BELLCOMM, INC.

SUBJECT: Materials Presentation at September Apollo Program Office Review
Case 330

DATE: September 25, 1967

FROM: R. R. Schreib, Jr.

MEMORANDUM FOR FILE

The attached vu-graphs outline general information and status for nonmetallic materials as presented at the September Apollo Program Office Monthly Review. They include MSC organization, data dissemination, materials test status, flammability mockup progress and space suit information.

R. R. Schreib, Jr.

2031-RRS-sam

R. R. Schreib, Jr.

Attachments
Vu-graphs

Copy to
Messrs. L. E. Day - NASA/MAT
C. C. Gay - NASA/MAT
J. K. Holcomb - NASA/MAO
L. B. James - NASA/MA-A
A. Jones - NASA/MAP
T. A. Keegan - NASA/MA-2 ← COPY TO
J. R. Kubat - NASA/MAP
C. R. Liebermann - NASA/MAR
N. D. Miller - NASA/MAP
J. B. Skaggs - NASA/MAP
J. H. Turnock - NASA/MA-4
G. C. White, Jr. - NASA/MAR

R. W. Bricker - MSC/ES4
J. P. Crabb - MSC/EP6
J. W. Craig - MSC/PD5
R. L. Johnston - MSC/ES4
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F. G. Allen
C. Bidgood
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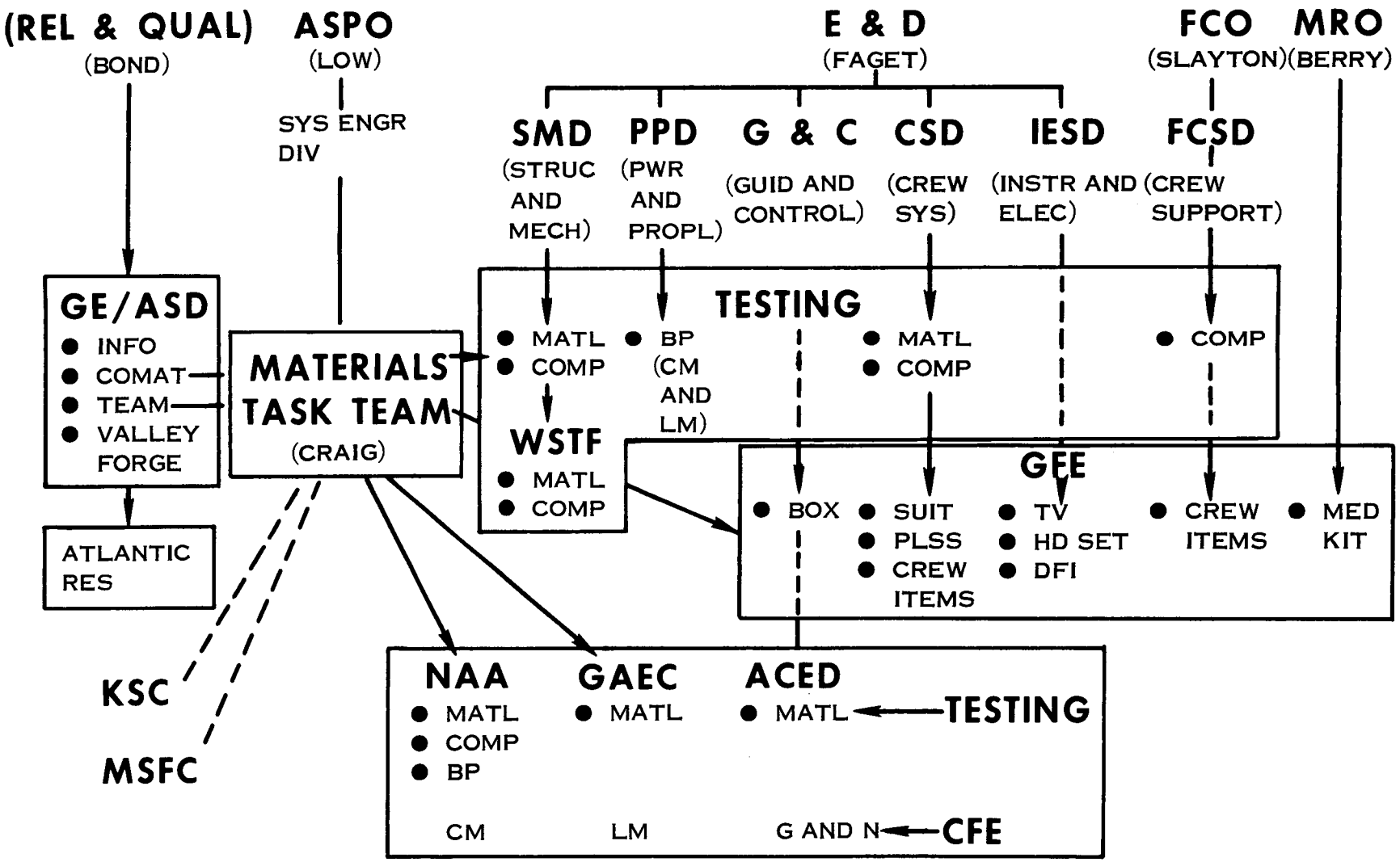
(NASA-CR-90825) MATERIALS PRESENTATION AT SEPTEMBER APOLLO PROGRAM OFFICE REVIEW (Bellcomm, Inc.) 14 p
N79-73030
Unclas
00/54 11032
FF No. 602
(NASA CR OR TMX OR AD NUMBER) (CATEGORY)
[redacted]

SPACECRAFT NONMETALLICS



COMAT

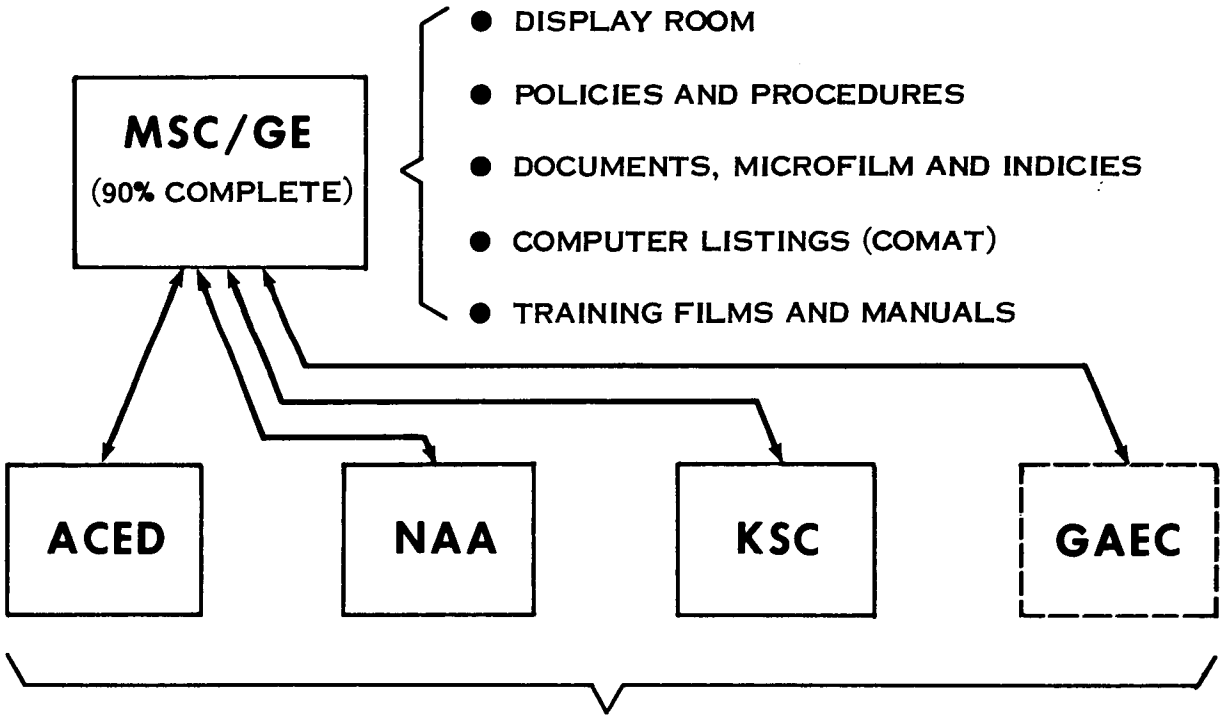
> 1800 MATERIALS (MULTIPLE TESTS)

≈ 200 TESTS/WEEK

WSTF	(CM, LM, G AND N, ETC)	990	MATLS REPORTED
CSD/MSC	(CREW EQUIP)	590	
NAA	(CM)	150	
GAEC	(LM)	125	
SMD/MSC		5	

– COMPONENT AND CONFIGURATION DATA

MATERIAL INFORMATION CENTERS



- INTERNAL—DATA
  - —PROCEDURES
  - —POLICIES
- INQUIRY LOG
- PERIODIC SUMMARY REPORTS

NONMETALLICS STATUS

	MATERIAL APPLICATIONS	COMPONENTS	CONFIGURATIONS	BP
CM	≈1150 ---→ 1500	NAA LAB TEST	BP1250 AT NAA	1224 AT MSC
	28% ACCEPT	12 TESTS ---→ 20	7 TEST ---→ 7	
	27% REPLACE MATL	3 DONE	1 DONE	TEST JAN '68
	42% REDESIGN			
	3% DEVIATION			

NONMETALLICS STATUS (Contd.)

	MATERIAL APPLICATIONS	COMPONENTS	CONFIGURATIONS	BP
LM	≈950 ---→ ?	WSTF COMP. TEST	MSC/SMD	M-6 AT MSC
	29% ACCEPT	47 LM "BOXES"	LM PANELS	
	50% REPLACE/REDESIGN	20 TO BE TESTED	2 DONE	TEST OCT '67
	21% TBD	0 DONE		
	? DEVIATION			

NONMETALLICS STATUS (Contd.)

GFE

- CREW SYS : CREW ITEM CHANGES OK – SUIT UNDER DISCUSSION – PLSS TO BE REVIEWED
- FLT CREW SUPPORT : 31 COMPONENTS – 6 DEVIATIONS – BEST SHAPE
- INSTR. AND ELEC.: TV, HEADSET AND DFI UNDER REVIEW
- MEDICAL : OK

M-6 (LTA 8/LM 2 SIMULATION)

SCHEDULE: SHELL AT MSC | 8 AUG — ASSY — 25 SEPT — TEST — 16 OCT

SUPPORT LTA–8 MANNED TESTS

PROGRESS:

BRACKETS; WELDED AND PAINTED

PANELS; READY AT GAEC

WATER/GLYCOL; 90% INSTALLED (LTA–8 PARTIAL SYS)

MAIN HARNESS; 50% ON HAND (DELIVERY OK)

DFI; 50% HARNESS PLUS ALL EQUIPMENT ON HAND

G AND N; CMDR ACA AND TTCA INSTALLED, ALL OTHER (AOT ETC) ON HAND

GFE CREW EQUIP; ALL ON HAND

M-6 (Contd.)

CONFIGURATION:

MAIN AND LEFT SIDE PANELS

(RIGHT SIDE PANELS OBSCURE CAMERAS, TEST SEPARATELY)

WATER/GLYCOL; MADE TO LTA–8 DRWS; NO COLD PLATES

FLIGHT TYPE HARNESS; 4 FROM LM–5; OTHERS MADE TO LM 4 PHOTOS

DFI FROM LM–3; GSE LIKE LTA–8

PROBLEMS:

DUPLICATING LTA–8 PANEL AND HARNESS PROTECTION
DUPLICATING HARNESS FROM PHOTOS

CABIN HX LEAKS, WILL BYPASS

BP 1224 (2-TV-1/101 SIMULATION)

SCHEDULE:

COMPLETED MOCKUP DELIVERED TO MSC 1 DEC (?)	20 DEC —— TEST —— JAN	2—TV—1 DELIVERY JAN

	AVAIL.	COMPLETE
PRIMARY STRUC.	—	6 OCT (MODS)
HARNESS (102)	22 SEPT	20 OCT (MODS)
SEC. STRUC (102)	6 OCT	27 OCT
WATER GLYCOL	29 SEPT	3 NOV
PANELS (102)	25 AUG	10 NOV
CLOSE OUT	—	24 NOV

BP 1224 (Contd.)

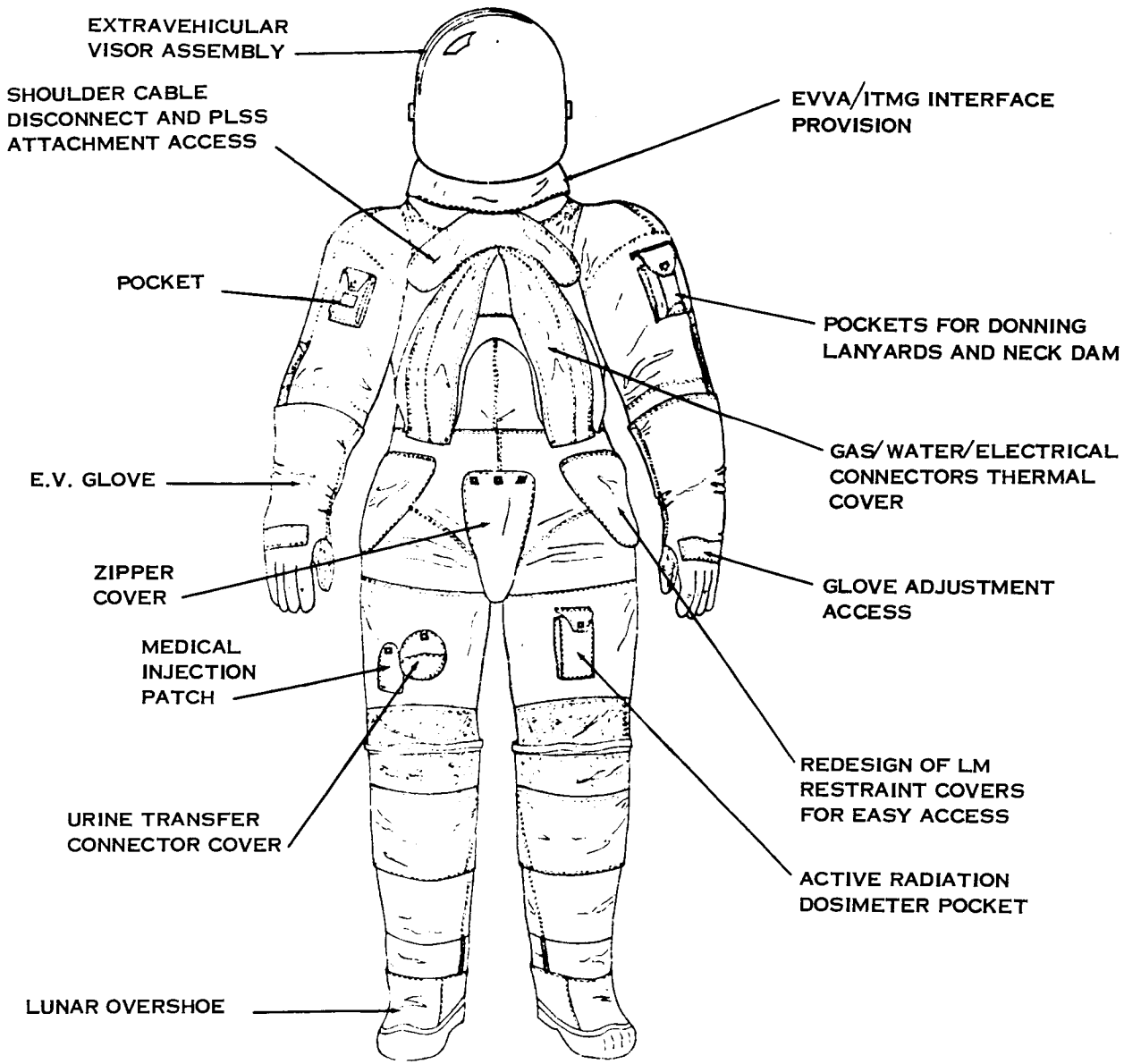
PROGRESS:

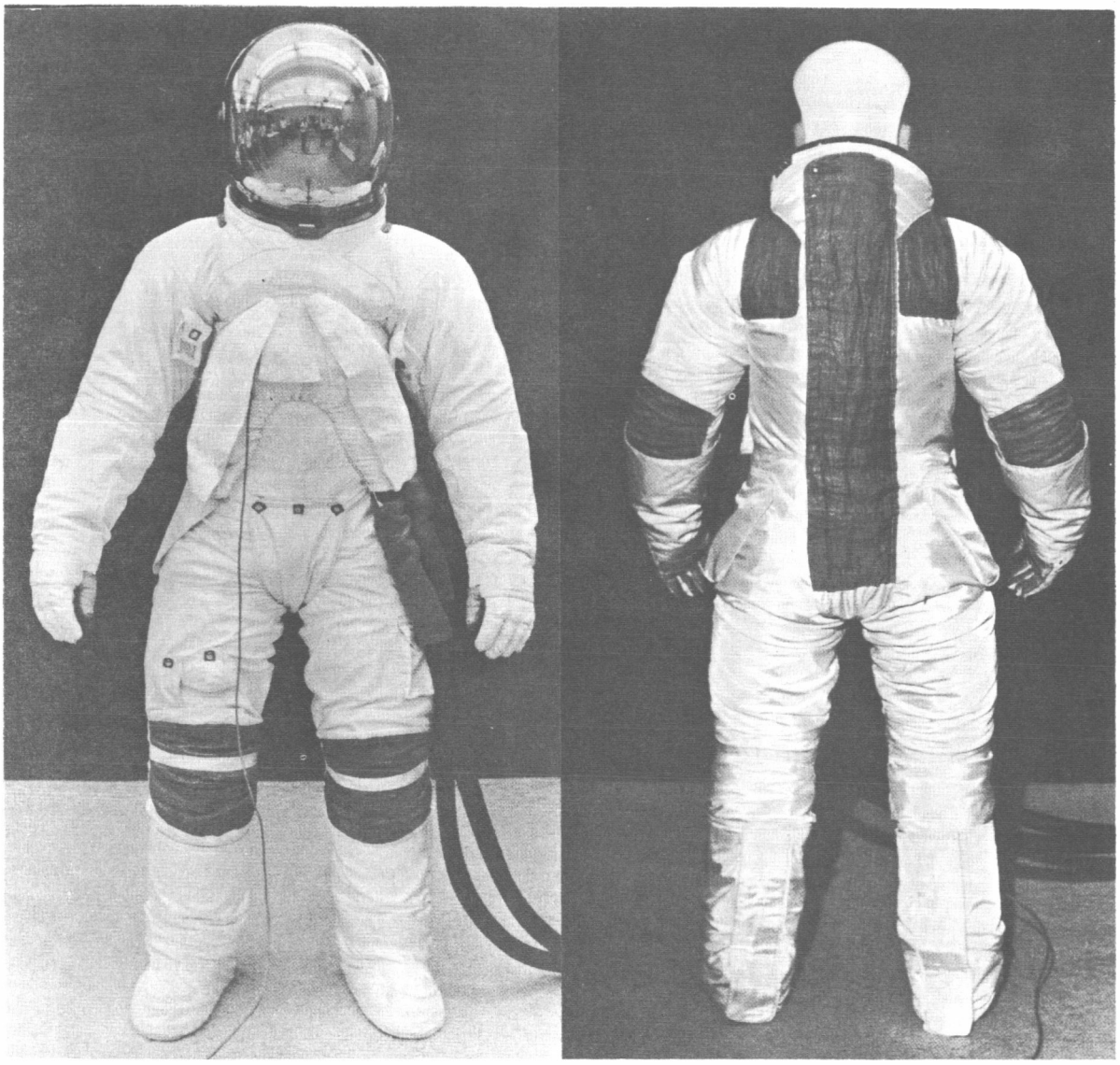
102 DISSEMBLY NEXT WEEK(S)
1224 TO BE SHIPPED TO SUBCONTRACTOR

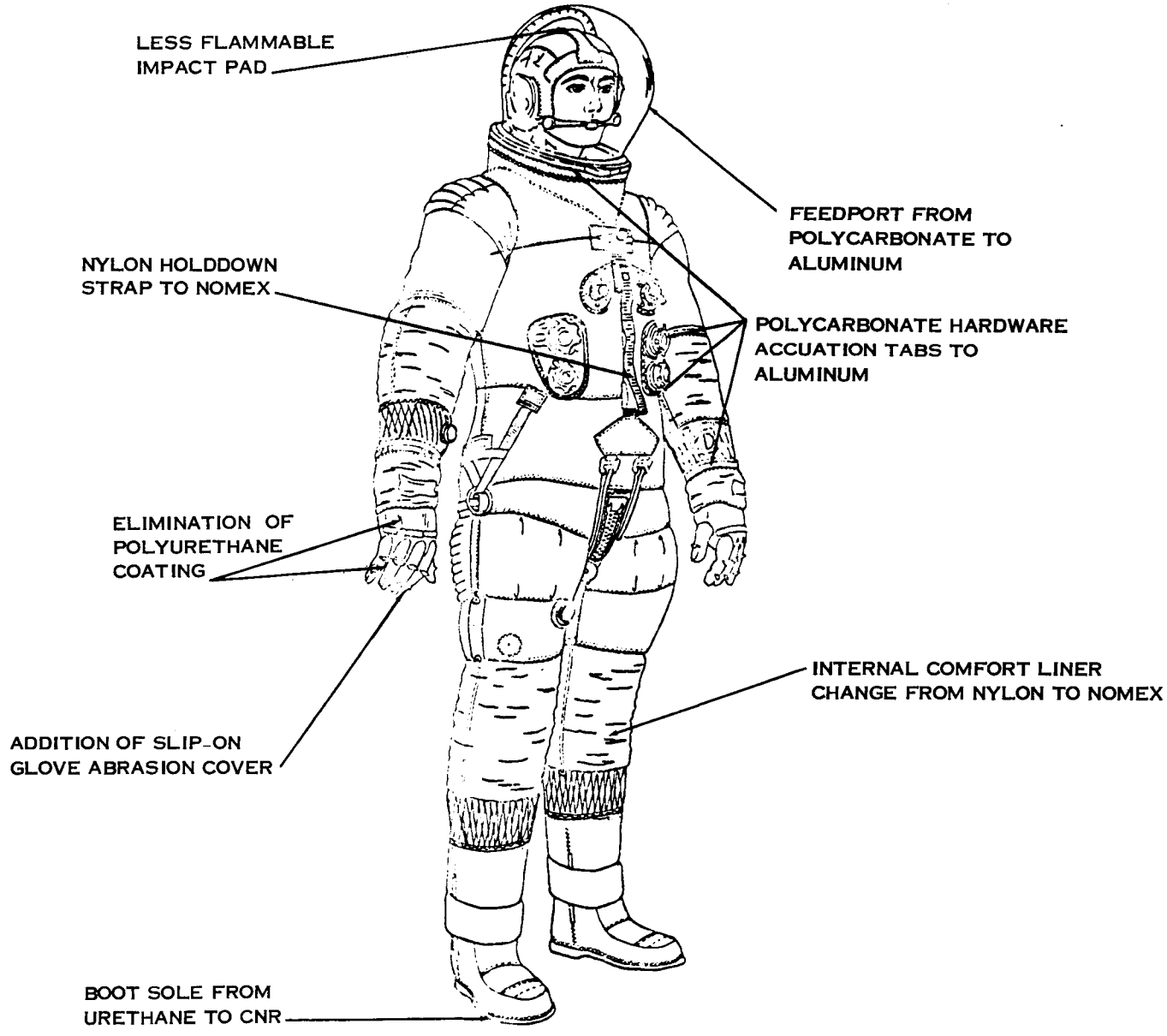
CONFIGURATION: "HIGHER FIDELITY" THAN ORIGINALLY PLANNED
ALL PANELS PRODUCTION FRONT AND BACK

PROBLEMS: MINOR

Model A-7L Pressure Garment Assembly/ITMG/EVVA





MATERIALS CHANGES

Model A7L Torso Limb Suit, Glove, Helmet, and Boot Assemblies