

Instrumentation Laboratory
Massachusetts Institute of Technology
Cambridge, Massachusetts

Final Development Memo #317

To: T. S. Wilk
From: Albert Hopkins
Subject: Simplified AGE Voltage Margin Test for AGC Block II
Date: May 16, 1966

This memo is my response to a request to re-evaluate the need for test-to-failure during spacecraft AGC voltage margin tests.

No data has been accumulated on the shrinkage of AGE operating regions, so it is not yet known whether a rapid computer deterioration would be possible in the region of operation were to be known as a function of time. In fact, the Block I experience indicates that the region of operation changes slowly with time. Assuming this to be generally true, it would be reasonable to change the voltage margin test on the spacecraft to a go-no go procedure which ensures that the region of operation is adequately large, but which gives no indication of its change with time. The latter can only be obtained in a test-to-failure procedure which is far more difficult and time consuming.

A go-no go test would require eight points, and eight successful completions of the self-check program.

DISTRIBUTION

R. Jackson
D. Westbrook
J. S. Man
R. Eganer
G. W. Sizer
J. S. Baik
W. J. Donnell
E. Hill
H. Miller

RECEIVED
MAY 16 1966
L.S.W.