Infrared tracking of fast-moving projectiles

Specialised Imaging,
the technological leader in ultra-high-speed imaging, announces a new development that extends the capabilities of its **SI Trajectory Tracker** to examine **thermal effects** associated with **fast moving projectiles.**

Image captions: A: IR Trajectory Tracker system

The SI Trajectory Tracker
has played a pivotal role in the study of projectile aerodynamics during flight. One of its primary advantages is that its tracking mirror is programmed to be synchronised with the movement of the projectile, effectively eliminating motion blur along the axis of travel. Additionally, camera using higher frame rate within the SI Trajectory Tracker helps minimise motion blur in the rotational and vertical axes.

As interest in hypersonic projectile research
grows, there is an increasing need to examine thermal effects on projectile aerodynamics The new **IR option** makes the **Trajectory Tracker** well-positioned to support this area of study. Its new silver-coated tracking mirror provides reflectance up to 8 µm, and its modular design allows the standard silica protective window to be replaced with sapphire glass for wavelengths up to 5.5 µm, or germanium glass for wavelengths into the LWIR. Moreover, the flexible modular architecture enables LWIR imaging beyond 8 um by replacing the silver-coated mirror with a gold-coated mirror and the window with germanium glass.

The IR Trajectory Tracker system
when paired with a suitable IR camera is fully capable of SWIR, and MWIR, and LWIR imaging.

The SI Trajectory Tracker
is a next generation video tracking system offering high performance and ease of deployment on a sturdy, fully adjustable mount. The system provides consistent and accurate tracking of objects in flight using a computer controlled triggered rotating mirror positioned in front of a high-speed digital video camera or for infrared tracking an IR camera.

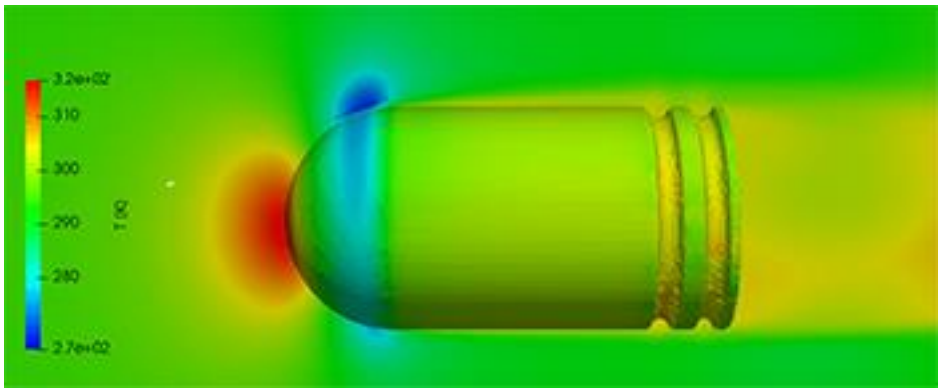

Image captions: B: Simulated thermal study of a bullet travelling at supersonic speed.

For further information
please visit https://specialised-imaging.com/products/tracking-systems/tracker2/ or contact Specialised Imaging on +44-1442-827728 (UK) / +1-951-296-6406 (USA) / +49-8141-666-8950 (Germany) / +86-1068-651-769 (China) / info@specialised-imaging.com.

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