

## STEP #1: SIGNING THE CTBT

*The importance and urgency of signatures and ratifications, without delay and without conditions and in accordance with constitutional processes, to achieve the early entry-into-force of the Comprehensive Test Ban Treaty.*

**U.S.:** In 1999, the U.S. Senate rejected the CTBT, making it the only legislative body in the world to do so.

The U.S. continues to make it clear that it has no intention of ratifying the CTBT. At the General

*The CTBT "offers only false hopes and high intentions- with no guarantees whatever."*

- U.S. PRESIDENT GEORGE W. BUSH

Assembly in 2003, Ambassador Stephen Rademaker stated plainly that, "The U.S. does not support the Comprehensive Nuclear Test-Ban Treaty and will not become a party to it."<sup>(1)</sup>

The United States was the only country to vote no on First Committee draft resolution L.52 on the CTBT.

**Russia:** Ratified June 30, 2000

**U.K.:** Ratified April 6, 1998

**France:** Ratified April 6, 1998

**China:** China has not yet ratified, although it has been submitted to the National People's Congress Standing Committee for approval. In the 2003 session of the General Assembly First Committee, Ambassador Hu Xiaodi stated on October 6: "Though the treaty has not yet come into force, the principles and objectives set out therein have already become an important international norm. China supports the CTBT, and is firmly against nuclear tests by any country under any pretext. China is also aware of its special responsibilities in promoting the early entry-into-force of the treaty. While observing the moratorium on nuclear tests, the Chinese Government will continue to promote the ratification process at China's legislative body."

## STEP #2: MORATORIUM UNTIL CTBT ENTERS-INTO-FORCE

*A moratorium on nuclear weapon test explosions or any other nuclear explosions pending entry-into-force of that Treaty.*

**U.S.:** On October 2, 1992, Congress imposed a testing moratorium, two weeks after the last test took place on September 23.

The Bush administration has recommended that the Nevada Test Site (NTS) reduce the amount of time it would take to resume testing, from 36 to 18 months.

**Russia:** Following the full-scale nuclear test conducted by the Soviet Union on October 24, 1990, Soviet President Mikhail Gorbachev announced a unilateral moratorium on testing, which has been in place ever since.

**U.K.:** The last explosive test conducted by the U.K. took place on November 26, 1991.

The UK is also actively upgrading and expanding its facility at Aldermaston, including developing a laser facility to simulate nuclear test explosions in the lab-

### CTBT ANNEX II STATES WHOSE RATIFICATION IS NEEDED FOR THE ENTRY-INTO-FORCE.\*

<i>Algeria</i>	<i>DR Congo</i>	<i>Netherlands</i>
<i>Argentina</i>	<i>Egypt</i>	<i>Norway</i>
<i>Australia</i>	<i>Finland</i>	<i>Pakistan</i>
<i>Austria</i>	<i>France</i>	<i>Peru</i>
<i>Bangladesh</i>	<i>Germany</i>	<i>Poland</i>
<i>Belgium</i>	<i>Hungary</i>	<i>Rep. of Korea</i>
<i>Brazil</i>	<i>India</i>	<i>Romania</i>
<i>Bulgaria</i>	<i>Indonesia</i>	<i>Russian Fed.</i>
<i>Canada</i>	<i>Iran</i>	<i>Slovakia</i>
<i>Chile</i>	<i>Israel</i>	<i>Switzerland</i>
<i>China</i>	<i>Italy</i>	<i>Turkey</i>
<i>Colombia</i>	<i>Japan</i>	<i>Ukraine</i>
<i>DPR of Korea</i>	<i>Mexico</i>	<i>UK</i>
<i>US</i>	<i>Vietnam</i>	

*\*Signed  
Ratified*

oratory. (See text box below)

**France:** Despite the moratorium declared in April 1992, and the decision of the 1995 Review Conference which called for NWS to "exercise utmost restraint" in nuclear testing, France did not cease full-scale nuclear testing until January 1996. The dismantlement of testing facilities in the Pacific was completed by July 1998.

**China:** On July 29, 1996, within 72 hours of the release of the 1995 decision which called for NWS to "exercise utmost restraint" in nuclear testing, China conducted its last test.

#### ALTERNATIVES TO FULL SCALE UNDERGROUND TESTING

*Although all five NWS currently observe unilateral moratoria on nuclear explosive testing, all five of them have opted for alternative methods of testing new and modified nuclear weapons. These alternatives run contrary to the spirit of the CTBT and the NPT, as they can be used to develop new warhead designs. In addition, they may threaten verification regimes.*

*The NWS regard sub-critical experiments as exempt from testing moratoria, as they do not produce self-sustaining nuclear fission chain reactions. Nonetheless, they pose a direct environmental threat. The U.S. and Russia have conducted at least a dozen of these tests each, at the Nevada Test Site (NTS) and Novaya Zemlya test sites. The U.K. has also participated with the U.S. in the experiments at NTS.*

*The U.S. and France are both constructing new laser facilities for nuclear fusion explosions at the National Ignition Facility at Livermore and the Projet Megajoule in Bordeaux. Through the experiments at Projet Megajoule, France is developing and deploying a new generation of SSBNs, SLBMs and air-launched weapons. According to a July, 2002 AWE report, the U.K. will develop a supercomputer, hydrodynamics facility, new labs and a state of the art laser facility at Aldermaston.*

### STEP #3: FMCT IN THE CD

*The necessity of negotiations in the Conference on Disarmament on a nondiscriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices in accordance with the statement of the Special Coordinator in 1995 and the mandate contained therein, taking into consideration both nuclear disarmament and nuclear nonproliferation objectives. The Conference on Disarmament is urged to agree on a program of work, which includes the immediate commencement of negotiations on such a treaty with a view to their conclusion within five years.*

**U.S.:** On July 14, 1992, the U.S. announced a unilateral moratorium on the production of plutonium for use in nuclear weapons or other explosive devices.

While the U.S. voted in favor of GA First Committee draft resolution, L.49 on an FMCT in the CD, Representative Sherwood McGinnis made clear that "the United States is reviewing specific elements of our policy regarding an FMCT, and our joining consensus on this resolution is without prejudice to the outcome of that review."<sup>(2)</sup>

#### THE A5 PROPOSAL

*The most likely agenda to be adopted in the CD comes from the five ambassadors from Belgium, Algeria, Chile, Colombia and Sweden in January, 2003. Now simply referred to as "the A5 Proposal," the agenda would include the establishment of four ad-hoc committees on nuclear disarmament, fissile materials, PAROS, and Negative Security Assurances. It would also appoint three Special Coordinators for: new types of WMD including radiological weapons; a comprehensive programme of disarmament; and transparency in armaments.*

**Russia:** Previously, Russia and China blocked progress on an FMCT by linking the issue to negotiations on the Prevention of an Arms Race in Outer Space. This position shifted on August 7, 2003, when Russia and China formally accepted the A5 proposal (see Text Box page 2) and announced that they would agree to begin negotiations on an FMCT without parallel discussions on PAROS. In his general statement to the GA First Committee, Ambassador Lavrov regarded the start of negotiations on an FMCT as "another logical step in the area of nuclear non-proliferation and disarmament." (3)

In October 1994, Russia ceased producing weapons-useable plutonium.

In March 2002, U.S. Secretary of Energy Spencer Abraham and Russian Atomic Energy Minister Alexander Rumyantsev signed an agreement to provide U.S. financial assistance to shut down three Russian plutonium-producing reactors.

**U.K.:** The U.K. is committed to FMCT negotiations in the CD, but does not support including existing stockpiles in the negotiations, as recommended in the

### HISTORY OF FMCT NEGOTIATIONS

*Since the Soviet Union first proposed a cut-off of fissile material production in 1982, a treaty banning such production has enjoyed broad support. Several UNGA resolutions called for such negotiations, including resolution 48/75L (1993), 53/77I (1998), 55/33Y (2000), 56/24J (2001), 57/80 (2002), and 58/57 (2003). In addition, a report of the Special Coordinator to the CD, CD/1299, or the Shannon Mandate, also reflected these demands.*

*The issue of "existing stocks," the most contentious point of the proposed fissban, blocked progress. In recent years, Japan held a number of consultations and workshops on an FMCT, and eventually proposed a draft treaty. Today, Japan's draft FMCT, the most concrete basis for the start of negotiations, does not include existing stocks.*

Shannon Mandate. (See text box at left.) They believe that it is in the interests of all peoples and States to "shut off the water tap" of production, as described by the British ambassador to the CD, David Broucher. (4)

The U.K. has observed a moratorium on fissile material production since April 18, 1995.

**France:** France supports an FMCT based on the Shannon Mandate (CD/1299).

France ceased producing weapons-useable plutonium in 1992 and HEU in 1996; its fissile material production facilities in Marcoule and Pierrelatte have been closed.

**China:** Previously, China had linked FMCT negotiations with negotiations on a PAROS mandate until August 7, 2003, when it formally accepted the A5 proposal.

China is the only NWS to have never implemented a fissile material production moratorium. In his closing statement to the 2003 PrepCom, Ambassador Hu Xiaodi said, "An undefined and unverifiable 'moratorium on production' will not resolve the question of production in the relevant countries but may well produce more problems and adversely affect FMCT negotiations."

### STEP #4: NUCLEAR DISARMAMENT SUBSIDIARY BODY IN THE CD

*The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body with a mandate to deal with nuclear disarmament. The Conference on Disarmament is urged to agree on a program of work, which includes the immediate establishment of such a body.*

**U.S.:** The U.S. has always been ambiguous on its willingness to establish an ad-hoc committee on nuclear disarmament in the CD. Previously, the U.S. had agreed with Russia, the U.K., and France, that a multilateral forum such as the CD is not the appropri-

ate venue for negotiations on nuclear disarmament, opting instead for unilateral or bilateral mechanisms.

Then, in a statement to the CD in 2001, Ambassador Grey declared that, "the U.S. Government decided that as a major step aimed at bringing about agreement on a work program that includes active and ongoing negotiations on an FMCT, the United States can agree to the establishment of an ad hoc committee in which Member States will discuss issues related to nuclear disarmament."

*India and Pakistan, nuclear-weapon capable States not party to the NPT or the CTBT, have stated that their participation in the latter was contingent upon the CD commencing negotiations on nuclear disarmament. The establishment of a CD subsidiary body dealing with nuclear disarmament could therefore lead to the signature of India and Pakistan to the CTBT, both Annex II (see page 1) countries whose ratification is required for CTBT entry-into-force.*

However, Deputy Permanent Representative Sherwood McGinnis expressed the U.S.'s aversion to multilateral negotiations on nuclear disarmament in his closing statement to the 2003 session of the UNDC. Mr. McGinnis attributed the failure of the UNDC to reach consensus to a lack of focus. He maintained that nuclear disarmament, as an item on the agenda, was too broad, which effectively stymied progress. It is logical, then, that the U.S. would also view nuclear disarmament as "too broad" a topic for the CD as well.

**Russia:** Reportedly, Russia is opposed to the multilateral setting of the CD for nuclear disarmament talks, although it has demonstrated tepid support within the CD for such a body "with an exploratory mandate for broad discussions on the problem area of nuclear disarmament,"<sup>(5)</sup> while linking the creation of a subsidiary body with negotiations on a PAROS mandate.<sup>(6)</sup>

Russia has not clarified how their position is affected by the de-linkage of FMCT from PAROS. (see China, below)

**U.K.:** Although the U.K. holds the position that nuclear disarmament should be dealt with through bilateral negotiations, they have accepted the A5 proposal, which calls for the creation of an ad-hoc committee under the agenda item 1, "Cessation of the nuclear arms race and nuclear disarmament."

**France:** France, too, holds the position that nuclear disarmament should be dealt with through bilateral negotiations. France has not yet officially accepted the A5 proposal.

**China:** China had demonstrated support for the establishment of a nuclear disarmament subsidiary body in the CD within the framework of symmetrical progress on PAROS and FMCT. These three issues- nuclear disarmament, fissile materials ban, and PAROS- "are inseparable," according to Ambassador Hu Xiaodi.<sup>(7)</sup> It is not clear how China's acceptance of the A5 proposal in August, 2003, which de-linked FMCT from PAROS, affects China's support for a nuclear disarmament body in the CD.

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## STEP #5: IRREVERSIBILITY

*The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures.*

**U.S.:** National policy documents, including the Nuclear Posture Review (January 2002), National Security Strategy of the United States (September 2002) and the National Strategy to Counter Weapons of Mass Destruction (December 2002), make clear that the Bush administration does not support the principle of irreversibility, citing the need to adapt to "changing security environments."<sup>(8)</sup>

The Strategic Offensive Reductions Treaty (SORT, a.k.a. The Moscow Treaty) runs counter to the principle of irreversibility. It lacks any provision for the destruction of delivery systems, it does not require the

dismantlement of strategic nuclear weapons, but merely provides for their storage, not elimination. Storing, rather than destroying, warheads allows for future re-deployment.

The Nuclear Posture Review calls for the deactivation of 50 MX missiles; the silos, missile stages, and war-

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*"There is a nuclear safety and reliability reason to maintain the right to redeploy."*

-U.S. INFORMATIONAL PAPER SUBMITTED TO THE 2003 PREPCOM

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heads of these "deactivated" missiles will be retained. In addition, 4 U.S. Trident submarines will be converted to carry conventional, rather than nuclear weapons. At any time, the U.S. can re-convert

these submarines to be nuclear-capable.<sup>(9)</sup>

The U.S. is considering converting nuclear-capable ICBMs into conventional delivery systems. This runs contrary to the principle of irreversibility; missiles converted into conventional delivery systems under this plan are under no guarantee that they could not be re-converted to carry nuclear warheads.<sup>(10)</sup>

**Russia:** As the focus of strategic weapons reductions in the Russian nuclear arsenal, the Moscow Treaty remains insufficient, especially in the context of ensuring irreversible disarmament. Under this treaty, no delivery systems are destroyed, and warheads are stored, not eliminated. The treaty also lacks an indicative timetable, and it expires the day the requirements are to be met. Furthermore, terms of withdrawal from the treaty are framed in the language of "exercises in sovereignty;" normally, a state may only withdraw from a treaty when it is decided that the state's "supreme national interests" necessitate such a withdrawal.

The reductions in the Russian arsenal will in effect be more irreversible than those made in the U.S. arsenal. Since the Russian Federation lacks the resources to modernize its delivery systems, it will fulfill its reduction obligations by eliminating old types of intercon-

tinental and submarine-launched ballistic missiles. Destroying delivery systems will enhance the irreversibility of SORT, at least on the Russian side.

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*"...to promote nuclear disarmament, China maintains the following: ...the reduction of nuclear weapons should be effectively verifiable, irreversible, and in a legally binding manner."*

- H.E. AMBASSADOR HU XIAODI AT THE 2003 SESSION OF THE UNDC.

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**U.K.:** The last Chevaline warhead was dismantled in 2002 in an irreversible manner, thereby making the Polaris system obsolete.<sup>(11)</sup>

**France:** The steps taken by France, including the dismantlement of its testing facilities in the Pacific and the withdrawal of the Hades system were irreversible measures. However none have been taken since these acts in the late 1990s.

**China:** China's statements in international disarmament fora affirms their support for the principle of irreversibility. However, due to the lack of public information about China's nuclear arsenal, steps toward irreversible disarmament cannot be ascertained.

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#### BUDGETING FOR NUCLEAR WEAPONS

*The U.S. DoE's nuclear weapons activities received US\$6.27 billion for the FY2004, including US\$7.5 million for Robust Nuclear Earth Penetrator research, US\$6 million for low-yield nuclear weapons research, and US\$24.9 million to decrease the test readiness from 36 months to 24 months. Bush proposed to increase nuclear weapons spending by 5% in fiscal year 2005, to US\$6.6 billion.*

## STEP #6: TOTAL ELIMINATION

*An unequivocal undertaking by the NWS to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.*

**U.S.:** The Los Alamos National Laboratory in New Mexico has a capacity to produce 50 or more plutonium pits- the nuclear explosive "triggers" at the heart of nuclear weapons- per year. In addition, plans are underway to construct a new Modern Pit Facility (MPF), which is intended to produce up to 400 nuclear pits a year. For the 2004 budget, Congress passed US\$10.8 million for a new MPF, cutting the Administration's original request by 52%. The government also is considering smaller capacity plants, with single shift capacities of 125 or 250 pits per year.

In 2003, the U.S. Congress repealed the 1993 Spratt-Furse amendment that banned research and development on low-yield nuclear weapons. The Congress passed US\$6 million for the research of these misnamed "mini-nukes", which would require modifications of existing warhead designs, namely, the B61-Mod 11.

Under the Moscow Treaty, the rate of reduction is slower than under START, which would have obliged each country to reduce their strategic arsenals to 1700-2200 by 2007. SORT provides for the same reductions by 2012. The abandonment of START, which provided for quicker and irreversible reductions, runs contrary to an "unequivocal undertaking" to eliminate nuclear arsenals.

The Air Force Space Command is also discussing the development of a Minuteman IV, which would be a cross between the MX missile and the Robust Nuclear Earth Penetrator (RNEP) in development at Los Alamos.<sup>(14)</sup>

**Russia:** The nuclear arsenal of the Russian Federation is subject to fewer cuts over a longer period of time under the Moscow Treaty than it was under START agreements.

In February, 2004, Russia tested a new warhead that is

designed to evade missile defenses. Boasting technology that no other country in the world possesses, the new nuclear warheads would render the U.S.'s missile defense system useless. The high-profile research and development of these warheads, which could be perceived as part of a new 21st century arms race, runs contrary to an "unequivocal undertaking."

In December of 2003, Russia deployed new Topol-M intercontinental nuclear missiles after a two-year break. Defense Minister Sergei Ivanov declared that "Only such weapons can ensure and guarantee our sovereignty and security and make any attempts to put military pressure on Russia absolutely senseless."

**U.K.:** The "Strategic Defence Review" concludes "that total nuclear disarmament remains a utopian aim. Before disarming, there is a need to focus on creating the political climate that engenders lasting trust between States. With little sign of such a climate being created, Britain will retain nuclear weapons for the foreseeable future primarily because of the status and confidence they bring and as insurance in the unlikely event of needing deterrence."<sup>(15)</sup>

The Ministry of Defense also states: "Considerable further cuts in the U.S. and Russian stockpiles will be needed before more British reductions could become possible."

In June 2003, the Observer and the Guardian reported that the Atomic Weapons Establishment was planning to produce non-strategic "mini-nukes" at Aldermaston.

A December 2003 MoD White Paper stated that a decision about a replacement for Trident would be made in the next parliament.

**France:** France has not made any cuts since those initiated in the period 1996-1998.

While France renounced the development of low-yield nuclear weapons on February 2, 2004, France continues the preliminary research of them at the CESTA research facility, where they are exploring the possibility of using lasers in a thermonuclear fusion.

New French nuclear missile submarines continue to enter service. The purchase of the first M51 missiles will happen during this year. This missile will be equipped with a new warhead, the Tete Nucleaire Oceanique (TNO).

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*"Britain will retain nuclear weapons for the foreseeable future primarily because of the status and confidence they bring and as insurance in the unlikely event of needing deterrence."*

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DEFENCE REVIEW

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France is also continuing tests for the new ASMP-A air launched nuclear missile, which will be equipped with a new warhead, the Tete Nucleaire Aeroportee (TNA), increasing the range and capability of France's nuclear forces. And, according to a recent report of the French National Assembly, the French nuclear deterrent force will be assured until 2040 by the work now being undertaken. (17)

**China:** China maintains that the two countries with the biggest arsenals must shoulder the responsibility to make further cuts before it will do so. In the past, China has demonstrated support for a Nuclear Weapons Convention in the General Assembly.

According to U.S. intelligence, China is improving its nuclear arsenal both quantitatively and qualitatively. A Pentagon report issued July 19, 2002 claimed that China might triple its ICBM arsenal by the end of the decade. According to a December 2001 National Intelligence Estimate, the Chinese ballistic missile force could target 75-100 warheads at the U.S. by 2015, if China proceeds with its development of multiple warhead missiles.

The Pentagon report also states that the longer-range CSS-4 Mod 2 will replace the CSS-4 Mod 1 in 2005. By 2010, China may modify the DF-31 into an extended-range ICBM or SLBM. (18)

## STEP #7: START II, START III, AND ABM PRESERVATION

*The early entry-into-force and full implementation of START II and the conclusion of START III as soon as possible while preserving and strengthening the Anti-Ballistic Missile (ABM) Treaty as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons, in accordance with its provisions.*

**U.S.:** Although the Senate ratified START II in January of 1996, and the Duma conditionally ratified it in April 2000, the treaty never entered into force. The U.S. announced its withdrawal from the ABM Treaty on December 14, 2001, in order to legally pursue the development of space-based missile defense system. The withdrawal was effective as of June 14, 2002, and as a direct effect, Russia declared START to be null and void. (19) The FY 2004 budget, passed by U.S. Congress, allocates \$9 billion for missile defense systems, which is up 80% from FY2001.

**Russia:** The U.S.'s unilateral withdraw from the ABM treaty was regarded as an "erroneous decision" that "has not been determined by the search of a response to actual missile threats (but rather) is reflecting a certain approach, a unilateral one, which runs contrary to the security interests of other countries and international security in general." (20)

On June 13, 2002, the day after the U.S.'s withdrawal, Russia announced that START II was null and void.

**U.K.:** The U.K. did not protest the U.S.'s withdrawal from the ABM Treaty. A spokesperson for Prime Minister Tony Blair said that "What is important is the maintenance of strategic stability rather than a particular framework to achieve that." The December 2003 White Paper on Defence states that, "missile defence technology is a growing area of interest following the ending of the Anti Ballistic Missile Treaty," signifying the U.K.'s probable participation in the development of missile defenses with the United States, which is already using the British facilities at Menwith Hill and Fylingdales for missile defense purposes.

**France:** France vocalized only modest apprehension to the U.S.'s withdrawal from the ABM Treaty, stating that France hoped that a "binding international instrument" would replace it.

**China:** Despite its vocal opposition to the U.S.'s intent to withdraw from the ABM Treaty, once the withdrawal was final, China quieted its objections. China remains an adamant, leading supporter of a PAROS mandate, which would ban all weapons from outer space.

#### THE DISSOLUTION OF THE ABM TREATY

*When the U.S. began talking about withdrawing from the ABM Treaty, critics held that such a move would re-trigger a new arms race. Now, two years after the ABM Treaty dissolved, the U.S. is proceeding with its plans to develop a multi-billion dollar Missile Defense System. In direct response, Russia has developed a new warhead that they boast can beat any missile defense. According to First Deputy Chief of Staff Colonel-General Yury Baluyevsky, the warhead is "part of our unilateral response to the creation or future creation of a missile defense system by any state or bloc of states."*

## STEP #8: TRILATERAL INITIATIVE

*The completion and implementation of the Trilateral Initiative between the United States of America, the Russian Federation, and the International Atomic Energy Agency.*

**U.S.:** In September 2002, the three parties to the Trilateral Initiative announced that the preparatory work was nearly complete. However, the initiative has not yet been implemented due to technical discussions regarding IAEA inspectors' access to plutonium, which still is still considered classified upon removal from weapons.

In September 2000, the U.S. and Russia agreed to each 'dispose' <sup>(21)</sup> of 34 metric tons of plutonium beginning in 2007. Although this is a welcome measure, the disposition of 34 metric tons is a minute fraction of the total plutonium holdings of both the U.S. and Russia.

**Russia:** Russia prefers to dispose of these materials through reprocessing into mixed-oxide fuel, which is more expensive and carries higher risks of proliferation. Since it is possible to separate MOX fuel for its components, it is not considered irreversible disposition. Furthermore, it is also possible to divert plutonium from MOX during the fuel cycle or during its transport. <sup>(22)</sup>

**U.K.:** This step is not applicable to the U.K., as it is a Trilateral Initiative between the U.S., Russia, and the IAEA.

**France:** This step is not applicable to France, as it is a Trilateral Initiative between the U.S., Russia, and the IAEA.

**China:** This step is not applicable to China, as it is a Trilateral Initiative between the U.S., Russia, and the IAEA.

## STEP #9: STEPS

*Steps by all the Nuclear Weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all.*

### *Step 9(a)*

*Further efforts by Nuclear Weapon States to reduce their nuclear arsenals unilaterally.*

**U.S.:** The Nuclear Posture Review calls for the elimination of Peacekeeper ICBMs, 4 Trident SSBNs from strategic service, and downloading weapons from Trident SLBMs, Minuteman III ICBMs, and B-52H and B-2 bombers. By 2007, there will be 3,800 operationally deployed warheads, by 2012, 1700-2200. These unilateral cuts were planned before the signing of the Moscow Treaty; however, they are now included as part of the reductions called for in that treaty.

Several hundred warheads await disassembly at the Pantex Plant near Amarillo, Texas, including the W56 and W79 warheads, around 36 B53 bombs, and some excess non-strategic B61 bombs. These warheads should have been dismantled by 2000, but for various reasons, the schedule has been extended. (23)

These cuts however are not irreversible (see Step 5). The Defense Department's program called "Operationally Responsive Spacelift," (ORS) calls for using the retired Minuteman III rockets for a variety of new missions, including first-strike nuclear assaults. (24)

**Russia:** There have been no unilateral cuts in the Russian nuclear arsenal, although the total number of warheads reportedly decreases slightly each year, due to the lack of resources needed for maintenance.

**U.K.:** The U.K. has not made any further unilateral cuts in its arsenal since the 2000 Review Conference. In the 1990s, it had cut back the nuclear arsenal to fewer than 200 weapons, downgraded its surface ships from nuclear capabilities, and dismantled all of its air-

launched nuclear weapons. The only nuclear system it currently maintains is the Trident.

The Labor Government's Strategic Defence Review of 1997 lowers the maximum number of nuclear warheads on its Trident submarines from 96 to 48. Trident II missiles have been reduced from 65 to 58.

No further progress has been made since this announcement in 1999.

In 2002, the U.K. government stated, "Having reduced our nuclear weapons to a single system at the minimum level necessary for the U.K.'s national security, further unilateral steps we can take now without compromising that security are limited."

**France:** There have been no further unilateral cuts since those of 1996-1998.

**China:** China repeatedly insists that those that countries having the largest nuclear arsenals "bear a special and primary responsibility toward nuclear disarmament, and that they should take the lead in drastically reducing their nuclear arsenals and destroy the reduced nuclear weapons." (25)

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### *Step 9(b)*

*Increased transparency by the Nuclear Weapon States with regard to their nuclear weapons capabilities and the implementation of agreements pursuant to Article VI and as a voluntary confidence-building measure to support further progress on nuclear disarmament.*

**U.S.:** The Moscow Treaty fails to incorporate any transparency measures to verify the "cuts" in nuclear arsenals. All information on compliance is submitted voluntarily and will not be verifiable.

Nuclear warheads under the control of the Navy are encased in hard covers that obstruct, and ostensibly prevent inspections. The Verification, Research,

Training and Information Centre (VERTIC) reports that Russian inspection teams have not certified a single re-entry vehicle inspection of Trident II SBLM. (26)

The United States withholds all CTBTO funding regarding On-Site Inspections.

In the last few years, the Department of Energy has increasingly released specific data on its warhead production and retirement. (27)

**Russia:** Russia is not obligated to verify any of the cuts made under the Moscow Treaty.

The Russian Federation has still not released information about the size of its stockpile, although the separated military plutonium stockpile is estimated at 106-156 tons. (28)

**U.K.:** The U.K. is undergoing significant work in the field of verification (See Step 13), an important step in the promotion of transparency. The U.K. has also submitted informal reports (see Step 12) to both PrepComs, another important transparent measure. The Strategic Defence Review states that a component of Britain's nuclear deterrent includes "being much more open about Trident and other nuclear issues."

**France:** The activities that take place on France's former testing grounds in the Pacific, closed since 1996, are fully transparent. There is also a significant amount of public information in regards to France's nuclear capabilities.

However, the nuclear research undertaken at facilities in Bordeaux is highly secretive and not subject to any measures of cooperation or transparency.

**China:** There is very little public information released about China's nuclear arsenal, making it arguably the most opaque NWS.

### Step 9(c)

*The further reduction of non-strategic nuclear weapons, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process.*

**U.S.:** In January, 2003, the U.S. completed dismantling all non-strategic nuclear weapons under the 1991

\_\_\_\_\_ *"A formal arms control approach to non-strategic nuclear weapons, as called for in (GA resolution 58/50), would present problems of definition, fundamental verification problems, issues of access to sensitive facilities, vast force level asymmetries, and other major obstacles." - U.S. representative Sherwood McGinnis, in his Explanation of Vote (EoV) to the First Committee on draft resolution 58/L.39, October, 2003.*

Presidential Nuclear Initiative; 90% of the total tactical arsenals has been reduced by 90%.

The U.S. maintains the position that a legal agreement on tactical weapons is "not possible" because tactical reductions are difficult to verify. (29)

Approximately 1,500 tactical warheads remain, including approxi-

mately 150 deployed in Europe under the NATO nuclear sharing umbrella. (30)

**Russia:** Guided by the principles of the Presidential Initiatives (of 1991), more than 30% of nuclear munitions of tactical sea-launched missiles and naval air force have been eliminated, and all tactical nuclear munitions previously deployed outside Russia have been brought back to its territory and are being eliminated. In addition, the production of nuclear munitions for tactical ground-launched missiles, nuclear artillery shells and nuclear mines has been completely stopped, and the destruction of nuclear reentry vehicles for tactical missiles and nuclear artillery shells, as well as nuclear mines, continues.

**U.K.:** The U.K. has had no tactical nuclear capabilities since 1999.

**France:** France maintains 24 air-launched tactical nuclear weapons (the Super Etendard).

**China:** Although exact figures are not known, it is believed that China possesses approximately 100-300 tactical nuclear weapons.

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*Step 9(d)*

*Concrete agreed measures to further reduce the operational status of nuclear weapons systems*

**U.S.:** The U.S. does not believe that general de-alerting contributes to stability. (31) In its "Information Paper" to the 2003 PrepCom, the U.S. maintained that "the United States does not target any country on a day-to-day basis."

The alert status of NATO's nuclear weapons has been lengthened to months.

Since, the January 14, 1994 U.S.-Russia Declaration, both countries claim that "they would direct the detargeting of strategic nuclear missiles under their respective commands so that by not later than May 30, 1994, those missiles will not be targeted".

However, it is reported that the U.S. has some 2,000 missiles armed with nuclear warheads that remain on high alert, ready to launch within 15 minutes. It is estimated that by 2012, this number will be reduced to 900. (32)

A recent story in the press reports that the Pentagon is deliberating the prospect of keeping as many as 800 warheads on the 500 Minuteman III ICBMs. (33)

The launch time of NATO's nuclear-capable delivery aircraft increased from minutes to months.

**Russia:** Since the January 14, 1994 U.S.-Russia Declaration, both countries claim that "they would direct the detargeting of strategic nuclear missiles

under their respective commands so that by not later than May 30, 1994, those missiles will not be targeted". Russia signed similar agreements with the U.K. (February 1994) and China (during the Moscow summit 2-6 September 1994).

It is widely believed that Russia keeps its nuclear forces on hair-trigger alert, ready to launch in only a few moments' notice.

*"The vulnerability of Russian forces is exacerbated by the increasing capability of U.S. forces to deliver accurate and devastating strikes. This increases pressure on Russia's hair-trigger."*

- U.S. SENATOR SAM NUNN

As of 2002, Russia retains only two operational early-warning satellites-Cosmos-2368 on highly-elliptical orbit and Cosmos-2379 on geostationary orbit. (34)

**U.K.:** Under the 2002 Strategic Defence Review, the U.K. reduced readiness of its Trident submarine missiles from minutes to days.

**France:** No weapons have been targeted since 1997. (35)

**China:** On 30 July, the US Defense Department released its annual assessment of the Chinese military, which stated that China has deployed about 450 short-range ballistic missiles with conventional warheads capable of striking Taiwan, and is expected to expand that force by 75 missiles a year for the next few years. China is also developing an advanced medium range version of the missile and is reportedly building new intercontinental ballistic missiles.(36)

Step 9(e)

*A diminished role for nuclear weapons in security policies to minimize the risk that these weapons ever be used and to facilitate the process of their total elimination.*

**U.S.:** The U.S. retains the nuclear option in retaliation against a biological or chemical weapons attack, as well as the use of nuclear weapons in their preventative war doctrine. States that are even suspected of possessing WMD risk nuclear attack by the United States.

The research and development of low-yield weapons also blur the line between conventional and nuclear forces, thereby lowering the threshold for nuclear weapons use.

The NPR, the cornerstone of U.S. nuclear policy, refers to nuclear weapons as "indispensable" to U.S. national security.

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*"Only such weapons can ensure and guarantee our sovereignty and security and make any attempts to put military pressure on Russia absolutely senseless."*

- DEFENSE MINISTER  
SERGEI IVANOV, WHEN  
RUSSIA RE-DEPLOYED  
TOPOL MS AFTER A TWO  
YEAR BREAK.

**Russia:** Russia maintains the central role of deterrence in its national security strategy, as articulated in the National Security Concept, first developed by Boris Yeltsin in 1997, and updated and reaffirmed by Vladimir Putin in 2000.

In addition, a military doctrine published April, 2000 reserves the right to

use nuclear weapons in response to a first-strike nuclear, biological or chemical attack, or any attack that threatens the national security of the Russian Federation.

The 2000 National Security Concept lowers the threshold for nuclear weapon use. In 1997, the policy stated that nukes could be used only in "a threat to the very existence of the Russian Federation as an inde-

pendent sovereign state." In 2000, the "very existence" language was removed, thereby allowing for nuclear weapon use in any conflict when "all other measures...have been exhausted or proven ineffective."

The cornerstone of current Russian nuclear policy focuses on defending the country from a nuclear attack by NATO.

According to Russian officials, including President Putin, their new maneuverable multiple re-entry vehicles that were tested in February 2004 would ensure national security. (See Step 6)

**U.K.:** The White Paper released in December, 2003 states that "The continuing risk from the proliferation of nuclear weapons, and the certainty that a number of other countries will retain substantial nuclear arsenals, mean that our minimum nuclear deterrent capability, currently represented by Trident, is likely to remain a necessary element of our security." (para 3.11, p. 9)

Likewise, in "The Strategic Defence Review: A New Chapter," the U.K. reaffirms the major role of nuclear deterrence in British national security. Captain Andrew Mathews of the Royal College of Defence Studies notes that while nuclear disarmament is "desirable," the political climate is not yet ripe for such a "utopian" goal. (37)

**France:** Both "New Defence 1997-2015" and "The Military Programme

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*"The Great Powers who have nuclear weapons are not in the least thinking of abandoning them... regarding deterrent, there is no new doctrine being studied."*

- FRENCH MINISTER OF  
DEFENSE  
MICHÈLE ALLIOT-MARIE

Law 2003-2008" reaffirm nuclear "dissuasion" as the fundamental guarantee of France's national security strategy. When, in February 2004, France renounced the development of low-yield nuclear weapons, Minister of Defense Michèle Alliot-Marie maintained that France was not renouncing its nuclear capability altogether. "Indeed, only the

nuclear deterrent can guarantee that, in extreme circumstances, our country can rely on its own forces to make sure its survival and the defense of its vital interests." (38)

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*"The possibility of turning nuclear weapons back into a real military tool should not be ruled out. This trend is very dangerous in that it undermines global and regional stability. Even a minor reduction in the threshold for the use of nuclear weapons would require Russia to revise its armed units command system and the principles governing the combat use of its units."*

-RUSSIAN DEFENSE MINISTER  
IVANOV

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weapons, China argues that while it is committed to nuclear disarmament, its small, opaque nuclear arsenal "is vitally important to maintain the global strategic balance and stability." (40)

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*Step 9(f)*

*The engagement as soon as appropriate of all the Nuclear Weapon States in the process leading to the total elimination of their nuclear weapons*

There has been no attempt- by any of the five NWS- to engage one another in the process leading to the total elimination of their nuclear weapons.

## **STEP #10: FISSILE MATERIALS UNDER IAEA TO REMAIN PERMANENTLY OUTSIDE OF MILITARY PROGRAMS**

*Arrangements by all Nuclear Weapon States to place, as soon as practicable, fissile materials designated by each of them as no longer required for military purposes under IAEA or other relevant international verification and arrangements for the disposition of such material for peaceful purposes, to ensure that such material remains permanently outside of military programs.*

**U.S.:** In March 1995, 200+ metric tons of HEU and plutonium were declared as surplus. In 1998, the U.S. agreed to remove approximately 50 metric tons of plutonium from weapons programs and irreversibly convert it into non-weapons grade form. In June 2000, the U.S. agreed to dispose of 34 tons of plutonium.

Approximately 30 tons of excess HEU has been converted, and another 33 tons are expected to be converted by 2007. (41)

The DoE has proposed a 10-year plan which would allow up to 3,300 pounds of plutonium to be stored at the Lawrence Livermore Laboratory at any one time, an increase in quantity from the 1,540-pound standard that has been in place for years. It would also triple the amount of plutonium that scientists may work with at any one time, increasing the amount that is more likely to be in an accident, from 44 pounds to 132 pounds.(42)

A US\$1.6 billion nuclear fuel conversion plant to be built at the Savannah River Site will open on schedule despite an ongoing liability dispute between the United States and Russia, according to a Department of Energy report to Congress.

At the Savannah River Site, a U.S.\$1.6 billion mixed oxide plant will convert plutonium from deactivated nuclear weapons to be used in commercial nuclear reactors by January 2009.

On March 4, 2004, the U.S. Senate Foreign Relations

Committee unanimously approved the IAEA Additional Protocol, paving the way for ratification by the Senate. The protocol contains a "national security exclusion clause," which allows the U.S. to bar inspectors if they deem them a threat to national security.

**Russia:** Russia signed the Additional Protocol in March of 2000, but they have yet to ratify it.

**U.K.:** U.K. has signed and ratified the IAEA Additional Protocol; however, as the Protocols for all E.U. countries enter-into-force through an IAEA-EURATOM arrangement, (43) the Protocol has yet to enter-into-force.

**France:** France ratified the IAEA Additional Protocol on April 10, 2003, but it has not yet entered-into-force (see above).

**China:** On March 28, 2002, the IAEA Additional Protocol entered-into-force, making China the first NWS to ratify. Only single-use items are subject to reporting under the Protocol.

China has not declared any materials to be in excess.

commitment to general and complete disarmament.

The U.S. is party to the BTWC and the CWC. The U.S. did not support a Protocol to the BTWC at the last Review Conference. The U.S. is not a party to the Ottawa Convention to prohibit landmines.

**Russia:** Russia is party to BTWC, CWC, and the Ottawa Convention.

**U.K.:** The U.K. is party to BTWC, CWC, and the Ottawa Convention.

**France:** France is party to BTWC, CWC, and the Ottawa Convention.

**China:** is party to BTWC, CWC, but not the Ottawa Convention.

CHINA CARRIED OUT AT LEAST FIVE MISSILE TESTS SINCE JANUARY, 2004 AS PART OF A MAJOR BUILDUP OF MISSILE FORCES BEFORE A VOTE IN TAIWAN ON THE MAINLAND MISSILE THREAT, U.S. INTELLIGENCE OFFICIALS SAID IN MARCH. THE TEST FIRINGS INCLUDED FOUR TYPES OF MISSILES, INCLUDING BEIJING'S NEW DF-31 INTERCONTINENTAL BALLISTIC MISSILE AND AT LEAST ONE NEW TYPE OF WARHEAD.

*"There is a big push underway and missile development and testing is a large part of their military modernization effort," one official said. (44)*

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## **STEP #11: REAFFIRM ULTIMATE OBJECTIVE OF GENERAL AND COMPLETE DISARMAMENT UNDER EFFECTIVE INTERNATIONAL CONTROL**

*Reaffirmation that the ultimate objective of the efforts of the States in the disarmament process is general and complete disarmament under effective international control.*

**U.S.:** The United States, with annual military expenditures reaching US\$400 billion- nearly six times that of its closest competitor, is hard pressed to assert its

## STEP #12: REPORTING

*Regular reports, within the framework of the NPT strengthened review process, by all States parties on the implementation of Article VI and paragraph 4 (c) of the 1995 Decision on "Principles and Objectives for Nuclear Non-Proliferation and Disarmament", and recalling the Advisory Opinion of the International Court of Justice of 8 July 1996.*

**U.S.:** Despite the U.S.'s objection to reporting that nearly brought the 2002 PrepCom to a halt, in 2003 the U.S. submitted both an "Information Paper Concerning Article VI" as well as a Fact Sheet on "U.S. Actions and Policies in Support of Its NPT Article VI Obligations Related to Nuclear Disarmament." (45)

**Russia:** Russia referred to the statement that it made during the special time devoted to disarmament as a report. The statement offered no information on stockpiled weapons, citing only that it had fulfilled its START I requirements: 1,136 deployed strategic delivery systems and 5, 518 re-entry vehicles.

Russia has indicated that it will submit a report to the 2004 PrepCom.

**U.K.:** At the 2003 PrepCom, the U.K. referred to the statement that it made during the special time devoted to disarmament as a report. (46)

**France:** At the 2002 PrepCom, France threatened to block the program of work at the 2002 PrepCom meeting of the NPT if the issue of reporting was included in the discussions. At the 2003 PrepCom, during the special time for disarmament, France referred to its state-

*"States Party have rightly expressed interest in reporting on disarmament measures by all states, as well as reporting on other measures linked to the Treaty."*

- THE U.K. AT THE 2003 PREP COM

ment as a report, (47) although it did not offer any quantitative information on its holdings, citing only the "principle of strict sufficiency...determines the format of the French nuclear arsenal."

**China:** At the 2002 PrepCom, China agreed with the United States that "specifics, format and frequency" should be determined by the individual states.

While China did not submit formal reports at either of the past two PrepComs, it did offer statements, which can be regarded as informal reports. (48) The statement, however, did not divulge any quantitative details of its arsenal.

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## STEP #13: DEVELOPMENT OF VERIFICATION CAPABILITIES

*The further development of the verification capabilities that will be required to provide assurance of compliance with nuclear disarmament agreements for the achievement and maintenance of a nuclear-weapon-free world.*

**U.S.:** Despite its withholding of monies for On-Site Inspections, the U.S. does contribute financially to the CTBTO and the International Monitoring System.

It is believed that the U.S. is undertaking verification research at the Sandia National Laboratory, including the Cooperative Monitoring Center, and at the Lawrence Livermore Laboratory, but this research is classified and not publicly available.

There are no verification measures called for under the Moscow Treaty.

**Russia:** There are no verification measures called for under the Moscow Treaty, partly due to Russian

objections over warhead production and storage facilities inspections. U.S. proposals for a data exchange mechanism under START III were rejected outright.

**U.K.:** At the AWE laboratories at Aldermaston, the U.K. is conducting a program to enhance the efficacy of various warhead authentication work. They submitted a working paper on their progress (NPT/CONF.2005/PC.II/WP.1) to the 2003 PrepCom and will submit a full report at the 2005 conference.

The U.K.'s paper on verification measures was based on recent studies conducted by the Ministry of Defence on the Chevaline, WE177 and Trident systems (the first two of which have been decommissioned). The study is based on the assumption that there will be "future arrangements seeking to reduce and ultimately eliminate stockpiles of nuclear weapons," and that capabilities to verify these arrangements will be necessary. The study has focused so far on warhead authentication, i.e. "establishing that an item declared to be a nuclear warhead or component from a warhead is consistent with those declarations." It indicates that such authentication is technically possible. Further work will cover the more difficult tasks of verifying warhead dismantlement, fissile material and disposition, and the ongoing monitoring of nuclear complexes.

When the UK announced the study in 2000, Australia suggested that other States could use their experience to assist in the development of verification capabilities. So far the U.K. does not seem to have responded to this suggestion but is continuing its study on a unilateral basis.

**France:** The French have not made public any research on verification programs that they might be undertaking. As the French have been dismantling the missile-based leg of their arsenal, just as the British are dismantling the Chevaline, they could be using this opportunity as the British are using theirs. However, no public information on this is available.

**China:** There is no public information available regarding Chinese verification developments.

*This report is available on our  
website at:  
[www.reachingcriticalwill.org](http://www.reachingcriticalwill.org)*

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