

# Strait of Hormuz remains a potential flashpoint

Iran's threat to close the Strait of Hormuz in response to international sanctions over its nuclear programme is not grabbing the headlines as it was in 2012. But this is an issue that is far from being resolved, writes Luay J Al-Khatteeb of the Iraq Energy Institute



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GLOBAL energy markets have been keeping a wary eye on activities around the Strait of Hormuz since late 2011, when Iranian officials started threatening to block the waterway in retaliation for European and US sanctions, due to concerns over Iran's nuclear ambitions.

These concerns, along with those over the war in Syria and the unrest resulting from Arab Spring protests across the Middle East, have been reflected in the higher average oil price on international markets over recent times.

Iran claims its nuclear programme is for civil purposes, while the International Atomic Energy Agency (IAEA) suggested in November 2011 that Iran had previously researched nuclear weaponry design.

While the tensions over the Strait are not making media headlines in the way they were in mid-2012, the problem has not gone away. Recent negotiations between Iran and the 5+1 group of the UN Security Council member states plus Germany had failed to produce any breakthroughs by late March 2013. Meanwhile, Iranian government officials have continued to threaten to close the strait, if military action is taken against the country, or sanctions are tightened further. While a direct military attack on Iran by the US is highly unlikely, especially under a Democrat administration, action by Israel may still be possible – even without US consent (see below).

The Iranian economy's fragility is another important factor. The impact of sanctions meant that by early 2013, Iran's oil exports were down more than 50% from 2011, while annual inflation was running at an annual 30% and the Iranian currency lost half of its value against the dollar in 2012. Such economic weakness, together with rising political volatility in the country as June's presidential elections approach, mean Iran remains desperate and dangerous.

Of the globe's seven main straits that create maritime bottlenecks, the Strait of Hormuz is the most significant energy checkpoint, as the lion's share of global energy exports flow through it. The strait is 22 nautical miles wide at its narrowest and contains two shipping lanes, each 2 miles wide and separated by a 2-mile buffer zone. On average, 14 tankers a day pass through the strait,

carrying over 17 million barrels of oil and 2 trillion cubic feet (cf) of liquefied natural gas (LNG), according to the US Energy Information Administration (EIA). That represents around 35% of sea-traded oil (20% of overall oil trade) and 20% of LNG trade.

Over 14 million b/d of the oil passing through the strait travels eastwards to central- and east-Asian markets. Imports from the Middle East represent well over half of Asia's overall crude imports, so disruptions to operations in the strait will have its biggest impact on east Asian economies, as their economic growth is heavily dependent on the security of those energy supplies (see Figure 1).

Given the fragile global economy may well depend on stimulus from the east, disruptions to Asian energy supply may have a multiplier effect, in terms of damage to the global economy, by weakening one of its stronger pillars. Furthermore, a conflict in the Strait of Hormuz may also affect non-energy trade going into the Middle East, further disrupting the global economy.

The damage does not end there, as international insurance markets may well declare force majeure and decide not to insure shipments or cargoes passing through the strait. That could remain an issue long after any conflict was over, since restoration of insurers' confidence may be an uphill struggle for all of the region's trade, not just energy.

## Alternative outlets

The alternative energy export outlets that bypass the Strait of Hormuz are largely inadequate. Only three states have pipelines that bypass the strait, namely Iraq, Saudi Arabia and the UAE. The Iraqi alternative is in the shape of the Kirkuk-Ceyhan Pipeline, which transports oil from northern Iraq, to the Turkish port of Ceyhan on the Mediterranean. This pipeline has a nameplate capacity of 1.6 million b/d, but has been averaging less than 300,000 b/d recently. It has also been subject to attacks by Kurdish militants in Turkey, most recently in early 2013.

Reaching full capacity, and diverting a further 1.2 million b/d from the strait, requires the Iraqi Strategic Pipeline to be operational, which would pump southern Iraqi oil to the north,

eventually connecting to the Kirkuk-Ceyhan pipeline. However the Strategic Pipeline is partially closed for rehabilitation, which requires years to complete, and is not an operational option in the meantime.

Saudi Arabia has the Petrolina Pipeline (East-West Pipeline), which crosses 1,200km of Saudi territory from its Abqaiq Complex to the Red Sea. The nameplate capacity of this option was 3 million b/d in 2011, and expanded to 4.8 million b/d in 2012. The spare pipeline capacity for this option is currently 2.8 million b/d.

The UAE, on the other hand, has reacted to the renewed Iranian threats in a proactive manner. The Abu Dhabi Crude Oil Pipeline (Adcop) was recently completed, and is currently in operation transporting 1.5 million b/d of Abu Dhabi's onshore productions from its Habshan collection point, to the new Fujairah export terminal on the Gulf of Oman, thereby bypassing the strait. The new pipeline will divert more than 55% of the UAE's overall export of crude from the Strait of Hormuz and has the capacity to raise daily shipments to 1.8 million barrels (70% of the UAE's crude exports), according to the UAE's Oil Minister Mohammed al-Hamli. Adcop also includes space for 12 million barrels of crude storage.

Abu Dhabi also plans to start building an LNG terminal in Fujairah later in 2013 to avoid disruption to LNG trade, should the Iranian threat intensify. This project will be carried out in partnership between state-owned Mubadala Development Company and Abu Dhabi's International Petroleum Investment Company (IPIC), according to Mohammed Sahoo al Suwaidi, chief executive of Abu Dhabi Gas Industries. Similar projects may follow from other regional producers, as they seek to mitigate the Iranian threat.

Other potential but non-operational options include the additional two Saudi pipelines running parallel to Petrolina. They are the Abqaiq-Yanbu natural gas liquids pipeline, which currently ships its full capacity of 290,000 b/d, and the confiscated Iraqi Pipeline through Saudi Arabia (IPSA) with a nameplate capacity of 1.65 million b/d.

The latter, however, has been converted to carry natural gas, and Saudi Arabia has made no announcement about converting the pipeline back to

crude. Nonetheless, should the need to do so arise, this option may be exercised by Saudi Arabia. Further options would include renovating the Trans-Arabian Pipeline (Tapline) running from Qaisumah in Saudi Arabia to Sidon in Lebanon, and truck-shipping crude over land, neither of which is a realistically viable option.

In summary, the current pipeline network able to bypass the strait has a combined nameplate capacity of 6.7 million b/d, of which 4.3 million b/d is spare and could be used to accommodate diverted shipments from the strait. This is nowhere near enough to handle the full 17 million b/d passing through the strait, in the event of closure, and it does not address any disruption to the LNG trade.

It is worth mentioning here that Saudi Arabia and the UAE have both established storage facilities near their main customers, such as Saudi Aramco's facilities in the Netherlands and the Abu Dhabi National Oil Company's facilities in Japan. Non-Opec Oman is also considering building crude storage facilities with up to 200 million barrels of capacity. However, these options, like oil stocks held by Organisation for Economic Co-operation and Development (OECD) member states and oil companies, are mere short-term solutions to ease the immediate supply crunch in the event of disruptions, so their adequacy will depend on the extent and duration of any potential disruptions.

Outright blocking of the Strait of Hormuz would represent an unprecedented disruption to international oil markets. When the Arab-Israeli war of 1973 deprived the markets of 4 million b/d, and the Iraq-Iran war of the 1980s took 6.5 million b/d off the market, crude oil prices quadrupled and doubled respectively.

Various military strategies could be employed by Iran in an effort to block the strait (see Figure 2). However, it seems unlikely that Iran would take such action, as it may well trigger a full-blown wipe-out of Iranian capabilities to threaten the Strait and potentially give the US an excuse to further damage Iran's military

and perhaps even its nuclear facilities. Harassment of passing vessels is a tried-and-tested method for Iran, as they used this technique during the Iran-Iraq war to target Iraqi oil tankers. However, this led to intervention by US Air Forces and hastened the end of the war, which was perceived as a loss for Iran.

The impact of such harassment on oil markets and participants will depend on its extent, nature and duration. The other Iranian option is to continue with threats, but not action. However, that would only work for Iran if these threats were considered credible by participants and the oil markets.

The Article 44 of the United Nations Convention on the Law of the Sea 1982 (UNCLOS) says states bordering international straits (such as Iran) shall not hamper transit passage... There shall be no suspension of transit passage". So any form of blocking, full or partial, of the Strait of Hormuz will constitute a breach of international law. It is worth noting that both Iran and the US are signatories of the

1982 convention but have not ratified it. However, this convention is also a codification of Customary International Law, which by implication applies to all states, whether they have ratified the convention or not.

### The Opec perspective

Iran remains a member of the Organisation of Petroleum Exporting Countries (Opec) and is bound by its statute and objectives. Opec was originally formed to preserve the oil sector interests of its members and stabilise oil markets – both purposes being considerably undermined by the Iranian threats. The situation as it stands could lead to crisis within Opec, as well as global markets.

Opec internal politics traditionally fell into two camps, with the Gulf states in one, and Iran and others in the other. However, Iraq has developed as a third camp, creating a balance between the other two. In this respect, Iraq could have an important role to play in the current

crisis, as it has "softer" relations with Iran than the GCC states and is also Opec's current president. Such an intermediary role is also a matter of self-preservation, since Iraq will be the most affected of the region's producers should the Strait of Hormuz become non-operational, since it has the least effective alternative shipment routes to fall back on.

Threatening trade routes for leverage is not a recent phenomenon. The Ottoman Empire attempted to do so, accelerating its demise in World War I, for example. Nor is an Iranian threat of such a tactic new, as such threats have been renewed regularly to protect the country's interests.

However, Iran could be pushed into greater isolation, should sanctions tighten, further alienating the country from its consumers and the rest of the world in general. That could turn it into a country with no concern for international relations, which may be more prepared to entertain the concept of war. That, of course, would have catastrophic consequences for international energy markets.

A further trigger point could be Israel's position. Israel is voicing ever-increasing fears of a nuclear attack from Iran, with a progressively harsher tone. Should these concerns translate into a pre-emptive strike on Iran, then Iranian retaliatory measures may also include blocking the Strait of Hormuz for leverage over Israel's allies.

Israel has previously demonstrated the willingness to act without US consultation and even go against US foreign policy in the region. In the 1980s, Israel launched an attack on civil nuclear facilities in Iraq, which it incorrectly thought was developing nuclear weapon capabilities. This occurred at a time when the US was an ally of Iraq in its war against Iran. Thus the danger of "rogue-state" behaviour on the part of Israel still stands.

Allowing the dispute to escalate into any form of armed conflict will have a catastrophic impact on the struggling global economy, through disruption caused to energy supplies. A far more viable approach would be greater investment in positive foreign policy by the international community, through back-channel negotiations and a more proactive involvement of the International Atomic Energy Agency. This could ease the escalating regional tensions, the impact of which, are far reaching beyond the confines of the Middle East. ■

**Figure 1: Middle Eastern Energy Exports 2011**

Energy Source/Country	US	Europe	China	India	Japan	Singapore	Rest of Asia
Crude oil (million b/d)	1.919	2.543	2.774	2.224	3.534	1.234	4.582
LNG (billion cm <sup>3</sup> /y)	4.3	44.8	4.3	13.5	29.2	N/A	25.7

Source: BP Statistical Review 2012

**Figure 2: Estimated campaign length and military commitments**

Iranian threat	Estimated time (optimistic)	Estimated time (pessimistic)	Military commitment
Mines	28 days	40 days	All mine countermeasure capabilities, plus allies (to clear 80% of mines)
Antiship cruise missiles	9 days	72 days	Multiple Aegis ships, port support, AWACS, JSTARS, UAVs, tankers, jammers, at least one carrier battle group
Air defence	–	–	2-3 squadrons F-16CJ, 30+ Prowlers, Compass Call, Rivet joints
Total	37 days	112 days	

Source: Caitlin Talmadge, MIT, *Closing Time: Assessing the Iranian Threat* (2008).