Moonbit

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DEBRIS....

MUCH, SHAREABLE WITH RCS/ENTRY, IN EBANK6 ONLY

PITCH TVCDAP STARTS HERE....(INCOPORATES CSM/LEM DAP FILTER, MODOR

PITCHDAP  LXCH  BANKRUPT  # T5 ENTRY, NORMAL OR VIA DAPINIT
PSTROKER  CCS  STROKER  # (STRKFLG) CHECK FOR STROKE TEST
TC    HACK  # TEST-START OR TEST-IN-PROGRESS
TCF   +2  # NO-TEST
TC    HACK  # TEST-IN-PROGRESS

PCDUDOTS  CAE  CDUY  # COMPUTE CDUYDOT (USED BY PITCH AND
YAW)  

EXTEND
TCR  RLIMTEST  # RATE TEST
CAE  CDUZ  # COMPUTE CDUZDOT (USED BY PITCH AND
EXTEND
RLIMTEST  TS  TTMP1  # TEST FOR EXCESSIVE CDU RATES
(GREATER

PERIOD
EXTEND
PINTTEGRAL  EXTEND  # COMPUTE INTEGRAL OF BODY-AXIS
PITCH-RATE
DCA  PERRB  # ERROR, SC.AT B-1 REV
CS  COSCDUZ  # PREPARE BODY-AXIS PITCH RATE,
OMEGAYB
MP  COSCDUX

EXTEND  # PICK UP -OMEGAYB (SIGN CHNG,
PERORLIM  TCR  ERRORLIM  # PITCH BODY-AXIS-ERROR INPUT LIMITER
PFORWARD  EXTEND  # PREPARE THE FILTER STORAGE
TCR  FWDFLTR  # GO COMPUTE PRESENT OUTPUT
# (INCLUDES VARIABLE GAIN PACKAGE)
POFFSET  EXTEND  # INCREMENTAL PITCH COMMAND
POUT  CS  PCMD  # PROTECT. SINCE ERROR CNTR ZEROED)
CAF BIT11  * BIT FOR TVCPITCH COUNT RELEASE
PCOPY INCR TVCPHASE  * RESTART-PROTECT THE COPY CYCLE. (1)
        * PACKAGE, SHOULD A RESTART OCCUR
DXCH PERRB  * PITCH ACTUATOR COMMAND
CAE CMDTMP
* YAW TVCDAP STARTS HERE....(INCORPORATES CSM/LEM DAP FILTER, MODOR
YAWDAP LXCH BANKRUPT  * T5 ENTRY, NORMAL
QXCH QRUPT

AUTOPROTOCOL (LOW-
YERORLIM TCR ERRORLIM  * YAW BODY-AXIS-ERROR INPUT LIMITER
ADS TVCYAW  * UPDATE THE ERROR COUNTER (NO
* SUBROUTINES COMMON TO BOTH PITCH AND YAW DAPS....
MASK BIT14  * LEM ON
TCF 3DAPCAS
EXTEND  * (ALSO, SIGN CHANGE IN FORWARD
MP YARK  * SCALED AT 1/(8 ASCREV) OF ACTUAL VALUE

        * NOTE -- THERE IS AN INHERENT GAIN OF
CS DAP1 +1  * MULTIPLY OUTPUT BY
EXTEND  * SECOND-ORDER NUMERATOR COEFF.
CS DAP1 +1  * MULTIPLY OUTPUT BY
MP N10 +4  * D12
CS DAP1
MP N10 +4  * D12
2CASFLTR CAF ZERO  * ***** SECOND CASCADE FILTER **********
CA DAP1 +1  * MULTIPLY INPUT BY
CS DAP2 +1  * MULTIPLY OUTPUT BY
CAE DAPDATR1  * TEST FOR LEM ON OR OFF
TC Q  * EXIT IF LEM OFF
EXTEND
EXTEND
EXTEND
DAPT5 GENADR DAPINIT  *(BBCON) ALREADY THERE.