

[No Armed Drones Act of 2017 \(HR 129, 115th Congress\)](#)

Amends the FAA Modernization and Reform Act of 2012 to prevent the use of an unmanned aircraft system as a weapon while operating in the national airspace system.

Updated last **February 28, 2017**
for the 01/03/2017 version of HR 129.



WHAT IT DOES

[HR 129](#), the No Armed Drones Act (NADA) of 2017, would amend the Federal Aviation Administration (FAA) Modernization and Reform Act of 2012 ([Public Law 112-95](#)) to prevent the use of an unmanned aircraft system (UAS) “as a weapon or to deliver a weapon against a person or property” while operating in the national airspace system ([NAS](#)). The NAS includes the infrastructure, technology, and rules used to operate a safe and efficient aviation environment; therefore, the scope of this bill does not include armed conflicts in war zones.

The NADA would prohibit the US Department of Transportation (DOT) from authorizing a person to operate a UAS as a weapon or to deliver weapons against people or property. For this bill, the term *person* includes individuals, corporations, companies, and other organizations ([1 U.S.C. 1](#)). However, the bill would allow the DOT to establish exceptions to the prohibition for recreational hunters or animal control. Other UAS-related activities involving lethal or nonlethal weapons may be authorized at the DOT’s discretion. An example of these other activities includes operations conducted by governmental entities like the US Customs and Border Protection or the Department of Defense to use [public aircraft](#) for national security purposes.

The DOT would be responsible for protecting public safety by verifying that “reasonable precautions are taken” before any weaponized UAS operations are authorized in the NAS.

RELEVANT SCIENCE

While older radio-controlled aircraft have posed a risk as potential weapons for many years, the technology was difficult to learn, and it took time, skill, and patience to build and fly radio-controlled aircraft. These challenges imposed some limits on their broader use. Modern control technology has made commercial UASs far easier to fly. Many of these commercial UASs can also easily carry several pounds of payload. While fitting a drone with weapons requires some technical skill, add-ons such as kits for dropping items from UASs (drop kits) that are intended for hobbyists make the process easier.

Since 2015, the increased availability of commercial drones has led to increases in sales and public acceptance. For example, according to a [poll](#) from Saint Leo University, 72% of adults support using drones for community policing. The FAA projects [growth in annual UAS sales](#) from \$1.9 million in 2016 to \$4.3 million by 2020.

The use of commercial UAS as weapons has already become an issue in other countries. In 2014, the Islamic State (IS) began using commercial drones to make propaganda films and later used drones as [scouts](#). The IS has also fit explosive charges to UASs to make [inexpensive guided missiles](#). Concerns [have also been raised](#) about domestic attacks using commercial UASs.

State-of-the-art drones are capable of automatic takeoff and landing, but in the coming years, analysts commonly [assume](#) that

unmanned aircraft would operate with a level of artificial intelligence and coinciding autonomy. In such a case, UASs equipped with weapons may require very little human input in choosing assault targets.

The computer algorithms used for control and for identifying targets may vary between different UAS manufacturers. The results of any one mission are probabilistic in nature and therefore may not yield the outcome expected by the human operators or airspace regulators. Some [argue](#) that it may be more ethical that weaponized UASs be limited to settings in which computers have greater reliability than humans in distinguishing between legitimate and illegitimate targets.

RELEVANT EXPERTS

[Mary \(Missy\) Cummings, Ph.D.](#) is a professor at Duke University's Department of Mechanical Engineering & Material Science, Electrical & Computer Engineering, and the Duke Institute for Brain Sciences as well as the director of Duke Robotics and the Humans & Autonomy Lab. Her research is at the intersection of humans, autonomous systems, and the sociotechnical implications.

Relevant publication:

- Cummings, Mary L. 2017. ["Artificial Intelligence and the Future of Warfare."](#) London: International Security Department and US and the Americas Programme, Chatham House.

[Robert Sparrow](#) is a professor based in Australia at Monash University's Department of Philosophy and Center for Human Bioethics. Although he is not an expert on this bill, his research focuses on the ethics of science and technology and he is known for his work on the real-world implications of "killer robots."

Relevant publication:

- Sparrow, Robert. 2016. "Robots and respect: Assessing the case against autonomous weapon systems." *Ethics and International Affairs* 30(1): 93-116. doi:[10.1017/S0892679415000647](https://doi.org/10.1017/S0892679415000647)

BACKGROUND

The FAA Modernization and Reform Act of 2012 ([HR 658](#), 112th Congress) was introduced by Representative [John L. Mica](#) (R-FL-7) on February 2, 2011 and became law on February 14, 2012. The Act amended [Title 49 of the United States Code](#), which involves the nation's transportation system. Among other measures, the Act states that the DOT shall establish requirements for the safe operation of any UAS.

Per Subtitle B of the FAA Modernization and Reform Act of 2012, an unmanned aircraft is one operated "without the possibility of direct human intervention from within or on the aircraft." The term "UAS" refers to the aircraft itself and any elements pertinent for the pilot-in-command, the person with the final authority and responsibility for controlling the aircraft, to conduct safe and efficient operations in the NAS. Unmanned aircraft are often referred to as "drones" in popular culture.

UASs have many civil and commercial [applications](#) including aerial policing, crowd monitoring, and crop dusting. Drones are expected to become more pervasive with use by moviemakers, [local governments](#), and logistics and shipping companies. To meet these growing demands, the international nonprofit organization Association for Unmanned Vehicle Systems International ([AUVSI](#)) published a [report](#) in 2013 urging the FAA to integrate UASs into the NAS, or else face a national loss of \$10 billion annually in potential business.

ENDORSEMENTS & OPPOSITION

At present, there has not been any publicly reported endorsement of or opposition to this bill. However, on June 9, 2014, [Representative Tom Latham](#) (R-IA-3), made a [point of order](#) against the bill leaving it unresolved for the third year in a row.

STATUS

The bill was introduced in the House on January 3, 2017. The House subsequently referred the bill to the [House Committee on Transportation and Infrastructure](#), and on January 4, 2017 it was referred to their [Subcommittee on Aviation](#).

RELATED POLICIES

On May 23, 2013, President Barack Obama gave a [speech](#) on counterterrorism at the National Defense University stating that he did not “believe it would be constitutional for the government to target and kill any U.S. citizen—with a drone, or with a shotgun—without due process, nor should any President deploy armed drones over US soil.” The drones he referenced were “remotely-piloted aircraft.”

On August 29, 2016, the FAA made a [final ruling](#) on the operation and certification of small UASs ([SciPol brief available](#)).

POLICY HISTORY

The No Armed Drones Act has been introduced three earlier times in Congress, all by [Representative Michael C. Burgess](#) (R-TX-26). In 2012 ([HR 5950](#), 112th Congress) and in 2013 ([HR 1083](#), 113th Congress), the bill contained a number of prohibitions on weaponized UAS without the possibility for exceptions. The earlier bill was more restrictive, prohibiting the DOT from authorizing the manufacture, sale, or distribution of weaponized UASs. In 2015 ([HR 1939](#), 114th Congress), the bill only prohibited operations of weaponized UASs but allowed for some new general exceptions.

The FAA already prohibits pilots from dropping any object from a civil aircraft ([14 CFR 91.15](#)). This bill would place those provisions under statutory authority.

A North Dakota bill ([ND 1328](#), 64th Legislative Assembly) introduced by [Representative Rick C. Becker](#) was signed into [law](#) by Governor Jack Dalrymple on April 15, 2015, preventing law enforcement from authorizing arming a UAS with a lethal weapon. However, the language of the bill did not restrict the use of non-lethal weapons, thereby making the state the first in the US to permit law enforcement to use weaponized drones for “non-lethal” force.

On January 6, 2017, Representative Becker introduced a bill ([ND 1167](#), 65th Legislative Assembly) to ban the state from authorizing any weaponized (“lethal, less lethal, or non-lethal”) drone.

SPONSORS

Sponsor: [Representative Michael C. Burgess](#) (R-TX-26)

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RECOMMENDED CITATION

Duke SciPol, “No Armed Drones Act of 2017 (HR 129, 115th Congress)” available at <http://scipol.duke.edu/content/no-armed-drones-act-2017-hr-129-115th-congress> (02/28/2017).