In another note, “Catalog of Moves to a Transition to Nuclear Zero”, I have begun an annotated list of measures and capacities that would support a move to zero. The aim of this note is somewhat similar. It is a reminder that there are many paths to nuclear zero. As in our book Designing Denuclearization we are not focused here on the question ‘shall we go to zero?’ but instead ‘how can we get to zero?’

[A] Promising

[A1] • A zero Nuclear Weapons Convention is promulgated and opened for signature, seeking universal adherence
[A2] • A fabric of regional agreements to zero (‘zones’) becomes global
[A3] • ‘Step-by-step’ objections to zero are met. Effective means of verification are demonstrated. Zero becomes ‘realistic’.
[A4] • The N5/N9, negotiating among themselves, conclude that zero is more in their interest than is the nuclear status quo
[A5] • In UN bodies, NPT Review Conferences, and elsewhere States establish zero as norm and law, eliciting explicit commitments. UNGA/UNSC spell out monitoring and enforcement.

Some turn on envisioning the outcome, which offers States the opportunity to adhere to zero (subject to conditions). The Nuclear
Weapons Convention most clearly epitomizes this approach. Nuclear-free zones codify adherence to zero but in geographic areas that do not include the N5/N9.

Others take the array of disaggregated objections—reasons given for not adhering to zero, or not adhering yet—as the facts that define the problem. This is what the N5/N9 appear to have done. First meet the objections. Then talk about abolition. But let’s not be cynical: even firm advocates of prompt denuclearization recognize that there is a chasm between committing to abstract ‘verification’ and ‘transparency,’ on the one hand, and on the other the nuts-and-bolts of conducting verification or assuring transparency in a world of suspicions and changing technology. How much risk of deception is tolerable?

A third approach centers on negotiating within institutions: States negotiate the nature of the problem, how to avoid worse circumstances by managing the status quo, and whether and how to advance toward zero. The institutions—UN Secretary General, UN General Assembly, Conference on Disarmament, NPT Review Conferences, Comprehensive Test Ban Treaty Organization, IAEA, and others—exist because it is well-understood that complex issues marked by difference require a framework within which the issues can be addressed. The key terms are negotiation and initiative. Without loci through which the non-nuclear-weapon states can have a voice, the question of nuclear arsenals would be left to the N5/N9 alone, unobserved, unexamined, and unaccountable. Recognition of a role for institutions goes back to the first resolution of the UN General Assembly in 1946, chartering a United Nations Atomic Energy Commission to discuss, inter alia, “elimination from national armaments of atomic weapons.”

[A1] * A zero Nuclear Weapons Convention is promulgated and opened for signature, seeking universal adherence

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4 UNGA Resolution 1. Establishment of a Commissions to Deal with the Problems Raised by the Discovery of Atomic Energy.” Adopted 24 January 1946.

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Promising avenue. There is a Model Nuclear Weapons Convention (MNWC).\(^5\) It has been distributed to UN General Assembly sessions in the form of a submission by member states, and states have been invited to declare themselves in favor of the exercise.

At first promulgation a Treaty would not be universally agreed: instead, the draft would be launched, and at some point it would be formally approved as a Treaty open for signature and ratification. What’s sought today is a text around which discussion can take place. Are these the provisions which a Treaty should have? Are there additional issues? What differences are brought to light by this discussion? Can a point be reached at which the draft text is sufficiently familiar and widely enough supported that the process should be formalized? What *must* be included for universal accession to be a realistic goal?

This avenue is one of two commonly considered the most possible. The other is a ‘step-by-step’ approach, to which we’ll refer below. A draft Nuclear Weapons Convention takes as models the existing Biological and Toxin Weapons Convention and Chemical Weapons Convention, which outlaw broad swathes of biological and chemical weapons. The strategy is to write one general text, establishing a framework with aims, scope and authority defined, but leaving many details of practice to be worked out as states and treaty mechanisms grapple with implementation and disputes. By contrast, the step-by-step approach anticipates settling elements of a prohibition regime one by one over the years before a full regime can be said to be in place.

Nobel Laureate Bishop Desmond Tutu put the case for a ‘global treaty’ this way:

> It is high time for the nuclear-free nations of the world, constituting the overwhelming majority, to work together to exert their extraordinary collective influence. Without delay, they should embark on a process to negotiate a global treaty banning the use, manufacture and possession of

\(^5\) Drafted by the Lawyer’s Committee on Nuclear Policy, New York. A brief history and links to the full text of the Model Nuclear Weapons Convention: http://lcnp.org/mnwc/index.htm
nuclear weapons -- whether or not the nuclear-armed nations are prepared to join them.6

[A2] • A fabric of regional agreements to zero (‘zones’) becomes global

Nuclear-weapon-free zones come into existence as creatures of Treaties signed and ratified by States in the geographic region they have defined. The several existing zones concern the South Pacific, Latin America and the Caribbean, Africa, Southeast Asia and Central Asia. Mongolia has declared itself a zone.

Typically the zonal treaty prohibits nuclear weapons within the land area of the zone, and in some cases to seas, subject to the rights of naval vessels codified in the United Nations Convention on the Law of the Sea. Each has a protocol provision to which nuclear weapon states are invited to adhere.

[A3] • ‘Step-by-step’ objections to zero are met. Effective means of verification are demonstrated. Zero becomes ‘realistic’.

‘Step-by-step’ typically implies that [a] there are issues to be resolved—some technical, some about sequences and measures to be taken, and [b] that the N5/N9 need more to show in order to gain domestic assent … and more time to develop assent. Uncertain about the motives and reliability of governments among the N5/N9, governments and their constituencies may argue that they need to see performance by the N5/N9. “Show me.”

Technical work and the assessment of scenarios take place at the N5/N9 behind closed doors. Concurrently, they probe the other weapon states in attempts to learn whether others are acting in good faith—and whether those states’ overall procurement and policy is consistent with planning to make good on promises as they go to zero and thereafter.

Going ‘step-by-step’ is built into many of the proposals that governments and study commissions have offered. The 1946 Acheson-Lilienthal Report outlined successive steps. Mikhail Gorbachev, in

January 1986, offered to eliminate nuclear weapons, in stages, by the year 2000. The International Commission on Nuclear Nonproliferation and Disarmament (ICNND), established by the Japanese and Australian governments, tied its recommendations to the short-term, a middle-term ending in 2025, and the period after 2025. In the Commission’s report of 15 December 2009 Co-Chairs Kawaguchi Yoriko and Gareth Evans wrote that

Central to our approach is the sense that the debate needed to focus squarely on specific action plans—short, medium, and longer term—and that, above all, those plans have to be realistic. Idealistic, yes; pushing the envelope beyond most government’s comfort zones, yes; but also pragmatic, recognizing the many obstacles—political, practical and technical—that would need to be surmounted, and adjusting time-frames and ambitions accordingly.7

It is not clear that the step-by-step position of the N5 can be squared with the advice of the Kawaguchi-Evans commission (ICNND). After their meeting in Geneva in April 2013 the N5 reported that they had discussed the latest developments in the area of multilateral disarmament initiatives including the situation at the Conference on Disarmament. They expressed their shared disappointment that the Conference on Disarmament continues to be prevented from agreeing on a comprehensive program of work, including work on a legally binding, verifiable international ban on the production of fissile material (FMCT) for use in nuclear weapons, and discussed efforts to find a way forward in the Conference on Disarmament, including by continuing their efforts with other relevant partners to promote such negotiations within the CD. The P5 reiterated their support for the immediate start of negotiations on a treaty encompassing such a ban in the Conference on Disarmament. They noted the Group of Governmental Experts (GGE) on FMCT, and

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expressed the hope that its work will help spur negotiations in the Conference on Disarmament. The P5 reaffirmed the historic contribution of the pragmatic, step-by-step process to nuclear disarmament and stressed the continued validity of this proven route. In this context, they also emphasized their shared understanding of the serious consequences of nuclear weapon use and that the P5 would continue to give the highest priority to avoiding such contingencies.  

The key language is “pragmatic, step-by-step process.” That framing conveys tacit rejection of the Working Group initiative of a number of states, who seek to get past the CD’s intestinal blockage, the “situation” to which the N5 so delicately refer. [See §B3 below.]  

[A4] • The N5/N9, negotiating among themselves, conclude that zero is more in their interest than is the nuclear status quo  

At this juncture none of the N5/N9 has given evidence in public of a readiness to give up its nuclear weapons. Not one. They speak of denuclearization, if they speak of it at all, as an ‘eventual’ objective that could be undertaken only after ‘conditions’ were met. [Also see §A5.]  

Nonetheless, there is public discussion both of utility and risk. The arguments that nuclear weapons ‘have no military utility’, that nuclear weapons are not the recipe of choice for any imaginable circumstance, that nuclear use would be ruinous, can be found in speech and print.  

Despite these signs, there is also wide recognition that the N5/N9 must be a part—and will be a key part—to any denuclearization. With that in mind, many calls for abolition ask the N5, and some the N6-9 as well, to meet together and seek shared positions contributing to denuclearization. And they have met together to discuss nuclear matters, recently in a series begun in 2009, and in an even earlier series begun in 1991.  

The fourth meeting of the current cycle took place in Geneva 18-19

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April 2013, and a fifth is planned for 2015. Regrettably, what the N5 have released about their talks so far, the fact that the N5 have not attended two major conferences on humanitarian effects of nuclear weapons, and their resistance to the Ad Hoc Working Group in its effort to break through obstacles in the way of discussing key issues, hint at the possibility that the N5 are coordinating their resistance to denuclearization.

Can the N5/N9 Be Brought to Discuss the ‘How’ Question?

We can translate ‘cost benefit analysis’ into two questions. Is it ‘useful’ to have an inventory of nuclear weapons? nuclear weapons deployed and ready for use? If it is ‘useful’, or if one now imagines there is ‘usefulness’ in being ‘prepared for future contingencies’, can we apply a metric to that ‘usefulness’? There is a growing consensus that the only strategic ‘use’ of nuclear weapons is to deter other countries’ nuclear weapons use, a ‘need’ that would vanish if nuclear weapons did not exist and there were robust protections against their being made. Nuclearists also claim that political advantage—prestige, sway, influence—can be attributed to having nuclear forces and that the N5 ‘use’ nuclear weapons in that way, but bullying carries a price, if not now then later.

Cost, then, is not most importantly the money cost or opportunity cost, but the risk that they might actually be used. Even if one believes, as I do, that none of the N5/N9 would actually initiate first use of nuclear weapons, there remain those scenarios in which the decision is outside the control of a ‘rational leadership’: accident, theft, and unauthorized use (as in a civil war). What makes the risk not worth running, then, is not that the probability of ‘accident, theft, or unauthorized use’ is high, but that the consequences could be so awful. After all, the one thing that makes nuclear devastation of a city or a region possible is the existence of nuclear weapons.

Judging risk ‘high’ and ‘utility’ low, any or all of the N5/N9 could be brought into a common discussion of abolition.

We will discuss below the possibility that ‘One (or more) of N5/N9 takes an internal decision for zero’. Here we will consider the possibility that one or more takes the less fulsome decision that the question of ‘how’ ought to be discussed, with another or with several others among the N5/N9. How might this play out?
In UN bodies, NPT Review Conferences, and elsewhere States establish zero as norm and law, eliciting explicit commitments. UNGA/UNSC spell out monitoring and enforcement.

Article VI of the Treaty on Nuclear Nonproliferation spells out this obligation of all NPT Parties:

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

In 1995 the NPT Review and Extension Conference agreed to extend the treaty indefinitely. The global disarmament calendar is in effect organized around the every-five-year NPT Review Conferences and the Preparatory Commission sessions held three, two, and one year before each Review Conference.

There are two principal readings of Article VI. One holds that it requires “negotiations in good faith on … nuclear disarmament,” leading to a treaty embodying “effective measures.” The other holds that it does not: that the nuclear arms race has been halted and that the N5 indeed conduct—for example, at the NPT Review Conferences—negotiations on nuclear disarmament. Asked for its Advisory Opinion, the World Court concluded that

the obligation involved here is an obligation to achieve a precise result—nuclear disarmament in all its aspects—by adopting a particular course of conduct, namely, the pursuit of negotiations on the matter in good faith.\footnote{Advisory Opinion of the International Court of Justice, 8 July 1996, §99. http://www.icj-cij.org/docket/index.php?p1=3&p2=4&k=e1&p3=4&case=95}

and this was followed, at the NPT Review Conference of 2000, by the Conference noting that there was

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6. An unequivocal undertaking by the nuclear weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States Parties are committed under Article 6.

yet it remains to be debated, at successive Review Conferences, to what extent the actual measures taken by the N5 fulfill their “unequivocal undertaking”.

The avenue is well-described. The N5 have committed formally through the participation of their official ambassadorial delegations at the Review Conferences, but no date is set.

At the 2000 NPT Review Conference the N5 acknowledged their “unequivocal undertaking by the nuclear weapon states to accomplish the total elimination of their nuclear arsenals.”¹¹ But they have not rushed to embrace the questions ‘when?’ and ‘how?’ Nor have they welcomed opportunities to widen the discussion. The N5 chose not to attend successive conferences to discuss humanitarian consequences of nuclear war. Even the Nuclear Security Summits, initiated and pushed by the United States, have been explicitly circumscribed. These FAQs were posted on the official site of the March 2014 Summit:

68. What is the aim of the NSS?

The 2014 Nuclear Security Summit (NSS) aims to prevent nuclear terrorism worldwide by:
• reducing the amount of dangerous nuclear material in the world;
• improving the security of existing nuclear material;
• strengthening international cooperation.

69. What won’t the NSS deal with?

The NSS will not discuss nuclear disarmament, the pros and cons of nuclear power or protection from natural disasters.


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70. Why will the NSS include no discussion of nuclear disarmament and non-proliferation?

Disarmament is a key issue which is being discussed in many forums. Since the mid-20th century, many instruments (the IAEA system of safeguards, the Non-Proliferation Treaty, etc.) and export control regimes (like the Nuclear Suppliers Group) have been created for these purposes. The NSS focuses on the danger of non-state actors (terrorists) acquiring nuclear materials and/or a nuclear weapon. Introducing the subject of disarmament could impede progress on this key issue.\(^\text{12}\)

The Netherlands was host to the 2014 Summit. Whoever was responsible for having written that there would be “no discussion of nuclear disarmament” at the Summit, the Dutch foreign minister made a gesture to ‘global zero’ … but only as a ‘long-term goal’:

‘Preventing nuclear terrorism is the central issue on the agenda of this Nuclear Security Summit. But it’s an issue that can’t be viewed in isolation from nuclear disarmament and non-proliferation,’ said foreign minister Frans Timmermans at a working lunch with colleagues from 53 NSS countries today. … ‘It’s vital we don’t lose sight of the long-term goal of ‘global zero’, the banning of all nuclear weapons, and continue to work on building trust,’ said Mr Timmermans.\(^\text{13}\)

As in so many matters, the promise of multilateral consideration lies not in form—appearance, gestures—but in content and resultant measures. It would have been wholly germane to the ‘security’ focus of a ‘nuclear security summit’ to address how ‘global zero’ would enable policies to prevent ‘bad guys’ from possessing a nuclear weapon. But that is a conversation that the N5 are not ready to promote.


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[B] Possible

[B1]  • Moves to a global ‘no-war security community’ subsume zero

[B2]  • Other threats—e.g. climate change—catalyze movement to zero

[B3]  • Non-nuclear states bring pressure on N5/N9 to negotiate zero [leading to A5]

[B4]  • N5/N9 warehousing—‘dealerting’—achieves ‘virtual zero’ with nuclear weapons in custody of N5/N9

[B5]  • Most destroyed, the rest held by an Authority: ‘virtual zero’ with weapons in custody of ‘global agent’

[B1]  • Moves to a global ‘no-war security community’ subsume zero

This avenue is possible. The models in this case are, for example, relations among the Scandinavian countries—which once warred among themselves but which cannot imagine war today—or the United States and Canada, which pool defense collaboration (not only in NATO, as a Canadian officer is on the rota at the North American Air Defense Command in Colorado) and between whom anticipating war is unthinkable. The European Union is a ‘no-war security community’, intended to ensure that WWII would not be repeated.

However, it would be an even more expansive achievement to bring about a ‘global no-war security community’ than to solve the more limited puzzle of putting nuclear war beyond reach. But isn’t a ‘global no-war security community’ precisely the objective of the United Nations, as declared in the Charter? Yes. Has it been able to preclude war? No. The contrary cases include the Korean War, Iran-Iraq War, Vietnam War, Falklands (Malvinas) War, Gulf War, &c. In winter 2014 factions within Ukraine are engaged in civil violence with each other, contesting whether or not to organize Ukraine’s future around the EU and its ‘no-war security community’.

[B2]  • Other threats—e.g. climate change—catalyze movement to zero

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This could happen. If the threat of climate change, or global ecological devastation, or epidemic were so severe the need to suppress military threats could create an impetus to zero. But it also could do the contrary: ‘we need nuclear weapons to protect our soil from invasion.’

[B3] • Non-nuclear states bring pressure on N5/N9, insisting on norm of ‘zero’

Everyday belief is that nuclear states cannot be moved by others unless they choose to defer. [But see §C5.] Can they, however, gradually establish norms of non-use, non-deployment, and practices making for abolition? They might do so in conjunction with promotion of a Nuclear Weapons Convention, or within the NPT Review process. [In this section we are pointing at coordinated multi-state measures, distinguished from advocacy organizations (e.g. Global Zero), non-governmental expert commissions, and expert commissions initiated and funded by one or more government (e.g. Canberra Commission, by the Australian government).

Consider the New Agenda Coalition, Non-Aligned Movement, and the Open-Ended Working Group. This last was constituted by UN member states exercising their authority in the UN General Assembly:

Taking Forward Multilateral Nuclear Disarmament Negotiations

The General Assembly of the United Nations established by resolution A/RES/67/56 an open-ended working group to develop proposals to take forward multilateral nuclear disarmament negotiations for the achievement and maintenance of a world without nuclear weapons, as follows:

The group met in Geneva in 2013 between March and August with the contribution of international organizations and the civil society. The group submitted a report on its work, reflecting discussions held and all proposals made, to the General Assembly at its sixty-eighth session. This report will also be transmitted by the Secretary-General of the United

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This was an effort to elicit and collect ideas about its subject, with emphasis on ‘taking forward’ nuclear disarmament negotiations. One would have thought that such an exercise could have been undertaken within the Conference on Disarmament, but that had not been the case. The Report of the Open-Ended Working Group tells that there was discussion of many germane subjects, but does not include a comparison of paths nor any treatment of strategies of initiation, sequencing, adequate concurrence, or the politics of either ‘achieving’ or ‘maintaining’ nuclear zero. Nonetheless, the OEWG’s authorization and meetings keep the subject of nuclear disarmament on the agenda.

The New Agenda Coalition, initiated in 1998, is a collaboration among Brazil, Egypt, Ireland, Mexico, New Zealand, South Africa and Sweden. In their initial declaration they stated that

We can no longer remain complacent at the reluctance of the nuclear-weapon States and the three nuclear-weapons-capable States to take that fundamental and requisite step, namely a clear commitment to the speedy, final and total elimination of their nuclear weapons and nuclear weapons capability …  

The Non-Aligned Movement, a caucus of some 120 States, largely those of Latin America, Africa, and continental Asia, includes nuclear weapons abolition among the NAM’s policy objectives.

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B4 • N5/N9 warehousing—‘dealerting’—achieves ‘virtual zero’ with nuclear weapons in custody of N5/N9

B5 • Most destroyed, the rest held by an Authority: ‘virtual zero’ with weapons in custody of ‘global agent’

‘Virtual zero’ paths do not accomplish abolition. They change how the ‘three weaknesses’ [accident, theft, unauthorized use] could be exploited, but they are open to exploitation. Picture how ‘virtual zero’ would work. There are two main variants, which differ in the answer to the questions “who holds the weapons?” and “where?”

To dealert alone is simply to change the readiness state of the weapons. They had been ‘ready to fire’ (or ‘ready to be made ready to fire’). After dealerting, some time-consuming steps would have to be taken before they were ‘ready to fire’. It might be a matter of remounting some key component. In some versions the ‘dealerted’ weapon is not associated with its launcher, but is held elsewhere.

Weapons and launchers could remain ‘property’ of the state, as before. Retained, but not ‘ready to fire’. This is the domestic variant. The second variant lodges the weapons not with their owners, but in cache with others. This is the custodial or global agent variant. The United Nations, for example, could construct an agency to receive and caretake weapons yielded up from national inventories.

Odds are that any such ‘virtual zero’, to obtain political approval, would incorporate elaborate cross-checking, by which custodians’ conduct was monitored by others. For example, if the N5/N9 agreed to the domestic variant they could, as part of the package, admit officials of other N5/N9 to monitor and confirm that the weapons are as was agreed. Picture a nuclear weapons warehouse which could only be entered with the positive consent of designated monitors. Observers of the non-N5/N9 could be accommodated. Similarly, sites implementing agreed global agent storage would be watched carefully by the N5/N9 and the rest.

[C] Contributory

[C1] • One of N5/N9 launches bandwagon to foreground aim of zero [leading to A4]

[C2] • Any of N5/N9 commits to rescind deployment if terms are agreed [perhaps catalyzing A4]

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[C3] • Securing fissile material -> conclusion that zero is sustainable [contributing to A3]

[C4] • Mobilisations/movements call for abolition (e.g. Global Zero)

[C5] • Non-nuclear states create incentives for N5/N9 to go to zero

[C1] • One of N5/N9 launches bandwagon to foreground aim of zero [leading to A4]

Isn’t this what Barack Obama did in Prague on 5 April 2009? He called for a nuclear-weapon-free world. “Perhaps,” he said, “not in my lifetime.” Despite that nod to the obstacles, it was a call to disarm. The US-initiated ‘nuclear security summits’ and Obama’s remarks to the UN Security Council reinforced the presence of abolition on the Administration’s agenda.

On the edges there are bits and pieces to show, but there has been no significant movement toward zero.

What about ‘unilateral disarmament’? If one country—say, Britain—were to give up its nuclear weapons, would that open a path to zero? ‘Unilateral disarmament’ was debated in Britain. Some argued that whatever other countries did, Britain should not prepare to incinerate cities. A contrary argument was that all countries should abandon their nuclear arms, but until they did so Britain should maintain its deterrent force. [And of course there was a third position: that whether or not other countries abandoned nuclear weapon, Britain should keep hers as a guarantee against another WWII.]

One country, South Africa, built 6 nuclear weapons and then dismantled them. It has pledged not to build nuclear weapons again. Did that instance of unilateral disarmament open the gates to zero? It is a feature of discussion, cited as encouragement to go to abolition, but at the time South Africa announced her program and renounced nuclear weapons the global discussion was not yet focused on on achieving zero. It remains an important example.

17 at the time of this writing, February 2014. What’s to show? Participation in the Nuclear Security Summits. Some cite the Proliferation Security Initiative, a holdover from the Cheney-Bush era, as an achievement, though it speaks more to the counterproliferation side of US policy than to an abolition commitment.

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There is a big difference between a state’s saying ‘we cannot foresee any realistic terms on which we would sign this deal’ and, on the other hand, that, ‘we think it possible to agree terms, and we look forward to rescinding deployment’. How could a state signal its ‘good faith’ as it entered negotiations?

For the most part, N5/N9 have kept their distance from negotiations in which they would be put on the spot: that is, asked what terms they would accept.

Negotiators are expected to put their most strenuous demands first. A concession can be used later as a *quid pro quo*. They can also commit *conditionally* “subject to meeting our requirements in one of the following ways,” for example.

A strong case could be made to locate ‘securing fissile material’ among the ‘possible’ or even ‘promising’ paths to zero. This is so for three reasons: first, that you cannot build a nuclear weapon without fissile material; second, that *in principle* the location and state of all fissile material under government or corporate control is known, or could be known; and third, that the need to account for all fissile material and to secure it is well understood (though in practice there are certainly gaps and lapses—and governments do not readily share information about the location of stocks and the chain of evidence of the management of materials from antecedent source to current status).

Despite those significant caveats, a well-evidenced, shared, and good faith accounting would go a long way to assure each of the N5/N9 that it could meet its national security obligations in entering into a negotiated nuclear zero.

To reach zero that aim must have the approval of the governments of the N5/N9. Every domestic constituency will come into play: government
officials, the military, influential groups, and—in a broad sense—the people. The contribution of groups such as Global Zero, the Nuclear Threat Initiative, and in several of the N5 multi-party groups of former and serving high officials is that they convey to all that nuclear zero is a viable option, consistent with the state’s obligation to ensure the security of its citizens.

[C5] • Non-nuclear states create incentives for N5/N9 to go to zero

The non-nuclear-weapon states (NNWSs) have a distinctive role in efforts to achieve nuclear zero. They represent their people. They take part, with the N5/N9, in multilateral institutions. They have a concern for the global commons. They have the status of governments—with resources at their disposal. Many collaborate with one or more of the N5/N9, contributing to economic and security objectives of their partners.

Some express their concerns in groups; and at the NPT Review Conferences and Preparatory Committee meetings their group submissions are accorded standing.

[D] Unlikely

[D1] • A frightening nuclear calamity electrifies readiness to abolish
[D2] • Judging nuclear weapons too expensive, the N5/N9 agree to zero
[D3] • Actual use (or threat of use) turns states against nuclear arms
[D4] • Use in a civil war underscores inherent danger of retention -> zero
[D5] • The N5/N9 allow nuclear weapons to age: gradual obsolescence

[D1] • A frightening nuclear calamity electrifies readiness to abolish

Little doubt a single city’s nuclear incineration would create a firestorm of opposition to nuclear arms. How that were channeled, what steps to
institutionalize nuclear zero would be taken, matter little. But no sane person would want zero by this route.

[D2] • Judging nuclear weapons too expensive, the N5/N9 agree to zero

What is ‘too expensive’ depends on current wealth and a judgment of opportunity costs. Policy discussion invokes ‘more bang for the buck’, ‘peace dividend’ and ‘swords into ploughshares’, thumbnails for more elaborate arguments about the contest between arming and not, and in arming between nuclear and non-nuclear programs.

A best guess is that cost could contribute to a readiness to explore zero, but not be decisive because ‘savings’ would be moved to ‘conventional’ procurement. Against this is the fact that establishing and maintaining a nuclear force is costly; and the methodologies by which those costs are identified typically understate actual effects.18

[D3] • Actual use (or threat of use) turns states against nuclear arms

[D4] • Use in a civil war demonstrates the inherent danger of retention

We can hold, without being inconsistent that [a] nuclear weapons are risky because they could be used but [b] their use is unlikely. Immediate evidence and circumstances, however, could alter observer’s judgment of likelihood … and in either direction. If use were more likely, advocates of deterrence would assert threats to deter should be more vocal. The same evidence could also be put on the table as reason to seek abolition with urgency.

These similar avenues appear incalculable, as the effects must depend on the severity of use at a specific place. If ‘use’ is to bear on a decision whether to seek zero or not, however, there must be an informed picture of a hypothetical ‘use’. Extrapolating from what is known (Hiroshima, Nagasaki, tests, simulations) a decision-maker can ask ‘what death, injury, and damage would follow from hypothetical ‘uses’ of such-


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and-such a form’? Would the result of such an exercise contribute to, or even be determining of, a decision by one of the N5/N9 that global zero should be sought as a matter of policy?

That could occur. It would have occurred at some time since 1945 except for what I term the ‘nuclearist fantasy’: that one’s nuclear weapons can be safely managed—for decades or centuries, that deterrence can be relied on to assure against being attacked, and that robust denuclearization is impossible because ‘the genie is out of the bottle’.

[D5] • The N5/N9 allow nuclear weapons to age: gradual obsolescence

This scenario implies removing nuclear weapons from deployment (perhaps by mutual unilateral agreement) and storing them … during which time the weapons would experience entropy. Over time there would be difference between the ‘aging’ weapon and a weapon immediately after it was manufactured. Some of the physical changes would contribute uncertainty to the question ‘will this weapon detonate on command?’ and ‘if it does detonate, will it be have a lower yield than that for which it was originally designed?’ The expectation is that as time passes the fraction of weapons that would detonate would decline. The problem with this ‘strategy’ is that the most recent studies suggest that nuclear weapons have a long shelf-life, measured in decades.

[E] Fantasy

[E1] • In a popular surge ‘against complicity’ staff and crews walk away
[E2] • Legislative Greens unite across national frontiers for non-retention

[E1] • In a popular surge ‘against complicity’ staff and crews walk away

The missile crews walk away? The SSBN crews mutiny? Not likely.
[E2] • Legislative Greens unite across national frontiers for non-retention

No Green Party has won more in parliamentary elections than minority participation in a governing coalition. Without greater electoral success Greens will have only marginal influence on nuclear weapons policy. The readiness of European socialist parties to vote war budgets at the onset of WWI prompts caution that Greens will soon be an effective anti-nuclear political force. [Policy with respect to nuclear reactors is another matter.]

Exploring Zero With Others

If the N5 are to pursue abolition they must begin … and the place to begin is by acknowledging their rational interests in abolition. It is easier to imagine how two or three might begin to talk. What is it about the actual circumstances of the N5, as they consider their security and threats in their geopolitical environment, that could underlie such rational interests? Of the N5, we can identify six pairs or groups, whose members include an anticipated initiator and prospective co-deliberators. Any one might be the initiator:

- Russia and China
- United States and Britain
- United States, France, and Britain
- Russia and United States
- France and Britain
- China and United States

Why might it be in the interest of any one pair or group to take a lead? And what is it that makes these pairs and groups of co-deliberators appear more plausible, given that in each case others are the excluded?

Russia and China

In the aftermath of WWII—in China the Anti-Japanese War—the Soviet Union and China stood governed by Communist Parties. Though fundamental differences would reveal themselves in time, in both countries the United States was viewed as a rival—and explicitly so in the


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new world of nuclear weapons. Moscow persisted in its nuclear program despite US calls for it to submit its nuclear ambitions to international control. And when China decided in 1955 to launch a nuclear weapons program, it did so in part in response to US threats.

Beijing’s exclusion from the United Nation’s came to an end in 1972 and for the next twenty years it gradually increased its participation in international affairs. By the post-Soviet period, from December 1991, Russia and China professed friendly relations with the United States, but both governments perceived the United States as the one country presenting them with a military and naval challenge. They took stuttering initiatives to redesign world affairs. They would bring an end to the notion of ‘one superpower’ if they could, in part by cooperation between themselves, in part by issuing signs of a readiness to collaborate with others.

We know that working relationships can be simultaneously collaborative and competitive, even distinguished by profound differences. Symbolically, Russia’s abandonment of ‘no first use’ in 1993 was widely interpreted as a message to China that it should not consider encroaching on Russia, or undertaking any hostile initiatives under the tacit protection of its own nuclear capacities. After all, China’s population—and its corresponding demand for food, fuel, and materials—shares a long border with the relatively empty lands of the Russian Far East. But Russia’s action calls attention to the concern, which must exist among the leaderships of both countries even if not voiced, that they are joint practitioners of mutual nuclear deterrence.

How could China and Russia become more secure? Most simply and dramatically, if the United States (and the other N5/N9) gave up nuclear weapons. All could insist—should insist—on parallel limits on ‘conventional’ forces. Then the gain in security would far outweigh any increased risk of ‘conventional’ attack.

Would they remain wary of each other’s territorial appetite? Yes: adjacency is a powerful elixir to champions of force, as Russia’s recent patronage of Abkhazia, South Ossetia, and Crimea illustrate. On the other hand, China and Russia could muster substantial ‘conventional’ defense if they chose to do so. Could they avoid arms racing, and extravagance? That is a question for their internal politics. They could agree non-

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aggression measures. “Trust, but verify.” Once upon a time there was a model for conventional limits: the Treaty on Conventional Armed Forces in Europe.\(^\text{20}\)

The United States and Britain

If the US or British government were to give serious consideration to a campaign for abolition, it might first turn to the other, to test the waters and begin to canvass for a way forward. From Lend-Lease to the ongoing cooperation between the US National Security Agency and Britain’s GCHQ, they have been partners. Not necessarily for the same reasons in any given circumstance, not without difficulties, and despite the British ‘poodle’ having been lured into Iraq by the Cheney-Bush administration, there is a presumption that the partnership will continue.

What interest could they have in abolition? Like China and Russia, their governments would need to be satisfied that benefits of retention were few and risks of retention too great to be run. In addition, however, they would have to have composed a vision of security in a post-nuclear world no more uncertain than the security afforded by their current mix of nuclear and “conventional” arms.

They would win two advantages. Going first, they could define what the first step would require, and put China and Russia in the position of having to reply. And they could claim to be meeting NPT Article VI terms.

There would be strenuous resistance from nuclearists, America Firsters, and political opportunists in the United States. That expectation alone could deter a US government from beginning even exploratory bilateral talks. There would be questions about Washington’s obligations under ‘extended deterrence’. Would the United States offer positive guarantees not only to those with whom it already has made security commitments, but also to relatively underarmed ‘friends’ against whom threats might be made?

Collective security for Europe and North America is bundled into NATO. But NATO is explicitly defined as a ‘nuclear alliance’. Perhaps stubborn retention of nuclear weapons on European soil will be abandoned because no good reasons can be given to continue it. And there

\(^{20}\) The CFE Treaty entered into force on 17 July 1992. Its history was troubled. In 2007 Russia gave notice of its intention to suspend being bound by the treaty.
is the issue, as long as nuclear deterrence is practiced, of a ‘European deterrent’.

**United States, France, and Britain**

Carry this one step further. Three NATO member countries are nuclear-armed. During the Cold War the Soviet Union pictured itself facing the combined forces of the United States, France, and Britain.

Would it make a difference if abolition were broached by all three in consultation with one another?

France’s response to Barack Obama’s Prague speech of 5 April 2009 was decidedly lukewarm. If the British position is that they would like to have abolition but cannot because the conditions for doing so are not present, must be carefully laid in place over an extended period, and will even then depend on the circumstances at that moment, the French position—in a nutshell—is that nuclear weapons prevent France from being overrun again as in 1939, and that no one can be sure what the threats in the future might be.

But if any two of these three were ready to **explore** abolition with other of the N9, then if three were able to articulate agreed terms and expectations then their influence on the other six would be greater. Their agreement would suggest a joint US-EU position, which Russia and China could not easily ignore. Nor could it be ignored by the lesser nuclear-armed states.

**Russia and United States**

If it is true—and I believe it is—that the strongest obstacles to zero are posed by internal political facts in Russia and the United States, then it follows that if they could agree that zero was in their interest then the gates to abolition would swing open. This is more than a vacant truism. It could be translated into other governments’ requests—or demands—that Moscow and Washington define their terms and conditions for zero and explain how they imagine a transit to zero could be carried out.

Avoidance of ‘conventional’ war in a post-nuclear world will require that numbers of governments assume readiness and responsibility to act **over a long term, an indefinitely long term**. They can declare readiness to do so. If Moscow and Washington laid their own concerns on the table,

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and if they could show that those concerns were ‘reasonable’, then other governments would be in a position to respond, to declare the commitments they were prepared to make.

Of course, you can lead a horse to water … But the issue of nuclear weapons’ retention is as serious, as life-threatening, for the people and therefore governments of the non-nuclear-weapon states as it is for US or Russian people and governments.

In both countries there are cadres of specialists in technical and procedural subjects whose expertise will be required to get to zero and to sustain zero once achieved. On certain well-defined matters they have exchanged information and methodologies. They have experience in wary collaboration. Their stockpiles dwarf those of others.

And both are endangered by the very inventories they maintain. They are targets. They are vulnerable to accident, theft, and unauthorized use; whether they are more or less vulnerable than others doesn’t matter much. They have reasons for zero, and reasons to work together for zero.

France and Britain

Britain and France have acknowledged talks on nuclear issues since 1992, when they created a Joint Commission on Nuclear Doctrine and Policy. Collaboration continues, in revised form. They have not, as far as the public record shows, coordinated patrols by their ballistic missile strategic submarine forces, but there may be a form of ‘mutual unilateral’ coordination.

Consultations are sufficiently close that their views on a ‘nuclear-weapon-free world’—which are far from identical—must be a subject of conversations. It may be that they see one commonality in their positions: that the status quo should not soon be altered, and that acknowledged joint measures may be tuned to discourage any moves or momentum toward zero.

China and United States

Given the suspicion of China among US military commentators and Congressional figures, it may seem strange to suggest a US-China

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partnership on fundamental nuclear policy. What common interests do they have that could make them candidates to begin a serious exploration of going to zero?

Their economies—above all, their ability to feed their people—are heavily dependent on war avoidance; they depend on the uninterrupted movement of food, fuel, and materials; while their infrastructures are growing and becoming more elaborate, they are also increasingly interconnected domestically and increasingly vulnerable.

Arguments that apply to all nuclear-armed states apply to them: that they become targets, and that they are not immune from the three threats of accident, theft, and unauthorized use. Two of China’s neighbors—India, and Pakistan—deploy nuclear forces, growing in numbers and delivery capabilities, even if the current numbers are modest. North Korea has exploded nuclear devices. In addition, Japan has a large stockpile of plutonium from which viable nuclear weapons could be manufactured in a time frame of several weeks or a few months. China now practices minimum deterrence, but its position would be objectively safer if it could rely instead on a robust, well-designed prohibition regime.

To the extent official Washington or elements within the US military believe that China presents a ‘threat’ to the United States, the worst form that ‘threat’ could take is actual use of nuclear weapons. One reaction, unsurprisingly, is to deepen US reliance on nuclear deterrence. But another, again adopting the ‘objectively safer’ test, would be the same robust, well-designed prohibition regime that could provide China’s military and party leadership with confidence in the resultant security. The US Army Chief of Staff visited China in February 2014, professing the importance of cooperation and avoiding misunderstandings, and the US Secretary of Defense, Chuck Hagel, is scheduled to be in Beijing in April 2014.

Disruptive Initiatives

The antithesis of pursuing ‘global zero’ is unthinking perpetuation of the nuclear status quo. Is the status quo acceptable? Not if one believes that it runs unacceptably great risks, while failing to assure security. The implied question, of course, is what to put in its place. From that question spring

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compelling reasons to design, develop, characterize, explore, and refine alternative non-nuclear security systems. Unless there are alternatives to the nuclear status quo, we will continue to do what we have done since 1945. This is a main argument of my 2008 book Designing Denuclearization.

One way to pry people away from the comfortable—but dangerous—status quo is to present situations in which the tension between comfort and risk cannot be ignored … and alternatives to the status quo must be considered.

The draft Nuclear Weapons Convention [cf. §A1] is a disruptive initiative in itself. It is nothing less than a global security alternative. It addresses how a nuclear weapons prohibition could be established in law. It illustrates the institutions and authorities that a zero nuclear weapons regime would require. Governments—acting on behalf of their States—must decide whether or not to go on record in support of such a Convention, and to offer reasons for whatever view they would voice. It even places the N5 and N9 on the spot; they can be asked to offer and explain their adherence to elements of the status quo. We can imagine that some 185 or 190 states would sign and ratify the Convention, or be ready to do so subject to the N5/N9 doing so, while some among the N5/N9 chose not to do so.

Turning to zones (§A2), how could a zonal initiative be used to challenge the status quo? Imagine proposing a nuclear weapon-free zone extending from the Atlantic to the Pacific. How could negotiators of such a zone manage the presence of US nuclear weapons in Italy, Germany, Holland and Belgium? Would an exemption—non-participation—be required by the nuclear states? How could the negotiators deal with the fact that NATO defines itself as a ‘nuclear alliance’? If the zone’s Pacific boundary included Japan, how would they respond to Japan’s massive plutonium inventory? What gesture, perhaps in the form of a proposed Protocol, could the drafters make to the N5/N9, as part of an effort to draw even the nuclear states into serious discussion of how to reach zero?

The joint Norway-UK exercise of 2007-2009 asked what could be learned by posing a problem in verification to a non-nuclear-weapon state. The simulation task was carefully chosen to avoid breaching the NPT distinction between nuclear weapon and non-nuclear-weapon states: that is, can effective verification be achieved (in the hypothesized circumstances) without passing nuclear weapon design information to the

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Providing governments with good reasons to believe that effective verification could be practiced would meet one ostensible objective of advocates of ‘step-by-step’ routes to zero (§A3).

Could one of the N5/N9 (see §A4) disrupt the nuclear club? A public commitment by a single state, say France or China, to abandon nuclear weapons subject to a credible condition would present the others with a challenge. The credible condition could take the form of all others making an equivalent commitment to abandon. Or the step could be non-deployment, the credible condition being reciprocally conditional non-deployment. Or it could be non-deployment on the credible condition that others’ non-deployment be effectively monitored and verified, as spelled out. The failure of unilateral no-first-use declarations to generate momentum for zero stems from the declarers’ neither conditioning no-first-use on others’ reciprocal commitment, nor attaching terms to prevent winning strategic or political advantage by defection.

The N5 already meet together. There has long been speculation about how and when the N6-9 would usefully join in discussing arms control proposals. As to abolition, the N5/N9 are likely to begin any serious explorations bilaterally. We can imagine other configurations. A usefully disruptive step would be to include in N5 or enlarged discussions ‘good offices’ figures who could insist that the N5 speak to global concerns. Enlarged discussions could not take the place of N5 or N9 meetings, but could ensure other interested parties that their concerns were also on the table. Would it defeat the purpose of N5 discussions of abolition if there were independent rapporteurs present who were free to characterize the content of the sessions, proposals discussed, objections raised? Shouldn’t the plenipotentiaries hear, from the best-informed, how concerns such as

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global warming and population rise thicken the case for prompt and secure denuclearization?

India has envisaged an agreement to reach zero by an agreed date, so that all negotiations of terms and conditions would take place under the threat of running out of time. Others of the N5/N9 have proven unready to abandon their right to say ‘no’ to conditions that they have not yet seen.

States are always free to make unilateral declarations, and to renounce any intention to perform a designated act. (Example: a no-first-use declaration; and a more complex example, the mutual unilateral arms control statements by which the United States and Soviet Union gave up significant strategic options in 1991.) Now consider the NPT, by which non-nuclear-weapon states agreed not to acquire nuclear weapons, but did not reserve the right to retrieve and cancel that undertaking if the N5 failed to forge a path to zero. What was originally understood as a ‘bargain’, an exchange of reciprocal commitments, was bent with time, taken by the N5 as theirs to ‘interpret’.

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How Best to Move to a Sustainable ‘Zero’?

While ‘all of the above’, or ‘almost all of the above’, would be a fair response to the question what actions should be undertaken, it is a glib answer and would provide no guidance about allocating scarce political resources. My criteria in judging how best to move to a sustainable zero would highlight these:

• open measures

• that invited governments to declare themselves, and especially

• put the N5/N9 on the spot, required to declare or be openly dumb;

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23 Arms Control Association [Washington]. https://www.armscontrol.org/factsheets/pnlglance

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eliciting explicit objections, claims that moving to zero would put a country’s security at risk;

• taking those objections seriously, as subjects of research and negotiation;

• designing institutions to provide verification and, if necessary, enforcement; and

• negotiating among alternative proposals the ‘who’ and ‘how’ of making and executing decisions required to sustain a zero regime.

Specific measures I would urge—or undertake, were it in my power to do so—include

• bringing a Nuclear Weapons Convention (on measures to prohibit nuclear weapons, and to verify and sustain a zero regime) to the point of opening for signature and ratification;

• calling for all States to create ‘denuclearization planning groups’ within government;

• establish a ‘nuclear war prevention center’ within the United Nations, as an instrument of the Security Council, to conduct ongoing consultation and review with all states possessing nuclear weapons and the capacity to fabricate them, to the end of establishing procedures and practices that diminish the likelihood of the loss or detonation of those nuclear weapons, whether by accident, theft, unauthorized use, or as an instrument of nuclear war.

• devising and undertaking further ‘projects on denuclearization design’, on the model of the UK-Norway verification project, and other models;

• deepen accounting for fissile material; establish a norm of full disclosure; facilitate moving fissile material irreversibly from

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military to civilian sectors; and in other respects support the type of work carried on by the International Panel on Fissile Material;

• initiate nuclear-weapon-free zones in regions where these do not exist and where there are states that would join such a zone if it were developed;

• call on the N5/N9 to identify all ‘tactical nuclear weapons’ in their inventories and to initiate and carry to completion their dismantlement and destruction on a strict timetable under IAEA supervision; and to place all fissile material realized by this dismantlement in secure storage under ongoing IAEA supervision;

• collect and make readily available media that portray, on reasonable assumptions and with respect for scientific accuracy, credible estimates of effects of the detonation of nuclear devices in different settings; and develop additional materials, and curricula, that would enable any interested citizen to grasp the scale and effects of nuclear weapon use, accidental detonation, and nuclear war;

• invite States to undertake discussions with others in their region, and with States which they see as collaborators, about how to achieve a broad ‘no-war security community’ and, where that was not reliably in place, reciprocal commitment to defensive military means, training, and deployments (as distinguished from those designed for offensive attack), with understanding of the problem of dual defensive and offensive use.
Abbreviations

CBW  Chemical and Biological Warfare
FMCT  Fissile Material Control Treaty or Fissile Material Cutoff Treaty
IAEA  International Atomic Energy Agency
NPT  Non-Proliferation Treaty [Treaty on the Non-Proliferation of Nuclear Weapons]
UNGA  United Nations General Assembly
UNSC  United Nations Security Council
Zero Nuclear Weapons, Global Zero
UN  United Nations
IAEA  International Atomic Energy Agency
MNWC  Model Nuclear Weapons Convention
N5/N9  see N5, N9
N5  United States, Russia, Britain, China, France
N9  N5 + Israel, India, Pakistan, North Korea
ICNND  International Commission on Nuclear Nonproliferation and Disarmament
GGE  Group of Governmental Experts
P5  Britain, China, France, Russia, United States
N6-9  Israel, India, Pakistan, North Korea
NSS  Nuclear Security Summit
NATO  North Atlantic Treaty Organization
NNWSs  Non-Nuclear-Weapon States
US  United States
SSBN  ballistic missile submarine
GCHQ  Government Communications Headquarters
EU  European Union
UK  United Kingdom

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