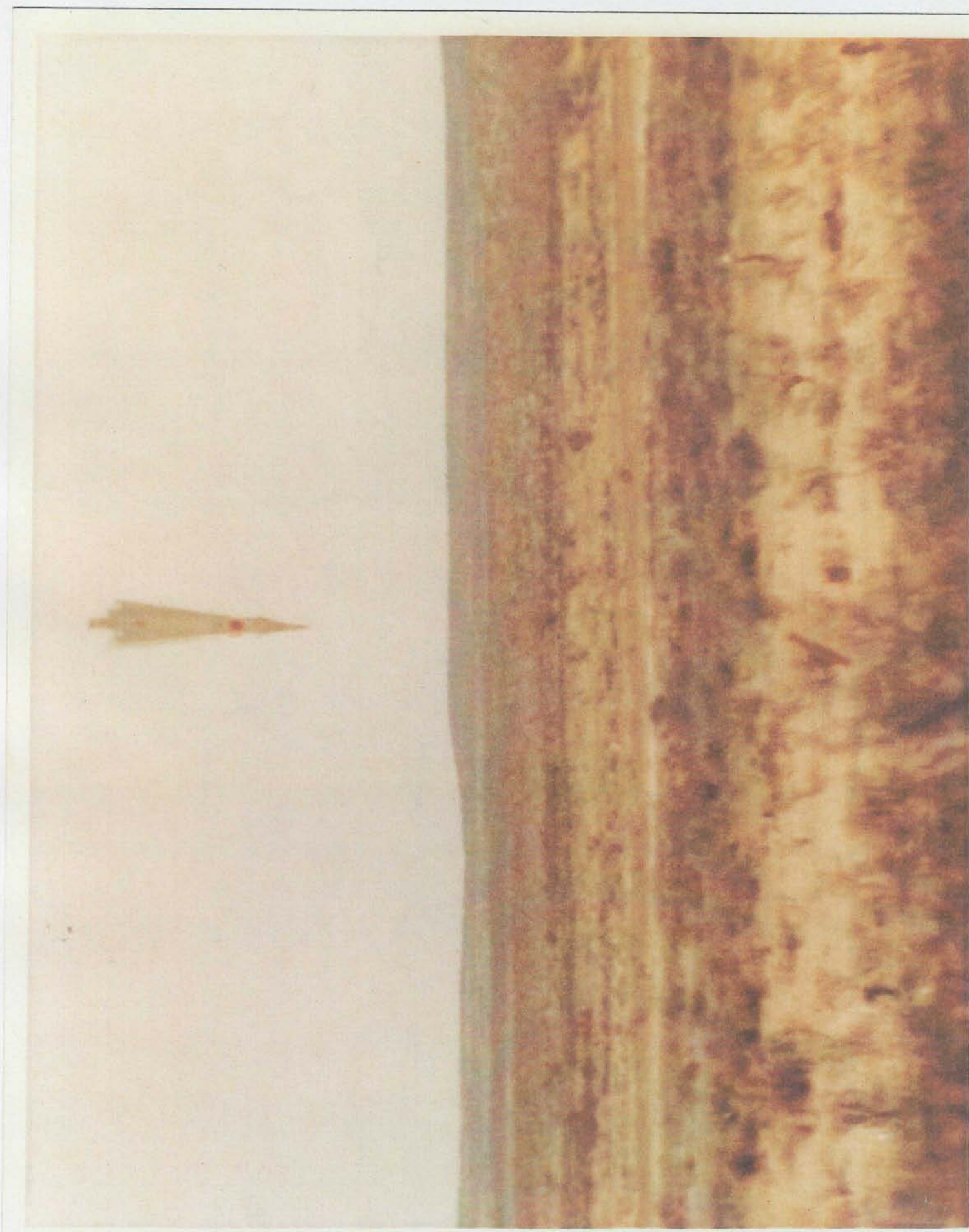


TRIP REPORT	
SUBJECT Trip Report	DATE OF REPORT: 25 May 76
SUBMITTED BY: KENNETH W. BAHR	ORGANIZATION: DRSMI-NEAG
PLACE VISITED: Ft. Bliss, TX and McGregor Range, NM	
AUTHORITY: DRSMI-NC-1008-76, dtd 14 May 76	
DEPARTURE DATE: 18 May 76	RETURN DATE: 21 May 76
PURPOSE OF VISIT: Technical Support of <u>HERCULES Surface-to-Surface Hardware Changes</u>	
PERSONNEL CONTACTED: LTC Martin, LAO LTC Adamson, SMR COL Harris, ADC Ft. Bliss	
MAJ Utley, 62d ADA CWO Insel, 62d ADA T. R. Reynolds, WECO	
Bob James, TECOM	
DISCUSSION OR DETAILS OF VISIT: I arrived at Ft. Bliss, 1230 hrs, 18 May 76, and made required entry visits to both LAO's, after which time I proceeded to Abernathy Park to check on the LOPAR magnetron life tests being conducted. On 12 Jan 76, a late version of the Raytheon 5795 was installed to collect life test data. The first failure occurred 17 May 76 (Ser # B1950A from Lot 7549) after 1384 filament hours and 31 HV hours. So far, these tubes have lasted very well with nominal operation. I relayed this data to Mr. Muzzie at the Directorate for Product Assurance who will retrieve this tube for analysis at a later date.  I visited Mr. James (Air Defense Board) and discussed pending problems with the HERCULES system at the Site Monitor. Presently, availability of LOPAR maggies is such that test programs (TSQ-73 & Blink Scan) are being affected. I finalized arrangements for having four (4) maggies (questionable from bad filament lot) to be provided to them at no cost due to expected short life. Item manager is shipping these on an 09 priority. This should get them through the crucial timeframes.  The initial purpose of this trip was to observe the HERCULES SS shots and to gather what data I could relative to forthcoming hardware changes and/or operational procedural changes. The two WSLR (White Sands Long Range) <u>shots of 20 and 21 May were near perfect</u> with unofficial miss distances under 100 meters. The MRSR (McGregor Range Short Range) hit 9.2 meters short in range, on in azimuth.  Western Electric has been collecting data on all shots to feed the simulation program. Data collected so far has been very beneficial and indicates several areas within the computer that could be improved (steering velocity channels are at/near limits). It is also feared that the additional noise that is expected to be injected into the computer as a result of D/A conversion (Angle Encoder interface) will make the acceleration and velocity determination circuits completely out of tolerance.  It is also felt that the TDU (Target Data Unit) meets all expectations and provides the accuracy needed. However, the physical placement of this control box should be looked at again. Presently, it is located on the center door of the event recorder cabinet and mechanically interferes with the loading/operation of the recorder. WECO said that a change will be made prior to ECP submission.  It has also been reconfirmed that a slight servo jump occurs when caging (locking) TTR SS coordinates. The error varies from system to system and is another good reason why the TDU should be deployed to provide the TTR coordinates and to maintain the	

TRIP REPORT - AUTHORITY: DRSMI-NC-1008-76, dtd 14 May 76  
KENNETH W. BAHR  
DISCUSSION OR DETAILS OF VISIT CONT.

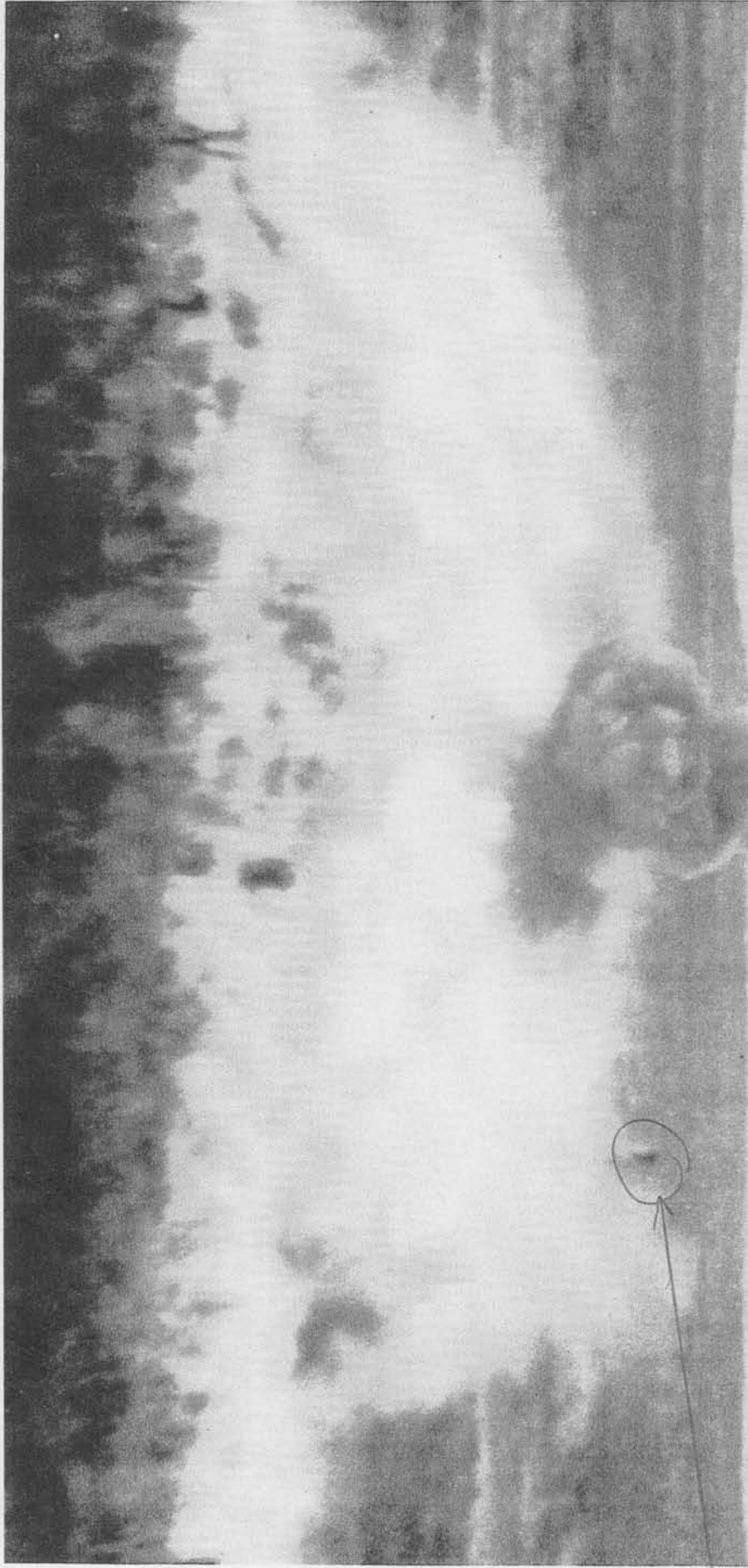
proven system accuracy.

As it appears now, the existing firing tables will be changed slightly and procedures shortened to some degree. However, no big errors have appeared at this time.





I HAVE THE ORIGINALS ON THESE 5 OR 6 FRAMES FROM AADB-FT BLISS  
AND WILL SEND THEM LATER, IF YOU WANT THEM  
Jen 4-2012



BARREL