

The background of the entire slide is a solid grey color. Scattered across this background are several white birds, likely egrets or herons, captured in various stages of flight. Some are shown from the side with wings spread, while others are more partially visible or in different poses. The birds are positioned around the central text, adding a naturalistic element to the presentation.

Bird Scaring Cartridges

in

Wildlife Management



The background features a light grey pattern of overlapping hexagons. Several white birds, possibly egrets or herons, are shown in flight, their wings spread, scattered across the slide. The text is overlaid on this background.

Jamie Hislop

Product Manager / 12G Subject Matter Expert (SME)

Introduction to Primetake

- Founded in 1991 as a manufacturer of 12G Bird Scaring Cartridges
- Based near the city of Lincoln, Lincolnshire in the United Kingdom
- Purpose built, flexible facility with the capability to Design, Develop, Manufacture & Test products
- Certified to ISO 9001, ISO 14001 & ISO 45001
- Currently manufacture circa 500,000 Bird Scaring Cartridges per year

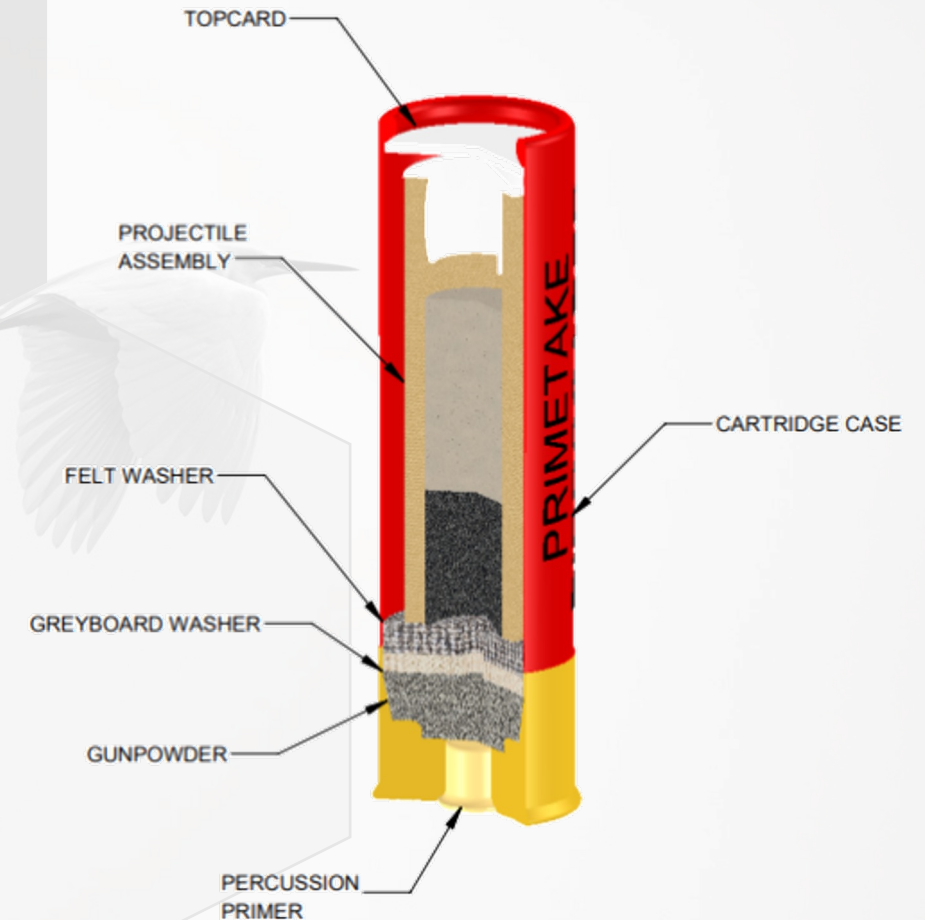
Primetake - Bird Scaring Cartridges (BSC)

- Primetake Ltd currently supply 8 different types of 12 Gauge BSC
- In service worldwide with both Military and Civilian airports
- Also supply BSC pistols alongside training courses on all Primetake Ltd BSC Products



What is a Bird Scaring Cartridge (BSC)?

- 12 Gauge based Pyrotechnic, fired from a BSC Pistol or 12 Gauge firing platform
- Designed to be used in Aerodromes to produce various effects (stimuli)
- Product Performance Range – Capability to produce a range to detonation up to 120 metres, delay time up to 4.0 seconds and a decibel level up to 150dB
- Cost effective method



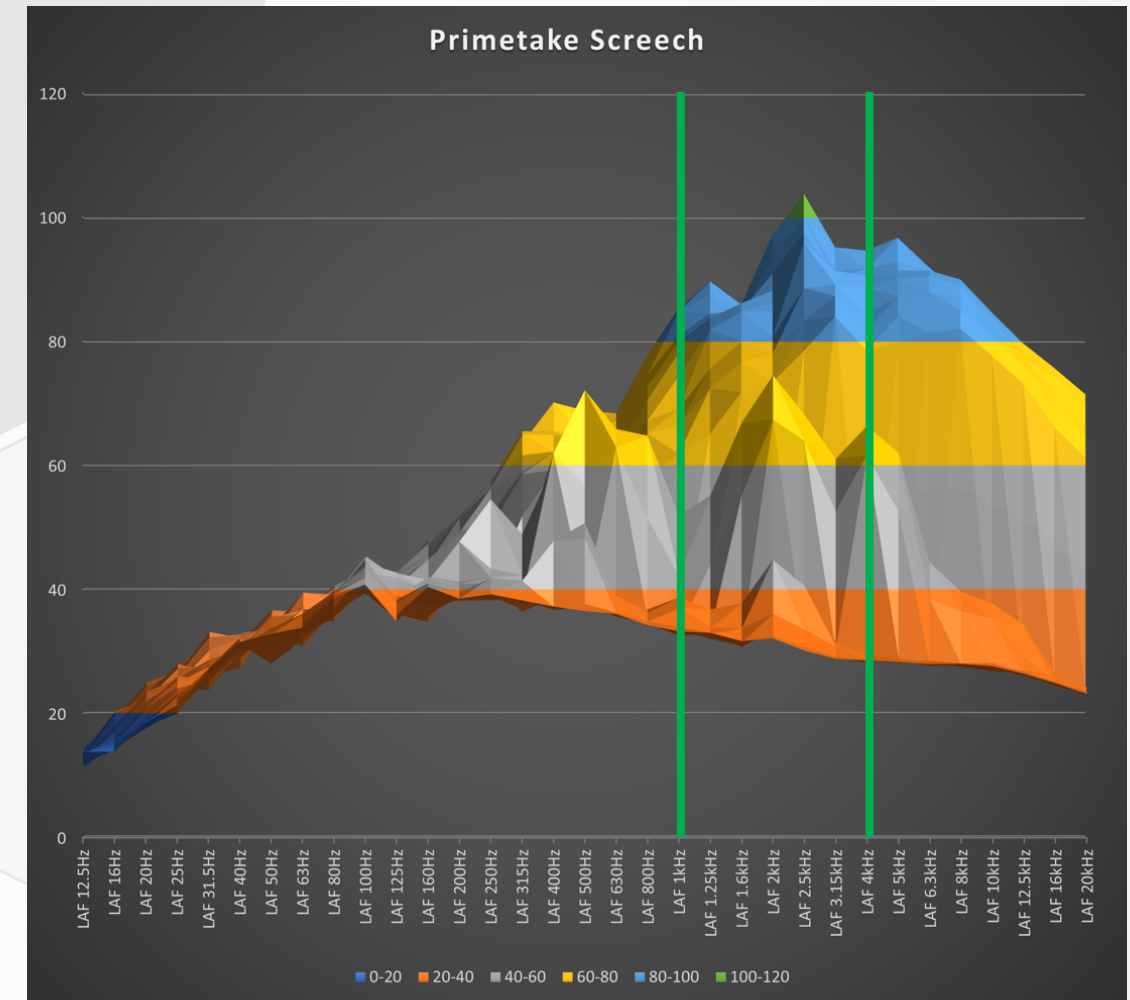
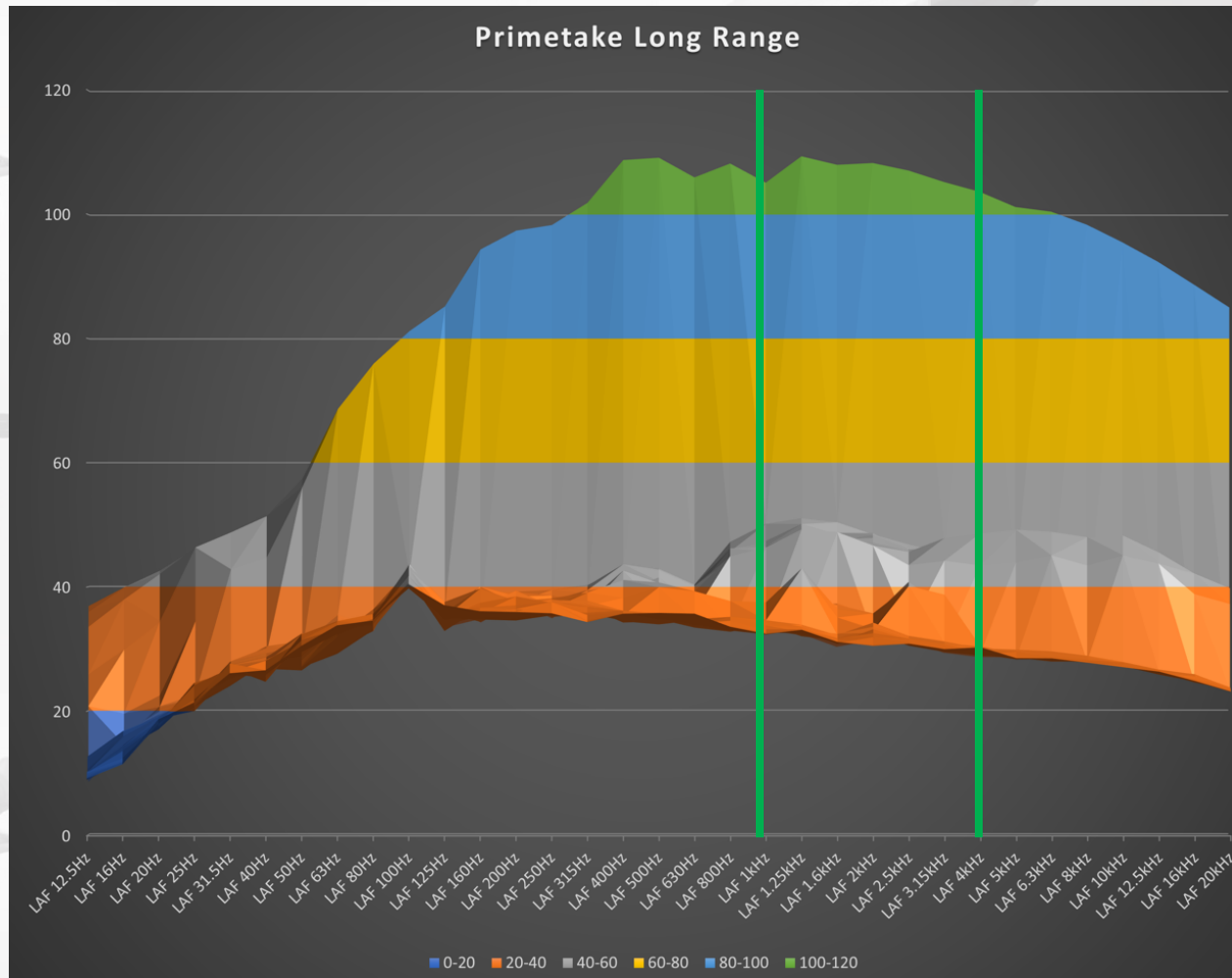
Why Use a Bird Scaring Cartridge?

- BSC give users the capability to engage and disperse birds in a variety of ways:
 - Height
 - Distance
 - Type of Sound
 - Speed / Regularity of deployment
- The variability in effects helps reduce the possibility of habituation
- *“Habituation is a simple form of learning, in which an animal, after a period of exposure to a singular stimulus, stops responding” (CAP 772)*

How effective are Bird Scaring Cartridges?

- BSC deliver different types of effects (stimuli)
 - Light – Green trace throughout its flight
 - *“Trials have shown that green lasers may be a useful bird dispersal tool in bird control operations” (CAP 772)*
 - Sound – In flight (Screech)
 - Sound – at initiation and detonation
- Common birds have a sensitive hearing frequency range between 1khz and 4khz.

Bird Scaring Cartridge – Frequency Range



Customer Engagement & Feedback

- Positive Feedback received:
 - Good variety of products
 - Consistency
 - Effective
 - Good Technical support
- Ideas for improvement:
 - Environmentally Friendly / reduced FOD
 - Further variability
 - Different cartridge case colour
 - Increased shotgun compatibility

Product Range Enhancement

- Make the product range more Environmentally Friendly and reduce FOD
- Provide more technical information to aid users in selecting the most suitable BSC
- Introduce a new product (following customer feedback)
- Enhance the Shotgun range to match the versatility of our Pistol Range



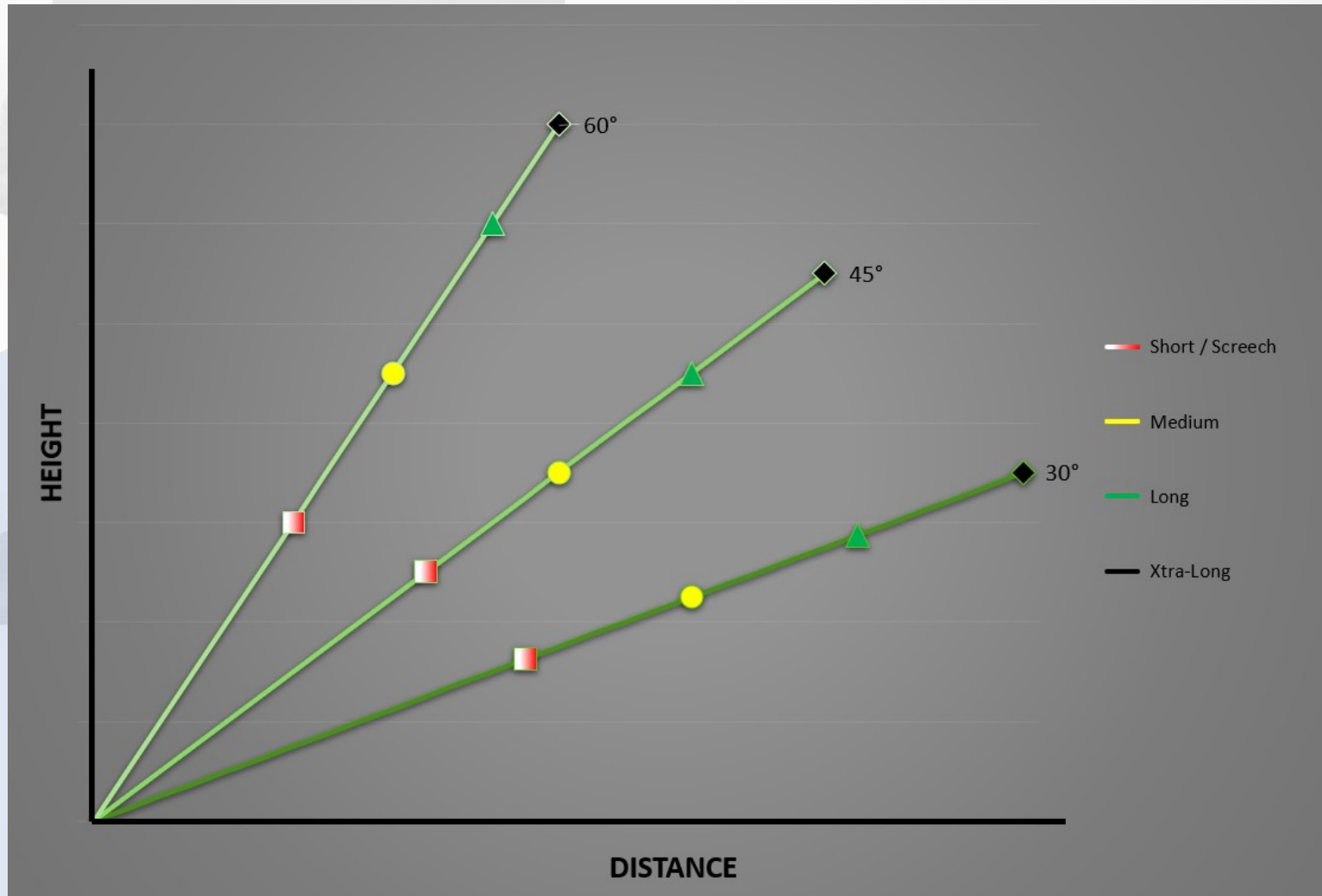
Improved Product Range

- 5 Products to be available in both Pistol and Shotgun compatible variants –
 - Short – 40 to 60 metre average range
 - Medium – 60 to 80 metre average range
 - Long – 80 to 100 metre average range
 - Extra Long – 100 metre + average range
 - Screech/Bang – 40 to 60 metre average range (New Product)
- Bio-degradable Projectile
- Reduced FOD – current plastic cap replaced by a bio-degradable alternative



Improved Technical Information

- Technical data provided will allow users to select a cartridge to scare a bird flying at a specific height and distance – and know the desired angle of fire to achieve this
- Supply sound level and frequency data for each product



New Product Introduction – Screech/Bang

- Replaces current Screech product
- Providing improvements such as reduced FOD and a detonation at the end of its flight
- Fully biodegradable projectile
- Available in both Pistol and Shotgun variants



New Product Introduction – Screech/Bang



Shotgun Range Enhancement

- All 5 product types to be available in Pistol and Shotgun compatible variants
- Gives users more flexibility
- Assists with challenges some users face with firearms licensing
- Deployment advantage – increase speed and variability



Shotgun Range Enhancement



New Product Range Availability

- Samples – Q1 2023
- Production – Q2 2023
- Bird Scaring Pistols available
- Training Courses available
- Contact- Sales@Primetake.com

