

UNDER THE RADAR?

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Missile Contagion: Cruise Missile Proliferation and the Threat to International Security, by Dennis M. Gormley. Praeger Security International, 2008. 272 pages, \$54.95.

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One of the pitfalls of producing a study on a specific weapon system is narrowly focusing on the weapon and neglecting to provide the reader with an appreciation of the larger context concerning what factors are enabling or impeding the development and spread of the weapon system. This can happen if the author is a proponent of the weapon system and overlooks considerations that diminish the argument for adopting it. A narrow viewpoint can also arise if the author is a “threat advocate” who is specifically concerned with warning about the dangerous consequences of a particular weapon development, usually accompanied with the author’s preferred response without weighing competing priorities.

Dennis Gormley’s new book, *Missile Contagion: Cruise Missile Proliferation and the Threat to International Security*, skillfully avoids these pitfalls by analyzing the growing importance of cruise missiles for the United States and other countries within the broader context of military, political, commercial, and institutional factors that explain why cruise missiles—particularly land-attack cruise missiles (LACMs)—are increasingly appealing to states, and possibly even terrorist groups, after years of being found only in the arsenals of the United States and other leading military powers. Gormley’s book warns unambiguously that inattention to policy issues concerning cruise missiles has inadvertently led to growing regional instability and a more complicated U.S. security environment.

The strength of Gormley’s approach is that *Missile Contagion* is structured to address issues of interest to multiple audiences—international security analysts, academics, and policy makers. This is understandable, given his varied roles, past and present: long-standing advisor to U.S. government agencies on security issues; former consulting senior fellow at the International Institute for Strategic Studies, where he focused on cruise missiles; and current senior fellow at the Monterey Institute’s James Martin Center for Nonproliferation Studies in Washington, DC, and faculty member at the University of Pittsburgh’s Graduate School of Public and International Affairs.

Part one of *Missile Contagion* establishes the proliferation context by analyzing the evolving nature of cruise missiles with particular attention to the advent of LACMs as an emerging precision-attack capability well suited for preemptive strikes. Gormley provides essential context by discussing the role of LACMs within broader force development

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trends, including the ubiquitous spread of anti-ship cruise missiles. He compares the rise of cruise missiles with regional military powers' continued interest in ballistic missiles; discusses other airborne systems, including unmanned aerial vehicles (UAVs); and accounts for the defensive side of the equation by analyzing developments in theater missile defenses against ballistic and cruise missiles. Equally important for analysts, however, is Gormley's detailed assessment of how LACMs are likely to affect regional stability in several potentially unstable areas, including Northeast Asia, South Asia, and the Middle East.

Part two shifts the focus to an explanation of the underlying factors that shape the prospects for widespread LACM proliferation. Drawing on scholarly thinking, Gormley highlights three key factors: 1) the specialized, and often tacit, *knowledge* that presents a hurdle for many countries trying to successfully integrate the multiple systems needed for indigenously developing and deploying long-range, highly accurate cruise missiles; 2) the *narrative* messages that governments and observers set forth as rationales for needing to acquire such cruise missiles; and 3) the *norms* against missile proliferation that reflect and influence government attitudes on their willingness to take collaborative steps to limit worldwide access to advanced cruise missiles.

Gormley rounds out his assessment in part three by returning to the policy issues that are likely to result from a worldwide spread of LACMs. Building upon his earlier analysis, Gormley identifies policy issues that need to be addressed by U.S. policy makers if they wish to mitigate the consequences of years of turning a blind eye to the effects of allowing LACMs to become a weapon of choice for regional powers seeking a weapon system for preemptive purposes. He casts his arguments in terms of the steps needed to repair existing nonproliferation norms, as well as the challenging defense acquisition issues that cruise missile proliferation presents for the United States, such as requiring effective theater and homeland defenses against such threats.

Given that various types of cruise missiles have been in the inventories of the world's leading militaries for decades, why should the risk of cruise missile proliferation be of greater concern now? Gormley highlights several developments that impart strategic significance to the emerging generation of LACMs. First, these missiles are capable of highly accurate long-range attacks. Their precision-strike capabilities for effectively delivering conventional munitions have been substantially improved with satellite navigation systems such as the Global Positioning System (GPS).

Second, while improved missile defenses have acquired some capability to deal with ballistic missiles, the same is not true for defending against cruise missiles. Their low-altitude penetration capabilities, coupled with their relatively low costs, give cruise missiles a major advantage against missile defenses. Gormley provides specific data to make the point that while upgraded Patriot missile defenses performed relatively well at intercepting Iraqi ballistic missiles during the war in Iraq in 2003, the overall U.S. theater missile defense system, including airborne warning radars, "failed to detect or intercept any of the five primitive Iraqi cruise missiles launched against coalition targets." Thus, while existing theater and national missile defenses have demonstrated some capability to intercept high-flying ballistic missiles, they are only a half-solution at best because

they are unable to intercept low-flying cruise missiles. This operational lesson is probably not lost on U.S. adversaries.

Third, the 2002 shift in U.S. strategy toward emphasizing preemptive strike capabilities against potential threats is resonating with many countries in unstable regions, including China, India, and Israel, which have reason to acquire LACMs to create preemptive options. In addition, other U.S. allies (Japan, South Korea, and Taiwan) and potential adversaries (Iran, North Korea, and Syria) seem to have similar or separate grounds for obtaining cruise missiles. While greater interest in conventional capabilities would seem desirable, such precision conventional attack capabilities could increase regional instability by tempting political and military leaders to believe their military forces capable of inflicting decisive preemptive attacks that would lead to military victory. Gormley also notes that cruise missiles are well suited for delivering WMD payloads, particularly biological and chemical weapons.

Finally, international efforts to curtail the proliferation of ballistic missiles have proven inadequate in dealing with cruise missiles. For example, the Missile Technology Control Regime (MTCR) has not been used by its member states to apply effective constraints on cruise missile technologies and transfers. The problem is partly technical in nature—given their flexibility in trading off payload for longer range, cruise missiles present challenges in setting range limits. However, the problem mainly arises from the ambivalence of governments that have strategic and commercial interests in keeping the capabilities of the emerging generation of LACMs unconstrained.

Gormley contends that these factors have created the conditions for “missile contagion,” as LACMs proliferate to regions where the risk of military conflict is potentially high, particularly in already unstable regions. LACMs can deliver precise, effective, conventional attacks against high-value targets (such as missile sites, airfields, and command centers)—delivering devastation without resorting to WMD. By initiating an attack with missile strikes using a combination of cruise and ballistic missiles, an attacker can aspire to deliver a shocking blow to the defender’s military capabilities—at the same time making follow-up air operations against the enemy’s degraded forces much more effective.

Militaries, including those in regions with unstable military balances, have a propensity toward offensive operations. For example, India has a ready need for a deep-strike weapon that can precisely deliver conventional munitions against Pakistani targets. This capability is consistent with India’s efforts to develop coercive options that it can use in dealing with nuclear threats from Pakistan. Similarly, LACMs address the desire of both China and Taiwan for preemptive capabilities. China has already deployed a large ballistic missile force targeted on Taiwan. Adding LACMs would increase Beijing’s ability to threaten or to deliver effective conventional attacks against key Taiwanese military targets, especially its air force. Interestingly, Taiwan also sees utility in LACMs to counter Chinese missile launchers. Some reports suggest that Taiwanese strategists might view long-range cruise missiles as a deterrent weapon that can threaten high-value Chinese targets, including urban centers. Israel, too, is likely to be interested in having highly accurate weapons with sufficient range to conduct preemptive attacks on targets in neighboring countries that it views as threatening.

A strength of Gormley's analysis is that he recognizes that although these trends are worrisome for international stability, a bleak future is not inevitable. Indeed, his analysis of underlying factors pays particular attention to the various existing impediments to the worldwide spread of LACMs. Only a handful of technologically advanced countries—including the United States, Russia, France, the United Kingdom, China, and Israel—can indigenously produce these weapons.

Developing long-range, highly accurate cruise missiles remains challenging for most countries because it requires merging multiple advanced technologies, including precision guidance and a highly efficient propulsion system, usually in the form of a small but powerful turbofan engine. While reliable access to precise geo-location data from various satellite systems has largely eliminated the first technological hurdle, acquiring suitable propulsion systems is still a problem for many countries. But the need for the specialized knowledge or know-how that is integral to system engineering and integration is, more importantly, the underlying constraint on the proliferation of LACMs. Gormley concludes that while explicit knowledge can be transferred through blueprints and technical reports, it is the "tacit knowledge" that experienced engineers and technicians possess that often makes the difference between success and repeated setbacks in developing and deploying complex systems, including weapon systems. As examples, Gormley cites Iraq's repeated setbacks after the 1991 Persian Gulf War in trying to develop LACMs and attempting to convert manned aircraft into unmanned vehicles. Even countries with well-developed domestic defense industries, such as India, continue to rely on foreign assistance in developing advanced weapons systems.

This barrier to cruise missile proliferation would be encouraging if the countries that possess the necessary know-how also uniformly accepted the norm of opposing the spread of LACMs. Unfortunately, they have not done so. Competing strategic and commercial interests have undermined efforts to find common cause in limiting LACM proliferation, Gormley observes. For example, he notes that in 1998 the British and French governments allowed their defense firms to sell the Black Shaheen, a stealthy LACM subject to Category I conditions under the MTCR, to the United Arab Emirates in spite of U.S. objections. Gormley posits that this decision "represented the nadir of any consensus about the danger of cruise missile proliferation" among the MTCR states. Yet the U.S. government appears to have done little better in upholding the MTCR when in 2001 it helped South Korea become an MTCR member—but with ambiguous conditions that apparently gave Seoul license to develop longer-range LACMs. In cases like these, cruise missile technologies seem to serve as "deal makers" for countries seeking to achieve strategic objectives or commercial gains.

Efforts to improve upon the MTCR approach, in the form of the Hague Code of Conduct against Ballistic Missile Proliferation, have continued states' propensity to focus on ballistic missiles while remaining reluctant to take steps to constrain cruise missiles. Gormley contends that this governmental ambivalence has created an inadvertent incentive for countries to become interested in acquiring long-range cruise missiles as supplements to (or substitutes for) ballistic missiles.

Gormley avoids the pitfall of being a "threat advocate" in his analysis of the risk of terrorists using unmanned airborne systems to attack. In the years following 9/11, various

security analysts have postulated that terrorists are capable of employing a wide range of weapon technologies. Although it is useful to consider all conceivable threats, policy makers need help to identify and prioritize terrorist threats so that limited resources are allocated appropriately. Gormley's analysis of terrorist intent and capability for exploiting cruise missile and UAV technologies is appropriately circumspect, given the importance that specialized knowledge plays in acquiring effective unmanned airborne systems. He doubts that terrorist groups would have the necessary knowledge and skills to build LACMs, or to build unmanned systems using private or kit-built aircraft, without receiving outside technical assistance. In fact, Gormley observes that Hezbollah, the terrorist group that used UAVs and cruise missiles against Israel, is believed to have received Iranian assistance.

Given current circumstances, what does Gormley recommend U.S. policy makers do to manage the missile contagion? Prompt action is needed to deal with accelerating LACM proliferation, before it exacerbates regional stability problems; he recommends strengthening the nonproliferation regime by addressing cruise missiles in the MTCR and Hague Code before LACM developments make international efforts to constrain missile proliferation even more difficult. Not surprisingly, he also urges that the MTCR member states increase collaboration and intelligence-sharing to better monitor tacit knowledge transfers of missile systems.

Gormley views as misguided the U.S. approach to missile defense because it focuses on deploying ballistic missile defenses, providing little effort to defend against cruise missiles. This creates incentive for adversaries to acquire LACMs to overcome existing U.S. missile defenses. Gormley candidly recognizes that developing U.S. defenses capable of intercepting cruise missiles is extremely challenging; it would require substantial resources, new technologies, and organizational changes to the Defense Department's acquisition approach.

Finally, Gormley recommends that U.S. policy makers take action to address the circumstances that have created the conditions for missile contagion. One such step is to deemphasize preemption as a national doctrine and to discourage other militaries from developing a sanguine view of the prospects for successfully conducting preemptive attacks using cruise missiles. The author's other main recommendation is more problematic: to pursue better relations with China and Russia by providing greater transparency concerning U.S. defense doctrine and weapon acquisition plans. While desirable in principle, improving Washington's relations with Moscow on such nonproliferation issues is likely to be overshadowed by other U.S.-Russian disagreements, such as Russia's military involvement in Georgia or Moscow's displeasure over NATO expansion and U.S. ballistic missile defense. And while relations between Washington and Beijing have gradually improved, they are constrained by doubts about China's adherence to the MTCR and always captive to flare-ups between Taiwan and China.

Gormley believes that there is still time to learn from the past and to adopt approaches that could manage the missile contagion challenge in ways that better mitigate the risks to regional stability and U.S. security. Failing to heed his unambiguous warnings will increase the likelihood that the missile contagion will spread unchecked, and the United States, along with its allies and friends, will confront a world unnecessarily more dangerous.