TO: Distribution

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SUBJECT: Memory Read Procedures for Memory Parity Errors

I. PURPOSE

The purpose of this procedure is to aid Operations in:

1. determining if a parity error exists in the 6180 memories;

2. obtaining the location(s) of the error;

3. the recording of pertainent information to aid Field Engineering in the isolation of the problem.

II. PROCEDURE

When the system is in BOS, and a parity error is suspected, do the following:

1. Place the central processor(s) (CPU) in STEP - set the CYCLE rotary switch on the CPU Maintenance Panel to the MEM position.

2. At the Maintenance Panel of the suspected SCU, do the following:

   Place the system controller (SCU). in the test mode - TEST/NORMAL switch to TEST,

3. Disable all ports - set the PORT CONTROL switches located in the lower right corner of the configuration panel all down,

4. Press the INITIALIZE push button located just below the PORT CONTROL switches,

5. Set the FAULT STOP ON CONDITION switches to the following (reading left to right):

a. FAULT/STOP CONTROLS to ON and STOP,

b. COMMAND to IGNORE ,

c. ILLEGAL ACTION to ANY IA ,

d. PORT to IGNORE ,

e. ADDRESS switches to IGNORE .

6. Set the MAINTENANCE CONTROL switches to the following state:

a. INCR/FIXED to INCR ,

b. ADDRESS switch 0 to 0, and switches 1 through 17 to INC (switches to the center position).

7. Set the CYCLE MODE switches to:

a. CONT/1 PASS/1 CYCLE switch to either CONT to do a repetitive read of the memory or 1 PASS - switch in center position - to read the entire memory once or to terminate the continous mode,

b. SCOPE/INT OSC/MANUAL to MANUAL .

8. DATA PATTERN switches can be set two ways dependent on the desired operation:

(NOTE: It is suggested that a <u>read only</u> operation be attempted first; and if no error is found, then a read and <u>write operation</u> be attempted.)

a. To do a <u>read only</u> operation:

(1). Turn the rotary switch to the COMMAND switch position,

(2). Set the COMMAND SWITCHES to do a read single -all switches down,

b. To do a read and write operation and not destroy the data:

(1). Turn the rotary switch to the SYSTEM DATA TEST position,

9. Press MANUAL START.

If an error exists, the maintenance panel lights will stop flashing and the SOC light located on the left side of the maintenance panel will light red. When this occurs, perform the following steps:

1. Record the following:

a. ADDRESS CONTROL switches,

b. LOWER STORE - A or B ,

c. OFFSET - the value of the switch position,

d. INTERLACED - ON or OFF ;

e. Record the following scroll positions in octal:

2, 3, 4, 5, 10, 11, 14;

(NOTE: TO display scroll positions 4 & 5, the PORT SELECT switch must be the MP or LASI position; and the DISPLAY CONTROL ENABLE pushbutton must be pressed).

f. Note any CONTROL STATUS lights that light RED;

2. If it is desired to restore the data for any location where a parity error was found, do the following:

a. Set the INC/FIXED switch to FIXED,

b. Set the MAINTENANCE CONTROL ADDRESS SWITCHES to the value read from scroll position 5, bits 0-17,

c. Set the COMMAND SWITCHES to do a write single - switch B up and the rest down,

d. Reset the FAULT/STOP CONTROLS to OFF,

e. Set the ZONE CONTROL switches - down,

f. Set the CONT/1PASS/1CYCLE to 1 CYCLE,

g. Place the desired data in the DATA switches,

h. Press INITIALIZE,

i. Press START.

After the data has been restored (if required), repeat the read cycle of the SCU to check for any other errors. If any are found, repeat all of the above steps. When done, reset the SCU switches to their original state, and reset thes CYCLE switch on the CPU maintenance Panel to OFF and press the cpu STEP pushbutton.

Go back and reread the memories and if another error is encountered, attempt to correct it. However, if the error is in some location, delete the memory, or call a Field Engineer

Reset the SCU switches to their original state and reset the CYCLE switch on the CPU Maintenance Panel to OFF and press the STEP pushbutton.