

WILCOX[®]

FUSION

PRODUCT BROCHURE

FUSION SYSTEM™



CONCEPT TO CAPABILITY

From Concept to Capability, the Wilcox FUSION SYSTEM provides highly advanced, innovative upgrades to a proven legacy weapon, infusing it with state of the art technology and increasing our warfighters lethality and ability to dominate the enemy. At the leading edge in developing disruptive technology, Wilcox embraces a “Systems Approach to Combat Operations” and is sharply focused on understanding our customer’s concepts and the associated capability development required to enable those concepts.

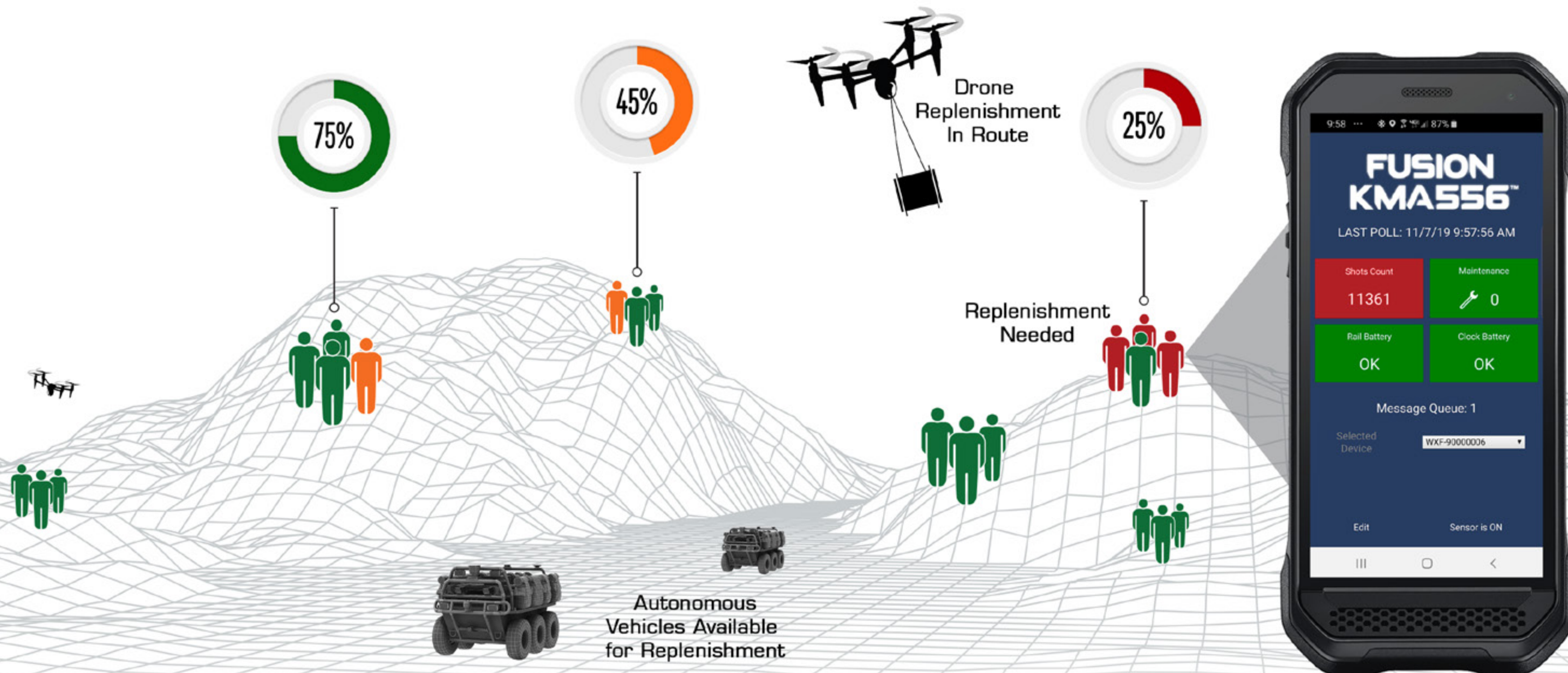
Our methodology develops and leverages advanced sensors and rapid routing of real time actionable information, all critically focused to reinforce the warfighter’s situational awareness and provide resources to generate effective fires and maneuver, all informed to maintain tempo.

Advanced electro optics and sensors within the FUSION SYSTEM enable rapid target acquisition and facilitate engagement via our Bluetooth networked interface. Operations interaction provides an immediate alert to the Blueforce Tactical (BTAC) Mobile Command Center noting activity in real time with exact location alignment, target parameters, maintenance, triage, facial recognition and overwatch.

These activities work together to develop and operationalize the Sensor to Shooter Concept, enabling true “network centric operations” and providing greater customer awareness, support and lethality at all levels of operation – from the Command level out to the tactical edge.

OPERATIONAL SUSTAINMENT

BY BLUEFORCE DEVELOPMENT



Battlefield, disaster response, and public safety sustainment is both an art and science; it's about synchronizing, integrating, and transporting commodities in a highly "just-in-time" manner to provide maneuver and incident commanders with freedom of action, extended operational reach, and prolonged endurance. As it turns out, the "science" of sustainment is not terribly difficult as it is grounded in basic math and computation, based on real-time data from the operational space. A fire team deploys with X amount of ammunition multiplied by the number of soldiers on a fire team, and then an ability to monitor ammunition consumption in real-time. The same calculus can be made for food, water, fuel, medical necessities, and nearly every other class of supply.

The "art" of sustainment is about considering how the tactical or incident response environment affects logistics and resupply. The "cog" at the center of the autonomous replenishment machine is data and situational awareness, fed by an array of IoT sensors (body worn and proximate) and stream analytics to anticipate resupply needs. Using a very simple example, a vehicle that takes X amount of petrol may be started early to warm up on a cold day which will require additional fuel sooner. Similarly, on a hot day with soldiers experiencing an accelerated operational tempo will drive faster and more acute need for resupply of water. Core to the discussion of "art", is all channel access to IoT, GIS, and environmental data, but also recognition support "services" in the form of rules and AI.

Wilcox Industries, has partnered with Blueforce Development Corporation and Thunderbolt Solutions to develop a packaged capability for operational sustainment based on deployed fire teams using the [Wilcox FUSION System](#). These products house an integrated maintenance counter which monitors the number of rounds fired as well as barrel temperature and other rail sensors and moves weapon data using [BlueforceTACTICAL](#) (BTAC) where the data is shared amongst the fire team and their commander but is also shared with the Wilcox Armorers Module in an armory. FUSION System data is also monitored in real-time by Blueforce's new Autonomous Orchestration Plugin for BlueforceEDGE, which monitors a wide array of soldier systems to include the Wilcox FUSION

System, physiological wearables, CBRN, laser rangefinders/targeting, and others for single-variant and multi-variant threats. The Plugin contains sets of business rules that can detect active engagement and shot counts, but also looks across an entire deployed fire team versus a single operator. On certain thresholds, the Plugin can launch autonomous drones, track vehicles, or other for resupply and/or over-watch.

IN PARTNERSHIP WITH:

blueforce DEVELOPMENT **HUNDERBOLT**

FUSION SYSTEM™

POWER MANAGEMENT, MAINTENANCE & INTEGRATED FIRE CONTROL SYSTEM™



OVERVIEW

The Wilcox FUSION SYSTEM™ is a lightweight fully integrated fire control system that manages the power and maintenance of the rifle it is mounted to. A uniquely designed dual battery system features a primary and reserve battery compartment. The FUSION SYSTEM is a class 3B high power laser aiming device that features a fully integrated environmentally stable optical bench. An on-board sensor monitors the total count of rounds fired from the rifle like an odometer in a vehicle. This data connected through the depot's [BTAC Armorer's application](#) assures the users rifle is always maintained and ready for service. The FUSION SYSTEM differentiates itself from any other fire control system on the market by allowing an operator to fire different ammunition types from the same weapon by simply flipping a trajectory switch. Wilcox has set the standards for optical performance in beam clarity and uniformity aiding in increasing the warfighter's lethality and situational awareness.

Truly innovative, the FUSION SYSTEM has BTAC on board, further enabling a "smart weapon" design. The warfighter is able to connect the weapon via BTAC plugin to the network, providing awareness of the weapon's operational health while in the field as well as an armorer's interface for key predictive maintenance parameters associated with long term care. Learn more about [Operational Sustainment](#).

www.wilcoxind.com/FUSION



FUSION KMA556



FUSION ARX160



FUSION G62

Available Colors*: -CAMI -W -C -B

PRODUCT DESCRIPTION	PART NUMBER
FUSION KMA556	65900G08
FUSION ARX160	65900G10
FUSION G62	65900G11
3X MAGNIFIER (SOLD SEPARATELY)	61100G16
STUBBY FUSION GRIP FOR KMA556 & G62 (SOLD SEPARATELY)	46208G01

*Color options differ by weapon systems. (see datasheets for more information)

IN PARTNERSHIP WITH:



BTAC® NETWORKED ENABLED CAPABILITY

SENSOR TO SHOOTER ADVANTAGE

- Providing actionable, task relevant information to and from networked teammates.
- Shot counter: Monitors shot count which are shared in real time with other users and the Armorer's Module for BlueforceCOMMAND.
- Temperature monitoring: Monitors weapon temperature and can forward based on high and low thresholds.
- Health/power: Monitors and reports maintenance flags or issues as part of the movement of shots, temperature, and location.
- Sensor Fusion: FUSION plugin runs alongside of other BTAC plugins to include Wilcox RAPTAR S, Wilcox HYBRID PATRIOT 5510, physiological, CBRN, subterranean trackers, signint, streaming body worn video, and other commercially available plugins.
- Offline queue: BTAC will hold presence packets when connectivity is denied. When BTAC sees an approved network, it forwards packets cached during offline operations.
- Network friendly selective synchronization: Plugin may be configured to send ALL shot records, OR, only send those where shot count and/or temperature changes.

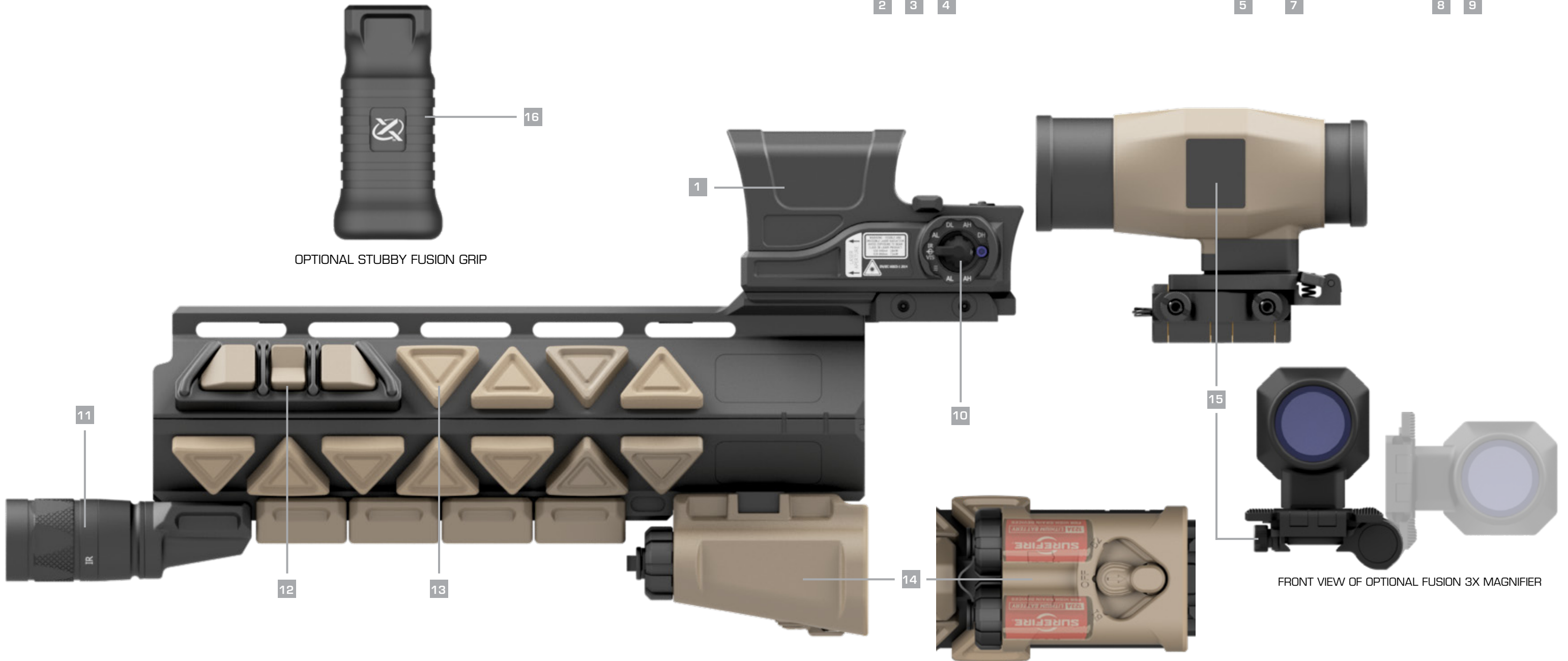


SEE BTAC IN ACTION

[Learn more about BTAC's unique capabilities.](#)

FEATURES & BENEFITS

1. FUSION Reflex Sighting System
2. Red VIS Laser
3. NIR Fixed Illuminator
4. NIR Laser
5. Ballistic Trajectory Switch
6. Elevation/Windage Adjustment (Windage not visible)
7. Reflex/Laser/Illuminator Brightness Control
8. Built-in Back Up Iron Sights
9. OLED Display with Shot Counter
10. FUSION Mode Selector Switch
11. SureFire® White/NIR Dual Spectrum Light
12. Remote Light/Laser Activation Switch
13. Protective Grip Inserts for Heat Mitigation
14. Battery Management Power Supply System
15. 3X Magnifier and Flipmount (sold separately)
16. Stubby FUSION Grip (sold separately)



OPTIONAL STUBBY FUSION GRIP

FRONT VIEW OF OPTIONAL FUSION 3X MAGNIFIER



WILCOX ARMORER'S MODULE FOR BLUEFORCECOMMAND

FULL ACCOUNTABILITY & MAINTENANCE MANAGEMENT

OVERVIEW

The Armorers Module is a managed database that stores weapon system serial numbers and allows the collection and management of maintenance performed based on usage. Specific data, (shots fired, time and date stamps, temperatures), is downloaded via Bluetooth from the FUSION weapon system to the database. This data can be used by the armorer to determine necessary maintenance including part replacement. The database can be queried for information including part usage, trends and inventory requirements. Other features include a list of part numbers and associated description including a thumbnail picture of the part. A picture of the replaced/worn/defective part can be attached to the associated system serial number for future reference. [Learn more about BTAC's unique capabilities.](#)



FEATURES & BENEFITS

- Automatically accepts and processes shot record data from Wilcox FUSION Rail plugin for BlueforceTACTICAL Android.
- Access controls using the following roles: admin, assembly, and armorer user.
- Navigation and data entry support for bar code, QR code, and RFID readers.
- Rapid callup of weapons using hand entered and/or QR/RFID reader queries.
- Batch processing of RFID tracking data to identify last known location and weapon assignment.
- Robust maintenance management to include awareness of firearms that require maintenance and support for image attachments in maintenance records.
- Full logging of new firearm entry, firearm record updates, serial number changes, and firearm retirement.



DRONE



POTENTIAL THREAT



BTAC®



BTAC COMMAND CENTER

FUSION SYSTEM

PREDICTIVE MAINTENANCE

Wilcox weapons system data can be shared in real time with Wilcox Armorer's Module, a pluggable module for BlueforceCOMMAND, and the authoritative application for service and predictive maintenance.

AUTONOMOUS REPLENISHMENT

Because BTAC and the Wilcox Plugin for BTAC are constantly monitoring weapons systems across a team, autonomous delivery platforms can be cued for just-in time field replenishment.

FORCE READINESS

The Wilcox Armorer's Module not only drives supply chain value, but can also provide awareness of force readiness and can display weapon location and status.

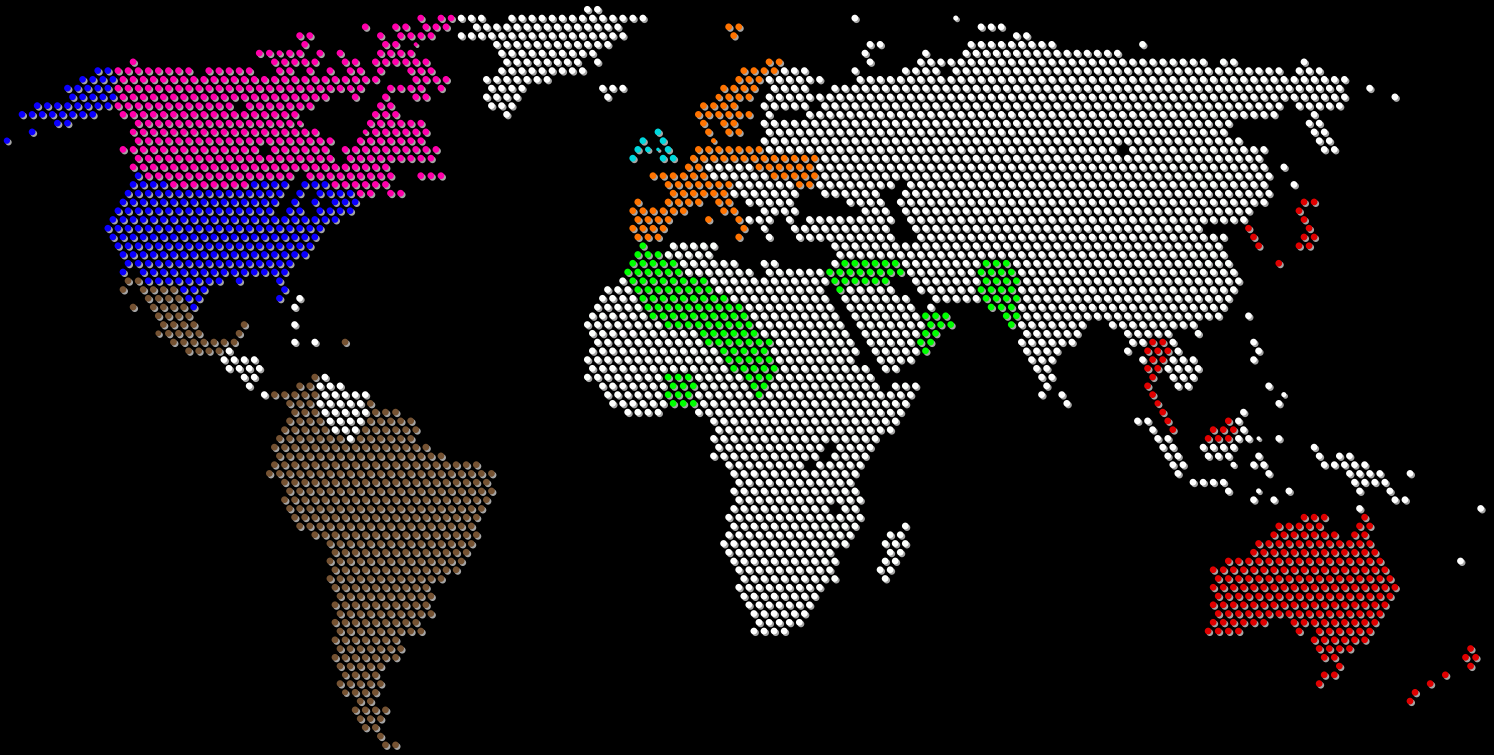
TACTICAL AWARENESS

Real-time shared awareness of oxygen and PPE operating modes, environmental data, maintenance counters, barrel temperature, and maintenance status of Wilcox devices shared in real-time amongst the team and command.



GLOBAL MASTER DISTRIBUTION NETWORK

Wilcox has an extensive list of Dealers and Master Distributors around the world. Visit wilcoxind.com/contact to view our entire Master Distributors list segmented by region.



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