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## THE MOSCOW-TEHRAN-DAMASCUS AXIS UNDER CONSTRUCTION: NUCLEAR, TERROR AND ANTI-TERROR INTERESTS

# ZE`EV WOLFSON<sup>1</sup>

### What Did Russia Know about Iran's Nuclear Facilities from 1992 to 2003?

#### **Technical Data**

Analysis of the Russian publications and declarations issued over the last few years, shows unequivocally that, the Russians have had sufficient information about the dangerous development of various aspects of the Iranian Nuclear Program.

In May 2003, the Russian-language journal **Nuclear Control** (Iadernyi Kontrol'), issued by the Moscow PIR Center for Policy Studies in Russia,<sup>1</sup> published an article by Vasilii Lata and Anton Khlopkov entitled "Iran: Nuclear Missile Riddle for Russia". The authors wrote in the preface, "If just a year ago, Iran's nuclear fuel cycle (NFC) appeared to be more a virtual than actual phenomenon because almost all the stages were missing, then the information of recent months gives it a completely logical and distinct form."<sup>2</sup> Indeed, only slightly more than a year before that, in December 2001, Anton Khlopkov himself had published his Master's thesis, which had made the argument for the "virtual character" of the Iranian program.<sup>3</sup>

Both these works are very reasonable scientific studies, and thus they elucidate basic information that has been at the disposal of Russian agencies – such as the Ministry of Atomic Energy, the PIR Center, and others – for many years already. Unlike some works of the Soviet period, the studies we are examining do not juggle the facts or the figures; they are executed completely professionally. In 2001,

<sup>&</sup>lt;sup>1</sup> Ze'ev Wolfson was born in 1944 in the USSR. He received a Ph.D. degree in Environmental Policy from Moscow State University in 1978. The work, *The Destruction of Nature in the Soviet Union* (under the pseudonym Boris Komarov) was published in 1979 in the West in eight editions and in seven languages. The book was awarded the Gambrinus European Award (Italy) for "Best Book on Ecology" in 1983. After the Chernobyl disaster he focused his interests on nuclear technology and chemical and biological weapons in the former Soviet Union states and Russia, and on the risk of proliferation of dangerous technologies to the Middle East countries.

In recent years, **Z.W.** has written numerous papers on these topics which have been published in various international journals and by the Ariel Center for Policy Research (ACPR) in *Nativ* and as policy papers. Since 1987, he has been affiliated with the Mayrock Center for Russian, Eurasian and Eastern European Research (of the Hebrew University) as a researcher and editor of the *CIS Environmental and Disarmament Yearbook*.

they drew certain conclusions from the well-founded data they used, whereas in 2003, they drew quite different conclusions, indeed, those that logically derive from the data.

Presented below is a short description of each of nuclear fuel cycle which is operating or being constructed in Iran, along with an account of what was known in Russia about each of the facilities and when it was known.

1. **Mines for extracting uranium ore** (in Ardekan, Yezd province). These are almost ready for exploitation, although they will not operate at full strength until 2005. According to recent assessments, the stocks of uranium are very low. Fuel produced from this ore will be 3-5 times more expensive than such fuel on the world market. In the mid-1990s, Russia took part in designing mineshafts.

Later as well, Russia was well informed about what was happening, for example, it knew that estimates of the amount of the reserves had been reduced.<sup>4</sup>

2. A plant for separating waste rock (gob) (in Ardekan). It should begin operation in 2005 and will be able to produce up to 57 tons of uranium raw materials, which is clearly insufficient for the production of nuclear fuel. *At the same time, however, this amount of raw material is adequate for the production of several hundreds of kilos of military grade uranium for nuclear warheads*.

In the mid-1990s, Russia prepared a technical draft for a plant with an annual capacity of 100-200 tons. This project was never carried out. Later China began to assist Iran.<sup>5</sup>

3. A plant for the production of radioactive uranium ("yellow cake"  $- U_3O_8$ ) in Ardekan. According to the Iranians, it was ready for operation in 2003.

In 1995 one Russian institute participated in the reconstruction and expansion into an industrial site of a pilot installation.<sup>6</sup>

- 4. A plant for the conversion of the gas form of uranium compound (UF<sub>6</sub>). This plant in Isfahan is ready to begin operation. Iran announced plans for construction of the plant in 1996. Later Russia learned from Peking and Washington about the progress being made on the plant and about the fact that the Iranians had received technical documentation from China.<sup>7</sup>
- 5. A plant for the centrifugal enrichment of uranium (at Natanz, 150 kilometers from Isfahan). In 2003, it already had 5,000 centrifuges working. It was capable of producing enough military quality uranium in a year to create two nuclear bombs. The floor space of the building at Natanz was large enough to allow the placement of 50,000 centrifuges, sufficient to produce enough uranium for 20 bombs. The plant was placed partially underground, and its walls, which were two to three meters wide, were exceptionally strong.<sup>8</sup>

The Natanz plant – even if it had enough raw materials – did not have the capacity to produce the quantity of enriched uranium needed for fuel by even one reactor of the Bushehr station. The other kind of uranium that Teheran intends to produce could be military grade.<sup>9</sup>

In January 1995, during the visit of Russian Atomic Energy Minister Viktor Mikhailov to Teheran, a protocol of understanding regarding talks about the construction of a centrifuge plant was signed, along with a contract for the construction of a uranium mine. Shortly afterwards, Yeltzin had to call off the agreement due to American demands.

In early 2004, Mikhailov told in his interview that in that (1995) visit he had been shown some experiments and calculations that were doubtlessly about the processing of military grade uranium. Milkhailov's word is considered very reliable, as he has been a leading figure in the development of Soviet/Russian nuclear weapons already for many years.<sup>10</sup> It means that the

Russian leaders knew very well that Teheran was set upon procuring everything related to the centrifuge enrichment process. When their attempt to get "hardware" fell through they kept up a nonstop effort to get any piece of information about the technology of centrifuge development and manufacturing.

- 6. A plant for the production of fuel, so-called "fuel tablets", which are stored in strong zirconium rods. This plant was apparently not yet ready for operation in 2003. A pilot laboratory installation only operating at Isfahan University was capable of producing "peaceful uranium especially for energy". Russia did not know very much about this because little was happening.
- 7. A plant for manufacturing zirconium rods for storing fuel. From the mid-1990s, China designed and constructed a plant for the production of such rods in Isfahan. Zirconium rods filled with "uranium tablets" are assembled, and lowered in this form into a reactor, where they generate heat for a period of four to five years.

Russia knew about the contract with China, which is being realized by a very slow path.<sup>11</sup>

8. Construction of a plant for the production of heavy water at Arak (about 200 kilometers from Isfahan). It is not clear what stage the preparations for the construction of this plant have reached. Heavy water is necessary because heavy water reactors are best suited to produce weapons-grade plutonium.<sup>12</sup> In 2003, the Iranians confirmed that at least two heavy water reactors at increased capacity – (probably 3,000 Kw.) were under construction.

In 1996, Russia conducted talks about the sale of a heavy water reactor. In 1996-1998, under the disguise of "theoretical consultations," the NIKIET Institute of Moscow (Russian abbreviation for Scientific Research and Planning Institute of Energy Technology) worked with Teheran on technology for producing heavy water. NIKIET had cooperated with Teheran in this sphere until the US applied sanctions against it. In 1999 several employees of the Institute began to carry out the next commission for the Iranians clandestinely, but they were discovered by the Russian intelligence services.<sup>13</sup>

At various stages in the development of five of the six facilities involved in the production of weapons-grade uranium and plutonium, Russia was either involved or was well informed about Teheran's intentions and capabilities.<sup>14</sup> Russian experts could not avoid realizing that the Iranians were advancing both possibilities to produce a **nuclear weapon** – from plutonium and from uranium.

Russians, as well as Westerners, are now speaking of the existence of another six or seven facilities in Iran suspected of military oriented nuclear R&D, which are mainly research labs. In my estimation, Moscow definitely knew about them, but had not very much information on the research processes going on inside. However, the data about all these facilities was far from the only type of information at the disposal of top-level figures in Moscow. They possessed, and discussed, economic and other data connected with Iran's nuclear program that clearly contradicted Teheran's "peaceful atom" declarations.

## Geography, Economy and Intelligent Versus the Political Framework

According to A. Khlopkov, at the very beginning of the cooperation with Iran, Moscow studied his proposal, taking into account various scenarios, including the possibility that Iran might create nuclear weapons. The final decision in favor of cooperation with Teheran was made in spite of the Foreign Intelligence Service (SVR in Russian) report that noted "there is a program in the country for applied research in the nuclear field for military purposes."<sup>15</sup>

Subsequently, a high-level official at the Atomic Energy Ministry declared that, "Iran is Russia's closest neighbor, and it is very important for us to know what is happening with their [the Iranians'] nuclear program. There is only one means of doing so – carrying out joint projects with them."<sup>16</sup> For

example, Moscow experts knew the exact geological data of uranium ore locations and that the low content of uranium in the ore would make the cost of the fuel – about 50 tons per year – unacceptably high if it were to be used only for fuel for an electric power station. These 50 tons of available uranium are fully adequate for the production of a nuclear arsenal comparable to that of France, Great Britain, or China.

The productivity of the Pakistani mineshaft in Deragazikhan – from which uranium was extracted for the creation of the nuclear warheads that were exploded in May 1998 – stands at 30 tons of natural uranium per year. Nevertheless, Khlopkov's conclusion in 2001 was that uranium ore stock did not make Iran a potential nuclear state since there were another 20-30 states possessing such stocks.

In the same context, in 2003, Khlopkov and Lata logically noted that Iran possessed – apart from the stocks of uranium ore – a number of plants whose aim was to process uranium ore (whereas the other 20-25 states mentioned above did not have such plants), and develop it in directions that had nothing to do with fuel for energy.<sup>17</sup>

Concerning the geography of Iranian nuclear facilities, Russian experts focused attention on the main facilities for enrichment of uranium in Ardekan, Natanz, and Arak that were constructed in a 200 km. radius around the city of Isfahan. In this area, a few dozens of kilometers east of Isfagan, launch facilities for the missiles, Shihab 2 and Shihab 3 were situated. This entire strategic region was "covered" by anti-aircraft and anti-missile systems (mainly of Russian origins) and for several years Teheran has been doing its best to purchase the Russian anti-aircraft and anti-missile system S-300 with an effective range as high as 200 km.<sup>18</sup>

The combination of three factors: nuclear facilities, missile launch ranges and the anti-aircraft and anti-missile umbrella cannot mean anything but a carefully thought over echelon of the Teheran strategic program. The other zone being highly protected by the S-300s is planned around the Bushehr nuclear power station on the Persian Gulf coast. For some reason, until May 2003, Moscow preferred not to connect the nuclear program with the ballistic intentions of Teheran, and denied all US and Israeli suspicions on both issues.

In 2001, an economics expert, Anatolii Alimov, using official Iranian statistics, published an article entitled "Iran's Military-Industrial Potential: Some Assessments".<sup>19</sup> Alimov cited the following figures: from 1989 until 1995 – that is, in five years – Iran allotted \$550 million to nuclear programs. In that period, the construction of the Bushehr station had not yet begun, and the expenditures at the time for carrying out minimal laboratory research on nuclear power and for the development of medical radiology, amounted to a reasonable sum of about \$13 million a year. Alimov did not find where the rest of the \$97 million a year was going.<sup>20</sup>

Instead of an answer, he cited the example of India, which spent approximately \$120 million a year on its nuclear program in the 1980s and 1990s, over a period of 15-17 years. Alimov also drew an analogy between financing the space and missile programs of Iran and those of its neighbors, India and Pakistan. Here, too, Iran enjoyed equal prospects for success.

Among the Iranian statistics cited by Alimov, the following fact is of special interest: At the beginning of the 1990s, \$80 million were spent each year on all the scientific and technological research in the country, that is, 20% less than on one nuclear program. It should be noted that science, and especially education in the sphere of the exact sciences, has made good progress in Iran since the beginning of the 1990s. In other words, the \$80 million were a rather effective capital investment. Could it be that the \$110 million invested in nuclear research did not bear any fruit besides the equipping of university laboratories and clinics?

There is no basis for anyone to assume that the Iranian nuclear program was just a showy undertaking, with most of its budget going for conferences, exhibitions, and gala dinners.<sup>21</sup>

Concerning the intelligence factor, the Russians do not deny that at the beginning of the 1990s, dozens, if not hundreds, of Russian and Ukrainian specialists left their home countries to work in Iran on "physics" research. A realistic assumption is that in the chaos of 1992-1995, these specialists eluded Russia's intelligence services, and even more those of Ukraine. It was quite a simple matter to move to another state of the Commonwealth of Independent States (CIS) and receive a visa there for any Western country. However, it is unrealistic and illogical to assume that after 1995-1996 and up until the present time, the Russian intelligence service has been unable to plant its agents among these people, even though Iran monitors foreigners very closely.<sup>22</sup> The same should be true for about 1,000 students, technicians, and scientists that Teheran sent to Russia to study nuclear technology, nuclear physics and missile technology. The capability of Russian Intelligence was proven long before, but its dependability is questionable.

In 1993, the Foreign Intelligence Service reported that Iran was going to develop a nuclear military capacity. In 1995, Evgenii Primakov, then head of the Foreign Intelligence Service, issued a report emphasizing that Russian intelligence "had not uncovered convincing evidence of the existence (in Iran) of a coordinated...military nuclear program" and that "the level of Iran's achievement in the nuclear field is not superior to that of 20-25 other countries." The contrast with the agency's 1993 report, which expressed significant suspicion about Iran's nuclear ambitions, was striking.<sup>23</sup> Recently, based on intelligence sources, Russian experts hinted that some uranium of Russian origins was supplied to Iran by neighboring countries. This information can be confirmed by personal information from a businessman who inquired about renting a cargo aircraft in the Ukraine and by chance ran into a close friend's company based in Dnepropetrovsk. The friend recommended not to take any of his Tupolev aircraft as they still had traces of radioactivity from the time that the cargo planes were used to transport uranium (or uranium ore) to Iran between the end of 2002 and early 2003.<sup>24</sup> Vladimir Orlov has stated several times that the source of uranium leaks from Russia to Iran is other SIC countries, and not Russia itself.<sup>25</sup>

The PIR Center confirmed the "disappearance" of radioactive waste materials from Chechnya without a trace.

A quantity of between 665 and 2,000 grams of weapons-grade uranium was stolen from the Sukhumi (Georgia) nuclear research center in the mid 1990s, when a gruesome ethnic conflict took place there and Chechen groups of gunmen came to support one of the sides. **The trail of several experts who left the same center at that period led to Teheran**. These experts specialized in designing gas centrifuges for uranium enrichment, the sphere in which Iranians badly needed to advance.<sup>26</sup> PIR researcher Efstafiev raised the issue of "nuclear suitcases" that "had never been lost in Russia" but it seems that Moscow will not be surprised if they find their way into terrorists' hands.<sup>27</sup>

Almost every Russian politician and ideologue repeatedly puts forward two aspects of Russia's line of good neighboring relations with Iran: First, the serious export of conventional Russian weapons and the technologies connected with them and second, the stable development of the oil potential in the Caspian region. A third factor is only mentioned occasionally but is becoming increasingly important – Teheran's restraint in all aspects of its pro-Islamic activity in Central Asia and the Caucasus. It is common knowledge that Iran supports many Arab terrorist organizations. As Russian experts explain, "the Iranian rulers accept two non-conventional mechanisms for increasing their military potential by minimal allocation. One of them is supporting terrorist activity."<sup>28</sup> In fact, before 2003, few Russian experts – none of them political analysts or political scientists – had the courage to draw direct conclusions from the facts and suspicions (commonly known to most of them) concerning Iran's double game.

In 1995, Professor Alexei Iablokov, at that time chairman of the Interdepartmental Commission on the Environment of the Russian Security Council, repeatedly criticized the Atomic Energy Ministry

(Minatom), which only looked after its own profits in Iran, and the International Atomic Energy Agency (IAEA) for being ineffective in principle, in monitoring the peaceful use of the atom. Nor could Russia keep Iran within the legal limits. Russia, indeed, was even giving Iran a powerful push forward in the field of nuclear technology education.<sup>29</sup>

#### Handy Leverage - The Report of Ecological Experts

For about two years, the Kremlin was aware of the crucial point of no return in all the Iranian nuclear programs – the delivery of nuclear fuel to Bushehr.

As is well known, the spent nuclear fuel (SNF), after unloading from the reactor, contains an elevated quantity of Plutonium-239 and Plutonium-240 and this material can be used for further enrichment and the accumulation of weapons-grade plutonium. Radiochemical technologies for extracting Plutonium from SNF are not simple ones, but after North Korea proved its possibility there is no reason to doubt the Iranian capability.

Every country using nuclear fuel in its electric power stations is anxious to find ways to get rid of it after use because reprocessing SNF entails the production of a number of secondary waste products that also have to be buried somewhere. Yet while all the other countries that have nuclear power energy facilities were trying to get rid of SNF, Iran behaved in the exactly opposite way. As early as 1995, Teheran insisted on a paragraph in the Bushehr agreement that gave them the right of SNF ownership.

In the summer of 2002, the Minister of Atomic Energy, Alexander Rumiantzev, promised to supply fresh nuclear fuel to Bushehr within several months, (he said that fuel was waiting in the storage facilities of the Tomsk industrial complex), while Moscow ecologists explained to the press that Iran had no obligation to return SNF back to Russia.<sup>30</sup> Rumiantsev himself set out for Teheran to examine the situation on the spot. He liked what he saw and heard there, and told correspondents that once they got the report of the ecological experts on the safety of the SNF in all the stages of treatment, and a slight correction of the other SNF paragraph was made, the final agreement could be signed, even in a few weeks.<sup>31</sup>

This is the first time Moscow mentioned environmental demands as a condition for the completion of the Bushehr power station project.

The environmental aspect of the issue is certainly very important because the level of radiation of SNF is high, as are, consequently, the risks of polluting the environment and irradiating people during the SNF storage process (which lasts for three years in special cooling basins and another year in dry storage) and after that during its transportation. But the ecological factor is important above all as a means of clarifying the nuclear processes that are really taking place and would help reduce the chance of illegal extraction of Plutonium-239 to zero.

The concept of a "report of ecological experts" is an elastic one. On the basis of new demands of the IAEA, the standards can be made stricter all the time, thus enabling the Russians to propose additional requirements. That is what they actually did. Referring to the Chernobyl disaster trauma, Moscow can toughen her demands at any moment.

Until now, for Russian politicians, the "ecological card" was a most convenient one to play with Teheran.

After 14 months of this game, in the middle of March 2004, the head of Nuclear Safety Inspection (*Atomnadzor*) Andrei Malyshev, explained to his Iranian colleagues – and immediately to Reuters – that Iran must purchase for Bushehr a monitoring installation that is produced by European firms. Unfortunately, none of these firms are able to sell the installation to Iran due to the existing embargo.<sup>32</sup>

It should be noted well, that Teheran's endeavor to obtain nuclear fuel remained prominent and it did not even hide this. A statement was released by the Iranian military, (General Muhammad Bakher Zolkhadr), at the end of 2002. He was cited in an Iranian newspaper, praising the forthcoming supply of fuel from Russia. "As soon as the atomic power station in Bushehr becomes operative, the presence in the country of a large quantity of nuclear material will become the best guarantee of our security from any aggressor."<sup>33</sup>

This statement provokes a kind of dual astonishment – why is a general talking about the issue of a civil power station, and how is the fuel for an energy reactor transferred into a "guarantee of Iranian security from any aggressor". It should be a clear indication of the lesson learned by Teheran from the Osirak reactor bombing by the Israelis in 1981. It was done only a short time before it was to be loaded with nuclear fuel, because afterwards massive radiation pollution would probably have affected hundreds of thousands of Iraqis. Large quantities of nuclear materials, even with low radiation levels, located in a range of nuclear facilities under various pretexts, would be a real obstacle for the US or Israel if they want to destroy them by force.

Rulers with such a mentality are probably easily able to transform the nuclear fuel from "the strongest guarantee of their security" into the ultimate political leverage in the hands of terrorist groups manipulated by Teheran.

#### Nuclear Superpower versus the Islamic Superpower

Russian criticism of Iran's nuclear program by the experts and by the media intensified from the spring of 2003, in accordance with some new accents in statements by Putin's apparatus and the Ministry of Foreign Affairs, and sometimes even laid the groundwork for them.

The Reviews of Moscow's policy towards Teheran had been put forward by leading experts of the PIR Center, the Carnegie Moscow Center and others.

In the paper published in February 2003, by three researchers from the Institute of International Applied Studies, they quoted several Iranian leaders' statements that supported an Islamic/Iranian nuclear bomb and, after an analysis of their missile program, concluded that development of Shihab 3 and Shihab 4 models makes sense only if the MDW warheads are at their top ends.<sup>34</sup> They conclude also that in case of additional strengthening of the orthodox rulers, Iran will decisively become a supporter of Islamic terrorism, a supporter backed by a nuclear potential. It was the first time Russian analysts recognized Teheran's strategic support of terrorism as an extreme risk for Russia and her unity. They were very well aware of Teheran's official strategic line: support of terrorism as a cheap and effective instrument of providing political achievements for an Islamic state. However, before 2003, they perceived it as a limited method only for the *Hizbullah* or other anti-Israeli groups.<sup>35</sup>

A very sincere and convincing opinion of Teheran's two-faced behavior had recently been provided on the Internet site of a Russian anti-nuclear ecological movement (<www.NuclearNo.ru>), in a posting by an expert known only as "*Maiak*" (in Russian, lighthouse). His information appears solid because his facts were cross-referenced in publications and conversations I have had with Russian experts during various meetings since 1997.<sup>36</sup>

Iranians always prefer to pay experts in cash but always made sure there were witnesses to the deal, in order to threaten or blackmail them in the future. Maiak brings names and details about Teheran's efforts to obtain laser and other sophisticated technology for uranium enrichment from the Efremov Institute in Saint Petersburg. In 2003, when a contract with the Efremov Institute was canceled under US pressure, Teheran left all the prepaid sums on the Institute account, for the personal use of some Institute managers. Iranians were quick to learn to work around export limitation by buying basic

equipment from Russian institutes and then applying it on the site with cheaper assistance from Chinese scientists.

From many years of personal contacts with top Iranian nuclear figures, (members of the Teheran Nuclear Energy Commission), Maiak received the strong impression that these cunning Iranians use shifty techniques to procure forbidden nuclear technology from the Russians, and use it to reach their political aims – spreading Islam over the globe. One should not be fooled by Teheran's condemning of the Chechens.<sup>37</sup>

Concerning the Caucasus, Andrey Piontkovskii, a Moscow expert known for his independent views, stated recently that an Islamist fundamentalist movement irreversibly replaced the former Chechnya separatist conflict throughout the North Caucasus for its own agenda. Muslims who recently organized "*jamaat*" (a Muslim self-organized structure which takes the function of local authorities) in various regions of the Caucasus have nothing to do with the idea of an independent Ichkerya. They think of themselves as *shahids* of the global Islamic *Khalifat*, as fighters for the elimination of the shameless immoral West, and for them Russia just represents its weakest link.<sup>38</sup> Teheran supports *jamaat* organizers and Muslim educators directly or indirectly and as the other Moscow Islam expert Alexey Malashenko recently wrote, "a small stream of Teheran's money also goes to Chechen militants."<sup>39</sup>

After getting insurance in the form of a nuclear potential it will not pose a moral problem for Teheran to provide whichever side would prove more appealing with *Hizbullah*'s experience in terrorism. This is especially relevant since Russia has confirmed that the Chechens have already come a long way in preparing for mega terror.<sup>40</sup> This may seem like a small technical detail, but it should not be overlooked; it appears that Teheran is the only source able to provide terrorists with radioactive materials of Russian origin. If a mega terror action that uses such materials should occur anywhere in Russia, Iranians will not be implicated, since it will be not easy to evidence their role.

The attitude of the Moscow elite toward Iran changed dramatically after the Beslan tragedy, which demonstrated the impotence of this subject to all echelons of the government. After Beslan, sharp condemnations directed at Islamic terror were sounded by the hundreds, but hardly a single critical statement about the Islamic Republic, internationally recognized as a sponsor of terror, was voiced by Russian officials. But not only by officials. Immediately after September 11, 2001, as a foreword to the journal, **Nuclear Control**, the editor, (PIR Center Director V. Orlov), quoted the Iranian President Khatami saying that Islam had issued a challenge "to the entire ideological and value system of Western civilization... Their slogans talk about defending human freedom, the rights of man, democracy, and national state. Our war with the West in this sphere is the question of life and death.

Any compromise will only result in oppression, disgrace and the loss of our individuality and glory."<sup>41</sup>

After Beslan, academic institutions and analysts went along with the official version and failed to find a single word revealing Teheran's policy, which in fact has not changed at all since 2001.

It can hardly be a coincidence that within a month from Beslan, in October 2004, a senior Russian Foreign Ministry official in charge of the policy toward Iran, argued that Iran is the only state in the greater Middle East that is increasing its economic, scientific, technological, and military potential. With a highly educated population (Iran's literacy rate is 81%), continued the senior official, 11% of the world's oil resources as well as 18% of the world's gas resources, ...Iran is "doomed" to become the region's leader and a major player in the vast region stretching from the Middle East to the Caucasus and Central Asia.<sup>42</sup> In November 2004, a paper prepared by V. Orlov, mobilized all kinds of arguments supporting the strategic choice that the Kremlin had made in favor of boosting political and military ties with Iran. The author also added as an irrefutable advantage of the rising giant, the consolidation of Iranian society based on religious and ideological values, the same values that had been condemned by V. Orlov himself in his 2001 paper as dangerous and destructive for the entire Western civilization.<sup>43</sup> In other words, since Iran in many respects, has attained the status of a

superpower, and an Islamic one at that, indoctrinated and aggressive, it is better to negotiate with it than to fight back.

V. Orlov's following publications, and presentations initiated by him, (e.g. in the Geneva Center for Security Policy [GCSP]), aim to provide Iran with legitimacy as a rational and responsible player in the international arena. Such claims, portraying a military action against Iran as self-destructive and counter-productive in any situation, only serve to strengthen the extremists among the Iranian political leadership.<sup>44</sup> Mostafa T. Zahrani, Director General of the Institute for Political and International Studies of the Ministry of Foreign Affairs of Iran, chose the PIR Center platform to make an exceptional statement: "Iran has always acquired that which it could buy (*the weapons* – Z.W.) through legal paths. However, in the situation where the very existence of Iran was threatened, Iran [has] also acquired things on the black market."<sup>45</sup> The Kremlin and its Russian proponents (today it includes nearly all academics and media) do their best to persuade half the world that the *Ayatollahs*, given nuclear capacity (or technically very close to it), will become real peace lovers, both in the military sense and in the sense of preventing terror.

#### The Moscow-Damascus Axis, 1991-2004

The recent events in the Moscow-Damascus relationship are more logically analyzed in the wide context of Moscow-Teheran-Damascus and *Hizbullah* than on the Moscow-Damascus axis alone.

As is well known, during the 1990s, Russian-Syrian relations cooled down even more than Russia's relations with the rest of the Arab countries. The trade figure between the countries dropped down from about \$1 billion in 1991 to \$100 million in 1993 and rose slightly (to \$160 million) in 2000.<sup>46</sup> The Syrian arms debt dating back to the 1960s (Damascus never confirmed its scale, but the Russian estimate is at \$11-14 billion) was the main obstacle for further cooperation in any sphere – in arms supplying or energy development projects. However, Syria was not in such a critical condition in supporting its military machine as most of the western media had reported, having up to 90% of its arms come from Soviet origins. My own work, from 2000, based mainly on FSU sources, demonstrated many alternatives to the Russian supplies that Damascus found in the 1990s.<sup>47</sup>

After the collapse of the Soviet Empire in 1991, hundreds of Syrian officers, educated in military schools and academies throughout the USSR, promptly took part in buying the enormous military arsenals of the Soviet Army.

This way the Syrian Army got a part of the essential hardware from Russia and other newly independent countries, with unbelievably low prices and with incredible personal benefits to Syrian officers and diplomats (through a joint venture with Moscow, Kiev or Minsk partners). In early 1992, Syria purchased 400 T-72 tanks and 300 artillery systems from Russia for \$270 million in cash. Two things which happened here were without precedent: such a quantity of Soviet weapons had never cost less than \$500 million, and cash was always an unacceptable means for payment in arms trades. In addition, the Syrians received all the arms from the Soviet army stores without delay.<sup>48</sup>

The Syrians were also very active in the "gray" and black markets of Soviet weaponry that flourished in eastern European countries in the early 1990s.<sup>49</sup>

In the mid-1990s Damascus preferred more legal forms of cooperation with the Ukrainian and Belarus government companies. In 1996-1998 in Kharkov (Ukraine) a few hundred T-55 and T-72 tanks were upgraded for a very low price. Parts of the installation and services for the tanks, aircraft and radar systems, the Syrian bought from China, North Korea and Iran, while paid for in barter deals with the surplus of Soviet weaponry they had purchased.<sup>50</sup>

In Belarus, the Syrians, along with a governmental company for arms trade, invested in communications and gained a firm position in that developing market. In addition to a nice profit, Damascus got access to enterprises for military equipment, radars and communications. According to American experts, to this very day, the Minsk-Damascus "pipeline" is working.<sup>51</sup>

In the 1990s, Russian politicians made several attempts to rebuild their status in Syria. This was done mainly through Eugenie Primakov's initiative, the Minister of Foreign Affairs, 1996-1998, who was convinced that the alliance of Damascus and Baghdad was good for Moscow economically and politically. Economically, he meant mainly development of oil-based business between Syria and Iraq, while Russian firms would supply oil-related technologies to both of them.<sup>52</sup>

The Kremlin's initiative regarding Damascus did not bring fruit during Primakov's short tenure as prime minister from 1998 to 1999. However, even after he left this top position, his policy, that could be called the "Primakov Pro-Arab Doctrine", was copied by MID (Foreign Affairs Ministry). V. Putin's rise to power and Assad's death created new opportunities for Russia in the Middle East, with Syria's aid. In May 2001, Primakov went to Assad junior and brought him a letter from Putin.

Russia's well-informed experts estimate that the Russian leader mentioned arms supplying and nuclear research technologies as a priority for cooperation between the two countries. A short time before Primakov's visit to Damascus the Syrian Minister of Defense Mustapha Tlas dropped by for a visit to Moscow.<sup>53</sup> Recently, Russian and Western media have describe the Russian military industrial complex (MIC) as the main conduit for the unexpected warming in the Damascus-Moscow axis.

In reality, Syria was the best client of the Soviet MIC in history. Many Moscow generals and officials still have a kind of nostalgia for the period of the 1970s and 1980s. However, their time is over. From 1992 until 1998 there were no serious business contacts. In that period, if Syria was ready to pay cash for something (Russia did not agree to a penny's credit or any delay in payment) it was mainly for orders of spare parts or repairing of equipment that had been off the production line for years. Russian managers refer to such business as "modest benefit, enormous headache". State company officials would drag out replies to such orders and did not even try to find an explanation or suggest an alternative.<sup>54</sup>

However, special personal relations, not the commercial or political ones, insured continuation of particular chemical programs between Damascus and Moscow that led to the scandal in 1995. In that summer, the Cyprus customs detained a cargo sent from Russia to Syria with precursors for nervous gas production. A short time before that, Major-General Anatolii Kuntsewitch was appointed the head of the Committee for the CW and BW Convention (elimination of CW and BW and technologies for their production). He could not deny connections to that deal and resigned. Russian courts started an inquiry, but he was never prosecuted. For the next few years, Kuntsewitch continued to manage his Laboratory of Ecology and Toxicology affiliated with the Russian Academy of Sciences and maintained contact with a similar laboratory in Damascus. Russian experts are talking about CW warheads that were installed on Syrian SS missiles and aimed at Israel as a matter beyond question.<sup>55</sup>

However, while recognizing Syria as a violator of the CW convention, they always find an excuse for that, pointing to Israel's potential of WMD. According to the report of the Russian Foreign Intelligence Service, Syria developed "other capacities for deterrence, as an answer to Israel's nuclear threat". The same report mentioned that "Syria had no military nuclear program applicable...", although Damascus' real intentions in the nuclear sphere are not much of a secret. In the aforementioned paper by A. Khlopkov, the author let slip the phrase, "...since Damascus could not get the small nuclear research reactor from Argentina, Syria has no capacity to build a nuke..."<sup>56</sup>

#### 2005

The new agreement between Russia and Syria has been presented by the Kremlin as a sum of several factors, each one intended to improve the Russian trade balance (arms trade), or its political role in the Middle East.

Let us analyze the arms trade and economic factors first:

Writing off about \$10 billion of the \$13.5 billion total of Syrian debts, Russia says that instead of these virtual sums, (that should be seen as lost), Moscow will now receive the remaining \$3.6 billion in cash.

But actually, according to the agreement, Damascus will pay out \$1.5 billion over the course of a decade (about \$150 million annually) and \$2.118 billion will be transferred in Syrian liras for future Russian investment in Syria through Russian and Syrian mediating companies. The Moscow independent analyst, P. Fendelgaur, wrote that this scheme is very good business, but only for the corrupt Russian and Syrian bureaucrats, since it provides them with the best chances to get a fat percentage from further transactions with the money.<sup>57</sup>

A Russian military industrial complex can make a good profit (which it badly needs) from selling some new arms and military equipment to Syria.

Even though her debt was annulled, Syria is still required to pay in cash for each new Russian tank (or spare parts for old ones). According to Syrian requests from the late 1990s, they would like to obtain modern tanks (T-90s), aircraft (Sukhoy) and anti-missile systems (Tor, Buk) from Russia, not too many pieces of each kind, since the actual sum that Syria can pay is approximately \$150 million annually over the next five years. The Russian MIC definitely cannot ignore contracts on such a scale, but with the recent oil and gas prices it is hard to believe that this has had a crucial impact on Putin's decision to supply arms to Damascus again.<sup>58</sup> Benefits on such a scale cannot also justify the precedent of writing off about \$10 billion.

Discussing the kind of arms Russia is going to sell to Syria might be more important than the money that can be earned by Russia. International and Russian media widely discussed the selling of the newest kind of tactical missile called "Iskander". When checking the hard data (professional opinions) it is not difficult to ascertain that the disclosure of Iskander's exclusive technical features was aimed as publicity for the Russian weapon industry, and caused a media "spin" to distract public attention from the selling of AA rockets to Syria. Firstly, according to sources from the Russian Defense Ministry, the firm that produces the Iskander was not able to begin mass production. They hope to supply the first few missiles in 2005 to the army units in Chechnya, which badly need it for the "targeted killing" of terrorists and terror groups.<sup>59</sup> Syrian alleged willingness to participate in financing the last stages of production (~\$300 million) also cannot be taken seriously since even in the worst period for the Russian MIC (mid and late 1990s), foreign investment in important weaponry production was not allowed, although the issue had been discussed at length.<sup>60</sup>

The focus of public discussion, especially in Israel, on supplying Syria with a version of the AA rocket ("Igla" type) was more justified. The latest model of Igla-S is a brilliant weapon for terror since it is shoulder-launched and has sophisticated infrared and optical systems for targeting. Reliable counter measurers to protect military and civil aircraft against it have yet to be invented. Supplying the Igla-S is prohibited in all conflict regions according to the US-Russia agreement. Syria now has to be content with a less sophisticated version called "Strelets" which cannot be launched manually (as a shoulder rocket) but only from a vehicle, thus allowing the Russians to skirt round the mentioned agreement. On the other hand, Strelets can shoot several rockets in seconds and this increases the chances of hitting an airborne target. The deal for supplying Strelets is estimated at \$20 million (maximum), while P. Feldengaur speaks of \$10-20 million.<sup>61</sup> In any case, such profits cannot cure the problems of a

Russian MIC plant or have an impact on Russian-Syrian relations. As a less advanced version of Igla, it cannot promote Russian modern weapons. Supplying Strelets has a different purpose. It should be seen in the background for previous contacts between Israel and Russia about supplying "anti-AA" rockets technologies for Russian. Using *Igla* rockets against helicopters, Chechens caused hundreds of victims and made flying helicopters into a nightmare for the entire Russian army. In Lebanon, from the end of the 1980s, about 7,000 shoulder rockets were launched against Israeli air targets, with only a few of them causing damage.<sup>62</sup> It is unclear which techniques related to the issue of protecting helicopters Israel could provide Moscow, but the Kremlin would definitely like to see much more cooperation. By sending the Strelets to Syria, a target of Israeli bombing following *Hizbullah* terror attacks, Moscow probably sent a hint to Prime Minister Sharon's office: if we lose our helicopters in Chechnya, you lose yours in Syria or in Lebanon.

Even all the aforementioned economic and MIC related factors combined hardly played an important role in the Kremlin's decision to reestablish military cooperation with Syria. Political factors and the exact timing should be checked with careful attention.

"Chilling the formerly warm relations with Arab countries to favor Israel (having in mind serious economic perspectives from this alliance)", wrote A. Khlopkov in 2001, in his paper on Russia-Syria cooperation – "became one of the factors that made Russia the target of aggressive neo Islamic movements." Since then, this view has only been strengthened. Recently, a Primakov doctrine supporter put forward the thesis that Russia, by discarding historic allies, namely the Arab states, made herself a "legitimate" target for Islamic terror. It was just inevitable that the Kremlin leaders revised their policy toward Islam and Arab factors after the Beslan tragedy (by Beslan, I mean the entire summer 2004 chain of terrorist acts in Moscow, Saint Petersburg and the simultaneous explosion of two passenger airplanes). In their inability to stave off such attacks and, even in investigating these cases, all the echelons of the Russian regime demonstrated complete impotence. After Beslan officials and governmental speakers were unable to connect Beslan's murderers and their instigators with any specific Muslim country or non-country body. The unfounded attack on NATO and the US can be seen to reflect frustration that the global fight against Islamic terror does not help Moscow that much.

Two Muslim countries are very seriously suspected as sponsors of Islamic terror – Iran and Syria. After Beslan, a significant change in the Kremlin's attitude towards these two occurred. Presumably the Russian elite realized that it is not wise to make accusations in the morning against someone with whom you will sign an agreement that very night.

The new portrayal of Iran presented by Moscow at the end of 2004 has been discussed above. Here, I would just stress a whole list of pro-Bashar Assad publications written since January 2005, which discuss the military disadvantages of his army by the Moscow Institute for Middle East Study and were openly presented in the mainstream Russian media.<sup>63</sup>

The new agreement with Syria, backed up by the supplying of modern weapons, will definitely improve Moscow's image in the Muslim world, even though Damascus has always supported Moscow when voting in the UN and even refrained from condemning the Russian policy in Chechnya in various Muslim solidarity conferences.<sup>64</sup> The recent visit of President Putin to Egypt, Israel and the PA just prove Russia's intent to reinforce their relations with Arab countries and with the Arab League and obscure ties that exist with the Jewish state.

But warmer relations with both Damascus and Teheran provide a better chance to affect the *Hizbullah* and hamper its efforts to copy its model to the Caucasus conflicts.

Russia has proclaimed such anti-terror measures as fighting extremist Islamic scholars (*Wahabists* mainly educated in Saudi Arabia) and cutting financial aid to Islamist groups coming from rich Arab countries and Muslim charitable organizations. Here too, the benevolent voice of Teheran and Damascus can make the irritation of the Muslim world more indulgent of Moscow.

A very short time after the signing of this agreement in Moscow by Putin and Bashar Asad, Iranian First Vice-President Mohammad-Reza Aref flew to Damascus in order to secure ally relations between the two capitals. The Iranian media stressed his words that Iranians will share with the Syrians their rich experience in escaping shirking international sanctions.<sup>65</sup> In that timing and context, such a visit can hardly be understood other than as a recommendation for Damascus to build their own advanced weapons systems from dual use components using the know-how provided by Russia, albeit prohibited by international agreement. That is exactly what the Iranians did during the last decade, with Moscow turning a blind eye.

The latest developments in Lebanon, the assassination of Rafik Khariri, and the resulting diminution of Syria's role in the Middle East, could definitely frustrate the Kremlin to some extent, but in fact Moscow's intentions in playing the Syrian game were to demonstrate its genuinely pro-Muslim policy to the whole Arab and Muslim world. Damascus will probably not be able to fulfill Russia's expectations concerning terror, but it does not seem that Russia will entirely turn its back on Syria.

#### **Conclusions:**

- 1. Russia supplied Iran with the critical mass of knowledge needed for development of nuclear weapons. The Kremlin was definitely aware of the risk but preferred to ignore it. One of the reasons was the hope that Teheran will help prevent an acceleration of the Islamization in Russia.
- 2. The Iranians developed sophisticated and successful ways to buy needed know-how and equipment under false pretexts. Corruption among top Russian management seems be one of the reasons for Iran's success.
- 3. In the last two years, Moscow preferred to press Teheran merely by "soft leverage" like adherence to ecological norms, dreading to break the "good neighbors" framework, having several reasons to fear from an Islamic superpower.
- 4. There are increasing suspicions that Teheran already has its hands on two powerful leverages: nuclear material flow and strong influence on extremist Islamic groups.
- 5. After the Beslan tragedy, Russian political analysts started to depict Iran in coordination with the political elite as a regional superpower, for which a close relationship with Moscow is a must. Now they continue by building a new image of rational and responsible Iranian rulers. Having made the difficult decision to continue, if not accelerate, nuclear cooperation with Iran, the Kremlin expects Iran to cool down their most extreme radical Islamists and stop them from expanding terror into Russia and from using a "dirty bomb" or other materials for mega terror.
- 6. The most recent warming of the relationship between Moscow and Damascus can hardly be explained by Russian hopes to improve benefits for their military industries.
- 7. Analyses show that prospective benefits are very modest, while political gain in improving Russia's image as a pro-Arab country can be serious, and accordingly there are expectations from Muslim states and non state entities to cool down Islamic terror in Russia. Syria as the single Iranian ally in the region is a very logical place for Moscow to try and focus her efforts.
- 8. The latest development in Lebanon can seriously weaken Syria's position, but it does not seem that Moscow will retreat from its policy toward the Muslim world.

#### Endnotes

- <sup>1</sup> The PIR Center (Tsentr Politicheskikh Issledovanii, Russia) was organized at the beginning of the 1990s outside the academic system. It cooperates actively with American centers and, perhaps more than any other Russian research institute, carries out monitoring of tri-lateral Russian-American-Iranian relations. It seems that the PIR Center's opinions were in concordance with important factions at a high level of the Moscow political establishment. (On the 10 year jubilee, the Center received personal and very warm congratulations from every "who's who" in Russian powerful circles (The Ministers of Foreign Affairs, Defense and Atomic Energy). It is not easy to find another research center in Moscow that has open doors to these three top officials.
- <sup>2</sup> V. Lata and A. Khlopkov, "Iran: Nuclear Missile Riddle for Russia" (Iran: raketno-iadernaia zagadka dlia Rossii), **Iadernyi Kontrol**, No. 2 (68), 2003, pp. 39-56. Lieutenant-General (res.) Vasilii Lata served as deputy head of the Main Staff of the Strategic Missile Forces until 1999. Anton Khlopkov, Deputy Director of the PIR Center, is the author of numerous works dealing with the non-proliferation of nuclear weapons.
- <sup>3</sup> A. Khlopkov, "The Iranian Nuclear Program in American-Russian Relations" (Iranskaia iadernaia programma v amerikano-rossiiskiikh otnosheniiakh), Nauchnye Zapiski PIR Tsentra, No. 18, 2001, <a href="http://iranatom.ru/news/aeoi/year04/september/ultimat.htm">http://iranatom.ru/news/aeoi/year04/september/ultimat.htm</a>>.
- <sup>4</sup> Lata and Khlopkov, p. 40.
- <sup>5</sup> Ibid., p. 40.
- <sup>6</sup> Ibid., p. 40.
- <sup>7</sup> Ibid., p. 41.
- <sup>8</sup> Ibid., pp. 41-42. No other civilian nuclear energy installation in the world has such a construction protecting it from a direct hit by conventional bombs or missiles. For example, during the 1960s Krasnoiarsk-26 was built in the USSR. It was a complex for the processing of uranium and the production of nuclear weapons in tunnels (approximately 350 kilometers of tunnels) inside a huge rock on the banks of the Yenisei River. It was designed to be able to withstand a direct hit by a nuclear bomb and to continue production in the course of a thermonuclear war.
- <sup>9</sup> Iadernyi Kontrol', No. 6, 1995.
- <sup>10</sup> Victor Mikhailov, "Cooperation with Iran in the Nuclear Sphere", **Priroda** (Journal Nature), No. 8, 1995.
- <sup>11</sup> Lata, Khlopkov, 2003, p. 42.
- <sup>12</sup> Ibid.
- <sup>13</sup> A. Khlopkov, 2001, p. 18.
- <sup>14</sup> Ibid.
- <sup>15</sup> Ibid., p. 19.
- <sup>16</sup> Ibid.
- <sup>17</sup> Ibid., p. 21.
- <sup>18</sup> Anatoly Alimov, "Iran's Military-Industrial Potential: Some Assessments", **Yadernyi Kontrol**, No. 3, 2001, pp. 41-52, PIR Center, Moscow.
- <sup>19</sup> Ibid., pp. 46-47.
- <sup>20</sup> Ibid., p. 43.
- <sup>21</sup> Ivan Safronchuk followed a similar approach. On the one hand, he cited quite convincing data about the development of Iranian industry with a military profile, including also nuclear technology, while, on the other hand, he concluded, like Primakov, that, "Iran has not come any closer to the creation of nuclear weapons than 20-25 other states..." because "the eastern-style bureaucratic state structure flourishing in Iran is absolutely unfit for really effective work, although it might, to be sure, simulate activity in various directions." I. Safranchuk, "Nuclear and Missile Programs of Iran and Russia's Security: The Limits of Russian-Iranian Collaboration" (Iadernye i raketnye programmy Irana i bezopasnost' Rossii: ramki rossiisko-iranskogo sotrudnichestva), Nauchnye Zapiski PIR Tsentra, No. 8, 1998, p. 27-28.

- <sup>22</sup> The Russian specialists located at Bushehr and their families live behind a wall, with guard towers, and their every step is under supervision, allegedly in consideration of Muslim customs. Kommersant, December 25, 2002.
- <sup>23</sup> A. Khlopkov, "Russian-Syrian Cooperation and Perspective of Development of Nuclear Energy in Syria", Security Question, PIR Center, Vol. 5, No. 13 (203), July 2001, <a href="http://www.pircenter.org/data/publications/vb13-2001.htm">http://www.pircenter.org/data/publications/vb13-2001.htm</a>>.
- <sup>24</sup> Personal interview with Israel-based businessman, Y.K., April 2004, Rehovot.
- <sup>25</sup> V. Orlov, "Don't Hinder IAEA Investigations" (Ne meshaite MAGATE), Questions of Security, No.7, 151, PIR Center, Moscow, June 2004, <a href="http://www.PIR center.org/data/news/orlov250804-rus.pdf">http://www.PIR center.org/data/news/orlov250804-rus.pdf</a>>.
- <sup>26</sup> Daniil Kobiakov, "Territories Without Government Control in the Transcaucasus and the WMD Proliferation Problem", (Territorii vne gosudarstvennogo kontrolia v Zakavkazii i problema rasprostranenia OMU), <ww.pircenter.org/</p>
  - data/news/GZReport061004.pdf>, October 2004, PIR Center, Moscow.
- <sup>27</sup> Gennadii Efstafiev, PIR Center International Experts Council Meeting, October 6, 2004,
  <a href="https://www.pircenter.org/cgibin/pirnews/getinfo.cgi?ID=1444">www.pircenter.org/cgibin/pirnews/getinfo.cgi?ID=1444</a>;
  <a href="https://www.pircenter.org/cgibin/pirnews/getinfo.cgi?TypeInfo=1&Template=allpage&L=0">www.pircenter.org/cgibin/pirnews/getinfo.cgi?ID=1444</a>;
  <a href="https://www.pircenter.org/cgibin/pirnews/getinfo=1&Template=allpage&L=0">www.pircenter.org/cgibin/pirnews/getinfo=1&Template=allpage&L=0</a>.
- <sup>28</sup> Alexey Krymin, Egor Engel'gardt, "System Downfall of the Political-Military Structure of Islam Republic of Iran" (Sistemnaia Uiazvimost' politico-voennoi struktury Islamskoi Respubliki Iran), Export Vooruzhenii, No. 1, 2001, p. 44.
- <sup>29</sup> Alexei Iablokov, **Iadernyi Komtrol**, No. 5, 1995, p. 20-21.
- <sup>30</sup> Alena Kornysheva, "They Still Do Not Give Us Access to the SNF Market" (Poka nas ne puskaiut na rynok OIAT), Kommersant, March 12, 2003.
- <sup>31</sup> Shestakov, "Iran Promises Go Ahead with Enriching of Uranium" (Iran Obeschaet prodolzhat' obagaschenie Urana), Izvestiia, October 7, 2003.
- <sup>32</sup> Maria Golovina, Iranskye Yadernyi Proekt Natalkivaetsa Na Serioznye Trudnosti, "The Iranian Nuclear Project Is In Serious Trouble", Based on Reuters, March 17, 2004; <www.iran.ru>, March 19, 2004.
- <sup>33</sup> E. Shestakov, Iranian authorities promise to continue work on uranium enrichment, (Iranskie vlasti obeschaiut prodolzhit' rabotu po obogacheniu urana) **Izvestia**, October 7, 2003.
- <sup>34</sup> N. Mamedova, Yu Fedorov, V. Fedchenko, "Iranian Nuclear Program and Russia-Iran Relations" (Iranskaia Iadernaia Programma I Russko-Iranskie Otnoshenia), **Proceedings**, Vol. 2, February 2003, Institute for Applied International Research, Moscow, February 2003.
- <sup>35</sup> Alexey Krymin, Egor Engel'gardt, pp. 38-44.
- <sup>36</sup> Maiak, Letters (Chto skryvaetsia za iranskim zheleznym zanavesom?), <www.NuclearNo.ru>, October 15, 2004.
- <sup>37</sup> Ibid., Also: Gleb Ivashentsov, "Russia-Iran: The Perspective of Partnership", *Mekzdunarodnaia Zhizn*', October 22, 2004. The author appreciates the Iranian role in supporting Russia in the Islamic arena and in the UN, against the US position on the Iraqi problem.
- <sup>38</sup> Andrei Piotkovskii, Interview, Radio Liberty, March 9, 2005.
- <sup>39</sup> Alexei Malashenko, "Global Jihad" (Global'nyi Djihad), <http://www.kavkaz-forum.ru/society/2303.html>, October 24 2004; and: Alexei Malashenko, "The War Can Be Started in Dagestan" (Voina Mozhet Perekinut'sia Na Dagestan), <http://www.kavkaz-forum.ru/society/2303.html>, November 5, 2004.
- <sup>40</sup> V. Orlov, "Chechen's Terrorists: In Preparing Megaterror Acts", Presentation, PIR Center Moscow, <a href="http://www.pircenter.org/data/news/orlov250804-rus.pdf">http://www.pircenter.org/data/news/orlov250804-rus.pdf</a>; also: Daniil Kobiakov, (Territorii vne gosudarstvennogo kontrolia).
- <sup>41</sup> V. Orlov, **Iadernyi Kontrol**', Editorial, No. 4 (2001): p. 3; also: A. Khlopkov's report on his week of meetings in Iran with scientists and managers of nuclear program, March 19, 2005, <a href="http://www.pircenter.org/cgi-bin/pirnews/getinfo">http://www.pircenter.org/cgi-bin/pirnews/getinfo</a>. cgi?ID=1623&L=0>.

- <sup>42</sup> V. Orlov, PONARS (The Program on New Approaches to Russian Security, based in Washington DC), Policy Memo 358, PIR Center Nov. 2004), <a href="http://www.csis.org/ruseura/PONARS/policymemos/pm\_0314.pdf">http://www.csis.org/ruseura/PONARS/policymemos/pm\_0314.pdf</a>>.
- <sup>43</sup> V. Orlov, Y. Vinnikov, "The Great Guessing Game: Russia and the Iranian Nuclear Issue", The Washington Quarterly, Spring 2005, 53, <a href="https://www.pircenter.org/cgi-bin/pirnews/getinfo.cgi?ID=1601&L=0">www.pircenter.org/cgi-bin/pirnews/getinfo.cgi?ID=1601&L=0</a>. Here the authors again clarify that the Kremlin made its strategic choice for political, economic and military cooperation with Iran.
- <sup>44</sup> In February, in a presentation in front of European diplomats in Geneva (GCSP), Orlov's colleague, E. Satanovskii, depicted Iran as a rational player which would behave in a rational and responsible manner even having nuclear weapons, <a href="http://www.pircenter.org/cgibin/pirnews/getinfo.cgi?ID=1601&L=0">http://www.pircenter.org/cgibin/pirnews/getinfo.cgi?ID=1601&L=0</a> 17>; See: <a href="http://www.pircenter.org/cgibin/pirnews/getinfo.cgi?ID=1623&L=0">http://www.pircenter.org/cgibin/pirnews/getinfo.cgi?ID=1601&L=0</a> 17>; See: <a href="http://www.pircenter.org/cgibin/pirnews/getinfo.cgi?ID=1623&L=0">http://www.pircenter.org/cgibin/pirnews/getinfo.cgi?ID=1623&L=0</a>>.
- <sup>45</sup> <http://www.pircenter.org/cgibin/pirnews/getinfo.cgi?ID=1582&L=1,21>, February 2005.
- <sup>46</sup> Anton Khlopkov, "Russian-Syrian Cooperation and the Perspective of Development of Nuclear Energy in Syria", Security Question, PIR Center Vol. 5, No. 13 (203), July 2001. <a href="http://www.pircenter.org/data/publications/vb13-2001.html">http://www.pircenter.org/data/publications/vb13-2001.html</a>>.
- <sup>47</sup> Ze'ev Wolfson, "The 'Russian Factor' in the Middle East Military Balance, ACPR Policy Paper No. 133, 2001, pp. 14-15; also published on the ACPR website, <a href="http://www.acpr.org.il/ins/articles/Wolfson1.htm">http://www.acpr.org.il/ins/articles/Wolfson1.htm</a>, 2004.
- <sup>48</sup> Jane's Intelligence Review, Vol. 9, No. 4, April 1997. pp. 187-190; also: Report of Committee of State Defense Issues, "Russian Duma", published in Kommersant Daily, April 12, 1997, also: The Jerusalem Post, January 7, 2000, p. B1); also K. Makienko, "Grey Arms Market in the CIS", PIR Center Study Papers, No. 6, 1997, p. 8.
- <sup>49</sup> Ibid., K .Makienko, p. 7.
- <sup>50</sup> Z. Wolfson, "The 'Russian Factor' in the Middle East Military Balance", ACPR Policy Paper No. 133, 2001, p. 16, also: <a href="http://www.polit.ru/index.html">http://www.polit.ru/index.html</a>, January 28, 2005, This Russian source provided comments on a Syrian general, who says that the technical services provided by "non-Russian" firms were very unqualified. Due to such bad service at some point the Syrians started dismantling working tanks for the spare parts.
- <sup>51</sup> Major General (ret.) Paul Vallely, Presentation, March 9, 2005, Jerusalem Center for Public Affairs.
- <sup>52</sup> A. Khlopkov, "Russian-Syrian Cooperation and the Perspective of Development of Nuclear Energy in Syria",
  Security Question, PIR Center, Vol. 5, No. 13 (203), July 2001.
  <a href="http://www.pircenter.org/data/publications/vb13-2001.html">http://www.pircenter.org/data/publications/vb13-2001.html</a>

- <sup>54</sup> Personal interview with K. Makienko, Moscow, May 2000.
- <sup>55</sup> Dany Shoham, Ze'ev Wolfson, "The Russian Biological Weapons Program: Vanished or Disappeared?", Critical Review in Microbiology, No. 30, pp. 241-261, 2004, <a href="http://www.crcjournals.com/ejournals/issues/issue\_archive.asp?">http://www.crcjournals.com/ejournals/issues/issue\_archive.asp?</a> section=10506>; also: Vadim Kozulin, "Russia-Syria: Military-Technology Bargain, Haggle", Iadernyi Kontrol, No. 3, 2000.
- <sup>56</sup> A. Khlopkov, "Russian-Syrian Cooperation and the Perspective of Development of Nuclear Energy in Syria".
- <sup>57</sup> Pavel Feldengauer, Novaya Gazeta, February 21, 2005.
- <sup>58</sup> Ibid.
- <sup>59</sup> <http://www.strana.ru/stories/02/01/16/2353/240742.html>.
- <sup>60</sup> Ibid., Another argument on the navy base in Tartus cannot be regarded as a favor from Damascus to Moscow in exchange for the debt being annulled. Damascus was interested in a Russian presence in Tartus more than the Kremlin. Syria deducted the rent from their debts. The Russian problem was just a lack of budget to maintain the installations. As soon as Putin's government allocated some additional budget for the Russian navy (from oil and gas super benefits) a full renovation in Tartus was started.
- <sup>61</sup> P. Feldengauer; also: <http://www.sinopa.ee/sor/boraznoe/igla/igla.htm>.

<sup>&</sup>lt;sup>53</sup> Ibid.

- <sup>62</sup> P. Feldengauer.
- <sup>63</sup> <www.gcsp.ch/e/Weekly\_Calendar/Archived/2005/February/162-Fev.htm>, The Institute was established as The Institute of Israel Study, and was later known as The Institute for Israel and Middle East Study. On his visit to Geneva in February 2005, E. Satanovsky was presented for the first time as Director of The Institute for Middle East Study.
- <sup>64</sup> A. Khlopkov, "Russian-Syrian Cooperation and the Perspective of Development of Nuclear Energy in Syria".
- <sup>65</sup> **The Teheran Times**, February 17, 2005, <a href="http://www.Teherantimes.com/archives.asp">http://www.Teherantimes.com/archives.asp</a>.

