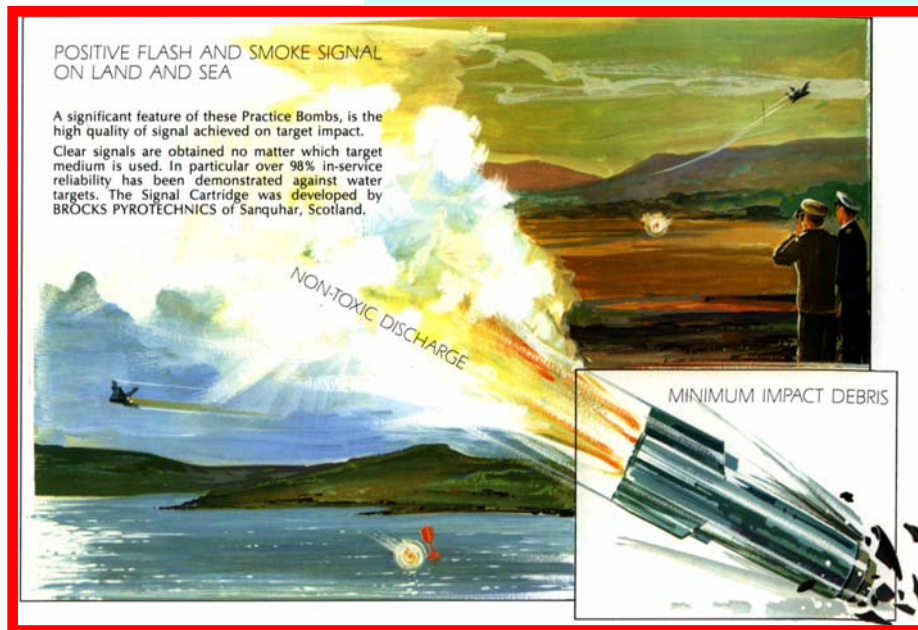




# PORTSMOUTH AVIATION LIMITED



## Aircraft Practice Bombs - 3 kg Bomb

With over 70 years in Mechanical Engineering, PA offers a complete engineering solution to ISO 9001 standards from Design through Development, Test, Trials and Manufacture to the finished product. Practice bombs are mainly of the smoke and flash type that enable spotting to be achieved by both day and night.

The major change in practice bomb design has been in matching the forward throw (the distance from release to impact) of the practice bomb to that of the operational weapon. This forward throw matching allows aircrew to closely follow operational flight profiles during training sorties.

The 3 kg Practice Smoke and Flash Bomb is designed for use in practising those delivery techniques adopted for 1000 lb retarded bombs and 600 lb cluster bombs. The bomb is released from a No 122 ERU and produces brown smoke and a flash on impact.

Safety during flight carriage and immediately after release will not be degraded should the bomb be fired inadvertently as no solid debris, which may damage an aircraft, will be ejected.

The body comprises a cylindrical glass fibre tube with four external integrally moulded stabilising fins. The body also houses the smoke and flash unit.

The nose is a solid steel plug, the forward end being cupped internally to assist in the retardation of the bomb on impact. A frangible nose cap is attached to the cupped end of the nose. The rear face of the steel nose is machined to receive a fixed striker.



Ground safety is achieved by a steel pin fitted between the striker, and the smoke and flash unit. The pin is secured by a screw threaded into the steel nose.

Prior to flight, the safety pin is removed and a three-legged spring, fitted to the striker, restrains movement of the smoke and flash unit.

The smoke and flash unit consists of a light alloy tube containing pyrotechnic composition, a primer tube containing gunpowder, and a percussion capped cartridge.

On impact the frangible nose cap shatters. The cupped steel nose retards downward movement of the bomb, and inertia, acting on the smoke and flash unit, overcomes the three-legged spring and drives a percussion cap onto the striker. The consequent flash fires the boost charge, which in turn ignites the primer charge, which ignites and expels the main pyrotechnic filling.

The No 2 Mk 3 variant is an inert practice bomb. Without the smoke and flash impact composition, the primary structural components are the same as those of the smoke and flash bomb. For training purposes, it is fitted with a safety pin, although this has no operational function and is purely cosmetic. No striker mechanism is fitted to this store.

#### LEADING PARTICULARS

Length	.....	.....	.....	.....	.....	.....	.....	.....	.....	381 mm (15 in)
Diameter of bomb										76 mm (3 in)
Diameter across fins	.....	.....	.....	.....	.....	.....	.....	.....	.....	153 mm (6.3 in)
Mass, filled.	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.3 kg (7.2 lb)
Mass and type of main charge	.....	.....	.....	.....	.....	.....	.....	.....	.....	300 g (0.6 lb) SR 223E



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