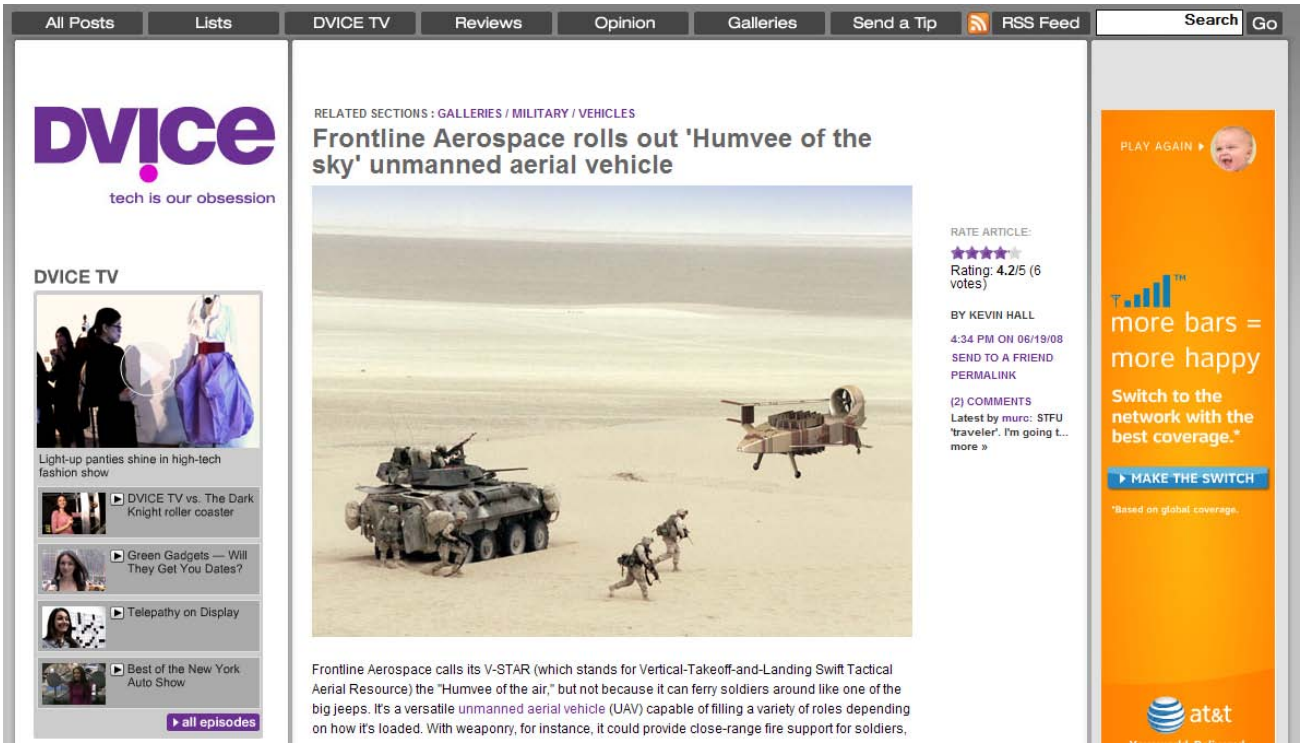

http://dvice.com/archives/2008/06/frontline_aeros.php

Frontline Aerospace rolls out 'Humvee of the sky' unmanned aerial vehicle

Frontline Aerospace calls its V-STAR (which stands for Vertical-Takeoff-and-Landing Swift Tactical Aerial Resource) the "Humvee of the air," but not because it can ferry soldiers around like one of the big jeeps. It's a versatile unmanned aerial vehicle (UAV) capable of filling a variety of roles depending on how it's loaded. With weaponry, for instance, it could provide close-range fire support for soldiers, and be able to engage enemies behind cover given its height advantage. It could also be fitted to bring units ammunition, or provide logistical support to help uncover enemy positions.

Calling it an "aerial Humvee" may make you think it's sluggish, but it's far from it: the V-STAR can fly up to an altitude of 15,000 feet, and it can carry a 400-pound load over a range of 650 miles while cruising at 330 mph. It's pretty large, too, with a 21.5-foot length and 16.5 feet in width. It's propelled by its maneuvering fans, which in turn are powered by a Rolls-Royce Model 250 engine.

Check out the gallery below for more images about Frontline Aerospace's V-STAR.

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PREVIOUS NEXT




Frontline Aerospace, via Roland's Technology Trends

From the press release:

Press Release 06/09/2008 FRONTLINE AEROSPACE UNVEILS "HUMVEE OF THE AIR" Broomfield, CO – Frontline Aerospace, Inc., announced a breakthrough aircraft configuration code-named V-STAR ™ – an unmanned aerial vehicle (UAV) – and associated MicroFire ™ gas turbine fuel-efficiency technology.

"Our VTOL-Swift Tactical Aerial Resource ™ – or V-STAR ™ – is the 'HUMVEE of the air' and provides a breakthrough solution for frontline military logistics and related Multi-Role Endurance (MRE) missions," said Frontline founder and Chief Executive Officer Ryan S. Wood.

“With payload at the center-of-gravity, V-STAR ™ provides real mission flexibility,” he said, “since it can carry ISTAR (intelligence/surveillance/target acquisition/reconnaissance) packages or weapons – then morph back into its primary role providing frontline combat logistics.”

The modular payload approach allows for rapid change-out in the field – one minute providing troops with ammo, food, water and fuel – and the next minute providing tactical reconnaissance, communications and close combat support.
"Frontline has tapped some of the most creative talent in the aerospace industry to unveil a Tactical UAV with superior speed, range, endurance, payload and mission flexibility," Wood said.

Attendees at the annual conference of the Association of Unmanned Vehicle Systems International (AUVSI) in San Diego got a first look at the innovative V-STAR ™ configuration, which executes Vertical Take Off and Landing (VTOL) via a ducted lift fan with counter-rotating blades.

V-STAR ™ then transitions to forward flight with its highly innovative “diamond-box-wing” and ducted rear pusher fan. Dual Rolls-Royce Model 250 gas turbines propel the aircraft at a cruise speed of 288 knots with a 400-pound payload for 650 miles. Endurance variations of V-STAR ™ can carry a 110-pound ITARS package for over 19 hours.
"V-STAR ™ can reach targets often three times faster than helicopters," said Wood. "Our patentpending configuration creates for the first time a cost-effective and practical morphing wing.”

Joining Wood at the unveiling were Frontline directors and advisors including LtGen (ret) Timothy Kinnan, Chief Operating Officer of Verihelion Corporation, former Lockheed vice president and vice chief of plans for the Joint Chief of Staff; Dr. Robert M. Wood, veteran aeronautical physicist formerly of McDonnell Douglas Corporation; and MGen (ret) Thomas Eggers, consultant to Northrop Grumman, first commander of the Air Force Special Operations Command and former deputy commander of the U.S. Special Operations Command (USSOCOM).

Frontline Aerospace advisors also include Steve Britt, Esq., head of the Washington, DC-area corporate, technology and business investment practice of Leach Travell Britt pc; and Timothy Jordan, a Colorado-based investment banker.

"We are excited that V-STAR ™ offers not only survivability, safety and low air-defense signature for military applications," said Wood, "but it is also appropriate for civilian missions such as disaster relief or oil platform support."

Wood added that Frontline has simultaneously advanced patent-pending MicroFire ™ technology giving V-STAR ™ the advantage of high fuel-efficiency and reduced carbon emissions for the Rolls-Royce Model 250 engine family.

"Frankly, we are keeping our MicroFire ™ capability somewhat under wraps at this point," he said, "but we realize MicroFire ™ can increase endurance and fuel-economy not only for UAVs, but also create significant fuel savings for a whole class of helicopter engines worldwide – thus creating a true ‘green’ helicopter,” he added. “Leading firms have talked with us about licensing MicroFire ™ for their own air vehicles."

Frontline Aerospace, Inc., is an emerging company based near Denver, CO with marketing offices near Washington, DC focusing talents of proven aerospace and business experts on breakthrough aviation and energy concepts.