Massachusetts Institute of Technology
Charles Stark Draper Laboratory

23S Memo 70-53 (Rev #1)

TO: Distribution
FROM: H. McOuat
DATE: 15 September 1970
SUBJECT: GSOP References for Erasable Load

The memo was originally published on July 30, 1970. Since then there has been sufficient response to warrant a revised reference list. The list is attached and again any comments and corrections will be appreciated.

Distribution:

P. Felleman
R. Larson
S. Copps
M. Hamilton
A. Engel
B. McCoy
C. Gilson
C. Beals
R. Whittredge
B. Bramley
O. Eliassen
N. Barnert
T. Brand
T. Parr
W. Ostanek
S. Helfant
M. Reber
E. Muller
G. Levine
M. Cramer
A. Moore
G. Silver
J. Goode
R. Bairnsfather
R. Haslam
R. Schlundt
P. Adler
J. Dunbar
E. Grace
P. Volante
D. Millard
W. Bernikowich
P. Weissman
R. White
D. Eyles
K. Kido
A. Klumpp
L. Berman
N. Brodeur
R. O'Donnell

Refer to GSOP

The COLOSSUS E-load follows:

MNEMONIC	E-Memory Address	MIT/DL Individual	GSOP References
FLAGWRD 1	0075	C. Gilson	(2.2.2.2, WORD 40 b)
FLAGWRD 3	0077	C. Gilson	(2.2.2.2, WORD 41 b)
FLAGWRD 8	0104	C. Gilson	(2.2.2.2, WORD 44 a)
FLAGWRD 9	0105	C. GILSON	(2.2.2.2, WORD 44b)
NO.PASS	0736	R. Whittredge	(5.6.8.4 as N)
PIPTIME	1041, 1042	~~B. Bramley~~ S. ROSENBERG	Fictitious Load for FSB
PGNCSALT	1133, 1134	O. Eliassen	(5.3.5.2 as Alt_I)
PADLONG	1135, 1136	O. Eliassen	(5.3.5.2 as Lon_p)
CDUCHKWD	1346	N. Barnert	Not Referenced
RTED1	1347, 1350	T. Brand	(5.4.3.5 as D_1, Fig 4.3-15)
DVTHRESH	1351	C. Beals	(5.3.3.4 as Δvp, Fig. 3.3-12)
HORIZALT	1352, 1353	T. Parr	(5.2.6.3 as h_0)
ALTVAR	1354	W. Ostanek	(5.2.5.2.3 as var_{ALT})
EMDOT	1355	C. Beals	(5.3.3.3.3 as $\dot{m}$, Fig 3.3-11)
PBIAS	1452, 1454, 1456		as BIAS
PIPASCF	1453, 1455, 1457		as SFE
NBD	1460-1462	S. Helfant	(5.6.13)
ADIA	1463-1465		
ADSRA	1466-1470		
TEPHEM	1706-1710	M. Reber	(5.5.2 as t_0)
UNITW	1711-1716	M. Reber	(5.2.6.3 as $\underline{u}_Z$)
REFSMMAT	1733-1736	~~B. Bramley~~ S. ROSENBERG	Fictitious Load for FSB
EK1VAL	1765, 1766	C. Beals	(5.3.3.3.3 as K_1, Fig 3.3-11)
EK2VAL	1767, 1770	C. Beals	(5.3.3.3.3 as K_2, Fig 3.3-11)
EK3VAL	1771	C. Beals	(5.3.3.3.3 as K_3, Fig.3.3-11)
FANG	1772, 1773	C. Beals	(5.3.3.3.3 as F_{imp}, Fig 3.3-11)
E3J22R2M	1774	W. Ostanek	(5.2.2.3 as $\mu_M\ 3\ J_{22}\ r_M^2$)
E32C31RM	1775	W. Ostanek	(5.2.2.3 as $\mu_M\ 3/2\ C_{31}\ r_M^3$)
TRUNSF	1776	R. Whittredge	Not Referenced
SHAFTSF	1777	"	Not Referenced

MNEMONIC	E-Memory Address	MIT/DL Individual	GSOP References
WRENDPOS	2000	~~W. Ostanek~~ E. MULLER	(5.2.5.2.2 as w_{rr}, Fig 2.5-4)
WRENDVEL	2001	~~W. Ostanek~~ E. MULLER	(5.2.5.2.2 as w_{rv}, Fig 2.5-4)
RMAX	2002	E. Muller	(4.4.2, ROUTINE 22, line #190) (5.2.5.2.1 as δr_{MAX}, Fig 2.5-3)
VMAX	2003	E. Muller	(4.4.2, ROUTINE 22, line #190) (5.2.5.2.1 as δv_{MAX}, Fig 2.5-3)
WORBPOS	2004	P. BRENNAN ~~G. Levine~~	(5.2.4.5 as $w_{\ell r}$, Fig 2.4-1)
WORBVEL	2005	~~G. Levine~~	(5.2.4.5 as $w_{\ell v}$, Fig 2.4-1)
S22WSUBL	2006	~~W. Ostanek~~	(5.2.4.5 as w_{ℓ}, Fig 2.4-2)
RPVAR	2007, 2010	~~G. Levine~~	(5.2.4.5 as var_{RP}, Fig. 2.4-3)
504LM	2011-2016	M. Reber	(5.5.2 as $\underline{\ell}_M$)
EMSALT	2017, 2020	R. Bairnsfather	(4.4.2, PROGRAM 61, line #290) (5.6.10.3 as EMS alt., Fig 6.10-4)
ATIGINC	2021, 2022	W. Ostanek	(4.4.2, PROGRAM 35, Line #80 as A) (5.4.2.3 as $\delta\Upsilon_3$)
PTIGINC	2023, 2024	W. Ostanek	(4.4.2, PROGRAM 75, line #80 as B) (5.4.2.3 as $\delta\Upsilon_7$)
RLS	2025-2032	D. Moore	(5.1.5.3 as $\underline{r}_{LS}$)
TIMEMO	2033-2035	M. Reber	(5.5.4 as t_{M0})
VECOEM	2036-2131	M. Reber	(5.5.4 as $\underline{c}_0$ to $\underline{c}_9$)
RESO	2132-2137	M. Reber	(5.5.4 as $\underline{r}_{ES0}$
VESO	2140-2145	M. Reber	(5.5.4 as $\underline{v}_{ES0}$)
OMEGAES	2146, 2147	M. Reber	(5.5.4 as ω_{ES})
INTVAR	2377	W. Ostanek	(5.2.5.2.2 as var_{INT}, Fig 2.5-4)
AZIMUTH	2400, 2401	O. Eliassen	(5.3.5.1 as A_{ZP}, Fig 3.5-1)
LATITUDE	2402, 2403	O. Eliassen	(5.3.5.2 as Lat_p)
TAZEL 1	2432-2435	R. O'Donnell	(4.4.2, PROGRAM 03, lines #100-110) (4.4.2, PROGRAM 03, lines #180-190)

MNEMONIC	E-Memory Address	MIT/IL Individual	GSOP References
			(1.3.6 as azimuth, elevation of targets 1 and 2. TAZEL 1, +2 = Azimuths 1, 2 TAZEL 1 + 1, +3 = elevation 1, 2
LAUNCHAZ	2633, 2634	O. Eliassen	(2.2.2.4, WORD 79) (4.4.2, PROGRAM 02, line # 80) (5.3.5.1 as A_Z, Fig 3.5-1)
WMIDPOS	3000	G. Levine	(5.2.6.4 as w_{mr}, Fig 2.6-4)
WMIDVEL	3001	G. Levine	(5.2.6.4 as w_{mv}, Fig 2.6-4)
RVAR	3002, 3003	J. Goode	(5.2.5.2.2 as var_R, Fig 2.5-4)
RVARMIN	3004-3006	J. Goode	(5.2.5.2.2 as $var_{R_{min}}$, Fig 2.5-4)
LADPAD	3007	R. Bairnsfather	(5.7, Fig. 7.0-4)
LODPAD	3010	R. Bairnsfather	(5.7, Fig. 7.0-4)
ALFAPAD	3011	R. Bairnsfather	(3.4.7 as α_t), (3.4.11 as α_t, TABLE 3.4 - III) (3.4.12 as α_t) (5.6.10.6 as α_t, Fig 6.10-11)
P37RANGE	3012	R. Haslam	(5.4.3.5, Fig 4.3-16)
ETDECAY	3013	C. Beals	(5.3.3.4 as $\Delta t_{tail\ -off}$, Fig 3.3-12)
EKPRIME	3014, 3015	R. Schlundt	(3.3.7.1 as K', Fig 3.3.17) (3.3.3.4.1 as KPRIME, TABLE 3.3-V)
EKTLX/I	3016-3020	R. Schlundt	(3.3.4)(3.3.3.4.1 as KTLX/I, TABLE 3.3-V)
EREPFRAC	3021, 3022	R. Schlundt	(3.3.5)(3.3.3.4.1 as REPFRAC, TABLE 3.3-V)
PACTOFF	3023	R. Schlundt	(2.2.2.2, WORD 28α), (3.3.2.4) (3.3.5), (5.3.3.3.3 as p)
YACTOFF	3024	R. Schlundt	(2.2.2.2, WORD 28β), (3.3.2.4) (3.3.5), (5.3.3.3.3 as y)
HBN10	3025		N10
HBN11/2	3026		N11/2

MNEMONIC	E - Memory Address	MIT/DL Individual	GSOP References
HBN12	3027		N12
HBD11/2	3030		D11/2
HBD12	3031		D12
HBN20	3032		N20
HBN21/2	3033		N21/2
HBN22 →	3034	R. Schlundt	(3.3.3.4.1, TABLE 3.3-V as N22)
HBD21/2	3035		D21/2
HBD22	3036		D22
HBN30	3037		N30
HBN31/2	3040		N31/2
HBN32	3041		N32
HBD31/2	3042		D31/2
HBD32	3043		D32
DAPDATR1	3066	R. Schlundt	(2.2.2.2, WORD 82 a) (3.2.2.1)(3.3.2.1)
DAPDATR2	3067	R. Schlundt	(2.2.2.2, WORD 82b) (3.2.2.1)
LEMMASS	3073	R. Schlundt	(2.2.2.2, WORD 81a) (3.2.2.1)(3.3.2.1)
CSMMASS	3074	R. Schlundt	(2.2.2.2, WORD 81b) (3.2.2.1)(3.3.2.1)
POLYNUM	3261-3277	O. Eliassen **	(5.3.5.1 as a_0. . .a_6, Fig 3.5-5)
SATRLRT	3300, 3301	O. Eliassen	(5.3.5.1 as K_r, Fig 3.5-5)
RPSTART	3302	O. Eliassen	(4.4.2, PROGRAM 11, line #110 as TE1) (5.3.5.1 as t_{E1}, Fig 3.5-4)
POLYSTOP	3303	O. Eliassen	(4.4.2, PROGRAM 11, line #120 as TE2) (5.3.5.1 as t_{E2}, Fig 3.5-4)
SATRATE	3321-3324	O. Eliassen	(3.5.2 gives general description)
SATSCALE	3331	O. Eliassen	(3.5.1 as SATURN SF, Fig 3.5.1)
HORISLP	3376, 3377	R. Whittredge	(5.2.6.3 as h_1)

** Note: Location 3261 contains the polynomial order -1, followed by up to 7 double precision coefficients.

MNEMONIC	E-Memory Address	MIT/DL Individual	GSOP References
LAT(SPL)	3400, 3401	R. Bairnsfather	(5.6.10.2 as LAT_{SPL}, Fig. 6.10-2)
LNG(SPL)	3402, 3403	R. Bairnsfather	(5.6.10.2 as $LONG_{SPL}$, Fig. 6.10-2)

The LUMINARY E-load follows:

MNEMONIC	E-Memory Address	MIT/DL Individual	GSOP References
REFSMMAT	1731-1752	D. Millard	(5.6.3.4)
RANGEVAR	1766, 1767	P. Volante	(5.2.4.2.2 as var_R)
RATEVAR	1770, 1771	P. Volante	(5.2.4.2.2 as var_V)
RVARMIN	1772	P. Volante	(5.2.4.2.2 as $var_{R\ min}$)
VVARMIN	1773	P. Volante	(5.2.4.2.2 as $var_{V\ min}$)
WRENDPOS	2000	P. Volante	(5.2.4.2.2 as w_{rr}, Fig 2.4-9)
WRENDVEL	2001	P. Volante	(5.2.4.2.2 as w_{rv}, Fig 2.4-9)
WSHAFT	2002	P. Volante	(5.2.4.2.2 as w_{β}, Fig 2.4-9)
WTRUN	2003	P. Volante	(5.2.4.2.2 as w_{θ}, Fig 2.4-9)
RMAX	2004	P. Volante	(5.2.4.2.2 as δr_{MAX}, Fig 2.4-8)
VMAX	2005	P. Volante	(5.2.4.2.2 as δv_{MAX}, Fig 2.4-8)
WSURFPOS	2006	P. Volante	(5.2.5.4 as $w_{\ell r}$, Fig 2.5-4)
WSURFVEL	2007	P. Volante	(5.2.5.4 as $w_{\ell v}$, Fig 2.5-4)
SHAFTVAR	2010	P. Volante	(5.2.4.2.2 as var_{β})
TRUNVAR	2011	P. Volante	(5.2.4.2.2 as var_{θ})
504LM	2012-2017	M. Reber	(5.5.2 as $\underline{\ell}_M$)
RLS	2020-2025	D. Eyles	(5.1.5.2, 5.1.5.3.as $\underline{r}_{LS}$) (5.3.4.6 as $\underline{r}_{LSL}$)
TLAND	2026, 2027	D. Eyles	(5.3.4.6, 5.3.4.6.1 as t_{LAND})
VELBIAS	2400, 2401	D. Eyles	(4.4.10, R12, line #450)(5.3.4.5, Fig3.4.5-1
RBRFGX	2402, 2403	D. Eyles	(5.3.4.6 as $\overset{*}{r}_{TXG}$(BRAK), Fig 3.4.6-2)
RAPFGX	2404, 2405	D. Eyles	(5.3.4.6 as r^*_{TXG}(APPR), Fig 3.4.6-2)
RBRFGZ	2406, 2407	D. Eyles	(5.3.4.6 as r^*_{TZG}(BRAK), Fig 3.4.6-2)
RAPFGZ	2410, 2411	D. Eyles	(5.3.4.6 as r^*_{TZG}(APPR), Fig 3.4.6-2)
VBRFGX	2412, 2413	D. Eyles	(5.3.4.6 as v^*_{TXG}(BRAK), Fig 3.4.6-2)
VAPFGX	2414, 2415	D. Eyles	(5.3.4.6 as v^*_{TXG}(APPR), Fig 3.4.6-2)
VBRFGZ	2416, 2417	D. Eyles	(5.3.4.6 as v^*_{TZG}(BRAK), Fig 3.4.6-2)
VAPFGZ	2420, 2421	D. Eyles	(5.3.4.6 as v^*_{TZG}(APPR), Fig 3.4.6-2)
ABRFGX	2422, 2423	D. Eyles	(5.3.4.6 as a^*_{TXG}(BRAK), Fig 3.4.6-2)
AAPFGX	2424, 2425	D. Eyles	(5.3.4.6 as a^*_{TXG}(APPR), Fig 3.4.6-2)
ABRFGZ	2426, 2427	D. Eyles	(5.3.4.6 as a^*_{TZG}(BRAK), Fig 3.4.6-2)
AAPFGZ	2430, 2431	D. Eyles	(5.3.4.6 as a^*_{TZG}(APPR), Fig 3.4.6-2)
VBRFG*	2432, 2433	D. Eyles	(5.3.4.6 as $18v^*_{TZG}$(BRAK), Fig 3.4.6-2)
VAPFG*	2434, 2435	D. Eyles	(5.3.4.6 as $18v^*_{TZG}$(APPR), Fig 3.4.6-2)

MNEMONIC	E - Memory Address	MIT/DL Individual	GSOP References
FLAGWRD 3	0077	C. Gilson	(2.2.2, WORD 40 b), (4.4.8), (5.6.2.2.1)
FLAGWRD 8	0104	C. Gilson	(2.2.2, WORD 43 a)
FLGWRD 10	0106	C. Gilson	(2.2.2, WORD 44 a), (4.4.8)
MASS	1243, 1244	P. Adler	(3.6.3, TABLE 3.6-2) (5.3.4.6.1 as m)
LEMMASS	1326	P. Adler	(2.2.2, WORD 80 a), (3.2.5.2) (3.6.3, TABLE 3.6-2)
CSMMASS	1327	P. Adler	(2.2.2, WORD 80 b), (3.2.5.2) (3.6.3, TABLE 3.6-2)
E3J22R2M	1347	V. Dunbar	(5.2.2.3 as $\mu_M\ 3J_{22}\ r_M^2$)
E32C31RM	1350	V. Dunbar	(5.2.2.3 as $\mu_M\ 3/2\ C_{31}\ r_M^3$)
ELBIAS	1353	~~D. Moore~~ D. EYLES	(5.3.4.6, Fig 3.4.6-2) (5.3.4.6.1)
TOOFEW	1354	~~D. Moore~~	(5.3.4.6, Fig 3.4.6-2) (5.3.4.6.1)
PBIAS			as BIAS
PIPASCF			as SFE
NBD	1452-1470	S. Helfant	(5.6.13)
ADIA			
ADSRA			
GCOMPSW	1477	E. Grace	Not Referenced
TETCSM	1570, 1571	W. Ostanek	(5.2.2.6 as t_C, the time of the permanent CSM state vector)
TETLEM	1642, 1643	W. Ostanek	(5.2.2.6 as t_L, the time of the permanent LEM state vector)
X789	1700-1705	P. Volante	**(2.2.2, List III, WORDS 27, 28 as Delta Beta & Delta Theta) (5.2.4.2.2 as $\delta\beta$ & $\delta\theta$)
TEPHEM	1706-1710	M. Reber	(5.5.2 as t_0)
-AYO	1711, 1712	M. Reber	(5.5.2 as A_Y)
AXO	1713, 1714	M. Reber	(5.5.2 as $-A_X$)

**Note: For convenience X789 is defined as a vector with the third element equal to zero.

MNEMONIC	E-Memory Address	MIT/DL Individual	GSOP References
ABRFG*	2436, 2437	D. Eyles	(5.3.4.6 as 6 a^*_{TZG}(BRAK), Fig 3.4.6-2)
AAPFG*	2440, 2441	D. Eyles	(5.3.4.6 as 6 a^*_{TZG}(APPR), Fig 3.4.6-2)
JBRFG*	2442, 2443	D. Eyles	(5.3.4.6 as j^*_{TZG}(BRAK), Fig 3.4.6-2)
JAPFG*	2444, 2445	D. Eyles	(5.3.4.6 as j^*_{TZG}(APPR), Fig 3.4.6-2)
GAINBRAK	2446, 2447	D. Eyles	(5.3.4.6 as GAIN*(BRAK), Fig 3.4.6-2) (5.3.4.6.1 as GAIN*(BRAK))
GAINAPPR	2450, 2451	D. Eyles	(5.3.4.6 as GAIN*(APPR), Fig 3.4.6-2) (5.3.4.6.1 as GAIN*(APPR))
TCGFBRAK	2452	D. Eyles	(5.3.4.6 as TTT^*_{CGPF}(BRAK), Fig 3.4.6-2 (5.3.4.6.1 as TTT^*_{CGPF}(BRAK))
TCGIBRAK	2453	D. Eyles	(5.3.4.6 as TTT^*_{CGPI}(BRAK), Fig 3.4.6-2) (5.3.4.6.1 as TTT^*_{CGPI}(BRAK))
TCGFAPPR	2454	D. Eyles	(5.3.4.6 as TTT^*_{CGPF}(APPR), Fig 3.4.6-2) (5.3.4.6.1 as TTT^*_{CGPF}(APPR))
TCGIAPPR	2455	D. Eyles	(5.3.4.6 as TTT^*_{CGPI}(APPR), Fig 3.4.6-2) (5.3.4.6.1 as TTT^*_{CGPI}(APPR))
VIGN	2456, 2457	D. Eyles	(5.3.4.6 as v_{IGG}, Fig 3.4.6-2) (5.3.4.6.1 as v_{IGG})
RIGNX	2460, 2461	D. Eyles	(5.3.4.6 as r_{IGXG}, Fig 3.4.6-2) (5.3.4.6.1 as r_{IGXG})
RIGNZ	2462, 2463	D. Eyles	(5.3.4.6 as r_{IGZG}, Fig 3.4.6-2) (5.3.4.6.1 as r_{IGZG})
KIGNX/B4	2464, 2465	D. Eyles	(5.3.4.6 as k_X, Fig 3.4.6-2) (5.3.4.6.1 as K_X)
KIGNY/B8	2466, 2467	D. Eyles	(5.3.4.6 as k_Y, Fig 3.4.6-2) (5.3.4.6.1 as K_Y)
KIGNV/B4	2470, 2471	D. Eyles	(5.3.4.6 as k_V, Fig 3.4.6-2) (5.3.4.6.1 as K_V)
LOWCRIT	2472	D. Eyles	(5.3.4.7 as FLO, Fig 3.4.7-1)
HIGHCRIT	2473	D. Eyles	(5.3.4.7 as FHI, Fig 3.4.7-1)
TAUHZ	2474	D. Eyles	(5.3.4.6, Fig 3.4.6-2), (5.3.4.6.1)
QHZ	2475	D. Eyles	(5.3.4.6, Fig 3.4.6-2), (5.3.4.6.1)
AHZLIM	2476	D. Eyles	(5.3.4.6, Fig 3.4.6-2), (5.3.4.6.1)
2LATE466	2477, 2500	D. Eyles	(5.3.4.6, Fig 3.4.6-2), (5.3.4.6.1)
DELQFIX	2503, 2504	D. Eyles	(4.4.10, ROUTINE 12, line #310) (5.3.4.5, Fig 3.4.5-1)

MNEMONIC	E-Memory Address	MIT/DL Individual	GSOP References
LRVMAX	2511	D. Eyles	(5.3.4.3, Fig 3.4.3-1)
LRVF	2512	D. Eyles	(5.3.4.3, Fig 3.4.3-1)
LRWVZ, Y, X	2513 - 2515	D. Eyles	(5.3.4.3 as k_{VZ}, k_{VY}, k_{VX}, Fig 3.4.3-1)
LRWVFZ, Y, X	2516 - 2520	D. Eyles	(5.3.4.3, Fig 3.4.3-1)
LRWVFF	2521	D. Eyles	(5.3.4.3, Fig 3.4.3-1)
ABSC0, 1, 2, 3, 4	2522 - 2526	D. Eyles	Luminary Memo #147
SLOPE0 1, 2, 3, 4	2527 - 2533	D. Eyles	Luminary Memo #147
RODSCALE	2534	D. Eyles	(5.3.4.6, Fig 3.4.5-2), (5.3.4.6.1)
TAUROD	2535, 2536	D. Eyles	(5.3.4.6, Fig 3.4.6-2), (5.3.4.6.1)
LAG/TAU	2537, 2540	D. Eyles	(5.3.4.6 as Lag/TAUROD, Fig. 3.4.6-2) (5.3.4.6.1 as Lag/TAUROD)
MINFORCE	2541, 2542	D. Eyles	(5.3.4.6, Fig 3.4.6-2), (5.3.4.6.1)
MAXFORCE	2543, 2544	D. Eyles	(5.3.4.6, Fig 3.4.6-2), (5.3.4.6.1)
J1PARM	2545, 2546	W. Bernikowich	(5.4.3.1.3 as J_1, Fig 4.3-1)
K1PARM	2547, 2550	W. Bernikowich	(5.4.3.1.3 as K_1, Fig 4.3-1)
J2PARM	2551, 2552	W. Bernikowich	(5.4.3.1.3 as J_2, Fig 4.3-1)
K2PARM	2553, 2554	W. Bernikowich	(5.4.3.1.3 as K_2, Fig 4.3-1)
THETCRIT	2555, 2556	W. Bernikowich	(5.4.3.1.1 as θ_c, Fig 4.3-1)
RAMIN	2557, 2560	W. Bernikowich	(5.3.5.9 as R_{AMIN}, Fig 3.5-3)
YLIM	2561, 2562	W. Bernikowich	(4.4.9, PROGRAM 70, line #390) (4.4.9, PROGRAM 71, line #360) (5.4.3.1.1 as cross range translation of $1/2^{o}$ in text and 8.19 n.m. in Fig 4.3-1)
ABTRDOT	2563, 2564	W. Bernikowich	(4.4.9, PROGRAM 70, line #380) (4.4.9, PROGRAM 71, line #350) (5.4.3.1.1 as $\dot{R}_D$ = 19.5 fps, Fig. 4.3-1)
COSTHET 1	2565, 2566	W. Bernikowich	(4.4.9, PROGRAM 70, line #690) (4.4.9, PROGRAM 71, line #640) (5.4.3.1.4 as 90^{o} limit of $\underline{X}_B$) (5.3.5.9, Fig 3.5-3)

MNEMONIC	E-Memory Address	MIT/DL Individual	GSOP References
COSTHET 2	2567, 2570	W. Bernikowich	(4.4.9, PROGRAM 70, line #700) (4.4.9, PROGRAM 71, line #650) (5.4.3.1.4 as 30° limit of $\underline{X}_B$) (5.3.5.9, Fig 3.5-3)
DLAND	2631-2636	D. Eyles	(5.3.4.6 as $\underline{D}$ LAND, Fig 3.4.6-2) (5.3.4.6.1 as $\underline{D}$ LAND)
HIASCENT	3000	P. Weissman	(3.6.1.5)
ROLLTIME	3001	P. Weissman	(3.2.5.3 as gimbal trim angle)
PITTIME	3002	P. Weissman	(3.2.5.3 as gimbal trim angle)
DKTRAP	3003	P. Weissman	(3.3.2.3, Table 3.3-4)
DKOMEGAN	3004	P. Weissman	(3.3.2.3, Table 3.3-4)
DKKAOSN	3005	P. Weissman	(3.3.2.3, Table 3.3-4)
LMTRAP	3006	P. Weissman	(3.3.2.3, Table 3.3-4)
LMOMEGAN	3007	P. Weissman	(3.3.2.3, Table 3.3-4)
LMKAOSN	3010	P. Weissman	(3.3.2.3, Table 3.3-4)
DKDB	3011	P. Weissman	(3.4.3.3 as $\hat{w}^{1/2}$ width of dead-zone) (Fig 3.4-10 as nominal ATT. ERROR)
IGNAOSQ	3012	P. Weissman	(3.6.1.5) ← 1/4 DEG (nominally)
IGNAOSR	3013	P. Weissman	(3.6.1.5)
DOWNTORK	3113-3120	P. Weissman	(2.2.2, LIST I, WORDS 90, 65, 66) (DOWNTORK, +2, +4 = POSTORK P, U, V) (DOWNTORK +1, +3, +5 = NEGTORK P, U, V)
AGSK	3371, 3372	B. McCoy	(2.2.2, LIST II, WORD 9 as K factor) (4.4.10, ROUTINE 47, lines #80-180) (5.6.8 as AGS reference GET)
AZBIAS	3373	D. EYLES ~~D. Moore~~	(5.3.4.6, Fig 3.4.6-2), (5.3.4.6.1)
ATIGINC	3400, 3401	P. White	(4.4.9, PROGRAM 35, line #60) (5.4.2.5 as $\delta\tau_3$)

MNEMONIC	E-Memory Address	MIT/DL Individual	GSOP References
PTIGINC	3402, 3403	P. White	(4.4.9, PROGRAM 75, line #70) (5.4.2.5 as $\delta\tau_7$)
AOTAZ	3404-3411	D. Millard	(5.6.3.1.1 as AZ_1 - AZ_6)
AOTEL	3412-3417	D. Millard	(5.6.3.1.1 as EL_1 - EL_6)
LRHMAX	3420	~~D. Moore~~ D. EYLES	(5.3.4.3 as h_m, Fig 3.4.3-1)
LRWH	3421	~~D. Moore~~	(5.3.4.3 as k_h, Fig 3.4.3-1)
ZOOMTIME	3422	D. Eyles	(4.4.9, PROGRAM 40, line #680) (4.4.9, PROGRAM 63, line #1270) (5.3.4.6 as DELTTRIM, Fig 3.4.6-2) (5.3.4.6.1 as DELTTRIM)
TENDBRAK	3423	D. Eyles	(4.4.9, PROGRAM 63, line #1350) (5.3.4.6 as TTT^*_{END}(BRAK), Fig 3.4.6-2) (5.3.4.6.1 as TTT^*_{END}(BRAK))
TENDAPPR	3424	D. Eyles	(5.3.4.6 as TTT^*_{END}(APPR), Fig 3.4.6-2) (5.3.4.6.1 as TTT^*_{END}(APPR))
DELTTFAP	3425	D. Eyles	(5.3.4.6 as DELTTTAP, Fig 3.4.6-2) (5.3.4.6.1 as DELTTTAP)
LEADTIME	3426	D. Eyles	(5.3.4.6, Fig 3.4.6-2), (5.3.4.6.1)
RPCRTIME	3427	D. Eyles	(4.4.10, ROUTINE 12, line #110) (5.3.4.3 as t_{SW}, Fig 3.4.3-1)
RPCRTQSW	3430	D. Eyles	(4.4.10, ROUTINE 12, line #130 as QSW) (5.3.4.3 as q_{SW}, Fig 3.4.3-1)
TNEWA	3431, 3432	P. Adler	(5.3.3.3.2 as UT), (5.3.3.5.1 as UT)
LRWH1	3756	D. Eyles	(5.3.4.3 as k_h, Fig 3.4.3-1)