C. S. Draper Laboratory
Cambridge, Massachusetts

Larson

TO: R. Larson, B. McCoy, P. Volante, L. Berman
FROM: Walter Bernikowich
DATE: 10 June 1970
SUBJECT: ALTITUDE RATE GLITCH

Altitude rate ($\dot{H}$) meter glitches occur when by repeatedly flipping the MODE SELECT SWITCH at appropriate time in and out of the PNGCS position an unfavorable phasing is introduced into the Landing Analog Displays (R10) and SERVICER computation stream.

Glitching of the $\dot{H}$ meter is observed only on the very first pass of the $\dot{H}$ computation immediately following READACCS and SERVICER if:

1) Reversal of $\dot{H}$, H computations is present:

| Reversal | Nominal |
|---|---|
| Readaccs | Readaccs |
| Servicer | Servicer |
| $\dot{H}$ | H |
| $\dot{H}$ | $\dot{H}$ |
| $\dot{H}$ | $\dot{H}$ |
| $\dot{H}$ | H |
| ⋮ | ⋮ |

and 2) COPYCYC2 computations in SERVICER enter the R10 calculation stream at the 40 ms delay point between SPEEDRUN and GET22/32 - 39D.

Workaround:

Nominal phasing is restored (R, S, $\dot{H}$, H, $\dot{H}$, H, . . .), the COPYCYC2 intrusion is eliminated and glitching stops by placing the Mode Select Switch at appropriate moment out of and then in the PNGCS position.