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LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

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ATM No.	Issue Date	Author	Title
1A	8/31/65	R. Stegler	Outline-ALSEP Manufacturing Plan
2	9/1/65	R. Magee	ALSEP Experiment Equipment Re- quirements
3A	9/17/65	A. Schorken	ALSEP Integrated Test Plan & Outlin
4A	9/9/65	R. Stegler	ALSEP Mockup Specification
5	9/14/65	J. Clayton	MSC Critique of Bendix Proposal
6	9/16/65	S. Ellison	ALSEP Reliability Program Plan
7	9/17/65	A. Schorken	ALSEP Test Plan Scope
8	9/17/65	A. Schorken	ALSEP Qualification Plan System Test Objectives
9	9/20/65	L. McCartin	ALSEP System Concept
10	9/20/65	Exp. Group	ALSEP Experiment Interface Alloca- tions
11	9/20/65	G. Oser	Tools Required for Emplacement of Lunar Surface Experiments
12	9/23/65	Exp. Group	ALSEP Review of System Require- ments on Experiments
13	9/24/65	K. More	LGE Reference Design
14A	11/29/65	K. More	ALSEP Experiment Combinations
15A	11/30/65	A. Schorken	ALSEP Ground Operations Plan- Checkout Logic and Flow
16	9/29/65	T. King	Parametric Reliability Data
17	9/29/65	R. Schmidt	Evaluation of ALSEP Gravimeter Thermal Design

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18A	10/8/65	V. Hutton	Review of TRW, TAPLE Report
19A	10/14/65	C. Omarzu	RTG Report Review
20	9/29/65	R. Schmidt	ALSEP Gravity Experiment-Bell Aerosystems Instrument
21	9/29/65	K. More	ALSEP Experiment Interface Con- flicts
22	9/30/66	P. Tormohlen	Data Survey Memo-Task 3.1.4.1A
23A	10/14/65	H. Lawrence	Phase II ALSEP Document Require- ments List
24	9/30/65	S. Ellison	ALSEP Quality Program Plan- Detailed Outline
25	10/1/65	T. King	Reliability Goal-Power Supply
26	9/29/65	L. McCartin	ALSEP System Concept Selection
27	9/29/65	A. Schorken	GSE Development & Test Plan-Scope, Objectives and Logic
28	10/1/65	V. Hutton	Data Subsystem Preliminary Functional Requirements
29	10/4/65	R. Shay	Definition of Ground Support Equip- ment
30	10/5/65	R. Stegler	Preliminary Manufacturing Flow Charts
31	10/5/65	K. More	Johnson Proposal Evaluation
32A	11/13/65	P. Tormohlen	Preliminary Human Factors Require- ments
	10/6/65	V. Hutton	Link Analysis for ALSEP

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4	10/6/65	V. Hutton	Communications System Performance
35B	12/29/65	V. Hutton	ALSEP PCM Telemetry Format
36	10/7/65	M. Katz	Structural/Thermal Subsystem Requirements
37	10/7/65	A. Schorken	GSE Requirements Document
38A	10/7/65	P. Tormohlen	ALSEP Mission Operation and Test Analysis
39A	11/5/65	H. Cornille	Preliminary Parameter Allocation Spec.
40A	10/8/65	K. More	Interim Performance & Interface Spec.
	10/8/65	R. Stegler	Draft-Section 7.0 Manufacturing Controls of ALSEP Manufacturing Plan
42	10/6/65	A. Schorken	ALSEP Preliminary Test List
43	10/8/65	T. King	Initial ALSEP Reliability Prediction
44A	11/19/65	T. King	Subsystem Reliability Goals
45C	1/7/55	R. Miley	Configuration Management Report, Mass Properties and Materials
46	10/13/65	J. Clayton	Master Schedule, Preliminary
47	10/13/65	V. Hutton	Preliminary Study of Data Storage Requirements for ALSEP
48	10/13/65	C. Omarzu	RTG Interface Definition
49A	11/3/65	P. Tormohlen	ALSEP Training Plan Outline
50	10/15/65	S. Ellison	ALSEP Reliability Program Plan - Reliability Engineering Activities
51	10/18/65	R. Shay	Materials

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52A	11/5/65	R. Shay	Thermal Cooling Evaluation
53A	11/10/65	P. Tormohlen	ALSEP Support Plan Outline
54	10/19/65	A. Schorken	ALSEP Test Description, Task 3.1.5.9.2
55	10/19/65	T. King	Redundancy in Data Subsystem
56A	11/10/65	P. Tormohlen	Mission & Crew Engineering Plan Outline
57	10/20/65	C. Murtaugh	Engineering Plan (Customer Liaison)
58A	11/12/65	C. Omarzu	PG&C Subsystem Requirement
59	10/20/65	A. Schorken	System Test Considerations
60	10/8/65	J. Clayton	Management Plan
61	10/25/65	J. Clayton	Make or Buy Analysis
62	10/13/65	A. Schorken	Component Test Considerations
63	10/20/65	A. Schorken	Component Test Criteria
64A	10/22/65	P. Sondeen	Experiment Cabling Characteristics
65	10/25/65	R. Curran	ALSEP Antenna Orientation
66	10/25/65	P. Tormohlen	Preliminary Maintenance Concept
67	10/15/65	R. Stegler	Facilities Plan-Outline
68	10/22/65	R. Stegler	Deliverable Hardware List-Mfg. Plan
69	10/25/65	A. Schorken	GSE Requirements, Task 3.1.5.11.4
70	10/2/65	A. Schorken	Description of Pre-Launch Checkout
71	10/26/65	V. Hutton	ALSEP Antenna Design

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72	10/26/65	K. More	Preliminary Mockup Drawings
73	10/26/65	R. Stegler	Manufacturing Reports
74	10/18/65	W. Helmreich	Configuration Mgmt. Scope and Objectives
75	10/25/65	A. Schorken	Ground Operations Plan
76	10/20/65	W. Helmreich	Configuration Management Plan (Engineering Records Control Procedures)
77	10/6/65	P. Sondeen	I&I Subsystem; Sensor Analysis
78	10/13/65	P. Sondeen	Housekeeping TM Requirements
79A	12/27/65	P. Sondeen S. Ellison	ALSEP Reliability Program Plan-Parts and Materials Program
80	11/1/65	R. Curran	Antenna Optics-Sun Interference
81	10/28/65	P. Tormohlen	3-D Mockups
82	11/3/65	C. Omarzu	PG&C Subsystem Interface Specification
83	11/1/65	C. Ahlstrom	Test Description (GSE)
84	11/5/65	K. More	Experiment Preliminary Design
85	10/27/65	J. Ohno	Review of Material Requirements for ALSEP
86	11/8/65	E. Butler	Quality Program Plan-Quality Control
87	11/8/65	H. Vredeveld H. Miller	Appendix to Link Analysis for ALSEP
88	11/9/65	R. Curran	Antenna Optics Sun Interference
89	10/26/65	P. Sondeen W. Reynolds	Experiments Cabling

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0	11/10/65	V. Hutton	Data S/S Preliminary Design
91	11/8/65	T. King	Reliability Prediction No. 2
92	11/10/65	L. McCartin	Fuel Cask vs. Integrated RTG Evaluation
93	11/11/65	J. Loridas	Tentative Command Sequence for ALSEP
94	11/12/65	C. Ahlstrom	Preliminary Analysis of Mechanical Environmental Effects on ALSEP from LEM
95A	12/3/65	W. Helmreich	Release of Hard Mockup Layout
96	11/12/65	P. Tormohlen	Preliminary Operational and Maintenance Functional Flow
97	11/1/65	J. Clayton	Management Plan-Design & Staffing Controls
98A	12/7/65	J. Clayton	Management Control Plan-Responsibility and Description
99	11/15/65	J. Patterson	Thermal Test Requirements & Plans
100A	11/30/65	J. Hendrickson	Vendor Evaluation for Transmitter and Receiver
101	11/10/65	R. Shay	EMI, RFI and Grounding Spec.
102	11/5/65	J. Clayton	Vendor Selection Criteria
103	11/15/65	S. Ellison	Reliability Program Plan-Organization and Program Control
104	11/17/65	J. Ohno	A Review of Thermal Coating Materials
105	11/15/65	A. Schorken	Integrated Test Sequence and Schedule

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106	Never Issued		
107	11/18/65	P. Tormohlen	Study of Antenna Erection and Pointing
108	11/19/65	P. Tormohlen	Phase I ALSEP M&C Test Program Pla
109	11/19/65	L. Hearin	ALSEP Experiments Thermal Control Preliminary Design
110	11/19/65	C. Ahlstrom	ALSEP GSE Hardware List
111	11/22/65	H. Miller	Acceptance Checkout Equipment (ACE) Utilization on the ALSEP Program
112	11/22/65	H. Cornille	Handcarry Transportation Modes
113	11/22/65	A. Schorken	Preliminary Test Sequence and Schedule
114	11/23/65	C. Ahlstrom	Test Plan Hardware List
115	11/15/65	C. Ahlstrom	GSE Test Sequence & Schedule ←
116	11/29/65	C. Ahlstrom	ALSEP Component & System Qualification Schedule
117	11/30/65	S. Ellison	Reliability Program Plan, Section 6.0- Subcontractor Control
118	11/24/65	P. Tormohlen	3-D Mockup Evaluation
119	11/19/65	R. Stegler	Phase II Manufacturing Problems
120	12/2/65	R. Fatka	Sub Bit Encoding Evaluation
121	12/6/65	C. Ahlstrom	Support Requirements for Development Test Plan
122	11/19/65	J. Clayton	Management Control Plan-Subcontractor Statement of Work

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123	Never Issued		
124	12/3/65	E. Elshout	Make or Buy Plan - Vendor Survey
125	12/8/65	K. More	Experiment Mockup Drawings
126	12/8/65	K. More	Experiment Interface Drawings
127A	12/17/65	E. Butler	Quality Program Plan-Quality Mgmt.
128	12/8/65	R. Stegler	Draft-Manufacturing Plan
129	12/8/65	R. Curran	Human Factors Tests of Antenna Erection, Position Standing
130	12/8/65	C. Ahlstrom	GSE Test Plan, Support Requirements
131	12/6/65	C. Ahlstrom	Qualification Test Equipment Requirement
132	12/9/65	H. Cornille	Transportation Modes Analysis
133	12/6/65	A. Schorken	Test Schedules, Ground Test Plan
134	12/9/65	V. Jansen	Human Factors Test & Evaluation of Various RTG Fuel Transfer Tool Handling Configuration
135	12/9/65	V. Jansen	Cask Tilt Angle Study
136	12/9/65	R. Curran	Human Factors Test of Antenna Erection, Kneeling Position, Lowered Sight
137	12/10/65	H. Cornille	Human Factors Test of Hand Carry ALSEP Transportation Mode
138	12/10/65	R. Stegler	Draft-Phase II Manufacturing Problem Solutions
139	12/10/65	V. Hutton	ALSEP Logic Techniques Study

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140	12/10/65	W. Helmreich	Configuration Management Plan (Top Assembly & Interface Control)
141A	1/10/66	J. Clayton	Make or Buy Plan - Evaluation Criteria
142	12/13/65	K. More	Experiment S/S Specifications
143	12/1/65	J. Clayton	Documentation Plan-Recommendations
144	12/13/65	G. Oser	Experiment Cabling Deployment
145	12/14/65	T. King	Data Subsystem Reliability, Standard IC Versus Nos.
146	12/13/65	C. Ahlstrom	ALSEP Ground Operations Plan, Facilities Requirements
147	12/13/65	C. Ahlstrom	ALSEP Ground Operations Plan, Test Parameters & Acceptance Criteria
148	12/14/65	S. Ellison	Reliability Program Training and Indoctrination
149	12/13/65	C. Ahlstrom	Ground Operation Plan, Special Test Equipment
150	12/21/65	V. Hutton	Uplink Compatibility Study
151	12/21/65	V. Hutton	Discussion of Two Antenna Approach to ALSEP Data Subsystem
152	12/21/65	C. Ahlstrom	Post Qualification Test
153	12/22/65	V. Hutton	Downlink Multipath Loss
154	12/22/65	V. Hutton	Uplink Performance Analysis
155	12/27/65	H. Collicott	Central Station Thermal Control
156	12/28/65	R. Shay	GSE Configuration for Factory Test and KSC Operations

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157	12/20/65	A. Schorken	Component Qualification Status
158	12/20/65	A. Schorken	Manpower Requirements
159	12/27/65	R. Redick	Study & Test of Reach Parameters Unloading ALSEP From LEM
160	1/3/66	S. Ellison	ALSEP Reliability Program Plan- Reliability Evaluation Procedures
161	12/27/65	J. Clayton	Make or Buy Plan-Recommendations on Subcontractors Proposals
162	12/17/65	R. Stegler	Facilities Plan-Manufacturing Facilities Requirements
163	12/23/65	R. Stegler	Draft-Section 9.0-ALSEP Manufacturing Plan-Tooling Requirements
164	12/12/65	C. Murtaugh	GSE Engineering
165	12/31/65	C. Murtaugh	System Cost and Schedules
166	12/29/65	A. Schorken	ALSEP Integrated Test Plan
167	12/23/65	P. Tormohlen	Preliminary Maintenance Functional Analysis
168	12/24/65	R. Stegler	Facilities Plan-Test, Quality Assurance and Support Requirements
169	12/24/65	R. Stegler	Manufacturing Plan Test Support
170	12/28/65	R. Shay	Engineering Plan
171	12/31/65	C. Murtaugh	Subsystem Cost & Schedules
172	12/31/65	R. Stegler	Facilities Plan-Identification & Resolution of Facility Problems

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173	12/29/65	R. Stegler	Draft-Mfgr. Flow Chart-Section 5.0 of Manufacturing Plan
174	Never Issued		
175	12/31/65	C. Murtaugh	Experiment Cost and Schedules
176	12/17/65	R. Stegler	Draft-Mfgr. Plan-Section 6.0-Mfgr. Facilities Requirements
177	12/17/65	W. Helmreich	Configuration Management Plan, Change Control Procedures
178	Never Issued		
179	1/4/66	H. Miller	Preliminary GSE Configurations for Major Levels of ALSEP Testing
180	1/4/66	T. King S. Ellison	ALSEP Criticality Analysis
181	12/22/65	V. Hutton	ALSEP Downlink Data Characteristics
182	1/4/66	W. Fahling	ALSEP Initial Startup Procedure
183	1/6/66	S. Ellison	Reliability Program Plan-Schedules and Manpower
184	1/6/66	A. Schorken	Qualification Plan Hardware Flow Chart
185	1/7/66	K. Jensen	Subcontractor Schedules
186	1/7/66	K. Jensen	Subcontractor Costs
187	1/7/66	K. Jensen	Cost Estimate Forms
188	1/10/66	A. Schorken	ALSEP Test Department Organization and Responsibilities
189	1/10/66	W. Helmreich	Mockup

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190	1/10/66	H. Miller	GSE Equipment Description
191	12/29/65	P. Tormohlen	Field Evaluation of Hard Mockup
192	1/12/66	P. Tormohlen	Technical Support Plan
193	1/12/66	P. Tormohlen	Mission & Crew Technical Plan
194	1/12/66	P. Tormohlen	Technical Training Plan
195	1/11/66	P. Tormohlen	ALGE Utilization
196	1/11/66	P. Tormohlen	Sun Shield Erection
197	1/11/66	F. Harrison	Human Factors Evaluation of Descent Stage Stowage Compartment Door Redesign (GAEC)
198	1/7/66	K. Jensen	PERT & Companion Cost Plan
199	1/11/66	R. Redick	Antenna Siting
200	1/11/66	R. Redick	Experiment Tiedown
201	1/12/66	C. Omarzu	Proposed Power Conditioning Unit Design
202	1/5/66	C. Murtaugh	Experiment Engineering Plan
203	1/12/66	P. Tormohlen	ALSEP Maintainability Characteristics
204	1/10/66	C. Ahlstrom	Safety Requirements
205	1/11/66	G. Oser	Cable Deployment
206	1/12/66	E. Parker	Experiment RFI Specifications
207	1/12/66	R. Curran	Antenna Pointing Technique
208	1/13/66	P. Tormohlen	Judgment of Distance and Use of Aid of the Lunar Surface

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210	1/13/66	P. Tormohlen	Human Factors & Maintainability for GSE
211	1/13/66	P. Tormohlen	Lunar Checkout & Crew Activity
212	1/13/66	S. Ellison	Reliability Program Plan Documentation
DRAWN 213	1/20/66	L. McCartin	Justification for 85' Antenna
214	1/20/66	L. Hearin	Presentation of ALSEP Central Station Thermal Design
215	1/20/66	T. Delker	Mounting of RTG Fuel Element Cask to LEM
216	1/20/66	G. Burton	Comparative Analysis of Thermal Con- ditioning Methods for the ALSEP Central Station
217	1/20/66	L. Hearin	ALSEP Central Station Thermal Test Program Presentation
218	1/21/66	G. Psaros	ALSEP Experiments-Thermal Control
219	1/21/66	T. Delker	Passive Seismometer Mounting
220	1/20/66	G. Burton	Status of the Structural Design for the ALSEP
221	1/21/66	R. Magee	DC Isolation of Suprathermal Ion Detector Experiment
222	1/21/66	R. Magee	Time Identification of Data
223	1/14/66	R. Miley	Revised ALSEP Weight Allocation
224	1/31/66	J. Patterson	ALSEP Thermal Subsystem Thermal Test Results

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226	2/7/66	W. Fahling	Data Processor Functional Description
227	2/7/66	V. Schoep	Final Evaluation of Modulation Forms for the ALSEP Downlink
228	2/7/66	V. Schoep	Influence of Variations in MSFN Receiver Loop Bandwidth on ALSEP Downlink
229	2/8/66	C. Omarzu	Design of PCU
230	2/8/66	C. Omarzu	Summary of Current Status of GFE
231	2/8/66	J. Patterson	Thermal Test Results
232	2/8/66		Facilities Plan-Plant 2
233	2/8/66	J. Clayton	Experiment Test and Checkout Information
234	2/10/66	K. Wadleigh	Dynamic Analysis Summary
235	2/14/66	W. Fahling	Transmission of Engineering Data During the Active Seismic Mode
236	2/14/66	J. Bingham	Data Subsystem Cabling
237	1/13/66	V. Hutton	SEB Results-ALSEP Receiver, Diplexer, Transmitter

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239	4/11/66	L. Lewis	Effect of Substitution of Normal Oxide for Depleted Oxide in RTG
240	4/11/66	R. Magee	Gravimeter Experiment Interfaces
241 *	4/12/66	P. Sondeen	Acceptable Parts List
242	4/14/66	P. Sondeen	Approved Materials List
243	4/26/66	H. Beatty	Instructions for Use in Conducting Failure Mode, Effects, and Criticality Analysis
244	4/26/66	R. Magee	Lunar Surfaces Verification Tests for Charged Particle Lunar Environment Experiment
245	4/21/66	A. Micocci	Results of an Experiment to Evaluate the Ball Joint Base Antenna Design
246	4/27/66	J. Lewko	Inspection and Calibration for Experiment Test Sets
247	4/27/66	H. Lanning	Transmission Circuit Losses
248	4/27/66	H. Lanning	Limiter Degradation
249	4/27/66	J. Lewko	Suggested Experiment Test Set Configuration
250	4/28/66	H. Lanning	Downlink Power Budget for Comparing Sub-carrier & Split Phase Modulation
251	4/28/66	F. Wilburn	Demodulator VCD Bandwidth Variation Data Degradation Due to Carrier
252	4/29/66	R. Shay	System Test Set-Suprathermal Ion Detector Data Interface
253	4/27/66	L. McCartin	Block I & II Mechanical & Thermal Design
254	5/2/66	M. Bahn	ALSEP Structural Design & Loads Criteria
255	5/3/66	B. Scott	ALSEP Engineering Drawing Control Procedure

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257	5/3/66	H. Lanning	ALSEP Carrier Frequency Allocation vs Modulation Type
258	5/6/66	G. Sahadi	ALSEP Data Subsystem Test Parameter
259	5/6/66	C. Murtaugh	ALSEP/LEM Equipment Interface
260	4/29/66	C. Ahlstrom	Picket Fence Component Structural Test Procedure
261	5/10/66	F. Conklin	Data Subsystem Test Set Preliminary Design Specification
FILE 262	5/10/66	W. Fahling	Telemetry Frame Format
263	5/10/66	J. Lewko	RFI Enclosures for Equipment Test Set
264	5/10/66	A. Collins	GSE Interface for Heat Flow Experiment
265	5/10/66	J. Hendrickson	Revision of ALSEP Receiver Transmitters & Diplexer Transmitter
266	5/10/66	B. Johnson	Request for Revision of NASA Proposal-Apollo Lunar Surface Drill
267	5/11/66	J. Hendrickson	Revision of ALSEP Antenna Assembly Spec.
FILE 268	5/12/66	R. Miley	Mass Property ALSEP Systems
269	5/13/66	H. Pistor	Telemetry List
270	5/13/66	H. Pistor	Command List
271	5/16/66	L. McCartin	Interim Technical Report Tasks 3
FILE 272	5/16/66	L. McCartin	A Study of ALSEP Antenna Pointing
273	5/16/66	L. Lewis	Requirement for RTG to PCU Cable
274	5/16/66	H. Beatty	ALSEP Reliability Math Model & Prediction

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276	5/18/66	T. Gaffield	Computer Control Logic Selection
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278	5/17/66	J. Owens	Structural Design Criteria
279	5/23/66	R. Schmidt	Action Item B6-0519-25B
280	5/23/66	M. Bahn	Structure Test Plan, B1.1 ALSEP Dynamic Tests
281	5/23/66	J. Patterson	ALSEP Phase II Thermal Test Requirements
282	5/23/66	R. Shay	Response to Action Item B6-0518-08B
283	5/23/66	J. Whiteford	Exp. Cable Weights
284	5/23/66	L. Lewis	Subsystem Electronic Interconnection List
285	5/23/66	R. Fatka	ALSEP Command Decoder-Output Pulse Characteristics
286	5/23/66	J. Zimmer	Action Items on Geophone & Amplifiers
FILE 287	5/24/66	W. Tosh	Interface Definitions
FILE 288	5/24/66	L. Lewis	ALSEP System & Exp. Initialization
289	5/24/66	H. Reinhold	ALSEP Exp. Power, Light & Protection
290	5/24/66	R. Shay	Hardware Requirements on the System Test Set
291A	5/27/66	K. More	Response to Action Item B6-0518-09B
292	5/31/66	J. Whiteford	S-Band Compatibility Test
293	5/31/66	V. Hutton R. Stegler A. Schorken	Scheduled Impact of Data Subsystem Sub-contracts
294	6/2/66	L. Lewis	Magnetic-Cleanliness Guidelines
295	6/2/66	L. Lewis	LEM Exhaust Effects
296	6/3/66	P. Sondeen	ALSEP Internal Wiring

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298	6/2/66	J. Tupman	GSE Ordnance Test Set
299	6/7/66	K. More	Proposal for Transient Pressure Engineering Measurement
DRAWN 300	5/24/66	J. Lewis B. Rusky	ALSEP Gen. Familiarization Manual Special Outline
301	5/24/66	A. Micocci	Human Factors Requirements RTG/PCU Connector
302	5/24/66	A. Micocci	Recommendation on Exp. Self-Leveling Mechanism
303	5/26/66	H. Lanning	Downlink Telemetry Performance
304	5/26/66	H. Pistor	Measurement List
305	5/26/66	J. Zimmer	Response to Action Item B6-0519-24B
FILE 306	6/8/66	L. Lewis	Lunar Primary & Secondary Meteoroid Flux Buildup on Thermal Control Surface
307	6/8/66	E. Glaser	Response to Action Item B6-0602-07B
308	6/8/66	E. Glaser	Response to Action Item B6-0602-09B
309	6/9/66	L. Lewis	Intra Subsystem Cabling Requirements
310	6/10/66	P. Hansen	Safety Requirements
311	6/10/66	F. Conklin	Intra Control Wiring Color Code
312	6/10/66	E. Glaser	Multi-Purpose Tool
313	6/13/66	J. Lewko	Interface Definitions
FILE 314	6/13/66	G. Psaros	ALSEP Active Seismic Experiment Thermal Control
FILE 315	6/13/66	G. Psaros	ALSEP Passive Seismic Experiment Thermal Control
316	6/14/66	L. McCartin W. Helmreich	Action Item B6-0602-26B System, Subsystem Exp. Power Profile

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17	6/14/66	A. Schorken	Response to Action Item B6-0602-31B RTG Cask & Fuel Capsule Handling on KSC
318	6/15/66	R. Schmidt	Plan for Merging Develco Design of Active Seismic Exp. into the Existing Bendix Design
319	6/16/66	L. Lewis	Preliminary Results of Flat Conductor Cable Mechanical Tests
320	6/16/66	L. Lewis	Preliminary Results of Flat Conductor Cable Cross Talk Tests
FILE 321	6/17/66	J. Patterson L. Hearin	ALSEP Central Station Thermal Control Design
322	6/17/66	M. Bahn	ALSEP Dynamic Test Plan
323	6/17/66	S. Craig	ALSEP Maintenance Concept (Replaces ATM-66, Phase I)
FILE 324	6/17/66	H. Solt	Circuit Overloads & Problems Associated w/Commanding Mode Changes
FILE 325	6/18/66	H. Solt	ALSEP General Interface Requirements Document
FILE 326	6/21/66	H. Reinhold	ALSEP Experiment Power Control
327	6/21/66	L. Lewis	Considerations for Providing Multiple Voltages to ALSEP Experiments
328	6/21/66	W. Johnson	Review of Heat Flow Design Concept Spec.
329	6/21/66	R. Magee	Review of Performance/Design and Product Configuration Requirements Simulator, Therm Mech ALSEP/Suprathermal Ion Detector Exp.
330	6/21/66	R. Magee J. Cromwell	Plan for PI Analysis of PI Design for SIDE
331	6/22/66	L. Lewis J. Cromwell	Objectives of System Engineering Review of Brassboard Tests
332	6/22/66	F. Wilburn	Evaluation of Parameters Affecting Selection of Operation Frequency for Active Seismic Experiment

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ATM No.	Issue Date	Author	Title
333	6/23/66	J. Whiteford L. Lewis	EMI Protection Design Guidelines.
334	6/23/66	F. Harrison	Justification of 10 Foot Separation Between RTG & Central Station.
335	6/23/66	L. Lewis	Flat Conductor Cable Evaluation Report.
336	6/23/66	L. McCartin	Phase I Design Evaluation.
337	6/23/66	L. McCartin	Antenna Offset Alignment Techniques.
338	6/24/66	E. Parker	Magnetometer Experiment Power Profile.
339	6/24/66	B. Johnson	Action Item B6-0615-16B
340	6/24/66	B. Johnson	Action Items B6-0615-17B & B6-0615-35B.
341	6/24/66	L. Lewis	Selection of Flat Conductor Cable & Connectors for ALSEP Interconnection Cables.
342	6/27/66	L. Lewis	Flat Conductor Cable EMI Tests.
343	6/28/66	C. Morris	Termination of "H" Film, Insulated Flat Conductor Cable.
344	6/28/66	R. Jones	Relays vs. Silicon Controlled Rectifiers, A Reliability Comparison
345	6/28/66	R. Jones	Qualitative Reliability Considerations on the Active Seismic Experiment.
346 FILE	6/28/66	P. Hansen C. Zeleny	(Formerly ATM-38) ALSEP Mission Operational and Task Analysis.
347	6/28/66	H. Beatty	Qualification Status List - Execution Instruction.
348	6/29/66	P. Sondeen	Hughes Connectors .

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ATM No.	Issue Date	Author	Title
349	6/29/66	J. Cromwell	Flat Cable Abrasion Test.
350	6/29/66	F. Harrison	Mission & Crew Engineering Category I Test Report.
351	6/30/66	J. Cromwell	Results of Flat Conductor Cable High Temperature Tests.
352	6/30/66	R. Shay	List of GSE to be Delivered to KSC.
353	6/30/66	R. Shay	Method of Reproducing Magnetic Tape Recording for PI.
354	6/30/66	J. Cromwell	Flat Conductor Cable - Background Information.
355	7/1/66	F. Harrison	Preliminary Mission & Crew Engineering Evaluation - Active Seismic Exp.
356	7/1/66	J. Dye	Minutes of Monthly Progress Review, June 1966 - Action Item B6-0615-36B.
357	7/1/66	B. Miley	Flat Cable Spool Design.
358	7/1/66	J. Mansour	Reliability Analysis Data Subsystem Timer/Sequencer.
DRAWER 359	7/1/66	C. Pressly	Failure Rate Modifiers ALSEP Inoperative Phases.
FILE 360	7/1/66	W. Tosh	Evaluation of Interface Circuits.
361	7/5/66	A. Daun	Connector for Flat Conductor Cable.
362	7/5/66	L. Lewis	Stress-Release for Flat Conductor.
363	7/5/66	J. Whiteford	EMI Test Plans.
364	7/5/66	E. Parker	Changes in the Magnetometer Interface Control Specification.

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ATM No.	Issue Date	Author	Title
365	7/6/66	J. Zimmer	Active Seismic Experiment Preliminary Design Review.
366	7/6/66	L. McCartin	Optical Sight - Conceptual Design
367	7/6/66	B. Rusky	ALSEP Logistic Status Report, July 1966. This is found under ATM-327.
368	7/7/66	J. Hendrickson	Brassboard Hardware Availability for Preliminary S-Band Compatibility Test.
FILE 369	7/8/66	D. Douthat	Command List.
DRAWING 370	7/8/66	D. Douthat	Telemetry Measurements List.
371	7/8/66	R. Shay	Need for Vacuum Chamber for CPLE Experiment During System Test.
FILE 372	7/8/66	L. McCartin	Crew Turn-on Activity.
373	7/8/66	J. Hendrickson	Local Oscillator Rejection for ALSEP Data Subsystem.
FILE 374	7/8/66	D. Douthat	Housekeeping Data During Active Seismic Load.
375	7/8/66	J. Wilson	Data Subsystem Internal Wiring Brassboard.
DRAWING 376	7/8/66	C. Pressly	Reliability Comparison of 2 ALSEP PCU Concepts.
377	7/8/66	B. Miley	Immediate Weight Reduction Targets.
378	7/8/66	W. Tosh	Effects on Data Subsystem of a Momentary Power Dropout.
FILE 379	7/8/66	D. Douthat	Packing of Central Station Event Measurements.
380	7/8/66	L. Helmreich	Subsystem PDR Problem Resolution.

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ATM No.	Issue Date	Author	Title
FILE 381	7/8/66	H. Wilson	ALSEP Experiment Power Distribution and Protection.
FILE 382	7/8/66	A. Collins	Definition of Nominal Mode for Experiments.
383	7/8/66	N. Lenhart	Power Distribution & Signal Conditioner - Cross-Talk & Common Mode Rejection.
384	7/8/66	L. Lewis	Flat Conductor Cable Revised Weight Estimate.
FILE 385	7/11/66	R. Shay	Overload Protection to Flight Hardware.
386	7/12/66	R. Magee	Definition of Diagnostic Testing for Charged Particle Experiment Test Set.
387	7/12/66	R. Magee	Weight/Power Analysis of Suprathermal Ion Detector Experiment.
388	7/12/66	R. Limbach	Preliminary Thermal Analysis of Lunar Surface Magnetometer.
389	7/12/66	J. Lewko	Progress Report - Fault Insulation for Passive Seismic Experiment.
390	7/13/66	F. Wilburn	Data Degradation in a Phase Log - Loop with Direct Carrier Modulation.
391	7/13/66	C. Murtaugh	Flight Cable/Jumper Cable Protection Provision - B6-0630-03B.
392	7/13/66	C. Murtaugh	System Test Set - Fault Isolation & Steering Philosophy - B6-0630-05B.
393	7/13/66	C. Murtaugh	GSE/Electronic Connectors - B6-0701-03B.
394	7/15/66	L. Lewis	Magnetic Cleanliness Evaluation Report.
95	7/15/66	L. McCartin	PDR Synopsis - Systems Session (13).

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ATM No.	Issue Date	Author	Title
DRAWN 396	7/15/66	D. Douthat	Plan for Operational Contingency Study.
397	7/15/66	L. Lewis	Magnetic Field Cleanliness Request Response to Active Seismic PIs.
FILE 398	7/15/66	H. Solt	Preliminary Investigation to Determine Accuracy of Temp. Measure on RTG Hot Plate.
DRAWN 399	7/15/66	C. Ahlstrom	ALSEP System Test Requirements.
400	7/18/66	W. Harding C. Ahlstrom	Physical Problems in Installing Fuel Cask in LEM - B6-0602-31B.
401	7/19/66	L. Liepa	Specifications of Geophones for Active Seismic Experiment - B6-0711-04B.
402	7/19/66	L. Lewis	LEM Weight Reduction.
DRAWN 403	7/19/66	D. Tormohlen	SIDE ALSEP Design & Deployment B6-0712-28B.
DRAWN 404	7/19/66	H. Wilson	Power Profiles
405	7/19/66	L. McCartin	Response to Action Item B6-0712-14B.
FILE 406	7/20/66	A. Daun	Magnetic Latching Relays to be Used in Power Distribution Unit-ALSEP Control Station.
407	7/20/66	F. Harrison	Determination of Capsule Handling Tool- Locking Concept.
408	7/20/66	K. Andreassen	Fair Tried Low Powered DTL Micro- circuit Derating Investigation.
409	7/21/66	W. Tosh	Resolution of PDR Change Request No. 2-05
410	7/21/66	L. Lewis	Provision of Jumper Cable for Ground Testing.

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ATM No.	Issue Date	Author	Title
FILE 411	7/21/66	J. Wilson	Data Subsystem Grounding Philosophy.
412	7/21/66	F. Harrison	Evaluation of the North American Apollo Tool Kit.
413	7/21/66	R. Magee	Preliminary Weight Estimate for SIDE/CCGE.
414	7/22/66	F. Harrison	Interconnecting Cable Deployment Procedures.
415	7/22/66	L. Lewis	ALSEP General Familiarization Manual, A Preliminary Manuscript.
416	7/22/66	L. Lewis	Engineering Model Test Plan and Programming Schedule.
17	7/25/66	L. Liepa	Active Seismic Detection System Interface - B6-0712-34B.
418	7/25/66	P. Sondeen	Parts and Materials Test Plan.
FILE 419	7/25/66	W. Fahling	Data Processor Multiplexer Converter - Low Input Impedance.
FILE 420	7/25/66	H. Lanning	Telemetry Sync Code.
421	7/25/66	L. Lewis	Flat Conductor Cable Reel Dimensions.
FILE 422	7/25/66	L. Helmreich	Alternate Antenna Pointing Concept.
DRAWER 423	7/25/66	V. Hutton	Alternate Antenna Pointing Concept Schedule.
24	7/26/66	L. Lewis	Cross Talk & EMI Characteristics of Spooled Flat Conductor Cable.
425	7/27/66	L. Lewis	Cross Talk in Flat Conductor Cable with Low-Frequency Sine Inputs
26	7/27/66	D. Douthat	Sun Compass Geometrical Errors

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ATM No.	Issue Date	Author	Title
427	7/27/66	W. McCormick	ALSEP Logistics Status Report . August 1966
FILE 428	7/28/66	R. Kuschel	Heat Flow Experiment
Drawn 429	7/28/66	W. Johnson	Heat Flow Experiment
Drawn 430	7/28/66	W. Johnson	Heat Flow Experiment
431	7/28/66	J. Dye	Location of Cable Bobbins as Part of Experiments
432	7/28/66	A. Bedford	Connectors and Test Configurations
433	7/28/66	L. McCartin	Integration Central Station Brassboard
FILE 434	7/28/66	H. Lanning	Design Constraints on Command Decoder - Phase Locked Loop
FILE 435	7/28/66	J. Tupman	Functional Test of Active Seismic Geophone Amplifier During System

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ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
436	8/1/66	K. Andreason	Analysis of Fairchild LPDTUL 9040 Clocked Flip-flop.
437	8/1/66	W. Tosh	Control of Interface Signals.
438	8/2/66	J. Lewis	Field Maintenance Manual, Topical Outline - ALSEP Flight System & System Test Set.
FILE 439	8/2/66	H. Lanning	Command De-coder Phase Locked Loop-Attenuation of the Multiplayer Sun Signals.
FILE 440	8/3/66	H. Reinhold	ALSEP Central Station Timer.
FILE 441	8/4/66	R. Miley	Lunar Geological Equipment.
DRAWER 442	8/4/66	J. Lewko	Array "A" Experiment Data Formats for Use in ALSEP System Testing.
443	8/5/66	J. Hendrickson	Antenna-connected EMI Requirements for Data Subsystem RF Equipment.
FILE 444	8/5/66	H. Lanning	Active Seismic Frame Synchronization.
DRAWER 445	8/5/66	J. McNaughton	ALSEP Fuel Cask Thermal Shield.
446	8/5/66	A. Collins	SIDE/CCIG Weight Breakdown.
<u>Revisions</u>			
314A	7/7/66		
34A	7/29/66		
369A	7/26/66		
370A	7/8/66		

ATR-14 TUF Plan

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12 August 1966

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PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
447	8/5/66	C. Murtaugh	Action Item B6-0707-02B.
448	8/8/66	R. Schmidt	Action Item B6-0712-32B.
FILE 449	8/8/66	H. Wilson	ALSEP Power Budget - 12 August 1966.
450	8/9/66	R. Schmidt	Action Item B6-0712-31B.
451	8/9/66	R. Schmidt	Action Item B6-0805-11B.
452	8/9/66	L. Hearin	ALSEP Central Station Reflector Test Requirements.
FILE 453	8/10/66	D. Douthat	Central Station Power and Thermal Balance.
454	8/10/66	M. Bahn	Preliminary Results from Bendix Dynamic Analysis.
FILE 455	8/11/66	D. Tormohlen	ALSEP Stowed vs. Deployed Arrangement.
FILE 456	8/11/66	L. Liepa	Active Seismic Detection System Temperature Window - B6-0805-4B.
457	8/11/66	C. Taylor	Guide for the Preparation of ALSEP Maintenance Summary Analysis Forms.
458	8/11/66	C. Bryer	Action Item B6-0805-8B.
FILE 459	8/12/66	J. Zimmer	ASE Data Format - B6-0805-5B.
460	8/13/66	C. Murtaugh	Investigation of Leveling Leg Requirements
474 B	8/4/66		
416 A	8/10/66		
399 A	8/12/66		

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ATM No.	Issue Date	Author	Title
461	8/12/66	L. McCartin	ALSEP Antenna Pointing Comparative Error Analysis.
462	8/15/66	J. Zimmer/ R. Schmidt	Condition Power for Active Seismic Experiment.
FILE 463	8/15/66	J. Zimmer/ R. Schmidt	Active Seismic Word Format Comparison.
464	8/15/66	L. Liepa	Preliminary Evaluation of Piezo Electric Transducer for Thumper. B6-0805-6B.
465	8/15/66	C. Bryer	Response to Action Item B6-0805-7B.
6	8/15/66	J. Spalek	Response to Action Item B6-0712-25.
467	8/15/66	D. Kucera	Control of Pulse Rise & Fall Times Width Fair Child Logic Circuits.
468	8/16/66	A. Collins/ R. Glowacki	Flat Conductor Cable Expansion from Lunar Day to Lunar Night.
469	8/16/66	D. Courtois	TCU Transient Response Characteristics.
FILE 470	8/17/66	J. Zimmer/ R. Schmidt	Passive Listening Mode for Active Seismic Experiment.
471	8/17/66	W. Hamill	Philosophy for Electronic Modules - Fastener Tie-down & Tooling Plate Design.
WER 2	8/17/66	J. Tupman	Grenade Transmitter Operational Verification Tests.
473	8/18/66	A. Bedford	List of ALSEP Connectors.
474	8/18/66	F. Wilburn	Heat Flow Error Analysis for Rosemont Engineering.
FILE 475	8/19/66	L. McCartin	Sun Angle Limits During Deployment.

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PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
476	8/22/66	R. Limbach	Preliminary Thermal Analysis of the Supra-Thermal Ion Detector Experiment (SIDE).
477	8/25/66	G. Psaros	Thermal Analysis of the ALSEP Thumper.
478	8/22/66	F. Wilburn	HFE - Electronic System Analysis for Dynatronics.
479	8/25/66	J. Whiteford	Critique for GE Test Plan - B6-0817-04B.
480	8/23/66	A. Bickmore	Parts and Materials; Parts Application Analysis Documentation - B6-0817-22B.
481	8/24/66	R. Christen	Evaluation of the Short Backfire Antenna.
482	8/25/66	R. Limbach	Preliminary Thermal Analysis of Dust Detection.
DRAWER			
483	8/26/66	D. Perkins	Experiment Electrical Interface Definitions.
<u>Revisions</u>			
405A	8/16/66		
226A	6/29/66		
281A	8/5/66		
359A	8/16/66		

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PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
484	8/26/66	L. Snedeker	ALSEP System Grounding Philosophy B6-0817-13B.
485	8/29/66	R. Glowacki	Supplement to ATM-468 - Flat Conductor Cable Expansion from Lunar Day to Lunar Night.
486	8/29/66	F. Laux	ALSEP Screening Test.
487	8/30/66	D. Shay	Ancillary Equipment Requirements for KSC B6-0817-28B.
488	8/30/66	J. Zimmer	ASE Central Cable Connectors.
FILE 489	8/30/66	J. Zimmer	ASE Geophone & Cable Deployment & Emplace- ment.
490	8/30/66	E. Parker	Magnetometer Human Factors Test Support.
491	8/31/66	R. Schmidt	Energy Loss by Baffles on Thumper B6-0817-25B.
DRAWER 492	9/1/66	J. Lewis	ALSEP System Orientation Manual. - Topical Outline
FILE 493	9/1/66	J. Harding	ALSEP Cable Thermal Test.
FILE 494	9/1/66	R. Magee	Leveling Leg Design Concept for the CPLEE.
495	9/1/66	R. Magee	Summary of Test Plan for Prototype Model of the CPLEE.
496	9/1/66	W. McCormick	ALSEP Logistics Status Report - September.
497	9/1/66	J. Lewis	ALSEP Flight System & Ground System Familiarization Manual; Topical Outline.
FILE 498	9/2/66	J. Wilson	Data Subsystem Baseline - Command User List.
FILE 499	9/2/66	W. Helmreich	Bendix Data Requirements During Lunar Operations - B6-0817-10B.

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ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
500	9/7/66	F. Laux	Circuit Design Using Solid Tantalum Capacitors.
501	9/9/66	S. Ellison	Failure Modes, Effects, and Criticality Analysis.

Revisions

370B	8/29/66
396A	8/29/66
437A	8/31/66
268G	9/1/66
343A	9/8/66

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ATM No.	Issue Date	Author	Title
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New Numbers

502	9/12/66	A. Bickmore	Composite Parts List.
503	9/12/66	L. Lewis H. Wilson	Evaluation of Thermal Barrier Materials.
504	9/13/66	J. Zimmer	Active Seismic Experiment Test Plan.
505	9/15/66	T. Fox	Development of Space Thermal Simulation Techniques for ALSEP.
506	9/15/66	C. Murtaugh	Lunar Operations Monitoring Schedule.
507	9/15/66	J. Patel	ALSEP Parts Data Book.

Revisions

449B	9/9/66
483A	9/9/66

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ATM No.	Issue Date	Author	Title
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New Numbers

508	9/19/66	R. Magee	Review of Performance Specification for SIDE/CCGE Experiment.
509	9/20/66	L. Lewis	Magnetic and Electric Field Cleanliness Status.
510	9/20/66	J. Zimmer	ASE Detail Data Package for KSC - Action Item K6-0907-02B.
FILE 511	9/20/66	W. Helmreich	Experiment Turn-on Sequence.
512	9/20/66	L. Lewis	Preliminary Copies of Engineering Model Test Plan.
FILE 513	9/20/66	H. Wilson	Commanded Momentary Power Demands.
514	9/21/66	R. Limbach	Preliminary Thermal Analysis of Solar Wind Experiment.
515	9/22/66	G. Selby	Measurement of Magnetic and Electric Field Cleanliness and R. S. I. of ALSEP Components.

Revisions

268H	9/15/66
274C	9/7/66
370E	9/20/66

TM List

30 September 1966

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<u>A TM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
<u>New Numbers</u>			
516	9/26/66	W. Tosh	Data Subsystem/Lunar Surface Magnetometer Simulator Integration Tests.
517	9/27/66	R. Zimmer	Heat Flow Dummy Probe Availability.
518	9/28/66	J. Hendrickson	Human Factors Mock-up - ALSEP Antenna Aiming Mechanism. B6-0921-24B
519	9/29/66	W. Collins	Power Reset Circuit for the Data Processor.
520	9/29/66	R. Kuschel	Heat Flow GLA Thermal and Structural Model Schedule.
521	9/29/66	A. Daun	Materials and Construction Technology of the RTG Cables.
22	9/30/66	L. Lewis	Engineering Model Test Data Flow to Succeeding Model Releases. B6-0921-25B

Revisions

449C 9/23/66

483B 9/19/66

325A 9/15/66

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PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

523	9/30/66	G. Shelly	Draft: ALSEP Magnetic Cleanliness Tests.
524	10/3/66	H. Wilson	ALSEP Mechanically Actuated Switches.
525	10/4/66	C. Pressly	Bulova Acutron Reliability - B6-0921-28B.
526	10/4/66	A. Micocci, F. Fette, and E. Glaser	Experiment Leg Designs - B6-0921-12B.
527	10/4/66	C. Murtaugh	Glossary of ALSEP Terminology - B6-0921-01B.

528	10/5/66	W. McCormick	ALSEP Logistics Status Report - October.
529	10/5/66	O. Neau	Operational Contingency Evaluation.
530	10/6/66	L. Lewis	Bendix Comments on Violation of Single Point Grounding - B6-0921-05B.

Revisions

226B	10/4/66
268I	10/1/66

369C	10/3/66
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483C	9/26/66
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511A	10/5/66
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Data Processor Functional Description

Command List

Expts Electrical I/F Def.

Expts Turn-On

14 October 1966

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PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

131	10/10/66	L. Lewis	Schedule for Composition of EM. Initial Action Item B6-0921-26B.
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FILE

132 ✓	10/10/66	E. Marsh	Dust Detector Design.
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FILE

133	10/11/66	F. Snedeker	Central Station Heaters and Thermistors.
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FILE

134 ✓	10/13/66	F. Wilburn	Analysis of SIDE/OCGE - ALSEP Interface Circuitry.
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REAWER

135	10/13/66	M. Bahn	ALSEP Transient Analysis.
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FILE

136 ✓	10/14/66	R. Magee	Description of SIDE/OCGE Heaters for ALSEP.
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Revisions

483D	10/5/66	Expt 1/F (Electrical) Definition
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483A	10/13/66	Magnetic Cleanliness Test
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21 October 1966

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PHASE II

ATM No. Issue Date Author Title

New Numbers

✓ x ~~537~~ 537 10/17/66 D. Perkins Solar Wind Experiment Test Plan.

✓ 538 10/17/66 D. Tormohlen Crew Mockup Availability and Mission and
Crew Engineering Test Schedule.

✓ x ~~539~~ 539 10/18/66 O. Neau Operations Plan - Block 3.

✓ x FILE 540 10/18/66 W. Tosh PCM Standards.

✓ x FILE 541 ~~541~~ 10/18/66 O. Neau Operational Contingency Diagnostic Pro-
cedure.

x 542 10/20/66 R. Glowacki Lunar Surface Magnetometer - Engineer-
ing Model Test Plans.

Revisions

✓ x ~~449D~~ 449D 10/14/66 Power Budget

493A 10/20/66 Cable Thermal Properties

268J 10/15/66 Mass Properties

28 October 1966

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PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

FILE	543	10/26/66	R. Gilson	Change in Heat Flow Measurement Sequence.
FILE	544	10/27/66	R. Magee	SIDE/CCGE Power Profile.
	545	10/27/66	L. Lewis	Magnetic Cleanliness.
	546	10/27/66	R. Wallace	Magnetic and Electric Field Cleanliness Status Report.
DRAWER	547	10/28/66	A. Gilham	ALSEP System Integration Tests.

Revisions

322A	10/12/66	Dynamic Test Plan
513A	10/20/66	Commanded Momentary Power

4 November 1966

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PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

DRAWER	548	11/2/66	R. Magee	Test Plans for Acceptance Tests at Bx on SIDE/CCGE Engineering Model.
	549	10/31/66	H. Wilson	Status Review of Electrical Transient Study.
	550	11/1/66	F. Snedeker F. Wilburn	Request for Waiver of ALSEP EMI Spec.
DRAWER	551	11/2/66	S. Premier	Probability of Success for Extended ALSEP Operations.
FILE	552	11/2/66	O. Neau	ALSEP Operational Contingency Recovery and Optimization Procedures.
FILE	553	11/2/66	R. Fatka	Demodulation Performance Analysis.
	554	11/3/66	L. Lewis	Cross Talk in Screen Shielded Flat Conductor Cable.
	555	11/3/66	D. Kucera	Radiated EMI Tests on Screen Shielded Flat Conductor Cable.
	556	11/3/66	S. Craig	ALSEP Maintenance Flow Diagrams.
	557	11/3/66	O. Gencoz	ALSEP Compartment No. 1 - Stress Analysis.
	558	11/4/66	L. McCartin	A Possible Solution to the Experiment Turn-on Transient Problem.

Revisions

320A	11/3/66
361A	11/3/66
268K	11/1/66

11 November 1966

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
559	11/7/66	J. Lewis	ALSEP Transportation and Handling Manual; Topical Outline.
560	11/8/66	R. Fatka	Command Decoder Reliability Consideration.
DELETED 561	11/8/66	F. Snedeker	Reduction of Thermal Barrier Heat Leak.
562	11/10/66	F. Fette	Measuring Devices, Distance Levelling Alignment.
563	11/10/66	T. Vasilakos	ALSEP Logistics Status Report Nov. '66.
564	11/10/66	G. Psaros	Thermal Analysis of ALSEP Active Seismic Mortar Board.
565	11/10/66	S. Craig	Packing and Shipping Requirements for the ALSEP Program.
566	11/11/66	R. Magee	Test Plan for Performance Tests at Bx on SIDE/CCGE Engineering Model.
567	11/11/66	H. Reinhold	PDU and Timer Reliability Design Change Status.
568	11/11/66	R. Stegler	Guidelines for the Use of Beryllium on the ALSEP Passive Seismometer.
569	11/11/66	W. Fahling	Data Processor Reliability Considerations.
<u>Revision</u>			
502D	10/24/66	Part List	

18 November 1966

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
570	11/11/66	R. Limbach	Results of Detailed Thermal Analysis of Dust Detector.
571	11/15/66	F. Wallack	Parts Application Analysis.
572	11/15/66	G. Selby	ALSEP ^{SMI} RET System Test.
<u>573</u>	<u>11/17/66</u>	<u>R. Gilson</u>	Word Format for the Heat Flow Experiment.

Revisions

502D	10/24/66	Parts List
268L	11/15/66	Weights

25 November 1966

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
574	11/22/66	G. Cripps	Experiment Interface Monitoring with the System Test Set.
575	11/22/66	F. Harrison	Final Report - Human Factors Evaluation of Geophone Design for ASE.
FILE 576	11/22/66	W. Helmreich L. McCartin	Experiment Sequence Information.
DRAWER 577	11/22/66	J. Harris C. Coleman	Solar Wind Programing for DPS 2000 (System Test Set).
578	11/23/66	H. Reinhold	Experiment Turn-on.

2 December 1966

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
579	11/28/66	J. Zimmer	ASE Thumper Test Plan - B6-1114-07B.
DRAWER 580	11/29/66	R. Honeycutt C. Coleman	Magnetometer Programming for DPS 2000 (System Test Set).
DRAWER 581	11/29/66	R. Craig C. Coleman	Passive Seismometer Programming for DPS 2000 (System Test Set).
DRAWER 582	11/29/66	C. Phillips J. Hart C. Coleman	SIDE/CCGE Programming for DPS 2000 (System Test Set).
DRAWER 583	11/29/66	R. Moenart C. Coleman	Data Subsystem Programming for DPS 2000 (System Test Set).
DRAWER 584	11/30/66	J. Watt	Fuel Cask Mount Loads.
585	11/30/66	M. Bahn	Fuel Cask Thermal Shield Test Requirements.
DRAWER 586	11/30/66	C. Coleman	DPS 2000 (System Test Set) Programming One or More Simultaneously Operating Experiments.
587	12/ 2/66	A. Bedford L. Lewis	November Engineering Model Test Progress Report - 30 November 1966.
588	11/30/66	D. Perkins	Test Procedure for Solar Wind Experiment-Engineering Model.
589	12/ 2/66	W. Helmreich	Telemetry Calibration Data Book.
<u>Revisions</u>			
455A	11/14/66	Stored v.s. Deployed Arrangement	
268M	12/ 1/66	Mass	

9 December 1966

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

590	12/5/66	S. Premier	Single Failure Points.
DRAWN 591	12/5/66	H. Wilson	Power Demands of the ALSEP Magnetometer.
592	12/5/66	J. Zimmer	30 mc Operation of ASE - RF Link Action Item B6-1114-01B.
593	12/7/66	F. Fette	Sun Compass Design Requirements and Leveling Limitations.
DRAWN 594	12/9/66	A. Gilham	ALSEP Integrated System Tests - Acceptance Criteria.

Revisions

342A	10/27/66	Flat Conductor Tests
449E	12/6/66	Power Budget
560A	12/6/66	Cord Decoder Reliability

16 December 1966

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

<u>ATM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
<u>New Numbers</u>			
595	12/12/66	J. Psaros R. Limbach	Preliminary Thermal Analysis of Heat Flow Probe Electronics.
596	12/13/66	T. Vasilakos	ALSEP Logistics Status Report 19 Dec.'66.
597	12/14/66	H. Miller	Noise Immunity Tests - Solar Wind Spec- trometer.
598	12/13/66	F. Wilburn	Justification for Modifying the Lunar Sur- face Model.

22 and 29 December 1966

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

<u>ATM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
599	12/14/66	O. Neau	Materials Applications in ALSEP.
600	12/19/66	G. Selby	Magnetic Survey Test Report.
601	12/20/66	F. Harrison	Preliminary Familiarization Course Outlines.
602	12/21/66	J. Ball	Quality Program Performance Audit.

Revision

268 N 12/15/66

6 January 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
603	1/4/67	R. Christen	Active Seismic Grenade Antenna Study.
FILE 604	1/5/67	A. Bedford L. Lewis B. Wallace D. Hughes	December Engineering Model Test Progress Report - 31 Dec. 1966.
NO FILE 605	1/6/67	N. Pettus	Failure Rate Data for ALSEP.

13 January 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
606	1/ 9/67	P. Sondeen	Magnet Wire Characteristics.
607	1/ 9/67	J. Zimmer	Thumper Cable Deployment.
608	1/11/67	C. Bryer	ASE Thumper Test Results.

Feb 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

609	1/16/67	F. Wallack	Parts Application Analysis - Command Decoder.
610	1/16/67	F. Wallack	Parts Application Analysis - Power Conditioning Unit.
611	1/16/67	F. Wallack	Parts Application Analysis - Power Distribution Unit.
612	1/16/67	A. Bickmore	Qualification Status List - Data Sub-system.
613	1/16/67	T. Vasilakos	ALSEP Logistics Status Report - January 1967
614	1/19/67	E. VanValkenburg	Alternate Experiment Arrays for ALSEP.

Revisions

501A	1/1/67
268-O	1/15/67

FC 104-1175084

27 January 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

<u>ATM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
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New Numbers

615	1/23/67	F. Wallack	Over-sensitive Fairchild 9042 Gates.
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Revisions

571A	1/4/67		
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FC / P. H. H. H. H.
3 February 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

616	1/31/67	R. Glowacki	Test Procedure for LSM Engineering Model.
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FILE 617	2/ 2/67	J. Gedge	Dust Detector Engineering Model Development Tests.
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DRAWER 618	2/ 2/67	A. Bedford L. Lewis A. Robinson B. Wallace D. Douthat	January Engineering Model Test Progress Report
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DRAWER 619	2/ 2/67	R. Kuschel	Heat Flow Experiment Engineering Model 1 and 2 Testing Sequence.
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Revisions

274E	1/13/67
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268P	2/ 1/67
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F. C. Whitcomb

10 February 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

<u>ATM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
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New Numbers

620	2/9/67	Reliability Engineering & Assess- ment Group	Summary - Reliability Assessment Re- port.
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Revision

449F	2/10/67		
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17 February 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

561 621	2/17/67	F. Wilburn	Impact of the New Lunar Surface Information on ALSEP Design.
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Revisions

561A	2/13/67
568Q	2/15/67

24 February 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

622	2/22/67	G. Selby	ALSEP EMI Tests on the RTG.
623	2/24/67	R. Magee	Test Results of the SIDE Electronic Breadboard.
624	2/24/67	A. Bickmore	Qualification Status List - Power Sub-system.

Revisions

669D	2/22/67
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3 March 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
DRAWER 625	3/1/67	R. Redick	Evaluation of ALSEP Components at 1/6 G.
DRAWER 626	3/1/67	A. Bedford L. Lewis D. Douthat B. Wallace	February Engineering Model Test Progress Report.
<u>Revisions</u>			
NO 502F	2/21/67		
NO 507C	2/13/67		

10 March 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
FILE ✓627	3/ 6/67	V. Jansen	Feasibility of Installation of ALSD into ALSEP with LM/ALSEP in SLA.
✓628	3/ 7/67	T. Vasilakos	ALSEP Logistics Status Report - Feb.
✓629	3/ 8/67	B. Rusky	ALSEP Support Materiel List.
DRAWER ✓630	3/ 8/67	A. Robinson	Test Procedure - CPLEE Engineering Model.
DRAWER ✓631	3/10/67	G. Sahadi	Design Information on RF Antenna Cap for ALSEP Central Station Testing.
✓632	3/10/67	S. Bobey	RTG Temperature Measurement Error Analysis and Design.
DRAWER ✓633	3/13/67	R. Glowacki	LSM Engineering Model - Integration Test Results.

Revisions

~~268R~~ 268R March 1967

PC/White

17 March 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

<u>ATM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
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New Numbers

NO 634	3/13/67	J. Zimmer R. Schmidt	Active Seismic Experiment Over-all Test Plan.
NO 635	3/17/67	H. Kennedy	ALSEP Grenade Launch Assembly Test Set Manual; Topical Outline.

Revisions

~~NO 449~~ 449G 3/10/67

NO 565A 3/6/67

Addendum

NO 572 3/15/67
(Addendum 1)

FC/White

23 March 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

	<u>ATM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
	<u>New Numbers</u>			
NO	636	3/21/67	F. Wallack	Parts Application Analysis - ASE.
NO	637	3/23/67	G. Frank	ALSEP Flight A-1 Model Test Program

(FC)

~~FC~~ Whitcomb
NEC

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

<u>ATM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
<u>New Numbers</u>			
FILE 638	3/28/67	L. Marrus	Evaluation of the Heat Flow Probe Box at 1 G.
FILE 639	3/28/67	A. Bedford L. Lewis L. McCartin	Systems Engineering Assessment of 4 Proposed Flight Arrays.
No 640	3/30/67	D. P. Tormohlen	Supplement to ASE Overall Test Plan.
<u>Revisions</u>			
582A	3/29/67		

7 April 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
NO 641	4/6/67	R. Craig	CPLEE DPS 2000 (System Test Set).
NO 642	4/6/67	J. Loria	Heat Flow Programming for DPS 2000 (System Test Set).
NO 643	4/6/67	A. Bedford	March ALSEP Engineering Model Test Report.

Revision

NO 548A 3/23/67

17 April 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

	<u>ATM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
	<u>New Number</u>			
FILE	644	4/13/67	S. Bobey	Experiment Ripple-Off Circuitry Description and Analysis.

21 April 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

NO 645	4/17/67	R. Schmidt	Design Verification Test Procedure for PSE Subsystem Model EM-3.
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Drawn 646	4/20/67	C. Coleman	ALSEP Telemetry Data Simulation.
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Drawn 647	4/21/67	R. Schmidt	Thermal Shroud Storing and Handling Procedure.
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Revision

No 565B	3/31/67		
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28 April 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
NO 648	4/25/67	J. Lewko	Brief Description of the PSE Sensor Exciter.
NO 649	4/26/67	F. Wallack	Parts Application Analysis of the Power Distribution Unit.

Revisions

~~NO 268-S~~ 4/15/67

~~NO 346-B~~ 4/28/67

5 May 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

<u>ATM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
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New Numbers

(CANCELED - FIND AT EAA) NO 650	5/2/67	W. Helmreich	Incoding of Discrete Measurements.
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NO 651	5/5/67	G. Selby	ALSEP EMI Test Plan Reschedule.
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Revision

NO 242B	4/20/67		
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12 May 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
652 652	5/9/67	A. Micocci	ASE Geophones and Mortar Box Assembly Alignment Tests.
653 653	5/9/67	C. Bryer	ASE Grenade Thrust Analysis.
NO 654	5/9/67	C. Bryer	ASE Grenade Performance Analysis - Lunar versus Earth Operations.
NO 655	5/9/67	J. Zimmer	ASE Impact of Alternate Thumper Cable Configuration or Deployment.
FILE 656	5/9/67	W. Tosh	Telemetry Formats for Flights 1, 2, 3 and 4.
657 657	5/9/67	R. Wallace	Prototype Experiment Pre-Integration, Integration and Cross Talk Test Results March - April 1967.
658 658	5/10/67	H. Lanning	ALSEP Link Performance versus Antenna Pointing Error.
NO 659	5/12/67	R. Christen	Response to CDR-RFC-07-22 - ASE Redundant Antenna Study.

19 May 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

DRAWER

660	5/15/67	L. Marrus	Shield Extension to Protect Astronaut From GE Fuel Cask.
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DRAWER

661	5/16/67	A. Bedford L. Lewis	April Engineering Model Test Progress Report.
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Revisions

NO 241B 4/27/67

268T 5/15/67

274F 5/10/67

449H May '67

NO 565C 5/15/67

NO 601A May '67

26 May 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

DRAWN	662	5/22/67	L. Liepa	ASE Accuracy of Velocity Measurement.
FILE	663	5/22/67	A. Micocci	Results of PSE Deployment Tests.
NO	664	5/23/67	M. Bahn G. Lakin	Dynamic Analysis of Compartment No. 1 --LTA-3 Test Input.
NO	665	5/25/67	A. Hooke	System Test Set Magnetic Tape Usage.

Revision

10 611A 5/24/67

Bob Miley

2 June 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No. Issue Date Author Title

New Number

DRAWER

666

666

666

6/1/67

D. Cass

Prototype Central Station Model G.

FC/B Sharpe

9 June 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No. Issue Date Author Title

New Numbers

NO 667 6/6/67 G. Selby Bendix Magnetic Test Facility.

A FILE
~~668~~ 6/6/67 A. Robinson Results of the CPLEE Engineering Model Tests.

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

NO ✓ 669	6/14/67	F. Laux	Qualification Status List - ASE.
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~~DELETED~~

669 ✓ 670	6/15/67	L. Marrus	Evaluation of Solar Wind Spectrometer Experiment.
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B. Miley

30 June 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
FILE 671	6/20/67	O. Gencoz	Static and Dynamic Test Results - Compartment No. 1.
FILE ✓ 672	6/26/67	R. Fatka J. Mansour	Evaluation of the Data Subsystem Fail- ure Modes.
FILE ✓ 673	6/26/67	A. Collins	Experiment Marking Requirements.
CANCELLED ✓ 674	6/26/67	C. Ahlstrom	Convective Cooling Requirements of RTG Fuel Cask While Installed in the SLA Diagonal LM Spacecraft on the Pad.
FILE ✓ 675	6/29/67	H. Wilson	The Effect of Changes in Reserve Pow- er on Central Station Thermal Control.
DRAWER FILE ✓ 676	6/30/67	L. Marrus	Evaluation of the Use of the Lunar Support Leg to Lift the LSM from Pallet No. 1.

Revisions

NO 497A	6/1/67
NO 629A	6/26/67

14 July 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

████████ 677	6/30/67	J. Staats	Qualification Status List - Assembly, Flat Cable to Jumper Cable.
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████████ 678	7/12/67	L. Marrus	Evaluation of the Charged Particle Lunar Environment Experiment.
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████████ 679	7/14/67	L. Marrus	Evaluation of the Boom Concept for ALSEP Removal from LM.
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Revision

████████ 369F	6/19/67		
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21 July 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

<u>ATM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
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New Numbers

BOYD 058 680	7/14/67	C. Bryer	Thumper Design Evaluation Test
NO 681	7/18/67	G. Selby	Revised EMI Test Program.
FILE 682	7/19/67	G. Psaros	Thermal Analysis of the Active Seismic Experiment.
FILE 683	7/20/67	A. Bedford	Comments on ALSEP 1 SIT Command Sequencer.
CANCELLED 684	7/21/67	L. Marrus	Evaluation of the CPLEE Leg Design and Aiming Mechanism.

Revision

268 268U	7/15/67
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18 August 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No. Issue Date Author

Title

New Number

File 685	8/17/67	H. Wilson	Evaluation of Design Alternatives.
		L. Lewis	

Revisions

NO 681A	8/14/67
NO 677A	8/15/67

FC/Boyle

25 August 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

Drawn 686	8/23/67	B. Wallace	Prototype Experiment Test Results May-June 1967.
687			Never Issued.
Drawn 688	8/24/67	T. Knight K. More L. Lewis	Experiment Designer's Guide for New ALSEP Experiments.

FC/Sharpe

1 September 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

DRAWER

~~689~~

✓ 89

9/1/67

J. L. Modisette

Effects of the Lunar Module on ALSEP

FC/B sample

22 September 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No. Issue Date Author Title

New
Numbers

████████ 690	9/12/67	A. Miccoci	Dissability Test of Alternate Conceptual Designs for ALSEP Solar Cell Color System.
DEWOLF ████████ 691	9/11/67	D. Dewhurst	████████ BAND MECHANISMS FOR CASK RETENTION
DRAWER ████████ 692	9/13/67	L. Marrus	Preliminary Test of the Heat Flow Probe Deployment
DRAWER ████████ 693	9/14/67	A. Miccoci	Results of Shirt Sleeve Test on Aided First Removal of ALSEP - Using a Shortened Boom.
NO 694	9/14/67	C. Taylor S. Craig	Data Subsystem Transmitter Support Requirements
████████ 695	9/19/67	A. Miccoci	Results of Feasibility Test Perform to determine handling aspects of Isotope Heater Decoupling Concepts for ALSEP Solar Cell Power System.

29 September 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New
Numbers

FILE 696	9/20/67	Andrews Fatka	ALSEP Address Codes
████████ 697	9/25/67	R. Simms	ALSEP Solar Power Battery Thermal Control Test Plan
NO 698	9/28/67	Reynolds	ALSEP Solar Power Simulated System Test Plan

~~████████ 699 9/29/67 REDICK UNDERWATER CUMBER GRAVITY~~

~~SIMULATION FEASIBILITY TEST~~

~~████████ 700 10/2/67 REDICK POST-VAULTING CUMBER GRAVITY~~
~~TEST (EARTH AND SPACE)~~

5 October 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New</u> <u>Numbers</u>			
NO ████████ 699	9/29/67	Redick	Under Water Lunar Gravity Simulation Feasibility Test Results
DRAWER ████████ 700	10/3/67	Redick	Post Vibration Crew Engineering Test

B. Wiley. Nova Hunter

13 October 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM no.	Issue Date	Author	Title
<u>New Numbers</u>			
NO 701	10/9/67	V. Jansen	ALSEP GSE/GAEC Installation Fixture Interface.
NO 702	10/9/67	G. Selby	Revised EMI System Compatibility Test Requirements.
DRAWER 703	10/13/67	L. Marrus	Test and Evaluation of the Heat Flow Experiment.
MELEY 704	10/13/67	A. Bedford L. Lewis	ALSEP STS Software Description and Operation.

3 November 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
Continued 705	10/23/67	J. Reeves	Minor Differences Existing Between Transmitter Qual Models and Flight Models
████ 268W	10/24/67	B. Miley	Mass Properties ALSEP Systems
NO 706	10/25/67	J. Staats	Qualification Status List Assembly, Flat Cable
████ 707	10/30/67	Kai Hsi	ALSEP Solar Power Study

B. M. J. Jones
13 November 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

note

708	11/7/67	A. Micocci	Results of CPLEE Alignment of Devices Test NOTE: This ATM replaces cancelled ATM 684.
709	11/13/67	A. Micocci	Results of Feasibility Test of Battery Mounting Interconnecting Solar Cell Power System
710	11/13/67	Kai Hsi	ALSEP Solar Power Study
NO 711	11/14/67	R. Jones	Parts Application Analysis Data Transmitter
NO 712	11/14/67	R. Jones	Parts Application Analysis Command Receiver
✓ 713	11/15/67	L. Hearin T. Fenske	Summary and Status of ALSEP Central Station Thermal Control Design

Revised Numbers

NO 274-G	9/30/67	S. Ellison	ALSEP Reliability Mathematical Model and Prediction
NO 565-E	11/13/67	S. Craig	Packaging and Shipping Requirements for the ALSEP Program

Cancelled Numbers

NO 684	7/21/67	A. Micocci	Evaluation of CPLEE Leg Design Aiming Mechanism NOTE: This ATM is being replaced by ATM-708.
NO 705	10/23/67	J. Reeves	Minor Differences Existing Between Transmitter Qual Models and Flight Models

B. Miley - Nasa

1 December 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
<i>BY</i> [REDACTED] 704	11/6/67	A. Bedford L. Lewis	ALSEP STS Software Description and Operation - Part 2.
<i>DRAWER</i> [REDACTED] 714	11/21/67	O. Neau L. Lewis	Preliminary Design Considerations for Direct Radiative Thermal (DRT) Control.
[REDACTED] 715	11/27/67	Kai Hsi	ALSEP Solar Power Study.

B. Miley-Mason

8 December 1967

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
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New Numbers

~~DRAWN~~

716 ✓16	12/4/67	Micocci	Crew Engineering Test for Handling of the Active Seismic Experiment During Deployment
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~~NO~~

717 ✓17	12/5/67	J. McDowell	Active Seismic Experiment Overall Test Plan - Revision A
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NO

✓18	12/6/67	W. Hamill	ALSEP Fasteners Studies
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~~DRAWN~~

719 ✓19	12/7/67	A. Bedford L. Lewis	Prototype Thermal Vacuum and STS Software Limits and Danger Limits
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D. Miley - 2221

10 January 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
██████ 720	12/11/67	Kai Hsi	ALSEP Solar Power Study Status Report
DRAWER ██████ 721	12/11/67	Bedford Douthat Lewis	Thermal Vacuum Contingency Plan - MASSIVE KILL HELP
MILEY ██████ 722	12/12/67	R. Beindorff	ALSEP Mission Operational and Task Sequence Description Flight Three
DRAWER ██████ 723	12/12/67	P. Krause	ASE-GLA Antenna Stowage
NO 724	12/13/67	P. Krause	ASE Thumper Weight Reduction
DRAWER ██████ 725	12/14/67	L. Cook	ALSEP Cask Support Design Rev. CCP 27
██████ 726	12/20/67	D. Simms	ALSEP Battery Test Report
NO 727	12/28/67	Kai Hsi	Simulated System Test-ALSEP Solar Power Project
NO 728	1/3/68	J. Maszatics	ALSEP Proto A Vibration Tests and Subsystem Test Specs
<u>Revised Numbers</u>			
NO 556G	11/22/67	S. Craig B. Rusky	ALSEP Maintenance Flow Diagram
NO 717A	12/5/67	J. Zimmer J. McDowell	Active Seismic Exp. Overall Test Plan
FILE 449L	12/19/67	D. Renken L. Lewis	ALSEP Power Budget

19 January 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title	
<u>New Numbers</u>				
729	729	1/5/68	G. Frank	Prototype "A" Thermal Vacuum Test Summary
730	730	1/5/68	A. Micocci	Results of Solar Cell Power System Panel Deploument Test Final Report
731	731	1/8/68	Kai Hsi	ALSEP Solar Power Study
NOV ATM 752	732	1/17/68	L. Lewis D. Douthat	Prototype "A" Thermal Vacuum Test Report
NO	733	1/17/68	L. Wagman	Qualification Test Instrumentation Requirements

2 February 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
734	1/30/68	R. Jones	Qualification Status List Command Receiver
735	1/30/68	R. Jones	Qualification Status List Data Transmitter
<u>Revised Numbers</u>			
556B2	1/22/68	S. W. Craig B. Rusky	ALSEP Maintenance Flow Diagram (Data Subsystem)
556B4	1/22/68	S. W. Craig B. Rusky	ALSEP Maintenance Flow Diagram (Magnetometer Experiments Subsystem)
556B8	1/22/68	S. W. Craig B. Rusky	ALSEP Maintenance Flow Diagram (Heat Flow Experiment Subsystem)
556B9	1/22/68	S. W. Craig B. Rusky	ALSEP Maintenance Flow Diagram Structure Thermal Subsystem)
556B10	1/22/68	S. W. Craig B. Rusky	ALSEP Maintenance Flow Diagram Charge Particle Lunar Environment Experiment Subsystem)
556B13	1/22/68	S. W. Craig B. Rusky	ALSEP Maintenance Flow Diagram (Flights 1 & 2 Configuration)
565F	1/19/68	S. W. Craig B. Rusky	Packaging and Shipping Requirements for the ALSEP Deliverable Hardware.

1 March 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

<u>ATM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
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New Numbers:

NO 736	1/31/68	D. Bianco	ALSEP Multiple Fastener Release System
DRACOL 737	2/22/68	J. McNaughton	Proto A ALSEP Central Station Thermal Analysis
738	2/23/68	McIntyre	Modified Upper Radiation Shield Deployment Evaluation
FILE 739	2/26/68	H. Grubbs	ALSEP Design Reference Task Sequence

29 March 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

	ATM NO.	ISSUE DATE	AUTHOR	TITLE
<u>New Numbers</u>				
FILE [REDACTED]	740	2/68	H. Reinhold	Central Station Power Switching Characteristics (not released).
DRAWER [REDACTED]	741	2/68	G. Psaros	Heat Loss through LSM Flight Cable.
DRAWER [REDACTED]	742	3/14/68	L. Lewis D. Douthat	Word 33 Limits for Flight 1 & 2 Qual Model.
DRAWER [REDACTED]	743	3/18/68	J. McDowell	Failure Investigation-Multiple Grenade Launching.
NO	744	3/25/68	J. Mazatics	ALSEP Proto A Vibration Test Part II.
DRAWER [REDACTED]	745	3/26/68	O. Neau L. Lewis K. Wright C. Alhstrom	Preliminary Design Considerations for On-Pad Testing Analysis.
<u>Revised Numbers</u>				
NO	733B	3/68	L. Wagman	Qualification Test Instrumentation Requirements.
NO	502G	3/12/68	J. Patel S. Ellison	Electronic Composite Parts List (ECPL).

B. Miley-BXA Houston

6 May 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
Drawer 746	3/28/68	W. McIntyre	Human Visual Performance during deployment of ALSEP and Visual Environment
NO 747	4/1/68	G. Cripps	EMI Review
FILE 748	4/6/68	O. Neau	Equipment Constraints on ALSEP Deployment Sequence
Drawer 749	4/24/68	A. Marsh W. Tosh H. Reinhold	ALSEP Automatic Switchable Load Study Final Report
NO 750	4/30/68	F. Katz	Justification of use of Proto A Primary Pallet for Thermal Vacuum Testing of Sub Pkg. II Qual Model
Drawer 751	4/30/68	L. Hearin	Thermal Analysis of ALSEP Proto A Central Station with Comparison to test Results
Drawer 752	5/1/68	L. Lewis	Proto A Thermal Vacuum Test Summary
Drawer 753	5/1/68	R. Howell H. Reinhold	Results of the Thermal Mapping Test on the ALSEP PCU

FC/Sharpe

24 May 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
✓754	5/3/68	W. Hamill	Boyd Bolts Installation and Inspection
✓755	(This number has not been used!)		
NO 756	5/8/68	Bedford	Rationale for Crosstalk Test Procedure 2333060.
DRAWER [REDACTED] 757	5/14/68	W. Tosh	Thermal Support of ALSEP Central Station using Reserve Power.
NO 758	5/14/68	J. Murphy	Test Plan for EMI Testing of ASE Electro Explosive Devices.
DRAWER 759	5/14/68	J. Mazatics	ALSEP Fuel Cask and Support Structure Proto (D-1) Vibration Test Evaluation

Revised Number

FILE	✓68Y	5/10/68	R. Foster T. Fenske	ALSEP Weight Report May 1968
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14 June 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

(PHASE II)

ATM No.	Issue Date	Author	Title
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New Numbers

DRAWER 760	5/28/68	F. Katz	ALSEP Fuel Cask Mount Design Review Meeting.
BOOK CASE 761	5/29/68	H. Reinhold	Central Station Timer and Command Decoder Interface.
DRAWER 762	6/3/68	H. Cornille	ALSEP Implacment Study.

Revisions

FILE	7369H	6/14/68	
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Rm. 2208

9 August 1968

RECEIVED
AUG 14 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
763	7/1/68	B. Nordquist	ALSEP Engineering Graphite Cask Cooling Test
764	7/1/68	B. Nordquist	ALSEP Proto Cask Cooling Test
765	7/1/68	R. Roukas	Qualification Status List for ALSEP Flight 1
766	7/1/68	R. Roukas	Qualification Status List for Subpackage No. 1
767	7/1/68	R. Roukas	Q.S.L. Antenna Assembly
768	7/1/68	R. Roukas	Q.S.L. Diplexer Switch and Filter Assembly
769	7/1/68	R. Roukas	Q.S.L. Command Decoder Assembly
770	7/1/68	R. Roukas	Q.S.L. Data Processor and 90 Channel Multiplexer/Converter Assembly
771	7/1/68	R. Roukas	Q.S.L. Power Distribution Unit Assembly
772	7/1/68	R. Roukas	Q.S.L. Power Conditioning Unit
773	7/1/68	R. Roukas	Q.S.L. Passive Seismic Experiment
774	7/1/68	R. Roukas	Q.S.L. Solar Wind Experiment
775	7/1/68	R. Roukas	Q.S.L. Magnetometer Experiment
776	7/1/68	R. Roukas	Q.S.L. Subpackage No. 2
777	7/1/68	R. Roukas	Q.S.L. SIDE/CCGE
778	7/1/68	R. Roukas	Q.S.L. RTG Assembly

9 August 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Issue Date	Author	Title
<u>New Numbers</u>			
779	7/1/68	R. Roukas	Q.S.L. ALHT Assembly
DRAWER 780	7/1/68	R. Roukas	Q.S.L. Fuel Cask Assembly
NO 781	7/1/68	J. Mansour	Tarnished Collector Pins - 90 Channel Multiplexer
782	7/5/68	T. Fox	To be decided in the future
783	7/5/68	H. Wilson	Development of a PCU Power Dissipation Model
NO 784	7/23/68	W. Pollard	Magnetic Facility Calibration
NO 785	7/30/68	G. Frank	ALSEP Qual SA Model Qualification Test Plan
NO 786	7/30/68	G. Frank	ALSEP Flight System No. 1 Acceptance Test Plan
NO 787	7/30/68	G. Frank	ALSEP Flight System No. 2 Acceptance Test Plan
NO 788	7/30/68	G. Frank	ALSEP Qual B Model Qualification Test Plan
NO 789	7/30/68	G. Frank	ALSEP Qual C Model Qualification Test Plan
NO 790	7/30/68	G. Frank	ALSEP Flight System No. 3 Acceptance Test Plan
NO 791	7/30/68	G. Frank	ALSEP Flight System No. 4 Acceptance Test Plan
DRAWER 792	7/30/68	J. Maszatics J. Brueger	Final Report - Fastener Reduction Vibration Test Program for ALSEP Array A

9 August 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

<u>ATM No.</u>	<u>Issue Date</u>	<u>Author</u>	<u>Title</u>
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New Number

PROJECT 93	7/31/68	B. Reynolds	Temperature Sensor Calibration Results - Central Station Sensors.
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Revisions

~~NO~~ 242D 5/31/68

~~FILE~~ 369H 6/14/68

~~NO~~ 677C 7/1/68

~~NO~~ 734A 7/1/68

~~FILE~~ 268Z 8/10/68

20 September 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Date	Author	Title
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New Numbers

DRAWER ✓94	8/13/68	B. King	ALHT Support Pin Design Analysis
✓95	8/20/68	McNaughton	ALSEP Central Station Specular Enclosure Test Report
✓96	8/23/68	P. Johnson	ALSEP Prototype A - Central Station Final Thermal Analysis and Test Results
FILE ✓97	8/28/68	F. A. Heinz	Analysis of Reserve Power Telemetered Data for QSA Post-Vibration IST
DRAWER 798	9/5/68	T. Simonds	CPLEE Parts Application Analysis
MILEY ████████ ✓799	9/10/68	A. Bedford	Calibration Curves and Calibration Tapes
NO ✓800	9/12/68	J. Mansour	Investigation of Flight 2 Central Station overvoltage condition
NO 801	9/12/68	J. Mansour	Fairchild UA 702 and UA 709 operational amplifier parametric stability versus overvoltage

Revisions

FILE ✓369I	8/14/68
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1 November 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Date	Author	Title
<u>New Numbers</u>			
DRAWER 802	9/20/68	J. Brueger J. Maszatics	Flight Off-Loading Qual Confidence Program for Array A ALSEP Subpackage 1.
FILE 803	9/20/68	L. Marrus	ALSEP Configuration A Two Man Deployment Task Sequence
FILE 804	9/20/68	L. Marrus	ALSEP Configuration B Two Man Deployment Task Sequence
FILE 805	9/20/68	L. Marrus	ALSEP Configuration C Two Man Deployment Task Sequence
NO 806	9/25/68	Andreasen	Flatpack Reliability Tests
NO 807	9/26/68	R. Foster	Final Report ALSEP Boydbolt Fasterner Design Verification Test Program
MILEY *808	9/27/68	A. Bedford	Machine Plotting of the ALSEP Calibration Curves
*809	10/ 4/68	G. Frank	ALSEP Flight #1 Test Summary Report
*810	10/ 8/68	J. Reeves	Flight #1 RF Parameters
FILE 811	10/10/68	W. Tosh	Central Station Timer Starting
FILE 812	10/15/68	L. Marrus	ALSEP Configuration A One-Man Deployment Task Sequence
FILE *813	10/15/68	L. Marrus	ALSEP Configuration B One-Man Deployment Task Sequence

*These ATMs have not been issued as of the above date.

1 November 1968

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Date	Author	Title
<u>New Numbers</u>			
*814	10/15/68	L. Marrus	ALSEP Configuration C One-Man Deployment Task Sequence
FILE 815	10/17/68	D. Courtois	Generator Warm-Up Characteristics
DRAWER 816	10/17/68	J. Owens, Jr.	ALSEP Fastner Reduction Study
*817	10/17/68	T. Simonds	CPLEE Flight Model Reliability Prediction Report
NO *818	10/21/68	Andreasen	Reliability Evaluation Test of Babcock Latching Relay - Particle Malfunction Investigation

Addendum

DRAWER
807 10/22/68

*These ATMs have not been issued as of the above date.

25 February 1969

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Date	Author	Title
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New Numbers

NO #819	11/27/68	P. McGinnis	Qualification Status List Fuel Cask Instructor Assembly D-2/M-5 Models
NO 820	12/ 2/68	J. Maszatics J. Brueger	Final Report Flight Off-Loading Qual Confidence Program for Array A ALSEP Subpackage #2
821	12/ 6/68	J. McNaughton	Summary of ALSEP Subpackage #2 Thermal Control Design
NO 822	12/13/68	C. Bryer	Thumper Impact Plate Verification (2338673)
DRAWER 823	1/27/69	C. Bryer	Grenade Launch Test of the ASE Vertical Sensor Assembly
FILE #824	1/29/69	P. Johnson	ALSEP Qual S/A Thermal Vacuum Chamber Test Report
825	1/29/69	S. Ellison	ALSEP Flight 3 Qual Status List
DRAWER 826	2/20/69	D. Fithian	Flight #3 HFE Transient Test

Addendum

812 11/ 8/68

*These ATMs have not been issued as of the above date

25 February 1969

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

PHASE II

ATM No.	Date	Author	Title
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Revisions

FILE {	268AA	12/16/68
	268AB	2/10/69
	449N	1/10/69
NO	765B	10/15/68
DRAWER	765C	7/14/69

26 May 1969

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

ATM No.	Date	Author	Title
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New Numbers

*827	4/18/69	A. Bedford	Calibration Data Program
DRAWER 828	4/22/69	P. McInnis	Reliability Evaluation of Bulova Accutron Timers
DRAWER 829	5/ 7/69	J. McDowell	ASE Qualification Test
DRAWER *830	5/21/69	C. Murtaugh	MSFN Command Analogy Resolution

Addendum

DRAWER 704A	4/ 8/69		
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Revisions

369J	4/11/69		
DRAWER 704	4/10/69		Part 6
765D	3/12/69		
DRAWER 780A	5/ 7/69		
DRAWER 825A	5/16/69		

*These ATMs have not been issued as of the above date.

August 1, 1969

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

ATM No.	Date	Author	Title
<u>New Numbers</u>			
831	6/20/69	R. Burns	ALSEP Flight #1 Central Station S-13G Thermal Coating Adhesion Investigation
*832	6/27/69	J. Maszatics	ALSEP Qualification Design Limit Vibration Test Data Summary
833	6/26/69	H. Lanning	ALSEP Communications Perfor- mance Margin Summary
834	7/ 1/69	J. McNaughton	ALSEP/Cask/LM Thermal Qualification Final Test Report
835	7/ 1/69	L. Wagman	ALSEP Cash Assy Gearbox Termal Vacuum Test
*836	7/14/69	W. Tosh	MSFN Dual Carrier Analysis
837	7/14/69	A. Bedford	HFE S/N-05 Calibration Constants

*These ATMs have not been issued as of the above date.

14 November 1969

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

<u>ATM No.</u>	<u>Date</u>	<u>Author</u>	<u>Title</u>
<u>New Numbers</u>			
* 838	9/09/69	F. Heinz	ALSEP Deployment Criteria Summary & Review
* 839	9/10/69	L. Lewis	Guidelines for Modified ALSEP Design Study
840	10/20/69	S. Ellison	Failure Mode, Effects and Criticality Analysis of ASE EMI Modifications
841	10/28/69	J. Staats	Parts Application Analysis S-Band Transmitter
842	11/03/69	H. Lanning	MODIFIED ALSEP Maximum Antenna Pointing Error

* These ATMs have not been issued as of the above date.

12 January 1970

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

ATM No.		Date	Author	Title
<u>New Numbers</u>				
843	FILE	12-2-69	M. Goodkin	Investigation of ALSEP Address Codes.
844	FILE	12-5-69	D. Butts	ALSEP Cask Cooling Performance Summary.
845	FILE	12-8-69	S. Ellison	Teledyn 421 Relay Usage in Solid State Trainer (RSST).
846	FILE	12-10-69	P. McGinnis	RSST/Lunar Day Counter Reliability Analysis.
847	FILE	1-2-70	F. Heinz	Alignment of ALSEP at Latitudes Off the Lunar Equator.
*848		1-5-70	J. Patel	Established Reliability Parts - Drawing Callout and Usage.
*849	FILE	1-8-70	R. Grudowski	RSST Command Decoder Interface.

* These ATMs have not been issued as of the above date.

16 February 1970

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

ATM No.	Date	Author	Title
<u>New Numbers</u>			
850	1-23-70	P. Johnson W. Kornemann	PSEP Qual, Flight Acceptance and Qual Re-test T/V Chamber Test Report.
851	1-23-70	P. Johnson D. Butts	PSEP Flight Performance and Thermal Anomaly Investigation Summary.
852	1-23-70	J. Mansour	Failure Modes and Effects Analysis, Fuel Handling Tool, and Fuel Capsule/Cask Assembly Interface.
853	1-27-70	J. Stewart	Command Decoder.
854	1-29-70	P. McGinnis	Failure Mode, Effects and Criticality Analysis Data Transmitter.
855	1-30-70	J. Mansour	Failure Modes and Effects Analysis, Fuel Handling Tool, and Fuel Capsule/Cask Assembly Interface.
*856	2-12-70	C. Shokkos	A2 ALSEP Data Transmitter Reliability Prediction.
<u>Revisions</u>			
241 C	12-15-69	P. Sondeen	Acceptable Parts List
841 A	1-26-70	J. Staats	Parts Application Analysis S-Band Transmitter

* These ATMs have not been issued as of the above date.

23 March 1970

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

ATM No.	Date	Author	Title
<u>New Numbers</u>			
* 857	2/25/70	C. Shokkos	A-2 ALSEP Failure Mode Effects & Criticality Analysis (System Level).
858	2/25/70	A. Micocci	Crew Engineering ASE Test.
* 859	3/3/70	S. Ellison	ALSEP Qual Status List, Flight 4.
* 860	3/17/70	J. Mansour	Parts Application Analysis Dual 90 Channel Multiplexer.
* 861	3/18/70	J. Reeves	ALSEP S-Band Data Transmitter Short Term Stability.
<u>Revisions</u>			
268 AC	2/28/70	F. Heinz	ALSEP Weight Report

* These ATMs have not been issued as of the above date.

15 June 1970

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

ATM No.	Date	Author	Title
<u>New Numbers</u>			
862	4/2/70	J. Griffin	ALSEP Flight 1 PSE Thermal Anomaly Study
* 863	5/28/70	J. Mansour	Dual 90 Channel Mux Reliability Prediction & Failure Mode, Effects and Criticality Analysis.
864	4/2/70	N. Wright	ASE Off-Equatorial Thermal Study.
865	4/6/70	L. Wagman	Magnetic Cleanliness Guidelines
866	Cancelled		
867	4/29/70	W. Anthis	Apollo 14 LRRR Qualification Status List
868	5/4/70	W. Anthis	Failure Modes & Effects Analysis LRRR
869	5/4/70	W. Anthis	A. D. Little LRRR Contractor Parts List
870	5/14/70	J. Brueger	Apollo 14 LRRR Pointing Analysis
871	5/15/70	J. Owens, D. Chang, K. Wadleigh	Apollo 14 LRRR Structural Analysis
* 872	5/18/70	O. Neau	Command List (Array D)
* 873	5/22/70	J. Jones	Calculation of Failure Rate of Transistors of Operating within the PSE Center of the Lunar Surface.
* 874	5/27/70	L. Marrus	LRRR Task Sequence/Timeline for Littrow Landing Site
* 875	5/27/70	L. Marrus	LRRR Emplacement Range & Azimuth from LM
* 876	5/27/70	L. Marrus	Evaluation of Flight 14 LRRR Mock-up Design

ATM No.	Date	Author	Title
<u>New Numbers</u>			
* 877	5/27/70	L. Marrus	Crew Engineering Design Effort for LRRR
* 878	5/27/70	L. Morewitz	RSST Failure Effect Modes & Criticality Analysis
* 879	5/27/70	L. Morewitz	RSST Parts Applications Analysis
* 880	5/27/70	L. Morewitz	RSST Single Point Failure Modes Summary.
* 881	5/27/70	L. Morewitz	RSST Math Models, Block Diagrams and Predictions
* 882	5/28/70	C. Jensen	Redundant ALSEP Uplink System Final Report
883	5/28/70	L. Marrus	Crew Systems Analysis Report for LRRR
* 884	5/28/70	L. Marrus	Human Factors Analysis Effort for LRRR
* 885	6/1/70	P. Sondeen	Flat Conductor Cable Folding Tests
* 886	6/2/70	L. Marrus	LRRR Astronaut Trainer Acceptance Test Results
* 887	6/2/70	G. Psaros	PSE Thermal Anomaly Study
* 888	6/8/70	L. Marrus	LRRR Task Sequence/Time line for Framauro Landing Site
* 889	6/9/70	R. Wallace	ELLSEP System Design Trade-Off
* 890	6/10/70	L. Marrus	LRRR Emplacement Range 4 Azimuth from LM for Fra Mauro Landing Site
* 891	6/12/70	W. Tosh	RSST C/S Compatibility Testing
* 892	6/15/70	J. Reeves	Investigations into ALSEP Flight 1 - A Transmitter Anomaly

<u>ATM No.</u>	<u>Date</u>	<u>Author</u>	<u>Title</u>
<u>Revisions</u>			
* 841 B	6/15/70	J. Staats	Parts Application Analysis S-Band Transmitter
* 854 A	6/15/70	P. McGinnis	Failure Mode, Effects and Criticality Analysis Data Transmitter
* 856 A	6/15/70	C. Shokkos	A-2 ALSEP Data Transmitter Reliability Prediction

* These ATMs have not been issued as of the above date.

30 July 1970

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

ATM No.	Date	Author	Title
<u>New Numbers</u>			
893	6/16/70	R. Barbour	Final Report - ALSEP Dust Protection Study
894	6/23/70	L. Moskowitz	Array D - Failure Modes & Criticality Effects for Structural Thermal Subsystem
895	6/24/70	J. Griffin G. Psaros	Bi-Reflector HFE Electronics Package Thermal Design
896	6/24/70	D. Toelle G. Psaros	Thermal Design of CPLEE
897	6/25/70	D. Courtois	Transmitter Design Analysis
898	7/1/70	J. Jones	Reliability Analysis of PSE Sensor Heater Modification
899	7/6/70	E. Granholm	Apollo 14 LRRR Final Thermal Analysis
900	7/9/70	K. Wadleigh	HFE Subpallet Dynamic Analysis
901	7/13/70	V. Kemp	Command List for Array A-2
902	7/13/70	K. Wainio	Apollo LRRR Painting Analysis - Fra Mauro Site
903	7/16/70	D. Fithian	Incorporation of HFE on Array A-2 Data Processor A/D Convertor
904	7/23/70	R. Dalliare	Data Processor A/D Convertor Parts Application Analysis
905	7/23/70	R. Dallaire	Failure Mode, Effect & Critacality Analysis
906	7/24/70		ALSEP Flight System 5 System Level Failure Mode Effects & Criticality Analysis
907	7/28/70	R. Deppe	Results of Feasibility Tests Performed to Determine Handling & Mating Aspects of HFE - Astronaut Connector
908	7/28/70	K. Wadleigh D. Dewhirst J. Owens	Analysis of Number 1 Rocket Motor Firing on ALSEP

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<u>ATM No.</u>	<u>Date</u>	<u>Author</u>	<u>Title</u>
<u>New Numbers</u>			
909	8/7/70	L. Marrus	ALSEP Array A-2 H Layout.
910	8/14/70	P. Johnson	PSEP Flight Thermal Performance & Thermal Anomaly Investigation Summary.
911	8/20/70	R. Dallaire	Parts Application Analysis ASE 16 Channel Multiplexer - AD Converter.
912	8/20/70	R. Dallaire	ASE 16 Channel Multiplexer - A/D Converter Reliability Prediction & Failure Mode Effects & Criticality Analysis.
913	9/3/70	D. Thomas	Summary of Array E System Study.
914	9/28/70	L. Marrus	Alternative Deployment Schedules for the LSPE Geophones.
<u>Revisions</u>			
241 D	7/27/70	P. Sondeen	Acceptable Parts List.
242 E	9/15/70	P. Sondeen	Approved Materials List.
268 AD	6/19/70	F. Heinz	ALSEP Weight Report.
449 O	6/29/70	V. Kemp	ALSEP Power Budget.
867 A	8/20/70	L. Moskowitz	Apollo 14 LRRR Qualification Status List.
868 A	8/20/70	L. Moskowitz	Failure Modes and Effects Analysis for LRRR.
869 A	8/20/70	L. Moskowitz	A. D. Little LRRR Contractor Parts List.
901 A	8/26/70	V. Kemp	Command List (Array A-2).

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ATM No.	Date	Author	Title
<u>New Numbers</u>			
915	10/23/70	D. Courtois	Bendix Data Transmitter Qual Units.
916	10/26/70	K. Andreason	Analysis of LPTTL its Capabilities & Deficiencies when used with itself or an interface with LPDTL.
917	10/30/70	D. Courtois	Bendix Data Transmitter Housing Material Change.
918	11/2/70	K. Wadleigh & H. Wiger	ALSEP A-2/SP-3 Structural Dynamics Analysis.
919	11/9/70	L. Wagman	System Level Non Carona Verification Test
920	11/13/70	R. Johnson Jr.	Analysis of Pressure Data Relating to the PSE S/N 03 Pneumatic Caging Subsystem Non Conformance Status.
921	11/13/70	J. Cooper	Lunar Mass Spectrometer Reliability Logic Diagram
922	11/18/70	J. Griffin	UniReflector HFE Electronics Package Thermal Design & Performance
923	11/23/70	L. Marrus	Apollo 14 Contingency Plan
924	11/24/70	F. Howell	Apollo 15 A.D. Little LRRR Contractor Parts List
925	11/24/70	F. Howell	Apollo 15 LRRR Qualification Status List
926	11/25/70	F. Howell	Failure Modes & Effects Analysis - 300 Array LRRR
927	12/1/70	P. Ireton	Lunar Seismic Profiling Experiment Analysis.

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New Numbers

928	12/3/70	J. Zimmer	LSPE Integrated Test Plan, ALSEP-TM-659.
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Revisions

268 AE	11/6/70	T. Swann	ALSEP System Mass Properties.
449 P	11/30/70	O. Neau	ALSEP Power Budget.

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ATM No.	Date	Author	Title
<u>New Numbers</u>			
929	12/4/70	G. VanHoorde	Single Point Failure Analysis Summary.
930	12/9/70	O. Neau	Command List (Array E).
931	12/11/70	A. Granholm	LRRR 300 Thermal Design Final Report.
932	12/11/70	L. Marrus	LRRR 300 Task Sequence/ Time Line for Hadley Rille Land- ing Site.
933	12/15/70	T. Lancaster	Apollo 15 LRRR 300 Pointing Analysis.
934	1/7/71	J. Corcoran	Structural Analysis Report - LRRR 300 .
935	1/11/71	J. Jones	System Safety Program Plan for ALSEP Array E.
936	1/11/71	M. Goran	LRRR 300 Corner Array Dynamic Analysis.
937	1/12/71	G. VanHoorde	Preliminary LSG Numerical Reliability Analysis.
938	1/15/71	R. Redick	Crew Engineering Evaluation - 300 Corner LRRR, Concept Model.
939	1/18/71	H. Geiss	Apollo 15 ALSEP/A-2 Deployment Procedure.
940	1/19/71	T. Kuechenmeister	Crew Engineering Analysis Report for LRRR (300).
941	1/19/71	L. Marrus	Human Factors Analysis Effort for LRRR (300).
942	1/19/71	L. Marrus	Crew Engineering Design Effort for LRRR (300).

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New Numbers

943	1/19/71	H. Geiss	LRRR (300) Astronaut Trainer Acceptance Plan.
944	1/19/71	H. Geiss	LRRR (300) Acceptance Test Deployment Sequence.
945	1/19/71	R. Redick	LRRR (300) Astronaut Trainer Acceptance Test Results.
946	1/19/71	T. Kuechenmeister	LRRR (300) Emplacement Range & Azimuth from LM.

Revisions

605A	10/26/70	R. Dallaire	Failure Rate Data for ALSEP.
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ATM No.	Date	Author	Title
<u>New Numbers</u>			
947	1/21/71	J. E. Staley	Array E Power Conditioning Unit Automatic Power Management Circuit.
948	1/22/71	E. Weidner	Deletion of Geophone Temperature Sensor.
949	1/22/71	M. Papaioan	Array E Command Decoder Failure Mode Effects & Criticality Analysis.
950	1/22/71	J. G. Smith	Array E Data Processor Failure Mode Effects & Criticality Analysis.
951	1/22/71	A. Romans	Array E PDU Failure Mode Effects and Criticality Analysis.
952	1/22/71	A. Moskowitz	Array E PCU Failure Mode Effects and Criticality Analysis.
953	1/22/71	R. Dallaire	Array E Central Station Failure Mode Effects & Criticality Analysis.
954	1/22/71	M. Papaioan	Array E Command Decoder Parts Application Analysis.
955	1/22/71	J. G. Smith	Array E Data Processor Parts Application Analysis.
956	1/22/71	A. Romans	Array E PDU Parts Application Analysis.
957	1/22/71	A. Moskowitz	Array E PCU Parts Application Analysis.
958	1/26/71	B. McLeod	Command Decoder for ALSEP Array E.
959	2/1/71	R. Deppe	First Crew Engineering Evaluation of Array E - LSPE Geophone Cable Reel.

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ATM No.	Date	Author	Title
<u>New Numbers</u>			
960	2/2/71	R. Deppe	Crew Engineering Evaluation of Array E - LMS Experiment Crew Engineering Model.
961	2/2/71	R. Urbanik	Effect of North & South Hadley Rille Landing Sites on ALSEP A-2 Thermal Performance.
962	2/2/71	R. Wallace	Array E System Grounding Philosophy.
963	2/3/71	D. Thomas	Central Station Subsystem Description for ALSEP Array E.
964	2/3/71	J. Maszatics	ALSEP Array E Component Non-Operating Vibration Specifications.
965	2/4/71	F. Howell	LMS Reliability - Reliability Prediction
966	2/4/71	F. Howell	LMS Reliability - Parts Application Analysis.
967	2/4/71	F. Howell	LMS Reliability - EEE Part List for UTD and Bendix.
968	2/4/71	F. Howell	LMS Reliability - Non Metallic Material List.
969	2/4/71	F. Howell	LMS Reliability - Time/Cycle Sensative Part List.
970	2/4/71	F. Howell	LMS Reliability - FMECA & Single Point Failure Summary.
971	2/5/71	R. Ziesmer	Crosstalk & Ground Differentials in the Central Station.
972	2/8/71	R. Lipp & P. Ireton	Safe-Arm Slide Ejection Effect on Grenade Trajectory.

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ATM No.	Date	Author	Title
<u>New Numbers</u>			
973	2/9/71	R. Deppe	Space Suited Crew Engineering Evaluation of the Proposed Array A-2 PSE Decoupled Shroud (Crew Engineering Mockup).
974	2/12/71	B. McLeod	ALSEP Command Decoder Preliminary Functions Description.
975	2/12/71	J. Staats	LSPE Parts Application Analysis.
976	2/12/71	J. Staats	LSPE Failure Modes, Effect Analysis.
977	2/15/71	J. Cooper	LEAM Failure Mode Effect & Criticality Analysis.
978	2/15/71	J. Cooper	LEAM Reliability Prediction.
979	2/18/71	G. VanHoorde	Preliminary Parts Application Analysis LSGE.
980	2/23/71	J. Cooper	A Trade-Off Study of Various Methods of Releasing the LEAM Dust Covers.
981	2/23/71	T. Fox	Reliability Prediction - Array E Redundant Command Receiver.
982	2/23/71	T. Fox	Single Point Failure Summary - Array E Redundant Command Receiver.
983	2/23/71	T. Fox	Parts Application Analysis - Array E Redundant Command Receiver.
984	2/23/71	T. Fox	Failure Mode Effects & Criticality Analysis - Array E Redundant Command Receiver.
985	2/24/71	V. C. Kemp	ALSEP Array E Command Decoder Breadboard Test Report.

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ATM No.	Date	Author	Title
<u>New Numbers</u>			
986	3/4/71	J. T. Baker	ALSEP Qualification Status List (QSL) Package A-2 Configuration (Apollo 15).
987	3/8/71	F. Howell	PSE Decoupled Shroud Status List (Apollo 15, 16 & Spare).
988	3/8/71	A. Romans	ALSEP Array E Multi-layer Printed Circuit Source Qual Test Plan.
989	3/10/71	A. Wadleigh Dr. Min	Array Subpackage 1 Dynamic Analysis.
990	3/12/71	R. Wallace	Array E LEAM Digital Interface - 54L Versus Amelco Logic.
991	3/12/71	W. Sperber	Noisey Data Investigation, ALSEP 4.
992	3/17/71	J. Maszatics	Expected SIDE Vibration Environment on Array A-2.
993	3/17/71	J. Maszatics	Array D Subpackage 1 & 2 Vibration Test Results.
994	3/22/71	C. Jensen	Anomulos signal strength from ALSEP 4.
995	3/24/71	R. Sims L. Mills	LEAM Film Development Test Report.
996	3/29/71	T. Kuechen- meister	Crew Engineering Evaluation of the Array E LEAM Experiment - Crew Engineering Model.
997	3/29/71	T. Reigle	Apollo 14 DRT Installation Anomaly Study.

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ATM No.	Date	Author	Title
<u>Revisions</u>			
268AF	2/25/71	T. Swann	ALSEP Weight Report.
927 A	3/17/71	P. Ireton	Lunar Seismic Profiling Experiment Dynamic Analysis.
930A	2/11/71	D. Thomas	Command List (Array E).

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<u>ATM No.</u>	<u>Date</u>	<u>Author</u>	<u>Title</u>
<u>New Numbers</u>			
998	4/1/71	John G. Smith	ALSEP Array E Parts Application Analysis of Signal Conditioning Circuits.
999	4/1/71	John G. Smith	ALSEP Array E Signal Conditioning Circuits Reliability & Failure Mode Effects Critical Analysis.
1000	4/6/71	Frank Howell	PSE Sensor Assembly Qualification Status List Apollo 15.
1001	4/12/71	D. Breseke	PSE Anomalies ALSEP 4.
1002	4/22/71	D. Toelle	LSPE Explosive Package Stowage Thermal Constraints.
<u>Revisions</u>			
901B	8/26/70	V. C. Kemp	Command List (Array A-2).

10 June 1971

LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

ATM No.	Date	Author	Title
<u>New Numbers</u>			
1003	5/5/71	L. Marrus	ALSEP Array A-2 Contingency Procedures
1004	5/7/71	C. Jensen	EMI Investigation for Array E
1005	5/11/71	A. Romans	ALSEP Array E PSK Transmitter - Failure Modes Effects & Criticality Analysis
1006	5/11/71	A. Romans	ALSEP Array E PSK Transmitter - Parts Application Analysis
1007	5/20/71	H. Geiss	ALSEP Configuration D Two-Man Deployment Task Sequence
1008	6/2/71	G. VanHoorde	LSG Reliability Mathematical Model Reliability Numerical Analysis & FMECA
1009	6/2/71	G. VanHoorde	LSG CDR Parts Application Analysis
1010	6/7/71	D. Perkins	LEAM Film Development Report
1011	6/7/71	P. Pilon	LEAM Film Vibration Report
1012	6/7/71	P. Pilon	LEAM Mechanical Tests
1013	6/7/71	G. VanHoorde	LEAM Reliability Numerical Analysis, Reliability Mathematical Model FMECA & Single Point Failures.
1014	6/8/71	G. VanHoorde	LEAM CDR Parts Application Analysis
1015	6/10/71	R. Dallaire D. J. Thomas	Array E Uplink Redundancy Method Justification
1016	6/10/71	M. Calarese	Gross Hazard Analysis Report - LEAM Experiment
1017	6/10/71	T. Breezy	Gross Hazard Analysis Report - LSG Experiment

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New Numbers

1018	6/10/71	C. Taylor	Gross Hazard Analysis Report - LMS Experiment
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Revisions

924A	5/28/71	F. Howell	Apollo 15 A.D. Little LRRR Contractor Parts List
925A	5/28/71	F. Howell	Apollo 15 LRRR Qualification Status List
926A	5/28/71	F. Howell	Failure Modes and Effects Analysis 300 Array LRRR
929B	5/18/71	G. VanHoorde	LSG Single Point Failure Analysis
930B	6/2/71	D.J. Thomas	Command List (Array E)

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LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

ATM No.	Date	Author	Title
<u>New Numbers</u>			
1019	6/11/71	L. Mills	LEAM DVT Thermal Test Report.
1020	6/11/71	A. Tente	LMS Mechanical Test Reports.
1021	6/14/71	J. Brueger	Updated Apollo 15 LRRR-300 Corner Pointing Analysis for Hadley Rille.
1022	6/14/71	L. Kaliniec	LEAM Dynamics Analysis (DVT).
1023	6/17/71	R. Dallaire	Array E Time/Cycle Sensitive List.
1024	6/17/71	G. VanHoorde	Time Sensitive Cycle Items - LSG.
1025	6/17/71	G. VanHoorde	Time Sensitive Cycle Items - LEAM.
1026	6/21/71	G. VanHoorde	Parts & Materials List for LSG Experiment.
1027	6/21/71	G. VanHoorde	Parts & Materials List for LEAM Experiment.
1028	7/2/71	H. Geiss	Crew Engineering Test Plan for Evaluation of Array E Antenna Aiming Mechanism.
1029	7/8/71	A. Tente	LMS Thermal Vacuum Tests Reports.
1030	7/9/71	G. VanHoorde	LEAM Reliability Numerical Analysis.
1031	7/9/71	R. Sigler	ALSEP Array E Antenna Aiming Mechanism Design Verification Test Results.
1032	7/15/71	N. Hadwick	Theoretical Modeling & Analysis of PCU/PDU Output Voltages.
1033	7/20/71	R. West	ALSEP "EEE" Composite Parts List.

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<u>ATM No.</u>	<u>Date</u>	<u>Author</u>	<u>Title</u>
<u>New Numbers</u>			
1034	7/26/71	B. Lavin	System Safety Progress Report ALSEP Array E.
1035	7/26/71	J. Staats	LSPE Timer Control Module Seal Analysis.
1036	7/29/71	J. Owens	LSPE Transmitting Antenna Stability Investigation.
<u>Revisions</u>			
920A	6/2/71	R.S. Johnson, Jr.	Analysis of Pressure Data Relating to the PSE S/N03 Pneumatic Caging Sub-System Non-conformance Status.
952A	6/1/71	L. Moskowitz	Array E PCU Failure Mode Effects & Criticality Analysis.
965A	6/9/71	F. Howell	LMS Reliability - Reliability Prediction.
966A	6/3/71	F. Howell	LMS Reliability - Parts Application Analysis.
970A	5/15/71	F. Howell	LMS Reliability -FMECA & Single Point Failure Summary.
1003 Addendum 1	7/10/71	R. Redick	Apollo 15 Contingency Procedures - Memo No. 9712-468.

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ATM No.	Date	Author	Title
<u>New Numbers</u>			
1037	8/3/71	G. Cripps	Schjeldahl Dale Connectors.
1038	8/3/71	J. Jones	LSP Timer Overbanking on the Lunar Surface.
1039	8/6/71	J. Staats	"EEE" Parts List for LSP.
1040	8/6/71	J. Staats	Non-Metalic Materials List for LSP.
1041	8/6/71	J. Staats	Time/Cycle Sensitive Components List for LSP.
1042	8/9/71	J. Owens	LMS Structural Analysis Report.
1043	8/9/71	G.R. VanHoorde	"EEE" Parts List for LSG.
1044	8/10/71	G.R. VanHoorde	Non-Metalic Materials List for LSG.
1045	8/11/71	P. Sondeen	ALSEP Composite Non-Metalic Materials List.
1046	8/11/71	Dr. G. Min	LSP Explosive Package Fragmentation Study.
1047	8/11/71	T. Kuchenmeister	Crew Engineering Evaluation of Array D MPA Pallet Crew Engineering Model.
1048	8/11/71	R. Lavin	July System Safety Progress Report - ALSEP Array E.
1049	8/11/71	R. Brown	LSP Detailed System Hazard Analysis.
1050	8/13/71	C. Jensen	ALSEP/LCRU EMC Test Results.
1051	8/17/71	T. Kuchenmeister	Crew Engineering Evaluation of Array E Antenna Aiming Mechanism Engineering Model.

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ATM No.	Date	Author	Title
<u>New Numbers</u>			
1052	8/23/71	L. Moskowitz	ALSEP Qualification Status List Array D Configuration.
1053	8/30/71	R. Brown	LSP Operational Hazard Analysis.
1054	9/1/71	J. Hendrickson	<u>Monthly</u> Array E Qualification versus Flight System Differences Report.
1055	9/7/71	R. Gilson	A-2 HFE DH15 Anomaly Investigation.
1056	9/14/71	J. Jones	LSP Ground Operations and Safety Plan.
1057	9/15/71	B. Lavin	LSG Boydbolt Release Tests Report.
1058	9/16/71	M. Dela Crux	LSG Flight Sensor Closed Loop Performance Computer Analysis.
1059	9/20/71	T. Fox	Results of A-2 Connector "Green Crud" Investigation.
1060	9/22/71	L. Marrus	Apollo 15 Anomalies Report.
1061	9/24/71	D. Breseke	Plating of PSE Leveling Stool.
1062	9/30/71	D. Breseke	Apollo 15 PSE Anomalies.
1063	10/5/71	B. Lavin	August and September Safety Progress Report - ALSEP Array E.

Revisions

241 E (1)	Sept. '71	P. Sondeen	ALSEP Acceptable Parts List for Array E, Amendment 1.
242 E (1)	Sept. '71	P. Sondeen	Approved Materials List for ALSEP Equipment.
268 AG	Sept. '71	R. Foster	ALSEP Weight Report.

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ATM No.	Date	Author	Title
<u>Revisions</u>			
274 G-1	Aug. 1971	R. Heibert	ALSEP Reliability Mathematical Model & Prediction - HFE.
274 G-2	Aug. 1971	R. Heibert	ALSEP Reliability Mathematical Model & Prediction - PSE.
274 G-3	Aug. 1971	R. Heibert	ALSEP Reliability Mathematical Model & Prediction - ASE.
501 B-1	Aug. 1971	R. Heibert	Reliability Failure Mode, Effects, and Criticality Analysis - HFE.
501 B-2	Aug. 1971	R. Heibert	Reliability Failure Mode, Effects, and Criticality Analysis - PSE.
501 B-3	Aug. 1971	R. Heibert	Reliability Failure Mode, Effects and Criticality Analysis - ASE.
912 A	Sept. 1971	R. Dallaire	ASE/CE 16 Channel Multiplexer - A/D Converter Reliability Prediction and Failure Mode, Effects and Criticality Analysis.
951 A	Sept. 1971	A. Romans	ALSEP Array E, Power Distribution Unit Failure Mode, Effects and Criticality Analysis.
953 A	Sept. 1971	L. Moskowitz	ALSEP Flight System 6 (Array E) System Level Failure Mode Effects and Criticality Analysis.
956 A	Sept. 1971	A. Romans	ALSEP Array E Power Distribution Unit Parts Application Analysis.
1009 A	Aug. 1971	G.R. VanHoorde	LSG Parts Application Analysis.
1054 A	Oct. 1971	J. Hendrickson	ALSEP Array E Monthly Qual vs. Flight System Difference Report.

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<u>New Numbers</u>			
1064	10/15/71	J. McDowell	ASE Redesign Evaluation.
1065	10/19/71	J. H. Owens	Structural Analysis Report LEAM
1066	10/22/71	K. Wadleigh	LEAM Dynamic Analysis Flight Model.
1067	11/4/71	J. Jones	October System Safety Progress Report ALSEP Array E.
1068	11/5/71	W. Tosh	HFE Power Off During Lunar Night.
1069	11/9/71	R. Sporzynski	Array E Software Description
<u>Revisions</u>			
780B	10/29/71	L. Moskowitz	Qualification Status List Fuel Cask and Structure Assembly ALSEP Array E, Flight 6.
1054B	11/1/71	J. Hendrickson	ALSEP Array E Monthly Qual vs Flight System Difference Report.
1036A	11/10/71	J.H. Owens	LSPE Transmitting Antenna Stability Investigation.

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ATM No.	Date	Author	Title
<u>New Numbers</u>			
1070	11/12/71	D. Breseke	Apollo 14 PSE Long Period Occillation
1071	11/15/71	L. Duesterberg	Array E ALSEP LMS High Voltage Power Supply Capacit Problem Analysis & Corrective Action
1072	11/17/71	J. Kasser	Array E System Description
1073	11/18/71	R. Redick	Apollo 17 Array E Lunar Surface Deployment Procedures
1074	11/18/71	J. McDowell	ASE Grenade Transmitter Frequency Drift
1075	11/23/71	L. Mills	LEAM Thermal Design Report
1076	11/29/71		ALSEP Array E Power Budget
1077	11/29/71	L. Marrus	ALSEP Contingency Procedures for Apollo 16
1078	12/13/71	J. Jones	November System Safety Progress Report ALSEP Array E
1079	12/15/71	Dr. Min/ Dr. Dewhirst	LSPE Explosive Package Fragmentation and Cratering Related to Striking Probability Investigation
1080	12/15/71	D. Toelle	LSPE Interim Stowage Thermal Constraints
<u>Revisions</u>			
967 Addendum 1	10/29/71	R. Hiebert	LMS Reliability EE Parts List.
930 C	11/2/71	D. J. Thomas	Command List (Array E).
1053A	12/9/71	J. Jones	LSP Operational Hazard
1053B	1/12/72	J. Jones	Analysis.

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1054C	12/9/71	J. Hendrickson	ALSEP Array E Monthly Qual
1054D	1/3/72	J. Hendrickson	vs Flight System Difference Report.
1056A	12/20/71	J. Jones	LSP Ground Operations and
1056B	1/12/72	J. Jones	Safety Plan.

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LOG OF ALSEP TECHNICAL MEMORANDA (ATM)

ATM No.	Date	Author	Title
<u>New Numbers</u>			
1081	1/3/72	R. Dalair/T. Fox	TTL-54L
1082	2/11/72	J. Matthis/D. Breseke	Recommendations for Minimizing Green Crud.
1083	2/17/72	R. Thomas	ALSEP Array E Engineering Model : SP-1 with PSE - Design Limit Vibration Test Results.
1084	2/21/72	B. Lavin	Dec. - Jan. System Safety Progress Report, Array E.
1085	2/23/72	W. Gilham/D. Fithian	ALSEP Array E Design Verification Model Test Report.
1086	2/25/72	T. W. Weir	LSPE Thermal Battery Test.
1087	3/3/72	B. J. Thomas	Investigation into the Scrambling of Array E Qual Model PDU Relays at Turn-On.
1088	3/7/72	L. Lewis	LSPE Safe Arm Slide Failure Evaluation Report.
1089	3/14/72	B. Lavin	Feb. System Safety Progress Report Array E.
1090	3/22/72	R. Thomas	ALSEP Array E Engineering Model SP-2 Design Limit Vibration Test Results.
1091	3/23/72	R. Thomas	ALSEP Array E Engineering Model SP-1 with LSG - Design Limit Vibration Test Results.
1092	3/25/72	C. Jensen	SEP/ALSEP EMI Interface.
1093	4/7/72	C. Jensen	Array E S-Band Compatibility Test Results Analysis.
1094	4/7/72	R. Worchester	LSPE Housing & Charge Assy Foam Test Report.

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<u>New Numbers</u>			
1095	4/11/72	A. Bedford	Array E Calibration Curves.
<u>Revisions</u>			
268 AH	4/3/72	H. Geiss	ALSEP Weight Report.
930 D	3/8/72	D. J. Thomas	Command List (Array E).
966 B	3/9/72	J. Hendrickson	LMS Reliability Part Application Analysis.
970 B	3/21/72	R. Hiebert	LMS Reliability FMECA & SPFS.
1005 A	12/15/71	A. Romans	ALSEP Array E PSK Transmitter Failure Mode, Effects & Criticality Analysis.
1006 A	12/1/71	A. Romans	ALSEP Array E, PSK Transmitter Parts Application Analysis.
1052 A	12/23/71	L. Moskowitz	ALSEP Qualification Status List (QSL Package) Flight 5 Configuration.
1054 E	2/1/72	J. Hendrickson	ALSEP Array E Monthly Qual vs
1054 F	3/1/72	J. Hendrickson	Flight System Difference Report.

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1096	4/18/72	D. J. Thomas	Spurious Status Changes in Array E
1097	4/19/72	D. Toelle	Lunar Mass Spectrometer Design Verification Thermal Vacuum Test
1098	5/1/72	D. J. Thomas	Array E Action Item 604 Ripple on +5Volt Line.
1099	5/8/72	Dr. Min	Preliminary Test Evaluation on LSPI Harard Analysis
1100	5/12/72	C. Jensen	Investigation of Array E Experiment EMI Test Data Volidity
1101	5/12/72	B. Lavin	April System Safety Progress Report Array E
1102	5/24/72	H. Geiss	ALSEP Contingency Procedures for Apollo 17
1103	6/30/72	B. Lavin	Handling, Packaging, Transportation & Storage of ALSEP Array E Flight Hardware & Support Equipment
1104	6/12/72	B. Lavin	Comparative Safety Analysis - LSP Timers
1105	6/19/72	D. J. Thomas / C. Jensen	EMI Test Results & Margin of Com- patability for ALSEP Array E
1106	8/9/72	T. Fox	System Level Qualification Status Level Array E
1107	8/9/72	T. Fox	System Analysis of Two Year Life Capability
1108	8/10/72	D. Steinmeyer	Thermistors used as linearized temperature sensors.

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<u>Revisions</u>			
967A	4/14/72	F. Howell	LMS Reliability - EEE Parts List for UTD and Bendix
969A	7/27/72	F. Howell	LMS Reliability - Time/Cycle Sensitive Parts List
1054G	4/1/72	J. Hendrickson	ALSEP Array E Monthly Qual vs Flight System Difference Report
1054H	5/10/72	J. Hendrickson	
1054I	7/10/72	J. Hendrickson	
1081A	3/30/72	R. Dallaire/T. Fox	TTL - 54L
1097A	5/17/72	D. Toelle	Lunar Mass Spectrometer Design Verification Thermal Vacuum Test
1102	8/10/72	R. Redick	Preliminary Copy - ALSEP Con- tingency Procedures for Apollo 17

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<u>New Numbers</u>			
1109	9/15/72	D. Toelle	Lunar Seismic Profiling Experiment Design Verification Thermal Vacuum Test
1110	9/15/72	D. Toelle	LSPE Qualification & Flight Acceptance Thermal Vacuum Test Summary & Thermal Design Final Report.
1111	9/15/72	D. Toelle	LMS Qualification & Flight Acceptance Thermal Vacuum Test Summary & Thermal Design Final Report.
1112	9/27/72	H. Van Hoorde	Array E ALSEP Qual/Flight Differences & Rationale.
1113	10/6/72	D. Butts	ALSEP Array E C/S Thermal Design/Analysis/Test Final Report.
1114	10/16/72	J. Jones	Crew/Mission Operational Hazard Analysis.
1115	10/16/72	J. Jones	LSP Final Safety Report.
1116	10/16/72	G. Psaros	ALSEP Array E LSG Thermal Control Design Analysis & Tests Final Report.
1117	10/24/72	D. Butts	ALSEP Array E Heat Flow Experiment Thermal Design/Analysis/Test Final Report.
1118	10/26/72	G. Psaros	LEAM Thermal Design Analysis/Test Final Report.
1119	10/31/72	J. Maszatics	Qual SE (SP-1 & 2) Design Limit Vibration Test Results.

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<u>Revisions</u>			
953B	10/4/72		ALSEP Flight System 6 (Array E) System Level Failure Mode Effects and Criticality Analysis.
1023B	10/4/72		Array E Time/Cycle Sensitive Items List.
1023C	10/30/72		
1023D	11/2/72		
1033A	9/27/72		ALSEP EEE Composite Parts List.
1045A	9/21/72		ALSEP Composite Non-Metallic Materials List.
1054J	10/4/72		ALSEP Array E Monthly Qual vs Flight System Difference Report.
1102A	9/27/72		ALSEP Contingency Procedures for Apollo 17 (ALSEP-MP-08).
1106A	10/4/72		Qualification Status List ALSEP Array E Configuration.