	6		SUBSYSTEM/OSE DISCONNECTION	
	1	6.1	A/B S/S-OSE E/DSCN	
		13	DISCONNECT CABLES, ETC.	
		59	ENTRY TV CAMERA UNIT	
24	1		SUBSYSTEM POSITIONING	
	1	1.2	ATTACHMENT	
		3	ATTACH CRANE HOOKS	
		59	ENTRY TV CAMERA UNIT	
	2	1.3	TRANSPORT	
		4	HOIST WITH CRANE	
		59	ENTRY TV CAMERA UNIT	
		5	MOVE WITH CRANE	
		59	ENTRY TV CAMERA UNIT	
		6	LOWER WITH CRANE	
		59	ENTRY TV CAMERA UNIT	
	3	1.4	DETACHMENT	
		7	DETACH CRANE HOOKS	
		59	ENTRY TV CAMERA UNIT	
25	14		MAJOR MODULE/OSE INTERCONNECTION	
	1	14.1	SM/MM-OSE E/CONN	
		12	CONNECT CABLES, HOSES, ETC	
		59	ENTRY TV CAMERA UNIT	
26	7		SUBSYSTEM INTEGRATION TEST	
	1	7.1	INT S/S FNL TEST	
		14	FUNCTIONAL TESTING	
		59	ENTRY TV CAMERA UNIT	
27	16		MAJOR MODULE/OSE DISCONNECTION	
	1	16.1	SM/MM-OSE E/DISCNN	
		13	DISCONNECT CABLES, ETC.	
		59	ENTRY TV CAMERA UNIT	
28	1		SUBSYSTEM POSITIONING	
	1	1.2	ATTACHMENT	
		3	ATTACH CRANE HOOKS	
		59	ENTRY TV CAMERA UNIT	
	2	1.3	TRANSPORT	
		4	HOIST WITH CRANE	
		59	ENTRY TV CAMERA UNIT	
		5	MOVE WITH CRANE	
		59	ENTRY TV CAMERA UNIT	
		6	LOWER WITH CRANE	
		59	ENTRY TV CAMERA UNIT	
	3	1.4	DETACHMENT	
		7	DETACH CRANE HOOKS	
		59	ENTRY TV CAMERA UNIT	
29	14		MAJOR MODULE/OSE INTERCONNECTION	
	1	14.1	SM/MM-OSE E/CONN	
		12	CONNECT CABLES, HOSES, ETC	
		59	ENTRY TV CAMERA UNIT	
30	17		MAJOR MODULE VIBRATION/ACOUSTIC TEST	
	1	17.1	SM/MM VIB/AC TEST	
		14	FUNCTIONAL TESTING	
		59	ENTRY TV CAMERA UNIT	
31	16		MAJOR MODULE/OSE DISCONNECTION	
	1	16.1	SM/MM-OSE E/DISCNN	
		13	DISCONNECT CABLES, ETC.	

TABLE III.3 (Continued)

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			59 ENTRY TV CAMERA UNIT
32	1	SUBSYSTEM POSITIONING	
	1	1.2	ATTACHMENT
		3	ATTACH CRANE HOOKS
			59 ENTRY TV CAMERA UNIT
	2	1.3	TRANSPORT
		4	HOIST WITH CRANE
			59 ENTRY TV CAMERA UNIT
		5	MOVE WITH CRANE
			59 ENTRY TV CAMERA UNIT
		6	LOWER WITH CRANE
			59 ENTRY TV CAMERA UNIT
	3	1.4	DETACHMENT
		7	DETACH CRANE HOOKS
			59 ENTRY TV CAMERA UNIT
33	14	MAJOR MODULE/USE INTERCONNECTION	
	1	14.1	SM/MM-USE E/CONN
		12	CONNECT CABLES, HOSES, ETC
			59 ENTRY TV CAMERA UNIT
34	14	MAJOR MODULE THERMAL VACUUM TEST	
	1	18.1	SM/MM TVAC TEST
		14	FUNCTIONAL TESTING
			59 ENTRY TV CAMERA UNIT
35	16	MAJOR MODULE/USE DISCONNECTION	
	1	16.1	SM/MM-USE E/DISCONN
		13	DISCONNECT CABLES, ETC.
			59 ENTRY TV CAMERA UNIT
36	1	SUBSYSTEM POSITIONING	
	1	1.2	ATTACHMENT
		3	ATTACH CRANE HOOKS
			59 ENTRY TV CAMERA UNIT
	2	1.3	TRANSPORT
		4	HOIST WITH CRANE
			59 ENTRY TV CAMERA UNIT
		5	MOVE WITH CRANE
			59 ENTRY TV CAMERA UNIT
		6	LOWER WITH CRANE
			59 ENTRY TV CAMERA UNIT
	3	1.4	DETACHMENT
		7	DETACH CRANE HOOKS
			59 ENTRY TV CAMERA UNIT
37	14	MAJOR MODULE/USE INTERCONNECTION	
	1	14.1	SM/MM-USE E/CONN
		12	CONNECT CABLES, HOSES, ETC
			59 ENTRY TV CAMERA UNIT
38	19	MAJOR MODULE EMI TEST	
	1	19.1	SM/MM EMI TEST
		14	FUNCTIONAL TESTING
			59 ENTRY TV CAMERA UNIT
39	16	MAJOR MODULE/USE DISCONNECTION	
	1	16.1	SM/MM-USE E/DISCONN
		13	DISCONNECT CABLES, ETC.
			59 ENTRY TV CAMERA UNIT
4	D	CANISTER + ADAPTER ASSEMBLY + TEST	
	1	SUBSYSTEM POSITIONING	
		1	1.1 MANEUVER
		9	LIFT WITH MSPF
			6 CANISTER, FORWARD
			7 CANISTER, AFT
			8 ADAPTER STRUCTURE
		2	POSITION OVERHEAD CRANE
			6 CANISTER, FORWARD

		7 CANISTER, AFT
		8 ADAPTER STRUCTURE
2	1.2	ATTACHMENT
	3	ATTACH CRANE HOOKS
		6 CANISTER, FOREWARD
		7 CANISTER, AFT
		8 ADAPTER STRUCTURE
3	1.3	TRANSPORT
	4	HOIST WITH CRANE
		6 CANISTER, FOREWARD
		7 CANISTER, AFT
		8 ADAPTER STRUCTURE
	5	MOVE WITH CRANE
		6 CANISTER, FOREWARD
		7 CANISTER, AFT
		8 ADAPTER STRUCTURE
	6	LOWER WITH CRANE
		6 CANISTER, FOREWARD
		7 CANISTER, AFT
		8 ADAPTER STRUCTURE
4	1.4	DETACHMENT
	7	DETACH CRANE HOOKS.
		6 CANISTER, FOREWARD
		7 CANISTER, AFT
		8 ADAPTER STRUCTURE
5	1.5	INSPECTION
	8	VISUAL INSPECTION
		6 CANISTER, FOREWARD
		7 CANISTER, AFT
		8 ADAPTER STRUCTURE
2	4	SUBSYSTEM/OSE INTERCONNECTION
	1	4.2 A/B S/S-OSE M/CONN
		12 CONNECT CABLES, HOSES, ETC
		6 CANISTER, FOREWARD
3	5	SUBSYSTEM FUNCTIONAL TESTING
	1	5.1 S/S TEST PROC. SEQ
		14 FUNCTIONAL TESTING
		6 CANISTER, FOREWARD
4	6	SUBSYSTEM/OSE DISCONNECTION
	1	6.2 A/B S/S-OSE M/DSCN
		13 DISCONNECT CABLES, ETC.
		6 CANISTER, FOREWARD
5	1	SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		7 CANISTER, AFT
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE
		7 CANISTER, AFT
		5 MOVE WITH CRANE
		7 CANISTER, AFT
		6 LOWER WITH CRANE
		7 CANISTER, AFT
	3	1.4 DETACHMENT
		7 DETACH CRANE HOOKS
		7 CANISTER, AFT
6	4	SUBSYSTEM/OSE INTERCONNECTION
	1	4.2 A/B S/S-OSE M/CONN
		12 CONNECT CABLES, HOSES, ETC
		7 CANISTER, AFT
7	5	SUBSYSTEM FUNCTIONAL TESTING
	1	5.1 S/S TEST PROC. SEQ

TABLE III.3 (Continued)

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	14	FUNCTIONAL TESTING	
		7 CANISTER, AFT	
8	6	SUBSYSTEM/OSE DISCONNECTION	
	1	6.2 A/B S/S-OSE M/DSCN	
		13 DISCONNECT CABLES, ETC.	
		7 CANISTER, AFT	
9	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		6 CANISTER, FOREWARD	
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		6 CANISTER, FOREWARD	
		5 MOVE WITH CRANE	
		6 CANISTER, FOREWARD	
		6 LOWER WITH CRANE	
		6 CANISTER, FOREWARD	
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
		6 CANISTER, FOREWARD	
10	4	SUBSYSTEM/OSE INTERCONNECTION	
	1	4.2 A/B S/S-OSE M/CONN	
		12 CONNECT CABLES, HOSES, ETC.	
		6 CANISTER, FOREWARD	
11	5	SUBSYSTEM FUNCTIONAL TESTING	
	1	5.1 S/S TEST PROC. SEQ	
		14 FUNCTIONAL TESTING	
		6 CANISTER, FOREWARD	
12	6	SUBSYSTEM/OSE DISCONNECTION	
	1	6.2 A/B S/S-OSE M/DSCN	
		13 DISCONNECT CABLES, ETC.	
		6 CANISTER, FOREWARD	
13	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		7 CANISTER, AFT	
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		7 CANISTER, AFT	
		5 MOVE WITH CRANE	
		7 CANISTER, AFT	
		6 LOWER WITH CRANE	
		7 CANISTER, AFT	
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
		7 CANISTER, AFT	
14	1	SUBSYSTEM POSITIONING	
	1	1.1 MANEUVER	
		9 LIFT WITH MSPF	
		15 CANISTER + ADAPT. CABLING	
		2 POSITION OVERHEAD CRANE	
		15 CANISTER + ADAPT. CABLING	
	2	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		15 CANISTER + ADAPT. CABLING	
	3	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		15 CANISTER + ADAPT. CABLING	
		5 MOVE WITH CRANE	
		15 CANISTER + ADAPT. CABLING	
		6 LOWER WITH CRANE	
		15 CANISTER + ADAPT. CABLING	



TABLE III.3 (Continued)

4	1.4	DETACHMENT
	7	DETACH CRANE HOOKS
	15	CANISTER + ADAPT. CABLING
5	1.5	INSPECTION
	8	VISUAL INSPECTION
	15	CANISTER + ADAPT. CABLING
15	2	SUBSYSTEM PREPARATION
1	2.8	S/A UNIT VIBR TEST
	15	INSERT SCREW, BOLT, ETC.
	15	CANISTER + ADAPT. CABLING
	16	TIGHTEN SCREW, BOLT, ETC.
	15	CANISTER + ADAPT. CABLING
	15	INSERT SCREW, BOLT, ETC.
	15	CANISTER + ADAPT. CABLING
	16	TIGHTEN SCREW, BOLT, ETC.
	15	CANISTER + ADAPT. CABLING
	12	CONNECT CABLES, HOSES, ETC
	15	CANISTER + ADAPT. CABLING
	14	FUNCTIONAL TESTING
	15	CANISTER + ADAPT. CABLING
	13	DISCONNECT CABLES, ETC.
	15	CANISTER + ADAPT. CABLING
	17	LOUSEN SCREW, BOLT, ETC.
	15	CANISTER + ADAPT. CABLING
	18	REMOVE SCREW, BOLT, ETC.
	15	CANISTER + ADAPT. CABLING
	17	LOUSEN SCREW, BOLT, ETC.
	15	CANISTER + ADAPT. CABLING
	18	REMOVE SCREW, BOLT, ETC.
	15	CANISTER + ADAPT. CABLING
	1	MOVE ASSEMBLY MANUALLY
	15	CANISTER + ADAPT. CABLING
21	2	SUBSYSTEM PREPARATION
1	2.1	MANEUVER
	1	MOVE ASSEMBLY MANUALLY
	31	PWR ADAPTR(C+A) BASE F.
	10	PLACE IN HANDLING CONTAN
	31	PWR ADAPTR(C+A) BASE F.
2	2.2	TRANSPORT
	11	MOVE IN HANDLING CONTANR
	31	PWR ADAPTR(C+A) BASE F.
	19	REMOVE FRM HNDLNG CONTNR
	31	PWR ADAPTR(C+A) BASE F.
3	2.3	INSPECTION
	8	VISUAL INSPECTION
	31	PWR ADAPTR(C+A) BASE F.
	1	MOVE ASSEMBLY MANUALLY
	31	PWR ADAPTR(C+A) BASE F.
4	2.4	S/A FUNCT. TEST
	12	CONNECT CABLES, HOSES, ETC
	31	PWR ADAPTR(C+A) BASE F.
	16	FUNCTIONAL TESTING
	31	PWR ADAPTR(C+A) BASE F.
	13	DISCONNECT CABLES, ETC.
	31	PWR ADAPTR(C+A) BASE F.
	1	MOVE ASSEMBLY MANUALLY
	31	PWR ADAPTR(C+A) BASE F.
5	2.5	S/A BURN IN TEST
	12	CONNECT CABLES, HOSES, ETC
	31	PWR ADAPTR(C+A) BASE F.
	14	FUNCTIONAL TESTING
	31	PWR ADAPTR(C+A) HASE F.

TABLE III.3 (Continued)

- 13 DISCONNECT CABLES, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 1 MOVE ASSEMBLY MANUALLY  
31 PWR ADAPTR(C+A) BASE F.
- 6 2.12 S/A B/F INTEGRATN  
1 MOVE ASSEMBLY MANUALLY  
31 PWR ADAPTR(C+A) BASE F.
- 15 INSERT SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 16 TIGHTEN SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 1 MOVE ASSEMBLY MANUALLY  
31 PWR ADAPTR(C+A) BASE F.
- 15 INSERT SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 16 TIGHTEN SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 15 INSERT SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 16 TIGHTEN SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 1 MOVE ASSEMBLY MANUALLY  
31 PWR ADAPTR(C+A) BASE F.
- 15 INSERT SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 16 TIGHTEN SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 1 MOVE ASSEMBLY MANUALLY  
31 PWR ADAPTR(C+A) BASE F.
- 15 INSERT SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 16 TIGHTEN SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 1 MOVE ASSEMBLY MANUALLY  
31 PWR ADAPTR(C+A) BASE F.
- 15 INSERT SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 16 TIGHTEN SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 1 MOVE ASSEMBLY MANUALLY  
31 PWR ADAPTR(C+A) BASE F.
- 15 INSERT SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 16 TIGHTEN SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 1 MOVE ASSEMBLY MANUALLY  
31 PWR ADAPTR(C+A) BASE F.
- 15 INSERT SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 16 TIGHTEN SCREW, BOLT, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 12 CONNECT CABLES, HOSES, ETC.  
31 PWR ADAPTR(C+A) BASE F.
- 1 MOVE ASSEMBLY MANUALLY  
31 PWR ADAPTR(C+A) BASE F.
- 7 2.13 H/F UNIT FNL TEST

TABLE III.3 (Continued)

	12	CONNECT CABLES,HOSES,ETC	
		31 PWR ADAPTR(C+A) BASE F.	
	14	FUNCTIONAL TESTING	
		31 PWR ADAPTR(C+A) BASE F.	
	13	DISCONNECT CABLES,ETC.	
		31 PWR ADAPTR(C+A) BASE F.	
	1	MOVE ASSEMBLY MANUALLY	
		31 PWR ADAPTR(C+A) BASE F.	
8	2.14	B/F UNIT VIB TEST	
	15	INSERT SCREW,BOLT,ETC.	
		31 PWR ADAPTR(C+A) BASE F.	
	16	TIGHTEN SCREW,BOLT,ETC.	
		31 PWR ADAPTR(C+A) BASE F.	
	15	INSERT SCREW,BOLT,ETC.	
		31 PWR ADAPTR(C+A) BASE F.	
	16	TIGHTEN SCREW,BOLT,ETC.	
		31 PWR ADAPTR(C+A) BASE F.	
	12	CONNECT CABLES,HOSES,ETC	
		31 PWR ADAPTR(C+A) BASE F.	
	14	FUNCTIONAL TESTING	
		31 PWR ADAPTR(C+A) BASE F.	
	13	DISCONNECT CABLES,ETC.	
		31 PWR ADAPTR(C+A) BASE F.	
	17	LOOSEN SCREW,BOLT,ETC.	
		31 PWR ADAPTR(C+A) BASE F.	
	18	REMOVE SCREW,BOLT,ETC.	
		31 PWR ADAPTR(C+A) BASE F.	
	17	LOOSEN SCREW,BOLT,ETC.	
		31 PWR ADAPTR(C+A) BASE F.	
	18	REMOVE SCREW,BOLT,ETC.	
		31 PWR ADAPTR(C+A) BASE F.	
	1	MOVE ASSEMBLY MANUALLY	
		31 PWR ADAPTR(C+A) BASE F.	
9	2.15	B/F UNIT TVAC TEST	
	12	CONNECT CABLES,HOSES,ETC	
		31 PWR ADAPTR(C+A) BASE F.	
	14	FUNCTIONAL TESTING	
		31 PWR ADAPTR(C+A) BASE F.	
	13	DISCONNECT CABLES,ETC.	
		31 PWR ADAPTR(C+A) BASE F.	
	1	MOVE ASSEMBLY MANUALLY	
		31 PWR ADAPTR(C+A) BASE F.	
10	2.16	B/F UNIT EMI TEST	
	12	CONNECT CABLES,HOSES,ETC	
		31 PWR ADAPTR(C+A) BASE F.	
	14	FUNCTIONAL TESTING	
		31 PWR ADAPTR(C+A) BASE F.	
	13	DISCONNECT CABLES,ETC.	
		31 PWR ADAPTR(C+A) BASE F.	
	1	MOVE ASSEMBLY MANUALLY	
		31 PWR ADAPTR(C+A) BASE F.	
22	2	SUBSYSTEM PREPARATION	
	1	2.1 MANUEVER	
		1 MOVE ASSEMBLY MANUALLY	
		32 PYRO CONT(C+A)BASE FRAME	
	10	PLACE IN HANDLING CONTAN	
		32 PYRO CONT(C+A)BASE FRAME	
	2	2.2 TRANSPORT	
		11 MOVE IN HANDLING CONTANR	
		32 PYRO CONT(C+A)BASE FRAME	
	19	REMOVE FRM HNDLNG CONTNR	
		32 PYRO CONT(C+A)BASE FRAME	

TABLE III.3 (Continued)

3	2.3	INSPECTION
	8	VISUAL INSPECTION
		32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		32 PYRO CONT(C+A)BASE FRAME
4	2.4	S/A FUNCT. TEST
	12	CONNECT CABLES,HOSES,ETC
		32 PYRO CONT(C+A)BASE FRAME
	14	FUNCTIONAL TESTING
		32 PYRO CONT(C+A)BASE FRAME
	13	DISCONNECT CABLES,ETC.
		32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		32 PYRO CONT(C+A)BASE FRAME
5	2.5	S/A BURN IN TEST
	12	CONNECT CABLES,HOSES,ETC
		32 PYRO CONT(C+A)BASE FRAME
	14	FUNCTIONAL TESTING
		32 PYRO CONT(C+A)BASE FRAME
	13	DISCONNECT CABLES,ETC.
		32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		32 PYRO CONT(C+A)BASE FRAME
6	2.12	S/A B/F INTEGRATN
	1	MOVE ASSEMBLY MANUALLY
		32 PYRO CONT(C+A)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		32 PYRO CONT(C+A)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		32 PYRO CONT(C+A)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		32 PYRO CONT(C+A)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		32 PYRO CONT(C+A)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		32 PYRO CONT(C+A)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		32 PYRO CONT(C+A)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		32 PYRO CONT(C+A)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		32 PYRO CONT(C+A)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.
		32 PYRO CONT(C+A)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.
		32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		32 PYRO CONT(C+A)BASE FRAME

TABLE III.3 (Continued)

	15	INSERT SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	32 PYRO CONT(C+A)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	32 PYRO CONT(C+A)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	12	CONNECT CABLES,HOSES,ETC	32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	32 PYRO CONT(C+A)BASE FRAME
7	2.13	H/F UNIT FNL TEST	
	12	CONNECT CABLES,HOSES,ETC	32 PYRO CONT(C+A)BASE FRAME
	14	FUNCTIONAL TESTING	32 PYRO CONT(C+A)BASE FRAME
	13	DISCONNECT CABLES,ETC.	32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	32 PYRO CONT(C+A)BASE FRAME
8	2.14	H/F UNIT VIB TEST	
	15	INSERT SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	12	CONNECT CABLES,HOSES,ETC	32 PYRO CONT(C+A)BASE FRAME
	14	FUNCTIONAL TESTING	32 PYRO CONT(C+A)BASE FRAME
	13	DISCONNECT CABLES,ETC.	32 PYRO CONT(C+A)BASE FRAME
	17	LOOSEN SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	17	LOOSEN SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	18	REMOVE SCREW,BOLT,ETC.	32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	32 PYRO CONT(C+A)BASE FRAME
9	2.15	H/F UNIT TVAC TEST	
	12	CONNECT CABLES,HOSES,ETC	32 PYRO CONT(C+A)BASE FRAME
	14	FUNCTIONAL TESTING	32 PYRO CONT(C+A)BASE FRAME
	13	DISCONNECT CABLES,ETC.	32 PYRO CONT(C+A)BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	32 PYRO CONT(C+A)BASE FRAME

TABLE III.3 (Continued)

		32 PYRO CONT(C+A)BASE FRAME	
10	2.16	H/F UNIT EMI TEST	
	12	CONNECT CABLES,HOSES,ETC	
		32 PYRO CONT(C+A)BASE FRAME	
	14	FUNCTIONAL TESTING	
		32 PYRO CONT(C+A)BASE FRAME	
	13	DISCONNECT CABLES,ETC.	
		32 PYRO CONT(C+A)BASE FRAME	
	1	MOVE ASSEMBLY MANUALLY	
		32 PYRO CONT(C+A)BASE FRAME	
23	2	SUBSYSTEM PREPARATION	
	1	2.17 S/S BENCH INTEGRAT	
		1 MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R)	B.F.
	15	INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	16	TIGHTEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	1	MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R)	B.F.
	15	INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	16	TIGHTEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	1	MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R)	B.F.
	15	INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	16	TIGHTEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	1	MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R)	B.F.
	15	INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	16	TIGHTEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	1	MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R)	B.F.
	15	INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	16	TIGHTEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	1	MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R)	B.F.
	15	INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	16	TIGHTEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	1	MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R)	B.F.

TABLE III.3 (Continued)

	15	INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	16	TIGHTEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	1	MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R)	B.F.
	15	INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	16	TIGHTEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	1	MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R)	B.F.
	15	INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	16	TIGHTEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	1	MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R)	B.F.
	15	INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	16	TIGHTEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	1	MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R)	B.F.
	15	INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	16	TIGHTEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	1	MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R)	B.F.
	15	INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	16	TIGHTEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	12	CONNECT CABLES,HOSES,ETC	
		30 PYRO CONT(C+A)(C/R)	B.F.
2	2.18	S/S INTEG FNL TEST	
	12	CONNECT CABLES,HOSES,ETC	
		30 PYRO CONT(C+A)(C/R)	B.F.
	14	FUNCTIONAL TESTING	
		30 PYRO CONT(C+A)(C/R)	B.F.
	13	DISCONNECT CABLES,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
3	2.18	S/S INTEG FNL TEST	
	12	CONNECT CABLES,HOSES,ETC	
		30 PYRO CONT(C+A)(C/R)	B.F.
	14	FUNCTIONAL TESTING	
		30 PYRO CONT(C+A)(C/R)	B.F.
	13	DISCONNECT CABLES,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
4	2.19	S/S INTEG DISASSY	
	13	DISCONNECT CABLES,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	17	LOOSEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	18	REMOVE SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	10	PLACE IN HANDLING CONTAN	
		30 PYRO CONT(C+A)(C/R)	B.F.
	17	LOOSEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	18	REMOVE SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	10	PLACE IN HANDLING CONTAN	
		30 PYRO CONT(C+A)(C/R)	B.F.
	17	LOOSEN SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R)	B.F.
	18	REMOVE SCREW,BOLT,ETC.	

- 30 PYRO CONT(C+A)(C/H) B.F.
- 10 PLACE IN HANDLING CONTAN
- 30 PYRO CONT(C+A)(C/R) B.F.
- 17 LOUSEN SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/B) B.F.
- 18 REMOVE SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/B) B.F.
- 10 PLACE IN HANDLING CONTAN
- 30 PYRO CONT(C+A)(C/R) B.F.
- 17 LOUSEN SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 18 REMOVE SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 10 PLACE IN HANDLING CONTAN
- 30 PYRO CONT(C+A)(C/R) B.F.
- 17 LOUSEN SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 18 REMOVE SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 10 PLACE IN HANDLING CONTAN
- 30 PYRO CONT(C+A)(C/R) B.F.
- 17 LOUSEN SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 18 REMOVE SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 10 PLACE IN HANDLING CONTAN
- 30 PYRO CONT(C+A)(C/R) B.F.
- 17 LOUSEN SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 18 REMOVE SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 10 PLACE IN HANDLING CONTAN
- 30 PYRO CONT(C+A)(C/R) B.F.
- 17 LOUSEN SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 18 REMOVE SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 10 PLACE IN HANDLING CONTAN
- 30 PYRO CONT(C+A)(C/H) B.F.
- 17 LOUSEN SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 18 REMOVE SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 10 PLACE IN HANDLING CONTAN
- 30 PYRO CONT(C+A)(C/R) B.F.
- 17 LOUSEN SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 18 REMOVE SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 10 PLACE IN HANDLING CONTAN
- 30 PYRO CONT(C+A)(C/H) B.F.
- 17 LOUSEN SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 18 REMOVE SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 10 PLACE IN HANDLING CONTAN
- 30 PYRO CONT(C+A)(C/H) B.F.
- 17 LOUSEN SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 18 REMOVE SCREW•BOLT•ETC.
- 30 PYRO CONT(C+A)(C/R) B.F.
- 10 PLACE IN HANDLING CONTAN



TABLE III.3 (Continued)

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			30 PYRO CONT(C+A)(C/R) B.F.
		11 MOVE IN HANDLING CONTNR	
		30 PYRO CONT(C+A)(C/R) B.F.	
24	3	SUBSYSTEM INSTALLATION	
	1	3.1 S/S COMPONENT PLACE	
		1 MOVE ASSEMBL. MANUALLY	
		30 PYRO CONT(C+A)(C/R) B.F.	
	2	3.2 S/S COMP ATTACH	
		15 INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R) B.F.	
	3	3.3 S/S COMP INTRCNCT	
		12 CONNECT CABLES,HOSES,ETC	
		30 PYRO CONT(C+A)(C/R) B.F.	
25	4	SUBSYSTEM/USE INTERCONNECTION	
	1	4.1 A/B S/S-USE E/CONN	
		12 CONNECT CABLES,HOSES,ETC	
		30 PYRO CONT(C+A)(C/R) B.F.	
26	5	SUBSYSTEM FUNCTIONAL TESTING	
	1	5.1 S/S TEST PROC. SEQ	
		14 FUNCTIONAL TESTING	
		30 PYRO CONT(C+A)(C/R) B.F.	
27	6	SUBSYSTEM/USE DISCONNECTION	
	4	6.1 A/B S/S-USE E/DSCN	
		13 DISCONNECT CABLES,ETC.	
		30 PYRO CONT(C+A)(C/R) B.F.	
28	2	SUBSYSTEM PREPARATION	
	1	2.3 INSPECTION	
		8 VISUAL INSPECTION	
		30 PYRO CONT(C+A)(C/R) B.F.	
		1 MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R) B.F.	
29	3	SUBSYSTEM INSTALLATION	
	1	3.1 S/S COMPONENT PLACE	
		1 MOVE ASSEMBLY MANUALLY	
		30 PYRO CONT(C+A)(C/R) B.F.	
	2	3.2 S/S COMP ATTACH	
		15 INSERT SCREW,BOLT,ETC.	
		30 PYRO CONT(C+A)(C/R) B.F.	
	3	3.3 S/S COMP INTRCNCT	
		12 CONNECT CABLES,HOSES,ETC	
		30 PYRO CONT(C+A)(C/R) B.F.	
30	4	SUBSYSTEM/USE INTERCONNECTION	
	1	4.1 A/B S/S-USE E/CONN	
		12 CONNECT CABLES,HOSES,ETC	
		30 PYRO CONT(C+A)(C/R) B.F.	
31	5	SUBSYSTEM FUNCTIONAL TESTING	
	1	5.1 S/S TEST PROC. SEQ	
		14 FUNCTIONAL TESTING	
		30 PYRO CONT(C+A)(C/R) B.F.	
32	6	SUBSYSTEM/USE DISCONNECTION	
	1	6.1 A/B S/S-USE E/DSCN	
		13 DISCONNECT CABLES,ETC.	
		30 PYRO CONT(C+A)(C/R) B.F.	
33	2	SUBSYSTEM PREPARATION	
	1	2.2 TRANSPORT	
		11 MOVE IN HANDLING CONTNR	
		36 TRANSDUCERS	
		19 REMOVE FRM HNDLNG CONTNR	
		36 TRANSDUCERS	
	2	2.3 INSPECTION	
		8 VISUAL INSPECTION	
		36 TRANSDUCERS	

TABLE III.3 (Continued)

		1	MOVE ASSEMBLY MANUALLY	
			36 TRANSDUCERS	
35	3		SUBSYSTEM INSTALLATION	
		1	3.1 S/S COMPONENT PLACE	
			1 MOVE ASSEMBLY MANUALLY	
			36 TRANSDUCERS	
		2	3.2 S/S COMP ATTACH	
			15 INSERT SCREW, BOLT, ETC.	
			36 TRANSDUCERS	
		3	3.3 S/S COMP INTERCONNECT	
			12 CONNECT CABLES, HOSES, ETC.	
			36 TRANSDUCERS	
36	4		SUBSYSTEM/USE INTERCONNECTION	
		1	4.1 A/B S/S-USE E/CONN	
			12 CONNECT CABLES, HOSES, ETC.	
			36 TRANSDUCERS	
37	5		SUBSYSTEM FUNCTIONAL TESTING	
		1	5.1 S/S TEST PROC. SEQ	
			14 FUNCTIONAL TESTING	
			36 TRANSDUCERS	
38	6		SUBSYSTEM/USE DISCONNECTION	
		1	6.1 A/B S/S-USE E/DISCN	
			13 DISCONNECT CABLES, ETC.	
			36 TRANSDUCERS	
39	2		SUBSYSTEM PREPARATION	
		1	2.3 INSPECTION	
			8 VISUAL INSPECTION	
			39 PYROTECHNIC SQUIBS	
			1 MOVE ASSEMBLY MANUALLY	
			39 PYROTECHNIC SQUIBS	
40	3		SUBSYSTEM INSTALLATION	
		1	3.1 S/S COMPONENT PLACE	
			1 MOVE ASSEMBLY MANUALLY	
			39 PYROTECHNIC SQUIBS	
		2	3.2 S/S COMP ATTACH	
			15 INSERT SCREW, BOLT, ETC.	
			39 PYROTECHNIC SQUIBS	
		3	3.3 S/S COMP INTERCONNECT	
			12 CONNECT CABLES, HOSES, ETC.	
			39 PYROTECHNIC SQUIBS	
41	4		SUBSYSTEM/USE INTERCONNECTION	
		1	4.1 A/B S/S-USE E/CONN	
			12 CONNECT CABLES, HOSES, ETC.	
			39 PYROTECHNIC SQUIBS	
42	5		SUBSYSTEM FUNCTIONAL TESTING	
		1	5.1 S/S TEST PROC. SEQ	
			14 FUNCTIONAL TESTING	
			39 PYROTECHNIC SQUIBS	
43	6		SUBSYSTEM/USE DISCONNECTION	
		1	6.1 A/B S/S-USE E/DISCN	
			13 DISCONNECT CABLES, ETC.	
			39 PYROTECHNIC SQUIBS	
44	2		SUBSYSTEM PREPARATION	
		1	2.3 INSPECTION	
			8 VISUAL INSPECTION	
			41 HEATER BLANKETS	
			1 MOVE ASSEMBLY MANUALLY	
			41 HEATER BLANKETS	
45	2		SUBSYSTEM PREPARATION	
		1	2.3 INSPECTION	
			8 VISUAL INSPECTION	
			42 THERMOSTATS	

TABLE III.3 (Continued)

	1	MOVE ASSEMBLY MANUALLY
		42 THERMOSTATS
46	2	SUBSYSTEM PREPARATION
	1	2.3 INSPECTION
		A VISUAL INSPECTION
		43 MULTILAYER INSULATION
		1 MOVE ASSEMBLY MANUALLY
		43 MULTILAYER INSULATION
47	2	SUBSYSTEM PREPARATION
	1	2.3 INSPECTION
		B VISUAL INSPECTION
		44 ENTRY HEAT COVERS
		1 MOVE ASSEMBLY MANUALLY
		44 ENTRY HEAT COVERS
48	2	SUBSYSTEM PREPARATION
	1	2.3 INSPECTION
		A VISUAL INSPECTION
		45 THERMAL COATINGS
		1 MOVE ASSEMBLY MANUALLY
		45 THERMAL COATINGS
49	3	SUBSYSTEM INSTALLATION
	1	3.1 S/S COMPONENT PLACE
		1 MOVE ASSEMBLY MANUALLY
		41 HEATER BLANKETS
	2	3.2 S/S COMP ATTACH
		15 INSERT SCREW, BOLT, ETC.
		41 HEATER BLANKETS
	3	3.3 S/S COMP INTERCONNECT
		12 CONNECT CABLES, HOSES, ETC.
		41 HEATER BLANKETS
50	4	SUBSYSTEM/USE INTERCONNECTION
	1	4.1 A/B S/S-USE E/CONN
		12 CONNECT CABLES, HOSES, ETC.
		41 HEATER BLANKETS
51	5	SUBSYSTEM FUNCTIONAL TESTING
	1	5.1 S/S TEST PROC. SEQ
		14 FUNCTIONAL TESTING
		41 HEATER BLANKETS
52	6	SUBSYSTEM/USE DISCONNECTION
	1	6.1 A/B S/S-USE E/DSCN
		13 DISCONNECT CABLES, ETC.
		41 HEATER BLANKETS
53	1	SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		6 CANISTER, FORWARD
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE
		6 CANISTER, FORWARD
		5 MOVE WITH CRANE
		6 CANISTER, FORWARD
		6 LOWER WITH CRANE
		6 CANISTER, FORWARD
	3	1.4 DETACHMENT
		7 DETACH CRANE HOOKS
		6 CANISTER, FORWARD
54	1	SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		7 CANISTER, AFT
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE

TABLE III.3 (Continued)

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		7 CANISTER, AFT
	5	MOVE WITH CRANE
		7 CANISTER, AFT
	6	LOWER WITH CRANE
		7 CANISTER, AFT
3	1.4	DETACHMENT
		7 DETACH CRANE HOOKS
		7 CANISTER, AFT
55	12	SUB-MODULE INSTALLATION
	1	12.1 SUBMOD/MMOD MATING
		15 INSERT SCREW, BOLT, ETC.
		7 CANISTER, AFT
	16	TIGHTEN SCREW, BOLT, ETC.
		7 CANISTER, AFT
	12	CONNECT CABLES, HOSES, ETC
		7 CANISTER, AFT
56	13	SUB-MODULE INSTALLATION CHECKOUT
	1	13.1 SM/MM MATE CHECK
		8 VISUAL INSPECTION
		7 CANISTER, AFT
57	14	MAJOR MODULE/USE INTERCONNECTION
	1	14.1 SM/MM-USE E/CONN
		12 CONNECT CABLES, HOSES, ETC
		7 CANISTER, AFT
58	16	MAJOR MODULE/USE DISCONNECTION
	1	16.1 SM/MM-USE E/DISCONN
		13 DISCONNECT CABLES, ETC.
		7 CANISTER, AFT
59	1	SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		7 CANISTER, AFT
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE
		7 CANISTER, AFT
		5 MOVE WITH CRANE
		7 CANISTER, AFT
		6 LOWER WITH CRANE
		7 CANISTER, AFT
	3	1.4 DETACHMENT
		7 DETACH CRANE HOOKS
		7 CANISTER, AFT
60	14	MAJOR MODULE/USE INTERCONNECTION
	1	14.1 SM/MM-USE E/CONN
		12 CONNECT CABLES, HOSES, ETC
		7 CANISTER, AFT
61	17	MAJOR MODULE VIBRATION/ACOUSTIC TEST
	1	17.1 SM/MM VIR/AC TEST
		14 FUNCTIONAL TESTING
		7 CANISTER, AFT
62	16	MAJOR MODULE/USE DISCONNECTION
	1	16.1 SM/MM-USE E/DISCONN
		13 DISCONNECT CABLES, ETC.
		7 CANISTER, AFT
63	1	SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		7 CANISTER, AFT
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE
		7 CANISTER, AFT
		5 MOVE WITH CRANE

TABLE III.3 (Continued)

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			7 CANISTER, AFT
		6 LOWER WITH CRANE	7 CANISTER, AFT
3	1.4	DETACHMENT	
		7 DETACH CRANE HOOKS	
		7 CANISTER, AFT	
64	14	MAJOR MODULE/USE INTERCONNECTION	
	1	14.1 SM/MM-USE E/CONN	
		12 CONNECT CABLES, HOSES, ETC	
		7 CANISTER, AFT	
65	18	MAJOR MODULE THERMAL VACUUM TEST	
	1	18.1 SM/MM TVAC TEST	
		14 FUNCTIONAL TESTING	
		7 CANISTER, AFT	
66	16	MAJOR MODULE/USE DISCONNECTION	
	1	16.1 SM/MM-USE E/DISCONN	
		13 DISCONNECT CABLES, ETC.	
		7 CANISTER, AFT	
67	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		7 CANISTER, AFT	
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		7 CANISTER, AFT	
		5 MOVE WITH CRANE	
		7 CANISTER, AFT	
		6 LOWER WITH CRANE	
		7 CANISTER, AFT	
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
		7 CANISTER, AFT	
68	14	MAJOR MODULE/USE INTERCONNECTION	
	1	14.1 SM/MM-USE E/CONN	
		12 CONNECT CABLES, HOSES, ETC	
		7 CANISTER, AFT	
69	19	MAJOR MODULE EMI TEST	
	1	19.1 SM/MM EMI TEST	
		14 FUNCTIONAL TESTING	
		7 CANISTER, AFT	
70	16	MAJOR MODULE/USE DISCONNECTION	
	1	16.1 SM/MM-USE E/DISCONN	
		13 DISCONNECT CABLES, ETC.	
		7 CANISTER, AFT	
71	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		7 CANISTER, AFT	
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		7 CANISTER, AFT	
		5 MOVE WITH CRANE	
		7 CANISTER, AFT	
		6 LOWER WITH CRANE	
		7 CANISTER, AFT	
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
		7 CANISTER, AFT	
72	20	SUB-MODULE REMOVAL	
	1	20.1 SM/MM DEMATING	
		13 DISCONNECT CABLES, ETC.	
		7 CANISTER, AFT	

TABLE III.3 (Continued)

- 17 LOOSEN SCREW, BOLT, ETC.  
7 CANISTER, AFT
- 18 REMOVE SCREW, BOLT, ETC.  
7 CANISTER, AFT
- 73 1 SUBSYSTEM POSITIONING
  - 1 1.2 ATTACHMENT
    - 3 ATTACH CRANE HOOKS  
6 CANISTER, FOREWARD
  - 2 1.3 TRANSPORT
    - 4 HOIST WITH CRANE  
6 CANISTER, FOREWARD
    - 5 MOVE WITH CRANE  
6 CANISTER, FOREWARD
    - 6 LOWER WITH CRANE  
6 CANISTER, FOREWARD
  - 3 1.4 DETACHMENT
    - 7 DETACH CRANE HOOKS  
6 CANISTER, FOREWARD
- 74 1 SUBSYSTEM POSITIONING
  - 1 1.2 ATTACHMENT
    - 3 ATTACH CRANE HOOKS  
7 CANISTER, AFT
  - 2 1.3 TRANSPORT
    - 4 HOIST WITH CRANE  
7 CANISTER, AFT
    - 5 MOVE WITH CRANE  
7 CANISTER, AFT
    - 6 LOWER WITH CRANE  
7 CANISTER, AFT
  - 3 1.4 DETACHMENT
    - 7 DETACH CRANE HOOKS  
7 CANISTER, AFT
- 5 E PARACHUTE TRUSS ASSEMBLY + TEST
  - 1 1 SUBSYSTEM POSITIONING
    - 1 1.1 MANEUVER
      - 9 LIFT WITH MSPF  
12 PARACHUTE TRUSS STRUCT.
      - 2 POSITION OVERHEAD CRANE  
12 PARACHUTE TRUSS STRUCT.
    - 2 1.2 ATTACHMENT
      - 3 ATTACH CRANE HOOKS  
12 PARACHUTE TRUSS STRUCT.
    - 3 1.3 TRANSPORT
      - 4 HOIST WITH CRANE  
12 PARACHUTE TRUSS STRUCT.
      - 5 MOVE WITH CRANE  
12 PARACHUTE TRUSS STRUCT.
      - 6 LOWER WITH CRANE  
12 PARACHUTE TRUSS STRUCT.
    - 4 1.4 DETACHMENT
      - 7 DETACH CRANE HOOKS  
12 PARACHUTE TRUSS STRUCT.
    - 5 1.5 INSPECTION
      - 8 VISUAL INSPECTION  
12 PARACHUTE TRUSS STRUCT.
  - 2 1 SUBSYSTEM POSITIONING
    - 1 1.1 MANEUVER
      - 9 LIFT WITH MSPF  
16 PARACHUTE TRUSS CARLING
      - 2 POSITION OVERHEAD CRANE  
16 PARACHUTE TRUSS CARLING
    - 2 1.2 ATTACHMENT

TABLE III.3 (Continued)

		3	ATTACH CRANE HOOKS	
		16	PARACHUTE TRUSS CABLING	
3	1.3		TRANSPORT	
		4	HOIST WITH CRANE	
		16	PARACHUTE TRUSS CABLING	
		5	MOVE WITH CRANE	
		16	PARACHUTE TRUSS CABLING	
		6	LOWER WITH CRANE	
		16	PARACHUTE TRUSS CABLING	
4	1.4		DETACHMENT	
		7	DETACH CRANE HOOKS	
		16	PARACHUTE TRUSS CABLING	
5	1.5		INSPECTION	
		8	VISUAL INSPECTION	
		16	PARACHUTE TRUSS CABLING	
3	2		SUBSYSTEM PREPARATION	
		1	2.18 S/S INTEG FNL TEST	
		12	CONNECT CABLES, HOSES, ETC	
		16	PARACHUTE TRUSS CABLING	
		14	FUNCTIONAL TESTING	
		16	PARACHUTE TRUSS CABLING	
		13	DISCONNECT CABLES, ETC.	
		16	PARACHUTE TRUSS CABLING	
4	3		SUBSYSTEM INSTALLATION	
		1	3.1 S/S COMPONNT PLACE	
		1	MOVE ASSEMBLY MANUALLY	
		16	PARACHUTE TRUSS CABLING	
		2	3.2 S/S COMP ATTACH	
		15	INSERT SCREW, BOLT, ETC.	
		16	PARACHUTE TRUSS CABLING	
		3	3.3 S/S COMP INTRCNECT	
		12	CONNECT CABLES, HOSES, ETC	
		16	PARACHUTE TRUSS CABLING	
5	4		SUBSYSTEM/OSE INTERCONNECTION	
		1	4.1 A/B S/S-OSE E/CONN	
		12	CONNECT CABLES, HOSES, ETC	
		16	PARACHUTE TRUSS CABLING	
6	5		SUBSYSTEM FUNCTIONAL TESTING	
		1	5.1 S/S TEST PROC. SEQ	
		14	FUNCTIONAL TESTING	
		16	PARACHUTE TRUSS CABLING	
7	6		SUBSYSTEM/OSE DISCONNECTION	
		1	6.1 A/B S/S-OSE E/DSCN	
		13	DISCONNECT CABLES, ETC.	
		16	PARACHUTE TRUSS CABLING	
8	2		SUBSYSTEM PREPARATION	
		1	2.3 INSPECTION	
		8	VISUAL INSPECTION	
		39	PYROTECHNIC SQUIBS	
		1	MOVE ASSEMBLY MANUALLY	
		39	PYROTECHNIC SQUIBS	
		12	CONNECT CABLES, HOSES, ETC	
		39	PYROTECHNIC SQUIBS	
9	3		SUBSYSTEM INSTALLATION	
		1	3.1 S/S COMPONNT PLACE	
		1	MOVE ASSEMBLY MANUALLY	
		39	PYROTECHNIC SQUIBS	
		2	3.2 S/S COMP ATTACH	
		15	INSERT SCREW, BOLT, ETC.	
		39	PYROTECHNIC SQUIBS	
		3	3.3 S/S COMP INTRCNECT	
		12	CONNECT CABLES, HOSES, ETC	

TABLE III.3 (Continued)

			39 PYROTECHNIC SQUIBS
10	4	SUBSYSTEM/OSE INTERCONNECTION	
	1	4.1 A/B S/S-OSE E/CONN	
		12 CONNECT CABLES, HOSES, ETC	
			39 PYROTECHNIC SQUIBS
11	5	SUBSYSTEM FUNCTIONAL TESTING	
	1	5.1 S/S TEST PROC. SEQ	
		14 FUNCTIONAL TESTING	
			39 PYROTECHNIC SQUIBS
12	6	SUBSYSTEM/OSE DISCONNECTION	
	1	6.1 A/B S/S-OSE E/DSCN	
		13 DISCONNECT CABLES, ETC.	
			39 PYROTECHNIC SQUIBS
13	2	SUBSYSTEM PREPARATION	
	1	2.3 INSPECTION	
		8 VISUAL INSPECTION	
		45 THERMAL COATINGS	
		1 MOVE ASSEMBLY MANUALLY	
		45 THERMAL COATINGS	
14	3	SUBSYSTEM INSTALLATION	
	1	3.1 S/S COMPONENT PLACE	
		1 MOVE ASSEMBLY MANUALLY	
		45 THERMAL COATINGS	
	2	3.2 S/S COMP ATTACH	
		15 INSERT SCREW, BOLT, ETC.	
		45 THERMAL COATINGS	
	3	3.3 S/S COMP INTERCONNECT	
		12 CONNECT CABLES, HOSES, ETC	
		45 THERMAL COATINGS	
15	4	SUBSYSTEM/OSE INTERCONNECTION	
	1	4.1 A/B S/S-OSE E/CONN	
		12 CONNECT CABLES, HOSES, ETC	
		45 THERMAL COATINGS	
16	5	SUBSYSTEM FUNCTIONAL TESTING	
	1	5.1 S/S TEST PROC. SEQ	
		14 FUNCTIONAL TESTING	
		45 THERMAL COATINGS	
17	6	SUBSYSTEM/OSE DISCONNECTION	
	1	6.1 A/B S/S-OSE E/DSCN	
		13 DISCONNECT CABLES, ETC.	
		45 THERMAL COATINGS	
18	1	SUBSYSTEM POSITIONING	
	1	1.1 MANEUVER	
		9 LIFT WITH MSPF	
		12 PARACHUTE TRUSS STRUCT.	
		2 POSITION OVERHEAD CRANE	
		12 PARACHUTE TRUSS STRUCT.	
	2	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		12 PARACHUTE TRUSS STRUCT.	
	3	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		12 PARACHUTE TRUSS STRUCT.	
		5 MOVE WITH CRANE	
		12 PARACHUTE TRUSS STRUCT.	
		6 LOWER WITH CRANE	
		12 PARACHUTE TRUSS STRUCT.	
	4	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
		12 PARACHUTE TRUSS STRUCT.	
	5	1.5 INSPECTION	
		8 VISUAL INSPECTION	



TABLE III.3 (Continued)

			12 PARACHUTE TRUSS STRUCT.
19	12	SUB-MODULE INSTALLATION	
	1	12.1 SUBMOD/MMOD MATING	
		15 INSERT SCREW,BOLT,ETC.	
		12 PARACHUTE TRUSS STRUCT.	
		16 TIGHTEN SCREW,BOLT,ETC.	
		12 PARACHUTE TRUSS STRUCT.	
		12 CONNECT CABLES,HOSES,ETC	
		12 PARACHUTE TRUSS STRUCT.	
20	13	SUB-MODULE INSTALLATION CHECKOUT	
	1	13.1 SM/MM MATE CHECK	
		8 VISUAL INSPECTION	
		12 PARACHUTE TRUSS STRUCT.	
21	14	MAJOR MODULE/USE INTERCONNECTION	
	1	14.1 SM/MM-USE E/CONN	
		12 CONNECT CABLES,HOSES,ETC	
		12 PARACHUTE TRUSS STRUCT.	
22	15	MAJOR MODULE FUNCTIONAL TESTING	
	1	15.1 SM/MM INT.PNL.TEST	
		14 FUNCTIONAL TESTING	
		12 PARACHUTE TRUSS STRUCT.	
23	16	MAJOR MODULE/USE DISCONNECTION	
	1	16.1 SM/MM-USE E/DISCONN	
		13 DISCONNECT CABLES,ETC.	
		12 PARACHUTE TRUSS STRUCT.	
6	F	LANDER MODULE ASSEMBLY + TEST	
	1	1 SUBSYSTEM POSITIONING	
	1	1.1 MANEUVER	
		9 LIFT WITH MSPF	
		1 VERNIER STRUCTURE	
		2 POSITION OVERHEAD CRANE	
		1 VERNIER STRUCTURE	
	2	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		1 VERNIER STRUCTURE	
	3	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		1 VERNIER STRUCTURE	
		5 MOVE WITH CRANE	
		1 VERNIER STRUCTURE	
		6 LOWER WITH CRANE	
		1 VERNIER STRUCTURE	
	4	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
		1 VERNIER STRUCTURE	
	5	1.5 INSPECTION	
		8 VISUAL INSPECTION	
		1 VERNIER STRUCTURE	
2	20	SUB-MODULE REMOVAL	
	1	20.1 SM/MM DEMATING	
		13 DISCONNECT CABLES,ETC.	
		2 PARACHUTE TRUSS STRUCT.	
		17 LOOSEN SCREW,BOLT,ETC.	
		12 PARACHUTE TRUSS STRUCT.	
		18 REMOVE SCREW,BOLT,ETC.	
		12 PARACHUTE TRUSS STRUCT.	
3	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		12 PARACHUTE TRUSS STRUCT.	
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	

TABLE III.3 (Continued)

		12 PARACHUTE TRUSS STRUCT.
	5	MOVE WITH CRANE
		12 PARACHUTE TRUSS STRUCT.
	6	LOWER WITH CRANE
		12 PARACHUTE TRUSS STRUCT.
3	1.4	DETACHMENT
	7	DETACH CRANE HOOKS
		12 PARACHUTE TRUSS STRUCT.
4	2	SUBSYSTEM PREPARATION
	1	2.1 MANEUVER
	10	PLACE IN HANDLING CONTAN
		48 DATA CONT. UNIT S/A
	1	MOVE ASSEMBLY MANUALLY
		48 DATA CONT. UNIT S/A
	2	2.2 TRANSPORT
	11	MOVE IN HANDLING CONTANR
		48 DATA CONT. UNIT S/A
	19	REMOVE FRM HNDLNG CONTNR
		48 DATA CONT. UNIT S/A
	3	2.3 INSPECTION
	8	VISUAL INSPECTION
		48 DATA CONT. UNIT S/A
	1	MOVE ASSEMBLY MANUALLY
		48 DATA CONT. UNIT S/A
	4	2.4 S/A FUNCT. TEST
	12	CONNECT CABLES,HOSES,ETC
		48 DATA CONT. UNIT S/A
	14	FUNCTIONAL TESTING
		48 DATA CONT. UNIT S/A
	13	DISCONNECT CABLES,ETC.
		48 DATA CONT. UNIT S/A
	1	MOVE ASSEMBLY MANUALLY
		48 DATA CONT. UNIT S/A
	5	2.5 S/A BURN IN TEST
	12	CONNECT CABLES,HOSES,ETC
		48 DATA CONT. UNIT S/A
	14	FUNCTIONAL TESTING
		48 DATA CONT. UNIT S/A
	13	DISCONNECT CABLES,ETC.
		48 DATA CONT. UNIT S/A
	1	MOVE ASSEMBLY MANUALLY
		48 DATA CONT. UNIT S/A
	6	2.6 S/A UNIT INTEGRATE
	1	MOVE ASSEMBLY MANUALLY
		48 DATA CONT. UNIT S/A
	15	INSERT SCREW,BOLT,ETC.
		48 DATA CONT. UNIT S/A
	16	TIGHTEN SCREW,BOLT,ETC.
		48 DATA CONT. UNIT S/A
	15	INSERT SCREW,BOLT,ETC.
		48 DATA CONT. UNIT S/A
	16	TIGHTEN SCREW,BOLT,ETC.
		48 DATA CONT. UNIT S/A
	15	INSERT SCREW,BOLT,ETC.
		48 DATA CONT. UNIT S/A
	16	TIGHTEN SCREW,BOLT,ETC.
		48 DATA CONT. UNIT S/A
	15	INSERT SCREW,BOLT,ETC.
		48 DATA CONT. UNIT S/A
	16	TIGHTEN SCREW,BOLT,ETC.
		48 DATA CONT. UNIT S/A
	12	CONNECT CABLES,HOSES,ETC

TABLE III.3 (Continued)

		48 DATA CONT. UNIT S/A
	1	MOVE ASSEMBLY MANUALLY
		48 DATA CONT. UNIT S/A
7	2.7	S/A UNIT FNL TEST
	12	CONNECT CABLES, HOSES, ETC
		48 DATA CONT. UNIT S/A
	14	FUNCTIONAL TESTING
		48 DATA CONT. UNIT S/A
	13	DISCONNECT CABLES, ETC.
		48 DATA CONT. UNIT S/A
	1	MOVE ASSEMBLY MANUALLY
		48 DATA CONT. UNIT S/A
8	2.8	S/A UNIT VIBR TEST
	15	INSERT SCREW, BOLT, ETC.
		48 DATA CONT. UNIT S/A
	16	TIGHTEN SCREW, BOLT, ETC.
		48 DATA CONT. UNIT S/A
	15	INSERT SCREW, BOLT, ETC.
		48 DATA CONT. UNIT S/A
	16	TIGHTEN SCREW, BOLT, ETC.
		48 DATA CONT. UNIT S/A
	12	CONNECT CABLES, HOSES, ETC
		48 DATA CONT. UNIT S/A
	14	FUNCTIONAL TESTING
		48 DATA CONT. UNIT S/A
	13	DISCONNECT CABLES, ETC.
		48 DATA CONT. UNIT S/A
	17	LOOSEN SCREW, BOLT, ETC.
		48 DATA CONT. UNIT S/A
	18	REMOVE SCREW, BOLT, ETC.
		48 DATA CONT. UNIT S/A
	17	LOOSEN SCREW, BOLT, ETC.
		48 DATA CONT. UNIT S/A
	18	REMOVE SCREW, BOLT, ETC.
		48 DATA CONT. UNIT S/A
	1	MOVE ASSEMBLY MANUALLY
		48 DATA CONT. UNIT S/A
9	2.9	S/A UNIT TVAC TEST
	12	CONNECT CABLES, HOSES, ETC
		48 DATA CONT. UNIT S/A
	14	FUNCTIONAL TESTING
		48 DATA CONT. UNIT S/A
	13	DISCONNECT CABLES, ETC.
		48 DATA CONT. UNIT S/A
	1	MOVE ASSEMBLY MANUALLY
		48 DATA CONT. UNIT S/A
10	2.10	S/A UNIT EMU TEST
	12	CONNECT CABLES, HOSES, ETC
		48 DATA CONT. UNIT S/A
	14	FUNCTIONAL TESTING
		48 DATA CONT. UNIT S/A
	13	DISCONNECT CABLES, ETC.
		48 DATA CONT. UNIT S/A
	1	MOVE ASSEMBLY MANUALLY
		48 DATA CONT. UNIT S/A
11	2.11	S/A UNIT DISASSMRL
	1	MOVE ASSEMBLY MANUALLY
		48 DATA CONT. UNIT S/A
5	2	SUBSYSTEM PREPARATION
	1	2.1 MANFUVER
		10 PLACE IN HANDLING CONTAN
		49 DATA STORAGE UNIT S/A

TABLE III.3 (Continued)

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	1	MOVE ASSEMBLY MANUALLY	
		49 DATA STORAGE UNIT S/A	
2	2.2	TRANSPORT	
	11	MOVE IN HANDLING CONTNR	
		49 DATA STORAGE UNIT S/A	
	19	REMOVE FRM HNDLNG CONTNR	
		49 DATA STORAGE UNIT S/A	
3	2.3	INSPECTION	
	8	VISUAL INSPECTION	
		49 DATA STORAGE UNIT S/A	
	1	MOVE ASSEMBLY MANUALLY	
		49 DATA STORAGE UNIT S/A	
4	2.4	S/A FUNCT. TEST	
	12	CONNECT CABLES, HOSES, ETC	
		49 DATA STORAGE UNIT S/A	
	14	FUNCTIONAL TESTING	
		49 DATA STORAGE UNIT S/A	
	13	DISCONNECT CABLES, ETC.	
		49 DATA STORAGE UNIT S/A	
	1	MOVE ASSEMBLY MANUALLY	
		49 DATA STORAGE UNIT S/A	
5	2.5	S/A BURN IN TEST	
	12	CONNECT CABLES, HOSES, ETC	
		49 DATA STORAGE UNIT S/A	
	14	FUNCTIONAL TESTING	
		49 DATA STORAGE UNIT S/A	
	13	DISCONNECT CABLES, ETC.	
		49 DATA STORAGE UNIT S/A	
	1	MOVE ASSEMBLY MANUALLY	
		49 DATA STORAGE UNIT S/A	
6	2.6	S/A UNIT INTEGRATE	
	1	MOVE ASSEMBLY MANUALLY	
		49 DATA STORAGE UNIT S/A	
	15	INSERT SCREW, BOLT, ETC.	
		49 DATA STORAGE UNIT S/A	
	16	TIGHTEN SCREW, BOLT, ETC.	
		49 DATA STORAGE UNIT S/A	
	15	INSERT SCREW, BOLT, ETC.	
		49 DATA STORAGE UNIT S/A	
	16	TIGHTEN SCREW, BOLT, ETC.	
		49 DATA STORAGE UNIT S/A	
	15	INSERT SCREW, BOLT, ETC.	
		49 DATA STORAGE UNIT S/A	
	16	TIGHTEN SCREW, BOLT, ETC.	
		49 DATA STORAGE UNIT S/A	
	15	INSERT SCREW, BOLT, ETC.	
		49 DATA STORAGE UNIT S/A	
	16	TIGHTEN SCREW, BOLT, ETC.	
		49 DATA STORAGE UNIT S/A	
	12	CONNECT CABLES, HOSES, ETC	
		49 DATA STORAGE UNIT S/A	
	1	MOVE ASSEMBLY MANUALLY	
		49 DATA STORAGE UNIT S/A	
7	2.7	S/A UNIT FNL TEST	
	12	CONNECT CABLES, HOSES, ETC	
		49 DATA STORAGE UNIT S/A	
	14	FUNCTIONAL TESTING	
		49 DATA STORAGE UNIT S/A	
	13	DISCONNECT CABLES, ETC.	
		49 DATA STORAGE UNIT S/A	
	1	MOVE ASSEMBLY MANUALLY	
		49 DATA STORAGE UNIT S/A	

- 8 2.8 S/A UNIT VIBR TEST
  - 15 INSERT SCREW,BOLT,ETC.  
49 DATA STORAGE UNIT S/A
  - 16 TIGHTEN SCREW,BOLT,ETC.  
49 DATA STORAGE UNIT S/A
  - 15 INSERT SCREW,BOLT,ETC.  
49 DATA STORAGE UNIT S/A
  - 16 TIGHTEN SCREW,BOLT,ETC.  
49 DATA STORAGE UNIT S/A
  - 12 CONNECT CABLES,HOSES,ETC  
49 DATA STORAGE UNIT S/A
  - 14 FUNCTIONAL TESTING  
49 DATA STORAGE UNIT S/A
  - 13 DISCONNECT CABLES,ETC.  
49 DATA STORAGE UNIT S/A
  - 17 LOOSEN SCREW,BOLT,ETC.  
49 DATA STORAGE UNIT S/A
  - 18 REMOVE SCREW,BOLT,ETC.  
49 DATA STORAGE UNIT S/A
  - 17 LOOSEN SCREW,BOLT,ETC.  
49 DATA STORAGE UNIT S/A
  - 18 REMOVE SCREW,BOLT,ETC.  
49 DATA STORAGE UNIT S/A
  - 1 MOVE ASSEMBLY MANUALLY  
49 DATA STORAGE UNIT S/A
- 9 2.9 S/A UNIT TVAC TEST
  - 12 CONNECT CABLES,HOSES,ETC  
49 DATA STORAGE UNIT S/A
  - 14 FUNCTIONAL TESTING  
49 DATA STORAGE UNIT S/A
  - 13 DISCONNECT CABLES,ETC.  
49 DATA STORAGE UNIT S/A
  - 1 MOVE ASSEMBLY MANUALLY  
49 DATA STORAGE UNIT S/A
- 10 2.10 S/A UNIT EMU TEST
  - 12 CONNECT CABLES,HOSES,ETC  
49 DATA STORAGE UNIT S/A
  - 14 FUNCTIONAL TESTING  
49 DATA STORAGE UNIT S/A
  - 13 DISCONNECT CABLES,ETC.  
49 DATA STORAGE UNIT S/A
  - 1 MOVE ASSEMBLY MANUALLY  
49 DATA STORAGE UNIT S/A
- 11 2.11 S/A UNIT DISASSMHL
  - 1 MOVE ASSEMBLY MANUALLY  
49 DATA STORAGE UNIT S/A
- 6 2 SUBSYSTEM PREPARATION
  - 1 2.1 MANFUVER
    - 10 PLACE IN HANDLING CONTAN  
50 TV ELECTRONICS S/A
    - 1 MOVE ASSEMBLY MANUALLY  
50 TV ELECTRONICS S/A
  - 2 2.2 TRANSPORT
    - 11 MOVE IN HANDLING CONTANR  
50 TV ELECTRONICS S/A
    - 19 REMOVE FRM HNDLNG CONTNR  
50 TV ELECTRONICS S/A
  - 3 2.3 INSPECTION
    - 8 VISUAL INSPECTION  
50 TV ELECTRONICS S/A
    - 1 MOVE ASSEMBLY MANUALLY  
50 TV ELECTRONICS S/A

TABLE III.3 (Continued)

- 4 2.4 S/A FUNCT. TEST  
 12 CONNECT CABLES, HOSES, ETC  
 50 TV ELECTRONICS S/A  
 14 FUNCTIONAL TESTING  
 50 TV ELECTRONICS S/A  
 13 DISCONNECT CABLES, ETC.  
 50 TV ELECTRONICS S/A  
 1 MOVE ASSEMBLY MANUALLY  
 50 TV ELECTRONICS S/A
- 5 2.5 S/A BURN IN TEST  
 12 CONNECT CABLES, HOSES, ETC  
 50 TV ELECTRONICS S/A  
 14 FUNCTIONAL TESTING  
 50 TV ELECTRONICS S/A  
 13 DISCONNECT CABLES, ETC.  
 50 TV ELECTRONICS S/A  
 1 MOVE ASSEMBLY MANUALLY  
 50 TV ELECTRONICS S/A
- 6 2.6 S/A UNIT INTEGRATE  
 1 MOVE ASSEMBLY MANUALLY  
 50 TV ELECTRONICS S/A  
 15 INSERT SCREW, BOLT, ETC.  
 50 TV ELECTRONICS S/A  
 16 TIGHTEN SCREW, BOLT, ETC.  
 50 TV ELECTRONICS S/A  
 15 INSERT SCREW, BOLT, ETC.  
 50 TV ELECTRONICS S/A  
 16 TIGHTEN SCREW, BOLT, ETC.  
 50 TV ELECTRONICS S/A  
 15 INSERT SCREW, BOLT, ETC.  
 50 TV ELECTRONICS S/A  
 16 TIGHTEN SCREW, BOLT, ETC.  
 50 TV ELECTRONICS S/A  
 15 INSERT SCREW, BOLT, ETC.  
 50 TV ELECTRONICS S/A  
 16 TIGHTEN SCREW, BOLT, ETC.  
 50 TV ELECTRONICS S/A  
 12 CONNECT CABLES, HOSES, ETC  
 50 TV ELECTRONICS S/A  
 1 MOVE ASSEMBLY MANUALLY  
 50 TV ELECTRONICS S/A
- 7 2.7 S/A UNIT FNL TEST  
 12 CONNECT CABLES, HOSES, ETC  
 50 TV ELECTRONICS S/A  
 14 FUNCTIONAL TESTING  
 50 TV ELECTRONICS S/A  
 13 DISCONNECT CABLES, ETC.  
 50 TV ELECTRONICS S/A  
 1 MOVE ASSEMBLY MANUALLY  
 50 TV ELECTRONICS S/A
- 8 2.8 S/A UNIT VIBR TEST  
 15 INSERT SCREW, BOLT, ETC.  
 50 TV ELECTRONICS S/A  
 16 TIGHTEN SCREW, BOLT, ETC.  
 50 TV ELECTRONICS S/A  
 15 INSERT SCREW, BOLT, ETC.  
 50 TV ELECTRONICS S/A  
 16 TIGHTEN SCREW, BOLT, ETC.  
 50 TV ELECTRONICS S/A  
 12 CONNECT CABLES, HOSES, ETC  
 50 TV ELECTRONICS S/A  
 14 FUNCTIONAL TESTING

TABLE III.3 (Continued)

		50 TV ELECTRONICS S/A
	13	DISCONNECT CABLES, ETC.
		50 TV ELECTRONICS S/A
	17	LOOSEN SCREW, BOLT, ETC.
		50 TV ELECTRONICS S/A
	18	REMOVE SCREW, BOLT, ETC.
		50 TV ELECTRONICS S/A
	17	LOUSEN SCREW, BOLT, ETC.
		50 TV ELECTRONICS S/A
	18	REMOVE SCREW, BOLT, ETC.
		50 TV ELECTRONICS S/A
	1	MOVE ASSEMBLY MANUALLY
		50 TV ELECTRONICS S/A
9	2.9	S/A UNIT TVAC TEST
	12	CONNECT CABLES, HOSES, ETC
		50 TV ELECTRONICS S/A
	14	FUNCTIONAL TESTING
		50 TV ELECTRONICS S/A
	13	DISCONNECT CABLES, ETC.
		50 TV ELECTRONICS S/A
	1	MOVE ASSEMBLY MANUALLY
		50 TV ELECTRONICS S/A
10	2.10	S/A UNIT EMU TEST
	12	CONNECT CABLES, HOSES, ETC
		50 TV ELECTRONICS S/A
	14	FUNCTIONAL TESTING
		50 TV ELECTRONICS S/A
	13	DISCONNECT CABLES, ETC.
		50 TV ELECTRONICS S/A
	1	MOVE ASSEMBLY MANUALLY
		50 TV ELECTRONICS S/A
11	2.11	S/A UNIT DISASSEMBL
	1	MOVE ASSEMBLY MANUALLY
		50 TV ELECTRONICS S/A
7	2	SUBSYSTEM PREPARATION
	1	2.12 S/A B/F INTEGRATN
		1 MOVE ASSEMBLY MANUALLY
		51 SCIENCE S/S BASE FRAME
	15	INSERT SCREW, BOLT, ETC.
		51 SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW, BOLT, ETC.
		51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		51 SCIENCE S/S BASE FRAME
	15	INSERT SCREW, BOLT, ETC.
		51 SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW, BOLT, ETC.
		51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		51 SCIENCE S/S BASE FRAME
	15	INSERT SCREW, BOLT, ETC.
		51 SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW, BOLT, ETC.
		51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		51 SCIENCE S/S BASE FRAME
	15	INSERT SCREW, BOLT, ETC.
		51 SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW, BOLT, ETC.
		51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY
		51 SCIENCE S/S BASE FRAME

TABLE III.3 (Continued)

	15	INSERT SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51	SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51	SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51	SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51	SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51	SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	12	CONNECT CABLES,HOSES,ETC	51	SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51	SCIENCE S/S BASE FRAME
2	2.3	INSPECTION		
	8	VISUAL INSPECTION	51	SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51	SCIENCE S/S BASE FRAME
3	2.13	B/F UNIT FNL TEST		
	12	CONNECT CABLES,HOSES,ETC	51	SCIENCE S/S BASE FRAME
	14	FUNCTIONAL TESTING	51	SCIENCE S/S BASE FRAME
	13	DISCONNECT CABLES,ETC.	51	SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51	SCIENCE S/S BASE FRAME
4	2	SUBSYSTEM PREPARATION		
	1	2.12 S/A B/F INTEGRATN		
	1	MOVE ASSEMBLY MANUALLY	51	SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51	SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51	SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51	SCIENCE S/S BASE FRAME



TABLE III.3 (Continued)

	15	INSERT SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51 SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51 SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51 SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51 SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51 SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51 SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51 SCIENCE S/S BASE FRAME
	15	INSERT SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	16	TIGHTEN SCREW,BOLT,ETC.	51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51 SCIENCE S/S BASE FRAME
2	2.3	INSPECTION	
	8	VISUAL INSPECTION	51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51 SCIENCE S/S BASE FRAME
3	2.13	H/F UNIT FNL TEST	
	12	CONNECT CABLES,HOSES,ETC	51 SCIENCE S/S BASE FRAME
	14	FUNCTIONAL TESTING	51 SCIENCE S/S BASE FRAME
	13	DISCONNECT CABLES,ETC.	51 SCIENCE S/S BASE FRAME
	1	MOVE ASSEMBLY MANUALLY	51 SCIENCE S/S BASE FRAME
9	3	SUBSYSTEM INSTALLATION	
	1	3.1 S/S COMPONNT PLACE	
	1	MOVE ASSEMBLY MANUALLY	51 SCIENCE S/S BASE FRAME

TABLE III.3 (Continued)

	2	3.2	S/S COMP ATTACH
		15	INSERT SCREW, BOLT, ETC.
			51 SCIENCE S/S BASE FRAME
	3	3.3	S/S COMP INTERCONNECT
		12	CONNECT CABLES, HOSES, ETC
			51 SCIENCE S/S BASE FRAME
10	4		SUBSYSTEM/OSE INTERCONNECTION
	1	4.1	A/B S/S-OSE E/CONN
		12	CONNECT CABLES, HOSES, ETC
			51 SCIENCE S/S BASE FRAME
11	5		SUBSYSTEM FUNCTIONAL TESTING
	1	5.1	S/S TEST PROC. SEQ
		14	FUNCTIONAL TESTING
			51 SCIENCE S/S BASE FRAME
12	6		SUBSYSTEM/OSE DISCONNECTION
	1	6.1	A/B S/S-OSE E/DSCN
		13	DISCONNECT CABLES, ETC.
			51 SCIENCE S/S BASE FRAME
13	1		SUBSYSTEM POSITIONING
	1	1.2	ATTACHMENT
		3	ATTACH CRANE HOOKS
			12 PARACHUTE TRUSS STRUCT.
	2	1.3	TRANSPORT
		4	HOIST WITH CRANE
			12 PARACHUTE TRUSS STRUCT.
		5	MOVE WITH CRANE
			12 PARACHUTE TRUSS STRUCT.
		6	LOWER WITH CRANE
			12 PARACHUTE TRUSS STRUCT.
	3	1.4	DETACHMENT
		7	DETACH CRANE HOOKS
			12 PARACHUTE TRUSS STRUCT.
14	12		SUB-MODULE INSTALLATION
	1	12.1	SUBMOD/MMOD MATING
		15	INSERT SCREW, BOLT, ETC.
			12 PARACHUTE TRUSS STRUCT.
		16	TIGHTEN SCREW, BOLT, ETC.
			12 PARACHUTE TRUSS STRUCT.
		12	CONNECT CABLES, HOSES, ETC
			12 PARACHUTE TRUSS STRUCT.
15	13		SUB-MODULE INSTALLATION CHECKOUT
	1	13.1	SM/MM MATE CHECK
		8	VISUAL INSPECTION
			12 PARACHUTE TRUSS STRUCT.
16	14		MAJOR MODULE/OSE INTERCONNECTION
	1	14.1	SM/MM-OSE E/CONN
		12	CONNECT CABLES, HOSES, ETC
			12 PARACHUTE TRUSS STRUCT.
17	15		MAJOR MODULE FUNCTIONAL TESTING
	1	15.1	SM/MM INT. FNL. TEST
		14	FUNCTIONAL TESTING
			12 PARACHUTE TRUSS STRUCT.
18	16		MAJOR MODULE/OSE DISCONNECTION
	1	16.1	SM/MM-OSE E/DISCONN
		13	DISCONNECT CABLES, ETC.
			12 PARACHUTE TRUSS STRUCT.
19	21		MAJOR MODULE MASS PROPERTIES CHECK
	1	21.1	SM/MM MASS PROPERT
		14	FUNCTIONAL TESTING
			1 VERNIER STRUCTURE
20	14		MAJOR MODULE/OSE INTERCONNECTION
	1	14.1	SM/MM-USE E/CONN

TABLE III.3 (Continued)

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		12	CONNECT CABLES, HOSES, ETC
		1	VERNIER STRUCTURE
21	15		MAJOR MODULE FUNCTIONAL TESTING
	1	15.1	SM/MM INT. FNL. TEST
		14	FUNCTIONAL TESTING
		1	VERNIER STRUCTURE
22	16		MAJOR MODULE/OSE DISCONNECTION
	1	16.1	SM/MM-USE E/DISCONN
		13	DISCONNECT CABLES, ETC.
		1	VERNIER STRUCTURE
7	G		DESCENT MODULE ASSEMBLY + TEST
	1	1	SUBSYSTEM POSITIONING
	1	1.2	ATTACHMENT
		3	ATTACH CRANE HOOKS
		1	VERNIER STRUCTURE
	2	1.3	TRANSPORT
		4	HOIST WITH CRANE
		1	VERNIER STRUCTURE
		5	MOVE WITH CRANE
		1	VERNIER STRUCTURE
		6	LOWER WITH CRANE
		1	VERNIER STRUCTURE
	3	1.4	DETACHMENT
		7	DETACH CRANE HOOKS
		1	VERNIER STRUCTURE
2	1		SUBSYSTEM POSITIONING
	1	1.2	ATTACHMENT
		3	ATTACH CRANE HOOKS
		5	AFROSHELL STRUCTURE
	2	1.3	TRANSPORT
		4	HOIST WITH CRANE
		5	AFROSHELL STRUCTURE
		5	MOVE WITH CRANE
		5	AFROSHELL STRUCTURE
		6	LOWER WITH CRANE
		5	AFROSHELL STRUCTURE
	3	1.4	DETACHMENT
		7	DETACH CRANE HOOKS
		5	AFROSHELL STRUCTURE
3	12		SUB-MODULE INSTALLATION
	1	12.1	SUBMOD/MMOD MATING
		15	INSERT SCREW, BOLT, ETC.
		5	AFROSHELL STRUCTURE
		16	TIGHTEN SCREW, BOLT, ETC.
		5	AFROSHELL STRUCTURE
		12	CONNECT CABLES, HOSES, ETC
		5	AFROSHELL STRUCTURE
4	13		SUB-MODULE INSTALLATION CHECKOUT
	1	13.1	SM/MM MATE CHECK
		8	VISUAL INSPECTION
		5	AFROSHELL STRUCTURE
5	14		MAJOR MODULE/OSE INTERCONNECTION
	1	14.1	SM/MM-USE E/CONN
		12	CONNECT CABLES, HOSES, ETC
		5	AFROSHELL STRUCTURE
6	15		MAJOR MODULE FUNCTIONAL TESTING
	1	15.1	SM/MM INT. FNL. TEST
		14	FUNCTIONAL TESTING
		5	AFROSHELL STRUCTURE
7	16		MAJOR MODULE/OSE DISCONNECTION
	1	16.1	SM/MM-USE E/DISCONN
		13	DISCONNECT CABLES, ETC.

TABLE III.3 (Continued)

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			5 AFROSHELL STRUCTURE
A	21	MAJOR MODULE MASS PROPERTIES CHECK	
	1	21.1 SM/MM MASS PROPERT	
		14 FUNCTIONAL TESTING	
		1 VERNIER STRUCTURE	
9	14	MAJOR MODULE/OSE INTERCONNECTION	
	1	14.1 SM/MM-USE E/CONN	
		12 CONNECT CABLES,HOSES,ETC	
		1 VERNIER STRUCTURE	
10	15	MAJOR MODULE FUNCTIONAL TESTING	
	1	15.1 SM/MM INT.FNL.TEST	
		14 FUNCTIONAL TESTING	
		1 VERNIER STRUCTURE	
11	16	MAJOR MODULE/USE DISCONNECTION	
	1	16.1 SM/MM-USE E/DISCNN	
		13 DISCONNECT CABLES.ETC.	
		1 VERNIER STRUCTURE	
8	H	ENTRY MODULE ASSEMBLY + TEST	
	1	1 SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		1 VERNIER STRUCTURE	
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		1 VERNIER STRUCTURE	
		5 MOVE WITH CRANE	
		1 VERNIER STRUCTURE	
		6 LOWER WITH CRANE	
		1 VERNIER STRUCTURE	
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
		1 VERNIER STRUCTURE	
2	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		3 DEORBIT STRUCTURE	
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		3 DEORBIT STRUCTURE	
		5 MOVE WITH CRANE	
		3 DEORBIT STRUCTURE	
		6 LOWER WITH CRANE	
		3 DEORBIT STRUCTURE	
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
		3 DEORBIT STRUCTURE	
3	12	SUB-MODULE INSTALLATION	
	1	12.1 SUBMOD/MMOD MATING	
		15 INSERT SCREW,BOLT,ETC.	
		3 DEORBIT STRUCTURE	
		16 TIGHTEN SCREW,BOLT,ETC.	
		3 DEORBIT STRUCTURE	
		12 CONNECT CABLES,HOSES,ETC	
		3 DEORBIT STRUCTURE	
4	13	SUB-MODULE INSTALLATION CHECKOUT	
	1	13.1 SM/MM MATE CHECK	
		8 VISUAL INSPECTION	
		3 DEORBIT STRUCTURE	
5	14	MAJOR MODULE/USE INTERCONNECTION	
	1	14.1 SM/MM-USE E/CONN	
		12 CONNECT CABLES,HOSES,ETC	
		3 DEORBIT STRUCTURE	

TABLE III.3 (Continued)

	2	14.2	SM/MM-05E M/CONN
		12	CONNECT CABLES,HOSES,ETC
		3	DFORBIT STRUCTURE
6	15		MAJOR MODULE FUNCTIONAL TESTING
	1	15.1	SM/MM INT.FNL.TEST
		14	FUNCTIONAL TESTING
		3	DFORBIT STRUCTURE
7	16		MAJOR MODULE/05E DISCONNECTION
	1	16.1	SM/MM-05E E/DISCNN
		13	DISCONNECT CABLES,ETC.
		3	DFORBIT STRUCTURE
	2	16.2	SM/MM-05E M/DISCNN
		13	DISCONNECT CABLES,ETC.
		3	DFORBIT STRUCTURE
8	21		MAJOR MODULE MASS PROPERTIES CHECK
	1	21.1	SM/MM MASS PROPERT
		14	FUNCTIONAL TESTING
		3	DFORBIT STRUCTURE
9	14		MAJOR MODULE/05E INTERCONNECTION
	1	14.1	SM/MM-05E E/CONN
		12	CONNECT CABLES,HOSES,ETC
		3	DFORBIT STRUCTURE
	2	14.2	SM/MM-05E M/CONN
		12	CONNECT CABLES,HOSES,ETC
		3	DFORBIT STRUCTURE
10	15		MAJOR MODULE FUNCTIONAL TESTING
	1	15.1	SM/MM INT.FNL.TEST
		14	FUNCTIONAL TESTING
		3	DFORBIT STRUCTURE
11	16		MAJOR MODULE/05E DISCONNECTION
	1	16.1	SM/MM-05E E/DISCNN
		13	DISCONNECT CABLES,ETC.
		3	DFORBIT STRUCTURE
	2	16.2	SM/MM-05E M/DISCNN
		13	DISCONNECT CABLES,ETC.
		3	DFORBIT STRUCTURE
9	I		PRE-SEPARATION F/C ASSEMBLY + TEST
	1	1	SUBSYSTEM POSITIONING
		1	1.2 ATTACHMENT
		3	ATTACH CRANE HOOKS
		1	VERNIER STRUCTURE
		2	1.3 TRANSPORT
		4	HOIST WITH CRANE
		1	VERNIER STRUCTURE
		5	MOVE WITH CRANE
		1	VERNIER STRUCTURE
		6	LOWER WITH CRANE
		1	VERNIER STRUCTURE
		3	1.4 DETACHMENT
		7	DETACH CRANE HOOKS
		1	VERNIER STRUCTURE
	2	1	SUBSYSTEM POSITIONING
		1	1.2 ATTACHMENT
		3	ATTACH CRANE HOOKS
		7	CANISTER, AFT
		2	1.3 TRANSPORT
		4	HOIST WITH CRANE
		7	CANISTER, AFT
		5	MOVE WITH CRANE
		7	CANISTER, AFT
		6	LOWER WITH CRANE
		7	CANISTER, AFT

TABLE III.3 (Continued)

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3	1.4	DETACHMENT	
	7	DETACH CRANE HOOKS	
		7 CANISTER, AFT	
3	12	SUB-MODULE INSTALLATION	
1	12.1	SUBMOD/MMOD MATING	
	15	INSERT SCREW, BOLT, ETC.	
		7 CANISTER, AFT	
	16	TIGHTEN SCREW, BOLT, ETC.	
		7 CANISTER, AFT	
	12	CONNECT CABLES, HOSES, ETC	
		7 CANISTER, AFT	
4	13	SUB-MODULE INSTALLATION CHECKOUT	
1	13.1	SM/MM MATE CHECK	
	8	VISUAL INSPECTION	
		7 CANISTER, AFT	
5	14	MAJOR MODULE/USE INTERCONNECTION	
1	14.1	SM/MM-USE E/CONN	
	12	CONNECT CABLES, HOSES, ETC	
		7 CANISTER, AFT	
6	15	MAJOR MODULE FUNCTIONAL TESTING	
1	15.1	SM/MM INT. FNL. TEST	
	14	FUNCTIONAL TESTING	
		7 CANISTER, AFT	
7	16	MAJOR MODULE/USE DISCONNECTION	
1	16.1	SM/MM-USE E/DISCONN	
	13	DISCONNECT CABLES, ETC.	
		7 CANISTER, AFT	
8	21	MAJOR MODULE MASS PROPERTIES CHECK	
1	21.1	SM/MM MASS PROPERT	
	14	FUNCTIONAL TESTING	
		7 CANISTER, AFT	
9	14	MAJOR MODULE/USE INTERCONNECTION	
1	14.1	SM/MM-USE E/CONN	
	12	CONNECT CABLES, HOSES, ETC	
		7 CANISTER, AFT	
10	15	MAJOR MODULE FUNCTIONAL TESTING	
1	15.1	SM/MM INT. FNL. TEST	
	14	FUNCTIONAL TESTING	
		7 CANISTER, AFT	
11	16	MAJOR MODULE/USE DISCONNECTION	
1	16.1	SM/MM-USE E/DISCONN	
	13	DISCONNECT CABLES, ETC.	
		7 CANISTER, AFT	
10	J	LAUNCH/CRUISE F/C ASSEMBLY & TEST	
1	1	SUBSYSTEM POSITIONING	
1	1.2	ATTACHMENT	
	3	ATTACH CRANE HOOKS	
		1 VERNIER STRUCTURE	
2	1.3	TRANSPORT	
	4	HOIST WITH CRANE	
		1 VERNIER STRUCTURE	
	5	MOVE WITH CRANE	
		1 VERNIER STRUCTURE	
	6	LOWER WITH CRANE	
		1 VERNIER STRUCTURE	
3	1.4	DETACHMENT	
	7	DETACH CRANE HOOKS	
		1 VERNIER STRUCTURE	
2	1	SUBSYSTEM POSITIONING	
1	1.2	ATTACHMENT	
	3	ATTACH CRANE HOOKS	
		6 CANISTER, FORWARD	

TABLE III.3 (Continued)

2	1.3	TRANSPORT
4		HOIST WITH CRANE
6		CANISTER, FOREWARD
5		MOVE WITH CRANE
6		CANISTER, FOREWARD
6		LOWER WITH CRANE
6		CANISTER, FOREWARD
3	1.4	DETACHMENT
7		DETACH CRANE HOOKS
6		CANISTER, FOREWARD
3	12	SUB-MODULE INSTALLATION
1	12.1	SUBMOD/MMOD MATING
15		INSERT SCREW, BOLT, ETC.
1		VERNIER STRUCTURE
16		TIGHTEN SCREW, BOLT, ETC.
1		VERNIER STRUCTURE
12		CONNECT CABLES, HOSES, ETC
1		VERNIER STRUCTURE
4	13	SUB-MODULE INSTALLATION CHECKOUT
1	13.1	SM/MM MATE CHECK
8		VISUAL INSPECTION
1		VERNIER STRUCTURE
5	14	MAJOR MODULE/OSE INTERCONNECTION
1	14.1	SM/MM-OSE E/CONN
12		CONNECT CABLES, HOSES, ETC
1		VERNIER STRUCTURE
6	15	MAJOR MODULE FUNCTIONAL TESTING
1	15.1	SM/MM INT.FNL.TEST
14		FUNCTIONAL TESTING
1		VERNIER STRUCTURE
7	16	MAJOR MODULE/OSE DISCONNECTION
1	16.1	SM/MM-OSE E/DISCONN
13		DISCONNECT CABLES, ETC.
1		VERNIER STRUCTURE
8	21	MAJOR MODULE MASS PROPERTIES CHECK
1	21.1	SM/MM MASS PROPERT
14		FUNCTIONAL TESTING
1		VERNIER STRUCTURE
9	14	MAJOR MODULE/OSE INTERCONNECTION
1	14.1	SM/MM-OSE E/CONN
12		CONNECT CABLES, HOSES, ETC
1		VERNIER STRUCTURE
10	15	MAJOR MODULE FUNCTIONAL TESTING
1	15.1	SM/MM INT.FNL.TEST
14		FUNCTIONAL TESTING
1		VERNIER STRUCTURE
11	16	MAJOR MODULE/OSE DISCONNECTION
1	16.1	SM/MM-OSE E/DISCONN
13		DISCONNECT CABLES, ETC.
1		VERNIER STRUCTURE
11	K	FLIGHT CAPSULE SYSTEM ASSEMBLY + TEST
10	20	SUB-MODULE REMOVAL
1	20.1	SM/MM DEMATING
13		DISCONNECT CABLES, ETC.
6		CANISTER, FOREWARD
17		LOUSEN SCREW, BOLT, ETC.
6		CANISTER, FOREWARD
18		REMOVE SCREW, BOLT, ETC.
6		CANISTER, FOREWARD
11	1	SUBSYSTEM POSITIONING
1	1.2	ATTACHMENT
3		ATTACH CRANE HOOKS

TABLE III.3 (Continued)

		6 CANISTER, FORWARD
2	1.3	TRANSPORT
	4	HOIST WITH CRANE
		6 CANISTER, FORWARD
	5	MOVE WITH CRANE
		6 CANISTER, FORWARD
	6	LOWER WITH CRANE
		6 CANISTER, FORWARD
3	1.4	DETACHMENT
	7	DETACH CRANE HOOKS
		6 CANISTER, FORWARD
12	15	MAJOR MODULE FUNCTIONAL TESTING
	1	15.1 SM/MM INT.FNL.TEST
		14 FUNCTIONAL TESTING
		6 CANISTER, FORWARD
13	20	SUB-MODULE REMOVAL
	1	20.1 SM/MM DEMATING
		13 DISCONNECT CABLES, ETC.
		7 CANISTER, AFT
		17 LOOSEN SCREW, BOLT, ETC.
		7 CANISTER, AFT
		18 REMOVE SCREW, BOLT, ETC.
		7 CANISTER, AFT
14	1	SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		7 CANISTER, AFT
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE
		7 CANISTER, AFT
		5 MOVE WITH CRANE
		7 CANISTER, AFT
		6 LOWER WITH CRANE
		7 CANISTER, AFT
	3	1.4 DETACHMENT
		7 DETACH CRANE HOOKS
		7 CANISTER, AFT
15	15	MAJOR MODULE FUNCTIONAL TESTING
	1	15.1 SM/MM INT.FNL.TEST
		14 FUNCTIONAL TESTING
		7 CANISTER, AFT
16	20	SUB-MODULE REMOVAL
	1	20.1 SM/MM DEMATING
		13 DISCONNECT CABLES, ETC.
		12 PARACHUTE TRUSS STRUCT.
		17 LOOSEN SCREW, BOLT, ETC.
		12 PARACHUTE TRUSS STRUCT.
		18 REMOVE SCREW, BOLT, ETC.
		12 PARACHUTE TRUSS STRUCT.
17	1	SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		12 PARACHUTE TRUSS STRUCT.
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE
		12 PARACHUTE TRUSS STRUCT.
		5 MOVE WITH CRANE
		12 PARACHUTE TRUSS STRUCT.
		6 LOWER WITH CRANE
		12 PARACHUTE TRUSS STRUCT.
	3	1.4 DETACHMENT
		7 DETACH CRANE HOOKS



TABLE III.3 (Continued)

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			12 PARACHUTE TRUSS STRUCT.
18	15	MAJOR MODULE FUNCTIONAL TESTING	
	1	15.1 SM/MM INT.FNL.TEST	
		14 FUNCTIONAL TESTING	
			12 PARACHUTE TRUSS STRUCT.
19	15	MAJOR MODULE FUNCTIONAL TESTING	
	1	15.1 SM/MM INT.FNL.TEST	
		14 FUNCTIONAL TESTING	
			1 VERNIER STRUCTURE
20	16	MAJOR MODULE/USE DISCONNECTION	
	1	16.1 SM/MM-USE E/DISCONN	
		13 DISCONNECT CABLES.ETC.	
			1 VERNIER STRUCTURE
21	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
			1 VERNIER STRUCTURE
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
			1 VERNIER STRUCTURE
		5 MOVE WITH CRANE	
			1 VERNIER STRUCTURE
		6 LOWER WITH CRANE	
			1 VERNIER STRUCTURE
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
			1 VERNIER STRUCTURE
24	2	SUBSYSTEM PREPARATION	
	1	2.3 INSPECTION	
		8 VISUAL INSPECTION	
			64 SURFACE LAB
		1 MOVE ASSEMBLY MANUALLY	
			64 SURFACE LAB
25	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
			64 SURFACE LAB
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
			64 SURFACE LAB
		5 MOVE WITH CRANE	
			64 SURFACE LAB
		6 LOWER WITH CRANE	
			64 SURFACE LAB
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
			64 SURFACE LAB
26	12	SUB-MODULE INSTALLATION	
	1	12.1 SUBMOD/MMOD MATING	
		15 INSERT SCREW,BOLT,ETC.	
			64 SURFACE LAB
		16 TIGHTEN SCREW,BOLT,ETC.	
			64 SURFACE LAB
		12 CONNECT CABLES,HOSES,ETC	
			64 SURFACE LAB
27	13	SUB-MODULE INSTALLATION CHECKOUT	
	1	13.1 SM/MM MATE CHECK	
		8 VISUAL INSPECTION	
			64 SURFACE LAB
28	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	

TABLE III.3 (Continued)

- 2 1.3 TRANSPORT
  - 4 HOIST WITH CRANE
    - 12 PARACHUTE TRUSS STRUCT.
  - 5 MOVE WITH CRANE
    - 12 PARACHUTE TRUSS STRUCT.
  - 6 LOWER WITH CRANE
    - 12 PARACHUTE TRUSS STRUCT.
- 3 1.4 DETACHMENT
  - 7 DETACH CRANE HOOKS
    - 12 PARACHUTE TRUSS STRUCT.
- 29 12 SUB-MODULE INSTALLATION
  - 1 12.1 SUBMOD/MMOD MATING
    - 15 INSERT SCREW,BOLT,ETC.
      - 12 PARACHUTE TRUSS STRUCT.
    - 16 TIGHTEN SCREW,BOLT,ETC.
      - 12 PARACHUTE TRUSS STRUCT.
    - 12 CONNECT CABLES,HOSES,ETC
      - 12 PARACHUTE TRUSS STRUCT.
- 30 13 SUB-MODULE INSTALLATION CHECKOUT
  - 1 13.1 SM/MM MATE CHECK
    - 8 VISUAL INSPECTION
      - 12 PARACHUTE TRUSS STRUCT.
- 37 1 SUBSYSTEM POSITIONING
  - 1 1.2 ATTACHMENT
    - 3 ATTACH CRANE HOOKS
      - 7 CANISTER, AFT
  - 2 1.3 TRANSPORT
    - 4 HOIST WITH CRANE
      - 7 CANISTER, AFT
    - 5 MOVE WITH CRANE
      - 7 CANISTER, AFT
    - 6 LOWER WITH CRANE
      - 7 CANISTER, AFT
  - 3 1.4 DETACHMENT
    - 7 DETACH CRANE HOOKS
      - 7 CANISTER, AFT
- 38 12 SUB-MODULE INSTALLATION
  - 1 12.1 SUBMOD/MMOD MATING
    - 15 INSERT SCREW,BOLT,ETC.
      - 7 CANISTER, AFT
    - 16 TIGHTEN SCREW,BOLT,ETC.
      - 7 CANISTER, AFT
    - 12 CONNECT CABLES,HOSES,ETC
      - 7 CANISTER, AFT
- 39 13 SUB-MODULE INSTALLATION CHECKOUT
  - 1 13.1 SM/MM MATE CHECK
    - 8 VISUAL INSPECTION
      - 7 CANISTER, AFT
- 40 1 SUBSYSTEM POSITIONING
  - 1 1.2 ATTACHMENT
    - 3 ATTACH CRANE HOOKS
      - 1 VERNIER STRUCTURE
  - 2 1.3 TRANSPORT
    - 4 HOIST WITH CRANE
      - 1 VERNIER STRUCTURE
    - 5 MOVE WITH CRANE
      - 1 VERNIER STRUCTURE
    - 6 LOWER WITH CRANE
      - 1 VERNIER STRUCTURE
  - 3 1.4 DETACHMENT
    - 7 DETACH CRANE HOOKS

TABLE III.3 (Continued)

		1 VERNIER STRUCTURE
41	14	MAJOR MODULE/USE INTERCONNECTION
	1 14.1	SM/MM-USE E/CONN
		12 CONNECT CABLES, HOSES, ETC
		1 VERNIER STRUCTURE
42	8	SYSTEM FUNCTIONAL TEST
	1 8.1	F/C PERF. VER. TEST
		14 FUNCTIONAL TESTING
		1 VERNIER STRUCTURE
43	16	MAJOR MODULE/USE DISCONNECTION
	1 16.1	SM/MM-USE E/DISCONN
		13 DISCONNECT CABLES, ETC.
		1 VERNIER STRUCTURE
44	1	SUBSYSTEM POSITIONING
	1 1.2	ATTACHMENT
		3 ATTACH CRANE HOOKS
		1 VERNIER STRUCTURE
	2 1.3	TRANSPORT
		4 HOIST WITH CRANE
		1 VERNIER STRUCTURE
		5 MOVE WITH CRANE
		1 VERNIER STRUCTURE
		6 LOWER WITH CRANE
		1 VERNIER STRUCTURE
	3 1.4	DETACHMENT
		7 DETACH CRANE HOOKS
		1 VERNIER STRUCTURE
45	14	MAJOR MODULE/USE INTERCONNECTION
	1 14.1	SM/MM-USE E/CONN
		12 CONNECT CABLES, HOSES, ETC
		1 VERNIER STRUCTURE
46	10	SYSTEM THERMAL VACUUM TEST
	1 10.1	F/C TVAC TEST
		14 FUNCTIONAL TESTING
		1 VERNIER STRUCTURE
47	8	SYSTEM FUNCTIONAL TEST
	1 8.1	F/C PERF. VER. TEST
		14 FUNCTIONAL TESTING
		1 VERNIER STRUCTURE
48	10	SYSTEM THERMAL VACUUM TEST
	1 10.1	F/C TVAC TEST
		14 FUNCTIONAL TESTING
		1 VERNIER STRUCTURE
49	16	MAJOR MODULE/USE DISCONNECTION
	1 16.1	SM/MM-USE E/DISCONN
		13 DISCONNECT CABLES, ETC.
		1 VERNIER STRUCTURE
50	1	SUBSYSTEM POSITIONING
	1 1.2	ATTACHMENT
		3 ATTACH CRANE HOOKS
		1 VERNIER STRUCTURE
	2 1.3	TRANSPORT
		4 HOIST WITH CRANE
		1 VERNIER STRUCTURE
		5 MOVE WITH CRANE
		1 VERNIER STRUCTURE
		6 LOWER WITH CRANE
		1 VERNIER STRUCTURE
	3 1.4	DETACHMENT
		7 DETACH CRANE HOOKS
		1 VERNIER STRUCTURE
51	14	MAJOR MODULE/USE INTERCONNECTION

	14.1	SM/MM-05E E/CONN	
		12 CONNECT CABLES, HOSES, ETC	
		1 VERNIER STRUCTURE	
57	8	SYSTEM FUNCTIONAL TEST	
	1	8.1 F/C PERF. VER. TEST	
		14 FUNCTIONAL TESTING	
		1 VERNIER STRUCTURE	
57	11	SYSTEM ELECTROMAGNETIC INTERFER. TEST	
	1	11.1 F/C EMI TEST	
		14 FUNCTIONAL TESTING	
		1 VERNIER STRUCTURE	
54	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		1 VERNIER STRUCTURE	
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		1 VERNIER STRUCTURE	
		5 MOVE WITH CRANE	
		1 VERNIER STRUCTURE	
		6 LOWER WITH CRANE	
		1 VERNIER STRUCTURE	
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
		1 VERNIER STRUCTURE	
55	20	SUB-MODULE REMOVAL	
	1	20.1 SM/MM DEMATING	
		13 DISCONNECT CABLES, ETC.	
		7 CANISTER, AFT	
		17 LOOSEN SCREW, BOLT, ETC.	
		7 CANISTER, AFT	
		18 REMOVE SCREW, BOLT, ETC.	
		7 CANISTER, AFT	
54	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		7 CANISTER, AFT	
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		7 CANISTER, AFT	
		5 MOVE WITH CRANE	
		7 CANISTER, AFT	
		6 LOWER WITH CRANE	
		7 CANISTER, AFT	
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
		7 CANISTER, AFT	
58	20	SUB-MODULE REMOVAL	
	1	20.1 SM/MM DEMATING	
		13 DISCONNECT CABLES, ETC.	
		7 CANISTER, AFT	
		17 LOOSEN SCREW, BOLT, ETC.	
		7 CANISTER, AFT	
		18 REMOVE SCREW, BOLT, ETC.	
		7 CANISTER, AFT	
59	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
		7 CANISTER, AFT	
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
		7 CANISTER, AFT	

TABLE III.3 (Continued)

		5	MOVE WITH CRANE
		7	CANISTER, AFT
		6	LOWER WITH CRANE
		7	CANISTER, AFT
3	1.4		DETACHMENT
		7	DETACH CRANE HOOKS
		7	CANISTER, AFT
60	20		SUB-MODULE REMOVAL
	1	20.1	SM/MM DEMATING
		13	DISCONNECT CABLES, ETC.
		3	DFORBIT STRUCTURE
		17	LOOSEN SCREW, BOLT, ETC.
		3	DFORBIT STRUCTURE
		18	REMOVE SCREW, BOLT, ETC.
		3	DFORBIT STRUCTURE
61	1		SUBSYSTEM POSITIONING
	1	1.2	ATTACHMENT
		3	ATTACH CRANE HOOKS
		3	DFORBIT STRUCTURE
	2	1.3	TRANSPORT
		4	HOIST WITH CRANE
		3	DFORBIT STRUCTURE
		5	MOVE WITH CRANE
		3	DFORBIT STRUCTURE
		6	LOWER WITH CRANE
		3	DFORBIT STRUCTURE
	3	1.4	DETACHMENT
		7	DETACH CRANE HOOKS
		3	DFORBIT STRUCTURE
62	20		SUB-MODULE REMOVAL
	1	20.1	SM/MM DEMATING
		13	DISCONNECT CABLES, ETC.
		3	DFORBIT STRUCTURE
		17	LOOSEN SCREW, BOLT, ETC.
		3	DFORBIT STRUCTURE
		18	REMOVE SCREW, BOLT, ETC.
		3	DFORBIT STRUCTURE
63	1		SUBSYSTEM POSITIONING
	1	1.2	ATTACHMENT
		3	ATTACH CRANE HOOKS
		5	AFRO SHELL STRUCTURE
	2	1.3	TRANSPORT
		4	HOIST WITH CRANE
		5	AFRO SHELL STRUCTURE
		5	MOVE WITH CRANE
		5	AFRO SHELL STRUCTURE
		6	LOWER WITH CRANE
		5	AFRO SHELL STRUCTURE
	3	1.4	DETACHMENT
		7	DETACH CRANE HOOKS
		5	AFRO SHELL STRUCTURE
64	20		SUB-MODULE REMOVAL
	1	20.1	SM/MM DEMATING
		13	DISCONNECT CABLES, ETC.
		12	PARACHUTE TRUSS STRUCT.
		17	LOOSEN SCREW, BOLT, ETC.
		12	PARACHUTE TRUSS STRUCT.
		18	REMOVE SCREW, BOLT, ETC.
		12	PARACHUTE TRUSS STRUCT.
65	1		SUBSYSTEM POSITIONING
	1	1.2	ATTACHMENT
		3	ATTACH CRANE HOOKS

TABLE III.3 (Continued)

			12 PARACHUTE TRUSS STRUCT.
2	1.3	TRANSPORT	
	4	HOIST WITH CRANE	
			12 PARACHUTE TRUSS STRUCT.
	5	MOVE WITH CRANE	
			12 PARACHUTE TRUSS STRUCT.
	6	LOWER WITH CRANE	
			12 PARACHUTE TRUSS STRUCT.
3	1.4	DETACHMENT	
	7	DETACH CRANE HOOKS	
			12 PARACHUTE TRUSS STRUCT.
66	22	MAJOR MODULE BIO-ASSAY	
	1	22.1 BIO ASSAY	
		18 REMOVE SCREW, BOLT, ETC.	
			12 PARACHUTE TRUSS STRUCT.
69	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
			12 PARACHUTE TRUSS STRUCT.
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
			12 PARACHUTE TRUSS STRUCT.
		5 MOVE WITH CRANE	
			12 PARACHUTE TRUSS STRUCT.
		6 LOWER WITH CRANE	
			12 PARACHUTE TRUSS STRUCT.
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
			12 PARACHUTE TRUSS STRUCT.
70	12	SUB-MODULE INSTALLATION	
	1	12.1 SUBMOD/MMOD MATING	
		15 INSERT SCREW, BOLT, ETC.	
			12 PARACHUTE TRUSS STRUCT.
		16 TIGHTEN SCREW, BOLT, ETC.	
			12 PARACHUTE TRUSS STRUCT.
		12 CONNECT CABLES, HOSES, ETC.	
			12 PARACHUTE TRUSS STRUCT.
71	13	SUB-MODULE INSTALLATION CHECKOUT	
	1	13.1 SM/MM MATE CHECK	
		8 VISUAL INSPECTION	
			12 PARACHUTE TRUSS STRUCT.
77	22	MAJOR MODULE BIO-ASSAY	
	1	22.1 BIO ASSAY	
		18 REMOVE SCREW, BOLT, ETC.	
			5 AFRO SHELL STRUCTURE
80	1	SUBSYSTEM POSITIONING	
	1	1.2 ATTACHMENT	
		3 ATTACH CRANE HOOKS	
			5 AFRO SHELL STRUCTURE
	2	1.3 TRANSPORT	
		4 HOIST WITH CRANE	
			5 AFRO SHELL STRUCTURE
		5 MOVE WITH CRANE	
			5 AFRO SHELL STRUCTURE
		6 LOWER WITH CRANE	
			5 AFRO SHELL STRUCTURE
	3	1.4 DETACHMENT	
		7 DETACH CRANE HOOKS	
			5 AFRO SHELL STRUCTURE
81	12	SUB-MODULE INSTALLATION	
	1	12.1 SUBMOD/MMOD MATING	
		15 INSERT SCREW, BOLT, ETC.	

TABLE III.3 (Continued)

		5 AFROSHELL STRUCTURE
	16	TIGHTEN SCREW, BOLT, ETC.
		5 AFROSHELL STRUCTURE
	12	CONNECT CABLES, HOSES, ETC.
		5 AFROSHELL STRUCTURE
87	13	SUB-MODULE INSTALLATION CHECKOUT
	1	13.1 SM/MM MATE CHECK
		8 VISUAL INSPECTION
		5 AFROSHELL STRUCTURE
83	22	MAJOR MODULE BIO-ASSAY
	1	22.1 BIO ASSAY
		18 REMOVE SCREW, BOLT, ETC.
		7 CANISTER, AFT
85	1	SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		7 CANISTER, AFT
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE
		7 CANISTER, AFT
		5 MOVE WITH CRANE
		7 CANISTER, AFT
		6 LOWER WITH CRANE
		7 CANISTER, AFT
	3	1.4 DETACHMENT
		7 DETACH CRANE HOOKS
		7 CANISTER, AFT
86	12	SUB-MODULE INSTALLATION
	1	12.1 SUBMOD/MMOD MATING
		15 INSERT SCREW, BOLT, ETC.
		7 CANISTER, AFT
		16 TIGHTEN SCREW, BOLT, ETC.
		7 CANISTER, AFT
		12 CONNECT CABLES, HOSES, ETC.
		7 CANISTER, AFT
87	13	SUB-MODULE INSTALLATION CHECKOUT
	1	13.1 SM/MM MATE CHECK
		8 VISUAL INSPECTION
		7 CANISTER, AFT
88	14	MAJOR MODULE/USE INTERCONNECTION
	1	14.1 SM/MM-USE E/CONN
		12 CONNECT CABLES, HOSES, ETC.
		7 CANISTER, AFT
89	8	SYSTEM FUNCTIONAL TEST
	1	8.1 F/C PERF. VER. TEST
		14 FUNCTIONAL TESTING
		7 CANISTER, AFT
90	16	MAJOR MODULE/USE DISCONNECTION
	1	16.1 SM/MM-USE E/DISCONN
		13 DISCONNECT CABLES, ETC.
		7 CANISTER, AFT
91	22	MAJOR MODULE BIO-ASSAY
	1	22.1 BIO ASSAY
		18 REMOVE SCREW, BOLT, ETC.
		6 CANISTER, FORWARD
94	1	SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		1 VERNIER STRUCTURE
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE
		1 VERNIER STRUCTURE

TABLE III.3 (Continued)

- 5 MOVE WITH CRANE
  - 1 VERNIER STRUCTURE
- 6 LOWER WITH CRANE
  - 1 VERNIER STRUCTURE
- 3 1.4 DETACHMENT
  - 7 DETACH CRANE HOOKS
  - 1 VERNIER STRUCTURE
- 95 12 SUB-MODULE INSTALLATION
  - 1 12.1 SUBMOD/MMOD MATING
    - 15 INSERT SCREW,BOLT,ETC.
    - 6 CANISTER, FOREWARD
    - 16 TIGHTEN SCREW,BOLT,ETC.
    - 6 CANISTER, FOREWARD
    - 12 CONNECT CABLES,HOSES,ETC
    - 6 CANISTER, FOREWARD
- 96 13 SUB-MODULE INSTALLATION CHECKOUT
  - 1 13.1 SM/MM MATE CHECK
    - 8 VISUAL INSPECTION
    - 6 CANISTER, FOREWARD
- 97 1 SUBSYSTEM POSITIONING
  - 1 1.2 ATTACHMENT
    - 3 ATTACH CRANE HOOKS
    - 6 CANISTER, FOREWARD
  - 2 1.3 TRANSPORT
    - 4 HOIST WITH CRANE
    - 6 CANISTER, FOREWARD
    - 5 MOVE WITH CRANE
    - 6 CANISTER, FOREWARD
    - 6 LOWER WITH CRANE
    - 6 CANISTER, FOREWARD
  - 3 1.4 DETACHMENT
    - 7 DETACH CRANE HOOKS
    - 6 CANISTER, FOREWARD
- 98 24 FLIGHT CAPSULE SYSTEM PACKING
  - 1 24.1 F/C PACKING
    - 15 INSERT SCREW,BOLT,ETC.
    - 6 CANISTER, FOREWARD
    - 16 TIGHTEN SCREW,BOLT,ETC.
    - 6 CANISTER, FOREWARD
- 99 25 FLIGHT CAPSULE SYSTEM SHIPPING
  - 1 25.1 F/C SHIPPING
    - 1 MOVE ASSEMBLY MANUALLY
    - 1 VERNIER STRUCTURE
- 12 W FLIGHT CAPSULE SYST. RECEIVING + INSP.
  - 1 1 SUBSYSTEM POSITIONING
    - 1 1.2 ATTACHMENT
      - 3 ATTACH CRANE HOOKS
      - 1 VERNIER STRUCTURE
    - 2 1.3 TRANSPORT
      - 4 HOIST WITH CRANE
      - 1 VERNIER STRUCTURE
      - 5 MOVE WITH CRANE
      - 1 VERNIER STRUCTURE
      - 6 LOWER WITH CRANE
      - 1 VERNIER STRUCTURE
    - 3 1.4 DETACHMENT
      - 7 DETACH CRANE HOOKS
      - 1 VERNIER STRUCTURE
  - 3 1 SUBSYSTEM POSITIONING
    - 1 1.5 INSPECTION
      - 8 VISUAL INSPECTION
      - 1 VERNIER STRUCTURE



TABLE III.3 (Continued)

4	5	SUBSYSTEM FUNCTIONAL TESTING
	1	5.1 S/S TEST PROC. SEQ
		14 FUNCTIONAL TESTING
		1 VERNIER STRUCTURE
5	14	MAJOR MODULE/USE INTERCONNECTION
	1	14.1 SM/MM-USE E/CONN
		12 CONNECT CABLES,HOSES,ETC
		1 VERNIER STRUCTURE
6	8	SYSTEM FUNCTIONAL TEST
	1	8.1 F/C PERF.VER.TEST
		14 FUNCTIONAL TESTING
		1 VERNIER STRUCTURE
7	16	MAJOR MODULE/USE DISCONNECTION
	1	16.1 SM/MM-USE E/DISCONN
		13 DISCONNECT CABLES,ETC.
		1 VERNIER STRUCTURE
13	X	PLANETARY VEHICLE MARRIAGE
	1	1 SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		1 VERNIER STRUCTURE
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE
		1 VERNIER STRUCTURE
		5 MOVE WITH CRANE
		1 VERNIER STRUCTURE
		6 LOWER WITH CRANE
		1 VERNIER STRUCTURE
	3	1.4 DETACHMENT
		7 DETACH CRANE HOOKS
		1 VERNIER STRUCTURE
4	1	SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CRANE HOOKS
		1 VERNIER STRUCTURE
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE
		1 VERNIER STRUCTURE
		5 MOVE WITH CRANE
		1 VERNIER STRUCTURE
		6 LOWER WITH CRANE
		1 VERNIER STRUCTURE
	3	1.4 DETACHMENT
		7 DETACH CRANE HOOKS
		1 VERNIER STRUCTURE
5	14	MAJOR MODULE/USE INTERCONNECTION
	1	14.2 SM/MM-USE M/CONN
		12 CONNECT CABLES,HOSES,ETC
		1 VERNIER STRUCTURE
6	21	MAJOR MODULE MASS PROPERTIES CHECK
	1	21.1 SM/MM MASS PROPERT
		14 FUNCTIONAL TESTING
		1 VERNIER STRUCTURE
7	14	MAJOR MODULE/USE INTERCONNECTION
	1	14.1 SM/MM-USE E/CONN
		12 CONNECT CABLES,HOSES,ETC
		1 VERNIER STRUCTURE
8	8	SYSTEM FUNCTIONAL TEST
	1	8.1 F/C PERF.VER.TEST
		14 FUNCTIONAL TESTING
		1 VERNIER STRUCTURE
9	16	MAJOR MODULE/USE DISCONNECTION

TABLE III.3 (Continued)

	1	16.1	SM/MM-USE E/DISCNN	
		13	DISCONNECT CABLES, ETC.	
			1 VERNIER STRUCTURE	
	2	16.2	SM/MM-USE M/DISCNN	
		13	DISCONNECT CABLES, ETC.	
			1 VERNIER STRUCTURE	
10	20		SUB-MODULE REMOVAL	
	1	20.1	SM/MM DEMATING	
		13	DISCONNECT CABLES, ETC.	
			1 VERNIER STRUCTURE	
		17	LOOSEN SCREW, BOLT, ETC.	
			1 VERNIER STRUCTURE	
		18	REMOVE SCREW, BOLT, ETC.	
			1 VERNIER STRUCTURE	
11	1		SUBSYSTEM POSITIONING	
	1	1.2	ATTACHMENT	
		3	ATTACH CRANE HOOKS	
			1 VERNIER STRUCTURE	
	2	1.3	TRANSPORT	
		4	HOIST WITH CRANE	
			1 VERNIER STRUCTURE	
		5	MOVE WITH CRANE	
			1 VERNIER STRUCTURE	
		6	LOWER WITH CRANE	
			1 VERNIER STRUCTURE	
	3	1.4	DETACHMENT	
		7	DETACH CRANE HOOKS	
			1 VERNIER STRUCTURE	
14	Y		F/C SYSTEM ESA ASSEMBLY + TEST	
	1	1	SUBSYSTEM POSITIONING	
		1	1.2 ATTACHMENT	
			3 ATTACH CRANE HOOKS	
			1 VERNIER STRUCTURE	
		2	1.3 TRANSPORT	
			4 HOIST WITH CRANE	
			1 VERNIER STRUCTURE	
			5 MOVE WITH CRANE	
			1 VERNIER STRUCTURE	
			6 LOWER WITH CRANE	
			1 VERNIER STRUCTURE	
		3	1.4 DETACHMENT	
			7 DETACH CRANE HOOKS	
			1 VERNIER STRUCTURE	
	2	20	SUB-MODULE REMOVAL	
		1	20.1 SM/MM DEMATING	
			13 DISCONNECT CABLES, ETC.	
			7 CANISTER, AFT	
			17 LOOSEN SCREW, BOLT, ETC.	
			7 CANISTER, AFT	
			18 REMOVE SCREW, BOLT, ETC.	
			7 CANISTER, AFT	
	3	5	SUBSYSTEM FUNCTIONAL TESTING	
		1	5.1 S/S TEST PROC. SEQ	
			14 FUNCTIONAL TESTING	
			1 VERNIER STRUCTURE	
4	16		MAJOR MODULE/USE DISCONNECTION	
		1	16.1 SM/MM-USE E/DISCNN	
			13 DISCONNECT CABLES, ETC.	
			1 VERNIER STRUCTURE	
5	3		SUBSYSTEM INSTALLATION	
		1	3.1 S/S COMPONENT PLACE	
			1 MOVE ASSEMBLY MANUALLY	

TABLE III.3 (Continued)

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		32 PYRO CONT(C+A)BASE FRAME
2	3.2	S/S COMP ATTACH
		15 INSERT SCREW,BOLT,ETC.
		32 PYRO CONT(C+A)BASE FRAME
3	3.3	S/S COMP INTRCNECT
		12 CONNECT CABLES,HOSES,ETC
		32 PYRO CONT(C+A)BASE FRAME
6	3	SUBSYSTEM INSTALLATION
	1	3.1 S/S COMPONNT PLACE
		1 MOVE ASSEMBLY MANUALLY
		34 PYROTECHNICS BATTERIES
	2	3.2 S/S COMP ATTACH
		15 INSERT SCREW,BOLT,ETC.
		34 PYROTECHNICS BATTERIES
	3	3.3 S/S COMP INTRCNECT
		12 CONNECT CABLES,HOSES,ETC
		34 PYROTECHNICS BATTERIES
7	4	SUBSYSTEM/OSE INTERCONNECTION
	1	4.1 A/B S/S-OSE E/CONN
		12 CONNECT CABLES,HOSES,ETC
		9 VERNIER PROPULSION S/S
	2	4.2 A/B S/S-OSE M/CONN
		12 CONNECT CABLES,HOSES,ETC
		9 VERNIER PROPULSION S/S
8	5	SUBSYSTEM FUNCTIONAL TESTING
	1	5.1 S/S TEST PROC. SEQ
		14 FUNCTIONAL TESTING
		9 VERNIER PROPULSION S/S
9	6	SUBSYSTEM/OSE DISCONNECTION
	1	6.1 A/B S/S-OSE E/DSCN
		13 DISCONNECT CABLES,ETC.
		9 VERNIER PROPULSION S/S
	2	6.2 A/B S/S-OSE M/DSCN
		13 DISCONNECT CABLES,ETC.
		9 VERNIER PROPULSION S/S
10	4	SUBSYSTEM/OSE INTERCONNECTION
	1	4.1 A/B S/S-OSE E/CONN
		12 CONNECT CABLES,HOSES,ETC
		51 SCIENCE S/S BASE FRAME
11	5	SUBSYSTEM FUNCTIONAL TESTING
	1	5.1 S/S TEST PROC. SEQ
		14 FUNCTIONAL TESTING
		51 SCIENCE S/S BASE FRAME
12	6	SUBSYSTEM/OSE DISCONNECTION
	1	6.1 A/B S/S-OSE E/DSCN
		13 DISCONNECT CABLES,ETC.
		51 SCIENCE S/S BASE FRAME
13	22	MAJOR MODULE BIO-ASSAY
	1	22.1 BIO ASSAY
		18 REMOVE SCREW,BOLT,ETC.
		1 VERNIER STRUCTURE
14	1	SUBSYSTEM POSITIONING
	1	1.2 ATTACHMENT
		3 ATTACH CHANE HOOKS
		6 CANISTER, FOREWARD
	2	1.3 TRANSPORT
		4 HOIST WITH CRANE
		6 CANISTER, FOREWARD
		5 MOVE WITH CRANE
		6 CANISTER, FOREWARD
		6 LOWER WITH CRANE
		6 CANISTER, FOREWARD

TABLE III.3 (Continued)

	3	1.4	DETACHMENT	
		7	DETACH CRANE HOOKS	
		6	CANISTER, FOREWARD	
15	12		SUB-MODULE INSTALLATION	
	1	12.1	SUBMOD/MMOD MATING	
		15	INSERT SCREW, BOLT, ETC.	
		6	CANISTER, FOREWARD	
		16	TIGHTEN SCREW, BOLT, ETC.	
		6	CANISTER, FOREWARD	
		12	CONNECT CABLES, HOSES, ETC	
		6	CANISTER, FOREWARD	
16	4		SUBSYSTEM/USE INTERCONNECTION	
	1	4.1	A/B S/S-USE E/CONN	
		12	CONNECT CABLES, HOSES, ETC	
		6	CANISTER, FOREWARD	
	2	4.2	A/B S/S-USE M/CONN	
		12	CONNECT CABLES, HOSES, ETC	
		6	CANISTER, FOREWARD	
17	5		SUBSYSTEM FUNCTIONAL TESTING	
	1	5.1	S/S TEST PROC. SEQ	
		14	FUNCTIONAL TESTING	
		6	CANISTER, FOREWARD	
18	6		SUBSYSTEM/USE DISCONNECTION	
	1	6.1	A/B S/S-USE E/DSCN	
		13	DISCONNECT CABLES, ETC.	
		6	CANISTER, FOREWARD	
	2	6.2	A/B S/S-USE M/DSCN	
		13	DISCONNECT CABLES, ETC.	
		6	CANISTER, FOREWARD	
19	14		MAJOR MODULE/USE INTERCONNECTION	
	1	8.1	F/C PERF. VER. TEST	
		12	CONNECT CABLES, HOSES, ETC	
		1	VERNIER STRUCTURE	
	2	14.2	SM/MM-USE M/CONN	
		12	CONNECT CABLES, HOSES, ETC	
		1	VERNIER STRUCTURE	
20	8		SYSTEM FUNCTIONAL TEST	
	1	16.1	SM/MM-USE E/DISCNN	
		14	FUNCTIONAL TESTING	
		1	VERNIER STRUCTURE	
21	16		MAJOR MODULE/USE DISCONNECTION	
	1	1.2	ATTACHMENT	
		13	DISCONNECT CABLES, ETC.	
		1	VERNIER STRUCTURE	
	2	16.2	SM/MM-USE M/DISCNN	
		13	DISCONNECT CABLES, ETC.	
		1	VERNIER STRUCTURE	
15	2		F/C SYSTEM TERMINAL STERILIZATION	
	1	1	SUBSYSTEM POSITIONING	
		1	14.1 SM/MM-USE E/CONN	
		3	ATTACH CRANE HOOKS	
		1	VERNIER STRUCTURE	
	2	1.3	TRANSPORT	
		4	HOIST WITH CRANE	
		1	VERNIER STRUCTURE	
		5	MOVE WITH CRANE	
		1	VERNIER STRUCTURE	
		6	LOWER WITH CRANE	
		1	VERNIER STRUCTURE	
	3	1.4	DETACHMENT	
		7	DETACH CRANE HOOKS	
		1	VERNIER STRUCTURE	

TABLE III.3 (Continued)

- 2 14 MAJOR MODULE/OSE INTERCONNECTION
  - 1 14.1 SM/MM-05E E/CONN
    - 12 CONNECT CABLES,HOSES,ETC
    - 1 VERNIER STRUCTURE
  - 2 14.2 SM/MM-05E M/CONN
    - 12 CONNECT CABLES,HOSES,ETC
    - 1 VERNIER STRUCTURE
    - 20 TOLR S/A