

UNCLASSIFIED		CONFIDENTIAL		SECRET	
(SENDER WILL CIRCLE CLASSIFICATION TOP AND BOTTOM)					
CENTRAL INTELLIGENCE AGENCY CONFIDENTIAL OFFICIAL ROUTING SLIP					
TO		INITIALS	DATE		
1	AC/TSS/R&D	WE	12/15		
2					
3					
4					
5	Pls return to TSS/ED	WE	17 Dec		
FROM		INITIALS	DATE		
1	C/TSS/ED	WE	24 Nov 58		
2					
3					
<input type="checkbox"/> APPROVAL <input checked="" type="checkbox"/> INFORMATION <input type="checkbox"/> SIGNATURE <input type="checkbox"/> ACTION <input type="checkbox"/> DIRECT REPLY <input checked="" type="checkbox"/> RETURN <input type="checkbox"/> COMMENT <input type="checkbox"/> PREPARATION OF REPLY <input type="checkbox"/> DISPATCH <input type="checkbox"/> CONCURRENCE <input type="checkbox"/> RECOMMENDATION <input type="checkbox"/> FILE					
Remarks: This is the report of the test of the mock up of the destructor system for the [] done out at [] Demolition Area. Next test will be a mock-up of the destructor system in a [] fuselage at []					
SECRET		CONFIDENTIAL		UNCLASSIFIED	

25X1
25X1
25X1
25X1

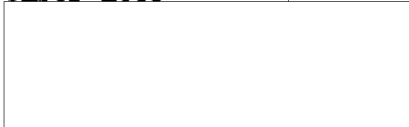
~~CONFIDENTIAL~~

Naipn #
Andy #
Walt *WJ*

~~SECRET~~

ILLEGIB

18 November 1958



MEMORANDUM FOR THE RECORD

SUBJECT: Destructor System Tests

25X1

1. On 13 November 1958 the undersigned conducted a test to determine a satisfactory technique for destroying the 35mm 200' film magazine which will be used in the log recorder. An aluminum box (3"x3"x1") containing was mounted such that the 3"x3" side of the box was parallel to the magazine. An air gap of 1" was left between the box and the magazine. This was sufficient to shatter the magazine into small pieces and only fragments of film 3/4"x3/4" were found.

25X1

25X1

25X1

2. On 14 November 1958, a mock up of the entire system was tested. Two main lines 70 feet long were suspended about 3 1/2 feet in the air by metal poles driven in the ground. All branches were connected to one main line using the plastic Tee connectors; however, the two lines were connected at the beginning and end by a 3' length of primacord. The Equipment Safeguard Unit was taped to the first pole and the two main lines were connected to it. Photographs 1 through 8 show the equipment mock-ups used in this test and the placement of the explosive charges. The weight of explosive used for each mock-up was:

Storage Bin (total)	7955 grams
KD-2 Camera	66 "
Ampex 800	332 "
70mm Camera	305 "
70mm Camera	308 "
GPL 35mm Mag	305 "
Sys 3 Receiver	2298 "
Sys 3 Recorder	2242 "
W-Developer Spool	200 "
	<u>14011</u> " = 31 pounds

About 275' of scuff-proof primacord was used. Figure 9 shows the layout on the ground.

3. Safeguard Units Nos. 21 and 23 were available for this test. These units were two of the original 25 which had been through the environmental testing program. Both units had been transportation vibrated and No. 21 had been through a water submersion test of 12" for 24 hours.

49
056
5
22

030780
56
9
2010

00956
02
C

ACTING DIR

~~CONFIDENTIAL~~

~~SECRET~~

Page Denied

Next 3 Page(s) In Document Denied

SECRET

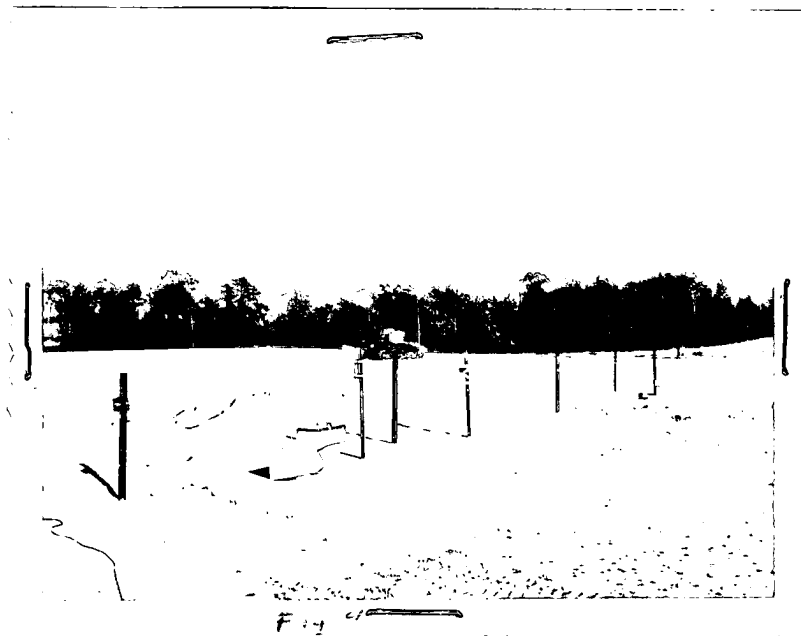


Fig. 9

Complete Mock-Up of Destructor System Test.

SECRET

SECRET

Results:

Unit No. 21 was tried first; however, the undersigned was able to depress the safety button only with considerable force and then was not able to turn the crank. It is felt that this failure was caused by the water submersion tests. (Two other units which had been through the water tests functioned satisfactorily during tests at the contractor's facility on 28 October 1958.) Unit No. 23 was substituted and it operated with ease and detonated the primacord after an arming delay of 35 seconds. Figure 10 shows the results [redacted] -- nothing except a few small fragments of film and tape were left at the area. Several twisted scraps from the aluminum mock-ups were founded scattered as far as 100 yards away.

25X1

4. Unit No. 21 was taken apart to determine the cause of failure. A considerable amount of water was found inside and Figure 11 shows the corrosion which caused the rotor to seize. From examining the firing pins and springs, it is questionable as to whether they would have functioned had it been possible to turn the rotor.

5. Conclusions:

The overall system appears reliable and the amount of explosive for each target equipment is ~~more~~ than adequate for complete destruction. Although Unit No. 21 was considered a failure, it is felt that the units can be protected from excessive water by canning and this will be done in the near future. Unit No. 23 has already been stored unprotected for six months and functioned properly.

6. The only remaining test to be performed before the system is ready for actual installation is a complete mock-up in a [redacted] fuselage. This will be set up at [redacted] as soon as the fuselage is delivered.

25X1
25X1

25X1



:mt

SECRET

~~SECRET~~

CONFIDENTIAL

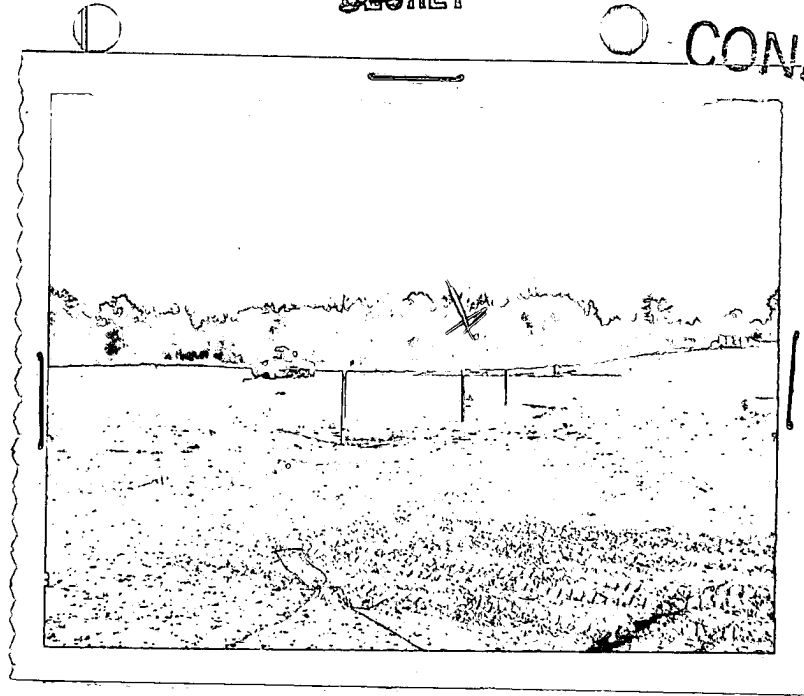


Fig. 10

Results of Destructor System. (Only Small Pieces of Tape and Film were Left.)

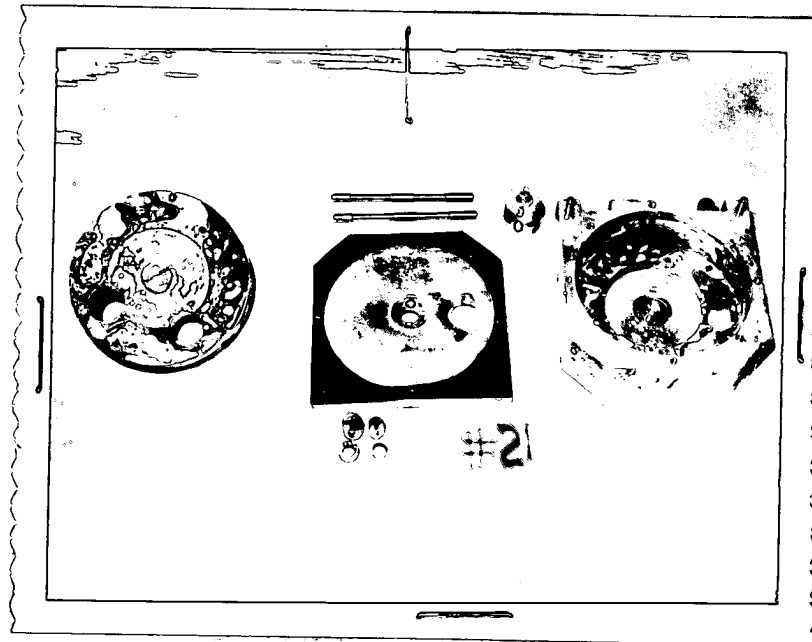


Fig. 11

Disassembled Safeguard Unit Showing Corrosion from Water Leakage

~~SECRET~~ CONFIDENTIAL