Trip Report 26 Apr 76 DRSMI-NEAG PLACE VISITED Ft. Bliss, TX, McGregor Range, NM and Site Monitor DRSMI-NC-895-76 24 Apr 76 Technical Validation and Support of HERCULES Surface-to-Surface Hardware Changes (ECP 98552) PERSONNEL CONTACTED: Mr. Austin, DRSMI-NPMH T. R. Reynolds, WECo LTC Martin, LAO CWO Lloyd, ADS, Ft. Bliss CWO James Rodeman, TROOM LTC Adamson, MICOH J. C. Creasy, WECo COL Harris, ADC, Ft. Bliss CMO Yeager, 62d ADA DISCUSSION OR DETAILS OF VISIT-Arrived at Ft. Bliss 19 Apr 76 at 1300 hrs and made entry visit to MICON LAO. Due to my compressed schedule and prior commitments to be at Abernathy Park yet that afternoon I took the option of calling LTC Martin's office (LAO) in lieu of the requested personnel visit. It seems to be highly redundant and time consuming to contact (brief) two LAO's when only LTC Adamson's office (MICOM) actually provides a service directly associated with our mission. In that the HERCULES SS firing on 16 Apr failed, in a manner similar to the 5 Feb 76 shot, extensive efforts were being taken onsite to ring the system out. It was determined that a 24SEC Relay (K5) exhibited intermittent/high contact resistance which resulted in computed time rundown again during in-flight. However, the wiring change made by ECP 98552 to the BURST Order Circuitry prevented a burst order transmission and allowed a normal fail-safe as desired. If the change had not been applied, the missile would have continued on (off range) into the relatively populated area as before, On 21 Apr I applied a temporary installation of ECP 98552 to an ATBM system, 1310, at Ft. Bliss. The pertinent changes to TM 9-1430-251-12/2 were validated with only minor comments resulting. The technical intent was correct; removed the temporary change from the computer and returned the system to normal operation. We also validated the related changes to TM 9-1430-251-12/1 and TM 9-1430-255-20 on Site 1 at McGregor Range with no problems. However, one thing to comsider is the necessity of energizing the MTR Haggie to observe burst order transmission. It may be undesirable to RF radiate at the selected azimuth/elevation positions due to radiation hazards. Appropriate notes will be made in the TM's to cover this. The hardware changes reflected in BCP 98552 will be added as a no-kit requirement to DAMMO 9-1430-251-50/49 by in-house effort. As the result of extensive system troubleshooting and preparation, it was determined feasible to add (depict) a typical SS dynamic course tape and narration to the checks and adjustments. This input will be provided by WECo engineering. Due to extended system problems within the computer and prime power source, no firings were conducted. It was hopeful that a short range shot would be launched into McGregor Range during 26 Apr 76. On 23 April, I visited Site Monitor to familiarize myself with the TSQ-73 integration checks. During the informal visit, I looked at a proposed "radar integration" box SHI FORM 1141. I GCT 71 PROVIDERS IDSTRUM MED BY SHAD OVER BEST SHOT EVER ON 26APR 1976 I RETURNED HOME ON 24 APR 76. THE RANGE COMMONS BOYS SENT ME FIRST HAND RESULTS.

SIONS AND/OR ACTION TAXEN: ac contents of ECP provided the desired results within the computer computations during an SS engagement and enhanced the "range safety" aspects of the ASP's at McGregor Range. Therefore, the contractor has been advised to finalize all pertinent documentation on this matter. As of this writing, a very successful SS mission was conducted 26 Apr 76 at McGregor Range. The delivery accuracy was a few feet from the stake at medium range. This system can place a warhead closer to a pinpointed target than snything thus far deponstrated. BAT - BALLISTIC ARIBE TARGET SURVEY PHOTO ATTACHED BARREL - S-MR PORTER SHOULD HAVE THE ORIGIONAL PHOTO'S OF THIS BY NOW. THESE ARE 3rd GENERATION?? POOR RECOMMENDATIONS: Upon resumption of SS firings at McGregor, it is recommended that every effort be made to observe/monitor the effectiveness of the computations and methods used in the manuals to support this effort. Also, recommend the use of the proposed TDU.

Inclosure

KENNETH W. BAHR





