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COLOSSUS Memo # 212

TO: Distribution
FROM: Stephen L. Copps *slc*
DATE: August 27, 1969
SUBJECT: New Requirement for Performing ZERO OPTICS

In the Apollo 11 technical debriefing Astronaut Collins stated that, following CSI, he had to perform an unscheduled ZERO OPTICS in order to acquire the LM in the SXT field of view. Post flight analysis has shown that the trunnion CDU was in fact in error and that the zeroing was required.

As I understand it the trunnion error was due to an unexpectedly large servo drift during the time that the optics DAC's were being used in P40 to control the SPS bell (following response to V50 N25 204 until he exited P40). The actual drift was apparently quite large and whether it behaved within spec. values is not clear as yet.

In any case this event introduces a requirement to always either place the OPTICS ZERO switch to ZERO prior to P40 or to cycle the switch following P40, preferably the former.