

As the geographic area of the US drone strike campaign expands, so too the nature and definition of its targets. Once largely associated with North Waziristan, the porous border between Afghanistan and Pakistan, drones now routinely operate in Yemen and in Yemen's close cousin, Somalia. 2012 saw an unprecedented peak in strikes in South Yemen, and the targets are no longer just the known terrorists of classic targeted killing, but people who are judged guilty until posthumously proven innocent, says Elayne Jude, Senior Research Associate of the U K Defence Forum.

At the heart of the debates around both the territorial expansion of the drone programmes, and the shifting definition of its legitimate targets, is the question: What is the drone strike for? Is it a weapon of last resort against imminent threat to the US homeland, or a pragmatic tactical tool to assist allies, placate regimes and deny control of territory to enemies?

The advantages that seem clear to the military do not always translate to the public, especially in those countries in which they are deployed. Drones provoke widespread negative reaction, from unease and disquiet to terror and outrage. By alienating whole populations who live under the drones, the greater strategic benefit may be compromised by what Christof Heyns, UN special rapporteur on extrajudicial killings, has called "Weapons without borders."

Nuts and Bolts: What are UAVs?

Drones are deployed for reconnaissance and combat. The machines deployed for strikes by the USA are Predator or Reaper drones. Armed inter alia with Hellfire missiles, fired simultaneously, they vary in size, weight, payload, altitude, range and endurance, or "loiter" time. (see Specifications at the foot of the paper)

Drones have many advantages over conventional piloted aircraft. They are cheaper to purchase and to maintain than many alternatives, can loiter for longer with less noise and disruption, feeding live images back to distant observers. The information can provide a "pattern of life" study which allows intelligence to study over time of the habits of particular households and communities which may shelter insurgents. There is no pilot to be lost, kidnapped, ransomed, tortured or manipulated to exert political pressure or to bestow a human trophy. Thorough reconnaissance facilitates an optimal strike time to move against a target with no, or limited, civilian loss of life.

They fascinate us. It is the uncoupling of the human presence from direct contact with his foe which most haunts the imaginations of the public. The practitioners of this technology often have a more mundane view; to its remote pilots and designers, it's just another, smarter platform. To the little people, drones have acquired a mythic status, and almost any kind of mysterious, catastrophic violence whose origins are unclear can be attributed by the ignorant, the superstitious, the habitually victimised, or those with a political agenda, to the agency of the American drone.

This article deals with the evolving rules of engagement of the US, the world's largest and most active user of drones in warfare, and with particular reference to the emerging principles of strikes in Yemen. International coalition practice, such as in Afghanistan and Pakistan, and recently over Libya, differs according to what is negotiated between partner nations. In Afghanistan, for instance, the coalition term "cold shift" is used to defer hitting a target until the collateral is judged to be acceptable.

Potency, Purity, Pragmatism

The drone, orUCAV (Unmanned or Uninhabited Aerial Combat Vehicle), airborne strike, was first used by the US on a wide scale against Al Qaeda in Afghanistan post 9/11. Its original purpose was to eliminate an identifiable Al Qaeda leadership, while minimising US ground casualties and civilian "collateral". Images of innocent people killed in clumsier attacks created outrage, and handed propaganda victories to the US enemies. The deaths also potentially functioned as a

recruiting agent for the insurgency.

Early drone activity was often referred to as **surgical** strikes. These strikes carried a double message of high-tech US potency combined with a perception of moral cleanliness. Targets were persons identified by intelligence as high-value targets, known terrorists, posing an imminent threat to United States homeland security. This kind of targeting came to be known as **personality** strikes.

Over time, as the Afghanistan insurgency and the ISAF response grew and changed, the nature of the strikes changed also. In early 2008, **personality** strikes - the clearcut elimination of known militants - were augmented by **signature** strikes. The kill was legitimised by the recognition of identifying characteristics of the known militant, from which it was deduced that his or their actual presence was likely. Strikes could take place if the risk of civilian casualties were assessed to be low. It was a tactic often deployed against convoys of moving vehicles.

By mid-2008, this criteria had mutated further. No longer was the **signature** the sign of a specific leader, but an indicator of a generic enemy. New York Times, 29 May 2012: **The word evolved to mean the signature of militants in general for instance, young men toting arms in an area controlled by extremist groups. The designation of terrorist moved further from likely towards possible.**

Washington journalist David Sanger, in his book **The Inheritance: The World Obama Confronts and the Challenges to American Power**, quotes a Bush administration official: **We got down to a sort of reasonable man standard. If it seemed reasonable, you could hit it.**

Casualties of signature strikes are reckoned according to a criteria that some consider to be skewed in favour of reporting minimal civilian collateral. **Military aged men** - an unofficial but widely used definition that is usually given as between 20-40, but can also include men up to the age of 70 - who are found dead at the site of a strike are considered to be combatants, unless explicit intelligence subsequently disproves this.

How is this enacted in Yemen ?

AQAP; One Thousand Plus

President Abd Rabuh Mansur Hadi came to power in February 2012. In April 2012 John Brennan, President Obama's chief counterterrorist adviser, stated that Al Qaeda in the Arabian Peninsula (AQAP) has **more than a thousand members...We're not going to rest until Al Qaida the organisation is destroyed and is eliminated from areas in Afghanistan, Pakistan, Yemen, Africa and other areas.** In May, President Hani met with Brennan in Sana'a, to hear of President Obama's support for the counterterrorist measures which President Hani had put in place.

The 2011 uprising has left an ongoing semi-civil war. President Hani's campaign against rebels is supported by Pentagon-sponsored drones, which have superior capabilities, especially at night. Strikes are usually claimed by the Yemenis. The US presence is controversial. A 2011 poll among Yemenis by Glevum Associates found that respondents from Sanaa and Shabwah mostly support the U.S. providing security assistance, while in Al Jawf and Ma'rib it is overwhelmingly opposed.

The first strike occurred on November 3, 2002 - eight months after it was officially designated a combat zone. Strikes were few and intermittent until 2011, the resignation of long term President Saleh and the accession of President Hani.

US Cruise missiles dropped on an alleged training camp in the rural community of Al-Maajala in Abyan province, on December 17, 2009. Initially denied by the US, at least 55 were killed including many children, and cluster bombs remained onsite to kill more. There was huge publicity and a report was published by Amnesty International. Yemeni officials said the backlash gave a boost to AQAP. It is the sort of conventional airstrike and high collateral

which gives the drone strike a - relatively - good name.

The tempo increases

In March 2012, The Daily Telegraph reported that David Petraeus assessed AQAP as the strongest threat to US security of any terrorist group. Drone strikes in the country escalated immediately. There were more drone strikes in May 2012 than in the preceding nine years. In recent months drones have struck in the southern provinces of Abyan, Shabwa, Baydah and Marib, in Aden, in the eastern province of Hadramout, and, unusually, in the north.

The strikes are usually claimed by the Yemeni government, which is simultaneously waging a war against AQAP and some rebel tribes, who control several major cities in the South. The US campaign, like that in Pakistan, is an open secret. By claiming the strikes, the Yemeni government shields the US from perceptions of partisan action in a very complicated inter-tribal conflict, in which AQAP are only one set of actors. A rare strike in October 2012 in Saada province, in the north of the country, killed a local AQAP commander, and two Saudis. The area is the locus of fighting between the Houthis, a Shia splinter group backed by Iran, and local Salafist groups, including AQAP, allegedly used as proxies by the Sunni Yemeni government. In January 2008, a spokesman for an AQAP cell in Yemen said the government had recruited some of its members to fight in the Saada War. In exchange, the security forces agreed to ease the persecution of AQAP. AQAP declared war on the Houthis in December 2011.

Hani is a favoured partner in US counterterrorist operations overseas. There is diplomatic gain in a Muslim leader publicly aligning himself with the drone programme. In September 2012, on an official visit to Washington, President Hani praised US drones. They pinpoint the target and have zero margin of error, if you know what target you're aiming at, said President Hani, a former army officer. The United States helped with their drones because the Yemeni Air Force cannot carry out missions at night.

The Long War Journal's official count, as of 8 November 2012, gives a total of 55 strikes since 2002, 287 combatant deaths and 82 civilian deaths. 38 of those strikes have occurred so far in 2012, killing 182 militants and 35 civilians, using the military-aged male calculation.

Despite an often messy and complex reality on the ground, the image of the morally scrupulous surgical strike persists, and this image can deliberately cultivated in the interests of national and international public diplomacy. But the wider and less discriminating the use of drones becomes, the more negative publicity attaches to it. From jihadist internet forums to the pages of mainstream Western newspapers, accusations are levelled and questions are asked about the extent of non-combatant deaths, how they are accounted, and the efforts that are made to avoid them.

New Protocols

Edmund Munter, former US Ambassador to Pakistan, supports the use of drones: We prevented major attacks, Munter told The Daily Beast, November 20 2012.

The use of drones is a good way to fight the war. But you're going to kill drones if you're not using them judiciously...The definition [of a legitimate target] is a male between the ages of 20 and 40. My feeling is one man's combatant is another man's well, a chump who went to a meeting.

Munter had requested that, as the direct representative of the President, he be given a veto over CIA-controlled drone strikes in his domain. There is some precedent, but it is unclear whether an Ambassador can outrank the Director of the CIA, and it is likely that such a veto would be used rarely. In the wake of a strike whose motivation was open to interpretation, and which drew sharp criticism from Gen. Ashfaq Parvez Kayani, the Pakistani Army chief, a formal procedure was instated. The Ambassador, notified of an imminent strike, may object to the Director of the CIA, who then has to consult

with the Secretary of State. If the Secretary objects, the Director may go ahead, but must explain himself in writing to the Secretary the next day.

Clarification of licit use and abuse is sought by President Obama and his advisers. Questions of command and control, authorisation and responsibility are subject to ongoing debate. Currently, every signature strike is signed off personally by President Obama, who also participates in meetings with the CIA and the Pentagon to compile kill lists of targets for the drones. Obama's assumption of personal responsibility for the strikes has had its effect on battlefield policy: C.I.A. downsized its munitions for more pinpoint strikes. In addition, the president tightened standards, aides say: If the agency did not have a near certainty that a strike would result in zero civilian deaths, Mr. Obama wanted to decide personally whether to go ahead - New York Times, 29 May 2012.

This working method rests on the personal judgement of the President. On 25 November the New York Times reported an urgent project by the Obama administration, to codify rules and guidelines for targeting and authorisation. It is thought that the rushed timetable was intended to pre-empt decisions by President Mitt Romney in January 2013. Now that outcome has been averted, it is expected that the new guidelines will be in place at a later date.

The U.N. plans to open a unit in Geneva this year to investigate drone strikes. The debate on the future use, extent and control of drone strikes, and the definition of proper and constructive action to safeguard US security, continues.

US strike UCAV specifications

MQ 1B Predator

Primary Function: Armed reconnaissance, airborne surveillance and target acquisition

Contractor: General Atomics Aeronautical Systems Inc.

Power Plant: Rotax 914F four cylinder engine

Thrust: 115 horsepower

Wingspan: 55 feet (16.8 meters)

Length: 27 feet (8.22 meters)

Height: 6.9 feet (2.1 meters)

Weight: 1,130 pounds (512 kilograms) empty

Maximum takeoff weight: 2,250 pounds (1,020 kilograms)

Fuel Capacity: 665 pounds (100 gallons)

Payload: 450 pounds (204 kilograms)

Speed: Cruise speed around 84 mph (70 knots), up to 135 mph

Range: Up to 770 miles (675 nautical miles)

Ceiling: Up to 25,000 feet (7,620 meters)

Armament: Two laser-guided AGM-114 Hellfire missiles

Crew (remote): Two (pilot and sensor operator)

Initial operational capability: March 2005

Unit Cost: \$20 million (fiscal 2009 dollars) (includes four aircraft, a ground control station and a Predator Primary Satellite Link)

MQ 9 Reaper

Primary Function: Remotely piloted hunter/killer weapon system

Contractor: General Atomics Aeronautical Systems, Inc.

Power Plant: Honeywell TPE331-10GD turboprop engine

Thrust: 900 shaft horsepower maximum

Wingspan: 66 feet (20.1 meters)

Length: 36 feet (11 meters)

Height: 12.5 feet (3.8 meters)

Weight: 4,900 pounds (2,223 kilograms) empty

Maximum takeoff weight: 10,500 pounds (4,760 kilograms)

Fuel Capacity: 4,000 pounds (602 gallons)

Payload: 3,750 pounds (1,701 kilograms)

Speed: Cruise speed around 230 miles per hour (200 knots)

Range: 1,150 miles (1,000 nautical miles)

Ceiling: Up to 50,000 feet (15,240 meters)

</p> <p>Armament: Combination of AGM-114 Hellfire missiles, GBU-12 Paveway II and GBU-38 Joint Direct Attack Munitions </p> <p>Crew (remote): Two (pilot and sensor operator) </p> <p>Unit Cost: \$53.5 million (includes four aircraft with sensors) (fiscal 2006 dollars) </p> <p>Initial operating capability:◆ October 2007</p> <p>Source: US Air Force</p> <p>◆Elayne Jude 2012</p> <p>sources & references:</p> <p>Long War Journal</p> <p>NY Daily News</p> <p>New York Times</p> <p>Washington Post</p> <p>The Daily Beast</p> <p>Micah Zonko, Blog, Council for Foreign Relations</p> <p>Amnesty International</p>