1.5 DESCRIPTION OF ANOMALY:

The S40.8 code which enables TVC cg-tracking does not distinguish between pre- and post-switchover (Vh6, docked) TVC DAP states; hence it continues to load the cg-tracking gain REPFRAC from the high-bandwidth pad load erasable REPFRAC + 1, instead of from the low-bandwidth fix-memory constant REPFRAC. Obviously the logical differences produce observable differences only when the pad-load value is different from the fixed memory value.

1.6 DESCRIPTION OF RUN:

eyeball of code; confirmed via basic code tracing in COLOSSUS 2 level 6 test FLOII.4CX

--- MIT ANALYSIS ---

2.1 CAUSE:

code error (inadequate discrimination)

2.2 RECOGNITION:

improper REPFRAC values after V46 when pad-load and fixed memory values are not equal

2.3 MISSION EFFECT:

none, if REPFRAC + 1 = REPFRAC; otherwise possible stability or performance degradation

2.4 AVOIDANCE PROCEDURE:

make pad-load REPFRAC + 1 equal to REPFRAC (as planned for P and G missions anyway)

2.5 RECOVERY PROCEDURE:

After a V46 switchover, load REPFRAC + 1 equal to REPFRAC as soon as possible.

2.6 PROGRAM CORRECTION:

insert code in the cg-tracking-enable logic to check for switchover; if post-switchover use REPFRAC + 1 otherwise check ON/OFF etc. as currently coded

2.7 RECOMMENDED DISPOSITION (Fix, Work-around, etc.):

fix for COLOSSUS 2C; constrain the REPFRAC + 1 pad load for earlier releases to be the REPFRAC value.

2.8 RECOMMENDED RE-TESTING:

unit testing plus FLOII.4CX

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