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## SHIELDING THE STATE: UAE MILITARY EFFORTS TO COUNTER IRAN'S DISRUPTIVE OPTIONS IN THE GULF

VICTOR GERVAIS

# SHIELDING THE STATE: UAE MILITARY EFFORTS TO COUNTER IRAN'S DISRUPTIVE OPTIONS IN THE GULF

Cette étude analyse la stratégie de défense des Émirats Arabes Unis face aux évolutions du contexte stratégique du Golfe, marqué par un regain de tensions autour du détroit d'Hormuz et du dossier nucléaire iranien. S'appuyant sur une pratique expérimentée des rouages régionaux et par une longue observation de terrain, Victor Gervais présente une analyse détaillée de l'effort d'adaptation de l'outil militaire émirati afin de protéger le pays en cas de conflit avec l'Iran.

L'auteur s'emploie d'abord à restituer la menace iranienne dans une perspective stratégique, soulignant les défis que posent l'évolution de la doctrine militaire iranienne, notamment dans le secteur naval, et le développement de capacités de « déni d'accès ». Il détaille ensuite trois scénarios – au centre des préoccupations des élites militaires et politiques émiraties – susceptibles d'opposer l'Iran et les Émirats Arabes Unis et qui mettent en perspective les objectifs relatifs à la sécurisation des voies de communication maritime, la protection des infrastructures critiques et le contrôle des populations.

Victor Gervais décrit enfin les motivations émiraties à la constitution d'alliances différenciées et de partenariats stratégiques avec des puissances extrarégionales, en premier lieu avec la France, important partenaire des Émirats Arabes Unis. En définitive, cette étude constitue un apport important et novateur à notre compréhension du contexte stratégique du Golfe, permettant de développer un cadre de réflexion adapté aux réalités contemporaines en vue d'accompagner au mieux la prise de décision.

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## ■ INTRODUCTION

Tensions between the UAE and Iran have suddenly escalated last April, after Iranian president Mahmoud Ahmadinejad visited the island of Abu Musa, a small island located at the entrance of the Strait of Hormuz. The decades-long territorial dispute over the islands of Abu Musa and the Greater and Lesser Tunbs has been a contentious issue between the two countries since 1971, when the Shah's military forces occupied the islands on the eve of the formation of the UAE in 1971.<sup>1</sup> The UAE condemned Ahmadinejad's visit as "provocative" and recalled its ambassador to Iran after what it described as "a flagrant violation" of its territorial sovereignty<sup>2</sup>.

This latest episode of the Iran-UAE conflict over the three islands, however, appears less about territorial dispute and more an attempt by the Iranian regime to reassert its power and influence over the Strait of Hormuz. Indeed, in recent months, Iran has redoubled its threat to block the Strait should the West impose tougher sanctions on its oil industry as part of a standoff over Tehran's controversial nuclear program. Against the background of rising tensions between Iran and the International community, Tehran has also been sending clear messages that it considers the Strait of Hormuz a potential site for launching attacks against oil shipments in the event of U.S. or Israeli military strikes against its nuclear sites, as showed by recent rounds of military exercises in the Strait of Hormuz<sup>3</sup>.

Located between Oman and Iran, the Strait of Hormuz is a strategic maritime chokepoint through which about ninety percent of oil exports from the Gulf pass – the equivalent of 14 tankers every day carrying 17 million of barrels of crude. This represents more than 35 percent of all seaborne traded oil, and almost 20 percent of oil traded worldwide. At its narrowest point, the Strait is 34 km wide, but the width of the shipping lane in either direction is only 3 km, separated by a 3-km buffer zone. As of today, shipping has no absolute alternative to the Strait<sup>4</sup>. Any attempt by Tehran to close of the Strait of Hormuz would therefore trigger an international crisis and cause oil prices to skyrocket.

About 56 km (see map 1) from Iran across the Strait of Hormuz, the UAE – as other GCC states – also feared that an attempt by Iran to close the Strait, occurring in the midst of a rapidly escalating confrontation, would not be done in isolation to other actions. Indeed, if Iran decides to close the Strait of Hormuz, as it has repeatedly threatened over the past few months, many analysts agree it would likely do it along with an all-out attack to hit many naval ships, air bases and other strategic sites along the western coastline of the Gulf<sup>5</sup>. Being host to many multinational companies and some Western military assets (French and U.S. in particular), Abu Dhabi in particular has expressed growing concerned that a possible war against Iran's nuclear facilities could swirl out of control and drag the UAE federation in among others.

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<sup>1</sup> ERDBRINK, Thomas, "A Tiny Island Is Where Iran Makes a Stand", New York Times, April 30 2012; ALHOMAYED, Tariq, "Ahmadinejad is in Abu Musa, while we.....", Al Arabiyya News, April 17 2012; ADELKHAH, Nima, "Low Level Boundary Dispute Intensifies as Iran and the UAE Contest Control of Strategic Gulf Islands", Terrorism Monitor, Volume 10, Issue 9, May 4, 2012.

<sup>2</sup> Emirates News Agency, April 13; The National (Abu Dhabi), April 13. In response to a Gulf Cooperation Council (GCC) statement offering full support to the UAE in the event of foreign "aggression" in the Gulf, General Ahmad Reza Pourdastan, the commander of Iranian ground forces, announced on April 19 that Iran "will not allow any country to carry out an invasion. If these disturbances are not solved through diplomacy, the military forces are ready to show the power of Iran to the offender", Al Arabiya, April 20, quoted by Nima abdelkhah, *op. cit.*

<sup>3</sup>

<sup>4</sup> As we shall see below, the UAE has inaugurated in June 2012 the Abu Dhabi-Fujairah pipeline with a claimed capacity of 1.5 million barrels per day (the UAE exports 2.4 mbd).

<sup>5</sup> KAHWAJI, Riad, "Possibility, Scenario of an Iranian Preemptive Attack to Control the Gulf Waters", Institute for Near East & Gulf Military Analysis (Inegma), January 2012.

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While some GCC States have opted to deal with the threat of war through diplomatic actions, some others – among them the United Arab Emirates - have decided not to downplay its possibilities and prepare for military confrontation by investing heavily in the modernization and upgrading of their forces. As such, not only the Gulf remains both a critical and a highly unstable region, which has already witnessed three major conventional wars in the past three decades, but there is also a growing concern among Gulf leaders about Western powers' ability to impose a regional order that could secure those countries' core interests, and therefore that current tensions should not be overlooked and ought to be anticipated and well prepared for<sup>6</sup>.



Map 1: The Strait of Hormuz<sup>7</sup>

In this paper, I explore recent attempts by the United Arab Emirates to develop a range of military capabilities that together could provide deterrence in the event of a crisis with Iran. I first assess Iran's military capabilities and disruptive military options in the Gulf. I then identify three possible scenarios that could lead to a military conflict between Iran and the UAE and have received significant attention by military planners and analysts in the region. I also provide an overall assessment of UAE efforts to counter those identified threats. As such, this paper aims at exploring key trends in the UAE armed forces development as part of IRSEM's Post doctoral research program on Armed forces in the contemporary Arab States.

<sup>6</sup> See KAHWAJI, Riad, "UAE Defense Spending Justified by Objectives and Nature of Threats", Inegma, September 2009

<sup>7</sup> Credit: University of Texas Libraries. [http://www.lib.utexas.edu/maps/middle\\_east.html](http://www.lib.utexas.edu/maps/middle_east.html)

## ■ IRAN'S MILITARY CAPABILITIES: KEY CONSIDERATIONS

Iranian conventional forces comprised in 2011 a total of 450,000 men. This figure includes about 350,000 men in the army<sup>8</sup>, 18,000 in the Navy, 35,000 in the air force (including 12,000 Air Defense), and 40,000 paramilitary. According to military experts, Iran's conventional army, navy and air force are severely limited in capability<sup>9</sup>. Despite an impressive number of personnel, much of the equipment that survived the 1980-1988 war with Iraq has become obsolete. Moreover, the scale of Iran's rearmament programme - launched during the final phase of the conflict (When it lost 40 to 60 per cent of its armor and artillery) - has apparently often been exaggerated<sup>10</sup>. Furthermore, being portrayed as leftovers from the time of the Shah, Iran's armed forces have always been looked with suspicion by the Islamic regime. They are poorly trained and equipped, compared to the Iranian Revolutionary Guards Corps (IRGC), which grew out of the Iranian Revolution in 1979 and were established both to protect the new regime and to act as a counter to the regular armed forces. With about 125,000 men, it has become a major political, military and economic force in Iran. Besides, loyalty of the Iranian armed forces is still today considered to be a serious issue by the regime as it has been reported that a good number of conventional elements had shown supported to the uprisings that took place in 2009<sup>11</sup>.

Historically, the majority of Iran's conventional forces, including infantry, mechanized infantry and armored elements, have been deployed close to the borders with Iraq and Turkey because of the perceived threat from those areas. The Iranian forces also maintain a vigilant posture along the shores of the Persian Gulf, the strategic Straits of Hormuz and the Gulf of Oman. However, most of these conventional elements appear unfit to carry out the type of operations that would be needed in any attempt to stop oil shipments in the Strait and target western and GCC military and strategic assets.

As such, Iran's land force operational strength is severely limited. The largely-conscript army is regarded as having poor operational readiness and is seen as largely composed of slow-moving forces geared to static defense. Although large enough to represent a serious threat – Iran's conventional seems to possess 1500+ main battle tanks and about 1000-1,360 armored infantry fighting vehicles and armored personnel carriers, as well as small amounts of self-propelled artillery weapons, most of these are ageing, of low to moderate capability, and lack modernization, and would therefore be of little use in any attempt to close the strait of Hormuz<sup>12</sup>. The one weapon Iran's army could bring to the fight is Iran's updated and modified man-portable surface to air and anti-ship missiles which could threaten low flying aircraft and littoral warships, as we shall see later<sup>13</sup>. Besides, regular major military exercises have been held in recent years to enhance combat readiness and joint operations capabilities. Elements of the 92<sup>nd</sup> Armored Division, equipped with T-72 tanks, have figured significantly in such exercises. There has also been an emphasis on developing Special Forces units with a rapid reaction capability<sup>14</sup>.

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<sup>8</sup> Including 220,000 conscript.

<sup>9</sup> CORDESMAN, Anthony, WILNER, Alexander, "U.S. and Iranian Strategic Competition: The Gulf Military Balance", Center for Strategic & International Studies, November 2, 2011, 139 p.; "Jane's Sentinel Country Risk Assessment – Iran", 2012, 327 p.

<sup>10</sup> "Jane's Sentinel Country Risk Assessment – Iran", *op. cit.*, p. 267.

<sup>11</sup> RIENZI, Michael V., "Iran's response to a U.S. Attack", *Small Wars Journal*, February 17, 2012

<sup>12</sup> CORDESMAN, Anthony, WILNER, Alexander, "U.S. and Iranian Strategic Competition: The Gulf Military Balance", Center for Strategic & International Studies, November 2, 2011, p. 27-28; CORDESMAN, Anthony, TOUKAN, Abdullah, WILNER, Alexander, "Iran's Strategic Competition with the U.S. and Arab States-Conventional, Asymmetric and Missile Capabilities", Center for Strategic & International Studies, July 28, 2011, 84 p.

<sup>13</sup> RIENZI, *op. cit.*

<sup>14</sup> "Jane's Sentinel Country Risk Assessment – Iran", *op. cit.*, p. 261

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In spite of recent efforts, the air force also has many qualitative weaknesses. As is the case with most aspects of Iranian military forces, estimates of capability and strength differ by source, but all appear to agree that the air force in most respects is Iran's weakest military element. It appears weak and ill-equipped, according to regional standards and remains vulnerable in any form of mission<sup>15</sup>. Iran's air force also faces serious problems in terms of sustainment, command and control, and training. While they have 312 combat aircraft<sup>16</sup>, 40% to 60% are thought to have limited to no mission capability. Many of their planes are outdated and grounded due to sanctions, and it seems far from clear that its current rate of modernization can offset the increasing age of its Western-supplied aircraft as well as qualitative improvements in U.S. and southern Gulf forces (GCC states), especially the UAE and Royal Saudi Air Forces. At the 2009 Manama Dialogue in Bahrain, General David Petraeus, the Commander of the U.S. Central Command, confirmed this element, mentioning that the UAEAF&AD is likely to overpower Iran's Air Force in the event of a crisis with Iran: "The Emirati Air Force itself could take out the entire Iranian Air Force, I believe, given that it's got... somewhere around 70 Block 60 F-16 fighters, which are better than the U.S. F-16 fighters<sup>17</sup>." However, Iran's air forces appear to be less vulnerable near sensor coverage and SAM coverage. Iran deploys increasingly sophisticated ground-based air defenses and will seemingly continue to field sufficient air defense artillery and shoulder-launched SAMs to keep attackers at medium to high altitudes, thereby "denying them the capacity to exploit Iran's serious vulnerability to low level intrusions<sup>18</sup>." Having said that, the overall weakness of the Iranian Air Force, as well as the navy's air wing<sup>19</sup>, represents a major disadvantage in any likely conflict in the Gulf since Iran's cannot count or depend on the air force for proper air cover and support.

As for the Iranian Navy, it is reported to have some 18,000 men, including a two brigade marine force of some 2,600 men and a 2,000-man naval aviation force. It has bases along the coast of the Gulf at Bandar-e Abbas, Bushehr, Kharg Island, Bander-e Anzelli, Chah Bahar, Bander-e Mahshahar, and Bander-e Khomeini. When combined with the IRGC naval branch (IRGC/N), this brought the total maritime strength of Iran to 38,000 men<sup>20</sup>. The navy is perhaps Iran's most strategically important military service. Consequently, Iran has given to the modernization of its naval force high priority. While the bulk of the Iranian Navy's main fleet remains somewhat old and outdated, its purchases from Russia and China have breathe new life into it. In the mid-1990s, the overall naval defense and projection capabilities was significantly enhanced, most notably with the acquisition of three Russian Kilo-class diesel-electric submarines<sup>21</sup>. Iran has also recently constructed a MOWJ class light frigate, although described as a destroyer by the Iranian state media<sup>22</sup>. They have also built more missile patrol boats and retrofitted older ships with upgraded weapon systems including their more advanced missiles. However, according to some military analysts, Iran's regular Navy (IRIN) still "lacks modern surface vessel combat capability and depends largely on 4 obsolete frigates and three

<sup>15</sup> CORDESMAN, TOUKAN, WILNER, *op. cit.*, p. 26. Iran's most advanced fighters consist of a small number of export versions of the SU-24 and Mig-29, whose avionics lag far behind their Russian counterparts. These limits to Iran's air force are particularly important as Iran has air bases that are only a few minutes flight time from critical targets in the Gulf and in the coastal areas of the southern Gulf states. Iran has sought more modern fighters from Russia, but past reports of sales have never materialized. As a result, Iran has sought to develop its own fighters, the most notable of which are the Saeqeh and the Azarakhsh, both of which are based on the Northrop F-5. *Ibid.*

<sup>16</sup> According to Jane's, Iran continues to operate "U.S.-supplied F-4 Phantom II and F-5 Tiger II, and Soviet-supplied Su-24 'Fencer' strike/attack aircraft as well as some Su-25K 'Frogfoot' and Mirage F1 aircraft obtained from Iraq. In the specialist air defence role, it employs U.S.-supplied F-14 Tomcats, Russian/Iraqi-supplied MiG-29 'Fulcrums' and Chinese-supplied F-7N fighters". "Jane's Sentinel Country Risk Assessment – Iran", *op. cit.*, p. 211.

<sup>17</sup> ROGIN, Josh, "Petraeus: The UAE's Air Force Could Take Out Iran's", *Foreign Policy*, December 17, 2009.

<sup>18</sup> Jane's Sentinel Country Risk Assessment – Iran", *op. cit.*, p. 212. In 2009 Iran established a separate Air Defense Force under a single command, with a headquarters element and regional air defense sectors, specifically to improve the country's air defense capabilities and enhance the state of readiness of deployed units. Iranian media reported that Ayatollah Ali Khamenei had ordered that the new service be established separately from the air force to deal with any threat to the country's air space. According to a 2010 U.S. Defense Intelligence Agency (DIA) report, Iran, however, was thought unlikely to seek to develop a fully integrated nationwide air defense system - instead, it seemed to prefer a point defense strategy, with its strongest defenses located around key strategic centres. With respect to land-based assets, known deployments include three S-200 Angara (SA-5 'Gammon') sites covering the northern border and the area around Tehran. A fourth covers the Esfahan region, a site at Bandar Abbas covers the Straits of Hormuz and a site at Busher covers the northern half of the Persian Gulf. "Jane's Sentinel Country Risk Assessment – Iran", *op. cit.*, p. 212

<sup>19</sup> The Iranian Navy does not have fixed-wing combat aircraft, and the P-3 and C-130 reconnaissance aircraft were purchased in the 1970s. Many of the naval air assets are believed to suffer from parts shortages, worn avionics, and ineffective maintenance. CORDESMAN, WILNER, *op. cit.*

<sup>20</sup> "Chapter Five: Middle East and North Africa", *The Military Balance, International Institutes for Strategic Studies*, 110: 1, 2010, p. 235-282; CORDESMAN, Anthony, AL RODHAN, Khalid R., *Gulf Military Forces in an Era of Asymmetric Warfare*, Praeger Security International, London, 2007, p. 270.

<sup>21</sup> Jane's Sentinel Country Risk Assessment – Iran", *op. cit.*, p. 191.

<sup>22</sup> "Destroyer production line inaugurated in Iran", *Iranian Students' News Agency (ISNA)*, February 23, 2007. "Iran's Naval Forces: From Guerilla Warfare to a Modern Naval Strategy", U.S. Office of Naval Intelligence, Fall 2009, p. 24.

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obsolete corvettes<sup>23</sup>." Given the small size of its surface fleet, furthermore, it seems highly unlikely that Iran could, in the traditional manner, assert command of the sea in and around the Strait. Indeed, the Iranian Navy's equipment and its mission doctrine would not suggest any real capacity to project naval power.

However, when discussing Iran's disruptive military options in the Gulf and the Strait of Hormuz most of the focus is rather on the IRGC naval forces than on Iran's conventional naval elements. Indeed, in the past few years, the IRGC have become more and more active in the Gulf. Its naval branch is reported to have some 20,000 men, including about 5,000 marines. While the Navy operates with classical surface vessels and is in charge of operating the kilo class submarines, the Revolutionary Guards rely on speed boats, missile boats and midget submarines of diverse provenance – some of which can carry out torpedo attacks as well as mine-laying operations or transporting combat divers<sup>24</sup>. IRGC/N capabilities also include large numbers of anti-ship missiles on various types of launch platforms, small fast-attack craft, heavily armed with rockets or anti-ship missiles, fast mine-laying platforms, small, mobile, hard-to-detect platforms, such as semi-submersibles and unmanned aerial vehicles, with better communications and coordination between fighting units, more timely intelligence and effective counterintelligence/deception, and enhanced ability to disrupt the enemies command, control, communications, and intelligence capability<sup>25</sup>.

In particular, the IRGC/N has been the center of much Iran's effort to develop warfare tactics to counter and deter attacks. This has involved a layered defensive system designed to deny access to enemy warships to the Strait of Hormuz and the Persian Gulf, and hence being a vital deterrent to a potential attack<sup>26</sup>. Accordingly, and in line with Iran's naval doctrine<sup>27</sup>, the Islamic Republic of Iran Navy (IRIN) and the IRGC naval forces have increasingly diverged in their operational roles in recent years. Whereas IRIN has moved toward the long-term development of "blue water" capabilities that could give Iran "sea control" – albeit unlikely in the short to medium term –, the IRGC naval forces have focused on developing Iran's near-term sea-denial capabilities – that is, allow Iran to use regional waterways while denying access to its enemies<sup>28</sup>. In this respect, the thinking appears to be that the IRIN's warships which have longer endurance at sea would carry out reconnaissance in the Gulf of Oman, pushing out Iran's maritime defenses into that region, while the smaller boats of the IRGCN would carry out operations in the Strait of Hormuz and the Gulf. Key weapons in such an approach would be mines, torpedoes, rockets, and anti-ship missiles, which can be used in a wide-variety of asymmetric battle plans, including low-level wars of attrition<sup>29</sup>, as illustrated in late 2011 and early 2012 by the Velayat-90, a series of military exercises that focused on sea denial and were conducted by the Islamic Republic of Iran Navy and the Iranian Revolutionary Guards Corps Navy<sup>30</sup>. These smaller naval forces have special importance because of their "potential ability to threaten oil and shipping traffic in the Gulf and the Gulf of Oman, raid key offshore facilities, and conduct raids and targets on the Gulf coast<sup>31</sup>."

<sup>23</sup> CORDESMAN, WILNER, *op. cit.*, p.4.

<sup>24</sup> ALBRECHT, Sascha, POSCH, Walter, "Sabre-Ratling in the Persian Gulf: Legal and Military Aspects of the Ideological Confrontation Between Iran and the United States, *German Institute for International and Security Affairs – SWP*, SWP Comments 14, April 2012, p. 4. There are reports that Iran is in the process of adding to its submarine fleet. According to the Fars News agency: "Sources revealed in October 2011 that Iran is building a new semi-heavy submarine equipped with highly advanced weapons; The submarine called "Fateh" weighs 600 tons and is equipped with various types of advanced defense and weapons, including several kinds of torpedoes and sea mines". *Fars News Agency* "Iran to Unveil New Submarine." October 5, 2011, quoted by RIENZL *op. cit.*

<sup>25</sup> CORDESMAN, Anthony, KOCHARLAKOTA, Vivek, SEITZ, Adam, "Iran, the Gulf, and Strategic Competition: Asymmetric Warfare", Center for Strategic and International Studies, August 10, 2010.

<sup>26</sup> "Iran's Naval Forces : From Guerilla Warfare to a Modern Naval Strategy", *op. cit.* p. 6-11 ; Personal interviews, Dubai , May 2012

<sup>27</sup> *Ibid*

<sup>28</sup> ALBRECHT, Sascha, POSCH, Walter, *op. cit.*, p. 4

<sup>29</sup> CORDESMAN, Anthony, "Iran, Oil, and the Strait of Hormuz", Center for Strategic and International Studies, March 26, 2007, p. 4.

<sup>30</sup> The 10-day military exercises, dubbed "Velayat-90", started on December 24 2011 and covered an area of 2 million square kilometers stretching from the East of the Strait of Hormuz and the Gulf of Oman. The main phase of the maneuver however was the practice of closing the Strait of Hormuz in case the interests and the sovereignty of the Islamic Republic of Iran are at stake. "A Display of Iran's Military Might", *IRIB World Service*, January 10 2012.

<sup>31</sup> CORDESMAN, Anthony, "Iran, Oil, and the Strait of Hormuz", p. 6.

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This saber-rattling has resulted in acute tension in the Gulf. While Iranian-American antagonism is above all ideologically rooted, Gulf States' competition with Tehran, which sees itself as the dominant power in the Gulf region, is strategic in essence. But long-term balance of power considerations in the GCC states appear increasingly determined by more short term threat assessments as some of these states fear potential repercussions of a military strike on Tehran's nuclear sites. The following sections of this report identify and analyze Iran's key disruptive military options in the Gulf and efforts undertaken by GCC states in general and the UAE in particular to protect their state's assets and infrastructures. This is not to suggest, however, the imminence of these scenarios, but to explore key long-term military trends that affect the strategic environment of the Gulf region<sup>32</sup>.

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<sup>32</sup> As most analysts agree, we believe the Iranian regime is not suicidal but survivalist; that is to say that disruptive military options are most likely to be attempted as an absolutely final resort for Iran, where perhaps only preemptive strikes on its nuclear facilities and vital infrastructures or designed for regime-change could lead to this course of action. The question therefore is how Iran is likely to react if attacked?

## ■ CLOSING THE STRAIT? COUNTERING IRAN'S SEA DENIAL CAPABILITIES

Prompted by the imposition of new multilateral sanctions, some officials of the Islamic Republic of Iran have recently renewed threats to close or exercise control over the Strait of Hormuz. On December 27 2011, Iranian vice president Mohammad Reza Rahimi declared: "If they impose sanctions on Iran's oil exports, then even one drop of oil cannot flow from the Strait of Hormuz<sup>33</sup>". Various Iranian naval and other commanders restated the threat during the following days. On December 28, for instance, Navy Commander Admiral Habibollah Sayari stated that "Shutting the strait for Iran's armed forces is really easy — or as we say [in Iran] easier than drinking a glass of water<sup>34</sup>." On the same day the Iranian Revolutionary Guards commander Hossein Salami declared: "Any threat will be responded by threat... We will not relinquish our strategic moves if Iran's vital interests are undermined by any means. Americans are not in a position whether to allow Iran to close off the Strait of Hormuz.<sup>35</sup>" This echoed Iran's Armed Forces commander Major General Ataollah Salehi's comment on January 3 2012 : "We advise, recommend, and warn them that this aircraft carrier (should) not return to its previous place in the Persian Gulf, because we are not used to repeating a warning and give a warning only once<sup>36</sup>."



**Map 2: The Strait of Hormuz and the Gulf beyond it, as seen from the International Space Station in 2003<sup>37</sup>**

In the past, Iranian leaders have made similar threats to shut down vital oil lanes through the Gulf in case of attacks against them. For instance, on June 29 2008, the then IRGC Army commander, Major General Ali Mohammed Jafari, mentioned that the Iranian government might close the Persian Gulf if the country were attacked by the United States or Israel<sup>38</sup>. This statement followed other more ambiguous threats expressed by Iran's military and political leaders. In a speech on August 15, 2007, the former Commander of the IRGC, Major General Yahya Ramin Safavi said: "Our surface-to-sea missile systems can now reach the breadth and length of the Persian Gulf and Oman Sea. No boat or vessel can pass in the Persian Gulf without being in range of our surface-to-sea missiles. Iranian Missiles fully cover Persian Gulf, Sea of Oman<sup>39</sup>." Also, in June 2004 Iranian Supreme Leader Ali Khamenei linked the pressure Iran was facing to an apparent threat to retaliate against energy exports: "If the Americans make a wrong move towards Iran,

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<sup>33</sup> SANGER, *David E.*, LOWRE, Annie, "Iran Threatens to Block Oil Shipments, as U.S. Prepares Sanctions", New York Times, December 27, 2012.

<sup>34</sup> "U.S. 5TH FLEET WON'T ALLOW DISRUPTION IN HORMUZ; IRAN SAYS 'REALLY EASY' TO CLOSE ROUTE", AL ARABIYA, DECEMBER 28 2011.

<sup>35</sup> "IRAN WARNS U.S. OVER STRAIT OF HORMUZ", REUTERS, DECEMBER 29 2011.

<sup>36</sup> "Iran advises U.S. carrier not to return to Persian Gulf", Tehran Times, January 3 2012.

<sup>37</sup> Credit: NASA, via Associated Press.

<sup>38</sup> DARAGAH, Borzou, "Iran threatens to block Persian Gulf oil lanes, A military official is quoted as saying that Tehran would try to damage Western economies if attacked", Los Angeles Times, June 29, 2008.

<sup>39</sup> Fars News Agency, August 17, 2007.

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the shipment of energy will definitely face danger, and the Americans would not be able to protect energy supply in the region.<sup>40</sup>”

In reality, however, the experience of anti shipping attacks in the 1980-1988 Iran-Iraq War suggests that no combination of attacks by aircraft, missiles, and naval special-warfare forces could close the Gulf to all shipping for a sustained period. It is therefore highly improbable that Iran could close the Gulf for more than a few days to few weeks, even if it was willing to sacrifice all of its military assets and many of its own oil facilities and revenues. In practice, rather than attempting to mount a blockade, many believe that Iran is likely to pursue a denial strategy based on low-level attacks on Gulf shipping and facilities aiming at rising the cost, or even discourage, a military attacks on its nuclear sites<sup>41</sup>. As such, the Iranian anti-access can rely on various types of increasingly diffused yet constantly improving technologies. Among the options available to Iranian naval forces to threaten enemy warships in a conflict situation are the mining of waters in the Gulf and the deployment of coastal cruise missiles.

The laying of mines is perhaps the most effective method of disruption available to Iran, providing a highly cost-effective weapon that can inflict considerable loss to adversarial forces while avoiding direct engagements. Compared to other weapons, mines are relatively easy to use and fairly simple to deploy. Open source information indicates that Iran possesses a significant mines inventory. American intelligence estimates the mine arsenal of Iran to number around two thousand mines, although other sources speculate the number could be as high as five thousand mines<sup>42</sup>. In fact, Iran is one of nearly two dozen nations that can manufacture mines domestically. It also maintains a substantial collection of advanced, bottom and rising mines acquired from the Russians, Chinese, and North Koreans<sup>43</sup>.

Iran's capability to successfully and rapidly deploy mines is the wild card in such a scenario. Indeed, its ability to utilize conventional and improvised mine-laying platforms is a factor perhaps more important than the importance and the quality of its mine arsenal. Although possessing only a limited number of specialized mine-laying surface vessels, Iran maintains the threat of mine-laying through its kilo-class submarines, which possess six torpedo tubes that can lay 24 mines per sortie. According to military experts, Iran is also believed to operate seven Ghadir-class and one Nahang-class midget submarines, “all of which are indigenously built and known to have two torpedo tubes – which by calculation can probably lay eight to sixteen mines per sortie”. Also, “the Nahang-class submarine is wider and has a greater number of tonnages than the Ghadir-class leading to speculation that the vessel carries a greater number of mines or larger mines (rising bottom or simpler bottom mines) or is possibly a mother-ship for swimmer delivery vehicles. The Nahan-class has two torpedo tubes<sup>44</sup>.”

Crucially, mine-laying operations can also be conducted by using other type of vessels, including civilian craft, barges, or landing craft, and they can be repeated as often as necessary to frustrate the enemy's countermining efforts. Small boats are agile, difficult to detect, and inexpensive for conducting operations. Furthermore, according to

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<sup>40</sup> SHANKER, Thom, “Rice Dismisses Iranian Cleric's Warning on Oil”, *The New York Times*, June 5 2006.

<sup>41</sup> “Strait of Hormuz: Iran's Disruptive Military Options”, *IJSS Strategic Comments*, vol. 18, February 2012. See also DOLAN, Daniel, “Rethinking the Strait of Hormuz: A Recommended Course of Action that Establishes Operational Advantages”, *U.S. Naval War College*, October 2010, 19 p.. Personal Interview, Dubai, May 2012.

<sup>42</sup> KHAN, Sabahat, “Iranian Mining of the Strait of Hormuz: Plausibility and Key Considerations”, *Inegma Special Report*, no.4, January 2010, p. 1; see also MILLS, Rodney A., “Iran and the Strait of Hormuz: Saber Rattling or Global Energy Nightmare?”, *U.S. Naval War College*, October 2008, 20 p.

<sup>43</sup> According to Jane's Sentinel, The Iranian Navy is understood to have large quantities of 'smart' mines, perhaps 3,000 of them, which are non-magnetic and other Chinese types - such as the EM-52 rocket-propelled mine – that lie on the sea-bed until activated, whereupon they rocket to the target on the surface. Such mines are thought to be very difficult to detect and accordingly represent a potent threat. “Jane's Sentinel Country Risk Assessment – Iran”, *op. cit.*, p. 189.

<sup>44</sup> *Ibid.*

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analysts, their ability to deploy around between two and six mines per sortie (depending on size) means they will be at the heart of any mass mine-laying effort undertaken by the Iranians<sup>45</sup>. As such, the laying of several hundred mines in a few hours could have significant effects<sup>46</sup> and could, at least temporarily, disrupt shipping in the Gulf. Moreover, as noted by Walter Posch and Sascha Albrecht, if Tehran were to decide to mine the Strait, it would have advantages of the law of the sea and geography on its side. Indeed, as they pointed out: "Iranian submarines and surface vessels operating out of Bandar Abbas north of the Strait of Hormuz can move freely within their own territorial waters in close proximity to the Strait of Hormuz and along the entire coast, while foreign warships enjoy only the right of peaceful passage and are barred by international law from movements that would allow tailing or observation<sup>47</sup>."

Iranian capabilities in laying any type of mine, bottom, moored or otherwise, remain however largely untested and could suffer from serious lack of expertise. According to Sabahat Khan, analyst at the Dubai-based Institute for Near East and Gulf military analysis, key factors that will determine the ability of Iran to successfully mine the Strait include: the safety of supply depots and missile launch sites, the denial of air space to U.S. and allied nation air forces, the ability of the Iranians to conduct high-intensity covert operations, and the extent to which mine-laying platforms can evade detection and defend against underwater and airborne attacks<sup>48</sup>. The Iranian will also need to achieve great surprise in order to transform the closure operations into a strategic victory. The first hours of any Iranian mine-laying operations would therefore be the most critical and should be stopped at early stages. In any case, the important number of mines Iran possesses and its ability to conduct mine laying operations with both conventional and improvised platforms signifies that Iran possesses a potential to credible capability to rapidly mine the Strait of Hormuz and enforce a blockade in one of the world's most critical maritime route with relative ease.

If Iran were to suddenly mine the Strait it would have to secure the mined waters and prevent any attempt to clear them and "reopen" the Strait. Mine laying operations would therefore need to be combined with other asymmetric tactics that might consist of ambushing merchant convoys and warships transiting known shipping corridors. Although open source data is sparse and sometimes conflicting, it is likely that Iran has accumulated several hundreds of anti-ship missiles. In this respect, Iran could use their missiles to severely damage commercial and military ships passing to the Strait. On land, according to Posch and Albrecht, "the IRGC command mobile anti-ship and medium/long-range missile batteries. As well as being able of attacking any ship passing the Strait of Hormuz, the range of these missiles also extends to the cities and U.S. bases of the Southern Gulf coast<sup>49</sup>." These missiles include the Chinese made *Silkworm* CSS-C2 (HY-1) and the *Seersucker* CSS-C3 (HY-2). During the 1990s, Iran also acquired the Chinese C-801 (CSS-N-4 *Sardine*) and the longer range C-802<sup>50</sup> (CSS-C8 *Saccade*) to its arsenal. With an estimated range of 200km, these have been deployed on ships, and have been vehicle-mounted for coastal defense – including on some of the Islands off the Iranian coast<sup>51</sup>.

In February 2011, the Commander of the Islamic Revolutionary Guards Corps Major General Mohammad Ali Jafari unveiled the *Khalij Fars* (Persian Gulf) anti-ship ballistic missile, which is based on the Fateh-110 missile, and was

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<sup>45</sup> On the contrary, even though air assets could be used to drop mines, it is unlikely that Iran would depend on aerial platforms for mine-laying effort in a significant way. See KHAN, *op. cit.*, p. 5.

<sup>46</sup> Although estimates from different authors vary, It is believed that mine laying platforms would have to lay between 300 and 2,000 mines to effectively "block" the Strait. *Ibid*, also see RIENZI, *op. cit.*

<sup>47</sup> ALBRECHT, POSCH, *op. cit.*, p. 4-5.

<sup>48</sup> KHAN *op. cit.*, p.8

<sup>49</sup> *Ibid*, p.4

<sup>50</sup> Iran ordered 150 C-802 from China in 1991. Shipping eventually stopped in 1996 under U.S. pressure with only 60 units delivered. In spite of the suspension of deliveries, Iran was able to develop its own version of this missile, called *Noor*, possibly introducing further developments. DE SOUSA, Luis, "Tactics and Strategy at the Strait of Hormuz. Part II : Iran's Tactical Options Around the Strait of Hormuz", *The Oil Drum*, March 5, 2012.

<sup>51</sup> These missiles while having a shorter range than the *Seersucker*, possess greater accuracy, stealthier due to their lower altitude and have a much faster setup time. RIENZI, *op. cit.*

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first tested during the Great Prophet 3 naval war games in 2008<sup>52</sup>. According to the IISS, Iran has also acquired at least three short-range missile systems from China: the *Kowsar* family, which appears to rely both on the Chinese C-701 (*Kowsar 1* and *Kowsar 3*) and the Hongdu JJ/tl (*Kowsar*), while the *Nasr 1* and the *Nasr 2* seem to correspond to the Chinese C-704<sup>53</sup>. Both the *Kosar* and *Nasr* are deployed on several platforms, including fast attack and patrol craft such as the IRGC/N's 25+ *Peykaap* II-class craft, and on trucks for coastal defense. The *Peykaap*, because of their small size would not envisage deployments far away from naval bases, but could use available jetty, such as naval facilities in the Iranian-controlled islands in the Strait of Hormuz (Abu Musa, the Tunbs). Other missiles that could come into play include the *Ghader* anti-ship missile, which Iran claims to have tested during the *Velayet-90* exercises in December 2011, and the *Ra'ad*, an indigenously developed long-range anti-ship missile based on the CSS-C2/3 family using a turbojet rather than a solid-propellant motor to give a maximum range of more than 300km<sup>54</sup>.

This gives us a sense of how Iran, in order to offset its relatively weak conventional forces, has strengthened the asymmetric elements in its force structure in recent years, leading to naval operations relying primarily on a different sea-denial strategy. By using naval mines, land-based and sea-based anti-ship cruise missiles, and small boats, low level attacks could therefore allow to wage a war of intimidation over an extended period of time in an effort to pressure its neighbors and coalition forces in the Gulf<sup>55</sup>.

A campaign to strike tankers in the Strait is however likely to provoke an immediate and aggressive military action by an international alliance to reopen the strategic gateway, first by taking out enemy cruise missile threats to navy ships and second to open mine-free corridors in the Strait. Any Iranian attempt to deny access to the Strait would indeed be countered by a robust U.S.<sup>56</sup> and European naval presence in the region. The U.S. 5<sup>th</sup> Fleet, which is based in Bahrain, maintains in 2012 a presence in the region of two carrier strike groups<sup>57</sup> – 1)The USS Abraham Lincoln with CVW 2 embarked and The USS Enterprise, with CVW 1 embarked, both conducting missions supporting Operation Enduring Freedom, maritime security operations and theater security cooperation efforts, an amphibious squadron<sup>58</sup>; and 2)The USS Makin Island ARG with the 11th MEU embarked – a mine counter measure task force, a submarine task force and a logistic task force. In April 2012, four additional Navy minesweepers were sent to the Gulf region, as well as four additional MH-53 Sea Dragon helicopters, which also have the capability to locate and destroy mines<sup>59</sup>. Each of the ships — the USS Sentry (MCM 3), USS Devastator (MCM 6), USS Pioneer (MCM 9) and USS Warrior (MCM 10) — carries a crew of about 60 men and all are equipped to detect and neutralize mines. The U.S. Coast Guard also has six cutters in Bahrain, and U.S.-led Combined Task forces include assets from France, the UK, and GCC navies. France's naval presence in the Gulf operates under Alindien's command and control<sup>60</sup>. In autumn 2010, following the opening of the French military base in Abu Dhabi the previous year, the commanding staff moved ashore to the Abu Dhabi base and the permanently sea-stationed status of the command ended. Alidien maintains a permanent presence in the region of a command and replenishment ship (*Bâtiment de commandement et de ravitaillement*), two frigates, and naval patrol planes.

<sup>52</sup> "Iran Mass Producing Smart Ballistic Missiles: IRGC Chief", Tehran times, February 8, 2011. The *Kowsar* was likely the weapon used by *Hezbollah* in 2006 to hit the INS Hanit, 18 kilometers off Beirut in 2006. The relevance of this class of short range missile in its numbers; some reports pointed to an arsenal of over 300 units a decade ago, before the *Nasr-1* and the *Kowsar* went into production. See DE SOUSA, Luis, *op. cit.*

<sup>53</sup> IISS Strategic Comments, *op. cit.*

<sup>54</sup> *Ibid.*

<sup>55</sup> Personal Interviews, Paris and Dubai, May 2012.

<sup>56</sup> According to Stratfor, about 50,000 U.S. military personnel are serving in and around the Gulf. Most are aboard ship or in Kuwait. "U.S. Naval Update Map: April 18, 2012", Stratfor, April 18, 2012.

<sup>57</sup> A CSG is centered on an aircraft carrier, which projects U.S. naval and air power and supports a carrier air wing (CVW). The CSG includes significant offensive strike capability. *Ibid.*

<sup>58</sup> An ARG is centered on three amphibious warfare ships, with a Marine Expeditionary Unit (MEU) embarked. An MEU is built around a heavily reinforced and mobile battalion of Marines. *Ibid.*

<sup>59</sup> DOCTER, CARY, "U.S. NAVY MOVING MORE ASSETS TO PERSIAN GULF AREA", FOX NEWS, MARCH 29. IN TOTAL, MORE THAN 30 U.S. SHIPS AND ABOUT 22 SAILORS ARE IN THE GULF AREA.

<sup>60</sup> Alidien is in charge of the maritime zone of the Indian Ocean. Its jurisdiction extends over the maritime zone of the Indian Ocean and comprises the area bounded on its Western part by the Red Sea and Africa, and on its Eastern part by Philippines and Vietnam. The zone notably comprises such strategic areas as the Persian Gulf, Southern Africa, India, Australia and Singapore.

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These assets would quickly be used to open mine-free corridors, and progressively demine the entire Strait, to ensure the free flow of oil through it. The U.S. Navy has indeed long prepared for the mission of keeping the Strait of Hormuz open, with the active cooperation of NATO allies. For some years, U.S. defense circles have been concerned about the emergence of capabilities and strategies which, as they spread, risk imperiling Washington's position in the world by their ability to disrupt or prevent force projection operations<sup>61</sup>. In particular, much attention has been paid to anti-access/area-denial strategies as they could alter U.S. strategic options in the Gulf region and elsewhere by undermining its "command of the global commons," i.e. its ability to freely use sea, air, and space for projecting military power and engage in trade, while denying the same privileges to others<sup>62</sup>. Various technological and doctrinal reevaluations have therefore been engaged as a way for Western armed forces to confront anti-access strategies and conduct forcible entry operations<sup>63</sup>. Iran's disruptive military options in the Gulf thus represent a serious test for western countries and illustrate some key aspects of the threats western force projections could be confronted with.

In this respect, while the Iranian capability in the Gulf is no cause for alarm – in that sense that it could hardly deter, prevent or discourage a U.S. intervention – it does reveal important weaknesses of European countries – including France – that would make it impossible for them to conduct certain missions autonomously in the region unless they prove ready to tolerate higher risks of casualties. In fact, as a French analyst explains, "the anti-access issue is largely absent from French strategic debates, which is surprising knowing that France is an expeditionary power and that one of the priorities identified in the 2008 White Paper aims at providing French armed forces with the capabilities to conduct forcible entry operations and make France a legitimate "lead nation" in a coalition."<sup>64</sup> In the particular context of the Gulf, this narrows France's options against anti-access threats, especially in the absence of projectable mine countermeasures and SEAD assets, and could limit both its credibility as a coalition partner with the U.S. and as a security guarantor for regional partners<sup>65</sup>.

Even with prepositioned Western "anti-anti access" assets in the Gulf, important challenges would remain, including for countermeasures operations. Indeed, although easily detectable, mines sweeping is nonetheless time-consuming. As predicted by IISS analysts, it may take weeks to clear the entire strait<sup>66</sup>. Moreover, a major problem for U.S. and allied forces is that any conflict in the Gulf is going to be extremely non-permissive. As Nathan Freier mentioned, "Iran's combination of cruise and ballistic missiles, unconventional naval forces, and hybrid ground

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<sup>61</sup> BRUSTLEIN, Corentin, "Toward the End of Force Projection? II. Operational Responses and Political Perspectives", *Focus Stratégique*, no.21 bis, September 2011.

<sup>62</sup> POSEN, Barry R., "Command of the Commons: The Military Foundation of U.S. Hegemony," *International Security*, Vol. 28, No. 1 (Summer 2003): pp. 8-9. According to Posen, Command of the commons is a critical feature of U.S. grand strategy, and as American grand strategy has expanded, so too has the U.S. approach towards commanding the commons. See also LALWANI, Sameer, SHIFRINSON, Joshua, "Whither Command of the Commons? Choosing Security over Control, New America Foundation, September 2011

<sup>63</sup> FREIER, Nathan, "The Emerging Anti-access/Area-Denial Challenge", *Center for Strategic and International Studies*, May 17, 2012. U.S. naval doctrine *has recently* evolved to address these perceived threats and strategic concerns in environments far different from the two largely "low intensity" wars fought over the last decade. In particular, the Air Sea Battle plan, which came into effect in the late summer of 2011, is born out of a "need to provide U.S. Combatant Commanders with the capabilities necessary to maintain operational access in sophisticated anti-access/area-denial (A2/AD) environments. In short, the Air-Sea Battle Office aims to define initiatives to develop the capabilities and integration necessary to help Combatant Commanders conduct integrated, cross-domain operations in A2/AD environments". See FORBES, Randy, "America's Pacific Air Sea Battle Vision", *The Diplomat*, March 8, 2012. According to Schwartz and Greenert (Gen. Norton A. Schwartz, Chief of Staff of the Air Force, and Adm. Jonathan W. Greenert, Chief of Naval Operations), quoted by the author, Air-Sea Battle relies on tightly coordinated operations that cross operating "domains" — air, land, sea, undersea, space and cyberspace. It seeks to use "Networked, Integrated Attack-in-Depth" to "disrupt, destroy, and defeat" (NIA-D3) adversary capabilities. More specifically, the joint force (integrated air, ground, and naval forces) armed with resilient communications (networked) aims to strike at multiple nodes of an enemy's system (attack-in-depth) along three lines of effort. *Ibid*

<sup>64</sup> BRUSTLEIN, *op. cit.*, p. 34.

<sup>65</sup> Jane's, *op. cit.* Indeed, if as underlined above Iran were to decide to mine the Strait the capabilities that western forces could mobilize on short notice would be quite significant. Whereas prepositioning assets in theater seems to be the American and British navies' option for rapid action, France, does not currently possess prepositioned mine countermeasures capabilities in the Gulf. The ships of the French Navy specialized in mine actions are based permanently in two ports of Brest (nine ships) and Toulon (two ships). According to analysts, it would probably take them two or three weeks to reach the Gulf. BRUSTLEIN, *op. cit.*, p. 13

<sup>66</sup> IISS *Strategic Comments*, *op. cit.*

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defenses – matched with tight Persian Gulf geography, Iran's physical depth, and its deep ties to regional proxies – offer a complex structured challenge that strategic and operational planners would have to take into account in the event of a crisis with Iran<sup>67</sup>." Achieving dominant situational awareness will in this respect be indispensable for maintaining a comprehensive picture to support time-critical decision-making against an evasive and highly mobile enemy. This in turn must contribute to achieve numbers of key objectives, including early interception of Iranian intentions, neutralizing the Iranian air defense network to achieve air superiority, targeting and destroying Iranian supply depots and missile launch sites at early stages, inflicting maximum damages on Iranian underwater and large surface assets, and detecting, tracking and destroying small boats "to remove the sense of invulnerability their operators currently feel<sup>68</sup>." If achieved, this would contribute to create a more favorable environment for mine hunting operations.

NATO countries' naval assets in the region could simultaneously be used to escort tankers and other commercial vessels to counter Iranian attacks. Indeed, according to various scenarios – most effectively used in the 1980s during the *Tanker war* –, such a system could be successful, as pointed out by the *IISS Strategic Comment*: between July 1987 and December 1988, the US navy escorted 252 ships of which only one commercial vessel was damaged – the *Bridgeton*, a formerly Kuwaiti-flagged vessel that was reflagged as a US tanker, struck a mine during the first convoy. British naval vessels also conducted 1, 026 transits in 1987 and 1988 as part of a convoy system<sup>69</sup>. Thus, with an average of 14 tankers crossing the Strait every day a convoy system that could escort about three vessels in small groups few times a day seems a conceivable approach. However, as many experts have pointed out, were the Iranians to utilize swarm tactics with small boats bolstered by air and land launched missiles it is conceivable that "escort vessels would not be able to deal with incoming ordnance in time<sup>70</sup>." In this respect, one might recall the U.S./Iranian computerized war games conducted in 2002 by the U.S. Department of Defense. During the exercises, the red team which played the part of Iran relied heavily on swarming tactics to attack the U.S. Fleet – relying also on a highly decentralized command and control structure, resulting in over a dozen U.S. warships sinking and thousands of sailors perishing<sup>71</sup>.

What role the UAE would play in any military action by an international alliance to reopen the strait? In 2012, the United Arab Emirates' armed forces have approximately 51,000 men at their disposal, of which about one-third are foreigners<sup>72</sup>. They are composed of the land force, naval force, air force, and the Emirati Guard, as well as various joint services under the Chief of Staff's command. The land force has a claimed strength of 44, 000 men (including Dubai's formerly autonomous defense force), which makes it large by Southern Gulf standards<sup>73</sup>. The integrated army is dominated by Abu Dhabi and includes a Royal Guard brigade, two armored brigades, three mechanized infantry brigades, and an artillery brigade. The air force (which includes the air defense force<sup>74</sup>) has about 4,500 men, together with the police air wing<sup>75</sup>. According to Jane's Sentinel Security Assessment, the UAE Navy is composed of 2, 400 personnel, including a marine battalion and a naval aviation squadron with Eurocopter AS332B/F/M and AS565SB helicopters, and is based at Abu Dhabi with facilities at Dalma, Mina Zayed. There are also

<sup>67</sup> *Ibid.*

<sup>68</sup> KHAN, *op. cit.*

<sup>69</sup> *IISS Strategic Comment, op. cit.*

<sup>70</sup> *Ibid.*

<sup>71</sup> RIENZL, *op. cit.*

<sup>72</sup> "The Military Balance, Chapter Seven: Middle East and North Africa", International Institute for Strategic Studies, London: 2011, no. 111, 1, p. 333-335; CORDESMAN, Al RODHAN, *op. cit.*, p. 290.

<sup>73</sup> *Ibid.*

<sup>74</sup> According to Jane's Sentinel, the UAE Air Defense has two brigades, with a total of six battalions. "Sentinel Country Risk Assessments - The Gulf States", *Jane's Sentinel Yearbook*, 2010.

<sup>75</sup> According to the International Institute for Strategic Studies, the UAE air force has 184 combat capable aircrafts, including 55 F-16E Block 60 *Fighting Falcon* (Desert Eagle), 25 F-16F Block 60 *Fighting Falcon* (with 13 based in the U.S. for training), 18 *Mirage* 2000-9 DAD, and 44 *Mirage* 2000-9 RAD. *op. cit.*, CORDESMAN, Anthony, *The Gulf Military Balance in 2010, working draft*, April 22 2010, [http://csis.org/files/publication/100422\\_GulfMilBal.pdf](http://csis.org/files/publication/100422_GulfMilBal.pdf).

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facilities at Mina Rashid and Mina Jebel Ali in Dubai, in Fujairah, Mina Sakr in Ras al-Khaimah and Mina Khalid and Khor Fakkan in Sharjah.

During the past 10 years, the UAE has been engaged in a programme to enhance the capabilities of its navy. As part of it, the UAE navy, which had been concerned primarily with coastal defense, has sought to expand its role to include blue water capabilities with the construction of six multirole corvettes and to enhance its amphibious capabilities through the acquisition of assault and landing craft as well as amphibious armored personnel carriers for its marine battalion. The UAE Navy's current inventory includes two Lürssen-class missile corvettes, eight fast missile patrol boats, six coastal patrol craft, five landing craft capable of carrying tanks, two support craft and miscellaneous other crafts.

In the forthcoming years, the UAE's naval forces will be centered on six CMN-built 72m *Baynunah*-class multi-mission corvettes supplemented by a number of smaller crafts. The main roles of the corvettes will be in patrol and surveillance, antisurface operations, maritime interdiction, and mine laying in the UAE's territorial waters and further afield<sup>76</sup>. In 2009, the UAE also announced that it would be procuring 12 new missile armed fast craft that will be built to a modified *Ghannatha* design. The new vessels are expected to be a stretched version of the existing *Ghannatha* and should be fitted with box launchers for four MBDA *Marte* Mk 2/N surface-to-surface guided missiles. A second contract will see the navy's 12 existing *Ghannatha* fast troop carriers split into two separate sub-classes: six will be modified as mortar platforms; the remainder will continue as troop carriers but with additional armament.

According to Jane's, these projects are expected to take up the bulk of the UAE Navy's procurement budget for the remainder of the decade, which together will make it possible for the UAE to project a reinforced battalion of armored infantry and light infantry forces to islands and coastal areas. Surveillance capabilities should also be boosted by the conversion of four Bombardier *Dash* 8 airlines into maritime-patrol configuration and a single 88m Italian-built corvette that, as well as patrolling, will include facilities for an embarked helicopter and an organic anti-submarine warfare capability<sup>77</sup>. In addition, fear of renewed mine warfare has prompted the UAE to recently acquire 2 surplus-to-requirements German navy type 332 mine hunters, the FGS Frankenthal and FGS Weiden. Besides, Kongsberg Maritime has recently installed its SM2000 underwater surveillance system at several UAE naval bases, in order to improve anti-swimmer detection capabilities. Also, it was revealed in December 2001 that the UAE had selected ADI Ltd to supply a version of its Australian Minesweeping System (AMS) to meet a UAE Navy requirement for improved minesweeping capabilities<sup>78</sup>.

Overall, the UAE Navy's expansion plans are highly ambitious. The procurement program has clearly boosted its blue-water capabilities and enhanced its amphibious assault craft capabilities. However, according to military analysts and officers, the UAE Navy still needs to further improve its anti-submarine warfare, mine-counter-measures and anti-swimmer defenses to protect the country's growing maritime trade<sup>79</sup>. The UAE could therefore provide a

<sup>76</sup> "Jane's Sentinel Country Risk Assessment – The United Arab Emirates", 2011, p. 267. With a range of around 2,400 km and endurance of 14 days they may well later be used to support peacekeeping operations in the region under the banner of multi-national co-operation. The *Baynunah* corvettes will be able to accommodate up to 45 personnel and will afford to give support for medium-sized helicopters, such as the AS565 currently operated by the UAE Navy. Stores for the helicopter will include small anti ship missiles, torpedoes and depth charges. Eight MBDA MM40 Block 2 Exocet anti-ship missiles fitted on the superstructure amidships will enhance this anti-ship capability. For self defense, the *Baynunah* class will be fitted with eight Mk48 vertical launch cells for the Evolved Sea Sparrow missile and a single Oto Melera 76/62mm Super Rapid gun with a range of approximately 16 kilometers. See CORDESMAN, 2010, *op. cit.*; Patrick Boniface, "Baynunah Class Corvettes, A New Class of Ships for a Friendly Middle Eastern Ally", June 15, 2009.

<sup>77</sup> The corvette is built by the Italian shipbuilding company Fincantieri. It is based on the 88.4 m 1,520-tonne Comandante-class patrol vessel, but Fincantieri will incorporate modular characteristics so that they can accommodate an ASW system and helicopter.

<sup>78</sup> "Jane's Sentinel Country Risk Assessment – The United Arab Emirates", *op. cit.*

<sup>79</sup> *Ibid*, Personal interviews, Abu Dhabi, June 2012.

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limited but positive support to any coalition action to reopen the Strait. It is nevertheless unlikely that the UAE would do so unless Iranian forces directly attacked GCC vessels or penetrated the federation's territorial waters. Shutting down vital oil lanes through the Gulf will have considerable costs for the UAE, but – if not attacked – the country is certainly expected to dodge military confrontation with Iran whilst firmly opposing its actions<sup>80</sup>. If the scenario described above were to happen, the biggest challenge for the UAE leadership will therefore rather be at the political level, with the need to prepare itself for military confrontation while finding a way to stay out of the conflict.

Moreover, in recent years greater attention has been paid by the UAE authorities to a number of other Iran's disruptive scenarios in the Gulf that appear more immediate and to which the federation had seemed more vulnerable. Among them, as we shall see below, a second scenario open to Tehran would be not to target the Strait of Hormuz *per se* but to hit shipping further up the Gulf and other strategic sites along the southern and western coastline of the Gulf – a scenario easier to accomplish which could contribute to avoid direct confrontation with the U.S. or other navies. More dramatically, it could decide to continue its hybrid strategy at sea, launching an all-out attack to sink as many naval ships to the U.S. and its allies and targeting critical infrastructures in the region. In both cases, the UAE could find itself directly targeted, and hence has tried and extend an effective defense umbrella that could match with the kind of threat it could meet in the future.

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<sup>80</sup> The UAE has been trying to anticipate Iran's threatening actions in the Gulf, in particular by building the Abu Dhabi-Fujairah pipeline that will bypass the Strait of Hormuz by funneling crude oil directly to the Arabian Sea. The pipeline became operational in June 2012. It is believed to have a capacity of 1.5 million barrels per day (the UAE exports 2.4 mbd). Al MAKAHLEH, Shehab, "Habshan-Fujairah pipeline starts pumping crude oil", *The Gulf News*, June 21, 2012

## ■ THE UAE'S EFFORTS TO PROTECT ITS STRATEGIC ASSETS AND CRITICAL INFRASTRUCTURES

According to a second scenario, the Iranians could strike strategic assets and critical infrastructures along the south Gulf coastline, such as offshore oil platforms, petroleum facilities, water desalination plants and port infrastructures. Iran could also be expected to launch missiles at U.S. bases throughout the Gulf, including ports in Kuwait, Qatar, the UAE and Bahrain where the 5<sup>th</sup> Fleet HQ are located, as well as other U.S. and NATO countries military assets in the region (naval ships, air bases). Operations of those kinds would not be expected to have the dramatic effect of operations to deny access to the Strait, but could be easier to carry out. In any case, GCC states would find themselves under intense pressures.

Since the early 1980s, the Iranians possess a robust and diversified arsenal of ballistic missiles, based on Russian, Chinese and North Korean technology, and that could potentially reach targets throughout the Middle East. Of particular mention are Iran's medium-range ballistic missiles, which include the *Shahab-3* and its longer variants, based on the North Korean *Nodong-1* and with a range of 1,000 to 1,500 km. With regards to Gulf security, Iran deploys a range of short-range ballistic missiles (SRBM) capable of reaching neighboring countries, and is still developing its capabilities in this area. Iran's SRBM arsenal includes 250 *Shahab 1* ballistic missile (1,000 kg warhead with 300 km range) and 50 *Shahab 2* (800 kg warhead with 500 km range), based respectively on the 'Scud-B' and 'Scud-C' systems<sup>81</sup>. In September 2010, Iran's Defense Ministry was reported to have officially handed over the third-generation *Fateh-110* SRBM to the Islamic Revolutionary Guard Corps<sup>82</sup>. The solid fuel *Fateh-110* has a reported range of 210 km. That year, Iran also announced that it had tested an ostensibly new surface-to-surface ballistic missile, named *Qiam-1*, with an estimated range of 750 km and a 650kg payload. Other systems that have been deployed include the CCS-8 (M-7/Project 8610) short-range, solid propellant, single warhead ballistic missile, acquired from China on the basis of a 1989 contract, with a 190 kg warhead and 150 km range<sup>83</sup>. Besides, as pointed out by Riad Kahwaji, "Iran does not really need to resort to its ballistic missiles to hit any U.S. bases and other strategic coastal targets in the region", as Iran – technically – can "launch a surprise attack with cruise missiles and artillery rockets at all bases and naval assets in the Arabian Gulf"<sup>84</sup>.

Being host to many western companies and having various strategic assets scattered around the country, as major commercial shipping ports such as Jebel Ali in Dubai, the UAE leadership could find itself at the receiving end of Iranian missiles or rockets. Moreover, the UAE has a significant U.S. military presence in the country: the Al Dhafra airbase, for instance, serves as a major intelligence, surveillance and reconnaissance hub for an air expeditionary wing and as a staging ground for tankers, high altitude surveillance aircraft and unmanned aerial vehicles and the ports of Jebel Ali and Fujairah supply the U.S. navy and air force units deployed to the UAE<sup>85</sup>. Last spring, the U.S. also quietly began a deployment of its premier stealthy fighter, the twin-engine F-22, to the United Arab Emirates. As mentioned

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<sup>81</sup> CORDESMAN, WILNER, *op. cit.*, p. 69

<sup>82</sup> "Jane's Sentinel Country Risk Assessment – Iran", *op. cit.*, p. 146.

<sup>83</sup> *Ibid*

<sup>84</sup> Also according to Kahwaji, "such an attack would be really deadly if missiles and rockets were launched in large numbers in a way to saturate the targets and render defense counter-measures useless". *Ibid*.

<sup>85</sup> *Asian Defense*, February 2009.

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above, the UAE also hosts important French military assets, including 6 Rafale fighters and one c-135, as well as the 13<sup>th</sup> Half Brigade of the Foreign Legion<sup>86</sup>.

In response, the UAE has invested massively in defense program to counter Iran's missiles threat. In particular, some elements in the military establishment had pushed in early 2000s for the acquisition of an all tiers missiles defense systems that could both track and intercept incoming ballistic missiles on high, medium, and low altitude, while providing strong early warning to allow maximum time to achieve interception – and thereby offset some of the UAE's objective disadvantages as its lack of strategic depth<sup>87</sup>. For some years, however, the UAE Minister of Defense, Sheikh Mohammed bin Rashed Al Maktoum, opposed the acquisition of the missile defense system, which was favored by the former chief of staff of the UAE armed forces Sheikh Mohammed bin Zayed Al Nahyan – today vice supreme commander of the UAE armed forces and crown prince of Abu Dhabi. The Emir of Abu Dhabi and president of the Federation, Sheikh Khalifa bin Zayed Al Nahyan, also initially opposed to the project, finally agreed to finance it – with an estimated cost of about U.S 7 billion dollars. Thus, after more than a decade of political hesitation, as well as studies and going over tenders offered by European and North American companies, the UAE opted in 2009 the Theater High Altitude Air Defense (Thaad) system for high-altitude interceptions (with a significant stockpile) with the advanced patriot PAC-3 missiles for low to medium altitude interceptions, with advanced radars – airborne and land-based – for early warning<sup>88</sup>. The UAE also found itself in need of a well-trained and well-equipped counter force capable of tracking and destroying missile launchers and other military targets of the adversary, for which they can rely on their 80 f-16 Block 60 fighters and their 60 Mirage 2000-9 fighters operating alongside.

The reevaluation of neighboring countries' asymmetric warfare capabilities, which took place during the last decade and was supervised by the Abu Dhabi-based GHQ armed forces, has also incited the Emirati authorities to acquire new detection, reconnaissance and observation systems, as well as to develop a range of capabilities to provide deterrence should missiles threats were to be combined with low intensity operations in the Gulf that could target littoral assets and oil platforms. In particular, fear of Iranian Special forces operations against targets of interest in the UAE pushed the authorities to shape a very effective monitoring system over the maritime and coastal regions, following the Omani and Qatari examples. As a first step, the UAE embarked in 2008 on a project to develop a border control system made up of cameras and sensors integrated together with a command and control center, backed by reconnaissance airplanes and coastal patrol crafts<sup>89</sup>. The UAE had also for some time considered the possibility to equip offshore oil platforms with detectors and autonomous weapon systems<sup>90</sup>.

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<sup>86</sup> The United Arab Emirates is connected through joint defense cooperation agreements with a number of extra-regional countries, including France, the United States, and Great Britain, in addition to South Africa to which it is linked with cooperation agreements in the fields of training and open military research works. The Defense Cooperation Agreement between UAE and France was signed in Abu Dhabi in 1995. The Joint Defense Agreement with Britain was signed in Abu Dhabi in 1996 while the Joint Military Cooperation program was signed with the United States in Abu Dhabi in 1994. Also, in December 2003, the UAE signed a military cooperation agreement with Italy, which includes cooperation in the field of training, joint military maneuvers, military industries, exchange of experiences. *Dira'a al Watan, op. cit.*, p. 92. Military cooperation with France was further strengthened in January 2008 with an agreement to allow a French military presence. The facilities were inaugurated during a visit by President Sarkozy to UAE on May 27, 2009, and include a section of the Zayed Port for use by the French navy; an installation at Dhafra Air Base to be used by France's air force; and a barracks at an Abu Dhabi military camp that would house about 400 French military personnel. More recently, The UAE joined in 2004 NATO's "Istanbul Cooperation Initiative," which was launched that year by the Atlantic Alliance as an effort to bolster bilateral security with Middle Eastern countries. In May 2011, the UAE requested to send an Ambassador to NATO under a new alliance policy approved by the organization in April 2011.

<sup>87</sup> KAHWAJI, Riad, "UAE Defense Spending Justified by Objectives and Nature of Threats", *op. cit.*

<sup>88</sup> MUSTAPHA, AWAD, "GCC NEEDS MISSILE PLAN TO COUNTER IRAN THREAT", *THE NATIONAL*, APRIL 12, 2012. AS THE UAE AIR FORCE'S BRIGADIER GENERAL MAJED AL NUAIMI EXPLAINED AT A TWO-DAY SYMPOSIUM ON MISSILE DEFENSE IN ABU DHABI HOSTED IN APRIL 2012 BY THE INSTITUTE FOR NEAR EAST AND GULF MILITARY ANALYSIS (INEGMA). "(THE UAE) IS USING THE PATRIOT DEFENSE SYSTEM WHICH IS A LONG-RANGE, ALL-ALTITUDE, ALL-WEATHER AIR DEFENSE SYSTEM TO COUNTER TACTICAL BALLISTIC MISSILES, CRUISE MISSILES AND ADVANCED AIRCRAFT". "WE ARE ALSO USING THAAD DEFENSE SYSTEMS TO HELP US PROTECT OUR COUNTRY AND PEOPLE BY INTERCEPTING MISSILES. THAAD STANDS FOR TERMINAL HIGH-ALTITUDE AREA DEFENSE MISSILE SYSTEM, AND IS AN EASILY TRANSPORTABLE DEFENSIVE WEAPON SYSTEM TO PROTECT AGAINST HOSTILE INCOMING THREATS SUCH AS TACTICAL AND THEATRE BALLISTIC MISSILES," HE ADDED. AL MAKAHLEH, SHEHAB, "REGIONAL CENTRE FOR DEFENSE MANAGEMENT PLANNED", *GULF NEWS*, APRIL 12, 2012.

<sup>89</sup> KAHWAJI, *op. cit.*

<sup>90</sup> Furthermore, persistent rumors about the militarization of Abu Musa, a Gulf island administrated by Iran but claimed by the U.A.E. as part of its territory, have led to Emirati development of an amphibious force, through the acquisition of assault and landing crafts as well as amphibious armored

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Besides the gradual introduction of sophisticated equipments and defense systems, significant efforts have been made by the UAE armed forces to improve combat readiness. Training centers were established or restructured, and joint exercises are held on a regular basis<sup>91</sup>. The UAE takes also part of Combined Task Force 152 which coordinates Theater Security Cooperation (TSC) activities with regional partners and conducts Maritime Security Operations (MSO), as well as being prepared to respond to any crisis inside the Gulf.

Institutional reforms to improve protection of the UAE's littoral and strategic assets have also been carried out. In particular, the Abu Dhabi government, in close coordination with the UAE armed forces, established in 2007 the Critical National Infrastructure Authority (CNIA), in charge of reinforcing security of the country's territory and borders, as well as protecting its strategic assets and critical infrastructures. The CNIA has invested in substantial means of protection of its borders and vital infrastructures (ports and petroleum or nuclear facilities), purchasing several million dollars' worth of integrated detection systems, reconnaissance aircraft and coast patrol boats<sup>92</sup>.

What these developments indicate is that the military strategy of the UAE armed forces has been progressively broadened during the past years in response to new security requirements seen as more pressing. In previous decades, the proclaimed objective had been to build up a military force that would prove capable of deterring any first attack wave, long enough for reinforcements send by the UAE's allies to arrive. This conventional defense capability was first planned and built in the aftermath of the Gulf War around a punishment-based strategy<sup>93</sup>, centered on its air power, which has led to the development of a formidable long-range and precision-strike capability that could inflict great damage on neighboring countries' most vital infrastructures, including Iran, and destroy tens of strategic assets with pinpoint accuracy. Yet, supported by improved naval capabilities, along with an integrated missiles defense system and improved border and littoral control system, the UAE also started to develop a counter-force strategy, which lies on the capacity to blunt an attack and to reduce the likelihood that the attacker will achieve its objectives.

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personnel carriers. UAE military planners feared that by using a wide variety of tools, underwater, littoral strikes, etc., the Iranians could put pressure on multiple points at the same time, in saturation attacks tactics and scenarios.

<sup>91</sup> Recent joint exercises include the "Air Khanjar" UK/AUE joint air and maritime exercise which involved RAF Typhoon and Boeing E-3D Sentry Airborne Warning And Control System aircraft, along with supporting maritime forces, notably Type 22 frigate HMS Cumberland, training with Emirati forces. Few months before, in February 2010, the UAE and British Marines took part in 'Operation Sea Khanjar', a largely amphibious training exercise, in the region of Al Hamra, Abu Dhabi. Also in 2010, the UAE Navy took part in a joint, multinational naval exercise in the Gulf, 'Stakenet Plus Exercise', as part of the U.S.-led Combined Maritime Forces. One of the aims of the exercise was to practice tactics in providing protection to oil platforms. Since 1996, French-UAE military drills codenamed "Gulf Exercises" take place every four year as part of joint military exercises under the 1995 defense treaty. From April 28 to May 2<sup>nd</sup> 2012, "Gulf 2012" took place in the UAE. More than 4500 military personnel - about 1800 of them from France - took part in the military exercises. French anti aircraft frigate *Cassard* and three UAE surface vessels – one Murray Jib Corvette and two fast attack craft missile (*Marban et Saqar*) were deployed. During the maneuvers, among other things, troops simulated a war pitting the UAE and its ally against a neighboring state which has invaded the Gulf country. Jane's Sentinel Country Risk Assessment – The United Arab Emirates", *op. cit.*, p. 113. Personnal interviews, Abu Dhabi, June 2012.

<sup>92</sup> According to Jane's, the UAE armed forces converted an armored brigade from the ground force into a rapid reaction force. In February 2009, CNIA acquired new fast interceptor vessels. Abu Dhabi Ship Building has worked with Turkish shipbuilder Yonca Onuk to deliver a total of 34 16 m vessels based on the latter's MRTP16 design. UAE-based International Golden Group is also assisting in the project. The new interceptors will be used by CNIA to interdict potential threats in the UAE's maritime zone. According to Jane's, "powered by MTU diesel engines, they will be capable of speeds in excess of 50 kts. Manufactured in composites, the first 12 armed interceptors will be built by Yonca Onuk at its shipyard in Tuzla, Istanbul". Deliveries to CNIA commenced in March 2010. Under a transfer of technology agreement, the remaining 22 craft will be built locally by ADSB. As of March 2012, 10 units have already been delivered. Other projects reported include: 10 x 15 m fast patrol boats armed with Oto Melara 12.7 mm HITROLE-N turret; 18 x 25 m aluminium-hulled patrol boats armed with light gun armament at a cost of AED356.7m (U.S.99m); a support ship called al-Shareaa worth AED115m (U.S.31.3m). Jane's Sentinel Country Risk Assessment – The United Arab Emirates", *op. cit.*, p. 80.

<sup>93</sup> Punishment-based deterrence is a counter-value strategy: it raises the cost of the exchange to a point where it is no longer considered to worth it. It is typically employed when an opponent threatens an action that a state cannot prevent, and retaliation aims to inflict cost on the attacker that may affect its strategic calculus in the future cases. It is also generally seen by military planners as an easier option as it relieves the deterring party of the burdens of expensive defense preparations.

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## ■ THE ENEMY WITHIN: ABU DHABI'S CONCERN OVER IRANIAN INTERFERENCE IN THE UAE

Finally, a third scenario closely monitored by UAE officials, lies on Tehran's presumed capability to infiltrate and carry out destabilizing operations in neighboring states. All six GCC states worry to varying degrees over Iranian influence. In particular, there has been deep suspicion of Iran's cultivation of extensive ties with shia population of the Gulf and established networks of agents to liaise with them<sup>94</sup>.

While the United Arab Emirates has a small population of Shia Emiratis, it has for several years been concerned by potential Iranian agents or Iran-linked sleeper cells activity, especially in Dubai where the Iranian national population is high<sup>95</sup>. The existence of both was reportedly revealed in 2007 by a former Iranian consul in Dubai, in an interview to the Dubai-based *Gulf News*, claiming that Iran had maintained a network of sleeper cells in the GCC since 1979 that could be activated on Tehran's orders<sup>96</sup>. Accordingly, actions were taken in 2009, not against Iranians but against Lebanese Shia accused of links to Hezbollah, which led to the deportation of 44 Lebanese men, who had worked both in the public and private sectors, for sending small amounts of cash to groups affiliated with Hezbollah<sup>97</sup>.

As such, strengthening security and internal stability have been a top priority in recent years. Among major initiatives has been the establishment in June 2007 of the National Crisis and Emergency Management Authority (NCEMA), under the organizational structure of the Higher National Security Council. Both institutions are led by Sheikh Hazza bin Zayed Al Nahyan, also vice-chairman of the Abu Dhabi Executive Council. A full brother of the crown prince of Abu Dhabi, Sheikh Hazza has previously headed the federal security and intelligences services. The crown prince's eldest son, Sheikh Khaled bin Mohammed Al Nahyan is also closely associated with the NCEMA. Officially, the NCEMA is mandated to elaborate various plans for crisis control and management, and to intervene in the event of natural disasters. It is also tasked to prepare plans to counter and manage illegal strikes, political riots or terror attacks. It is noteworthy that among NCEMA's most recent exercises, some were based on scenarios of "Shiite incidents or riots"<sup>98</sup>.

The establishment of the NCEMA is associated with the process of centralization of many core functions of the federal State that has been taken place in the past years in the UAE. In fact, over the last fifteen years, the federation of the United Arab Emirates has experienced a profound transformation. Though it originally had a loose structure that afforded its member states a high degree of autonomy, including in the realm of security, defense and foreign policy, it has evolved by developing a strong, centralized federal State, rid of internal rivalries and dominated by

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<sup>94</sup> Laurence Louer, *Transnational Shia Politics: Religious and Political Networks in the Gulf* (Hurst, 2008), p. 223

<sup>95</sup> Some 450 000 Iranians or persons of Iranian origin reside in the UAE, making up about 6 to 7% of the total population. There are more than 200 flights per week between the UAE and Iran.

<sup>96</sup> Iranian officials publicly repudiated the allegations and accused the Western media of spreading lies about Iranian intentions. See ULRICHSEN, Kristian Coates, "Internal and External Security in the Arab Gulf States", *Middle East Policy Council*, 2009.

<sup>97</sup> Abdul Hameed Bakier, "Sleeper Cells and Shi'a Secessionists in Saudi Arabia: A Salafist Perspective," *The Jamestown Foundation : Terrorism Monitor*, 7, 18, June 25, 2009, quoted by *American Foreign Policy Council*, "United Arab Emirates", July 14 2011

<sup>98</sup> Personal interviews, Dubai, May 2012.

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Abu Dhabi's ruling families, who thereby assumes even greater control over federal institutions, individual rulers, and population<sup>99</sup>.

As a consequence the UAE government has been able to develop a more coordinated federal policy towards internal security issues – including over the presumed Iranian interference in the country. Indeed, as a federation, the United Arab Emirates has had problem in the past to reconcile its internal contradiction over the Iranian issue, torn between the interest of the security-focused emirate of Abu Dhabi and the business-oriented emirate of Dubai<sup>100</sup>. The former's newfound economic and political power over the latter has however led the UAE to significantly enhance the enforcement of more strict population surveillance and control measures. These include policy to limit and reduce the Iranian presence in Dubai. According to some reports, many may find it more difficult to get a visa and work permit to enter to country. Previously, as mentioned by Karim Sadjapour, anyone who bought property in Dubai was automatically granted a residency permit; now new regulations require non-UAE nationals to register with UAE authorities every six months. As Sadjapour underlined, "Though the regulations apply to all foreigners, many Iranians and Arab Shia in the UAE believe they are being singled out by decisions<sup>101</sup>." Meanwhile, the UAE has bolstering its police and security organs<sup>102</sup>, seeking in particular to improve coordination between the police directorates and to standardize procedures. Specialized police units have been developed, including counter-terrorism units, and units for disaster management, hostage rescue and surveillance. Police personnel from the UAE have also received specialist training in Germany, and some officers have been trained in the UK and France<sup>103</sup>.

These measures also found themselves justified by the recent upheaval in the region. In fact, whereas UAE efforts to shield the state, its vital infrastructure and its population, described above in the first and second sections of this paper, have been largely determined by U.S. and Iranian rivalry, fear of Tehran's presumed capability to infiltrate and carry out destabilizing operations is also connected to power struggle between GCC states and Iran to define the strategic landscape of the Gulf and the Middle East.

As such, concerns over Iranian plots to foment sedition have in part determined the UAE's attitude toward the wave of uprisings against authoritarian regimes that has been shaking the Arab world. Indeed, following the swift demise of the Tunisian and Egyptian presidents in early 2011, the UAE decided not to take the risk of losing other key allies in the regional game and joined other GCC states in supporting the Al Khalifa in Bahrain during its confrontations with protesters and, on March 14, it sent 500 troops to join a 1,000 troop Saudi force that deployed to Bahrain to help the regime protect key locations<sup>104</sup>. During the crisis, Gulf countries accused Iran of interfering in their internal affairs by providing direct assistance to the demonstrators in Bahrain. At the same time, Kuwait accused Iran of operating a spy network on its territory, and both Kuwait and Bahrain expelled Iranian diplomats they suspected of espionage<sup>105</sup>,

<sup>99</sup> See GERVAIS, Victor, "Du pétrole à l'armée : Les stratégies de construction de l'Etat aux Emirats Arabes Unis, *IRSEM*, 2011, 376p. Estimates indicate that the UAE population in 2009 exceeded five million. This figure included nearly 825,000 nationals, or around 15-20 per cent of the population, while the rest were foreigners, mostly other Arab nationals, Indians, Pakistanis, Bangladeshis, Sri Lankans, Iranians, Filipinos and Afghans.

<sup>100</sup> The emirate of Dubai has been a top source of Iranian imports and a key transshipment point for merchandises – legal and illegal – destined to Iran. Trade between Dubai and Iran tripled to \$12 billion from 2005 to 2009 (besides unofficial, often illicit, trade estimated to several billion dollars per year) and around 8,000 Iranian traders and trading firms are registered in the emirate, according to the local Iranian Business Council. As underlined by Sadjapour "the overwhelming majority of UAE trade with Iran involves the simple re-exportation of goods received from other countries, ranging from everyday foodstuffs to industrial equipment." This re-export trade has grown steadily over the past three decades, accounting for about 17% of total UAE's re-export volume. Dubai's loosely regulated activities have made it possible Iran to bypass international sanctions, even though U.S. pressure and UN sanctions have succeeded in curtailing Iran-UAE ties in recent months. SADJAPOUR, Karim, "The Battle of Dubai. The United Arab Emirates and the U.S.-Iran Cold War", *The Carnegie Papers*, July 2011, p. 3-9. "Dubai Helps Iran Evade Sanctions as Smugglers Ignore U.S. Laws", *Bloomberg*, 25 January 2010

<sup>101</sup> SADJAPOUR, *op. cit.*, p.12.

<sup>102</sup> See "Jane's Sentinel Country Risk Assessment – The United Arab Emirates", *op. cit.*, p. 30

<sup>103</sup> In February 2009 the Abu Dhabi Police signed a contract with EADS Defence & Security (*Cassidian*) for the supply of an integrated police security system. According to EADS, the system would provide the Abu Dhabi Police with "an improved intelligence capability, a comprehensive situation awareness over the whole emirate in the area under its responsibility, as well as all the necessary means for effective response command and control". It was also stated that the system would enable the police to co-operate with all UAE security apparatus for multi-agency operations. *Ibid*

<sup>104</sup> The UAE contingent pulled out in concert with a broader withdrawal of the GCC country forces in late June 2011, after the state of emergency in Bahrain ended on June 1, 2011.

<sup>105</sup> SADJAPOUR, *op. cit.*, p.13.

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fuelling further suspicions about Iranian intentions and capabilities<sup>106</sup> and leading Gulf rulers to take more concerted and coercive measures<sup>107</sup>.

While the UAE has not faced significant internal unrest itself, it thus has demonstrated a clear willingness over the past few years to implement more effective measures and policies to closely monitor and control populations living in the country. And the authorities are likely to continue to maintain a high level of vigilance.

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<sup>106</sup> ULRICHSEN, Kristian Coates, "Counterrevolution in the Gulf", *Foreign Policy*, May 6, 2011; ULRICHSEN, Kristian Coates, *op. cit.*, p. 5

<sup>107</sup> These measures also concerned, in the UAE, Islamist groups and pro-democracy activists such as Nasser bin Ghaith, professor of economics at the Abu Dhabi branch of the Sorbonne University, and Ahmed Mansoor, who founded the UAE Hiwar online forum for political discussion, were both arrested. They were among 133 Emirati intellectuals who signed a petition in March 2011 calling for the direct election of all members of UAE's Federal National Council, and the passage of constitutional amendments to vest it with legislative and regulatory powers, according to other reports. Also, the UAE Ministry of Social Affairs dissolved the elected boards of the Jurist Association and the Teachers' Association, replacing them with state appointees. An early sign of the chilling effect that these measures had come on May 2 2011, when more than 200 lawyers issued a pledge of allegiance to the UAE rulers, denouncing "false statements" by misled and deceived persons." ULRICHSEN, "Counterrevolution in the Gulf", *op. cit.*

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## ■ CONCLUDING REMARKS

Following successful reforms in the country, the U.A.E. has shown over the past years both the capacity and the determination to outline the development of military and security forces capable of sheltering the federation from future crises, including direct and indirect military challenges to the country's maritime and littoral assets and to the security of oil supplies.

To support those efforts the political leadership of the UAE has developed close military and security relationship with neighboring countries and extra-regional powers, providing for new security guarantees, the implementation of training programs for military personnel, and the holding of joint military exercises. Among those countries, France has been a major defense and security partner for the UAE, with a longstanding history of joint military cooperation<sup>108</sup>. For many years, the UAE political leadership has seen France as a key player in any successful effort to balance out more powerful and sometimes intimidating neighbors<sup>109</sup>. The two countries already linked by a 1995 defense agreement have developed over the years a multi-dimensional strategic partnership, crowned in 2009 with the inauguration of a French permanent military base in Abu Dhabi which mirrors the joint cooperation between the two countries in different fields<sup>110</sup>.

In this respect, the opening of a French military installation in the country aimed at sending clear signals to various regional and international players. First to Tehran, by showing French commitment to the UAE's long-term security and stability, and its willingness to use force and accept combat risks, if necessary, along with other regional partners and international powers.

From Abu Dhabi's point of view, it also sent a clear message to extra-regional states that have been providing the UAE with major security guarantees, in particular the United States. Indeed, following the U.S. military intervention in Iraq in 2003, the UAE has expressed growing doubts concerning Washington' ability to impose a regional order that could secure the country's core interests<sup>111</sup>, as U.S. actions in the Middle East were accelerating

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<sup>108</sup> As detailed above (Cf supra p. 42 & p. 45), bilateral French-emirati military exercises are regularly held and throughout the years significant numbers of UAE personnel have been trained in France, with numerous French officers providing operational training courses for UAE pilots, Leclerc main battle tanks and AMX-30/AMX-10 armored vehicles crews. A French fighter squadron also takes part in the UAE Air Warfare Center, and two training courses for emirati fighter pilots organized by the French air force take place every year. The Charles De Gaulle nuclear-powered aircraft carrier, like other ships of the French Navy, called at Abu Dhabi's Mina (port) Zayed. Besides, a dozen of UAE officers attended on a regular basis training courses at the French Ecole de Guerre (War College) or l'IHEDN (Institute for Higher National Defense Studies), while a number of French officers served on a daily basis within the staffs of the land force, the navy and the air force of the United Arab Emirates. Personal Interviews, Paris & Abu Dhabi, May 2012. See also « Rapport du Sénat sur le projet de loi autorisant l'approbation de l'accord entre le Gouvernement de la République française et le Gouvernement des Émirats arabes unis relatif à la coopération en matière de défense ainsi qu'un échange de lettres », Mme Nathalie GOULET, Rapport n° 724, 6 juillet 2011 ; BOULANGER, Philippe, « Le positionnement géostratégique de la France dans le golfe Arabo-Persique : la base interarmées d'Abu Dhabi », *Outre-Terre*, no. 29, 2011

<sup>109</sup> MASDOUDI, Farid, *La coopération militaire franco-émirienne*, mémoire de DEA, Analyse comparative des aires politiques, Monde musulman, sous la direction de M. Gilles Kepel, Sciences Po Paris, 2004, 86 p.

<sup>110</sup> The defense agreement provides for specific and tailored response, including military ones, if the sovereignty, the territorial integrity and the vital interests of the UAE was threatened by an external party.

<sup>111</sup> DROZ-VINCENT, *Vertiges de la puissance, le moment américain au Moyen-Orient*, La découverte, 2007; RUSSELL, James A., *Regional Threats and Security Strategy : The Troubling Case of Today's Middle East*, Strategic Studies Institute, U.S. Army War College, Carlisle, PA, November

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the dislocation of the regional security system set up after the First Gulf war, and as the failure of the American democratization policy was leading to a second, strategic failure, characterized by the emergence of a “heterogeneous” regional system<sup>112</sup> and which steadily reinforced, from the Abu Dhabi authorities’ viewpoint, the influence of Iran and its allies – Syria, Lebanese Hizbullah and Palestinian Hamas – at the regional level.

The opening of the French military base in Abu Dhabi must therefore be seen as a further step towards the redefinition of the role of the UAE armed forces, first as an instrument for protection of the State, then as a vehicle of its self-affirmation in the Middle Eastern arena. Today, indeed, the UAE state is implementing a more active and assertive foreign policy, including on the military level – inducing incremental changes in the functions thus far assigned to the military apparatus and to the nature of the country’s military engagement. Significantly, military option is now openly discussed in the country, portrayed, and used as mean of external action. In recent years, the UAE forces have been deployed outside the Gulf region for stabilization missions and peacekeeping and humanitarian purposes, enhancing the forces' ability to operate in different types of climate and terrain, gaining experience of the logistics involved in long-distance deployments, and boosting interoperability with other forces, including with French armed forces<sup>113</sup>. In this respect, Libya was an important milestone in the strategic partnership between the two countries, as the UAE played a significant role in supporting the opposition to Muammar Qadhafi, which succeeded in ending his regime in late August 2011<sup>114</sup>.

The *Raison d'être* of defense agreements with extra-regional countries has thus changed, henceforth intended to provide the UAE with appropriate means to shape its strategic environment and to shield itself against internal and external threats, instead of mere security guarantees. Ambitions are certainly high, and the value of the UAE-France strategic partnership can therefore be expected to grow in importance as the collaboration is due to expand with the common aim of both country to find stable and enduring solution to regional crises.

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2007, KAHWAJI, Riad, “U.S.-Arab Cooperation in the Gulf : Are Both sides Working From the same Script ?”, *Middle East Policy*, vol. XI, no.3, Fall 2004.

<sup>112</sup> ARON, Raymond, *Paix et guerre entre les nations*, 1962, chapter 4.

<sup>113</sup> After their first such experience in Lebanon in 1976-79, in the framework of the Arab Deterrence Force, Emirati soldiers were then deployed in Kuwait alongside Coalition troops in 1991, in Somalia under UN command from January 1993 to April 1994, in Kosovo as support to NATO troops from April 1999 to October 2001, and in southern Lebanon since November 2000, in the framework of mine clearance operations. More recently, the U.A.E. armed forces have had a presence in Iraq, and the Special Forces have been engaged in southern Afghanistan alongside NATO forces. The UAE armed forces have also been entrusted with humanitarian missions, as in Pakistan in October 2005 and Yemen in October 2008. *Dira'a al-Watan*, *op. cit.*, “Armed Forces participations abroad”, pp.-71-93.

<sup>114</sup> The UAE sent six F-16s and six Mirage fighters to participate in the NATO-led no-fly zone enforcement and ground target strike operations in Libya. Also, on May 10, 2011, the UAE hosted a meeting of Libyan dissidents, including representatives of cities still formally under the Qadhafi regime control. In June 2011, in the context of its hosting a meeting of the so-called “Libya Contact Group”, the UAE formally recognized the Benghazi-based Transitional National Council (TNC) as the sole representative of the Libyan people and pledged financial support to the TNC. In March 2012, the UAE announced it would transfer its 58 aging Mirage 2000 combat aircraft to the fledgling post-Qadhafi government. KATZMAN, *op. cit.*, p. 18

## ■ BIBLIOGRAPHY

ALBRECHT, Sascha, POSCH, Walter, "Sabre-Ratling in the Persian Gulf: Legal and Military Aspects of the Ideological Confrontation Between Iran and the United States, *German Institute for International and Security Affairs – SWP*, SWP Comments 14, April 2012

AL-RODHAN, Khalid R., CORDESMAN, Anthony H., *Gulf Military Forces in an Era of Asymmetric Wars*, Washington, D.C.: Center for Strategic & International Studies, 2007

CORDESMAN, Anthony, KOCHARLAKOTA, Vivek, SEITZ, Adam, "Iran, the Gulf, and Strategic Competition: Asymmetric Warfare", Center for Strategic and International Studies, August 10, 2010

CORDESMAN, Anthony, TOUKAN, Abdullah, WILNER, Alexander, "Iran's Strategic Competition with the U.S. and Arab States-Conventional, Asymmetric and Missile Capabilities", Center for Strategic & International Studies, July 28, 2011

CORDESMAN, Anthony, WILNER, Alexander, "U.S. and Iranian Strategic Competition: The Gulf Military Balance", Center for Strategic & International Studies, November 2, 2011.

*Dira'a al Watan (Emirates Shield)*, Abu Dhabi: Ministry of Defense, Directorate of Moral Affairs, 2006

DOLAN, Daniel, "Rethinking the Strait of Hormuz: A Recommended Course of Action that Establishes Operational Advantages", *U.S. Naval War College*, October 2010

DROZ-VINCENT, Philippe, *Vertiges de la puissance, le moment américain au Moyen-Orient*, Paris : La découverte, 2007

FREIER, Nathan, "The Emerging Anti-access/Area-Denial Challenge", Center for Strategic and International Studies, 2012

GERVAIS, Victor, *Du pétrole à l'armée : les stratégies de construction de l'État aux Émirats Arabes Unis*, Ministère de la défense : Institut de Recherche Stratégique de l'École Militaire, no. 8, 2011

"Iran's Naval Forces: From Guerilla Warfare to a Modern Naval Strategy", *U.S. Office of Naval Intelligence*, Fall 2009

"Jane's Sentinel Country Risk Assessment – Iran", 2012.

"Jane's Sentinel Country Risk Assessment – The United Arab Emirates", 2011

KAHWAJI, Riad, "Possibility, Scenario of an Iranian Preemptive Attack to Control the Gulf Waters", Institute for Near East & Gulf Military Analysis (Inegma), January 2012.

\_\_\_\_\_, "UAE Defense Spending Justified by Objectives and Nature of Threats", Inegma, September 2009

\_\_\_\_\_, "US-Arab Cooperation in the Gulf: Are Both sides Working From the same Script?", *Middle East Policy*, vol. XI, no.3, Fall 2004

KECHICHIAN, Joseph (ed.), *A Century in Thirty Years: Sheikh Zayed and the United Arab Emirates*, Middle East Policy Council, 2000

KHAN, Sabahat, "Iranian Mining of the Strait of Hormuz: Plausibility and Key Considerations", *Inegma Special Report*, no.4, January 2010

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KNIGHTS, Michael, *Troubled Waters. Future US Security Assistance in the Persian Gulf*, The Washington Institute for Near East Policy, 2006

MILLS, Rodney A., "Iran and the Strait of Hormuz: Saber Rattling or "Global Energy Nightmare?", U.S. Naval War College, October 2008

RIENZI, Michael V., "Iran's response to a U.S. Attack", *Small Wars Journal*, February 17, 2012

ROGIN, Josh, "Petraeus: The UAE's Air Force Could Take Out Iran's", *Foreign Policy*, December 17, 2009

RUSSELL, James A., *Regional Threats and Security Strategy : The Troubling Case of Today's Middle East* , Strategic Studies Institute, U.S. Army War College, Carlisle, PA, November 2007

SADJAPOUR, Karim, "The Battle of Dubai. The United Arab Emirates and the U.S.-Iran Cold War", *The Carnegie Papers*, July 2011

"Strait of Hormuz: Iran's Disruptive Military Options", *IISS Strategic Comments*, vol. 18, February 2012.

"The Military Balance, Chapter Five: Middle East and North Africa", International Institute for Strategic Studies, London, no. 110, 2010

ULRICHSEN, Kristian Coates, "Counterrevolution in the Gulf", *Foreign Policy*, May 6, 2011

\_\_\_\_\_, "Internal and External Security in the Arab Gulf States", Middle East Policy Council, 2009