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TO: Distribution
FROM: P. Rye
DATE: 2 July, 1970
SUBJECT: Revisions 1 through 7 of R40ARTMS.

R40ARTMS was made as a version of Revision 40 of ARTEMIS (the COLOSSUS 2E equivalent) in order to correct problems which were discovered as the testing of ARTEMIS proceeded. Revision 7 of R40ARTMS will be released on July 24 as the 2E version of ARTEMIS. The following changes were implemented:

- 1) Initialization of the S1 register to 6 was added before the W-MATRIX zeroing loop in P22. Omission of this had caused zeroing of random erasable locations.
(ADR ART-2D-01)
- 2) The location P41/DSP, called in interpretive, was changed to the appropriate interpretive instruction instead of the basic instruction TC INTPRET.
(ADR ART-2D-02)
- 3) An error in the implementation of ACB 117 was corrected by the insertion of a transfer to IMUBAD after the JOBWAKE call.
- 4) The return from SXTMARK after a PROCEED response was changed to call ENDEXT as a high priority job, then perform a PRIOCHANG to allow the ENDEXT job to come up. This will re-establish a possible sleeping display before another flashing display is called by the user, avoiding a 21502 POODOO abort. (ADR ART-2D-03)
- 5) Code was added to TVC Initialize logic to clear SWTOVER flag when TVC DAP is started.
(ADR ART-2D-04)

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- 6) The subroutine UPDATEVVG was changed to store its return in R61CNTR and to return via R61CNTR rather than QPRET to avoid the possibility of an incorrect return in the case of a restart. UPDATEVVG contains restart points within it and could be assigned a new VAC area if a restart occurs. (ADR ART-2D-05)
- 7) Coding at P40SET was changed from interpretive to basic to avoid interrupts and subsequent delay of the ignition sequence.
(ADR ART-2D-06)
- 8) MRKRELEAS was modified to zero MARKINDX, and to omit clearing of BIT 2 of channel 12 because it is cleared by T4RUPT when OPTIND is found to be negative. (ADR ART-2D-07)
- 9) R53 was modified so that the return from SXTMARK in P24 performs MRKRELEAS. (ADR ART-2D-09)
10. A call to CLEANDSP was inserted before the call to GOTOPPOOH in P24.
(ADR ART-2D-08)

Known problems existing in Revision 7 of R40ARTMS:

ARTEMIS discrepancy reports for existing problems are listed:

ART-2E-01, ART-2E-02, ART-2E-03, ART-2E-04, ART-2E-05,
ART-2E-06.