APOLLO 14 EVA HISTORICAL ACCOUNT

(EMU-Related Only)

EVA-1 C = CDR L = LMP H = Houston

GET			EVENT/REMARKS
			EVA Prep:
111	50		Start LM cabin prep.
112	00		Problem with UCTA dumping.
112	09	40	Fixed UCTA problem--was due to kink in hose
112	30		Both OPS C/O completed.
113	04	50	Proceding with comm check (LM)
113	06		Comm loud and clear (LM)
113	08	08	PLSS comm on
113	09		PLSS O_2 Qty 92% and 96% (no identif.)
113	18	26	Lost comm on PLSS's. Back on LM comm. (Period of confusion re-
113	30	50	20 min. behind schedule garding correct PLSS comm. config.
113	50	20	Comm & TM O.K. Lost approx. 0.7 amp. hrs. by 35 min. delay
113	59	53	Don helmets
114	03		LEVA's on
114	13		C&L Pumps on
114	16		C&L O_2 on
114	17		H-Go for cabin depress.
114	18	56	Cabin at 3.5 psia. EVA time start.
			EVA-1:
114	20	59	Hatch open
114	21	20	C&L F/W On
114	24	50	F/W press. up for L
114	25	20	F/W press. up for C
114	26	30	C strart egress
114	27	25	C clears hatch
114	30	50	C start down ladder
114	33		H-Go for 2 EVA
114	35		L egress
114	38	56	C good mobility, good visibility
114	41		EMU check: C 3.75 psia, O_2 85%, no flags, MIN cool.
			L 3.75 psia, O_2 81%, no flags, MIN cool.
115	03	30	EMU check: L O_2 75%, no flags, MIN cool, 3.75 psia
115	04	50	L back in LM
115	06		ETB in LM
115	17	47	L down ladder
115	44	40	EMU check: C 3.7 psia, O_2 72%, no flags, MIN cool.
			L 3.7 psia, O_2 62%, no flags, MIN cool.
			L seems to have a PGA leak. L battery is limiting EVA factor
116	02	05	Seven minutes behind timeline.
116	21	00	EMU check C 3.75 psia, 62% O_2, no flags, MIN cool.
			L 3.75 psia, 55% O_2, no flags, MIN cool.
116	35		400 ft. from LM
116	45		2.5 min. behind timeline.

	GET		EVENT/REMARKS
117	11	50	EMU check: C 3.75 psi, 55% O_2, no flags, MIN cool.
			L 3.75 psi, 43% O_2, no flags, MIN cool.
			C&L report good thermal comfort
			L O_2 and battery limit EVA to approximately 4.8 hrs.
117	24	40	L goes to INT cool
117	27	55	L to MIN cool
117	45		EMU check: C 3.75 psi, O_2 50%, no flags, MIN cool.
			L 3.75 psi, O_2 34%, no flags, MIN cool.
117	55		35 minutes behind timeline
118	19	08	4 hrs. EVA time. Projected EVA time limit = 4.7 hrs.
118	55	42	EMU check: C 3.75 psia, 40% O_2, no flags, MIN cool.
			L 3.75 psia, 20% O_2, no flags, MIN cool.
118	57	30	L ingress LM
118	59	28	C up ladder
119	02		C ingress LM
119	03	15	C&L F/W off and LM hatch closed
119	07	25	C&L O_2 off. LM repress
119	08		LM at 3.5 psia. End EVA-1 - 4 hrs. 49 min.
			L O_2 pressure = 211 psia
			Post EVA
119	09	47	H request leak check on PGA's
			L leak rate higher than C but within spec L = 0.27 psi/min
119	18	20	Discontinue pressure check Spec = 0.3
119	21	23	Activate purge valve
119	23	49	PLSS fan off
			Landing site coord. = 3.66 S lat.
			17.48 W long.
119	26	00	C&L PLSS mode = 0
			EVA-2 Prep
131	28	00	Start LM cabin prep.
131	36	54	C&L comm connectors locked
131	42	30	C&L PLSS pump on
131	43	15	C&L O_2 on
131	44	32	O_2 flag clear
131	44	48	Leak check. C = 0.15 psi/min. L = 0.22 psi/min.
			(0.3 allowable for first EVA L = 0.27 psi/min)
131	47	40	LM at 3.5 psia
			EVA-2
131	48	14	Start EVA
131	50	31	Start F/W
131	52		L reports broken wrist cable and some loss of wrist mobility.
			(Cable not required for structured integrity--mobility only.)
			L - "I got a broken cable. Can't control right hand, keeps pulling back to the inside on me. I can pull, but can't turn this way and make it stay there. See, it's doing that by itself."

GET			EVENT/REMARKS
131	53	50	C on porch
132	00	00	L on porch
132	33		Heart rate: L = 90 C = 84
133	01	09	Five min. behind timeline leaving point A
133	05	20	EMU check: C 3.75 psia, 71% O_2 (820 psi), no flags, MIN cool. L 3.70 psia, 67% O_2 (780 psi), no flags, MIN cool.

TM	C	L
PGA	3.84	3.85
CO_2	0.2	0.4
Subl. Out.	45.1	45.3
LCG In.	80	77
LCG T	1.42	1.78
Current	2.55	2.62
Voltage	16.70	16.74

133	52	30	Thirty minute EVA extension planned. C and L leak rates more nearly equal now than EVA-1. Battery life expected 15 minutes above 30 minute extension.
133	54	50	C to INT cool - back to MIN in 1 minute
134	01		Start several changes to INT and MIN cool by both C and L.
134	33		EMU check: C 3.75 psia, 40% O_2 (561 psi), no flags, INT cool. L 3.75 psia, 35% O_2 (511 psi), no flags, MIN cool.
134	55	50	Reduce 15 min. of EVA extension time due to PLSS O_2. Oxygen consumption increased significantly. EVA is behind schedule (20 minutes)
135	15		EMU check: C 3.75 psia, 35% (461 psi) O_2, no flags, MIN cool. L 3.75 psia, 32% (431 psi) O_2, no flags, INT cool.
135	48		Completed 4 hrs. EVA. O_2 consumption decreased. Projected operational life = 5.2 hours (this includes 30 min. contingency) Glove test in CSD lab. Broken cables did not produce exact result reported by L. May have been lack of lube or dirt that caused L trouble. Metab. rate for first 4 hours estimated at: C = 911, L = 1019 (by MROD)
136	06		L up ladder
136	16	30	C up ladder
136	19		L & C both in LM. Hatch closed.
136	20	50	L F/W off
136	23	00	O_2 off. CABIN AT 3.5 psia
136	23	50	Cabin repress complete. EVA time = 4 hrs 35 min.
136	24	00	C F/W off
136	28	00	L pump and fan off
136	28	20	C pump and fan off
136	30	10	C & L Mode Select. Switch - Off. L PLSS O_2 was limiting expendables, projected at 4.6 hrs. with 235 psia red line. Final L O_2 press = 240 psi Final C O_2 press = 335 psi

EVENT/REMARKS
CO_2 pp remained below 0.6 for both. No anomalies for EMU except possibly a cable failure on L right glove. L did not comment on the glove again (after egress) during entire EVA. Metab. rate estimated at 900 BTU/hr. for both C and L for entire 4 hrs. 35 min. by CSD.