Hot Nose
Black body, infra-red enhancement system

Key features

- **Proven Capability**

  Against Mistral, Stinger, Stinger RMP, Igla, Strella, and Aim 9,

- **No restrictive transport regulations**

- **Compact and reusable**

Description

Meggitt Defence Systems, are specialist manufacturers and operators of free flying and remotely piloted aerial targets, unmanned air vehicles and associated equipment for defence departments and defence equipment manufacturers worldwide. Meggitt Defence Systems operates stringent quality standards meeting the requirements of ISO 9001-2008

Meggitt Defence Systems, continue to produce the proven ”Hot Nose” black-body infra red enhancement system for the Banshee Aerial Target.

The hot nose unit presents a realistic, 360^0 aura, emanating from the IR source, to the weapon system/ sensor without affecting the already proven performance of the Banshee target of the installation of additional payloads/enhancements such as miss distance indicator (MDI) systems and pyrotechnic stores.

The complete unit comprises a forward looking 8.5” diameter heated nose cone which attaches directly to the forward fuselage section of the Banshee without adjustment or modification. In use the exhaust gases from the burner are directed over the fuselage so increasing the overall size of the heated area.

The heat source is based upon the Meggitt designed and patented (UK and other world patents) gas burning nozzle mounted within the cone and fuelled by Liquid Propane Gas (LPG), supplied through a 2.5 bar regulator. Safety of the system is provided by a number of electrically operated solenoid valves which initiate shut-down of the system on either loss of aircraft command link, or, on demand, or, on parachute deployment, allowing all of the heated surfaces to cool before recovery.

The propane burner may be ignited by an external source or optionally upon command from the target control ground station by the target operator. The nose cone is compact, safe and reusable and is not required to comply with the restrictive regulations governing the transportation of the traditionally used pyrotechnic IR sources.

The easy to install system achieves an IR signature proven against such weapon systems as Mistral, Stinger, Stinger RMP, Igla, Strella and Aim 9. It provides a higher constant skin temperature than typical exhaust enhancements due to the direct heating of the outer skin, resulting in temperatures in flight of more than 600^0C. For use with the latest weapon systems which require a lower IR signature, the temperature of the hot nose may be adjusted upon command through the control ground station, whilst the target is in flight.

Trials have proven that heat seeking missiles and IR detection systems have acquired the target at ranges in excess of 7km in realistic head-on and crossing presentations.

The black-body heat source makes the hot nose system ideal for realistic day/night IR acquisition training. The development of a reusable IR enhancement nose cone brings to the target system owner a simple to operate, cost effective IR system which provides a realistic, airborne simulation for land based, maritime and airborne training scenarios.

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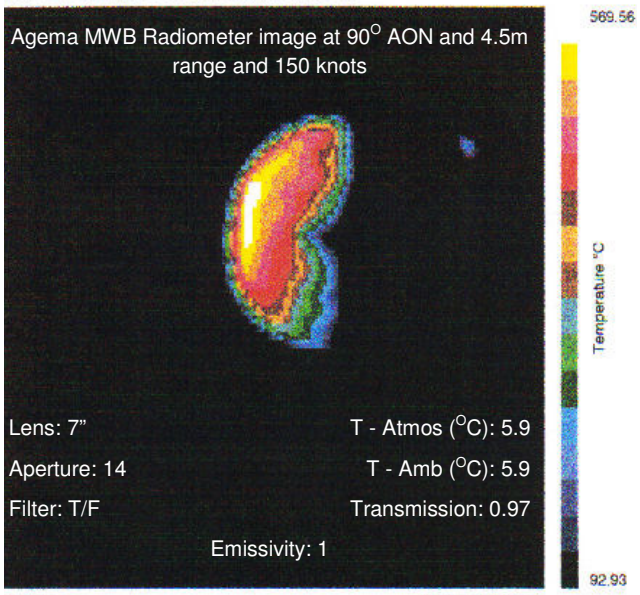
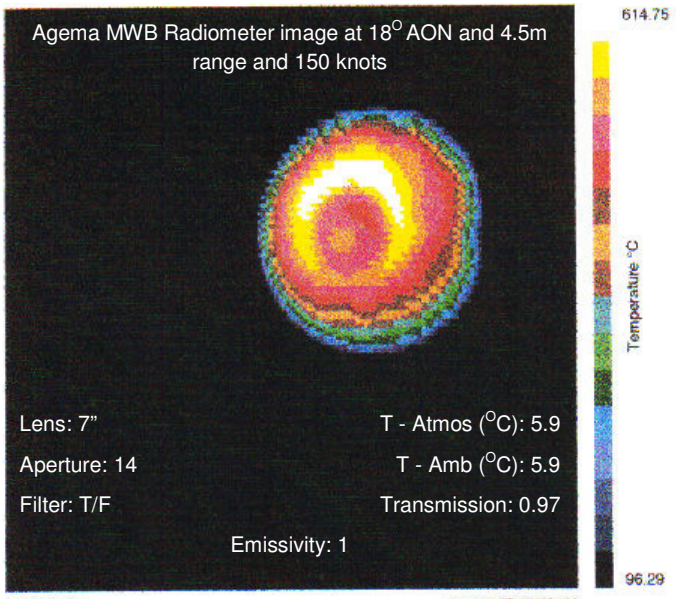
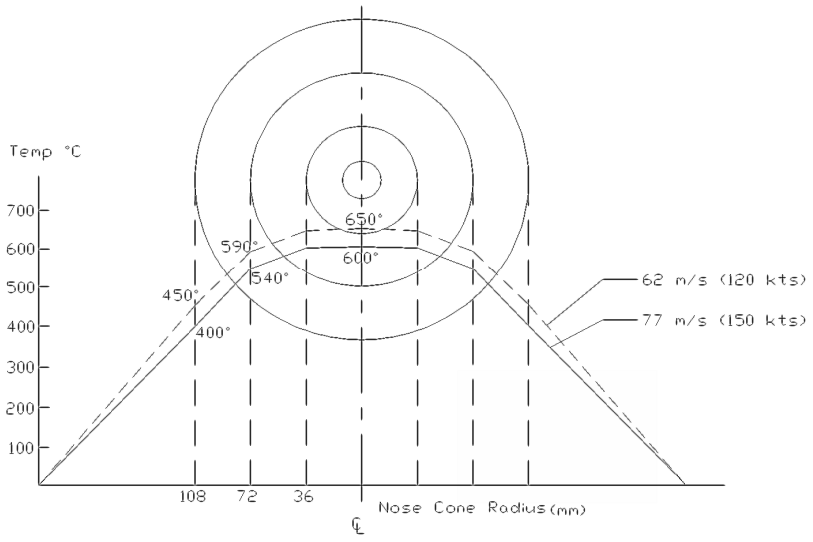
SPECIFICATION

Diameter:	215 mm (8.5”)
Length:	254 mm (10”)
Weight of the Unit:	3.2 kg
Powered by:	Propane gas contained in a refillable pressure vessel.
Endurance from gas supply	> 1hour 30 minutes (Continuous operation at maximum temperature)
Operating temperature range:	-30^{0}C to +50^{0}C
Maximum skin temperature:	600^{0}C at 120 knots indicated airspeed. 550^{0}C at 150 knots indicated airspeed.







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