



Drones Implanted Into Combat and Their Effects on Countries That Manufacture, Use, and Distribute Them

By Ramon Hernandez, Elliana Pastrano, and Thomas Hesser

Introduction

For over decades, unmanned aerial vehicles (UAVs) have been in combat and dominating the remote fighting tactics that militaries around the world use. Despite being effective and reliable, the question that will be analyzed under this research is the morality behind remotely piloted vehicles (RPVs) in combat, public's consensus on them, and the deadly effects drones have on countries and the targets they are being used on.

Within this research, different UAVs around the world will be examined and compared to Germany, which has recently joined countries like U.S., U.K., and Israel who currently use UAVs. From this approach, the research will take the angle of a country's beginning stages of implementing combat drones. In this context, the research will analyze the countries that manufacture the equipment, the countries that use them and the legal hurdles they may have gone through, and the countries that participate in distributing the drones/drone parts, though not in combat.

In part of doing this research, a clear hypothesis to the topic will be presented which will assist in future scholarly analysis of the subject moving forward as more countries begin to adopt UAVs as well help give a better understanding of how they will look like for the countries, its people, and the ethics of RPVs combat strategy.

“ Since the 9/11 terrorist attacks, the United States in particular has significantly increased its use of drones. They are mostly used for surveillance in areas and terrains where troops are unable to safely go, ”

- Imperial War Museum, *A Brief History of Drones*

Their Influence: Polices

Despite Germany's recent implementation of drones into their military, the country still holds strict regulations on recreational drones. In 2017, Air Traffic Licensing Regulation and the Air Traffic Regulation took into effect, which established stricter regulations for commercial drones. Within the new regulations, it highlights new labeling and operating requirement, different authorizations for flying, as well as a list of prohibitions and restrictions.

Within the government and the general public, UAVs have not received a warm welcome from the politicians and their constituents. The main argument citing how UAV fought wars will become too inhuman and the consequences of man-to-man fought wars will now evolve to wars fought remotely. When drone strikes are manned from a safe location, critics argue that people don't fully understand the effects they are carrying out. People also argue how drone attacks often unwilling target civilians and yield to larger casualties than expected. Terrorist obtaining UAVs and executing attacks has also entering the debate on the morality behind using combat drones, considering that the terrorist group ISIS has their own drones.

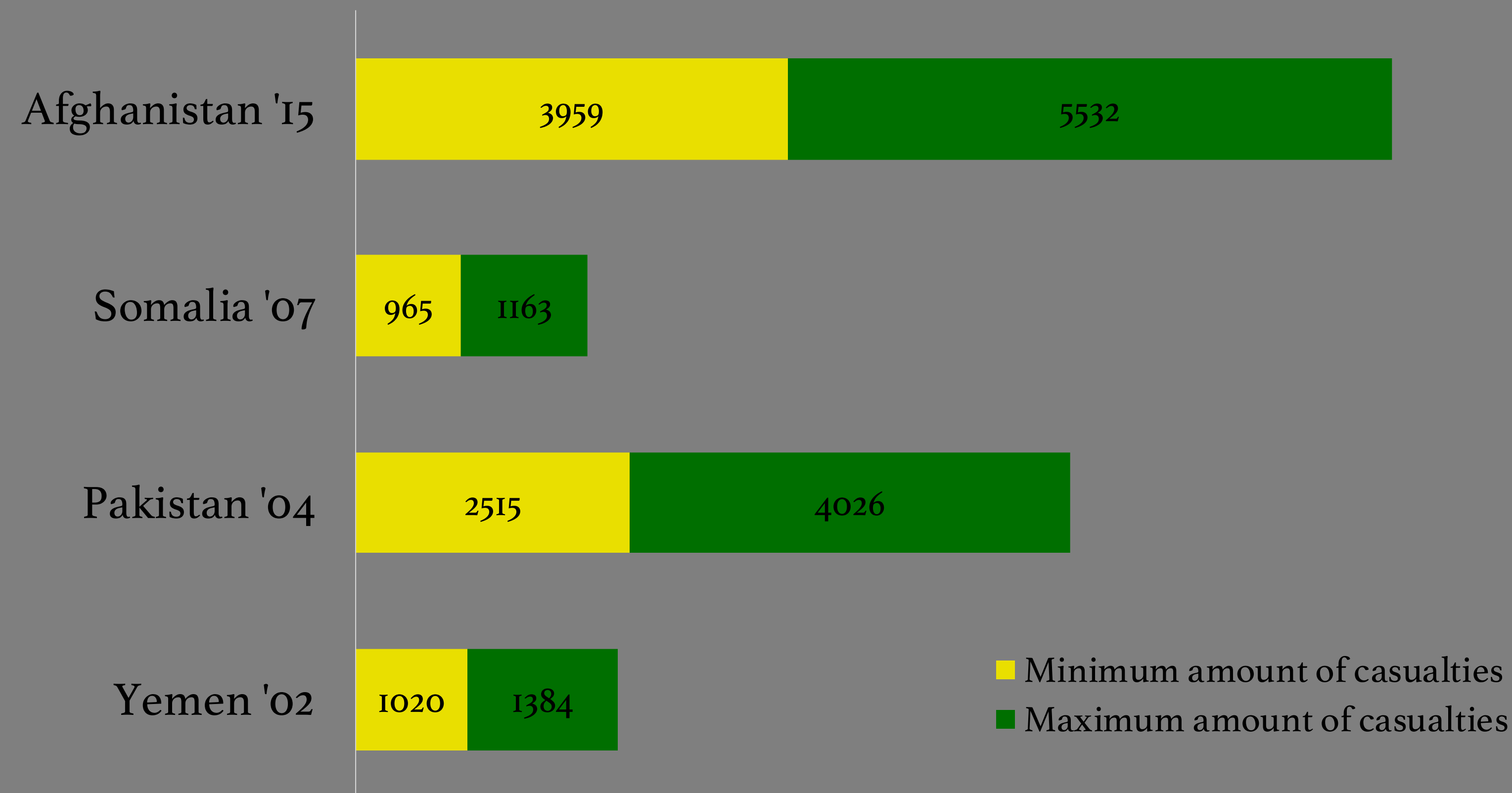
Their Effects: PTSD

Sarah McCammon, of NPR, investigates the psychological trauma sustained by the United States Air Force UAV pilots as they carry out their missions. Although the pilots of the UAV's are out of physical harm's way, they still suffer psychologically. "They find mass graves; they witness executions," stated McCammon.

The pilots have a high risk of watching beheadings, torture, and rapings that could cause psychological suffering. As horrifying as the scenes are, it is the pilot's job to not look away and be able to report back about what they are seeing. All of this psychological suffering is on top of the burden that come with being a soldier, deciding who lives and who dies.

"[It is] their job is to decide who on that battlefield gets blown up, and who on that battlefield gets protected," mentioned McCammon. The pilots must decide their course of action with the information that they were given from surveillance and live with the outcomes, whether they be good or bad. "In the 21st century, in the information age, war fighting is no longer a matter of geography; it's a mentality," said McCammon.

Drone Casualties*



Estimated casualties in each country

*Casualties estimates based on reports done by The Bureau of Investigative Journalism for the U.S.'s drone attacks. Each report accounts for different start years.



Image courtesy to Julian Herzog

Manufactured by EMT Penzberg, a German company, the Luna soars the skies under the control of Germany's armed forces. As of 2013, the company owns 81 of these UAVs. Equipped with thermal as well as normal cameras, Luna is used as a monitoring drone on land.

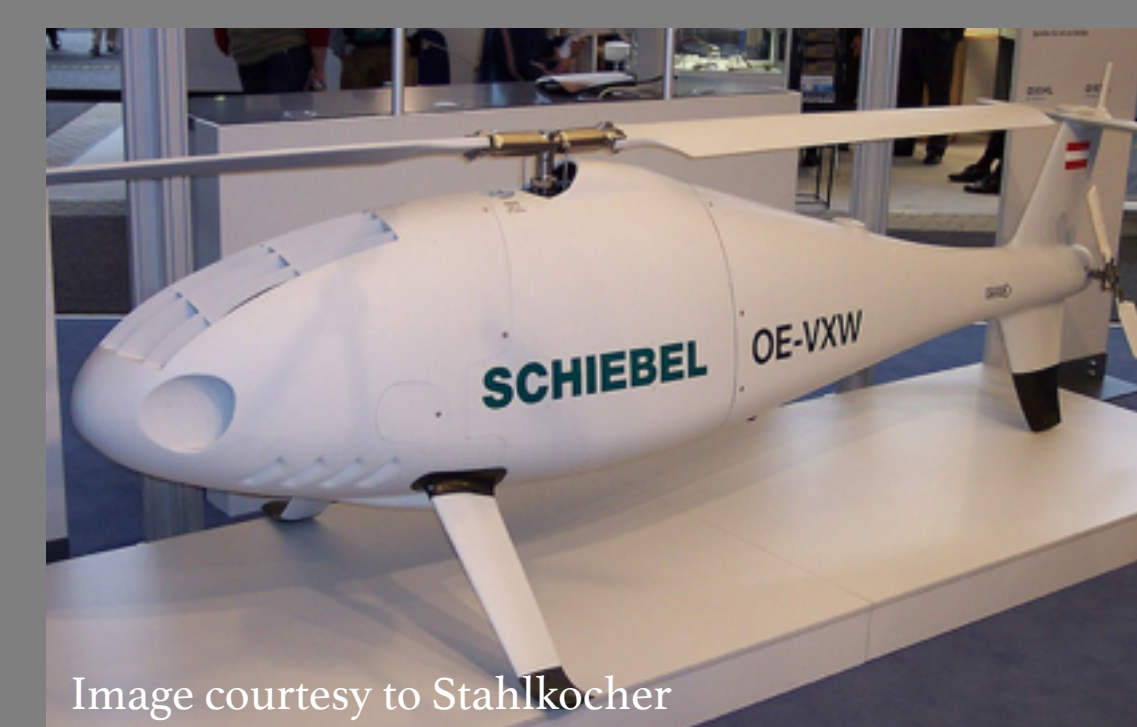


Image courtesy to Stahlkocher

The Schiebel Camcopter is among the many UAVs Germany owns and operates. This specific drone specializes in operations within the country's navy branch. This "Überwachungdrone" or in English, monitoring drone is equipped with different sensors and cameras.



Image courtesy to the German Armed Forces

Resembling that of a heron, this Israeli manufactured UAV is one of Germany's most valuable drones. The Heron I is used in the air force and equipped for deadly destruction. Apart from monitoring, it is one of Germany's first target drones that passed through German's parliament after a long battle of debate and protest among citizens and people in the government.



Image courtesy to KrisfromGermany

Used by both the navy and armed forces, the Aladin is an example of a drone Germany uses throughout different branches of the military. In 2013, the government owned 290 of these drones, making it the largest amount of drones owned and being operated. Like the other drones, it is used as a surveillance drone for both day and night.

Looking Ahead

Germany is has rapidly advanced in its technology involving drones. The population is largely anti-militant and views armed drones as killing machines. This could soon change as the military has put in a request to start funding in armed drones, making this a current hot topic in Germany.

The number of German major weapon programs is now at a new high. Three major Bundeswehr drone projects are now up for critical milestones which will determine their fate. Previous ones had been cancelled due to parliament not granting funding. Hundreds of millions of dollars are involved, and they concern both the manufacture of drones and the loaning of them to foreign countries.

Sources

Academic Peer Reviewed Sources

Shaw, Ian G. R. "Predator Empire: The Geopolitics of US Drone Warfare." *Geopolitics*, vol. 18, no. 3, 2013, pp. 536-559. doi:10.1080/14650045.2012.749241. Accessed Mar. 4, 2019. ● Lewis, Michael W. "Drones and the Boundaries of the Battlefield." *HeinOnline*, 2009. Accessed Mar. 4, 2019. ● Betz, and David. "Drone Warfare." *By John Kaag and Sarah Kreps*. OUP Academic, Oxford University Press, 19 Mar. 2015. Accessed Mar. 4, 2019. ● Kaag, John and Kreps, Sarah. *Drone Warfare*. Polity Press, 2014. Accessed Mar. 4, 2019. ● Franke, Ulrike. *Zeitschrift Für Aussen- Und Sicherheitspolitik*, 2013, pp. 485-496. doi:10.3897/bdj.4.e7720. Accessed Mar. 4, 2019. figure2f

Credible Secondary Sources

Sifton, John. "A Brief History of Drones." *The Nation*, 29 June 2015. Accessed Mar. 4, 2019. ● Lewis, Michael W. "Drones and the Boundaries of the Battlefield." *HeinOnline*, 2009. Accessed Mar. 4, 2019. ● Deutsche Welle. "Why Is Germany Leasing Armed Drones?" *DW.COM*, 31 May 2018. Accessed Mar. 4, 2019. ● Common Dreams. "Germany: Thousands Surround US Air Base to Protest the Use of Drones." *Common Dreams*, 11 June 2016. Accessed Mar. 4, 2019. ● Gesley, and Jenny. "Global Legal Monitor." *Planning D-Day (April 2003)* - Library of Congress Information Bulletin, Victor, 24 Apr. 2017. Accessed Mar. 4, 2019. ● "MQ-1B Predator." *U.S. Air Force*, 23 Sept. 2015. Accessed Mar. 4, 2019. ● The Bureau of Investigative Journalism. "Drone Strikes in Afghanistan." *The Bureau of Investigative Journalism*. Accessed Mar. 4, 2019. ● Defense Industry Daily. "Israel Sells Heron UAVs to India, Leases to Germany Imminent, Signs Contract with Vietnam." *Defense Industry Daily*, 7 Feb. 2019. Accessed Mar. 6, 2019.