10 June 1964

MEMORANDIM FOR THE RECORD

EUBJECT : Tosts of Modified Sights for 7.62 Bolgium (FAL) Rifle

REFERENCE: Mamo for Rcd. dated 23 May 64, Eubject FAL Siloncers/ Sights, from C/VE/SA/MDD/PH

1.	On 2 Jun	e 1964, Er		TSD/EB and	the
				modified sight	
telesco	pic sight	daveloped a	or the 7.62	Bolgium (FAL)	Riflo in
		ce a). The	tests were	performed with	the assistance
of Er.		and Mr.			

- 2. The first tests were conducted with a Williams Paep sight modified to fit an aluminum block which was mounted in place of the standard FAL rear sight. The Williams sight has a larger diameter peop than the FAL sight and has a wider range of elevation settings as well as more positive control over both elevation and windage. The main purpose of the test was to establish a point of reference on the aluminum block to match the graduations on the Williams sight and allow the sight to be set visually for the desired range once the weapon was zeroed.
- 3. Firing commonced from 100 yards at a silhouette target using the hood of a jeep as a rest. Both underloaded and full lead rounds were used. Light rain which gradually increased in intensity during the day served to complicate the procedure. The test results at ranges from 25 yds. to 130 yds. using the Williams sight are summarized in Attachment I. Exceedingly erratic results were obtained throughout the tests and one attempt to duplicate the 100 yd. zero resulted in a different setting later in the day.
- 4. A 2X scope of Japanese manufacture equipped with aluminum mounting rings front and rear to fit the rear gas port and rear sight mount respectively then tested. The scope was attached to the rifle with difficulty and attempts to zero it were frustrated by the inability to determine where the rifle was shooting. The mounting moved while attempting to adjust the elevation knob and it was determined that the mount could not be attached firmly enough to incure in retaining a proper zero. The test with the scope was aborted.

SECHET

It is recommended that the scope and mount bo discarded as unfeasible. The Williams sight is acceptable although the number of clicks per revolution of the knob should be reduced. Purther testing of the underloaded annualtion should be conducted to determine the reasons for the erratic performance.

Cluds A/MCB/FM (Col Hicks)
Attachment: As Stated

C/TSD/SDB

DDP/TSD/EB/DJH/EC

ATTACEMENT I

2 June 1964

Williams Peep Sight

- At 25 yds., reduced loads
 Raise sight 60 clicks from bottom
 Eatch ref. line to 4th line from top
- At 50 yds., reduced loads
 Raise sight 80 clicks from bottom
 listch ref. line to 5th line from top
- At 73yds., reduced loads
 Raise sight 80 to 110 clicks from bottom
 Ammunition performance very erratic, wide variance on target
- At 100 yds., reduced loads
 Raise sight 120 to 160 clicks
 1st trial, 160 clicks, little variance
 Match ref. line to 9th line from top
 2nd trial 3 hrs. later, 120 clicks
 Match ref. line to 7th line from top
- At 150 yds., reduced loads
 Raise sight 230 clicks (1 trial)
 Katch rof. line to 12.5 line from top
- Could not mount telescopic sight properly. Began process of shooting in scope, found it moved.
- At 100 yds., full loads
 Raise sight 4 clicks from bottom
- At 150 yds., full loads
 Raise sight 8 clicks from bottom.
- 1. Intermittant vain throughout tests.

 2. Cases with reduced loads were noted to be blackened at neck after firing. Suspected to be low pressures not causing sufficient case expansion to obtain proper scal. This can contribute to erratic performance. Recommend gas port be turned to off position to prevent action from opening and allowing gas leak. Also investigate soft annealing case necks.