

digital fly-by-wire (FBW) technology in the pitch axis, as well as duplex analog FBW in the roll axis. An advanced UV-band missile approach warning system has been installed. In terms of weapons, the Thunder offers a wide array of stores including PL-5EII, PL-9C or AIM-9M short-range air-to-air missiles (AAMs) and SD-10A (export PL-12) medium-range AAMs. For precision strike it can carry different laser-guided bombs including the Chinese LT-2 or LT-3 series and even the American GBU-12. Other options are the LS-6 GPS/INS-guided bomb, different kinds of air-to-surface and anti-radiation (including the Brazilian MAR-1) missile, and anti-ship missiles such as the C-802AK or CM-400AKG. Additionally, the KG300G or KG600 countermeasures pods can be carried for self-protection, while the Chinese WMD-7 infra-red/laser designation pod is available for targeting.

But it is here, perhaps, that the JF-17 has one problem. In comparison to its arch-rival, the F-16, the JF-17 offers a limited weapons load and range, which necessitates the frequent use of drop tanks, further limiting the weapons load. Meanwhile, the Chinese targeting pod is said to be less capable than the latest US or French systems. The recent discussion surrounding an alleged PAF request for the Thales Damocles pod, as well as Pakistan's requests to acquire additional F-16s, may be hints in this direction. It seems as though the PAF still prefers F-16s for long-range precision strike.

While the JF-17 is often compared to the F-16, it in fact plays in a different — lighter — league, and this has led to



negative reports in the media; above all, in the Western media.

A second problem for the JF-17 — regardless of all its merits and its affordable price — is its inheritance of a stigma through its association with a political 'pariah'.

To buy 'made in China' (and to a lesser degree 'made in Pakistan') is politically inopportune for many nations. When it comes to big-ticket weapons deals, decisions are always strongly influenced by politics. As a consequence, Western designs tend to be preferred, even if they have a much higher price tag. If a Western jet is not an option, the JF-17 still faces tough competition from Russian types or high-end trainers. Buying a fighter from China is therefore often the last option — regardless of its true capabilities.

An example of the political problem can be seen in Sri Lanka. At first, a JF-17 sale to Sri Lanka was reported as 'confirmed', later as 'unfinished', and soon afterwards it failed to materialize due to political lobbying from India.

Above: **With the exception of one 'confirmed' export contract in 2015, the JF-17 has so far failed to convert interest among 'second-tier' states into orders. Myanmar has long been tipped as the most likely candidate for a first foreign sale.** via Chinese internet

This image: **When it comes to 'leading the line', the Pakistan Air Force seems to prefer the American-supplied F-16 Fighting Falcon to the lightweight JF-17.**

Dietmar Fenners

The difficulty of playing this game against established rivals is clearly demonstrated in the case of the Dassault Rafale, which finally gained its first export success after almost 15 years of high-level diplomatic activities by the French government. Sluggish exports do not necessarily indicate an inferior product. As such, the JF-17 team should have patience and use their time wisely. The aircraft is still evolving; the fighter has clear potential and further development work is already in progress. Following on from the current Block 2, the as-yet defined Block 3 might feature a higher-thrust engine, active electronically-scanned array (AESA) radar and other new sensors, full-authority digital FBW, and expanded weapons capabilities.

The Thunder will begin to demonstrate its full potential within the next decade. In the time it takes for this to happen, the demand for lightweight multi-role fighters with a relatively cheap price tag will surely not diminish. 🇵🇰

