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The World is on Fire: Where is the U.S. Army?

*By **Douglas Macgregor** and **Young Kim***
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Russia's revitalized Army seizes Crimea and skillfully exerts control in Eastern Ukraine. The Islamic State, a collection of fanatical Sunni Muslim terrorists in pickup trucks crush the U.S. trained Iraqi Army and overrun territory from Aleppo to Baghdad. On the Anniversary of Japan's defeat in WW II, China's leaders pledge to expunge corruption from the PLA's senior ranks and build a more powerful Chinese Army.

What is the Army's response to these challenges?

The Army is blazing a path backward into the Cold War. The Army is rebuilding the ten division force with all the trimmings; divisional artillery brigades, and 80 ton ground combat vehicles (GCVs) using the organizations designed by Lieutenant General Leslie J. McNair in 1942.**[i]**

If pressed for "new thinking," the Army may dust off the Future Combat System (FCS), give it a new name and make another run at congress. FCS produced nothing, but FCS did successfully redistribute 20 billion dollars to defense contractors, constituents, retired generals and indirectly to members of congress via campaign donors. Moreover, Senators and congressmen love "unobtainium;" imaginary high-tech solutions that promise miraculous performance, but ignore the laws of physics. The outcome: Today's U.S. Army is hard pressed to send a battalion of 600 troops equipped with tanks and armored fighting vehicles to Eastern Europe or Iraq in less than six months. For many in the House and the Senate, the question is what should congress do?

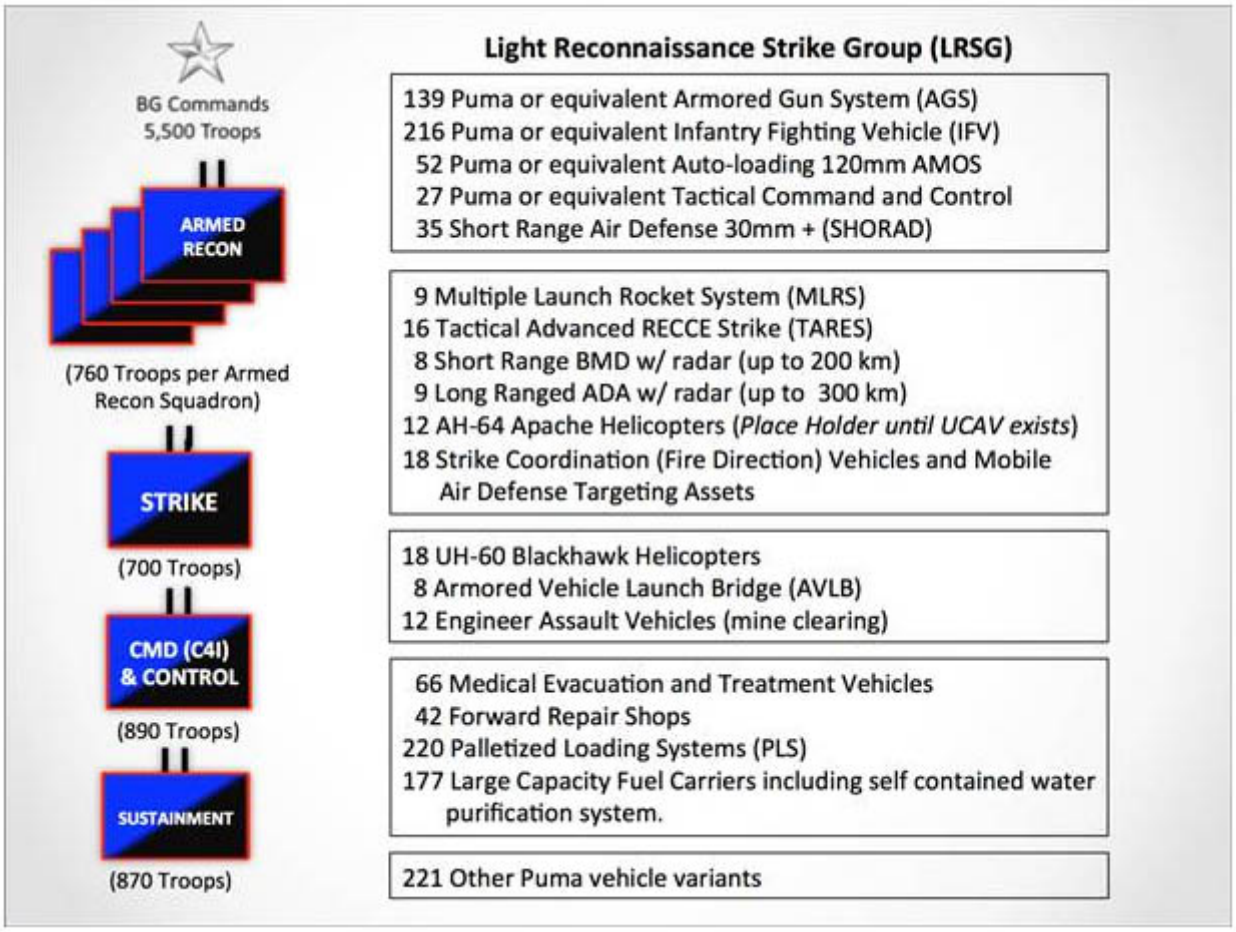
Before the Senate and House appropriators fork over another $20 billion to the Army perhaps they should consider an alternative to the Army's scandalously ineffective acquisition strategy and anachronistic force design. After all, $20 billion is 15% of the Army's 129 billion dollar FY 2014 budget. The Light Reconnaissance Strike Group (LRSG), a 5,500 man mobile, armored combat force commanded by a brigadier general, is worthy of serious attention.

The LRSG is a break from the Army's Cold War past and a bridge to the Army's future in 21st Century Joint warfare. It's designed to be the vanguard of a reorganized 420,000 man Army, an operationally agile formation that combines mobile armored firepower, mobility engineers, and airmobile infantry with manned and unmanned strike assets to find, fix; attack and destroy the enemy in open, compartmentalized or urban terrain.

Today, precision Strike forces informed by the timely dissemination of actionable intelligence through networked ISR suggests that new capabilities will only emerge in fighting formations that build powerful synergies with the technologies and concepts developed by U.S. Aerospace and Maritime Forces. The

LRSG is conceived with this requirement in mind; it's smaller than a division, but larger than a brigade combat team (BCT). It is designed to integrate functional capabilities—maneuver, strike, intelligence, surveillance, reconnaissance (ISR) and sustainment—across Service lines at the battle group level in a non-linear, nodal and dispersed, mobile warfare.

Unlike brigade combat team (BCTs), the LRSG is designed to punch above its weight, mobilizing fighting power disproportionate to its size in a 21st Century warfighting environment that rewards high lethality, low density units. The LRSG is equipped with the firepower, protection and mobility to close with the enemy, take hits, sustain losses, keep fighting and strike back decisively in future warfare that is likely to be more lethal than anything seen since WW II.



The best way to build the LRSG is to abandon the FCS model and avoid binding Army modernization efforts through expensive programs intended to stamp out ideal designs over 20-year production runs. As the late Ike Skelton, Democratic Congressman from Missouri said on 21 June 2005: "I don't think the troops can wait 10 or 15 years for a new armored vehicle to be developed." This approach means rapid prototyping.

> 1. Rapid prototyping mitigates risk, saves money and speeds up delivery especially when prototyping leverages a mature, existing platform. Bob Davis, the founder of LYCOS put it another way: "Quit looking for the next big thing. Put the technology that is sitting on the shelves

> to work, and do it with a clear purpose."
>
> 2. Explore and develop new capabilities inside a new organization with smaller inventories of new equipment before larger investments are made. Rapid prototyping also makes it easier to identify unneeded equipment by allowing soldiers to modify systems and organizations while tracking the modifications.
>
> 3. Integration in the context of rapid prototyping is about innovation, not invention. Rapid prototyping can also support new organizational designs that emphasize self-containment and operational independence at levels below the WW II/Cold War division and corps headquarters.

The Light Reconnaissance Strike Group (LRSG) is a design that integrates existing technology inside a new organizational construct. In addition, the LRSG is a force design with intercontinental transportation in mind. It can deploy and fight in total or in smaller subunits (squadrons) as needed.

Although the LRSG seeks to capitalize on the paradigm shift in warfare; the application of precision "Strike" informed by networked ISR, it's not a fragile force. The LRSG is organized and equipped to fight for information and to rapidly exploit the information its subunits collect. It's designed for integration with, but not dependence on, air strikes for survival and effectiveness. The LRSG reflects the understanding that regardless of how well new technologies are networked, they will never provide perfect situational awareness or perfect information; that information is often of fleeting value.

Since the LRSG is configured from the bottom up to operate under Joint command in dispersed/distributed mobile warfare the LRSG's 5,500 troops are commanded by a brigadier general. Together with a Chief of Staff who is a colonel and staff officers who are lieutenant colonels, the LRSG reports directly to the Joint Force Commander. The LRSG's robust, organic C4ISR exists to integrate the LRSG's ground combat capabilities within the framework of "all arms/all effects" warfare as its mission profile suggests:

> 1. Within the Joint ISR-Strike framework, discover; attack, dominate and destroy the enemy.
>
> 2. Perform missions as a credible, stand-alone land component with the mobility, firepower, protection and organic sustainment to operate autonomously under Joint C2 across the spectrum of conflict up to and including high intensity conventional war;
>
> 3. Bypass or punch through enemy resistance on the ground for operational maneuver to encircle and destroy nation-state forces or sub-national groups;
>
> 4. Signal escalation dominance to the enemy by magnifying the striking power of aerospace and maritime forces;
>
> 5. Provide a permanent test bad for new Joint warfighting concepts and equipment in land warfare.

As noted earlier, the LRSG is ideally suited to leverage an existing platform in the execution of rapid prototyping. One candidate for rapid prototyping is the PUMA, a 30 to 40 ton Armored Fighting Vehicle (AFV), produced by Krauss-Maffei Wegmann in Munich, Germany. Of the GCV alternatives considered by the Army the Congressional Budget Office judged the PUMA to be the best available option:

First, by either of CBO's metrics, the Puma would provide the greatest overall increase in capability of the vehicles CBO evaluated. Second, although the least expensive of the options, the Puma would provide a significant improvement in the Army's IFV fleet. Third, when judged against the current Bradley IFV, the Puma would provide the greatest increase in capability per dollar invested, regardless of the metric used. And fourth, because the Puma is already being produced, its adoption would pose a relatively lower programmatic risk.**[ii]**

From its inception, the PUMA was built to cope with threats from IEDs and EFPs. PUMA's anti-IED/EFP protection merits special attention along with its modular construction, superior engine, armaments, sensors and armor. Its primary armament is a Rheinmetall 30 mm MK 30-2/ABM (Air Burst Munitions) auto-cannon, but the hull can be refitted with many different types of weapon systems as shown in the LRSG example. Depending on the mission, the PUMA can add or shed armor to temporarily reduce weight during deployment.

The PUMA is also smaller and lighter than the proposed 80 ton GCV. Its selection for the LRSG reflects a preference for fewer soldiers inside more, smaller platforms in a blast-centric warfighting environment. There is no reason to provide future enemies with large, easily identified, lucrative targets containing 13 or 14 soldiers. Courting mass casualties makes no sense.

Why does the LRSG employ tracked armor instead of wheeled armor? Tracks distribute weight much more effectively for both protection and ground pressure. As the Israeli Defense Force (IDF) rediscovered in their 2006 wheels could not operate off-road in Southern Lebanon's rocky, mountainous terrain. Tracked armor also provides a much more stable off-road platform for accurate fire on the move. And, tracked armor can rotate on a dime, literally 360 degrees. That's a critical capability in urban terrain where tanks, heavy mortars and precision air strikes are decisive. Recent Israeli operations in Gaza reinforced the timeless lesson that firepower delivered in mass from tracked armor augmented with active protection systems is vital to survival and victory in close combat with modern anti-tank weapons.

Unlike today's BCTs, the LRSG's Armed Reconnaissance and Strike Squadrons contain some new weapon systems that promise to extend the LRSG's operational reach and capacity for reconnaissance, as well as, strike. For example, the LRSG Strike Squadron contains the Tactical Advanced Recce Strike (TARES), a "Kamikaze" UCAV developed by Rheinmetall Defense Electronics GmbH (formerly STN ATLAS Elektronik) in Bremen, Germany.

TARES has a range of 120 miles and can remain airborne for up to four hours. TARES can carry out autonomous target search for classification, identification and engagement operations. TARES can provide critical information while also striking mobile or stationary targets such as tanks and artillery systems, and mobile or fixed radars and command posts. Each of the TARES UCAVs is armed with a proximity-fused 20 kilogram high-explosive shaped charge warhead. The system allows the mission commander to authorize or suspend target engagement. TARES's 16 air vehicles are stored in launch containers that can be transported by truck or helicopter.

It's easy to imagine the impact of TARES UCAVs' diving at speeds of 500 miles per hour with pinpoint accuracy on Russian Army forces in Eastern Ukraine or on ISIS in the open deserts of the Middle East. Confused and surprised by the sudden attacks from above, the opposing ground force will be in no shape to cope with the rapid arrival of rockets and armored fighting vehicles.

AMOS or Advanced Mortar System is an automatic twin barreled, breech loaded mortar fitted to an armored turret capable of indirect or direct fire engagement. AMOS is manufactured and marketed by Finnish/Swedish Patria Hägglunds, a joint venture between Finnish Patria and Swedish BAE Systems Hägglunds. AMOS fires a 120mm projectile with a bursting radius roughly equivalent to a 155mm

artillery shell.

The twin barreled mortar system can maintain a rate of fire of 12 rounds per minute. When fitted to a platform like the PUMA, both GPS and inertia positioning are used. The electronic fire-control system utilizes digital maps. AMOS's twin barrels don't have to sit out direct fire engagements. When necessary, the LRSG's 52 Advanced Mortar Systems can augment the 120mm and 30mm or 35mm auto-cannons in the direct fire fight.

The Multiple Launch Rocket System (MLRS) is too well known for its lethality, responsiveness and range to recount its attributes here. However, incorporating MLRS adds tremendous synergy to the LRSG's "Strike complex," a complex capable of striking Joint operational targets, as well as, tactical Army targets.

The estimated cost of fielding 4 LRSG "all arms/all effects" battle groups equipped with 2,760 PUMA variants in the span of 5 to 7 years is roughly $20 billion. When compared with the cost of building 1,748 ground combat vehicles (GCVs) as individual replacements for the Bradley Fighting Vehicles inside existing BCTs or $28.8 billion the LRSG approach is a bargain.

With support from congress, there is no reason why a U.S. defense firm cannot partner with Krauss-Maffei Wegmann to build the majority of the PUMA variants in U.S. manufacturing facilities. When the cost of the additional systems, most of which already exist in the U.S. Army's inventory, are added to the bill the 20 billion dollars in today's FY 2014 Army budget allocated for new weapon systems can easily support the fielding of four LRSGs over the next 5-7 years.

What $20 billion bought: FCS

FUTURE COMBAT SYSTEMS
FCS
One Team-The Army/Defense Industry

Delays and cost overruns. One partially working prototype; a self-propelled cannon.

Nothing of enduring strategic value for the Nation, the Joint Force or the U.S. Army resulted from FCS!

Versus:

What $20 billion could have bought:

4 Light Recon-Strike Groups

Four 5,500 man LRSGs equipped with PUMA or PUMA equivalent platforms and off-the-shelf capabilities like TARES, AMOS and MLRS.

Conclusions

Friedrich Nietzsche said, "War makes the victor stupid." America's deceptively easy tactical victory in 1991 lulled the Army's senior leaders, a class formerly known for its healthy appreciation for war into a state of irrational over confidence. The generation of senior leaders, men like Generals William E. Depuy

and Paul F. Gorman, that retrieved the U.S. Army from the ashes of the Vietnam War recognized that building capability is not just about “new things.”

25 years after Operation Desert Storm, the lessons of history are forgotten and the United States Army’s post-Cold War surplus of military power is gone. The outcome is today’s confused and decayed American ground combat force, a force burdened with an anachronistic and expensive single-service organization for combat that includes too many echelons of C2. New capabilities emerge through the integration of new technology with human capital inside new organizations.

Members of congress know that the Army’s current attempts to breathe new life into comatose concepts are not the starting points for creative thinking about current and future conflicts. The LRSG will change this condition in favor of new types of Army combat forces; forces-in-being, ready to deploy and fight from a rotational readiness posture for employment under Joint Command. The LRSG can lead the way to Army reform and reorganization, a process that is at least 20 years overdue.

End Notes

[1] David Burge, “Fort Bliss a pioneer for Army with new division artillery,” *El Paso Times*, 1 September 2014, page 1.

[2] Congressional Budget Office (CBO), “The Army’s Ground Combat Vehicle and Program Alternatives,” (Washington, DC; Government Printing Office, 2013), page 28.

About the Authors

Douglas Macgregor

Colonel (ret) Douglas Macgregor is a decorated combat veteran, an author of four books and a PhD. Macgregor was commissioned in the U.S. Army in 1976 after one year at the Virginia Military Institute and four years at West Point. Macgregor’s concepts from his groundbreaking books on transformation, *Breaking the Phalanx* (Praeger 1997) and *Transformation under Fire*(Praeger 2003) have profoundly influenced thinking about transformation inside America’s ground forces, NATO the Israeli Defense Force and the Chinese People’s Liberation Army. His books are available in Chinese and Hebrew. Macgregor is widely recognized as an expert on organizational design and grand strategy. He is also a frequent radio and television commentator on national security affairs.

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