

38 D. Moran

- 38 Many popular books seek to portray Roosevelt's policy as a conspiracy to provoke an attack by starving Japan of oil. See for instance Gordon Prange, Donald M. Goldstein, and Katherine V. Dillon, *Pearl Harbor: The Verdict of History*, New York: Penguin, 1991; and Robert Stinnett, *Day of Deceit: The Truth about FDR and Pearl Harbor*, New York: Touchstone, 2000.
- 39 The same inference underlay the ascendance among airmen of "strategic bombing" in the 1920s, by which the economy and social cohesion of the enemy was supposed to be attacked directly, without the necessity of having to fight through his army first. See Lee Kennett, *A History of Strategic Bombing*, New York: Charles Scribner's Sons, 1982.
- 40 See William H. Becker and Samuel F. Wells, Jr., eds., *Economics and World Power: An Assessment of American Diplomacy since 1789*, New York: Columbia University Press, 1984.
- 41 Both the Dawes Plan of 1924, named for American Vice President Charles Dawes, and the Young Plan of 1929, named for Owen Young, the founder and first chairman of RCA, included provisions to provide Germany with American loans, so that it could finance the industrial recovery required to make payments. The effect was of course to deprive the entire scheme of the strategic pressure it was supposed to exert.
- 42 Opinion polls showed Americans to be deeply pessimistic about the consequences of war even if America were victorious. One survey in November 1941 reported that 44 percent of respondents opposed sending an army to Europe, even if failing to do so meant the Nazis would win the war (Dallek, *Franklin Roosevelt*, pp. 310–11).
- 43 Address to a Joint Meeting of the House and Senate, 8 December 1941, <http://www.yale.edu/lawweb/avalon/wwii/dec/dec03.htm>.

## 2 Petroleum anxiety and the militarization of energy security

*Michael T. Klare*

Although American policy-makers have always voiced strong confidence in the role of markets in providing this country and others with the overseas oil they need to satisfy rising domestic requirements, they have recently expressed a growing requirement for military force to ensure the safe delivery of those supplies. In late 2006, for example, a policy group convened by the Council on Foreign Relations concluded, "As the world market for oil relies on increasingly distant sources of supply, often in insecure places, the need to protect the production and transportation infrastructure will grow." Under these circumstances, the group asserted, the vital role of "US regionally deployed forces" in providing such protection "will be necessary in the future." In particular, "US naval protection of the sea-lanes that transport oil is of paramount importance."<sup>1</sup>

The United States is the world's leading importer of petroleum, so it is hardly surprising that American policy-makers would express concern over the uninterrupted flow of overseas supplies. The American policy debate is also more open, as a rule, than that of most other countries, so policy reports and statements of the types cited above are normally available to the public in greater profusion than is the case elsewhere. Nevertheless, while it is difficult to obtain comments like these from policy-makers in, say, China, Japan, and Russia, it can be assumed that they are thinking along similar lines. Indeed, inferences can be made from their actions: for example, in a case that will be discussed later in this chapter, both China and Japan have announced their intention to rely on military means to secure their claims to offshore natural-gas fields in the East China Sea. Clearly, reliance on military instruments to ensure access to overseas oil supplies and guarantee their safe delivery is not an exclusively American strategic concern, but one that is shared by many major energy-consuming nations.

What explains this growing worldwide inclination to contemplate military force to ensure the safe production and transportation of oil supplies? Surely, it is unlikely that this inclination would arise in a world in which the global supply of petroleum was perceived as being sufficient to satisfy the requirements of all major consumers, and in which the global oil flow was considered immune to the threat of interdiction or disruption. In such a world, the use of military force to secure access to foreign oil or to protect its flow would be considered an unnecessary impediment to the efficient operation of the market, and so would

be widely discouraged. But policy-makers around the world are becoming increasingly pessimistic about the future sufficiency of petroleum supplies and their unimpeded delivery to consumers, and it is from this anxiety that pressures for the militarization of energy security arise.

Perhaps the most vivid expression of this pessimism was provided by former Secretary of Defense and Energy James R. Schlesinger in testimony before the Senate Foreign Relations Committee on 16 November 2005. "In the decades ahead," he declared,

we shall reach a point, a plateau or peak, beyond which we shall be unable further to increase production of conventional oil worldwide.... [T]he upshot is, quite simply, that as the years roll by, the entire world will face a prospectively growing problem of energy supply. Moreover, we shall inevitably see a growing dependency on the volatile Middle East. We shall have to learn to live with *degrees of insecurity* – rather than the elusive security we have long sought.<sup>2</sup>

In these few words, Schlesinger identified the basic components of the pessimistic outlook that underlies the militarization of energy security:

- 1 the global output of petroleum is expected to reach a "peak" beyond which it will not recover;
- 2 not only the United States, but the "entire world" will be affected by this turnaround in production;
- 3 whatever remains of global oil reserves will be concentrated in the Middle East and other areas of "volatility," increasing the risk of periodic disruption; and
- 4 the inevitable result of all this will be abiding and systemic "insecurity," coloring relations between all major powers.

These four key points are discussed in greater detail below.

### Petroleum insufficiency

The first and most important source of anxiety about the future availability of adequate petroleum supplies concerns the ability of the global energy industry to continually increase the output of crude to satisfy ever-rising levels of consumption. At present, the industry appears capable of satisfying current world demand, which at the beginning of 2007 stood at an estimated 83.7 million barrels per day (mmbd).<sup>3</sup> But serious doubts have arisen in energy and policy-making circles about the industry's capacity to meet much higher levels of demand in the future, when many existing oil fields are expected to fall into decline. Even if net world oil output rises to a higher level in the years ahead – say 100 mmbd or more – the major consuming nations will still experience a condition of petroleum insufficiency if global demand climbs to levels substan-

tially above that figure and the industry proves incapable of boosting output to those elevated levels.

Consider the most recent projections provided by the US Department of Energy. According to the 2007 edition of the Department's *International Energy Outlook* (IEO), world oil consumption is expected to climb from 82.5 mmbd in 2004 to 117 mmbd in 2030, while oil production capacity will rise from 84.3 to 117.7 mmbd over the same period, giving us just barely enough in 2030.<sup>4</sup> Assuming these projections prove accurate, this is reassuring news of a sort; but one must look carefully at the underlying assumptions. The *demand* projections are derived from expectations of economic activity, population growth, global motorization rates, and so forth, and can be considered reasonably reliable as long as there are no earth-shattering events like a world war or prolonged depression; the *production* projections are based on the output of existing wells and their anticipated decline rates along with predictions of new discoveries, and so entail considerably more guesswork. It is these latter calculations that have aroused considerable skepticism among specialists in the field.<sup>5</sup>

This skepticism arises from several observations regarding the world's net oil-production capacity. The first derives from evidence that many of the world's most prolific oil fields are nearing the end of their most productive years and are about to experience a substantial decline in output. This is said to be the case for many mature fields in the older producing areas, including those in North America, East Asia, and Western Siberia, but is thought to be particularly true of Saudi Arabia, the world's leading producer. In a widely cited 2005 book on Saudi Arabia's long-term prospects, investment banker Matthew R. Simmons wrote that Saudi Arabian oil production "is at or very near its *peak sustainable volume* ... and is likely to go *into decline* in the very foreseeable future."<sup>6</sup> Although Simmons's conclusions have been contested by Saudi oil officials, it appears that his work (and that of other specialists who have raised doubts about the productivity of Saudi fields) has begun to influence the thinking of analysts. The Department of Energy has steadily downgraded its projections of future Saudi output. In the 2004 edition of the IEO, for example, Saudi Arabian output was projected to reach 22.5 mmbd in 2025; in the 2005 edition, its projected output was reduced to 16.3 mmbd; in 2006, it had slipped again, to 15.1 mmbd. When combined with projected declines in production by other key producers, including Iran, Iraq, Kuwait, Libya, and Nigeria, the drop in Saudi output produced a huge decrease in the Energy Department's projections for global petroleum output in 2025: whereas the IEO for 2004 and 2005 had projected that total world production capacity would rise to 126.1 mmbd in 2025, the 2007 edition projected output of only 110.7 mmbd.<sup>7</sup> Rising oil prices were no doubt part of the explanation for this downward assessment, but it also reflects growing pessimism about the ability of the world oil industry to achieve heroic increases in production.<sup>8</sup>

A more recent study, released by the International Energy Agency (IEA) in July 2007, continues in this pessimistic vein. Entitled the *Medium-Term Oil Market Report* and covering the years 2008–12, the report concludes that the global oil industry should be capable – just barely – of satisfying anticipated

international demand through the end of this period, but cannot be expected to do so much beyond then. This is so, the report indicates, because many older fields in mature producing areas are in decline or will soon be so while newer fields are either less expansive than expected or pose significant production hurdles.<sup>9</sup>

The second reason for skepticism about the future sufficiency of global production capacity arises from the steady decline in the rate of new oil-field discovery. If the global supply of petroleum is to satisfy anticipated world demand in the years ahead, we would need to see a volume of discovery that equates to both the decline in older field output and the added consumption prompted by global economic growth. But that is not what is happening. According to the Army Corps of Engineers, the peak level of oil-field discovery occurred in the 1960s, when new reserves with approximately 480 billion barrels of oil were identified. Since then, the rate of discovery has dropped in every decade while the consumption of existing reserves has continued to climb, with net extraction overtaking reserve additions for the first time in the 1980s. It now exceeds the discovery rate by a ratio of 2 to 1.<sup>10</sup> What this means is that we are now relying on previously discovered oil for an ever-increasing share of our consumption – a pattern that can only result in the exhaustion of existing supplies and an inevitable contraction in supply.

A third and final reason for skepticism arises from the fact that whatever discoveries are being made today tend to be located in areas that are difficult to tap into for geographic, environmental, or political reasons, and thus may not be developed to their full potential. This is hardly surprising: it is a common law of resource extraction that developers first pursue mineral deposits that are close at hand, easy to extract, and relatively free of political impediments; only after all the easy-to-exploit reserves are exhausted do developers go after less appealing sites in more distant, less accessible areas. In the case of oil, with many of the world's mature fields facing decline and no new fields in familiar areas left to be tapped, producers see no choice but to pursue options in remote, hazardous areas, such as sub-Saharan Africa, the deep waters of the Gulf of Mexico, and the Russian Far East. True, giant firms like Chevron, Exxon, and British Petroleum (BP) have the technical capacity to operate in remote, difficult locations. But will they (and their lenders) be willing to risk the many billions of dollars in new infrastructure that will be needed to develop these exceedingly demanding reservoirs? The answer may not always be "yes."

Take the deep waters of the Gulf of Mexico. BP has great hopes for its Thunder Horse platform, which was expected to begin producing in late 2005 with a planned capacity of 250,000 barrels per day. But after Hurricane Dennis swept through the area in July 2005, the platform was found to be listing by 20–30 degrees and its start-up had to be delayed. Now BP is saying that, owing to numerous metallurgical failures, the platform will not begin operating until 2008 at the earliest.<sup>11</sup> Moreover, American meteorologists are predicting a significant increase in hurricane activity in the region, raising significant doubts as to the practicality of deploying additional platforms like Thunder Horse in the Gulf, despite the known presence of oil and gas in the area.<sup>12</sup> Or take Sakhalin Island in the Russian

Far East. Here political, rather than meteorological difficulties have stood in the way of higher production rates. In December 2006, Russian authorities used suspect environmental accusations against Royal Dutch Shell to force that company and its partners to cede majority control over the giant Sakhalin-II project to state-controlled natural-gas monopoly Gazprom. The project will still go forward, but the legal machinations involved in Gazprom's takeover have delayed its onset and frightened off other foreign investors in Russia's vast energy sector.<sup>13</sup>

For all of these reasons, it appears highly unlikely that the global energy industry will prove capable of boosting worldwide oil production to the elevated levels projected by the US Department of Energy for 2025 and beyond. No doubt global output will rise above current levels by a significant amount, but, as suggested by Secretary Schlesinger, we are heading toward "a point, a plateau or peak, beyond which we shall be unable further to increase production of conventional oil worldwide." Exactly when this point will be reached, and at what level cannot be foreseen; but, as the foregoing analysis suggests, the "plateau or peak" that Schlesinger speaks of is already in sight.

### Intensified competition for the available supply

At the same time that the global energy industry can expect to encounter growing difficulty in adequately ramping up production to satisfy rising demand, the competition for access to oil among the world's major consuming nations is expected to become increasingly fierce. The sharp rise in competition for energy is the product of a steady increase in demand from the mature industrialized nations, led by the United States, combined with a sharp spurt in demand from the newly industrialized countries, especially China and India. Until recently, the developing nations consumed much less energy than the older industrial powers; but their energy demand is growing so rapidly that they are now catching up in terms of net demand, and are beginning to compete with the developed world on nearly equal terms for access to global oil and gas supplies.

As a group, the mature industrialized nations are expected to experience a relatively modest rate of increase in net petroleum usage, estimated at 0.6 percent per year between 2004 and 2030. However, because their consumption in 2004 was already quite substantial, even this moderate rate of increase will boost their combined consumption by 8 mmbd over this period, from 49.1 to a projected 57.1 mmbd. Likewise, the former Soviet Union (FSU) and the Eastern European countries, with a somewhat higher annual rate of increase of 1.0 percent, will see their net oil consumption rise from 4.8 to 6.3 mmbd over this period. By comparison, the developing nations of Asia (including China, India, South Korea, Taiwan, and the Southeast Asian countries) started out in 2004 with a combined consumption of 14.8 mmbd, or 30 percent as much as is consumed by the mature industrial nations; but because they are projected to experience a combined annual growth rate of 2.7 percent, their consumption is projected to jump to 29.8 mmbd by 2030, for a net gain of 15.0 mmbd – far more than that experienced by the mature industrialized nations and the FSU combined.<sup>14</sup>

These numbers are, of course, merely projections, and will no doubt be revised in accordance with the push and pull of global economic forces. But they nevertheless suggest that the older industrial countries can expect to face increasingly severe competition from China, India, and other developing nations for access to overseas sources of oil, natural gas, and sources of energy in the years ahead. In the case of oil, this competition could prove especially ferocious if, as suggested earlier, the global energy industry proves incapable of boosting output in step with rising demand but falls increasingly behind anticipated consumption levels.

### A shift in the center of gravity of world oil production

For most of the Petroleum Era, the production of petroleum was largely concentrated in the global North, especially the United States, Canada, Europe, and the European portion of the Czarist/Soviet empire. As recently as 1950, approximately two-thirds of world oil production was centered in these areas. This is hardly surprising, given the aforementioned tendency of resource producers to focus their initial efforts on the exploitation of the most readily accessible deposits while leaving for later those deposits located in harder-to-reach, more remote locations. But precisely because the nearer-at-hand deposits were the first to be exploited, these are also among the first to face systemic exhaustion. As the demand for crude has grown, therefore, the consuming nations have had no choice but to increase their reliance on providers in the global South. These producers entered the energy business later than their counterparts in the North, and so their fields – in some cases, larger than those in the North to begin with – are at an earlier stage of development and are therefore capable of sustaining higher levels of production in the future. As a result, the center of gravity of world oil production has shifted decisively from North to South and will remain there for the foreseeable future.

Signs of this shift are clearly evident in the projections on future global oil output supplied by the Department of Energy. In 1990, producers in the global North (including the United States, Canada, the North Sea countries, Australia, Russia, and a handful of others) jointly accounted for 39 percent of total world oil output; by 2030, their combined share is expected to drop to 24 percent. Meanwhile, the Energy Department projects a significant increase in the share of world supply provided by key producing areas of the global South, notably Africa, the Caspian Sea basin, and the Persian Gulf. Together the proportion of total world output accounted for by these three areas is expected to jump from 44 percent in 2004 to 57 percent in 2030.<sup>15</sup>

This shift in the center of gravity of world oil-production capacity has profound implications for the energy-seeking nations because it entails a heightened risk to the uninterrupted flow of energy supplies. Although not all nations of the global North are peaceful and not all nations of the global South are conflict-prone, there is a greater incidence of disorder in the South than in the North. This is due partly to the endemic poverty and high rates of unemployment found

in many developing nations – both of which provide the natural fodder for insurgency, ethnic violence, and religious extremism – and partly to the legacies of colonialism, which in many cases include borders drawn to meet the convenience of imperial overlords rather than the aspirations of native constituencies on the ground. The problem of unrepresentative borders arises with particular frequency in the case of oil-producing states, where the allocation of oil revenues is often a significant factor in disputes between the central government and ethnic or regional enclaves, such as Aceh in Indonesia, Cabinda in Angola, Kurdistan in Iraq, the Niger Delta in Nigeria, and the non-Muslim South in Sudan.

Many post-colonial nations also suffer from weak state structures and a tendency toward military strongmen and pervasive corruption. What sets the oil-producing countries apart from others like them, however, is the powerful attraction that oil revenues (or “rents”) have for all aspirants to national rule. Once in power, the leaders of these “petro-states” will balk at nothing to remain in power – and thereby keep the oil rents flowing into their private bank accounts – usually by relying on brute force to eliminate all threats to their continued supremacy. This means that their competitors, after having been denied the opportunity to prevail at the ballot box, perceive no option save armed revolt to secure their own place at the feeding trough. The result, more often than not, is a continuous cycle of *coups*, palace revolts, and counter-*coups* – often supported by an impoverished and resentful population ready to rebel at the first sign of central government vulnerability.<sup>16</sup>

The current fighting in the Niger Delta region of southern Nigeria provides an instructive case-in-point. Although most of Nigeria’s onshore oil is produced in the Delta, the mostly impoverished inhabitants of the region have received few of its benefits, while suffering most of its severe environmental consequences. As in other such petro-states, the revenues paid by foreign oil companies for the crude extracted from the Delta is paid to government agencies in the capital, Abuja, where it disappears into centrally administered budgets (and not a few private bank accounts). Little if any of what remains makes its way back to the peoples of the Delta. After years of peaceful protests by various organizations in the Delta failed to result in any alteration in this basic pattern, militant groups have begun relying on violent tactics to compel the federal government to increase the share of oil revenues allocated to their communities. The result has been a growing cycle of violence, with harsh government repression only spurring greater armed resistance. As part of their response, the rebels have attacked pipelines and oil facilities and kidnapped foreign oil workers, leading major producers like Shell and Chevron to shut down some of their Nigerian operations.<sup>17</sup>

The risk of instability arising from the pursuit of oil in the global South is further compounded by the fact – as vividly demonstrated in Nigeria – that oil facilities have themselves become a target of attack by insurgents and extremists, who often view them as a concrete expression of the West’s plunder of their native soil. This is especially true in the Middle East, where oil has long been

the principal motive for Western penetration and where oil rigs are the most conspicuous expression of Western influence. For those inhabitants of the region who retain memories of the imperial past or otherwise resent the continued presence of foreigners in their midst, this is an intolerable intrusion and – for those who subscribe to violent measures – an attractive target for attack.<sup>18</sup> By targeting refineries and pipelines, the extremists no have doubt concluded, they not only focus attention on the intrusive presence of the Western powers but also deliver a blow at an exceedingly vulnerable point: the West's disproportionate dependence on Middle Eastern petroleum. "Pipelines are very soft targets," Robert Ebel of the Center for Strategic and International Studies (CSIS) observed in 2003. "They're easy to go after. It doesn't take a rocket scientist to figure out where you can do the most damage, both physical and psychological, with the minimum amount of effort."<sup>19</sup>

Al-Qaeda and its offshoots have made a particular effort to target the petroleum infrastructure in Saudi Arabia, the world's leading oil producer and a major source of energy for international markets. The first such assault occurred on 1 May 2004, when gunmen killed five Western oil industry workers in Yanbu, the site of a major petrochemical complex.<sup>20</sup> A second attack occurred four weeks later, on 29 May, when a group of armed militants said to be allied with al-Qaeda stormed a residential compound occupied by Western oil workers in Khobar, near the oil center of Dhahran.<sup>21</sup> Both attacks, it seems, were aimed at foreign technicians, who often play a key role in managing the Saudi oil industry. An even more ominous assault occurred on 23 February 2006, when suicide attackers attempted to break through the outer defense perimeter of the Abqaiq oil processing facility and detonate explosive-laden vehicles in the kingdom's most important energy installation, potentially jeopardizing 6.8 mmbd of output. Although the attack was foiled before the bombers could get close to the facility itself, the determination with which they carried out the assault hints at the extent to which such facilities have come to be viewed as prime targets for attack.<sup>22</sup>

### The militarization of energy security

In sum, the shift in the center of gravity in world oil production from North to South, combined with the specific targeting of oil facilities by anti-Western extremists and the other phenomena described above, is likely to heighten the risk of instability and violence in the oil-producing areas and thus increase the risk of disruptions in the flow of oil from supplying to consuming nations around the world. Alarmed by this prospect, American policy-makers are increasingly relying on military instruments to safeguard the global flow of oil. As noted by the task force assembled by the Council on Foreign Relations in 2006,

the depletion of conventional sources [of petroleum], especially those close to the major markets in the United States, Western Europe, and Asia, means

that the production and transport of oil will become even more dependent on an infrastructure that is already vulnerable.

For this very reason, the group concluded, "the need to protect the production and transportation infrastructure will grow."<sup>23</sup>

It is from this impulse – the perceived need to "protect the production and transportation infrastructure" in distant areas – that the militarization of energy resource management springs. As noted, this trend is most evident in the United States, where discussion of the phenomenon is relatively public, but it can be seen in other oil-importing nations as well. As the trend develops, moreover, it is likely to take three distinctive forms: *infrastructure and asset protection*, or the physical protection of refineries, pipelines, loading facilities, offshore fields, and sealines of communications; *regime protection*, or military support for governments that facilitate the export of their country's oil reserves to foreign markets; and *access assurance*, or military moves intended to ensure uninterrupted access to key oil-producing regions, such as the Persian Gulf.

The United Kingdom was the first great power to practice these activities on a significant scale, most notably in its relations with Iran, Iraq, and the other oil-producing kingdoms of the Persian Gulf during and after the World Wars. France, Germany, and Japan also sought to develop a capacity for these sorts of missions during the interwar years, albeit with limited success. After World War II, the United States began to develop a robust capacity in this area and today ranks as the only power with the ability to conduct access-assurance operations on a global scale. Nevertheless, other countries, including Britain, China, France, India, Japan, and Russia, seek to bolster their ability to conduct at least some operations of these types. And it is from the *simultaneous* pursuit of such capabilities by these countries that concern arises over the potential for crisis and conflict among the major powers, all seeking to ensure their own societies access to the energy they need.

### Access assurance and the extended 'Carter Doctrine'

The United States has asserted an explicit policy of overseas infrastructure protection and access assurance since 1980, when then-President Jimmy Carter issued his famous dictum, in his State of the Union address of 23 January, that the uninterrupted export of Persian Gulf oil was essential to the US economy and that any move by a hostile power to interdict that flow would be "regarded as an assault on the vital interests of the United States of America," and, as such, would be "repelled by any means necessary, including military force." This policy, known thereafter as the "Carter Doctrine," was initially triggered by the Soviet intervention in Afghanistan, which was seen by Carter as posing a direct threat to the safety of Persian Gulf oil deliveries. "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," he observed. "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."<sup>24</sup> It was this threat that the new policy was originally intended to overcome.

As time went on, however, the basic principle of the Carter Doctrine – that the free flow of oil from foreign sources of supply to the United States and its allies must be protected against hostile threats – was extended to other potential adversaries and to other sources of supply. Hence, the first true application of the Carter Doctrine occurred during the final years of the Iran–Iraq War of 1980–8, when Iranian forces began attacking Kuwaiti oil tankers while traveling through the Persian Gulf (presumably to discourage Kuwait from providing loans to Iraq for arms procurement). Seeing in this a direct threat to the export of Persian Gulf oil – albeit by Iran rather than the USSR – President Ronald Reagan authorized the “reflagging” of Kuwaiti tankers with the American ensign and ordered their protection by the US Navy. Such action was essential, he declared, to demonstrate the “US commitment to the flow of oil through the Gulf.”<sup>25</sup>

President George H. W. Bush was the next chief executive to invoke the now-embellished Carter Doctrine. When Iraqi forces occupied Kuwait on 2 August 1990, he determined that military action was necessary to protect the oil fields of Saudi Arabia and, eventually, to drive the Iraqis out of Kuwait. In a nationally televised address on 8 August, announcing his decision to use military force in the Gulf, Bush cited America’s energy needs as his primary impetus. “Our country now imports nearly half the oil it consumes and could face a major threat to its economic independence,” and so “the sovereign independence of Saudi Arabia is of vital interest to the United States.”<sup>26</sup> Only later, when American troops were girding for combat with the Iraqis, did he and other top officials express other justifications for war, such as a desire to liberate Kuwait and destroy Iraqi weapons of mass destruction. The record makes clear, however, that the president and his close associates initially viewed the invasion of Kuwait through the lens of the Carter Doctrine and its focus on the safety of Persian Gulf oil.<sup>27</sup>

Presidents Bill Clinton and George W. Bush have not been as forthright as Reagan and the elder Bush in expressing their adherence to the Carter Doctrine, but they have been equally vigorous in applying its underlying principles – first by imposing sanctions on Iraq in an effort to instigate “regime change” in Baghdad, and later, under Bush, through military intervention.<sup>28</sup> As far as the Persian Gulf is concerned, therefore, the Carter Doctrine continues to govern US policy. What is so striking, however, is that its basic principles have also been extended to other oil-producing areas of the world, including the Caspian Sea basin and West Africa. This effort has reflected both a determined US effort to diminish America’s reliance on the ever-turbulent Gulf through the “diversification” of US oil providers, and the realization, discussed earlier, that many of these other producing areas are just as conflict-ridden as is the Gulf itself.

The horizontal extension of the Carter Doctrine commenced in the late 1990s, when President Clinton determined that the Caspian Sea basin – until 1992

largely under the control of the Soviet Union – should become a major source of oil for the United States and its allies, thereby helping to lessen US dependence on the Gulf. The newly-independent states of Azerbaijan and Kazakhstan were eager to sell their petroleum riches to the West, but lacked an autonomous conduit for exports – at that time, all existing pipelines from the land-locked Caspian passed through Russia – and faced serious challenges from ethnic minorities and internal opposition movements. To safeguard the future flow of Caspian Sea oil to the West, Clinton agreed to assist in the construction of a new oil pipeline from Azerbaijan to Turkey via Georgia (thus bypassing Russia) and to help these states enhance their nascent military capabilities.<sup>29</sup>

Although he never formally invoked the Carter Doctrine in approving these measures, Clinton applied the same “national security” logic to Caspian Sea oil supplies that Carter had applied to Persian Gulf oil. Hence, in a 1997 White House meeting with President Heydar Aliyev of Azerbaijan, he declared, “in a world of growing energy demand, our nation cannot afford to rely on any single region for our energy supplies.” By facilitating Azerbaijan’s oil exports, Clinton avowed, “we not only help Azerbaijan to prosper, we also help diversify our energy supply and strengthen our nation’s security.”<sup>30</sup> In consonance with this mode of thought, Clinton authorized the establishment of military ties with the new nations of the Caspian region and initiated a generous program of military assistance. As part of this effort, US forces engaged in a series of annual exercises designed to test the Pentagon’s ability to deploy US combat forces rapidly in the region, in support of friendly governments that might face attack from hostile minorities or insurgents.<sup>31</sup>

These ties were later utilized by President Bush to facilitate the US intervention in Afghanistan following the attacks of September 2001, and to support the continuing campaign against remnants of al-Qaeda and the Taliban in the region. This, in turn, has led to a substantial increase in American military aid to these countries. Typically, US aid to the Caspian nations has been justified in terms of sustaining the fight against terrorism, but a close reading of State and Defense Department documents suggests that the protection of oil infrastructure remains a paramount concern. In requesting \$51.2 million in assistance to Azerbaijan for fiscal year 2005, for example, the State Department affirmed that “US national interests in Azerbaijan center on the strong bilateral security and counter-terrorism cooperation [and] the advancement of US energy security.”<sup>32</sup> Meanwhile, in Kazakhstan, the United States is helping to refurbish the old Soviet air base at Atyrau, near the giant offshore Kashagan oil field. This base will be used to house a Kazakh “rapid reaction brigade” whose task, according to the Department of State, will be to “enhance Kazakhstan’s capability to respond to major terrorist threats to oil platforms or borders.”<sup>33</sup>

A similar pattern of ever-expanding US military involvement is also evident in West Africa and the Gulf of Guinea, another key oil-producing region that is plagued by internal discord and conflict. The growing importance of Africa in satisfying America’s energy needs was first highlighted in the Bush administration’s National Energy Policy of May 2001: “Sub-Saharan Africa holds 7 percent of

world oil reserves and comprises 11 percent of world oil production.... West Africa is expected to be one of the fastest growing sources of oil and gas for the American market."<sup>34</sup> As in the Caspian Sea basin, this has invested Africa with a strategic significance it did not possess before. "African oil is of national strategic interest to us," Assistant Secretary of State Walter Kansteiner observed in 2002, "and it will increase and become more important as we go forward."<sup>35</sup>

America's strategic involvement in Africa ascended to an entirely new level on 6 February 2007 when President Bush announced that the Department of Defense would establish a new regional command for Africa, dubbed AFRICOM. Until this time, the region had received only scant and intermittent attention from US military officials and responsibility for any American forces operating there was divided between European Command (EUCOM), Pacific Command (PACOM), and Central Command (CENTCOM). Recognizing, however, that US strategic interests in Africa were becoming increasingly significant – in part because of growing US reliance on Africa's oil, in part because of the growing presence there of radical Islamic movements – the White House concluded that a dedicated command authority was now required to oversee US operations in the area. AFRICOM is expected to become operational on 30 September 2008; for now, a transitional team is working out of borrowed offices at EUCOM headquarters in Stuttgart, Germany, but Department of Defense officials hope that a permanent home can soon be found in Africa itself.<sup>36</sup>

Having been designated as a "national strategic interest" of the United States, African oil is thus being exposed to the same sort of gradually expanded military initiatives that have been pursued in other oil-producing regions in accordance with the Carter Doctrine. Prior to the announcement of the pending establishment of AFRICOM, the most visible expression of growing US military involvement was an increased Navy presence along Africa's west coast, the location of its most promising offshore oil fields. In 2003, the head of the US EUCOM, which then exercised control over American forces in sub-Saharan Africa, declared that the aircraft carrier battle groups under his command would shorten their visits to the Mediterranean and "spend half their time going down the west coast of Africa."<sup>37</sup> As in the Caspian region, the Department of Defense has stepped up its military aid and training programs in the region and, according to recent press accounts, is beginning to search for permanent military facilities in the area – typically, "bare-bones facilities," or airstrips with modest logistical capabilities.<sup>38</sup> While military officials tend to emphasize the threat of terrorism when discussing the need for such facilities, a senior officer told a reporter from the *Wall Street Journal* that "a key mission for US forces [in Africa] would be to ensure that Nigeria's oil fields, which in the future could account for as much as 25 percent of US oil imports, are secure."<sup>39</sup>

### Competitive arms diplomacy

At this point in time, no other nation possesses a capacity to conduct infrastructure protection and access-assurance operations on a global basis, and few have

that ability even in local areas. Some, like China, India, Japan, and Russia, possess a limited ability to protect the sea-lanes and oil infrastructure in neighboring seas and countries, but none can project power to distant oil-producing regions like the Persian Gulf and West Africa. It appears, however, that several of these countries are expanding their capacity to engage in what might be termed competitive arms diplomacy, or the use of arms transfers and military aid as a tool of influence in pursuing foreign oil supplies – a practice most evident in Africa and the Caspian Sea basin.<sup>40</sup>

For Africa, of course, the competitive supply of arms as a tool of influence is hardly a new phenomenon, as both superpowers employed such methods in their tireless pursuit of developing world allies. With the end of the Cold War, however, this motive for military sales disappeared and the flow of arms diminished for a while, only to resume again in the twenty-first century with the competitive pursuit of African oil. Signs of this competition can be seen throughout the region, but it is in Nigeria where it is most conspicuous. Nigeria is, of course, Africa's leading oil producer and harbors some of its largest oil and gas reserves.<sup>41</sup> In seeking access to these reserves, the United States and China have both offered a wide variety of economic and development assistance, ranging from loans and grants to special training programs, demonstration projects, and the like; but the powerful allure of Nigerian energy has also prompted Washington and Beijing to compete on another plane, via the delivery of arms and military-technical services.

The United States has long provided the Nigerian military with various forms of military assistance, including Foreign Military Sales credits and International Military Education and Training programs. For fiscal years 2005 through 2007, such assistance was pegged at \$80 million. Nigeria was also slated to receive additional support in the form of surplus arms and equipment plus various forms of aid via multilateral security programs, such as the African Contingency Operations Training and Assistance Program (ACOSTA) and the Trans-Sahara Counter-Terrorism Initiative (TSCTI).<sup>42</sup> No doubt US military and diplomatic personnel would like to do more to enhance Nigerian military capabilities (and thereby further ingratiate the United States with the government in Abuja), but budgetary constraints in Washington along with competition from other priorities have placed some limits on how much they have been able to allocate for this purpose. This has provided an opportunity for China to curry favor with the Nigerians by providing military inducements of their own. In 2005, for example, the Chinese agreed to sell Nigeria 12 F-8IIIM multi-purpose combat jets for its air force, along with a large number of light patrol boats for use in guarding the labyrinthine waterways of the Niger Delta region.<sup>43</sup>

If Nigeria is the epicenter of this competitive struggle in Africa, signs of its reach can be seen throughout the region. The Chinese, for their part, are providing a wide array of modern arms to Sudan and Zimbabwe, and less advanced weaponry to Kenya, Sierra Leone, Tanzania, and other African states.<sup>44</sup> Likewise, the United States is stepping up its military aid and arms

transfers to states of particular interest, including Angola, Kenya, Mali, and Uganda.<sup>45</sup>

In general, these transactions involve the delivery of military hardware to Africa: weapons, vehicles, ammunition, protective devices, communications gear, and so on. Increasingly, however, they also entail the deployment of military personnel advisers, technicians, instructors, intelligence officers, and so forth. As part of the Pentagon's ACOSTA program, for example, there has been a sharp increase in the number of US military advisers and instructors in the region. Likewise, recent Chinese arms transfers have been accompanied by provisions for training and maintenance support.<sup>46</sup> These deployments have not yet reached the levels seen in the Middle East and Asia, but represent the early stages of a self-sustaining drive toward ever-greater concentrations of American and Chinese military personnel in conflict-prone areas of Africa.

If Africa represents an early stage of this process, the Caspian Sea region provides a more advanced and dangerous version. Here, the process of militarization first noted in Africa – driven by competitive arms sales, military aid agreements, and training deployments – has been carried to a much higher level.<sup>47</sup> And, as Nigeria is to Africa, Kazakhstan is to the Caspian: the pivot of great-power competition for influence. All three of the major contending powers – the United States, Russia, and China – have sought access to Kazakhstan's vast energy reserves, and all three have offered a wide variety of military inducements in their competitive quest.

The United States began aiding Kazakhstan's armed forces in the late 1990s, during the Clinton administration. Eager to bolster Kazakhstan's independence from Moscow and its ability to deliver oil to the West, Secretary of Defense William S. Cohen signed a "defense cooperation agreement" with President Nursultan Nazerbaev on 17 November 1997, allowing for various forms of American military assistance, including arms transfers and joint training exercises.<sup>48</sup> This agreement, later supplemented by others, has led to a steady increase in the flow of security-related assistance to Kazakhstan.<sup>49</sup> All told, US spending on these and related endeavors was expected to total \$175 million during fiscal years 2005 to 2007.<sup>50</sup>

Not to be outdone, the Russians have also sought to bolster their military ties with Kazakhstan. These ties are enshrined in the Collective Security Treaty Organization (CSTO), a sort of mini-NATO made up of seven former republics of the Soviet Union, including Russia and Kazakhstan. As part of this fraternal relationship, the two countries are joined in an integrated air-defense system, participate in joint military maneuvers, and consult regularly on common security matters.<sup>51</sup> All of this is being leveraged by Moscow to strengthen the bonds between Kazakh and Russian military personnel and to accelerate the flow of Russian arms to Kazakh forces.<sup>52</sup> Just as eager to curry favor, China has also begun to provide Kazakhstan with limited forms of security assistance, largely under the auspices of the Shanghai Cooperation Organization (SCO).<sup>53</sup>

The United States, Russia, and China have also employed arms diplomacy to bolster their ties with the governments of other Caspian basin states, especially

Kyrgyzstan and Uzbekistan. These two, like Kazakhstan, are members of the SCO and CSTO, and so benefit from their institutional ties with Russia and China. Both are integrated into the CSTO air-defense system and participate in joint military exercises with Russian forces. Both also receive a certain amount of Russian military gear through these channels. Like the Kazakhs, however, the leaders of Kyrgyzstan and Uzbekistan have sought to widen their international maneuvering space by establishing political, economic, and military ties with the United States. Washington first took advantage of this opening during the Clinton administration, when military cooperation agreements were signed with both countries. These ties were accorded greater importance after September 2001, when both countries agreed to house logistical bases for use by American forces committed to operations against the Taliban and al-Qaeda in Afghanistan.<sup>54</sup> In recognition of their support, and to further enhance US ties with the armed forces of these two countries, the United States has provided both with considerable arms and security-related assistance. For fiscal years 2004–6 this aid amounted to a combined total of \$305 million.<sup>55</sup>

Clearly, the struggle for influence in the Caspian basin – like that in Africa – is still gaining momentum. As we have seen, this competition is resulting in an ever-expanding flow of munitions into the region, along with the deployment of military advisers, technicians, instructors, and combat-support personnel. Although often touted as a boon to security cooperation, these programs can only heighten the traditional suspicions and rivalries that plague the region, thus increasing the risk of future crises and conflicts – with the major powers inextricably involved.

### Gunboat diplomacy

Energy-related conflict among the major powers might also arise through the militarization of territorial disputes, especially when one side or another, or both, engage in what might best be described as "gunboat diplomacy." When states wish to signal to another their determination to pursue certain vital interests or to deter a rival from overstepping certain boundaries, they often deploy air, ground, or naval forces to within shooting range of the intended recipient of the particular "message." Because naval forces were widely employed by the major imperial powers to subdue weaker states in Asia, Africa, and Latin America in the nineteenth and early twentieth centuries, the term "gunboat diplomacy" is often used to describe such methods. But while warships are still used for this purpose, similar effects have also been achieved through the conspicuous deployment of bombers and marine expeditionary forces. Although inherently dangerous, such operations are still employed by the major powers and have come to play an especially conspicuous role in the global struggle over energy supplies.

In perhaps the most dramatic example of such behavior, it was, in fact, gunboats that were the villain of the piece. The site of this encounter was the East China Sea, along the disputed maritime border between China and Japan. Citing



ambiguous and conflicting provisions of the United Nations Convention on the Law of the Sea (UNCLOS), Beijing and Tokyo have proclaimed conflicting boundaries for their Exclusive Economic Zones in this area – zones extending up to 200 nautical miles from the shore, in which UNCLOS affords states exclusive rights of economic exploitation and management. Japan insists that the border between the Chinese and Japanese zones falls along the median line between the two countries, while China insists that it should fall along its outer continental shelf, which lies closer to Japan than to China; falling between the two competing lines is a large area claimed by both. Further complicating matters is the existence of a large undersea natural gas field – called Chunxiao by the Chinese and Shirakaba by the Japanese – that straddles the disputed area and uncontested Chinese territory. Even though Beijing rejects Japan's claim that the median line forms their common border, it has pledged to refrain from gas extraction in the disputed zone pending a resolution of the issue. It has, however, insisted on its right to drill on the Chinese side of the median line, even though Tokyo says this inevitably will suck up gas from across the line, in what it considers Japan's sovereign territory. Japan, for its part, says it has every right to drill for gas in this area, even though Beijing claims it as part of its own sovereign territory.

Although several rounds of negotiations were conducted in 2004–5 in an effort to resolve the boundary dispute, no substantive progress was achieved and in early 2005 the China National Offshore Oil Corporation (CNOOC) began drilling operations in the Chunxiao field from a position just a mile or so from the median line claimed by Japan. Soon thereafter, Tokyo announced that it would allow Japanese firms to apply for drilling rights in the contested zone.<sup>56</sup> Tokyo raised the ante three months later when it awarded drilling rights in the contested zone to Teikoku Oil. As could be expected, this produced a howl of protest in Beijing. "Giving Teikoku the go-ahead to test drill is a move that makes conflict between the two nations inevitable, though what form this clash will take is hard to tell," warned a commentary in the government-backed *China Daily*.<sup>57</sup>

It was not long before both sides removed any uncertainty as to what form their response would take. By early September the Japan Maritime Self-Defense Force (JMSDF) had begun regular flights by naval patrol planes over Chinese rigs along the disputed median line. Not long after, one of these planes detected an unusual sight in these waters: the arrival of a Chinese naval squadron, comprised of five missile-armed destroyers and frigates.<sup>58</sup> A confrontation of some sort was inevitable, and quickly ensued. Within days of arriving in the contested area, one of the Chinese ships aimed one of its guns at a circling JMSDF surveillance plane. Fortunately, no shots were fired and both sides backed away from further provocation. Nevertheless, an ominous precedent had been set.<sup>59</sup>

Possibly chastened by this incident, Beijing and Tokyo agreed to a new round of negotiations over the East China Sea dispute. Talks commenced in January 2006 and have occurred on an irregular basis since then, although without

demonstrable progress. In any case, China has continued to pump gas from its rigs along the disputed boundary line and to station naval forces in the area, while Japan has announced plans to expand its own maritime patrol capabilities.<sup>60</sup> With no resolution of the East China Sea dispute evident on the horizon, and both sides building up their naval capabilities, there is every prospect that additional – and perhaps more dangerous – instances of gunboat diplomacy can be expected in the area.

Gunboat diplomacy (again of the literal sort) has also occurred in the Caspian Sea, notably in waters claimed both by Azerbaijan and Iran. Although three of the Caspian Sea states – Russia, Azerbaijan, and Kazakhstan – have now delineated their maritime boundaries, two others – Iran and Turkmenistan – have refused to agree on the extent of their offshore interests, and have sparred with Azerbaijan over ownership of several promising oil and gas fields in the Sea's southern reaches.<sup>61</sup> The Azerbaijanis have nevertheless proceeded as if their claims to these fields are legitimate, and have awarded concessions to foreign energy firms to exploit the contested fields, sparking predictable protests from the other two. In July 2001 Iran took a more ominous step when one of its warships approached an Azerbaijani oil exploration vessel and ordered it out of the area at the risk of being fired upon. The survey ship complied, but Azerbaijan reportedly sent a patrol boat of its own into the area and chased off the Iranian ship.<sup>62</sup>

No further incidents of this sort have been reported in the Caspian Sea, but the July 2001 encounter has been viewed by all local powers as justification for the expansion of their naval capabilities. Azerbaijan and Kazakhstan are now building up their navies with assistance from the United States, while Russia has announced a substantial expansion of its own Caspian Fleet. The United States and Russia have also announced competing plans for multilateral fleets in the region, the Caspian Guard and the Caspian Rapid-Deployment Force (CASFOR), respectively.<sup>63</sup> So here, too, as in the East China Sea, the stage is being set for additional outbreaks of gunboat diplomacy.

### Inadvertent escalation

As suggested earlier in this chapter, it will be almost impossible to avert recurring disorder and conflict in the oil-producing areas of the developing world, leading to periodic disruptions in the global flow of petroleum. This will no doubt lead to intermittent great power involvement in efforts to suppress such disorder and thereby ensure the safe flow of oil. But such conflicts, painful as they may prove to the combatants and others involved, will in all likelihood remain local affairs, confined to the immediate area where the trouble initially arose. This still leaves open the question of whether the competition over dwindling supplies of energy may lead to conflict among the great powers themselves. For this, there is no obvious answer.

Arguing against the potential for a great-power military confrontation is the widespread understanding that, in the nuclear era, such an engagement has the

potential to wreak unimaginable damage and to erase any conceivable benefit of "victory" on the battlefield. Even without the use of nuclear arms, wars employing advanced conventional weapons are capable of inflicting extraordinary damage, as has been demonstrated over and over again in the Middle East. A full-scale conflict among the great powers would also disrupt the global economy in ways that would impose far greater harm on most countries than would even a severe shortfall in petroleum or natural-gas supplies. It follows from this that none of the major powers is likely to make a deliberate choice to go to war over energy, as Japan did in 1941 when it seized the oil fields of the Dutch East Indies, thus setting in train America's entry into World War II.

But there is another possibility that must be considered: that, in their relentless struggle over dwindling stocks of energy, the major powers will engage in increasingly risky and provocative behaviors that will systematically erode the firewall between peace and war, increasing the possibility that a minor incident will trigger something far more explosive. In such a scenario, best described as "inadvertent escalation," none of the individual actions taken by one side in the competitive struggle over energy would be intended to provoke a military response from the other parties involved; rather, it is a cascade of such actions – each more severe than the one preceding it – that eventually leads to the eruption of war. In today's world, it is this sort of scenario, and not the deliberate initiation of hostilities, that poses the greatest risk of great-power conflict over energy.

As we have seen, moreover, the global struggle over energy affords abundant opportunities for a crescendo of escalatory engagements. There are, first of all, the competitive arms-supply relationships developing in Africa, Central Asia, and the Middle East. These typically begin with the delivery of arms and military equipment, then graduate to the deployment of military advisers, instructors, and technicians, often leading to a substantial buildup of foreign military personnel in areas of chronic instability. These transactions can, and have, led to the stationing of personnel from competing great powers in close proximity to one another, in states or regions divided along ethnic, religious, and political lines. Because many of the recipients of these aid packages are themselves engaged in long-term rivalries with their (equally well armed) neighbors, it is not hard to imagine how a minor skirmish at the local level could provoke a larger clash, prompting the major powers to rush additional arms and advisers to their respective clients, leading sooner or later to an unintended encounter between the forces of the major powers themselves, and thence to an even greater conflagration.

Gunboat diplomacy of the sort described above can also trigger a chain of events leading to full-scale war. To be effective, maneuvers of this type require that the intended recipient of the "message" interpret it correctly and take the recommended action, thereby averting a military clash. But it is entirely possible for the recipient to misinterpret the message, or to read it correctly but choose to resist rather than submit – in either case, forcing the sender to escalate or back down. This can go on for some time without either side actually firing a shot, as

in recent naval encounters in the East China and Caspian Seas; but it is too much to hope that this will always prove to be the case, especially if the parties involved view each other in increasingly hostile terms, as seems to be so today.

Other scenarios can be imagined in which the major energy-importing powers engage in actions intended to protect overseas energy supplies, which inadvertently trigger a cascade of events leading to the outbreak of full-scale conflict. No strong state is likely to initiate such action with the expectation that such an outcome will actually occur. Yet it is reasonable to expect that they will nonetheless be prepared to take what they perceive to be small risks, in the hope that the other parties involved will choose to back away. History suggests, however, that small risks can invite a corresponding response from one's rivals, leading to bigger and bigger risks on each side until it becomes exceedingly difficult to avert a full-blown confrontation. No one can predict when, or if, a situation like this will arise, but experience to date, as surveyed above, suggests that the likelihood of such an encounter will grow stronger in the years ahead, as anxiety over the sufficiency and safety of global petroleum supplies intensifies, and national leaders increasingly rely on military forces to guarantee energy security.

## Notes

- 1 John Deutch and James R. Schlesinger, eds., *National Security Consequences of US Oil Dependency*, New York: Council on Foreign Relations, 2006, pp. 23 and 30.
- 2 "The New Currency of Foreign Policy," statement of James R. Schlesinger before the United States Senate Foreign Relations Committee hearing on "The High Cost of Crude," 16 November 2005, <http://www.senate.gov/~foreign/hearings/2005/hr051116a.html>; emphasis added.
- 3 British Petroleum, *BP Statistical Review of World Energy*, June 2007, p. 11, [http://www.bp.com/liveassets/bp\\_internet/globalbp/globalbp\\_uk\\_english/reports\\_and\\_publications/statistical\\_energy\\_review\\_2006/STAGING/local\\_assets/downloads/pdf/statistical\\_review\\_of\\_world\\_energy\\_full\\_report\\_2006.pdf](http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2006/STAGING/local_assets/downloads/pdf/statistical_review_of_world_energy_full_report_2006.pdf).
- 4 United States Energy Information Administration, *International Energy Outlook 2007*, pp. 88 and 187, [www.fyppower.org/pdf/EIA\\_IntlEnergyOutlook\(2006\).pdf](http://www.fyppower.org/pdf/EIA_IntlEnergyOutlook(2006).pdf). These figures are for the 'reference case,' assuming oil prices in the middle range between high and low.
- 5 For background on the debate over future petroleum availability, see Deutch and Schlesinger, *US Oil Dependency*; Kenneth S. Deffeyes, *Hubbert's Peak: The Impending World Oil Shortage*, Princeton, NJ: Princeton University Press, 2001; David Goodstein, *Out of Gas*, New York: Norton, 2004; and Paul Roberts, *The End of Oil*, Boston, MA: Houghton Mifflin, 2004.
- 6 Matthew R. Simmons, *Twilight in the Desert: The Coming Saudi Oil Shock and the World Economy*, Hoboken, NJ: John Wiley, 2005, p. xv.
- 7 United States Energy Information Administration, *International Energy Outlook 2004*, pp. 213, [http://tonto.eia.doe.gov/ftproot/forecasting/0484\(2004\).pdf](http://tonto.eia.doe.gov/ftproot/forecasting/0484(2004).pdf); *idem*, *International Energy Outlook 2005*, p. 157, [http://tonto.eia.doe.gov/ftproot/forecasting/0484\(2005\).pdf](http://tonto.eia.doe.gov/ftproot/forecasting/0484(2005).pdf); *idem*, *International Energy Outlook 2007*, p. 155.
- 8 See Deutch and Schlesinger, *US Oil Dependency*, pp. 14–23.
- 9 International Energy Agency, *Medium-Term Oil Market Report*, July 2007, <http://www.vtpeakoil.net/community/document.php?id=128>.
- 10 See Donald F. Fournier and Eileen T. Westervelt, *Energy Trends and Their*

- Implications for US Army Installation*, Washington, DC: US Army Corps of Engineers, Engineer Research and Development Center, Construction Engineering Research Laboratory, September 2005, p. 13, <http://www.scag.ca.gov/rcp/pdf/summit/USCorpsonPeakOil.pdf>. See also Kenneth S. Deffeyes, *Beyond Oil*, New York: Hill and Wang, 2003, pp. 47–51.
- 11 "Repairs to Delay Thunder Horse Production Until 2008," *Oil & Gas Journal Online*, 18 September 2006.
  - 12 Sam Fletcher, "OTC: Weather Experts See 'New Era' of Hurricane Activity in GOM," *Oil & Gas Journal Online*, 9 May 2006.
  - 13 Andrew E. Kramer, "Russians Buy Control of Oil Field," *New York Times*, 22 December 2006, [http://www.nytimes.com/2006/12/22/business/worldbusiness/22shell.html?\\_r=1&oref=slogin](http://www.nytimes.com/2006/12/22/business/worldbusiness/22shell.html?_r=1&oref=slogin). See also Abraham Lustgarten, "Shell Shakedown," *Fortune*, 5 February 2007, pp. 92–100, [http://money.cnn.com/magazines/fortune/fortune\\_archive/2007/02/05/8399125/index.htm](http://money.cnn.com/magazines/fortune/fortune_archive/2007/02/05/8399125/index.htm); and Alex Turkeltaub and Stephen Bailey, "Sakhalin-2 Deal Will Alter Business Climate, Markets," *Oil & Gas Journal Online*, 15 January 2007, pp. 34–5.
  - 14 United States Energy Information Administration, *International Energy Outlook 2007*, p. 88.
  - 15 *Ibid.*, pp. 188–9; includes conventional petroleum only.
  - 16 See Terry Lynn Karl, *The Paradox of Plenty*, Berkeley: University of California Press, 1997.
  - 17 See John Donnelly, "Burdens of Oil Weigh on Nigerians," *Boston Globe*, 3 October 2005, [http://www.boston.com/news/world/africa/articles/2005/10/03/burdens\\_of\\_oil\\_weigh\\_on\\_nigerians/](http://www.boston.com/news/world/africa/articles/2005/10/03/burdens_of_oil_weigh_on_nigerians/); Lydia Polgreen, "Blood Flows with Oil in Poor Nigerian Villages," *New York Times*, 1 January 2006, <http://www.nytimes.com/2006/01/01/international/africa/01nigeria.html>; Jad Mouawad, "Growing Unrest Posing a Threat to Nigerian Oil," *New York Times*, 21 April 2007, <http://www.nytimes.com/2007/04/21/business/worldbusiness/21oil.html?n=Top/News/World/Countries%20and%20Territories/Niger>.
  - 18 See Anonymous [Michael Scheuer], *Imperial Hubris*, Washington, DC: Brassey's, 2004.
  - 19 Quoted in Warren Vieth and Alissa J. Rubin, "Iraq Pipelines Easy Targets for a Saboteur," *Los Angeles Times*, 26 June 2003, <http://www.commondreams.org/headlines03/0625-06.htm>.
  - 20 Neil MacFarquhar, "After Attack, Company's Staff Plans to Leave Saudi Arabia," *New York Times*, 3 May 2004, <http://query.nytimes.com/gst/fullpage.html?res=9C01E4DC133DF930A35756C0A9629C8B63&sec=&spon=&pagewanted=all#>.
  - 21 *Idem*, "Saudi Military Storms Complex to Free Hostages," *New York Times*, 31 May 2004, <http://query.nytimes.com/gst/fullpage.html?res=9F01E4D61F3EF932A05756C0A9629C8B63>.
  - 22 See Bhushan Bahree and Chip Cummins, "Thwarted Attack at Saudi Facility Stirs Energy Fears," *Wall Street Journal*, 25–26 February 2006.
  - 23 Deutch and Schlesinger, *US Oil Dependency*, pp. 22–3.
  - 24 Jimmy Carter, State of the Union Address, 23 January 1980, [www.jimmycarterlibrary.org/documents/speeches/su80jec.phtml](http://www.jimmycarterlibrary.org/documents/speeches/su80jec.phtml).
  - 25 From an official announcement delivered by Assistant Secretary of State Richard W. Murphy, in Michael A. Palmer, *Guardians of the Gulf: A History of America's Expanding Role in the Persian Gulf, 1833–1992*, New York, Free Press, p. 123; for background see also pp. 128–49.
  - 26 As quoted in "Confrontation in the Gulf: Excerpts From Bush's Statement on US Defense of Saudis" *New York Times*, 9 August 1990, <http://query.nytimes.com/gst/fullpage.html?res=9C0CE0DC1F3FF93AA3575BC0A966958260>.
  - 27 See Bob Woodward, *The Commanders*, New York: Simon and Schuster, 1991, pp. 225–6, 230, 236–7.
  - 28 Michael T. Klare, *Blood and Oil: The Dangers and Consequences of America's Growing Dependency on Imported Petroleum*, New York: Metropolitan Books, 2004, pp. 52–5, 94–101. See also Daniel Yergin, "A Crude View of the Crisis in Iraq," *Washington Post*, 8 December 2002.
  - 29 See Michael T. Klare, *Resource Wars: The New Landscape of Global Conflict*, New York: Holt, 2001, pp. 1–5, 81–108.
  - 30 "Visit of President Heydar Aliyev of Azerbaijan," statement by the White House Press Secretary, 1 August 1997, <http://www.clintonpresidentialcenter.org/legacy/080197-statement-on-president-meeting-with-heydar-aliyev-of-azerbaijan.htm>.
  - 31 These exercises included the annual CENTRAZBAT maneuvers, entailing the deployment of US troops from bases in the United States directly to the Caspian region. For a description of one such exercise, see R. Jeffrey Smith, "US Leads Peacekeeping Drill in Kazakhstan," *Washington Post*, 15 September 1997; and *idem*, "US, Russian Paratroops Join in Central Asian Jump," *Washington Post*, 16 September 1997.
  - 32 United States Department of State, "Congressional Budget Justification: Foreign Operations, Fiscal Year 2004," February 2003, <http://stinet.dtic.mil/cgi-bin/GetTRDoc?AD=ADA413948&Location=U2&doc=GetTRDoc.pdf>.
  - 33 As paraphrased by Jim Nichol, "Central Asia's New States: Political Developments and Implications for US Interests," Congressional Research Service Report for Congress, 11 December 2002, p. 3, <http://www.fas.org/asmp/resources/govern/crs-ib93108.pdf>.
  - 34 National Energy Policy Development Group, *National Energy Policy*, May 2001, p. 11, <http://www.whitehouse.gov/energy/National-Energy-Policy.pdf>.
  - 35 Quoted in Mike Crawley, "With Mideast Uncertainty, US Turns to Africa for Oil," *Christian Science Monitor*, 23 May 2002, <http://www.csmonitor.com/2002/0523/p07s01-woaf.html>.
  - 36 See Lauren Ploch, "Africa Command: US Strategic Interests and the Role of the US Military in Africa," Congressional Research Service Report for Congress, updated 6 July 2007, <http://ftp.fas.org/sgp/crs/natsec/RL34003.pdf>.
  - 37 Quoted in Charles Cobb, Jr, "Larger US Troop Presence May Be Needed in Africa, Says NATO Commander," *allAfrica.com*, 2 May 2003, <http://allafrica.com/stories/200305020307.html>. In February 2007 the Department of Defense announced the establishment of a separate African Command – a decision that highlights Africa's growing importance as an energy supplier and suggests rising US concern about the security of those supplies.
  - 38 See Greg Jaffe, "In Massive Shift, US Is Planning to Cut Size of Military in Germany," *Wall Street Journal*, 10 June 2003; Eric Schmitt, "Threats and Responses: Expanding US Presence; Pentagon Seeking New Access Pacts for Africa Bases," *New York Times*, 5 July 2003, <http://query.nytimes.com/gst/fullpage.html?res=9500E7D81F3AF936A35754C0A9659C8B63>.
  - 39 Quoted in Jaffe, "Massive Shift."
  - 40 Cf. Klare, *Blood and Oil*, pp. 146–79.
  - 41 On the importance of Nigeria to US energy policy, see the testimonies of Assistant Secretary of State Paul Simon, and of J. Stephen Morrison of the Center for Strategic and International Studies, before the United States Senate Foreign Relations Committee hearing on "The Gulf of Guinea and US Strategic Energy Policy," 15 July 2004, pp. 3–6, 39, and 43–5, <http://www.senate.gov/~foreign/hearings/2004/hr040715p.html>.
  - 42 The \$80 million includes Foreign Military Sales Financing, International Military Education and Training grants, narcotics and law-enforcement assistance, Emergency Support Funds assistance, and commercial and Pentagon-managed arms transfers. United States Department of State, "Congressional Budget Justification: Foreign Operations – Fiscal Year 2006," pp. 307–9, 589, 628, <http://www.state.gov/s/d/rm/>

60 M. T. Klare

- rls/cbj/. On indirect sources of military aid, see Michael Klare and Daniel Volman, "The African Oil Rush and US National Security," *Third World Quarterly* 27/4, 2006, pp. 609–28.
- 43 Dino Mahtani, "Nigeria Shifts to China Arms," *Financial Times*, 28 February 2006, <http://search.ft.com/ftArticle?queryText=Nigeria+Shifts+to+China+Arms&y=0&aje=true&x=0&id=060228001284&ct=0>.
- 44 For background on Chinese arms transfers to Africa, see Amnesty International, "People's Republic of China: Sustaining Conflict and Human Rights Abuses – The Flow of Arms Accelerates," 11 June 2006, <http://web.amnesty.org/library/index/engasa170302006>; and David H. Shinn, "Africa and China's Global Activism," paper presented at the symposium on "China's Global Activism: Implications for US Security Interests," National Defense University, Washington, DC, 20 June 2006, <http://www.ndu.edu/inss/symposia/pacific2006/shinnpaper.pdf>.
- 45 See United States Department of State, "Congressional Budget Justification: Foreign Operations – Fiscal Year 2007," pp. 213–14, 628–9, <http://www.state.gov/documents/organization/60641.pdf>.
- 46 On US training programs, see Klare and Volman, "The African Oil Rush"; on Chinese programs, see Shinn, "Africa and China's Global Activism."
- 47 See Klare, *Blood and Oil*, pp. 152–79.
- 48 Linda D. Kozaryn, "US, Kazakhstan Increase Military Ties," *Armed Forces Information Service*, 26 November 1997, <http://www.defenselink.mil/news/newsarticle.aspx?id=41527>.
- 49 See Klare, *Resource Wars*, pp. 1–2, 95–7.
- 50 United States Department of State, "Congressional Budget Justification: Foreign Operations – Fiscal Year 2007," pp. 501, 591, 631.
- 51 See Jim Nichol, "Central Asia: Regional Developments and Implications for US Interests," Congressional Research Service Issue Brief for Congress, updated 12 May 2006, pp. 3–4, <http://italy.usembassy.gov/pdf/other/IB93108.pdf>; Vladimir Socor, "CIS Collective Security Treaty Organization Holds Summit," *Eurasia Daily Monitor*, 24 June 2005, [http://www.jamestown.org/edm/article.php?article\\_id=2369935](http://www.jamestown.org/edm/article.php?article_id=2369935).
- 52 See Roger McDermott, "Nazarbayev's Caspian Security Deals: What Can Moscow Offer?" *Eurasia Daily Monitor*, 27 June 2006, [http://www.jamestown.org/publications\\_details.php?volume\\_id=414&issue\\_id=3779&article\\_id=2371222](http://www.jamestown.org/publications_details.php?volume_id=414&issue_id=3779&article_id=2371222).
- 53 See Bates Gill and Matthew Oresman, *China's New Journey to the West*, Washington, DC: Center for Strategic and International Studies, 2003, p. 20.
- 54 See Klare, *Resource Wars*, pp. 95–7; and *idem*, *Blood and Oil*, pp. 135–9.
- 55 United States Department of State, "Congressional Budget Justification: Foreign Operations – Fiscal Year 2006," pp. 375–6, 407–8, 520, 555–6. Military assistance is no guarantee of smooth diplomatic relations. Uzbekistan's autocratic ruler, Islam Karimov, forced the United States to close its base in his country after Washington condemned a brutal government crackdown on unarmed demonstrators in the town of Andijon in May 2005. See also the account of US–Uzbekistan relations by Christopher Boucek in Chapter 8.
- 56 "Japan Risks China Anger over Gas," *BBC News*, 13 April 2005, <http://news.bbc.co.uk/2/hi/asia-pacific/4439171.stm>.
- 57 "Japan's Dangerous Move in the East China Sea," *China Daily*, 18 July 2005, [http://www.chinadaily.com.cn/english/doc/2005-07/16/content\\_460642.htm](http://www.chinadaily.com.cn/english/doc/2005-07/16/content_460642.htm).
- 58 Norimitsu Onishi and Howard W. French, "Japan's Rivalry with China Is Stirring a Crowded Sea," *New York Times*, 11 September 2005, <http://www.nytimes.com/2005/09/11/international/asia/11taiwan.html>.
- 59 "Oil and Gas in Troubled Waters," *The Economist*, 6 October 2005, pp. 52–3, [http://www.economist.com/background/displaystory.cfm?story\\_id=4489650](http://www.economist.com/background/displaystory.cfm?story_id=4489650).
- 60 "China Taps Field for Natural Gas in Disputed Area," *Wall Street Journal*, 6 April 2006; Masaki Hisane, "Japan's New Energy Strategy," *Asia Times*, 13 January 2006, <http://www.atimes.com/atimes/Japan/HA13Dh01.html>.
- 61 The question of economic rights in the Caspian Sea is particularly unsettled because of uncertainty as to whether the rules set down in UNCLOS apply there. The former Soviet Union and Iran, which once divided the Caspian Sea between them, regarded the Caspian Sea as a lake; a claim still persisted in by Moscow and Tehran. If the sea is deemed a lake, however, then there is no international legal regime to which the riparian states can appeal in settling their disputes. See Barbara Janusz, "The Caspian Sea: Legal Status and Regime Problems," *Chatham House Russia and Eurasia Programme*, August 2005, [http://www.chathamhouse.org.uk/publications/papers/download/-/id/303/file/3939\\_bp0805caspian.pdf](http://www.chathamhouse.org.uk/publications/papers/download/-/id/303/file/3939_bp0805caspian.pdf).
- 62 "Iran Is Accused of Threatening Research Vessel in Caspian Sea," *New York Times*, 25 July 2001. <http://query.nytimes.com/gst/fullpage.html?res=950CE7DA1F3AF936A15754C0A9679C8B63&n=Top/News/World/Countries%20and%20Territories/Azerbaijan>.
- 63 See Nichol, "Regional Developments," p. 11; and Rovshan Ismayilov, "Azerbaijan Ponders Russian Caspian Defense Initiative," *Eurasianet.org*, 1 February 2006, <http://www.eurasianet.org/departments/insight/articles/eav020106.shtml>.