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Air Force Modernisation: Indonesia's Troubled Acquisition

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SYNOPSIS

The Indonesian Air Force has made frequent headlines in the past few years for its troubled and often rudderless modernisation plans. Its modernisation should avoid repeating past mistakes by setting clear priorities.

COMMENTARY

WITH THE largest archipelago in the world, stretching over 1.9 million square kilometres, the Indonesian Air Force (TNI-AU) faces a huge operational burden. It currently operates 72 combat aircraft in five squadrons. However, only [45 percent of the equipment is considered operational](#).

The TNI-AU's primary combat aircraft, the F-16, Hawk, and Su-27/-30, come in six different variants and from three different manufacturers. Coupled with small quantities, different types and versions makes maintenance, repair, and overhaul a daunting task. Besides problems with separate spares and logistical chains, interoperability amongst the types is virtually non-existent. Instead, each type forms separate 'silos' of capability.

Troubled Acquisition

The Minimum Essential Force (MEF2024) plan to modernise the air force by 2024 was meant to address TNI's capability and capacity shortfalls and to create a modern force with a strong deterrent. Materialisation, however, has been slow and often insufficient. TNI-AU has struggled to replace its ageing aircraft, reaching [only 45 percent of the MEF requirement](#).

Indonesia's air force modernisation and fleet recapitalisation has been marred with

multiple challenges, including lack of funding, lack of government commitment, as well as inefficient and highly-personalised acquisition policy.

The preceding five-year acquisition plan saw a long-sought after deal with Russia finalised for a delivery of 11 Su-35 Flanker-Es. The acquisition was well in line with Indonesia's tradition to buy both western and Russian equipment. However, the deal has since [fallen victim to the US' Countering America's Adversaries Through Sanctions Act \(CAATSA\)](#), putting pressure on Jakarta to cancel the deal with Moscow.

Under the 2nd Jokowi government, its politically ambitious Defence Minister Prabowo Subianto has since personalised the acquisition policy. His ambition to acquire the 5th generation F-35 Lightning II was [rejected outright by Washington in October 2020](#). Instead, the US offered Indonesia less advanced but much more affordable F-16 Block 70/72 and F/A-18E/F Super Hornet. In response to the rejected F-35 request and the troubled Su-35 deal, Prabowo has sought alternatives from elsewhere, including from France for the Rafale. Surprisingly, Prabowo approached Austria for their much-criticised Typhoon Tranche 1 jets, despite the ministry of defence's decision not to buy second-hand aircraft.

Following several twists and turns in the fighter procurement saga it seems that Indonesia has finally settled on two front-runners, the Rafale and the F-15EX, as the 'second best' choice. The announcement to procure 36 Rafale and an initial 8 F-15EX fall under the Third Phase of the MEF, covering 2020-2024, with first F-15EX projected to arrive [by 2022](#).

Costs of Modern Combat Aircraft

The aggressive procurement schedule caught many by surprise. It typically takes several years from the signing of contract to the delivery of the first aircraft. Therefore, it is unlikely that Indonesia would receive new aircraft by 2022 as suggested. Not least because the F-15EX first took into air only in February 2021, with the first aircraft delivered to the USAF in March.

Another issue is the procurement cost. Based on several existing users, the Rafale and the 'advanced Eagle' have come at a unit price of US\$243-US\$290 million and \$333-\$350 million, respectively, including training for pilots and maintainers, a weapons package, support and sustainment contracts, and associated facilities and equipment.

Indonesia's potential procurement of the two aircraft, then, would cost between \$11.4 and 13.2 billion. Spread over the five-year acquisition period, it would consume 66-70 percent of the annual budget allocated for defence modernization in the 2021 budget figures. This will likely prove to be beyond Jakarta's capacity without a significant additional commitment or substantially longer induction period.

In addition, operating modern combat aircraft is costly. The Rafale and F-15EX cost [\\$16,000](#) and [\\$27,000](#) per flight-hour. In comparison, F-16, the most numerous fighter in the TNI-AU service, costs [two or three times less](#) to operate. The higher operating costs would translate into significantly higher through-life costs for the two types.

Procurement Rationality

Indonesia's interest in two broadly comparable combat aircraft raises questions about the plan's rationality. First, the two aircraft would further complicate TNI-AU's already troubled support and maintenance system further by creating two additional supply and logistics chains. And second, there is little interoperability amongst the different types.

Indonesia, however, does not wish to rely on any one combat aircraft type or OEM alone. The memory of the US' sanctions which rendered the then-new F-16 fleet practically inoperable is still fresh. Therefore, Indonesia has sought to diversify its fleet to avoid a similar fate again. This is also the likely rationale behind the plan to procure both types.

Furthermore, should Indonesia purchase the F-15EX, it would be based on the Saudi and Qatari variants (the F-15SA and -QA), not the US version. The F-15EX integrates certain export-restricted systems like the advanced electronic warfare suite, which would not be available for Indonesia. The same is likely the case with some of the most advanced weapons available for the type.

In contrast, the Rafale will offer more independent capability for Indonesia with little restrictions on the export of the most advanced equipment and weapons, including the advanced Meteor air-to-air missile, the Exocet anti-ship missile, and the SCALP-EG cruise missile.

Moreover, besides diversification rationale, the potential procurement of both types has also a likely political reasoning. The procurement of the F-15EX could provide improved access to Washington and future acquisitions whereas the Rafale delivers unrestricted and, thus, superior capability for the TNI-AU.

Avoiding Past Mistakes: Need for Clear Priorities

The TNI-AU should adopt a clear acquisition plan with a strong political and financial commitment to avoid the past mistakes of procuring a handful of combat aircraft from multiple vendors and in several versions. Moreover, the air force should ensure that any future combat aircraft should come fully equipped and with a required support.

In addition, the service should prioritise replacing older types before expanding the force too ambitiously. Critically, the TNI-AU should urgently address the separate 'silos' problem by investing in third-party solutions to network the existing and future capabilities.

Finally, the TNI-AU should create a force structure that fits its mission needs and one it can afford. A force mix between new and upgraded F-16s and Rafale and/or F-15EX would offer the most cost-effective means to fulfil the TNI-AU's operational requirements in the coming decades.

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