
BATTLE FOR NEW ORDER

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Something is brewing in the world of helicopters in the U.S. military. This is caused by the slow approach of the end of life service (EOS) and inevitable out phasing of large numbers of U.S. military helicopters and so there is much to gain for manufacturers of helicopters. To apply the most suitable successor, classic vendors do their very best to present a proposal, but also newcomers do appear on the horizon.

KIOWA SCOUT NEEDS TO BE REPLACED

The gigantic investments needed for a totally new concept for a helicopter are no longer deposited 'just like that'. Options such as militarization of successful civil helicopters or upgrades to a newer version of an existing block army helicopter are absolutely no bad options, as long as the requirements can be met. The OH-58D Kiowa scout helicopter named Warrior which is to be found in large numbers in the U.S. Army since 1990 is to be replaced in the foreseeable future, it is spoken about 375 new helicopters.

ANOTHER BLOCK VERSION?

The Scout Warrior was the principal Close Air Support (CAS) helicopter for the U.S. military in Iraq and Afghanistan, where it has to operate under difficult conditions. However flaws are still emerged, which came up in the time-line, and under operational circumstances, as developments of other systems went on in the years. It can be expected that certain requirements are met in these costly operations. Given the current circumstances, the idea of a new helicopter design for high design costs was actually dropped more or less already.

A low cost replacement sounds as music to the (Army) ears, but is this sequel or capable enough for today's standards? Bell Textron who can be seen as the 'Royal' purveyor gambles on a Block II OH-58 Kiowa Warrior (OH-58F) which can remain in low introduction costs because existing training programs, parts supplies and knowledge are available, a major advantage in an upgrade program. But what else can a Block-II version mean? At least there will be a state-of-the-art sensor unit in the nose, attached to three multifunctional colour displays that will be integrated by a special iCockpit and Sensor Upgrade Program (CASUP).

Bell explicitly mentions the Block-II version which is to be equipped with a yet to be developed Future Advance Rotor Drive System Transmission drive with a new rotor as further block successor. The block technology is based on a mainframe that has proven its worth where the latest technology can be built into ever new versions. As to Bell, this method is cheaper than militarising civil helicopters. But this however is exactly what the competitor EADS North America is considering. They offer the AAS-72X+ Armed Aerial Scout helicopter and this gives them good opportunities because in recent years they delivered the UH-72A Lakota transport helicopter for the U.S. Army to everyone's satisfaction! The AAS-72X+ is an armed version of the EC145 T2+ model which is unlike the UH-72A Lakota equipped with a fenestron tail rotor.

PERFORMING BETTER

Mid nineties the different companies were in the race before for a replacement of the OH-58D armed with a new Reconnaissance Helicopter (ARH) which was won by Bell Textron. This program however was finally stopped due to defence cuts. Today the fleet really needs

replacing absolutely so cost technically the case feasible has to be solved. All this is taken from the deployment in Iraq and Afghanistan and especially flying in hot and high conditions has become very important. So the best performing candidate in this segment will be most likely the company, earning the order. The current OH-58D has limitations in operation and when operating in desert area has to fly with partially filled fuel-tanks and less armament to save weight for optimal performance in the heat. This is necessary to achieve a higher level of performance. This kind of limitations the U.S. Army wants to get rid of. The present standard is 4000 feet at 95 degrees Fahrenheit, to achieve sufficient 'hover' capability. For the new helicopter this was decided as far too low. The coming standard needs to be 6000 feet with full tanks and armament (6K95 performance). There has been a promotional tour twice under conditions of high temperature by both Bell and EADS North America in so called voluntary flight demonstrations (VFD). For this purpose, EADS North America chose the Colorado mountains to demonstrate the altitude as a factor for their product wouldn't give any problem. In comparison to the UH-72A the AAS-72X is equipped with a more powerful Turbomeca Arriel 2E engine with FADEC digital control, a stronger transmission, a Helionix glass cockpit and avionics suite and a 4-axis autopilot which makes the 6K/95 high/hot conditions perfectly feasible. The requirement of two hours and 12 minutes with 20 minutes reserve fuel, while 2800 pound load is taken on board is easily made according to EADS North America. In October a tour was made to U.S. Army airports such as Fort Riley, Fort Hood, Fort Campbell and Fort Bragg.

It is very important that professionals convince themselves of the capacities of the AAS-272X+ said Sean O'Keefe, a CEO of EADS North America. Furthermore our product can be delivered to these units already in 2016.

COMPETITION

Obviously there is a real competition, because Bell Textron is making similar trips. Anyone who might think the race is run is completely mistaken. Where Bell Textron and EADS North America seems to have a concept in the most advanced stage others woke up and give it a try to compete for the most lucrative order. Interest is also coming from AgustaWestland North America (AW-109 or AW119), AVX (coaxial version of the OH-58), Boeing (AH-6i), MD Helicopters (MD540) and Sikorsky (S-97 Raider). Yet Bell and EADS North America seem to have the best papers and it will come down to who can deliver the best performance and the best persuasions in combination with the most favourable financial conditions.

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