SHALE GAS AND THE NEO-STRATEGY OF THE UNITED STATES

Abstract:

After the end of the Second World War, the United States (US) focused its geostrategic efforts on Europe, to the detriment of the Pacific region. Following the break-up of the Soviet Bloc, the United States is seeking to redefine its strategy in the Pacific where a potentially powerful competitor has appeared in the form of the People’s Republic of China. In order to achieve this, two hurdles must be overcome. First, is the emergence of jihadist terrorism which respects no borders and, second, continuing US dependence on Arab oil. Nonetheless, the decline of Al Qaeda and the withdrawal of the ISAF from Afghanistan, together with the Arab Spring, have brought about a change of setting for jihadist terrorism, now more towards the Maghreb-Sahel strip. Since Europe is the closest western region, the US could be spared some of the problems in this regard, although this would require a redefinition of some aspects of NATO. Then again, the US dependence on Arab oil might be affected as a result of findings recently published by the International Energy Agency, which could reorient its strategy towards the Pacific. However, if the reiterated hypotheses in the report are borne out, the possible repercussions in the Middle East, where Israel is America’s chief ally, could stand in the way of the American neo-strategy.

Keywords:

Fracking, shale gas, Pacific, terrorism, People’s Republic of China, Europe, NATO.

* NOTE: The ideas expressed in Documentos de Opinión are the responsibility of authors and do not necessarily reflect the views of the IEEE or the Ministry of Defence.
INTRODUCTION

The driving force of evolution and progress, oil has always appeared as a determinant factor in the major conflicts of the twentieth century. Today, the power of attraction of this black gold has remained intact and, despite some fears as to the maintenance of world production, the International Energy Agency (IEA), far from dampening down the crude oil fuelled flame, has again opened up the spigots, thus giving the US new impetus in its move towards the Pacific. The possibility that the US might be situated in the lead with regard to control of the hydrocarbons market has unquestionably given new impetus to its recent strategy in the Pacific where the People’s Republic of China (PRC) is advancing as the emerging power with the greatest potential for being a serious competitor for the US in its bid to take over world leadership.

However, what would amount to a new order in the geo-economic domain would also bring in its wake an uncertain situation in other zones of the planet, for example certain areas of the Middle East whose stability depends, among other factors, on being able to maintain their share of the crude oil market. If these quotas underwent any substantial change, the social situation in the countries of the zone could be changed by the thrust of Islamism. In such an event Israel would be the most affected country. Furthermore, the spread of instability towards the Sahel in North Africa, where countries like France, Italy and Spain have commercial interests, would have repercussions in the European Union. Hence, after the collapse of the former Soviet bloc, and in an intercommunicated world where borders between countries seem to dissolve on the pages of old atlases, the shift of the US towards the Pacific means that Europe would have to take on responsibility for managing expansionist jihadism in nearby North Africa, which has tenuous borders as far as some of today’s Islamist leaders are concerned.

Accordingly, in its strategic move towards the Pacific, the US should bear in mind not only the potential of shale gas and the significance of the new geostrategic scenario in the this area, but also such collateral factors as the situation of the struggle against Islamist terrorism after the ISAF withdrawal from Afghanistan; a post-Afghanistan NATO; Israel’s* relations with the US administration; and, finally, the lessons learned from history.

FROM OIL TO SHALE GAS: THE STORY OF A STRATEGIC ASSET

From the time when the first oil gusher appeared in Pennsylvania (US) in 1861 through to the present-day practice of fracking, the history of hydrocarbon exploitation has gone through a series of phases in which the hegemony of American companies established the
framework from the beginning.\footnote{Daniel Yergin, in his book \textit{La historia del petróleo} (1992), estimates that in the 1870s and 1880s half of American production was earmarked for export and that kerosene represented 25\% of all exports.} However, after the Second World War, the United States lost its influence over Middle East crude oil when the Arab world began to prevail in the oil market in the 1970s.

Nonetheless, according to the latest IEA report, \textit{World Energy Outlook 2012},\footnote{See http://www.worldenergyoutlook.org/pressmedia/recentpresentations/PresentationWEO2012launch.pdf} this situation could change. The report predicts that, \textit{“By around 2017, the United States is projected to become the largest global oil producer (overtaking Saudi Arabia until the mid-2020s) and starts to see the impact of new fuel-efficiency measures in transport”}, adding that America could become a \textit{“net oil exporter around 2030”}. In addition, the report considers that, \textit{“The net increase in global oil production is driven entirely by unconventional oil”}, otherwise known as shale gas. (See Figure 1)

\begin{figure}[h]
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LEGEND: Assessed basins with resource estimate // Assessed basins without resource estimate // Countries included in report // Countries not included in report
The energy potential of shale gas has been known for some decades, although its exploitation only became a workable possibility a scant ten years ago. This is a hydrocarbon which is “dissolved” and trapped within shale formations at depths of more than 3,000 metres, where the pressure contributes towards forcing the spread of the gas within the rock itself, caught in tiny pockets. In the extraction process, the gas must be freed so that it will collect in wells, and this involves fracturing the rock. In order to achieve this, a technique called “fracking” or hydraulic fracturing is used in combination with horizontal drilling. In its early days, this procedure was deemed to be very expensive but, thanks to technical progress and reduced costs, it can now be applied as a process consisting of the high-pressure injection of water into rock formations at depths of between 3,000 and 3,500 metres, causing small fractures which free the gas. (Fig. 2)

Protests by certain social sectors, arguing that fracking will have dire environmental consequences due to contamination of aquifers, a high water consumption and the risk of seismic movements, have been countered by other sources, for example the Spanish Royal Academy of Engineering, which states that “it is estimated that, without hydraulic fracturing, 80% of the production of unconventional gas would not exist”.

Fig. 2. Shale gas is found trapped in rock formations at great depths.

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While not exempt of controversy as a result of the risks it involves, fracking could mean a new advance in crude oil production. As the conclusions of the aforementioned IEA study suggest and in view of the existing shale gas basins in the US and Canada (both members of the OECD and sharing one of the planet’s biggest shale gas reserves), it could help to make President Nixon’s dream of energy self-sufficiency for the United States\(^5\) come true. With good reason, Daniel Yergin, author of *Historia de petróleo*, states that, at present, fracking accounts for thirty per cent of gas production in the United States and it is envisaged that it could be exported in about two years. Similarly, the oil company BP predicts that the US will be self-sufficient by 2030.

For Faith Birol, chief economist at the IEA, “the foundations of the global energy system are shifting”.

Although the consulting firm Deloitte noted in its study “Oil and Gas Reality Check 2012” that shale gas production is still far from being crucial, the oil companies exploring the reserves of this resource are quite rightly adding more weight to the western side of the balance when they take note of the presence of oil reserves in the OECD countries since political stability is a factor that attracts investors who are wary of countries in the Middle East and North Africa which are affected by increasing instability within their borders. Hence, a potential decrease in western investment would further escalate a possible situation of socioeconomic instability.

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5 NIXON Richard: “Address on the State of the Union Delivered before a Joint Session of the Congress”, 30 January 1974. “Let this be our national goal: At the end of this decade, in the year 1980, the United States will not be dependent on any other country for the energy we need ...”

However, even if the neo-strategy is given new momentum by the fact that the US shares one of the planet’s biggest shale gas reserves (see Fig. 3), China will strive to keep its Arab crude oil market by means of shipping routes. This means that both countries will need to be very attentive to their freedom of movement and action in the new scenario: the Pacific Ocean.

THE IMPORTANCE OF THE NEW GEOSTRATEGIC SCENARIO: THE PACIFIC

To recapitulate a little, the United States turned away from the Pacific after the Second World War and focused its attention on Europe, the hypothetical scenario of future hostilities with an increasingly powerful Soviet Union. The Cold War had begun. The ensuing political reorganisation of the planet fostered a climate of “uncertain stability” in which the Israeli conflict turned out to be the only one of major relevance because of its repercussions in the oil market.

Meanwhile, Deng Xiaoping succeeded Mao Tse-tung and – just as had happened with Japan in 1854, but now in 1978 – China began to loom in the world.

Today, in May 2012, almost thirty-five years later, the United States Department of Defense has presented to Congress its annual report on the latest developments in the military and security strategy of the People’s Republic of China. The official response of China, in the words of its Ministry of Foreign Affairs, is that the report has propagated the “theory of the Chinese threat” because China has modernised its defence capacity when this should have been seen as something “justified and normal”. After all, the Pacific and Indian oceans are important for China too, given that the cost of sea transport amounts to only 3% of that of moving goods by air; that 50% of the world’s merchant fleet tonnage passes through the China Sea; that this sea is connected with the Indian Ocean through the Strait of Malacca (a channel notorious for piracy, of some 800 kilometres in length and a minimum width of 2.8 kilometres); and that sea transport accounts for 95% of all the transport in the world (where oil and minerals traffic represents two thirds of this percentage, while container ships represent one fifth). Moreover, exports constitute 25% of China’s GDP, which is a pressing reason for developing its merchant fleet. Hence, it is reasonable to assume that China is contemplating plans for industrial development and market policies, these being geared towards its sea power in both commercial and military aspects.

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It is not surprising that, to this end, China has based its strategic naval planning on areas ranging from coastal defence through to its ocean-going presence, while also working on a strategy that responds to its need to expand and also protect its sea routes, which pass through waters that are not very safe for shipping. It is therefore necessary to ensure some kind of supervision of the so-called “global commons”, starting with maritime space. Hence, its first objective is defensive control of the sea within its “first island chain”, a double arc shaped by islands extending from the Japanese archipelago through to the Philippines, amongst which Taiwan is the linchpin on which China’s strategic efforts are focused. In order to achieve this control, it has established what has been dubbed its “string of pearls” or, in other words, a set of installations located in the territories of neighbouring nations along the way to the Indian Ocean, these sites including Gwadar (Pakistan), Hambantota (Sri Lanka), Chittagong (Bangladesh) and Sittwe (Burma). In a second strategic drive, China would seek to attain freedom of action and movement in the Pacific, in which case it would set its sights on controlling waters to the west of the arc of islands known as the “second island chain”, which is comprised by islands extending from the Japanese archipelago to New Guinea, taking in the Mariana Islands and Guam (see Fig. 4).

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8 GÓMEZ DE ÁGREDA, Ángel, “Las Fuerzas Armadas chinas y su acción sobre los global commons” (The Chinese Armed Forces and Their Action Regarding the Global Commons): “The global commons are those spaces, real or virtual, which are used for the traffic of any kind of goods. They are not under the direct sovereignty of any State and have gone from being constituted by international waters to being joined, in recent years, by airspace, outer space and cyberspace.” Online at http://www.politica-china.org/imxd/noticias/doc/1306074153Las_Fuerzas_Armadas_chinas_y_su_accion_sobre_los_global_commons.pdf.


10 Ibid.
Nevertheless, in order to bring this strategic effort to fruition, China will need to develop naval capabilities which it will not achieve in the short term since this is not only a question of means but also of doctrine and a hitherto absent but necessary tradition of “roaming the seas”. Rather than being a revelation of naval power, the recent news of the newly operative Chinese aircraft carrier "Liaoning", might be seen more as a declaration of intent if one bears in mind the origins of the ship and the long road that lies ahead for China before it will be able to challenge, for example, the closest navy to its waters, which to say that of Japan, which is considered to be the second most powerful in the world.

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11 An article published in ABC.es on 26 September 2012 titled “ Así es el primer portaaviones de China” (The Story of China’s First Aircraft Carrier) says, “Originally called “Varyag”, the presently named “Liaoning” started out in Ukraine where it was stranded half finished in the shipyard. A Chinese company bought it for 20 million dollars in 1998, theoretically as the venue for a floating casino in Macao. Something similar happened with the “Kiev”, a Russian aircraft carrier which, now housing a luxury hotel, is one of the odder items in the Tianjin amusement park.” Online at: http://www.abc.es/20120926/internacional/abci-primer-portaaviones-china-201209261138.html.
OTHER COLLATERAL FACTORS:

ISLAMIC TERRORISM AFTER THE ISAF WITHDRAWAL FROM AFGHANISTAN; THE IMPORTANCE OF THE EUROPEAN UNION; AND POST-AFGHANISTAN NATO

The termination of the ISAF mission in Afghanistan will make possible a reorientation of NATO’s strategic efforts in other directions. However, the withdrawal of the ISAF could mean that the jihad might become a domestic problem for Afghanistan, in which case a considerable number of foreign jihadists would return to their places of origin taking with them some important baggage: prestige and experience in combat. Accordingly, instability in the wake of the Arab Spring has encouraged the rise of jihadist groups resulting in two conflicts, those of Syria and Egypt, which threaten both the Middle East and North Africa. Furthermore, the recent crisis in Mali should be seen as a warning with regard to instability in the Sahel-Maghreb area (see Fig. 5), which would represent a direct threat for the closest part of the western world, namely Europe.

In the years ranging from the founding of the European Coal and Steel Community (ECSC) through to shaping of the Schengen Area, Europe has been evolving to shape an economic and territorial “whole”, or a Europe without borders in which, however, the concept of globalisation could affect the West. Meanwhile, the Old Continent has also been evolving in terms of approaches to a defence strategy and, from the “Petersburg Tasks” through to the review of the European Security Strategy in 2008, it has been adapting to the emergence of new threats.

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14 “Petersburg Tasks” is the name given to the military tasks undertaken by the European Union in coordination with its member states and outside its borders with the aim of contributing towards political stability or providing humanitarian aid in other countries and regions of the world.
Nevertheless, two factors would seem to indicate the need for drawing up a new strategy: the imprecision of the present one and the NATO Strategic Concept 2010, which highlights the importance of the European Union as the Alliance’s main partner.\textsuperscript{15}

Then again, the United States has been leading the reshaping of the new NATO, citing Article V of The North Atlantic Treaty, which formulates a commitment to collective self-defence.\textsuperscript{16} This endeavour is no trivial matter with an Alliance divided into three blocs, the British, the Mediterranean and the former Warsaw Pact countries,\textsuperscript{17} and a European Union whose joint defence is still in the making (“while the European Union appeared with a political-economic objective, the Alliance’s goals are military-political”\textsuperscript{18}). Despite such efforts as the signing of the “Berlin Plus” EU-NATO Agreement (December 2002), another document was published in May 2010, titled “NATO 2020: Assured Security; Dynamic Engagement”, this consisting of the analysis of and recommendations for a new NATO Strategic Concept which would contemplate the deployment of “expeditionary” capacities outside the Treaty Area.\textsuperscript{19} For the United States, the leading member of the Alliance, European support is fundamental, with regard to both NATO’s strategic reorientation and dealing with jihadist terrorism.

\textbf{LESSONS LEARNED FROM HISTORY: THUCYDIDES’ WARNING}

The importance of the historical perspective is one of the pillars of Military Intelligence. Anglo-Saxon historians insist on this axiom – and one only needs to recall John Keegan’s \textit{The Face of the Battle}. Consequently, heeding the lessons learned in Port Arthur and Pearl Harbour\textsuperscript{20} and in its attempts to counterbalance the strategy of the People’s Republic of China, the United States has joined in the political, commercial and military operations which were originally initiated by the nations bordering China and others on the shores of the Pacific and Indian oceans. Hence, US membership of the Trans-Pacific Partnership (TPP),\textsuperscript{21}

\textsuperscript{17} TREVIÑO Ruiz, José Mª (Admiral and Spanish military representative (MILREP) in NATO from 2006 to 2009), 2010, “¿Quo vadis OTAN?” (Quo Vadis NATO?), Revista General de Marina, August-September.
\textsuperscript{18} Ibid.
\textsuperscript{19} Ibid.
\textsuperscript{20} In 1904, during the Russo-Japanese War, the Japanese fleet blocked Port Arthur in Manchuria in order to have freedom of movement and to deploy its forces on the Korean peninsula and in Manchuria. In 1941, Japan repeated the same manoeuvre, this time in Pearl Harbour with the aim of gaining free access to the oil of the Dutch-owned oil company Royal Dutch in Sumatra.
\textsuperscript{21} Also known as P4, the Trans-Pacific Partnership or TPP free trade agreement is an initiative of member countries of the present-day Trans-Pacific Strategic Economic Partnership Agreement, namely Brunei, Chile, New Zealand and Singapore. The TPP agreement was drafted in 2005 and has been in effect since 2006. This
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was announced on 12 November 2011 in Honolulu during the Ministerial Meeting of the Asia-Pacific Economic Cooperation (APEC) Forum, after which the member countries were Australia, Brunei, Canada, Chile, Malaysia, Mexico, New Zealand, Peru, Singapore, United States and Vietnam. This is one of the political-commercial manoeuvres which the United States embarked on in 2006 with the aim of tightening an alliance of countries with shared interests in an area in which a competitor with unknown potential has emerged.  

Other manoeuvres are based on what is known as “soft power”, the aim of which is to curb China’s research and development capacities. Hence, Japan, whose raw material is the patent establishment, seeks to rein in China’s wish to be at the forefront of research and innovation by means of patent filing. By 2006, 17% of requests for the Japanese patents filed abroad were made in China. In the framework of this silent war, China has responded by means of cyber attacks, thus embarking on a struggle for control of another domain of the “global commons”, cyberspace.

Finally, the United States has for some years been engaged in movements that signal its unequivocal change of focus towards the Pacific, as is reflected in the Defense Planning Guide, 2012. “Our nation is at a moment of transition”, said President Barack Obama on 5 January 2012, when he unveiled a new national defence strategy. Prior to this, in November 2011, the Deputy Secretary of State, William J. Burns had stated, “In many respects, the broader Pacific will be the most dynamic and significant part of the world for American interests for many decades to come”. The announcement of an agreement with Australia for the permanent deployment of almost 1,000 marines (rising to 2,500 by 2016) in the...
Robertson Barracks of Darwin in the Northern Territory, and Leon Panetta’s statements regarding an increased military presence in the Indian-Pacific Ocean area, are both facts that demonstrate this “strategic sea change”. Meanwhile, China and the United States are keeping the diplomatic option open with such gestures as the meeting between a Member of the State Council of the People’s Republic of China and an American National Security adviser in Seoul, South Korea.

As recently pointed out by General Martin Dempsey, there is a danger of falling into “Thucydides’ trap” and entering into conflict with China simply because of fear of its ascent as a global power. Whether or not this threat really exists, a change of focus eastwards inevitably entails a return to maritime supremacy.

CONCLUSIONS

Besides the numerous advances and technological progress it has brought about, oil has also been the cause of both the outbreak and conclusion of the major wars of the twentieth century. In historical terms, this means that, faced with the possibility that by around 2030 geo-economic balance will have shifted, or is already shifting in a significant way, changes in geo-strategic postulates are now occurring and, accordingly, in the security and defence strategies of countries through their supranational organisations. As a result, in the event that the IEA estimates concerning America’s possible self-sufficiency in oil should be confirmed, the coming world order remains open to numerous hypotheses. In postulating these, a series of variables should be borne in mind and these could acquire greater importance in accordance

27 THUCYDIDES, History of the Peloponnesian War, Book I 23.6. “The real though unavowed cause I believe to have been the growth of the Athenian power, which terrified the Lacedaemonians and forced them into war”. Online at http://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.04.0105%3Abook%3D1%3Achapter%3D23
with the evolution of events already taking place in certain scenarios, or Zones of Intelligence.
Possibly figuring among these variables would be the following:

- A redefinition of the world crude oil market: a strengthening of the Arab oil trade with China; Arab and Russian competition with the United States for European clients.
- The threat for Israel of an Iran with nuclear capacity and an unstable Saudi Arabia as a result of failure to resolve the conflicts in Syria and Egypt or the Sunni-Shiite confrontation.
- The flight of western investment from the Sahel-Maghreb area to other more secure zones because of the threat of jihadist terrorism.
- The direction taken by jihadist terrorism.
- The socioeconomic evolution of the four main emerging countries: China, Russia, India and Brazil.

History shows how the first step towards a new world order tends to be a crisis that sometimes, depending on the magnitude of the change, escalates into war. Today, however, it is possible that globalisation has helped in the processes of negotiation between countries that would seem to be characterised by less aggressive dynamics than in previous epochs.
For all that, the echo of Thucydides’ words still resounds and it is possible that we are witnessing the fluttering of the wings of a butterfly that has not yet alighted. Bearing in mind that “intelligence is the management of uncertainty”, it is as yet difficult to ascertain where the next earthquake might occur as a result of this fluttering.

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