



One Nation under Drones: Legality, Morality, and Utility of Unmanned Combat Systems ed. John E. Jackson.

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It is no longer sufficient to talk about drones and drone warfare in simple and homogeneous terms. We have entered a new epoch, where a myriad of drone systems—some rudimentary, others complex, some used for good, others for bad—has been deployed in novel and sometimes deadly ways. Career US naval officer (ret.) John E. Jackson (US Naval War College) has the experience needed to explain this new drone world to readers and to enlist other specialists with similar expertise. In his timely and informative anthology, *One Nation under Drones*, he has gathered thirteen instructive essays by scholars, policymakers, and military practitioners. His helpful introductory chapter sketches the history of unmanned systems as a backdrop to the chapters that follow.

This ambitious collection¹ delves into a wide range of civil and military drone issues. It surveys the history of drone warfare, the rise of terror drones, the utility of maritime drones, military robotics, artificial intelligence, legal and ethical questions, and the present and future use of drones by police forces, search-and-rescue teams, filmmakers, and farmers. In short, this truly interdisciplinary venture opens new perspectives on the complexities of the drone phenomenon. Two significant omissions may be noted: no female experts in the field of drone studies are among the volume's contributors, nor is there much discussion of the gendered dimensions of drone use and warfare.²

Among the book's chapters (see table of contents below), Dan Gettinger's stands out³ for its discerning discussion of early drone pioneers Alvin Ellis and Abraham Kareem, who, "working in their garages [produced] prototypes for what became the first proliferated drones" (30). Gettinger also considers early drone proliferation, including their non-state use and the rise of Chinese drones.

In chapter 2, Kostantin Kakaes, an editor at the *MIT Technology Review*, and Peter Singer, a pioneer of the drone studies field, contrast the, respectively, benign and lethal uses of drones at the towns of Fifa in Jordan and Raqqa in Syria. A team of archaeologists (from DePaul Univ. and the Univ. of Connecticut) operated the drones above Fifa "to make maps of ancient sites" (24). In stark contrast, at Raqqa, "drones [were] flown by armed groups that ranged from the Syrian air force and Islamic State in Iraq and Syria (ISIS) to the U.S. military" (24). The point is that drones have been used by a range of actors for both good and ill and pose serious challenges for policy-

1. A few of the contributions have appeared in print earlier. While it is good to have them reprinted here, those first published in 2009-13 are now somewhat dated.

2. For which, see the work of Ulrike Esther Franke, listed at the the European Council on Foreign Relations website. Also journal articles and policy reports by Lorraine Bayard de Volo, Cara Daggett, and Caroline Kennedy-Pipe. Lindsay C. Clark's *Gender and Drone Warfare A Hauntological Perspective* (NY: Routledge, 2019) appeared after the publication of the book under review here.

3. Gettinger is, with Arthur Holland Michel, co-director of the Center for the Study of the Drone at Bard College.

makers. Arthur Holland Michel's noteworthy chapter 4, on maritime drone systems, tells "a seafaring tale" about how drones will dominate warfare under, on, and above the world's oceans (54). The editor's own concluding chapter considers possible future trajectories of drone combat.

One Nation, Under Drones, despite minor shortcomings, provides readers with vibrant, interesting, and enlightening essays on the history of drone warfare and what the coming drone age will look like in our home towns and cities and in the armories of western military powers and their adversaries around the globe.

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