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Armed Drones in Asia

By Kelvin Wong

Synopsis

Asia-Pacific military forces are expected to acquire increasing numbers of unmanned aerial vehicle (UAV) platforms throughout the next decade. While most regional nations are developing or procuring surveillance drones, at least three nations have demonstrated their desire to acquire armed drones.

Commentary

UNMANNED AERIAL vehicles (UAVs) have been deployed by a number of military forces since the 1960s. However, limits in command, control, communications and information (C3I) systems during that period constrained the number and types of missions these remotely piloted drones could undertake. The advent of high bandwidth satellite communications and navigation, and computerised mission planning systems in the 1990s vastly improved the range and flexibility of control over these platforms, and interest in drone procurement grew. Today UAVs are widely seen as an integral and indispensable part of modern military forces.

From sensors to missiles – drones go on the offensive

UAV platforms have traditionally been employed to gather battlefield intelligence, but have evolved to take on attack missions. The armed drone concept is hardly new – British military scientists in the Royal Aircraft Company attempted to produce a pilotless, explosive-tipped aircraft for homeland air defence against the German Army Air Service in 1916, but failed due to persistent technical issues with the aircraft's remote control systems.

The armed drone as we know it today – remotely piloted aerial platforms delivering precision munitions – could be traced back to two watershed events in 2001. The first involved a successful trial by the United States Air Force (USAF) to integrate and launch a live missile from a Predator drone platform in February, which achieved a direct hit on its target. The second was the decision to fly the newly 'weaponised' Predators over Afghanistan a month after the September twin tower attacks in the same year, marking the first recorded operational deployment of armed drones in contemporary warfare.

The tactical utility of drones in an offensive role was clearly demonstrated in the months following their deployment. These drones were not only capable of providing valuable intelligence by conducting round-the-clock surveillance orbits over contested territory, but could also swiftly engage time-sensitive targets with their onboard weapons. Indeed, history was once again made a few months later in February 2002 when the first operational strike from a drone was carried out on a convoy of light trucks in Afghanistan, reportedly killing a senior Taliban leader. Since their debut in 2001, US armed drones have been deployed to conflicts in Iraq and

Pakistan. Other known deployments of armed drones include Israeli military operations in the Gaza strip and southern Lebanon in 2006.

While armed drones have recorded some success in recent years against insurgent and terrorist targets, it is premature to determine whether these platforms will gain more prominence in future military operations, especially in a clash between conventional forces. Contemporary UAVs remain vulnerable in defended airspace, as evidenced by the destruction of at least two drones by anti-aircraft gun and missile fire during Operation Noble Anvil in the Balkans in 1999. Later in 2002, a Predator drone was destroyed after its crew engaged an Iraqi MiG-25 jet over the no-fly zone.

However, new combat drone programmes under development may produce high-performance and stealthy Unmanned Combat Aerial Vehicles (UCAVs). UCAVs may potentially replace manned aircraft on 'high-risk' missions such as suppressing an adversary's air defence systems.

Regional interest in armed drones

According to a recent study by aerospace consultancy Teal Group, the market for UAV technologies in the Asia-Pacific is projected to be worth at least US\$7 billion over the next decade. More significantly, however, regional UAV production is forecasted to exceed 6000 units, representing the second largest market in the world in terms of production values. The majority of regional UAV purchases will likely be small and relatively inexpensive drones for short-range tactical surveillance, but some nations will pursue larger platforms with greater endurance and payload characteristics which will be capable of patrolling expansive territorial waters and coastlines. However, a number of nations have shown great interest in acquiring combat drones.

China has had some successes with indigenously-produced surveillance drones, but its desire to field combat drones has been stymied for years by technical limitations and a lack of willing foreign partners in drone development. Existing arms embargoes have also prevented China from procuring western UAV technologies. Currently, the Chinese military fields Israeli-made Harpy attack drones purchased in the 1990s, although pressure from Washington is preventing further cooperation between China and Israel in drone development and procurement. Despite these setbacks, Chinese firms have displayed a number of UCAV prototypes at recent trade shows. It remains to be seen whether these prototypes will eventually go into production and export.

In South Asia, India and Pakistan are actively seeking armed drones, ostensibly to deal with internal conflicts. India is reportedly keen to acquire at least 25-30 armed drones from Israel by 2011 to deal with ongoing operations against Kashmir and Maoist rebels. Military officials quoted in some reports say that India aims to acquire, and ultimately develop high performance UCAVs that will 'substitute' manned fighter aircraft for conventional attack missions in the future. Across the border, Pakistan is reportedly attempting to retrofit armaments on its most capable surveillance platform, and may have sought Chinese and Turkish assistance to develop its own indigenous attack drone.

In Southeast Asia, drone acquisitions seem to be driven by a number of key needs revolving around military force modernisation as well as maritime and coastal surveillance. But armed drone acquisition cannot be ruled out as these platforms become more commonplace in the future. For nations grappling with internal security concerns such as separatist movements and terrorist threats, the persistent presence and strike capability of armed drones may present a compelling buy, provided that the necessary funds and technical know-how are available.

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