

ASPO 45 CRT DISPLAYS

MSK-683 (CM)

MSK-966 (CM)

MSK-1123 (LM)

MSK-1137 (LM)

ID	GMTC	SITE	X/ROLL	Y/PITCH	Z/YAW
FGWD 0	CTE	PIPA			
FGWD 1	GETA	DELV			
FGWD 2	GETC	VGHU			
FGWD 3	CMCB				
FGWD 4	CMC	FCDU			
FGWD 5	TMSV	DCDU			
FGWD 6	TLMSV	ACDU			
FGWD 7	TGO	ISS			
FGWD 8	TIG	ERROR			
FGWD 9	TEVNT	AK			
FGWD 10	PG	ADOT			
FGWD 11	VB	OMGAC			
CHNL 11	R1	P			
CHNL 12	R2	I			
CHNL 13	R3	P			
CHNL 14	CSM	GMBCMD			
CHNL 30	REDO	HAPO	TCSI		
CHNL 31	FALRG	HPER	TCDH		
CHNL 32	RSBQ	LAT	TPI		
CHNL 33	C31FW	LONG	TTPF		
IMDE 30	HLDFG	VMAGI	TMRK		
IMDE 33	STARID1	VTLL	TVHF		
OPTMDE	STARID2	CDH	ELEVNG		
DPDTR1	CDU SHFT	VHF	CNTRL ANG		
DPDTR2	CDU TRUN	AVR/PX			

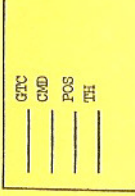
PG	FL	WARN
VB	NN	PRG
R1		KKK
R2		UPFST
R3		UPSW
		CMD

MIL-966

ID	DESCRIPTION OF DOWNLIST BEING TRANSMITTED	WASH	CMC WARNING LAMP STATUS
SITE	SITE FROM WHICH DATA IS BEING RECEIVED	FRG	PROGRAM ALARM LAMP STATUS
*FWD 0 - FWD 11	COMPUTER FLASHWORDS 0 THRU 11	KKK	UPLINK DATA STATUS
*CHAN 11 - CHAN 14	COMPUTER OUTPUT CHANNELS	UPST	BLACK INLINK DISCRETE STATUS
*CHAN 30 - CHAN 33	COMPUTER INPUT CHANNELS	UPSW	UPLINK ACCEPT/BLOCK SWITCH STATUS
*DCKE30, DCKE33	COMPUTER IMU STATUS REGISTERS	CMO	UPLINK TOO FAST STATUS
*OFFICE	COMPUTER OPTICS STATUS REGISTER	*7B	DIRTY VIEW DISPLAY
*DPDTR1, DPDTR2	DATA FOR DAP SELECTION AND OPERATION	*8N	DIRTY HOUR DISPLAY
DMC	GREENWICH MEAN TIME (RECEIPT OF CMC DATA)	R1, R2, & R3	DIRTY ROW 1, ROW 2, AND ROW 3 DISPLAYS
CTE	CENTRAL TIMING EQUIPMENT TIME	REDO	NUMBER OF RESTARTS
GETA	GROUND ELAPSED TIME (RECEIPT OF ANALOG DATA)	RSBQ	VALUE OF BEAK AND G REGISTERS AT THE TIME OF A RESTART
GETC	GROUND ELAPSED TIME (RECEIPT OF COMPUTER WORDS)	DSEAL	DISPLAY TABLE OF DISK STATUS LIGHTS
CMCB	CMC CLOCK MINS ΔT UPDATED	*PALRG	LIST, 2ND AND MOST RECENT ALARM CODES
CMC	CM COMPUTER CLOCK	CHNL 77	CHANNEL 77 - RESTART MONITOR
TMSV	TIME OF CM STATE VECTOR	C31FW	SWITCH OVERSIDE BUFFER FOR 66 CONTROL, CMC MDE AND OPTICS MDE
TLMSV	TIME OF IM STATE VECTOR	*HLOFTG	DELAY TIME FOR CM TRANSIENT CHECK AFTER MARK (CLOCKED)
TGO	TIME TO CUTOFF	INTEG TIME	TIME TO WHICH STATE VECTOR IS PRESENTLY INTEGRATED
TIG	TIME TO/FROM IGNITION	*RCSFG	DATA FOR RCS DAP
TEVNT	TIME OF EVENT	STARID1	IDENTIFICATION NUMBER OF STAR 1
*PG	COMPUTER PROGRAM NUMBER	STARID2	IDENTIFICATION NUMBER OF STAR 2
FL	VIEW/HOUR FLASHER STATUS	CM SHFT	OPTICS SHAFT ANGLE
		CM TRUN	OPTICS TRUNION ANGLE

*SEE CM SOFTWARE SECTION FOR FURTHER DEFINITION

GET	MET	LGC FMT	SITE
AGS	LGC	LGC FMT	VEH WT
T/E	TTC	TTF/8	LGC
PODS RATE			CAL
RGA RATE			
ASA RATE			
ATT CMDS	ROLL/Z	PITCH/Y	
BSVR CMBL		YAW/X	
ICDUD ATT	FO/AE ATTITUDES		
IMU ATT			
GDVA ATT			
AGS ATT			
PGNS ERR	ATTITUDE ERRORS		
AGS ERR			
LGC DEL V	VELOCITIES		
AGS DEL V			
AGS ULL	ACT VBL		
R	AUTO		
P	ATT H		
Y	FO		
RR	F1		
TRK	F2		
R	DSKY		
RDT	P		
SH	V		
TR	N		
	1		
	2		
	3		



GET	-	GROUND ELAPSED TIME	H M S	XXX:XX:XX	R	RENDEZVOUS RADAR RANGE	XXX:XX NM
MET	-	MISSION ELAPSED TIME	H M S	XXX:XX:XX	SH	RENDEZVOUS RADAR SHFT ANGLE	XXX DEG
AGS	-	ABORT GUIDANCE SYSTEM TIME	H M S	XXX:XX:XX	TR	RENDEZVOUS RADAR TURNON ANGLE	XXX DEG
LGC	-	LM GUIDANCE COMPUTER TIME	H M S	XXX:XX:XX	AP	LANDING ANTENNA POSITION	1 OR 2
LGC FMT	-	IDENTIFICATION OF DOWNLIST BEING TRANSMITTED	H M S	XXX:XX:XX	ALT	LR ALTITUDE DATA GOOD	BLANK/XX
SITE	-	IDENTIFICATION OF SITE FROM WHICH DATA IS BEING RECEIVED	H M S	XX:XX	V	LR VELOCITY DATA GOOD	BLANK/XX
TTC	-	TIME TO GO UNTIL ENGINE CUTOFF	M S	XX:XX	SR	LANDING RADAR RANGE	XXXX FT
TTF/8	-	TIME TO GO UNTIL END OF PHASE (DESCENT PROGRAM)	M S	XX:XX	Vx, Vy, Vz	LANDING RADAR VELOCITIES	XXXX FT/SEC
T/E	-	TIME OF EVENT	H M S	XX:XX	DEDA	AGS DSKY ADDRESS READOUT	
PGNS RATE	-	ROLL, PITCH, YAW DAP RATES	XXX:XX:XX	RO	CLEAR	REGISTER 5 DITIT CONTENTS	
BGA	-	AGS BODY MOUNTED RATE CTGEO (OUTPUT)	XX.X DEG/SEC	CLR	M	NUMBER OF LGC RESISTS	
ASA	-	AGS ABORT SENSING ASSEMBLY (BODY RATES)	XX.X DEG	REDO	1	STATES OF DSKY DISPLAYS	
BSVR CMBL	-	LY RESOLVER GENERAL ANGLES	XX.X DEG	DSKY	2	STATUS OF DSKY DISPLAYS	
ICDUD ATT	-	DESIGNED CTG ANGLES TO THE DAP	XX.X DEG	*#	3	STATUS OF DSKY DISPLAYS	
GDVA ATT	-	ACTUAL CTG ANGLES	XX.X DEG	*#		STATUS OF DSKY DISPLAYS	
IMU ATT	-	LY RESOLVER GENERAL ANGLES	XX.X DEG	*#		STATUS OF DSKY DISPLAYS	
AGS ATT	-	ABORT GUIDANCE SYSTEM BODY ANGLES	XX.X DEG	*#		STATUS OF DSKY DISPLAYS	
PGNS ERR	-	CMB-DAC OUTPUT	XX.X DEG	1		STATUS OF DSKY DISPLAYS	
AGS ERR	-	ABORT GUIDANCE SYSTEM ATTITUDE ERRORS	XX.X DEG	2		STATUS OF DSKY DISPLAYS	
LGC DEL V	-	PFA OUTPUT FOR A 2 SECOND INTERVAL	XX.X FT/SEC	3		STATUS OF DSKY DISPLAYS	
AGS DEL V	-	ABORT GUIDANCE SYSTEM MEASURED VELOCITY	XX.X FT/SEC	LFC		LGC CALCULATED LM WEIGHT	XXXXX LBS
AGS ULL	-	ABORT GUIDANCE ULLAGE MEASUREMENT	XX.XY FT/SEC	CAL		GROUND CALCULATED LM WEIGHT	XXXXX LBS
ACT VBL	-	ACCUMULATED VELOCITY ALONG THRUST	XX.X FT/SEC	CAL		ACCUMULATED SUM OF + AND - COMMANDED TORQUE	XX.X SEC
AUTO	-	AUTO STABILIZATION MODE STATUS	XX/BLANK	TORQUE -U, -V, +U, +V		TIME ABOUT CONTROL AGES	XXXXX LBS
P, P, Y	-	ROLL, PITCH AND YAW ACHIEVED FROM PULSES, DIRECT OR AUTO (HORN)	XXX.X DEG	TH		GROUND CALCULATED THRUST	XXX %
ATT H	-	ATTITUDE HOLD MODE STATUS	XX/BLANK	OTC		GUIDANCE THRUST COMMAND	XXX %
*F0	-	FIRST		CMD		SUM OF MANUAL AND AUTO THROTTLE COMMAND	XXX %
*F1	-	SECOND		POS		THROTTLE POSITION	XXX %
*F2	-	MOST RECENT					
*RE	-	RADAR MODE FLAGGED (RAIMODES)	XXXXXX				
TRK	-	RADAR TRACK ENABLE	CR 12 B 14				
RDT	-	RENDEZVOUS RADAR RANGE RATE	XXXXX FT/SEC				

MSK-1137 (continued)

PCNS-B	- DAP COMPUTED BODY RATES	+XX.XX DEG/SEC	LRPOS	- LANDING RADAR ANT POSITION	ONE/TWO
BGA-B	- AGS RATE CUTOFF OUTPUTS IN BODY COORDINATES	+XX.X DEG/SEC	LR RING	- STATUS OF LANDING RADAR RANGE DATA	GOOD/BAD
AGS-B	- AGS INDICATED LINEAR VELOCITY IN BODY COORDINATES	+XX.X FT/SEC	VEL	- STATUS OF LANDING RADAR VELOCITY DATA	GOOD/BAD
LGG-B	- ACCUMULATED PIPA COUNTS WHILE SERVICER IS RUNNING IN BODY AXIS COORDINATES	+XX.X FT/SEC	VXS, VYS, VZS	- LB VELOCITY DATA CONVERTED TO STABLE MEMBER COORDINATES	+XXXX FT/SEC
ACT ΔV	- ACTUAL DELTA V GAINED (GROUND COMPUTED)	XX.X FT/SEC	RNG	- LANDING RADAR SLANT RANGE	XXXXX FT
PIP-5	- PIPA COUNTS	XXXXX ⁰	PCNSΔ	- LB MINUS PCNS VELOCITIES CORRECTED FOR LUNAR GRAVITY IN STABLE MEMBER COORDINATES	+XXXX FT/SEC
SM	- ACCUMULATED PIPA COUNTS OVER 2 SECONDS IN STABLE MEMBER COORDINATE	+XX.X FT/SEC	AGSΔ	- LB MINUS AGS VELOCITIES CORRECTED FOR LUNAR GRAVITY IN STABLE MEMBER COORDINATES	+XXXX FT/SEC
DAP	- LEFT - POSITION OF GUIDANCE AND CONTROL SWITCH	AGS/PCNS	MODE	- STATUS OF RENDEZVOUS RADAR	LGC/AUTO/MAN/SLFW EN/NO EN ONE/TWO
TIG	- RIGHT - STATUS OF THE DAP	ON/OFF	DATA	- STATUS OF RENDEZVOUS RADAR DATA	GOOD/BAD TRK/NO TRK LO/HIGH
TGO	- TIME TO ENGINE CUTOFF	H M S XXX:XX:XX S	_____ /C/D/J/F	- STATUS OF RR C/D/J/F	BLANK/C/D/J/F
T/E	- TIME TO ENGINE CUTOFF	XXXXX	LGC	- RENDEZVOUS RADAR ANTENNA POSITION (C/D)	+XXX.X DEG
T/P	- TIME OF LAST/NEXT SIGNIFICANT EVENT	H M S XXX:XX:XX S	RR	- RENDEZVOUS RADAR ANTENNA POSITION IN F/D/I COORDINATES	+XXX.X DEG
LGC	- TIME TO END OF PHASE (DESCENT ONLY)	XXXXX	ERR	- COMPUTER COMMANDED RENDEZVOUS RADAR ANTENNA RATE	+XX.XX DEG/SEC
ISS	- LGC WARNING LAMP STATUS		RANGE	- RENDEZVOUS RADAR RANGE RATE	XXX.XX NMI
	- ISS WARNING LAMP STATUS		RNGRT	- RENDEZVOUS RADAR RANGE RATE	+XXXX FT/SEC
*CH77	- DEFINITION FOR CAUSE OF LGC WARNING	XXXXXX ⁸	800 ~	- 800 V ₀ VOLTAGE	XX.X VOLTS
*FREQO, FREQI, FREQ2	- 1ST, 2ND, AND MOST RECENT ALARM CODE	XXXXXX ⁸	3200	- 3200 V ₀ VOLTAGE	XX.X VOLTS
*REDO	- NUMBER OF RESTARTS	XXXXX ⁸	120V	- 120 VDC PIPA SUPPLY VOLTAGE	XXX VOLTS
*PROG	- COMPUTER PROGRAM NUMBER	XX	BIAS	- TM BIAS VOLTAGE	X.XX VOLTS
*VERB	- DSKY VERB DISPLAY	XX	LR	- LANDING RADAR ANTENNA TEMPERATURE	+XXXX.X ^{0p}
*NOUN	- DSKY NOUN DISPLAY	XX	RR	- RENDEZVOUS RADAR ANTENNA TEMPERATURE	+XXX.X ^{0p}
FL	- INDICATES WHETHER OR NOT VERB/NOUN FLASHER IS ON	FLSH/BLANK	PIP	- PIPA TEMPERATURE	+XXX.X ^{0p}
*R1, R2, R3	- DSKY ROW 1, ROW 2, AND ROW 3 DISPLAYS	+XXXXX			

*SEE LM SOFTWARE SECTION FOR FURTHER DEFINITION.