Survival: Global Politics and Strategy
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/tsur20

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Published online: 12 Feb 2014.

To cite this article: Mina James & Serwer Daniel (2014) Circumventing Hormuz, Survival: Global Politics and Strategy, 56:1, 121-138, DOI: 10.1080/00396338.2014.882471

To link to this article: http://dx.doi.org/10.1080/00396338.2014.882471

Circumventing Hormuz

James Mina and Daniel Serwer

President Jimmy Carter set current American policy on the Strait of Hormuz in January 1980. At the time, oil prices were soaring, eventually reaching $35 per barrel (about the same in constant dollars as their current level of around $100 per barrel).[1] The Soviets had invaded Afghanistan. The president was concerned:

> The Soviet effort to dominate Afghanistan has brought Soviet military forces to within 300 miles of the Indian Ocean and close to the Straits of Hormuz, a waterway through which most of the world's oil must flow. The Soviet Union is now attempting to consolidate a strategic position, therefore, that poses a grave threat to the free movement of Middle East oil.

His response was to announce what is now termed the Carter Doctrine:

> An attempt by any outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States of America, and such an assault will be repelled by any means necessary, including military force.[2]

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Survival | vol. 56 no. 1 | February–March 2014 | pp. 121–138 DOI 10.1080/00396338.2014.882471

Subsequent administrations have added to the doctrine the corollary that 'the US must preempt the regional hegemonic power that would emerge if one state were to control the resources of its neighbors', thereby extending the principle to other powers that might seek to monopolise the region's vast energy reserves (read: Iran).[3] Unlike some doctrines, this one provides a clear basis for military planning. Washington spends close to $100 billion per year to back it up, counting intelligence, military and civilian efforts all together.[4]

Thirty-four years after the enunciation of the Carter Doctrine, Hormuz is still a vital oil choke point. Its navigable portion is only six miles wide, with two shipping channels, each two miles wide, separated by a buffer zone. About 20% of the world's oil production flows through it, more than travels through any other choke point (only the Malacca Strait comes close). Even a 50% reduction of this flow could cause a dramatic increase in oil prices worldwide. Closure of the strait might triple current prices.[5] That would be a body blow to the world economy, trigger gigantic trade imbalances, boost the power of oil exporters and set off a scramble for energy resources worldwide, with traumatic consequences for the United States, as well as its friends and allies. Even if the US imported no oil shipped through the Strait of Hormuz, it would suffer economic harm from the rise in global oil prices to $200 or even $300 per barrel.

But circumstances outside the Gulf have changed. Due to new technology, North American oil and gas production is rising, after decades of decline.[6] The dependence of the US economy on energy has diminished.[7] The US is importing less oil through Hormuz.[8] Oil and gas consumption is rising primarily in Asia, where Chinese and Indian economic growth are driving demand.[9] The Russians may enjoy $100 per barrel for the oil they export, but Moscow hardly poses the threat to the Gulf that Carter feared during the Soviet era.

The question is whether, in light of both experience since 1980 and changed geopolitical and economic circumstances, the Carter Doctrine provides the best approach to alleviating concern about Iranian threats to the Strait of Hormuz. Are there cheaper, non-military ways to keep Gulf oil flowing to world markets, or otherwise protect the global economy through

cooperative efforts, rather than the unilateral deployment of armed forces? Although this part of his 1980 speech is seldom mentioned, Carter suggested as much:

> This situation demands careful thought, steady nerves, and resolute action, not only for this year but for many years to come. It demands collective efforts to meet this new threat to security in the Persian Gulf and in Southwest Asia. It demands the participation of all those who rely on oil from the Middle East and who are concerned with global peace and stability. And it demands consultation and close cooperation with countries in the area which might be threatened.
>
> Meeting this challenge will take national will, diplomatic and political wisdom, economic sacrifice, and, of course, military capability.[10]

Since 1980, the US has relied on two basic tools to meet threats to the Strait of Hormuz: strategic oil stocks – its own and those of other members of the International Energy Agency (IEA) – and military responses to Iranian threats. This essay discusses how these instruments can be improved, and whether there are other non-military means to reduce the economic damage of threats to the Strait of Hormuz.

The Iranian threat

The Iranian military threat is real but limited. Iran has the largest military force in the Gulf region, but much of its equipment, dating from before the 1979 revolution, is obsolete. Its air assets outnumber those of Saudi Arabia and the United Arab Emirates but are far less capable.[11] Iran does, however, control the eastern littoral of the Strait of Hormuz, and the country maintains a substantial, partly unconventional, naval presence in the Gulf. Iranian naval forces outnumber those of any single Gulf neighbour, and Tehran possesses an estimated 58 vessels equipped with anti-ship artillery.[12] The greater threat may come from Iran's asymmetric and irregular capabilities. The state commands more than 300 small craft, which can be deployed to swarm and harass larger vessels, both military and commercial. Iran has attacked tankers, spilled oil, floated mines, seized foreign craft, demon-

strated its ability to attack coastal targets and, allegedly, conducted cyber attacks against other Gulf oil producers.[13]

Iran is constrained from closing the Strait of Hormuz because it depends on the waterway for the export of its own crude, as well as for the import of oil products, which the country needs due to its inadequate refining capacity. But Tehran is reportedly seeking to construct a pipeline linking its Caspian Sea oil resources to a new export terminal at the port city of Bandar-e Jask, situated on the Gulf of Oman.[14] Such a pipeline would enable the country to export crude oil without shipping it through the strait. It may also allow Tehran to import oil products.

Any Iranian attempt to restrict passage through the strait would be a violation of the United Nations Convention on the Law of the Sea, which, as the Congressional Research Service has put it, is 'generally viewed as a codification of customary international law'.[15] Iran has not, however, ratified the convention, and may not abide by its strictures. Tehran might try to block, for a time, all shipping through the strait.[16] It could use mines or small craft to harass and disable tankers, as it has done in the past.[17] It could also declare the strait closed and threaten those who try to navigate it, causing a sharp increase in insurance rates and oil prices with minimal effort.[18] Even occasional grandstanding by Iranian officials can lead to sudden rises in global oil prices, if market conditions are tight.[19]

American and Arab Gulf military capabilities

In a January 2012 interview, General Martin Dempsey, chairman of the US Joint Chiefs of Staff, reiterated that America would take action to reopen the strait, should it be closed, and had the capability to do so.[20] Leon Panetta, then secretary of defence, echoed Dempsey's comments and cited the closure of the strait (as well as the development of an Iranian nuclear arsenal) as clear 'red lines' that the US would respond to with force.[21] In April 2013, Vice President Joe Biden said that the Obama administration had not disregarded any options and would resort to a military confrontation with Iran if necessary.[22]

The US maintains a substantial military capability to back up its commitment. One estimate puts American expenditure for force deployments to protect the strait at between $67bn and $83bn per year, or roughly 15%

of the Pentagon budget.[23] As of November 2012, two of the Pentagon's five deployed aircraft-carrier strike groups were positioned off the coast of Iran.[24] This has been the typical pattern of deployment since 2010, although fears about sequestration forced the US Navy to deploy only one carrier to the Gulf in early 2013.[25] The US Fifth Fleet is home ported in Bahrain, with the aim of deterring Iran from taking aggressive action and ensuring that the Strait of Hormuz can be reopened if deterrence fails. Tehran cannot doubt that Washington intends to respond to any serious threat to the strait.

Mainly because of oil, the US maintains cordial relations with Arab Gulf producers and arms them amply with advanced technology to ensure their security – giving states such as Saudi Arabia a considerable advantage over Iran, despite their smaller armed forces.[26] It is estimated that Arab Gulf defence spending grew by over 6% in 2012, to a total of more than $130bn.[27] According to a report by the Stockholm International Peace Research Institute, defence imports by Arab Gulf states represented 7% of the global total between 2008 and 2012, and consisted primarily of missile-defence equipment.[28] Qatar and the UAE recently contracted with US firm Lockheed Martin to purchase a combined $7.6bn in advanced missile-defence capabilities, such as the Terminal High Altitude Area Defense system.[29]

The most important limitation on Arab Gulf states' military capabilities is regional fragmentation. There is little defence cooperation among members of the Gulf Cooperation Council (GCC). Each country has developed its military capabilities independently of its neighbours. This has led to gross inefficiencies that compromise regional security due to limited interoperability, training and coordination.[30] Most Gulf states rely on US capabilities, at least in part. Kuwait depends on the US presence in the region for its external security. An integrated GCC missile-defence system would be one way of improving the security of the Arab Gulf states and protecting their vital oil infrastructure.[31] For the time being, however, political differences continue to obstruct progress on such initiatives.

Market conditions matter

The conventional military balance favours the US and its Arab Gulf partners, which presumably deters Tehran from military action. But, if deterrence

fails, the impact of military action on oil prices will depend on market conditions. In July 2012, after Washington increased the number of US warships deployed to the Persian Gulf and imposed additional sanctions on Iran, oil futures rose by 18% as markets took into account reduced Iranian exports and an increased probability of conflict.[32] During the Iran–Iraq War (1980–88), both countries attacked oil shipping in the Gulf. The Strait of Hormuz remained open, despite many Iranian threats to close it, but hundreds of vessels – including oil tankers – were struck. Tankers are double-hulled to protect against oil spills, however, and are therefore designed to absorb impact, making them resilient to attack.[33] Although fewer than 2% of ships passing through the Gulf were assaulted, tanker traffic initially declined by 25%. Nevertheless, oil prices remained soft throughout the conflict.

That was due principally to world oil-market conditions. After devastating oil shocks ravaged the global economy during the 1970s, petroleum consumers began to seek alternative sources of energy, such as nuclear power.[34] World consumption of crude oil fell from approximately 64.0 million barrels per day in 1979 to 57.6m b/d in 1983.[35] This drop in demand caused a fall in crude-oil prices that more than offset any pressure for increases due to the war. Although consumption had returned to its pre-war level by 1986, Saudi Arabia agreed to boost its oil production over the latter half of the decade in an attempt to cripple the Iranian economy, which was highly dependent on crude export revenues.[36] As a low-reserve, relatively high-cost producer, Iran favours higher oil prices and lower production by members of the Organization of the Petroleum Exporting Countries.

Conditions in the global oil market have changed. Asian demand has risen rapidly. At the same time, North America is becoming increasingly energy independent. As of May 2013, the US imported more oil from Canada than from the entire Persian Gulf region.[37] Consequently, oil flows have begun to shift eastwards. In 2012 the majority (54%) of Saudi crude-oil exports were destined for consumption in the Far East, with only 15% going to the US and a further 15% to Europe.[38] This shift is only expected to continue in coming years, and it has significant implications for global markets. With little excess production capacity available to meet rising demand in Asia, oil supply is tightening considerably, making markets highly sensi-

tive to shocks. Even minor military moves, such as sending a second carrier battle group to the Gulf, now cause price increases. In such an economic environment, military action undertaken in defence of oil prices can ultimately produce the very outcome it is intended to prevent.

Strategic stocks

The right response to oil-price hikes resulting from supply disruption is to increase supply. Although military action tends to increase oil prices in a tight market, release of oil stocks moderates such rises. The US has accumulated almost 700m barrels of crude oil in its strategic petroleum reserve, which has a capacity of 727m barrels and can be drawn down at a maximum rate of 4.25m b/d, entering the US market within 13 days of a presidential decision to use it.[39] Oil from the reserve has been sold in response to emergencies three times: during the First Gulf War (1990–91), after Hurricane Katrina (2005) and in coordination with IEA partners during the 2011 NATO intervention in Libya. The strategic reserve is a powerful instrument of market intervention at a reasonable price (the average cost of the oil in it is around $30 per barrel) that would surely be used were the Strait of Hormuz to be closed, as well as in other circumstances that threatened a sharp increase in world oil prices.[40]

The IEA's coordinated stock-draw arrangements can amplify the reserve's impact.[41] The organisation's member states are required to hold the equivalent of 90 days' worth of oil imports, calculated on consumption in the previous year.[42] When drawn down in coordination, this is a potent tool for countering oil-price spikes. But the IEA does not include major oil importers such as China and India, which hold relatively small reserves in industry stockpiles. Beijing and New Delhi are said to be planning to take on more of the burden of holding public oil stocks to be used in a crisis that cuts exports through the Strait of Hormuz, as they are the main beneficiaries of energy supply through the waterway.[43]

Perversely, America's two major responses to oil-supply disruption, military action and drawing from oil stocks, have opposing effects on world oil prices. Drawing from strategic stocks moderates oil-price increases. Military action, however, further boosts prices and should therefore be a last resort.

It behoves oil producers and consumers to consider what else can be done to prevent threats to the strait from wreaking havoc on the world economy. There are at least three additional propositions worthy of examination: oil and gas pipelines that circumvent Hormuz; diplomatic efforts to ease sectarian and ethnic tensions in the Gulf; and multilateral naval protection of the strait.

Pipelines

There are already some pipelines that circumvent Hormuz, and there is significant potential to increase pipeline capacity in a way that would make oil exports significantly less vulnerable to Iranian military action.[44] The UAE recently completed a pipeline that links the Abu Dhabi oil fields to the Indian Ocean port of Fujairah. It can carry almost two-thirds of the UAE's total output, thereby helping to secure the state's access to the world market.[45] Saudi Arabia has export terminals outside the Gulf, at the port of Yanbu, on the Red Sea, capable of loading 4.5m b/d of crude oil – over half of the country's current exports, estimated to be 7.5m b/d.[46] Iraq also possesses a functioning oil pipeline, which is linked to the Turkish port of Ceyhan, on the Mediterranean Sea. This can be used to export oil from Kurdistan, but damage to Iraq's 'strategic' north–south pipeline prevents most of the state's oil, produced in the south, from being transported via this route.

Gulf states could upgrade the capacity of their existing pipelines using drag-reducing agents. It would cost an estimated $600m to upgrade the Petroline and the Iraqi Pipeline in Saudi Arabia.[47] Doing so would allow these countries to transport a combined 11m b/d of crude oil to ports on the Red Sea. This is more than double the amount carried by the Petroline at its stated maximum capacity of around 4.8m b/d, and almost three times the quantity which it transports at its current operating capacity.[48] It represents nearly two-thirds of the oil shipped through Hormuz every day. Given the relatively low cost of these upgrades, drag-reducing technology is a viable way for Gulf states to secure their export capacity.

Regional politics presents significant obstacles to building new pipelines. Although Gulf states have long discussed tighter economic and security

integration under the auspices of the GCC, Saudi Arabia has stymied progress on this front over concerns that its smaller neighbours would gain equal political weight.[49] Neglecting the integration agenda, the Saudis have postponed a GCC pipeline designed to transport oil resources from all six Gulf monarchies to locations beyond the Strait of Hormuz. Instead, each Gulf state is seeking to develop its own alternatives independently.[50] For the smaller, isolated emirates of Kuwait and, especially, Qatar (the largest natural-gas exporter in the world), political obstacles to alternative export capacity are particularly problematic. Any overland pipelines they may construct would pass through foreign territory and be subject to their relations with other states. Qatar has long been in discussions with Turkey about building a natural-gas pipeline that links Doha's South Pars gas field to Istanbul.[51] Any northbound pipeline would, however, inevitably pass through Iraq and, possibly, Syria – both of which are hotspots for conflict. Doha hopes that its assistance to the Syrian rebels will guarantee a strong relationship with any post-Assad regime, but the aftermath of Syria's conflict is likely to be turbulent. New infrastructure projects in the country are therefore a long way off.

Iraq – a low-cost, high-reserve producer that has been rapidly increasing its oil production and exports, and intends to continue doing so – has also had difficulty in developing alternatives to shipment through the Strait of Hormuz. Riyadh closed the Iraqi Pipeline in Saudi Arabia, which linked Iraq's southern oil fields to Yanbu, during the First Gulf War, and has modified it to also transport natural gas.[52] Tense relations between Baghdad and Riyadh have prevented the Iraqis from forging an agreement with Saudi Arabia that would allow them to resume exporting oil through this route. The shipment of Iraqi oil northwards through Turkey has been complicated by a series of disputes between the Iraqi central government in Baghdad, which is dominated by Shia Arabs, and the autonomous Kurdistan Region in the north, with its capital in Erbil. The lack of a federal hydrocarbons law is a continuing point of contention. Baghdad has refused to recognise oil contracts between hydrocarbons companies and the Kurdistan Regional Government, and pledged to stymie future investments made by any firm that conducts business with Erbil without Baghdad's prior approval.[53] This

has caused Exxon Mobil to put its stake in the massive West Qurna-1 oil field near Basra on the market because it is shifting its investment strategy towards Kurdistan, where it is said to have invested nearly $250m.[54]

Improving sectarian and ethnic relations

The political impediments to Iraqi exports that avoid travel through the Strait of Hormuz, under Iranian guns, are in no small part due to sectarian and ethnic tensions. The emergence of a strong Shia presence in Iraqi governance has made the Saudis wary of establishing close ties with the new regime. In addition to personal animosity between King Abdullah and Iraqi Prime Minister Nuri al-Maliki, the Saudis fear that Iraq has come under the sway of Tehran, and are reluctant to aid a partner of their chief rival in the region.[55] Although there have been recent attempts to improve relations, thus far they have borne little fruit, and Iraq has begun pursuing other options to bypass Hormuz – namely, the construction of a pipeline to the Jordanian port of Aqaba, which would still require a significant improvement in Iraqi-Jordanian relations.[56]

Baghdad's tense relationship with Erbil is also due, in part, to ethnic differences. Erbil is trying to maximise its autonomy, particularly in the exploration, production and export of oil. Recently, Baghdad has refused to reimburse oil companies for their investments in Kurdistan, leading them to halt exports.[57] At times, tensions have been so high that both the Iraqi central government and the Kurdish authorities have deployed their military forces to face off on the border of the autonomous region. As of December 2013, there had been no official resolution of the dispute, although tensions had abated considerably.[58] This persistent uncertainty has pushed Erbil to pursue contracts for constructing its own, independent, pipeline to Turkey.[59] The pipeline was expected to be functional by the end of 2013, with an initial export capacity of 300,000b/d – roughly the equivalent of Kurdistan's total production.[60]

Iraq is not alone in facing sectarian difficulties that could interfere with its ability to get oil to the market. Saudi Arabia and Kuwait have significant Shia minorities whose discontent could explode (or be exploited) in ways that would interfere with oil production and export.

There is no easy remedy for the political, sectarian and ethnic tensions that block the development of new pipelines which circumvent the Strait of Hormuz. The rivalries that drive them are often deep-seated, bitter and protracted. Ethno-sectarian tensions also hold the potential to precipitate a broader, regional conflict. In light of the prevailing international conditions, in which Gulf states have already framed developments in sectarian and ethnic terms, any potential military action taken in response to a closure of the Strait of Hormuz could ignite a pervasive sectarian war, engulfing the entire region and beyond.

Far wiser would be an enhanced effort to bridge sectarian and ethnic divides in the Middle East by ensuring that the benefits of oil exports are more broadly shared – both within individual countries and between oil-rich nations and neighbouring states with fewer energy resources. The American role in such an effort would necessarily be indirect and best kept out of the public eye. It is particularly important for Iraq to find ways of reducing the sectarian and ethnic tensions that restrict its ability to export oil to the north, south and west, instead of through the Strait of Hormuz. From an American perspective, it is equally important that big oil producers such as Saudi Arabia and Kuwait seek to bridge their internal sectarian divides, however challenging this may be, in order to guarantee their continued supply of oil to world markets and reduce Iran's influence over domestic minority groups.

Multilateral naval protection of the strait

Much like the Strait of Hormuz, the Suez Canal is a strategic waterway of international significance. A considerable volume of commercial traffic passes through the canal; in 2012 this included about 7% of the world's seaborne traded oil.[61] In the 1950s, its relevance to global commerce made it a valuable bargaining chip for Egyptian President Gamal Abdel Nasser, particularly in his dealings with developed Western European states such as Britain and France, which relied heavily on oil shipped through the canal to meet their energy needs. In 1956 the United States and the United Kingdom denied Nasser funding for the Aswan Dam.[62] In response, he unexpectedly nationalised the Suez Canal, in the hope that the resulting shipping tolls would provide him with sufficient financial resources for his development

programme.[63] The move also sent a clear signal to the Western Europeans that he was prepared to act in a manner that was contrary to their interests in order to pursue his own. Prior to the nationalisation, a multinational company, staffed primarily by British and French personnel, operated and managed the canal.

Although the canal remained fully functional after nationalisation, so great were the energy, economic and security concerns of the Western European states that France and Britain, in covert coordination with Israel, attacked Egypt, with the ultimate goal of regaining control of the strategic waterway.[64] Although militarily successful, the operation proved disastrous from an international-relations standpoint: the European powers lost prestige and strained their relationships with key allies, most notably the US. Britain and France were forced to withdraw. Due to the global significance of the Suez Canal, an international peacekeeping force was deployed to the Sinai Peninsula to oversee withdrawal of Israeli, French and British troops, and to help secure the area. This UN Emergency Force helped to prevent a large-scale military conflict from erupting during its ten-year deployment – until Nasser demanded its withdrawal on the eve of the 1967 war.

The Suez Crisis points to potential lessons for the Strait of Hormuz. In the absence of a multilateral regime for the stewardship of the former waterway, a clash of competing interests resulted in military action that closed the canal for four months.[65] The military effort by Britain, France and Israel was costly to these states and only made things worse. Approximately 40 vessels wrecked in the fighting obstructed travel through the canal.[66] It was only once the UN became involved in guaranteeing the security of this vital route that the canal was reopened. The end result was improved shipping security through Suez and uninterrupted oil flows for over a decade.

Applying this rationale to the Persian Gulf, security of the Strait of Hormuz could be made a shared, internationalised good, helping to prevent disruptions and lowering costs to the US. An analogous approach was taken during the Iran–Iraq War, with relative success. When Tehran threatened Kuwait's oil tankers in response to that country's support of Iraq, the Kuwaiti emir's request to re-flag affected vessels in the Gulf – that is, to permit them to fly foreign standards – met with international approval.

As a consequence, any deliberate attack on a Kuwaiti ship was considered an attack on a sponsoring nation. As one Western diplomat said, 'I don't think it has anything to do with shipping … the goal is to get the superpowers involved' as a means of ending the war.[67] Internationalisation of the conflict protected Kuwaiti ships when Kuwait could not.

The creation of an international patrol force could serve as a mechanism by which to guarantee continued passage through the Strait of Hormuz. Iran might not like the idea, but support of, and participation in, the venture by key clients would cause Tehran to think twice. No oil producer wants to go to war with a major customer. Although Iran may be prepared to harass ships owned by American firms or Arab Gulf states, it would be against its interests to do the same to Chinese or Indian vessels.

Some may scoff at the idea of including China in such an arrangement, but it is not unimaginable. Washington and Beijing have begun to coordinate their anti-piracy efforts in the Indian Ocean, establishing an important precedent that could be applied to security cooperation closer to, or in, the Gulf.[68]

Do we still need the Carter Doctrine?

Against the backdrop of budget sequestration and declining US dependence on oil supplies from the Gulf – American imports dropped from roughly 972m barrels in 2001 to 783m in 2012, falling as low as 605m barrels in 2009 – Washington should re-evaluate its major energy-security commitments.[69] So does the US still need the Carter Doctrine? The short answer is 'yes'.

Now and for the foreseeable future, closure of the Strait of Hormuz, or even a threat to close it, represents a dramatic risk for the world economy and for the US, even if it imports no oil from the Gulf. There is every reason to try to deter Iran from military action to close the strait, especially once it has an alternative, pipeline route for its own crude exports and oil-product imports. America will not want to withdraw from the Gulf or reduce its commitments to the security of the Arab Gulf oil producers, including Iraq.

But the US has relied mainly on the most expensive instruments of coercive diplomacy to keep the strait open for too long. Washington needs to think harder about encouraging major oil importers such as China and

India to hold larger oil stockpiles, and how to move more oil using routes that circumvent the Strait of Hormuz. Such routes would include pipelines that are less vulnerable to Iranian military action than are tankers in the Gulf. This would require a much more intense diplomatic effort by the US to improve relations among Gulf countries – as well as among Jordan, Turkey and, eventually, Syria and Lebanon – and to prevent domestic instability in those countries from disrupting the flow of oil and gas. Washington also needs to think about multilateral military arrangements for keeping the Strait of Hormuz open – arrangements that should include the main customers for Gulf oil in Asia. China, Japan and India should be anteing up to meet at least a portion of the security costs associated with their imports that traverse the Strait of Hormuz. Their participation would be a serious deterrent to Iranian military action.

None of this can be accomplished quickly or easily. The Iranian nuclear issue will take precedence for at least another year. That will require the maintenance of a credible American military threat. But beyond that, the US should be working its way out of a portion of the security burden that the Strait of Hormuz imposes. Naval burden-sharing, increases in oil stockpiles held by major importers and producer pipelines that circumvent Hormuz (carrying as high a volume as is technologically feasible) will be a lot cheaper, and likely more effective, than unilateral military action.

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