

FINAL CREW CUFF CHECK LIST

12/4/72

EVA 1 (As Flown)

11-1-72	LMP-3	<p><u>PLSS TO LM H2O TRANSFER</u></p> <p>PLSS Pump - OFF - Disconnect PLSS H2O Connect LM H2O CB(16) ECS: LCG Pump - Close</p>	PLSS
	-EVA1	<p><u>LM TO PLSS H2O TRANSFER</u></p> <p>CB(16) ECS: LCG Pump - Open Disconnect LM H2O Connect PLSS H2O PLSS Pump - ON -</p>	

11-1-72	CDR-3	<p><u>PLSS TO LM H2O TRANSFER</u></p> <p>PLSS Pump - OFF - Disconnect PLSS H2O Connect LM H2O CB(16) ECS: LCG Pump-Close</p>	PLSS
	EVA1	<p><u>LM TO PLSS H2O TRANSFER</u></p> <p>CB(16) ECS: LCG Pump-Open Disconnect LM H2O Connect PLSS H2O PLSS Pump -ON-</p>	

LM AREA MAP	<p>LM AREA MAP</p>	11-1-72 EVA 1 LMP-4
----------------	------------------------	---------------------

LM AREA MAP	<p>LM AREA MAP</p>	11-1-72 EVA 1 CDR-4
----------------	------------------------	---------------------

11-1-72 EVA 1 LMP-5

NON-TIMELINE STOPS

Alteration
Xenoliths
Coarse Crystalline Rocks
Volcanic vent

NOTES

CRATERS

MELISSA
TRIPLE V
STONE HENGE

11-1-72 EVA 1 CDR-5

BLANK

NOTES

		<u>EVA 1</u>		
DEPRESS LRV OFF	0+00	<u>CABIN DEPRESS</u>		LMP-6
		Open hatch		
DEPRESS LRV OFF	0+10	<u>CDR EGRESS</u>		EVAT
		Assist CDR Jett bag to CDR ETB/LEC to CDR Tape Recorder - OFF - <u>VERIFY:</u> •Vox Sens (2) - max - •Cb Config (White dots out + EVA decals) Utility Floodlights - OFF - 16 mm cam <u>EGRESS</u> Close hatch Deploy PLSS ants (CDR/LMP)		
				11-1-72

		<u>EVA 1</u>		
DEPRESS LRV OFF	0+00	<u>CABIN DEPRESS</u>		CDR-6
		Start watch (call mark)		
DEPRESS LRV OFF	0+10	<u>EGRESS/PORCH</u>		EVAT
		Jett bag - discard Receive ETB/LEC MESA deploy <u>FAM</u> Comment on surroundings Jett bag under LM Deploy PLSS ants (CDR/LMP)	[LMP EGRESS	
				11-1-72

		<u>FAM & MESA CONFIG</u>		
LMP-7		Comment on surroundings Unhook conting. strap Adjust height - open blnkts Big bag to ladder hook ETB to table	[LRV DEPLOY	
EVAT	0+23	<u>LRV DEPLOY</u>		DEPRESS LRV OFF
		Pull D-ring on request Pull deploy cable 20 lbs •Release pull at aft chassis unlock •Pull cable after aft wheels on gnd Pull LH pin, outrigger cable Pull LH reel tape until 45° cable slack Pull saddle release cable, <u>VERIFY</u> release Move LRV from LM		
				11-1-72

		0+21 <u>OFFLOAD LRV</u>		
CDR-7		Open Quad I thermal blanket •Drape tape over strut •Conting. tool to LM strut •Unstow aft deployment cable - drape over strut		
EVAT		<u>VERIFY:</u>		DEPRESS LRV OFF
		•Walking hinge latches engaged •Fwd & aft chassis parallel to center chassis •LH & RH outrigger cables taut Deploy reel OPS tape, RH side & back away from deploy area <u>VERIFY</u> LRV rotates outboard	[PULL D-HANDLE	
				11-1-72

LRV SET-UP LRV AFT	0+32	SET UP LRV Do LH side - aft 1st Extend rear fender VERIFY rear hinge pins Release inboard handhold strap Erect seat & unstow seatbelt Pull T-handle Lower console, raise handhold, lock T-handle	CDR DOES RH SIDE BOTH CDR & LMP	LMP-8
		Pull attitude indicator & C&W flags Remove tripod apex Tool behind footrest VERIFY front hinge pins & seal Erect footrest Extend front fender		EVA1 11-1-72

LRV SET-UP TEST DRIVE		Pull down on RH reel tape until out-rigger cables slack Pull RH pin, out-rigger cable When fwd wheels on surface: • Pull pins on deploy cable & fittings Move LRV from LM	PULL ON DEPLOY CABLE PULL LH PIN, LOWER RELEASE SADDLE	CDR-8 EVA1
	0+32	SET UP LRV Do RH side-aft 1st Erect geo post Extend rear fender VERIFY rear hinge pins & seal Erect seat & unstow seatbelt	LMP DOES LH SIDE	11-1-72

LMP-9 EVA1 11-1-72	0+40	AREA DESCRIPTION & PAN Get LMP cam (ETB) Take LM photo pan at 4:00/30' Describe LM area/Photo Plan Stow cam - ETB	LRV TEST DRIVE	
	0+47	LRV AFT CONFIG Geo pallet (LH) to LRV, VERIFY latches engaged Remove handrails Config geo pallet: • Pull TGE launch pins (3) • Discard TGE velcro • TGE - ON - • TGE - READ -	LRV FRONT CONFIG	LRV AFT LRV SET-UP

CDR-9 EVA1 11-1-72		Lower armrest Pull T-handle Lower console, raise handhold, lock T-handle Remove tripod apex Tool behind footrest VERIFY front hinge pins Erect footrest Extend front fender VERIFY bat covers CLOSED	BOTH CDR & LMP	
	0+40	LRV CHECKOUT POWER UP Drive to MESA +15 VDC sw - OFF -	LM AREA DESCRIP	TEST DRIVE LRV SET-UP

LRV AFT ETB	0+56	<ul style="list-style-type: none"> • Tongs to LMP floor pan • Ext hndls to gate clips • Hammer to pallet top • Gnomon to bag (unfold) • Dust brush to LCRU • Rake to LH ext hndl • Scoop to RH ext hndl • Conn pallet stop strap • Discard rammer brkt • Vise to pallet top • SCB 2 to gate • SCB 3, Acces. Staff, & LCRU Strap to LMP handhold 	LMP-10
			11-1-72 EVA1

LRV FRONT CONFIG	0+46	<p>LRV FRONT CONFIGURE</p> <ul style="list-style-type: none"> Lift LCRU post locks Release Y-cable Install LCRU, lock posts & conn. pwr conn. [GEO PALLET SET-UP] Install TCU(conn. inboard) Conn. pwr cable to TCU Unstow Rake Install LGA, CDR side, tilt to 45°, align Conn LGA to LCRU [CDR CAM, ETB] Install, raise HGA mast Conn HGA to LCRU Velcro cable to staff 	CDR-10 EVA1
			11-1-72

LMP-11 EVA1	1+04	<p>LRV EQUIP STOWAGE</p> <ul style="list-style-type: none"> Config CDR cam (MESA) [TV] <ul style="list-style-type: none"> • Remove cam • Mount cam on RCU ETB to CDR seat <ul style="list-style-type: none"> • Reseau cover to ETB • Darkslide (Mag B) to ETB • Install Mag B (ETB) • Fire 2 frames • Install bag adapter (ETB) • CDR cam to CDR footpan Maps & holder to LMP seat Stow under CDR seat: <ul style="list-style-type: none"> • 3 mags (rpt C,G,H) [SRC] • Sun compass • Tape • Scissors • Lens brushes (2) • 500 mm cam • LMP cam BSLSS to CDR seatback ETB to MESA table Check for TGE - GRAV - 	LRV AFT ETB
	11-1-72		

CDR-11 EVA1	1+08	<ul style="list-style-type: none"> Unstow TV cam (MESA LH) TV to TCU TV sunshade to TV cam TV cable (TCU) to TV cam Deploy HGA/Align Check LCRU: <ul style="list-style-type: none"> • Deploy LCRU whip ant • LCRU Blkts - 100% open • Cb - Closed • Pwr sw - INT - • Report - AGC, TEMP, PWR • Pwr sw - EXT - • Mode sw - 2 - (FM/TV) • TCU pwr sw - ON - (mom.) • <u>VERIFY</u> - AGC & PWR ~2 	LRV FRONT CONFIG
	11-1-72		

FLAG ALSEP OFF	1+12	<u>FLAG DEPLOY</u> •Unstow kit •Get hammer •Select site 2:00/30' •Photos (CDR cam) •Get cam from CDR	LMP-12 EVAI 11-1-72
	1+22	<u>LM INSPECTION</u> Inspect 4 struts & engine bell status Note TGE status Stow cam under CDR seat Deploy Cosmic Ray(if desired) •Shade first •Bag to LRV bay	
		EXPT PALLET OFFLOAD	

SRC, FLAG EXPTS OFF		<u>SRC CONFIG</u> SRC 1 (RH) to MESA table SCB 1 to MESA top Seal organic cont sample Close SRC SCB 1 to tool gate Hammer to leg pocket <u>TGE - GRAV -</u>	CDR-12 EVAI 11-1-72
	1+18	<u>FLAG DEPLOY</u> •Unstow kit •Select site 2:00/30' •Photos (CDR cam) •Cam to LMP •Hammer to geo pallet	

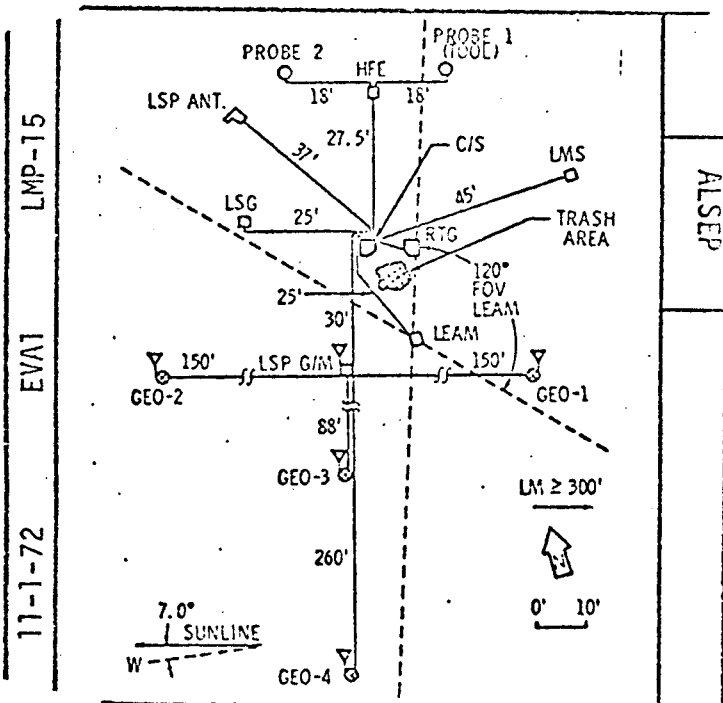
11-1-72 EVAI LMP-13	1+26	<u>ALSEP OFFLOAD</u> Open SEQ doors Descent ECA Temp Mon. SW-ON - RTG to surface Discard Hockey Stick C/S to surface, 90° to RTG Remove Hockey Stick Remove tool brkt, RTG: •Config UHT/blocks •UHT's to PKG sockets •Carry bar to C/S •DRT, FTT to SEQ bay	ALSEP OFF FLAG 11-1-72
	1+33	<u>FUEL RTG</u> Rotate RTG up Remove RTG dust cover Deploy fuel cask Remove dome, discard Fuel RTG Close SEQ bay doors Conn RTG to C/S bar	
		OFFLOAD DRILL	

11-1-72 EVAI CDR-13	1+22	<u>EXPT PALLET OFFLOAD</u> Remove QIII thermal blanket Offload pallet to +y pad <u>TGE - READ -</u> <u>TGE to surface</u> <u>TGE - GRAV -</u> Swivel geo pallet open BSLSS over seatback Mount SEP Rcvr on post Read Temp Meter - close cover Deploy ant (decals 1-5) Mount ant on post Remove SEP Nav cable Conn SEP Nav to LRV (decal 6)	LM IN- SPECT, ALSEP OFFLOAD 11-1-72

11-1-72 18:48:09

ALSEP TRAV	1+40	<u>TRAVERSE TO ALSEP SITE</u> Select ALSEP site ~ 300' W of LM ($\theta_{umb} = 350'$) ~ 80' S of deep core/Depress Place ALSEP on surface, C/S-South	LMP-14
	1+47	<u>ALSEP INTERCONNECT</u> Disc carry bar - discard Attach blocks to C/S Pos RTG 10'E of C/S Remove 2 HFE pull pins Remove 1 LEAM pull pin Rotate RTG to gnd	EVA1
		<u>IF CDR DELAYED</u> °Offload HFE 10'N C/S °Conn HFE to C/S, lock	11-1-72

ALSEP TRAV	Remove EP Xptr brkt from LRV pallet (backside), lock on pallet top EP Xptr to LRV topside (4,5,6,7) Close geo pallet TGE - READ - TGE - BIAS - Orient Expt. pallet to sun
1+30	<u>ALSEP TRAV PREP</u> Core/Bore bag to FUEL LMP seat RTG N. Flux Expt to LMP seat Drill to LMP seat, secure with seatbelt TGE - READ - TGE to LRV

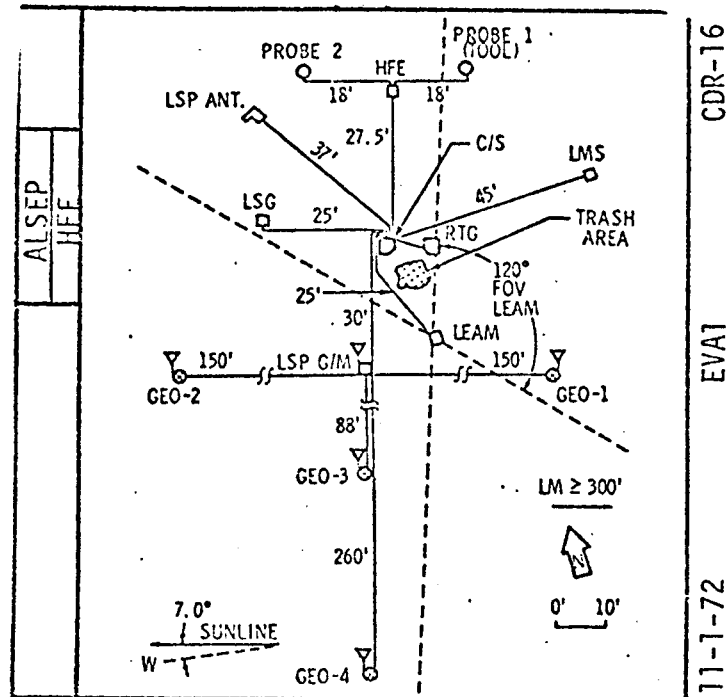


CDR-15	Remove MESA brkts, L. side LiOH Cann. to middle of MESA Tidy MESA Blankets
1+35	<u>LRV Equip Ck</u> <ul style="list-style-type: none"> • LCRU - b/nkts 100% open • TV/Sunshade • SEP RCVR/ant - nav cable • EP Xptr (4,5,6,7) on LRV • TGE (3 meas. complete) • Drill, bag, N. Flux
1+37	<u>ALSEP TRAV</u> TV cam; Mode sw -1-(PM1/WB) Drive to ALSEP site, 300 ft W Park 60 ft NE of C/S, H = 180 +15 vdc sw - OFF - Mode sw - 3 - (TV RMT) Dust TV, TCU & LCRU HGA TGE - GRAV -
11-1-72	

2.5m

11/12/02

RTG LSG, G/M	1+49	Unstow RTG cable (3 BB's) • Read Tempilabel if > 250° • Pull pin - discard brkt • Get conn. - read mtr • Attach & lock to C/S Reposition RTG wrt C/S if reqd Release LEAM pallet (2BB's) Carry 10'W of C/S Get LEAM conn Remove dust covers on conn and C/S Conn LEAM to C/S, lock Tip C/S down, coarse align	LMP-16
			11-1-72



LMP-17	1+58	<u>LSG DEPLOY</u> Remove BB's <u>IN ORDER</u> [HFE] • Knock BB's off LSG Carry LSG 25'W of C/S Extend & tilt sunshield to 20° Level & align Uncage Gimbal	LSG, G/M
	EVA1	2+04 <u>LSP GEOPHONE MOD DEPLOY</u> Remove flag pin Remove 4 BB's Carry Geophone Module 30'S of C/S Align G/M to sun Deploy flags Anchor module - use a flag, point face to S	
11-1-72			

CDR-17	1+50	<u>HFE DEPLOY</u> Offload HFE 10'N of C/S Conn HFE to C/S, lock Carry HFE 30'N of C/S, place on gnd, expt. up Remove probe box (4BB's) Stow box 2 on pallet [LSG] Carry box 1 16'E of HFE, place on gnd Carry box 2 16' W of HFE, place on gnd Remove elec pkg (4BB's) Lift with UHT - remove cover Emplace & align elec [G/M]	HFE ALSEP
	EVA1	TGE - READ - Assemble Drill	
11-1-72			

11-1-72

LMS C/S	2+08	<u>LMS DEPLOY</u> Use UHT to pull vent ring Remove 3 BB's Lift LMS, rotate to carry pos Carry 45' NE of C/S Align E/W & level Snap breakseal • <u>VERIFY</u> dust cover action	LMP-18
		<u>Level & align C/S</u> Housekeep C/S	EVAI

LMP-19 EVAI -1-72	2+12	<u>C/S DEPLOY</u> Remove rear curtain cover, 2BB's Remove 3 ant BB's Remove ant mast pull pins Remove ant bracket Remove ant cable bracket Free ant cable	SWT S/C
		Remove 16 perimeter BB's Extend mast Check C/S corners free Release 3 interior BB's, guide C/S up	
		Discard curtain covers Secure thermal curtains	

C/S ANT LEAM, LSP	2+23	<u>ALSEP ANTENNA DEPLOY</u> Remove ant gimbal from LEAM pallet (2BB's) Remove dust cover <u>ONLY</u> Place gimbal container on ant mast Pull retaining pin, remove & discard cover & foam <u>Mount ALSEP ant on gimbal,</u> <u>seat firmly</u>	LMP-20
		Check LAT/LONG setting • (LAT=2.02, LONG=3.08) Level gimbal Align gnomon shadow	EVAI
		Turn RTG shorting SW - ON - Read mtr	11-1-72

HFE		Carry to HFE site: • Drill • Rack • Bore/core bag	LMS, C/S DEPLOY	CDR-18 EVAI 11-1-72
	2+11	<u>1st PROBE HOLE</u> Drill: • 1 long stem • 2 short stems		
	2+26	<u>EMPLACE PROBE 1</u> Ram 1st thermal shield/probe (P1) Ram 2nd shield (F1) Measure height of stem Position top (3rd) shield Exit cable <u>S</u> [LEAM		

11-1-72	EVA1	LMP-21	2+30	<u>LEAM DEPLOY</u> Remove 4 BB's Carry 25' SE of C/S, line on RTG Remove dust cover Remove UHT socket pin, rotate to lock Deploy legs/gnomon Emplace, level & align	LEAM C/S ANT
			2+35	<u>LSPE ANTENNA DEPLOY</u> Retrieve HFE pallet Remove LSPE ant from C/S Carry ant & pallet 40' NW of C/S Place pallet on surface Deploy ant full length Use UHT to insert ant	

11-1-72	EVA1	CDR-19	2+35	<u>2nd PROBE HOLE</u> Drill: • 1 long stem • 2 short stems	LSPE ANT, GEO DEPLOY
			2+49	<u>EMPLACE PROBE 2</u> Ram 1st thermal shield/probe (P1) Ram 2nd shield (F1) Measure height of stem Position top (3rd) shield Exit cable S Verify HFE Elec level/align UHT to LRV, LMP seat	

27. 2400

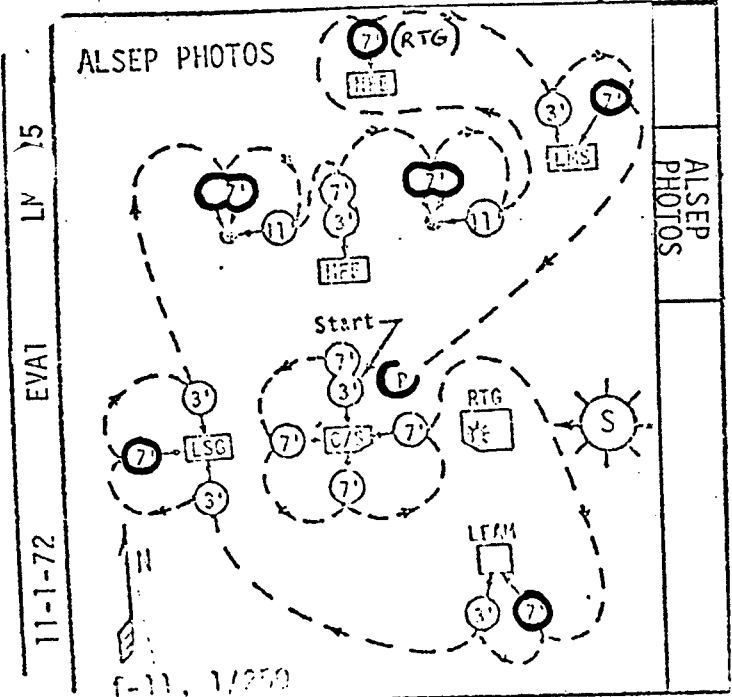
11-1-72	EVA1	LMP-22	2+40	<u>CONFIG FOR PHOTOS/SAMPLING</u> Return to LRV Config LRV Sampler (opt) Get LMP cam Get gnomon	GEOPHONES GEO PHOTO
			2+49	<u>LSPE GEOPHONE DEPLOY</u> Return to Geo Module Remove & discard cover Insert UHT in reel #3 Get flag Get gnomon Deploy Geo 3 88'S (Xsun) Embed Geo & anchor w/flag Emplace gnomon 2' NW of Geo 3 • Photo doc remaining Geo's as reqd if no LOS to Geo 3 Insert UHT in reel #1 Get flag Deploy Geo 150'E (Upsun) Embed Geo & anchor w/flag	

11-1-72	MP-23	EVAI	3+00	Insert UHT in reel #2 Get flag Deploy Geo 2 150'W (Dnsun) Embed Geo & anchor w/flag Insert UHT in reel #4 [DEEP CORE] Get flag Deploy Geo 4 260'S Embed Geo & anchor w/flag Return to Geo 3: •Move 25'SW, photo Geo's 1/3, 2, 4 •Move 25'SE, photo Geo's 2/3, 1, 4 •Take pan 10' S of Geo 3 <u>GNOMON TO C/S</u>	GEO PHOTOS GEOPHONES
			11-1-72		

11-1-72	EVAI	CDR-20	2+56	<u>DEEP CORE PREP</u> Carry to Site, (55 ft. N of HFE): •Drill •Rack •Core bag <u>DRILL DEEP CORE (1 IPS)</u> Drill: •Bit stem first •3 stems Clear Flutes •5 sec each stem •20 sec final Plug top end	DEEP CORE N. FLUX
			11-1-72		

11-1-72	EVAI	LMP-24	3+19	<u>Activate LSPE enable sw</u> Take ALSEP Photos Gnomon to LRV Place LMP cam on CDR seat Stow sampler If CDR drilling: •Assist with N. Flux •Assist with core capping	ALSEP PHOTOS
			11-1-72		

11-1-72	EVAI	CDR-21	3+13	<u>DEEP CORE RECOVER</u> Get from LRV: •Treadle •N. Flux •Rammer TGE - GRAV - Jack to treadle Ram top plug Extract stem Cap Plug & ram bit end Lay Core against rack	DEEP CORE N. FLUX
			11-1-72		
11-1-72	EVAI	CDR-21	3+28	<u>NEUTRON FLUX:</u> Activate lower section Mate to upper Activate upper Emplace Thermal cover over probe	ALSEP PHOTOS
			11-1-72		



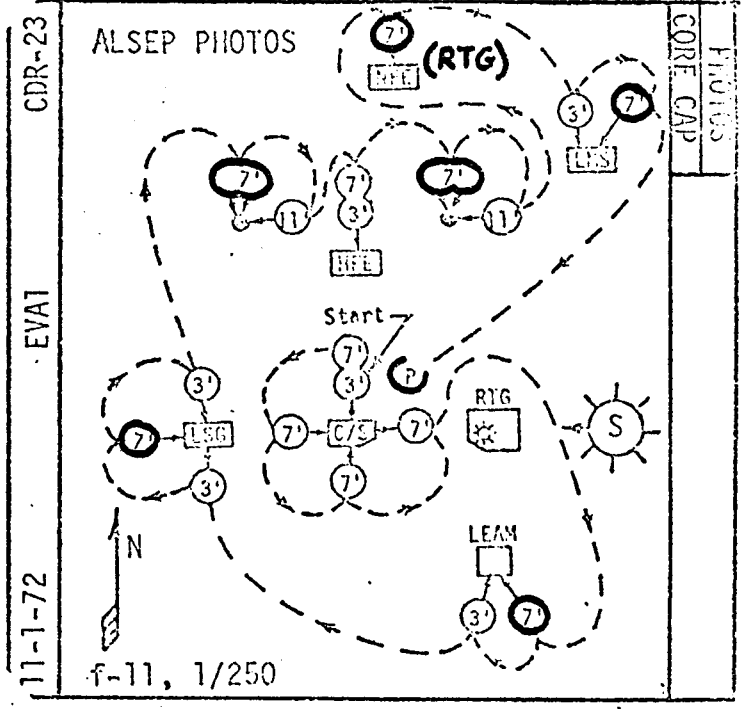
3+34 Carry core stem/caps/wrench to LRV
~~Ramp plugs~~
 Disjoint core in 3, 2, 3
 Cap ends-rpt caps
 Stow on LRV
 TGE - READ -

If LMP delayed:

- Assist in Geo Deploy
- Assist in photos

CORE CAP PHOTOS

11-1-72 EVAT CDR-22



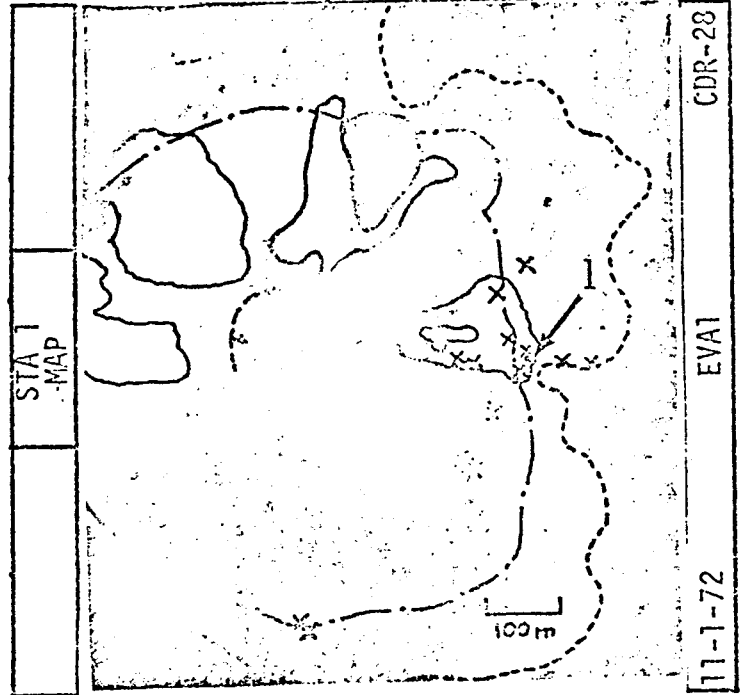
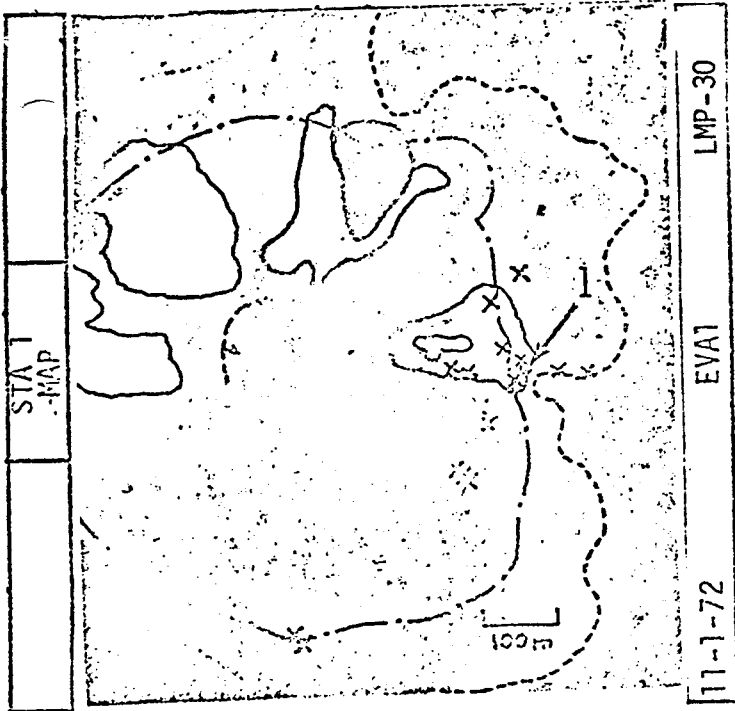
a17. hwsa 1

GEO PREP SEP PREP	3+39	GEO PREP Configure EVA maps Config LRV Sampler if not done	LMP-26
		Hold still [LOAD PLSS] SCB 1 to CDR PLSS Change cam mag (G) Stow LMP cam under LMP seat GNOMON	
			EVA1
			11-1-72

GEO PREP SEP PREP	3+41	GEO PREP Mount 20 Bag Disp (SCB 1) to each cam •LMP cam to LMP seat •CDR cam to CDR floorpan Cap Disp (SCB 1) to gate	LMP-26
		Stow LMP PLSS [HOLD STILL] •Cap Disp (SCB 1) •Rammer •Hammer •SCB 2 LMP to secure SCB 1 Mount CDR cam Tether tongs GNOMON	
			EVA1
			11-1-72

LMP-27	EVA1	3+53	SEP XMTR DEPLOY PREP Get core stems [NAV INIT] Walk to LM Lay core stems on +Z struts • Shade Unstow SEP Xmtr Walk to SEP site, ~100m E (Thumb = 350°) Deploy and lock Xmtr legs Place Xmtr on surface Upon CDR arrival: •Get EP 6 •Mount LMP cam (LMP seat)	GEO PREP SEP PREP

LMP-27	EVA1	3+52	LRV NAV INIT Mode sw - 1 - (PM1/WB) [WALK LM] TV cam +15 vdc sw - PRIM - [NAV INITIALIZE]	GEO PREP SEP PREP
		3+57	ALSEP TO SEP SITE VIA LM Drive to LM - Rpt: • Bearing, Dist., Range Drive to SEP site [WALK TO DEPLOY SITE] • (>100m E) +15 vdc sw - OFF - Rpt: Bearing, Dist., Range, Amp Hrs & Temps NAV: RESET then OFF [GET EP 6] LGA = 150	

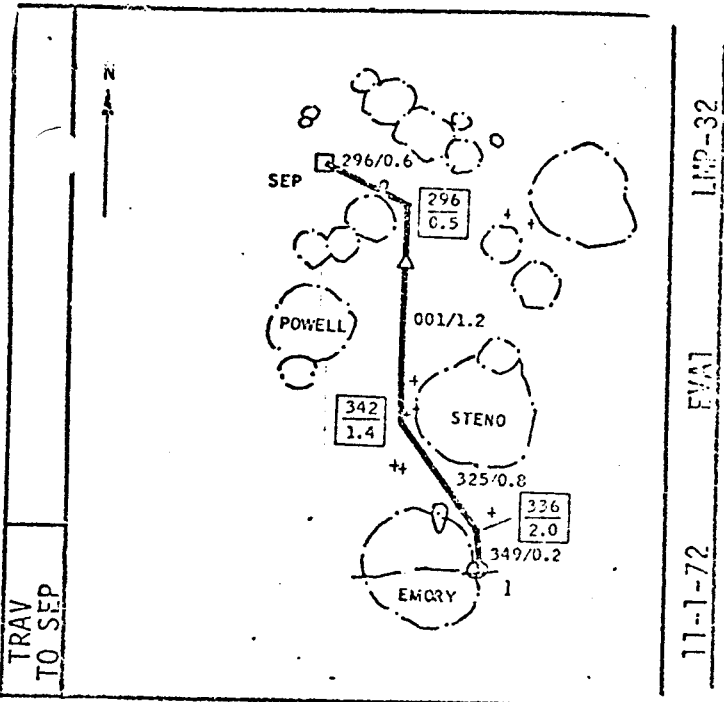


LMP-31	<p><u>STA 1 (66 MIN) 337/2.2</u></p> <p><u>OBSERVATION:</u></p> <ul style="list-style-type: none"> • Contacts - mtl, mtl/subflr • Blks - otc, variety • Mtl Sources - EMORY wall • Mtl vs Blks - dynamics • Misc - xenos, alter, gls <p><u>SUBFLR</u></p> <ul style="list-style-type: none"> • Doc spl - blk types, tex, old reg • Rake^(K_a) btw blk, relate blks • (Soil spl on blk top) <p><u>CONTACTS</u></p> <ul style="list-style-type: none"> • Trench - sequence • Dbl core - in youngest <p><u>VERY DARK</u> <u>DARK</u></p> <ul style="list-style-type: none"> • Rake • Doc spl <p><u>PANS</u></p>	LMP-30
EVA1	<p>11-1-72</p>	EVA1
11-1-72	<p>1 VIS</p>	11-1-72

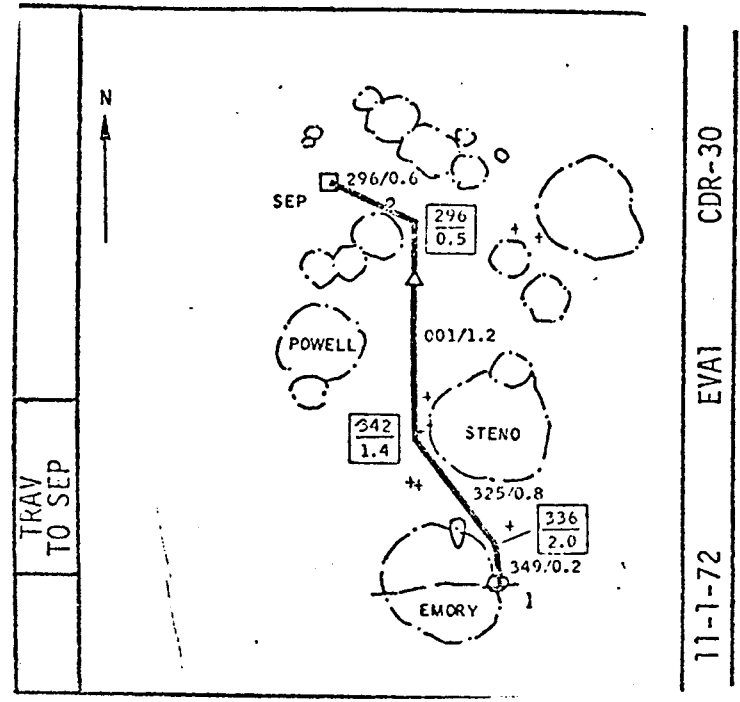
LMP-31	<p><u>STA 1 (66 MIN) 337/2.2</u></p> <p><u>OBSERVATION</u></p> <ul style="list-style-type: none"> • Contacts - mtl, mtl/subflr • Blks - otc, variety • Mtl Sources - EMORY wall • Mtl vs Blks - dynamics • Misc - xenos, alter, gls <p><u>SUBFLR</u></p> <ul style="list-style-type: none"> • Doc spl - blk types, tex, old reg • Rake^(K_a) btw blk, relate blks • (Soil spl on blk top) <p><u>CONTACTS</u></p> <ul style="list-style-type: none"> • Trench - sequence • Dbl core - in youngest <p><u>VERY DARK</u> <u>DARK</u></p> <ul style="list-style-type: none"> • Rake • Doc spl <p><u>PANS</u></p>	LMP-30
EVA1	<p>11-1-72</p>	EVA1
11-1-72	<p>1 VIS</p>	11-1-72

CDR-28

STA 1



LMP-32
EVA1
11-1-72



CDR-30
EVA1
11-1-72

LMP-33
EVA1
11-1-72

STA 1 CLOSEOUT

- ▲ Deploy EP 5
 - Locator photo to LRV
 - Include in a pan
- Get EP 7
- TGE - READ -
- TV cam; Mode sw - 1 -(PM1/WB)
- LGA = 330 (frame, tools)

5+35 TRAV TO SEP-2³ min (349/2.8)

- LRV photos Mtl
- Blks - variatn
- Mtl - variatn, dynamics

336/2.0 N wall cone
341/1.6 STENO Crater

- ▲ 320/0.7 EP 7
 - Partial pan
 - TRIDENT - source, xenos
- 296/0.3 View BARJEA

TRAV TO SEP

CDR-31
EVA 1
11-1-72

STA 1 CLOSEOUT

- ▲ Deploy EP 5
 - Locator photo to LRV
 - Include in a pan
- Get EP 7
- TGE - READ -
- TV cam; Mode sw - 1 -(PM1/WB)
- LGA = 330 (frame, tools)

5+35 TRAV TO SEP-2³ min (349/2.8)

- LRV photos Mtl
- Blks - variatn
- Mtl - variatn, dynamics

336/2.0 N wall cone
341/1.6 STENO Crater

- ▲ 320/0.7 EP 7
 - Partial pan
 - TRIDENT - source, xenos
- 296/0.3 View BARJEA

TRAV TO SEP

CREW EVA CUFF CHECKLIST

VOICE DATA

MISSION: APOLLO 17
EVA: 1

DATE: NOV. '72

5458 Arrive SEP site (intr)
+15 vdc sw - OFF -
TMP dismount
MODE: NAV, Ant Hrs & Traps
Position LRV, H = 090
NAV: RESET then OFF
Drive OFF
H INTST
0900
210
360
Park H = 180
+15 vdc sw - OFF -
Mode sw - 3 - (TV Ant)
Dust: HGA
TGE - GRAY -
Walk to SEP Mtr

5458 SEP MTR Deploy
Dismount at SEP Mtr
LMP cam over LMP seat
In - th location, TRNK
ground features LARM
Walk to track crossing water
Release ant reel retainers
Align diagonally, shadow
graph in sun quadrant
Deploy reel #2 W
- Pose for LMP
Deploy reel #4 N
- Pose for CDR
Level & align Mtr
- Pose for shadowgraph
Deploy Cam, handle
Remove dust cover
Display Meter Panels
Verify level & align
Place Mtr sw - Slight

EVA 1

- 5+50 (1) LMP - Rpt 70mm mag/frame
- (1) CDR - REPORT ARRIVAL SEP SITE
- (1) LMP - CAMERA UNDER SEAT
(1) CDR - NAV RESET, THEN RESET SW OFF
- (2) LMP - SEP SITE DESCRIPTION
- 6+00
- (1) CDR - TGE GRAY

LMP ACTIVITIES	EVA TIME	CDR ACTIVITIES	TALK FUNCTION			
			L	M	C	H
SHOOT PART PAN	5+50	POWER UP LRV				
CONTINUE TO SEP SITE		CONTINUE TO SEP SITE				
		GO NEAR SEP XMTR				
SEP SITE						
DISMOUNT LRV PLACE CAM UNDER SEAT		STOP LRV POWER DOWN LRV, VERIFY LMP CLEAR POWER UP LRV, <u>DRIVE 0.1 W OF LMP</u> H = 090° NAV RESET CONTINUE ON CONSTANT HEADING 0.1 KM COME RIGHT TO HEADING 210° CONTINUE ON 210° FOR 0.1 KM COME RIGHT TO HEADING 360° CONTINUE ON 360° FOR 0.2 KM*				
DESCRIBE AREA PROMINENT FEATURES TO MCC AS CDR DRIVES LAYOUT	6+0					
MOVE XMTR TO TRACK CROSSING RELEASE ANT REEL RETAINERS & DISCARD PLACE XMTR ON CROSSING WITH SHADOWGRAPH IN SUN QUAD		PARK LRV ON H = 180° POWER DOWN LRV DISMOUNT LRV LCRU MODE SW - '3' ALIGN HGA DUST TV, TCU, LCRU PRESS TGE 'GRAY' WALK TO SEP XMTR				
REMOVE REEL 2 & DEPLOY ANTENNA WEST ALONG LRV TRACK		REMOVE REEL 1 & DEPLOY ANTENNA EAST ALONG LRV TRACK				
	6+10					

*THESE MANEUVERS PROVIDE
ORTHOGONAL LAYOUT FOR SEP

7

123.27.06

CREW EVA CUFF CHECKLIST

VOICE DATA

11-1-72
EVA 1
COR-33

16:05 SEP XMTR DEPLOY
Deploy reel #1
Photograph ant. Xtr & LMP
#11, 74', 1/250
Deploy reel #3
Photograph ant. Xtr & LMP
#8, 74', 1/250
Take locator photo to LM
TGE - READ -
TRAV TO LM

11-1-72
EVA 1
COR-34

16:20 EVA 1 CLOSEOUT
PARK LRV 30 FT NW OF MESA,
H = 012
LST01 - Volts
LMP to remove SCB 1 (SCB 1
Cam to CDR seat TO GATE
HGA
OFFLOAD LMP PLSS HOLD
+Core cap disp to LSTILL
LMP underseat
+Tools
SCB 2 to +2 pad

11-1-72
EVA 1
COR-34

16:30 SEP XMTR DEPLOY
DISMOUNT AT SEP XMTR
LM cam under LMP seat
Describe location, TRACK
alignment features, LAYOUT
Mark to track crossing w/mtr
Reinforce ant/reel retainers
Align diagonals, shadow
Graph in sun quadrant
Deploy reel #2 w
+Push for CDR
Deploy reel #4 w
+Push for CDR
Level & align Xtr
+Zero on photograph
Deploy Carry handle
Remove thermal cover
Deploy Solar Panels
Verify level & align
Place Xtr SW - STBY

11-1-72
EVA 1
COR-35

16:40 EVA 1 DISMOUNT
Cam to Footspan
Get CDR SC 1
Head SEP how temp
To LMP underseat:
+Unused SCB 1 equip
LRV samples to SCB 1
LMP cam maps to CDR seat
SCB 1 to gate
HGA still
REMOVE &
STOW
700.5,
SCB 2
Underseat samples to Big Bag
Core stow bag to
ladder & pack
Stow Containment
bag pkg in ETB

EVA 1
6+10
(1) LMP - SEP XMTR
LEVEL _____
ALIGNMENT _____
PANELS DEPLOYED _____
SW - STDBY _____

(1) CDR/LMP - TGE RDG -----

6+20
(1) CDR - ARRIVAL AT LM _____

(1) CDR - LRV Data

HEADING	Temp Bat 1
BEARING	Temp Bat 2
DISTANCE	Temp LF mtr
RANGE	Temp RF mtr
Amp-Hr Bat 1	Temp LR mtr
Amp-Hr Bat 2	Temp RR mtr

Volts: (1) _____ (2) _____

(1) CDR/LMP - EMU CHECK

(1) LMP - SEP Temp	CDR	LMP
(1) CDR/LMP - MAG/FRA	CDR	LMP
CDR:	/	/
LMP:	/	/

SCB 1 CONTENTS:

SCB 1

ORGANIC CONTROL SAMPLE

(1) LMP - Mag/frames _____

ETB Contents:
Mag _____ (A) _____ (B) _____ (C) _____ (G)
2 CAMS _____ (R)
Maps _____
Sample Containment Bags
(1) CDR/LMP - LRV Samples Location 6+30
FSR's

MISSION: APOLLO 17 EVA: 1 DATE: NOV. '72

LMP ACTIVITIES	EVA TIME	CDR ACTIVITIES	TASK FUNCTION			
			C	L	M	D
STAND BEHIND REEL FOR CDR PHOTO	6+10	STAND BEHIND REEL - PHOTO REEL, XMTR, LMP #11, 1/250, 74'				
RETURN TO XMTR		RETURN TO XMTR				
REMOVE REEL 4 & DEPLOY ANTENNA NORTH ALONG LRV TRACK		REMOVE REEL 3 & DEPLOY ANTENNA SOUTH ALONG LRV TRACK				
STAND BEHIND REEL - FOR CDR PHOTO		STAND BEHIND REEL - PHOTO REEL, XMTR, LMP #8, 1/250, 74'				
RETURN TO XMTR		RETURN TO XMTR				
ALIGN & LEVEL XMTR (ZERO ON SHADOW GRAPH)						
DEPLOY CARRY HANDLE						
REMOVE & DISCARD THERMAL COVER - DEPLOY SOLAR PANELS		GO TO LRV, READ TGE				
VERIFY ALIGNMENT		MOUNT LRV				
PLACE XMTR SW - 'STDBY'		POWER UP LRV				
RETURN TO LM		DRIVE TO LM				
TRAV DISMOUNT	6+20	TRAV TERMINATION PARK LRV 30 FT NW OF MESA H = 012 + 15 VDC SW - OFF - ADJUST LGA READ OUT ALL LRV DISPLAYS ON CONSOLE				
READ SEP RCVR TEMPERATURE		DISMOUNT LRV				
REMOVE SCB 1 - PLACE ON GATE		PLACE 70MM CAM ON CDR SEAT				
XNSFR UNUSED EQUIP TO LMP UNDERSEAT		POINT HGA TO EARTH				
XNSFR LRV SAMPLES TO SCB 1		REMOVE TOOLS FROM LMP PLSS				
ASSIST CDR TO REMOVE & STOW TOOLS FROM PLSS		TOOL HARNESS				
EVA-1 CLOSEOUT (LMP)		STOW TOOLS ON GEO GATE				
PUT UNDERSEAT SAMPLES IN SRB		CLOSEOUT PREP				
TAKE CORE BAG TO LADDER		SCB 2 TO +2 PAD				
PACK CORE STEMS IN BAG CARRY TO PORCH & STOW AGAINST LM		SCB 1 TO MESA TABLE				
STOW SAMPLE CONTAINMENT PKG		OPEN SRC 1				
TRANSFER ETB TO LRV-CDR FOOTPAN		PLACE SCB 1 IN SRC (POCKETS UP)				
STOW 70MM CAM IN ETB (2)		REMOVE SRC SKIRT & DISCARD				
STOW MAPS IN ETB (CDR SEAT)		REMOVE SEAL PROTECTOR & CLOSE & SEAL SRC (SEAL CLEAR OF BAG MAT'L)				
TRANS 70MM MAGS FROM UNDER CDR SEAT TO ETB (READ FRAME COUNT EACH MAG) TAKE MAG OFF 500 MM CAM		EVA-1 CLOSEOUT (CDR)				
RESTOW CAM UNDER SEAT	6+30					
ATTACH ETB TO LEC						

CREW EVA CHECKLIST

VOICE DATA

EVA 1

CDR-35
EVA 1
11-172

SCB 1 to SRC 1, 2 & 3A pockets up
Remove skirt & seal protector
Close & seal SRC 1
*Verify good seal
*Place SRC in #2 pad
LRV ch's Bus A,B,C,D - Open
LCRU dvr sw - OFF -
Dust TV, TCU, Batt covers
Open Batt covers
Dust Batts if dirty
Dust LCRU
LCRU Batts open - 65%

Final I&V Check
*Batt covers open
*LCRU Batts open 65%
*Samples off
*Equip stowed

EVA 1
CDR-36
11-172

Dust SEP Rcvr
*Blankets A & B - Open
VERIFY:
*Pwr sw - OFF -
*Floor - OFF -
Offload TGE to R. side of MESA, IN SHADE
*Take dust brush
TGE - GRAY -

6+37 Dust EMU's
*Stow PLSS ants (CDR/LMP)
Brush to ladder hook
Eject pallet to LMP BUNESS
TGE - READ - then - STBY -
Open TGE thermal TIE 3 dust
Brush to ladder hook

EVA 1
CDR-38
11-172

TIE to TBR Footman PRK
Stow TIE - SRC
*2 cans, lenses inboard
*3 mous (rpt mag/frame)
*SDU mag (fire 2 frames)
*Raps
TIE to left hook
EVA-1 pallet to cable
*Lith pins up
Flyer MESA blankets:
SEP 2, core stow bag to porch
Stowed

6+37 Dust EMU's
*Stow PLSS ants (CDR/LMP)

EVA 1
CDR-39
11-172

Let EVA-1 pallet
From LMP
INGRESS MESA
Stow pallet equip.
*Food first
Hand pallet to CDR
Receiver & stow
*SCB 2
*Core stow bag
*SRC 1
*ETB
ASSIST CDR
Close hatch

6+57
6+58 Repress

- 6+30 (1) LMP - PALLET 1 LIOH PINS GREEN
- (1) CDR - TGE in shade (verify)
- (1) CDR - TGE GRAY
- (1) CDR - Verify CB's A-B-C-D pulled
Batt Covers - OPEN
LCRU - 65% OPEN
- (1) CDR - Verify Dusting

6+40 (1) CDR/LMP - PLSS Antennas stowed

TRANSFER ITEMS:

- ETB
CORE STEMS (in Bag)
SCB # _____
SRC 1 (1) LMP - In Cabin
PALLET 1

(1) CDR - TGE Rdg
TBE - STNDBY

6+50

MISSION: APOLLO 17

EVA: 1

DATE: NOV. '72

LMP ACTIVITIES	EVA TIME	CDR ACTIVITIES	TASK FUNCTION			
			I	U	V	C
UNSTOW PALLET 1 FROM MESA - VERIFY PINS GREEN HANG PALLET 1 FROM SEC TABLE TIDY BLANKETS ON MESA	6+30	UNSTOW DUST BRUSH				
CARRY SCB 2 & CORE BAG TO LM PORCH		PULL LRV CB A-B-C-D DUST TV, TCU, BATT COVERS				
RETURN TO SURFACE		OPEN BATT COVERS DUST BATT'S IF DIRTY DUST LCRU & SW OFF LCRU BLANKETS - 65% DUST TGE & SEP RECEIVER				
DUST CDR'S EMU		OPEN BLANKET A AND B OFFLOAD TGE TO R. SIDE OF MESA IN SHADE PRESS GRAY PB - NOTE FLASH IND FOR LEVEL CYCLE				
HAND DUST BRUSH TO CDR		HAND LMP DUST BRUSH				
		DUST LMP'S EMU				
STOW PLSS ANTENNAS <u>EVA TERM LMP</u>	6+40	STOW PLSS ANTENNAS STOW DUST BRUSH <u>EVA TERM LMP</u>				
RECEIVE EVA-1 PALLET FROM CDR		HAND EVA 1 PALLET TO LMP				
INGRESS CABIN WITH EVA-1 PALLET		GET DUST BRUSH TGE READ, THEN - STBY - OPEN LID (RADIATOR) DUST TGE				
SHUT OFF 16 MM CAM - REPOSITION ON BRACKET		HANG BRUSH ON HOOK <u>EVA TERM CDR</u>				
INTERIM STOW EQUIP AS REQD		CARRY SRC 1 UP LADDER & STASH ON PORCH				
HAND EVA-1 PALLET TO CDR		RECEIVE & DISCARD EVA - 1 PALLET				
	6+50					

CREW EVA CHECKLIST

VOICE DATA

EVA 1

6+50 (1) CDR -
Verify brush stowed

CDR-32	Final Transfer Check	
	+EVA 1 pallet	
EVA 1	+ETB	
	+Core stem bag	
	+SCB 2	
	+SRC 1	
	+Big Bag if req'd	
	SRC 1 to porch	
	Hand in SCB 2, Core stem bag	
	Hand in SRC 1	
	ETB up & in	
	INGRESS	
6+57 Close hatch		
6+58 Repress		

(1) LMP - Hatch Closed _____

7+00 (1) CDR - Cabin Repress _____

LMP-35	6+50 EVA 1 PERSONNEL	
	Get to Footpad	
	Get CDR SCR 1	
	Read SEP heavy map	
	To LMP underside:	
	+Unused SCB 1 equip	
	LRV samples to SCB 1	
	LMP ram, map to CDR seat	
	SCR 1 to seat	
	Help still	
	REMOVE & STOW	
	TOOLS, ETB 2	
	Underseat samples to Big Bag	
	Core stem bag to ladder & back	
	Stow Containment bag pkg in ETB	

MISSION: APOLLO 17

EVA: 1

DATE: NOV. '72

LMP ACTIVITIES	EVA TIME	CDR ACTIVITIES	TASK FUNCTION		
			C	M	P
	6+50				
RECEIVE & STOW CORE BAG, SCB 2		HAND IN CORE BAG & SCB 2			
		HAND SRC 1 IN TO LMP			
RECEIVE SRC 1, INTERIM STOW		PULL ETB UP WITH LEC HAND IN TO LMP			
RECEIVE ETB FROM CDR					
ASSIST CDR DURING INGRESS		INGRESS LM			
CLOSE HATCH		CLOSE HATCH			
REPRESS OPERATIONS		REPRESS OPERATIONS			
	7+00				