'GET OFF THE FAINTING COUCH'

By Craig Hooper and Christopher Albon

Have fretful descriptions of China's medium-range antiship ballistic missile endangered America's strategic standing in the Pacific Basin? It's time to stop worrying and start managing the Chinese ASBM threat.

In May 2009, urgently worded accounts of contemporary Chinese antiship ballistic-missile (ASBM) developments exploded onto a number of mainstream U.S. media outlets, sparking a domestic uproar. But by unintentionally validating China's as-yet-unproven ASBM capabilities, these well-intended warnings did America's strategic position in the Pacific Basin few favors.[1]

Raising a hue and cry over the DF-21 was unnecessary. American naval experts have known about China's ASBM for years. The Office of Naval Intelligence released one of its first unclassified warnings some six years ago. In January 2006, Ted Parsons, writing for *Jane's Defense Weekly*, reported that, "the PLA may be able to deploy the space targeting systems needed to make its antiship ballistic missile operational by 2009."[2]

A year later, in January 2007, *Jane's Navy International* broached the news that China was focusing on "soft kill" warheads for the DF-21, developing electromagnetic pulse generators and warheads capable of releasing a "cluster of non-explosive flechette penetrators, designed to shower a vessel with high-speed metal. The flechettes would kill unprotected crew and, more importantly, strip the ship of its radar, communications, and other sensor arrays."[3]

Despite bringing very little new information to the table, the recent ASBM reporting went viral. And now that the media frenzy is over, it is time to treat the hangover.

In Asia, a region long used to American somnolence over China's pursuit of ASBM technology, vocal U.S. fretting over China's "game-changing" carrier-killer came as an unexpected surprise. Observers still do not know if the furor signaled a wider shift in U.S. na-

U.S. NAVY (DAVID CAMPBELL)

The emergence of a rapid non-nuclear strike capability, particularly in the guise of adapted Trident II D-5 submarine-launched ballistic missiles, could be the ultimate "game changer" in combating the threat of a Chinese antiship ballistic missile. This flight, from the USS *Tennessee* (SSBN-734), was the fourth submerged launch in the highly successful series of 130 tests of the missile to date.

tional security policy, or if America has suffered an intelligence lapse, missing some sort of dramatic Chinese technological breakthrough. Others suspect the U.S. Navy leveraged the ASBM threat to build support for more *Arleigh Burke* (DDG-51)–class guided-missile destroyers.

Whatever the rationale, the initial consequences of the media frenzy are easily tallied. The hand wringing has, at a minimum, confused our regional allies and legitimized China's ASBM program. It may even have threatened the balance of power in the Western Pacific. This self-inflicted blow to U.S. stature in the region requires an adroit diplomatic response. By bolstering worried allies and building a greater sense of unity in the region, the United States can recover from this misstep and start developing a long-term plan to stabilize the rapidly militarizing Pacific Basin.

Redefine the Target

America must stop casting itself as the primary target of a Chinese ASBM. Even if the antiship version of China's medium-range DF-21 ballistic missile materializes and proves to be fully operational, accompanied by reliable, well-integrated targeting, guidance, and command systems, there are too few conventional antiship DF-21D variants available to pose an immediate hazard to U.S. carriers. Government estimates suggest the inventory of nuclear- and conventionally-armed DF-21/CSS-5 missiles is still manageable, expanding from 19 to 23 in 2004 to a moderate-sized fleet of 60 to 80 missiles. It is, today, hardly an inventory sufficient to defeat a well-defended U.S. carrier battle group.[4]

With a limited supply of DF-21 missiles to work with, China's developing ASBM technology poses a far more immediate challenge to America's Asian partners. Like it or not, modern Asian navies are becoming important co-guarantors of stability in the Pacific Basin, and it is, at best, poor manners for U.S. naval analysts to overlook these vibrant, albeit small, navies.

Carrier-like vessels, the likely targets of any Chinese ASBM, are proliferating throughout the region. In time, these new 11,400- to 30,000-ton flattops will relieve U.S. carriers of many deterrence duties in the Asian littoral. But today, operating within easy reach of China's regional surveillance assets and protected by relatively few sophisticated missile defense-ready escorts, Asia's growing fleet of tiny flattops is far more vulnerable to ASBM strikes than any U.S. carrier.

The first small Asian carrier, Thailand's HTMS *Chakri Naruebet*, entered service in 1997. But over the coming years, South Korea's three flat-deck *Dokdo*-class amphibious assault ships, Japan's four carrier-like *Hyuga*- and 22DDH-class helicopter-carrying destroyers, and Australia's pair of *Canberra*-class amphibious assault ships will change the game in the Pacific Basin. Even Russia may join in, dispatching a newly purchased *Mistral*-class helicopter carrier or *Juan Carlos I*–class ship to the region. The combat utility of these modern, well-networked Liliputians is set to grow as the Joint Strike Fighter and unmanned airframes begin trickling into the area.

These ships pose a threat to China because they are ideal platforms to prevent regional aggression. And with China pressing neighbors to yield control of economic zones in the South China Seas and in waters around Socotra Rock, the Okinotori Islands, and the Senkakus, these pocket-carriers pose a substantial operational challenge to a nation long used to occupying lightly defended yet strategically useful sea features.

By focusing on the distant question of supercarrier vulnerability, naval analysts forfeited an ideal opportunity to frame the ASBM threat as a shared regional hazard. In Cold War Europe, farsighted strategists wasted no time in portraying Russia's medium-range RT-21M Pioneer/SS-20 Saber missile as a European-wide threat. But today, despite the domestic uproar over this Asian "game changer," the U.S. Navy and State Department might do well to exploit the ASBM threat in a similar fashion.

Additional Drivers

Identifying the Taiwan confrontation of 1995–6 as a major driver of Chinese ASBM research is an unmerited oversimplification of an increasingly complex strategic frontier.

Though China first threatened to attack aircraft carriers with ballistic missiles in 1996, just after the USS *Nimitz* (CVN-68) transited the Taiwan Strait, it is wise to recall

A crisis in the Taiwan Strait—between China (left) and Taiwan (center)—has been deemed by some analysts as the most likely reason the Chinese might use an antiship ballistic missile. The authors, however, discount this hypothesis, suggesting the ASBM threat will have an immediate and far-ranging impact on ongoing conflicts in other parts of China's contested maritime border.

that heated rhetoric is often an inaccurate indicator of future weaponry. Other Chinese officers, caught up in the furor of the Taiwan crisis, threatened a ballistic-missile strike on the West Coast, declaring, "in the end you care more about Los Angeles than Taipei." Those theatrics presaged neither a massive buildup nor a great technological leap. As has long been expected, a few ballistic missile submarines are entering service and 20 creaky DF-5 (CSS-4) missiles are being gradually supplemented by a contingent of 10 DF-31As (modified CSS-9).[5]

A different strategic calculus may be pushing China's interest in ASBM technology. Put bluntly, if the 1995–6 Taiwan Crisis drove ASBM research, why didn't the Chinese document their doctrinal shift then? Though earlier Chinese-language documents may exist and are simply not available to Western scholars, virtually all of the documents cited were written after a 1998 U.S. Defense Science Board Summer Study validated ballistic missile–launched precision munitions delivery systems. In that study, the board urged development of missiles that:

could deliver rapid response weapons to theater, regional, and intercontinental ranges at any time of the day or night in all weather conditions as long as targeting information is available. The weapons would be effective against fixed point, limited area targets, and mobile tactical targets.

The report claimed that the enabling technologies were "low risk" and the weapons "would be invulnerable to enemy air defenses and thus provide a capability currently not available with existing systems."[6]

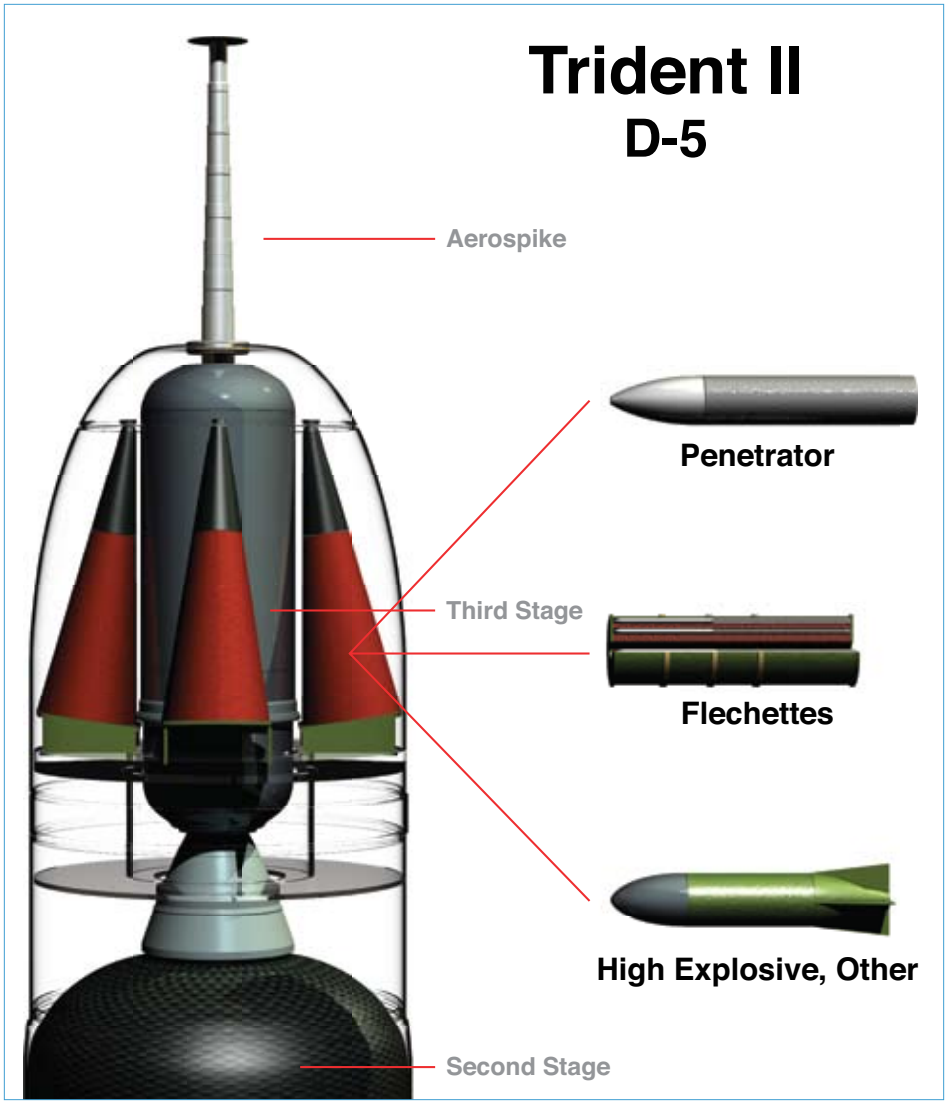
The uptick in the descriptions of China's ASBM work in the early 2000s may actually reflect Chinese unease after the release of the 2001 *U.S. Nuclear Posture Review*, the foundation for prompt global strike (PGS). The review is significant in that it announced America's intent to develop a global strike concept, a "New Triad" enabling, "precisely tailored global strike operations." That doctrine grew into PGS, an effort to provide U.S. leadership weaponry able to attack a point anywhere on earth within an hour. While smaller in scope, the ASBM is analogous to prompt global strike.[7]

Given China's minimal investment in nuclear deterrence forces, American acquisition of a reliable means to quickly strike a precise location with conventional munitions poses a far more serious existential threat to China than many U.S. observers realize. Exposed missile transporters, known missile launch sites, and lengthy pre-launch preparations make China's handful of long-range ICBMs vulnerable to a preemptive non-nuclear strike. With the latest *Nuclear Posture Review* expected to fully support the conventional PGS concept, China's evident discomfort can only be expected to grow.

Identify Options

By overlooking the potential impact of PGS, naval strategists forfeited an interesting opportunity to engage China on the underlying hazard of nuclear ambiguity, or the employment of known nuclear-strike platforms for the delivery of conventional munitions. That dialogue must begin soon. The U.S. Congress, deeply concerned about the misinterpretation of a conventionally armed ballistic missile launch, has restrained American development of conventional PGS platforms. But a confirmed entry of Chinese ASBMs into the Pacific theater by way of a functional demonstration would put Congress under enormous pressure to fully fund a range of PGS projects.

In the Navy's case, it would be relatively easy to field a conventionally armed Trident intercontinental ballistic missile system, outmatching anything Chinese ASBM strategists can hope to deploy in the near term. After more than a decade of research, prototype development, and flight tests, a deployment of conventionally-tipped D-5 Trident II ballistic missiles could happen in as few as two years.



The prompt global strike concept is an effort to provide the United States with precision, non-nuclear weaponry that can strike any point on the globe within one hour. A ready avenue to that goal would be the submarine-launched D-5 Trident II nuclear missiles. The four current MK4 or MK5 nuclear warheads atop each missile could be replaced by up to 12 reentry vehicles containing penetrators, flechettes, high-explosives, or other non-nuclear devices.

U.S. NAVY (CHRISTIAN LEMUS)

The authors believe small carrier-like warships from regional countries such as Thailand, South Korea, Japan, Australia, and even Russia, will be on the front line of any future conflict with China. Discussions of a Chinese ASBM threat should account for those ships, such as South Korea's *Dokdo* amphibious assault ship, pictured here.

The missile itself offers a simple, reliable airframe. With 130 consecutive test flights successfully completed, and a full slate of future tests sketched out until 2020, the Trident is a fully functional weapon system. Given that the production line is still open, new D-5 variants can be built to serve on arsenal ships, new sub-surface platforms, or land bases. But deployed on a mobile, stealthy platform that is already tied into a comprehensive command-and-control system, submarines armed with precise, conventionally-armed ballistic missiles pose a substantial new challenge to existing Chinese early-warning resources. In 2008, the National Academy of Sciences, after studying PGS options, recommended a conventional Trident modification, citing, "its near-term availability, low development cost, low opportunity cost, low technical risk, and minimal required changes in declared policy or doctrine."[8]

Initial flight tests were completed long ago. In late 1993, highly publicized test launches explored the feasibility of kinetic re-entry weapons and global positioning system receivers. The tests, launched from the USS *Nebraska* (SSBN-739), hit a missile test range "open ocean target site" and also detailed the flight characteristics of long, thin tungsten flechettes. Fired from a range of 4,000 nautical miles, the flechettes hit the target at a velocity of 14,000 feet per second.[9]

In recent years, progress toward a Trident-based PGS weapon has been made even in the light of congressional opposition. Since 2002, the Lockheed Martin Corporation has quietly tinkered with Trident II MK4 reentry bodies, providing new models with improved guidance and maneuvering capabilities. In 2005, flight tests demonstrated the Enhanced Effectiveness E2 reentry vehicle's viability, and a similar program, the Life Extension Test Bed–2, was expected to be tested last year. A range of additional tests is planned.

Planners expect each reentry body to carry hard-target defeating warheads or tungsten rod flechettes, capable of destroying soft targets across an area of about 3,000 square feet, degrading ships, slow-moving targets, or any dispersed land-based facility—missile launchers, ports, and similar targets.

A conventional Trident can leverage ongoing research. The Air Force is developing a PGS "Payload Delivery Vehicle" that will be able to adopt a boost-glide trajectory, maneuver, and ultimately deliver a range of smart munitions, surveillance assets, or loitering weaponry to a target area. Operationally relevant flight tests are expected to begin by 2012.

The technical framework for PGS is set. Able to be fielded without the need to modify existing strategic arms control agreements, the conventional Trident presents a cost-effective interim means to get conventional PGS into the field. If provided an external catalyst, Congress will be pressed to put aside their longstanding concerns over nuclear ambiguity and authorize full funding.

To Stabilize, Destabilize

A review of Cold War history might inspire American strategists to get off the fainting couch and confront China's ASBMs directly, on almost a missile-for-missile basis. Just as the European deployment of the Pershing II changed the game in Europe by encouraging the Soviet Union to agree to a ban on intermediate-range ballistic missiles, a comparable U.S. step in the Pacific might set the stage for an Asia-focused dialogue on limiting ballistic missiles.

It can be done. Lockheed Martin and Alliant Techsystems completed initial work on submarine-launched intermediate-range ballistic missiles (SLIRBM) a few years ago. Though the project was mothballed, submarine-launched missiles fall outside the scope of the Intermediate-Range Nuclear Forces Treaty of 1987, and they could, if fully funded, reach the Fleet in about five years. Originally intended for Trident submarines, designers expected multiple missiles would fit in each launch tube. The notional SLIRBM may fit into a *Virginia* (SSN-774)–class payload tube as well. With potential to propel a 2,000-pound warhead some 3,000 nautical miles, these missiles could, by offering Asia a protective blue-water based strategic umbrella, seriously impact Chinese military strategy.

Precise, conventionally armed ballistic missiles are poised to become important components of the global arsenal. They are very dangerous. As no-notice, first-strike enabling weapons, these missiles raise the specter of a disproportionate nuclear response or an unwarranted nuclear retaliation from an untargeted third party. Responsible countries of the Pacific Basin have an opportunity to begin discussing these weapons before they arrive and destabilize the region. If ASBM fear-mongering leads to a regional effort to slow the proliferation of conventional ballistic missiles in the Pacific, then all the embarrassing hand-wringing will have been worthwhile.

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Dr. Hooper, a San Francisco-based national security strategist, is a frequent contributor to *Proceedings* and writes at NextNavy.com.

Mr. Albon is a political science Ph.D. candidate at the University of California, Davis, and writes at ConflictHealth.com.