

## TARGETS, SIMULANTS AND DETECTORS

### Targets based on AP Landmines

PMN test targets consisted of original Russian PMN mines with replica detonators fabricated in the United Kingdom by C. King Associates. The firing mechanisms were blocked in the armed position. The mines were filled with bitumen-covered sulphur by the Dutch firm MTM to simulate the explosive charge.

PMN-2 test targets consisted of original Russian PMN-2 mines with original aluminium detonators, which had been inerted. The firing mechanisms were blocked in the armed position. The mines were filled with Dow Corning RTV3110 silicone rubber by TNO-FEL to simulate the explosive charge.

PMA-2 test targets consisted of original Yugoslavian PMA-2 mines with original aluminium detonators, which had been inerted. The mines were filled with Dow Corning RTV3110 silicone rubber by TNO-FEL to simulate the explosive charge.

PMA-3 test targets consisted of original Yugoslavian PMA-3 mines, with replica PVC detonators and fuse assemblies fabricated by C. King Associates. The targets contained no simulated explosive filling, and were buried with the metal spring band in place.

Type 72 test targets were original Chinese Type 72 mines, sometimes referred to as Type 72A to discriminate them from the two versions with electronic anti-handling devices, the Type 72B and Type 72C. The mines were blocked in the armed position to prevent inadvertent functioning and subsequent misalignment of firing components. Replica aluminium detonators were also inserted. The mines were filled with Dow Corning RTV3110 silicone rubber by TNO-FEL to simulate the explosive charge.

R2M2 test targets consisted of surrogate mines fabricated by C. King Associates. They were composed of complete replica fuse assemblies in waterproof housings of the correct height. The mines were filled with Dow Corning RTV3110 silicone rubber by TNO-FEL to simulate the explosive charge.

PMD-6 test targets consisted of exact replicas fabricated by MTM, complete with original RO-1 detonators. The firing mechanisms were blocked in the armed condition. The mines were filled with Dow Corning RTV3110 silicone rubber by TNO-FEL to simulate the explosive charge.

### Simulants

$G_0$  is a metal test piece consisting of a copper tube, 12.7 mm (0.5 inch) long, 3.175 mm (0.125 inch) diameter and a wall thickness of 0.381 mm (0.015 inch). Its mass is 0.393 g. The  $G_0$  test objects are placed in a mine simulant shell with a diameter of 57 mm.

$I_0$  is a metal test piece consisting of a small aluminium tube, 12.7 mm (0.5 inch) long, 4.75 mm (0.187 inch) diameter and a wall thickness of 0.381 mm (0.015 inch). Its mass is 0.172 g. The  $I_0$  test objects are placed in a mine simulant shell with a diameter of 88 mm.

$M_0$  is a metal test piece consisting of a large aluminium tube, 38.1 mm (1.5 inch) long, 6.35 mm (0.25 inch) diameter and a wall thickness of 0.381 mm (0.015 inch). Its mass is 0.66 g. The  $M_0$  test objects are placed in a PVC holder (dimensions: 42 x 42 x 8 mm).

## Detectors

Detectors from the manufacturers Adams, Ebinger, Fisher, Foerster, Giat, Guartel, LG Precision, MineLab, Pro-Scan, Reutech, Schiebel, Vallon and White's were used.

For convenience of identifying the samples each detector was assigned a code indicating the model. A number (1-3), added as a suffix to identify the example of the detector type. The following table allows conversions between the manufacturers' model numbers and the IPPTC designations. (Example: AD25-1 is the first sample of the Adams AD2500 detector).

<i>Manufacturer</i>	<i>Model</i>	<i>IPPTC Code</i>
Adams	AD2500	AD25
	AD2600S	AD26
Ebinger	EBEX 420GC	EB42
	EBEX 535	EB53
Fisher	1235-X	FI12
	Impulse	FIIM
	1266-XB	FIXB
Foerster	MINEX 2FD 4.400.01	FOMI
Giat	Model F1 (DHPM-1A)	GIAT
Guartel	MD2000 (Annular search head)	GUA2a
	MD2000 (Long probe)	GUA2b
	MD2000 (Short probe)	GUA2c
	MD4	GUA4
	MD8 (Annular search head)	GUA8a
	MD8 (Elliptic search head)	GUA8b
	MD8 (Probe)	GUA8c
LG Precision	PRS-17K	LGPR
MineLab	F1A4 CMAC	MICM
	F1A4 MIM	MIMI
Pro-Scan	Mark 2 VLF	PRMA
Reutech	Midas PIMD	REMI
Schiebel	AN-19/2	SCAN
	ATMID	SCAT
	MIMID	SCMI
Vallon	ML 1620C	VA16
	VMH2	VAVMa
White's	AF-108	WHAF
	DI-PRO 5900	WH59
	Spectrum XLT	WHSP