APOLLO AGC DSKY COMMANDS

Apollo AGC DSKY VERBS:

VERB	ACTION
00	NOT IN USE
01	DISPLAY OCTAL COMP 1 IN R1
02	DISPLAY OCTAL COMP 2 IN R1
03	DISPLAY OCTAL COMP 3 IN R1
04	DISPLAY OCTAL COMP 1, 2 IN R1, R2
05	DISPLAY OCTAL COMP 1, 2, 3 IN R1, R2,R3
06	Display decimal in R1 or R1, R2 or R1, R2, R3
07	DISPLAY DOUBLE PREC DECIMAL
11	MONITOR OCTAL COMP 1 IN R1
12	MONITOR OCTAL COMP 2 IN R1
13	MONITOR OCTAL COMP 3 IN R1
14	MONITOR OCTAL COMP 1, 2 IN R1, R2
15	MONITOR OCTAL COMP 1, 2, 3 IN R1, R2, R3
16	Monitor decimal in R1 or R1, R2 or R1, R2, R3
17	MONITOR DOUBLE PRECISION DECIMAL IN R1, R2 (TEST ONLY)
21	Load Component 1 into R1 Allows the flight crew to enter data into register 1. The noun decides what memory location is bound this register. ENTR will commit the data.
22	Load Component 2 into R2 Allows the flight crew to enter data into register 2. The noun decides what memory location is bound this register. ENTR will commit the data.
23	Load Component 3 into R3 Allows the flight crew to enter data into register 3. The noun decides what memory location is bound this register. ENTR will commit the data.
24	Load Component 1,2 into R1, R2. Allows the flight crew to enter data into register 1 and 2. The noun decides what memory location is bound this register. ENTR will commit the data.
25	Load Component 1,2,3 into R1, R2, R3 Allows the flight crew to enter data into register 1, 2, and 3. The noun decides what memory location is bound this register. ENTR will commit the data.
30	Request Execution
31	REQUEST WAIT LIST
32	RECYCLE PROGRAM
33	PROCEED WITHOUT DSKY INPUTS
34	TERMINATE FUNCTION
35	Test lights
36	REQUEST FRESH START
37	Change program (major mode)
40	ZERO CDU'S
41	COARSE ALIGN CDU'S
42	FINE ALIGN IMU
43	LOAD IMU ATT ERROR METTERS
44	SET SURFACE FLAG
45	RESET SURFACE FLAG
46	Establish G & N autopilot control

Apollo AGC DSKY VERBS:

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VERB	ACTION
47	MOVE LM STATE VECTOR INTO CM STATE VECTOR
48	Request DAP DATA LOAD (R3)
49	Start automatic attitude maneuver
50	Please perform
51	Please Mark
52	MARK ON OFFSET LANDING SITE
53	Please Mark ALT LOG
54	Rend COAS Mark
55	INCREMENT AGC TIME (DECIMAL)
56	Terminate P20
57	DISPLAY UPDAT STATE OF FULTKFLG
58	StickFlag (R) [VERB] [5] [0] [NOUN] [1] [8] Flag (5)
59	PLEASE CALIBRATE
60	SET ASTRONAUT TOTAL ATTITUDE (N 17) TO PRESENT ATTITUDE
61	DISPLAY DAP ATTITUDE ERROR
62	DISPLAY TOTAL ATTITUDE ERROR WRT N22
63	DISPLAY TOTAL ASTRONAUT ATTITUDE ERROR WRT N17
64	REQUEST S-BAND ANTENNA ROUTINE/Optics Angle Transform
65	OPTICAL VERIFICATION ON PRELAUNCH ALIGNMENT
66	VEHICLE ATTACHED. MOVE THIS VEHICLE STATE VECTOR TO OTHER VEHICLE STATE VECTOR
67	DISPLAY W MATRIX
69	CAUSE RESTART
70	UPDATE LIFTOFF TIME
71	UNIVERSAL UPDATE - BLOCK ADR
72	UNIVERSAL UPDATE - SINGLE ADR
73	UPDATE AGC TIME (OCTAL)
74	INITIALIZE ERASABLE DUMP VIA DOWNLINK
75	Backup liftoff
76	Enable VHF Data PROC
77	Disable VHF Data PROC
78	Update prelaunch azimuth
80	UPDATE LM STATE VECTOR
81	UPDATE CSM STATE VECTOR
82	Request Orbit Parameter display (R30)
83	RDZ PMTR DSPLY (16 54)
85	REND PARAM PIP NO 2
86	REJECT REND COAS MARK
87	ENABLE VHF RANGE MARKS
88	DISABLE VHF RANGE MARKS

APOLLO AGC DSKY COMMANDS

Apollo AGC DSKY VERBS:

VERB	ACTION
89	REQUEST RENDEZVOUS FINAL ATTITUDE (R30)
90	REQUEST RENDEZVOUS OUT OF PLANE DISPLAY (R36)
91	DISPLAY BANK SUM
92	OPERATE IMU PERFORMANCE TEST (PO7)
93	Enable W - Matrix INIT
94	PERFORM CISLUNAR ATTITUDE MANEUVER (P23)
96	Terminate integration and go to POO
97	PERFORM ENGINE FAIL PROCEDURE
99	Please enable Engine Ignition

Apollo AGC DSKY NOUNS:

NOUN	ACTION
00	NO ASIGNED
01	SPECIFY MACHINE ADDRESS (FRACTIONAL)
02	SPECIFY MACHINE ADDRESS (WHOLE)
03	SPECIFY MACHINE ADDRESS (DEGREES)
04	ATT ERR
05	ANG SEP ERR-ANG SEP
06	OPTION CODE
07	ECADR OF WORD TO BE MODIFIED 1 TO SET OR RESET SELECTED BITS
08	ALARM DATA
09	ALARM CODES
10	CHANNEL TO BE SPECIFIED
11	TIG NCC
13	TIG NSR
14	STAR TRXR 06.16
16	T EVENT (EXT VERB)
17	Astronaut total attitude
18	Desired auto maneuver FDAI ball angles
19	STAR TRXR 0.6
20	Present ICDU angles
21	PIPAS
22	Desired ICDU angles
23	Docking Angles
24	DELTA TIME FOR AGC CLOCK
25	CHECKLIST (used with N25)
26	PRIORITY/DELAY, ADRES, BBCON
27	SELF TEST ON/OFF SWTICH
28	TIG NC2

Apollo AGC DSKY NOUNS:

NOUN	ACTION
29	XSM launch azimuth XXX.XX deg
30	TARGET CODES
31	PIPAS
32	Time from Perigee
33	Time of ignition (GETI)/TIG
34	Time of event
35	Time from event
36	Time of AGC clock
37	TIG TPI
38	TIME OF STATE VECTOR
39	DELTA TIME FOR TRANSFER
40	Time from ignition/cutoff (TFI/TFC) VG
	Delta V (accumulated)
42	Apocenter altitude
	Pericenter altitude
	Delta V (required)
44	Apocenter altitude
	Pericenter altitude
	TFF
45	Marks (VHF/optics)
	Time from ignition of next burn
	Middle gimbal angle
49	△POS-△VEL-CODE
53	RANGE -RR-PHI
54	RANGE -RR-THETA
56	VEHICLE RATE
58	△TPI-△VTPF-△T2
59	△VLOS X-△VLOS. Y-△VLOS, Z
60	GMAX
	VPRED
	GAMMA El
61	Impact
	Latitude
	Longitude
	Heads up/down
62	Inertial velocity magnitude
	Altitude rate
	Altitude above pad radius
63	Range from EI altitude to splash
	Predicted Inertial Velocity
	Time of EI altitude

Apollo AGC DSKY NOUNS:

NOUN	ACTION
64	Drag acceleration Inertial velocity
	Range to splash
66	Commanded bank angle
	Crossrange error
	Downrange error
67	Range to target
	Present latitude
	Present longitude
68	Commanded bank angle
	Inertial velocity
	Altitude rate
69	Commanded bank angle
	Drag level
	Exit velocity
70	SENSOR/CODE (BEFORE MK)
71	SENSOR/CODE (AFTER MK)
72	TIME OF OPT
74	Commanded bank angle
	Inertial Velocity
	Drag acceleration
75	ΔHN5R - ΔTI - ΔT2
76	RANGE - RR -TIME FR OPT
77	RANGE - RR -THETA/PHI
78	YAW - PITCH - OMICRON
81	Delta VX (LV)
	Delta VY (LV)
	Delta VZ (LV)
82	ΔVNSR LOCAL VERT
84	ΔNEXT -ΔHNETXT ΔVNEXT
85	VG CONTROL AXES
88	XYZ PLANET
91	PRESENT SHAFT - T RUN
92	COMMAND SHAFT - T RUN
93	TORQUING ANG
94	ALT LOS SHAFT - T RUN
95	TIG NCI

Apollo AGC DSKY PROGRAMS:

PROGRAM	ACTION
00	CMC Idle
01	Pre-launch IMU alignment
02	Pre-launch setup or Service-Gyro Compassing
03	Pre-launch or Service-Optical verification of Gyro Compassing
06	Computer standby mode GNCS Power Down
07	Systems Test
11	Launch control and Earth Orbit Insertion Monitor (EOI)
12	LEM: ascent to orbit
15	TLI burn/CUTOFF
16	LOI: Lunar Orbit Insertion
17	DOI: Descent Orbit Insertion
18	Orbit Plane/Surface Alignment
19	Orbit Adjustment- In Plane
20	Universal Tracking
21	Ground Track Determination
22	Orbital Navigation
23	Cislunar Mid-course Navigation
24	Rate-Aided Optics (Lanmark Tracking)
27	CMC Update
29	Time to Longitude
30	External Delta V
31	Height Adjustment Maneuver (HAM)
32	CSI: Co-elliptic Sequence Initiation
33	CDH: Constant Delta Height
34	TPI: Transfer Phase Initiation
35	TPM: Transfer Phase Mid-course
36	Rendezvous Braking and station keeping Plane Change (PCM)
37	Return to Earth (RTE)
40	LEM: DPS: Descent Propulsion System Burn
41	RCS: RCS Burn
42	LEM: APS: Ascent Propulsion System Burn
47	Thrust Monitor
51	IMU Orientation Determintion
62	Entry-CM/SM Separation and Pre-Entry
63	LEM: LM PDI Braking/Entry Initialization
64	LEM: LM Approach/Entry-Post 0.05G
65	LEM: LM Auto Landing/Entry-Up Control
66	LEM: LM Manual landing/Entry-Ballistic
67	Entry-Final Phase

Apollo AGC DSKY PROGRAMS:

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PROGRAM	ACTION
68	LEM: Landing confirmation
70	LEM: LM DPS Abort
71	LEM: LM APS Abort
72	LM Co-elliptic Sequence Initiation (CSI) Target
73	LM Constant Delta Altitude (CDH) Targeting
74	LM Transfer Phase Initiation (TPI) Targeting
75	LM Transfer Phase (Mid-course) Targeting
76	LM Target Delta V
77	CSM Target Delta V
79	Rendezvous Final Phase