BASIC British American Security Information Council

GETTING TO ZERO

Multilateralizing Nuclear Arms Control

An Agenda for the P5

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Executive Summary

As the world's established nuclear weapon states, the only nuclear weapon state signatories of the Nuclear Non-Proliferation Treaty (NPT) and the permanent members of the UN Security Council, the United States, Russia, China, France and the UK (the P5) are central to global nuclear politics and have a particular responsibility for advancing nuclear arms control and disarmament. In this context, the London September 2009 and Paris June/July 2011 meetings of P5 representatives to discuss nuclear arms control and disarmament represent the emergence of a potentially important process.

From a medium-term perspective – the next one to two decades – the P5 should pursue a shift towards a world of much smaller nuclear arsenals, numbering in the hundreds of nuclear warheads each for the five established nuclear weapon states. This might involve the United States and Russia reducing their nuclear forces to 500 warheads (or less) each, with comparable capping of or reductions in the Chinese, French and British nuclear forces. Such a shift would stabilise existing major power deterrent relationships, prevent possible new nuclear arms races, help to prevent nuclear proliferation and reduce the risk of nuclear terrorism.

As the countries with still by far the largest nuclear arsenals, the United States and Russia have the largest responsibility for advancing this agenda and should pursue further bilateral reductions. A next round of US-Russian reductions might involve reducing overall warhead levels to somewhere in the range of 1500-3000 each, with a lower sub-limit for deployed strategic warheads.

China, France and the UK, and the P5 collectively, however, also have a responsibility to advance the

global nuclear arms control and disarmament agenda. The United States and Russia are likely to require assurance that China, France and Britain will act with similar restraint before they will agree to further reductions in their own nuclear forces.

In order to advance the global nuclear arms control, disarmament and non-proliferation agenda and facilitate further US-Russia nuclear force reductions, the P5 should:

- establish a permanent, on-going 'P5 Dialogue on Nuclear Arms Control, Disarmament and Non-Proliferation', involving an annual meeting of top-level officials responsible for nuclear policy and more frequent meetings and/or information exchange between lower level officials and scientists;
- adopt a P5 'Statement of Principles on Nuclear Arms Control, Disarmament and Non-Proliferation' to guide discussion and action;
- establish a parallel 'track two' P5 nuclear dialogue process involving think tanks and non-governmental organisations (NGOs) to facilitate forward-looking discussion;
- agree warhead definitions and counting rules;
- develop a more general, but flexible, P5 transparency and verification regime;
- follow the model of 'unilateral steps in a multilateral context' (based on the principle of informal reciprocity), with individual P5 states encouraged to take national steps to increase transparency, or cap or reduce their nuclear arsenals, in the context of the overall P5 process;
- engage in detailed discussion on what makes up a world of low numbers, how to bring about the transition and how the obstacles (such as disagreements over missile defence) may be overcome;
- operate with the long-term aim of concluding a multilateral P5 agreement verifiably limiting the five states' nuclear arsenals, which could involve limiting US and Russian arsenals to 500 warheads each and China, Britain and France to 200 or fewer warheads each.

In the short-term, expanding the P5 dialogue to include the other states deploying nuclear weapons – India, Pakistan, Israel and North Korea – would overburden and unnecessarily complicate process. However, as matter of principle, it is important that *all* states with nuclear weapons should be brought into transparency/verification/constraint arrangements and that no state deploying nuclear weapons indefinitely remain outside such arrangements. Given the regional contexts in which these states have developed nuclear weapons, key aspects of this will be regional and/or bilateral:

- The other states deploying nuclear weapons should be encouraged to follow the P5 model of 'unilateral steps in a multilateral context'.
- Either at the point where the P5 were close to concluding a formal nuclear arms limitation agreement, or relatively shortly after it entered into force, the other states deploying nuclear weapons could be incorporated into that agreement.
- It may not be necessary to include North Korea or Iran, but, in political terms, concerns about their nuclear arsenals or programmes will need to be addressed if the P5 are to move towards a world of low numbers of nuclear weapons.

While the long-term aim of a P5 process should be to produce a formal multilateral agreement limiting the nuclear forces of the P5, the initial aims should be more modest:

- The short-term goal should be to encourage P5 dialogue on issues of nuclear policy, arms control and proliferation and to increase transparency regarding their nuclear arsenals.
- The medium-term goal should be to facilitate a process of reciprocal unilateralism – unilateral measures in a multilateral context – that allows states to reduce the salience of nuclear weapons,

reduce reliance on these weapons in their national security policies and reduce the numbers of nuclear weapons deployed in their arsenals.

Introduction

On the 30th June to 1st July 2011 representatives of the United States, Russia, China, France and the United Kingdom met in Paris to discuss nuclear arms control.[1] This followed an earlier P5 meeting on nuclear arms control in London in September 2009 – the first of its kind.[2] As the world's established nuclear weapon states, the only nuclear weapon state signatories of the Nuclear Non-Proliferation Treaty (NPT) and the permanent members of the UN Security Council (the P5), these five countries are central to global nuclear politics and have a particular role to play in advancing nuclear arms control and disarmament. The London and Paris meetings therefore represent the beginning of a potentially important process. How far and in what ways the P5 dialogue on nuclear weapons will evolve, however, remains to be seen.

The emergence of the P5 nuclear dialogue comes at an important time in terms of nuclear arms control, disarmament and non-proliferation. The ratification and entry into force of the US-Russian New Strategic Arms Reduction Treaty (New START) in late 2010-early 2011 was an important step forward in terms of nuclear arms control and disarmament, but also raises the question where next? The 'gang of four' (Shultz-Perry-Kissinger-Nunn) initiative and President Barack Obama's April 2009 Prague speech put further reductions in nuclear arsenals and the possibility of a nuclear weapon free world firmly on the international political agenda, but did not lay out a clear way forward beyond the New START Treaty.[3] The adoption of an agreed document at the 2010 NPT Review Conference represented a modest success (as opposed to the complete failure that many feared), but without continued political effort and momentum this could easily become yet another largely unimplemented NPT Review Conference document, and thereby a cause for deeper cynicism and reduced inclination from some other leading states to cooperate. At the same time, the world remains at a potential tipping point in terms of nuclear proliferation: Pakistan is expanding its nuclear arsenal, raising the prospect of an intensifying Indo-Pakistan nuclear arms race; the six-party talks in relation to North Korea are stalled, leaving the country with at least a nascent nuclear arsenal; and Iran's efforts to develop an indigenous full nuclear fuel cycle remain on-going and could give it the capacity to cross the nuclear threshold in the next few years. Beyond these countries, concerns raised about the nuclear activities of states such as Syria, Myanmar, Venezuela and the United Arab Emirates (UAE) suggest that there is a second tier of countries that could in certain circumstances attempt to 'go nuclear'. Notwithstanding the recent Fukushima nuclear accident, further, the problems of climate change and declining oil supplies suggest that a significant expansion of nuclear power and consequent proliferation risks may be likely in the medium-term.

This paper reviews the current situation in relation to nuclear arms control and disarmament and makes recommendations for the development of an on-going 'P5 Dialogue on Nuclear Arms Control,

[1] This paper was completed before the Paris meeting and therefore does not take into account statements or documents arising from that meeting.

[2] P5 Statement on Disarmament and Non-Proliferation Issues, 3 September 2009, UK Foreign and Commonwealth website, http://www.fco.gov.uk/en/news/latest-news/?view=News&id=20804873

[3] George P. Shultz, William J. Perry, Henry A. Kissinger and Sam Nunn, 'A World Free of Nuclear Weapons', *The Wall Street Journal*, 4 January 2007 and George P. Shultz, William J. Perry, Henry A. Kissinger and Sam Nunn, "Deterrence in the Age of Nuclear Proliferation," *The Wall Street Journal*, 7 March 2011 and Remarks by President Barack Obama, Hradcany Square, Prague, Czech Republic, 5 April 2009, White House website http://www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered/

Disarmament and Non-Proliferation'. The paper argues that the goal of deep reductions in nuclear weapons should be pursued in order to stabilise nuclear relations amongst the existing nuclear weapon states and help to prevent nuclear proliferation and nuclear terrorism. This would involve the United States and Russia reducing their nuclear arsenals to 500 warheads or less each, with comparable capping of or reductions in the nuclear arsenals of China, France and the UK (and the other nuclear weapon states, India, Pakistan and Israel). As the countries with still by far the largest nuclear arsenals, the United States and Russia have the greatest role to play in moving towards this objective. The distinct status of the P5 in global nuclear politics, however, means that they also have an important collective role to play in this process. In addition, all states that deploy nuclear weapons should recognise the contribution they make to driving proliferation and the particular responsibility they have for advancing nuclear arms control and disarmament.

The development of an on-going P5 dialogue on nuclear weapons and arms control would be a symbol of commitment to the goal of nuclear disarmament by the recognised nuclear weapon states and an important political signal to all other states. It would also help to link together the different elements of the nuclear agenda – arms control/disarmament, non-proliferation, nuclear security and nuclear power – as a whole and should have positive spin-off in terms of advancing negotiations in other contexts (such as the NPT, ratification and entry into force of the Comprehensive Nuclear Test Ban Treaty (CTBT) and a possible Fissile Material Cut-off Treaty (FMCT)). With the entry into force of the New START Treaty, further, we have reached the point where the Chinese, French and British nuclear arsenals are becoming a factor in US-Russian nuclear arms control. While it would be premature to bring China, France and the UK into formal reduction negotiations with the United States and Russia at this stage, if Washington and Moscow are to further reduce their nuclear forces they may require political reassurance that the other nuclear weapon states will act with similar restraint. Indeed, the Russians have already explicitly pointed to this condition when asked about the next stage of negotiations. A P5 process of dialogue and transparency can play an important role in providing that reassurance. The longer-term aim of the P5 process, once the United States and Russia have further reduced their nuclear arsenals, should be to produce a formal P5 agreement limiting the nuclear arsenals of the five states. At that stage it will also probably be necessary to draw the other states with nuclear arsenals into the process – specifically India, Pakistan and Israel, but perhaps also North Korea and any other states that have recently crossed the nuclear threshold. Alongside, other states important to global nuclear politics, such as Germany, Japan, Egypt, Turkey, Brazil and South Africa, should also be included in recognition that a position at the negotiating table is not bought by possession of nuclear weapons and that these non-nuclear weapon state perspectives have an important contribution. In the short-to-medium term, however, there is much that the P5 can do to advance measures of transparency, confidence-building and restraint in relationship to nuclear weapons and this paper makes recommendations to this end.

Nuclear Arms Control: Where Next?

While a welcome and important achievement, the New START Treaty was also the low-hanging fruit of nuclear arms control: a treaty that the United States and Russia could agree relatively quickly and easily, without either side having to make significant concessions and largely formalising force levels that both sides were moving towards in any case. Today, the United States and Russia still have total nuclear forces in the order of 10,000 nuclear warheads each and deployed nuclear forces of over 2000 warheads for the United States and over 4000 warheads for

Table. Global Nuclear Forces

	Deployed nuclear warheads 2010	Total nuclear warheads 2010 (inc. in reserve & awaiting dismantlement)	US-Russian nuclear arms control agreements: treaty-accountable deployed nuclear warheads			
			START I	START II	SORT	New START
United States	2,468	<9,600	6,000	3,000-3,500	1,700-2,200	1,550
Russia	4,630	<12,000	6,000	3,000-3,500	1,700-2,200	1,550
UK	160	225				
France	240	300				
China*		240				
India*		60-80				
Pakistan*		70-90				
Israel*		80				

* China's nuclear warheads are thought to be stored independently of their launchers. India, Pakistan and Israel's nuclear warheads are thought to be only partly deployed.

Sources: Table 8.1. World Nuclear Forces, January 2010, and Table 9.1. Summary of Russian-US nuclear arms reduction treaties' force limits, Stockholm International Peace Research Institute (SIPRI), *SIPRI Yearbook 2010: Armaments, Disarmament and International Security*, (Oxford: Oxford University Press, 2010), p334 and p380; *Article-by-Article Analysis of the New START Treaty Documents*, US Department of State, http://www.state.gov/documents/organization/142041.pdf, and Hans Kristensen, "French Aircraft Carrier Sails Without Nukes," FAS Strategic Security Blog, 4 August 2009, http://www.fas.org/blog/ssp/2009/08/degaulle.php.

Russia (see the table). The New START limits will reduce US and Russian deployed strategic warhead levels somewhat below those of the preceding START I and Strategic Offensive Reductions Treaty (SORT) agreements.[4] Total US and Russian warhead numbers will presumably fall as New START is implemented, but will depend on how far the two states also reduce tactical and non-deployed warhead numbers (which are not covered by the New START Treaty or any other current agreement). Even when fully implemented, New START could leave the United States and Russia with total forces of 5,000 or more nuclear warheads each. By comparison, the nuclear forces of China, France and Britain are much smaller. Today, the deployed nuclear arsenals of the United States and Russia are each of the order of ten times the size of the British, French and Chinese nuclear forces combined. Even when the New START Treaty is fully implemented, the deployed strategic nuclear arsenals of the United States and Russia will each be approximately five times the size of those of Britain, France and China combined (assuming no major increases in their nuclear forces).

From a medium-term perspective – the next one to two decades – there is a strong case for pursuing a shift towards a world of much smaller nuclear arsenals, numbering in the hundreds of nuclear warheads each for the five established nuclear weapon states. This might involve the United States and Russia reducing their nuclear forces to 500 warheads (or less) each, with comparable capping of or reductions in the Chinese, French and British

[4] Formally New START limits only have to be fully applied by 2018 (seven years after the Treaty entered into force in February 2011), but US and Russian force levels are already in practice quite close to New START levels and both will likely reach these levels well before 2018.

nuclear forces. A shift toward such a world of low numbers of nuclear weapons would have a number of major advantages:

- It could stabilise existing major power deterrent relationships, reducing the risks of nuclear war (in particular between the United States, Russia and China).
- It would prevent possible new nuclear arms races, in particular between the United States and China, and India and Pakistan, by constraining countries such as China, India and Pakistan from significantly expanding their nuclear arsenals.
- It would enable the established nuclear weapon states, in particular the United States and Russia, to credibly show the larger international community that they were fulfilling their commitment under the NPT to pursue nuclear disarmament.
- It would advance the cause of non-proliferation by (i) increasing political pressure/constraints on potential proliferators and (ii) helping to persuade the majority of non-nuclear weapon states to support tougher political and economic enforcement action against proliferators.
- It would help to persuade the majority of non-nuclear weapon states to support strengthened international controls on nuclear materials and facilities, thereby advancing the twin objectives of constraining nuclear proliferation and preventing nuclear terrorism.

In contrast, the absence of further progress by the established nuclear weapon states in reducing nuclear arsenals will involve a number of risks. The United States and Russia would continue to maintain excessively largely nuclear arsenals, which – despite very significant reductions – are largely still a product of the Cold War. In the eyes of much of the rest of the international community the United States and Russia would be viewed as failing to live up to their NPT commitment to pursue nuclear disarmament. China, Pakistan and India would face few disincentives to expanding their nuclear arsenals and China in particular would have an active incentive - in the form of America and Russia's much larger nuclear stockpiles and likely development of new technologies that could threaten China's nuclear deterrent - to pursue such expansion. The failure to advance nuclear arms reductions will also undermine the cause of non-proliferation by making it more difficult to mobilise pressure against proliferators in the UN Security Council, the International Atomic Energy Agency (IAEA) Board of Governors and more generally, and by reducing the likelihood of agreement on a Fissile Material Cut-off Treaty (FMCT) and other new measures to control nuclear materials and facilities. In the absence of strengthened measures to control nuclear materials and facilities globally the risk of nuclear terrorism will also be greater than would otherwise be the case.

Some supporters of a nuclear weapon free world may argue that one should aim to move much more rapidly towards that goal. The necessary political support for a nuclear weapon free world does not yet exist and this is therefore not a realistic short-term objective. If a nuclear weapon free world can be achieved, further, this will only come about via the intermediate point of a world of low numbers of nuclear weapons. The medium-term objective of a world of low numbers has the advantage of being a desirable and more feasible objective in itself, without forejudging the possibility of a nuclear weapon free world.

Critics of deep reductions in nuclear weapons argue that moving towards a world of low numbers involves a number of risks. These include in particular that, in the absence of large numbers of weapons, the deterrent effect of nuclear weapons risks being undermined and that a world of low numbers could actually be more unstable than the current situation because the vulnerability of small nuclear arsenals would increase incentives to strike pre-emptively in a crisis. While it is beyond the scope of this paper to examine these arguments in detail,

two points may be made. First, the arguments about the risks of undermining deterrence, including extended deterrence, are almost certainly exaggerated. As James Acton has argued:

> Experience from the Cold War when one or both the superpowers had small arsenals, as well as experience of states that never built large arsenals, reveals much about deterrence at low numbers… Large arsenals contribute little to effective deterrence, even extended deterrence. The success of extended deterrence in the Cold War was the result of the strength of US political commitment to its allies, not the size of its arsenal... The prospects for deterrence at low numbers, therefore, are generally good.[5]

Second, concerns about crisis stability are not arguments against low numbers *per se* but rather about how to structure nuclear forces and arms control agreements to best produce stability at low numbers. The answer to these arguments is not to maintain large nuclear arsenals but rather to ensure the nuclear forces at low numbers are structured to ensure survivability and avoid incentives to pre-empt (for example, with force structures based on sea launched ballistic missiles (SLBMs) and/or mobile land-based Intercontinental ballistic missiles (ICBMs) and by banning multiple warhead missiles (missiles with Multiple Independent Re-entry Vehicles (MIRVs)).

While the medium-term objective may be a world of low numbers including limits on the arsenals of all the P5, there is general recognition that the more immediate next step should be a US-Russian agreement involving further significant reductions in overall warhead levels and other measures. As Edward L. Warner, the representative of the US Secretary of Defense to the New START negotiations, put it 'there's probably one more major bilateral nuclear arms reduction negotiation, and hopefully agreement ahead between the United States and Russia' before it becomes necessary or possible to bring the other nuclear weapon states into a formal multilateral nuclear arms control agreement.[6] Although neither the United States nor Russia have yet made formal statements on their objectives for a next round of US-Russian nuclear arms control negotiations, the broad parameters of a possible agreement and some of the central issues it would have to address are reasonably clear.[7] Such an agreement would likely involve overall warhead levels for the United States and Russia somewhere in the range of 1500–3000 each, with a lower sub-limit for deployed strategic warheads.[8] It would require verification of both warhead numbers and the destruction of excess warheads, which has not been incorporated into any arms control agreement to date. It would also need to address both tactical nuclear warheads (which are a particular concern for the United States because of Russia's much larger arsenal of such warheads) and non-deployed warheads with rapid 'upload potential' (which are a particular concern for Russia because of a significantly superior US capability in this regard).

Reaching agreement on a next US-Russian nuclear arms reduction treaty will be difficult, especially as an agreement will likely require significant concessions by both states and sensitive trade-offs.

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[5] James M. Acton, *Deterrence During Disarmament: Deep Nuclear Reductions and International Security*, (Abingdon: Routledge for The International Institute for Strategic Studies, 2011), pp.93-4.

[6] Cheryl Pellerin, 'New START Treaty to Take Effect Feb 5', American Forces Press Service, 2 Feb. 2011, http://www.defense.gov/news/newsarticle.aspx?id=62656 .

[7] Steven Pifer, 'After New START: What Next?', *Arms Control Today*, December 2010 and James M. Acton, *Low Numbers: A Practical Path to Deep Nuclear Reductions*, (Washington, DC: Carnegie Endowment for International Peace, 2011), pp.9-27.

[8] Stephen Pifer has proposed a deployed strategic nuclear warhead limit of 1,000 warheads each, with an overall warhead limit of 2,500 warheads (see Pifer, 'After New START: What Next?'). James Acton suggests warhead number of 2,000-3,000 each may be more realistic (see Acton, *Deterrence During Disarmament*, p.95.

The range and complexity of issues involved is greater than in any US-Russian/Soviet nuclear arms negotiations or agreement to date. Warhead verification involves entering largely untested territory and will require significant advances in transparency. The United States will likely ask for significant reductions in Russia's arsenal of tactical nuclear weapons, which Russia will be reluctant to accept because it views its tactical nuclear weapons as a deterrent vis-à-vis NATO's larger and far more capable conventional forces. Russia will likely ask for reductions in America's reserve of non-deployed warheads, which the United States may be reluctant to accept because these reserves are viewed as a hedge against changes in the strategic environment. Missile defence will be a major issue because Russia views US missile defences as a long-term threat to its nuclear deterrent – concerns which will only become more acute as much deeper reductions in nuclear forces are considered. Persuading the US Senate to ratify an eventual agreement may be difficult, given likely opposition to steps which are perceived as concessions or as weakening America's nuclear deterrent. Russia might be willing to accept significant reductions in its tactical nuclear warhead numbers if the United States agreed to reductions in its non-deployed warhead numbers. Overall, while the difficulties involved in reaching such an agreement are great they are not insuperable. Reaching the necessary compromises and selling such an agreement domestically, however, will require persistent, high-level political leadership to overcome the likely roadblocks.

One additional potential roadblock to a further US-Russian nuclear arms reduction agreement is the question of third-country nuclear forces (i.e., the arsenals of other states with nuclear weapons). Historically the United States and Soviet/Russian nuclear arsenals have been so much larger than those of Britain, France and China (and the other states with nuclear weapons) that third-country nuclear forces of have largely not been a factor in US-Soviet/Russian nuclear arms control. In the context of the New START Treaty and possible deeper reductions in US and Russian nuclear forces, however, concerns are beginning to be expressed in both Russia and the United States about third-country nuclear forces. In July 2010 Russian Foreign Minister Sergei Lavrov expressed concern about the 'important nuance' of 'the combined nuclear capability of NATO', arguing that 'the quantitative reduction in the gap between our countries' arsenals and those of the other members of the "nuclear five" will inevitably lead to the fact that the nuclear potentials of these states can no longer remain outside the process of further concerted reductions.[9] From the Russian perspective, there is concern that the combined nuclear forces of the United States, Britain and France might be significantly larger than those of Russia in the event of further US-Russian reductions and might give the three NATO allies a first strike capability against Russia's nuclear forces. Although Russia's relations with China have improved dramatically in the last three decades, there remain certain tensions in the Sino-Russian relationship and Moscow will presumably be concerned about the relative impact of China's nuclear arsenal if Russia's own nuclear forces are reduced further. While Russian concerns about NATO's conventional superiority are well known, considerations vis-à-vis China may also be an important factor within Russian discussions around reductions of tactical nuclear weapons. In the United States, the Senate resolution of ratification for the New START Treaty urged the President to consult with it about withdrawing from the treaty should there be 'an expansion of the strategic arsenal of any country not party to the New START Treaty so as to jeopardize the supreme interests of the United

[9] 'New START Treaty in the Global Security Matrix: The Political Dimension', Article by the Russian Foreign Minister Sergey Lavrov, Published in the journal *Mezhdunarodnaya Zhizn*, No. 7, July 2010, http://www.indonesia.mid.ru/press/188_e.html

States.'[10] From the US perspective, the primary concern is that further reductions in its nuclear arsenal could tempt China to pursue a 'sprint to parity'.

At this stage, expanding US-Russian nuclear arms control negotiations to include China, France and the UK would introduce extreme political and technical complexity into negotiations which will already be difficult, and in all probability sink any hope of success. The United States and Russia will probably be willing to conclude a next nuclear arms reduction agreement without China, France and the UK taking on similar legally binding limitation or reduction commitments. Washington and Moscow may, however, require less formal reassurance that further reductions will not be taken advantage of by China or, from Russia's perspective, NATO collectively. It may require formal but non-treaty-based policy statements from the three at critical points in the process. At a minimum, it will be politically easier for the United States and Russia to undertake further reductions if they can demonstrate to domestic critics that the result is not likely to be a Chinese 'sprint to parity' or a NATO first strike capability. One important role of a P5 dialogue on nuclear weapons and arms control should therefore be to provide the political reassurance regarding Chinese, French and British nuclear forces necessary to allow Washington and Moscow to proceed with further significant reductions in their nuclear forces.

An Agenda for the P5

How should P5 discussions on nuclear arms control, disarmament and non-proliferation be developed? The discussions held in London in September 2009 and Paris in June 2011 have been ad hoc meetings, held at the initiatives of Britain and France. The first step therefore should be to establish a permanent, on-going process. To this end, the five states should establish a formal 'P5 Dialogue on Nuclear Arms Control, Disarmament and Non-Proliferation'. This could involve, at minimum, a commitment to an annual meeting of top-level officials responsible for nuclear policy. Such a meeting should review challenges, progress in nuclear arms control and related issues of common interest, and report annually to NPT Preparatory Committee meetings and Review Conferences. This P5 dialogue should also include more frequent meetings and/or information exchange between lower level officials and scientists. While the participants in this P5 process are initially likely to be primarily from foreign ministries and/or national security councils, officials from defence ministries and relevant branches of the military and nuclear weapons production complexes should also be involved in the dialogue process.

As part of this process, the participating states could agree a P5 'Statement of Principles on Nuclear Arms Control, Disarmament and Non-Proliferation' to guide on-going discussions and actions. Such a statement could include commitments to:

- pursue progressive reduction of nuclear arsenals;
- reduce arsenals to minimum levels commensurate with security needs and to discuss the relationship between arsenal size, force posture and overall security policies;
- prevent further proliferation of nuclear weapons, to strengthen non-proliferation policy instruments and to re-inforce existing commitments relating to non-proliferation;
- seek strengthened controls over nuclear materials and facilities globally, in order to help prevent proliferation and nuclear terrorism; and
- explore the conditions necessary for a nuclear weapon free world and to help to bring about those conditions.

A 'P5 Dialogue on Nuclear Arms Control, Disarmament and Non-Proliferation' could also be

[10] Quoted in Acton, *Low Numbers: A Practical Path to Deep Nuclear Reductions*, p.52.

supported by the establishment of a parallel 'track two' process involving think tanks and non-governmental organisations (NGOs). There is precedent for this model in other areas of security policy, such as the Council for Security Cooperation in the Asia-Pacific (CSCAP) which was established in the early 1990s and prefigured the development of many formal inter-governmental security cooperation structures in the region.[11] A P5 'track-two' process on nuclear arms control, disarmament and non-proliferation could help to advance the policy agenda in this area, clarify issues and provide a context for discussing questions and policy options that governments are not yet ready to formally address.

As was noted above, the next steps in nuclear arms control will almost certainly require for the first time establishing and verifying limits on total US and Russian warhead numbers. Beyond this, moving towards a world of low numbers will involve extending such limits to the forces of China, France and Britain (as well as, presumably, to the other states with nuclear weapons – see below). In this context, one important role for the P5 would be to establish agreed definitions and counting rules for nuclear warheads. This would involve establishing definitions and counting rules for deployed and non-deployed warheads, as well as those in refurbishment and dismantlement. Since the UK, France and the United States have recently made formal declarations of their warhead numbers – the first time any nuclear weapon states have made such statements – one first step would be for the three states to make more detailed presentations to the other P5 states on the definitions and counting rules that underpin these statements.[12]

Beyond the specific issue of warhead definitions and counting rules, consideration should be given to developing a more general P5 transparency and verification regime. To date, the UK, France and China remain outside any formal verification and transparency agreements regarding their nuclear arsenals comparable to those under the various US-Russian START treaties. One aim therefore should be to gradually bring the UK, France and China into such arrangements. Politically, the development of a P5 nuclear weapons transparency and verification regime would symbolise the willingness of the five established nuclear weapon states to bring their arsenals into an emerging process of arms control and disarmament. Such a regime would also help to prepare ground for the verification arrangements necessary for an eventual P5 nuclear weapons reduction/limitation agreement. Steps towards such a P5 nuclear weapons transparency and verification regime could include the following:

- The United States and Russia could provide information on their experiences with START verification to the UK, France and China. This already happens to a degree, but could be more developed and formalised in the context of an on-going P5 process.
- National and bilateral verification experiments (such as the UK-Norway initiative) could be undertaken and results/experiences then shared with P5.[13]

[11] See the Council for Security Cooperation in the Asia-Pacific (CSCAP) website: http://www.cscap.org/

[12] See: UK Minister attends Review Conference following UK disclosure of nuclear stockpile, 26 May 2010, UK Foreign and Commonwealth Office website, http://www.fco.gov.uk/en/news/latest-news/?view=News&id=22285726; Fact Sheet: Increasing Transparency in the US Nuclear Weapons Stockpile, 3 May 2010, US Department of Defense Website, http://www.defense.gov/npr/docs/10-05-03_fact_sheet_us_nuclear_transparency__final_w_date.pdf; and President Sarkozy announced for the first time that the total number of French warheads would not exceed 300 in a speech in Cherbourg on March 21st, 2008, on the occasion of the presentation of 'Le Terrible', first of a new generation of SSBN, http://www.diplomatie.gouv.fr/en/IMG/pdf/Speech_by_Nicolas_Sarkozy__presentation_of_Le_Terrible_submarine.pdf

[13] On the UK-Norway-VERTIC initiative see 'Presentation on the UK-Norway Initiative on Nuclear Warhead Disman-

- A menu of possible transparency measures could be developed, which could be incrementally adopted nationally and/or by all P5.[14]

An additional element of a P5 process could be the concept of 'unilateral steps in a multilateral context'. The idea here would be that individual P5 states be encouraged to take national steps to increase the transparency of or cap or reduce their nuclear arsenals in the context of the P5 process in absence of any formal multilateral treaty or agreement. Unilateral national steps would in effect become indicators of states' commitment to fulfil their particular responsibilities as established nuclear weapon states to advance nuclear arms control and disarmament. Much of the disarmament of nuclear weapons since the end of the Cold War has been unilateral in nature. Britain has already taken a lead in this direction in recent years, with the retirement of its small number of tactical nuclear weapons, the announcement of the size of Britain's nuclear arsenal at the NPT Review Conference in May 2010, and the announcement in the October 2010 Strategic Defence and Security Review (SDSR) that the UK will reduce its total nuclear force to 180 warheads (from 225, of which 120 will be operational).[15] Harold Smith and Raymond Jeanloz argue that in taking these steps the UK has helped to point the direction towards a world low numbers.[16] China's long-standing nuclear policy may also point the way towards nuclear doctrines for low numbers. Li Bin, for example, argues that the fact that China has maintained a small off-alert nuclear force demonstrates that the primary purpose is to prevent nuclear coercion: '(T)o counter nuclear coercion, a country may need to demonstrate that it has a retaliatory nuclear capability, buts its nuclear force does not have to be large or constantly on alert'. Li Bin also suggests additional steps China could take in the context of further US-Russian reductions, in particular committing to keep its nuclear weapons off alert and to limit its fissile material stockpile.[17] One of the aims of the P5 process should thus be to encourage each of the five to consider and implement national measures of transparency, restraint and reduction in relation to nuclear weapons, but sensitive to national differences in doctrine and approach. Such an approach would operate on the basis of what may be described as informal reciprocity: steps would be predicated on the assumption of reciprocity amongst the five states, but no formal agreement or specific quid pro quos would be required. Initial small steps would hopefully lead to further more substantial measures, helping to move the P5 towards the nuclear force postures and doctrines necessary for stability in a world of low numbers. This approach, whilst lacking in terms of formal arrangements and clarity, would be a great deal more flexible and avoid some of the substantial challenges facing a formal multilateral treaty process.

If the medium-term objective should be to bring about a world of low numbers of nuclear weapons, one key element of the P5 dialogue should be discussions on what exactly constitutes low

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tlement Verification', UK/Norway/VERTIC, NPT Prepcom, May 2009, UK Ministry of Defence website, http://www.mod.uk/NR/rdonlyres/E465A6B8-FFFA-4B48-89F4-51E4693BD44E/0/presentation_on_the_uk_norway_initiative_on_nuclear_warhead_dismantlement_verification.pdf

[14] James Acton has proposed a detailed possible menu of this type. See Acton, *Low Numbers: A Practical Path to Deep Nuclear Reductions*, pp.56-61.

[15] For the May 2010 announcement by Foreign Secretary William Hague in Parliament, see: http://www.fco.gov.uk/en/news/latest-news/?view=News&id=22285366. For the text of the Strategic Defence and Security Review, October 2010, see Securing Britain in an Age of Uncertainty: The Strategic Defence and Security Review, Cm 794, p.38. http://www.direct.gov.uk/prod_consum_dg/groups/dg_digitalassets/@dg/@en/documents/digitalasset/dg_191634.pdf?CID=PDF&PLA=furl&CRE=sdsr

[16] Harold Smith and Raymond Jeanloz, 'Britain Leads the Ways to Global Zero', *Arms Control Today*, December 2010.

[17] Li Bin, 'China's Potential to Contribute to Multilateral Nuclear Disarmament', *Arms Control Today*, March 2011.

numbers, how to bring about such a transition and in particular how the obstacles to such a transition may be overcome. Having such a conversation explicitly prior to the communication of formal country-positions for the purpose of negotiation could encourage countries to re-think established inflexible positions. This will involve discussing a range of difficult issues such as nuclear doctrines/force structures and stability at low numbers. One particular issue which should be part of these discussions is missile defence. If nuclear arsenals are significantly reduced, the problem of the credibility of nuclear deterrence in the context of opposing strategic missile defences will increase (as will the equally important risk of crisis instability). Russia and China are unlikely to be willing to move towards low numbers unless they are sufficiently reassured that US (and NATO) missile defences do not threaten their deterrent forces. The core of a compromise could be established if a distinction can be agreed between (i) tactical/theatre missile defences and limited strategic missile defences (which might enable states to defend themselves from limited missile attacks from countries such as Iran or North Korea, but which would not threaten the retaliatory capability of established nuclear powers) and (ii) extensive strategic missile defences (which might threaten the retaliatory capability of established nuclear powers). If agreement could be reached on the parameters of such a distinction and the United States and its NATO allies, as the primary countries deploying missile defences, could credibly offer to forego deployment of the latter, Russia and China might be sufficiently reassured about the credibility of their deterrent forces to agree to a shift to low numbers. At present, Congressional resistance in Washington is extremely high to any compromise in the development of US missile defences. Nevertheless, at some point, if the entire process of movement towards a world of much smaller nuclear arsenals is not to be de-railed, the United States may have to re-think its approach to missile defence. A willingness by the other P5 states to accept a certain level of missile defences, so long as these do not fundamentally threaten their deterrents, might help to facilitate a change in the US position.

In China's case the issue is not the size of its current nuclear arsenal, which is relatively small and could comfortably fit with a world of low numbers, but rather how far China will seek to expand its nuclear forces in the medium-term to counter developing US technical capability to neutralise its retaliatory ability, and in particular whether it will seek nuclear parity with the United States. In the absence of sufficient reassurance on the missile defence issue, China will be more likely to expand its nuclear arsenal and perhaps seek parity with the United States. Measures of dialogue, transparency and cooperation on missile defence will obviously also take place in the US-Russia, NATO-Russia and US-China contexts. Nevertheless, P5 discussions on missile defence may be particularly useful exactly because they would include all five of the established nuclear weapons states together and because they might hold out the prospect of establishing a longer-term consensus on the issue amongst these states.

The long-term aim of the P5 process should be to produce a multilateral agreement verifiably limiting the nuclear arsenals of the five established nuclear weapon states at levels very significantly below current ones. This might involve, for example, limiting the United States and Russia to 500 nuclear warheads each and China, Britain and France to 200 or fewer warheads. By the time such an agreement may become likely, definitions, counting rules and verification arrangements for limiting nuclear warheads will presumably have been established in the context of both US-Russian negotiations and the P5 process. Reaching agreement on the relative sizes of the nuclear arsenals of the five states may nevertheless be problematic. In the abstract, there is no reason why one or more states should have larger arsenals than others under a multilateral nuclear arms limitation regime. Arguments based upon

historical levels will not be credible in many states, but will nevertheless play strongly in the United States and Russia. The primary determinant of arsenal sizes (and related force structures) would presumably be ensuring that all states have survivable nuclear forces and none is vulnerable to nuclear pre-emption by a coalition of other states, which might involve warhead numbers less than 500 each.[18] In reality, assuming that US and Russian nuclear forces are still significantly larger than those of Britain, France and China prior to any P5 reduction or limitation agreement, the most likely outcome would be an agreement involving parity between the United States and Russia (with 500 warheads being an obvious symbolic level) and capping or modest reductions in British, French and Chinese forces (depending on the size of these states' forces by this point). China might argue, with some legitimacy, that as one of the world's superpowers it should be entitled to nuclear parity with the United States and Russia and/or that the size of its nuclear force should not be arbitrarily linked to those of smaller states such as Britain and France. The United States and/or Russia, however, might be reluctant to concede to nuclear parity with China. To date, China has exercised very substantial restraint in the development of its nuclear forces: while this may in part reflect the technical and financial obstacles involved in developing a much more extensive nuclear force structure, it also suggests that China's leaders have a relatively minimalist conception of what is required for deterrence and are not greatly concerned with nuclear parity with the United States or Russia. China might well therefore be willing to accept a P5 agreement which fixed its nuclear arsenal at a level below those of the United States and Russia. China's superpower status might be implicitly acknowledged by fixing its nuclear force levels at a level higher than those of the UK and France.

Although determining the relative size of nuclear arsenals under a multilateral nuclear arms limitation agreement is inherently problematic, three factors suggest that the problem should not be insuperable. First, the more important issue for stability and confidence in a deterrent is not arsenal size *per se*, but rather that nuclear forces are survivable. Second, the process of further reductions, transparency and confidence-building necessary to reach the stage where a formal P5 agreement may even be likely will hopefully take some of the political edge off of nuclear relations between the United States, Russia and China. In particular, it could help make it politically easier for all three states to accept marginal differences in force sizes and structures. Third, the concept of nuclear parity is a legacy of Cold War thinking, and has less meaning in determining status and stability within international politics today. If the P5 process could avoid getting stuck in negotiations on absolute numbers and implied parity, but rather focus on postures, deployments and confidence-building measures, then this would encourage this trend away from measuring status by number.

At this stage, it is anyway premature to pre-judge the exact character of a possible future P5 nuclear arms limitation agreement. While it may be useful for the each of the P5 to begin considering this question internally and discuss the issue informally within the P5 process suggested here, the focus in the short-to-medium term should be on initial elements of confidence-building and transparency.

When and how to bring in the other states with nuclear weapons

Consideration of multilateral nuclear transparency, confidence-building and arms control also raises the question of how the other states with nuclear

[18] Forsyth, Saltzman and Schaub, for example, suggest that the United States could have a survivable deterrent force capable of both countervalue and counterforce targeting with an arsenal of 'just over 300' warheads. See James Wood Forsyth J., B. Chance Saltzman and Gary Schaub, 'Rememberance of Things Past: The Enduring Value of Nuclear Weapons', *Strategic Studies Quarterly*, Spring 2010, p83.

weapons - Israel, India, Pakistan and North Korea – can be brought into such processes. The issue is all the more important because these states are signatories of neither the NPT nor (with the exception of Israel) the Comprehensive Nuclear Test Ban Treaty (CTBT).[19] Recently, further, the expansion of Pakistan's nuclear force has emerged as an issue of particular concern: US intelligence estimates suggest that Pakistan's nuclear stockpile has increased from warhead numbers in the 70s to numbers between the mid-90s and more than 110, that Pakistan has already manufactured enough fissile material for 40 to 100 additional warheads and that a planned fourth reactor (on top of three existing ones) will enable it to further expand its production of fissile material – potentially making Pakistan the world's fifth largest nuclear power ahead of the UK and India.[20]

At this stage, expanding the P5 dialogue to include other states would overburden and unnecessarily complicate process. The distinctive character of the P5 as established nuclear weapon states, the nuclear weapon state signatories of the NPT and the permanent members of the UN Security Council marks them out as a distinct group in global nuclear politics. The London and Paris meetings suggests the beginnings of a willingness to play a greater collective role in nuclear arms control, disarmament and non-proliferation. Adding the Indo-Pakistani or Israeli/Middle Eastern nuclear dynamics to the mix at this stage would risk seriously undermining an important process before it is even fully born.

Given the particular regional contexts in which Israel, India, Pakistan and North Korea have developed nuclear weapons, regional and/or bilateral frameworks are likely to be the primary contexts in which their nuclear arsenals are addressed, at least in the short-to-medium term. Although it is beyond the scope of this paper to examine these issues, the successful development of such frameworks is obviously important to the larger goal of moving towards a world of low numbers. Indeed, in the absence of successful regional and/or bilateral measures addressing these issues (as well as Iran's nuclear programme), the established nuclear weapon states may be unwilling to take the steps necessary to move towards such a world.

A particular case in point is the Middle East zone free of Weapons of Mass Destruction (WMD) initiative. Three of the P5 – the United States, Russia and the UK – are the original sponsors of the 1995 Resolution calling for an international conference on a Middle East zone free of WMD and formally responsible under the NPT 2010 Review Conference Final Document for appointing a convener and host state for the planned 2012 conference. These three, and possibly the broader P5 itself, would do well to use the P5 process to push the preparations for 2012 on as a matter of urgency.

While it makes sense to avoid prematurely expanding the membership of the P5 nuclear dialogue process, it will be important to establish the principle that *all* states with nuclear weapons should be brought into transparency/verification/constraint arrangements and that no state can indefinitely remain outside such arrangements and deploy nuclear weapons. Consideration does, therefore, need to be given to the issue of how to bring the other states with nuclear weapons into such arrangements. To this end, the P5 'Statement of Principles on Nuclear Arms Control, Disarmament and Non-Proliferation' suggested above could include language that the P5 believe other states also have a responsibility for nuclear arms control

[19] North Korea joined the NPT in 1985 but declared its withdrawal from the Treaty in 2003. Israel signed the CTBT in 1996, but has not ratified the Treaty.

[20] David E. Sanger and Eric Schmitt, 'Pakistani Nuclear Arms Pose Challenge to US Policy', *The New York Times*, 31 January 2011 and 'Pakistan's Nuclear Folly', Editorial, *The New York Times*, 20 February 2011. Pakistani officials argue that their country does not plan a dramatic expansion of its nuclear force and that international concerns in this respect are exaggerated.

and disarmament and should consider what national measures they can take to meet this responsibility, and to report them formally to the United Nations. The other states deploying nuclear weapons should thus be encouraged to follow the model of 'unilateral steps in a multilateral context' suggested above, perhaps by attaching any national measures of transparency or restraint to the P5 process. This model might be appealing to India in particular, which has consistently sought to emphasize its credentials as a responsible nuclear weapon state, but has objected to the discriminatory nature of the NPT.[21] Were India to take such steps in the context of the larger P5 dialogue, Pakistan would hopefully also face significant political pressure to respond in kind and in particular to reign in its own nuclear expansion. The concept of national measures of transparency and restraint by the other states deploying nuclear weapons might also be a means of bringing Israel out of the shadowland of its undeclared nuclear weapon status: in the context of a P5 process, for example, Israel could formally acknowledge its status as a country possessing nuclear weapons. This could then open the way to a commitment to re-consider that status if it receives full Arab recognition of the Israeli state and sufficient reassurance as to its security. Such steps by India, Pakistan and Israel may not be very likely in the short term, but if the P5 process develops in a positive direction the political pressure and incentives for the other states to join the larger process would hopefully increase. While the P5 process is formally focused on disarmament, its impact on non-proliferation, as well as measures to strengthen that link, could usefully be discussed in the P5.

[21] Such measures might include a formal declaration of the size of India's nuclear force or a commitment not to expand its nuclear force if Pakistan agrees to reciprocate. Given the broader problems of Indo-Pakistani relations, such measures would not be easy for New Delhi to adopt. If the P5 were themselves taking such steps, however, the political pressure on and incentives for India to do likewise would hopefully increase.

At a future point where the P5 may be considering a formal agreement limiting their nuclear warhead numbers to the hundreds, they may be unwilling to conclude such an agreement without at least some measure of reassurance that the all other states will also limit their nuclear arsenals. Given the border disputes between the two countries, China, for example, may have particular concerns vis-à-vis India's nuclear arsenal. If Pakistan were to significantly expand its nuclear arsenal, all of the P5 might be reluctant to move to low numbers without reassurance that Pakistan would at least halt – and perhaps reverse - such expansion of its nuclear forces as may have occurred by that point. At minimum, at this point India, Pakistan and Israel should be pressed by the P5 to make clear national political commitments to cap the size of their arsenals in the context of a formal P5 limitation agreement. Given that a P5 multilateral nuclear weapon limitation would have to include clear verification modalities, it would presumably also not be technically difficult to add additional countries to such an agreement. Thus, either at the point where the P5 were close to concluding such an agreement or relatively shortly after it entered into force, the other states with nuclear weapons could be incorporated into that agreement.

It is also worth noting the position of North Korea in this context. North Korea differs from India, Pakistan and Israel in terms of the size and status of its nuclear arsenal: India, Pakistan and Israel all have nuclear forces of warhead numbers between 60 and 100, which are operationally deployable; in contrast, it is unclear whether North Korea has any operationally deployable nuclear warheads and if it does these are estimated to number only a handful. Assuming North Korea can be prevented from significantly expanding its nuclear arsenal, Pyongyang's possession of a very small nuclear force should not be a major obstacle to the conclusion of a P5 agreement. Given the difficulties encountered over the last two decades in agreeing a negotiated

de-nuclearisation with Pyongyang, domestic political change within North Korea is probably the best long-term hope for resolving the North Korean nuclear issues.

Although Iran is probably still some years from possessing a nuclear weapon, the current stand-off over Tehran's nuclear programme and the fear that Iran may develop nuclear weapons means that P5 states will be far more reluctant to go down to smaller numbers while there is a very public possibility of Iranian nuclear break-out. Whilst strictly speaking there is no technical reason why this should have a strong impact on the move to low numbers – it being highly unlikely that the Iranians would seek a large nuclear force – Iran's potential to cross the threshold has already been cited as a reason for the nuclear weapon states to maintain current force levels. Resolving the Iranian nuclear issue and/or drawing Iran into processes of transparency and restraint in relation to its nuclear programme may be a necessary pre-requisite for progress at the P5 level in the longer-term.

In addition, as the P5 process evolves it may make sense to find a means of drawing in other states important to global nuclear politics, such as Germany, Japan, Egypt, Turkey, Brazil and South Africa. Such states are particularly important because of their diplomatic roles in the NPT and their position as civilian nuclear powers. These states might be regularly informed of the P5 process and in due course institutionally associated with it.

Conclusion

The London and Paris P5 meetings are first steps in what has the potential to become an important longer term process. This paper has suggested that the medium-term objective for nuclear arms control should be to move towards a world of much smaller nuclear arsenals, with the nuclear forces of the United States, Russia, China, France and Britain numbering in the hundreds of warheads each. Such a world would stabilise deterrent relationships between the nuclear powers, help to constrain nuclear proliferation and prevent nuclear terrorism and pave the way for a possible transition to a nuclear weapon free world. As the countries with still by the far largest nuclear arsenals, the United States and Russia have the greatest role to play in moving towards a world of low numbers of nuclear weapons. The United States and Russia, however, do not bear sole responsibility for moving towards such a world. As established nuclear weapon states, nuclear weapon signatories of the NPT and permanent members of the UN Security Council, China, France and Britain – along with the United States and Russia – also have a particular responsibility in this respect. In addition, the United States and Russia are unlikely to be willing to go much further in reducing their nuclear arsenals without at least some element of reassurance about the relative sizes and roles of Chinese, French and British nuclear forces. The P5 therefore have a collective responsibility for advancing the agenda of nuclear arms control and disarmament.

The case for developing a greater P5 role in nuclear arms control and disarmament rests, however, not only on the international responsibility of the P5 but also on their shared national interests. The P5 surely have shared national interests in stabilising nuclear relations between themselves (and the other states with nuclear weapons) and in preventing nuclear proliferation and nuclear terrorism. Without further progress in nuclear arms control and disarmament, there will be a risk of new nuclear arms races (for example, between the United States and China or between India and Pakistan) and it will difficult, if not impossible, to mobilise the international support necessary to prevent nuclear proliferation or establish more effective global controls over nuclear materials and facilities.

The combined challenges of moving towards a world of smaller nuclear arsenals and preventing nuclear proliferation and nuclear terrorism require action at multiple levels: globally (in the NPT, the

IAEA, entry into force of the CTBT and negotiation of a FMCT), United States-Russia and regionally/ bilaterally (in particular India-Pakistan and the Middle East). A P5 process is thus only one piece of the jigsaw. Nevertheless, without progress at the P5 level and an element of reassurance vis-à-vis China, Britain and France's nuclear arsenals, the United States and Russia may not be willing to make significant further reductions in their own arsenals and without this a move towards a world of low numbers will not be possible.

This paper has sought to examine the issues involved in developing a P5 process of transparency, confidence-building and arms control in relation to nuclear weapons and has advanced proposals to this end. The ultimate aim of this process should be to produce a formal multilateral agreement limiting the nuclear forces of the P5 to 500 warheads or less each. Such an agreement, however, is at best some years away. The initial aims of such a P5 process should therefore be modest. In particular, they should be twofold: to encourage a process of dialogue amongst the five states on issues of nuclear policy, arms control and proliferation and to increase transparency regarding nuclear weapons between the five states. In the medium-term, the aim should be to facilitate a process of reciprocal unilateralism – unilateral measures in a multilateral context – that allows states to reduce the salience of nuclear weapons, reduce reliance on these weapons in their national security policies and reduce the numbers deployed in their arsenals. The London and Paris P5 meetings represent a welcome start towards these ends and should be built upon.

For the text of the communiqué (in English) arising from the meetings, please see:

http://www.franceonu.org/spip.php?article5660

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