

MISUNDERESTIMATED ARMS CONTROL

UNSCOM and 42 practical lessons and conclusions
for implementing arms control regimes

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This paper is the expression of the author's personal views and does not represent the views or policies of the British Government or of the Weatherhead Center for International Affairs.

Since it is my intention to say something that will prove of practical use to the enquirer, I have thought it proper to represent things as they are in real truth, rather than as they are imagined.

Machiavelli, *The Prince*

INTRODUCTION

I was an UNSCOM commissioner for some three years, working at a senior level from the defence ministry of one of the permanent members of the UN Security Council, the United Kingdom. The UK took a considerable interest in Iraq—both before and after the Gulf War—and in UNSCOM; it has of course a long tradition of involvement in the Middle East.

Throughout its history, UNSCOM enjoyed strong UK support, not just at the political level but also through the provision of resources, effort and expertise including, importantly, manpower both UK experts in the field of Weapons of Mass Destruction (WMD) but also at the policy level, especially at UNSCOM's HQ in the UN building in New York.

This is not the story of the UK's involvement with UNSCOM; nor is it an attempt to tell the untold story of that organisation—the history of its work has been particularly well set out by Pearson (1999); and there are other more partial (if self-serving but interesting) accounts, especially that of Butler (2000), who was UNSCOM's second and final executive chairman.¹ Nor am I aiming to show why the world is right to worry about WMD (and thus to build norms against them) and particularly to be concerned about Iraqi possession and potential or actual use—although I support all these thoughts. My intention is more simple: to attempt to draw out for the implementation of other arms control regimes some lessons which can be learnt from the UNSCOM experience, especially at the practical, operational level.

¹ There are also "I was there" type books by Ritter (1999) and Trevan (1999), which are more colourful—not to say lurid—on occasion.

My perspective

UNSCOM was a very special organisation and it is important to bear in mind its very particular characteristics (described below) and to take them into account when considering other arms control regimes. This I have tried to do as I draw lessons and conclusions for wider use. But it is my general approach that much of the UNSCOM experience can and should be regarded as relevant to other more universal norms relating to WMD, such as the Chemical Weapons Convention (CWC) and the Biological and Toxic Weapons Convention (BWTC) in particular.

I recognise that my thoughts flow from the perspective gained by working on UNSCOM issues from a desk inside a defence ministry, from where I also dealt on a day-to-day basis with other arms control issues in both a political and a practical context. This experience naturally biases my take on UNSCOM towards the practical, the cost-effective and the feasible. Officials in busy Government departments rarely have the luxury of time to undertake the kind of policy analysis which is undertaken in the academic community. This, and the constant pressure on resources of all kinds, means that there is little opportunity for officials on a day-to-day basis to consider more than the next short-term step.

Nevertheless, many officials try to keep up with ongoing academic analysis of the issues on which they are working; and thus at the time they make decisions to have at least a sense of what might be judged by those outside as having better long-term effects than the next seemingly obvious steps. And, in my experience, most of those involved with UNSCOM on a day-to-day basis were very aware of the purpose of their work; this certainly helped them to consider how what they were doing was contributing to its long-term success.

In a sense, therefore, this essay is my attempt to consider at more leisure than I had when I was UNSCOM commissioner how well or otherwise things worked in the UNSCOM context and to do so in a more reflective and structured way than I could at the time. I also hope that—now that UNSCOM is no more—it is of value to make available my observations.

I am indebted to President George W. Bush for the portmanteau word, *misunderestimated*, of my title, which seems to me to capture the way that UNSCOM's work is understood internationally, now that memory of it is fading.

To a large extent my conclusions are based on the arms control and disarmament inspection regime as it was carried out in Iraq rather than on other parts of UNSCOM's work (such as the attempts to set up and maintain UN-run arrangements to control Iraq's access to internationally obtainable products useful for Chemical Weapons (cw) and Biological Weapons (bw), known as the "Ongoing Monitoring and Verification" programme (OMV)). I make no apologies for concentrating on the UNSCOM inspection regime rather than on OMV since it seemed to me at the time—and still does—that the former was the most important part of UNSCOM's work and potentially the most fruitful; although breaking new ground in international affairs and therefore to some apparently more exciting, OMV often seemed to be a futile endeavour—or at least one with very little future, for all the great effort made by the international community through UNSCOM to create it.

Finally by way of introduction, I do not offer conclusions from UNSCOM just because I know about the work of that organisation. It seems to me to be valuable to write now with an insider's perspective on the practical lessons to be learnt from the UNSCOM experience for two very different reasons; first, because there is already considerable *theoretical* academic

work on arms control regimes in general as well as policy analysis on the WMD problem as a whole deriving from arms control regimes other than UNSCOM. There is, therefore, clearly both widespread recognition of the scope of the WMD problem as it evolves internationally as well as considerable discussion of policy based on other WMD regimes. I do not believe that I can add much to either bodies of work on these, nor to demonstrate, even if I believed it, that there is a need now to introduce new or very different norms against WMD.

Secondly, given the nature of UNSCOM's demise, there is—as I suggest above—a danger that its achievements will be grossly underestimated or forgotten. If that were to happen, an opportunity would be lost to take the UNSCOM experience and see how it can help to fine-tune existing regimes at the practical, enforcement level.²

² That said, it is beyond the scope of this essay to make detailed comparisons between UNSCOM's work and that of the universal WMD regimes of control. Generally, however, it can be noted that the **CWC** is settling down reasonably well and operates completely in the real world, reflecting as it does a complex number of bargains made by the international community between very different national and international requirements, including preventing cw spreading on the one hand but protecting major commercial interests and concerns on the other. The **BWTC**, for its part, though an older treaty, is in the process of amendment and refinement, especially as it attempts to build a well founded verification regime worthy of the name. As far as can be judged by those now outside the day-to-day negotiations, UNSCOM's experiences have on occasion—but perhaps with reluctance—been recognised as relevant and have been properly taken into account by some of those who want to have a treaty with more bite, for example in the trade-offs for inspection techniques being made around commercial concerns.

THE TASK OF UNSCOM

UNSCOM was set up in 1991 by the UN Security Council (UNSC) under Resolution 687.

This established what was called a "Special Commission" reporting to the UNSC charged with carrying out the obligation imposed on Iraq of "the destruction, removal or rendering harmless" of "all chemical and biological weapons and all stocks of agents and all related subsystems and components and all research, development, support and manufacturing facilities." Ballistic missiles with a range greater than 150 kilometres were also to be subject to the same regime.

UNSCOM was also to help the UN Secretary General "develop a plan for the future ongoing monitoring and verification of Iraq's compliance " so as to ensure that Iraq's capabilities in these areas were never reconstituted. To that end, Iraq was obliged to accept that UNSCOM would carry out on-site inspections of sites based on Iraq's declarations and also of sites identified by UNSCOM itself. Iraq was also to accept that it should not "use, develop, construct or acquire" such weapons in the future.

To get the work started, Iraq was instructed to " submit.... within 15 days of the adoption of <the> resolution a declaration of the locations, amounts and types" of the items specified. This came to be known as the "ffcd's" (or "full, final and complete declarations.") The International Atomic Energy Agency (IAEA) was requested to exercise a similar function to UNSCOM's in respect of "Iraq's nuclear capabilities."

IRAQ AND UNSCOM

Iraq has for long been and remains in many ways a hard and even special case amongst nations, not least for its WMD position. In a volatile region, with an authoritarian, even tyrannical, regime which has often acted brutally (including against its own people), clearly possessing WMD programmes of several kinds—nuclear, biological and chemical—willing and able to use chemical weapons against the army of a state that it had invaded (Iran) and also against its own people; it was then heavily defeated in a war against a coalition of countries from both its own region and also from very far afield and forced to accept the abandonment and dismantling of its WMD as a price of a ceasefire. Thus, more perhaps than in any other recent case, arms control regimes were *imposed* on a sovereign state (which was and remains large, capable, mobilised, battle-hardened and defeated) rather than willingly or even reluctantly embraced.

Iraq has never shown any sustained—perhaps any real—sign of accepting the WMD measures directed towards it. It has cooperated at best grudgingly, cheated whenever it could get away with it (and even when it could not or did not), all the time clearly feeling aggrieved that it was singled out for special treatment, which it was, as US "rogue state" rhetoric indicated.

In short, and as we now know, Iraq worked from the beginning of UNSCOM's efforts to keep as much of its WMD capabilities as it could—intact if possible, but, if not, at a minimal level and thus able to be regenerated when the international pressure on it fell off. Iraq's strategy with UNSCOM throughout seems—to put it at its mildest—to have been dishonest: at best the illusion of cooperation, at worst barely concealed contempt for UNSCOM's efforts to enforce UN Security Council Resolutions, leading from time to time outright rejection of

UNSCOM and all its work. Iraq's ruling regime also clearly judged that at some stage the world would move on and leave it to settle its own affairs as it wished and that in the meantime the price of sustaining its WMD capabilities as far as it could was worth it, whatever the cost to its own people, including the forgoing of oil revenues.

INTERNATIONAL ATTITUDES

It should not be forgotten that, at the same time as Iraq's unequal status as a less than fully sovereign power was being maintained officially by the UN Security Council and demonstrated on a daily basis by the very existence and work of UNSCOM, Iraq's position was also being relieved and mitigated in practice. First, some of the Permanent Members of the UNSC (the "P5") clearly had mixed motives: their collective attitude to UNSCOM, which had been set up solely to oversee the will of the UNSC in relation to Iraqi WMD, quickly became far from consistent and at times difficult to read.

Secondly, many other countries around the world were not interested in sustaining a special, unequal position for Iraq; sometimes this was for commercial motives. Thirdly, there was throughout the life of UNSCOM persistent sympathy for Iraq from the people of its region, (though not so much from the regimes that rule in those countries), fuelled in part by appreciation for its historic role of keeping Iran at bay (Iraq as the Arab "gatekeeper") and also in part by the special treatment given to Israel in relation to WMD.

Finally, there has been continued concern in Western bien-pensant circles and beyond, initially sporadically expressed and then almost a commonplace, about the suffering of the Iraqi people caused by the failure to lift sanctions until the WMD problem was resolved. Iraq was well aware of all these points and sought to take advantage of them, with increasing success as time went on. All these factors to a greater or lesser extent made it more difficult on occasion for UNSCOM to carry out its duties.

UNSCOM'S ACHIEVEMENTS

Against that background it is important to bear in mind that UNSCOM produced results: according to a paper published by the UK Ministry of Defence (1999), UNSCOM destroyed or made harmless an impressive amount of hardware, namely a "supergun", 48 Scud missiles, 38000 tonnes of chemical munitions, 690 tonnes of chemical agents, 3000 tonnes of precursor chemicals, and biological and chemical related facilities and equipment. (At the same time the IAEA dismantled the nuclear weapons programme which it had found to be far more advanced than it had judged before the Gulf War.) This was more than was destroyed by the Desert Storm bombing campaign and is clearly a very great and impressive achievement.

These were important and visible results, which are perhaps less appreciated than they should be ("misunderestimated") because, as mentioned above, of the way the world community saw UNSCOM throughout its protracted life and especially because of the manner of its demise, (which was acrimonious).

WEAPONS OF MASS DESTRUCTION

Nuclear Weapons

As I am concerned with the work of UNSCOM rather than with that of the IAEA in relation to Iraq, I do not intend to describe the nature and effects of nuclear weapons; they are in any case well known, as being strategic in nature and able to cause the deaths of hundreds of thousands or even perhaps millions of people. In this context it is, however, important to note that Iraq does not seem to have ever successfully acquired nuclear weapons in spite of its great, expensive and clearly unlawful attempts to do so. It is interesting, nonetheless, to record the judgement of the UK government in 1999 that " if Iraq could procure the necessary machinery and nuclear materials, it could build a crude air delivered nuclear device in about 5 years".

Biological and Chemical Weapons.

It is important to distinguish between bw and cw as they require different technologies to be created and can have very different military uses.

Biological Weapons

A biological agent is a living microorganism or toxin; many such organisms are bacteria or viruses but can be fungal too. A toxin is not living but can be produced by certain species of microorganisms, plants or animals. Many biological agents are very easily manufactured. Examples of such agents are anthrax, plague and botulinum toxin. Biological agents are extremely potent, although affected by weather conditions. They can be spread by low

technological means; their effects may show up in a few hours (especially toxins) or in days or even weeks if there is a long incubation period involved. Like nuclear weapons, biological weapons have strategic uses and also like nuclear weapons they could be used to kill hundreds of thousands—if not millions—of people.

Chemical Weapons

A chemical agent is a chemical substance that can produce damage to people (and to plants, animals and material). Such damage may be lethal. Chemical agents tend to be liquid (rather than gas), fast acting (i.e. in minutes or hours at most), and made and dispersed easily. They can constitute an effective military capability against unprotected troops, (and of course can be devastating when used against unprepared civilians.) Examples are phosgene, mustard, sarin, and hydrogen cyanide. When weaponised, chemical agents have a tactical rather than strategic use, i.e. chemical weapons could be (and have been) used in battlefields to incapacitate or to kill thousands of troops.

To state the obvious, even if not possessing nuclear weapons, Iraq clearly had the potential to cause devastating problems for its region.

UK'S POSITION

The UK is a major power enjoying permanent membership of the UN Security Council. It has long experience of the Middle East, trading with many countries there and having military relationships with a good number too. It is a key member of NATO, possesses expeditionary armed forces, is a close ally of the US, provided a considerable force to the Desert Storm forces in the Gulf War and takes the problem of WMD seriously, especially as it is a recognised nuclear weapon state, is a depositary power of the BWTC (which it has consistently sought to strengthen) and is a firm and active supporter of the CWC.

Moreover, it has invested time and effort in the WMD problem internationally, both in its contributions to the NATO Alliance work on WMD in the 1990's (in which I was closely involved) and also in considering the threat on a national basis; it has subsequently published its conclusions. It has also worked hard to find ways to manage the WMD risks both to its military forces and to its civilian populations.

Finally, it must be remembered that the UK was able to support UNSCOM without strong commercial interests clouding its vision; it was thus able to do what it was most comfortable in doing, which is in concert with its closest ally, the US, to consider problems immediately before it with pragmatism, looking for the next achievable step which will help. As a result, the UK gave sustained effort to supporting UNSCOM at all levels, from the political including the highest (UNSC) to day-to-day, such as providing many staff and facilities. Unlike other countries, it did not seek either the dismembering of Iraq or its complete territorial integrity; nor did it worry excessively about Iran.

LESSONS OF UNSCOM

What follows for the rest of this essay are my views about the practical lessons we should learn from the UNSCOM experience for implementing other arms control regimes governing WMD.

I have divided them into 4 categories; namely, political, operational, bureaucratic and technical.

In all I have set out 42 points,³ consisting of 33 practical lessons and 9 general conclusions.

Finally, I have commented briefly on some of the most thoughtful and relevant academic writings

I have found which seem to me to be relevant—there are not many.

It will become clear that I have deliberately not addressed the question of how sensible was overall international or even Western policy towards Iraq in this period as it became evident to all involved that UNSCOM was not achieving anything like total success in disarming Iraq of its cw and bw. Nor do I describe the effects of intermittent UK/US bombing of Iraq on UNSCOM's work. And the questions arising from the UN's sanction regime (its effectiveness, its effects, regional and other reactions to it and the moral and practical problems associated with it) are also outside the scope of this essay—though not I hope beyond our consideration in other contexts.

³ No doubt by complete coincidence, in Douglas Adams' fine book/radio play/television series called "The Hitchhiker's Guide to the Galaxy" the number 42 is the answer to the "Ultimate Question of Life, the Universe and Everything," as announced by the computer "Deep Thought" after running a program to think it out for seven and a half million years. As Deep Thought observes in giving the Answer, the Ultimate Question is still to be formulated: "Once you know what the Question actually is, you'll know what the Answer means," it helpfully comments.

Political lessons

To maintain and implement an international arms control regime is a highly political matter requiring sustained international effort. Most of the political implications of this are obvious, but I will set out here the ones that seemed to me to arise and to have caused problems from time to time in the UNSCOM context.

1. Keep political support

A key lesson is that political support does not come or sustain itself automatically. Given the need for high level, comprehending and positive international engagement in support of an arms control regime and of its implementation, political support needs to be consistent and sustained—and overt; it does not need to be constantly proclaimed, but should be readily voiced if necessary. If a state under inspection gets the sense that the inspectors on the ground are acting only on their own behalf and that their reports will not get an objective—let alone welcome or positive—response from the political authorities to which they report, then that state's opportunities for non-cooperation, even direct attack on the norms being enforced, increase considerably.

UNSCOM was the creature of the UNSC and reported to it. Once the UNSC signalled its splits and thus its unhappiness with the UNSCOM message, UNSCOM began to function less well and ultimately was unable to function at all coherently.⁴ Although it is in UNSC's interests to react to breaches of WMD norms wherever and whenever they occur and to be seen to do so, it is the inspection body's leadership's responsibility to make a real effort to ensure continuing productive political support.

This requires time, resources and imagination, as well as sensitivity to prevailing political winds—a hectoring tone from that body's experts, overly detailed presentation of scientific data by them or their inability or unwillingness to see the implications of their work for those being asked to give political support and direction do not help.

For most of its life UNSCOM provided excellent regular reports to the UNSC and offered informal briefings to interested parties. This flow of information was a necessary but, as it turned out, not a sufficient way of keeping political support over the long haul.

2. Provide "carrots" and "sticks"

States are naturally jealous of their sovereignty and can always be expected to find outside control and inspection irritating, especially when it is overt, however open their society or innocent their behaviour—or even if apparently severely disadvantaged by defeat in war. There is therefore a need for a package deal which at one and the same time gives benefits to those observing international norms and provides threats of force or other sanctions to those who fall

⁴ This is not to say that a different UNSCOM leadership might not have made a better job at the end of its life against the background of UNSC splits.

short: in fine, there is a strong need for "carrots" as well as "sticks". These carrots can take different forms, depending on the arms control regime, but they must always be present if there is to be a reasonable chance of success; successful carrots in other areas of arms control so far have been, for example, direct financial rewards for compliance (as with the US to Russia on BWTC), or indirect for all states (such as liberalised trade as with the CWC), or political and other support (e.g. by US for Israel just for signing the CWC). Even purely rhetorical support for a nation by the international community can help at least in the short term. But if there are only sticks, there is a naturally increasing resentment within the state under inspection at being subject to a one-sided deal.

This was recognised in the Iraq case and UNSCR 687 tried to produce carrots for her; in theory the lifting of sanctions in return for good conduct was a very good carrot, but as an all or nothing deal it quickly became irrelevant, given the behaviour of the Iraqi regime. So too, as it turned out, did the very good "oil for food" arrangement. Thus, in practice, UNSCOM was quickly reduced to operating a sticks-only policy once Iraq became clear that UNSCOM would not easily recommend the acceptance of Iraq's avowed positions on its WMD.

This all-or-nothing approach turned out to be ultimately ineffective; what would have been better for UNSCOM's work would have been the production of new carrots, such as the progressive lifting of sanctions tied to specific actions on the part of Iraq. (In fact some efforts were made to produce new carrots, as in the proposed revisions to the "oil for food" arrangement and suggestions for better targetted sanctions; but the ideas put forward never really hit the spot).

3. Apply one standard worldwide

The injunction to apply one standard worldwide may seem a strange lesson to be drawn from the Iraqi case, where one of the main points of the UNSCOM regime was to be discriminatory. But the standard of behaviour to which Iraq was being held and was presented as being held was to conform to the existing international norms, i.e. signing the various WMD treaties and applying them without cheating.⁵ It is important to remember that these international norms allow research and trade on the technological areas that lead to bw and to cw and that the CWC (with a verification regime) is not yet universal, nor is the BWTC (without such a verification regime but with one in the making). UNSCOM rightly tried to confine itself to not interfering with legitimate areas of trade and to applying the UNSCR 687 fairly.

If Iraq had been willing to cooperate, such application of the norms would have been the best way to build confidence that the Iraqi WMD problem was over. A special regime of indefinite duration in accordance with which UNSCOM was not working itself out of a job would have been counterproductive from the beginning. There may—on grounds of realism—be a need to operate discriminatory regimes such as the NPT or subglobal or regional norms, and even to be seen to do so, but if the long-term health of the WMD regimes is to be maintained, then the fewer and more readily explicable of these exceptions to universality the better.

⁵ It is interesting to note that the day after UNSCR687 was passed Iraq recorded that it "welcomed" the resolution and declared that "we undertake...scrupulously...to cooperate" but that two days after that it stated that it had "no choice but to accept this resolution."

4. Discourage disarmament by declaration

Iraq on more than one occasion declared that it had unilaterally destroyed prohibited weapons or capabilities. UNSCOM sometimes established that some kinds of destruction had indeed taken place and in reporting the event and the Iraqi description of it to the UNSC found other states willing to accept Iraq's action as sufficient; this was so even when UNSCOM obtained evidence that the destruction was incomplete or designed to confuse or to conceal a continuing capability. Even then, some states preferred at times to give Iraq the benefit of the doubt, claiming to be driven by a concern not to undermine state sovereignty further.

Ideally, no disarmament by a state leading to destruction of WMD items should take place without outside observers—even a well-meaning state or one with an open society can be misunderstood, especially when it gives itself the benefit of doubts. Disarmament by declaration can play a part only in very special circumstances: perhaps the only recent example is South Africa's dismantling of her nuclear weapons when the apartheid regime gave way to a more broadly-based one; her subsequent announcement of the fact had a positive resonance internationally. This was because the announcement was a credible one, as most nations judged that there had not only been changes of great magnitude in the country but, importantly, that she was signalling a fresh start in the polity.

To cite the South African case is to show how very special it was; the international community clearly does better to rely on verified disarmament rather than on unilateral declarations such as were the norm before WWII: certainly it should avoid strenuously encouraging this method of disarmament. Hence the need for inspection activities to be built into arms control regimes.

5. Expect exposure rather than prevention

It is important to recognise that the whole panoply of arms control regimes—with their international inspectors, international verification techniques, requirements to declare activities, export control regimes etc—even when supported by evidence gathered by "national technical means" cannot prevent a determined nation with industrial resources above subsistence level from acquiring and perhaps from producing WMD. These may not necessarily be challenging WMD, such as nuclear weapons or exotic strains of bw agent. Chemical weapons have been tried and tested in many arenas and indeed their technology is rather old; and simple biological weapons are not beyond the abilities of undergraduates to design. In these circumstances it is important to see the value in arms control regimes as exposing rather than preventing the possession of WMD.

UNSCOM was very good at this, making well-founded and detailed reports to UNSC exposing Iraqi WMD efforts which at the same time showed—sometimes inadvertently—the impossibility of preventing Iraq from actually acquiring WMD. Given the practical impossibility of complete prevention, there can be a temptation on the part of some to regard the WMD problem as too difficult; but the correct attitude is not despair or to give up on the problem but, rather as the international community has done, to build norms against WMD and to use exposure of WMD possession as reason to consider international action. Such an attitude tends to isolate the hard cases like Iraq so that the world as a whole can concentrate on them.

As the UNSCOM experience demonstrated, inspection regimes should best be regarded as aimed at exposing those tempted to cheat, or preparing to cheat or actually

cheating, because it is very difficult for even the most repressive regime over time to perpetrate a lie of such magnitude that it is not interested in acquiring WMD when in fact it is. It might be noted here that absolute proof of cheating is very unlikely to be obtained by any feasible inspection regime and should not therefore be demanded before corrective international action takes place.

6. Inspections make violaters pay a price

Inspections cost money and expert resources to mount, if they are to have substance. However, the state under inspection bears the greater cost and not just in the sense of at the time of inspection. The threat of inspection and the reality of its being carried out cause immense complications to states tempted to conceal activities or to violate agreements or norms. A basic question for a state contemplating cheating is whether to conceal its illegal activities within legal ones (e.g. Iraqi bw) or to run them in parallel (e.g. Iraqi nuclear weapons). Both have risks and resource implications. Neither is necessarily a stable solution when inspectors may be in-country and able to check on e.g. industrial processes and capabilities or on where highly qualified staff (such as Ph.D. holders are employed) or on government expenditure patterns.

UNSCOM made life very expensive for Iraq as she sought to conceal her cheating over WMD. .As inspections complicate and vastly increase the costs of unlawful activities, this will help to put off all but the most determined cheats. Those likely to fall into this last category can be reasonably easily worked out by other interested states, taking into account the nature of the regime in power, the threat perceptions of the regime and the level of its technologies, its recent history etc.

Operational lessons

1. Political judgements determine action

UNSCOM, especially under its first chairman Ekeus, was consistently very sensitive to political realities and its position as a technical body informing but not deciding international action. It worked clearly within the terms of UNSCR 687, reported only to the UNSC and took directions from it. In the end as in the beginning of verification of arms control agreements, decisions on action and inaction will be made at the political level. It is important for all involved in the process to recognise this and especially for technical inspectors neither to expect automaticity in political decisionmaking when they report their results nor to carp at decisions subsequently or apparently consequently made. They should also not be dispirited by decisions that are not as they wish.

The technically qualified must also not aim off for political decisionmaking i.e. adjust their reports with the aim of influencing decision makers nationally or internationally e.g. by overhyping the threat, faking results or overselling their own confidence in results they put forward. To do so gets all involved in a vicious game of adjusting for others' subjectivity and spin. Moreover, it is important that technical people help the political decisionmakers understand the processes by which they come to their conclusions, especially if political leaders are to be asked to do brave or controversial things on the basis of technical reports. This will mean on occasion being able to give technically based presentations to political leaders.

Inspectors—chief inspectors in particular—must also build into their programme of work such presentations and acquire the skills to make them. Political leaders must be willing to

take technical advice and to try and understand it, even when it is offered on unfamiliar ground. The dialogue between decision-makers and technical staff will be and should be seen to be an iterative process but all should recognise that decisions will be made at the political level.

2. Scientific judgements are a necessary first step to action

UNSCOM worked well in coming to broadly based, comprehensible and explicable technical judgements. Inspection regimes must work to high standards of scientific behaviour in order to explain and justify their conclusions if they are to build and maintain international support. The normal scientific techniques of e.g. peer review, duplication of analysis of samples by different laboratories, multiple analysis, technical workshops and exchanges of data need to be observed even when the information is sensitive.

The processes followed to come to judgements must be transparent and explicable to nonscientists; but technical staff should not conduct their work less rigorously with this in mind. They also should not be overly concerned if they are pressed to give judgements on the basis of less analysis than they would wish, although it would be appropriate to give whatever health warnings they find necessary on the grounds of scientific integrity.

While the highest standards of scientific methodology need to be followed, it is advisable to avoid cultural bias by having well-qualified scientists from a variety of countries. This not only helps those at the technical level but also builds confidence in the results when they are presented to political leaders for action. In practice this means that there will be a political need to have scientists from the P5 as well as from a cross-section of the world community. UNSCOM was most effective when it took this into account.

3. Different WMD, different techniques, different abilities to detect

UNSCOM approached each of its dossiers separately, using different techniques on each and was indeed willing to certify Iraq's position on each on an individual basis. It recognised that, although there is an overlap in some of the toxins between bw and cw, these are distinct types of weapon (see above for details).⁶

For their part, cw are much more easily detectable than bw both because of the technologies concerned and also because of the scale of work required at the industrial level. It is important that the different (and tried and tested) WMD techniques and

⁶Nuclear weapons are different again and should be most easily detected even in the preweaponisation phase, given national technical means devoted to the task, international expertise in the IAEA, the massive types of investment needed to produce them and the difficulty of production to weapon standards.

methodologies to detect are used, that those inspecting or trying to find WMD are clear which ones they are looking for and that the different probabilities of possession are used in weighing the evidence.

It is a mistake for the weapons known as "WMD" to be regarded by inspectors as being in one special political or military category in which they resemble each other more closely than anything else. It is also important to bear in mind that because a state clearly possesses one type of WMD it will not necessarily want to have others. It may be that once the WMD rubicon is crossed this will be the case, but it is necessary to consider each case separately, especially if wider international support is to be maintained, and to provide types of evidence appropriate to the particular WMD.

4. Intelligence handling

Intelligence is clearly vital to an international arms control regime in its implementation aspect. The intelligence used needs to be timely, usable, reliable and free from political spin. Initially, it will to a large extent come from individual nations' sources but, as time goes by, the implementing organisation can be expected increasingly to gain its own and, if necessary, to be a supplier to other organisations. Intelligence needs to be securely controlled, including physically at base, properly evaluated and disseminated with care. Those with access, e.g. on the team inspecting, should be in no doubt when they are in receipt of special information and when they are not.

If this level of intelligence handling cannot be achieved, in practice the key requirement on a day-to-day basis is for the organisation not to be leaky: better to protect and keep faith

with those who provided the intelligence than to take risks with it so that secrets are unnecessarily exposed. Experience, including that of UNSCOM, shows that those providing intelligence, even from within an organisation, will make information more readily available when they believe that the potential users of it will handle it with respect. And national intelligence organisations will always begrudge sharing intelligence with international ones, and unless confidence is built up on both sides, intelligence will not flow, or will come sanitised, or degraded, or with a political spin.

Handling intelligence properly is not an inborn skill; thus, intelligence analysts will need to be recruited . It must be expected that they will maintain links (even if only informal ones) with their original national parent organisations: this can be helpful in getting updated or new information. The best way to handle this continuing relationship is to ensure that intelligence analysts know for whom they work and thus for the implementing organisation to pay them if possible; and the leadership should always aim off for analysts keeping their national identities. UNSCOM was very careful to do its best to handle intelligence responsibly and with care; as a result it was able to obtain and use intelligence to good effect. Nevertheless, it always had to work at the issue.

An underappreciated point is that intelligence can and should come from the country under inspection. UNSCOM showed the enormous benefits to be gained for inspection and monitoring regimes especially from whistle blowers and defectors. It is therefore a mistake for inspectors to assume that everyone in-country is against their efforts, even if the state involved is cheating: some nationals may well wish to help but can do only subtly or dramatically by burning their boats and detaching themselves from their employers. Intelligence gained in-

country and in these ways may be the most useful; it is important that inspectors handle themselves correctly and professionally so that protected sources are reassured.

5. Fix realistic deadlines for compliance

UNSCOM was set up in a hurry—for good political reasons—but in retrospect it is clear that too little thought was given to some aspects of its mission and that this had long-term consequences. In particular, the fifteen day deadline for Iraq's ffc'd's of its WMD and the forty-five day timetable for their subsequent destruction and thus full Iraqi compliance, as described above, were all unrealistic—as was recognised by most practitioners and by some political leaders and diplomats at the time. As a result, when these unrealistic deadlines passed without results, there was a great temptation for those implementing the inspection regime not to make too much of a fuss; it became hard thereafter to set realistic deadlines.

The lesson is that it is better to set realistic goals that can be met than absolute ones that seem foolish or irrelevant in retrospect or that can be presented as being so and, importantly, in which the practitioners have no faith from the beginning. A compliance deadline for completing the ffc'd's of some two or three months and six months for the destruction of the WMD capabilities would have been better.

There are other and very different areas where this lesson of setting unrealistic deadlines applies; for example, it is no good expecting even a well-organised and cooperative regime always to be able to produce key personnel in a technical programme at short notice to answer questions (or indeed for them to produce perfect records or to demonstrate complete recollection of events). At the political level which sets the requirements on the inspectors, there

is a continuing need to listen to advice on practicalities and for the scientists involved to be able to explain clearly why some things take longer than is desirable, whatever the political imperatives.

6. Stick to the mission

International arms control regimes are set up to undertake specific, circumscribed and clearly defined tasks in areas of some sensitivity for sovereign states; UNSCOM was no exception, even if it had wide, indeed largely unprecedented, powers (especially of on-site access) and operated against a background that some nations may have wanted to exploit for other purposes, e.g. intelligence gathering. There can be a tendency amongst non-technical staff in particular to try to expand an organisation's role; UNSCOM was not free of this, especially towards the end of its life under new leadership which looked at times as if it were interested in trying to resolve all the problems of Iraq and not just the WMD ones in its charge.

It is vital that these international bodies in particular confine themselves to their proper functions and work against the background that even a regime clearly cheating in one area still has rights flowing from its sovereignty, which will continue to be recognised internationally, and that it might not be in fact be acting unlawfully in other areas.

In other words, the history of UNSCOM—which was most successful when it stuck most closely to its brief—shows that clear terms of reference need to be clearly applied, (even if there are temptations to range more widely), if arms control regimes are to have continuing credibility and validity. If *per contra* arms control regimes are seen as and are vehicles for pursuing wider political agendas threatening the rights of nations in non-arms control areas, they

will rightly lose their force and effectiveness. In any case, it is difficult enough to implement arms control regimes without the organisation concerned trying to extend its scope: an organisation that is set up to do inspections but which finds itself operating on other ground will not perform its core tasks.

7. Immediate problems need early action

Unlike the IAEA (which has been criticised for devoting too many inspections and too much effort to Canada and Germany and too few to Iraq before the Gulf War), UNSCOM did not shrink from addressing the difficult problems in Iraq from the beginning. Thus, it worked on all its portfolios at the same time, planned and undertook various types of inspections and carried out its work in all parts of the country. It could have tackled its remit differently, i.e. by tackling the easier problems it faced first, such as counting missiles and looking at known cw facilities rather than pursuing bw, and then justified this as sensible on the grounds that it had to learn to do its job.

That it did not is to its credit, as bureaucratic experience shows that early patterns of behaviour become fixed and bureaucracies find it very difficult to learn from past practice with a view to adjusting future work patterns. In a sense, therefore, arms control verification regimes cannot practice before they operate but must hit the ground running and perform to a high standard from the beginning. And the UNSCOM experience shows that they do this best by not avoiding the difficult areas but by tackling them as soon as they begin their work.

8. Technology is not enough

WMD depend on technologies, some of which are sophisticated; and it is tempting to some technologically advanced countries in particular to attempt to detect and control them largely through technical means, especially as doing so saves on manpower costs and the risks to lives (e.g. from the exposure of inspectors to dangerous industrial processes). Such technical means have their place and a key role in particular in monitoring e.g. cameras on-site, technical sampling, use of laboratories. But there is no substitute for experts being involved on the ground: technology helps but can be subverted, especially by the state under inspection (as UNSCOM experience shows when e.g. cameras at factories failed or were tampered with). The state under inspection can also credibly charge that outside technology is not neutral but rigged against them.

There are, in fine, few conceivable technologies or technical fixes usable by an international organisation that can realistically provide unequivocal evidence on the question of WMD possession (short perhaps of a whole weapon system being taken out of a country with continuous international visual media coverage). Thus it will always be necessary to have people involved to make judgements—and they need to have clear and internationally defensible credibility.

This is not to say of course that technical means should not be fully used (and UNSCOM certainly made good use of equipment), nor that some countries will not be able to gather through their own technical means information that convinces them that WMD exists in a particular state. But even with the best technology there is great added value in internationally accepted experts walking the ground.

The clear lesson from the UNSCOM experience is that there are limits to the technology available to international bodies and that well qualified people will always be needed to carry out inspections.

9. Access to sites is necessary, even limited access is better than no access

Under UNSCR 687, UNSCOM had the right of access to any and all places in Iraq, regardless of their public visibility or sensitivity to the ruling regime. It was an ideal position to be in for an arms control implementation regime and of course not one fully provided for under any other WMD control regimes. No one involved was in any doubt as to the value of such rights of access; there is no complete substitute for visual inspection, however cursory, and even the threat of a visit can be enough to force a state to remain honest, or in the Iraqi case, more often than not to attempt to conceal its WMD programmes—with mixed results.

However, after a while UNSCOM was forced to agree special procedures for the most sensitive ("presidential") sites in order to be given any access to them; these put limits on the conduct of the UNSCOM inspectors when on-site. The UNSCOM chairman, Ekeus, presented these procedures as his own instructions to his Chief Inspectors—not as agreed with the Iraqis—and was robustly criticised, especially by the UK and US, for issuing a document containing the revised procedures. But it is very difficult to see what else could have been done, given the lack of coherent support at the highest level for a strict reading of UNSCOM's powers.

UNSCOM's experience suggests what we might guess, i.e. that we should always expect some difficulties over some sites which may not necessarily be related to WMD but to other politically charged icons and that, given the usefulness of visual inspection, it is better to go for some limited access rather than to insist on perfect access which may never be granted even by a well-disposed state. In other words that the best may be the enemy of the good.

UNSCOM in practice showed the value of the CWC arrangements: its managed access regime may well be the best way forward taking all factors into consideration, rather than being—as many of its critics think of it—a second best to universal access.

10. Monitor continually

An inspection regime takes sustained effort, even with a willing and cooperative state under inspection. One major question is whether the inspections should be continuous or continual and it is clearly connected with the question of the extent of reliance on technology. It is tempting to assert that, without an unbroken physical oversight of suspect or at risk facilities, nothing definite can be established—and thus to overspecify and to insist on uninterrupted monitoring and surveillance. In some cases, e.g. video monitoring, continuous monitoring can be achieved at reasonable cost (but even with this technical means it requires more human effort, e.g. in scanning tapes from monitors, than is often realised).

One realistic lesson to be learnt from the UNSCOM experience is that complete continuous monitoring is not possible, but nor is it necessary either at a technical facility (e.g. having someone sitting in an office all the time) or at the management level: in fact, given a reasonable range of inspection techniques, it is possible to build up an accurate picture of ongoing activities by dipping in and out of them.

Implementation regimes need to have the means to carry out both regular and surprise or short notice sampling of activities in the specific field under inspection so that a coherent picture can be built up; it is not necessary to insist on continuous monitoring and, if this is not obtained, worry that nothing can be found out that is worth knowing. Even given Iraqi non-

cooperation, tampering with equipment, prevention of inspectors doing their duties, and occasional expulsions of its staff, UNSCOM was able to have a clear sense of Iraqi programmes and thus of the violations. This was enough to allow for well-founded international judgements to be made about the extent of Iraqi compliance.

11. Documents and money are always important

The Iraqis sometimes -often—claimed that they had in the past spent money without a clear end in view or even randomly and that powerful figures in the regime were able to spend as much as they wished without proper authorisation. They also claimed to have poor recordkeeping skills ("We are just simple Arabs"). Such claims of complete bureaucratic inefficiency were usually and easily proved to be false by UNSCOM.

Tracing the use of resources, especially money, is usually very feasible in any kind of government machinery and always important to do. Financial authorisations and record-keeping may be affected by cultural factors, especially in authoritarian states, but even-especially—there, bureaucrats will tend to try and record information of this kind, if only to protect themselves. It is therefore important to follow the money and usually possible to do so; this should not be done throughout the world with Western expectations of propriety, clarity of recordkeeping or standards of investment analysis or cost benefit consideration.

Time spent in understanding how such decisions are made in the bureaucracy under scrutiny will not be wasted. But it remains important not to expect perfections which even in the most recordkeeping of countries would not be achieved. One particularly practical point is that

expenditures in foreign currencies are usually given special higher level consideration in any bureaucratic system and should be the more easily uncovered.

12. Credibility of management needs to be established

Even in a democratic country or one trying to cooperate with an WMD implementation regime, there are some in the official hierarchy who are more influential in practice than others (and thus some less so, even if they do not know it). In a less than open or authoritarian society, personal relationships may matter more than official lines of control. It is useful and should be very possible to work out who really does call the shots and how. Ability to commit expenditure is usually a good sign, as is real knowledge of the issues under questioning and offering considered opinions about the main parts of the programme.

If the state under inspection is uncooperative, it may even assert, as Iraq did, that some individuals were in charge of processes when they were not—in order to protect those with real knowledge (including their identities) as well as the true picture of what was going on.

UNSCOM learned not to take Iraqi claims of management responsibility at face value but tested them to see if they made real and common sense. UNSCOM was consequently able to work out where there were sudden unexplained gaps in successions to management positions and discontinuities in personnel involved with an organisation. UNSCOM took a sceptical attitude towards soi-disant managers when they were offered as being in responsible positions managers but who seemed to be at too low level of competence, too junior, or simply unqualified. All these pointed to concealments of staff or activity by the Iraqis.

That said, it is important not to judge simply by home standards—other societies than one's own may organise themselves differently so that those with key loyalties or social backgrounds are put in charge, even though the job is in practice to some extent beyond their competence. The key lesson from the UNSCOM experience is that inspectors should not take claims at face value that specific individuals are in charge, especially from them—even when they seem to think they are—but for such inspectors to draw up their own organisation charts. Doing so will help understanding of bureaucratic enterprises.

13. Media handling is difficult but vital

Any international arms control efforts can be or can quickly become newsworthy—this is especially the case where the actions being taken are controversial; even if individual activities seem not to be likely to generate media attention, because they are routine for example, they can become of public note very quickly. Comprehensive—or at least well considered- media handling plans need to be drawn up and operated by those concerned in the inspecting organisation. It is to be expected that nations will have such matters well in hand.

UNSCOM played the media game well and in the process showed that it worked best when the technical staff confined itself to its strict terms of reference and allowed its leadership to handle the media.

Discipline amongst all the staff is also necessary and as well as a willingness to stick to the facts rather than to speculate. Most people, especially technical staff, will need instruction in media handling, as it tends not to come easily for them to be able to cope with the media—but there will nonetheless tend to be occasions when they cannot avoid dealing with it. Inspectors

need to speak as employees of the inspecting organisation, not as nationals of their own country and to be understood as such. It is also important for arms control organisations to bear in mind that technically based issues are not easily communicated to the public as a whole.

14. Expect confusion

Much of the time, even the best run organisation can do things because the staff are confused rather than because it is trying to hide something. When something puzzling or out of the expected happens, confusion is the first explanation that should be tried out for size on the ground; moreover, resentful bureaucracies or even just those having their internal workings examined and outputs challenged function less than perfectly, even—especially—military ones. It is normal in a bureaucracy to have instructions being passed imperfectly, or too late, or without sufficient explanation or to levels that do not comprehend them.

In Iraq's case, there were often extreme circumstances because staff were frightened to act rather than not to act because the latter was usually the safer thing to do. Inspection regimes should build in latitude for confusion, e.g. by giving inspectors instructions to explain as many times as is necessary their specific missions in clear terms, by expecting those involved at senior levels to be confused at times but unwilling to admit it, or even not to understand the language addressed to them and for junior staff to do nothing in a hurry. For inspectors never to give the benefit of the doubt to those being inspected is to make the staff in the state under inspection superhuman, as well as seeking to give them credit for performing a mystery when they are really perpetrating only a muddle.

This is, of course, not to say that there may not be concealment practiced on occasion or deliberate attempts to confuse; this was especially so in Iraq's case, and from the beginning of UNSCOM's work. Yet even there, it was possible over time for UNSCOM to distinguish fairly easily between simple confusion in the bureaucracy on the one hand and attempts to obfuscate and conceal on the other; it is to the credit of UNSCOM that it usually tried to make this distinction. How to do this in other cases will very much depend on the circumstances, but the UNSCOM experience suggests that the first response of an implementing organisation should always be to assume confusion on behalf of the staff.

Bureaucratic Lessons

1. Exploit bureaucratic behaviour and avoid being exploited

Bureaucracies are set up by higher authorities to give predictable and specified results, not ones flowing from the whims of the bureaucrats in them. All bureaucracies therefore tend to try to function in predictable ways so that all inside them know their specific functions, what measures they are responsible for and against what standards they will be judged; thus a member of a bureaucracy will tend to know what he must ensure will happen and in what timescales, and, crucially, at what cost in resources.

Bureaucratic patterns of behaviour are an opportunity for implementers of inspection regimes in regard to the state under inspection but can be a mixed blessing to the arms control implementation body itself. Iraq had to run its WMD programmes at some level in a bureaucratic way if they were to come together and produce results. Mastering the manner in which the Iraqi bureaucracy did this took UNSCOM a long way into knowledge of the

country's WMD programmes: at least, it always allowed UNSCOM to ask the right questions about them.

Even Iraqi concealment mechanisms fell into predictable—indeed obvious—patterns (e.g. protection of specific sites, transfer of forbidden items on specific vehicles in response to specific events). UNSCOM was able to track these and thus to build up a picture of the real situation, even when Iraq was devoting time and effort to concealment, simply because of Iraqi bureaucratic behaviour.

However, UNSCOM fell into bureaucratic patterns itself on the ground. While it was right to seek to maintain the highest standards of administration in its own internal control organisations, it was a hindrance to its work, when—recordkeeping apart—it carried out its inspections in predictable patterns, e.g. following unvaried times of departure to carry out an inspection in-country, even when the inspections concerned were supposed to be surprise ones, using standard routes to get to specific sites, hardly varying the size and composition of inspecting teams.

It is, of course, very hard for bureaucrats to change their standard operating procedures and to think in terms of taking the initiative. Military inspectors/specialists tend to be better at this, but the military inspectors employed by UNSCOM were normally employed for their technical expertise and not for their ability to be creative or even imaginative.

The UNSCOM lesson was that the real key to seizing the initiative on the ground is for the team leadership—i.e. the chief inspectors, prodded by and after careful preparation from the top leadership at base—to insist on a variety of approaches in carrying out inspections. In the end, it is a question of sustaining an inspection strategy with varying and largely

unpredictable tactics so that the country under inspection is always a little off balance.

UNSCOM after a short time was a little too inclined to conduct its implementation activities in bureaucratic ways and as a result its ability to run a comprehensive inspection regime was affected.

2. Money makes the world go round

UNSCOM suffered almost throughout its entire existence from not having soundly based finances (although it usually had the funds it required for its work, these were at many times not guaranteed to arrive when they did). It was thus forced to live on a hand to mouth basis, was often in fear of going bankrupt and had to send begging bowls out to nations more than once. The financial situation never seemed to stop it doing its major tasks, yet it clearly soaked up the time and energy of its leadership, probably inhibited some inspections (at least in scope) and clearly proved debilitating to morale and to the performance of some of its members.

Bureaucracies, in fact, are particularly unnerved by the prospect of spending money they do not have or of running out of funding at a foreseeable and imminent time, even when the salaries of those involved are not at risk.

UNSCOM might seem to show that it is nonetheless possible for an international body to carry out tasks reasonably effectively in these circumstances, even though stability and predictability in funding is very well worth seeking; indeed it might be argued from the UNSCOM experience that, failing complete satisfaction of funding needs, there are strategies that do not unacceptably degrade performance, ranging from an ostrich-like head in the sand

attitude through insouciance to denial and rejection of the problem (like an aristocrat of the ancien regime). But this would be a most dangerous lesson to take; the circumstances of UNSCOM were so special and some nations clearly willing and, importantly, able to give funds or equipment to UNSCOM without the international community taking the view that the body had become a creature of one or more nations.⁷

From the UNSCOM experience it is difficult to see how any other arms control implementation body operating internationally could function for any length of time while not enjoying a sound financial position, not least because the kind of qualified staff necessary to employ would not work very long for it.

Technical Lessons

There are some clear technical lessons (in the arms control implementation sense) to be learned; most are well appreciated and evident from other arms control implementation regimes, but it is useful to note that the following ones were to my mind particularly well supported by the UNSCOM experience.

1. Team leaders

There should always be a team leader of each inspection, i.e. the chief inspector. These should be qualified technically in the area of WMD in which they are working, be skilled in leading, know the policy framework in which they operate, able to command their forces and neither put out from their purpose by opposition in-country nor actively seeking it. They need to

⁷ But even here, towards the end of UNSCOM's life there were allegations of use by the US of UNSCOM for intelligence collection purposes, which proved to be a great destroyer of international confidence.

meet their team members in advance, have reliable equipment for their own use personally and be willing and able to communicate with nationals of the state under inspection, if necessary through interpreters.

2. Operational officer

There should be a clearly recognised (by the team) and senior level operational officer for each inspection. This should not be the task of the team leader/chief inspector, nor of the most junior or least technically qualified scientist in the team. It requires specific skills which can often be found most easily amongst military personnel.

3. Team members

They should not be in it solely for the money, e.g. between jobs or fresh from university. They need specific training for their inspection mission but should already have particular expertise, including scientific, so that they do not need to be trained entirely from scratch. It is useful to have the inspectors coming from a mix of backgrounds, especially including the military (who should be able to bring knowledge about weaponisation) and commercially trained staff (who can be expected to know how things work in industrial enterprises). Inspectors who do not fit in—for whatever reason—should be removed at the earliest opportunity, however their countries of origin take it. Team members should also be clear where their loyalties lie during their employment i.e. to the international body employing them; and, to reinforce this, it is best if this body pays their salaries.

4. Interpreters and translators

If required (and they often will be), they need to know not only the language of the state under inspection well enough but also at least the important parts of the technology underlying the WMD capabilities. Such staff should not be nationals of the state under inspection, let alone people offered by that state. It is better to avoid fraternisation between interpreters/translators and natives even though some low level intelligence might be obtained as a result, because the downsides are great (risking operational security or even to having the interpreters/translators subverted).

5. Operational security

This is vital but difficult. Inspections should not be planned in insecure places, let alone discussed in advance—as if in a seminar—with nationals of the state under inspection. As the inspection takes place, information should be securely handled on inspection sites in-country and, if it is done in real time, in reporting back to the HQ(s) outside the country. National communications or personnel should not be trusted. A secure base in-country (or, if necessary, nearby) is very helpful indeed.

6. Purpose of inspections

These should be well defined in advance and made clear to team members, even if the purpose is to go on a fishing trip and see what can be discovered (not an unacceptable reason, provided it is not forbidden by the arms control regime being enforced). They should be planned, if possible, on the basis of intelligence or at least reasonable and logical (not politically spun or wishful thinking or designed for the thrill) deductions from existing knowledge. Flexibility should be built in, as nothing runs completely to plan or completely predictably or like last time.

7. Do not help the state under inspection

Inspections should not teach the state under inspection either how to do better in concealment of prohibited activities, if that is what it is doing or contemplating, next time or even worse—how to make a better fist at making a prohibited item: the latter can result even from just the physical reactions of inspectors, especially if they relax and communicate on a scientific basis with nationals of the state under inspection—or even when they do not but indicate by e.g. expressions of surprise or other strong emotions that something is odd.

8. Use of force

Inspectors should not threaten to use force, and clearly force should not be used against them—arrangements need to be made for their protection, including self-protection. Aggressive physical behaviour by the inspectors in practice lets the state under inspection off the hook, because it can deflect attention to dealing with that rather than the underlying issue. Inspectors

should be prepared to accept low-level physical harassment, especially in a hostile situation with junior and worried nationals of the host country. There is a clear need for a degree of physical and psychological fitness on the part of the inspectors.

9. Transportation

This should be the responsibility of the inspection team, even if use is made of vehicles of the host state. Redundancy and duplication are necessary at all times if mechanical problems, whether contrived or innocent ones, are to be avoided as a cause of inspection failure.

10. Technical facilities

(Chief) inspectors should have easy access to reliable technical facilities. It is not necessary to provide a full range of laboratory facilities in-country but some basic level of technical support at hand is needed in the cbw field. In-country facilities rather than foreign ones can be less contentious from the point of view of the state under inspection; but if the former are used, they must not be under the direct control of the state under inspection. Similarly, reliable ways to despatch material/samples out of country are necessary. There may well be commercial sector reluctance to this, since sending a chemical or biological agent by a commercial airline or simply trying to walk on a commercial flight with a possible cbw sample is likely to arouse concern, unless it has been set up beforehand and an standard operating procedure arranged.

11. Surprise inspections

These have a large part to play in establishing the realities of a situation but are difficult to mount and cost considerable time and effort. They should not, therefore, become the only real tool of an inspection regime. In fact, regular, sustained, coherent sampling of processes and of capabilities can help to build up an acceptable picture which reflects the reality of what is going on, admittedly without the drama and excitement of surprise inspections. In practice, both planned and surprise inspections are likely to be needed, but inspectors should be clear which they are doing and of the value of both.

On the whole UNSCOM met these technical requirements well, sometimes very well, as in the quality of its chief inspectors. But there was always room for improvement, especially when staff employed did not realise the practical effects of their imperfect performance, e.g. in relation to operational security, which can seem irrelevant or just a tedious burden to inexperienced technical staff.

CONCLUSIONS

As I hope I have made clear, this essay is largely my writing down a set of lessons learned for the implementation of arms control regimes from the work of UNSCOM—lessons which I would have liked to have had before me when I was the UK's UNSCOM commissioner. I would also like to set out some conclusions relevant for the future of arms control implementation regimes which are more general in scope than simply the practical lessons which in my view UNSCOM revealed.

None of these conclusions is very new—which I find rather reassuring in that there has been plenty of arms control experience, especially since on-site inspections started in the 1980's. And a lot has been written about the implementation of the various international WMD regimes, so it would be a little disturbing to learn that many tricks remained untaken, much though I would have liked to have found new thoughts to ensure the success of arms control inspections flowing from my pen.

However, UNSCOM was a hard case in which to test arms control and specifically inspection techniques and there is, as I said above, a danger of forgetting the way in which UNSCOM experienced them in practice, given the way the organisation ended. Besides, the general points I want to make in conclusion may be cliches but it needs to be remembered that, even if encapsulating in a tedious way a well-known thought, a cliché is by definition true.

1. Work at being realistic

The main conclusion I find in my own experience of UNSCOM, fortified by the practice of other arms control regimes, is that it is all too easy to have unrealistic expectations—especially of the ability of arms control regimes to prevent rather than to detect breaches of international norms, of the ease of establishing the truth of a situation beyond a peradventure, of the willingness of even well-intentioned states to cooperate with outside bodies, of the international community's attention span, of other nations' willingness to see state sovereignty suppressed over a period. It is therefore important to bear in mind the need to be both realistic and practical, since arms control implementation is often a cumulative rather than culminative enterprise.

Giving up the effort to run WMD arms control regimes can be tempting but is not the answer; rather we should recognise that it is counterproductive to look for the ideal when it is not achievable and when less will do well enough, if we wish to make progress rather than simply to posture: in short, as in many other bureaucratic endeavours, the (desired but unachievable) best can easily become the enemy of the (realistically within range) good. This is, of course, not to say that our analysis of the problem should not be rigorous; nor that we should not strive to formulate and apply the highest standards that we can. But if we are to live in the real world of sovereign states, we need to have a clear view of how progress can really be made : UNSCOM helps to shows us how.

2. Norms are valuable

UNSCOM both confirmed for the international community beyond doubt that there was a real problem of WMD in Iraq and also clearly demonstrated that, without outside intervention, WMD there would have been (more quickly) reconstituted. It did so by holding Iraq to the international norms of bw and cw. This strongly suggests that the problem that WMD constitutes in international affairs can be usefully addressed by creating and enforcing international norms through internationally organised arms control implementation bodies; and further, that those interested in a stable and continuing world order (especially the P5) should seek to strengthen and promote them. Moreover, it also suggests that on the one hand unilateral, unverified declarations are worth very little and on the other that non-universal norms are not sustainable in the long term.

3. WMD knowledge lingers

The knowledge of WMD cannot be quickly lost, if at all. Once a nation acquires a WMD capability, it is very difficult indeed to say when it will lose it, even if it wishes to do so. Timescales for getting rid of it may well be longer than is even reasonably supposed at the beginning of the enterprise, even when the nation concerned cooperates.⁸

4. No easy solutions exist

Difficult international problems tend not to have easy solutions; in the arms control/disarmament arena, this is really very true. No silver bullet exists; we should not spend

time and effort seeking one but instead settle down for a sustained and coherent effort which will last well beyond the general public's interest and probably the international community's day-to-day focus on the issue. In some cases, there will always be a problem being resolved and never one brought to a finality beyond doubt. The important conclusion to draw therefore is that we should set up structures that will engage political support for the long haul.

5. Political attention is fickle

Political attention wanes even to the most pressing problem, as others crowd in demanding their place in the sun. And political leaders find domestic concerns are usually more urgent and important than even the most pressing foreign ones. Public attention wanders even faster, although dramatic incidents can spark an instant resurgence. It is especially difficult to sustain political, let alone public attention, on an international problem when there appears to be no end in sight or where there is a controversial circumstance or a discrepant factor, especially when the overall situation can be presented as inherently unfair. In the middle east, Israel's special case and the special handling she receives were a constant source of concern, whenever the Iraqi WMD problem came up internationally.

More generally, nations often tend to have more than one interest at stake in an international issue; thus French and Russian policies were in part driven by clear commercial concerns as well as a different sense of what international postures would produce better results in Iraq. Such factors could legitimately lead them to differ from the US and UK (whose own military based interventions in support of UNSCOM were not always helpful to that

⁸ Has South Africa lost its knowledge of WMD yet?

organisation's progress). The ideal of sustained and coherent international attention is not, therefore, really feasible for any great length of time; thus it is important, in order to achieve results, to take account of waning and erratic international and national political interest.

6. Beware of bureaucracies

Arms control implementation bodies assume the characteristics of bureaucracies very quickly, even when their leadership changes and even though some political leaders may try to push them into new patterns of behaviour to meet new circumstances. This is, of course, not all bad but can allow them to build up a false picture of the world. It is therefore necessary to give considerable thought to arms control regimes when they are set up so that their inertia will reinforce good patterns of behaviour rather than bad ones.

The key is for clear terms of reference to be drawn up with specific and achievable goals in mind and for the standard operating procedures which operationalise them to be ones which bureaucrats can understand and be guided by from the beginning. Any early action sets a precedent, even when it is declared as not doing so; it is very difficult to think and act outside the self-defined boxes created at the initiation of an enterprise. It is the job of leaders to evaluate performance of their organisation in the light of goals set and of events, i.e. to amend strategy if necessary in the light of bureaucratic behaviour.

7. Technical expertise underpins arms control regime implementation

Technical evaluation by technical staff is a vital first step in scoping the situation and determining the extent of the problem. But technical results will not automatically determine

actions at the political level; nor should they. If technical staff are to be influential in practice and helpful to higher level decision-making, they must learn to explain their results in ways that convince nontechnical, especially political, leaders. This means that technical staff need to carry out their work rigorously, using all necessary methodologies both technological and procedural and then be prepared to explain and defend their conclusions and make transparent their procedures. They must not spin their results in order to get actions which they wish to see followed. Nor can they stand on professional dignity alone when subject to political interrogation.

8. States' interests need understanding

Sovereign nations whatever their relationship with WMD—overt/hidden/past possessors, users past and present, threatened, having suffered use, acquiring or contemplating acquiring, free of, abhorring—will naturally consider any WMD question in a wider political context, seeking advantage to themselves as they can. Nothing emerges as national policy from only one set of motives and every nation will expect every other nation to be making similar calculations of national interest from its own perspectives (which they might not understand).

Thus the P5 and the international community as a whole approached the Iraqi WMD problem with a mixture of interests, motives and concerns, including their own WMD and military interests, perspectives on the Middle East as a whole and the various balances of power therein, commercial /financial interests and not least with a view to relations amongst themselves. The individual P5 balance sheets clearly came out differently in each case (although the US/UK on the one hand tended to have similar views, as on the other did France/Russia).

Although all the P5 could more or less agree on the nature of the Iraqi WMD threat, tactics proposed to deal with it were very often different.

The Iraqi regime for its part had its own mixed motives, ranging from keeping national cohesion against Iran, to regime protection, to revenge for its defeat in the Gulf War. It should have been no surprise that Iraq cheated UNSCOM whenever it could and felt no shame in doing so. UNSCOM did well to operate overtly at the political level on the basis that (full) cooperation was offered, but on a day-to-day basis working with a view to Iraq's wider motives and thus assuming some degree of cheating at all times and attempts to do so.

Finally, UNSCOM might have had a clear and internationally orientated mission but the UNSCOM staff were from specific nations with their own interests which they tended to reflect, at least initially before UNSCOM built up its own loyalties. Again, UNSCOM did well to engender an internally based view which allowed many to forget where their original loyalties lay.

9. Prepare for muddles

If no national motivation is 100% pure, neither is any arms control operation or result from one. Nothing comes with absolute clarity, nor without confusion, misunderstandings and obfuscation. It is important for those concerned to be aware of this "fog of war" and that many things are not in fact a mystery, but a muddle. That goes for the nation under inspection too: it may not be cheating but just mixed up. Standard operating procedures must reflect the fact that nothing will be done with absolute clarity—but that things are still worth doing and that reasonable conclusions can be drawn out of the fog. Thus, it is important that arms control

regimes are not regarded as failing if they do not produce absolute clarity: it will always be necessary to take a view of the results.

SOME ACADEMIC VIEWS

As I indicated above, I think it interesting and instructive to conclude by looking briefly at the views of others with some academic standing on the question of arms control verification from a practical perspective. Although much has been written at the conceptual and theoretical level about arms control (and lessons have been set down derived from such rarified discussions), there is in fact remarkably little so far written with a practical approach which seems of great substance to me. Nonetheless, there are some works worth considering, either because they are written with the UNSCOM experience in mind or because of their general reflections on implementation.

Pearson (1999) ranges widely and helpfully across the field as a whole and in general terms from his "web of deterrence" idea.⁹ Given his in-depth understanding of cbw from a practical point of view and his impressive book on UNSCOM, it is not surprising that his judgements are consistently sound, especially on the need to avoid western mindsets and the importance of looking to national legislatures to support export controls and for such controls to be realistically based. He does not concentrate directly or in depth on the kind of practical operational lessons that I have tried to set out above but does usefully address the need for chief inspectors and for ways to deal with sensitive information to be found.

⁹ This is his idea that to counter the proliferation of WMD four last things are necessary, namely, comprehensive arms control with intrusive verification, export controls, protective measures and determined responses to non-compliance with international norms.

Bailey's book (1995) is overtly based on an analysis of UNSCOM's initial twenty-nine inspections and does not therefore deal with UNSCOM's reaction to the very major revelations about Iraqi bw that emerged in the mid-1990's. Although written from the outside, it is nonetheless an interesting, thoughtful and helpful book, especially as in recording, for example, Iraqi deception techniques. Her central lesson—that " a non-cooperative inspectee can succeed in defeating the aims of the inspection to some extent"—is sufficiently general to be easily accepted, as well as being consistent with my own views (but it is of course the extent of the "some extent" that is the key to running these verification regimes).

Furthermore, her cataloguing of ways that Iraq sought to camouflage, conceal and deceive non-compliance with UNSCR 687—playing with information in various ways, removing equipment, taking the initiative, etc—are useful in guiding thinking as to how things might be done better next time and what inspectors should look for in other arms control areas, if there is suspicion of cheating. Moreover, her detailed proposals for operating an arms control inspection regime advance some very solid and sound thoughts on such matters as intelligence handling and operational security.

Dunn's book (1989) is a collection of essays by various writers published in 1989 and therefore compiled before the Gulf War. It does not specify in detail how inspections should actually be run. Nonetheless, it is useful in that its ideas are largely based on the bilateral (US/USSR) inspection regimes of the 1980s, e.g. the INF treaty, and on the proposals for how a cw treaty then under consideration should be developed. The last chapter on on-site inspection strategy (and actually written by Dunn) tried to look ahead internationally and came

to some very shrewd judgements about the operation of inspection regimes in non-nuclear WMD areas, (e.g. on the difficulty of on-site inspections preventing non-compliance, on the financial and other costs of ensuring treaty compliance, on the importance of not falling for cover stories). These points, of course, anticipate the UNSCOM experience. The book also advocates that the US embrace on-site inspections in the CW area run by a multilateral body (even more controversial in the US then than now) but that the US seek to limit their efficacy; it is ironic to note that some of the ways suggested, (e.g. that the US seek to ensure that there was a right of refusal to an individual site) were actually tried by Iraq.

Finally, Cleminson (1986) has considerable practical experience of government in Canada and was an UNSCOM commissioner throughout the life of the organisation. It is interesting to examine this brief publication—which is rightly billed as a conceptual paper and dates from 1986—in this light. Its purpose is stated as being to "develop further a concept of verification which can be utilized as a generally accepted basis of understanding."

The methods of verification set out include on-site inspections (whether general, selective or challenge), technological means and meetings. All of them—and more—were subsequently used by UNSCOM as described above. As the Cleminson working paper states, "verification is likely to be most successful in an atmosphere of cooperation," given the "close relationship between what is required under the name of verification and the application of modern intelligence techniques." The paper's very brief conclusion—that only "political will and financial support" are needed for "the effective solution of arms control problems before the

CD" (that is, the Conference on Disarmament)—was, however, not completely borne out in the case of UNSCOM.

o litel book, thou art so unconning,

How darst thou put thy-self in prees for drede?

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