# Ambrose Award 2017

# Oehler Research, Inc

## •Oehler Research, Inc

- Dr. and Mrs. Kenneth Oehler are the founders and owners of Oehler Research, Inc. Their company has been the industry leader in ballistic instrumentation for many years.
- Pioneer designer and manufacturer of ballistic measurement equipment
- Has made outstanding contributions to the field of small arms systems.

### Instrumentation Contributions

- First Chronograph introduced 1966
- Since then Dr. Oehler has designed upwards of 33 chronograph models and about 20 different downrange sensors.
- Dr. Oehler produces a constant flow of ballistic instrumentation and is widely regarded as the father of the modern quartz timed ballistic chronograph.

### Instrumentation Contributions

- Consumer Chronographs
- Industrial Chronographs

#### Model 35-P



#### Industrial - System 85



#### Pressure/Accuracy – Systems 42, 82, 83, 85, 86





System 86 Controller

Model 57 Industrial Sky Screen w/infrared Light source





### Time of Flight and BC - System '88



- Portable (battery powered)
- Measured MV
- Measured TOF
- Actual BC of system
- Unit level affordable

Shooting Position



Tested past 1 Mile

## Supporting Warfighters

- Oehler Research's latest design, the System 88, is a portable unit which provides accurate time of flight measurements and targeting over extended ranges using GPS and wireless communication.
- Designed to allow easy, inexpensive flight data, measured and processed at the Unit instead of Arsenal level, fulfilling requests from U.S. Special Operations and Law Enforcement Snipers.
- Successfully tested at a target distance of over 1 mile.
- The results improve first hit probability for sniper teams and characterize projectile drag for manufacturers of high performance rifle bullets and ammunition.

### Supporting Warfighters

- Oehler equipment is used at most Govt. arsenals and proving grounds
- Model 86 has successfully measured crew served, tank and aerial firings
- Recently used to collect data from 25mm Gatling gun fired from Marine F-35B Joint Strike Fighter



F-35B GAU-22/A Gun Pod Test using Oehler System 86 Acoustic Target Photography Approved for Public Release U.S. Navy photos by: Arnel Parker July-2016



## Oehler Reserch, Inc.

- Patents include:
  - Inductance Type Velocity Measuring Apparatus, July 16, 1974 (Number 3,824,463)
  - Photodetector Circuit for Ballistic Velocity Measurement, December 5, 1978 (Number 4,128,761)
  - Sunshield and Light Diffuser, December 16, 1980 (Number 4,239,962)
  - Multiple Screen Ballistic Chronograph, July 4, 1989 (Number 4,845,690)

## Oehler Research, Inc.

- Outstanding contributions to the field of small arms systems.
- A record of continual demonstration of emerging technologies, development of products and systems and integration of innovative supporting products and services required by the DoD and Allied countries.
- Has performed sustained superior service in a career field of science, engineering, test and evaluation, academic study and research, relating to military small arms and infantry weapons.

## Oehler Research, Inc.

- Every American that has ever fired a gun has probably been the beneficiary of Dr. Oehler's genius. Nearly every gun and small arms munition manufactured in the United States was tested somewhere in process with Oehler equipment.
- Oehler systems are the standard of both industrial and military testing. The industry depends on Oehler products to meet Quality standards.
- Other systems are commonly validated by comparing their measurements to those taken simultaneously with an Oehler.