THREAT FROM ABOVE

Mark Brace *reports on the emerging use of drones by militant groups*

Since 2014, there has been an increased emphasis on monitoring and countering unauthorised commercial drone flights near airports or in close proximity to civilian aircraft inflight. According to data released by the United Kingdom Airprox Board, there were just six emergency situations involving small commercial drones and civilian aircraft in 2014. That number increased to 70 such incidents in 2016. In similar fashion, the United States Federal Aviation Administration documented 1,145 drone sightings near airports or by civilian aircraft inflight during 2016, with just 57 instances reported in 2014. Our own comprehensive analysis of publicly available data has identified over 5,200 drone sightings near airports or by civilian aircraft inflight worldwide in just the past decade.

A key concern on this topic shared by governments and security experts within the aviation industry is that militants with a hostile intent will begin to use small commercial drones outside areas of armed conflict to attack aircraft and/or airports. Drone use by militant groups inside areas of armed conflict highlights evolving tactics, techniques and procedures (TTPs) available as an inexpensive and effective means of terrorism. Our analysis of multiple areas of armed conflict coupled with an in-depth examination of global terrorism trends indicates that drone use by militants linked to the Islamic State and al-Qaeda extremist groups for reconnaissance, propaganda development and weaponisation for terror attacks is steadily expanding. These developments highlight the metastasized nature of global terrorism trends and the increasing number of attack modes available to militants seeking to use new technology.

The extremist IS group has a history of operating drones for reconnaissance and propaganda purposes dating back to mid-2014 in both Iraq and Syria. During 2015, the group increased its efforts to weaponise its drone inventory by creating small munitions, which could be dropped from the air or by arming the drone itself in the form of a 'kamikaze' attack vehicle. Based on our analysis, the majority of weaponised drones operated by IS are of the first variety: an airborne improvised explosive device (ABIED) attached to the drone fuselage and dropped from the air on targets below.

IS DRONE START TO TAKE OFF

The first documented use of an ABIED by IS in Syria occurred in December 2015 in Aleppo Governorate, when a small weaponised drone was shot down by Kurdish militia forces during clashes with the group. In October and December 2016, Syrian military forces reportedly downed multiple IS drones carrying rocket-propelled grenades in Dayr az Zwar Governorate. Reports of IS weaponised drone use in Iraq emerged in early October 2016, when the group deployed a weaponised 'kamikaze' drone, killing two Kurdish militia forces and injuring two French military personnel in the Kurdistan Region.

US-led coalition forces have conducted dozens of airstrikes on IS group drone launch sites and production facilities in Iraq and Syria since 2015. Analysis of US-led coalition airstrike data indicates that IS began frequently using drones to conduct ABIED attacks and reconnaissance

> **IS HAS USED DRONES FOR RECONNAISSANCE AND PROPAGANDA PURPOSES SINCE 2014**

operations in Iraq and Syria from late-2016. IS began releasing propaganda videos depicting its drones dropping ABIEDs in Iraq and Syria in late-January 2017. Our analysis indicates that IS conducted over 150 such attacks in Iraq and Syria during 2017.

IS-linked groups in Yemen, Libya and the Philippines have reportedly utilised drones for propaganda purposes. During September 2017, IS released a propaganda video of its fighters training in the al-Bayda Province of Yemen, which included portions filmed via drone. In Libya, IS militants used drones for reconnaissance and propaganda purposes in the cities of Sirte and Benghazi in 2016-2017. In the Philippines, militants in Marawi repeatedly used drones for reconnaissance purposes during clashes with government security forces between June and December 2017. Despite losses in Iraq and Syria, IS will continue to operate in pockets of those countries and in areas of weak governance, such as Egypt's North Sinai Governorate, Yemen, Afghanistan, Libya, Somalia, Mali, Pakistan, Nigeria and parts of the Philippines.

The historical threat of weaponised drone attacks dates back to the mid-nineties with key plots linked to al-Qaeda. In July 2001, reports surfaced that it was plotting to attack the G8 Summit in Genoa, Italy with explosive devices attached to remote-controlled drones. This was followed by a disrupted plot in the UK during June 2002, where an operative planned to attack the House of Commons with a drone equipped with an anthrax poison device. Within the US, an al-Qaeda operative was convicted in 2008 for conducting research into the weaponisation of small drones and reportedly plotting attacks using remote-controlled helicopters equipped with explosives.

al-Qaeda-linked militants in Pakistan have a documented history of drone activity dating to 2002. During late-2005, an al-Qaeda-linked militant was arrested in the US for purchasing a small drone for the Pakistan-based Lashkar-e-Taiba terror group in 2002. In addition, militants in the North Waziristan area of Pakistan reportedly used small drones for reconnaissance purposes during clashes with government security forces in September 2005. A subsequent raid against an al-Qaeda site recovered a commercial drone and IED materials that were assessed to be intended for weaponisation purposes.

TALIBAN DRONE USE

The al-Qaeda-linked Taliban group in Afghanistan also has a limited history of small drone use since 2012. During a raid against a Taliban compound in Helmand Province during May 2012, US military forces recovered a small drone, which was included in a weapons cache. More recently, the Taliban has used drones for reconnaissance and propaganda purposes, highlighted by the release of a video filmed by a drone of an attack in the Afghan capital of Kabul in October 2016. In addition, a drone was recovered during a security forces raid against Taliban fighters in the Afghan capital of Kabul in January 2018.

Multiple al-Qaeda-linked groups in Syria have reportedly operated drones for reconnaissance and propaganda purposes dating back to mid-2014, including Hayat Tahrir al-Sham (HTS). HTS, formerly known as the Jabhat al-Nusra, has taken a leap further and pursued the use of weaponised drones. Jund al Aqsa — an HTS affiliate at the time — released a propaganda video showing a drone airdropping multiple ABIEDs on Syrian military forces in Hama Governorate during September 2016. While the video did not appear to show significant damage or casualties caused by the ABIED attack, it denotes the further experimentation with both explosives and drones by HTS.

On 8 January 2018, the Russian Ministry of Defence issued a statement reporting its military air defence forces in Syria's Latakia Governorate at Hemeimeem Airbase (OSLK/LTK) thwarted a co-ordinated swarm attack consisting of 13 weaponised drones operated by militants on 5-6 January 2018. Specifically, Russia claims the militants responsible for the attack operated the drones from territory controlled by HTS in the Syrian Governorate of Idlib. Local media reporting indicates Russian military air defence forces in Latakia thwarted a prior weaponised drone swarm attack on 27 December 2017, again reportedly conducted by militants from territory controlled by HTS.

AERIAL PROPAGANDA

In both Somalia and Libya, al-Qaeda-linked groups have used small drones for propaganda and reconnaissance purposes. The al-Qaeda affiliate al-Shabaab released propaganda videos in November 2016 and September 2017 showing militants operating a small drones in Somalia. Along these lines, the al-Qaeda-linked Shura Council of Benghazi Revolutionaries (BRSC), Shura Council of Mujahideen in Derna (MSCD) and Ansar al-Sharia have each used drones in a similar fashion in multiple cities in Libya. Such activity occurred by the BRSC in Benghazi in March 2017 and by the MSCD in Derna during April 2016.

The use of drones by militant groups is on the rise

Instances whereby the attackers in a planned or actual terror attack were inspired by online propaganda have grown in frequency since 2001, highlighting the ability of terror groups to incite violence via the internet. The TTPs and incidents discussed overleaf could evolve into the use of small drones as an attack vehicle in areas outside of armed conflict. However, potential for a terrorist network, individual militant or internet extremist to utilise a drone for an ABIED attack and/or pre-attack reconnaissance purposes is not without precedent. Examination of foiled attack plots is key to understanding the evolution of the threat environment (see box out opposite).

THE HISTORICAL THREAT OF WEAPONISED DRONE ATTACKS DATES BACK TO THE MID-NINETIES

Employment of drones, weaponised or otherwise, in forms of terrorism inside and out of areas of armed conflict is an emerging threat that has the potential to negatively affect the aviation security environment at airports globally. While it is not clear how advanced the attack planning was or whether the operatives had the capability to carry out an attack, it is inevitable that conflict-zone drone TTPs will migrate away from such areas. Terror group TTPs for drone modification continue to be proliferated on a wide scale due to the expansive nature of the internet; and availability and sophistication of commercial off-the-shelf systems has expanded globally since 2014. In addition, the trend of attacks by returning foreign fighters from Iraq and Syria, terrorist acts conducted by individual militants and plots hatched by internet-inspired extremists indicates that the employment of a weaponised drone in a terror operation is a credible scenario ●

FAILED DRONE ATTACK PLOTS:

September 2011: Authorities in the US arrested an al-Qaeda-inspired extremist that was allegedly planning to use small drones with explosives in the US capital city.
August 2012: Spanish authorities released a video of suspected al-Qaeda members using a drone to practise for ABIED attacks.
June 2013: German authorities arrested members of an al-Qaeda-inspired network allegedly plotting to use small drones to carry out attacks.
July-August 2016: IS issued propaganda urging followers to conduct weaponised drone attacks on the Summer Olympics in Rio de Janeiro, Brazil.
November 2016: A militant cell in Albania linked to IS was arrested in possession of a drone while planning a terror attack.
December 2016: A Syria-based Australian IS member plotted to conduct weaponised drone attacks in the Australian city of Sydney.
January 2017: Turkish authorities in Istanbul arrested an IS militant, recovering two drones in his possession and charged nine members of an IS cell with plotting to use weaponised drones in attacks in the city.
April 2017: An individual with IS sympathies was arrested in the US city of Tampa Bay for allegedly planning a weaponised drone attack.
July 2017: An IS-inspired militant was jailed in Qatif, Saudi Arabia for planning to blow up police and security forces sites using weaponised drones.
August 2017: Turkish police in the city of Adana detained a Russian citizen, suspected of being an IS operative, who planned to down a US military aircraft via a weaponised drone.
November 2017: An IS sympathiser in the Italian city of Lodi was arrested after receiving instructions via Telegram on weaponised drone use.

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A drone operator from the Mosul Brigade of the Iraqi Special Operations Force releases a drone into the air during a military operation

Picture credit: Getty