



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
MANNED SPACECRAFT CENTER
HOUSTON, TEXAS 77058

REPLY TO
ATTN OF: FS66-71-139

DEC 20 1971

MEMORANDUM

TO: Distribution

FROM: FS/Chief, Flight Support Division

SUBJECT: Definition of Lunar Module Computer (LGC) Erasable Load for Apollo 16

The information contained in the enclosures is as follows.

a. Enclosure 1 - Alphabetical cross reference with parameter mnemonic and the LGC memory address.

b. Enclosure 2 - Parameter mnemonic, address, organization responsible for providing a value for the parameter, point of contact in that organization, description of that parameter, binary scale factor, units of engineering value, and units of AGC value.

c. The format is as follows: top line, left to right: MNEMONIC, ADDRESS, SCALE FACTOR, ENGINEERING UNITS, and AGC UNITS. The second or bottom line then gives the organization and the individual in that organization responsible for the parameter, and the definition of the parameter.

All further questions or comments regarding LGC erasable loads should be directed to Messrs. J. R. Garman or R. W. Carl, both at extension 2308.


James C. Stokes, Jr.

2 Enclosures

FS66/JAMartin:jvm:12/15/71:2308

-AYO	1711	JAPFG*	2444
AAPFG*	2440	JBRFG*	2442
AAPFGX	2424	J1PARM	2545
AAPFGZ	2430	J2PARM	2551
ABRFG*	2436	KIGNV/B4	2470
ABRFGX	2422	KIGNX/B4	2464
ABRFGZ	2426	KIGNY/B8	2466
ABSCO	2522	K1PARM	2547
ABSC1	2523	K2PARM	2553
ABSC2	2524	LAG/TAU	2537
ABSC3	2525	LEADTIME	3426
ABSC4	2526	LEMASS	1326
ABTRDOT	2563	IMKAOSN	3010
ADIAX	1463	LMOMEGAN	3007
ADIAZ	1464	LMTRAP	3006
ADIAZ	1465	LOWCRIT	2472
ADSRAX	1466	IRHMAX	3420
ADSRAY	1467	IRVF	2512
ADSRAZ	1470	IRVMAX	2511
AGSK	3371	IRWH	3421
AHZLIM	2476	LRWH1	1315
AOTAZ	3404	LRWFF	2521
AOTEL	3412	LRWVFX	2520
ATIGINC	3400	LRWVFX	2517
AXO	1713	LRWVFZ	2516
AZBIAS	3373	LRWVX	2515
CHANBKUP	0374	LRWVY	2514
COSTHET1	2565	LRWVZ	2513
COSTHET2	2567	MASS	1243
C5MMASS	1327	MAXFORCE	2543
DELQFIX	2503	MINFORCE	2541
DELTTFAP	3425	NBDX	1460
DKDB	3011	NBDY	1461
DKKAOSN	3005	NBDZ	1462
DKOMEGAN	3004	N26/PRI	2371
DKTRAP	3003	N26/2CAD	2372
DLAND	2631	PBIASX	1452
DOWNTORK	3113	PBIASY	1454
ELBIAS	1353	PBIASZ	1456
E3J22R2M	1347	PIPASCFX	1453
E32C31RM	1350	PIPASCFY	1455
FLAGWRD3	0077	PIPASCFZ	1457
FLAGWRD8	0104	PITTIME	3002
FLGWRD10	0106	PTIGINC	3402
GAINAPPR	2450	QHZ	2475
GAINBRAK	2446	RAMIN	2557
GCOMP5W	1477	RANGEVAR	1766
HIASCENT	3000	RAPFGX	2404
HIGHCRIT	2473	RAPFGZ	2410
I GNAOSQ	3012	RATEVAR	1770
I GNAOSR	3013	RBRFGX	2402

Enclosure 1

RBRFGZ	2406
REFSMMAT	1731
RIGNX	2460
RIGNZ	2462
RLS	2020
RMAX	2004
RODSALE	2534
ROLITIME	3001
RPCRTIME	3427
RPCRTQSW	3430
RVARMIN	1772
SHAFTVAR	2010
SLOPE0	2527
SLOPE1	2530
SLOPE2	2531
SLOPE3	2532
SLOPE4	2533
TAUHZ	2474
TAUROD	2535
TCGFAPPR	2454
TCGFBRK	2452
TCGIAPPR	2455
TCGIBRAK	2453
TENDAPPR	3424
TENDBRAK	3423
TEPHEM	1706
TETCSM	1570
TETLEM	1642
THETCRIT	2555
TLAND	2026
TNEWA	3431
TOOFEW	1354
TRUNVAR	2011
VAPFG*	2434
VAPFGX	2414
VAPFGZ	2420
VBRFG*	2432
VBRFGX	2412
VBRFGZ	2416
VELBIAS	2400
VIGN	2456
VMAX	2005
VVARMIN	1773
WRENDPOS	2000
WRENDVEL	2001
WSHAFT	2002
WSURFPOS	2006
WSURFVEL	2007
WTRUN	2003
X789	1700
YLIM	2561

ZOOMTIME
2 LATE466
504 IM

3422
2477
2012

FLAGWRD3 FSD/R. Carl	0077	0	NA	NA	Bit 13 set to indicate that REFSMMAT is valid. Bit 11 set to indicate that LGC configured for post liftoff.
FLAGWRD8 FSD/R. Carl	0104	0	NA	NA	Bit 12 set to indicate that permanent CSM state vector in lunar sphere, Bit 11 set to indicate that permanent IM state vector in lunar sphere.
FIGWRD10 FSD/R. Carl	0106	0	NA	NA	Bit 13 set to zero (bit protected from FRESH START).
CHANBKUB FSD/R. Carl	0374	0	NA	NA	In octal, form ABCDE. Digits ABC are ignored. If digit D is odd, then auto throttle bit is ignored; if digit E is odd, abort/abort stage input bits are ignored.
MASS+0 MPAD/H. Miles	1243	16	LBS	KG	Weight of vehicle (CSMASS+LEMASS if docked).
MASS+1 FSD/R. Carl	1244	2	LBS	KG	Initialized to zero; sometimes mass is used single precision, sometimes double precision.
IRWH1 MPAD/H. Miles	1315	0	UNITLESS	UNITLESS	Weighting factor for the incorporation of IR altitude measurements into the IM state vector after entrance to P64.
LEMASS MPAD/H. Miles	1326	16	LBS	KG	Weight of lunar module (can be loaded in R03 by N47).
CSMASS MPAD/H. Miles	1327	16	LBS	KG	Weight of command and service modules (can be loaded in R03 by N47).
E3J22R2M MPAD/H. Miles	1347	58	M^5/CS^2	M^5/CS^2	Information on the J ₂₂ term for the lunar gravity potential model.
E32C31RM MPAD/H. Miles	1350	80	M^6/CS^2	M^6/CS^2	Information on the C ₃₁ term for the lunar gravity potential model.
EIBIAS G&CD/C. Hackler	1353	-1	DEG	REV	Compensates for bias in LPD elevation angle from window bending due to IM cabin pressurization.

TOOFFEW	1354	14	UNITLESS	UNITLESS
MPAD/H. Miles	Controls the minimum number of consecutive ROD calculations required to avoid issuing alarm 01466 in P66 (must have 1+ TOOFFEW to avoid alarm; the program assumes TOOFFEW to be positive).			

The following 15 parameters are IMU compensation parameters. The organization and responsible individual in that organization are: G&CD/E. Dickinson.

PBIASX	1452	-3	CM/SEC ²	PIPS/CS
PIPASCFX	1453	-9	PPM	PIPS/PIP
PBIASZ	1454	-3	CM/SEC ²	PIPS/CS
PIPASCFY	1455	-9	PPM	PIPS/PIP
PBIASZ	1456	-3	CM/SEC ²	PIPS/CS
PIPASCFZ	1457	-9	PPM	PIPS/PIP
NBDX	1460	-5	MERU	GPUL/CS
NBDY	1461	-5	MERU	GPUL/CS
NBDZ	1462	-5	MERU	GPUL/CS
ADIAX	1463	-6	MERU/G	GPUL/PIP
ADIAY	1464	-6	MERU/G	GPUL/PIP
ADIAZ	1465	-6	MERU/G	GPUL/PIP
ADSRAX	1466	-6	MERU/G	GPUL/PIP
ADSRAY	1467	-6	MERU/G	GPUL/PIP
ADSRAZ	1470	-6	MERU/G	GPUL/PIP
GCOMPSW	1477	+14	UNITLESS	UNITLESS
FSD/R. Carl	Flag indicating whether gyro compensation is required or inhibited.			
TETCSM	1570,1	+28	CS	CS
FSD/R. Carl	Timetag of CSM vector. Set to POSMAX to inhibit POO integration.			
TETLEM	1642,3	+28	CS	CS
FSD/R. Carl	Timetag of IM vector. Set to POSMAX to inhibit POO integration.			
X789	1700-1705	+3	RADIANS	RADIANS
MPAD/H. Miles	Bias necessary to offset RR pointing error.			
TEPHEM	1706-1710	+42	HR	CS
FSD/R. Carl	Time from beginning of July 1 to LGC clock zero time.			
-AYO	1711,2	+0	RADIANS	RADIANS
MPAD/H. Miles	True to mean polar axis rotation about the -Y axis.			
AXO	1713,4	+0	RADIANS	RADIANS
MPAD/H. Miles	True to mean polar axis rotation about the +X axis.			
REFSMMAT	1731-1752	+1	UNITLESS	UNITLESS
MPAD/H. Miles	Nominal descent REFSMMAT.			

RANGEVAR MPAD/H. Miles	1766,7	-12	UNITLESS	UNITLESS	Variance expected in measured range from rendezvous radar.
RATEVAR MPAD/H. Miles	1770,1	-12	UNITLESS	UNITLESS	Variance expected in measured range rate from rendezvous radar.
RVARMIN MPAD/H. Miles	1772	+12	FT ²	M ²	Minimum rendezvous radar range error variance.
VVARMIN MPAD/H. Miles	1773	-12	FT ² /SEC ²	M ² /CS ²	Minimum rendezvous radar range rate error variance.
WRENDVEL MPAD/H. Miles	2000	+14	FT	M	Initialization of position portion of W-matrix for rendezvous.
WRENPOS MPAD/H. Miles	2001	+0	FT/SEC	M/CS	Initialization of velocity portion of W-matrix for rendezvous.
WSHAFT MPAD/H. Miles	2002	-5	MILLIRAD	RADIANS	Initialization of shaft bias portion of W-matrix for rendezvous.
WTRUN MPAD/H. Miles	2003	-5	MILLIRAD	RADIANS	Initialization of trunnion bias portion of W-matrix for rendezvous.
RMAX MPAD/H. Miles	2004	+19	FT	M	Maximum value of rendezvous position update allowed without astronaut approval (trigger for N49).
VMAX MPAD/H. Miles	2005	+7	FT/SEC	M/CS	Maximum value of rendezvous velocity update allowed without astronaut approval (trigger for N49).
WSURFPOS MPAD/H. Miles	2006	+14	FT	M	Initialization of position portion of W-matrix for P22 (IM on lunar surface tracking CSM).
WSURFVEL MPAD/H. Miles	2007	+0	FT/SEC	M/CS	Initialization of velocity portion of W-matrix for P22 (IM on lunar surface tracking CSM).
SHAFTVAR MPAD/H. Miles	2010	-12	MILLIRAD ²	RADIANS ²	Variance associated with the measured value of the rendezvous radar shaft angle.
TRUNVAR MPAD/H. Miles	2011	-12	MILLIRAD ²	RADIANS ²	Variance associated with the measured value of the rendezvous radar trunnion angle.

504 LM MPAD/H. Miles	2012-2017	+0	RADIANS	RADIANS
	Lunar libration correction vector in moon-fixed coordinates.			
RLS MPAD/H. Miles	2020-2025	+27	FT	M
	Position vector of landing site (in moon-fixed coordinates).			
TILAND MPAD/H. Miles	2026,7	+28	HR	CS
	Nominal time of lunar landing (G.E.T.).			
N26/PRI FSD/R. Carl	2371	+14	MIN	CS
	R1 of N26. Set to 0 to lock out V30 or V31.			
N26/2CAD FSD/R. Carl	2372,3	+0	NA	NA
	Address information for R1 of N26.			
VEIBIAS MPAD/H. Miles	2400,1	+6	FT/SEC	M/CS
	Velocity portion of landing radar reasonability test.			
RBRFG MPAD/H. Miles	2402,3 & 2406,7	+24	FT	M
	Hi-gate position aimpoint vector in the descent guidance coordinate system.			
RAPFGX,Z MPAD/H. Miles	2404,5 & 2410,11	+24	FT	M
	Low-gate position aimpoint vector in the descent guidance coordinate system.			
VBRFG MPAD/H. Miles	2412,3 & 2416,7	+10	FT/SEC	M/CS
	Hi-gate velocity aimpoint vector in the descent guidance coordinate system.			
VAPFG MPAD/H. Miles	2414,5 & 2420,1	+10	FT/SEC	M/CS
	Low-gate velocity aimpoint vector in the descent guidance coordinate system.			
ABRFG MPAD/H. Miles	2422,3 & 2426,7	-4	FT/SEC ²	M/CS ²
	Hi-gate acceleration aimpoint vector in the descent guidance coordinate system.			
AAPFG MPAD/H. Miles	2424,5 & 2430,1	-4	FT/SEC ²	M/CS ²
	Low-gate acceleration aimpoint vector in the descent guidance coordinate system.			
VBRFG* MPAD/H. Miles	2432,3	+13	FT/SEC	M/CS
	Eighteen times the Z component of VBRFG.			
VAPFG* MPAD/H. Miles	2434,5	+13	FT/SEC	M/CS
	Eighteen times the Z component of VAPFG.			
ABRFG* MPAD/H. Miles	2436,7	-4	FT/SEC ²	M/CS ²
	Six times the Z component of ABRFG.			
AAPFG* MPAD/H. Miles	2440,1	-4	FT/SEC ²	M/CS ²
	Six times the Z component of AAPFG.			

JBRFG*	2442,3	-21	FT/SEC ³	M/CS ³
MPAD/H. Miles	Z component of hi-gate jerk aimpoint.			
JAPFG*	2444,5	-21	FT/SEC ³	M/CS ³
MPAD/H. Miles	Z component of low-gate jerk aimpoint.			
GAINBRAK	2446,7	+0	UNITLESS	UNITLESS
MPAD/H. Miles	Gain constant used in the orientation of the descent guidance coordinate system in P63.			
GAINAPPR	2450,1	+0	UNITLESS	UNITLESS
MPAD/H. Miles	Gain constant used in the orientation of the descent guidance coordinate system in P64.			
TCGFBRAK	2452	+17	SEC	CS
MPAD/H. Miles	Latest time guidance frame is erected in P63.			
TCGIBRAK	2453	+17	SEC	CS
MPAD/H. Miles	Earliest time guidance frame is erected in P63.			
TCGFAPPR	2454	+17	SEC	CS
MPAD/H. Miles	Latest time guidance frame is erected in P64.			
TCGIAPPR	2455	+17	SEC	CS
MPAD/H. Miles	Earliest time guidance frame is erected in P64.			
VIGN	2456,7	+10	FT/SEC	M/CS
MPAD/H. Miles	Desired speed at P63 ignition, relative to the rotating moon.			
RIGNX	2460,1	+24	FT	M
MPAD/H. Miles	X- component of desired position relative to the landing site, in the descent guidance coordinate system.			
RIGNZ	2462,3	+24	FT	M
MPAD/H. Miles	Z- component of desired position relative to the landing site, in the descent guidance coordinate system.			
KIGNX/B4	2464,5	+4	UNITLESS	UNITLESS
MPAD/H. Miles	Landing site vertical error scale factor used in the ignition time test quantity.			
KIGNY/B8	2466,7	-16	FT/FT ²	M ⁻¹
MPAD/H. Miles	Cross range error scale factor used in the ignition time test quantity.			
KIGNV/B4	2470,1	+18	SEC	CS
MPAD/H. Miles	Speed error scale factor used in the ignition time test quantity.			

LOWCRIT MPAD/H. Miles	2472	+14	LBF	DPSTROTP	The thrust level at which decreasing throttle commands will cause throttle-down from full throttle.
HIGHCRIT MPAD/H. Miles	2473	+14	LBF	DPSTROTP	The thrust level at which increasing throttle commands will cause throttle-up to full throttle.
TAUHZ MPAD/H. Miles	2474	+11	SEC	CS	Time constant for the horizontal velocity nulling in Auto P66.
QHZ MPAD/H. Miles	2475	+0	UNITLESS	UNITLESS	Damping factor for horizontal velocity in P66.
AHZLIM MPAD/H. Miles	2476	-4	FT/SEC ²	M/CS ²	Maximum horizontal acceleration in Auto P66.
2LATE466 MPAD/H. Miles	2477,2500	+28	SEC	CS	Time limit after start of SERVICER cycle beyond which P66 guidance and ROD calculations will be skipped.
DELQFIX MPAD/H. Miles	2503,4	+24	FT	M	Position portion of landing radar reasonability test.
IRVMAX MPAD/H. Miles	2511	+7	FT/SEC	M/CS	Maximum velocity at which IR update can be performed.
IRVF MPAD/H. Miles	2512	+7	FT/SEC	M/CS	Value of velocity at which landing radar velocity weighting factors are changed.
IRWVZ,Y,Z MPAD/H. Miles	2513-15	+0	UNITLESS	UNITLESS	Weighting factors for landing radar velocity updates for the Z, Y, X axis when magnitude of velocity > IRVF.
IRWVFZ,Y,X MPAD/H. Miles	2516-2520	+0	UNITLESS	UNITLESS	Weighting factors for landing radar velocity updates for the Z, Y, X axis when magnitude of velocity ≤ IRVF.
IRWVFF MPAD/H. Miles	2521	+0	UNITLESS	UNITLESS	Weighting factor for landing radar updates for P66.
ABSCO-ABSC4 MPAD/H. Miles	2522-6	+18	FT	M	The distances (negative) from the desired landing site at which the five different segments of landing radar terrain model begin.
SLOPED-SLOPE4 MPAD/H. Miles	2527-33	+6	RADIANS	RADIANS	The slope of the landing radar terrain model segment beginning at the corresponding ABSO-ABSC4.

RODSCALE	2534	-7	FT/SEC	M/CS
MPAD/H. Miles	Value of desired velocity increment for each deflection of the rate of descent (R.O.D.) switch during P66.			
TAUROD	2535,6	+9	SEC	CS
MPAD/H. Miles	Time constant in P66 rate of descent equations.			
LAG/TAU	2537,40	+0	UNITLESS	UNITLESS
MPAD/H. Miles	Lag time divided by TAUROD, used in the P66 desired thrust acceleration computations.			
MINFORCE	2541,2	+12	LBF	KG M/CS ²
MPAD/H. Miles	Minimum thrust command in P66.			
MAXFORCE	2543,4	+12	LBF	KG M/CS ²
MPAD/H. Miles	Maximum thrust command in P66.			
J1PARM	2545,6	+23	FT	M
MPAD/H. Miles	Parameter used in calculation of ZDOTD (Z desired) for aborts from powered descent if the IM to CSM phase angle at time of abort is less than THETCRIT.			
K1PARM	2547,50	+23	FT/RAD	M/REV
MPAD/H. Miles	Parameter used in calculation of ZDOTD (Z desired) for aborts from powered descent if the IM to CSM phase angle at time of abort is less than THETCRIT.			
J2PARM	2551,2	+23	FT	M
MPAD/H. Miles	Parameter used in calculation of ZDOTD for aborts from powered descent if the IM to CSM phase angle at time of abort is greater than or equal to THETCRIT.			
K2PARM	2553,4	+23	FT/RAD	M/REV
MPAD/H. Miles	Parameter used in calculation of ZDOTD for aborts from powered descent if the IM to CSM phase angle at time of abort is greater than or equal to THETCRIT.			
THETCRIT	2555,6	+0	DEG	REV.
MPAD/H. Miles	IM to CSM phase angle at which abort targets are switched; see J1PARM and J2PARM.			
RAMIN	2557,60	+24	FT	M
MPAD/H. Miles	The minimum apolune radius allowed for aborts from powered descent.			
YLIM	2561,2	+24	N.MI	M
MPAD/H. Miles	The maximum cross range distance for aborts from powered descent.			
ABTRDOT	2563,4	+7	FT/SEC	M/CS
MPAD/H. Miles	The desired radial velocity for aborts from powered descent.			

COSTHET1 MPAD/H. Miles	2565,6	+2	UNITLESS	UNITLESS	Cosine of cone 1 angle for aborts; used to determine direction of attitude rotation to preferred abort attitude.
COSTHET2 MPAD/H. Miles	2567,70	+2	UNITLESS	UNITLESS	Cosine of cone 2 angle for aborts; used to determine direction of attitude rotation to preferred abort attitude.
DLAND FSD/R. Carl	2631-6	+24	FT	M	Cells loaded by N69 and used to change desired landing site during P63. Initialized to zero prelaunch.
HIASCENT MPAD/H. Miles	3000	+16	IBS	KG	Upper bound on the mass of the ascent stage in DAP mass reasonability test.
ROLITIME MPAD/H. Miles	3001	+14	SEC	CS	Time to drive the DPS gimbal around the R-axis, from the hard stop to being aligned through the center of gravity. Part of N48 in R03.
PITTIME MPAD/H. Miles	3002	+14	SEC	CS	Time to drive the DPS gimbal around the Q-axis, from the hard stop to being aligned through the center of gravity. Part of N48 in R03.
DKTRAP &CD/H. Kaupp	3003	-3	REV/SEC	REV/SEC	Deadband for the state estimator in the docked configuration.
DKOMEGAN &CD/H. Kaupp	3004	+14	UNITLESS	UNITLESS	Gain in the Kalman filter for the docked configuration.
DKKAOSN &CD/H. Kaupp	3005	+14	UNITLESS	UNITLESS	Gain the Kalman filter for the docked configuration.
IMTRAP &CD/H. Kaupp	3006	-3	REV/SEC	REV/SEC	Deadband for the state estimator in the IM alone configuration.
IMOMEGAN &CD/H. Kaupp	3007	+14	UNITLESS	UNITLESS	Gain in the Kalman filter for the IM alone configuration.
IMKAOSN &CD/H. Kaupp	3010	+14	UNITLESS	UNITLESS	Gain in the Kalman filter for the IM alone configuration.
DKDB &CD/H. Kaupp	3011	+15	REV ⁻¹	REV ⁻¹	Inverse of the attitude deadband in the CSM-docked RCS autopilot.

IGNAOSQ MPAD/H. Miles	3012	-2	DEG/SEC ²	REV/SEC ²
	Initial DAP estimate of offset acceleration about the Q-axis for ascent.			
IGNAOSR MPAD/H. Miles	3013	-2	DEG/SEC ²	REV/SEC ²
	Initial DAP estimate of offset acceleration about the R-axis for ascent.			
DOWNTORK FSD/R. Carl	3113-20	+5	JET SEC	JET SEC
	Cumulative RCS jet-on times, both positive and negative for the P, U, and V axis; initialized to zero prelaunch.			
AGSK FSD/R. Carl	3371,2	+28	HR	CS
	Time of AGS clock initialization; AGS clock + AGSK = current GET.			
AZBIAS G&CD/C. Hackler	3373	-1	DEG	REV
	Compensates for bias in LPD azimuth angle from window bending due to IM cabin pressurization.			
ATIGINC FSD/R. Carl	3400,1	+28	MIN	CS
	The increment to current time used to determine the time-of-ignition for the midcourse maneuver in the IM active rendezvous.			
PTIGINC FSD/R. Carl	3402,3	+28	MIN	CS
	The increment to current time used to determine the time-of-ignition for the midcourse maneuver in the CSM active rendezvous.			
AOTAZ KSC/J. Tadich	3404-11	-1	DEG	REV
	The azimuths of the six AOT detents.			
AOTEL KSC/J. Tadich	3412-17	-1	DEG	REV
	The elevations of the six AOT detents.			
IRHMAX MPAD/H. Miles	3420	+14	FT	M
	Maximum altitude at which IR updates can be performed.			
IRWH MPAD/H. Miles	3421	+0	UNITLESS	UNITLESS
	Weighting factor for landing radar altitude updates in P63.			
ZOOMTIME MPAD/H. Miles	3422	+14	SEC	CS
	Time after ignition at which DPS is to be commanded to full throttle.			
TENDBRAK MPAD/H. Miles	3423	+17	SEC	CS
	Controls time of transition from P63 to P64.			

TENDAPPR MPAD/H. Miles	3424	+17	SEC	CS	Controls time of transition from P64 to P66.
DEINTFAP MPAD/H. Miles	3425	+17	SEC	CS	Time increment to TGO when switching from P63 to P64.
LEADTIME MPAD/H. Miles	3426	+17	SEC	CS	Time increment specifying how far guidance is projected forward in P63 and P64.
RPCRTIME MPAD/H. Miles	3427	+17	SEC	CS	Controls time of landing radar repositioning to position 2.
RPCRTQSW MPAD/H. Miles	3430	+1	UNITLESS	UNITLESS	Minimum X component of the X-body axis in platform coordinates at the time of landing radar repositioning to position 2.
TNEWA MPAD/H. Miles	3431,2	+28	CS	CS	Cycle period at which Lambert solution updates A-steer target parameters (set to a value that inhibits updating).