



The FACH's F-5E/Fs have been upgraded but will eventually have to be replaced

Spanish submarines, the air force has had to slash its \$600 million fighter programme. A 24-aircraft purchase has shrunk to as few as six fighters, with the hope that money will be available in later years for an incremental buy of another six.

Chilean defence academic Emilio Meneses Ciuffardi says: "The copper law has to be scrapped. It's creating a process of administrative disarmament. The air force is a test case of this: they can't afford to buy one single squadron, whereas they actually need four."

The FACH's operational units are structured into groups of 18 aircraft each. Recognising that it will almost certainly have to get by with fewer fighters, the air force plans to halve the size of its "grupo de aviones". Rios hopes to begin training with the first two new aircraft by 2003, and achieve an initial operational capability by 2005.

The new aircraft will initially replace the FACH's 24 A-37 counter-insurgency machines. The move towards a multirole fighter has in turn fuelled an army requirement for an attack helicopter. Additional aircraft will be needed in the long term to replace the air force's Mirage 50 Panteras, ex-Belgian air force Mirage 5 Elkans and F-5E/F Tiger IIIs. The 20 Mirage 5s bought in 1996 to replace the FACH's Hawker Hunters had already undergone the Mirage Systems Improvements Programme upgrade by Sabca of Belgium.

Chile's 14 F-5s have also been upgraded, with Israeli assistance, and its 15 Mirage 50s are in the final stages of receiving similar improvements. New systems include an Elta EL/M-2001B radar, head-up and head-down displays, hands-on-throttle-and-stick controls, electronic warfare systems and inflight refuelling probes. Other changes include the addition of canards and two extra hardpoints.

According to Rios, the sequence and time-

table for retiring these three types is not yet clear, but all have sufficient remaining airframe life to operate beyond 2010. "It's not the number of hours left, but the cost of keeping them in service. The Mirage 50s and F-5s have been upgraded and can handle new armament, but they are expensive to maintain," he says.

The older aircraft cost up to \$6,000/h to operate, making them at least twice as expensive as a new fourth-generation fighter, the FACH estimates. As a result, the air force has opposed suggestions to cut costs by obtaining surplus aircraft instead of new fighters.

"This was an option the president asked us to look at. Because we didn't have the information, we went to the USA to look at it and I put my views to the [Chilean] president. We're looking for a fighter for the next 30 years. There is no point in buying an aircraft that is going out of service with some air forces," contends Rios.

### LATEST MISSILES

A further argument in favour of newer equipment is the desire to have the latest in smart weaponry, including a beyond-visual-range (BVR) missile, which the FACH says is crucial to its requirements. The acquisition of Vypel AA-12-armed MiG-29s by Chile's northern neighbour, Peru, is clearly one of the drivers behind the FACH's modernisation agenda.

"Maintaining a balance of power in the region is our main strategic objective. Consequently, if BVR missiles are in the inventory of other countries in the region, then it is a priority for the FACH to acquire the same capability to preserve the balance," says the air force.

At the shorter-range end of the air-to-air-missile spectrum, the FACH is well equipped, with the Rafael Python 4. The weapon has been integrated with the air force's Israeli-upgraded F-5E/Fs and comes with the Elbit DASH hel-

met-mounted display system. The air force will want to extend this system to its new fighter.

Efforts to modernise other elements of the FACH's inventory have moved in a piecemeal way. The acquisition of an airborne early warning (AEW) capability has not progressed beyond the single Boeing 707 fitted with the Israel Aircraft Industries Elta Phalcon phased-array radar, known locally as the Condor.

Chile's 707 has not been fitted with the antennas and, at best, is limited to a 270° field of view. The FACH needs at least three more aircraft to maintain a continuous AEW orbit. Given the increasing cost of operating the 707 platform, attention is focusing on smaller alternative systems, such as the Ericsson Erieye fitted to the Embraer EMB-145 jet. "It's something we're looking at," Rios confirms.

The FACH is in the early stages of planning to replace its single 707 tanker and two transports, but funding again is a perennial problem. The air force has made good use of its limited inflight refuelling capability to support the off-shore deployments of F-5s to Easter Island – and even further afield, to Nevada, to participate in the US Air Force's Red Flag exercises.

Earlier efforts to modernise the FACH's rotary-wing fleet have been confined to the 1998 purchase of a single Sikorsky S-70A Black Hawk – again reflecting Chile's piecemeal procurement process. The FACH has demonstrated its new helicopter's versatility with a record-making deployment of nearly 4,600km (2,500nm) from Punta Arenas to the Amundsen-Scott base at the South Pole.

The air force has a clearly stated requirement for more Black Hawks, made even more urgent by the loss of five Chilean Bell UH-1Hs abandoned in Iraq after the pull-out of the United Nations' arms inspection team. Rios says: "This will be our next programme after the fighters, and we've to start working on it this year." □

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