



War on the coastline: mitigating civilian harm in the littorals

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With 80 per cent of the world's population living within 100 kilometers of a coastline, and maritime trade accounting for around 90 per cent of world trade, a significant percentage of world economic and human activity takes place in coastal areas. It is therefore evident that civilians and civilian infrastructure are likely to be affected by war in the littorals, more so than anywhere else in the world.

In this post, retired Commodore Prashant Kahlon discusses the relevance of the principles and rules governing the conduct of warfare at sea to mitigate harm to civilians, in the context of means and methods of warfare in the littorals.

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The ability to land on enemy shores has always been a source of strength for those who possess it and bane for those who face it. For more than three millennia, civilizations have been dominated by the interweaving of economic, strategic and military narratives on own or foreign coasts. It is therefore but natural for most of the leading armed forces of the world today to have invested in their abilities to undertake successful joint operations on distant shores.

With war in the littorals being a reality of warfighting today and in the future, the importance of mitigation of harm to civilians in the littorals therefore gains that much more significance and relevance.

What is littoral?

In a generic sense, littoral refers to a coastal region or an area bordering water. *According to the US military*, littoral comprises of two segments – the seaward segment that extends from the open ocean to the shore and the landward segment that includes an area inland from the shore. Military doctrines of different countries have specified the width of this strip of land and sea differently, based on their respective military capabilities.

India's Maritime Military Strategy published in 2007 defines littoral as, “[t]hat swath of land and sea of an approximate width of 300 nautical miles (200 nautical miles of EEZ and 100 miles inshore) where the large proportion of human, economic, political and industrial activity is carried out. It is also the area where the operational domains of sea, land and air merge”.

Type of operations in the littorals

Littoral warfare is inherently joint (military operations taking place simultaneously in land, air, sea, space and cyber domains) and could include a wide spectrum of operations in support of different operational concepts. The British military operations in the Falklands/Malvinas from May–June 1982 (Operation Corporate) is an example of a major joint operation projecting force ashore. The landing of Allied troops on the beaches of Normandy in June 1944 (Operation Neptune) was an *amphibious operation*. During Operation Overlord, between 13,632 and 19,890 French civilians were killed. In addition, 11,000 to 19,000 are estimated to have died during preparatory phase bombings. Naval battles fought in the Russo–Japanese War (1904–05) are examples of pure naval operations in the littorals. Malta Convoys during the Siege of Malta (June 1940 to May 1943) are examples of convoy operations. 1,493 civilians died and 3,674 were wounded in the *first six months of 1942* alone.

Enforcement of blockades is also an example of operations in the littorals. Originally intended to stop military reinforcements, the effects of blockades today are more economic in nature. Snapping maritime links of a country could lead to shortage of food and medical supplies, causing large scale deaths due to starvation and lack of health care. Stoppage of international maritime trade could break the economy and severely strain the local populations. The *ongoing naval blockade* imposed on Yemen by Saudi Arabia led coalition has allegedly caused more than a million deaths and large-scale malnutrition.

Military hardware involved in littoral warfare

Harm to civilians would come from the ordnance, equipment, weaponry and platforms used. It is therefore important to understand what is likely to be encountered by civilians in a littoral warfare scenario. The primary capabilities that are likely to be encountered in the littorals are light frigates, multi-purpose corvettes, amphibious ships, mine countermeasure vessels, fast attack craft, coastal missiles and batteries, ship and land-based aircraft, attack submarines, autonomous platforms and weapon systems, short- and medium-range anti-ship and ballistic missiles, sea mines, integrated air defense systems, rockets and guns of various calibers.

Sea mines easily stand out as one of the most feared weapons in the littorals. Difficult to detect and remove or render harmless, they can be used in both offensive or defensive roles. While they are not prohibited per se and are lawful weapons, there is a robust legal framework that governs their use – especially in the littorals (e.g. *San Remo Manual Articles 82 – 86; Letts, p 543–565*).

Despite all these precautions, there have been instances of unlawful mining. Hundreds of unmapped and unaccounted mines are feared in the Black Sea in the ongoing *Russia–Ukraine international armed conflict*. *Coastal warning and advisories* issued by NATO and Western Black Sea coastal naval authorities exist in this regard.

Once laid, minefields need to be notified and after hostilities are terminated, the responsibility of clearing, removing or rendering them useless rests with the belligerent who deployed them. Also, belligerents need to exercise positive control over their respective mine fields. Free-floating mines are prohibited unless they are directed against a military objective or have become harmless within an hour after loss of control. Further, mining cannot be affected in neutral waters. They are not to be deployed with the sole objective of intercepting commercial shipping (strategic blockade is however allowed). Mining of areas of indefinite extent in international waters is prohibited. Limited ‘barred areas’ are allowed provided neutral shipping retains alternate route(s) with reasonable assurance of safety.

Maritime environment in the littorals

What a military commander expects in the littorals may vary from area to area. The maritime environment in the Arabian/Persian Gulf is different from that in the Black Sea off Odesa. In general, as one approaches the coast from the sea, there is an increase in surface traffic in the form of coastal craft, fishing and ferries, and also an increase in civil aviation traffic. Wind farms and offshore oil, gas and desalination installations could also be experienced in relatively shallow areas.

Other objects associated with the littorals that would merit special attention due to their civilian nature include underwater pipelines, cables, moorings, navigation buoys, navigation marks recreation areas, amphibian operating areas, yacht clubs and offshore jetties at sea, and harbours, jetties, shipyards, housing, oil tanks and infrastructure associate with ‘blue economy’ on land. Military commanders could therefore experience a more complex, dynamic and challenging physical environment in the littorals than in the open seas. Since littorals is a theatre of various kinds of human interactions, conduct of military operations here becomes a high-risk endeavour where there is an ever-present danger of hitting wrong (civilian) targets. The sensor to shooter cycle definitely gets more complex.

Mitigation of harm to civilians in littorals

Customary and treaty laws

Both customary and treaty law provide for a robust legal framework aimed at avoiding or at least minimizing harm to civilians and civilian objects during hostilities, including at sea. Additional Protocol (AP) I Articles 48–67 provide protections for the civilian populations from the effect of hostilities. AP I Article 49(3) refers specifically to sea warfare and can be directly applied to warfare in the littorals since it covers attacks from the sea or air against objectives on land.

In addition to the Geneva Conventions and Additional Protocols, the Hague Conventions and the 1994 San Remo Manual on International Law Applicable to Armed Conflict at Sea have also addressed this issue in great depth. The San Remo Manual carries special significance since, for almost three decades, it has been widely recognized as a contemporary restatement of the principles and rules of international law applicable to armed conflict at sea. The San Remo Manual, although not perfect or without criticism (e.g. *Fink*; *Heintschel von Heinegg*; *Dannenbaum*), integrates provisions of the Geneva Conventions and AP I of 1977 with the much older treaties on the law of naval warfare, as well as the *law of the sea*, and provides a useful and most-often cited consolidated reference. It was adopted in June 1994 and, although the San Remo Manual in itself is not a binding instrument, the customary international law rules contained therein are binding upon all States.

There are three general principles within the law of armed conflict – military necessity, humanity and honour, supported by the principles of distinction, proportionality and precautions – that aim to minimize unnecessary suffering and destruction. It is important to apply these principles of the law of armed conflict and various provisions in international laws and treaties collectively and not in isolation to the situations encountered in the littorals, towards mitigating harm to civilians.

Military interests vs human considerations

The principle of military necessity ensures that violence cannot be used to cause unnecessary human misery and physical destruction. The principle of humanity enables protection of civilian populations and civilian objectives. These two principles balance each other to minimize harm to civilians and civilian property.

Armed forces today are trained to develop and adopt mindsets that give great significance to human aspects in military operations. Training forms the bedrock of how forces visualize the battlespace and interact with those encountered there by striking the right balance between military interests and human considerations. Beirut, Mosul, Aleppo, Bakhmut and Mariupol are examples where this fine balance toppled.

Lawful objects of attack

The principle of distinction is concerned with distinguishing civilians and civilian objects from combatants and military objectives, thereby defining lawful objects of attack. *Article 48, 51(2) and 52 AP I* are clear in the requirement to distinguish between military and civilian objects and protection of civilian objects from attack. These carry great significance in the littorals because of the large spectrum of civilian objects. A jetty can have ferries transporting civilians and warships taking part in hostilities, berthed in close proximity. A ferry could be a dual use object transporting civilians and enhancing maritime domain awareness (MDA) of the belligerent. Targeting problems have existed in the past and are likely to be encountered in the future. Training and technology today ensure credibility and effectiveness of targeting, enabling all possible precautions to save civilian lives even when attacking legitimate military targets.

The establishment and enforcement of zones such as a Maritime Exclusion Zone, covered in great detail in the San Remo Manual (e.g. Paragraphs 105–108), can be an important measure that facilitates distinction at sea primarily between belligerent and neutral or civilian vessels. Safe passage of neutral merchant ships in Falkland/Malvinas War, Tanker War and the First and Second Gulf Wars could perhaps be attributed to the success of this measure.

Means and method of military operations

Article 51(4) AP I prohibits indiscriminate attacks that strike military objectives and civilians and civilian objects without distinction. *Article 51(5) AP I* provides in full the types of attack that could fall under the category of indiscriminate. Further, *Article 85(3)(b) AP I* clearly prohibits indiscriminate (naval) bombardment that could lead to unnecessary suffering. *Paragraphs 42 and 45 of the 1994 San Remo Manual* also forbid methods or means of warfare which are indiscriminate. Parties to armed conflict operating surface ships, submarines and aircraft are bound by these rules. Such measures have prompted greater focus on undertaking surgical strikes using pin-point accuracy and precisely delivered munitions, thereby minimizing harm to civilian populations.

There are further amplifications in the Hague Convention (IX) concerning bombardment by naval forces in times of war. *Article 1(1) of the Convention* forbids bombardment by naval forces of undefended ports, towns, villages, dwellings or buildings. *Article 6* further amplifies that if military situation permits, naval forces need to warn the authorities before commencement of bombardment. The Hague Convention even codifies that coastal fishing vessels are not liable to capture, condemnation in prize or targeting.

Conclusion

Civilian harm mitigation is best executed at an organizational level. If fighting in the littorals is the reality of tomorrow's war (in the maritime domain) then it is important that ammunition, systems, sensors and platforms are developed to ensure maximum safety of civilians. The development and induction cycles of these improved inventory need to be supported by foundational curriculum in training institutions that include modules on responsible employment of weapons and platforms, minimizing civilian casualties and stress on accountability mechanisms. It is important the countries that send their armed forces to battle ensure that in accordance with *Article 83 AP I* and *Article 87 AP I*, instructions in laws of warfare are imparted to those who level responsibilities and who can prevent breaches of law. These efforts need to be augmented by advisory programmes aimed at protection of civilians.

The protection of civilians from harm in an armed conflict is best possible if commanders themselves observe and ensure that their commands follow the principles and rules of international laws. This is best possible if the rules of engagement that form the basis for making wartime decisions take into cognizance existing treaties and customary international law governing the conduct of armed conflict. The threat of prompt investigation and action

against alleged violators of IHL and subsequent corrective action by respective organizations could send a strong message and help save precious civilian lives.

In the words of Prussian general and military strategist Karl von Clausewitz, “War is an act of violence pushed to its utmost bounds”.

It is these “bounds” that need to be enforced.

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