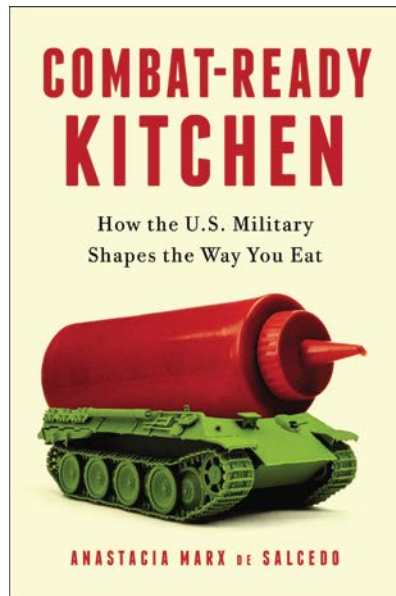


"A well-researched effort that will undoubtedly add to general readers' knowledge about the food they consume on a daily basis."—*Kirkus Reviews*



# COMBAT-READY KITCHEN:

## *How the U.S. Military Shapes the Way You Eat*

By Anastacia Marx de Salcedo

Americans eat more processed foods than anyone else in the world. We also spend more on military research. These two seemingly unrelated facts are inextricably linked. In **COMBAT-READY KITCHEN: *How the U.S. Military Shapes the Way You Eat*** (Current; on-sale August 4, 2015), food writer **Anastacia Marx de Salcedo** offers an eye-opening examination of the U.S. military's influence on the American food industry and diet.

Ever since Napoleon, armies have sought better ways to preserve, store, and transport food for battle. As part of this quest, although most people don't realize it, the U.S. military spearheaded the invention of energy bars, restructured meat, extended-life bread, instant coffee, and much more. But there's been an insidious mission creep: because the military enlisted industry—huge corporations such as ADM, ConAgra, General Mills, Hershey, Hormel, Mars, Nabisco, Reynolds, Smithfield, Swift, Tyson, and Unilever—to help develop and manufacture food for soldiers on the front line, over the years combat rations, or the key technologies used in engineering them, have ended up dominating grocery store shelves and refrigerator cases. TV dinners, the cheese powder in snack foods, cling wrap . . . The list is almost endless.

Now food writer **Anastacia Marx de Salcedo** scrutinizes the world of processed food and its long relationship with the military—unveiling the twists, turns, successes, failures, and products that have found their way from the armed forces' and contractors' laboratories into our kitchens. In developing these rations, the army was looking for some of the very same qualities as we do in our hectic, fast-paced twenty-first-century lives: portability, ease of preparation, extended shelf life at room temperature, affordability, and appeal to even the least adventurous eaters. In other words, the military has us chowing down like special ops.

What is the effect of such a diet, eaten as it is by soldiers and most consumers, day in, day out, year after year? We really don't know. We're the guinea pigs in a giant public health experiment, one in which science and technology, at the beck of the military, have taken over our kitchens. This book will change the way you think about food forever.

**ANASTACIA MARX de SALCEDO** is a writer whose work has appeared in *Salon*, *Slate*, the *Boston Globe*, and *Gourmet* magazine and on PBS and NPR blogs. She's worked as a public health consultant, news magazine publisher, and public policy researcher. She lives in Boston, MA. For more information, visit: [www.AnastaciaMarxdeSalcedo.com](http://www.AnastaciaMarxdeSalcedo.com).

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# *Combat-Ready Kitchen:* *How the U.S. Military Shapes the Way You Eat* Q&A with Anastacia Marx de Salcedo



**Q: What inspired you to write *Combat-Ready Kitchen*?**

A: A sandwich. In 2011, I wrote a post for a PBS blog where I was a contributor about how the brown-bag staple is neither fresh nor healthy. In researching how food scientists extended the shelf life of both the turkey ham and soft supermarket bread, I found attributions to work by an obscure U.S. Army base. I didn't put it in my piece, but I asked myself, what is the Natick Soldier Systems Center and what is its connection to the foods we Americans eat every day? *Combat-Ready Kitchen* is the answer to that question.

**Q: What was the most interesting thing you discovered while researching?**

A: How pervasive military influence is in our lives. Most people know the technology examples: jet engines, computers, the Internet, cellular telephones, and GPS. But few of us realize it impacts many more mundane items. I can't emphasize enough how little ground the book covers even in the food arena. In fact, in doing my research, I had to eliminate several topics I planned to cover just to keep the book length manageable. Others, I could trace but then couldn't find what I considered to be a "smoking gun," a document that directly linked some advance or product to the military. Many others were mentioned in the armed forces food research planning documents, technical reports, and conference materials, but again, I had neither time nor space to include. I'm still uncovering new food system impacts. And I now see that there have been parallel military-academic-industrial partnerships shaping sectors as diverse as medicine, textiles, bioengineering, automotive, and so much more.

**Q: Did you have any difficulty gaining clearance to speak to certain sources during your research?**

A: Yes and no. I would characterize the military influence on our food system as hiding in plain sight. The Natick Center itself was very cooperative, allowing me to visit several times, setting up interviews with multiple staff members, and helping me with other resources. On the other hand, some of the research planning documents I used had been classified for 25 years and the military-industry partnership data I relied on was classified for five years. I also found that Natick's involvement had a chilling effect on many of their current partners and observers; most of the people who would talk to me in academia and industry were retired or lived abroad!

Nonetheless neither of these factors was a serious obstacle in writing the book, since the bulk of the materials I used came from the public realm, in the form of old journal articles, technical reports, patents, and newspaper stories. I simply acted as a sort of food detective, cobbling together the who, when, what, and why of important 20<sup>th</sup> and 21<sup>st</sup> century food science advances and ferretting out military influence by matching army planning documents with industry journal bylines and footnotes, patent ownership and assignments, and conference appearances.

**Q: What do you think are some of the best benefits for civilians to come out of food innovations that were originally made for the military? Some of the worst?**

A: I'm going to go nerdy on this one: The best innovation is HACCP, or Hazard Analysis & Critical Control Points, the food safety system Natick developed with NASA and Pillsbury, based on its earlier "modes of failure" system for ensuring the integrity of medical supplies. HACCP is now used worldwide to monitor and correct contamination from the beginning to the end of the food handling or manufacturing process. I'm also optimistic about high-pressure processing, a food preservation technique that eliminates the need for additives, which Natick developed with an industry and academic consortium in the late 1990s and early 2000s. Worst? There are a lot of candidates here: plastic packaging because components migrate into food; restructured meat, not because less expensive cuts are used, but because of the additives used to create and preserve it; energy bars, because they're a low quality food. Want a quick and healthy pick me up? Try a handful of nuts or seeds and dried fruit.

**Q: Why do you think no one has written so extensively about the connection between the U.S. military and important food science advances before?**

A: That little word "science." The average American—including most writers—is completely intimidated by science, so we don't even try to understand it. We see it as this mysterious activity carried out by a highly trained and hyper-intelligent elite class. I'm not a scientist, but I found that if I really dug in, reading a bunch of different articles in a discipline and looking up the terms and concepts I didn't know, eventually I'd achieve some fluency and could follow what they were talking about. Another reason is that the writers who do write about science tend to focus on the "prestige" basic sciences such as astronomy, physics, chemistry, and biology as well as a couple applied science celebrities such as bioengineering and nanotechnology, rather than the workaday ones like materials science—of which food science probably occupies the lowest rung.

**Q: Why do you say the military influence on many American industries is a mixed blessing?**

A: On the positive side, it's a wellspring of new inventions, nifty gadgets, and everyday conveniences that genuinely improve our lives. On the negative, most of these things are developed to meet a very specific and extreme set of parameters—performance during warfare, which may not be the values we consumers want front and center in our civilian lives. In the food area, that tension has resulted in a plethora of heat-and-serve or ready-to-eat foods that are rugged, imperishable, and cheap. But our supermarkets might look very different if the army's most important criteria in creating and improving rations had been long-term human health and environmental sustainability.

**Q: Describe what influences from the military a parent could find while unpacking their child's lunchbox?**

A: In the average lunchbox, practically every item has been touched by the military: sandwich meat, bread, processed cheese, cheesy crackers, energy bars, juice pouches, and the plastic film used to wrap it all.

**Q: What's next for you?**

A: I'm trying to figure that out. On the one hand, there's so much more to be investigated in the area of military influence on civilian life, not only in the food system but in many other sectors. I'm also intrigued by the idea of trying to codify how non-munitions military technology transfer works. On the other hand, there are whole swaths of food science—some with military influence—that the American public knows little or nothing about. And finally, I do have that half-written memoir about life and food on an Ecuadorian hacienda still floating around somewhere...