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NEMESIS:
OIL AND MISSILES IN THE 21st CENTURY

PART 1 of 3

SERIALIZED STUDY BY –

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"The country that faced down the tyranny of fascism and communism is now called to challenge the tyranny of oil",
Barack Obama, Detroit Economic Club, May 2007.

Introduction

Strangulation of the 'umbilical cord', our essential global oil supply conduit from the Arabian Gulf to major oil-consuming nations in SE Asia, could gradually choke out our life on our vulnerable planet. Are we already doomed?

This paper undertakes a brief historical analysis as to how oil supply contingency was initially perceived, mentions the Oil Tanker War, and discusses the global oil supply chain. The paper focuses on the increasing militarism amongst those oil consumer nations dependent largely upon Middle East hydrocarbons supply. The "Arab Spring" is highlighted together with a cursory analysis of the civil war in Syria. The paper reviews the missile and anti-missile shield arms race, and the geopolitical, economic and military implications for the West before the end of the 21st Century. Chinese perspectives are stated, analysed and broadly critiqued. Cursory findings and conclusions are advanced including suggested reforms to the United Nations Security Council (UNSC).

Recent history has portrayed the never ending struggle for oil supply. In earlier times, the battle for oil supply amongst competing oil-consumer nations was often backed up by intrusive gunboat diplomacy and naval blockade. Today, it is under a much greater threat from missile deployments, and from high speed offshore patrol vessels (OPV) armed with limited-theatre anti-ship missiles (ASBM) and other sophisticated weapons.

Anti-West, nationalistic political leaders, deliberately disrupted oil supply in the past. These included: Mohammad Mosaddegh (nationalised the Anglo-Iranian Oil Company: May 1951), Gamal Nasser (nationalised and closed the Suez

Canal: July 1956), Saddam Hussein (seized international oil interests, later precipitating the '1973 energy crisis': June 1972), and Muammer Gaddafi (nationalised Libya's oil industry: September 1973). These despotic Islamic leaders were once linked by an often expressed common sentiment: "The imperialistic West is stealing our oil".

Today, Mahmoud Ahmadinejad menaces the West with potential nuclear proliferation and threatens to block the Strait of Hormuz.[1] North Korea threatens oil deliveries to Japan and South Korea with new SRBM missiles. China disputes newly discovered oil and gas reserves undersea in the Nan Hai and Dong Hai.

Oil diplomacy will continue into the future and beyond the end of the 21st Century.

In the Middle East, the Gulf littoral Arab oil-producing states, largely unencumbered by political intransigence in the past, include Bahrain, Kuwait (except for a brief Iraqi occupation period), Oman, Saudi Arabia, Qatar, and the UAE.

Oil supply from the Arabian Gulf to Europe and the North American continent is not discussed in this paper. These oil supply routes are relatively free from political transgression, terrorist, or military action; apart from sporadic piracy off Somalia in the northern Indian Ocean and from past closure of the Suez Canal. Nonetheless, if the Strait of Hormuz is blocked, then very little Middle East oil would get through to Europe and North America.

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[1] See Crash_Watcher, "If the Strait of Hormuz Closed, Which Oil Importing Region Would Suffer the Greatest Loss?" Wednesday 18 July 2012. See also "Strait Answer: Iran prepares to close Hormuz", on tv.globalresearch.ca (RTV video interview and article), Google search on title, 3 July 2012

Historical Analysis

Professor Geoffrey Kemp in his "Limited Contingency Study" at the Pentagon first recognised this fundamental problem in 1976. The encroachment of Soviet military bases in Cuba, Guinea, Guinea Bissau, St Helena, and Mozambique; new bases close to the Strait of Hormuz, Maldive Islands, and elsewhere sent strategic shivers through defense analysts. Between 1965 and 1975, the Soviet military juggernaut upstart-strongholds, at so many diverse locations, severely tested the patience of Western military analysts.

These locations are depicted in a book entitled "The Communist Challenge to Africa" authored by Ian Greig[2]. The relevant maps are detailed at the beginning of the first Chapter. The maps detail the locations of the Soviet bases positioned adjacent to the major sea routes for the transit of crude oil.

In 1978, President Jimmy Carter's "World Energy Crisis" Campaign had begun in earnest. The Campaign in reality continues today and will effectively continue for many decades to come. It will vacillate frequently in tune to the insatiable demand-driven, thirsty oil consumer nations, and the world's economic climate.

Suffice to say; in 1979 a Soviet cruiser took up station in the Gulf of Oman. Soviet warship deployments had entered the Indian Ocean to effectively replace the former presence of the omnipotent British Navy. Soviet maritime intentions were clear.

In the same year, Ayatollah Khomeini threatened to put the US hostages captured at the US Embassy in Tehran on trial as spies. President Carter immediately warned the Iranian Government through back channels that if any such "trials" took place Iran would suffer dire consequences. To back up his threat, Carter ordered an aircraft carrier battle group to take up station off the coast of Iran. The USS "Kitty Hawk": (CV-63) joined with another aircraft

[2] Greg, Ian, "The Communist Challenge to Africa", Foreign Affairs Publishing Company, 1977, ISBN 0 900380217

carrier already on station, the USS "Midway" (CVB-41), to form one of the largest US naval forces ever to be assembled in the region.

Further retaliation by the West was immediate. Mirror image naval bases with upgraded infrastructure were quickly positioned at Bahrain, Diego Garcia, Djibouti, Seychelles, and elsewhere. US pre-positioning strategy for materiel soon became the norm. Rapid response initiatives were put into place. For the first time, since the phased withdrawal of the UK's military presence east of Suez[3], British warships were deployed on permanent station in the Gulf of Oman.

Many believed a Soviet encirclement of the Middle East oilfields was imminent. The Soviet invasion of Afghanistan reinforced this sagacious perception. Today, military analysts perceive the long term objective of the Sino-Russian bloc is to encircle and capture the same vital oilfields.

In 1979, the future air-sea-battle lines were drawn athwart oil supply routes.

These routes were around the Cape of Good Hope, in the Arabian Gulf, the northern Indian Ocean, and further afield in the southern Atlantic. The largest-volume oil routes were westward to North America, and Europe. Significantly less oil (conservatively estimated at roughly 28% of that shipped to Europe and the US) was shipped eastward to ASEAN countries, Australasia, India, Pakistan, Japan, and China. China's oil consumption was not high, relatively, as most of the oil shipped eastward was to support manufacturing activity in Japan. The latter was, at the time, destined to become the world's second-largest net oil importer.

Oil Tanker War (1984-88)

The oil battle was joined in September 1984.

[3] British phased military withdrawal commenced in 1968, thus abandoning the Arabian Gulf and Indian Ocean

Oil supply military interdiction first occurred when Iraqi aircraft attacked the oil terminal and Iranian tankers at Kharg Island. The hitherto unexpected 'Gulf Tanker War' broke out, catching the West by surprise, and was to last for some four desperate years until July 1988. Sometimes it is called the "forgotten" war, largely because it was overlooked by military historians, as a subsidiary war hidden within the much larger Iraq-Iran conflict.

Oil tankers were steaming at full speed through the Strait of Hormuz at the rate of one tanker every two minutes[4]. In the upper reaches of the Arabian Gulf, the multi- nation tankers, including Kuwaiti tankers protected by the American flag, dodged Exocet missiles, hostile gunboats, Boghammar fast patrol boats, and sea mines. Several oil tankers were damaged, including the supertanker *al-Rekkah*, renamed as the *Bridgeton,* which struck a mine whilst in a northbound convey.

Air-to-ship missiles used in the Tanker War included eight categories of missiles: namely the French Exocet (AM-39), the US Harpoon (AGM-84A) and Maverick (AGM-65BC); and the Soviet Kipper (AS-2), Kitchen (AS-4), Kelt (AS-5), Kingfish (AS-6) and Sea Killer. Many tankers received direct and tangential hits. It was a miracle only three oil tankers were abandoned and declared total losses. Nonetheless on less damaged tankers, crew members were killed or badly injured and numerous fires occurred in engine rooms. Fortunately, the fires were quickly brought under control.

In total, between1984 and 1987, an estimated 259 oil tankers/product carriers, and 52 cargo/freighter vessels were attacked. Another 39 vessels including tugs were also attacked. It is amazing that only a mere 2 to 4% of the total shipping traffic (estimate) in the Arabian Gulf was sunk (total loss), in spite of the constant rain down of missiles during the war.

At the height of hostilities, four US Navy carrier battle groups were rotated in the region. These were the "Ranger" (CV-61) and "Midway" (CVB-41) in the

[4] Some 80 or 90 merchant ships were daily transiting the Strait of Hormuz

Bay of Bengal and the “Enterprise” (CVN-65) and “Forrestal” (CV-59) in the Arabian Sea.

The media immediately drew world attention to the emergency and its projected consequences for the West.

Chinese involvement in the Tanker War soon manifested itself. Towards the end of the war, China supplied around three hundred HY-2 “Silkworm” anti-ship missiles to Iran. This missile has a 96 km range and carries a 450 kg explosive warhead. It is a Chinese version of the Soviet “Styx” anti-ship missile. Iran unashamedly used these missiles against Kuwaiti tankers and offshore oil platforms.

Threat Analysis

The Gulf Tanker War is a dire warning as to what may happen on a wider scale later this century in other oil chokepoints around the world. In 2011, total world oil production amounted to approximately 87 million barrels per day (bbl/d) and over one-half was moved by tankers on fixed maritime routes. By volume of oil transit, the Strait of Hormuz, leading out of the Arabian Gulf, and the Strait of Malacca, linking the Indian and Pacific Oceans, are two of the world’s most strategic chokepoints. Other chokepoints are the Bab el-Mandab (Red Sea), Suez Canal and SUMED Relief Pipeline, Turkish Straits, Danish Straits, and Panama Canal.

Global oil supply is obviously vulnerable. Impediments, military or otherwise, to oil tankers transiting the seven world chokepoints will serve to reduce oil flow through the umbilical cord. World oil chokepoints for maritime transit of oil are a critical part of global energy security (US Energy Information Administration).

Iran has often threatened to block the Strait of Hormuz. During the Tanker War, Iran laid magnetic mines in the Arabian Gulf, and attacked Iraqi warships and oil installations.

Worst Case Scenarios

At this juncture, it is useful to describe a couple of worst case scenarios:

"A 'blockship' or 'fireship', such as an innocuous looking dredge or barge, flying a disarming flag of convenience, devoid of the correct international code signals or flags, displaying phony navigation lights at nighttime, loaded with high explosives, mines, or destructive ordnance, towed by a powerful tug, suddenly and unexpectedly positioned in the direct path of an unsuspecting outgoing fully laden ULCC unable to change course quickly enough in the narrow channel to avoid a collision. The resultant conflagration and fireball is the worst possible outcome. Such a heinous act is not beyond the present day capability of insurgents, political dissidents, or a rogue state.

Another potential scenario could be an old WWII submarine or present day Yono Class midget submarine, clandestinely positioned without detection by depth finder or radar, to lie innately and inconspicuously on the bottom of the shallowest part of the channel, likewise loaded with high explosives, set to ascend using remote control radio signals, under the keel of a passing ULCC. Such interdiction is not beyond the capability of those determined to disrupt oil supply to the West."

Mankind has often demonstrated gross wanton destruction using the slightest of political whims as an unforgivable weak excuse. History tells us so. We may well pray that these scenarios might never eventuate.

From the Iranian point of view, the operational success or otherwise of these postulated worst case scenarios will greatly depend upon the viability of Western detection methods. For instance, those vested in Omani offshore patrol vessels (OPV) and helicopter surveillance, together with regular channel sweeps conducted by US naval assets attached to the US Fifth Fleet on patrol from NSA Bahrain. Detection methods, which could also concern the

Iranian Navy, include new electronic detection methodologies undertaken by using RSAF/USAF airborne AWACS. [5]

The eyes of the world are now and forever cast upon the Strait of Hormuz. Approximately forty per cent of the world's oil supply transits the Strait. Every intelligence officer is sadly remiss if unable to understand the implications for the West. The logistics of global oil supply are at stake. Never before in the history of mankind has there been such an urgent (energy) issue.

It may well be virtually impossible for terrorists, pirates, political groups, or rogue nations to interdict oil supply in the Strait without early detection by the West.

Missile Threat

Notwithstanding this assertion, it can be said no amount of maritime surveillance can protect oil tankers from the ultimate missile threat especially if the warheads are nuclear. In view of the lessons learnt from the Oil Tanker War, the question is whether Iran (or North Korea) is irresponsible enough to use these deadly weapons to greater destructive effect with no regard for maintaining world peace. The Islamic Republic of Iran Navy (IRIN) and the Islamic Revolutionary Guard Corps Navy (IRGCN) now have an estimated thirteen classes of missile[6]. China, Russia, and North Korea have combined

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[5]The Royal Saudi Air Force (RSAF) using 5X Boeing 707 modified E-3 Sentry aircraft and the United States Air Force (USAF) both undertake AWACS surveillance of maritime sources in the Arabian Gulf, Strait of Hormuz, and Gulf of Oman. These assets are based at Prince Sultan Air Base (Al Kharj) and Al Udeid Air Base (Doha) respectively.

[6] Iran's missiles include: Nasr 1 and 2 Victory battlefield range ballistic missile (BRBM), virtually identical to the C704 Chinese supplied cruise missile, Ra'd Thunder, SS N 22 Sunburn P270 Moskit, Ghadir, Fateh-110, Mehrab (Altar), Meshkat (Lantern), Noor/Yinji (Hawk) C-801/2 ASBM, Seersucker CSS-C-2, Qader (Mighty), Zafar, and Nour (Light). Some of these are nuclear capable. Some were successfully tested during the Velayat 91 naval manoeuvres held December 2012. The Nour missile can be launched from an estimated fleet of 10,000 plus speedboats constituting a hard to defend "swarm attack" on Western transit shipping. China has opened a missile production plant facility in Iran for the mass production of the Nasr 1 missile. Iran is building a secret missile installation in Venezuela.

to supply Iran's missiles[7]. Iran continues to insist its defence doctrine is based upon deterrence.

Potentially, North Korea is able to interdict oil deliveries to Taiwan, Japan and South Korea using offensive missile strikes.

A number of latent thoughts arise at this juncture.

Russia has abundant oil. Iran currently needs to sell oil to defeat international embargoes. China needs to buy large quantities of Middle East oil including from Iran. If and when China obtains sufficient quantities of additional oil from Russia (Siberian crude), from the Caspian Region, from Africa, Venezuela, or elsewhere; then China will be correspondingly less dependent upon oil sourced from the Arabian Gulf littoral. In the longer term, *ceteris paribus*, China with support from Russia could conceivably encourage Iran to block the Strait of Hormuz.

The US is reducing its dependence upon Middle East oil (recently estimated at close to 30 per cent once new pipelines and infrastructure come on stream).

Oil Volumes Transited Today

Tonnages of oil shipped through the Strait have increased exponentially in recent years *pari passu* with the growth in VLCC and ULCC gigantic size tankers. Although mammoths such as "Oriental Nicety" ("Exxon Valdez"), "Seawise Giant", "Pierre Guillaumat", "Batillus", Bellamya", and "Prairial" are now scrapped (many are scrapped at the Alang breakers yard in India); they have been replaced by even larger tankers. For example, Iran has procured the world's largest tanker (with 2.2 million barrels capacity) to add to its 49

[7] Lincy, Valerie, "More Talks with Iran set for January", Iran Watch Status Report, Wisconsin Project on Nuclear Arms Control, 1701 K Street NW, Suite 805, Washington DC, December 2012

tanker national fleet.[8] "Sirius Star", "Hua San", and "Yangtze Star" although very large, are not quite in the same class.

China is building the largest oil tanker fleet in the world (Poten and Partners, Houston, TX) and the world's largest merchant marine navy.

Increased oil tonnages have greatly hastened the 'pulse, throb and flow' of crude oil passing through the umbilical cord global oil supply.

Changes in Volume Oil Supply

Today, the prevailing exigencies associated with the need for consistent global oil supply have greatly increased the volume of oil transported worldwide for immediate consumption and for government strategic reserves... China has overtaken Japan and is now the world's second largest net oil importer. The US, the number one net importer, has retreated somewhat and desires to become self sufficient in hydrocarbons supply (using new shale oilfields).

The US, long recognising its own vulnerability to sustained oil supply from the Middle East, is now determined to reduce its dependence upon imported oil. Increased prospecting and oil exploration activities are on the US mainland. The US is also looking to Canada for sources of new oil supply, such as from new shale oil fields using improved extraction technology. These new oil fields include the New Brunswick Albert and Devonian Kettle Point Formations, and the lesser known Ordovician Collingwood Shale. The shale oil boom has given the US the means to slash its oil import dependency using the new Keystone XL pipeline delivering substantial crude from carbon-heavy Canadian tar sands.

US crude oil production is set to rise to its highest level in 25 years by 2014[9]

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[8] Recently built in China (Internet source)
[9] Potter, Ben, The Australian Financial Review, Thursday 10 January 2013, www.afr.com

The paradigm of global oil supply has thus significantly changed. The oil still flows westward around the Cape of Good Hope, but compared with 2003 patterns, much more oil now flows eastwards to India, Pakistan, ASEAN countries, Australasia, China[10], South Korea, and Japan.

The rampant Chinese Dragon has replaced the Soviet Bear in the quest for military control over the oil supply chain. Less obviously today, rather than openly displaying military prowess over oil transit routes, the Bear lurks in the background, supplying Siberian crude at below market price to the Dragon.

Looking at the hitherto described oil routes, it is now apparent that more oil flows eastward than flows westward. Based upon a simple extrapolation from The World Factbook[11], oil imports for India (3.06), ASEAN (4.60), Taiwan (0.88), China (5.08), Japan (4.39), and South Korea (2.50) when combined, add to approximately 20.48 million barrels per day (mbbl/day). The US (10.3) and European Union (8.61) together total 18.91 approximately mbbl/day.[12] This represents a difference of some 1.6 million barrels per day.[13] The real figure is probably over 4 million barrels per day when all countries are included (excepting South Africa and South America).

More accurate extrapolation should be undertaken for improved research into worldwide oil flows, using more recent figures and estimates.

This is a quantum change in the global pattern of oil supply to that depicted in the US Pacific Command (USPACCOM) strategic map, released to Middlebury College, Middlebury, in Vermont in 2003. Classified USLANTCOM, USCENCOM and USPACCOM strategic maps continue to detail the major crude oil trade flows.[14]

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[10] There are approximately 400 oil terminals on mainland China

[11] List of Countries by oil imports, compiled by Wikipedia, and based upon The World Factbook, refer to www.cia.gov/library/publications/the-world-factbook/rankorder/2175rank.html

[12] Figures in parenthesis are expressed as millions of barrels per day (mbbl/day)

[13] Not all countries are included in the extrapolated figures (mostly 2009, but also inclusive of some 2010 and 2011 figures). Some bias obtains. Oil flows from all sources are included. Pakistan, Sri Lanka, Bangladesh, South Korea, Australasia and the Pacific Islands are excluded. Estimates are for illustrative purposes only

[14] A declassified strategic map was released by USPACCOM to Middlebury College in 2003. It can be downloaded from The South China Sea Virtual Library at www.middlebury.edu/~scs

Increasing Militarism

Nonetheless, given these changes, the same geo-strategic principles (military posturing: prepositioning materiel: rapid response: infrastructure development) that were highlighted by Professor Geoffrey Kemp in 1976 are equally present today.

Again, the potential adversaries have taken up new positions with renewed vigour. Military bases are again crowding the oil supply umbilical cord. The adversaries will face-off each other across many millions of sq. kms of ocean. In tandem with obvious threats of military interdiction to the umbilical cord, there are illegal (UNCLOS and EEZ) competing claims for undersea oil and gas reserves in coastal seas close to ASEAN countries, Japan, South Korea and China.

To state the obvious truth, there is a clear dichotomy between East and West. The predominant powers are irreversibly aligned into two main camps. The Sino-Russian bloc, supported by Iran and North Korea; and the US-Europe bloc, supported by India, ASEAN, Japan, and Australasia. This is a simplistic analysis. It does not consider emerging loyalties from smaller nations, and surrogate rogue states. Yet to be fully committed third-world countries play the political odds both ways to precipitate a desirable outcome for themselves.

Chen Yuming, Chinese ambassador to Australia, "has branded Australia's decision to strengthen military ties with the US ... as demonstrating a Cold War-style "confrontation or containment" mentality towards Beijing".[15]

Japan, South Korea, and Taiwan have also been chastised by Chinese diplomats for purchasing US weapons and materiel. Likewise have the Western sympathetic Arab oil producing states in the Arabian Gulf littoral.

[15] "China Warns on US Ties", Front Page and Page 2, Australian Financial Review, 16 January 2013

The Sino-Russian and US-Europe power entities are constantly aligning their respective political, economic and military strengths in anticipation of a potential East-West conflict as to who ultimately secures absolute oil supply.

It is as if the would-be adversaries are deliberately rushing selfishly to guard the precious oil flow for their own consumption. Indeed, this on closer examination proves to be the case.

China and Iran

For example, the People's Liberation Army Navy (PLAN) intends to construct new naval bases and associated infrastructure at Gwadar (Pakistan), Hambantota (Sri Lanka), Marao (Maldives), Small and Great Coco Islands (Myanmar), Chittagong (Bangladesh), Sittwe, Kyuakpu, Mergui, and Hainggyi Island. These are constituent elements in China's so-called "String of Pearls" (Booz, Allen Hamilton) strategic policy to protect its sea lines of communication[16].

It is theoretically possible China may yet construct a naval base in the Arabian Gulf. The rogue State, Iran, may provide fortuitous assistance with a revamp of the port of Bandar Abbas, directly opposite the Musandam Peninsula, at the very throat of the jugular Strait of Hormuz.

Iran has announced the inauguration of its newest naval base, located near Bandar-e-Lengah, only some 200 kms from the main naval base at Bandar Abbas[17]. Iran has stated the new base is being used to place reciprocal pressure on Western Governments. Public statements by Iranian Navy officials suggest that the IRIN is endeavouring to extend its reach within the area bounded by four strategic maritime chokepoints: the Strait of Hormuz, the Strait of Malacca, the Bab al-Mandeb, and the Suez Canal (Middle East

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[16] Hayward (Rtd), CAPT David L O, "China in the Indian Ocean – A Case of Uncharted Waters", Strategic Analysis Paper (SAP), Future Directions International (FDI), 2010-7-05. Posted/archived to www.futuredirections.org.au

[17] Mendiolaza, Gustavo; "Aggression or Defence? New Iranian Naval Base in Strait of Hormuz", Strategic Weekly Analysis, Future Directions International (FDI), 14 Nov 2012, www.futuredirections.org.au

Institute). Iran's expanded maritime capacity might be enough to economically disrupt the West.

The increasing militarism within Iran has accelerated a new arms race in the Arabian Gulf region.

Iran continues to defy the West with its perceived intention to develop enriched uranium and the capability to manufacture nuclear weapons. In assessing the ballistic missile threat, a key issue is estimating how long it may take countries like Iran (and North Korea) to build missiles that could carry a nuclear warhead sized payload to the US.[18]

Expanding Chinese Navy

China is deep into the process of creating its strongest navy since that built and commanded by Zheng He, the famous admiral who led seven major expeditions to the far reaches of the Indian Ocean in the early 16th century. In fact, PLAN composition and capabilities are markedly different from previous major naval construction programs conducted by emerging world powers. China's new navy relies more on unmanned cruise and ballistic missiles than on manned aircraft, and more on submarines than surface vessels.[19]

Storm warnings have been sounded by VADM Doug Crowder, US Navy (Rtd): "... the PLAN has begun to operate more as a blue-water navy, moving surely and steadily beyond its coastal roots and demonstrating concepts of operations to go along with technologies that result in a clear focus on anti-access and area denial in the Western Pacific."[20]

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[18] Economist Reader, "Timeline for an Iranian solid-fuel ICBM", accessed through Linkedin, 12 February 2013

[19] Saunders, Phillip; Young, Christopher; Swaine, Michael, and Yang, Andrew Nien-Dzu; "The Chinese Navy – Expanding Capabilities, Evolving Roles", National Defense University Press, Institute for National Strategic Studies, WASHINGTON DC, December 2011

[20] Crowder, VADM Doug, "Storm Warnings", posted (Blog) by US Naval Institute (USNI), Proceedings Magazine, 2012-4-15, refer to www.usni.org

Aided by increased budgets and improved domestic shipbuilding capabilities, the PLAN is making significant progress in its modernization efforts. This includes unprecedented procurement in recent years of seven classes of modern destroyers and frigates, five classes of submarines (two of which are nuclear powered), and other force enhancements such as three types of capable maritime interdiction aircraft, fast missile boats, and amphibious warfare ships.

The present deployment of the Chinese Navy in ASEAN and Northern Indian Ocean waters is not discussed in this paper. PLAN developments at Yulin Navy Base (Hainan Island) and at Sansha (prefecture-level city) to administer more than 200 islets in the Spratly (Nansha), Macclesfield Bank (Zhongsha), and the Paracel Islands (Xisha) are not treated in this paper.[21] Nor is the present conflict between China and Japan over the disputed Senkaku/Diaoyu islands in the Dong Hai (East China Sea) discussed.

Chinese Missiles

The Pentagon has issued a strategic map detailing China's new "Circles of 'Influence'" in SE Asia and beyond, that is the ultimate ranges of the People's Liberation Army's short, medium, and long range missiles (i.e. DF-11 and DF-15 SRBM (375 miles), DF-21 ASBM and MRBM, CJ-10 LACM, FB-7 and B-6 both with ASCM (900 miles); and DF-3 and B-6 with LACM (2,000 miles.)[22].

Short and medium range missiles are referred to as "theatre" ballistic missiles presumably earmarked for usage in the Sea of Japan, Huang Hai (Yellow Sea), Dong Hai (East China Sea), Western Pacific, Nan Hai (South China Sea), and Strait of Malacca.

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[21] Cole, Michael J, "China Deploying Military Garrison to South China Sea?", The Diplomat *(Blogs)*, Flashpoints, 2012-07-23

[22] Source, Office of the US Secretary of Defense

China's new found ability to reach and strike designated targets within its declared 2,000 mile radius limit also includes the Arabian Gulf, Strait of Hormuz, Gulf of Oman, Bay of Bengal, and northern Indian Ocean.

China will not, of course, interrupt its own oil supply, but will if need be attack Western naval assets (warships, OPV, and port infrastructure). China imports significant oil from Iran and wants to keep the Strait of Hormuz open to its own transit shipments. Some military analysts assert that the Chinese airforce and navy defence 'umbrella' does not extend to protecting its global oil supply west of the Strait of Malacca.[23] Missiles, however, make up for the shortfall.

It is difficult to comprehensively assess the full inventory of Chinese missiles. Conflicting statistics for missile classes and numbers obtain, namely from the International Institute of Strategic Studies (IISS) and the US DOD Annual PRC Military Report - both sources were released in 2010.

It must be said that in addition to the missile classes mentioned above, China definitely has at least seven classes of land-based and submarine launched inter-continental range ballistic missiles (ICBMs).[24] Defence analysts believe China is currently in the middle of a major strategic nuclear forces build-up that includes four new ICBMs – the DF-41, JL-2 (Julang-2), DF-31A, and another road-mobile missile called the DF-31. Some of these lethal missiles can be armed with multiple, independently-targetable warheads (MIRVs). The modified DF-5A ICBM is thought to have a range of 15,000 km and is capable of striking targets in continental US, Russia and Europe: quoted in Russian media 2012-12-04.

Recent secret missile tests held in the Wuzhai Space and Missile Test Centre in Shanxi Province represent a new level of capability for China's nuclear forces. The total number of missile classes held by China is not known. Estimates of missile numbers wildly fluctuate from 1,300 to over 4,000

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[23] PLAN has deployed warships to the Gulf of Aden, to assist in combating Somali pirates
[24] Seven classes of Chinese ICBM include DF-41 (new), DF-31A, DF-31, DF-5A, DF-5, DF-4, and Julang-2 (submarine launched); plus three classes of intermediate range missiles DF-16, DF-3A, and DF-3.

missiles. It is believed at least 1,000 SRBM, MRBM, and ASCM are directly aimed at Taiwan and a similar class mix of some 800 missiles aimed at ASEAN countries, Japan and South Korea. Numbers of missiles targeted at India are not known.

Oil supply to India, ASEAN countries, Australasia, Japan and South Korea is thus gravely threatened by missile interdiction. Australasia is not beyond the range of Chinese ICBM missiles.

China is ranked second worldwide by its oil imports.

"Arab Spring": Impact upon Oil Supply

To digress from China briefly, the "Arab Spring" merits attention. The political unrest in the Middle East has marginally reduced global oil supply. This has led to mixed results amongst Arab countries.

In the wake of the Arab Spring, the non-oil economies of Egypt and Tunisia have suffered through budgetary constraints, slower growth, political uncertainty, and declining tourism. The same thing has happened, but to a lesser extent, to Jordan, Lebanon, and Morocco. Higher oil prices have impacted upon household budgets. Outside help for these economies is forthcoming from the IMF, and the World Bank, as well as from bilateral lenders such as the EU, US, and oil rich Saudi Arabia.

In contrast to the generally depressed picture across the Arab world's non-oil economies, oil producers such as Algeria, Iran, Iraq, Kuwait, Libya, Oman, Sudan, Saudi Arabia, and UAE have benefited from increases in oil prices. Nowhere has this been more apparent than in Saudi Arabia. King Abdullah bin Abdel-Aziz al-Saud recently announced 'giveaway' largesse totalling a huge US$ 129 billion (equivalent to 30% of GDP). Kuwait has provided a smaller handout worth US$3,700 to every citizen and has distributed free food.

Other oil producers, such as Bahrain, Syria, Yemen, and Libya are facing twelve months or more of economic hardship in the wake of widespread domestic unrest. For instance, the Yemeni economy has contracted in the face of mass protests, worsening violence, and the ongoing interruption to oil supplies caused by sabotage and staff strikes. In Libya, oil production has shut down. Libya's loss is likely to be Iraq's gain. With Libya sidelined, and oil prices set to remain elevated, Iraq, which has already signed a host of large deals to develop and repair its underdeveloped oil resources, is now poised to take up the slack. Iran has by-passed the US and European trade sanctions by supplying more oil to China.

Syria is the only significant crude oil producing country in the Eastern Mediterranean region, which includes Jordan, Lebanon, Israel, the West Bank and Jordan. BP Plc estimates Syria holds the ninth-largest oil reserves in the Middle East (approximately 2.5 billion barrels as of January 2010). Crude production peaked at 0.596 mbbl/day in 1995, but declined to less than 0.140 mbbl/day in August 2012.

As stated elsewhere, Iran is an ever present threat to political and military stability in the Middle East. Funded by increasing oil revenues from China, Iran is progressing towards greatly increased militarism. In direct retaliation to US hosted multi-nation war games in the Gulf of Oman/Arabian Sea, Iran decided to stage massive military manoeuvres of its own. Not to be outdone, Iran showcased its exercises as the biggest air defence war game in the Islamic Republic's history.

The current deployment of the Iranian Navy is not discussed in detail in this paper.

It would be appropriate to take a snapshot of Middle East oil production before and after the Arab Spring. Pluses and minuses would be apparent for the oil producers, but in the main it is assumed total oil supply was slightly reduced at the onset of the Arab Spring. It is theoretically possible that Kuwait, Saudi Arabia, and the UAE will now have increased oil production to compensate for

Libya, Iraq, Syria, and perhaps remote Sudan, to return global oil supply to *status quo*.

Some valuable research work has been undertaken by the Oxford Institute for Energy Studies. A recent paper closely examines the implications of the Arab uprisings for oil and gas markets.[25]

Syrian Civil War

The civil war in Syria has reached genocidal proportions. It has disrupted, if not shut down, oil flow through the pipelines transiting the country. Some oil terminals, pumping stations, fuel depots and service stations are damaged or beyond immediate repair. Very little petrol is available at bowsers. Rebels have captured two major oilfields in the south-eastern province of Deir al-Zour. Syria has two major refineries: at Homs and Banias. The Homs refinery and its feeder pipelines have been attacked at least three times by "terrorist' groups, and allegedly by the Syrian Army. Production is severely curtailed. Total chaos prevails.

Several proposals to build new oil refineries in Syria have been recently mooted by Iran and Venezuela (Agreement signed in Tehran); by Noor, a Kuwait company, and by the China National Petroleum Corporation (CNPC). The Chinese corporation commenced construction near Abu Khashab in 2011, but work is delayed due to the civil war.

Conjecture as to why China and Russia continue to protect Syria from Western intervention is open to question.

Russia considers Syria to be one of its last Middle East footholds where Syria hosts a repair and maintenance facility for the Russian Navy on its coast. Russia has remained silent on the issue of a recent oil-for-oil products swap deal which implies economic support for the Assad regime. There is also the

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[25] Hakim Darbouche and Bassam Fattouh, paper entitled "The Implications of the Arab Uprisings for Oil and Gas Markets", Oxford Institute for Energy Studies, University of Oxford, September 2011, ISBN 978-1-907555 – 33 - 6

prospect of new oil and gas field discoveries. Again, Russia has supplied copious quantities of light arms, heavy weapons, missiles, and munitions to the Syrian government. Arms contracts with Russia are worth at least $4 billion. Iran, China and North Korea have also supplied missiles.

China, Iran and Russia have substantial economic interests in Syria.

Syria has at least six main classes of ballistic missile for which there are an estimated eleven variants. These include three variants of the Scud missile: (1) Scud-B (Russia: R17 “Elbrus”/NATO: SS-1-C) from North Korea, (2) Scud-C (SS-1-D), and (3) Scud-D (Russia: R-17VTO/NATO: SS-1-E/DPRK Hwasong 7. The Scud-D has a guidance system and a range of 700 km. Additionally Syria has two Chinese made road-mobile SRBMs: the Dong Feng-15 and the Dong Feng-11. The DF-15 has a range of 600 to 800 km and is Syria’s most strategically important ballistic missile. Other missiles in the arsenal include the Fateh-110 (Iran), SS-21 (North Korea), and a small number of Russian anti-ship cruise missiles (ASCM) designed for coastal defence. All Syria’s ballistic missiles are capable of carrying chemical warheads.

The precise attributes of these missile classes are beyond the scope of this paper.

It is impossible to exactly calculate the classes, variants and numbers of missiles possessed by Syria. Unknown to the West, the Assad regime may have concealed secret inventories hidden away in remote silos, tunnels, and caves.

In addition to missile systems, Syria is thought to have substantial inventories of 220mm and 302mm rocket systems. Syria has supplied 25 per cent of its rocket arsenal to Hezbollah in southern Lebanon. Hezbollah has now emerged as a non-state rocket superpower.[26]

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[26] Eisenstadt, Michael, “The Middle East Missile Environment”, Defense Dossier, American Foreign policy Council (AFPC), Issue 6, January 2013, subscribed to and downloaded from AFPC

During the civil war, at least twenty launches of ballistic missiles have been detected by NATO radar installations in nearby Turkey.

Syria has one of the most active rocket and missile programs in the Middle East today.

Israel

In January 2013, Israeli Prime Minister Binyamin Netenyahu warned his government for the dangers of Syria's growing missile inventories, that Syria is rapidly fragmenting, and its political system is falling apart. In response, in the same month, the Israeli Air Force launched a pre-emptive air strike on a military site within Syria. The target was a truck convey believed to contain a shipment of Russian-made SA-17 anti-aircraft missiles. Collateral damage was also sustained to a military research centre located at Jamraya close to the Turkish border.[27] Iran has vowed revenge for this attack.

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Views expressed in this article are not necessarily those of SAGE International

[27] Hubbard, Ben, "Israeli air strike inside Syria targets missiles", World, page 37, Australian Financial Review, Friday 1 February 2013