



Under the auspices of the King Abdullah II Design and Development Bureau, ATK is modifying two Airbus Military C-235 into "Light Gunships" for the Jordan Air Force. (ATK)

PUFF, THE MAGIC DRAGON?

As extensively explained above, the evolution of warfare has also caused a warp in the hitherto clean-cut routine mission of transport aircraft. Unlike what the subtitle suggests, the aim is no longer to transform transport aircraft into ground strafers as was done with the venerable Dakota during the Vietnam war, in which three starboard-mounted General Electric Gau-2 Miniguns each belched their fire out of the windows and door at a rate of 6,000 7.62mm rounds per minute. But then the aircraft, nicknamed Puff, the magic dragon due to the impressive flames produced by the three sets of 6 barrels, was not pressurised, windows and door (there was only one!) could be removed and the sole use of the WWII aeroplane was confined to fire suppression missions to force the enemy hidden in the bush to move away from the hail of steel to enable one's own troops to move ahead. The operation was generally performed in what is known as a 'pylon turn' in which the aircraft continuously banks to the left to turn over the same spot (reason why the guns were mounted exclusively on the pilot's side!)

Today, the aim is to still provide some form of fire suppression and certainly quite a bit more, but at the same time preserve

the aircraft's transport capabilities. Several methods are being envisaged.

If one excludes the AC-130 first devised as a successor to the AC-47 Dakota in 1967, the most mature project to date is the Jordanian Air Force's programme aimed at modifying two of its Airbus Military CN-235s. We are thus far from the current heavily modified dedicated Hercules versions operated by the Special Operations Command that only the United States can afford to operate.

The Jordanian special-mission gunship programme is managed by the King Abdullah II Design and Development Bureau, but the actual work was entrusted to Alliant Techsystems, also known as ATK, in the United States, where the two airframes are now undergoing surgery at Fort Worth. The contract to ATK was announced on the occasion of the Idex exhibition in February 2011 and the first aircraft is due to take to the air in early 2013 and be delivered in July 2013. The integration work includes three distinct aspects which in the end will all be required to work together.

A pair of Raytheon AGM-175 Griffin A undergoing testing show the diminutive size of these aft-ejected, low-collateral damage weapons developed for irregular warfare. The Griffin A is an unpowered guided munition, but the Griffin B rocket-powered version has a range of nearly 20km. A Super Tucano can carry 12 Griffin, or 6 Griffin and 2 500lb GBU-12 guided bombs, an impressive load (Raytheon/DoD).

The first concerns the mounting of a 30mm Lightweight M230LF gun, portside and at the back. This gun incidentally, is a link-fed version of the turret-mounted M230A1 Chain Gun originally developed by Hughes in the early 1980s for the Apache Helicopter. It weighs 72.6 kilos sans mount and fires M788, M789, Defa and Aden rounds at a rate of 200 rounds per minute. One of the challenges in this application is to guarantee that the hemispherical gun-to-airframe interface, which allows the gun to be elevated or depressed, remains sealed when the cabin is pressurised.

The American company remained quite discreet on additional details when last met by the authors at the recent Eurosatory exhibition North of Paris, but the second element entails the incorporation of stubwings over the landing gear spousons to host two pylons on each side. These will be able to accommodate a total of two racks of four Hellfires and two pods of seven 70mm rockets. For the time being the latter will be of the non-guided type, but given the increasing intolerance to

