



With F-16s bearing the brunt of USAF operations in the Balkans and over Iraq, aircraft are falling short of their projected lifetimes

average. Consequently, another key objective for the SPO, according to Bailey, "is to prevent us getting into this situation again by developing tools to predict what's going to break out of those things that have never broken before".

Hand in hand with the job of extending a fighter's airframe and engine life is the need to modernise its systems. In the decade since the first F-16 Block 50 fighter was delivered, the single monolithic threat posed by the former Warsaw Pact has given way to a multitude of different potential adversaries. At the same time, air warfighting has been technologically transformed by the advent of stealth technology, the revolution in precision guided munitions (PGMs) beyond visual range (BVR) combat and the emergence of network-centric warfare.

Continual challenge

Says Leaf: "We need to take these old aircraft that were designed in a different era and ensure they can succeed at BVR air-to-air combat and hold their own in close air combat. We've skipped a generation going from the F-15 and F-16 to the F-22; our adversaries did not and have the advantage of Flankers [Sukhoi Su-27/30] and other aircraft. I think it would be excessively optimistic to say we have parity."

The threat is not just in the air but in the continued evolution of surface-to-air missile (SAM) systems and hybrid developments that are continually challenging the defence suppression. This has been compounded by the fielding of new more capable surface-to-air missiles. In places like Kosovo this has forced the USAF to adopt new tactics, such as precision air-to-surface strikes from medium altitudes and above, but for which aircraft like the relatively slow-flying A-10 were never designed.

While the expanded use of stealth will have to await fielding of the F-22 and JSF,



The A/OA-10 has received few modifications since the late 1970s and the manufacturer, Fairchild, no longer exists