

MV-75 Cheyenne: Military Value As Function of Achievable Top Speed

News about the MV-75 Cheyenne.

https://theaviationist.com/2026/06/15/mv-75-cheyenne-ii-wing-structures/?utm_source=mailerlite_newsletter&utm_medium=email&utm_term=2026-06-17&utm_campaign=+here+are+the+latest+stories+from+The+Aviationist+



Paper seemingly encourages comments and questions. In practice however it ignores and deletes any such address, not bothering even to give a sensible reaction.

Therefore, again, I talked to the AI. We have become good friends. Here is the bottom line of the discussion:

Achievable top speed meaningfully boosts military value by accelerating force projection and tempo—especially for strategic airlift in time-sensitive operations—but it must be balanced against payload, versatility, efficiency, and cost. Over-optimizing for speed can reduce overall effectiveness for the multi-role demands of military transport. The highest-value aircraft deliver the right combination for the operator's doctrine, geography, and threats (e.g., high-speed strategic haulers like the C-17 for global powers; tactical-focused like upgraded C-130s for many others). In fleet planning, a mix of capabilities usually maximizes net value.

Questions missing from the news

It is known the Cheyenne will use aerodynamically the same type of proprotors, which are in service since the first production Ospreys started flying in 2007. As a consequence hover and low speed maneuvers will always happen with lots of noise, vibrations, blade stall, and of the risk of VRS. That also means less than optimal flight safety.

It is known too in order to still improve safety, engineers have reduced disk loading of the MV-75 on the one hand, and have also reduced the twist of the proprotor blades on the other. This latter helps reducing blade stall at low speed and hover, but forces the aircraft to fly slower in airplane mode. Another compromise hurting military value.

It was shown earlier that embracing adaptive proprotor technology would allow avoiding all the above compromises. An official explanation exists why such a development is NOT being done. It is the "certification burden" linked to amendments of parts considered critical. The standard explanation says:

Rotors are safety critical. Any significant change requires exhaustive testing for aeroelastic stability, loads, fatigue, bird strike, etc. Also, certification involves extensive work with authorities like NAVAIR, U.S. Air Force and Marine Corps Airworthiness Authorities, and FAA.

Good news however - to compensate for the intimidating list - that Bell and Boeing (along with their partners) absolutely have world-class teams, facilities, wind tunnels, digital engineering tools, and certification expertise for tackling exactly those challenges—aeroelasticity, whirl flutter, fatigue, flight testing, and airworthiness. They've done it successfully (with those authorities, BTW) for decades with tiltrotors and other advanced rotor systems.

Options for the world-class teams

Conceptual availability of such powerful engineering teams can make your fantasy soar. What if they could have absolute freedom? What could they be capable of? In the attachment answers to these questions from AI are summed up.