L R30 USER=S PAGE NO. 8 E4 S3

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P5548   SUBROUTINE NAME'      SR30.1
R5549   MOD NO' 0                                                          DATE'          16 FEB 67
R5551   MOD BY' RR BAIRNSFATHER                                            LOG SECTION'   R32
R5553   MOD NO' 1           MOD BY' RR BAIRNSFATHER     DATE' 11 APR 67    SR30.1 CHANGED TO ALLOW MONITOR OPERN
R5555   MOD NO' 2           MOD BY' RR BAIRNSFATHER     DATE' 14 APR 67    ADD OVFL CK FOR RAPO
R5557   MOD NO' 3           MOD BY ALONSO               DATE' 11 DEC 67    SUBROUTINE REWRITTEN
R55585  MOD NO' 4           MOD BY ALONSO               DATE' 26 MAR 68    PROG MOD TO HANDLE DIF EARTH/MOON SCALE
R5559   MOD NO' 5           MOD BY' RR BAIRNSFATHER     DATE' 6 AUG 68     OVFL CK FOR HAPO & HPER.VOIDS MOD #2.
R5561

R5562   NEW FUNCTIONAL DESCRIPTION'     ORBITAL PARAMETERS DISPLAY FOR NOUNS 32  AND 44.
R5564   SR30.1 CALLS TFFCONMU AND TFFRP/RA TO CALCULATE RPER (PERIGEE RADIUS),
R5565   RAPO (APOGEE RADIUS), HPER (PERIGEE HEIGHT ABOVE LAUNCH PAD OR LUNAR
R5566   LANDING SITE), HAPO (APOGEE HEIGHT AS ABOVE), TPER (TIME TO PERIGEE),
R5567   TFF (TIME TO INTERSECT 300 KFT ABOVE PAD OR 35KFT ABOVE LANDING SITE).
R5568   IF HPER IS GREATER THAN OR EQUAL TO HPERMIN, CALCULATES TPER AND STORES
R5569   NEGATIVE    IN -TPER. OTHERWISE STORES +0 IN -TPER. WHENEVER TPER IS
R5570   CALCULATED, TFF IS NOT COMPUTABLE AND DEFAULTS TO -59MIN 59SEC. IF HAPO
R5571   WOULD EXCEED 9999.9 NM, IT IS LIMITED TO THAT VALUE FOR DISPLAY.

R5572   ADDENDUM' HAPO AND HPER SHOULD BE CHANGED TO READ HAPOX AND HPERX IN THE
R5573            ABOVE REMARKS.

R5574   CALLING SEQUENCE'          CALL
R5575                                   SR30.1
R5576   SUBROUTINES CALLED'        TFFCONMU, TFFRP/RA, CALCTPER, CALCTFF
R5577   NORMAL EXIT MODE'          CALLING LINE +1 (STILL IN INTERPRETIVE MODE)
R5578   ALARMS'                    NONE
R5579.  OUTPUT'  RAPO   (-29) M EARTH   APOGEE RADIUS    EARTH CENTERED COORD.
R5580                   (-27) M MOON                     MOON CENTERED COORD.
R5581            RPER   (-29) M EARTH   PERIGEE RADIUS   EARTH CENTERED COORD.
R5582                   (-27) M MOON                     MOON  CENTERED COORD.
R5583            HAPOX  (-29) M         APOGEE ALTITUDE ABOVE PAD OR LAND. SITE MAX VALUE LIMITED TO 9999.9 NM.
R5585            HPERX  (-29) M         PERIGEE ALT. ABOVE PAD OR LAND. SITE    MAX VALUE LIMITED TO 9999.9 NM.
R5587            TFF    (-28) CS        TIME TO 300KFT OR 35KFT ALTITUDE
R5588            -TPER  (-28) CS        TIME TO PERIGEE
R5589   ERASABLE INITIALIZATION REQUIRED-
R5590            TFF/RTMU (+17) EARTH   RECIPROCAL OF PROPER GRAV CONSTANT FOR
R5591                     (+14) MOON    EARTH OR MOON = 1/SQRT(MU).
R5592            RONE     (-29) M       STATE VECTOR
R5593            VONE     (-7)  M/CS    STATE VECTOR
R5594            RPADTEM (-29) M EARTH  RADIUS OF LAUNCH PAD OR LUNAR LANDING
R5595                    (-27) M MOON   SITE.
R5596            HPERMIN (-29) M EARTH  (300 OR 35)KFT MINIMUM PERIGEE ALTITUDE
R5597                    (-27) M MOON   ABOVE LAUNCH PAD OR LUNAR LANDING SITE.
R5598            V82EMFLG (INT SW BIT) RESET FOR EARTH, SET FOR MOON.

R5599   DEBRIS'  QPRET, PDL, S2
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