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The Mwari, built by South African defense company Paramount, is an affordable, flexible flier.

Paramount Group

By Eric Tegler Jun 13, 2016

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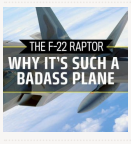
Fighter jets are a symbol of national prestige in Africa just as they are in the rest of the world. A number of countries have acquired sophisticated jets like the Sukhoi Su-30, while others have older Russian hardware like the Su-25 Frogfoot. But they almost never fly them. They simply can't afford to. African governments and security organizations need to fly light-strike counter-insurgency operations, reconnaissance or intelligence-gathering flights, and border patrol missions. It doesn't make sense to use multi-million dollar fighter planes to watch the border.



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Aside from older trainer-type aircraft and modified civilian machines such as crop dusters, African countries haven't had many good alternatives. That's about to change with the debut of the Mwari, a single engine, high-wing light turboprop combat aircraft built by the South African defense consortium Paramount Group.

MOST POPULAR

MOST OF WHAT A HELICOPTER COULD DO BUT AT THE COST OF A SINGLE-ENGINE FIXED WING AIRPLANE.

The Mwari, named for a southern African god of creation, is based on Paramount's Advanced High Performance Reconnaissance Light Attack Aircraft (AHRLAC). Designed for civilian use and security missions, AHRLAC recently completed flight testing. Now Paramount is offering the militarized Mwari version to customers in Africa and further afield. Paramount Group chairman Ivor Ichikowitz spoke to Popular Mechanics from Kazakhstan where he was trying to sell the Kazakh government on the Mwari. The ideal combat aircraft for African nations and others like Kazakhstan that have similar needs, he says, would be "a platform that could do most of what a helicopter could do but at the cost of a single-engine fixed wing airplane."

That's exactly what the Mwari aims to be. Look at its configuration and you can see the influence of helicopters and even ground vehicles. The tandem cockpit is out in front of the wing and stepped-up for excellent visibility. The engine, a 950-hp Pratt & Whitney PT-6 turbine, resides behind it, as does the propeller. This pusher configuration not only aides visibility but also puts the prop in a less vulnerable location.

The Mwari is made mostly of aluminum for cost and maintainability reasons. It's subsystems like the landing gear are comprised of as few parts as possible.The engine and other components are easily accessible, requiring a minimum of ground support equipment. "We've historically worked with customers in remote environments," Ichikowitz says,"and we've learned that if it can't be maintained in the field, it's of no value."

This modular, easily changeable design strategy extends to the Mwari mission systems, which use an open-architecture software backbone. This allows a wide variety of weapons systems and sensors to be plugged into the aircraft.

"WE'VE LEARNED THAT IF IT CAN'T BE MAINTAINED IN THE FIELD, IT'S OF NO VALUE."

"One of the problems we identified ... is that once you had completed an aircraft for a specific role, it was pretty much stuck in that role and the cost to reconfigure it was huge," Ichikowitz says. "So we developed the Mwari with a pod system and 24 hardpoints. It gives us a huge amount of reconfiguration capability." Among the options is an integrated ISR and light strike mission systems package for Mwari that Boeing is developing and which will plug into the aircraft via a pod. Paramount is talking with other avionics makers as well to ensure as many options are available to those who

might buy the airplane as possible.

Projected performance numbers for the Mwari include a 300-knot cruise speed, 30,000-32,000 foot ceiling, seven hours endurance, and short takeoff and landing capability. Perhaps the number that matters most is cost. Paramount's stated goal is to make Mwari the cheapest of its kind and initial estimates put the price tag at less than $20 million for an airplane ready to go. Basic Mwaris without mission-specific systems could be had for around $10 million. Production of the Mwari is expected by late 2017. Launch customers have already been secured, according to Paramount, though it won't disclose who they are.

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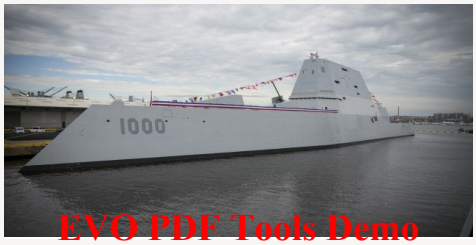

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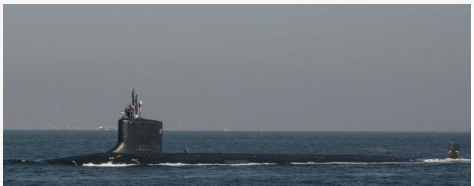

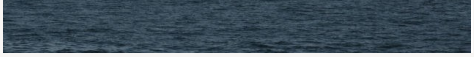

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