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Fire, fire

JOHN MUELLER

Eric Schlosser

COMMAND AND CONTROL
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In 1958, Fred Iklé, a nuclear weapons analyst and a recurring figure in Eric Schlosser's *Command and Control*, looked back over the thirteen years since the Second World War. Although no nuclear weapons had exploded during that period, he insisted that "we cannot derive much confidence from the fact that no unauthorized detonation has occurred to date". In fact, he proclaimed, that perfect safety record meant nothing for the future, and he cheerlessly calculated that, looking ahead, there might well be twelve crashes of nuclear-armed bombers and seven bomb jettisons every year.

Iklé was wildly off in his predictions about how many bombs would be crashed in bombers or would be jettisoned from them. However, these scenarios, while obviously undesirable, are substantially irrelevant to concerns about inadvertent nuclear explosions. Nuclear weapons do not detonate simply by crashing to the ground, nor by being subjected to fire or external explosions.

For the weapons to explode, not only must their considerable array of safety devices be undermined or switched off, but they must be detonated by mechanical processes, not by impact or by fire. (It is true a nuclear weapon can be "ground burst". However, this means that it is detonated low enough over the terrain that its fireball gouges out a crater in the earth, not that it hits the ground. Both the Hiroshima and Nagasaki bombs, in contrast, were "air burst".)

Schlosser seems to know this, but apparently he could not bring himself to make it central to his argument perhaps because it would undercut the easy flow of his determined alarmism. The perfect safety record for unauthorized nuclear explosions has now been extended to nearly seventy years, and it embraces not only the United States but the entire world, which currently harbours nine countries with nuclear weapons. Nonetheless, Schlosser, while noting that achievement and reporting Iklé's prediction without irony, essentially insists that the seventy-year experience, too, means nothing for the future because an unauthorized detonation of a nuclear weapon could still happen. It is not impossible.

His book, some 485 pages of text and ninety-nine pages of notes followed by a twenty-nine-page bibliography, attempts to raise the alarm with a series of rather breathless anecdotes involving accidents which involve nuclear weapons in one way or another. Strung through the text is a dramatic and extremely detailed account of one that took place in 1980 at an American military base near Damascus, Arkansas. A fire caused a missile to explode and resulted in the death of one person, although the antiquated and very large nuclear weapon on the missile survived intact. It is situations like that one that occupy the great majority of Schlosser's anecdotes. Scarcely any involve the potential detonation of a nuclear weapon.

Mishaps in which a nuclear weapon crashes to the ground or is involved in a fire or an external explosion are essentially like industrial accidents – tragic and costly, but nowhere near as destructive as a nuclear detonation. Working to reduce industrial accidents is certainly a sensible policy goal, and Schlosser's vivid book does an excellent job of detailing both the human and mechanical complexities of ensuring that nuclear weapons are safe.

A reason Iklé's extrapolations in the thirteenth year of the atomic age were so extravagantly pessimistic is that he didn't take safety improvements into account. Schlosser's narrative shows that these have been applied to nuclear weapons as they have to other areas. For example, in the year one man was killed at the Damascus fire and explosion documented by Schlosser, 133 died in coal-mining accidents in the United States. However, that number had been 1,158 in 1947, and by 2012 it had declined to twenty.

And there have been other developments favourable to nuclear weapons safety. Since the end of the Cold War the sheer number of nuclear weapons in the world has declined greatly. The United States and Russia have retired many by agreement, and France has reduced its arsenal by two-thirds unilaterally. Moreover, the average explosive capacity, or "yield", of a nuclear weapon is far lower that it was during most of the Cold War.

More importantly, the decline in international tensions has allowed former contestants to stand down from a hair-trigger readiness, something that greatly reduces the dangers of accidental or unauthorized use. Even tension-racked Pakistan reportedly stores its nuclear weapons in pieces in separate secure locations. And, of course, the weapons continue to be held primarily in remote locations where detonation, however undesirable, is likely to do limited damage. The radius of destruction of a Hiroshima size bomb is about 5 kilometers – tragic and significant in a city, but far less so in a desert.

However, none of this is likely to cheer Schlosser. In the end, he demands "perfect safety and security" from the inadvertent or unauthorized detonation of nuclear weapons. In another book, perhaps, he will apply that exalted and impossible standard to the cosmic dangers presented by ill-directed comets and meteors.

Although the record with nuclear weapons, as he acknowledges, has indeed been perfect for over two-thirds of a century now, there is no way, of course, to absolutely guarantee the condition will continue forever. As a practical matter, even a dedicated effort to eliminate the weapons from the face of the earth could not completely assure that none are stashed away somewhere. And nothing can be done to expunge the knowledge of how to make them.

Nor, it appears, can anything be done to expunge the alarmism they inspire. Schlosser has a great many distinguished predecessors. For example, around 1950 Albert Einstein fancied with a confidence bordering on intellectual arrogance that he had managed to discover the single device that could solve the problem of a nuclear world: "Only the creation of a world government can prevent the impending self-destruction of mankind". And ten years later C. P. Snow, insisting that he was "speaking as responsibly as I can", proclaimed it to be a "certainty" that if the nuclear arms race between the United States and the Soviet Union were to continue and accelerate (which it definitely did) "within, at the most, ten years, some of those bombs are going off".

At great length, Eric Schlosser continues this grand alarmist tradition. To the degree it further encourages care in the handling of nuclear weapons, it may be desirable. However, when it animates military policy, it can be decidedly harmful. Disproportionate alarm over the possibility that Saddam Hussein's pathetic regime in Iraq might eventually obtain nuclear weapons substantially motivated the war in Iraq, resulting in far more deaths than were suffered at Hiroshima and Nagasaki combined.

Lives depressed

JOHN BUGG

Kenneth R. Johnston

UNUSUAL SUSPECTS
Pitt's reign of alarm and the lost generation of the 1790s
400pp. Oxford University Press. £30. (US $45).
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We sometimes forget that Edmund Burke gave his 1790 response to the French Revolution a two-part title: *Reflections on the Revolution in France, and on the Proceedings in Certain Societies in London Relative to that Event*. The title's second half refers to Britain's growing democratic movement, which would soon be energized by Thomas Paine's *Rights of Man* and reform groups like the London Corresponding Society. The pivot in Burke's title captures the process of national self-inspection prompted by the French Revolution, a process that led to a battery of repressive laws and a climate of suspicion and prosecution in Britain across the 1790s. Historians have debated the severity of this repression, some arguing that it was not out of proportion when taken in the *longue durée*, others referring to it flatly as William Pitt's "Reign of Terror". Kenneth R. Johnston would incline towards the latter view, though he is concerned less with the Prime Minister's specific measures than with a toxic atmosphere of alarm and paranoia that spread from government enforcement to social intimidation.

Johnston's title refers to those who in other times may not have fallen under the surveillance of government or the suspicion of neighbours, but whose progressive beliefs were suddenly thought inflammatory with the outbreak of the French Revolution: the province of the "suspect" widened to include scientists, educators, poets, travel writers, journalists, lecturers, and just about anyone else willing to voice opposition to the status quo. What happened to these "unusual suspects"? To show us, Johnston has written a book that is part investigative history and part elegy. How many bright young minds lost careers, suffered character attacks, were trailed by Home Office agents, or fled Britain to live in exile? We can never know. But Johnston does begin to trace what he calls "the lost generation of the 1790s", and in doing so he pieces together a story that has waited a long time to be told. With its interfused, deeply researched biographical sketches of seventeen subjects from the Romantic era, we might think of *Unusual Suspects* as a cross between William Hazlitt's *The Spirit of the Age* and E. P. Thompson's *The Making of the English Working Class*: group biography meets radical history.

While one hesitates to name the focus of a group biography, Johnston's chapter on Joseph Priestley and the 1791 Birmingham Riots brilliantly coordinates many of the concerns of his book. The politically progressive scientist and theologian Priestley found himself at the heart of a storm in July 1791, about a month after he had taken steps to found a constitutional reform society. Priestley was the initial target of a three-day riot that brought Birmingham to a halt amid fires, looting, and property destruction (including the razing of Priestley's extensive library and scientific laboratory). Some historians have pointed to the Birmingham Riots as evidence of a popular British loyalism that gained strength in the wake of the French Revolution; others have argued that this "church and king" mob was directed by government agents who wished to muffle Birmingham's growing political reform movement. One thing is clear: there was something unsettling in the strange care with which the "rioters" carefully targeted the houses of political reformers. But for Johnston the very shadowiness of the case is part of the interest, and his compelling account of the riots brings together the central concerns of his study: mysterious, quasi-governmental attacks that left lives damaged or ruined, and the ensuing historiographical problem of how we have sometimes misunderstood orchestrated repression as popular loyalty.

Johnston shows how Priestley's fate was that of a generation, as he describes the effects of repression "not in terms of theoretical analysis or grand historical panorama, but in the individual lives of the people to whom it happened". And it happened in the lives of a constellation of major Romantic writers: Helen Maria Williams, Charles Lamb, James Macintosh, William Godwin – even Coleridge and Wordsworth. To read Johnston's account of the reticulations of repression that came to define 1790s Britain is to understand why his initial table of contents listed seventy-one "unusual suspects". Though Johnston has distilled the narrative to a more focused cluster of fascinating case studies, for each person whose dire encounter with political repression is uncovered and recounted here we could add a dozen more. This, too, is the history of the Romantic era.