

SHIPPING – VULNERABILITY TO TERRORISM AND OTHER SECURITY THREATS

Around the world there are several maritime ‘pinch points’ which act as vulnerabilities in the global trading network. At various times in the past decade these have been affected either by piracy (e.g. off the Somali coast or the Malacca Straits) or by geo-political conflict and terrorism. The issue has come to prominence following the action recently taken against a UK-flagged oil tanker by Iran’s Islamic Revolutionary Guard in the Straits of Hormuz in retaliation for the seizure of an Iranian tanker by the British in Gibraltar. However, the threat to shipping comes from multiple actors and in many geographies around the world.

The concentrated shipping channels which are discussed below are not the only potential targets for criminals, terrorists or rogue states: attacks on major supply chain nodes such as ports would have enormous economic impact. However, security at these locations tends to be very high in contrast with the vulnerability of ships moving, in many cases, a long way away from the protection of security forces.

This paper provides a brief summary of some of the most vulnerable shipping channels and assesses their exposure to risk.

THE MAIN ACTORS

For centuries, securing trade lanes has been a fundamental priority for national governments in the West, although in recent decades a level of complacency and defence cuts has meant that their ability to ensure this has been severely compromised. Their attitude would seem to be all the more counterintuitive given the political volatility and instability of many regions which have increasing importance to the global shipping industry.

Threats to shipping emanate from three main sources:

- Rogue States

One of the main threats comes from hostile action by so-called ‘rogue’ states. Political relationships are by their very nature fluid and as such the countries which fall into this category vary from year to year. President Trump, for example, has made overtures to North Korea which only a couple of years ago would have been unthinkable. In contrast, relationships between the West (especially the USA and UK) and Iran have deteriorated. Another category can be identified – ‘failing states’ – into which Afghanistan, Iraq, Yemen and Syria could be placed at various times over the past decade. Their collapse created a security vacuum in which insurgents, terrorists or warlords could thrive.

- Terrorists

There is considerable fear amongst Western governments around the world that terrorists could target these pinch points to inflict severe economic damage. Attacks could take the form of sinking a ship through either bombing or assault (boarding, hijacking and scuttling), setting off a ‘dirty’ bomb smuggled on board or compromising the integrity of the transport infrastructure (for example, by damaging locks, canals, bridges, tunnels etc). In reality the geographic scope of some of these pinch points is so vast that defending them from terrorist attack is almost impossible. The only robust defence relies on intelligence work which can stop an attack at the planning stage.

- Pirates

In recent years piracy on the world's shipping lanes has become a major issue for shipping lines, shippers, insurance companies and governments. The breakdown of law and order in countries close to major shipping lanes has meant that criminal gangs have been able to prosper by attacking ships, stealing cargos and holding crew hostage, often working in conjunction with impoverished and disaffected local communities. Somalian pirates have had the greatest impact on shipping costs and are now only kept in check by a coordinated international military response. Links also exist between pirates and terrorists which may be funding their operations through ransom payments. Destabilization of countries' governments is in the interests of both these types of 'bad actors'.

THE KEY 'PINCH POINTS'

The Straits of Hormuz

Much in the news recently, the Straits of Hormuz are a narrow passage between Iran and Oman linking the Gulf with the Indian Ocean. Twenty per cent of the world's oil supplies pass through the Straits as well as container vessels using the UAE's and other Gulf countries' ports.

Since the election of President Trump, tensions between Iran and the West have increased after a period of rapprochement. The sanctions imposed by the West led to an Iranian tanker being impounded by the British in Gibraltar which in turn caused a British-flagged ship to be seized by the Iranians as it sought to transit the Straits.

Despite this, Iran's threats to close the Straits have in the past been dismissed by analysts as economically and politically counterproductive, risking all out war with its powerful neighbours Saudi Arabia and the UAE, as well as their Western allies.

Figure 1 Map of the Straits of Hormuz



The traditional focus of concern over the Straits has been the implications for oil prices. Certainly, any problems in the Gulf would affect the flow of oil out of the marine terminal at Ras Tanura as well as that from Iraq and LNG from Qatar. The option of moving oil through the Red Sea coast port of Yanbu is only a partial solution.

However, in contrast to periods of tension with Iran in the past, the Gulf is now the focus for logistics infrastructure of global significance. Most notable is the container terminals in the UAE. Jebel Ali in Dubai is one of the ten largest container ports in the world. It is particularly important for transshipment and plays a key role in traffic between Europe, South East Asia, Japan and China.

Dubai's other logistics resources, such as its air freight and warehousing could also be badly, if indirectly, affected.

If container vessels are not able to pass through the Straits of Hormuz, or if increased insurance premiums make doing so less attractive economically, then freight transport patterns may have to change. It is unclear what the result of this might be, however there are alternative transshipment ports in the Mediterranean and Indian Oceans although none of them have the capacity of Jebel Ali.

Another logistics sector that may be badly disrupted is that of chemical logistics. The past decade has seen a huge expansion of bulk chemical production in the Gulf and it is now one of hubs of the global chemical industry. A disproportionately large consumer of marine logistics, any problems here would ripple across the world, affecting Asia Pacific in particular.

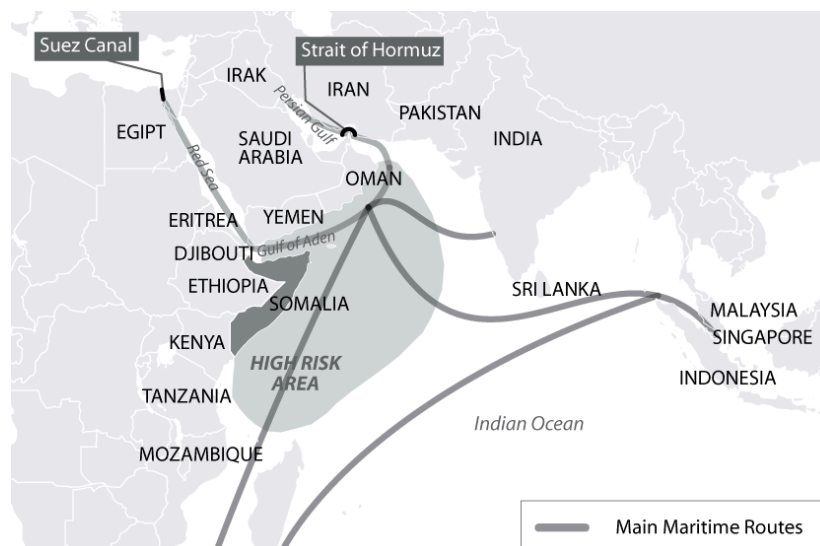
Understandably, the main concern around friction in the region focuses on oil and gas. However, the world's economy has changed since the 1970s and 80s, with Middle Eastern oil being less dominant than it was and logistics being of greater importance.

Horn of Africa

The failed state of Somalia has, for two decades, spawned high levels of criminality not only within the country itself, but also in the waters off its coasts. Locals, usually former fishermen, turned (and continue to turn) to piracy as a way of augmenting their meagre incomes and, many would say, as a result of the extreme poverty which exists in this part of the world. However, this characterization over-simplifies the situation, as many of the groups involved in piracy had links with criminal and Islamic fundamentalist terrorist organizations, such as al-Shabaab, which controls parts of the country. Despite the success of stemming the number of attacks these links still exist.

As can be seen from the figure, there is a confluence of some of the world's busiest shipping lanes in the region.

Figure 2 Horn of Africa High Risk Area



Piracy was a hugely profitable activity for the local community due to the complex 'supply chains' which have, themselves, built up around the industry. The World Bank estimates that between 70–

86 per cent of the revenues generated from ransoms go to the suppliers of goods and food to the pirates guarding the hostages, as well as in bribes and payments to local politicians and administrators.

The fast growth in Somali piracy was perhaps fundamental to catching the international community and shipping industry off-guard. Global supply chains were severely affected by this development, due to the important shipping lanes that pass in close proximity. The modus operandi of Somali pirates evolved over the years from simple inshore forays to the boarding of passing shipping, to the use of mother ships which allowed them to extend their reach far out to sea.

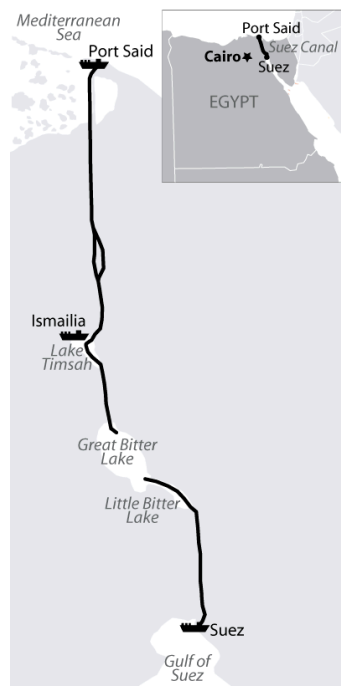
Although out of the media spotlight, the issue of piracy in these waters has not gone away. An operation – EU Navfor Somalia – is still in place, which coordinates the response of European navies in the region. One event in April 2019 involved the capture of a dhow by pirates to be used as a mother ship, and the subsequent attack on two fishing vessels. Although 23 seamen were taken hostage, prompt action by the multinational force (a frigate and maritime patrol aircraft) led to their release.

“This incident clearly demonstrates that piracy and armed robbery at sea off the coast of Somalia have not been eradicated,” said Operation Commander Rear Admiral Antonio Martorell Lacave following the incident. “The need for a strong maritime security presence in the High-Risk Area remains critical for the deterrence and prevention of future incidents and attacks.”

The Suez Canal

The volatile political situation in Egypt, first with the overthrow of President Mubarak and then President Morsi, increased risks to one of the world’s busiest waterways, the Suez Canal. The canal handles about 7 per cent of the world’s trade and is transited by over 17,000 ships a year. After the Straits of Hormuz, the canal is the second most important pinch point for oil and liquefied gas heading from the Middle East to Europe and North America.

Figure 3 Map of the Suez Canal



Any geo-political or security event which resulted in the closure of the Suez Canal would have major implications for shipping and world trade. It would force ships bound to and from Asia to instead use the Cape of Good Hope in South Africa adding many days to the transit time. Whereas ships using the Suez Canal only travel 12,000 kilometres from the Arabian Gulf to London, those choosing the Cape of Good Hope would travel 20,900 kilometres. In terms of days, such a transit would be 24 days compared with 14.

Going via the Cape would increase not only operational costs such as fuel, chartering, crewing (impacting on rates charged to shippers), but also add significantly to inventory costs as shippers would have to bear an additional 10 days of capital.

Threats to the Suez Canal come from a number of sources:

- On-going civil unrest in Egypt;
- international terrorist organizations;
- a wider Middle Eastern conflict.

Each of these threats has a varying level of probability. The present poor security situation in Egypt is perhaps the most pressing as the Suez Canal would become a valuable strategic asset to both sides in a civil war. At present the Egyptian military has provided sufficient security, ensuring that operations were not affected even during the uprising against Mubarak. However, the long-standing conflict between the Muslim Brotherhood and the Egyptian army risks becoming far more serious to the long-term stability of the country. Providing \$5.1 billion in revenue from tolls, there is an obvious interest to all sides to keep the canal open. However, it could also be used as a bargaining chip in any political manoeuvring which may occur.

The economic value of the canal, both in terms of world trade and impact on the Egyptian economy, could make it a very high profile target for Islamic extremists whether they are opposed to the secular government in Cairo, or looking to strike a blow against Western economies via the disruption of world trade. Daesh-Sinai and Al Qaeda both operate in the country in addition to Muslim Brotherhood-aligned groups.

In September 2013, three men launched an attack with guns and a rocket propelled grenade on a Chinese vessel transiting the canal, the COSCO Asia. Although the three men were quickly apprehended and little damage was inflicted, the proximity of land to the ships makes them easy targets and highlights the need for strong security on either side of the canal. Part of the problem is its narrowness which means that ships can only travel in one direction at a time, with only a few bypasses. Sinking a ship would bring traffic to a complete halt for days or weeks.

However, to sink a ship would require a considerable effort from a land-borne attack. An assault such as the one reported upon would be completely ineffectual and even an attack involving an amount of high explosive (using perhaps a boat loaded with a bomb) would be unlikely to succeed. The unsuccessful attack on the oil tanker the 'Limburg' in 2002 off the coast of Yemen demonstrated that.

South East Asia

Up to 40% of world trade is estimated to pass through the Malacca Straits in South East Asia, a relatively narrow channel bordered by Indonesia, Malaysia and Singapore. The concentration of shipping has raised concerns that it could be a target for terrorism although to date the biggest security issues have arisen from piracy.

Piracy in the Straits and in South East Asia in general employs a very different modus operandi to that in Somalia and Gulf of Aden. Whilst the latter mostly involves attempts to hijack vessels whilst they are moving, in Indonesia attacks are more likely to occur whilst they are at anchorage. However, these can involve hostage-taking.

Across the region there are several areas of particular concern:

- Malacca Straits;
- Singapore Straits;
- Indonesia.

Whilst in the mid-2000s the Malacca Straits (which carry 40 per cent of the world's trade) were seen as a particular hot spot for piracy, increased naval patrols have led to a significant reduction in attacks. The dramatic reduction was the result of action taken by Malaysia and the neighbouring states which included multi-jurisdictional measures, such as coordinated patrols and 'eye-in-the-sky' programmes. Ten radar systems were supplied by the United States to Indonesia to improve security.

Despite this the Chinese government has recently (July 2019) raised the security level on Chinese-flagged ships passing through the Malacca Straits as a result of intelligence suggesting that attacks by Indonesian gangs were imminent.

The focus of pirate activity has moved towards the south or east, beyond patrols and in areas difficult to monitor, for example in the Anambas or Natuna Islands of the South China Sea or Batam, close to Singapore. Increased levels of poverty in the region, partly due to over-fishing of stocks, have been amongst the factors behind the increase in piracy.

West Africa

Although Somali piracy has been on the wane, this is certainly not the case in Nigeria which has seen incidents soar. Attacks can occur up 120 miles offshore, and gangs of pirates are often well-armed and violent. Attacks have also occurred in neighbouring countries such as Ivory Coast, Benin and Togo.

In one instance, Nigerian pirates managed to board a chemical tanker. Having hijacked the vessel, it was sailed to another location where part of its cargo was transferred to another tanker. This suggests significant levels of organization and planning, compared with many other attacks which involve the theft of valuables and personal effects.

Panama Canal

Over 13,000 ships use the Panama Canal annually serving 144 maritime routes. As well as by container vessels, the canal is used extensively by reefer vessels, liquid bulk, car carriers, dry bulk carriers, and military and passenger ships. It is believed that about 5 per cent of world trade is transported through the canal. Any disruption to this trade would have a major impact on the global economy, and specifically that of the United States, which accounts for two-thirds of the canal's traffic.

Figure 4 Map of the Panama Canal



Given the world's attention on the unrest in the Middle East, it might be considered that the Panama Canal is less of a security risk. This may be partly true; however if the full historical context of the canal is taken into account a slightly different risk profile appears.

For most of the last century the Panama Canal was under the control of the US authorities, who were responsible for looking after its security. Thousands of US troops were stationed in the country in order to secure what was regarded as a highly valuable asset. In 1977, the then president of the United States, Jimmy Carter, signed an agreement with Panama's president General Omar Torrijos handing over the Canal, with the condition that it must remain managed neutrally. The handover took place at the end of 1999.

Despite problems in Venezuela and other localized insurgencies in countries such as Colombia, the security situation in Central America is in one way far more stable than it has been over the past few decades when the region was gripped by civil war. Now, however, the major problem faced by various countries to the north and south of the canal is the lawlessness created by the strength of the drugs cartels.

Joint exercises are regularly held between United States, Panama and other countries to develop and test the command and control of forces at sea, involving participants in maritime, air, land, space and cyber operations. Scenarios include open water diving operations, counterdrug interdictions and simulated river operations. One specific vulnerability which the Panama Canal has,

compared to the Suez Canal, is its locks. According to one security expert, these locks could be disabled with a small amount of explosive.

Despite this, perhaps the biggest threat to supply chains is not the closure of the canal but its use as a conduit for drug and illegal arms smuggling. Following the expansion of the canal, considerable investment was made in the security systems which are used to identify and track ships.

One of the initiatives being put in place is the creation of a digital ship registry which will allow authorities to see ships' licences, country of origin, cargo and ports of call for all vessels transiting the canal. Tracking systems are able to flag up deviations from schedules, and hence assess which levels of risk a ship presents.

CONCLUSION

Threats to maritime supply chains show no signs of diminishing. Whether from rogue states, terrorism or piracy, the types of threats and the geographies affected are in continual flux, requiring a strong and agile response from the West. The most recent example of the changing political and security situation is in the Straits of Hormuz where the consequences of any sort of military action would be severe. However, just a few years ago the priority was piracy off the Horn of Africa and in the future it may be in any of the high risk areas identified above. The difficult truth for politicians, particularly in Europe, is that more resources will need to be found if the safety of shipping and trade lanes are to be secured across the globe.

More insight into these risks and many others affecting global supply chains can be found in Professor John Manners-Bell's book 'Supply Chain Risk Management' published by Kogan Page.

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