

DATA SHEET

Round Identification and Location System (RILS)



01 Description

The Round Identification and Location System (RILS) is a standalone Doppler radar scoring system. The heart of RILS is the Non-Contact Hit Sensor (NCHS) that provides location and identification of projectile types along with velocity and angle of approach in real time. Hit data from the NCHS is uploaded to the laptop ground station through a WLAN.

Data gathered by the ground station is displayed in a Windows-based application that includes utilities for report generation. If desired, the RILS can generate a preprogrammed hit pulse to knock down the associated target. The NCHS is adaptable to all target lifters, moving and stationary, and may also be used for hard targets.

Both color-graphical and standard-text displays are presented to the operator by either computer monitor or hardcopy.

The NCHS scoring medium consists of multiple radar fields and is not affected by environmental conditions, or the physical condition of the target panel. Using the NCHS expands available valuable training time and lowers overall operational costs. The NCHS will score all full-caliber rounds; subsonic, supersonic, and hypervelocity. When used with the RILS, the NCHS is programmable to score all standard Army / NATO target sizes. Using the RILS laptop ground station, hit location and projectile ID is available for real-time display and/or hard-copy printout.

02 Key features and benefits

- Day and night scoring
- All weather
- All armor stationary and moving targets
- All round velocities including subsonic and hyper velocity
- Round identification and discrimination
- All standard round types
- Simple installation with no special equipment
- Provides realtime feedback

03 Applications

- Projectile tracking for training and evaluation missions
- Score generation for operator and weapon qualification

04 Contact

Meggitt Defense Systems
9801 Muirlands Blvd
Irvine, CA 92618, USA
Tel: +1 (949) 465 7700
Fax: +1 (949) 465 9560

www.meggittdefense.com
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05 Specifications

Accuracy	15 cm (5.9 in) for hits on the target panel < 30 cm (11.8 in) for near misses passing within 2 meters (6.6 ft) of target panel edge all accuracy is dependent on projectile type
Allowed firing angle	Within 15 degrees azimuth from perpendicular of target panel; up to 30 degrees for some applications
Projectile types	7.62mm to 120mm training practice and non-explosive ammunition including most anti-armor missiles
Output	Provides hit location relative to target reference point (bottom/center of panel) with ballistic identification and timestamp
Projectile identification	From a pre-selected list of small, medium, and large rounds
Power requirements	12 V dc; minimum 48 hours operation on standard deep cycle battery
Interface	The RILS normally is interfaced via WLAN or can be configured to provide real-time hit/miss results through other existing telemetry links
Hit indication	Through target lifter interface based on customer-defined parameters
Control station	The RILS comes equipped with a laptop or desktop ground station running a Windows operating system and ground scoring application
High-firing rates	The NCHS system can be configured to provide scoring for high-cyclic rate weapons such as aircraft and air defense cannons

