

Emerging from obscurity: small navies and sea-launched land-attack cruise missiles

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ABSTRACT

Sea-launched land-attack cruise missile (SLCM) strikes, one of the most common expeditionary force projection tasks, is traditionally performed by major navies using long-range offensive platforms such as major surface warships and nuclear submarines prized for their range, endurance and capacity. By contrast, small navies are deemed unsuited for such a role, since they typically comprise small warships and conventional submarines, which thereby suit them for peacetime constabulary and wartime sea denial and defensive sea control missions. However, the Russian Navy's use of such assets in late 2015 to launch SLCM strikes against Islamic State (Daesh) targets in Syria demonstrates that expeditionary force projection is not an exclusive province of major navies. Attendant challenges such as the lack of intelligence, surveillance and reconnaissance (ISR) capabilities may limit such roles by small navies but will still potentially spark greater interest amongst them in acquiring SLCMs to bolster their deterrent capabilities.

KEYWORDS

Sea-launched land attack cruise missile; SLCM; small navies; expeditionary force projection; sea denial; defensive sea control

Introduction

The focus in contemporary studies on naval affairs has always been on major navies because of the global influence their governments exert, not to forget mentioning their significant capability enhancements. By contrast, small navies have often been relegated to the shadows of their bigger brethren. They tend to be preoccupied with peacetime constabulary roles, and wartime sea denial and limited defensive sea control missions within the immediate littoral confines. But this can be misleading; first of all, the definition of small navies remains debatable, and their latent potential to play such limited offensive roles as expeditionary force projection has often been overlooked. Small navies in more recent years have started conducting out-of-area operations, such as counter-piracy operations in the Gulf of Aden. But because of the possession of small warships and conventional submarines, their force structure appears to face physical limitations such as constraints on range, endurance and capacity. One could thus imagine small navies remaining confined to constabulary missions even if they project force beyond their immediate waters. High-powered offensive expeditionary force projection tends to be conducted by major navies boasting larger and more powerful assets often centred on a carrier battle group.

This paper argues, however, that small navies are capable not only of limited expeditionary force projection, but also of an increasingly offensive posture, especially from

the use of sea-launched land-attack cruise missiles (SLCMs). The Russians demonstrated this by deploying corvettes and a single diesel-electric submarine (SSK) – long seen as the “capital assets” of small navies – not major surface combatants and nuclear submarines, to launch SLCM strikes at Islamic State (or Daesh) targets in Syria in late 2015. While such small, physically constrained platforms could conduct such missions, the Russians demonstrate that this exists not only in theory but in practice as well. Like how the Persian Gulf War in 1991 subsequently sparked interest in precision-guided munitions, this example may well lead to a greater amount of interest amongst small navies in acquiring SLCMs to serve as force multipliers for their limited deterrent capabilities.

The discussion in this paper unfolds in the following manner. First, the definition of small navies and their traditional functions are highlighted. This leads to a review of past SLCM strikes conducted since 1945, with the purpose of identifying those conditions that facilitate the fulfilment of such functions based on the evolving international security milieu. Thereafter, this paper explores the feasibility of small navies, given the geopolitically uncertain environment they operate in and various constraints they face in modernising their naval forces, such as in acquiring SLCM capabilities in the future.

Small navies and their traditional functions

Notwithstanding their post-Cold War growth, small navies have remained an understudied entity. In view of their owners’ diplomatic, economic and military statures, which thereby extend to the foreign policy roles these forces play in the world’s oceans, research focus has tended to be on major navies, including those of China and India. Small navies, such as those of Southeast Asia, are often relegated to the periphery, leading an obscure existence in the shadows of the major navies. This state of affairs not only ignores the recent significant developments which small navies have undergone, but also creates a potential conceptual issue of conflating them with their major counterparts. But, first of all, it is important to define what a “small navy” is. This is not a straightforward exercise, as Ian Speller and his co-authors noted¹:

It is surprisingly difficult to define clearly what one means by the term “small navy”. The definitional challenge is not helped by the fact that so little has been written about small navies as a group. Perhaps the easiest approach would be to state that a small navy is one that is not large. Unfortunately this simply shifts but does not resolve the problem. What is a large navy or a medium sized navy? The US Navy is clearly large, and when measured against it all others seem small, but this is not entirely helpful. The situation is complicated by the fact that many navies might prefer not to be called “small”, whether for reasons of pride, politics, or delusion.

The conceptual difficulty surrounding “small navies” thus boils down to physical size (whether it ought to be measured as an absolute or relative value) as well as national perceptions and preferences. Geoffrey Till suggested that the classification of navies needs to take into account the size and nature of the fleet, geographic reach, function and capability, access to high-grade technology, and reputation.² He also cautioned that focus on size alone is insufficient given that quantitative measures provide a very unreliable guide to capability, and no guide at all to intended roles and missions. The conceptual differences between great and small navies, he further argues, are more a matter of degree than of kind, postulating that there is fundamentally no real difference between large and small

navies apart from the relative scale of their ambitions in terms of what they aim to do, where they need to do it, the size of their commitments and the challenges they face in defending them.³

Indeed, major and small navies may have similar functions despite different geographical scopes, and both seek to attain as balanced a set of capabilities as possible. Yet their force structures and doctrines do differ because of disparities in their national interests and physical capacities. Major navies tend to cater to their governments' broader regional and global interests, whereas small navies cater to a more limited set of national interests tied more closely to their immediate environs. For example, the extent of participation in international security missions, as well as the quantity of assets committed, would invariably be smaller for small navies. As an illustration, a small navy equipped with just six frigates would find its capacity stretched when committing forces to "out-of-area" operations. By contrast, a major navy equipped with 18 frigates will be more comfortable committing forces for the same purpose. This means that small navies may possess discrete blue-water capabilities but their force structures do not render them blue-water navies. In other words, small navies lag in terms of flexibility, defined as the navy's ability to perform a variety of missions and operations simultaneously and in different geographical locations. This characteristic is primarily a function of surplus; i.e. the total number of ships and aerial assets of specific types in service such that the larger the force structure, the greater the naval flexibility.⁴ Force structures of small navies, even if balanced, constrain strategic policy options, as nicely summarised by Harold Kearsley⁵:

Small navies are those with the ability to reach only out to the limits of their EEZ [exclusive economic zone] and thus have no need or no material capability to conduct naval missions that are above the "diplomacy" mission. Inherent in this assumption is the belief that small navies are really only acquired for the defensive patrolling of coastlines and the enforcement of regulations in their national waters, rather than the anticipation of global contingencies.

Drawing from Northern Europe's experience, there were scholars who attempted to draw a clear distinction between small and major navies, in terms of differences in force structures and scope of functions.⁶ Jacob Borresen, for example, argued that the equipment and doctrines of small navies reflect an "inherently defensive" orientation within EEZ or continental shelf limits.⁷ Linked to this difference in force posture is an attempt by John Mearsheimer to clearly distinguish naval capabilities between those optimised for offensive and defensive sea control. According to him, strike carrier battle groups, major amphibious assault capabilities, nuclear-powered submarines and strategic missile platforms are offensive sea control instruments. Defensive sea control capabilities – submarines not equipped with destabilising strike weapons such as SLCMs; destroyers and frigates; and land-based patrol aircraft – are ideally suited for barrier defences, convoying and wide-area anti-submarine warfare (ASW) operations for instance.⁸ In a way, this is true. A survey of various open-source materials, for example *Jane's Fighting Ships*, Stockholm International Peace Research Institute arms transfers database and the *Military Balance*, shows that unlike small navies, the force structures and procurement preferences of major navies tend towards offensive sea control. The navies of all five permanent members of the United Nations Security Council can boast such offensive sea control assets as major surface combatants including aircraft carriers, nuclear submarines,

sea-based ballistic missiles and SLCMs – all conceived with the broad regional and global interests they have in mind.

Small navies are therefore seen to be preoccupied with peacetime constabulary functions, by virtue of constraints in their defensively configured force structures, whether they are performed within immediate waters or in an international setting. By contrast, enabled by their long-range and offensive sea control capabilities, major navies are primed to undertake expeditionary force projection. However, if one goes by Till's description of small navies as being in many respects "big navies in miniature",⁹ perhaps their potential to play at least a limited expeditionary force projection role has been much understated. To some extent, this needs qualification depending on what sort of expeditionary force projection one is referring to. For example, small navies certainly cannot muster the sort of critical mass in manpower and materiel to conduct large-scale amphibious assault landing operations – similar to what the US Navy and Marine Corps have been famous for accomplishing. Yet in some contexts, small navies can still conceivably play a potentially useful expeditionary force projection role that may require more modest capabilities and organisational efforts, for example carrying out SLCM strikes.

SLCM Strikes: an exclusive province of major navies?

But what is so interesting about small navies conducting SLCM strikes? To be sure, small warships conducting standoff land attacks do not constitute an unfamiliar phenomenon. The Indian Navy used *Osa*-class fast attack craft to launch Styx anti-ship missiles (ASMs) at Pakistani coastal targets in 1971. However, it needs pointing out that the Pakistani land installations which were targeted were located near to the shoreline, not deep inland. This allowed the Styx ASMs to perform a makeshift SLCM role. However, in the first place an ASM is designed to attack ships, not land targets. Even earlier, naval vessels have long demonstrated the ability to carry out missile-based land attacks. The American submarine *Barb*, retrofitted with a US Army multi-barrelled 127-mm rocket launcher, surfaced off the coast of Hokkaido on June 22, 1945, and bombarded the Japanese town of Shari at a 4.8-km range – the world's first-ever submarine missile attack on land targets.¹⁰ Post-1945, it was the major powers which took the lead in developing the first SLCMs – in particular the Soviet Union (with the P-5, NATO [North Atlantic Treaty Organization] codename SS-N-3 Shaddock) and the United States (with the Regulus Attack Missile).

Early SLCM development tends to favour such large platforms, given the range, endurance and capacity afforded. The significant physical size of major surface combatants and nuclear submarines generally translates into inherent attributes such as longer range and endurance since they can carry more fuel (in the case of nuclear propulsion, having virtually infinite range and endurance while saving spaces for other purposes) and space for crew habitability and comfort. This translates into extended loiter or on-station periods, thus allowing the platform to utilise its mobility to cover a vast operational area which is ready to launch SLCMs upon receipt of orders. For a nuclear submarine, the additional advantage conferred by its propulsion is stealth, since it does not have to snorkel like its diesel-electric counterparts and expose itself to enemy anti-submarine countermeasures. Size also translates into capacity for a more significant SLCM payload, even if other types of armaments are carried on board. Operational, tactical and technical advantages aside, major surface combatants and nuclear submarines thus

confer significant strategic flexibility to the planners. They can be deployed worldwide, making full use of their range, endurance and capacity, and stealth. As such, since 1945 the predominant focus where sea-based cruise missile land attack is concerned has always been vested in major surface combatants and nuclear submarines. These types of forces are naturally found in the navies of major world powers which can muster the resources to develop them. At the same time, they are often out of reach for the small navies, which can only afford to operate a small quantity of select types of such platforms. Nuclear submarines in particular are not found in these navies, even though SSKs can be equipped with SLCMs.

Theoretically, small navies may still muster platforms, albeit in limited quantities, that can carry out SLCM strikes. But throughout history, it has been major navies and their major surface combatants and nuclear submarines demonstrating this form of expeditionary force projection – until late 2015, as [Table 1](#) shows.

With few exceptions, the number of SLCMs launched in most of the campaigns listed in [Table 1](#) required the use of major surface combatants and nuclear submarines as the platform. Generally, it is also observed that more demanding campaigns involve risks to personnel for manned strikes against strong enemy defences and, if the operation involves state adversaries, require significant quantities of SLCMs, for the purpose of saturating multiple targets and partly also as a way to ease the burden on other combat units, freeing them for other missions.¹² Mustering this critical mass requires both a sizeable inventory of missiles and requisite platforms which can deliver this capacity, especially where strategically and operationally expedient. Only major navies have demonstrated this ability so far. For example, the USN (United States Navy) launched 100 TLAMs (Tomahawk Land Attack Missiles) at Iraqi targets in Kuwait and Iraq on just the first day of Operation Desert Storm in 1991.¹³ In 1994, the USN reportedly maintained in the Persian Gulf and Red Sea up to five ships which mustered a total of 200 TLAMs for rapid response to any contingencies.¹⁴ Prior to the Kosovo War in 1999, the USN was able to allocate some 300 TLAMs, against Yugoslavia, out of the total of around 2600 missiles deployed in the entire fleet.¹⁵ In the run-up to the invasion of Iraq in 2003, the USN amassed at least 30 TLAM-capable warships and submarines in the Persian Gulf area.¹⁶ In one single engagement, the USN launched about 320 TLAMs from four cruisers, four destroyers and two SSNs at Iraqi targets.¹⁷ Major navies, in this case the USN especially, do possess a significant stockpile to deploy these capabilities. The USN expended over 320 TLAMs in 1998 against Iraq, thus exceeding the number used during the Persian Gulf War 7 years before. Yet this merely consumed just over 15% of its entire TLAM inventory.¹⁸

The use of SLCMs not only puts aircrews out of harm's way, it is also effective. For instance, according to the Pentagon, TLAM strikes at Iraq in December 1998 achieved an accuracy level that exceeded the consistently held 85% figure.¹⁹ The Pentagon also drove down the cost of TLAM – by developing the Tactical Tomahawk in the 1990s, costing just US \$750,000 apiece compared to US \$1.2 million for an original TLAM – allowing the procurement of a larger number of these missiles. The flexibility in payload mix offered by the much larger capacity on board major surface combatants and nuclear submarines makes them the preferred SLCM platforms. All these make SLCMs a persistently attractive proposition, so much so that the USN in particular pushed for major surface combatants and nuclear submarines to carry more and more TLAMs. The *Zumwalt*-class destroyer, dubbed the “Arsenal Ship”, is supposed to be

Table 1. SLCM Strikes Conducted Since 1991.

Date	Objective	Belligerents	Launch platforms	Number of LACMs
January 1991	To evict Iraqi occupation forces from Kuwait	US vs. Iraq	USN major surface combatants and nuclear attack submarines (SSNs)	288 Tomahawk Land Attack Missiles (TLAMs)
January 1993	To destroy factory near Baghdad suspected of being linked to a secret Iraqi nuclear arms programme	US vs. Iraq	USN major surface combatants and SSNs	About 45 TLAMs
June 1993	Retaliation against Iraq for attempt to assassinate US President George Bush in Kuwait	US vs. Iraq	2 USN major surface combatants	23 TLAMs
September 1995	To compel Bosnian Serbs to withdraw forces from Sarajevo	NATO vs. Bosnian Serbs	1 USN guided missile cruiser	13 TLAMs
September 1996	Retaliation against Iraqi forces' moves into US-protected Kurdish sanctuary in northern Iraq	US vs. Iraq	4 USN major surface combatants and 1 SSN	Over 30 TLAMs
August 1998	Retaliation against terrorist bombings of US embassies in Kenya and Tanzania	US vs. terrorist organisation in Afghanistan and Sudan	2 USN major surface combatants and 1 SSN	Over 75 TLAMs
December 1998	Retaliation against Iraq's failure to comply with UN weapons inspectors	US and UK vs. Iraq	USN major surface combatants and SSNs	Over 320 TLAMs
March 1999	Response against Bosnian-Serb ethnic cleansing of Albanians in Kosovo	US and allies vs. Yugoslavia	4 USN major surface combatants and 2 SSNs; 1 RN SSN	470 TLAMs
October 2001	To topple Taliban regime in Afghanistan	US and allies vs. Taliban	USN major surface combatants and submarines; 2 RN SSNs	Over 675 TLAMs
March 2003	To topple Iraq's Saddam Hussein regime	US and allies vs. Iraq	USN major surface combatants and submarines; RN SSNs	Over 700 TLAMs
December 2009	Strikes against Al-Qaeda hideouts in Yemen	US vs. Al-Qaeda	USN (platform unknown)	Unknown but small number of TLAMs
March 2011	To topple Libya's Muammar Gaddafi regime	US and UK vs. Libya	USN major surface combatants and submarines; RN SSNs	Over 200 TLAMs
September 2014	Strikes against Al-Qaeda militant group in Syria	US vs. Al-Qaeda militant group	USN major surface combatants and submarines	47 TLAMs
October 2015	Strikes against Daesh in Syria	Russia vs. Daesh	1 frigate and 3 corvettes of Russian Navy's Caspian Flotilla	26 Kalibr-NK SLCMs
December 2015	Strikes against Daesh in Syria	Russia vs. Daesh	1 conventional submarine of Russian Navy's Black Sea Fleet	Unknown number of Kalibr-PL SLCMs

Source: Author's compilation from multiple sources, including news reports.¹¹

Note: Land attack cruise missile (LACM), Royal Navy (RN), nuclear-powered attack submarine (SSN)

capable of carrying a massive payload of 500 missiles that include TLAMs. Four older *Ohio*-class ballistic missile submarines were even converted into SLCM platforms, each with its 24 ballistic missile tubes replaced by 22 seven-round launchers for TLAMs – totalling a whopping 154 TLAMs carried by merely one submarine.

But it is also clear that in some instances, such overwhelming use of force may not be required. SLCM strikes may be used for “lower intensity” politically symbolic strategic

rationales. For example, President Bill Clinton described the TLAM attacks on Iraq in June 1993 as such: “We made it absolutely clear that we will not tolerate acts of terrorism . . . I think it sent a very important message.”²⁰

In such instances, small warships and conventional submarines can come in handy. This existed in theory at least until October 2015, when the Russian Navy made history by putting this into practice – deploying three Project-21631 *Buyan M*-class corvettes to launch its first SLCM strikes against Daesh targets in Syria, followed about 2 months later by a *Kilo*-class SSK, the RFS *Rostov-On-Don*. In these two instances, the number of SLCMs launched is significantly smaller than in past antecedents.²¹ These platforms do not carry a sizeable payload like their larger counterparts – for example, there are just eight Kalibr SLCMs on each of these small warships, as opposed to hundreds on the major surface combatants. Yet they would have sufficed in meeting Moscow’s strategic objectives. What is so interesting is that this unprecedented Russian example shows that small navies with such physically constrained platforms can still exert at least limited expeditionary force power projection for the purpose of attaining limited political objectives. During an interview in October 2015, following the SLCM strikes, Vice-Admiral Viktor Bursuk, Deputy Commander-In-Chief of the Russian Navy, had this to say: “No one in the world could think that such powerful weapons can be installed on Project 21631 vessels, whose displacement is so low”.²²

SLCMs: next wave of proliferation amongst small navies?

The Russian exploits in October and December 2015 may further catalyse worldwide interest in SLCMs. So far, such a weapon has proliferated primarily amongst the major powers. Following the successful debut of the TLAM in 1991, SLCMs became sought after. For example, Great Britain purchased the TLAM in the 1990s, whereas in May 1994, France announced plans to develop an equivalent SLCM by 2001.²³ Medium military powers, which have since emerged on the world stage to exercise greater regional and international roles, have also started to pay notice to SLCMs. Canada, for instance, mulled over the purchase of SLCMs in July 2001.²⁴ In December 2005, the Netherlands expressed the intention to purchase up to 30 TLAMs in a US\$ 67 million deal, though it was later postponed.²⁵ Amongst small navies, Israel is reportedly the first to acquire SLCMs, said to be either a modified Popeye Turbo or Sub-Harpoon missile,²⁶ even though Tel Aviv had not officially acknowledged having such a capability. But SLCMs have slowly crept into the service of small navies which were hitherto traditionally confined to just defensive coastal missions. Northern Europe, the groundswell of existing studies on small navies, is the scene of recent action. Norway, for instance, armed its *Fridthjof Nansen*-class frigates with land attack-capable Naval Strike Missiles (NSM). The new Danish major surface combatants possess a recessed SLCM capability. In no small part spurred by an increasingly assertive Russia and tensions in Europe, Poland has also expressed interest in procuring SLCMs for its submarines.²⁷

In the Indo-Pacific region, SLCM proliferation initially began with the navies of major and medium powers, mainly in Northeast and South Asian sub-regions. In May 2003, a Japanese report claimed that back in 1993, Tokyo had conducted a feasibility study on purchasing SLCMs following North Korea’s launch of Rodong ballistic missiles which were reportedly capable of targeting Japan.²⁸ Following the failure to acquire the TLAM

from Washington since late 1991, Seoul has since developed its own Hyunmu-3C SLCM, in 2008, and has started its mass production, eventually deploying the first missiles on its new destroyers in November 2012.²⁹ Australia has long evinced interest in SLCMs, primarily to equip its submarines, since the 1990s, and had acquired the Harpoon Block-II with coastal target suppression (CTS) capability.³⁰ But it is also clear that small Indo-Pacific navies have recently begun to take interest in SLCMs to bolster the deterrent value of their limited arsenals. This is motivated in no small part by SLCM proliferation amongst their larger regional counterparts. Pakistan is reportedly keen to equip their new *Yuan*-class SSKs with an SLCM based on the indigenous *Babur* design. In Southeast Asia – home of the Indo-Pacific small navies – Vietnam has acquired the *Klub* SLCM to equip its *Kilo*-class submarines.³¹ Malaysia was slated to procure the NSM to equip its Second-Generation Patrol Vessel-Littoral Combat Ship (SGPV-LCS) in late March 2015.³² In December 2013, Jakarta evinced interest in Russia's *Kilo*-class submarines because of their ability to fire advanced missiles capable of a 300–400-km range, saying that it is considering a number of weapons for equipping the boats, including the *Klub-S*.³³ The Russian success in December 2015 will plausibly fuel this interest.

But it needs to be pointed out that the Russian Navy's feats may be an aberration. After all, these assets benefitted from Moscow's extensive command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) capabilities that facilitate SLCM strikes.³⁴ Indeed, good C4ISR is vital for targeting purposes, especially for long-range surgical SLCM strikes. The *Barb*'s action in 1945 and the Indian Navy's feat in 1971 notwithstanding, these episodes were definitely far from being classified as long-range or surgical strikes. However, C4ISR capabilities, which include unmanned and manned assets in the air, land, sea, underwater, space and cyber domains, may not be available to any but the most advanced military forces. Perhaps with the exception of the major powers, the vast majority of militaries worldwide may at best attain a smaller scale, or incomplete, array of C4ISR capabilities across the abovementioned domains. Such capacity constraints will limit how SLCMs can be employed by small navies. Nevertheless, open, commercial access to tools of modern information communications technologies may somewhat alleviate this targeting problem. Even though it is arguably inferior to, say, high-resolution, military-grade satellite imagery that is available to major military powers, commercial satellite imagery may provide rudimentary targeting data. This may appeal to countries without their own indigenous means or access to foreign military partners' capabilities.

That being said, depending on the type of targets as well as the terrain over which the SLCMs are intended to fly, small navies possessing limited access to C4ISR may still possess a certain degree of credible deterrent derived from their tiny SLCM arsenals. For instance, Vietnam may not have the requisite C4ISR capabilities to allow long-range surgical SLCM strikes against targets deep within China in times of war. The limited quantity of SLCMs also confines Hanoi to select only highest priority targets that can impose credible costs upon Beijing. In a hypothetical Sino-Vietnamese wartime scenario, well-manned Vietnamese *Kilo* boats making maximum use of familiarity with local hydrographical conditions can conceivably still deliver a punch at such targets arrayed along the Chinese southern coast of Guangxi Province. Certain parts of the strategic Hainan Island can also be targeted. The two sets of major Chinese naval piers located in the vicinity of Sanya are not considered deep inland targets for the Vietnamese *Kalibr*

SLCM's CTS role. If the Vietnamese can secure timely intelligence, they may be able to catch the Chinese submarines moored alongside the exposed piers instead of being securely kept in caves. From Vietnamese coastal waters in Da Nang, for example, *Kalibr* SLCMs launched by the *Kilo* boats can fly with ease over water to those targets. If they are equipped with sub munitions warheads, the missiles can still wreak havoc upon the shore infrastructure, submarines and irreplaceable crew.

In any case, other than such C4ISR shortfalls not necessarily dampening the interest in SLCMs amongst small navies, such forces are in the long run also undertaking steps to rectify these limitations. Remote-sensing satellite and unmanned aerial vehicle (UAV) technologies are currently proliferating amongst countries possessing small navies. Israel already possesses a relatively comprehensive C4ISR suite, comprising the *Ofeq*-series reconnaissance satellites and its array of UAVs that can facilitate targeting for its SLCM capability, if it exists. Vietnam is certainly keen on establishing a comprehensive C4ISR suite through investments in remote-sensing satellite and UAV technologies to augment its kinetic deterrent capabilities, without a doubt including its tiny SLCM arsenal.³⁵

Conclusion

Long-range expeditionary force projection is no longer an exclusive province of major navies and their large surface warships and nuclear submarines, which have traditionally been the premier SLCM platforms to carry out such missions. As the Russian examples in late 2015 showed, small surface and sub-surface combatants, the “staple” of small navies worldwide, may still achieve effects disproportionate to their sizes, albeit for pursuing limited political objectives. To be sure, small navies may not be capable of saturation-type SLCM strikes at a large number of targets in the event of armed conflict, but their limited SLCM arsenals may still pose a credible deterrent and, if necessary, may allow them a niche area of contribution to international security operations. Small navies are therefore no longer mere coastal forces confined to just defensive tasks within immediate home or regional waters, or even farther afield. The advent of SLCM technologies available on the global market, along with associated C4ISR technologies such as remote-sensing satellites and UAVs, would imbue these small navies with a broader range of capabilities in their attempt to build balanced fleets in order to pursue a broad array of strategic options.

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Notes

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 13. Frank, “US Gulf War costs some 500 mln dlrs a day – analysts”.
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 15. “Some 300 US navy cruise missiles aimed at Yugoslavia”, *Agence France-Presse*, April 6, 1999.
 16. Ian Timberlake, “At least 30 ships able to hit Iraq with Tomahawk missiles: admiral”, *Agence France-Presse*, March 5, 2003.
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 18. “Tomahawk diplomacy comes with high price”. But even Washington was concerned that the USN may run out of TLAMs. For example, while conducting the war in Kosovo in March 1999, the Pentagon professed: “We have a supply now but it won’t last forever. But we certainly have enough to continue striking important targets”. This is despite the USN having more than 2000 TLAMs in its inventory. John Diamond, “Pentagon scrambles to avert cruise missile shortage”, *Associated Press Newswires*, March 31, 1999.
 19. “TLAM accuracy against Iraqi targets exceeded 85 percent”, *Armed Forces Newswire Service*, December 22, 1998.
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 21. The three corvettes along with a single frigate of the Caspian Flotilla fired a total of 26 missiles at 11 Daesh targets. “Caspian Flotilla ships fire 26 cruise missiles on IS targets in Syria – Defence Minister Shoigu”, *ITAR-TASS World Service*, October 7, 2015.
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32. “Malaysia chooses NSM missile for littoral warship”, *Bernama Daily Malaysian News*, March 21, 2015.
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