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Thomas I. Faith. *Behind the Gas Mask: The U.S. Chemical Warfare Service in War and Peace.* Urbana: University of Illinois Press, 2014. 176 pp. $80.00, cloth, ISBN 978-0-252-03868-6.

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Commissioned by Margaret Sankey (Air University)

Thomas I. Faith, a historian at the State Department, has written a short but very insightful book about the genesis of the US Army's Chemical Warfare Service during and immediately following the First World War. As a former Army Chemical Corps officer and avid military history fan, my first thought was "I have to get this book," followed by a moment of doubt—"will this book really say anything new?" I was pleasantly surprised by the author's research, as he delved into the National Archives and Library of Congress to unearth firsthand correspondence and accounts of influential US leaders and military units involved with gas warfare issues. As the centennial anniversary of World War I is upon us and as chlorine gas is once again being used as a weapon of war in the Middle East, Faith's review of the birth of the Chemical Warfare Service is well-timed and pertinent.

The historical start of modern chemical warfare in 1915 is generally known to most people interested in this particular aspect of military warfare. Robert Harris and Jeremy Paxman devote the first chapter of their book *A Higher Form of Killing: The Secret History of Chemical and Biological Warfare* (1982) to a discussion of chemical warfare during World War I. Prior to that, Frederic J. Brown starts his book *Chemical Warfare: A Study in Restraints* (1968) with a similar discussion, more focused on the American experience. Edward M. Spiers has a discussion on the legacy of gas warfare during World War I in his latest book, *A History of Chemical and Biological Weapons* (2010). All of them run along the same general lines: Germany was the first nation to launch an organized chemical weapons program and successfully employ gas weapons; other nations scrambled to counter and then match this capability; and the United States, lagging far behind its European allies, entered the war and learned, largely by trial and error, how to cope with this new form of warfare.

So what does Faith bring new to the discussion? His book is appropriately focused on the US military's involvement in gas warfare, and his

outline is simply broken out into five chapters: the origins of the US military's chemical weapons specialists, their involvement in military operations, the immediate postwar period, and the final two chapters on how the Chemical Warfare Service gradually evolved into a permanent organization in the 1920s. The origins story is particularly interesting in that it discusses the role of the Bureau of Mines and other industrial and academic centers in developing protective masks and chemical munitions for US forces. Despite the conflict in Europe featuring gas weapons since 1915, the War Department had no capability and no doctrine for this feature of modern warfare. Given the short timeline (the United States declared war on Germany in April 1917 and deployed forces to Europe in June), it is not surprising that US forces did not have any masks or chemical shells ready for use, and had to use British and French equipment instead.

Faith notes that American University in Washington, DC, offered its buildings as a research station. Other academic and industrial centers also offered their services to support gas warfare research and development, but American University's role came back into light in 1993, when residue of its chemical weapons research was unearthed as part of landscaping efforts. It took more than a decade to clean up the buried remains of its chemical weapons research. Other books have not gone into depth as to the military-industrial cooperation in this area, and it is an interesting and necessary perspective, particularly for those involved in defense acquisition issues.

The chapter on US forces arriving in Europe and engaging in warfare offers new material on the training conducted and US military operations in the theater of war. Faith does not get involved in the usual numbers game of "how many gas shells were fired" or "how many soldiers were injured and killed" in each military operation. Rather, he uses narratives from the political and military leaders of the time to reflect on the challenges of preparing for gas warfare and to show how the newly formed Chemical Warfare Service built up Edgewood Arsenal as a primary production plant for chemical weapons. Faith continues the discussion of the role of the Bureau of Mines and other American chemical industry leaders as they worked with the War Department to stay involved in the new business area. I was surprised to learn that one form of training was to make the soldiers wear gas masks while playing baseball—much like the modern soldiers in my infantry battalion played basketball or soccer while wearing protective masks in 1987. The discussion on how US soldiers preferred the French Tissot masks over the British Small Box Respirator was new to me. The reluctance of American military leaders to order the use of chemical weapons against the Germans (fearing gas retaliation) was not new, but Faith does a good job in pointing out the interesting fact that the American Expeditionary Force's general artillery forces fired a great deal more of chemical weapons than the 1st Gas Regiment, its dedicated chemical weapons unit.

The two chapters on the postwar years tread over more familiar territory. As American forces returned, the US government stepped back from its war footing, which meant reductions across the army. The Chemical Warfare Service resisted disestablishment by promoting the future threat of chemical warfare and claiming that there were peacetime roles for its services. Faith beats up the Chemical Warfare Service leadership for claiming that there were health benefits to being gassed, and yes, it was a poor argument on behalf of those leaders, but bureaucracies are determined to survive. Faith talks about the 1922 Washington Conference and 1925 Geneva Protocols—again, no surprise that the Chemical Warfare Service did not agree with those treaties that attempted to outlaw chemical weapons. Faith presents a good discussion on the Chemical Warfare Service's attempts to include chemical weapons discussions in defense war plans. It is an interesting discussion, not only because this is not well-known in-

formation but also because even today it is very difficult to get military planners to consider the use of chemical weapons in contemporary scenarios.

Gradually, the War Department came around on the role of chemical weapons in war planning and accepted the need to standardize the development and stockpiling of chemical defense gear and chemical weapons. I was surprised to not see any mention of Italian General Giulio Douhet's air power theories that promoted the idea of strategic bombers using chemical weapons against cities. His ideas were popular and probably had a part in this acceptance of chemical weapons in the 1920s. Faith ends the book with a sudden fast forward through World War II and the Cold War in a way that I did not particularly like. He suggests that the "Army and Navy avoided the use of chemical weapons" (p. 114). Actually, the US military produced about 174,000 tons of chemical agents during World War II and deployed stockpiles all over the world. It was President Franklin Delano Roosevelt's "no first use" policy that constrained chemical and biological weapons use.

In a similar vein, Faith tries to hammer home the idea that the American public was never convinced that chemical weapons were useful tools of warfare. Yes, the Chemical Warfare Service did have a significant public advocacy campaign in the 1920s to convince Congress and the public that their weapons were of worth. But Faith overstates the public's revulsion of chemical warfare. There were far more American casualties from conventional weapons than chemical weapons, and the push for chemical weapons elimination came more from special interest groups and a few vocal congressmen who were appalled by the destruction caused in Europe. When Faith says, "most Americans retained their preexisting, negative opinions about poison gas" (p. 116), I do not believe he has the data to prove that assertion. Most Americans supported the use of chemical weapons against the Japanese near the end of World War II. Congress supported the development of chemical and biological weapons between 1941 and 1969, and authorized the production of binary chemical weapons in 1985. This would appear to be contrary to Faith's driving message that policymakers did not accept their use in general warfare.

The last chapter pulls up short; it could have been enhanced with a better perspective on events affecting the Chemical Warfare Service leading into America's entrance into World War II. Even with these minor flaws, Faith has written a good summary of the American military's experience in developing a Chemical Warfare Service, a necessary component of the American Expeditionary Force that deployed into a war involving gas weapons. He uses original material and provides a different and deeper perspective than past accounts of the US military's involvement in World War I. I would recommend this book both for the casual reader who is interested in military history and the defense professionals who work in the chemical and biological defense community.

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