LUMINARY 1B

See attached Data Amplification Sheet.

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Prevent RR ECDUs from Stealing LGC
Memory Cycles

Approved by T. Price
and T. Gibson on 7-22-69
1.5 Reason(s) for Change

Because when the Rendezvous Radar Select Switch is not in the LGC position, the RR resolvers are being excited by an 800 cps signal which is not necessarily in phase with the 800 cps reference of the RR CDUs, these CDUs are likely to go to their maximum rate mode (6400 pps each). This behavior snatches a total of 12800 memory cycles every second, or 15% of LGC time, and can result in 1201 and 1202 software restarts.

1.6 Description of Change

Monitor the RR Power On/Auto bit (bit 2 of Channel 33) and set the Zero RR CDU bit (bit 1 of Channel 12) when this bit shows that either the RR circuit breakers are pulled or the RR switch is in AUTO TRACK or SLEW.

REMARKS

It was the misbehavior in question that jeopardized the lunar landing of July 20, 1969.