theguardian

US military using lightweight minidrones launched from battlefield

Switchblade 'loitering munition' weighing under six pounds can be carried in a backpack and used in place of an air strike

Jonathan Franklin guardian.co.uk, Tuesday 12 June 2012 14.43 EDT



A US Marine launches a Raven surveillance drone. Defence analysts believe warfare in the future will involve many more mini armed drones. Photograph: John Moore/Getty Images

The US military has issued soldiers in <u>Afghanistan</u> with a new class of lightweight unmanned drone known as the Switchblade, which can be carried in a backpack and used on the battlefield in place of an air strike.

The <u>Switchblade</u>, manufactured by the AeroVironment Corporation in Monrovia, <u>California</u>, weighs just under six pounds (2.7kg) and can be rapidly launched and sent over the nearest ridge to circle above the battlefield before being sent to zero in on the enemy – usually the chest or head of an enemy combatant.

The weapon, which commanders have dubbed the "Flying Shotgun", has been widely tested by the US Army, US Marines and US Air Force. It has proved so effective that AeroVironment has announced more than US\$14m (£9m) worth of Switchblade systems and related engineering contracts in the past 10 months.

The increasing use of drones to target militants under the Obama administration has proved controversial as critics say assassinations conducted by drones amount to extrajudicial killing. Like larger Predator or Reaper drones, the unmanned Switchblade is flown by a "pilot" who monitors the flight from a video screen. The Switchblade can loiter above the target before being sent in to strike. It typically flies far lower than other drones, often less than 50oft above the ground and is highly manoeuvrable, allowing it to circle in on a fixed or fleeing target.

The Switchblade is designed for use by small ground units who need to attack nearby targets – snipers on a ridge, rebels on a rooftop or an ambush the next ridge over.

Defence analysts believe warfare in the future will see many more mini armed drones which are now called "loitering munitions" and provide ground troops with a view described as coming from "the tip of the bullet".

However, arms control groups and peace activists see the new weaponry as at best controversial. Bruce Gagnon, the co-ordinator of the <u>Global Network Against Weapons</u> and <u>Nuclear Power in Space</u>, said it would not be long before the drones were being used domestically. "People are beginning to see that these technologies are going to be dual use – meaning over there and back here at home," he said.

Like much of the drone war, the deployment of the Switchblade is kept secret. The US military refuses to acknowledge how many Switchblades are in stock, in which countries they are deployed or to which units they are being supplied. The only official acknowledgement came from an army general who last October admitted that "less than a dozen" Switchblades have been deployed.

However, in a February 2010 solicitation for production specifications of these minidrones for the US Army's Redstone Arsenal asked potential suppliers to provide the "cost per system for quantities of 500, 2,000 and 20,000 units".

Following successful battlefield testing, the Switchblade has now been being distributed to conventional infantry troops including the 2nd Battalion of the 16th Infantry Unit based at Fort Riley, Kansas. Last month, members of the battalion spent a week practising the launch, flight and detonation of the drones.

While drone strikes from fixed-wing aircraft have a chain of command that stretches from Afghanistan to the <u>United States</u>, with multiple steps to avoid civilian casualties or friendly fire casualties, these ultra-light, portable drones bring the decision to kill down to the level of platoon commander or even individual soldier.

According to Gagnon, the advent of the small drone is another step in the military's bid to have battle fought by robots. "We have been seeing this attempt by the military to essentially roboticize warfare. It gives them two very valuable results, it lessens the price, as a drone is much cheaper than an F-16, and secondly it takes increasingly less people on the battlefield.

"You still need a lot of people back home flying them and sitting in front of the computers," said Gagnon, "but it puts less people in harm's way and the Pentagon is happy about this. It is easier to sell endless war when fewer GIs are coming home in bodybags."

"Technology is moving at lightning speed and policy is moving at glacial speed," said PW Singer, the author of Wired for War, a critical analysis of the military use of robotic technologies. "This tech is proliferating, with more than 50 countries now building, buying and using military robotics. The cat is already out of the bag."

Comments

60 comments, displaying





Comments on this page are now closed.



Rainborough

12 June 2012 8:05PM

Human ingenuity and capitalism being what they are, and remembering how the native Americans were sold Winchester repeaters, no doubt the enemies of the US empire will acquire similarly deadly compact weapons before long. That's the Recommend? (30)

Responses (1)

Report

Link

problem with being the global bully: people will fight back and give you a bloody nose before long.

	9	
r	- 1	
ь.	- 1	
•	-	
7		ч
		-1

backpeddle

12 June 2012 8:07PM

Ohhh, thats going on the xmas list, then look out Blair!!!

Recommend? (55)

Responses (o)

Report

Link



Backwaterboy

12 June 2012 8:10PM

If everyone has robots fighting the wars then hopefully no-one will die. Better still why not have gamers controlling these weapons (less controversial if no-one dies) from their homes? Even better still if they pay then we can go back to the days when wars were fought for a profit (no sacking the enemy's capital nowadays).

Recommend? (5)

Responses (1)

Report

<u>Link</u>



MrNotQuiteWright

12 June 2012 8:13PM

Frighteningly mental.

Recommend? (4)

Responses (o)

Report

Link



NeilMatthews

12 June 2012 8:19PM

Responses (0)

I have seen UAV terminals in backpacks in a very realistic army simulation I played (Arma 2) but I never thought you would be able to actually pull one out your bag and chuck it at the enemy.

Evil but cool.

Report Link



StephenStewart

12 June 2012 8:24PM

Responses (1)

Report

Link

Implicit in the deployment of Switchblade munitions is the acknowledgment that hostile Afghani forces control the battlefield and American forces control only their bivouacs, if that. Because American forces don't control any territory beyond their line of sight from their bivouacs, remotely piloted vehicles are essential for surveillance and defence if American forces are to survive until their retreat from Afghanistan.

Also implicit in the deployment of Switchblade munitions is the assumption that anyone found outside an American bivouac is hostile. Any Afghani anywhere in Afghanistan may be considered a potential target for American forces.

One clarification, Switchblade drones are not robots. They are remotely piloted vehicles detonated by their operators.



Recommend? (26)

Responses (1)

And there was me thinking that it was 'terrorists' that attacked other societies using backpacks - Oh, I am terribly confused now...

Report Link



newdecade

12 June 2012 8:51PM

Whats the fundamental difference between using switchblades and other weapons, such as man-portable rocket launchers? None, calm down people. Yes this is a new form of tech for battlefield use but just because #Drones is trending on twitter this week doesn't mean that the new A-bomb has been introduced.

Recommend? (10)

Responses (1)

Report

Link



PlanetNat

12 June 2012 8:51PM

Recommend? (17)

Responses (o)

Report

Link

terrifying horrifying

more bloody war toys

whomever was involved int eh design of these got paid a fortune and should be bloody ashamed of themselves.

And consider this, children and young adults are currently being socialised for future active service via conflict-based computer games...By the time they sign up at 16-18 they will already have mastered the skills required to kill from afar.

Grim...



Response to newdecade, 12 June 2012 8:51PM

The US military has had battlefield launchable mini nukes for some time.

Recommend? (2)

Responses (1)

Report

Link

http://en.wikipedia.org/wiki/Davy Crockett (nuclear device)



Novelist

12 June 2012 9:04PM

Recommend? (8)

Responses (o)

Report

Link

South Side L.A., drone HQ, 2015:

"Hey look, a pinko joint-smoking punk!"

-"Yeah he's a hippy he's got long hair."

Bzzz.... bzzzz. . . ratatatatat!

"Got him!"

- "Good, only 43 more today to hit quota."

Timak

12 June 2012 9:08PM

Recommend? (25) Responses (o)

Maybe if we spent less time working out ways of killing eachother and instead funnelled this money into making life better for everyone we'd have less wars to fight.....

Report Link



horemheb

12 June 2012 9:11PM

Hopefully this is a positive development in warfare, that will help target the opposing force more accurately and avoid collateral damage ie killing of civillians.

Recommend? (7)

Responses (o)

Report

Link



Novelist

12 June 2012 9:12PM

Responses (o)

Recommend? (2)

Report

Far out. Need a few of these for the "War on Truth". Oops sorry meant the War on Drugs.

Response to FergusBlackburn, 12 June 2012 9:03PM

<u>Link</u>



I want one.

nocod

12 June 2012 9:29PM

Recommend? (1) Responses (o)

Report

<u>Link</u>



yvesferrer

12 June 2012 9:30PM

Recommend? (13)

Responses (o)

Report

Link

David used a sling because he knew that Goliath would crush him if he caught him: outrange the opponent.

The Trojans were defated by a wooden horse: outwit the opponent.

The Chinese invented rockets and gun-powder: out-engineer the opponent.

The Agincourt archers slaughtered the heavy cavalry: all of the above...

Throughout history, conflict has demanded that contact be avoided if at all possible; in a hand-to-hand encounter, the chances of survival are 50/50 with a high risk of permanent injury thrown in. Today, drones are doing what the archers did: hit the opponent from a safe distance; only the technology has changed. Hitler's V1 and V2 weapons were fore-runners of this, the Stalin Organs were no better: mass destruction through massive overkill. We are seeing a logical development, i.e. selective targetting from a safe distance. Warfare has never been pretty or nice; gallantry has always carried an inordinate price: most VCs are posthumous...

Where is the line drawn? What is permissible and what is absolutely against our values: is a backpack full of explosives on a bus more or less acceptable than a backpack full of technology

If anyone has the definive answer, please share it? It might make all the armamnt manufacturers redundant? some hope...

in a combat situation?

2 June 2012 9:43PM

Recommend? (6)

Responses (1)

Report

these robots are being deployed because the US millitaries experience of Afghanistan ha shown political and social opposition to the use of conventional airpower that often causes large scale civilian cassualities tis is the US responding to Afghan needs and Afghan politicians. I don't see the controversy? Small unmanned arial vehicled are surley better then fire and forget weapons? Plus this is hardly new ethically look at the cruise missile systems guideable rockets controlled fromt he ground with targgeting systems or utilizing satalites. The technology is old this is just a cheaper version.

Link



Henryettapig

12 June 2012 9:50PM

I really feel sorry for the Americans. Why don't they realise they are despised the world over because they keep killing people in their own countries. Why don't they just stop killing people?

Recommend? (13)

Responses (2)

Report

Link



karmicdeserts

12 June 2012 9:51PM

... from me, all you will get is groans for drones, they are a totally gutless and inhumane way of waging war.

Whatever you stuff into a backpack to wage war will always be classed as terrorism in my eyes.

The thought that people sit in offices, and design war junk, is really saddening. The are millions of little kids in this world going to bed hungry tonight. COME ON WAKE UP ... please.

WAR IS NOT THE ANSWER ... it is a massive part of the problem.

Recommend? (7)

Responses (o)

Report

Link



nerium

12 June 2012 9:58PM

As has been said before, if you have a plane with a bomb that's fine. If you have a bomb and no plane you're a terrorist.

Recommend? (15)

Responses (o)

<u>Report</u>

<u>Link</u>



theonionmurders

12 June 2012 10:05PM

Wouldn't use of a strong infra-red halide/sodium light disable it's camera/monitor, rendering it 'blind' and therefore useless?

Recommend? (o)

Responses (2)

Report

Link



Haigin88

12 June 2012 10:06PM

Responses (o)

"The increasing use of drones to target militants under the Obama administration has proved controversial.....".

Report Link

For 'militants' read simply males of adult age in certain countires; those who come to help the injured from the attack; and those who have the bad luck to have known the deceased and turn up to the funeral to pay their respects.



Zogz

12 June 2012 10:08PM

And with the same breath, the country which accuses Russia of arming Sryia, uses drones and now these back back guided missiles to attack who knows what, where ever it feels like doing so. Hypocrisy beyond belief. We should be more concerned with America than Russia/Iran/China and any other player.

Recommend? (7)

Responses (o)

Report

Link



<u>snickid</u>

12 June 2012 10:13PM

Recommend? (2)

Responses (o)

Report

Link

Response to Rainborough, 12 June 2012 8:05PM

Rainborough. 12 June 2012 8:05PM [...] no doubt the enemies of the US empire will acquire similarly deadly compact weapons before long.

The technologically sophisticated enemies of the US such as the Chinese will soon be manufacturing the same weapons, or even more deadly, at a fraction of the price; and even the less sophisticated ones, such as the Iranians will be able to produce something similar.

Stupid and ghastly - but more stupid, or more ghastly?

<u>eudownfall</u>

12 June 2012 10:14PM

Responses (o)

Recommend? (7)

Very sensible use of technology by the US.

Report

CiF regulars will be appalled.

Link

Which is a sure sign that these new weapons are effective.



bollybollo

More than a few drones in here.

12 June 2012 10:17PM

Recommend? (2)

Responses (o)

Report

<u>Link</u>



Rsyellow

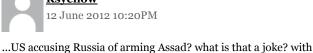
12 June 2012 10:20PM

Recommend? (o)

Responses (o)

Report

Link



Iraq [mess left there]?.....? Libya [mess left there]?.....Nicaragua? what a muppets this politicians...left and right....

what moral authority? remember Japan [mess left there]?....?

DougMcCrae

Recommend? (1)

Responses (o)

Report

<u>Link</u>



12 June 2012 10:23PM

If everyone has robots fighting the wars then

Response to Backwaterboy, 12 June 2012 8:10PM

hopefully no-one will die.

Yeah that seems like the ultimate end point. Cheap, massproduced robots fighting other robots. Ofc then we'll start giving the robots sentience and emotions and the 'robot rights' lobby will be all up in arms about it. Same old story. Written by Pat Mills.

The other problem is our soldiers won't look very brave any more if they are just nerdy videogame players. Maybe the robots will become our heroes.

	6	7			
	3	ø	ı.		
	蜡		n	Đ.	
- 1	В			W.	L.
- 4				80	8

GreenRevolution

12 June 2012 10:25PM

Will these be on sale in supermarkets soon? I need one to survey my naked neighbour. Love is a battlefield. Recommend? (3)

Responses (o)

Report

Link



nolottery

12 June 2012 10:31PM

Dare I say it: Orwellian technological vision of the future.

Recommend? (o)

Responses (o)

Report

<u>Link</u>



technogeek

12 June 2012 10:33PM

They will have shut every RC aircraft shop in the world. Imagine any idiot with a grudge strapping 3 Kg's of explosive to one they bought from there local shop. It'll be like Johnny 5 in short circuit 2, but worse.

Recommend? (o)

Responses (o)

Report

<u>Link</u>



<u>epinoa</u>

12 June 2012 10:33PM

The toys of the coward.

Recommend? (1)

Responses (2)

Report

<u>Link</u>



edougall

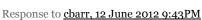
12 June 2012 10:38PM

Recommend? (2)

Responses (o)

Report

Link



"the US responding to Afghan needs and Afghan politicians."??????????

Whaaaat?

The point is, my amoral friend, that coldly evaluating the 'benefits' of various means of killing people for little or no reason thousands of miles away by gallant armchair warriors playing the Xbox, proclaims that might is right. Hell's teeth.

The real question is what good can possibly come from staying in Afghanistan/Pakistan? The US has lost its marbles, as well as its claim to being a civilised nation.



Recommend? (1)

Responses (o)

Frankie's 'Arm the Unemployed' destined to come true: condition further payment of benefits on 30 hours per week putting your 'Gears of War' and 'Halo' skillz to good use flying Switchblades in Afpak.

Report Link



FergusBlackburn

12 June 2012 11:09PM

Recommend? (o) Responses (o)

Report

<u>Link</u>

Response to epinoa, 12 June 2012 10:33PM

The toys of the coward.

Ours is not to reason why, but do or die.



Mauryan

13 June 2012 1:58AM

Terminator is not far away. I think in about twenty odd years, terminators would be fighting enemy soldiers. The only thing that would prevent the bad guys from making their own terminators would be the cost and technology involved. When new toys are made, there will be a strong urge to try them out in battle fields. Therefore more lethal wars would be created.

Recommend? (o)

Responses (o)

Report

Link



BusterGutt

13 June 2012 6:13AM

Recommend? (2)

Responses (o)

Report

Link

quote:

"IT IS EASIER TO SELL END LESS WAR when fewer GIs are coming home in bodybags."

(my emphasis with upper case).

so this is about ENDLESS WAR, not winning any war, just endless?

And within the use of the expression "selling" it is the underlying recognition that it has to be paid for: it's just a huge business at tax payers' expense.



<u>olddon</u>

13 June 2012 6:51AM

Recommend? (o)

Responses (o)

Report

<u>Link</u>

Afghanistan is about oil and gas pipelines, and where the oil will end up.

Robots are about the needs of the "military industrial complex". Innovation to create more profits!

These drones consistently kill innocent civilians, and will continue to do so. But like My lai they will face a posthumous accusation of terrorism to justify US war crimes.

Gamebird

13 June 2012 9:02AM

Recommend? (4)

Responses (1)

Report

Link

Response to StephenStewart, 12 June 2012 8:24PM

Implicit in the deployment of Switchblade munitions is the acknowledgment that hostile Afghani forces control the battlefield and American forces control only their bivouacs, if that. - Stephen Stewart

Not implicit at all - if that were the case the thing would not have to be back-packable - would it?? The trick in any armed conflict is to know what awaits you "on-the-other-side-of-the-hill" This little gizmo does just that with the added capability of dispatching anyone lying in wait for you. It is always preferable to give your enemies something to think about, it distracts them and prevents them from thinking up ways to kill you - it is prompted by survival instinct.

Also implicit in the deployment of Switchblade munitions is the assumption that anyone found outside an American bivouac is hostile. Any Afghani anywhere in Afghanistan may be considered a potential target for American forces.

Again, not implicit at all, the correct assumption is that anyone wandering about in a specific area of operations is potentially hostile - a pretty fair, reasonable and rational assumption if you ask me. Oh and yes "Any **AFGHAN** (an Afghani is a banknote) anywhere in Afghanistan may be considered a potential threat until conclusively proved otherwise - that way you keep your head on your shoulders for longer.

As far as actual loss of life amongst the general population of Afghanistan:

April 1978 to October 2001 they were dying untimely and violent deaths at an average rate of some 227,027 per year.

October 2001 until October 2011 they were dying untimely and violent deaths (mostly at the hands of the Taliban and their allies) at an average rate of some 2,559 per year

Now I would say that that was one f**k of an improvement were I a member of the genral population of Afghanistan and not an Afghan banknote - but as they say, "There's nowt as queer as folk" and "Opinions are like arseholes, everybody has one".



Gamebird

13 June 2012 9:04AM

Response to curiousaltruistic, 12 June 2012 8:42PM

And there was me thinking that it was 'terrorists' that attacked other societies using backpacks - Oh, I am terribly confused now... **curiousaltruistic**

I thought that it was 'tourists' that attacked other societies using backpacks.

Recommend? (1)

Responses (o)

Report

Link

•

Gamebird

13 June 2012 9:15AM

Response to theonionmurders, 12 June 2012 10:05PM

Recommend? (3)

Responses (o)

Report

Wouldn't use of a strong infra-red halide/sodium light disable it's camera/monitor, rendering it 'blind' and therefore useless?

Well you would have to:

- 1: First hear it
- 2: See it

Besides for someone lying in wait in ambush would shining a "strong infra-red halide/sodium light" be a pretty stupid thing to do??

Link

2

polo98

13 June 2012 10:41AM

People started out fighting with their hands, fists, and teeth. Then we invented sharp weapons and heavy weapons, sticks and swords, clubs, not arms-length but an extension.

Then we invented throwing things, arms-length, no direct contact. We increased our throwing strength: bows, guns. And the effect of the blows struck.

All of these things started as tools of armed conflict between groups, but were adopted by rulers (of all political complexions, from Mao, through the peaceful Swiss, to Hitler) to keep their people under control. (Except for most of the British police, so far.)

When can we expect police mini-drones on our streets?

Recommend? (o)

Responses (o)

Report

Link



bigbadcanuk

13 June 2012 12:10PM

no one ever went hungry developing better ways to killing his fellow man.

Recommend? (o)

Responses (o)

Report

<u>Link</u>



OirishMartin

13 June 2012 12:37PM

Wow, that promo video for the Switchblade is dire. Action movie on a budget. Recommend? (1)

Responses (o)

<u>Report</u>

<u>Link</u>



mmph19

13 June 2012 2:04PM

In the classic film Butch Cassidy and the Sundance Kid there is a scene in which a knife fight is set to occur. The main character interrupts the procedures by asking to establish the ground rules for the knife fight. The opponent is psychologically disarmed by the idea that there should be rules to a knife fight. I cannot help feel the same about war. Maybe if there were no rules for warfare, we wouldn't be so cavalier about entering into armed disputes. It's the rules for peaceful engagement that matter. OF course, until there is more money in peace than in war, that will be a challenge, but establishing rules for killing each other is

Recommend? (o)

Responses (o)

<u>Report</u>

Link

simply playing into the hands of the sociopaths who make their fortunes off of death.



BaddHamster

13 June 2012 2:46PM

They are so cool!!

Recommend? (o)

Responses (o)

Report

Link



<u>Mauryan</u>

13 June 2012 4:23PM

Response to epinoa, 12 June 2012 10:33PM

The toys of the coward.

Responses (1)
Report
Link

Which one is a coward? One that uses weapons and fights or the one who sets up explosives in civilian population centers and hides amongst the civilians?

If using technology to gain advantage in warfare is an act of cowardice, then everything is a toy of the coward. One who fights hand to hand in a direct combat is the only one that can be said as being courageous. Anyone who uses a weapon is coward using your logic.



elvisnixon

13 June 2012 5:56PM

When the goal is never ending war and never ending killing to enrich oil firms, arms corporations, and security state contractors, it is certainly politically helpful to avoid having Americans also killed.

We silly Americans let arms manufacturers like GE own our media and news services, like NBC, MSNBC, CNBC. Thus, most of us have no clue about what the DOD is really doing with our drones. We have become peonized. We let this happen to us, so why on earth is the UK following our lead?

Recommend? (o)

Responses (o)

Report

Link

PlanetNat

13 June 2012 7:20PM

Recommend? (o)

Responses (1)

Report

Link

Response to Henryettapig, 12 June 2012 9:50PM

" the greatest threat to the military is the absence of an enemy" (audre lorde)

unfortunately the US are the largest arms producer and arms exporter on the planet ...thus they need to keep looking for enemies to justify the market they create and perpetuate......

PlanetNat

13 June 2012 7:21PM

Recommend? (o)

Responses (o)

Report

Link

Response to Henryettapig, 12 June 2012 9:50PM

" the greatest threat to the military is the absence of an enemy" (audre lorde)

unfortunately the US are the largest arms producer and arms exporter on the planet ...thus they need to keep looking for enemies to justify the market they create and perpetuate......

Comments on this page are now closed.

 $\hbox{@}$ 2012 Guardian News and Media Limited or its affiliated companies. All rights reserved.