

LEBANESE LIGHT ATTACK



The Lebanese Air Force is so satisfied with the Super Tucano's efficiency and effectiveness that it is already looking at options to buy more aircraft.

The Lebanese Air Force's 7 Squadron is now well established operating the A-29B Super Tucano as a supreme and versatile light attack platform.

REPORT AND PHOTOS
**Dirk Jan de Ridder and
Menso van Westrhenen**

LIGHT ATTACK IS a subject that has been the focus of much attention in the US over recent years. On the domestic side it has made little progress.

However, international allies have been able to reap the benefit of this push to field such types.

In June 2015, the US government approved a Foreign Military Sale for six Embraer/Sierra Nevada Corporation (SNC) A-29B Super Tucanos and associated equipment, parts and logistical support to Lebanon for an estimated cost of \$462 million. The deal included two spare PT6A-68A turboprop engines, eight AN/ALE-47 countermeasures dispensing systems, 2,000 Advanced Precision Kill Weapon



Ralph Blok

Systems (APKWS), eight AN/AAR-60(V)2 missile launch detection systems, ferry support, and personnel training in the US. The first 'in seat' training sortie of a Lebanese pilot was conducted with an 81st Fighter Squadron instructor pilot at Moody AFB, Georgia, in March 2017. Upon completion of the program, 12 pilots and some 20 maintainers stood up their own fully functional A-29B squadron at Hamat air base in Lebanon.

Hamat was constructed in the mid-1970s as a civilian airport, but never used as such. Until 2017, its only residents were the Al Quwwat al-Jawwiya al-Lubnania (Lebanese Air Force, LAF) Puma helicopters of 9 Squadron, that were able to continue operations there despite significant damage to the runway. This has since been resurfaced, paving the way for the first two twin-seat A-29B Super Tucanos to arrive in October 2017, to kick-start the re-emergence of 7

A HISTORY OF CONFLICT

Being located in the heart of a tense region in the Middle East, Lebanon has a history that features many conflicts. The country was torn apart by civil war between 1975 and 1990. This more or less blended into the South Lebanon conflict between 1985 and 2000, which saw Christian proxy militias supported by Israel Defense Forces fighting against Lebanese Muslim guerrillas led by the Hezbollah militant group. A period of relative peace and stability lasted only a few years until 2007's conflict with Fatah-al-Islam, a radical Islamist group that had formed in a Palestinian refugee camp in Lebanon.

Although the Lebanese Air Force had operated fighter jets before, including the Dassault Mirage III and Hawker

Hunter, it had by then become an all-helicopter force. Some Hawker Hunters were urgently returned to service in 2008. Also, the need arose to modify UH-1 'Huey' helicopters and make them able to deliver 500lb Mk82 and 1,000lb Mk83 bombs. It also marked the start of a search for new fixed-wing attack aircraft. In 2009, the first of three AC-208 Combat Caravans was delivered, followed by IAR-330 Puma multi-role attack helicopters a year later. In 2013 a new war, this time with so-called Islamic State and Al-Nusra terrorists, started along the north-eastern border with Syria. The militants held pockets of land straddling the border.

The Lebanese Air Force played a decisive role, with its Combat Caravans and Puma helicopters attacking the terrorists in fortified positions. With the support of the Syrian Army from the other side of the border in August 2017, the Lebanese government regained full control of the Lebanese territory, hopefully marking the start of a long period of peace and stability in the country and region.

Below: As night falls, the A-29 Super Tucano becomes an even better combat aircraft. During CA's visit the A-29s attacked targets 'illuminated' by the AC-208 Combat Caravan.

Squadron. The remaining four aircraft followed in May 2018, just days after the second Lebanese pilot training class graduated at Moody.

A quantum leap

The Super Tucano was acquired to effectively replace the Hawker Hunters that were ultimately retired in 2014 due to a lack of spare parts for the ejection seats. Although it lacks the Hunter's speed, the A-29 is a far more potent prospect on many levels. It was designed for close air support (CAS) and counter-insurgency and with a cost per flying hour slightly lower than the Puma, it incorporates modern avionics and weapons systems. Commander of the Lebanese Air Force, Brig Gen Ziad Haykal said the aircraft provide 'value to the LAF capabilities not previously found in the national air force'.

None of the current Super Tucano pilots have previous experience on the

This image: Lebanese A-29s can be equipped with a mix of guided and unguided rockets, laser-guided bombs, AGM-114 Hellfire missiles, machine guns as well as external fuel tanks, providing a lethal combination for any type of mission.

Below left to right: An A-29 Super Tucano taxis back to the ramp at Hamat air base.

Maj Charbel Yazbeck, acting squadron commander for the A-29s.

Hunter. Only the highest-ranking officers used to fly the few airworthy airframes during the type's final years. All Super Tucano pilots have previous experience in the Cessna AC-208 Combat Caravan, a militarized version and the only other fixed-wing asset in the LAF. It was heavily used in the fight against Al-Nusra and so-called Islamic State (IS) terrorists from 2013. Pilots told *Combat Aircraft* that they launched many AGM-114 Hellfire missiles during their time on the Combat Caravan. It is the aircraft's only (and very expensive) weapon.

Besides the AC-208, the LAF was essentially an all-helicopter force before the A-29s arrived. The only other assets used in offensive operations were the Gazelle helicopters, equipped with anti-tank missiles, plus the multi-role IAR-330SM Pumas, which were donated to Lebanon by the United Arab Emirates in 2010. The latter have locally modified wing stubs equipped with the gun of

the Hawker Hunter and rocket pods of the Dassault Mirage III.

Potent strike force

The BAE Systems Advanced Precision Kill Weapon System (APKWS), first delivered in February 2019, perfectly fills a gap between relatively cheap unguided rockets and the expensive AGM-114 Hellfire. It's an add-on kit that swiftly turns unguided Hydra 70 2.75in rockets into laser-guided munitions — ideal for striking both moving and static targets while minimizing collateral damage. Pilots can use the 'plug-and-play' system with minimal instruction as if they are launching unguided rockets. Lebanon is the first military user of the system on a turboprop aircraft.

Five hardpoints under the wings and fuselage allow carriage of up to 3,000lb (1,361kg) of weapons, including conventional or laser-guided bombs and Hellfires, or up to three external

“ Although it lacks the Hunter's speed, the A-29 is a far more potent prospect on many levels



fuel tanks. The aircraft also features two .50-cal machine guns with 200 rounds each, giving the aircraft a broad range of effects that the crews can bring to bear.

The Super Tucanos are able to operate out of all three military air bases in Lebanon. As well as Hamat they visit Beirut International Airport and Baadaran airstrip in the deep south of the country, but even when operating from their home base they are able to reach any part of the country, depending on the configuration they are flying in.

Lebanon was the first country to operate the AC-208 Combat Caravan alongside the A-29 (Afghanistan will be the second). Tactics and procedures were developed in co-operation with a US air advisor. Although still lethally

equipped with Hellfire missiles, the AC-208 has evolved more towards an ISTAR (intelligence, surveillance, target acquisition and reconnaissance) role as the A-29s have bedded down. During CA's visit, one night a Combat Caravan flew circles at a distance of several kilometers around the live firing range located right next to the air base. Its crew would illuminate targets for the Super Tucano pilots to attack with the aid of their night-vision goggles. It enabled a couple of pilots to drop their first weapons at night. They commented later that doing this at night was actually easier than during the daytime, because they were able to focus on the target while the darkness masked any distractions. The squadron continued to employ cannon and launch rockets for

PILOT TRAINING

Lebanese pilots are typically trained on the PC-21 in Saudi Arabia, or the T-6 Texan II in the US, with a few having also completed the T-38 Talon course. The training of Lebanese A-29 pilots and maintainers with the 81st Fighter Squadron at Moody was only intended as a phase to get the ball rolling, with a course now up and running at Hamat. The only major item of equipment now lacking is a simulator, for which pilots will continue to travel to Moody as there are no acquisition plans. About a dozen USAF ground personnel still support the squadron in various positions, but the unit already is and will remain completely self-sufficient.

the remainder of the week in a live firing campaign, something that is completed twice a year. Another live firing range is located in the mountains nearby and this is suitable for Hellfires and live bombs, but it is only accessible during the summer when it is not covered in a thick blanket of snow.

Future plans

The Lebanese government is looking to buy a further pair of A-29s very soon, with another two to four to hopefully follow after that. Meanwhile, the air base is continuing to be further modernized. Its single runway will be joined by a parallel taxiway so that fixed-wing aircraft won't have to taxi across the runway before and after landing. A second ramp will be built to separate the

Maj Charbel Yazbeck and one of his students walk back to the office after the student's first live gunnery training mission.

Super Tucanos from the helicopters. In addition, a batch of six MD530G scout-attack helicopters will be delivered to Lebanon. No one was willing to confirm whether they would be based at Hamat, but looking at the weapons storage facilities, the base's expansion plans and the live firing range a mere minute's flight time from the air base, it seems a likely option.

In a very short time, Hamat will have transformed from an airfield that was only suitable for helicopter operations into what will be the Lebanese Air Force's primary hub for light attack.

Lebanon has seen peace since before the Super Tucanos arrived, but here the next conflict is never far away. It is now up to 7 Squadron to be prepared for the worst and to hope for the best. 🇅🇰

