

REF EXPEDITIONARY LABs

Our job at the REF is to enable Army units of all types: Combat, Combat Support and Combat Service Support, to rapidly adapt to changing battlefield conditions and enemy tactics. We provide immediate in-theater engineering capabilities that connect scientists and engineers with the Soldier.



REF Ex Labs capabilities include:

- Metal parts (CNC machining, lathe, welding)
- Plastic parts (Kydex, 3D printer)
- Electronic components and radio frequency diagnostics
- Sewing and kit work

Examples of REF Ex Lab solutions in theater:

- Radar rain shroud
- Vehicle tire valve stem guard
- Remotely operated “claw” that gently places Electronic Warfare Devices on the ground from a helicopter
- Custom designed sensor node with motion sensor, GPS, radio and microprocessor to remotely monitor buildings, roads and other objects of interest.



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THE BOTTOM LINE

The REF:

- Focuses on urgent non-standard equipment needs... not wants
- Bridges specific gaps for specific units
- Equips limited quantities of specialized capabilities
- Improves force protection
- Enhances survivability
- Increases lethality

CAPABILITY GAPS OR SOLUTIONS? CONTACT US:

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RAPID EQUIPPING FORCE

EQUIP - INSERT - ASSESS



Rapid Solutions for Soldiers



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MISSION

The Rapid Equipping Force (REF) harnesses current and emerging technologies to provide immediate solutions to the urgent challenges of US Army forces deployed globally.



THE PROBLEM

In Afghanistan, 2002 - Soldiers conducting combat operations were sustaining casualties from booby traps and grenade blow-back while searching and clearing caves.

THE SOLUTION

The Vice Chief of Staff of the Army authorized the Rapid Integration of Robotic Systems (RIRS) fielding of robots and four robots were developed and deployed to Afghanistan in less than 30-days. As follow-on requirements were developed in the form of Operational Need Statements, REF support increased over time. The REF with its unique acquisition capability is an integral part of Army Transformation and complements existing organizations and functions.

OPERATIONAL SUPPORT

The REF provides the following support to our combat forces:

- REF Forward Deployed Teams (Afghanistan)
- REF Training Team support at CONUS/OCONUS Combat Training Centers
- Collaborate with Army units conducting border patrol and CONUS disaster relief missions

VISION

REF Integrated Priority List

- Dismounted Improvised Explosive Device Defeat
- Small Combat Outpost (COP)/Patrol Base (PB) Sustainment
- Small COP/PB Force Protection
- Dismounted Operations Support
- Intelligence, Surveillance, Reconnaissance (ISR) Shortfalls in Environmentally Inhospitable Operational Environment's
- Dismounted Blue Force Tracking (BFT) and Mission Command

“Fewer Soldiers on the battlefield translates into reduced infrastructure and capabilities for those remaining. REF is the right Army organization to rapidly equip and to continue to meet urgent ‘non-standard’ needs as they occur.”

- COL Steven A. Sliwa
Director, REF

Be rapid: REF delivers solutions in days and weeks rather than in months and years. We continuously assess our performance to ensure that we meet capability gaps and equip Soldiers as quickly as possible.

Be predictive: Find emerging capability gaps. Garner information from the entire Private First Class to General Officer force.

Be intuitive: Organize to quickly gain an understanding of a problem and the relevant operational environment.

Be inclusive: Form partnerships and look for multiple paths to solve problems, affirming REF awareness of existing Army efforts, emerging technologies and the art of the possible.

Be aggressive: At REF, the speed of delivery is our top priority. While being rapid, we must also be risk tolerant. REF uses iterative development based on Soldier feedback to improve effectiveness and reduce cost.

VISION

REF FORWARD

Be present: Maintain forward presence at the tactical edge of operations. Close the gap between the Soldier and the solution provider.

REF currently has forward locations at both the Bagram and Kandahar Air Bases. The REF Forward Operations Centers interface with the regional commands and the higher Headquarters from the ISAF Joint Command (IJC) within the International Security Assistance Force (ISAF) to identify urgent requirements, facilitate the REF 10-liner requirement document process, and harvest or repurpose REF equipment in Afghanistan.



REF operators accompany units on patrol to observe tactical and equipment issues. Based on direct Soldier input, they can provide one of two courses of action: provide equipment on the spot from the REF inventory or work with the Soldiers to design and prototype custom solutions at one of the two REF Expeditionary Labs.