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The Kill Chain: Defending America in the Future of High-Tech Warfare

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correspondence took place, including information on the drafts and staff discussions related to some of the letters and the issues involved.

For many Western historians, the popular emphasis in the English-language literature on Churchill and Roosevelt obscured a full appreciation and understanding of Stalin's role in the Western alliance. Although West German scholars at the German Armed Forces Militärgeschichtliches Forschungsamt had begun their pioneer work in the analysis of the history of Germany's wartime eastern front during the Cold War, their work was not widely appreciated until the English translations appeared. The simultaneous events of the Cold War, during which these initial Western historical interpretations developed, by and large did not provide fertile ground for the growth of sympathetic appreciations of Stalin or of the Soviet role in the war, despite some efforts in that direction.

Between 22 June 1941, when Germany invaded the Soviet Union, and Roosevelt's death on 12 April 1945, Churchill, Roosevelt, and Stalin exchanged 682 messages in the form of secret enciphered telegrams. The messages normally were sent in the originator's language and translated into the recipient's language. The common practice of the time of changing the order of words in a sentence to make enemy decryption difficult led to misunderstandings and misinterpretations even beyond those presented by translation itself.

The project that produced this volume lasted a decade and involved careful research in British, American, and newly opened Russian archives. The editors and their team developed a database of more than five thousand documents that included all the surviving drafts and

records of staff discussion relating to the writing of the messages. The editors have presented in this volume about 75 percent of the total correspondence; they intend eventually to publish the full correspondence in an online edition. The editors have given here the English-language version of the letters that Roosevelt and Churchill received, including errors of translation and transmission, explaining in the accompanying text the issues involved. Reynolds and Pechatnov have selected documents that show the character of these leaders as illustrated in their exchanges with each other, their plans to meet each other in the wartime conferences at Tehran and Yalta, and all the principal issues they discussed.

This volume very successfully merges documentary scholarship with a clearly written and engaging history of the interrelationships between these three "unlikely musketeers." Practitioners and students of international relations, policy, and strategy as well as the general audience of readers interested in the Second World War will find this an invaluable contribution to their understanding of the complex relationships among these three important wartime leaders.

JOHN B. HATTENDORF



The Kill Chain: Defending America in the Future of High-Tech Warfare, by Christian Brose. New York: Hachette, 2020. 320 pages. \$28.

The author, Christian Brose, worked closely as an aide to Senator John McCain, and therefore is well situated to write knowledgeably about the current and future challenges facing the military forces of the United States. The result is a profoundly challenging and important

book that should be required reading for defense scholars and military officers. Brose offers a full-throated critique of the existing structures of American military forces, the acquisition systems that supply those forces, and the established assumptions that have guided U.S. defense policy through a historically abnormal period of American geopolitical dominance. He argues forcefully that those established ways of doing business already are failing, and that they threaten to fail catastrophically amid the foreseeable return of great-power tensions and possible conflict, with Russia to some degree, but more importantly with China.

The United States has relied on large, very expensive, and eminently targetable platforms, such as aircraft carriers, and relatively short-range fighter aircraft, which are dependent on equally targetable refueling platforms. The proliferation of large numbers of defensive missiles and better sensors by China and Russia renders such platforms unsurvivable in any direct military engagement. The American assumption that it will have months to flow forces from the continental United States, unimpeded by potential adversaries, is equally insupportable, he argues. Historically, he maintains, U.S. defense planning has focused on platforms (which are usually extremely expensive, human operator intensive, and irreplaceable in any short time frame). The future of war will be less about platforms and more about sensor fusion and networked situational awareness—software rather than hardware, as he puts it.

No stranger to the ways of Congress, Brose clearly dissects the political and economic reasons why changing a slow, inflexible, excessively bureaucratic, and backward-looking

defense-acquisition process will be difficult; but, he argues, not impossible. It will require, however, that the services be far more politically savvy than they generally have been historically.

Committed to more than diagnosis, Brose offers what he considers “cures.” Future forces must rebuild a healthy relationship with the high technology from which, he argues, the Defense Department has become alienated. Future forces must rely heavily on autonomous systems, linked decentralized networks, and artificial intelligence if we are to create the swarms of systems and decentralized networks that will be able to survive in a battle space in which we vie with a peer competitor or, in the case of China, perhaps even a technologically superior adversary. Advances in additive technologies and on-site manufacturing may make it possible to replace destroyed but expendable, relatively low-cost systems in the field, greatly reducing logistics chains and reducing costs. Absolutely contemporary, Brose offers a balanced critique of the Trump administration’s treatment of allies (agreeing that some are freeloading to a degree, but also noting that the United States rarely accepts serious allied assistance in real combat, and also arguing for the absolute necessities of keeping and reworking our alliance system to face serious peer competitors).

Whether in the end a reader agrees completely with Brose or not, this work is a bracing challenge to American complacency resting on the American experience of unchallenged military dominance since World War II, and offers a wake-up call that defense planners and military officers should take seriously.

MARTIN L. COOK