Expeditionary Fighting Vehicle – Failure Not An Option

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Our Corps' position remains unequivocal — the Expeditionary Fighting Vehicle is essential to what we do and is our top acquisition priority. It is a mistake to let past technical difficulties shape the future of the program.

Operational experience has repeatedly demonstrated that the rapid projection of Marine Corps combat power ashore is the key to success in all amphibious missions across the range of military operations. The tremendous flexibility and utility, both across the littorals and deep inland, make it a significant addition to joint commanders' employment options. Even if the landing force could avoid fixed defenses, comparative analysis has shown that shuttling personnel carriers on landing craft air-cushioned would delay the build up of combat power ashore to the extent that the landing force would incur significant casualties from an enemy counter-attack.

Additionally, anti-ship cruise missiles are lethal ship-killers, as demonstrated when Hezbollah struck an Israeli warship during the Lebanon crisis in 2006, but neutralizing these weapons is facilitated by keeping ships over the horizon. The Navy and Marine Corps have therefore pursued a complementary mix of over-the-horizon capabilities, to include rotary-wing and tilt-rotor aircraft, LCACs, and the EFV.

A surface amphibious fighting vehicle that self-deploys from a ship at high speed provides the joint commander the ability to quickly mass combat power ashore while overcoming projected anti-access threats. The Joint Requirements Oversight Council validated the requirement for the EFV, which is to provide rapid combat power build-up ashore from over the horizon.

It's important to understand that when DoD programs exceed planned cost and schedule, Congress requires the secretary of Defense to make certain certifications. The EFV underwent a complete review in spring 2007, and the Office of the Secretary of Defense certified, among other things, that "the EFV program is essential to national security and there are no alternatives which will provide equal or greater military capability at a reduced cost."

The EFV continues to make significant progress. A recent major design review assessed the predicted reliability as 61.5 hours mean time between operational mission failures, exceeding the established criteria of 43.5 hours. Further developmental and operational tests will be conducted on seven prototypes currently in fabrication to validate the reliability of the EFV.

This nation requires the ability to rapidly project combat power ashore from U.S. Navy ships to ensure our security against international threats. The Expeditionary Fighting Vehicle remains a vital capability to accomplish that amphibious mission and is the commandant's top ground combat priority.

Photo courtesy of EFV Program Office

An Expeditionary Fighting Vehicle executes testing maneuvers off the coast of Marine Corps Base Camp Pendleton, Calif., in October 2008.

Photo courtesy of EFV Program Office

An Expeditionary Fighting Vehicle moves at high-water speed undergoing cold-weather testing in Alaska's Prince William Sound.

Photo courtesy of www.amtrac.org

Amtracs of World War II and Korean War

Landing Vehicle, Tracked (Armored), Mark1

LVT(A)1 used the LVT(A)2's chassis, but with an armored superstructure over the cargo compartment. A turret with a 37mm gun and a coaxial .30cal MG was mounted on the superstructure, and two more .30cal MG mounts were emplaced on either side of the vehicle behind the turret.

Amtracs of the Vietnam War

Landing Vehicle, Tracked Personnel, Mark5

The LVTP5 was a large vehicle with an inverted V-shaped bow that made for more efficient water operation, and it broke with previous LVT designs by having the tracks set low in the hull with an internal return channel rather than the all-round track design of its predecessors. Infantry access was via a bow ramp, and the crew and passenger compartment was at the front of the vehicle, with the powerplant to the rear. There were one large and two smaller access hatches over the passenger compartment, and two more small hatches provided access to the engine. The vehicle tracks were made with inverted grousers which propelled the LVTP5 in the water and also served as center guide teeth.

Photo courtesy of www.amtrac.org

Photo courtesy of www.amtrac.org

Amtracs of Today's Marine Corps

Landing Vehicle, Tracked Personnel, Mark7A1

A service life extension program was instituted in the early 1980s to bring the LVTP7 up to speed in reliability, communications, and safety. The Cummins VT400 diesel engine replaced the GM 8V53T, and this was driven through FMC's HS-400-3A1 transmission. The hydraulic traverse and elevation of the weapon station was replaced by electric motors, which eliminated the danger from hydraulic fluid fires. The suspension and shock absorbers were strengthened as well. Eight smoke grenade launchers were also placed around the armament station.

Photo courtesy of EFV Program Office

Marines conduct egress testing with the Expeditionary Fighting Vehicle at Marine Corps Base Camp Pendleton, Calif.