



LAUNCHING 1ST JULY 2013

mini FLIGHT FOLLOWER™



The ORIGINAL Flight Follower System was designed and developed to meet the high speed imaging requirements of modern ammunition designers and other manufacturing facilities. To accompany our latest **Automated Flight Follower**, MS Instruments and Hadland Imaging have now developed a compact 'mini Flight Follower' to extend our range of imaging solutions that are unique and specialised.

The mini Flight Follower is a complete Turn Key system that consists of a computer controlled triggered rotating mirror positioned in front of an integrated High Speed Video camera which is controlled via iPad. The mirror is programmed to rotate at the correct speed such that the camera will "follow" any object as it passes the Flight Follower position. This specialised imaging system is complete as a package that includes a high speed camera, control software, mirror tracking unit, lap top controller, iPad, tripod, trigger unit, assortment of lenses, compact Transit Case, Xcitex (post Analysis Software) and all the necessary cables to connect, control and operate the system for a multitude of applications, via GigE or wireless.

Typically, the system will track the trajectory for 100 metres or more as the mirror scans a 90-degree arc providing high quality images of objects in flight. The system has several modes of operation which are software selected depending upon the individual conditions of the test. The Flight Follower will track small, medium and large calibre projectiles as well as other objects such as rockets, rocket assisted projectiles, sled track tests, sports equipment, automobiles, and practically anything that is traveling too fast to observe and study for critical measurements' and analysis. Additionally, the Xcitex Software will provide the user with an assortment of post analysis measurements and calculations to track and study the phenomena.

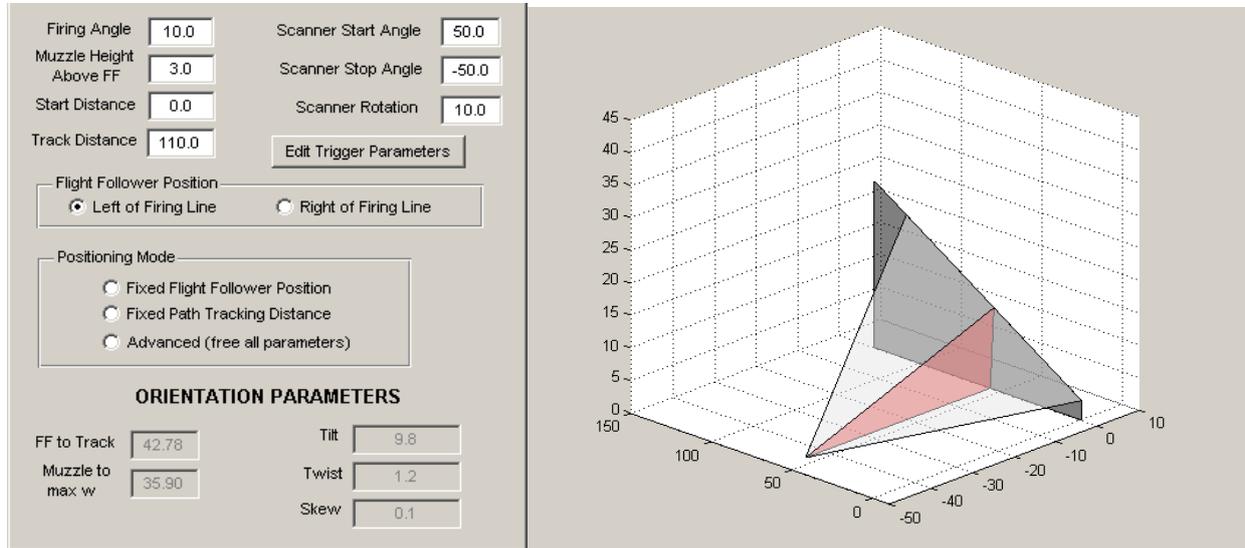
Key features include:

- ◆ **Better than 0.1° tracking accuracy over 90° scan.**
- ◆ **Remote operation via dedicated MS Windows software including set-up Wizards ensure optimised set-up for a variety of geometries to track.**
- ◆ **Fixed, Measured or User Defined Velocity Profile modes with multiple trigger inputs and built in Trigger delay.**
- ◆ **Real-time (10MHz) mirror position control enables in-flight velocity and acceleration correction.**
- ◆ **'Mirror Halt' function stops the mirror in mid flight for impact analysis.**
- ◆ **Integrated high speed camera.**
- ◆ **Low cost integrated Turn Key System complete.**



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SYSTEM SOFTWARE



With our cutting-edge software set-up wizard, we have greatly simplified range surveying and equipment configuration, minimising set-up time and ensures optimum configuration for the range, projectile and camera. We also supply the video analysis software if required.

SPECIFICATION

MIRROR:

- Size (largest): Variety of Sizes available
- Scan Ratio (highest): 4-40 (Scan Ratio = Projectile velocity/Stand Off Distance)
- Tracking angle: 100° total, 90° tracking.
- Angular tracking accuracy: Better than 0.1°
- Flatness ¼ Wave

CONTROL UNIT:

- Operation modes: Measured/Fixed/Multiple Update or User defined velocity profile
- 3 x TTL , 3 x Sky screen, 1 x Multi-trigger (up to 256 inputs)
- Trigger output: 1 x +5v TTL in synchronism with the start of the mirror scan (normally used to trigger the High Speed Video Camera).
2 x TTL stand-alone (for 3D scan etc)
- Power: 100 — 240v 50 – 60 Hz.
- Communication: GigE/Wireless LAN

CAMERA:

- Resolution 1280 x 1024 pixels
- Frames Per Second Up to 20,000 frames per second
- Memory 2GB (up to 16GB optional)

SOFTWARE:

- Ballistic DB Post Analysis 