Appr & Release 2002/08/23 : CIA-RDP78B04560A005400010036-0

PHOTOGRAPHIC INTERPRETATION REPORT





DECLASS REVIEW by NIMA/DOD

NPIC/R-85/66 MARCH 1966

GROUP 1 EXCLUDED FROM AUTOMATIC DOWNGRADING AND DECLASSIFICATION

25X1 .

70 Approved For Release 2002/08/23 : CIA-RDP78B04560A005400010036-0

SCROOGE MISSILE, MOSCOW PARADE, 7 NOVEMBER 1965

SCROOGE MISSILE, MOSCOW PARADE, 7 NOVEMBER 1965

Attache photography acquired in Moscow on 7 November 1965 shows a weapon not previously seen by Western observers (Figures 1-4). The missile, designated SCROOGE, is reported by the Soviets to be a mobile, solid-fuel ICBM. It is contained in a cylindrical canister covered at both ends and mounted on a tracked chassis.

The only time that the canister was not covered by canvas was during its transit of Red Square; hence, the number of usable photographs of it is limited. The only available photography of the left side of the canister and certain portions of the transporter superstructure (uncovered) is a number of views which appeared in the newspaper Red Star. Therefore, complete details and accurate scale drawings of portions of the canister and superstructure cannot be provided.

The mensural data contained in this report were obtained from photographic solutions utilizing graphical techniques, metrical traps, and scale-ratio techniques. Because of the geometrical problems involved in mensural analysis of oblique ground photography, some degree of error is inherent. The reader is cautioned that while in some instances dimensions are carried to the one-hundredth part of a foot, the degree of accuracy is not that reliable. A general guide for determining the degree of confidence that can be placed in these dimensions is as follows:

Dimensions Given	Degree of Accuracy
60 feet to 20 feet	
20 feet to 5 feet	
5 feet to 0 feet	

The reader is further cautioned that the line drawing on which the mensural data appear is not intended to be used for detailed engineering analysis.

ine overall length	of the canister, including
both end coverings, is	(Figure 5). The
canister is Implom	ng between coverings and
in diameter. T	The conical fairing on the
forward end is1	long and has a maximum

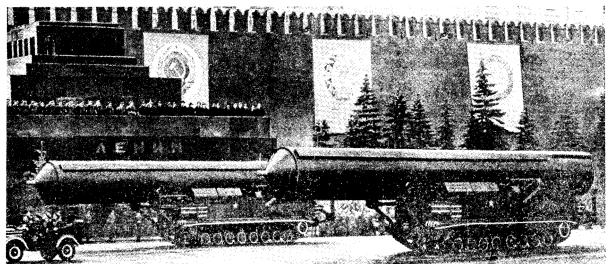


FIGURE 1. SCROOGE MISSILES ON PARADE.

NPIC K-6421 (3/66)

25X1D

25X1D

25X1D

25X1D

25X1D

Approved For Release 2002/08/23F (PIATRDP78B04560A0054000100396-10C/R-85/66

25X1D

25X1D

25X1D

25X1D

25X1D

A belt- or band-type apparatus located feet from the forward end of the canister and fastened on both sides of the canister with bolted clamps.

A circular, raised, probable access hatch in diameter. The method of cover removal cannot be determined.

A housing for 20 cable terminals which overlaps the cable tunnel running along the upper right side of the canister. The 20 external cables leading from the housing are held flush with the canister by straps. The cables disappear under the erecting mechanism. At least 7 cables connected to an equipment box on the right side of the superstructure and at least 4 cables under the canvas on the left side can be identified. It is not known whether these 11 cables are part of the 20 mentioned above.

Two cleats, one on either side of the canister, located below and just aft of the cable terminal housing. Their configuration indicates that they probably function as lifting points.

Two brackets, one on either side of the canister, located just below the cleats. The brackets function in conjunction with handwheels, during transit of the canister, to lock the canister to the bracing which extends forward of the cab.

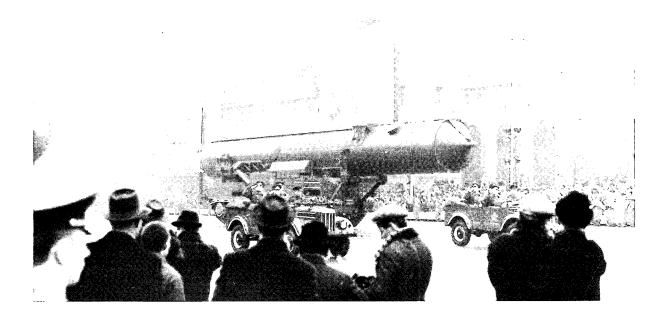
The erecting mechanism, located along the aft portion of the canister. It consists of a tubular assembly connected with a hydraulic piston on either side, and a pivoting mechanism near the extreme aft end of the transporter superstructure.

The canister is constructed of sheet-metal sections which are less than ______ wide and approximately half the circumference of the canister. Alternate sections overlap adjoining sections, and the sections are riveted together. A longitudinal seam, probably a weld, runs from the extreme aft end of the cylinder to the belt-like apparatus located near the forward end and probably joins together the riveted half-circumference sections. The canister probably can be separated at the "belt" if the clamps on either side are unbolted. There are at least 2 bands which appear to be welded around the circumference of the cylinder to provide added strength.

When the canister is erected to the vertical position as shown in the photograph from Red Star (Figure 6) the aft end covering would be flush or nearly flush with the ground. The hydraulic piston would have to telescope to approximately 4 times its length when the canister is erected. The piston housing is ■long and in diameter. It should be noted that the piston on the SCAMP missile erecting mechanism does telescope to approximately 4 times its length. The SCAMP piston housing is long and in diameter. 1/ If the SCROOGE piston did not telescope, the canister could be elevated to a maximum of only 30 degrees above the horizontal. A movie, Rocket and Artillery Forces Day of 19 November 1965, shows a close-up view (Figure 7) of a portion of the erecting mechanism, including a short portion of one hydraulic piston where its upper end connects with the tubular assembly.

The chassis of the tracked mover is very similar to that of the SCAMP. Its superstructure, however, which has vertical sides and a high silhouette, is unique. The configuration of the left side of the superstructure is nearly the same as the right; there are 4 minor variations. The

25X1D 25X1D 25X1D



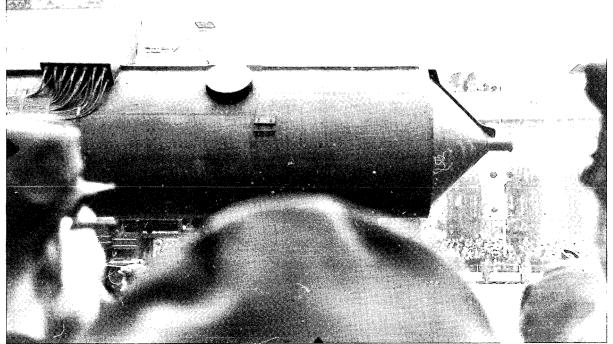
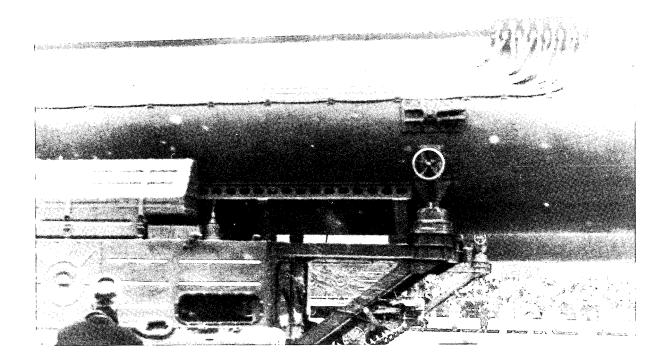


FIGURE 2. PERSPECTIVE VIEW AND FORWARD END OF CANISTER.

NPIC K-6422 (3/66



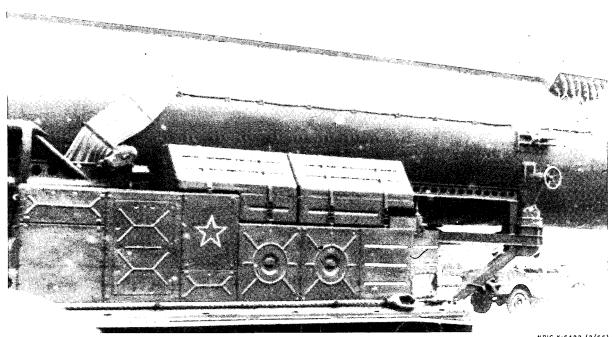
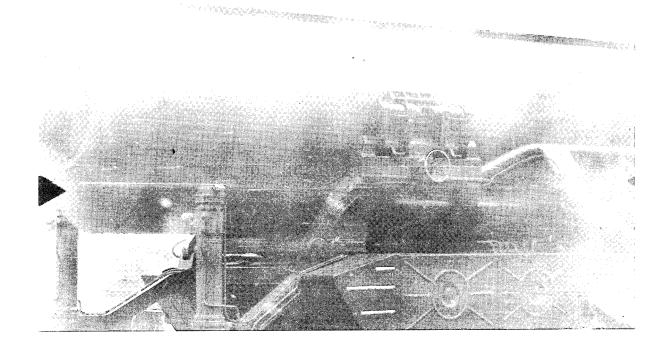


FIGURE 3. MIDSECTION OF CANISTER.

NPIC K-6423 (3/66)



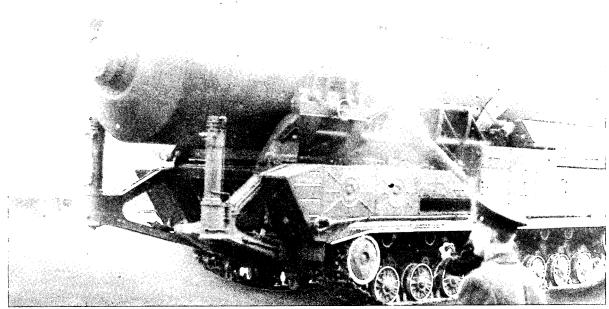
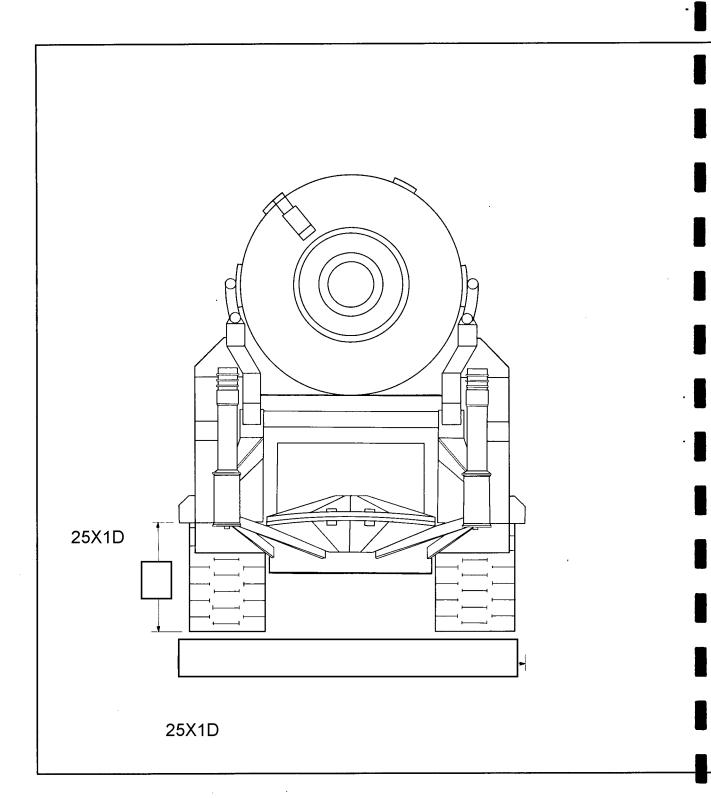


FIGURE 4. AFT END OF CANISTER.

NPIC K-6424 (3/66)



25X1D

SECRET



mover carries 2 conical jack pads in the rear between the tracks. The jack pads are carried base to base, have handles, and are locked in the travel position to the bracing which supports the hydraulic jacks at the extreme aft end of the mover. A tow cable is located along both sides of the vehicle, and 2 tow rings can be identified in the front and rear along the lower part of the

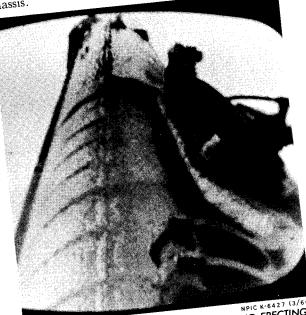


FIGURE 7. CLOSE-UP OF SCROOGE SHOWING ERECTING MECHANISM.

FIGURE 6. SCROOGE IN VERTICAL POSITION.

Approved For Release 2002/08/23 : CIA-RDP78B04560A005400010036 $_{\rm NP}^{\rm C}$ SECRET

REFERENCES

PHOTOGRAPHY

7 Nov 65, selected photos (CONFIDENTIAL)

Krasnaya Zvezda (Red Star), Moscow, 26 Nov 65 (UNCLASSIFIED)

DOCUMENT

1. NPIC. R-292/65, SAVAGE, SCRAG, and SCAMP Missiles, Moscow Parade, 9 May 1965, Sep 65 (SECRET)

REQUIREMENT

GMAIC. 27-6

NPIC PROJECT

11350/66 (partial answer)

25X1

CORD		PATE	LOC	AT I ON		MA	STER		DATE RECEIVED 0.00000000000000000000000000000000000	LOCAT			
PY	11		2002	/08/23 : C	151	VFL.				MAXIII	<u>"/08</u>		
		ON DATE(S)	DAT	E	co	PIES	DEST	ROYE	D				
OPIES 25	DATE 7-68	COPIES CUT TO COPIES	DAT	r E									
OPIES 10	7-70 DATE 7-72	MASTER	DA				TE		RECEIVED OR ISSU	ED	NUMBER	ISS'D	PIE
OPIES O	RECEIVED OR		NUMBER	S OF COPIE			DAY	YR.	RECEIVES		KEC 5		
25 66			51	5.									
10 28 68	NPIC				5								-
10 31 69	1 1 1 1			-	0			-					+-
1022 70	FMSAL				9	W	K	6			-	-	\perp
10 12 73	Dest 9	Copies					<u> </u>	-			1		1
							+-	-				-	+
			-	-		+	+-						+
			+-			1	1		,,	7684	,		
						<u> </u>		LASS.	LOCATION 60A0054000 DD GOO			 	

2002/08/23 GIA-RDP38B04560A0054008 D0 50.90 R-85/66

					NUMBER OF COPIES					A≠RL)P78	B045	ͽϭϪϭδ	3-0 RE	C.D	R OF CO	BAL	
					10	NUMBE	R OF C	BAL	мо.	DAY	YR.			 				1
D.A	ATE		RECEIVED	OR ISSU	EU 	REC'D		1						 			-	+
	DAY	YR.				1		+-	1	1	1						+	+
+	-	/				1	1-	+-	+	1				 			1-	+-
+		\sqcap				T	1	1-	+	+-	+			 			1	4-
-		++				+	T	1	4	+-	+	1		 		1		
	-	+				+	+		1	+	+-	+-				+	+	\top
	1	+-	-				+-	1			4	+				+-	+	-
1		1	-		•		+	-+-	+			4				4	-+-	-+-
T	T	.	1				1		-+	-		1		 		1		-+
+	+	+				-				-+	-	1		 				
1	+	+	1							+	-+	T		 		-		
1	+	-+	1				1	1		1	-+	-+				+		
L	1	-+	-			-+	-+				 			 		+		
T	1						-+			1		1-+						
Ø						1			+	1				 				
B	1	+-+					\	\	-	+	+	TT		 			<u> </u>	1
	-	+							1-	+	+-	+-1		 			T	
	1	+-	+				+	T	1_	1	+	+-	$\overline{}$				+-	T
	L	1	+				+	+			1	+	+-					
	T		1				1	+	+	1	1	1	LOCA	 				

NPIC Approved For Release 2082/08/3966