## THE CHARLES STARK DRAPER LABORATORY A DIVISION OF MASSACHUSETTS INSTITUTE OF TECHNOLOGY 68 ALBANY STREET CAMBRIDGE, MASSACHUSETTS 02139

ACE/DAC PROBLEMS IN Volt-MARGIN TESTS

RECEIVED

25 September 1970

SEP 2 8 1970

GEORGE SILVER

Mr. William Hefner 12214 Lakewood Blvd. Downey, Calif. 90241

Dear Mr. Hefner:

Regarding our phone conversation relative to the possibility of the ACE equipment putting  $\pm 40$  volts onto the W-910, W-911 power supply control lines.

At that time I indicated that I didn't think there was a problem and since then it has been pointed out that my analysis was incomplete.

Further analysis has indicated that there still is no problem. Some transistors could be stressed beyond their breakdown voltages but there are resistors in series with their bases that limit the current.

The circuitry involved in the ACE equipment is not very well defined in my own mind as it sounds like it would take two failures to get the 40 volts.

Everything considered to date would tend to support my initial statement that there is no problem.

Sincerely,

Donald J. Bowler

Donald & Bavley

DJB:ms

cc: E.C. Hall

R. O'Donnell

R. Zagrodnick - Ray.

G. Silver

H. Howard EG