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NUCLEAR PROLIFERATION

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Analysis

Russia's Nonproliferation Tightrope

By Adam N. Stulberg, Atlanta

Abstract

Russia's posture towards nuclear nonproliferation seems increasingly schizophrenic. Over the past several years, Russia has begun to transition from the primary beneficiary of western cooperative nuclear assistance, to a G-8 partner at redressing other troubled nuclear regions. Moscow also has assumed leadership roles working with the International Atomic Energy Agency (IAEA), the U.S., and states interested in boosting nuclear power generation to implement creative solutions to reconcile commercial opportunities with nonproliferation objectives. Yet, the Kremlin has simultaneously accelerated strategic nuclear modernization, both to compensate for travails at the conventional level and to counter deployment of ballistic missile defenses in Europe. Moreover, its bullish pursuit of international nuclear commerce combined with the preoccupation for independently flexing its energy muscles, either by intention or not, has stoked controversial foreign nuclear activities and frustrated western efforts to confront them.

Moscow Pursues Contradictory Goals

Although a far cry from the strategic contradictions precipitated by the domestic chaos during the initial post-Soviet years, Russia's nonproliferation posture nonetheless tests Moscow's diplomatic skill and international goodwill. The Kremlin today must walk a tightrope between demonstrating leadership on nonproliferation issues and indulging strategic temptations, both without alienating needed foreign partners or customers. Others, however, must avoid over-reacting to Moscow's parochial gambits, so that mutual benefits of cooperation on first-order security interests are not lost amid mounting annoyance and acrimony.

Not surprisingly, Putin's nuclear diplomacy raises a set of profound questions. First, what is Russia up to? What are the dimensions to its policies, and how does it strive to reconcile competing impulses? Second, how effective is Russia's posture? Can it sustain the delicate balancing act? Finally, in light of these motives and constraints, how can we assess Moscow's renewed activism in the commercial nuclear and nonproliferation spheres? What may be gained (or lost) from extending cooperative engagement with Russia? Answers to these questions are critical for advancing international partnership with Russia, as well as for strengthening the nuclear nonproliferation regime.

Moscow's Two Nuclear Faces

Throughout the Cold War, the Soviet Union served as a bulwark against nuclear proliferation. Its collapse and the protracted transition that ensued, however, overtaxed Moscow's capacity to control its nuclear inheritance, let alone to remain a pillar of the global nonproliferation effort. Instead, Russia became associated

with the problems of post-Cold War nuclear proliferation, and a supplicant for cooperative assistance to arrest possible leakage of indigenous weapons technology, fissile material, and scientific expertise from the vast and exposed Soviet nuclear complex.

With the country's economic and political resurgence under President Putin, Russia's posture noticeably started to change even before the 9/11 terrorist attacks. Acknowledging Russia's vulnerability as a "frontline" state, Putin pronounced nuclear terrorism as the greatest security threat facing the international community. The 2006 "White Paper on Nonproliferation" targeted transnational nuclear networks, as well as weak, poorly coordinated, and instrumentally motivated export controls (both national and multilateral) as priorities for strengthening the nonproliferation regime. Rhetoric was matched by action, as Russia served as a constructive member of the 6-Party talks that negotiated reversal of North Korea's enrichment and reprocessing programs. Moscow also pursued a soft-landing to the stand-off between the U.S. and Iran over the latter's nuclear energy program by proposing to create a joint venture for enriching uranium on Russian soil and to take back related spent nuclear fuel in return for Tehran's promise to forgo these indigenous programs. By the same token, the Russian government took strides towards invigorating cooperative nuclear assistance with the U.S., launching a "Global Initiative to Combat Nuclear Terrorism" to improve cooperation on law enforcement against nuclear terrorists, and co-signing recently the fifth "Bratislava Report" to continue progress towards converting the world's research reactors from using highly enriched uranium to more proliferation resistant low enriched

uranium (LEU). Under Putin's direction, legislation was passed to give force to a new "umbrella agreement" clarifying legal liability for accidents encountered on assistance projects. This was coupled with agreement between the Department of Energy and the Russian Federal Agency for Atomic Energy (Rosatom) on key milestones for completion of planned security upgrades at warhead and weapons-usable nuclear material sites by the end of 2008, and maintenance of nuclear security and accounting systems solely by Russian resources by early 2013.

Yet, Moscow's simultaneous steps towards revitalizing the nuclear complex have sent conflicting signals. The Russian leadership, for example, affirmed a lower use threshold for nuclear weapons and limited strike options as part of its refined thinking on deterrence, as well as voiced strong determination to modernize all legs (land-, sea-, air-based) of the strategic triad. The government also streamlined budgetary outlays for development and deployment of modern ICBMs, SLBMs, a nuclear submarine class, and a nuclear cruise missile, as well as extended the service-lives of several other systems and broached resumption of around-the-clock strategic air patrols. At the same time, Moscow endorsed Iran's essential right to nuclear power, going so far as to obstruct harsher sanctions on Tehran by the U.N. Security Council. Against this backdrop, the Kremlin's general enthusiasm for the current nuclear energy renaissance, though not a violation of international nonproliferation norms per se, has raised concerns about Russia's mixed motives. In particular, the Putin regime set its sights on increasing domestic nuclear capacity at least 2.3 times by 2030 to cover over 25 percent of the country's electricity demand, as well as on exporting upwards of 60 nuclear power plants, including floating reactors, and importing foreign-origin spent nuclear fuel over the next two decades. To realize these ambitions, the state company, Atomenergoprom, was established in spring 2007. Modeled on the predatory gas monopoly, Gazprom, this vertically-integrated state corporation was formally charged with uniting commercial components of the nuclear complex to aggressively pursue competitive advantages at growing domestic power generation output, developing new nuclear fuel initiatives, leveraging non-governmental ownership of civilian nuclear assets, and expanding reactor construction worldwide. This was complemented by the October 2007 reorganization of Rosatom into a unified state corporation with overall responsibilities for merging regulation of military, industrial, and scientific enterprises of the nuclear complex, as well as for supervising radiation safety and attracting private investment to propel the state's nuclear program.

Squaring Circles?

Though committed to pursuing multiple objectives, Moscow's policies recently have focused on reconciling strategic opportunism with nonproliferation leadership. This is manifest in the indirect, quiet, and proactive approaches to dealing with Iran's nuclear ambitions and advancing the multilateral dialogue on nuclear fuel supply guarantees.

On the one hand, Putin distanced Russia from the gathering international confrontation with Iran. He publicly questioned U.S. and European concerns about the latter's intentions to develop nuclear weapons, and blocked a third set of tougher U.N. sanctions until the IAEA reports on Tehran's past nuclear activities by the end of 2007. During his historic October 2007 visit to Iran, he reassured his hosts of Russia's commitment to complete construction of the Bushehr reactor and his belief in their peaceful objectives. Assuming a "no news is good news" orientation towards Tehran's plans for nuclear weapons, Putin condemned talk of a western military strike as "disproportionate and incommensurate" with Iran's actions, as well as trumpeted progress towards denuclearizing North Korea as the model for stepping back from the brink.

On the other hand, by the end of 2006 Russia began quietly to ratchet up pressure on Iran to comply with international demands for transparency. Noticeably miffed by Tehran's snubbing of earlier offers to provide sub-contracting services for Iran's uranium-enrichment, Putin endorsed two rounds of moderate sanctions imposed by the U.N. Security Council. This was followed in 2007 by construction delays at the Bushehr reactor that coincided with escalation of American and French pressure on Tehran. Frustrated by Iran's failure to meet more than 60 percent of its financial obligations by the end of 2006 and by subsequent shortfalls collecting on the agreed \$25 million per month, as well as by attendant troubles with receiving parts from third parties, the Russian project contractor, Atomstroyexport, openly questioned the profitability of the deal and pushed back the operational launch of the reactor by a year to late 2008, despite having completed over 90 percent of the construction. Although dismissive of Iranian accusations of being in political cahoots with the west, Putin nonetheless refused to specify when Russia might supply the needed nuclear fuel, on grounds that the international seals and safeguards necessary for transport have not been readied. Despite Tehran's vehement rejection of an outstanding debt and lures of additional reactor contracts to Russia to expedite technical support, Moscow has continued to drag its feet. By presenting Russia as a sober-minded commercial and political partner for Tehran, while indirectly slowing development of the Bushehr reactor, Putin has sought to

position Russia to wrest commercial concessions from Tehran and garner greater international stature as a constructive mediator.

Similarly, Moscow took the initiative to mitigate potential proliferation externalities attendant to the projected global expansion of nuclear commerce. Emboldened by the IAEA's promotion of multilateral guarantees for nuclear fuel service, Putin offered to create on Russian soil the first of a series of enrichment centers under international safeguards. Throughout 2006, this evolved into a workable plan for converting the under-utilized Angarsk Electrolysis Chemical Combine into the first "non-discriminatory and transparent" enrichment center, open to all states intent on developing nuclear power that lack the indigenous capability and are members in good standing of the Nuclear Nonproliferation Treaty. Russia urged potential partners to accept the IAEA's "additional protocol" for more stringent safeguards, and in October 2007 Putin signed a bill to ratify such an agreement with the international watchdog as an imprimatur. The center marked a step towards not only boosting business for national firms but enhancing confidence in enrichment supply via inter-governmental and commercial contracts that would allow members to invest and share in ownership, management, and profits, without providing foreign access to sensitive enrichment technology. The first deal was inked with Kazakhstan in May 2007 for joint uranium mining, nuclear reactor development, and supply of LEU for Kazakh fuel fabrication. This was followed by proposals to Ukraine, with expectations that similar discussions with Armenia, Belarus, South Africa, and the members of the Shanghai Cooperation Organization would soon follow. In October 2007, Russia offered to place under international managerial control a reserve of \$300 million worth of LEU by the beginning of 2008 to jump-start the IAEA's promotion of an international "fuel bank." Despite ambiguities concerning future funding, membership eligibility, administration, and environmental and safeguards procedures, the international community, led by the IAEA and U.S., welcomed the center as integral to an emerging multilateral framework for implementing workable nonproliferation measures to stem the diffusion of dual-use enrichment and reprocessing technologies among nuclear power-seeking nations.

Beyond the Kremlin's Grasp

The success of this delicate diplomatic maneuvering, however, hinges ultimately on factors beyond the Kremlin's direct control. Although the movement towards an international showdown with Iran presents opportunities to carve out an independent role, Russia possesses few reliable levers to direct the sides

towards a peaceful resolution. More generally, Moscow lacks the economic muscle to assert leadership over international nuclear commerce and nonproliferation. Russian suppliers do not enjoy market power at the front- or back-ends of the nuclear fuel cycle, and also face manufacturing bottlenecks for key technologies, such as reactor turbines and centrifuges, that together constrain immediate prospects for leveraging commercial transactions for political effect. As evidenced by the September 2007 deal for the delivery of 4,000 tons of uranium from Australia, Russia will remain dependent on imports (with no control over prices) to meet the expected rise in domestic demand, let alone to satisfy ambitions to fuel foreign reactors. Similarly, the joint venture with Kazakhstan is limited by the latter's commitments to diversifying uranium exports and delving deeper into fuel assembly markets tailored primarily to western reactor standards. As with other commercial nuclear deals with Kazakhstan, Kyrgyzstan, and Ukraine, as well as with the earlier program to import foreign-origin spent nuclear fuel, Russia is commercially handcuffed at imposing responsibilities on its partners and exploiting these arrangements to secure favorable debt-equity stakes in foreign enterprises. Together with international concerns about Russia's willingness to meet the IAEA's safeguards requirements, as well as about promises not to divert imported uranium and related technologies to military purposes or to withhold deliveries for political reasons, the economics of global nuclear commerce do not augur well for Moscow to dictate the strategic terms for engagement.

The recentralization of the nuclear complex also has not necessarily conferred greater state control. Redundant and ambiguous lines of authority between new agencies tasked with managing the nuclear sector create conditions ripe for rivalry between federal and regional offices, civilian and military bureaucracies, and the security services and diplomatic corps. This, in turn, is likely to perpetuate problems associated with unreliable foreign access to Russia's nuclear sector and funding shortages for key non-commercial activities, such as nuclear safeguards, safety, and environmental protection. It also is not clear that state subsidies and opaque corporate governance structures can allay anxieties facing minority private investors or improve the profitability of the nuclear industry. Moreover, corruption remains a problem across the nuclear fuel complex, as evidenced by constant complaints of "vanishing" investment funds, bribe-taking and abuse of office by official managers, and the rising incidence of "non-accidental death and desertion" among guard units assigned to the nuclear cities. In short, practical gaps between centralization and control limit the Kremlin's institu-

tional wherewithal to balance its nuclear commercial and nonproliferation ambitions.

The Way Ahead

Upon closer inspection, there is both more and less to the Kremlin's nuclear nonproliferation posture. There is more in the sense that the leadership has undertaken concrete measures to parlay the country's economic, political and strategic resurgence into grandiose commercial pursuits while maintaining sincere commitments to containing the diffusion of nuclear weapons and fissile material. At the same time, there is less to Moscow's statecraft and capacity to exert stewardship over the nuclear policies of other states, given deep-seated market and institutional barriers. Despite Moscow's strategic activism, it can neither dominate regional de-

cision-making or markets, nor impose via administrative fiat a predatory nuclear leviathan on par with its presence in the gas sector.

Yet, Moscow's predicament offers prospects for revitalizing global nonproliferation. Irrespective of the constraints on unilateralism, the international community stands to benefit from engaging Moscow in the search for creative solutions to regional problems and credible nuclear fuel service guarantees. By forging new partnerships with Russia to extend its newfound resources and vast experiences with cooperative nuclear assistance to other troubled regions, the U.S. and others not only can avert costly nuclear showdowns that advance their own interests, but can offer mutually advantageous opportunities for Russia to reclaim its stature as a global leader of nonproliferation.

About the Author

Adam N. Stulberg is Associate Professor and Co-Director of the Center for International Strategy, Technology, and Policy at the Sam Nunn School of International Affairs at the Georgia Institute of Technology.

Recommended Reading

Elena Sokova & Cristina Hansell Chuen, "Nuclear Power Broker," *Bulletin of the Atomic Scientists* (September/October 2007), pp. 51-54.

Related Yearbooks

- The United Nations DISARMAMENT YEARBOOK, Office for Disarmament Affairs
New York, 2007
<http://disarmament2.un.org/yearbook-2006/DY2006.pdf>

The Office for Disarmament Affairs draws your attention to its website at <http://disarmament.un.org> where free access is available to the electronic version of the 2006 Yearbook, as well as the archive annual editions from 2002 to 2005.

Among the many other electronic resources, you will find regularly updated information on various disarmament issues, the departmental database on the status of disarmament and arms regulation agreements, and electronic versions of all the resolutions and decisions covered in the Yearbook.

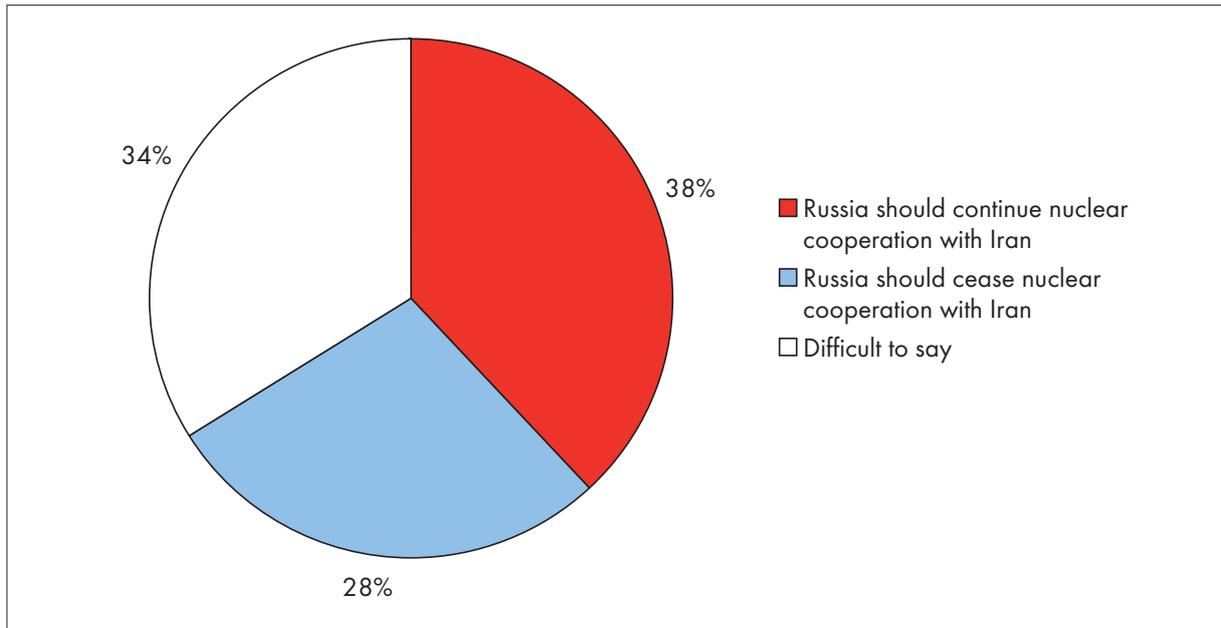
- SIPRI YEARBOOK 2007: Armaments, Disarmament and International Security, Publisher: Oxford University Press, ISBN 978-0-19-923021-1 - hardback, 752 pp.
http://books.sipri.org/product_info?c_product_id=346

The 38th edition of the SIPRI Yearbook analyses developments in 2006 in security and conflicts; military spending and armaments; and non-proliferation, arms control and disarmament, with extensive annexes on arms control and disarmament agreements and a chronology of security- and arms control-related events.

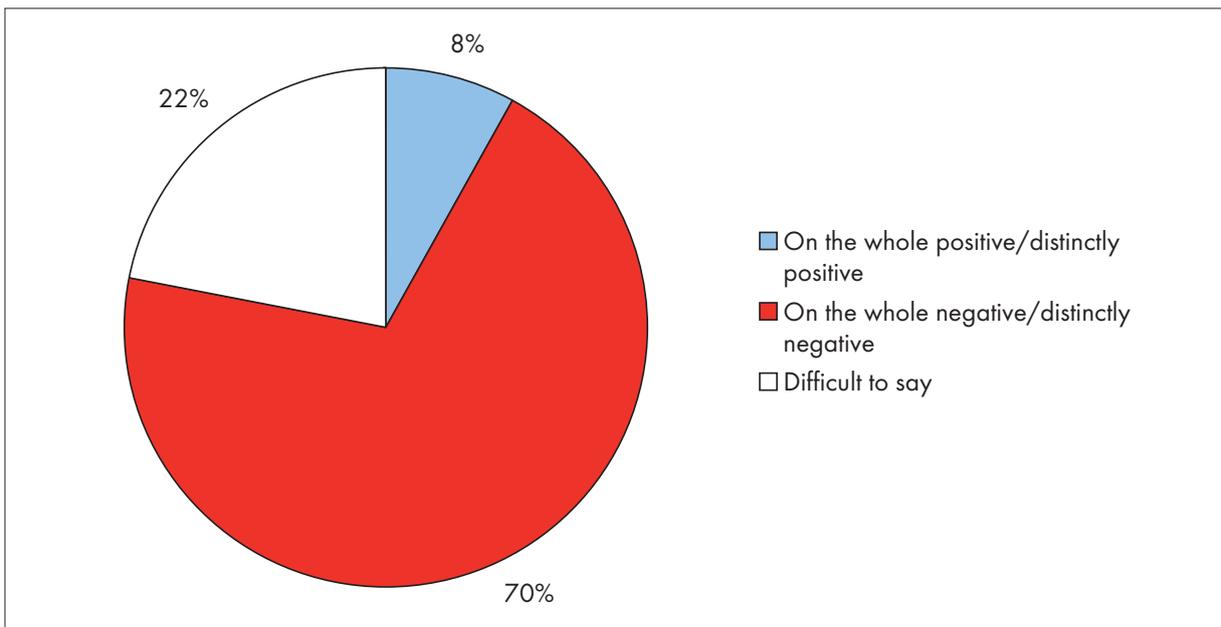
Opinion Survey

Opinions of the Russian Population on Nuclear Proliferation

Russia's Nuclear Cooperation with Iran is Worrying Western States. Should Russia Continue or Cease Nuclear Cooperation with Iran ?



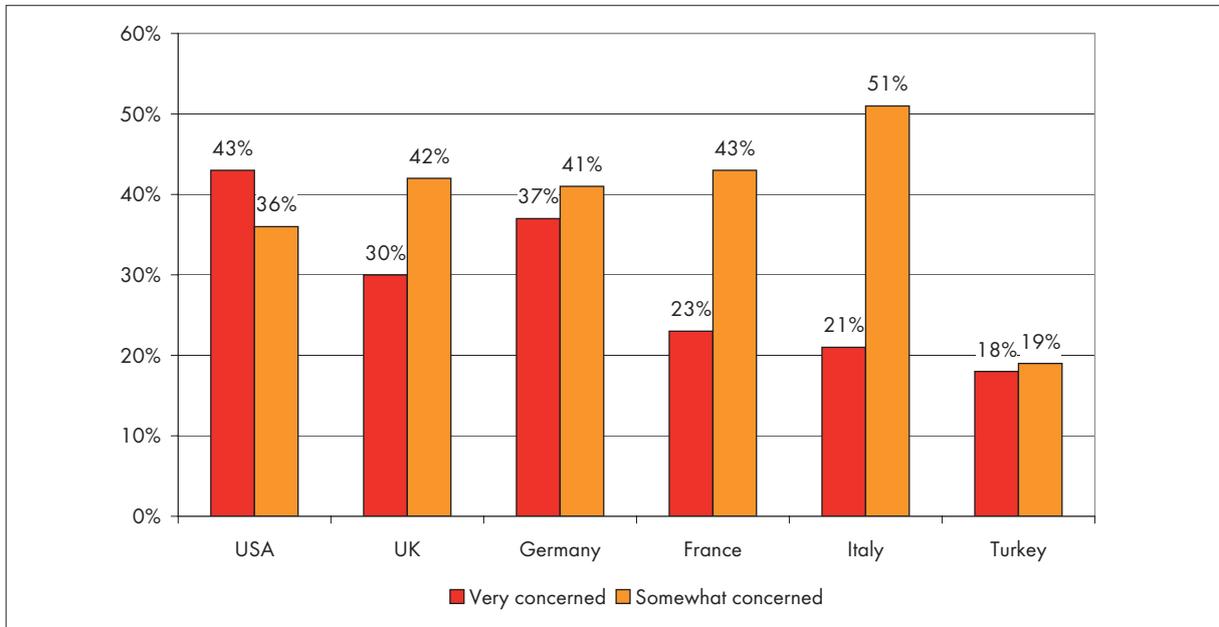
What is Your Opinion on Possible “Precision Strikes” against Nuclear Installations or Camps of the “Iranian Revolutionary Guard” in Iran?



Source: Opinion survey of the Levada Institute, 15 October 2007, <http://www.levada.ru/press/2007101504.html>

International Opinion on Russia and the Middle East

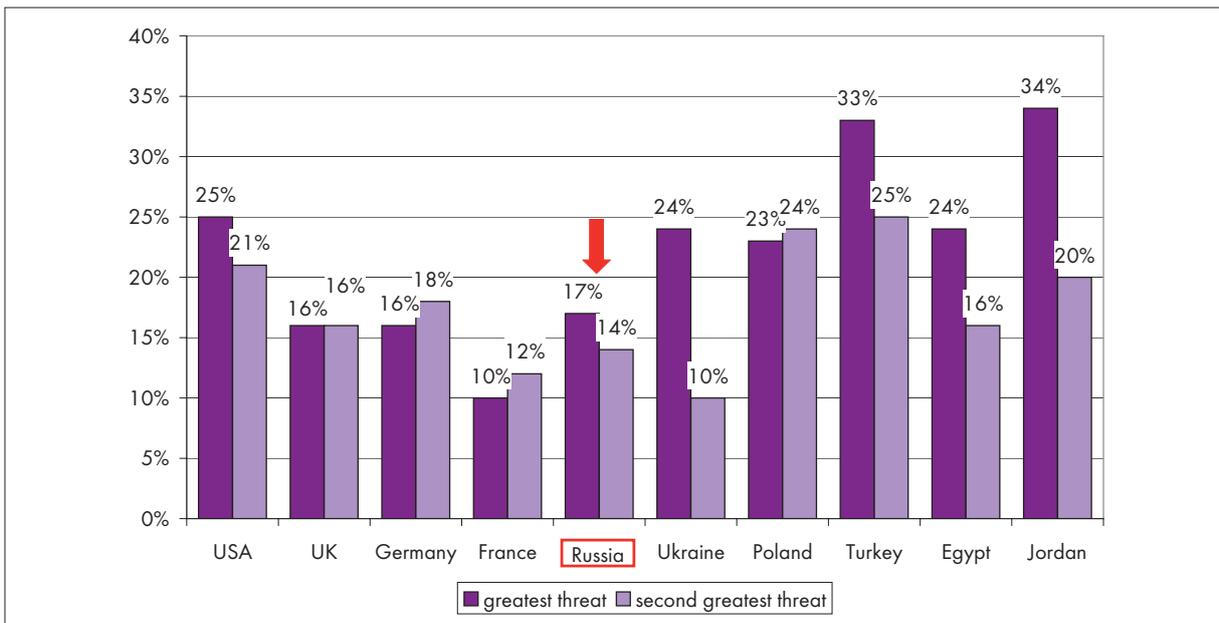
As You May Know, Some People Are Concerned about Recent Developments in Russia. Those Who Are Concerned Give a Number of Different Reasons. To What Extent Are You Concerned or Not about Russia's Role in Providing Weapons to Countries in the Middle East?



Source: *Transatlantic Trends Key Findings 2007*, http://www.transatlantictrends.org/trends/doc/TT07Topline_FINAL.pdf, 7 September 2007, p. 46.

International Opinion on the Spread of Nuclear Weapons

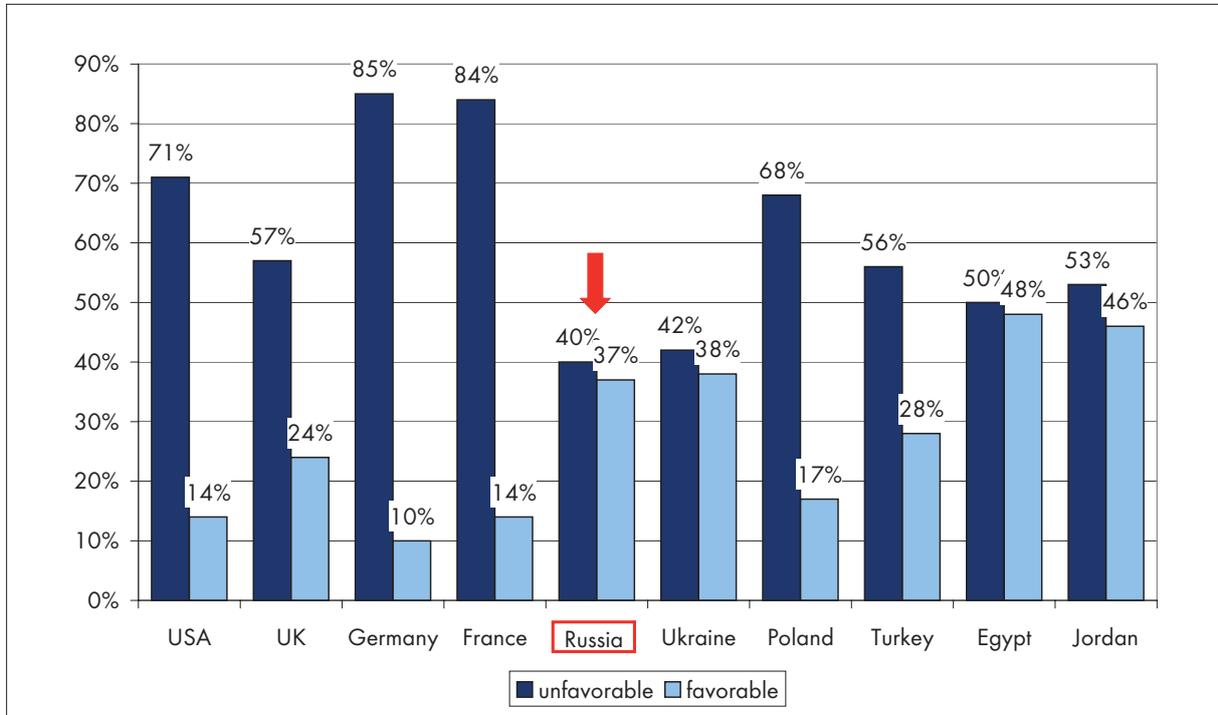
Do You See the Spread of Nuclear Weapons as the Greatest or Second Greatest Threat to the World?



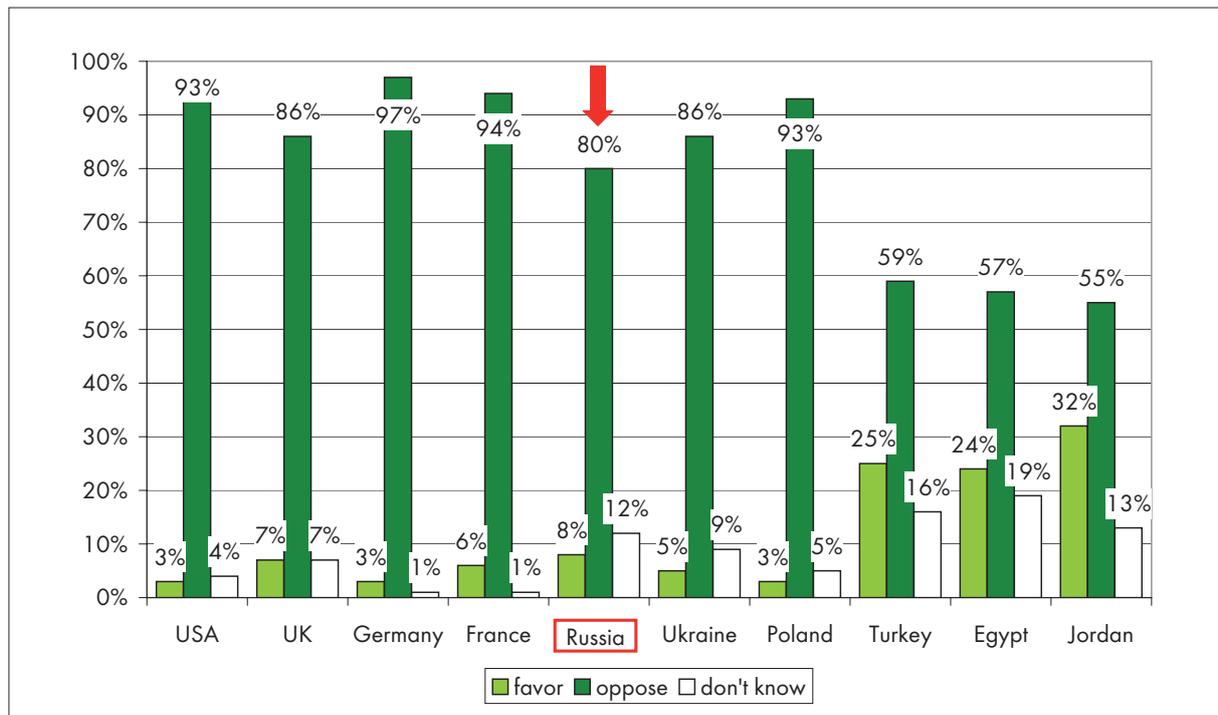
Source: *Pew Global Attitudes Project: Spring 2007 Survey, Survey of 47 Publics, FINAL 2007 TRENDS TOPLINE*, <http://pewglobal.org/reports/pdf/256topline-pastyears.pdf>, pp. 2-5

International Opinion on Iran

Do You Have a Favorable or an Unfavorable View of Iran?

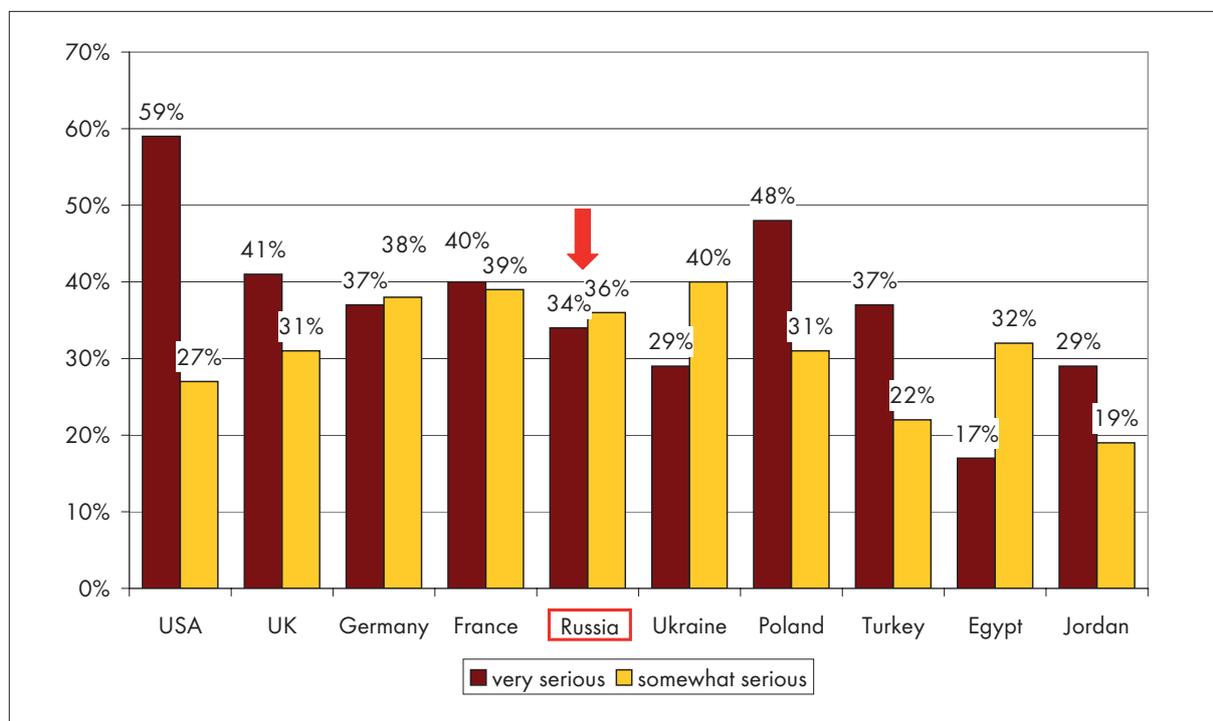


Do You Favor or Oppose Iran Acquiring Nuclear Weapons?



Global Unease With Major World Powers. Rising Environmental Concern in 47-Nation Survey. 47-Nation Pew Global Attitudes Survey. Released: 27 June 2007, <http://pewglobal.org/reports/pdf/256.pdf>, 28.6.2007, p. 47 and 52

What will the Threat to Your Country Be if Iran Acquires Nuclear Weapons?



Global Unease With Major World Powers. Rising Environmental Concern in 47-Nation Survey. 47-Nation Pew Global Attitudes Survey. Released: 27 June 2007, <http://pewglobal.org/reports/pdf/256.pdf>, 28.6.2007, p. 53

Documentation

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT)

The NPT is a landmark international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to promote cooperation in the peaceful uses of nuclear energy and to further the goal of achieving nuclear disarmament and general and complete disarmament. The Treaty represents the only binding commitment in a multilateral treaty to the goal of disarmament by the nuclear-weapon States. Opened for signature in 1968, the Treaty entered into force in 1970. On 11 May 1995, the Treaty was extended indefinitely. A total of 190 parties have joined the Treaty, including the five nuclear-weapon States. More countries have ratified the NPT than any other arms limitation and disarmament agreement, a testament to the Treaty's significance.

The provisions of the Treaty, particularly article VIII, paragraph 3, envisage a review of the operation of the Treaty every five years, a provision which was reaffirmed by the States parties at the 1995 NPT Review and Extension Conference.

To further the goal of non-proliferation and as a confidence-building measure between States parties, the Treaty establishes a safeguards system under the responsibility of the International Atomic Energy Agency (IAEA). Safeguards are used to verify compliance with the Treaty through inspections conducted by the IAEA. The Treaty promotes cooperation in the field of peaceful nuclear technology and equal access to this technology for all States parties, while safeguards prevent the diversion of fissile material for weapons use.

The 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) met at the United Nations in New York from 2 to 27 May 2005. A total of 153 States parties to the Treaty participated in the event. The Conference was unable to produce a consensus substantive outcome on the review of the implementation of the provisions of the Treaty. Several of the Conference side events, such as the Mayors for Peace appeal, in particular commemorated the 60th anniversary of the atomic bombings of Hiroshima and Nagasaki.

Source: <http://disarmament2.un.org/wmd/npt/index.html>

Four states with nuclear weapons are not parties to the NPT: India, Israel, North Korea (withdrawal in 2003) and Pakistan.

Nuclear Powers

Country	Warheads active/total	Year of first test
Five nuclear weapons states from the NPT		
Russia	5,830 / 16,000	1949 (“RDS-1”)
United States	5,163 / 9,938	1945 (“Trinity”)
United Kingdom	750	1952 (“Hurricane”)
France	350	1960 (“Gerboise Bleue”)
China	130	1964 (“596”)
Other known nuclear powers		
India	70–120	1974 (“Smiling Buddha”)
Pakistan	30–80	1998 (“Chagai-1”)
North Korea	1–10	2006 (“The Beginning”)
Undeclared nuclear weapons states		
Israel	75–200	unknown or 1979 (“Vela Incident”)

Source: Wikipedia, http://en.wikipedia.org/wiki/List_of_states_with_nuclear_weapons

Treaty on the Non-Proliferation of Nuclear Weapons (Original Document)

Opened for signature at London, Moscow and Washington: 1 July 1968

Entered into force: 5 March 1970

Depositary Governments: Russian Federation, United Kingdom of Great Britain and Northern Ireland and United States of America

The States concluding this Treaty, hereinafter referred to as the “Parties to the Treaty”,

Considering the devastation that would be visited upon all mankind by a nuclear war and the consequent need to make every effort to avert the danger of such a war and to take measures to safeguard the security of peoples,

Believing that the proliferation of nuclear weapons would seriously enhance the danger of nuclear war,

In conformity with resolutions of the United Nations General Assembly calling for the conclusion of an agreement on the prevention of wider dissemination of nuclear weapons,

Undertaking to co-operate in facilitating the application of International Atomic Energy Agency safeguards on peaceful nuclear activities,

Expressing their support for research, development and other efforts to further the application, within the framework of the International Atomic Energy Agency safeguards system, of the principle of safeguarding effectively the flow of source and special fissionable materials by use of instruments and other techniques at certain strategic points,

Affirming the principle that the benefits of peaceful applications of nuclear technology, including any technological by-products which may be derived by nuclear-weapon States from the development of nuclear explosive devices, should be available for peaceful purposes to all Parties to the Treaty, whether nuclear-weapon or non-nuclear-weapon States,

Convinced that, in furtherance of this principle, all Parties to the Treaty are entitled to participate in the fullest possible exchange of scientific information for, and to contribute alone or in co-operation with other States to, the further development of the applications of atomic energy for peaceful purposes,

Declaring their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament,

Urging the co-operation of all States in the attainment of this objective,

Recalling the determination expressed by the Parties to the 1963 Treaty banning nuclear weapons tests in the atmosphere, in outer space and under water in its Preamble to seek to achieve the discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end,

Desiring to further the easing of international tension and the strengthening of trust between States in order to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery pursuant to a Treaty on general and complete disarmament under strict and effective international control,

Recalling that, in accordance with the Charter of the United Nations, States must refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the Purposes of the United Nations, and that the establishment and maintenance of international peace and security are to be promoted with the least diversion for armaments of the world's human and economic resources,

Have agreed as follows:

Article I

Each nuclear-weapon State Party to the Treaty undertakes not to transfer to any recipient whatsoever nuclear weapons or other nuclear explosive devices or control over such weapons or explosive devices directly, or indirectly; and not in any way to assist, encourage, or induce any non-nuclear-weapon State to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices, or control over such weapons or explosive devices.

Article II

Each non-nuclear-weapon State Party to the Treaty undertakes not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.

Article III

1. Each non-nuclear-weapon State Party to the Treaty undertakes to accept safeguards, as set forth in an agreement to be negotiated and concluded with the International Atomic Energy Agency in accordance with the Statute of the International Atomic Energy Agency and the Agency's safeguards system, for the exclusive purpose of verification of the fulfilment of its obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices. Procedures for the safeguards required by this Article shall be followed with respect to source or special fissionable material whether it is being produced, processed or used in any principal nuclear facility or is outside any such facility. The safeguards required by this Article shall be applied on all source or special fissionable material in all peaceful nuclear activities within the territory of such State, under its jurisdiction, or carried out under its control anywhere.

2. Each State Party to the Treaty undertakes not to provide: (a) source or special fissionable material, or (b) equipment or material especially designed or prepared for the processing, use or production of special fissionable material, to any non-nuclear-weapon State for peaceful purposes, unless the source or special fissionable material shall be subject to the safeguards required by this Article.

3. The safeguards required by this Article shall be implemented in a manner designed to comply with Article IV of this Treaty, and to avoid hampering the economic or technological development of the Parties or international co-operation in the field of peaceful nuclear activities, including the international exchange of nuclear material and equipment for the processing, use or production of nuclear material for peaceful purposes in accordance with the provisions of this Article and the principle of safeguarding set forth in the Preamble of the Treaty.

4. Non-nuclear-weapon States Party to the Treaty shall conclude agreements with the International Atomic Energy Agency to meet the requirements of this Article either individually or together with other States in accordance with the Statute of the International Atomic Energy Agency. Negotiation of such agreements shall commence within 180 days from the original entry into force of this Treaty. For States depositing their instruments of ratification or acces-

sion after the 180-day period, negotiation of such agreements shall commence not later than the date of such deposit. Such agreements shall enter into force not later than eighteen months after the date of initiation of negotiations.

Article IV

1. Nothing in this Treaty shall be interpreted as affecting the inalienable right of all the Parties to the Treaty to develop research, production and use of nuclear energy for peaceful purposes without discrimination and in conformity with Articles I and II of this Treaty.

2. All the Parties to the Treaty undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy. Parties to the Treaty in a position to do so shall also co-operate in contributing alone or together with other States or international organizations to the further development of the applications of nuclear energy for peaceful purposes, especially in the territories of non-nuclear-weapon States Party to the Treaty, with due consideration for the needs of the developing areas of the world.

Article V

Each Party to the Treaty undertakes to take appropriate measures to ensure that, in accordance with this Treaty, under appropriate international observation and through appropriate international procedures, potential benefits from any peaceful applications of nuclear explosions will be made available to non-nuclear-weapon States Party to the Treaty on a non-discriminatory basis and that the charge to such Parties for the explosive devices used will be as low as possible and exclude any charge for research and development. Non-nuclear-weapon States Party to the Treaty shall be able to obtain such benefits, pursuant to a special international agreement or agreements, through an appropriate international body with adequate representation of non-nuclear-weapon States. Negotiations on this subject shall commence as soon as possible after the Treaty enters into force. Non-nuclear-weapon States Party to the Treaty so desiring may also obtain such benefits pursuant to bilateral agreements.

Article VI

Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.

Article VII

Nothing in this Treaty affects the right of any group of States to conclude regional treaties in order to assure the total absence of nuclear weapons in their respective territories.

Article VIII

1. Any Party to the Treaty may propose amendments to this Treaty. The text of any proposed amendment shall be submitted to the Depositary Governments which shall circulate it to all Parties to the Treaty. Thereupon, if requested to do so by one-third or more of the Parties to the Treaty, the Depositary Governments shall convene a conference, to which they shall invite all the Parties to the Treaty, to consider such an amendment.

2. Any amendment to this Treaty must be approved by a majority of the votes of all the Parties to the Treaty, including the votes of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. The amendment shall enter into force for each Party that deposits its instrument of ratification of the amendment upon the deposit of such instruments of ratification by a majority of all the Parties, including the instruments of ratification of all nuclear-weapon States Party to the Treaty and all other Parties which, on the date the amendment is circulated, are members of the Board of Governors of the International Atomic Energy Agency. Thereafter, it shall enter into force for any other Party upon the deposit of its instrument of ratification of the amendment.

3. Five years after the entry into force of this Treaty, a conference of Parties to the Treaty shall be held in Geneva, Switzerland, in order to review the operation of this Treaty with a view to assuring that the purposes of the Preamble and the provisions of the Treaty are being realised. At intervals of five years thereafter, a majority of the Parties to the

Treaty may obtain, by submitting a proposal to this effect to the Depositary Governments, the convening of further conferences with the same objective of reviewing the operation of the Treaty.

Article IX

1. This Treaty shall be open to all States for signature. Any State which does not sign the Treaty before its entry into force in accordance with paragraph 3 of this Article may accede to it at any time.
2. This Treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the United Kingdom of Great Britain and Northern Ireland, the Union of Soviet Socialist Republics and the United States of America, which are hereby designated the Depositary Governments.
3. This Treaty shall enter into force after its ratification by the States, the Governments of which are designated Depositaries of the Treaty, and forty other States signatory to this Treaty and the deposit of their instruments of ratification. For the purposes of this Treaty, a nuclear-weapon State is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967.
4. For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.
5. The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or of accession, the date of the entry into force of this Treaty, and the date of receipt of any requests for convening a conference or other notices.
6. This Treaty shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

Article X

1. Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty and to the United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.
2. Twenty-five years after the entry into force of the Treaty, a conference shall be convened to decide whether the Treaty shall continue in force indefinitely, or shall be extended for an additional fixed period or periods. This decision shall be taken by a majority of the Parties to the Treaty.

Article XI

This Treaty, the English, Russian, French, Spanish and Chinese texts of which are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of this Treaty shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

IN WITNESS WHEREOF the undersigned, duly authorized, have signed this Treaty.

DONE in triplicate, at the cities of London, Moscow and Washington, the first day of July, one thousand nine hundred and sixty-eight.

Source: <http://disarmament.un.org/TreatyStatus.nsf>

About the Russian Analytical Digest

The Russian Analytical Digest is a bi-weekly internet publication jointly produced by the Research Centre for East European Studies [Forschungsstelle Osteuropa] at the University of Bremen (www.forschungsstelle-osteuropa.de) and the Center for Security Studies (CSS) at the Swiss Federal Institute of Technology Zurich (ETH Zurich). It is supported by the Otto Wolff Foundation and the German Association for East European Studies (DGO). The Digest draws on contributions to the German-language *Russlandanalysen* (www.russlandanalysen.de), the CSS analytical network on Russia and Eurasia (www.res.ethz.ch), and the Russian Regional Report. The Russian Analytical Digest covers political, economic, and social developments in Russia and its regions, and looks at Russia's role in international relations.

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Research Centre for East European Studies [Forschungsstelle Osteuropa] at the University of Bremen

Founded in 1982 and led by Prof. Dr. Wolfgang Eichwede, the Research Centre for East European Studies (Forschungsstelle Osteuropa) at the University of Bremen is dedicated to socialist and post-socialist cultural and societal developments in the countries of Central and Eastern Europe.

The Research Centre possesses a unique collection of alternative culture and independent writings from the former socialist countries in its archive. In addition to extensive individual research on dissidence and society in socialist societies, since January 2007 a group of international research institutes is participating in a collaborative project on the theme "The other Eastern Europe – the 1960s to the 1980s, dissidence in politics and society, alternatives in culture. Contributions to comparative contemporary history", which is funded by the Volkswagen Foundation.

In the area of post-socialist societies, extensive research projects have been conducted in recent years with emphasis on political decision-making processes, economic culture and the integration of post-socialist countries into EU governance. One of the core missions of the institute is the dissemination of academic knowledge to the interested public. This includes regular email service with nearly 15,000 subscribers in politics, economics and the media.

With a collection of publications on Eastern Europe unique in Germany, the Research Centre is also a contact point for researchers as well as the interested public. The Research Centre has approximately 300 periodicals from Russia alone, which are available in the institute's library. News reports as well as academic literature is systematically processed and analyzed in data bases.

The Center for Security Studies (CSS) at ETH Zurich

The Center for Security Studies (CSS) at the Swiss Federal Institute of Technology (ETH Zurich) is a Swiss academic center of competence that specializes in research, teaching, and information services in the fields of international and Swiss security studies. The CSS also acts as a consultant to various political bodies and the general public.

The CSS is engaged in research projects with a number of Swiss and international partners. The Center's research focus is on new risks, European and transatlantic security, strategy and doctrine, state failure and state building, and Swiss foreign and security policy.

In its teaching capacity, the CSS contributes to the ETH Zurich-based Bachelor of Arts (BA) degree course for prospective professional military officers in the Swiss army and the ETH and University of Zurich-based MA program in Comparative and International Studies (MACIS), offers and develops specialized courses and study programs to all ETH Zurich and University of Zurich students, and has the lead in the Executive Masters degree program in Security Policy and Crisis Management (MAS ETH SPCM), which is offered by ETH Zurich. The program is tailored to the needs of experienced senior executives and managers from the private and public sectors, the policy community, and the armed forces.

The CSS runs the International Relations and Security Network (ISN), and in cooperation with partner institutes manages the Comprehensive Risk Analysis and Management Network (CRN), the Parallel History Project on NATO and the Warsaw Pact (PHP), the Swiss Foreign and Security Policy Network (SSN), and the Russian and Eurasian Security (RES) Network.

Any opinions expressed in Russian Analytical Digest are exclusively those of the authors.

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Editors: Matthias Neumann, Robert Ortung, Jeronim Perović, Heiko Pleines, Hans-Henning Schröder

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Research Centre for East European Studies • Publications Department • Klagenfurter Str. 3 • 28359 Bremen • Germany

Phone: +49 421-218-7891 • Telefax: +49 421-218-3269 • e-mail: fsopr@uni-bremen.de • Internet: www.res.ethz.ch/analysis/rad