

SCENARIO NO. 4: BLOCKING WORLD OIL TRANSIT BY SEA⁵⁶

In the aftermath of the September 11, 2001 terror attacks, substantial efforts and resources have been allocated to the security of America's homeland. As a result, the homeland may indeed be less vulnerable. However, terrorists who want to cripple the U.S. economy need not necessarily attack America's land mass. Significant damage can result from attacks in international waters, which lack adequate security means.

Description of Scenario

In full understanding of the above-noted premise, Islamic militant organizations, such as al-Qaeda and its like, initiate a comprehensive attack on the six main oil transit strategic chokepoints, which are straits and channels along widely used global sea routes narrow enough to be blocked and vulnerable to piracy and terrorism—the Strait of Hormuz, the Strait of Malacca, the Suez Canal, the Strait of Bab el-Mandab, the Turkish Straits, and the Panama Canal. The terrorists hijack tankers, sail them into three chokepoints, and blow them up. At the same time, they also use boats as well as one-man submarines, which they crash into additional oil tankers passing through the three other narrower strategic chokepoints.

The oil transit by sea comes to an almost halt for weeks. The psychological effect of the heavy smoke filling the skies for days is colossal. Consequently, the global demand for oil dramatically increases and its global market price sharply and immediately reaches heights never seen before—it sparks a three-digit oil price rise. Now, a price tag of \$1000 or more for a crude oil barrel would no longer be hallucinatory. As a result, the world energy market is crippled; the global economy, and especially the U.S. economy that relies heavily on oil energy, stagnates; the economic damage to the livelihood of the United States and other industrialized countries will be far-reaching.

The mentioned strategic chokepoints are of critical importance to U.S. national interests. Blocking of any of the six could sharply raise oil rates. The U.S. economy would be directly affected. A simultaneous impasse of a few chokepoints sustained for weeks would cause a worldwide oil shortage and, at least in the short term, place harsh pressure on the global economy. The United States has direct and immediate economic interests in protecting these chokepoints for the secure passage of oil tankers as well as other commercial vessels that sail through them.

Threat. The world's most strategic maritime chokepoints are very vulnerable. Surrounded by volatile and perilous areas, they are almost defenseless against terrorist and pirate attacks. In the same way that al-Qaeda used commercial

aircrafts as missiles for targeting the *World Trade Center* and the *Pentagon*, oil supertankers could be hijacked and used for blocking the oil transfer through strategic chokepoints. Past attempts launched by terrorist organizations illustrate their *intent* as well as their *capability* for initiating such attacks.

INTENTIONS. The September 11, 2001 terror attacks against the World Trade Center in New York City were, among other things, motivated by al-Qaeda's desire to cause great damage to America's economy. As the speech of al-Qaeda's leader, Osama bin-Laden, in 2004 shows, the group's goal of forcing America into bankruptcy remains very intense: "We are continuing this policy in bleeding America to the point of bankruptcy. ..."57 The al-Qaeda organization is well aware that the oil market presents an ideal target for undermining the world economy. Oil supplies are, in al-Qaeda words, "the provision line and the feeding to the artery of the life of the crusader nation."⁵⁸

The Strait of Hormuz, which leads out of the Persian Gulf, is the world's most important oil chokepoint and has been under expressed terrorist threats since September 11, 2001.⁵⁹ The Strait of Malacca, which links the Indian and Pacific Oceans, has become a potential target. Disruption from pirates, including attempted theft and hijackings, are a constant threat to tankers in the Strait of Malacca; the Jmaah Islamiyah planned to strike at U.S. naval vessels in the Strait before its members were arrested in Singapore.⁶⁰ The Turkish Straits have been under various terrorist threats after September 11, 2001, and the Panama Canal was a suspected terrorist target.⁶¹ A group affiliated with al-Qaeda planned raids on British and American oil tankers passing through the Strait of Gibraltar.⁶²

CAPABILITIES. One must also note that a few successful attacks have actually been launched by al-Qaeda and its like in the vicinity of several chokepoints. The Strait of Bab el-Mandab is a strategic link between the Indian Ocean and the Mediterranean Sea. It is 18 miles wide, and an estimated 3.3 million BBL/D flow through it daily. A few attacks were launched in the area surrounding the straits: Al-Qaeda attempted to ram a boat loaded with explosives into the USS *The Sullivans* in Yemen in January 2000. A tugboat packed with plastic explosives, while anchored in the port of Aden, Yemen, in October 12, 2000, crashed into the USS *Cole*, killing 17 sailors.⁶³ In October 2002, al-Qaeda badly damaged the French oil supertanker *Limburg* off the coast of Yemen, only 300 miles from the Strait of Bab el-Mandab.⁶⁴

The latest reports of pirate attacks upon vessels in the Gulf of Aden prove the ability of terrorist groups to hijack or blow up oil supertankers: In May 27, 2008, a suspicious speedboat, with five persons, was noticed proceeding toward a tanker. On May 28, four suspicious high-speed boats tried to approach a tanker. On the same day, four heavily armed pirates in a speedboat attacked and hijacked a general cargo ship under sail. They then sailed the vessel into Somali territorial waters.⁶⁵

Vulnerability

Although alternative energy sources are available, oil remains the leading fuel in the global primary energy mix. Future supplies of oil depend on many variables—such as the political stability of export countries. However, the more vulnerable target, which is of imminent risk, is the world transfer of oil by sea. From the total world oil production, amounting to approximately 85 million barrels per day (BBL/D), about one-half, almost 43 million BBL/D of oil, was moved by tankers on designated maritime routes: the Strait of Hormuz, 17 million; the Strait of Malacca, 15 million; the Suez Canal (Sumed Pipeline), 4.5 million; the Strait of Bab el-Mandab, 3.3 million; the Turkish Straits (the Bosphorus and Dardanelles), 2.4 million; the Panama Canal, 0.5 million.⁶⁶

These six chokepoints are critical targets. By launching a set of coordinated terror attacks upon oil tankers passing through them, the attackers could almost totally cut the sea transfer routes of the crude oil supply into the U.S. and other major industrialized countries in Europe and the Pacific. Sharp reduction of the world oil supply, even for a limited time of a week or two, endangers the global economy, constitutes a great risk to the United States, and emphasizes its susceptibility.

The vulnerability of oil tankers cruising through the six oil transit chokepoints mentioned above is extremely high. Tankers are huge and bold; they are very slow and they lack the ability to rapidly escape from attackers; they limited capability to protect themselves. The six straits mentioned are all very narrow—the narrowest is merely 110 feet wide (the Panama Canal) and the widest is only 21 miles wide (the Strait of Hormuz).

Visibility and Accessibility. Most of the world's oil is shipped through strategic chokepoints located in the world's most terror-infested waters, in which Islamic terror organizations with naval capabilities are widespread and already active. As mentioned by President Bush, maritime attacks have already been attempted in the Strait of Hormuz and the Strait of Gibraltar.⁶⁷ The Strait of Hormuz, which connects the Persian Gulf with the Gulf of Oman and the Arabian Sea, is the world's most important oil chokepoint, with a daily oil flow of 17BBL/D. It is controlled by Iran, a long time rival of the United States and a home-haven for terrorists at present. A U.S. strike against Iran's nuclear program might very well be met with an Iranian effort to block oil shipments through the Strait of Hormuz; it would be an ideal moment for Iran to cooperate with terrorists in order to block the Strait and to use them as a proxy to harm America's interests.

Other maritime chokepoints are also highly accessible to terror attacks. The Strait of Bab el-Mandab—located between Yemen, Djibouti, and Eritrea, connecting the Red Sea with the Gulf of Aden and the Arabian Sea—is a strategic chokepoint with a daily oil flow of 15BBL/D toward Europe and the United States. As described above, the straits have been a location for numerous terror and pirate attacks. The Strait of Malacca—located between Indonesia, Malaysia

and Singapore and linking the Indian Ocean to the South China Sea and Pacific Ocean—is the key chokepoint in Asia, with a daily oil flow of 15 BBL/D, supplying two of the world's most populous nations, China and Indonesia. The Al-Qaeda-linked Jemaah Islamiyah group has admitted that the group planned to launch attacks on Malacca shipping.⁶⁸

Another point for concern is the increasing sign of collaboration between terrorist groups and piracy activity. The pirate attacks on ships have tripled in the last decade, and piracy figures were up by 20% for the first quarter of 2008.⁶⁹ In April 2008, there was a pirate attack on a huge oil tanker off the Somali coast.⁷⁰ Vessels transiting the Gulf of Aden between May 19 and June 8, 2008 have reported six attacks, including two hijackings. Pirates fired automatic weapons and rocket-propelled grenades in an attempt to board and hijack vessels.⁷¹

According to the ICC Commercial Crime Services, the Straits of Malacca, the Gulf of Aden, and the Red Sea are all piracy prone areas.⁷² The data presented in Figure 5.3 emphasize the fact that collaboration between piracy and terror would be devastating.

Another Achilles' heel is the chokepoints' narrowness. As presented in Figure 5.4, some of them are extremely narrow and very difficult to maneuver in. It makes the possibility of targeting a supertanker passing through them relatively simple.

In sum, attacking oil tankers as they pass through the six strategic chokepoints would be an almost ideal target in the eyes of the militant organization.

Current Ability to Prevent. The Operation Enduring Freedom, instigated in the wake of the September 11, 2001 terror attacks, polices the seas to fight terror. The task force consists of 13 nations: the United States, France, Saudi Arabia, Denmark, Italy, Spain, Great Britain, Canada, Germany, Bahrain, New Zealand, Pakistan, and Singapore. Nine coalition warships patrol 11,700 miles of coastline, covering 6.2 million square kilometers. However, most pirate attacks occur within territorial waters: In 2005, 276 hijackings and another 24 attempts took place in international waters where the coalition can act. The rest took place close to the coast, where the coalition has no jurisdiction.⁷³

At the operative level, "Secure-Ship" is the most recent and effective innovation in the fight against piracy. Secure-Ship is a nonlethal, electrifying fence surrounding the whole ship, which has been specially adapted for maritime use.⁷⁴ However, it is an incomplete solution for the risk.

Consequence

Simultaneous terror attacks upon oil supertankers passing through the six oil transit chokepoints could impose a great environmental disaster and grave economic consequences that should also be taken into account.

Casualties. The most vulnerable is the Strait of the Bosphorus dividing two parts of Istanbul, Turkey. The areas surrounding the other chokepoints mentioned above are extremely isolated areas, which reduces the danger to populations.

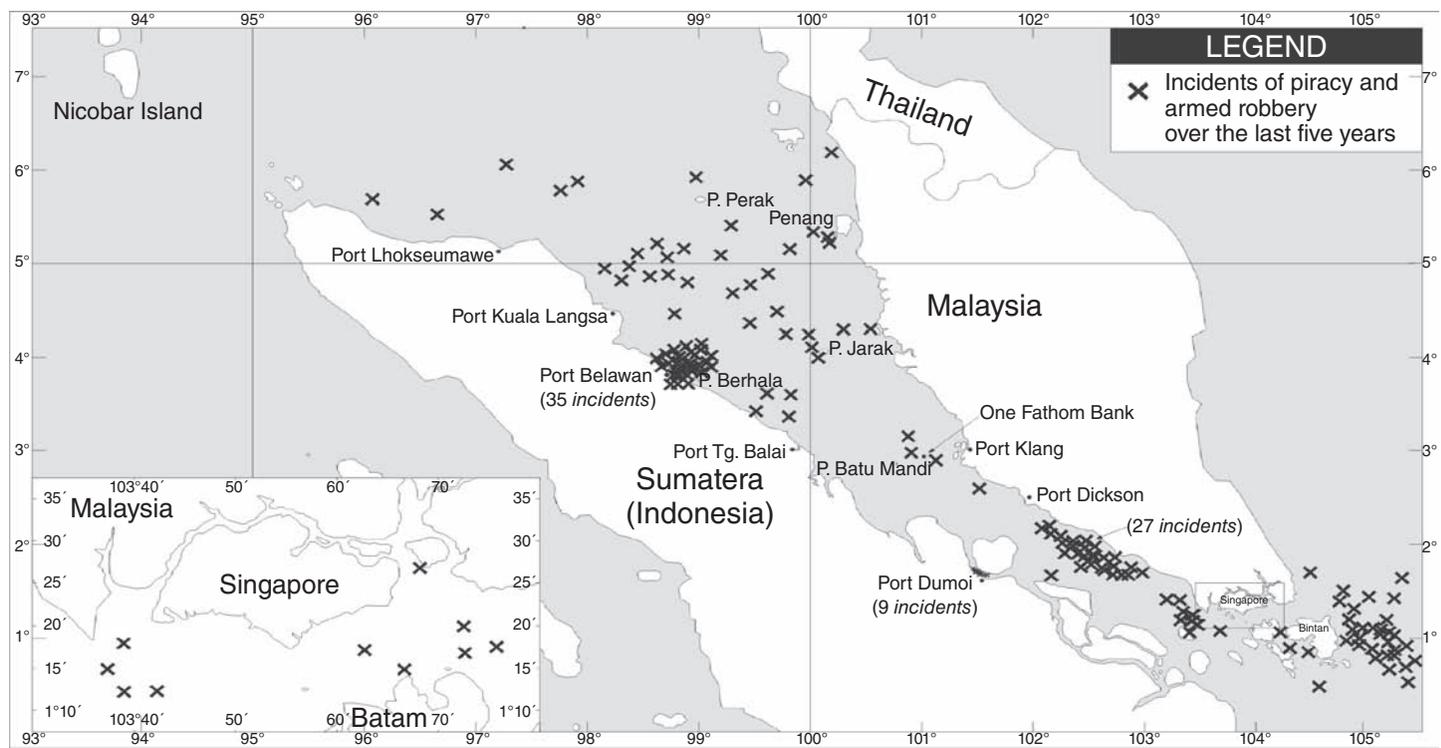


Figure 5.3. The Strait of Malacca: Incidents of Piracy and Armed Robbery, 2000–2005. (From World Oil Transit Chokepoints, Energy Information Administration, U.S. Department of Energy. Available online: http://www.eia.doe.gov/cabs/World_Oil_Transit_Chokepoints/Full.html)



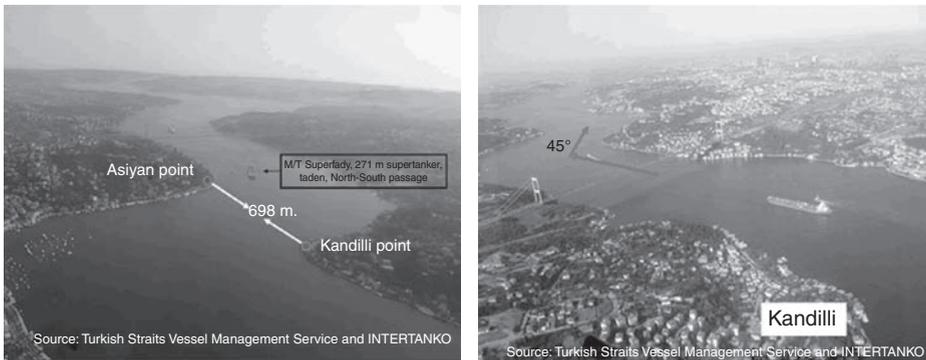


Figure 5.4. Two views of the Strait of the Bosphorus. (From *World Oil Transit Chokepoints*, Energy Information Administration, U.S. Department of Energy. Available online: http://www.eia.doe.gov/cabs/Worle_Oil_Transit_Chokepoints/Full.html)

Treasure. All nations, especially industrialized countries such as the United States, are dependent on oil and its market stability, which links all economies to global market prices. Recent attacks upon oil tankers and oil installations show the vulnerability of oil prices and the colossal effect of such attacks over the world oil stability: The Japanese oil tanker, which was empty when attacked in Middle Eastern waters off the coast of Yemen in April 2008, rattled the nerves of global energy traders.⁷⁵ The attack of Nigerian rebels on the Royal Dutch Shell oil pipeline in May 2008, carried out while Shell was trying to repair damage caused by a series of similar attacks in April 2008, forced the firm to cut production and caused world oil prices to reach record highs.⁷⁶ If such limited and not comprehensive attacks upon oil tankers and oil installations can shock the global energy traders, one can imagine what would be the consequences of a wide-ranging attack: blowing up oil tankers passing the six chokepoints presented above consequently blocking the oil transit to many industrialized countries for weeks. The economic consequences are horrifying.

Most nations rely on the six narrow strategic chokepoints for import and export of oil and trade. Their economic vitality depends on free access to these sea lanes. U.S. prosperity, in turn, relies on the economic well-being of its trade partners. The United States has a direct and immediate economic interest to protect free passage through these six chokepoints, because their blockage could immediately and directly disrupt U.S. economy.

Vast majority of the world oil traffic could redirect in a crisis. However, closure of one or more chokepoints would cause a gigantic increase in cargo rates worldwide. Theoretically, blocking shipping routes might not cause great consequences, since alternate routes are available: The closure of the Suez Canal and the Strait of Bab el-Mandab, for example, would divert tankers around the southern tip of Africa, the Cape of Good Hope. Although it adds 6000 miles to transit time, it seems that it could be acceptable—after all, merchant vessels offer one of the cheaper modes of transport. In practice, however, it turns out that blockage of these

chokepoints would matter a great deal. A great amount of world oil and other merchants' fleets would be required to sail much farther. Closure of the Strait of Hormuz and the Strait of Bab el-Mandab, for instance, would immediately raise cargo rates. It would also disrupt world-shipping markets. Freight rates around the world would be affected, thus adding costs to America's import and export. 3

The experience with the closure of the Suez Canal seems to indicate that such a disruption might increase freight rates by as much as 500%.⁷⁷

Means of Mitigation

Mitigation of the risk includes short-term tactical as well as long-term strategic means. Other nations, in addition to the United States, have a stake in the free movement of shipping through these six chokepoints. Tactically, the industrialized countries that depend on oil imported through these six vital chokepoints should be motivated to cooperate and share the costs of naval protection. The United States should encourage other nations to share in the costs of the six strategic chokepoints' protection. The United States should work especially closely with countries bordering the strategic chokepoints and facilitate the naval capabilities of those countries; the United States has to help patrol their sea lanes; in that context it should help establish and train national coast guards in the area. Because of the strategic position of the Strait of Bab el-Mandab, for example, both France and the United States have military bases in Djibouti.⁷⁸ The United States should also foster consensus in global forums to keep the chokepoints open because world trade in general—and oil trade in particular—requires this.

Strategically, the industrialized countries have to diversify their energy sources and not rely solely on imported crude oil. This could also give a desired solution for the cross-effect of consumption of oil by the Western world that later on is used, at least in part, for financing terror states, such as Iran, and sponsoring terror groups, such as Hamas and Hezbollah.

Another strategic solution for the problem could be projects designed to bypass some of the dangerous chokepoints. Building a 1200-mile pipeline connecting the Persian Gulf, the main oil exporter to the Mediterranean Sea—from the Saudi coast between its border with Qatar and the Emirates via Jordan to the port of Haifa in Israel—could be a feasible and interesting solution: It would bypass three of the six chokepoints: the Strait of Hormuz, the Strait of Bab el-Mandab, and the Suez Cannal. Aside from the political benefits of such a project, which could be a catalyst to solving the century-old Israeli–Arab conflict, it would sharply reduce the cost of transiting oil, which will lower energy prices.

SCENARIO NO. 5: PC DOOMSDAY⁷⁹

Barak Hudna⁸⁰ was a very talented silicon-valley-raised 27-year-old software engineer. He had a well-established job in an extremely important software

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51. See *Scientific American*, November 2002 issue and Federation of American Scientists’ website: www.fas.org (“Radiological Bomb” features).
52. Planning Scenarios, The Homeland Security Council David Howe, Senior Director for Response and Planning July 2004, 11-1.
53. This section is limited to a discussion on prevention and deterrence. Issues of emergency management and response are beyond the section scope.
54. http://www.dhs.gov/xprevprot/programs/gc_1165872287564.shtm
55. Stephen Cohen, Boom Boxes: Containers and Terrorism, *Protecting the Nation’s Seaports: Balancing Security and Cost*, Library of Congress, 2006, p. 108.
56. This scenario was formulated and analyzed by Dr. Ofer Israeli. Dr. Israeli is an international expert in the theories of International Relations. He has published extensively and lectures at the University of Haifa on these issues.
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