



The Army's Search For Its First Light Tank In Decades Is Down To These Two Designs

The service wants to give paratroopers and other light infantry units hard hitting and well-armored firepower.

BY JOSEPH TREVITHICK DECEMBER 18, 2018

THE WAR ZONE





JOSEPH TREVITHICK

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The U.S. Army have picked two defense contractors to proceed with development of a light tank to provide additional firepower for its airborne and dismounted infantry brigades. The program is part the service's larger effort to modernize its armored vehicle fleets amid the U.S. military's push to be better prepared for a potential conflict with conventional nation-state opponent, especially a "great power" adversary, such as Russia or China.

The Army awarded the deals to BAE Systems and General Dynamics Land Systems (GDLS), worth more than \$375 million and \$335 million respectively, on Dec. 17, 2018. Each firm will build a total of 12 prototype vehicles within the next 14 months for further tests and evaluations as part of what the service formally refers to as the Mobile Protected Firepower (MPF) program. The Army rejected a third bid from a team-up of U.S. defense company SAIC, Singapore's ST Engineering, and Belgium's CMI Defense.

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"Our offering integrates innovative technology that reduces the burden on the crew into a compact design deployable in areas that are hard to reach," Deepak Bazaz, BAE Systems' Director of Combat Vehicles Programs at BAE Systems,





“We are excited about this opportunity to provide the U.S. Army a large-caliber, highly mobile combat vehicle to support the infantry brigade combat teams,” Don Kotchman, Vice President and General Manager of General Dynamics Land Systems U.S. Market, said [in a separate release](#) from that company. “We are especially proud of this new opportunity to serve in the Infantry Brigade Combat Team (IBCT) formation, which we have not done until now.”

Expeditionary Light Tank ELT air...



Both of the vehicles are tracked designs with manned turrets. BAE's updated M8 Armored Gun System (AGS), which it had previously been referring to as the Expeditionary Light Tank (ELT), features a 105mm cannon, while GDLS' Griffin II has a 120mm main gun. BAE's entrant also had the lightest configuration, weighing in at around 20 tons with additional applique armor and other add-ons. The basic Griffin II is closer to 28 tons.





conducting separate tests of APS options as part of a program seeking to develop a [modular self-protection architecture](#) for all of its armored vehicles. On-board launchers for small drones or [loitering munitions](#), improved sensors, and other advanced equipment [may also become requirements](#) for the final MPF design as time goes on.



AUSA 2016: Griffin to tempt US Army

from [Shephard Media](#)

02:24



The first formal MPF requirements emerged in 2015 in the aftermath of Russia's lightning takeover of Ukraine's [Crimea region](#) and subsequent armed intervention [on behalf of separatists](#) fighting that country's central government. These events sent shockwaves through the U.S. military establishment and reinvigorated calls for improving capabilities [to combat conventional opponents](#) who might be armed, at least in part, with [heavy armored vehicles](#).

At present, Army airborne and other dismounted infantry brigades rely on man-portable and light vehicle-mounted [anti-tank guided missiles](#) as their sole means of tackling enemy armor. These units also have [limited options](#) for





with a large caliber main gun that can defeat opposing armor and reinforced defensive positions. The vehicle would also be able to engage enemy forces without automatically needing to first close within range of their weapons.



Mobile Protected Firepower (MPF) Light Tank



Fort Benning, Home of the MCoE

Provides offensive light tank capability to IBCTs IOT rapidly close with and destroy enemy forces and preserve freedom of maneuver for Infantry formations. MPF will also support XVIII Airborne Corps Global Response Force (GRF) mission.

- Lethality:** Support IBCTs with MPF in offensive roles; target set includes: defensive fortifications (bunkers), urban targets (behind the wall effects) and armored vehicles (light skinned through heavy armored vehicles). Stabilized, shoot on the move capability in all weather conditions, day and night.
- Deployability:** Low Velocity Air droppable from a C-17 (Threshold) C-130 (Objective). Provide initial combat capability, including main gun and machine gun fires, upon arrival onto a drop zone or off the ramp of a C-17 (T) C-130 (O).
- Protection:** Protection against small arms and artillery airburst shrapnel in base combat configuration. Transitions quickly from initial to full combat configuration, including underbelly blast protection, utilizing scalable (add on) armor.
- Mobility:** Provide sufficient maneuverability to ensure tactical mobility in complex terrain, to support offensive dismounted Soldier maneuver. Capable of executing small radius turns characteristic of urban, forest, jungle and mountainous terrain. Maintain speeds compatible with organic IBCT vehicles.
- Sustainability:** Maintain high operational readiness rates through rugged construction, modular component replacement under field conditions, embedded diagnostics and prognostics and reduced logistics demand over current armored systems.
- Operational:** Carry sufficient fuel and ammunition for a 24 hour continuous IBCT operation upon arrival onto a drop zone or "off the ramp" of a C-17 (T) or C-130 (O) without resupply.
- Status:** MPF ICD in Joint Staffing.



US ARMY

A briefing slide showing early MPF program requirements, some of which have already changed.

For paratroopers, who have a core mission to be prepared drop into enemy or enemy adjacent territory to seize control of key objectives, this sort of vehicle could be particularly valuable. These units might otherwise find themselves ill-equipped to deal with a dug-in opponent or especially vulnerable to counter-attacks from enemy heavy forces as they await follow-on forces after jumping into the target area.

This next phase of the MPF looks set to be a spirited competition. BAE Systems is touting the technological maturity of its design, which is an updated iteration of a vehicle the [Army funded development of](#) in the 1990s. The service canceled that program in the face of budget cuts. That decision contributed to





GDLS' entrant similarly leverages existing work by using the hull from its [Ajax armored scout vehicle](#), which the company is already building for the United Kingdom, and turret features from the [M1 Abrams tank](#). The company is also using a 120mm cannon design that it originally developed as part of the Army's abortive [Future Combat Systems \(FCS\)](#) program.



UK MOD

| An Ajax armored scout vehicle for the British Army.

The Griffin II could have another leg up in the competition depending on how the separate [Optionally Manned Fighting Vehicle \(OMFV\)](#) program progresses, too. GDLS has entered the Griffin III, which is configured as an infantry fighting vehicle and features a 50mm automatic cannon, into that competition, which is seeking a replacement for the [Bradley fighting vehicle family](#). Both the OMFV and MPF fall under the larger Next Generation Combat Vehicle (NGCV) program.





OMFV contender, the Swedish-designed [CV90 Mk IV](#), is an entirely separate design from the M8.



JOSEPH TREVITHICK

General Dynamics Land Systems' infantry fighting vehicle-configured Griffin III, which shared various components with its Griffin II entry into the MPF program.

The MPF program could still face a number of hurdles, too. The Army has been trying to field a vehicle like this for decades, but has consistently run up against the difficulty of finding a design that is sufficiently light to be suitable for operating with otherwise dismounted infantry units and that is armored enough to be survivable against its intended opponents. We at *The War Zone* previously examined [this debate in-depth](#) in regards to the MPF program.



After axing the M8 in the 1990s, the Army retired the [M551 Sheridan](#) air-droppable light tank, a vehicle with its own, at best checkered history, without



conflicts were a think of the past, a belief that has increasingly proven to be short-sighted. On top of that, though, there were concerns that the M8 was too lightly armored in its air-droppable configuration to be survivable and too heavy in its up-armored configurations to fit inside medium-size airlifters, such as the C-130 Hercules, at all.

M551 Sheridan Low Altitude Par...



Now, with the MPF, the Army has yet again dispensed with the air-drop requirement and now expects a single U.S. Air Force [C-17A Globemaster III](#) to be able to air-land two MPFs. This will require a secure landing zone on the ground in order for airborne units to bring in their new light tanks.

Advanced lightweight APS could help mitigate a lack of armor on either of the MPF designs, but these systems only work against typical infantry anti-tank systems, such as [anti-tank guided missiles](#) and [rocket-propelled grenades](#). They would do little, if anything, to shield the vehicle against hostile armored vehicles with [large caliber automatic cannons](#) or [main battle tanks](#) with full-size main guns.





US ARMY

| One of the original M8 prototypes at Aberdeen Proving Ground in the 1990s.

Regardless, the Army is already planning for the MPF to be a relatively niche asset, at least in the near term, with a total initial fleet size of just 54 vehicles. This would include a first batch of 26 vehicles, plus a second lot of 28 more, including eight refurbished prototypes. The Army says it could eventually buy [more than 500 examples](#), though.

A typical Army armor company has around 14 Abrams tanks, which would mean the service is looking to start with a buy of less than four companies worth of the new light tanks, or about the necessary number for a battalion attached to the 82nd Airborne Division, which was the last Army unit to use the M551. The 82nd is already acquiring [ex-U.S. Marine Corps LAV-25A2](#) light wheeled armored vehicles, which *are* air-droppable, to provide more immediate added firepower during airborne operations.



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2024 and 2025. It's an aggressive schedule that makes it clear the service wants to get its first light tank in decades into the field and ready to support its lighter forces as soon as possible.

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...rushed about Russia, the service is rushing to get these vehicles, but it has had big trouble with acquiring these tanks in the past.

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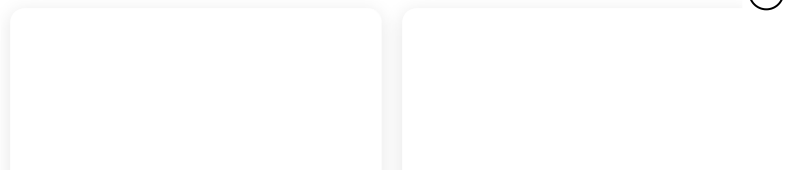
The Modular Active Protection System will be able to run multiple types of protection systems and could pave the way for networked defenses.

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J **JMHO74**

12 June, 2020

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defensemaven.io

Reply

J **JMHO74**

10 January, 2020

<https://defence-blog.com/army/general-dynamics-releases-first-photo-of-new-large-caliber-mpf-combat-vehicle.html>



General Dynamics releases first photo of new large-caliber MPF combat vehicle

blog.com



**Nsurround**

20 December, 2018

Will these tanks in a "conflict with conventional nation-state opponent, especially a "great power" adversary, such as Russia or China." protect one from thousands of tank killing drones? Just having drone's that act as targeting spotters for ground based anti tank weapons would be very worrisome in the future. The cost ratio of tank vs anti tank seems a bit awkward here. I guess one could use some kind of electronic jamming system to defend relatively large targets such as tanks against such counter measures. But with AI now being developed and drones and their payloads becoming more and more sophisticated not sure if tanks are coming to the end of their usefulness. Similar to the horse cal-very effectiveness in WWI. I suppose it all depends on who your adversary is.

Reply

ToadyX > Nsurround

21 December, 2018

You are talking about a problem that will present itself in 20 years when these tanks will need upgrading or replacement.

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TFCTMaleter

20 December, 2018

A bit O/T, our Army in Hungary was struggling with the old Soviet tanks, all T34s and T55s were withdrawn from service pretty fast in the 90's -we had more than 600 of those, not bad for a country with 10 million inhabitants.

All what remained was 238 T72s, including 100 "new" purchased from Bielorrussia in the 90's, but most of them used for spare parts. And the we gave 77 T72s to the new Iraqi Army in 2004, with most of the ammo we had on stock (BTW ten years later ISIS captured a lot of the and used in their forces).

We had officially 29 T72M1s and they say another 43 units mothballed... In the last years, rumors were that we may purchase used Leopard 2s from Spain, or the CV90 mentioned int he post, bust with the 120 mm gun. You see, if it looks like an MBT (from a distance), has a big gun, and some reactive armor added, a politician will accept is as an MBT :))

But yesterday came the news, we buy brand new Leopards 2 from Germany, and PzH2000 guns. It means, the our non-existing artillery will have 24 SpHs, and the tank guys 44 Leo 2 A7+s which will be huge step forward.

The article below says Poland, but its Hungary :) Poland got a lot of used Leopards fro the



CHANNELS

**Hungary signs deal to buy dozens of tanks, howitzers from Germany's KMW**

defensenews.com

Reply **Quattro Bajeeena**

19 December, 2018

The M8 AGS looks cool. The Griffin looks like one of those abortion tanks from the interwar period. Or one of those Vichy France death traps like the ARL-44 tank. *(Edited)*

Reply

Calvinius > Quattro Bajeeena

20 July, 2019

Guarantee the Griffin is going to be the one selected. Buying the M8 AGS would be an admission that the Army **should** have bought the previous version of it 20 years ago.

Reply

ToadyX

19 December, 2018

"The vehicle would also be able to engage enemy forces without automatically needing to first close within range of their weapons."

A vehicle that can engage enemy forces outside the range of its weapons. Is that ability limited to earth or does it extend to the known Universe as well?

Reply

M1Garand12

19 December, 2018

What use does this thing have for any scenario other than light infantry v. light infantry - serious question? We all know how the M2 performed in urban warfare and it wasn't so much of a gun problem. Also hard to imagine the final product weighing less than 40 tons after all of the "add-ons" you'd need for it to survive at all in any other scenario. Slap a 50mm on a CVR-type and it will be at parity or outgun anything but a MBT, be shorter and narrower to boot, and you can still strap on all of the extra crap you want.

Reply

Quattro Bajeeena > M1Garand12

19 December, 2018

Remember Black Hawk Down?

[Show more replies](#)**Raul Estovez**

19 December, 2018

The turret has a butt hole (1:15), there now you can never un-see it.

Reply

MK346

19 December, 2018

The logistical train needed to support these will likely be more than an airborne or light infantry division could provide. Fuel, ammo, repair and spare parts all have to be accounted for.

Reply

JMHO74 > MK346

19 December, 2018

The Army isn't trying to turn the light brigades into a mech force. As the quote mentions, it's simply trying to up the organic firepower consistent with those brigade's mission set. It's a difficult blend of deployability, sustainability, survivability and lethality, so there's always going to be considerable compromise. *(Edited)*

Reply

JMHO74 > MK346

19 December, 2018

As the *Breaking Defense* article I posted below points out, logistical supportability was one of the Army's primary considerations:

"These are units that also lack the fuel trucks and mechanics to support the big, gas-guzzling M1, especially once they deploy forward at the end of long, easily attacked supply lines. These aren't units intended to take on Russian armored hordes — and if they do, their best bet is to go to ground and take potshots from hiding with shoulder-fired Javelin missiles. Normally, the light brigades are expected to face light armored vehicles, bunkers, and dug-in infantry. To help them, each light *brigade* will get a modest and logistically manageable contingent of 14 MPFs."

Reply

[↩ Show 1 more reply](#)**Canofjuice**

19 December, 2018

I love this idea and I'm excited to see the result, but this feels like a lot of effort to reproduce a B-1 Centauro.

Reply



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