

N° 01/2014

*recherches &
documents*

août 2014

The military Strategic Rationale of Turkey's T-Loramide project and the Eurosam offer

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Édité et diffusé par la Fondation pour la Recherche Stratégique
4 bis rue des Pâtures – 75016 PARIS

ISSN : 1966-5156
ISBN : 978-2-911101-82-3
EAN : 9782911101823

TABLE OF CONTENTS

INTRODUCTION	5
ROOTS OF TURKEY’S VULNERABILITY: 1991 GULF WAR AND SADDAM HUSSEIN’S ARMAGEDDON ARSENAL	6
TURKEY’S 1998 GUNBOAT DIPLOMACY AGAINST SYRIA: THE ONLY EXCEPTION AGAINST STRATEGIC WEAPONS	8
PICKING UP WHERE WE LEFT OFF: STILL NO NATIONAL MISSILE DEFENSE ASSETS IN 2003	11
THE 2010S: THIS TIME IT IS THE SYRIAN SCUDS BUT STILL NATO ASSETS NEEDED TO PROTECT TURKEY	13
TURKEY’S MILITARY STRATEGIC POSTURE IN THE 2020S AND BEYOND: FLEXING THE NATION’S MUSCLES	14
DOCTRINAL AND MILITARY-THEORETICAL PARAMETERS OF THE T-LORAMIDS: INTRAWAR DETERRENCE AND MERITS OF DEFENSIVE STRATEGIC WEAPONS	17
THE T-LORAMIDS PROJECT IN CONTEXT: A NET ASSESSMENT OF THE THREATS	18
ASSESSING THE EUROSAM OFFER: <i>PRO ET CONTRA</i> IN CONTEXT	23
CONCLUSION	27

Introduction*

Throughout Turkish military history, the nation's strategic depth has been evaluated as a key asset of defense. Within this military thought, conventional capabilities have always been seen as crucial in creating a tangible difference between the geopolitical norms of “front” and “behind the frontlines”.

However, in the recent decades, drastic shifts in Turkey's regional threat landscape with regard to strategic weapons proliferation, namely ballistic missiles and weapons of mass destruction (WMD), have gradually altered the Turkish geopolitical reality. Clearly, while striking critical national infrastructure and attacking high-value targets in the nation's geopolitical core around Istanbul would have been nearly impossible for a Middle Eastern adversary in the past, at present, a scenario considering WMD-tipped ballistic missile salvos could theoretically change the entire calculus. In fact, the current Middle Eastern defense trends suggest that the regional military balance tends to split into the two extremes of the “warfare scale”, namely, low intensity conflicts on one hand, and strategic weapon systems on the other¹. Therefore, in order to be a major power in the Middle Eastern strategic balance, which is one of the main objectives of the current Turkish foreign policy doctrine, Ankara has to successfully address the requirements of the current and future regional military parameters. As a matter of fact, since the first Gulf War (1991), Turkish administrations have had to demand deployment of NATO missile defense assets in order to mitigate risks posed by two different Baathist regimes in two Arab nations, Iraq and Syria. Besides, although there has been a two decades gap between the first Gulf War and the ongoing Syrian Civil War, Ankara still lacks national ballistic missile defense capabilities, and as of 2014, Turkey remains as vulnerable as it was in 1991. Finally, and more importantly, within the concept of *intrawar deterrence*, which this paper explains in detail, Turkey's lack of defensive strategic weapons to counterbalance its regional competitors' offensive strategic weapons is degrading Ankara's ability to influence outcome and conduct of wars in its immediate security environment.

In this regard, Turkey's *long range air and missile defense system (T-Loramids)* project² must be seen more than “simply military modernization”, but as a major step to answer the decades-long strategic weapons threat. The lucrative 4 billion\$ project was announced in 2009 by ruling out the Russian and Chinese state-to-state negotiating tendencies. Moreover, although declared as an off-the-shelf deal, co-production option

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¹ The author of this report has previously expressed this claim by indicating that future wars in the Middle East will be fought by the AK-47s at the hands of irregulars and WMDs by missile forces. For the full text see: Can, Kasapoglu. “Future of War in Middle East: Between AK 47s and Nukes”, *The Jerusalem Post*, October 10, 2012.

² For the Project updates and information see: The Undersecretariat for Defense Industries, <http://www.ssm.gov.tr/home/projects/Sayfalar/proje.aspx?projeID=129>, Accessed on: August 19, 2014.

has been on the table since 2013³. As Ankara has shown signs of opting for the Chinese HQ-9 system, a fierce debate was ignited among the global strategic community with respect to political, military, and defense economics aspects of the issue. As recently as August 2014 the Undersecretariat for Defense Industries, Turkey's main procurement authority, extended the deadline to December 31, 2014 for the submission of improved bids⁴.

This report is the main analytical product of a research that aims to explain the military strategic and geopolitical rationale underlying the T-Loramids project, and to analyze the *pro et contra* of the Eurosam's *Aster-30 Block-1* bid. In fact, while the T-Loramids deal was handled by many studies up until now, this report tries to address two gaps in the literature. Firstly, apart from the technical details and updates about the tender, the paper focuses on the military context and rationale of the T-Loramids project. Secondly, the report has a particular focus on the Eurosam bid. In fact, such customized studies on specific weapon systems' advantages and disadvantages would clearly help the global strategic community to develop a better understanding on the Turkish defense affairs. In this regard, the Istanbul-based think-tank *Center for Economics and Foreign Policy Studies (EDAM)* has previously penned a similar report analyzing the Chinese HQ-9 offer within the T-Loramids context⁵.

This paper firstly addresses the historical background of Turkey's vulnerabilities against the Middle Eastern strategic weapons proliferation. Secondly, Turkey's planned military strategic posture in the 2020s and beyond is explained, along with the importance of gaining missile defense capabilities for Ankara. Thirdly, a net assessment on the Middle Eastern strategic weapons calculus and the *raison d'être* of the T-Loramids project is laid out. Subsequently, a section focuses on the Eurosam bid and the Aster-30 Block-1 option with regard to Ankara's defense requirements. Finally, the report presents its findings.

Roots of Turkey's Vulnerability: 1991 Gulf War and Saddam Hussein's Armageddon Arsenal

A survey of regional crises at Turkey's doorstep would openly hint the military rationale lying behind Ankara's T-Loramids project. In 1991, the Turkish Armed Forces had to face a grave security threat, namely Saddam Hussein's Scud-based missiles and WMDs, and this has shaken Turkish military thought and its regional threat perceptions. This was a major challenge to Ankara in two ways.

First, throughout the Cold War the Turkish grasp on WMDs had been reduced to strategic and tactical nuclear arms within the very framework of the bipolar balance of terror. Yet in 1991 Turkey found itself in a troublesome position, facing a formidable biological and chemical weapons arsenal, a menacing missile inventory and a Baathist dictatorship that was proven to be willing to use these terror weapons in the course of

³ <http://www.defensenews.com/article/20130623/DEFREG04/306230007/Turkey-May-Adopt-Chinese-Air-Defense-System>, Accessed on: August 19, 2014.

⁴ The Undersecretariat for Defense Industries, press statement, August 26, 2014. For the full text (in Turkish): http://www.ssm.gov.tr/anasayfa/hizli/duyurular/PressReleases/Sayfalar/20140926_UMBHFS.aspx, Accessed on: August 27, 2014.

⁵ For the referred EDAM report visit: http://www.edam.org.tr/Media/Files/1147/TR_China_MD.pdf.

the Iran – Iraq War, and in Al-Anfal Operation⁶. In addition, given the geographical proximity of Iraq, Saddam Hussein could not be only willing, but also able to target important Turkish assets and population centers within the range.

At the time of the war, Iraq had two modified Scud-variants, al-Hussein with a range of 600-650 km, and al-Abbas (*or al-Hijarah*) with an improved 750-900 km range⁷. Thus, Turkey's main population centers (*Diyarbakir, Gaziantep, Sanliurfa, Van, etc.*), and military strategic targets (*2nd and 3rd Armies' HQs, key airbases in Diyarbakir and Malatya with deployed airwings, Incirlik Base with NATO assets and reportedly deployed NATO tactical nuclear weapons, many important corps-level units in the southeastern and eastern Anatolia*) had come under a significant threat.

Apart from the range, Ankara had to deal with three more problems with regard to the Iraqi ballistic missile threat. Firstly, there was a proven determination at the Iraqi side to use these assets, as Baghdad had launched hundreds of Scuds against Iran during the 8-year war⁸. Secondly, the Iraqi missile forces had gained so much experience in Scud operations that they managed to reduce the original Russian Scud-B's 90 minutes launch-cycle to 30 minutes. Thirdly and finally, in addition to fixed sites, at that time Baghdad had developed an unknown number of *transporter-erector-launchers (TEL)* along with their decoys⁹ that boosted the risk of a surprise and unpredictable attack.

Beyond the conventional threat posed by Saddam Hussein's missile forces, potential WMD warhead choices were grim enough to trigger an *Armageddon scenario* for Ankara. Following the Gulf War, the UN Security Council Resolution 687 was passed to eliminate Iraq's biological and chemical weapons and missiles with a range over 150 km¹⁰. During the implementation of the resolution, as of 1998, the UN Special Commission (UNSCOM) has revealed an apocalyptic arsenal consisting of 38,000 chemical weapons munitions, 19,000 liters of botulinum, 8,400 liters of anthrax cure, 48 operational Scud missiles, and so on¹¹. From a military standpoint, such large-scale biological and chemical arsenals have destructive effects tantamount to those of theater nuclear weapons¹².

After 1991, the Scud missiles and BC weapons nightmare was not over for Turkey. At the time when the UNSCOM & IAEA teams disclosed the formidable arsenal given above, the Turkish press had joined international concerns on Saddam Hussein's transfer of his strategic weapons arsenal to the region from Libya to Yemen dispersedly¹³. Even after the Operation Desert Fox in 1998, which was launched for

⁶ Dana A. Shea, *Chemical Weapons: A Summary of Characteristics and Effects*, Congressional Research Service, Washington D.C., 2013. pp. 2-11.

⁷ William Rosenau, *Special Operations Forces and Elusive Enemy Ground Targets*, RAND Corporation, Santa Monica, 2001, pp. 30-31.

⁸ Ibid.

⁹ Ibid. pp. 31-34.

¹⁰ The United Nations Security Council, Resolution 687, <http://www.un.org/Depts/unscom/Chronology/resolution687.htm>, Accessed on: August 17, 2014.

¹¹ The United Kingdom Parliament Post Note: 111, February 1998, pp. 1-2.

¹² Anthony Cordesman, *Syrian Weapons of Mass Destruction*, CSIS, Washington D.C., 2008, p. 15.

¹³ Hurriyet, "Saddam Silahlari Kacirdi", February 16, 1998, <http://dosyalar.hurriyet.com.tr/fix98/korfez/kor16/kor161.htm>, Accessed on: August 17, 2014.

degrading the Iraqi capacity to manufacture WMDs, the threat posed to Ankara was not completely mitigated. For instance, on January 29 1999 the Turkish mainstream press was alarmed because of the reports indicating that the day before, Iraq was preparing to launch Scud missiles at the Incirlik Base. The rumors and the “*Scud-mania*” went so far that some press sources even reported Scud hits in Turkey’s major southeastern cities of Diyarbakir and Hatay¹⁴.

Briefly, the 1990s were years in which Turkey faced a new military trend, namely strategic weapons other than the Soviet nukes. In fact, harbingers of such a threat were there for Ankara to anticipate. For instance, the 1973 Yom Kippur War witnessed the first Scud launch by the Egyptians in a war situation. Moreover, Cairo’s vague biological weapons program at that time, along with the possibility of Moscow’s suspected transfer of nuclear warheads to Anwar Sadat, made the situation more complicated given Israel’s reported nuclear arsenal¹⁵. Besides, one year later, the Baathist Syria had begun receiving its first Scuds from Moscow¹⁶.

Threateningly, the Middle Eastern military trends suggest that most of the region’s actors see strategic weapons as a quick fix solution to overcome conventional shortcomings¹⁷. More importantly, WMDs other than nuclear weapons have long played a critical role in the region. In 1988, speaker of the Iranian Parliament at that time, Hashemi Rafsanjani, labeled chemical and biological weapons as the “poor man’s atomic bomb”¹⁸. In fact, the 1980s saw a robust chemical warfare in Turkey’s two neighbors’ territories during the Iran – Iraq War, and later, al Anfal Operation has proven that at the hands of dictatorships, strategic weapons can even be considered as an internal operational asset. The Syrian Civil War consolidated this very fact.

Turkey’s 1998 Gunboat Diplomacy against Syria: the Only Exception against Strategic Weapons

Within Turkey’s “fluctuation periods” against the strategic weapons proliferation in its region, the 1998 gunboat diplomacy efforts against Syria constitute an exception to Ankara’s traditional threat perceptions and hesitancy.

Since the late 1970s, Hafez al Assad-led Syria had provided a safe haven to Kurdistan Workers’ Party (PKK) terrorism, and harbored the violent organization’s leader Abdullah Ocalan for decades up until 1998. The reasons for Damascus’ support to the PKK terrorism had rooted from a wide-array of issues including hydrostrategic competition and water disputes over Tigris and Euphrates rivers, the Baathist regime’s expansionist intentions over Turkey’s Hatay province, a malice approach of using proxy wars to bleed geopolitical rivals –*which the regime has been using in other Middle*

¹⁴ Hurriyet, “Scud Alarm”, January 29, 1999, <http://webarsiv.hurriyet.com.tr/1999/01/29/93108.asp>, Accessed on: August 17, 2014.

¹⁵ W. Andrew Terril, *Escalation and Intrawar Deterrence during Limited Wars in the Middle East*, The U.S. Army Strategic Studies Institute, Carlisle Barracks-Pennsylvania, 2009, pp. 44-50.

¹⁶ Ibid.

¹⁷ Richard L. Russel, “The Middle East’s Nuclear Future”, *The Next Arms Race*, Henry D. Sokolski [ed.], The U.S. Army Strategic Studies Institute, Carlisle Barracks- Pennsylvania, 2012, pp. 185-186.

¹⁸ United Kingdom General Rapporteur Lord Lyell, *Chemical and Biological Weapons: Poor Man’s Atomic Bomb*, North Atlantic Assembly General Secretariat, AN:253 / STC (96)8, 1996.

Eastern conflicts as well–, and exporting its own “Kurdish problem” to a neighboring country to divert Syria’s own separatist potential’s energy.

Following two decades of counterterrorism efforts, military transformation, and massive cross-border operations in the 1990s, Ankara finally decided in 1998 to initiate gunboat diplomacy against Syria by using its conventional military superiority as a lever.

Turkey’s successful gunboat diplomacy effort, which eventually led to Ocalan’s expulsion by Damascus, was ignited by the Land Forces’ Commander Gen. Atilla Ates’ public “show of strength” speech in the Turkish – Syrian border city of Hatay, definitely a well-chosen symbolic place to threaten the Assad regime. In his speech, the General openly gave an ultimatum to Syria by labeling the regime as an incorrigible sponsor of terrorism¹⁹. Afterwards, Turkey had escalated its pressure at the highest level by the speech of the President at that time, Suleyman Demirel, before the Turkish Parliament on October 1 1998. In his speech, President Demirel rigorously stated that as Syria had not stepped back from its hostile manner vis-à-vis Turkey, Ankara was reserving its right to self-defense²⁰. This political escalation was augmented by a robust military buildup along the Syrian border coupled by diplomatic efforts; and later on, led to Ocalan’s expulsion in mid-October 1998.

In fact, revealed statements from a 2005 conference by the Turkish Chief of Staff in 1998, Gen. Hüseyin Kivrikoglu, suggest that at the time the Turkish General Staff indeed planned a robust roadmap that firstly considered air, land, and naval violations and artillery fire along the border areas, and if needed, a follow-up major armor incursion deep into Syria²¹.

More importantly, the critical point here relates to the very question of what in 1998 made Turkey overcome its hesitancy, and paved the ground for asserting military pressure on Hafez al Assad, despite Syria’s strategic weapons arsenal?

According to the top official Turkish military figures at that time, the underlying reason of Ankara’s ability to exert pressure on Damascus in 1998 was the transformation of the Turkish Armed Forces during the 1990s that enabled cross-border offensive roles instead of the previous defensive posture²². Indeed, just three years before Ankara’s gunboat diplomacy against Hafez al Assad, the Turkish Armed Forces had reached the ability to launch a massive corps-level joint cross-border operation (*Celik Harekati –the Operation Steel*), which was conducted by some 35,000 troops, the Air Force and Army Aviation elements, Special Forces, as well as mechanized and commando units for pushing deep into northern Iraq to sweep the PKK threat²³. Furthermore, by the 2000s it was revealed that “troop concentration” and “force allocation” were the two major comforting factors for the Turkish General Staff in such a way that, as of 1998, the bulk

¹⁹ *Milliyet*, “Her Sey Atilla Paşanın Gözdağı ile Başladı”, November 14, 1998.
<http://dosyalar.hurriyet.com.tr/hur/turk/98/11/14/gundem/08gun.htm>, Accessed on: August 25, 2014.

²⁰ The Turkish Parliament, Presidential Speeches in Legislative Term Inaugurations (in Turkish), October 1, 1998 Speech, p. 128. For the full archive see:
http://www.tbmm.gov.tr/yayinlar/cumhurbaskani_genel_kurul_konusmalari/CB_konusmalari_cilt_2.pdf

²¹ “Kıvrıkoğlu: Tanklarla Suriye’ye Girecektik”, *Aksiyon*, October 17, 2005.

²² Hasan Kundakci, *Guneydogu’da Unutulmayanlar*, Alfa Basın Yayım Dagitım, Istanbul, 2007, p. 392.

²³ *Ibid.* pp. 336-337.

of Syria's troop concentrations had pinned down in the Golan Heights and Lebanon. Thus, Assad had little force to commit against Turkey. In addition, it is understood that the Turkish armor superiority with regard to numerical and technological advantages in main battle tanks had encouraged the Turkish military planners²⁴. Besides, in the mid-1990s, Turkey had adopted the “two and a half war concept”, firstly voiced by Turkey's former ambassador to Washington, Sukru Elekdag. The concept depended on an intensive threat perception so that Turkey could not benefit from the post Cold War normalization, and thereby, Ankara had envisaged to design and modernize armed forces being able to run a war on two fronts at the same time (probably with Greece and Syria), as well as sustaining counterterrorism efforts against PKK simultaneously²⁵.

Moreover, some experts argue that another important factor that boosted Ankara's freedom of movement against Syria in 1998 was Turkey's strategic partnership with Israel at the time. In this regard, Prof. Efraim Inbar notes that although the Turkish – Israeli ties in the 1990s could not be labeled as a military alliance, as the two countries had not defined a *casus foederis*, by all means it was a strategic partnership with a strong emphasize on the military component²⁶. More importantly, in his work the Israeli professor hints the prospects of cooperation against the missile threat emanating from Syria (as well as Iraq and Iran) considering both intelligence and early warning aspects, along with offensive options such as possible pre-emptive strikes on missile and WMD installations²⁷. Interestingly, in the midst of the war cry against Syria in 1998, an unnamed retired top military figure indicated to the Turkish press that according to the military planning, the Syrian Scuds were to be destroyed by the Turkish F-16s²⁸. Indeed, from a technical standpoint, locating and destroying Syria's mobile missile launchers and avoiding a dense network of air defenses would have required robust intelligence, early warning, and electronic warfare assistance by a third party. Within this context, in a 1999 article Alan Makovsky argues that Israel's reported satellite intelligence to Turkey for combating PKK activities could be enhanced to cover possible Syrian sites²⁹. Moreover, Makovsky also reiterated the Turkish General Staff's 1998 analysis on the Syrian forces that they were pinned down in the Golan Heights and Lebanon so that Turkey was able to take this advantage³⁰.

To sum up, despite the very existence of strategic weapons at the hands of the Syrians in 1998, Ankara played its options carefully by imposing a new cost-benefit calculus to Hafez al Assad with regard to his support of terrorism. Clearly, while funding a proxy war against Turkey had been a less-costly / highly-beneficial strategy for the Baathist Regime until 1998, the Turkish administration at the time had increased the cost up to that of a conventional war, and also offered a way out by setting the condition of

²⁴ “Kıvrıkoğlu: Tanklarla Suriye'ye Girecektik”, *Aksiyon*, October 17, 2005.

²⁵ Sukru, Elekdag. “2 ½ War Strategy”, *Perceptions*, March-May 1996.

²⁶ Efraim Inbar, “Regional Implications of the Israeli–Turkish Strategic Partnership”, *Middle East Review of International Affairs*, Vol. 5 No: 2, Summer 2001, pp. 48-49.

²⁷ Ibid. pp. 51-52.

²⁸ “Oglen Sam'dayiz”, *Hurriyet*, October 7, 1998. <http://hurarsiv.hurriyet.com.tr/goster/haber.aspx?id=-41653>, Accessed on: 25 August, 2014.

²⁹ Alan Makovsky, “Defusing the Turkish-Syrian Crisis: Whose Triumph?”, *Middle East Insight*, Washington Institute for Near East Policy, January / February 1999.

³⁰ Ibid.

denying safe havens to PKK in return for easing the tension and normalizing relations. Therefore, Hafez al Assad found himself in a situation that he could either step back or confront Turkey in a helpless conventional military effort, or worse, he could use strategic weapons to retaliate a NATO-member state that was enjoying strong defense ties with Israel in a conjuncture when the Iraqi Baathist regime was under strict pressure due to WMDs and ballistic missiles. The latter two options, especially the last one, could have put the regime security at an existential risk, while the first option was tantamount to losing a proxy war asset. Without a doubt, Ankara considered Hafez al Assad rule as a malicious but a rational one in terms of decision-making. Therefore, Turkey never pursued unlimited objectives in its gunboat diplomacy that could harm the Baathist Regime's rationality, and boosted its efforts by a robust strategic partnership with Israel. Eventually, Damascus signed the Adana Agreement by which it promised to cease all the support to PKK, and granted a verification mechanism to the Turkish administration.

Yet, five years later Turkey was to face a collapsing regime that could become seriously irrational. At that time, Saddam Hussein of Iraq was anticipating an inescapable existential threat.

Picking up Where We Left off: Still No National Missile Defense Assets in 2003

It was nearly more than a decade since Turkey had faced the 1991 crisis and the “new threat”, right after the Cold War military strategic balance collapsed. During the 1990s, a low intensity conflict threat of PKK terrorism has dominated the Turkish national security agenda. In this regard, Turkey has transformed its division-based bulky armed forces, left over from the Cold War, into a brigade-based, mobile, airlifted, and cross-border operating force. However, while Ankara did well to get a good grip on one angle of the Middle Eastern threat landscape including irregular warfare and proxy wars, strategic weapons proliferation, the other side of the same coin, has remained unaddressed to date.

As of 2003, despite the degradation of Saddam Hussein's strategic weapons arsenal in the 1990s, Baghdad was still believed to have an inventory that would be capable of terrorizing neighboring states. Prior to the Operation Iraqi Freedom, a later declassified US National Intelligence Estimate report indicated that at the time, Saddam Hussein's forces managed to stock at least 100 metric tons of CW agents (*the report estimated the max. limit as some 500 MT*), a significant biological weapons arsenal of anthrax and possibly smallpox, a UAV program to disperse weaponized bio-agents, and up to a few dozen Scud-variants with ranges between 650-900 kilometers that can be CW-tipped³¹.

While Saddam Hussein managed to keep a “small portion” of his strategic weapons arsenal prior to the Operation Iraqi Freedom, after a decade of fear Turkey still did not have any national ballistic missile defense assets in its inventory.

Actually, in 1997, Turkey started negotiations with Israel for the co-production of the Arrow air and missile defense system. Turkey's appetite for military cooperation with Israel in missile defense was mainly based on two pillars. Firstly, as noted in the

³¹ US National Intelligence Estimate, Approved for Release in April 2004.

previous section, the late 1990s witnessed the peak of the Turkish – Israeli strategic cooperation. These ties were mainly run by the military elite in Turkey at that time. Under the problematic civil-military relations of Turkey in those years, Turkish – Israeli relations were seen as a leverage of domestic politics by the military guardianship³². Thus, co-production of a defensive strategic weapon system was tantamount to an anchor serving the resilience of the strategic cooperation. Secondly, Israel was more supportive of technology transfers within co-production framework³³, compared to the Western options. However, we should not overestimate the limits of technology transfers, as the Israelis have found some of Turkey's demands to be unrealistic³⁴. For instance, with regard to the M-60 tanks upgrade, although the Israeli side accepted technology transfer for some components, the critical know-how transfer on armor manufacturing was declined³⁵.

At first, Washington opposed the Arrow deal as it could violate the *Missile Technology Control Regime (MTCR)*. Although the United States agreed to the co-production later, at that time Turkey's 2001 financial crisis caused the Arrow project failure³⁶. Then, by the 2000s deterioration in the Turkish – Israeli relations prevented the Arrow system to be incorporated into the T-Loramids tender or being run as a bilateral co-production option. In fact, given the Arrow system's high-explosive warhead with a top speed of Mach-9³⁷, its exoatmospheric interception capabilities³⁸, and the system's Middle Eastern missile landscape-oriented evolution, it could have been a true panacea for Turkey. However, in general, military modernization projects are not immune to political fluctuations.

When the harbingers of the Operation Iraqi Freedom surfaced, Turkey once again asked for the NATO allied protection that eventually ended up with the deployment of Patriot batteries along with AWACS early-warning assets on Turkish soil. In this regard, the NATO allies did not only augment Turkey's defense with early-warning aircraft, and Dutch and American anti-ballistic missile batteries, but also by providing protective gear and detection equipment to Ankara³⁹. Evidently, the Turkish threat perception at the time had focused on a moment of irrationalism of Saddam Hussein and his close circles that could lead to either provocative strike against Turkey to drag Ankara into a

³² For a detailed analysis with regard to the Turkish civil-military relations and Turkish – Israeli relations correlation see (in Turkish): Ali Balci, "Turkiye'nin Dis Politikasi ve Israil: 1990'lar ve 2000'lere İlişkin Bir Karsilastirma", *Orta Dogu Etutleri*, Vol. 2, No. 2, February 2011.

³³ For the co-production of Popeye-II cruise missiles see: Aaron Stein, *Turkey's Missile Programs: A Work in Progress*, EDAM, Istanbul, 2013.

³⁴ Efraim Inbar, "The Resilience of Israeli-Turkish Relations", *Israel Affairs*, Vol. 11 No. 4, October 2005.

³⁵ Eugene Kogan, *Cooperation in the Israeli – Turkish Defence Industry*, Conflict Studies Research Centre, Defence Academy of the United Kingdom, 2005, pp. 4-5.

³⁶ Aaron Stein, "Turkey's Missile Defense Decision: Ankara will Miss NATO Cueing Capabilities", October 11, 2013, <http://turkeywonk.wordpress.com/2013/10/11/turkeys-missile-defense-decision-ankara-will-miss-nato-cueing-capabilities/>, Accessed on: August 17, 2014.

³⁷ Christopher Harmer, *Threat and Response: Israeli Missile Defense*, ISW Backgrounder, Washington D.C., 2012.

³⁸ Anthony H. Cordesman, *Israeli Weapons of Mass Destruction: An Overview*, CSIS, Washington D.C., 2008, p. 9.

³⁹ NTVMsNBC, "US to deploy Patriot Missile Systems in Turkey", March 13, 2013, <http://arsiv.ntvmsnbc.com/news/205757.asp>, Accessed on: August 18, 2014.

regional war, or worse, risk of contamination given the earlier inspection and intelligence reports on the Iraqi violations of UNSC Resolution 687.

Notably, while the 1991 experience showed Turkey's lack of preparation, both in terms of military intelligence and equipment, against its Middle Eastern neighbors' strategic weapons arsenals; the 2003 incident revealed the lack of an effective lessons-learned effort and a decade of wasted-time with regard to promoting defensive strategic weapons capabilities.

Without a doubt, defensive strategic weapons are expensive systems, and spending on offensive conventional arms could be seen as a smarter option for modest defense economies. However, strategic vulnerabilities could be somewhat restraining on politico-military freedom of movement for Ankara. The subsequent section is presenting the grounds for this argument.

The 2010s: This Time It is the Syrian Scuds but Still NATO Assets Needed to Protect Turkey

After two decades of both lacking national missile defense assets and complaining about the NATO's, especially its European members' hesitancy about involving in *out-of-area* operations; in the 2010s, Turkey was caught off-guard against another Baathist dictatorship: the Assad-ruled Syria's ballistic missiles and WMD arsenal. Furthermore, this time Ankara adopted a pro-active and sharper approach in encouraging the demise of the Baathist rule in Syria.

As the conflict unfolded, Ankara has once again approached NATO for the deployment of Patriot batteries on Turkish soil. In December 2012, NATO Foreign Ministers decided to augment Turkey's defense by deploying six Patriot batteries from Germany, the Netherlands, and the United States⁴⁰. In tandem, by June 2013 the U.S. also deployed Patriot batteries in another key nation in the region, Jordan, which could come under pressing danger because of possible spillover of the Syrian Civil War⁴¹. Importantly, on August 26 2014 the Dutch Defense Ministry announced that the Netherlands is to end its deployment of two Patriot batteries in Turkey due to maintenance problems⁴². With regard to the Dutch decision, the Turkish Defense Ministry spokesperson stated that as the threat continues Turkey is looking for a replacement within the NATO capabilities⁴³.

Indeed, Syria's Baathist regime has pursued a military approach not much different to the Iraqi one with respect to ballistic missiles and WMDs. Although Assad was rational

⁴⁰ NATO Fact Sheet, *Patriot Deployment*, February 2013, http://www.nato.int/nato_static/assets/pdf/pdf_2013_02/20130220_130220-factsheet_patriot-en.pdf, Accessed on: August 19, 2014.

⁴¹ <http://www.washingtontimes.com/news/2013/jun/10/f-16s-patriot-missiles-jordan-syria-intervention/>, Accessed on: August 19, 2014.

⁴² <http://www.defensenews.com/article/20140826/DEFREG01/308260024/Holland-Terminate-Patriot-Mission-Turkey>, Accessed on: August 27, 2014.

⁴³ Response by the Foreign Ministry Spokesperson Tanju Bilgic, <http://www.washington.emb.mfa.gov.tr/ShowAnnouncement.aspx?ID=217205>, August 26, 2014. Accessed on: August 27, 2014.

enough and did not attempt to ignite a regional war by Scud strikes against Israel or other Arab nations as Saddam Hussein tried, the December 2012 – March 2013 period still marked a milestone in the Syrian Civil War when the regime's forces conducted Scud strikes onto the contested hub Aleppo⁴⁴. By doing so, Assad's forces have shown that Damascus sees its strategic weapons, namely missiles –and later on in summer 2013 chemical warfare assets– as “usable tools” rather than static deterrents.

To date, Syria's Scud launches have remained limited within the civil war-torn country, and thereby, no Patriot interceptions were recorded. However, there could be a significant concern for the future reference. As a general rule, combat-experience is an indispensable asset for the world's armies, and thereby Syria's missile forces (and their Iranian “advisors”) have gained an invaluable experience with respect to missile and rocket operations. In this regard, Israeli missile expert Uzi Rubin indicates that should Assad stays in power surviving in the prolonged civil war, then the missile inventory could be swiftly replenished and Damascus could pose a more dangerous threat than before⁴⁵. Without a doubt, Israeli claims on Syrian missile potential could be taken with a grain of salt, as exaggerating the threat could be seen as a good way of attracting international community's attention to a dangerous but uncertain possibility by presenting it as a strong probability. Moreover, without major missile transfers from Iran, or even Russia or China, the Syrians' own manufacturing infrastructure would not be sufficient to “swiftly replenish” the arsenal back to pre-civil war level. However, there is no good reason to rule out a gradual but menacing return back of the Baathist missile forces.

Therefore, depending on the trajectory of the Syrian Civil War, and also the Iranian defense trends which is treated later in this paper, the T-Loramids project could be a major pillar of the Turkish – Syrian and the Turkish – Iranian military strategic balance in the coming years. For this reason, the report will subsequently focus on the role of Turkey's missile defense project within the context of the Turkish military strategic posture in the 2020s.

Turkey's Military Strategic Posture in the 2020s and beyond: Flexing the Nation's Muscles

The ongoing T-Loramids project cannot be fully understood without understanding major trends in the Turkish defense modernization, and Ankara's strategic planning.

Under the Justice and Development Party rule (*AK Party in the Turkish acronym*), Turkish defense modernization has gained a successful momentum and graduated to a new level. This uptrend was underpinned by several factors that contributed the establishment of Turkey's new military vision.

⁴⁴ http://www.washingtonpost.com/world/middle_east/ballistic-missile-strikes-on-aleppo-signal-new-escalation-in-syria-war/2013/02/26/d4139e86-8052-11e2-a671-0307392de8de_story.html, Accessed on: August 19, 2014.

⁴⁵ Uzi Rubin, *Rocket and Missiles in Syria's Civil War*, (presentation), Rubincon Ltd., June 2013. [https://www.rusi.org/downloads/assets/Rubin_Part_Three_\[Compatibility_Mode\].pdf](https://www.rusi.org/downloads/assets/Rubin_Part_Three_[Compatibility_Mode].pdf), Accessed on: August 19, 2014.

Firstly, if everything goes as planned the Turkish Air Force in the 2020s and beyond will be operating some 100 F-35 multi-role fighters⁴⁶. In addition, the Turkish Air Force (TAF) has undergone a doctrinal shift. In March 2002, the TAF has replaced its “Turkish Armed Forces Air Concept” with the “Aerospace and Missile Defense Concept” in order to augment Turkey’s space activities and ballistic missile defense efforts⁴⁷.

Since then, Ankara has taken two major moves to initiate the new concept. The first one is the T-Loramids project that this paper mainly addresses. Secondly, in the recent August 2014 Supreme Military Council meeting, Turkey’s main military decision-making body chaired by the Prime Minister and joined by the entire four-star general staff from all branches, a new “*Combat Air Force and Air – Missile Defense Command*” has been established. Under a newly-promoted four-star air general, the Command is reported to be responsible for controlling missile defense, strategic air assets, the Air Force–related intelligence, space activities, and shaping Turkey’s major arms manufacturer *Roketsan*’s efforts⁴⁸. In this respect, the TAF officially explained that the new Command was established to unify all the aspects of air and space-based operations under one single C2⁴⁹.

In addition to the developments in the TAF, the army is being modernized relying more on indigenous and co-produced systems, such as the forthcoming national main battle tank (*Altay*) and currently operational 155mm howitzers (*Firtina*)⁵⁰. Furthermore, the Turkish Army’s⁵¹ smaller but mobile posture will be supported by a robust army aviation with some 60 TAI–AgustaWestland co-produced attack helicopters (*T-129*)⁵² as well as effective air-cavalry assets, namely, Chinook heavy-lift helicopters⁵³ and over 100 Sikorsky utility helicopters⁵⁴. In other words, the Turkish Land Forces and the Gendarmerie Special Operations Forces in the 2020s and beyond would drastically promote their air-land mechanized warfare, close-air support, and air-cavalry operational capabilities within a swift, multi-battalion level rapid deployment framework.

Finally, the navy is taking the initial steps of transforming from a coastal deterrent into a blue-waters force, especially with a special focus on energy geopolitics in the Eastern Mediterranean. In this regard, the *Juan Carlos I-class* “Amphibious Assault Ship”

⁴⁶ The Undersecretariat for Defense Industries, Official Website, <http://www.ssm.gov.tr/anasayfa/projeler/Sayfalar/proje.aspx?projeID=94>, Accessed on: August 19, 2014.

⁴⁷ IHS Jane’s, *World Air Forces: Turkey*, July 2, 2012. p. 3.

⁴⁸ Sabah, “Yeni Komutanlık Geliyor”, August 7, 2014, <http://www.sabah.com.tr/Gundem/2014/08/07/yeni-komutanlik-geliyor>, Accessed on: August 18, 2014.

⁴⁹ Turkish Air Force (official website), “Hava Kuvvetlerinde Teskilat Degisikligi”, August 7, 2014. <http://www.hvkk.tsk.tr/TR/HaberDetay.aspx?IcerikID=6348&ID=93>, Accessed on: August 26, 2014.

⁵⁰ IISS, *Military Balance: 2014*, Routledge, London, 2014, p. 159.

⁵¹ In the Turkish doctrinal order of battle, the Land Forces is the equivalent of the western military terminology for “army”.

⁵² IISS, *Military Balance: 2014*, Routledge, London, 2014 p. 159.

⁵³ Ibid.

⁵⁴ Defensenews, “Turkey, Sikorsky Sign \$3,5 Billion Helicopter Deal”, Feb. 21, 2014. <http://www.defensenews.com/article/20140221/DEFREG01/302210022/Turkey-Sikorsky-Sign-3-5-Billion-Helicopter-Deal>, Accessed on: August 18, 2014.

acquisition project is prominent as the most important leg of the Turkish Navy's geopolitical transformation⁵⁵. Therefore, the project has widely echoed among the Eastern Mediterranean actors. For instance, in a Jerusalem Post op-ed, Israeli expert Micha'el Tanchum evaluated the acquisition as "a major step altering the naval balance in the Eastern Mediterranean" through the capabilities of an "aircraft carrier substitute"⁵⁶. Indeed, the Spanish Navy officially labels the *Juan Carlos 1-class*, which can embark a battalion-level marine force with some 150 armored vehicles, as well as rotary and suitable fixed-wing aircrafts, as an "*aproyección de fuerza*" (force projection) asset⁵⁷.

In addition to the enhanced amphibious perspective, and also within the framework of air and missile defense, the navy's geopolitical shift incorporates acquisition of anti-air warfare frigates under the TF-2000 project. The project is estimated to cost up to \$7 billion through fostering the navy's enhanced air defense with four anti-air warfare frigates⁵⁸. Furthermore, the TF-2000 program will be based on the know-how being gained under Turkey's ongoing *MILGEM* national corvette project⁵⁹.

The *Milgem* (*Milli Gemi – National Ship in the Turkish acronym*) corvette line is designed for anti-submarine and patrol missions, and armed with advanced sensors and weapons. The first two ships of the class, TCG Heybeliada and TCG Buyukada, have entered into service in 2011 and 2013 respectively with 65% domestic industry involvement by some 50 Turkish companies⁶⁰. Furthermore, according to Turkish procurement officials, the next *Milgem* corvettes (Milgem Batch II) will have an "expanded role and increased combat capability" that would include local area air defense capabilities through the integration of Evolved Sea Sparrow missiles⁶¹. Also, it is important to note that the Turkish *Roketsan* Company is producing various mechanical and composite parts of the Evolved Sea Sparrow missile⁶².

⁵⁵ Turkish Undersecretariat for Defense Industries, Official Website, <http://www.ssm.gov.tr/home/projects/Sayfalar/proje.aspx?projelID=30>, Accessed on: July 16, 2014.

⁵⁶ Micha'el Tanchum, "Turkey's New Carrier Alters Eastern Mediterranean Energy and Security Calculus", *The Jerusalem Post*, February 4, 2014.

⁵⁷ Armada Española (The Spanish Navy) official website, http://www.armada.mde.es/ArmadaPortal/page/Portal/ArmadaEspañola/buques_superficie/prefLang_es/02_lhd_juan-carlos-i--03_lhd-juan-carlos-i-l-61, Accessed on: July 17, 2014.

⁵⁸ Defensenews, "Turkey Plans to Build up to 8 Frigates", <http://www.defensenews.com/article/20121212/DEFREG01/312120003/Turkey-Plans-Build-up-8-Frigates>, December 2012, Accessed on: July 26, 2014.

⁵⁹ Chief of the Turkish Navy Admiral Bulent Bostanoglu's speech (in Turkish), http://www.dzkk.tsk.tr/denizweb/turkce/guncel/guncel_detay.php?id=83, September 27 2013, Accessed on: August 18, 2014.

⁶⁰ Turkish Undersecretariat for Defense Industries, Official Website, <http://www.ssm.gov.tr/home/projects/Sayfalar/proje.aspx?projelID=140>, Accessed on: July 16, 2014.

⁶¹ Alex Pape, "Turkey to Expand MilGem Batch II Corvette Role Capability", *IHS Jane's Defence Weekly*, 28 May 2014.

⁶² Roketsan (official website), ESSM project, <http://www.roketsan.com.tr/en/urunler-hizmetler/hava-sistemleri/evolved-sea-sparrow-missile-essm-projesi/>, Accessed on: August 26, 2014.

Finally, the NATO tactical nuclear weapon deployment in Turkey seems to be continued in the 2020s and beyond. Under the ongoing *Life Extension Program*, the four variants⁶³ of the B-61 line is planned to be combined within a single nuclear bomb⁶⁴.

On Ankara's part, the critical issue with the NATO tactical nukes boils down to the very fact that the B-61/12 nuclear bombs will be able to be delivered by the F-35 Joint Strike Fighters, if certified. Open-source military surveys indicate that out of NATO's remaining 150-200 tactical nuclear bombs, Turkey is believed to host some 60-70 B-61s at the Incirlik Base.⁶⁵ Turkish experts report that the TAF no longer flies tactical nuclear missions since the end of the Cold War.⁶⁶ However, theoretically there is no good reason to rule out the possibility that the TAF could return tactical nuclear missions in the next decades.

In sum, the Turkish military strategic posture in the 2020s and beyond is expected to enjoy an army with increased mobility, a navy with extended geopolitical outreach, and an air force gaining missile defense and aerospace capabilities, a stealth multi-role tactical air wing, and perhaps, an allied tactical nuclear role. In combination with an ambitious foreign policy doctrine, such a national military capacity seems to be promising by offering new opportunities for the nation in order to expand its politico-military influence into Turkey's hinterland. On the other hand, for the time being, strategic weapons proliferation in the Middle East still constitutes a bothersome caveat in this overall picture.

Doctrinal and Military-Theoretical Parameters of the T-Loramids: Intrawar Deterrence and Merits of Defensive Strategic Weapons

With regard to Turkey's geopolitical ambitions in the Middle East, strategic weapons' *intrawar deterrence* function is of great importance. Briefly, the *intrawar deterrence* concept is based on the capability of "explicit or tacit bargaining within an ongoing war" along with the ability to influence escalation / de-escalation trajectories in the course of a conflict. In other words, the main military rationale behind *intrawar deterrence* is to bargain over the outcome and the mode of conduct of a war⁶⁷. Due to their military, political, and psychological functions, strategic weapons play an important role in determining *intrawar deterrence* capacity of a nation⁶⁸.

⁶³ B-61/3, B-61/4, B-61/10, and B-61 /7 which is the strategic variant of the B-61 line.

⁶⁴ The U.S. Department of Defense, *B-61 Mod 12 Life Extension Program Tail Kit Assembly*, Washington D.C., 2012, p. 4.

⁶⁵ Götz Neuneck in *Tactical Nuclear Weapons and NATO*, Tom Nichols, Douglas Stuart and Jeffrey D McCausland [ed], The U.S. Army Strategic Studies Institute, Carlisle Barracks, Pennsylvania, 2012, pp. 259-263.

⁶⁶ Mustafa Kibaroglu, "Turkey NATO & Nuclear Sharing: Prospects after NATO's Lisbon Summit", Nuclear Policy Paper No. 5, Reducing the Role of Tactical Weapons in Europe Project, 201, pp. 2-3.

⁶⁷ W. Andrew Terril, *Escalation and Intrawar Deterrence during Limited Wars in the Middle East*, The U.S. Army Strategic Studies Institute, Carlisle Barracks-Pennsylvania, 2009, pp. 4-17.

⁶⁸ Ibid.

In the light of this military-theoretical discussion, it could be argued that the aforementioned Iraqi cases show Saddam Hussein's failure at *intra-war deterrence* attempts. In this regard, the Syrian Civil War has not witnessed such a drastic effort by Syria's Baathist dictator yet, thus, this paper contends that Damascus' Scud launches and tactical-level CW use were employed for changing the battleground situation, rather than a regional-scale mode of war conduct.

At this point, the importance of defensive strategic weapons comes into the picture. The military paradigm underlying defensive strategic weapons goes back to the bipolar balance of terror in the 1960s and 1970s. Embodied in the *raison d'être* of the 1972 ABM Treaty, the relation between offense and defense shaped the U.S. – Soviet balance at that time. In this regard, it was firstly evaluated that “*offensive and defensive weapons are inextricably linked*”; and secondly “*robust defense can vastly complicate the calculation of strategic stability*”⁶⁹. As the beginning of the 2000s witnessed the U.S. withdrawal from the ABM Treaty, the concept of defensive strategic weapons has graduated to a more important level in contemporary military affairs.

This paper concludes that the essential role of defensive strategic weapons is based on a “negative objective” of war in a Clausewitzian sense. Clearly, defensive strategic weapons are aimed to minimize the adversary's *intra-war deterrence* and degrade its ability to conduct explicit or tacit bargain in the course of war. In this regard, Turkey's T-Loramids project gains crucial importance as it would help confronting Ankara's competitors' capacities to determine the outcomes and course of conflicts. In other words, the strategic rationale behind Turkey's T-Loramids project is the very gap between the trajectory of the current Turkish military posture and the regional threat landscape in the Middle East.

Given the brief *tour d'horizon* above, it is evident that the Turkish administration has well digested the importance of military power, both as a deterrent and power projection asset, in order to maintain a high-profile in Turkey's volatile strategic environment. However, given the lessons-learned –or lessons “*at last*” learned– from the Iraqi and Syrian crises, Ankara is well aware that without defensive strategic weapons capabilities, Turkey's politico-military posture in the region would remain vulnerable vis-à-vis its geopolitical rivals.

The T-Loramids Project in Context: A Net Assessment of the Threats

In September 2013, Iran revealed some of its long range missiles in a show of force parade⁷⁰. In fact, the parade was more important to mark the future threat landscape than the current one by drawing attention to the trajectory of Tehran's missile proliferation. Indeed, in the recent two decades Tehran has appeared as the major regional actor with respect to its strategic weapons proliferation in the Middle East.

⁶⁹ Nikolai Sokov, “Nuclear Weapons in Russian National Security Strategy”, Stephan J. Blank [ed.], *Russian Nuclear Weapons: Past, Present, and Future*, The U.S. Army Strategic Studies Institute, Carlisle Barracks-Pennsylvania, pp. 201-202.

⁷⁰ <http://www.aljazeera.com/news/middleeast/2013/09/2013922102136331861.html>, Accessed on: August 19, 2014.

On the theater Iran's tactical ballistic missiles with a range less than 300 km, such as *Fateh-110*, could only be effective in a tactical engagement scenario between Turkish and Iranian land forces close to the border areas. Moreover, in order to strike the Turkish territory effectively, these assets must be launched in salvos from the plateaus located in the west of Lake Urmia. Thus, in order to maintain the required TEL concentration Tehran has to offer fairly convenient targets for the Turkish Air Force in taking preventive measures. Therefore, the main threat posed by Iran remains Tehran's longer range SRBMs and MRBMs. Below 1,000 km range, *Shahab-1* (around 300 km), *Shahab-2* (around 500 km) are the two Scud-based missiles that could be either launched in salvos or in smaller numbers as terror weapons or WMD delivery means⁷¹. In addition, *Qiam-1* missile, which was first tested in 2010, is estimated to be a *Shahab-2* upgrade⁷² with a maximum range of 750 km⁷³.

From a more strategic standpoint, Iran has been developing liquid-propellant *Shahab-3* missiles with silo-based and road-mobile variants based on the North Korean *No Dong* missile. As of 2013, the National Air and Space Intelligence Center estimates Tehran to possess around 50 operational *Shahab-3* ballistic missile launchers⁷⁴. Initial *Shahab-3* variants can strike up to 1,300 km depending on warhead of choice⁷⁵. Even launched from relatively deep Iranian territory, some 150-200 km from the capital Tehran, *Shahab-3s* can reach critical targets including the Incirlik Base, along with the Turkish Land Forces' entire 2nd and 3rd Armies' areas of responsibility. Furthermore, since 2004 Iran has been conducting flight tests of a *Shahab-3* modification, *Ghadir-1*, that may deliver a 750 kg warhead to some 1,600 km range⁷⁶. Thus, the *Ghadir-1* boosts Tehran's ballistic missile abilities and nullifies Turkey's geopolitical depth advantages to a considerable extent by being able to target the Turkish capital, Ankara. Finally, the first product of Iran's recently developing solid-propellant MRBM line, the *Sejjil-2*, points out a menacing uptrend in the Iranian missile forces rather than actual capabilities. First tested in May 2009, this two-stage ballistic missile can reach up to some 2,000 km, which means it could theoretically target anywhere Turkey's industrial powerhouse Marmara region, the population density center and financial hub Istanbul (noting that top Turkish administration also uses Istanbul as a "secondary capital"), and all high-value national strategic assets. In addition, by using solid-fuel, the *Sejjil-2* can reduce launch-cycle significantly that could minimize early-warning and other detection measures. Lastly, being road-mobile, the *Sejjil-2* could be easily relocated so that preventive targeting would not be an easy task.

As noted earlier, although the *Sejjil-2* line does not presently pose an actual danger, it is estimated to arm Iranian missile brigades in the 2020s. Thus, there is no reason to rule out the very possibility that all the military geostrategic calculations given above could

⁷¹ NTI, Design Characteristics of Iran's Ballistic and Cruise Missiles, Updated in January 2013.

⁷² Anthony Cordesman et. al. Iran's Strategic Competition with the US and Arab States: Conventional Asymmetric and Missile Capabilities, CSIS, Washington D.C., 2011.

⁷³ Michael Eisenstadt, *The Middle East Missile Environment*, Defense Dossier, American Foreign Policy Council, January 2013.

⁷⁴ National Air and Space Intelligence Center, *Ballistic & Cruise Missile Threat*, 2013, pp. 6-17.

⁷⁵ Anthony H. Cordesman and Bryan Gold. *The Gulf Military Balance Volume II: The Missile and Nuclear Dimensions*, CSIS, Washington D.C., 2013, p. 26.

⁷⁶ John Chipman. IISS Strategic Dossier, Iran's Ballistic Missile Capabilities: A Net Assessment, 2010, p. 1.

become Turkey's bitter threat perception in the next decade. Furthermore, Iran's ballistic missiles can be used as delivery means for WMD warheads that would change the entire military balance.

In fact, apart from Tehran's controversial nuclear program and suspected biological & chemical R&D activities, two major, tangible military trends raise concerns with regard to WMD-tipped ballistic missile threat. Firstly, through the prism of defense economics, given the accuracy problems of the Middle Eastern ballistic missile proliferation, debatable efficiency of around 750 – 1,000 kg conventional warheads and Iran's relatively modest defense budget, allocating billions of dollars to ballistic missile proliferation would be a luxury for Tehran without running a WMD program. Secondly, open-source military surveys suggest that Iran's ballistic missile modernization include airburst testing which is the optimum way for dispersing nuclear, biological, and chemical agents⁷⁷. The IAEA's November 2011 report also consolidates this concern by pointing out Tehran's work on the *Shahab-3* payload and airburst explosion efforts⁷⁸. At this point, debates on whether Iran currently enjoys chemical and biological warfare capabilities might be analytically flawed in such a way that an ultimate focus on present concerns could undervalue trajectory assessments. In this regard, a CSIS report indicates that Tehran has the ability to redevelop its once existing chemical weapons program and redeploy CWs quickly. In tandem, Iran's technological and industrial base is well capable of produce genetically engineered biological weapons if decided⁷⁹. Without a doubt, the T-Loramids project and the ongoing NATO missile defense efforts will play a crucial role in the military strategic balance of Turkey's future security environment. Thus, in addition to the current capabilities, "potential" and "trajectory" must be the two key words in evaluating the merits of Turkey's strategic defense.

To sum up, although the Turkish – Iran trade volume has climbed up to \$14 billion as of 2013 (even saw \$21 billion in 2012 according to the Turkish Economy Ministry)⁸⁰ with a vision of \$30 billion⁸¹, the two powerful actors of the region are still in an active geopolitical competition that looms large in the course of the Syrian Civil War and Iraqi domestic politics⁸². This competition was depicted by the notable words of Soner Cagaptay from the Washington Institute for Near East Policy as "*in the Middle East, there is room for one shah or one sultan but not both a shah and a sultan*"⁸³.

Within the aforementioned context, it can be argued that while Turkey enjoys good economic relations and high trade volumes with Tehran, it feels uncomfortable with Iran's military modernization trends and aggressive politico-military stance in the region at the same time. For instance, in December 2011, the Turkish press reported that

⁷⁷ Anthony H. Cordesman and Bryan Gold. *The Gulf Military Balance Volume II: The Missile and Nuclear Dimensions*, CSIS, Washington D.C., 2013, p. 52.

⁷⁸ IAEA, Implementation of the NPT Safeguards Agreement and Relevant Provisions of Security Council Resolutions in the Islamic Republic of Iran, Derestricted 18 November 2011.

⁷⁹ Anthony H. Cordesman and Bryan Gold. *The Gulf Military Balance Volume II: The Missile and Nuclear Dimensions*, CSIS, Washington D.C., 2013, p. 14.

⁸⁰ The Turkish Economy Ministry, Trade Volume, 2008 – 2013.

⁸¹ <http://www.aksam.com.tr/ekonomi/145-milyar-dolarlik-turkiyeiran-ticaret-hacmi-katlanacak/haber-294207>, Accessed on: August 19, 2014.

⁸² Can Kasapoglu, "The Cold War between Turkey and Iran", Foreign Policy Research Institute, June 2012.

⁸³ Soner Cagaptay, "Next Up: Turkey vs. Iran", *The New York Times*, Feb. 14, 2012.

Prime Minister (currently the newly elected President) Erdogan asked the generals in the Supreme Military Council to present a comparison of Turkish and Iranian missile ranges. After receiving an unpleasant answer pointing the huge gap between 150 km and 2,000 km respectively, PM Erdogan ordered the *Tubitak (The Scientific and Technological Research Council of Turkey)* for boosting Turkey's missile capabilities during the Supreme Council for Science and Technology meeting⁸⁴. In tandem, in response to Tehran-backed Lebanese Hezbollah's violent presence in Syria and its pro-Assad efforts, top figures from the Turkish administration even called the organization *the Army of Evil (Hizbusseytan)*⁸⁵. Similarly, some Turkish experts argued that Shia-led Baghdad's sidelining Sunni political figure Tariq Hashimi in 2011-2012 by a drumhead court was actually a message sent to Ankara by the Iranians for giving a hands-off ultimatum in Iraq⁸⁶.

Interestingly, Iranian officials' harsh criticism against Turkey's each step for missile defense give important hints about Tehran's calculations. For instance, following the NATO missile shield project initiation and Turkey's involvement, Gen. Yahya Rahim Safavi went well beyond diplomatic courtesy to react Turkey with respect to the NATO anti-ballistic missile efforts⁸⁷. In tandem, top Iranian military figures also reacted against the NATO's recent Patriot deployments in Turkey due to the Syrian ballistic missile threat. In this respect, Iranian Chief of Staff, Gen. Hassan Firouzabadi labeled the Patriots as a "black mark on the world map, and is meant to cause a world war"; while the Iranian Foreign Minister at that time, Ali Akbar Salehi, stated that the Patriot deployment was a "provocation"⁸⁸. It should be emphasized that we do not see such harsh rhetoric from the Iranians with regard to the *Altay* tank production or the F-35 procurement. Thus, Tehran's exaggerated reaction when it comes to Ankara's efforts to overcome its vulnerabilities against strategic weapons should give a clear idea for understanding the military-geostrategic context of the T-Loramids project.

When it comes to Syria, the situation seems to be more complicated. Although the ongoing civil war and the regime's character overshadow open-source military surveys with regard to the Baathist forces' strategic weapons arsenal, we know that the Syrian Arab Army has three surface-to-surface missile brigades, among which the strongest one with Scud variants fall under the *praetorian* 4th Armored Division that has been notoriously playing a crucial role for the regime in its survival endeavor⁸⁹.

A quick review of the Baathist regime's strategic weapons inventory suggest that Assad's missile forces could theoretically be able to strike Turkey's many southeastern population centers and critical facilities with the Scud-C (500-650 km range) and Scud-D (600-700 km range) systems that are capable of delivering both conventional and

⁸⁴ <http://www.haberturk.com/gundem/haber/701120-turk-fuzesi-hedef-menzil-2500-km>, Accessed on: August 25, 2014.

⁸⁵ <http://tv.haberturk.com/gundem/video/hizbullahin-adi-hizbusseytan-olsun-90097>, Accessed on: August 25, 2014.

⁸⁶ <http://www.aksam.com.tr/guncel/irakta-tirmanan-gerilim-irandan-turkiyeye-mesaj/haber-87810>, Accessed on: August 25, 2014.

⁸⁷ Soner Cagaptay, "Next Up: Turkey vs. Iran", *The New York Times*, Feb. 14, 2012.

⁸⁸ <http://www.al-monitor.com/pulse/originals/2013/01/turkey-patriot-missiles-iran.html#>, Accessed on: August 19, 2014.

⁸⁹ IISS, *Military Balance 2014*, Routledge, London, 2014, p. 344.

WMD warheads⁹⁰. Should the regime remain able to launch the aforementioned ballistic missiles from its bases in Aleppo, then the capital Ankara comes under a significant threat. Moreover, as seen in the Saddam Hussein case noted earlier, Bashar al Assad has also proved his willingness to actually use Syria's ballistic missiles in the civil war.

At this point, two issues come into prominence with regard to Turkey's threat calculus against the Baathist regime's strategic weapons arsenal. Firstly, although the chemical deal seems to have emasculated Assad's CW capabilities, there are still skeptical experts indicating that the inventory declaration could be incomplete that could leave about 20% of the notorious arsenal, mostly the deadliest VX agent, untouched⁹¹. Even though such a pessimistic estimate could be seen as exaggerated, there are still grave international concerns. For instance, following the completion of the CW destruction mission, in a written statement President Obama underlined that "*serious questions remain with respect to the omissions and discrepancies in Syria's declaration to the OPCW and about continued allegations of use*"⁹². Moreover, the deal does not cover potential biological weapons, thereby Assad could still keep his biological warfare capacity even if the chemical declarations were accurate, although the Libyan and Iraqi disarmament cases set a pessimistic example in this regard.

In fact, this paper argues, with regard to Turkey's threat perceptions and the regional security, the chemical deal was structurally flawed. First, as noted above, it did not even attempt to cover the biological weapons program at a time when the U.S. deployment in the Eastern Mediterranean had asserted pressure on the Baathist circles. Second, the deal was not extended to cover the strategic delivery means as seen in the UNSC resolution 687 in Iraq and 1929 in Iran examples respectively, which restricted ballistic-missile related activities at different levels in each case⁹³.

In sum, both Syria and Iran have been posing the utmost offensive strategic weapons threat to Turkey, while Ankara still lacks national defensive strategic weapons assets. Moreover, these two strategic weapons threats cannot be addressed individually, as the Iranian and the Syrian WMD and missile proliferations have been progressing in a close-cooperative fashion, also with the assistance of a third outsider party, North Korea⁹⁴. As mentioned earlier, one of the main claims of this paper is based on the military assessment that Ankara's conventional superiorities could be rendered abortive by its neighbors' strategic weapons arsenals, which can alter the classical geostrategic paradigm and surmount Turkey's strategic depth. Besides, in the Middle Eastern crises, strategic weapons play into the hands of Ankara's competitors by boosting *intrawar*

⁹⁰ IHS Jane's, Jane's Sentinel Security Assessment – Eastern Mediterranean / Strategic Weapon System: Syria, August 28, 2012, p. 3.

⁹¹ Dany Shoham, "Has Syria's Chemical Weapons Arsenal Truly be Dismantled", *Besa Center Perspectives Paper*: 252, June 29, 2014.

⁹² The White House / Office of the Press Secretary, August 18, 2014, <http://www.whitehouse.gov/the-press-office/2014/08/18/statement-president-completion-mv-cape-ray-destruction-syria-s-declared->, Accessed on: August 25, 2014.

⁹³ While the UNSC Resolution 687 implemented a disarmament based on range, the resolution 1929's missile limitations predominantly focused on tests and related activities.

⁹⁴ For a detailed assessment see: Paul, K. Kerr. et.al., *Iran-North Korea-Syria Ballistic Missile and Nuclear Cooperation*, Congressional Research Service, Washington D.C., 2014.

deterrence. In other words, in case of a conflict, Turkey's ability to influence the trajectory of escalation could be restrained to a considerable extent.

Assessing the Eurosam Offer: *Pro et Contra* in Context

In the light of the issues mentioned hitherto, and given the essence of the T-Loramids project, from now on having a closer look at the Eurosam offer would be beneficial.

Aster is a family of naval and ground-launched air defense systems. The variant offered for the T-Loramids project is the Aster-30 Block-1 that is designed to intercept cruise missiles, aircrafts, UAVs, and ballistic missiles up to 600 km⁹⁵. The system uses mobile Arabel multi-function radar that can track up to 100 targets and enjoys a multiple engagement capacity of 10 targets simultaneously⁹⁶.

Apart from the military technical aspects, this paper has concluded that the Eurosam offer is prominent as a political face-saver. Firstly, Aster-30 is an allied offer coming from NATO members that the West would not complain should Ankara opts for this bid instead of Raytheon's Patriot PAC-3 offer. In this regard, resiliency of the Turkish – American defense ties can still be compensated by other important projects, such as the recent multi-billion dollar Sikorsy deal. Secondly, while abandoning the HQ-9 offer will repair Turkey's position within the NATO circles, favoring the Eurosam offer can show that Ankara still has an important freedom of movement in its defense decision-making process.

In the light of the primary-source review for this paper, it is seen that the main military advantage of the system is being tested under the NATO Communication and Information Agency's standards. These standards ensure perfect friend & foe recognition of the entire NATO operating aircraft, including the forthcoming F-35s that will constitute the TAF's backbone. Therefore, they aim to prevent any unforeseen friendly-fire incidents and to maintain full integration with the allied air and missile defense C4I2 (*command, control, communications, computers, information, and intelligence*). Besides, the C4I2 dedicated to missile defense is set to rule out any hostile system corruption and cyber-espionage activities⁹⁷. These standards cannot be matched by the Chinese offer. Moreover, without NATO friend & foe tests, no allied nation would be willing to fly its air-wing in Turkey's air and missile defense corridors.

The widely-discussed NATO integration issue is more important than the technical aspects of the bids for the T-Loramids tender. Clearly, within the very context of the NATO missile shield Patriot and Samp/T systems, namely the Aster line, are seen as the last layer of defense under the multi-layer, integrated systems network in which the allied satellite technology, the Aegis system, different sea and ground based radars and detection assets (*i.e. AN/TPY-2, Smart-L, AN/SPY-1*), and interceptors at several layers (*the Standard Missile line, THAAD, Patriot, the Aster line*) are used under a unified C4I2 approach⁹⁸. Therefore, while opting for the Patriot PAC-3 or the Aster- 30 Block-1

⁹⁵ MBDA, Press Information, June 2014.

⁹⁶ IHS Jane's, Land Warfare Platforms: Artillery & Air Defense Aster 15/30 (FSAF), April 5, 2013.

⁹⁷ Interview with MBDA officials, Paris, July 29, 2014.

⁹⁸ For a visual illustration of the NATO missile defense integration see the official video: <https://www.youtube.com/watch?v=3LPdmxnBkiU>, Accessed on: August 19, 2014.

bids would keep Ankara within the integrated, multi-layered missile shield; the Chinese system would rule out this possibility. Furthermore, should Ankara and Beijing wish to integrate the HQ-9 into the NATO capabilities, this could significantly pose a corruption risk to the critical allied system, and would be rejected by the allies. Besides, pledging nearly one-quarter of Turkey's annual defense budget to a non-NATO strategic weapon system could bring about additional political problems other than military caveats. As a matter of fact, following Ankara's declared tendency to the Chinese system, there have surfaced growing concerns by the NATO allies⁹⁹.

Finally, the manufacturer of the system, the CPMIEC, is sanctioned by the United States. This could significantly harm Turkish – American relations and defense ties if the deal goes through¹⁰⁰. At this point, some could argue that as Turkey signed a contract with the CPMIEC for the B-611 short range missiles in the past, the U.S. sanctions may not be of great significance. However, a waiver of sanctions was issued on November 1, 1994 by the U.S. Department of State¹⁰¹. In this respect, Turkey cooperated with the CPMIEC in the late 1990s¹⁰² so Ankara could avoid the “sanctions imposed period” during the signature. Since then, the subsequent sanction was imposed under *the Iran, North Korea, and Syria Nonproliferation Act Sanctions (INKSNA)* starting from 2002. Currently, there are two active sanctions imposed to the CPMIEC; the first one falls under the *Executive Order 12938* (date imposed: July 30, 2003), and the second one falls under the *INKSNA* (date imposed: May 2, 2013)¹⁰³. Thus, in terms of legal issues the B-611 and the current HQ-9 cases would have differences. Furthermore, the B-611 is a low-cost missile for tactical army use¹⁰⁴. On the other hand, the HQ-9 bid brings about a multi-billion dollars defensive strategic weapon system that Turkey considers to procure at a time when NATO strives to establish an allied missile defense umbrella. Therefore, due to the military aspects, the reactions to the B-611 and the HQ-9 projects could differ considerably.

Apart from the NATO integration issues, given Turkey's regional security environment another important aspect would be the threat-countermeasure equation. In this regard, during the Aster-30 Block-1's tests, Israeli Black Sparrow ballistic targets were used as the scenario-hostile missile¹⁰⁵. The Black Sparrow is currently one of the best systems that can mimic the Scud-B missiles, which reflect an important part of the Middle Eastern ballistic missile threat. Therefore, although the Eurosam offer is not combat-tested against actual Scud-based threats, the test standards still suggest optimistic results for Turkey's defense needs. However, in order to counter the longer range threats mostly based on North Korean or Iranian systems, such as the Scud-D or the Shahab-3,

⁹⁹ <http://www.defensenews.com/article/20140225/DEFREG01/302250026/Allies-Intensify-Pressure-Turkey-Over-China-Missile-Deal>, Accessed on: August 19, 2014.

¹⁰⁰ Jim Zanotti, *Turkey: Background and US Relations*, Congressional Research Service, 2014, pp. 12-13.

¹⁰¹ The U.S. Department of State, FR Doc No: 94-27470, Federal Register Volume 59, Number 214

¹⁰² Yitzak Shichor, “Turkey Trot: Military Cooperation between Beijing and Ankara”, *China Brief*, Vol. 9, No. 8, April 2009.

¹⁰³ The U.S. Department of State, Nonproliferation Sanctions, <http://www.state.gov/t/isn/226423.htm>, Accessed on: August 25, 2014.

¹⁰⁴ Global Security, <http://www.globalsecurity.org/military/world/china/b-611.htm>, Accessed on: August 25, 2014.

¹⁰⁵ <http://aviationweek.com/defense/sampt-missile-defense-goes-three-three>, Accessed on: August 23, 2014.

interception tests with a more long range mimic would be needed¹⁰⁶. It is estimated that the forthcoming modification of the Aster-30 line, the Aster-30 Block-1 NT will be able for such tests¹⁰⁷. Yet, even if Turkey goes for the initial Aster decision and then a further upgrade for the Block-1 NT, ballistic missiles with a range over 1,000 km could still pose a threat¹⁰⁸.

However, the Aster-30 line could be seen as a long-term, sustainable solution for Turkey. The system was designed to be evolved since the outset. Clearly, the first missile of the line, the Aster-15, was developed to provide protection for naval assets against anti-ship cruise missiles and enemy aircraft. Subsequently, the Aster-30 came into the picture with more advanced capabilities but no anti-ballistic missile features. Finally, as offered for the T-Loramids deal, the Aster-30 Block-1 was produced based on “*one missile for all*” principle to cover wide-array of threats including anti-ship cruise missiles, aircrafts, UAVs, cruise and ballistic missiles¹⁰⁹. Therefore, the missile would meet not only the demands of the T-Loramids project, but can also arm the Turkish Navy’s forthcoming TF-2000 anti-air warfare frigates in the future. Besides, the system will be under development* starting from 2015 (**to build Aster-30 Block-1 NT*) in order to address medium range ballistic missile threats, in addition to the current variant’s short range ballistic missile interception capabilities¹¹⁰. At this point, the requirement for further testing and system upgrades might constitute a good ground for cooperation between Turkey and MBDA.

On the other hand, this study has also assessed some caveats with respect to the net assessment of the current threat landscape and the Aster-30 Block-1’s immediate solutions.

Firstly, the system can intercept short range ballistic missiles up to 600 km range¹¹¹. Such a ballistic missile – interceptor calculus would cover numerous shorter range systems, such as Syria’s Scud-B and Scud-C variants along with the SS-21s¹¹² and Iran’s Fateh-110, Zelzal variants, as well as Shahab-1 and Shahab-2. However, longer range systems such as Scud-D, Shahab-3, Ghadir-1, and Sejil-2 will remain uncovered¹¹³. Although the forthcoming Aster-30 Block-1 NT will be able to intercept threats around 1,000 km¹¹⁴, still, the threats emanating from Sejil-2 and Ghadir-1 missiles would be unanswered. Secondly, both the current Aster-30 Block-1 and the forthcoming Block-1 NT versions are designed to be capable of endoatmospheric interception. Although the risk of contamination at endoatmospheric- interception of biological and chemical-tipped ballistic missiles is a debatable issue among defense

¹⁰⁶ <http://missilethreat.com/cheaper-high-speed-targets/>, Accessed on: August 23, 2014.

¹⁰⁷ Interview with MBDA officials, Paris, July 29, 2014.

¹⁰⁸ Ibid.

¹⁰⁹ Ibid.

¹¹⁰ Ibid.

¹¹¹ Ibid.

¹¹² IHS Jane’s, Jane’s Sentinel Security Assessment – Eastern Mediterranean / Strategic Weapon System: Syria, August 28, 2012.

¹¹³ Anthony H. Cordesman and Bryan Gold, *The Gulf Military Balance Volume II: The Missile and Nuclear Dimensions*, CSIS, Washington D.C., 2013.

¹¹⁴ Interview with MBDA officials, Paris, July 29, 2014.

experts, the Israeli ballistic missile defense modernization suggests quite the opposite by promoting exoatmospheric interception.

Finally, although this paper has put forward its stance regarding the drawbacks on the HQ-9 option, a decision between the Patriot PAC-3 and the Aster-30 Block-1 would not be particularly easy. In June 2014 the Turkish Undersecretariat for Defense Industries declared a ranking among the bids in which the Eurosam Consortium holds the runner-up place and followed by the U.S. PAC-3 system¹¹⁵.

Despite being considered as the “last resort” option in the T-Loramids tender, the PAC-3 missile still offers important functions and features. Firstly, as indicated earlier, the Patriot line has a good record of battlefield deployment and the system is literally combat-evolved. During the first Gulf War in 1991, the PAC-2 variants could hit only 9% of their targets, while the Israelis reported only one interception out of 39 missiles aimed at Israel¹¹⁶. Consequently, the U.S. invested \$3 billion for the upgrades between the first and second Gulf Wars. In return, the deployed Patriots in 2003 were reported to suit integration with the joint architecture and cueing data from Defense Program Support satellites, an Aegis cruiser, and COBRA JUDY sea-based radar¹¹⁷. During the early stages of the 2003 Operation Iraqi Freedom (OIF), the deployed Patriots (*PAC-3 hit to kill tech*) initially destroyed two tactical ballistic missiles during an attack on the Coalition forces in Kuwait,¹¹⁸ and in total, all the 9 Iraqi ballistic missiles aimed at Kuwait were successfully intercepted¹¹⁹. Following the each war-time deployment, important components of the system were upgraded. For instance, tests of the *Post Deployment Build-6* software was initiated in 2006 based on the lessons-learned from the Operation Iraqi Freedom deployment¹²⁰.

The combat-tested character of PAC-3s would not be important only with regard to higher interception rates, but also operational security. As a matter of fact, during the 2003 OIF, the deployed Patriots had led to several friendly-fire incidents killing British and American pilots¹²¹. Following the incidents, the U.S. has initiated further upgrades and investigations to overcome such accidents.

More importantly, neither the aforementioned friendly-fire incidents, nor the lessons-learned on interceptions from the two Gulf Wars could have been gained from test launches. Therefore, the main advantage of the PAC-3 bid in the T-Loramids tender would be spending money on minimum uncertainties and maximum combat-record. This is an advantage that the Eurosam and CPMIEC offers cannot match.

¹¹⁵ The Undersecretariat for Defense Industries, http://www.ssm.gov.tr/anasayfa/hizli/duyurular/PressReleases/Sayfalar/20140703_UMTAS.aspx, Accessed on: August 25, 2014.

¹¹⁶ Thomas G. Mahnken, *The Cruise Missile Challenge*, CSBA, Washington D.C., 2005, pp. 44-46.

¹¹⁷ Ibid. p.45.

¹¹⁸ Anthony Cordesman, *The Iraq War: A Working Chronology*, CSIS, Washington D.C., 2003, p. 3.

¹¹⁹ Thomas G. Mahnken, *The Cruise Missile Challenge*, CSBA, Washington D.C., 2005, p. 45.

¹²⁰ IHS Jane's. Static and Towed Surface-to-Air Missile Systems: The United States, Patriot PAC-3, August 16, 2013.

¹²¹ <http://www.telegraph.co.uk/news/worldnews/middleeast/iraq/1426631/US-fighter-shot-down-by-Patriot-missile.html>, Accessed on: August 25, 2014.

In addition, a good level of cooperation between Raytheon and the Turkish missile manufacturer Roketsan has been developed in the recent years in such a way that in 2009 Roketsan was named as an “*international supplier of a key component of the Patriot Guidance Enhanced Missile-Tactical (GEM-T)*”, which made the company the first trans-Atlantic supplier of Raytheon¹²². Should Turkey opt for the PAC-3 bid in the T-Loramids tender, such a cooperation could pave the ground for further opportunities that would put Ankara in a place “more than just a client”.

Conclusion

A rational approach to the T-Loramids project would depend on optimizing a combination of political, financial, and military realities along with an acceptable timeline. Clearly, while the Israeli Arrow option, which was not involved in the tender, could have been the most “militarily realistic” one, it could not politically be run in harmony with Turkey’s soft-power focus on the Middle East and given the deterioration in the Turkish – Israeli relations following the flotilla incident. The THAAD system, on the other hand, could be both politically and militarily realistic, but not financially feasible. The problem with the Chinese system is the very fact that it would be neither militarily realistic, due to the integration problems with NATO assets, nor politically feasible due to the increasing reactions from Turkey’s NATO allies. Furthermore, although the HQ-9 seems to be financially lucrative at first glance, the “cost” of the system can go well beyond its “price” in the course of adaptation.

Therefore, the “military-political-financial trilogy” suggests that the optimum decision for Turkey’s T-Loramids deal could boil down to a decision between the Aster-30 Block-1 and the Patriot PAC-3. In this regard, while the Patriot system offer a more reliable “combat-tested record” for the line in general, the Aster offer comes with more technology-transfer freedom, multi-functionality that could be extended to the TF-2000 project, along with a reliable test record. Therefore, it could be argued that eventually the T-Loramids project might resemble Poland’s currently ongoing air and missile defense tender after Warsaw dropped bids from the Lockheed Martin and Israel.

Nevertheless, the T-Loramids deal cannot be evaluated without understanding the Turkish decision-making system on defense issues. Turkey’s defense modernization is mainly run by the Executive Committee of the Undersecretariat for Defense Industries. Under the *Law no:3238*, the committee is chaired by the Prime Minister, and joined by the Chief of Staff and the Defense Minister¹²³. Under the Constitution’s *Article 117*, the Chief of Staff is appointed by the President on the recommendation of the cabinet, and answers to the Prime Minister¹²⁴. In addition, the third member of the committee, the Defense Minister, is appointed by the President on recommendation from the Prime Minister¹²⁵. Therefore, the decision-making mechanism is centralized, and the Prime Minister takes over as the most powerful figure within Turkey’s defense modernization management.

¹²² <http://raytheon.mediaroom.com/index.php?s=43&item=1254>, Accessed on: August 25, 2014.

¹²³ Undersecretariat for Defense Industries, http://www.ssm.gov.tr/anasayfa/kurumsal/Sayfalar/icra_komitesi.aspx, Accessed on: August 25, 2014.

¹²⁴ Constitution of the Republic of Turkey, Article 117.

¹²⁵ Constitution of the Republic of Turkey, Article 104.

Furthermore, Turkey's strategic community cannot be compared with the Anglo-American standards as input from think-tanks remains fairly limited in defense decision-making. Moreover, the War Studies as an academic discipline and the notion of military affairs-oriented think-tanks have not been sufficiently developed in Turkey up until now, and so that even if the top figures in the Undersecretariat for Defense Industries Executive Committee look for non-government strategic community's assessments, the participation would still be limited.

Such an outlook comes with advantages and drawbacks. Firstly, as an advantage, defense industry is not exposed to the regular bureaucracy's bulky and slow run. Secondly, democratic civilian oversight is ensured while the military still has a voice for technical recommendations. On the other hand, such a narrow and centralized structure, especially in the absence of a Western-standards strategic community, could fall short of a comprehensive counseling on key issues.

At the time of writing, Prime Minister Erdogan has been elected as the Republic's 12th President, and the incumbent Foreign Minister, Prof. Ahmet Davutoğlu, -the architect of the current Turkish foreign policy doctrine- is expected to assume the prime ministry post. Therefore, no drastic shift in the defense policy is estimated. Apart from the domestic political debates, which is out of this report's focus, stability in the defense decision-making system means that the fate of the T-Loramids project would depend on Turkey's key modernization priorities. As indicated by the Undersecretariat for Defense Industries' recent Strategic Plan (2012 -2016), the main pillars of the Turkish military modernization is to gain the ability to produce advanced systems, increase the level of domestic contribution to the modernization efforts (in terms of design, production, maintenance and logistics), and to expand arms exports revenues¹²⁶. In fact, it was these priorities that provided advantage to the Chinese system so far, and surprisingly, placed the only combat-proven system, the Patriot PAC-3, at the last position in the tender. However, the intention of alleviating the NATO allies' concerns and honoring the pre-set priorities at the same time, at least to some extent, could provide an advantage to the Eurosam offer if Ankara decides to opt for one of the Western options.

The most critical aspect of the T-Loramids project is to keep the modernization momentum faster than the missile proliferation threat in Turkey's regional security environment. In this regard, although opting for the Chinese system at the beginning helped Ankara to improve the other bids' conditions, if the deal ends up with the Aster-30 Block-1 or the Patriot PAC-3 systems, then the time loss would be a handicap.

Ankara's regional leadership assertions in the Middle East have to be intensively augmented by its military capabilities. In doing so, the nation has to overcome its vulnerabilities emanating from the strategic weapons proliferation at its doorstep. Such a perspective must depend on a carefully-balanced military strategic approach that incorporates a) NATO guarantees under the missile shield as well as tactical nuclear weapons deployment, b) national offensive assets including deep-strike capabilities, and c) a reliable national defensive strategic weapons arsenal that would be interoperable with the NATO systems.

¹²⁶ The Undersecretariat for Defense Industries Strategic Plan 2012 – 2016, for the Turkish text: http://www.ssm.gov.tr/anasayfa/kurumsal/Documents/SP/Sp2012_2016/files/savunma_sanayii_mustesarligi_2012-2016_stratejik_plani.pdf, Accessed on: August 25, 2014.

If successfully fulfilled, the aforementioned perspective could help Ankara to balance its geopolitical competitors' intrawar deterrence in regional crises, and to minimize potential threats posed by strategic weapon systems. Yet, it is important to mention that the absolute aim of the T-Loramids project could only be minimizing the threat posed by offensive strategic weapons, not to completely render them abortive. Clearly, no missile defense system is a silver bullet solution. Even at 100% interception rates, which would go beyond any given systems' capabilities, still, there would be risks like saturation of interceptors due to overwhelming salvos, or contamination emanating from endoatmospheric interception of WMD warheads. Nevertheless, a robust defensive strategic weapons arsenal would be of critical importance in the current and future warfare.

As mentioned earlier, under the AK Party Turkey has shown a successful performance in consolidating its military conventional superiorities and boosting national defense industry's share in the Turkish Armed Force's inventory and arms exports. On the other hand, Ankara's political ambitions necessitate a geopolitical shift both in the Turkish military thought and arsenal. It is possible to see the harbingers of such a transformation in the navy's blue-water oriented projects, the F-35 procurement, and the Land Force's increasing mobility. In this regard, the T-Loramids remains one of the main pillars of this process. Thus, its outcome will be a determining factor in Turkey's strategic posture in the 2020s and beyond.