

## **‘Oil-Qaeda’: Jihadist Threats to the Energy Sector**

by **Tim Pippard**

### *Abstract*

*The West's and the Saudi's dependence on oil has made the energy sector a target for Al-Qaeda. The article discusses past and current threats to the energy sector and the motives, capabilities and limitations of Al-Qaeda in the Arab Peninsula and beyond.*

On March 24, 2010, the Interior Ministry of Saudi Arabia announced that it had arrested 113 Al-Qaeda operatives during the previous five months, all suspected of involvement in the planning of attacks on oil installations in the kingdom.[1] Just a week earlier on March 17, the Yemeni Interior Ministry announced that security measures had been bolstered around critical oil and gas installations and transportation routes to counter the threat of terrorist attacks under preparation by Al-Qaeda. [2]

Both incidents serve as clear reminders that the launching of attacks on energy infrastructure – be it fixed installations (such as pipelines, refineries or storage tanks), the energy supply chain (ships and ports) or even electronic infrastructure (including cyber attacks likely to be directed at process control networks) – remains an attractive option for jihadist terrorists seeking to achieve maximum economic impact through either the disruption or cessation of production, or increases in international oil prices, transportation and insurance costs.

That being said, some uncertainty continues to surround Al-Qaeda's capacity and desire to target the energy industry in a coordinated fashion. This article will seek to resolve some of this ambiguity by examining three core issues: first, the underlying ideological and strategic basis for targeting the energy sector; second, the apparent gap between this strategic grounding and Al-Qaeda's tactical and operational capabilities; and third, the more fundamental limiting factors that might currently preclude Al-Qaeda from launching a sustained and coherent campaign against energy targets, or even pursuing its broader pan-Islamic agenda and objectives.

### **‘Bleed to Bankruptcy’ – Ideological and Strategic Drivers**

Al-Qaeda initially cautioned against attacking oil targets on the basis that the Islamic Caliphate it hopes to establish would later depend upon these same resources. Over time however, the group has altered its strategic and ideological stance, particularly after the 2004 publication by Saudi ideologue Sheikh Abdullah bin Nasir al-Rashid titled the ‘Laws of Targeting Petroleum-Related Interests and a Review of the Laws Pertaining to the Economic Jihad’. [3]

---

Rashid's work revealed a new doctrine for economic terrorism, and outlined Al-Qaeda's rules of engagement when targeting oil infrastructure. In the document, Rashid argued that the targeting of oil-related interests is a legitimate means of economic jihad, with the potential to precipitate rising oil prices, increase infrastructure protection costs, and damage the economic reputation of the U.S.

Rashid outlined four broad types of oil related interests – oil wells, oil pipelines, oil facilities, and petroleum industry personnel – and aimed to institute a series of considerations or rules in relation to the targeting of each. Rashid insisted that the targeting of oil wells, for instance, is not permitted as long as a realistic alternative exists, because the negative consequences of such an operation outweigh the benefits. Similarly, Rashid argued that while attacks on oil facilities (refineries and plants) can render a devastating blow to the enemy, such operations must not target facilities owned by Muslims.

At its core then, Rashid's doctrine is one rooted in proportionality, seeking to prioritize targets that would not damage long-term oil production capability, but would instead cause oil prices to rise. This logic of proportionality is especially clear in Rashid's assessment of targeting oil pipelines: "Pipelines are easier and less costly to attack... As for the costs of attacks against pipelines, they are less detrimental to the environment... In addition, pipelines are easy to target from an operational perspective. This is because guarding the pipelines is virtually impossible due to the vast distances that they sprawl across... Thus, attacking oil pipelines offers great benefits, and deals a great blow to the enemies that cannot be dealt by other means." [4]

Al-Qaeda's senior leadership further developed this strategy in late 2004. In a videotape from late October (the transcript of which was released by Al-Jazeera in early November), Osama bin Laden called for attacks on the oil industry as part of an economic jihad against the U.S. In this statement, Bin Laden noted that the conflict in Afghanistan in the 1990s "bled Russia for 10 years until it went bankrupt and was forced to withdraw... We are continuing the same policy to make the U.S. bleed profusely to the point of bankruptcy." [5]

This 'bleed to bankruptcy' strategy has since remained Al-Qaeda's guiding philosophy in relation to the energy sector, and in September 2005 Al-Qaeda's deputy leader Ayman al-Zawahiri reiterated Bin Laden's arguments in a video statement released to coincide with the fourth anniversary of the 11 September 2001 attacks in the U.S. Zawahiri stated: "I call upon the mujahideen to focus their attacks on the stolen oil of the Muslims. Most of its revenue goes to the enemies of Islam, and most of what they leave is plundered by the thieves who rule our countries. This is the greatest theft in the history of humanity. We must stop this theft in any way we can, in order to save this resource for the sake of the Muslim nation." [6]

---

While little of compelling strategic value has since been published by Al-Qaeda or its supporters, attacks on oil interests remains a common feature of jihadist documentation and online activity. In the February 2007 issue of *Sawt al-Jihad* (Voice of Jihad), Abeer al-Bassam authored a piece titled *Bin Laden and the Oil Weapon*, in which he discussed theories of economic jihad and future U.S. dependence on foreign oil.[7] In the piece, Bassam emphasized the value of detailed pre-attack reconnaissance to ensure successful tactical execution, and encouraged attacks on physical assets rather than personnel (who are vital in maintaining and operating energy facilities and infrastructure). Bassam also made a number of revealing points about target selection. For example, he considered the attacks on the French-flagged oil tanker *MV Limburg* on 6 October 2002 and the Abqaiq oil processing facility on 24 February 2006 to be the only concrete examples of Al-Qaeda operations directed at the oil industry.

After a sizeable flurry of activity on online jihadist sites regarding Al-Qaeda's energy war in the 2005-2006 period – predominantly focused on the Iraqi theater – such activity has since subsided considerably. Since mid-2006, IHS Jane's has been monitoring and examining some 400 English, Arabic, Pushto and other foreign language websites, blogs and forums with the aim of understanding the radical nature of online extremist content and activity, and assessing strategic and tactical trends and themes that emerge across the range of sites, including documenting any evidence of shifts in the nature and focus of Al-Qaeda's targeting of energy infrastructure, assets and personnel. [8]

For the most part, online statements directed at the energy sector have become sporadic, with one of the most recent examples occurring as far back as August 29, 2009, when members of the Al-Fallujah Forum were told in an online discussion: "We notice in the recent periods a lack of interest by the mujahideen to attack oil pipelines and refineries. Therefore, we call upon the Islamic State of Iraq and other mujahideen to attack those pipelines, which supply the occupation. They are the source of their survival so far in Iraq." [9]

### **Cutting the Economic Umbilical Cord**

Given this strategic grounding, how does Al-Qaeda's stated desire and intent to attack energy targets stack up against its operational past performance in successfully executing attacks targeting the energy sector?

Arguably, there is a clear disconnect between Al-Qaeda's intent and capabilities. Certainly at the height of the Iraqi insurgency between 2004 and late 2006, oil interests – especially pipelines and refineries in northern Iraq around Bayji, Dahuk, Kirkuk and Mosul [10]– were frequently disrupted by insurgent attacks, many of which (but by no means all) were carried out by militants linked to Al-Qaeda in Iraq (AQI). However outside of the Iraq theater, to date Al-Qaeda's

---

campaign against energy targets has been remarkably limited to a handful high-profile incidents in Yemen and Saudi Arabia.

In fact, three specific examples of attacks or attempted attacks on high profile energy targets effectively constitute the sum of Al-Qaeda's activity in this arena: the attack on the *MV Limburg* on 6 October 2002; the attack on the Abqaiq oil processing facility on 24 February 2006; and the coordinated attacks on two oil terminals in Yemen on 15 September 2006. Each of these attacks highlights the varying levels of tactical and strategic success Al-Qaeda has enjoyed when targeting oil interests.

### ***MV Limburg* – 6 October 2002**

The attack on the French-flagged oil tanker *MV Limburg* off the Yemeni coast on 6 October 2002 remains possibly the only operation targeting oil interests in which Al-Qaeda has achieved *both* its tactical and strategic objectives, and at that time served as a stark wake-up call to the vulnerability of vital shipping lanes and port facilities to terrorist attack.

Tactically, the attack involved an explosive-laden dinghy ramming into the side of the vessel and detonating. The explosion blew a hole in the side of the vessel, setting it on fire, and spilling 90,000 barrels of oil (just under a quarter of the 397,000 barrels of oil being transported) into the Gulf of Aden. One crew member was killed in the attack and 12 others were injured. [11]

In addition to an immediate rise in oil by prices by 1.3 % (30 cents), Yemen's economy suffered dramatic longer-term effects in the wake of the attack as a result of a collapse in international shipping in the Gulf of Aden and a tripling in insurance premiums on ships operating in Yemeni waterways. According to a fact sheet released by the U.S. State Department's Office of Counterterrorism on 8 November 2002, the average cost for a vessel to dock at a Yemeni port increased by \$150,000, causing a 50 % reduction in port activity and a loss to the Yemeni economy through reduced port revenues of around \$3.8 million per month. [12] For an economy in which more than 75 % of government revenue is generated from oil exports, the loss of trading activity was a significant economic blow, one that took several years to remedy. Indeed, in an interview in mid-January 2007, M.M.J. Subramaniam, the Chief Executive Officer of Aden Container Terminal's (ACT) operator Overseas Port Management, told *IHS Fairplay* that ACT had recorded a 26 % increase in throughput at the end of December 2006 to 350,000teu, still below the 388,000teu being achieved prior to the *Limburg* attack. [13]

### **Abqaiq Oil Processing Facility – 24 February 24 2006**

The attack on Abqaiq oil processing facility in Saudi Arabia on February 24, 2006 was of even greater significance than that targeting the *Limburg* owing to the strategic importance of the

---

target. Abqaiq is located beside an oil field with some 17 billion barrels of proven oil reserves. In 2006, the field was producing around 4 % of Saudi Arabia's total oil production, equivalent to some 430,000 barrels per day.[14] Moreover, two-thirds of Saudi Arabia's crude oil production passes through the facility's pumping stations, gas-oil separators and pipelines prior to export from terminals at Ras Tanura, Ras al-Juaymah and other Gulf export terminals. At the time of the attack in February 2006, this amounted to around 5 million barrels per day – or one-sixth of total global oil production. These statistics render the facilities at Abqaiq pivotal to Saudi (and indeed global) energy production and export capacity.

The operation itself involved a five-man team consisting of a three-vehicle convoy: a lead vehicle (a Toyota Landcruiser, a 4x4 vehicle) with three terrorists onboard, and two other vehicles, both vehicle-borne improvised explosive devices (VBIED) and driven by single suicide bombers. Michael Knights, a fellow at the Washington Institute for Near East Policy and specialist on Al-Qaeda in the Arabian Peninsula (AQAP), has previously offered one of the most succinct reconstructions of the attack:

“Led by the lead ‘shooter’ team, the convoy approached the gate. The breaching team dismounted from the Landcruiser and began shooting and throwing hand grenades at the guards. The attack on the guards was successful, and both were mortally wounded. The first VBIED then rammed the gate barrier and exploded shortly afterwards. The explosion opened a path for the second vehicle to slowly drive through the burning chassis and gate debris... While the second VBIED cleared the gate, it was stopped by gunfire from security forces after it had driven approximately 40 m closer to the Abqaiq facility. This vehicle exploded between 300 m and 400 m from the plant's key areas.”[15]

Tactically then, the operation failed before reaching Abqaiq's critical infrastructure. With only one of the three attack vehicles able to operate off-road, the attack cell certainly limited its chances of success, forced to approach and target Abqaiq's main outer security perimeter rather than the more easily penetrable wire fencing around other sections of the facility. Consequently, damage from the two explosions was contained around pumping and processing stations outside the main facility.[16] While the quick response of Saudi security forces to engage the two approaching vehicles cannot be discounted, this fundamental flaw in operational execution – the use of vehicles with limited capacity to fulfill mission objectives – demonstrates both a degree of insufficient pre-attack reconnaissance, as well as an air of misplaced tactical optimism. Strategically, the Abqaiq operation was more successful. News of the attack resulted in an increase in crude oil prices of around \$2. More significantly, the attack clearly reflected the greater focus on energy targets displayed by militants in Saudi Arabia during the previous twelve months. During this period, Saudi security forces killed prominent AQAP leadership figure Saleh Mohammed al-Awfi on 18 August 2005, in the process uncovering charts and maps indicating

---

several potential oil infrastructure targets across Saudi Arabia and other Gulf Cooperation Council (GCC) states.[17]

### **Yemen Oil Terminals – 15 September 2006.**

On 15 September 2006, jihadist terrorists launched two near-simultaneous attacks on oil facilities in Yemen. These operations must ultimately be characterized as over-ambitious attacks that were poorly conceived and executed worse, suffering from a combination of inadequate target selection, shortcomings in operational implementation, and an absence of sophisticated strategic guidance.

The most surprising element of the attack was the choice of targets, with neither being critical to Yemen's oil industry nor as heavily guarded as other oil facilities (such as the Sanaa oil processing facility). Consequently, even had the attacks enjoyed tactical success, the economic impact would have been marginal (and indeed, oil prices were unaffected by the failed incidents).

Tactically, the operations shared many of the characteristics associated with the Abqaiq attack earlier in 2006. However, the absence of a lead vehicle designed to clear a path for suicide vehicle-borne explosive devices (SVBIEDs) to breach the outer perimeters ultimately confounded the operations to failure.

The first attack targeted the Ash Shihr oil terminal in Mukalla, Yemen's main export terminal in the Gulf of Aden. The attack involved two VBIEDs; the first exploded at the external perimeter wall of the facility, while the second exploded just inside the perimeter after security forces shot and wounded the driver. The second attack, some 45 minutes after the first attack, targeted Block 18 site in Marib province, 150 km east of Sanaa – a 10,000 barrels per day (bpd) oil gathering and gas/oil separation plant. As with the first attack, two VBIEDs were involved in the Block 18 operation. The first vehicle rammed the gate and exploded. Before reaching the destroyed section of the gate, the second VBIED changed course and struck an undamaged section of chain-link fence before exploding. Physical damage in both attacks was extremely limited. [18]

Strategically also, the attacks must be considered a failure. While no doubt affirming Yemen's rapidly deteriorating security environment, little compelling evidence exists of any discernible involvement or direction from Al-Qaeda. [19] Rather, the operations were carried out by a small, inexperienced home-grown group of Yemeni Islamists attempting to imitate the tactics of their jihadist counterparts in Saudi Arabia, Iraq and South Asia.

### **Al-Qaeda's Operational Limitations**

---

Why then, despite the strategic discourse on the legitimacy of targeting and sabotaging oil infrastructure, is Al-Qaeda yet to make a significant impact on the energy sector?

There are some important limiting factors that help explain Al-Qaeda's operational shortcomings, not the least of which is the fact that strategic energy targets – especially large refineries – are among the most heavily guarded and secured.

For instance at the time of the Abqaiq attack in February 2006, the Saudi government was spending \$1.5 billion on energy security, and providing around-the-clock surveillance from military helicopters and F15 patrols. In addition, an estimated 25,000 to 30,000 troops were protecting Saudi Arabia's energy infrastructure, and each terminal has its own dedicated security unit, comprised of Saudi Aramco security personnel, and specialized units of the National Guard and Ministry of Interior. [20] In addition, Saudi Aramco announced the creation of the Abqaiq Area Emergency Control Center in November 2002, housing advanced command, control and communication systems to manage emergency and supply disruptions to pipelines and processing hubs.[21]

In Iraq, as a reaction to the deliberate targeting of the country's pipeline infrastructure during the past few years, the government, with U.S. financial support, has established a series of pipeline exclusion zones (PEZs), consisting of layers of berm, fences, razor-wire, walls and trenches, as well as armed guards and patrols placed at strategic locations or at locations from which rockets and other types of attacks can be launched. [22] In the 12 months following completion of the Kirkuk to Baiji PEZ in northern Iraq from July 2007 to July 2008, exports through the pipeline increased ten-fold and no serious disruptions were reported.

The relatively high level of security at strategic energy infrastructure is clearly then an important hindrance to successful jihadist attacks on oil interests. Nevertheless, a more complete and fundamental explanation for the disconnect between Al-Qaeda's strategic objectives and its operational capabilities relates to a number of critical dynamics shaping Al-Qaeda's broad aims and objectives, as well as determining the group's underlying capacity to realize its agenda.

### **Al-Qaeda's Strategic and Ideological Evolution**

Al-Qaeda's strategic and ideological center of gravity has shifted substantially since the attacks in New York and Washington, DC on 11 September 2001. This is essentially the result of two inter-connected factors.

First, Al-Qaeda has failed to gain traction across much of the Middle East, North Africa and Southeast Asia, which has led many within the jihadist movement to question Bin Laden's ideological supremacy and label his strategic direction misguided. Al-Qaeda's single most

---

important objective since its inception has been the establishment an Islamic Emirate. However, its failure to do so has instead led to a loss of credibility across the Islamic world. This is particularly clear in Iraq, where the Sunni awakening process (in which U.S. forces began to form alliances with local Sunni tribes in western Anbar) from late 2005 was one that completely rejected rather than embraced Al-Qaeda's vision of a pan-Islamic state. [23]

These internal fissures over Al-Qaeda's general strategic approach are one of the central dynamics shaping the movement, and will likely remain so in the coming years. Without a state or centralized ideological authority, some within the movement argue that a completely different and alternate vision of jihad must be adopted. As Eric Brown has argued, in a new landscape characterized by a rapid proliferation of new actors in the pan-Islamic movement, Al-Qaeda's continuing authority will depend on its ability to manage these internal divisions and prevail in the debate over the correct strategic and ideological direction. [24]

Second, Al-Qaeda has fundamentally reassessed its approach to jihad in the past nine years. Under sustained pressure from U.S. and coalition forces in the Afghan-Pakistan border region since 2001, Al-Qaeda has morphed into a highly decentralized network of associated groups and individuals. This, critically, has shifted ideological – and operational – authority away from the group's senior leaders and has necessitated a shift in focus and posture to avoid questions of relevancy. Put simply, Al-Qaeda has quite deliberately attempted to transform itself into a strategic and doctrinal agenda-setter, and as terrorism specialist Jarret Brachman has noted, this has led Al-Qaeda to evolve “from a terrorist group that dabbles in media, to a media organization that dabbles in terrorism”. [25]

No better example of this shift can be found than in a recent Bin Laden statement released in late January 2010 focused almost exclusively on climate change, in which the Al-Qaeda leader stated: “The effects of global warming have touched every continent. Drought and deserts are spreading, while ... floods and hurricanes unseen before the previous decades have now become frequent. The world is held hostage by major corporations, which are pushing it to the brink. World politics are not governed by reason, but by the force and greed of oil thieves and warmongers and the cruel beasts of capitalism in Washington, New York and Texas.” [26] While the style of this statement is immediately divergent from more typical Al-Qaeda statements that make specific threats against oil interests, it is equally clear that by debating a topic such as climate change, Bin Laden is actively seeking to expand the Al-Qaeda message beyond non-traditional support bases and hardcore jihadist sympathizers, to those who may simply feel disenfranchised by Western regimes. [27]

### **Internal Power Dynamics**

---



A second important operational limitation to consider arises from the on-going internal power struggle afflicting Al-Qaeda's upper leadership echelons, particularly between the group's Egyptian and non-Egyptian jihadists. These internal power dynamics not only have the potential to undermine Al-Qaeda's long-term strategic success, they could also feasibly serve as a distraction that reduces the operational and tactical capacity of the group.

Al-Qaeda has always been heavily dependent on its capable and experienced Egyptian contingent to pursue its objectives and project power. However, as Guido Steinberg has noted, Egyptian over-representation in Al-Qaeda's senior leadership structures has been a common cause of friction among the group's non-Egyptian jihadists, who are largely unable to reconcile the discrepancy between the ideal of a supranational community or believers and the reality of Egyptian dominance of Al-Qaeda's leadership circles. [28]

Internal power dynamics have been further complicated since 2007 by U.S. drone strikes in the Afghanistan-Pakistan border region, which have resulted in the killing of many of Al-Qaeda's senior Egyptian leaders. The highest profile killing to date has been that of Al-Qaeda's third in command, Mustafa Abu al-Yazid. [29] Al-Qaeda released a statement on 1 June 2010 confirming Yazid's death, although U.S. officials suspect he was killed in a drone strike some weeks earlier. Yazid, also known as Sheikh Saeed al-Masri, was a founding member of Al-Qaeda and a pivotal figure in the senior leadership, acting as the prime conduit to Bin Laden, as well as assuming a high degree of responsibility for Al-Qaeda's financial operations. He also coordinated and bolstered relationships between Al-Qaeda and the Taliban movement in Afghanistan and across the border in Pakistan, and as such his death will likely lead to a period of uncertainty in relations between the different groups operating across the AfPak border region.

Most importantly, Yazid was widely tipped as the natural successor to Bin Laden and Ayman al-Zawahiri. As an Egyptian, his position and influence within Al-Qaeda thus tended to perpetuate tensions with non-Egyptian individuals rising in the ranks of the terrorist network. Certainly, his removal from the leadership hierarchy could inspire the decline of Al-Qaeda's Egyptian element relative to a second tier of leadership dominated by influential Libyan jihadists. [30]

Related to these power shifts is the emergence of a younger generation of jihadists within the ranks of Al-Qaeda, many of them Saudi and Kuwaiti nationals. All of these individuals demonstrate a religious zeal and are more than prepared to die as martyrs, but seek high profile targets to justify their death and achieve notoriety. Put simply, operations targeting easily repaired oil pipelines may simply lack the glamour required to satisfy the urge of younger Al-Qaeda martyrs.

### **Recruitment Challenges**

---

The third and final challenge that potentially undercuts Al-Qaeda's capacity to pursue its campaign relates to recruitment. In the past two years, detailed accounts have emerged (largely via court transcripts) from individuals who have trained in jihadist camps in AfPak which present somewhat mixed experiences.

There are examples of individuals who genuinely appear to have enjoyed their experience. For instance, at least one of the four members of the so-called 'Sauerland Cell' – arrested on 4 September 2007 and convicted in March 2010 for a plot to target U.S. military installations in Germany in 2007 - spoke positively in court about his time in AfPak, describing in his testimony how he "savored every moment" fighting in Afghanistan in 2006 and would have liked to stay longer. [31]

Of more concern to Al-Qaeda must be the accounts of several veterans of jihadist training camps in Afghanistan and Pakistan who have complained of poor treatment by their Al-Qaeda hosts. Here, a telling case is that of a number of Belgian and French nationals who returned to Europe from AQ training camps in late 2008 and were arrested by Belgian authorities in December that year. According to their interrogation documents, instead of being sent to a training facility upon their arrival in the Federally Administered Tribal Areas (FATA), each had to pay around €900 for equipment and training, were dispatched to primitive shacks in the mountains and engaged in no meaningful operational activities.

The experience of the Belgian and French group is revealing on two fronts. Negative accounts, if they are well publicized, have the potential to easily cause a reduction in the flow of western militants to training camps in Afghanistan and Pakistan, which would ultimately undermine the ability of the group to pursue attacks against any target sector – including oil targets. Second and as importantly, the notion of recruits paying for equipment and training seems to confirm a now long-held suspicion that the group is struggling financially. Al-Qaeda's senior leadership – and in particular Mustafa Abu al-Yazid prior to his death earlier this year – have made frequent appeals in video statements for financial and logistical support from sympathizers. Such appeals indicate that Al-Qaeda might currently lack the support structures and logistical backbone to effectively prosecute its campaign.

### **Conclusion**

The future of Al-Qaeda's oil war remains highly uncertain. While the group retains the desire to organize and execute attacks directed at all types of oil interests (be it pipelines, refineries or personnel), Al-Qaeda nevertheless is grappling with a range of challenges that continue to impact its ability to sustain its campaign, including pressure from outside actors (U.S. and coalition forces in Afghanistan), ideological divisions, internal power struggles, and recruitment difficulties. Its future force projection capabilities – including those directed at energy targets –

---

---

will to a large extent depend on its ability to overcome these challenges, and in an environment of new ideologies and new actors, on its ability to solidify its role as a strategic visionary in the broader pan-Islamic jihadist movement.

It is by no means certain that Al-Qaeda will emerge from this period of redefinition on a stronger footing. Should it succeed in managing these internal and external pressures, oil companies can expect the group to continue to focus its operations on any strategically important pipelines, particularly those that are located in highly volatile regions with a history of attacks on pipeline infrastructure, such as in northern Iraq, Afghanistan and Pakistan.

The overwhelming fear for oil companies, however, must be that Al-Qaeda will begin to target critical energy facilities and chokepoints in a more sustained and coordinated fashion. Although the level of redundancy in the oil market renders success in any large scale operation difficult to accomplish, if Al-Qaeda launches attacks against the energy sector in a manner consistent with its traditional *modus operandi* – large-scale, multiple simultaneous explosive attacks – the economic impacts could be severe.

**About the Author:** *Tim Pippard is a Senior Consultant in the Security and Military Intelligence Practice of IHS Jane's. He is assistant editor of Perspectives on Terrorism, and former managing editor of Jane's Terrorism and Insurgency Center (JTIC).*

## Notes

- [1] Saudi Arabia Arrests 113 Al-Qaida Suspects, *ABC News*, 24 March 2010, <http://abcnews.go.com/International/wireStory?id=10189021>. Retrieved 16 June, 2010.
- [2] "Yemen ups oil security for fear of Qaeda attack", *Al Arabiya News Channel*, 17 March 2010, <http://www.alarabiya.net/articles/2010/03/17/103309.html>
- [3] See Kohlmann, Evan, "Al-Qaida in Saudi Arabia – excerpts from The Laws of Targeting Petroleum-Related Interests", 01 March 2006, <http://www.globalterroralert.com/images/documents/pdf/0306/oiljihad0306.pdf>. Retrieved on 16 June 2010.
- [4] Kohlmann, Evan, *op. cit.*
- [5] "Al-Qaida is bleeding the US to bankruptcy, Bin Laden claims", *The Guardian*, 3 November 2004, <http://www.guardian.co.uk/world/2004/nov/03/usa.alqaida>, retrieved on 8 July 2010.
- [6] Excerpts from Ayman al-Zawahiri's video statement were aired by Al-Jazeera in September 2005; however, the full transcript of the interview only appeared online in early December 2005. See "Newly-Released Video of Al-Qaeda's Deputy Leader Ayman al-Zawahiri's Interview with Al-Sahab TV", *The Middle East Media Research Institute*, 8 December 2005, [http://www.memri.org/report/en/0/0/0/0/0/1550.htm#\\_edn1](http://www.memri.org/report/en/0/0/0/0/0/1550.htm#_edn1); retrieved on 8 July 2010.
- [7] See "Al-Qaeda's Oil War Falter", *Jane's Terrorism and Security Monitor*, 16 February 2008.
- [8] For more on this monitoring and analysis effort, see Pippard, Tim, "E-Qaeda: Jihadist Use of the Internet", keynote address at the Microsoft Public Safety Symposium, Redmond, WA, 16 April 2009, [http://mspublicsafety.com/media/pdf/PDF\\_Presentations/PDF\\_Files/Al-Qaeda\\_Jihadist\\_Use\\_of\\_the\\_Internet\\_Keynote.pdf](http://mspublicsafety.com/media/pdf/PDF_Presentations/PDF_Files/Al-Qaeda_Jihadist_Use_of_the_Internet_Keynote.pdf). Retrieved on 10 June 2010.
- [9] See Lando, Ben, "Prevention, attacks target oil", *Iraq Oil Report*, 1 September 2009, <http://www.uslaboragainstar.org/article.php?id=20247>; retrieved 8 July 2010.
- [10] For a comprehensive list of pipeline attacks in Iraq from 2003 to early 2008, see IAGS Energy Security, "Iraq Pipeline Watch", <http://www.iags.org/iraqpipelinewatch.htm>; accessed on 14 June 2010.
- [11] For more on the details of the *MV Limburg* attack, see Congressional Research Service Report for Congress, *Maritime Security: Potential Terrorist Attacks and Protection Priorities*, 14 May 2007, [http://assets.opencrs.com/rpts/RL33787\\_20070514.pdf](http://assets.opencrs.com/rpts/RL33787_20070514.pdf); retrieved 8 July 2010;
- [12] U.S. Department of State, "Yemen's Economy Suffering Due to October Terrorist Attack", November 8, 2002, <http://www.america.gov/st/washfile-english/2002/November/20021108162129skaufman@pd.state.gov0.4453089.html>. Retrieved on 8 July 2010.
- [13] IHS Fairplay, "Aden recovers from *Limburg* attack", 18 January 2007, <http://www.fairplay.co.uk/secure/displayMagArticles.aspx?articlename+fnw20070118023nw&phrase>; retrieved on 17 June 2010 (password required)
-

- [14] Production at Abqaiq has since declined (partly due to natural depletion). According to IHS Cambridge Energy Research Associates (IHS CERA), production at Abqaiq in 2009 stood at 375,000 barrels per day. See IHS CERA, "World's Largest Oil Fields and Top Oil Producing Nations", 18 August 2009, <https://www.cera.com/asp/cda/public1/news/articles/newsArticleDetails.aspx?CID=10534>, retrieved on 8 July 2010. See also Energy Information Administration, "Country Analysis Briefs – Saudi Arabia", November 2009, [http://www.eia.doe.gov/cabs/Saudi\\_Arabia/Full.html](http://www.eia.doe.gov/cabs/Saudi_Arabia/Full.html), retrieved on 7 July 2010.
- [15] Knights, Michael, "Attack on Abqaiq highlights growing focus on oil targets", *Jane's Intelligence Review*, 1 May 2006, [http://www8.janes.com/JDIC/JTIC/documentView.do?docId=/content1/janesdata/mags/jir/history/jir2006/jir01473.htm@current&pageSelected=janesNews&keyword=Abqaiq&backPath=http://jtic.janes.com/JDIC/JTIC/search&Prod\\_Name=&activeNav=http://www8.janes.com/JDIC/JTIC](http://www8.janes.com/JDIC/JTIC/documentView.do?docId=/content1/janesdata/mags/jir/history/jir2006/jir01473.htm@current&pageSelected=janesNews&keyword=Abqaiq&backPath=http://jtic.janes.com/JDIC/JTIC/search&Prod_Name=&activeNav=http://www8.janes.com/JDIC/JTIC); retrieved on 8 July 2010 (password required)
- [16] For further discussion of the Abqaiq attack, its impacts, and security force responses to the attack, see Al-Rohan, Khalid R., "The Impact of the Abqaiq Attack on Saudi Energy Security", *Center for Strategic and International Studies*, 27 February 2006, [http://csis.org/files/media/csis/pubs/060227\\_abqaiqattack.pdf](http://csis.org/files/media/csis/pubs/060227_abqaiqattack.pdf), retrieved on 8 July 2010.
- [17] Knights, Michael, *op. cit.* Knights also makes reference to a Saudi Ministry of Interior statement of 26 February 2005 that suggested a number of planned attacks (some focused on oil interests) had been disrupted by security forces in the Dammam and al-Kharju areas – further evidence of Al-Qaeda's increasing strategic focus on energy targets.
- [18] Descriptions of the Yemen oil terminal attacks derived from Knights, Michael, "Yemen oil attacks display intent but little capability", *Jane's Intelligence Review*, 6 October 2006.
- [19] For a broader discussion of Yemen's security situation – including the Islamist threat, ongoing conflict in Saada, and the southern separatist movement – see Boucek, Christopher, "Collision course – Yemen's converging crises", *Jane's Intelligence Review*, 17 September 2009.
- [20] See Cordesman, Anthony H, and Obaid, Nawaf, "Saudi Petroleum Security: challenges and Responses", *Center for Strategic and International Studies*, 30 November 2004, [http://csis.org/files/media/csis/pubs/saudi\\_petroleumsecurity041129.pdf](http://csis.org/files/media/csis/pubs/saudi_petroleumsecurity041129.pdf); retrieved on 6 July 2010
- [21] Cordesman and Obaid, *op. cit.*
- [22] For further discussion of PEZs and additional security measures around Iraqi critical oil infrastructure, see Blanchard, Christopher M., "Iraq: Oil and Gas Legislation, Revenue Sharing, and U.S. Policy", *Congressional Research Service*, 3 November 2009, <http://www.fas.org/sgp/crs/mideast/RL34064.pdf>, retrieved on 8 July 2010; Lando, Ben, "Iraqi forces step up oil protection", *Iraqi Oil Report*, 24 September 2009, <http://www.iraqoilreport.com/security/iraqi-forces-step-up-oil-protection-2248/>, retrieved on 4 July 2010 (password required); Energy Information Administration, "Country Analysis Briefs – Iraq", June 2009, <http://www.eia.doe.gov/emeu/cabs/Iraq/pdf.pdf>, retrieved on 8 July 2010; and "Safer pipeline lets Iraq oil exports flow: report", *Reuters*, 26 July 2008, <http://www.reuters.com/article/idUSN2641627720080726>, retrieved on 4 July 2010.
- [23] See Pippard, Tim, "Al-Qaeda's Afghan Strategy", *IHS Jane's Intelligence Center Seminar*, 7 December 2009, <http://www2.janes.com/docs/onlineSeminars/Al-Qaedas-Afghan-Strategy.html>, retrieved on 6 July 2010 (password required). For a broader discussion of Al-Qaeda's perceived strategic failures, see Burke, Jason, "Perceptions of leaders: Examining extremist views of Al-Qaeda", in *Al-Qaeda's Senior Leadership – A Jane's Strategic Advisory Services Supplement*, IHS Jane's, November 2009, pp. 2-6.
- [24] Brown, Eric, "Al-Qaeda after Bin Laden", in *Al-Qaeda's Senior Leadership – A Jane's Strategic Advisory Services Supplement*, IHS Jane's, November 2009, pp. 36-40.
- [25] Brachmann, Jarret, "Retaining Relevance – Assessing Al-Qaeda's Generational Evolution", in *Al-Qaeda's Senior Leadership – A Jane's Strategic Advisory Services Supplement*, IHS Jane's, November 2009, pp. 26-30.
- [26] "Bin Laden Blasts U.S. for Climate Change", *ABC News*, 29 January 2010, <http://abcnews.go.com/International/wirestory?id=9695828&page=1>, retrieved on 9 July 2010.
- [27] Pippard, Tim, "Ideologies and Actors: Jihadist threats to the energy sector", *CERAWeek 2010*, Houston, TX, 8 March 2010, <http://www2.cera.com/ceraweek2010/cwonline/>; retrieved on 6 July 2010 (password required).
- [28] For a detailed discussion of internal power struggles between Al-Qaeda's Egyptian and non-Egyptian contingents, see Steinberg, Guido, "Towards Collective Leadership – The Role of Egyptians in Al-Qaeda", in *Al-Qaeda's Senior Leadership – A Jane's Strategic Advisory Services Supplement*, IHS Jane's, November 2009, pp. 7-11.
- [29] U.S. Welcomes Death of Al-Qaida Leader in Pakistan", *Voice of America*, 1 June 2010, <http://www1.voanews.com/english/news/usa/Pakistani-Based-High-Ranking-al-Qaida-Leader-Killed-95292139.html>, retrieved on 8 July 2010.
- [30] The Libyan Abu Yahya al-Libi has emerged as one of Al-Qaeda's most senior ideologues and religious authorities since his escape from Bagram airbase in 2005, frequently appearing in video and audio statements. See Steinberg, Guido, *op. cit.*
- [31] For a detailed analysis of the Sauerland cell, the plot and jihadist threats in Germany more broadly, see Steinberg, Guido, "Trial and Error – How a failed plot revealed a movement", *Jane's Intelligence Review*, 16 April 2010, [http://www8.janes.com/JDIC/JTIC/documentView.do?docId=/content1/janesdata/mags/jir/history/jir2010/jir10875.htm@current&pageSelected=janesNews&keyword=Sauerland&backPath=http://jtic.janes.com/JDIC/JTIC/search&Prod\\_Name=&activeNav=http://www8.janes.com/JDIC/JTIC](http://www8.janes.com/JDIC/JTIC/documentView.do?docId=/content1/janesdata/mags/jir/history/jir2010/jir10875.htm@current&pageSelected=janesNews&keyword=Sauerland&backPath=http://jtic.janes.com/JDIC/JTIC/search&Prod_Name=&activeNav=http://www8.janes.com/JDIC/JTIC), retrieved on 8 July 2010 (password required). On Al-Qaeda's general recruitment challenges and their impacts upon the operational capacity of the movement, see Cruickshank, Paul, "Enlisting Terror: Al-Qaeda's recruitment challenges", in *Al-Qaeda's Senior Leadership – A Jane's Strategic Advisory Services Supplement*, IHS Jane's, November 2009, pp. 12-15.