Unfortunately, Russia has failed to make even a first step in this direction and continued to embrace the idea of strengthening strategic stability as a universal means of ensuring security unwilling to understand that strategic stability is based exactly on the principle of enhancing nuclear deterrence. In other words, Russia's policy of the past years continued to move in a vicious circle by upholding the approaches to ensuring security, that typical of Cold War period, which no longer meets political, military or economic realities.

Ideally, the revision of the fundamental provisions of deterrence strategy should have been carried out by Russia and the United States together, by focusing on a wider reassessment of the new international situation rather than maintaining and enhancing strategic stability in the narrow sense of strategic relationship between the two leading nuclear powers. Once the United States and Russia have declared each other strategic partners, such statements should be supported by practical steps towards creating a stable and safe structure of international relations in the XXI century.

Polemics

HEADING OFF IRAN'S BOMB: THE NEED FOR RENEWED U.S.-RUSSIAN COOPERATION

by Robert J. Einhorn
Senior Adviser, Center for Strategic &
International Studies
and Gary Samore
Senior Fellow for Non-Proliferation,
International Institute for Strategic
Studies

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The United States and the Soviet Union had an effective partnership in the fight against the proliferation of nuclear weapons and other weapons of mass destruction. Ironically, U.S. cooperation with the Russian Federation on nonproliferation has been far less satisfactory, with serious frictions rising to the top of the bilateral agenda. In the last several years, the most persistent dispute has been over Russian assistance to nuclear and missile programs in Iran.

U.S. efforts to thwart Iran's ambitions to acquire nuclear weapons have been a key focus of U.S. nonproliferation policy for decades. Those efforts were given new urgency by President Bush's State of the Union speech, in which the President declared, in effect, that Iran's (and Iraq's and North Korea's) acquisition of nuclear weapons and missiles to deliver them was unacceptable. He pledged that the U.S. would not stand by while the peril grew closer and closer.

Notwithstanding the misleading image of an "axis" connecting Iraq, Iran, and North Korea, Bush Administration officials have made clear since the State of the Union that stopping weapons of mass destruction (WMD) programs would require different approaches for each of these three problem countries. In the case of Iran, where an "unelected few" still control the crucial levers

of state power, the Bush team may decide that halting WMD programs will require engaging what they hope will eventually become a reformist regime in Tehran and helping it reach the conclusion that its interests are better served by promoting the welfare of the Iranian people than by trying to bring its clandestine WMD programs to fruition.

But Iran's conservative clerics have so far blocked any engagement with the U.S., while continuing to press ahead with Iran's WMD and ballistic missile programs. When and if such engagement gets underway, it is not likely to produce positive results quickly. In the meantime, it is critical that Iran not present the world with the fait accompli of nuclear-armed ballistic missiles. Tehran is working very hard to do precisely that. It is making significant strides towards ensuring the autonomy of its nuclear and missile programs so that it will not be vulnerable to foreign pressures and interruptions of supply. Within the next few years, Iran could pass a point of no return – a point after which it could succeed in achieving nuclear and long-range missile capabilities without further foreign assistance.

Iran is not there yet. So, to gain the time needed for engagement and persuasion, it is essential that all external assistance to Iran's nuclear weapons and missile programs be terminated immediately. In part, this will mean convincing North Korea and China to stop selling missile technology to Iran. The key to buying time, however, will be Russia, which is the most important source of advanced technologies for Iran's nuclear and missile programs.

The record of efforts between Moscow and Washington to deal with Russian assistance to Iran's nuclear and missile programs – both during the Clinton Administration and the first year of the Bush Administration – has been mixed at best. Despite years of bilateral engagement at the highest levels, sensitive cooperation continues between Russian entities and Iran. But with heightened concerns post September 11 about the spread of WMD and with the prospect of a fundamentally transformed relationship between Washington and Moscow, there

may now be an opportunity to find a solution to the issue of sensitive Russian assistance to Iran that not only removes a major corrosive element in bilateral relations between Russia and the U.S. but also restores their partnership in the global effort to arrest the proliferation of weapons of mass destruction.

A Decade of Uneven Results

The Nuclear Issue: Phase One

In 1992, the Clinton Administration inherited a policy of strong U.S. opposition to all nuclear cooperation with the Revolutionary Republic of Iran, even ostensibly peaceful nuclear cooperation under International Atomic Energy Agency (IAEA) safeguards. This virtual nuclear embargo was established by the Reagan Administration in the early 1980s because of concerns that Iran would misuse peaceful nuclear technology to pursue a nuclear weapons program. During the Reagan Administration, the primary U.S. focus was on Europe, especially Germany and France, which had peaceful nuclear cooperation agreements with the Shah's Iran, as did the United States. Despite some resistance in Paris and Bonn, Washington largely succeeded in persuading its European allies not to renew nuclear cooperation with revolutionary Iran, primarily because of genuine European distrust of the new regime in Tehran and the outbreak of the Iran-Iraq War (1980-88). Most importantly, the German government decided not to renew work on the Bushehr nuclear power plant project (twin 1300 megawatt light water reactors), which was under construction at the time of the Iranian revolution.

The George H. Bush Administration continued this strict U.S. policy of nuclear embargo, at one point even urging Australia not to cooperate with Iran in the use of medical and industrial isotopes. Because of U.S. success in cutting off Western assistance, Iran increasingly turned to Russia and China as alternative suppliers. In 1992, at the end of the Bush Administration, China agreed in principle to supply Iran with two nuclear power reactors, and Russia agreed in principle to complete the Bushehr nuclear power project. In addition, both countries began negotiating possible deals with Iran for research reactors and fuel cycle technology.1

As a result, the Clinton Administration faced a new concern that China and Russia would break the U.S. imposed embargo on nuclear cooperation with Iran. With China, the Clinton Administration eventually succeeded in convincing Beijing to forgo significant nuclear assistance to Iran, as part of a 1997 agreement to implement peaceful nuclear cooperation between the U.S. and China. Russia, however, insisted on retaining a nuclear relationship with Iran. With various ups and downs, this issue became one of the most contentious and frustrating bilateral problems between Washington and Moscow during the Clinton years, consuming vast amounts of time and energy and producing only limited results.

Soon after taking office, the Clinton Administration, like its two predecessors, decided on a policy of total nuclear embargo against Iran. Secretary Warren Christopher, who had a long and unhappy experience with revolutionary Iran dating back to his days as President Carter's Deputy Secretary of State, was especially adamant that the U.S. should continue to support a complete embargo. As a result, U.S. diplomats tried to persuade Moscow not to go ahead with the Bushehr project, on the grounds that Iran's NPT commitments couldn't be trusted and that the project would help Iran develop broad nuclear expertise that could indirectly assist a weapons program.

Moscow, however, wasn't listening. In January 1995, Russian Atomic Energy Minister Viktor Mikhailov and the head of Iran's nuclear program, Reza Amrollahi, signed an \$800 million contract calling for Russia to complete one unit (1000 MWe) of the Bushehr project. In response to U.S. objections, Moscow countered that Iran was not in violation of its NPT commitments and that light water nuclear power technology under IAEA safeguards did not pose a serious proliferation threat. To support their case, the Russians pointed out that the light water reactor technology they were selling to Iran was essentially the same type of nuclear technology that Washington had agreed to provide North Korea in the October 1994 Agreed Framework. Finally, the Russians claimed that the Bushehr contract included provisions for Russia to supply fresh fuel for

the life of the reactor and to take spent fuel back to Russia, thus denying Iran any potential access to the plutonium contained in the spent fuel.

In early 1995, however, the U.S. discovered that the Bushehr plant was only the tip of the iceberg. In a secret protocol to the January agreement, the Russian Ministry of Atomic Energy (Minatom) agreed to supply Iran with key fuel cycle facilities, including light water research reactors, fuel fabrication facilities, and - most sensitive of all - an uranium enrichment centrifuge plant. Washington was furious. Either the Russian government had lied about the extent of its nuclear relationship with Iran or Minatom making extraordinarily sensitive commitments without Moscow's knowledge. Even worse, the secret protocol reinforced Washington's fear that Iran was pursuing nuclear weapons under the guise of a civilian nuclear energy program. When President Clinton heatedly protested to President Yeltsin at their May 1995 summit in Moscow, Yeltsin quickly retreated, promising to cancel any aspects of the agreement that could help Iran militarily.

The two Presidents assigned their deputies to work out the details and in December 1995, Prime Minister Chernomyrdin sent a confidential letter to Vice President Gore committing Russia to limit its cooperation with Iran to Unit 1 of the Bushehr plant and the supply of related fuel and training. The Russian commitment covered the period under which the Bushehr unit was under construction, which Moscow estimated to be five years. On paper, the agreement was a significant victory for Washington. The U.S. maintained its principled opposition to all nuclear cooperation to Iran, while Russia agreed not to provide fuel cycle assistance or additional power reactors to Iran for a period of at least five years. Many American experts believed that Bushehr would never be completed. Aside from the technical, safety and financial problems that plagued Bushehr, these experts speculated that Iran would eventually lose interest in the "white elephant" project once they realized that Moscow was not willing to sweeten the deal with side deliveries of fuel cycle technology.

The Missile Issue Takes off

Even as Washington believed it had addressed the issue of Russian nuclear cooperation with Iran, a new problem arose. In the mid-1990s, the U.S. became aware that a number of Russian entities, including several major aerospace firms, were supplying substantial assistance to Iran's efforts to produce the Shahab-3 intermediate range missile (a knock-off of the North Korean No Dong missile) and to develop even longer range missiles. When President Clinton raised the issue with President Yeltsin at their March 1997 summit in Helsinki, Yeltsin stoutly denied that any assistance to Iran's missile program was taking place, but promised to order investigations.

Several months later, at the June 1997 summit in Denver, President Clinton and President Yeltsin agreed to set up a special "channel" to work on the missile issue. The U.S. team was initially headed by former Ambassador Frank Wisner (later replaced by former Ambassador Robert Gallucci and then Undersecretary of State John Holum), while Yuri Koptev, Director of the Russian Space Agency (RSA), headed the Russian side. In a series of meetings, the two sides discussed a set of specific "cases" of Russian companies that the U.S. believed was providing missile assistance to Iran. The U.S. threatened to impose sanctions against these Russian entities if Russia did not investigate and halt the activity and pressed the Russian government to enact stronger export control laws and regulations. To increase leverage with the Russian Space Agency, the U.S. linked expansion of U.S.-Russian commercial space cooperation, especially the quota on U.S. commercial satellite launches on Russian rockets, to Russian performance on stopping missile assistance to Iran.

By 1998, the issue of Russian assistance to Iran's missile program assumed even greater political importance as Congress (on a bipartisan basis) passed legislation (which President Clinton vetoed) that would have required sanctions against Russian entities suspected of assisting Iran's missile program. The Administration found itself fighting on two fronts. With Moscow, it argued that the Russian authorities must take strong

measures to halt missile-related transfers and punish transgressors or Congress would override President Clinton's veto of the sanctions legislation. With Congress, the Administration argued that its diplomatic efforts (including the threat of sanctions) were moving Moscow in the right direction, but that the imposition of sanctions would create a political backlash in Moscow and make it more difficult for the Russian government to take corrective measures.

During this period, in which domestic politics and international diplomacy intersected, National Security Advisor Sandy Berger began to play an increasingly important role, working with his Russian counterparts - first Andrei Kokoshin and later Sergey Ivanov - to agree on actions against specific Russian entities and measures to strengthen export control laws and regulations. In fact, some progress was achieved. Beginning in January 1998, the Russian government took a series of steps to strengthen its export control system, including the establishment of "catch-all" controls to prevent the export of any items to assist WMD or ballistic missile programs, even if the items are not included on the various international control lists.

Grudgingly, the Russian government also cancelled several contracts between Russian companies and Iran's missile program, all the while denying that the contracts involved items on the Missile Technology Control Regime (MTCR) control lists. During the summer of 1998, Berger and Kokoshin worked intensely to head off a crisis in bilateral relations. In July 1998, Moscow published a list of Russian entities that were under investigation for assisting Iran's missile program, and (as previously agreed between Berger and Kokoshin), Washington promptly imposed sanctions against seven of these Russian entities. In turn, Congress suspended a vote to override President Clinton's veto of the sanctions legislation.² In July 1999, the Duma passed a new export control law that provided the government greater legal authority to investigate and punish entities engaged in illicit exports to foreign WMD programs.

In the last year of the Clinton Administration, Washington and Moscow continued to eke out progress on the missile issue. In April 2000, National Security Advisor Berger and his new Russian counterpart Sergey Ivanov agreed on joint action against the rector of Baltic State Technical University, who had defied Moscow's edicts and continued to offer missile-related courses to Iranian students. At the same time, Washington lifted sanctions against two Russian aerospace entities – INOR and Polyus – that had been sanctioned in July 1998, thereby demonstrating that Russian entities could be taken off the sanctions list if they halted assistance to Iran's missile program. In May 2000, President Putin reorganized the government's export apparatus with the intent of strengthening its implementation capabilities.

By the end of the Clinton Administration, Washington decided that there had been enough progress to justify a decision to let the quota on U.S. satellite launches on Russian rockets expire at the end of 2000, which was intended to give an economic boost to U.S.-Russia joint space cooperation. This decision reflected a U.S. judgment that the Russian Space Agency (by then called the Russian Aviation and Space Agency, or RASA) and its associated companies were making a serious effort to establish strong export controls and prevent unauthorized technology transfers. In particular, the major Russian aerospace firms that had been developing commercial relationships with Iran's missile program in the mid-1990's had apparently decided that their economic future lay in cooperation with U.S. firms.

Despite this progress, the missile issue was never completely resolved. Iran continued to seek missile technology from smaller Russian companies and individual scientists apparently in violation of Russian law and policy. From Washington's perspective, although Russian leaders made clear political commitments to end all missile assistance to Iran, and the Russian government established strong export control regulations and laws on books, implementation of these commitments seemed sporadic. Russian investigations were slow and inconclusive, and no one ever seemed to be punished. To

many in Washington, it appeared that Moscow was trying to do just enough to relieve American pressure and the threat of sanctions without taking decisive measures that might damage Russia's overall relations with Iran. To many in Moscow, it seemed that the U.S. was exaggerating the problem, making accusations without providing any specifics, and trying to interfere in normal economic transactions and scientific exchanges between Russia and Iran.

The Nuclear Issue: Phase Two

Even as Washington and Moscow struggled to deal with the missile issue from 1997 onward, Russian nuclear cooperation with Iran re-emerged as a major problem. The Ministry of Atomic Energy had always resented Yeltsin's "surrender" to American pressure, and it sought to overturn or evade the 1995 commitment, especially after Evgeniv Adamov became Minister of Atomic Energy in March 1998. Previously, Adamov had served as director of the Research and Design Institute for Power engineering (NIKIET), a Russian civilian nuclear institute that was deeply involved in helping Iran on nuclear projects beyond the Bushehr nuclear power plant. Adamov openly advocated selling additional power and research reactors to Iran, and U.S. officials suspected that he was quietly encouraging (or at least tolerating) offers and transfers of fuel cycle technology to Iran, presumably to entice Iran to purchase additional power reactors. Certainly, after Adamov took over the Ministry, there appeared to be an upswing of cooperation between Russian nuclear institutes and Iran's nuclear program in sensitive technologies, including heavy water and nuclear grade graphite production, design of research reactors, and laser enrichment technologies.

Adamov, of course, denied that Minatom was assisting Iran in any sensitive nuclear technologies, and promised to investigate any information that the U.S. provided and halt any "unauthorized" transfers. Privately, Adamov, like many Russians, did not hold Iranian nuclear capabilities in high regard. Some U.S. experts speculated that he was trying to dangle enough fuel cycle technology to keep Iran buying power reactors, without actually giving away any

technology he considered sensitive enough to help Iran acquire nuclear weapons. In addition, some Russian officials explained that they could keep a better eye on what Iran was doing under cover of Russian-Iranian nuclear cooperation. Moreover, these Russians said, Moscow could threaten to terminate peaceful nuclear cooperation to discourage Tehran from violating its NPT commitments.

Starting in mid-1998, the Clinton administration responded to this renewed problem with the same three-pronged approach it used to deal with the missile issue. First - at the political level - the President, Vice President, Secretary of State, and National Security Advisor warned their Russian counterparts that nuclear assistance to Iran beyond the Bushehr project was helping Iran to acquire nuclear weapons and threatening to damage overall U.S.-Russian bilateral relations. Second - at the Minatom level - the U.S. linked cooperation on joint projects that Adamov highly valued - such as a full nuclear cooperation agreement between the U.S. and Russia, joint research on development of advanced power reactors and international spent fuel storage - to a termination of Russia's nuclear relationship with Iran.3 Third - at the entity level - the U.S. tried to influence the economic calculations of individual institutes by sanctioning several entities that were providing sensitive assistance to Iran (three entities, including NIKIET were sanctioned in January 1999), and making clear that provided Russian organizations that assistance to Iran would be jeopardizing their participation in U.S.-Russia cooperative threat reduction programs.

Even compared to the missile issue, however, the results of this three-pronged approach were unsatisfying. On one hand, the Russian political leadership from Putin on down readily agreed that it shared the U.S. objective of preventing Iran from acquiring nuclear weapons, and gave firm assurances that Russia would not allow sensitive nuclear technology to be transferred to Iran. In fact, the GOR did step in and stop some of the specific transactions that the U.S. raised, such as a contract between Iran's nuclear program and the Yefremov Scientific Research

Institute to provide experimental laser enrichment equipment and laboratories to Iran. On the other hand, Russian investigations often seemed half-hearted and the Russian government hardened its insistence on continuing civil nuclear power cooperation with Iran.

From this perspective, Putin's takeover from Yeltsin in March 2000 was a mixed blessing. Unlike Yeltsin, Putin was seen as more able to enforce the Kremlin's orders, certainly when it came to Federal Security Service (FSB) actions to plug leaks of technology. Some in the U.S. government believed that the FSB's failure to enforce Russian laws and policies effectively was one of the principal reasons that the problem persisted; the FSB, these officials believed, was either complicit or incompetent, or both.

While in a better position to enforce Russian commitments, however, Putin was also more prepared to assert Russia's national interests, even if it meant renouncing Yeltsin's political commitments to Clinton. By the time of the June 2000 Moscow summit, for example, Russia had all but renounced the December 1995 Gore-Chernomyrdin commitment on Russian nuclear cooperation with Iran. President Putin strongly reasserted Russia's right to provide Iran with nuclear power reactors as legitimate civilian commerce, and Minister Adamov aggressively sought to nail down additional sales, including, Washington suspected, side offers of fuel cycle facilities.

In contrast to the missile area, where RSA did not seek to forge a commercial relationship with Iran in peaceful space cooperation, Minatom was deeply committed to peaceful nuclear power cooperation with Iran. The difference was critical. Minatom's profitable commercial relationship with Iran gave it a stronger financial interest to keep its Iranian customers satisfied, and the extensive interactions between the nuclear establishments of Russia and Iran provided more cover for cooperation in sensitive areas.

U.S. leverage with RSA and Minatom also differed. In the missile area, the U.S. government had relatively more flexibility to use U.S.-Russia peaceful space cooperation as an incentive to encourage RSA to strengthen

export controls. In the nuclear area, however, many of the cooperative U.S. programs with Minatom to secure fissile material and employ Russian nuclear scientists were seen as too important to U.S. national security interests to be held hostage to the Iran issue. In essence, Adamov appeared to believe he could have it both ways: maintain cooperative threat reduction funding from the U.S., while continuing to sell nuclear technology to Iran.

These institutional differences were reflected and perhaps reinforced by personal differences. While Koptev was seen as making a sincere effort to deal with the problem, Adamov was seen as part of the problem, which made the U.S. even more reluctant to share classified information on nuclear-related cases. To the extent that progress was made, it appeared to be over Minatom's objections. In the Yefremov laser case, for example, Minatom argued that the project should go ahead, on the grounds that equipment could only produce insignificant amounts of enriched uranium. Other agencies of the Russian government, including the National Security Council, overruled Minatom's position, apparently recognizing that any type of enrichment assistance was directly contrary to Moscow's private assurances that it would not allow any sensitive nuclear transfers to Iran.

Towards end of the the administration, Washington made an effort to negotiate a new agreement with Moscow on nuclear cooperation with Iran, to replace the December 1995 Gore-Chernomyrdin understanding, which the Russian leadership had all but walked away from. In negotiations with DOE Undersecretary Ernie Moniz, Adamov indicated that Russia was prepared to commit in writing to prohibit cooperation with Iran in a number of specific fuel cycle technologies, including the most of enrichment sensitive areas reprocessing. In return, Adamov wanted the U.S. not to take punitive actions against Russia if it proceeded with additional power reactor sales to Iran. Although the two sides appeared close to agreement on paper, the negotiations eventually collapsed over Washington's belief that Adamov could not be trusted to carry out the deal.

Bush inherits the issue

On taking office, the Bush administration identified the proliferation of WMD and ballistic missiles to "rogue states", such as Iran, as the primary security threat facing the United States. Like previous administrations, the Bush administration strongly opposed transfers of missile or nuclear technology Russia to Iran, but the administration was initially slow to engage in detail with Moscow on the issue. In part, the delay was due to the "normal" (and increasingly dysfunctional) pause that plagues every new administration as political appointees are confirmed and policy reviews grind their way through the system. In March 2001, for example, Alexander Rumyantsev replaced Adamov as the Minister for Atomic Energy, thereby creating an opening for progress on the nuclear issue. (Unlike Adamov, who had a strong personal commitment to expanding Russian civilian nuclear exports and came from an institute that was deeply engaging in nuclear assistance to Iran, Rumyantsev hailed from the Kurchatov Institute, which has focused on scientific cooperation with the U.S. and has little cooperation with Iran.) For months, however, Washington put off a meeting between senior officials and Rumyantsev, while it waited for the Russia policy review to be completed and the new political team to be put into place.

Aside from these normal delays, however, the new Administration was also pursuing a different agenda with Moscow. In its first few months, the Administration sought to downplay relations with Russia and focus instead on strengthening relations with U.S. allies. As it began to engage with Moscow, Washington's top priority was missile defense, which was seen as a critical response to the proliferation threat. Discussions between Presidents Bush and Putin focused on winning Moscow's agreement to modify the ABM Treaty or (as it turned out) acquiesce to a U.S. withdrawal from the Treaty. Immediately after September 11, Washington's focus with Moscow shifted to counter-terrorism cooperation with Russia and negotiations to formalize an agreement to reduce strategic offensive forces.

During this period, nearly the entire first year of the Administration, senior U.S. officials raised concerns about continuing Russian transfers to Iran in their meetings with Russian officials, but the issue was not worked aggressively or in detail. There were views different within Administration about what to demand of Moscow and what to offer in return. Noting that Washington was focusing less attention on the Iran issue, some Russians experts and officials speculated that the U.S. was taking a more tolerant view towards Russian transfers to Iran since, in this view, the Bush administration was confident it could rely on missile defense to deal with the proliferation threat. Some Russians even speculated that if Moscow acquiesced to missile defense, Washington would acquiesce to Russian deals with Iran.

In fact, with the pressure from Washington reduced, the problem did appear to be getting worse. In its January 2002 semiannual report on proliferation trends, the CIA reported that Russia remains a significant source of supply to Iran's missile and nuclear programs and judged that "The government's commitment, willingness, and ability to curb proliferationrelated remains uncertain." transfers Testifying before the Senate Select Intelligence Committee, CIA Director George Tenet reinforced the point, saying, "Russia continues to supply significant assistance on nearly all aspects of Tehran's nuclear program. It is also providing Iran with assistance on long-range ballistic missiles."

The official Russian reaction was anger and denial. According to the Russian Foreign Ministry, "Perhaps for the first time in the recent period, an official American document makes an attempt to cast doubt on the 'commitment, desire, and ability' of Russia's government to prevent a 'leak' of sensitive goods and technology abroad. Such a formulation of the question is categorically unacceptable." Russian Foreign Minister Igor Ivanov subsequently said, "Russia's alleged supply of nuclear or missile technologies to Iran has been discussed for a long time, but it is nothing but a myth."

Although slow off the mark, Administration has now begun to engage more actively with Moscow to halt missile and nuclear related transfers to Iran, especially after President Bush's State of the Union address speech in January 2002. In early 2002, Secretary of State Colin Powell raised the issue at length with Russian Foreign Minister Igor Ivanov. Afterwards, Undersecretary of State John Bolton and Assistant Secretary John Wolf traveled to Moscow on several occasions for detailed discussions with key Russian officials in the Ministry of Foreign Affairs, National Security Council, Prime Minister's office, Minatom, of and Ministry Economic Development and Trade. Unfortunately, now that Sergey Ivanov had moved from the Russian National Security Council to head the Ministry of Defense, it was more difficult for National Security Advisor Condoleezza Rice to play the same role that Sandy Berger did, in terms of bypassing the Russian bureaucracy and bringing Russia-Iran issues directly to the attention of the Kremlin.

As the administration has placed Russia-Iran issues higher on the bilateral agenda, it has followed the basic approach of the Clinton Administration on the nuclear issue, offering to cooperate with Russia on key projects, such as advanced reactor development and international spent fuel storage, if Russia cuts off all nuclear cooperation with Iran, including the supply of power reactors.

The Bush Administration is also considering sanctions against Russian entities that are believed to be assisting Iran's nuclear or missile programs, but it is extremely reluctant to share classified information with Russia about specific entities transactions. Washington believes that Moscow already knows - or can find out what is going on, and is not willing to risk compromising "sources and methods" by revealing classified information. In response to what they view as Washington's threats, the Russians demand that the U.S. side provide evidence to substantiate its charges.

Finally, the Bush Administration seems to realize that progress on the Russia-Iran issue will require engaging Moscow at the highest levels. Although President Bush reportedly did not raise Russia-Iran concerns at the November 2001 Crawford summit, he is expected to discuss the issue with Putin at their next meeting in late May.

Why the problem persists

Many American officials are puzzled why – after years of high-level bilateral attention and numerous assurances from Moscow – Iran is still able to find Russian entities and individuals who are willing to provide equipment, materials, and technology for its nuclear and missile programs. Don't the Russians realize, the Americans ask, that Iran's acquisition of nuclear-armed, longrange ballistic missiles would jeopardize Russia's own security interests?

The Russians respond emphatically that of course they appreciate the dangers for Russia of Iran acquiring such capabilities. That is why, they claim, it is Russia's firm policy not to support Iran's nuclear weapons or longrange missile programs. They acknowledge that Russian organizations and individuals have occasionally provided assistance to Iran in contravention of Russia's policies and laws. But, they say, such "private proliferation" will be minimized and eliminated as Moscow's relatively new system of export controls grows stronger.

American officials find these explanations only partially persuasive. They welcome the steps Moscow has taken to adopt and implement stronger export controls; they appreciate that Russian authorities have intervened in a number of cases to halt sensitive cooperation; and they recognize that Russian export control and customs authorities lack the resources necessary to do a more effective job.

But they do not attribute the continuation of sensitive transfers entirely to deficiencies in Russia's export control system. They believe that, especially in the nuclear area, the problem is not only "private proliferation" but also cooperation that is taking place with the knowledge or approval of governmental or government-affiliated entities. They note that, while the Russian government has carried out investigations of possible export control violations, few if any Russian entities are found guilty and penalized. They find it hard understand why Iranian

procurement agents have managed to operate so freely and effectively inside Russia. And they are frustrated that, for every Russian entity that Moscow forces to stop assisting Iran, another seems to show up as a willing partner.

U.S. officials are convinced that, if Russia's leadership were determined to put an end to assistance from Russian entities and were prepared to give sufficient priority and resources to that objective, such assistance could be stopped, or at least slowed to a trickle. That doesn't mean the U.S. believes that Russia favors or is actively promoting Iran's acquisition of nuclear weapons or long-range missiles - only that Washington has reached the conclusion that, at a tolerating the minimum, Russia is continuation of assistance to those programs.

If that conclusion is correct, why does Moscow tolerate such Russian-Iranian cooperation? At the most fundamental level, the answer is Russia's economic and geopolitical interests, at least the way Moscow perceives those interests. With the Russian Government rarely placing orders today with Russian aerospace and nuclear entities, these entities must now look to foreign markets to survive. While a number of Russian missile and aerospace entities have engaged in lucrative projects with the West, other enterprises in that sector have had no contact with U.S. or other Western firms and have incentives to turn to partners in the Third World. In the nuclear industry, the situation is even worse. Minatom claims that it has no alternative but to sell its products to Iran and a few other countries because Western markets remain closed to it and it has been squeezed out of its traditional markets in Central and Eastern Europe.4

The value of Russian nuclear- and missile-related exports to Iran is small compared to overall Russian trade and the size of the Russian economy. But to the industrial sectors affected, the particular enterprises or other institutions involved, and the individuals themselves, the benefits can be significant. It is estimated, for example, that more than 300 Russian enterprises take part in the Bushehr project and that the project has created about 20,000 jobs.⁵ For individual

Russian nuclear or missile scientists, the sale of technical information and assistance for only small sums is a significant income.

Moreover, the economic benefits for Russia of nuclear and missile exports to Iran are probably perceived by Moscow as greater than the direct impact of such cooperation on the nuclear and aerospace industries. Russia's willingness to proceed with sensitive sales in the face of strong American opposition has undoubtedly ingratiated Moscow to a Tehran regime that has few willing suppliers in those areas, and has put itself in a stronger position to win contracts in other lucrative commercial areas, especially conventional military sales.

Just as important as Russia's economic incentives for engaging in nuclear and missile cooperation is Russia's geopolitical interest in stronger bilateral relations with Iran. Moscow clearly calculates that Iran will be a key player in the future of the Gulf, the Middle East, and the Islamic world and therefore wants to be on good terms – and even enjoy a privileged position – with whoever rules in Tehran.

Given its acute concerns about Islamic extremism within Russia, Moscow sees close ties with Iran as a kind of insurance policy that can protect against unhelpful Iranian influences on Russia's Muslim communities. In this connection, Russian officials apparently believe that Iran has so far played a moderating role on Chechnya and do not want to put that at risk. In general, Moscow sees stronger ties between Iran and Russia as serving a variety of interests the two countries have in common, including the character of the government in Afghanistan, the role of Turkey in the region, and perspectives toward radical Islamic groups in Central Asia and the Caucuses.

These economic and geopolitical motivations make Russia predisposed toward cooperating with Iran unless there are compelling nonproliferation or foreign policy grounds for withholding cooperation. But they are not the whole explanation. To appreciate why Moscow continues to tolerate what Washington regards as very risky transfers to Iran, one must also understand several arguments put forward officially and

unofficially by Russians – arguments which, depending on one's point of view, are either sound reasons or unconvincing rationalizations for approving (or failing to act resolutely to stop) such transfers. Following are some of those arguments:

- Russian assistance is not militarily sensitive and cannot contribute to Iran's nuclear weapons and missile programs. It is true that no Russians are accused of helping Iran directly in the design of nuclear weapons, and that much of the nuclear- and missile-related cooperation is dual-use and therefore applicable to civilian as well as military uses. But Russian assistance to "civilian" nuclear fuel cycle capabilities will give Iran the ability to produce fissile materials for nuclear weapons, and dual-use technologies with broad industrial uses are critical ingredients in today's missile programs.
- Assistance to Iran is fully consistent with Russia's international obligations. Moscow is right that nuclear cooperation with NPT parties in good standing is permitted and that the International Atomic Energy Agency has not (yet) found Iran in violation of its NPT commitments. But it is irresponsible to provide sensitive nuclear technology to countries believed to be pursuing nuclear weapons in violation of the NPT (and Russian officials will sometimes concede in private that they do not disagree with U.S. assessments about Iran's intentions).
- American opposition to Russian cooperation with Iran stems from motives less lofty than nonproliferation. At various times, Russians have argued that the U.S. is trying to cripple Russia's nuclear industry, protect Iran's nuclear energy market for itself, disrupt bilateral relations between Moscow and Tehran, carry out Israel's wishes, and perpetuate Iran's international isolation. By questioning U.S. motives, these mostly erroneous concerns serve in internal Russian deliberations to discredit American allegations and excuse Russia's own behavior. Some of the concerns may be sincere; some may be disingenuous. But they all fail to give due credit to the real reason why Russian assistance to Iran has been near the top of the U.S.-Russian agenda for close

to a decade – U.S. alarm at the prospect of a nuclear-armed Iran.

Russian assistance won't actually be responsible for Iran acquiring nuclear weapons and long-range missiles. This argument comes in two forms. The first is notwithstanding Russian cooperation, Iran does not have the technological capability to produce what Washington most fears. According to one analyst, "Present-day level industrialization with Iranian overwhelming cottage industry and handicrafts [...] proves that Tehran hardly possesses technological potential indigenous design and production of modern weapons, including nuclear arms and delivery systems."6 The second form argues, somewhat contradictorily, that Iran's acquisition of nuclear weapons and longrange delivery systems is practically inevitable, and so the assistance it receives from Russia, whatever its utility, will not make a decisive difference. Both forms of this argument are highly questionable. It would be foolish to make sensitive transfers in the expectation that Iran will not eventually succeed in putting them to their intended use. And it would be equally foolish to make such transfers in the belief that Iran will inevitably succeed with or without them.

Of course, unless one is privy to deliberations within the Russian Government, it is possible only to speculate about the factors and arguments that have most influenced toward Russian Moscow's attitude cooperation with Iran. But whatever the combination of factors, the bottom line seems clear - sensitive cooperation continues between Russian entities and Iran's nuclear and missile programs, such cooperation continues to be a major divisive element in U.S.-Russian relations, and Iran continues moving closer toward the capability to produce nuclear weapons and long-range missiles to deliver them.

Overcoming the impasse

The Bush Administration apparently hopes that the recent improvement in U.S.-Russian relations and the strong personal ties between Presidents Bush and Putin will lead to a shift in Moscow's approach toward cooperation with Iran. Putin, according to

this thinking, will recognize that Russia has far more to gain, both economically and politically, by aligning its policies with Washington than by continuing to support, or at least tolerate, risky cooperation with questionable regimes.

The Administration is right that heightened concerns about WMD and ballistic missile proliferation post September 11 and growing Russian-American friendship create new opportunities to resolve this long-standing dispute. But even in this more promising environment, Moscow is unlikely to calculate that the benefits of the deal the U.S. currently has on the table would outweigh its downsides.

In economic terms, Russia may find tempting what the U.S. is offering, including cooperation in the development of advanced nuclear reactors, U.S. support for a potentially lucrative plan to store spent reactor fuel in Russia, and a variety of other inducements, both nuclear-related and nonnuclear. But many of the benefits promised by these U.S. "carrots" are somewhat uncertain (e.g., the spent fuel storage plan faces strong opposition from Russian environmentalists) and, in any event, will not materialize for at least several years, while rewards from Russian cooperation with Iran are often more tangible and immediate (e.g., about \$800 million for each Bushehr reactor).

In geopolitical terms, Russian leaders, especially Putin himself, appear to believe that good relations with the U.S. and the West are critical to Russia's future. But they probably see no reason why closer alignment with the U.S. should require that they cut off what they believe is legitimate and non-threatening cooperation with neighbors like Iran. They undoubtedly fear that terminating such cooperation at U.S. request will put Russia's bilateral relations with Iran, including the growing commercial relationship, in jeopardy.

In domestic political terms, Putin is already way out ahead of Russian policy elites in his readiness to be responsive to U.S. concerns. A solution to the Iran problem that could be portrayed within Russia as reneging on a long-standing commitment to a critical country, giving in to U.S. pressure, and

costing Russian workers thousands of jobs would expose him to strong criticism at home.

To be sustainable in Moscow, any solution must not be seen as undermining Russia's desire to have good bilateral relations with Iran or as damaging Russia's economic interests. To be sustainable in Washington, it must be seen as reliably terminating all assistance by Russian entities to Iran's nuclear weapons and long-range missile programs.

Modifying the U.S. approach on the nuclear issue

Such a solution requires some modifications of the current U.S. approach, especially its position on the sale of Russian power reactors to Iran. Both the Clinton and Bush Administrations have opposed all nuclear cooperation with Tehran, including the transfer of power reactors for the Bushehr project. They did so not because they believed Iran would divert plutonium from the spent fuel of IAEA-safeguarded lightwater reactors, but because they were concerned that the Bushehr project would be used by Iran as leverage to pressure Russia to provide more sensitive assistance and as a justification for acquiring more sensitive fuel cycle capabilities (e.g., in order to produce their own fuel for the reactors). As a partial measure, both Administrations have tried, albeit without success, to hold Russia to its 1995 pledge to confine it nuclear cooperation to the supply of one power reactor and related fuel and training. But the primary incentives they offered to Moscow for nuclear restraint (e.g., conclusion of a U.S.-Russian agreement for full nuclear cooperation, joint work on advanced reactors, support for spent fuel storage in Russia) were available only if Russia was prepared to stop all nuclear cooperation, including on Bushehr.

The main problem with the current U.S. approach is that it is unlikely to work. Russian leaders, including Putin, have repeatedly reaffirmed not only their commitment to supply Unit 1 at Bushehr but also their intention to sell additional power reactors for the project. At this stage, the political and economic stakes are too high to

expect Moscow to reverse course. If the U.S. sticks with its present approach, it could end up with the worst of all worlds – additional transfers of power reactors, continued clandestine and perhaps even overt Russian fuel cycle assistance, inadequate constraints on Iranian nuclear activities, and persistent U.S.-Russian tensions over the matter.

It is time to consider an alternative. Essentially, the U.S. should offer to "grandfather" the sale of Russian power reactors for Bushehr if Iran accepts more rigorous means of ensuring that it will not acquire nuclear weapons. More specifically, the U.S. should offer to conclude a bilateral nuclear cooperation agreement with Russia and embark on a range of mutually beneficial cooperative activities in both the nuclear and non-nuclear realms (including the projects Washington has already proposed), provided that Russia agrees, at the level of President Putin, to the following:

- Russia would commit to confine its nuclear cooperation with Iran to the supply of light-water power reactors for the Bushehr project and related operator training and fuel. It would commit explicitly not to assist Iran in any way (i.e., through the provision of equipment, materials, or technology) to acquire fuel cycle capabilities, including heavy water production, research reactors, uranium conversion, reprocessing, and uranium enrichment.
- Russia and Iran would agree that all fuel for the Bushehr reactors would be supplied by Russia, that all spent fuel would be sent back to Russia, and that no fuel would be stored in Iran longer than necessary for safe operations.
- Russia would insist on a public commitment from Tehran that Iran will not acquire fuel cycle capabilities, either indigenously or from any external source, and will dismantle any such facilities that exist or are under construction.
- Russia would insist that Tehran adhere to the International Atomic Energy Agency's Additional Protocol on strengthened safeguards, which obliges its adherents to supply extensive information about their nuclear programs and gives the IAEA

broader inspection rights to detect any undeclared nuclear activities.

While offering Russia a variety of incentives for accepting such an arrangement, Washington should also make clear that, in the absence of the arrangement, the U.S. will be obliged to implement its sanctions laws and take other steps against those Russian entities that continue to engage in nuclear cooperation with Iran. If the cooperation continues, the U.S. may need to consider broader punitive measures against the Russian government. By the same token, if the Russians agree to the new approach, the should be prepared to seek modifications in U.S. laws so that the Russian Government and Russian entities are not penalized for continued cooperation on Bushehr, as long as they abide by the arrangement.

An arrangement along these lines would appear to meet the essential requirements of both Russia and the United States. For Russia, the deal would be consistent with its 1995 Bushehr-only pledge, would not require it to renege on the most important (and lucrative) of its commitments to Iran, and would open up areas of cooperation with the U.S. that, over time, could be much more valuable to Russia than its current transactions with Iran. For the U.S., it could mean the termination of sensitive Russian assistance outside Bushehr that Washington always found to be the most dangerous of Russian-Iranian elements nuclear cooperation. Moreover, Tehran's acceptance of a ban on developing indigenous fuel cycle capabilities would establish a clear bright line between permitted and prohibited nuclear activities in Iran, and its adherence to the IAEA's Additional Protocol would provide more effective means of verifying that boundary.

Notwithstanding these positive features, we can expect objections to be raised in both Moscow and Washington. In Moscow, some will fear that U.S. grandfathering of Russian power reactor sales in Iran will open the door to competitors (including in the U.S.) who will try to displace Russia in Iran's nuclear energy market. The U.S. should be prepared to assure Moscow, in this connection, that the

U.S. itself will not engage in any nuclear cooperation with Iran and that, while it will no longer dissuade others countries from sub-contracting with Russia on the Bushehr project, it will continue to discourage them from entering independently into other cooperative nuclear arrangements with Iran.

Another fear in Moscow would be that Russian cooperation with the U.S. to impose additional limits on Iran's nuclear program could jeopardize overall relations between Moscow and Tehran. Specifically, Tehran could reject forswearing its own fuel cycle capabilities and adhering to the IAEA Protocol, and it might threaten to cancel the Bushehr deal if Russia insisted on those requirements.

It is hard to predict the likelihood of Tehran making such a threat and carrying it out. After all, the proposed arrangement takes at face value the Iranian assertion that it needs nuclear reactors to diversify its sources of energy, and it assures Iran that it would have a reliable source of fuel for the life of the reactors and no spent fuel storage or waste disposal problems. For a country genuinely seeking to expand its use of nuclear energy, it would be very hard to look this gift horse in the mouth, and Tehran might feel under pressure to go along. But if Iran rejected the Russian offer on the grounds that it needed its own fuel cycle capabilities for "energy independence" and said that it was prepared to incur huge additional costs in order to acquire them, then Russia and the rest of the world would draw the obvious conclusion: Iran is determined to obtain nuclear weapons. In these circumstances, Russia hopefully would decide that a nuclear connection with Iran was too risky.

In Washington, the main hesitation about the proposed arrangement would be a concern about Russian compliance. Why, some Americans would ask, should we expect Russia to abide by this new arrangement when it did not keep its 1995 pledge to confine nuclear cooperation to Bushehr or its other private commitments not to provide sensitive assistance to Iran? It's a legitimate question, but there are several valid responses, including that Putin's personal involvement this time would make a

difference, that the incentives for Russian compliance could be greater, and that the combination of the ban on indigenous fuel cycle activities in Iran and its adherence to IAEA Protocol would facilitate the verification. But just to err on the side of caution, the U.S. side may wish to delay dispensing any "carrots" until it has monitored the situation for some period to make sure that all cooperation outside Bushehr has stopped. And in any event, the U.S. would want to structure its new cooperation with Russia in such a way that it can be interrupted if Moscow is found not to be meeting its commitments.

Another possible objection in Washington is that U.S readiness to grandfather the Bushehr power reactors would give the signal to nuclear suppliers in Europe, China and elsewhere that it is "open season" on nuclear cooperation with Iran, and that this would open the floodgates to transactions unrelated to Bushehr that could conceal sensitive interactions or be sensitive themselves. While this is undoubtedly a risk, it is likely that the U.S. could persuade other potential vendors of nuclear technology that there were sound nonproliferation reasons for grandfathering Bushehr and that they should continue their embargo on cooperation outside the Bushehr project.

Another objection in Washington might arise from the apparent inconsistency between labeling Iran a member of the "axis of evil" and revising the U.S. position on Russian reactor sales to Iran. While U.S. readiness to grandfather Bushehr would surely provoke some opposition on those grounds, the Administration would have to take the lead in explaining publicly – and to Congress and U.S. allies – why continued opposition to the power reactors would be self-defeating and why the revision in the U.S. approach will increase the likelihood of heading off an Iranian nuclear weapons capability.

Resolving the Missile Issue

Unlike in the nuclear issue, the basic framework for resolving the missile issue is already in place. The Russia government has already established the laws and regulations necessary to halt transfers of materials, equipment, and technology to assist foreign

ballistic missile programs. The RASA has already taken measures to strengthen export controls among the aerospace entities under its supervision, and the U.S. has responded by seeking to expand opportunities for peaceful U.S.-Russian space cooperation.

What is needed is better enforcement. Primarily, this requires convincing Russia to commit the resources necessary to detect, investigate, and punish unauthorized missile assistance by Russian individuals and companies and to raise the priority of this mission for key agencies, such as the FSB. Although no export control system is perfect, the Russian government could do a better job with more resources and a higher priority.

The starting point is a clear political commitment from Moscow. Given the good personal relationship between the two Presidents, and the closer ties between Washington and Moscow post September 11, President Bush should urge Putin to give his personal attention and commitment to preventing leakage of missile assistance to Iran (or other countries). Given perceptions in Moscow that Washington's interest in this issue has waned, President Bush needs to make clear that resolution is important to him and essential to overall bilateral relations. In return, Putin is likely to ask for U.S. assistance in helping to identify Russian individuals and companies that are transferring missile technology.

Sharing of intelligence is always a difficult call. No doubt, the Russian services and police agencies know more than they are prepared to admit to the U.S., and one of their motivations in asking for more information is to discover what U.S. intelligence agencies know and how they know it. But, it is also plausible that the U.S. has a better picture of transactions underway than the Russian government in a significant number of cases. After all, if Russian entities and individuals are acting in violation of Russian laws, they will make every effort to conceal their activities from Russian authorities and stonewall official investigations. In some cases, the provision of information from Washington has led Russian authorities to take concrete actions to stop transactions.

This standoff on information sharing - with U.S. making charges substantiating them and the Russians denying the charges and asking for proof poses a real dilemma for Washington. On one hand, the U.S. needs to protect sources and methods, if only to ensure that it retains an ability to monitor continuing transfers. On the other hand, if Washington truly wants to develop a cooperative relationship with Moscow to resolve this issue, it needs to take some chances with sharing information. One avenue for resolving this dilemma is to strengthen areas of contact and cooperation between the CIA and FSB, which have already established closer cooperation in combating terrorism. In addition, it would be helpful to establish a direct channel of communication between senior Kremlin and White House officials, who would be empowered by their respective Presidents to deal with sensitive and urgent matters.

Conclusion

Despite years of high-level U.S.-Russian engagement, Russian entities continue to provide assistance to Iran's nuclear and missile programs. The approach suggested here - distinguishing between more sensitive and less sensitive nuclear cooperation with Iran and then rigorously enforcing that distinction - may provide a way out of the frustrating pattern of charges and denials, assurances and backsliding. But adopting such an approach will not be easy for either side. For Washington, it may be difficult to abandon its longstanding "zero tolerance" for cooperation with Iran, even in relatively non-sensitive areas. For Moscow, it may be difficult to insist that Iran accept tighter restrictions on its nuclear activities, especially that beyond restrictions go international treaty commitments. And even if the two sides can agree to modify their framework for addressing the issue, the key will be effective implementation, both in the nuclear and missile areas. Too many previous bilateral understandings have unraveled at the stage of implementation, as the Russian Government failed to act decisively enough to ensure compliance with its laws and policies.

That is why the current impasse can only be overcome at the most senior levels, especially

on the Russian side. President Putin will need to engage personally with President Bush to find a solution, and will then have to issue clear directives to Russian agencies and provide them the resources necessary to carry out those directives.

Faithful implementation of a new U.S.-Russian approach would go a long way toward impeding Iran's access to materials, equipment, and know-how it seeks for its WMD and missile programs. Of course, it would have to be accompanied by efforts to get North Korea, China, and other potential suppliers to put a halt to their assistance to Iran's missile program. Together, these efforts could slow and complicate Tehran's pursuit of its nuclear and long-range missile ambitions.

Would curtailing or even halting external assistance prevent Iran from achieving its goals? The truth is that we don't really know. Given the wide dissemination today of sensitive know-how and the growing availability of relevant equipment and materials, much of them dual-use, it is hard to prevent a determined and resourceful country like Iran from eventually acquiring nuclear weapons and long-range missile delivery capabilities. Over the long term, the only reliable way of heading off the acquisition of those weapons will be to persuade or otherwise induce Iran to reach the conclusion that its own national interest is best served by living without them.

The prospects for bringing Iran around to that conclusion depend on a variety of factors. A critical one will be whether Iran's arch-rival Iraq can be prevented from regenerating its own nuclear and other WMD programs. If Iraq cannot be thwarted, it will be next to impossible to stop Iran. Another key factor will be the evolution of domestic politics in Tehran. If the reformers eventually succeed and give priority to economic and social welfare goals, then the priority now given to destabilizing weapons may recede. Also central will be the future security environment in the Gulf and the Middle East more generally as well as the future of U.S.-Iranian relations. An Iran that doesn't feel threatened by developments in its region and needs doesn't believe that it unconventional weapons to deter U.S.

intervention in its affairs will be more likely to decide that it can afford to do without those weapons.

The likelihood of heading off Iranian nucleararmed missiles will also depend on U.S.-Russian cooperation, not just agreement in the short run on a way to stop the flow of sensitive technology but also cooperation in the longer term to dissuade Iran from remaining on the dangerous course it is now pursuing. Even as Washington and Moscow work to overcome the current impasse over assistance to Iran's nuclear and missile programs, they should begin to collaborate on a strategy for engaging Iran and exercising a positive influence on its future security choices. The rewards from such cooperation might not only be a major gain for security in the Gulf region and beyond but also the reinvigoration of a nonproliferation partnership that once made an important contribution to international stability and must do so again if the world is to be spared a future of many nuclear-armed states.

Analysis

SUB-STRATEGIC NUCLEAR WEAPONS: THEIR ROLE IN MILITARY DOCTRINES TODAY¹

by Yury Fedorov, Deputy Director, **PIR Center**

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The Western Powers and China: Approaches to Sub-Strategic Nuclear Weapons

The end of the bipolar confrontation changes the role of nuclear weapons in global politics significantly. In fact, their key mission of deterrence against the massive aggression is called into question. Nowadays and in the foreseeable future the prospects for such aggression, especially nuclear aggression, are minimal, if any. Under the current circumstances, nuclear weapons considered a symbol of the privileged international status of nuclear-weapon states. Nukes may also serve as security assurances against unpredicted challenges - improbable today, but quite dangerous and theoretically possible in the future. Western nations see resumption of military-political confrontation with Russia (due to the turns in the Russian domestic political situation) as one of such challenges. In this case, the West will have to revive the policy of nuclear deterrence typical of the Cold War. A matter of particular concern is China's status in the future international system. The Western analysts do not rule out the need for countering potential Chinese expansion and for using nuclear deterrence for this purpose.

Western nations preserve their nuclear arsenals to this end, but in the late 20th century and in the wake of the 21st century their military policy is targeted against the challenges caused by local and regional conflicts and instability. This requires a substantial or even deep transformation of the military machine in order to enhance conventional armed forces and non-nuclear weapon systems. Much importance is attached to the development of effective rapid deployment of forces capable of conducting conventional operations in the

Fuel cycle technology refers to both "front end" technology (refinement and conversion of uranium, enrichment, fuel fabrication) and "back end" technology (handling spent nuclear fuel, including reprocessing to separate plutonium from spent fuel. ² A toned down version of the sanctions legislation

became law in 2000.

³ Potentially worth tens of billion dollars, the spent fuel project involved Minatom's willingness to store spent nuclear power reactor fuel from Europe and Asia. Because much of this fuel is U.S.-origin, the U.S. retains legal rights over the transportation and storage of this fuel in Russia, and, under U.S. law, cannot permit the shipment of the fuel to Russia in the absence of a full nuclear cooperation agreement between the U.S. and Russia. Although the Duma amended Russian law in 2001 to permit the project, it faces strong environmental opposition in Russia.

⁴ Pikayev, Alexander. "Strategic Dimensions of the Russo-Iranian Partnership." The Monitor: International Perspectives on Nonproliferation. Winter 2001, Vol. 7, No. 1.

⁵ Khlopkov, Anton. "Iranian Program for Nuclear Energy Development: The Past and the Future. Yadenry Kontrol Digest, Summer 2001, Vol. 6, No. 3

Alimov, Anatoly. "Iran: Are WMD Out of Reach? " Yaderny Kontrol Digest, Spring 2001, Vol. 6, No. 2