

**UNIVERSITY OF SOUTHAMPTON**

**Establishing the Organisation for the Prohibition of Chemical Weapons  
(OPCW)**

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ABSTRACT

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ESTABLISHING THE ORGANISATION FOR THE PROHIBITION OF  
CHEMICAL WEAPONS

by  
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The Organisation for the Prohibition of Chemical Weapons is a unique example of the means by which modern diplomatic negotiation has produced a permanent structure designed to monitor the observance of a disarmament treaty. In the past, a State Party to a treaty for whatever purpose has been presumed to observe the principles of Pacta sunt servanda, the presumption that a State would uphold its international obligations. More recent history has tended to demonstrate that this is not necessarily a reliable presumption.

This thesis shows that at the core of all recent disarmament negotiation, the question of verification has been an overriding concern for most delegations. In 1948, the United Nations Commission for Conventional Armaments made a value judgement concerning Chemical Weapons by placing them in the same category as Nuclear and Biological Weapons, thereafter known collectively as Weapons of Mass Destruction. This classification was certainly present in the minds of most delegations attending the virtually permanent conferences on disarmament matters that took place in Geneva from the late 1960s onward. It is apparent that despite evidence of mutual regard and respect, their deliberations were constantly hampered by the mistrusts engendered through the bipolar confrontation that occurred during most of the post World War II period.

The construction of an organisation designed to provide reasonable assurance that known Chemical Weapons holdings would be destroyed and that no covert chemical arsenals were being developed is shown to have been critically influenced, not by the almost universal desire to achieve a reasonable compromise solution, but rather by the political changes within the USSR that brought about an easing of international tensions. It will be seen that the prolonged gestation period during which, the concept of an organisation for this purpose came to be developed was stimulated by a series of unexpected interventions designed to overcome seemingly intractable problems. It may be anticipated that some of these procedural techniques will feature in future negotiations.

The resultant Convention is complex and detailed. Its implementation has been adversely affected by problems related to funding but the fact remains that this Convention now serves as a model against which all future disarmament treaties will be measured.

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## Preface

Most thought is scarcely original and none more so than the basis on which this thesis was first developed. When it was originally discussed it merely involved a rather loose idea that 'something should be done about the Chemical Weapons Convention' which was at that time in its implementation phase. Dr Darryl Howlett of Southampton University suggested a much more focussed examination of the processes that had been involved in the establishment of the Organisation for the Prohibition of Chemical Weapons.

A considerable amount of scholarly effort had already been expended in urging the necessity for the Chemical Weapons Convention and the need for an Organisation designed to put it into effect. Initial examination of the available material suggested that despite the importance of the official negotiating bodies at Geneva, certain other influences both Governmental and private have had their effect on the process. In addition there was clear evidence that some influences on the outcome of those negotiations were completely outside the control of the delegations participating. Put into their context there can be little doubt that for all the efforts that were made by the delegations in order to achieve a workable Convention, political events outside Geneva had a profound effect on the outcome.

This thesis is an attempt to expose a number of these factors and consider their influence in the light of the historical background and current problems involved in the removal of this particular form of warfare from the global scene. It is accepted that the Convention is not perfect, but since it is rapidly approaching universality, the dangers that it seeks to eliminate in the first instance no longer appear to represent a serious threat to security. The subsequent phases involving the control of the movement of Chemical compounds constituting a potential threat may prove slightly more difficult. Fortunately there appears to exist a fund of goodwill that may assist in reducing those international tensions that might otherwise occur. What is clear from the relatively brief history of the Chemical Weapons Convention (CWC) is that future attempts to construct specific disarmament Conventions will certainly benefit from not simply the development of the CWC but also the administrative and operational experience of the Organisation for the Prohibition of Chemical Weapons.



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Inevitably I have put my family to no little inconvenience in undertaking this work. I am particularly grateful to my son Christopher for his patience in dealing with my computer problems, mostly of my own making. To both my other sons I owe a debt on account of their encouragement and support during some moments of difficulty. Finally and most importantly I must record my thanks to my wife Elizabeth, she has very patiently borne with my obsessive interest in this field of enquiry. I am aware of the many things I have left undone in the interregnum.

M.Moss  
Portsmouth  
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## Acronyms and Abbreviations

ACDA	Arms Control and Disarmament Agency
AHCCW	Ad Hoc Committee on Chemical Weapons
AHWGCW	Ad Hoc Working Group on Chemical Weapons
AIM	Administration Information Management (System)
BICC	Bonn International Centre for Conversion
BW	Biological Weapons
BWC	Biological Weapons Convention
CA	Chemical Agent(s) (The toxic element of a Chemical Weapon)
CAMDS	Chemical Agent Munitions Disposal System (at Tooele, Utah)
CBDE	Chemical and Biological Defence Establishment (Porton Down)
CBIAC	Chemical and Biological Defence Information Analysis Centre (US)
CCD	Conference of the Committee on Disarmament
CD	Committee on Disarmament also Conference on Disarmament
CFE	Conventional Forces in Europe Treaty (Arms Reduction)
CIA	Central Intelligence Agency (US)
CM	Chemical Munitions
CMS	Correspondence Management System
CPSU	Communist Party of the Soviet Union
CS	Orthochlorobenzalmalononitrile (Riot Control Agent)
CSP	Conference of States Parties (to the CWC)
CW	Chemical Weapon(s)
CWA	Chemical Warfare Agent
CWC	Chemical Weapons Convention
CWFZ	Chemical Weapons Free Zone
CWPF	Chemical Weapons Production Facility
CWRI	Chemical Weapons Regional Initiative
CWWG	Chemical Weapons Working Group (Citizens Monitoring Group)
DC	Disarmament Conference
DDR	German Democratic Republic
DG	Director General
DG XI	Directorate XI of the European Commission
DTI	Department of Trade and Industry
EC	Executive Council of the OPCW
ECOSC	Economic and Social Council (of the UN)
EEG	East European Group of States
EIF	Entry into Force (of the CWC)
ENDC	Eighteen Nation Disarmament Conference
ENMOD	Environmental Modification Treaty
EU	European Union
fSU	former Soviet Union
GSFG	Group of Soviet Forces in Germany
IAEA	International Atomic Energy Agency
ICRC	International Committee of the Red Cross (Geneva based)
IGO(s)	Inter Governmental Organisation(s)
IMS	Information Management System
INGO(s)	International Non-Government Organisation(s)
ISD	Information Systems Division (of the TS)
JACADS	Johnston Atoll Chemical Agent Destruction System

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JANET	Joint Academic Network
MAD	Mutual Assured Destruction
MOU	Memorandum of Understanding
NATO	North Atlantic Treaty Organisation
NGF	Northern Group of Forces (fSU formations in the Baltic States)
NGO(s)	Non Government Organisation(s)
NNA	Neutral and Non Aligned States
NPT	Nuclear Non-Proliferation Treaty
NWFZ	Nuclear Weapons Free Zone
OPANAL	Agency for the Prohibition of Nuclear Weapons in Latin America
OPCW	Organisation for the Prohibition of Chemical Weapons
PGTF	Poison Gas Task Force
PLO	Palestine Liberation Organisation
PRC	Peoples' Republic of China
PrepCom	Preparatory Commission for the OPCW
PTS	Provisional Technical Secretariat
PV	Procès Verbal (verbatim record of proceedings)
RAF	Royal Air Force (British)
RF	Russian Federation
SAB	Scientific Advisory Board (to the TS)
SIPRI	Stockholm International Peace Research Institute
SNCN	Security Non-Critical Network
SSOD	Special Session on Disarmament
SSSPF	Single Small Scale Production Facility
SWAPO	South West Africa Peoples' Organisation
TS	Technical Secretariat (of the OPCW)
UK	United Kingdom of Great Britain and Northern Ireland
UNDISCO	United Nations Disarmament Control Organisation (stillborn)
UNIDIR	United Nations Institute for Disarmament Research
UNLP	United Nations Laissez passer
UNSCOM	United Nations Special Commission (on Iraq)
US	United States (of America)
USSR	Union of Soviet Socialist Republics
VAT	Value Added Tax
VIS-EDMS	Verification Information System - Electronic Document Management System
WEOG	Western European and Other States Group (a grouping at the OPCW)
WEU	Western European Union
WGS 84	World Geodetic (datum) System 1984
WMD	Weapons of Mass Destruction
WTO	Warsaw Treaty Organisation

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# CHAPTER 1

## THE BACKGROUND TO THE CHEMICAL WEAPONS CONVENTION

Chemical weapons in fairly sophisticated forms have been in existence since 1915. At some stage most developed states have either possessed such weapons or considered a development programme. Military opinion is divided as to whether such weapons are likely to prove effective or merely an inconvenience. Most exponents of the concept of fast moving operations conducted by armoured forces tend to consider that CW would constitute no more than a nuisance. To well trained and properly equipped troops the 'Chemical Threat' would be unlikely to prove particularly serious. The belief that Chemical Weapons (CW) might offset the threat posed by other weapons of mass destruction has its exponents, but no state is likely to be deterred from responding to a CW attack with a more powerful system should it possess one: 'all necessary force' is an established principle of war. Unfortunately, CW are relatively easy to manufacture. The fundamental chemical compositions of most CW have appeared in the scientific press over the past two decades.<sup>1</sup> The temptation either to retain what has been developed or obtain what is desired to achieve parity is an extremely common trait in the realm of international armaments.

### **Aim of the Thesis**

The objectives of this thesis are threefold:

- first, to assess the nature of the CW threat in the context of global security;
- second, to analyse the processes of negotiation that led to the formulation first of an effective Convention designed to outlaw the very existence of militarily significant quantities of CW and further to enhance confidence in the effectiveness of that convention by introducing a process of monitoring and verification;
- and third, the aspect that is central to this dissertation, a consideration of the establishment of a permanent organisation tasked to carry out this vital role.

Consequently, the thesis intends only to examine the issues that affected the establishment of the Organisation for the Prohibition of Chemical Weapons

(OPCW) to the point where it became a functional entity. The subsequent problems of implementation, although relevant, are generally not germane to the issue under analysis except where they have been used to illustrate unforeseen problems.

The critical point at which this analysis concludes is the moment when the Chemical Weapons Convention (CWC), entered into force, 29<sup>th</sup> April 1997. This point was determined when the 65<sup>th</sup> signatory state (Hungary) deposited its instrument of ratification with the Secretary General (SG) of the United Nations (UN). It had been agreed that this event would trigger the 'Entry into force' (EIF) of the CWC 180 days after it had occurred.<sup>2</sup> The 65<sup>th</sup> ratification precipitated a frantic rush on the part of many other signatory states to ratify rather than miss the first Conference of States Parties. In addition, it caused considerable difficulty for the Preparatory Commission (PrepCom), that had been set up to put the Convention into effect.

### **Early Objectives of CW Control**

It is quite clear that the earliest post World War 2 negotiations on CW control had not envisaged the outcome to be anything like the complex convention that eventually transpired. A strengthened form of the 1925 Geneva Protocol, to take into account more modern developments, was probably all that was sought.<sup>3</sup> It is unlikely that the negotiating teams arriving to take part in the Geneva Conference on Disarmament in 1969 could have imagined that for many it would constitute a career activity lasting most of the second half of the 20<sup>th</sup> Century.<sup>4</sup> Their deliberations took place throughout the ebb and flow of the 'Cold War', which at times threatened to become 'hot'. Some close friendships developed between otherwise opposing individuals. Discussion at the unofficial level frequently occurred and, as will be seen, mutual regard sometimes transcended national enmity.

### **The Danger of Lateral Spread of CW**

For all delegations, of overriding concern was the possibility that Weapons of Mass Destruction (WMD) could be deployed in the minor conflicts that were taking place throughout the world during the period of negotiation. Nuclear weapons were, and probably remain, beyond the capacity of states with relatively limited industrial capability.<sup>5</sup> Conversely, Chemical, and for that matter Biological Weapons (BW), are easier to develop. Of much greater difficulty is the problem of delivery. Of

profound concern to all at Geneva was the realisation that in war, costs and consequences bear little relevance in the immediate issue of win or lose.

### **Rules of War**

War has frequently served as a punctuation mark in human history. It has rarely been conducted without some breach of what is termed 'civilised' behaviour. All too often one act of barbaric, cruel or inhuman conduct has resulted immediately in retaliatory action, thereby condoning the enormity of the original offence. As states emerged into organised entities, warfare tended to become codified; what could or could not be done in the conduct of war was defined. This establishment of 'norms' of warfare can be seen as surprisingly cross-cultural in its nature. For example it has been noted that, 'The idea that the conduct of armed conflict is governed by rules appears to have been found in almost all societies without geographical limitations.'<sup>6</sup> Quite early in the development of war norms, the use of poisons was deemed unacceptable to the military. The prohibition against the use of poisonous substances can be observed in the Manu [India] Laws of War circa 500 BC. Ancient Greek and Roman practice, Saracen interpretation of the Holy Koran and the code of European chivalry all either specifically or by inference required combatants not to poison their weapons. The earliest official treaty mutually agreeing not to use poisoned bullets was signed between France and various German states in 1675.<sup>7</sup> However, the use of smoke as cover for offensive operations or more simply as a means of driving an enemy from defensive positions was practised and accepted by all parties as a legitimate operational method.

### **Early limitations on CW**

The deliberate use of asphyxiating smoke advocated by Lord Thomas Cochrane during the Napoleonic Wars was treated with revulsion.<sup>8</sup> Cochrane, later to become 10<sup>th</sup> Earl of Dundonald, revived the suggestion when the allies were battering at the walls of Sevastopol and Kronstadt during the Crimea War. Again it was rejected on the general ground that 'its effects were perceived to be so horrible that no honourable combatant could use the means required to produce it.'<sup>9</sup> For virtually another fifty years this decision represented the views of all 'civilised' societies. This was confirmed by the Hague declaration of 1899 in which, 'The contracting Powers agree[d] to abstain from the use of projectiles the sole use of which is the

diffusion of asphyxiating or deleterious gases.’<sup>10</sup> It is an extraordinary fact that this clause had been inserted at the request of a Russian diplomat and referred to weapons that had not at that time been invented. The subsequent Hague convention of 1907 reiterated this prohibition and further prohibited the use of ‘poison or poisoned weapons’. Germany, broke the spirit of this convention when on 22<sup>nd</sup> April 1915, chlorine gas, discharged from cylinders, was released from the German front-line trenches and drifted towards the allied lines near Amiens. In support of the German action it must be admitted that ‘gas cloud’ attacks had not been specifically prohibited by either Hague convention.<sup>11</sup> It must further be admitted that both Britain and France had actively considered the production of various types of ‘gas’ shell prior to this event. Retaliation was relatively slow in being introduced by the British and French, primarily due to technical difficulties. Once the Hague convention had been actively breached, Britain and France undertook a heavy and sustained, if not altogether successful, CW campaign lasting until the end of the war. Although British ‘Cloud Gas’ retaliation could have been considered ‘justifiable’ in terms of retaliation and relying on the dubious basis that it had not been included in the Hague convention, the use of gas shells was quite definitely a breach of that convention. No serious argument against this breach was entertained in British military or political circles. ‘Chemical’ casualties of all belligerents probably amounted to some 1.2 million of who between 3% and 5% proved fatal. Most Allied commanders concluded that CW would become a battlefield ‘norm’

### **The Geneva Protocol**

Before the conclusion of hostilities, the International Committee of the Red Cross (ICRC) condemned the use of CW ‘with all the force at our command’ and called for its prohibition. The ICRC foresaw that if CW were not outlawed it feared, ‘a struggle which will exceed in barbarity anything which history has known so far.’<sup>12</sup> This statement, accompanied by general public revulsion against CW, seems to have led the Conference on Disarmament convened at Geneva in the wake of the Treaty of Versailles to consider the question of CW prohibition. Initial discussions had envisaged a renewal of the Hague prohibitions on CW and military opinion at the time was considerably divided over whether it was practicable to prohibit the ‘Gas’ weapon, or even if such prohibition was desirable.<sup>13</sup> Public revulsion at the effects of the weapons seems to have acted as a spur to the discussion of a ban on ‘Poison

Gas' as method of waging war. It featured at the Versailles Peace Conference as one of the thirty-two war crimes attributed to Germany and specified in the conference documents. The resulting 'Protocol' on Poisonous Gases and Bacteriological Warfare signed on 17<sup>th</sup> June 1925, had been intended to ban the production, stockpiling and use of such weapons. However, a substantial number of signatory states equivocated by applying a 'no first use' clause to their instruments of ratification.

### **No First Use**

For all practical purposes these 'reservation' clauses deprived the Protocol of its authority as a disarmament treaty since the major states continued to research and stockpile CW. It became, in effect, nothing more than a 'no first use' treaty. Germany, Austria, Hungary and Bulgaria the defeated 'Central Powers', were specifically forbidden to possess CW. However, by means of the Treaty of Rapallo (1922), Germany was enabled to continue research into such weapons through the good offices of the Union of Soviet Socialist Republics (USSR). Both states can be said to have benefited in the subsequent development of their chemical arsenals. In their support it should be noted that both states were parties to the Geneva Protocol and were merely practising the norms of conduct accepted by most other adherents to the Protocol. Japanese and US failure to ratify the signatures of their respective delegations undermined the universality of the Protocol, however limited it might have been. It would require another 50 years before these omissions would be rectified.

### **France as Depository**

France became the depository of instruments of ratification, presumably because France had experienced the greater part of the CW attacks and had ended that war as arguably one of the most powerful military states. While this may have been true in 1925, it was certainly not the case in 1940 when France under occupation could not have been in any position to remind belligerents that the Protocol still existed.<sup>14</sup> Subsequently, the Protocol has been acceded to by the majority of States and is still operative, being specifically acknowledged in the preamble to the CWC.



## **A Gentlemen's Agreement**

The absence of any clear prohibition on the development, manufacture and storage of CW meant that at best, the Protocol was a “gentlemen’s agreement”. It had no administrative or monitoring body to ensure compliance, and there was no defined process by which allegations of violation could be voiced. The dignified complaint made by the Ethiopian Emperor to the League of Nations concerning the Italian attack on his territory was heard in respectful silence but no action of a military or effective economic nature was undertaken by any of the member states. A consequence of the very limited constraints imposed by the Geneva Protocol was that chemical weapons became the objects of intense research and development in the inter-war period. In due course this led to at least two documented instances of the unrestricted use of such weapons against helpless opponents. In both cases, the victims and aggressors were signatories to the protocol, although only one of the aggressor states had actually ratified it.<sup>15</sup> Italy used CW against Ethiopia and Japan probably used CW against Chinese targets on 900 occasions prior to 1941.

President Roosevelt, in June 1942, unequivocally warned Japan against using CW.

As the President emphasised, he wanted to make it clear that:

if Japan persists in this inhuman form of warfare against China or against any of the other United Nations, such action will be regarded by this government as though taken against the United States, and retaliation in kind and in full measure will be meted out.<sup>16</sup>

This was a very positive declaration for a state that had failed to ratify the Protocol. However, it must be conceded that the US had been at pains to inform all the Axis states through diplomatic channels at the commencement of hostilities that it intended to be bound by the terms of all existing international agreements on the conduct of war. Whether Japan either acknowledged or reciprocated this declaration is not clear. There is a suspicion that the Japanese used CW during the conquest of Malaya but this issue has never been properly resolved.

## **The Relative Success of the Protocol during WWII**

The Second World War did not result in widespread CW use. Mutual fear of the consequences may have contributed to this forbearance. Prime Minister Winston Churchill certainly contemplated the use of such weapons in the event of an invasion of the British Isles. He may also have contemplated their use with a view to

hastening the end of the war in Europe but appears to have been dissuaded, not least by his military advisers. The accidental discharge of American Mustard Gas during a German air raid on the Italian port of Bari in 1943 was treated with great secrecy but the gas bombs themselves had been brought to Bari with a view to being available for retaliatory attacks in the event that Germany had decided to resort to this form of warfare. The ebb and flow of war on land had led to chance captures of CW belonging to the opposing side. When such events did occur, it appears that efforts were made to reassure the other side that the presence of these weapons did not constitute an intention to use them. Much has been made of the fact that they were not used, certainly in the European theatre. There is the possibility that Hitler, himself a victim of gas in World War One considered CW to be 'dishonourable'. Even when the Third Reich was *in extremis* he still refused to sanction the use of these weapons, although by that time Germany no longer had sufficient delivery means at its disposal for effective chemical action. Recounting the closing stages of the war, Parker draws attention to reports of the capture in German forward ammunition dumps of variously marked artillery shells.<sup>17</sup> Examination showed that some of these shells contained CW, including the previously unsuspected Nerve Agents. The refusal on the part of political authorities to authorise release of a 'special weapon' on both sides of the conflict is an interesting forerunner of the retention of political control exercised subsequently in respect of Nuclear Weapons.

### **Post-WWII Developments**

Post-war, the allies divided the spoils of prostrate Germany, including vast stocks of CW, together with the scientists who had been responsible for the discovery and development of the Nerve Agents Sarin, Soman and Tabun. Huge quantities of CW were dumped in the sea in various deep-water locations, although it would appear that this dumping was not always conducted with care.<sup>18</sup> Having secured access to the requisite information, each of the wartime allies carried out further research and development especially in the field of Nerve Agents. Britain gradually lost interest in CW, probably because the cost of maintaining weapons with such dangerous contents was becoming prohibitive.<sup>19</sup> An executive decision was made in 1956 to abandon CW and all remaining stocks were dumped at sea.<sup>20</sup> There was a resurgence of UK interest in CW in the early 1960s but any decision on action was deferred annually until 1968 when the matter lapsed. According to an article in the

*New Statesman*, Prime Minister Thatcher chaired a secret ad hoc cabinet committee to consider a proposal for the production of a UK Nerve Agent. It alleges that the Prime Minister was in favour but was dissuaded by her cabinet colleagues.<sup>21</sup> Britain contributed to US research, providing the formula for a completely new Nerve Agent 'VX', described by ICI as the most toxic substance ever discovered. The US and USSR both continued to manufacture and test CW although both states later acknowledged that physical deterioration of weapon stocks had presented problems. Throughout this period, the Geneva Protocol appeared to provide a satisfactory safeguard against the wanton use of CW. The Geneva Protocol remained in force and many newly emerging states in the aftermath of colonialism acceded to the Protocol thereby swelling the number of signatories.<sup>22</sup>

### **Allegations of CW Use**

There had been allegations by the Peoples Republic of China (PRC) that the US had used CW during the Korean conflict, allegations that were vehemently denied by the US but never objectively investigated. Another allegation was made against Egypt during its intervention in the Yemen civil war over the period 1963-1967. It would appear that at least some of the CW used had been retrieved from stocks abandoned by the British at the time of withdrawal from the Suez Canal Zone base. The possibility that other states would seek to develop CW continued to cause concern, particularly as it was becoming increasingly obvious that CW were not particularly difficult to produce from the fairly sophisticated chemical products that are available 'off the shelf'. Further accusations against the US in respect of its use of various chemical substances during the campaign in Vietnam highlighted that not all interpretations of the Geneva Protocol were satisfactory. The US military believed, and elements within the US military probably still believe, that 'defoliants' or 'herbicides' such as 'Agent Orange' are a legitimate means for the clearance of fields of fire. 'Operation Ranch Hand' involved the delivery of 82,000 tonnes of defoliants over the Vietnam, Cambodia and Laos border regions in the hope of exposing the 'Ho Chi Min' trail to direct observation and interdiction. It failed in its primary aim but exposed large sections of the indigenous population to the effects of carcinogenic and biologically mutating poisons. In addition, the US used lachrymatory agents such as CS gas as a 'weapon enhancement' technique, meaning that it could induce an enemy combatant to leave a defensive position and expose

that person to effective fire from other weapons. The fact that heavy concentrations of such agents in confined spaces can prove fatal was not considered by the US military to be in breach of at least the letter of the Geneva Protocol, to which in any event the US was not a party at that time.<sup>23</sup> The concept of 'weapon enhancement' by CW had been aired earlier in the projected use of Mustard Gas in Korea to drive Chinese Forces from their defences in order that they could be effectively targeted by Nuclear Weapons.<sup>24</sup> This project was eventually abandoned. British experience in Northern Ireland demonstrated that even used as a riot control agent, CS gas could prove fatal if the victim was subjected to a sufficiently heavy concentration or suffered from some previous infirmity affecting respiration.<sup>25</sup>

### **Weapons of Mass Destruction**

The desire to reduce international tensions by means of general disarmament marked the earliest declarations of the United Nations Assembly. Few could argue that removal of the means of waging war could be less than beneficial. Unfortunately, the essence of the 'Cold War' rivalry was very much in evidence in the very earliest exchanges between the diplomatic representatives of the 'big five'.<sup>26</sup> The sole possession of atomic (nuclear) weapons by the US, and its actions thereafter, persuaded the USSR that US intentions were hostile. The issue of 'Atomic' disarmament was regularly raised in both the Security Council and the General Assembly. In 1948 the UN Commission for Conventional Armaments, a subsidiary body of the Security Council that functioned from 1947 to 1950, classified Chemical and Bacteriological (Biological) Weapons as posing the same threat to humanity as that posed by 'atomic' weapons. This followed the much less specific General Assembly resolution of 24<sup>th</sup> January 1946, which called for the elimination of atomic weapons 'and of all other major weapons adaptable to mass destruction'.<sup>27</sup> WMD are fundamentally those weapons of which the main criteria are, 'indiscriminate effects and...relatively unpredictable consequences'.<sup>28</sup> As Bernauer has commented,

*Several experts have criticised this terminology because it puts chemical and biological weapons in the same category as nuclear weapons, even though nuclear weapons differ very much in terms of properties and effects.*<sup>29</sup>

This is not to imply that in the right circumstances, CW will not produce enormous casualties. However, nuclear weapons rely for their effect on blast, heat and

radiation, the first two of which can readily be identified with the properties of conventional explosives, whereas CW (and Biological Weapons) achieve their effects by a less direct attack on the life support systems of humans, animals and vegetation. Within relatively limited geographical areas, these forms of attack may prove devastating, but such weapons may also have their limitations. For example, Robinson suggested that, 'Against good antichemical protection [the tactical gains achieved by the use of chemical weapons] may be no more than marginal or strongly localized.'<sup>30</sup> In this contention he is supported by Hammick who suggests that in the purely military context, 'chemicals *per se* have proved to be of relatively limited value'.<sup>31</sup> In such circumstances, it must be assumed that, whatever the primary target, it is the civilian population that is most likely to suffer. Writing in 1985, at a time when a NATO v Warsaw Treaty Organisation (WTO) conflict was still a distinct possibility, Robinson further claimed that in such a conflict:

Noncombatant CW casualties would be vastly more numerous [than military] because the greater toxicity of modern CW agents (the nerve gases) would mean that clouds of poison would drift much longer distances downwind of their targets before becoming diluted to harmlessness; and civilians are [unlikely] to be issued with effective antichemical protection.<sup>32</sup>

Reports of Israeli experience during the Persian Gulf War in 1991 indicate that the civil population at large is extremely difficult to protect despite a national awareness of the existence of a chemical threat and extensive civil defence training programmes. Totally unaware and unprotected populations, such as that of Kurds in northern Iraq during Saddam Hussein's 1988 campaign of repression, are completely vulnerable and have no credible capacity to deter or retaliate. The evidence supporting these allegations of Iraq's CW use was very clear and specific, with a host of chemically wounded persons and even clearly identifiable bomb casings containing residues of various chemical agents being identified as the result of this campaign. To date, the culprit, has not been brought to account. In any event since the Kurds are technically Iraqi citizens engaged in an insurrection against a *de facto* if not *de jure* government, it is at least debatable as to whether such an action could constitute a specific offence against the 1925 Geneva Protocol to which Iraq was a signatory, as there are no sanctions attached to that treaty. The United Nations might conceivably have declared the attack a 'crime against humanity'. However, elsewhere the UN has had difficulty in dealing with the age-

old problem of sovereignty and the rights of the State. For example in The Republic of South Africa, in the Israeli occupied West Bank territory, and in Kashmir, the UN has condemned the actions of the responsible authorities but has been unable to enforce access or to alleviate the plight of the victims

### **New Chemical Threats**

Unprotected or poorly trained armies may well be devastated by such weapons. For example, the indiscriminate use of Mustard Gas by the Italian forces in Ethiopia in 1936 was a factor in the destruction of the outclassed Ethiopian Army which lacked most of the equipment considered essential by European armies of the period.<sup>33</sup>

The Iranian Army during the Iran/Iraq War of 1980-1988 was attacked by various chemical weapons and the casualty rates were probably only limited by the Iraqi inability to sustain a suitable level of chemical saturation. Their lack of appropriate equipment to protect themselves caused the Iranian Army to suffer substantial casualties, although not perhaps as high as might have been expected. They contrived to continue fighting and in general hold their positions. During the 1991 Persian Gulf War, although apparently refraining from using chemical warheads on its 'stretched Scud' surface to surface rocket weapons, Iraq demonstrated that had it chosen to do so, the Israeli civilian population could have suffered a level of casualties which would have been quite unacceptable and must have induced an Israeli response at an appropriately violent level. In the aftermath of the war, the then Israeli government suffered the political consequences of failing to honour the long established principle that any attack against Israel would be met by an appropriate military response. None-the-less, it seems very unlikely that Iraqi CW use could have altered the outcome of the war, unless the coalition had become fragmented by the participation of Israel as a co-belligerent.

### **The Efficacy of CW**

Chemical Weapons can be classified as 'Weapons of Mass Destruction'. Unlike the massive destruction available in the event that a nuclear device is detonated, or the potential long-term hazard of biological weapons, chemical weapons require constantly repeated applications to sustain the level of contamination to maintain their effects. Disregarding the inevitable environmental consequences, such as those generated by the use of Agent Orange in Vietnam, this need for further application

creates a logistic problem, which could seriously inhibit the supply of other munitions for the conduct of more conventional military operations. Robinson states that antichemical protection has now reached such a level of efficiency that, ‘the casualty-rates among combatants would be much lower for the expenditure of a given weight of chemical munitions than they would be for the same weight of conventional munitions.’<sup>34</sup>

He further claims that:

there is a law of rapidly diminishing returns governing the relationship between the weight of chemical munitions expended in order to impose degradation and the tactical benefit thereby derived. A large supply of chemical weapons in the hands of an enemy may thus be no more threatening than a rather small supply.<sup>35</sup>

A contradictory view expressed by Colonel Andrew Duncan claims that with the expenditure of 180 rounds of Chemical Munitions on a given target area:

75% of unprotected troops would receive a lethal dose (of a nerve agent) in about 20 seconds. By contrast, Soviet norms for conventional artillery fire would allocate some 550 152mm rounds to achieve 25% casualties in an area rather less than a quarter of the size of the illustrated target.<sup>36</sup>

Fortunately, no statistical evidence is currently available to support or refute either of these claims. Chemical weapons awaiting operational use present an additional risk in that if the storage dump in question happens to be struck either by accident or design, the resultant downwind hazard could produce extensive casualties and hamper subsequent movement.

### **The Danger of Surprise**

Many of the wars conducted during the 20<sup>th</sup> Century commenced without the benefit of a prior declaration.<sup>37</sup> It would be reasonable to deduce that CW deployed at the commencement of hostilities, before the opposition had been alerted, would probably completely dislocate defence measures, leading to a slow response. This is not to say that the defence could not recover, but it would be seriously disadvantaged and hampered by the dual problems of casualties and panic.<sup>38</sup> Joseph points out that, ‘Even with effective defences, the use of CW would have a dramatic effect on troop performance and, perhaps, profound political consequences on the will to fight.’<sup>39</sup> It is interesting to note that Joseph was writing some 2 years after

130 states had signed the Chemical Weapons Convention and 30% had already ratified. In such circumstances one is forced to conclude that CW should be regarded as a very potent threat, particularly to NATO operations on the periphery of the NATO area of interest. Israeli opinion firmly places such weapons in the class of “strategic”, with a potential for mass destruction.<sup>40</sup> In a hostile regional environment:

Israel... relies on a system of reserves to provide a surge capacity for its ground forces. A chemical attack against these reserve mobilisation bases and supply centres could seriously disrupt this central element in the Israeli defence strategy. In addition, if a chemical attack were to be used to disrupt or disable Israeli air bases, the primary arm of the Israeli Defence Forces might be crippled, at least until decontamination procedures were completed. In other words, chemical weapons aimed specifically at military targets and bases threaten the ability of the Israeli military to insure the survival of the state.<sup>41</sup>

This opinion clearly supports the view that chemical weapons, whatever their shortcomings, could be used effectively to strike a decisive blow in a modern, 'undeclared' war.

### **More May be Better**

Not all theorists believe that CW are best eliminated by control regimes. Some advocate proliferation as an effective tool. Zanders cites Feith who claims that, ‘no country in history has initiated chemical warfare against an enemy that had, at the time, a retaliatory capability.’<sup>42</sup> This view parallels one espoused in the nuclear debate, to the effect that general possession should lead to less risk rather than more.<sup>43</sup> Such a variation on the Mutual Assured Destruction (MAD) theme does not seem to have received much attention, but it has tended to strengthen the view held by many in the United States that since there can be no guarantee that CW will not be developed in secret, the US should not deny itself the capability of a response in kind.<sup>44</sup>

### **The Importance of Chemicals**

In the developing world, chemical engineering is viewed as an important route to development. Several states desperately need low cost fertilisers and pesticides, although the technology for their production is not dissimilar to that used for the



production of CW. The governments of developing states may have concluded that the developed states have no real desire to release them from the bondage of high cost reliance on external sources of the products of advanced chemical technology, and thus they may be tempted to seek their technology through alternative sources. Wallerstein declares that the economic structures developed by the PRC in its pursuit of economic development have resulted in the growth of quasi-governmental and semi-autonomous entities that have exported, 'dual-use chemicals, chemical production technology, missile technology and civilian nuclear technology... without the direct concurrence of the central government in Beijing.'<sup>45</sup> The Chinese central authorities do not encourage this enterprise but regulations are not easily enforced in such a vast territory.

### **Problem States**

Despite the existence of a UN register of conventional arms sales and transfers, the conventional arms trade is replete with loopholes created by false "end-user" certificates. It follows that similar techniques could be applied to the movements of precursor chemicals and chemical technology. In the event that a state really wished to secretly develop CW, there is a possibility that this could be done without it being brought to the attention of the recently established OPCW.<sup>46</sup> It should be noted that mere possession of a Chemical Warfare Agent (CWA) does not of itself render the possessor capable of waging chemical warfare. Of necessity, there has to be an effective delivery means together with a tactical doctrine and operational procedures. These require stockpiling, logistic support and training activities, all of which are likely to increase the risks of premature exposure. A small release of a chemical agent by clandestine means is perfectly practicable, as in the case of the Aum Shinriko attacks in Japan during 1995.<sup>47</sup> Such attacks may inflict fatal casualties but the quality of the chemical agent employed is likely to be crude and therefore of limited persistence.

### **UN Limitations**

The 1948 resolution of the Commission on Conventional Armaments defining CW as a WMD tended to place investigation of all incidents of the use of such weapons within the remit of the UN Secretary General. Unfortunately, no machinery was provided for the Secretary General to conduct investigations into allegations of such

use. While the remote detection of 'atomic' detonations had become a rapidly developing and accurate scientific procedure, no such means existed for Chemical or Biological weapons. Investigation into allegations of their use often proved impracticable given the time factor between the event and the arrival on scene of appropriately experienced and qualified investigators. This was particularly evident in the case of the Yemeni allegations against Egypt. The first allegations were made by volunteer medical workers, and surfaced some weeks after the events were alleged to have occurred. During the ensuing conflict, independent witnesses made several such allegations. But, in response to invitations to examine and pronounce on the evidence, UN Secretary General U Thant announced on 1<sup>st</sup> March 1967 that he was 'powerless' to deal with the issue. His comment that, '[T]he facts are in sharp dispute and I have no means of ascertaining the truth' is indicative of a general problem of determining actual use.<sup>48</sup> However, UK Prime Minister Harold Wilson was much less reticent, as he informed the House of Commons that he had evidence 'strongly suggesting' that poison gas had been used in Yemen.<sup>49</sup> The outcome of these allegations was inconclusive, in that Egypt was neither properly indicted nor condemned. The matter was overtaken by the crushing June 1967 Israeli victory over its Arab neighbours. In the light of the then US – USSR rivalries in the Security Council, it seems very unlikely that attempts to condemn Egypt for the use of CW would have been accepted without some commensurate counter-condemnation of Israeli 'aggression'.

### **Weaknesses of the Geneva Protocol**

By 1966, the 1925 Geneva Protocol had begun to reveal its weaknesses. The absence of any specific mechanism to investigate alleged breaches of the Protocol in an environment where such allegations were becoming frequent was a serious limitation. In addition, the term 'Bacteriological' had become inappropriate since the bacterium life form is not the sole vector of disease transmission. In 1966, Hungary put forward a resolution in the UN General Assembly calling for 'strict observance of the Geneva Protocol'. It further urged all states to ratify or accede to the Protocol.<sup>50</sup> In the absence of a specific condemnation of the US for the use of various Chemical Agents in Vietnam, the resolution was adopted. The fact that 'major powers' had thus far failed to ratify the Protocol was referred to in the debate, and was interpreted as a pointed reference to the United States.

### **The Eighteen Nation Committee on Disarmament (ENDC) and CW**

The ENDC which had been sitting in Geneva for some years, was primarily concerned with the issue of nuclear weapons and eventually succeeded in negotiating the 'Treaty On The Non-Proliferation of Nuclear Weapons' (NPT) in 1968. It should be noted that the safeguards system introduced by the NPT allowed for the transfer of civilian nuclear technology if its use was monitored by the International Atomic Energy Agency (IAEA). The IAEA was to have full and unrestricted access to all civilian nuclear programmes of non-nuclear weapon states. This included the right of periodic inspection of all plants and facilities to ensure that fissile material was not being diverted to clandestine military projects. The acceptance of a monitoring and inspection role for the IAEA was to have a profound effect on the subsequent development of a CW Regime. A consequence of the completion of the NPT was that the ENDC was free to place CW on its provisional agenda. In parallel, the 'Question of Chemical and Biological Weapons' appeared on the UN General Assembly agenda for 1969, following a General Assembly request that the Secretary General appoint a group of experts to examine the effects of CW and BW. The report of this group appeared in 1969 and was passed to the ENDC for discussion. A further, if less explicit, reference to US activities featured in the debate on a UN General Assembly resolution defining 'chemical weapons'. This definition quite specifically included the use in war of 'irritant agents and herbicides'.<sup>51</sup> The US, together with Australia and Portugal, voted against the resolution while many Western States abstained. It may be presumed that since Australia was then participating in the Vietnam War as an ally of the US, it would have been difficult for it to support the resolution. Portugal, at that time engaged in a long struggle against liberation movements in its African colonies, may have wanted to keep options open regarding chemical weapons. CW featured as item 4 on the agenda of the ENDC-CD between 1968 to 1980, during which time it was discussed both informally and in public plenary sessions but without reaching any serious conclusions or proposals.<sup>52</sup> International rivalries in the East-West context probably contribute to the virtual impasse.

### **The Biological Weapons Convention**

During this period, the United Kingdom, probably with some support from Canada, declared its abandonment of Biological Warfare and proposed to the ENDC that this

type of warfare should be detached from CW for the negotiation of a new treaty designed to strengthen the Geneva Protocol of 1925.<sup>53</sup> At the time, there appeared to be a dangerous increase in the number of states thought to be either CW possessors or to be undertaking research in that direction. The Geneva Protocol contains a general prohibition clause against the use of biological weapons but the problem of a suitable definition, within the context of a general CW prohibition, was to prove a stumbling block. British representatives produced a draft Biological Weapons Convention (BWC) that formed the basis of subsequent negotiation. It has been alleged that both the UK and the US had concluded that unlike CW, which they believed had a certain utility, the military use of Biological Weapons was not practicable and that therefore a separate Convention could be readily accepted. It should be noted that this Convention did not receive universal acclamation, possibly because the primary objective of CD negotiators was to strengthen the Geneva Protocol of 1925. Many believed that to negotiate a BWC ahead of a CWC would detract from the Geneva Protocol's authority concerning CW.<sup>54</sup> British support for the concept may have come from Sir Solly Zuckerman, later Lord Zuckerman, Scientific Adviser to the Cabinet, as he was wedded to the concept of disarmament.<sup>55</sup> The British and subsequent US inference that BW had little military value seems to be a rather odd conclusion, since there is evidence to suggest that both British and American experiments had demonstrated that such weapons were perfectly practicable and could produce a devastating effect. Writing of the US research programme during the period 1959 - 1969 one report states:

The last 10 years of the offensive research and development [of Biological Weapons] produced a substantial number of scientific advances. These advances provided a base of technical information on which it was concluded that biological warfare was eminently feasible.<sup>56</sup>

It is possible that this conclusion was reached on the basis that such weapons were only too practicable in the strategic sense and that defensive measures would be both difficult and expensive to achieve. Therefore, the sooner a ban on their use was introduced the better. It may also be presumed that the dismissal of BW as having no military application applied to its tactical use against troops in the field. Military personnel with the appropriate prophylactic protection are unlikely to suffer the effects of the introduction of a disease, however virulent, within a tactically significant timeframe.<sup>57</sup> This contrasts sharply with the immediate effects of CW on

unmasked troops, the essential tactical differences between the two types of weapon being that of persistence.<sup>58</sup> Even if a BW borne disease is detected in time to forestall infection, it may persist in soil or on vegetation long after a comparable CW had dispersed.

### **US Motives**

The US Government unilaterally abandoned its offensive BW programme and destroyed all stocks of BW whether in bulk or in munitions form. Part of the relative enthusiasm on the part of the United States for a BW Convention may have been prompted by President Nixon's domestic difficulties.<sup>59</sup> A foreign policy initiative might have represented a positive and popular achievement to set against the problems encountered on the termination of the Vietnam War, which had been an election issue. An incidental factor in this context was the US use of various Chemical Agents that were not specifically prohibited by the Geneva Protocol, and thus could be interpreted as humane. Because of this encouraging step it took only two years to negotiate a BWC. Critics of this proposal contended that the ulterior motive for this ploy was to make it easier for the United States to continue using harassing gases and anti-plant chemicals in Vietnam. It was suggested that, '[T]he effect of the British proposal to separate biological from chemical weapons... would not be to strengthen the Geneva Protocol but to weaken it.'<sup>60</sup>

With some reluctance other members of the ENDC agreed to adopt the resolution and a BW Treaty was produced remarkably quickly, being available for signature by 1972.<sup>61</sup> It should be noted that under Article IX of the BWC:

Each State party to this Convention affirms the recognised objective of effective prohibition of chemical weapons and, to this end, undertakes to continue negotiations in good faith with a view to reaching early agreement on effective measures for the prohibition of their development, production and stockpiling, and for their destruction, and on appropriate measures concerning equipment and means of delivery specifically designed for the production or use of chemical agents for weapons purposes.<sup>62</sup>

Although the BW Convention received substantial acceptance, the shortcomings in the treaty have led to the suspicion that some states are in breach of its provisions. Evidence gathered by the United Nations Special Commission (UNSCOM) on Iraq, determined that it is not only relatively easy to develop such weapons but that such

development is surprisingly easy to conceal. However, the Ad Hoc Group of States Parties to the BWC is currently attempting to negotiate a protocol to strengthen the BWC, including measures for verification by an organisation similar to the OPCW. Disregarding the reservations of its detractors, thus disencumbered of the BW element, the Geneva negotiations for a comprehensive treaty banning CW could now be undertaken.

### **Treaty of Tlatelolco**

A regional measure aimed at nuclear disarmament was put in place when the Treaty of Tlatelolco was signed in 1967. This Treaty committed twenty-one Latin American states to the Prohibition of Nuclear Weapons in Latin America. It, ‘forbids only the testing, use, production, acquisition, receipt, storage, and deployment of all nuclear weapons in the Latin American area.’<sup>63</sup> Significantly the Organismo para la Proscripcion de las Armas Nucleares en la America Latina (OPANAL) was established under the terms of the Treaty to act as a ‘control system and an agency to ensure compliance.’<sup>64</sup> In September 1991, under the terms of the Mendoza Commitment banning CW and BW from the territories of Argentina, Brazil and Chile, OPANAL was expanded to carry out verification tasks in respect of CW before the CWC came into force.<sup>65</sup> The mutual surrender of sovereignty on the part of twenty-one Latin American states may have influenced the development of a the concept of Regional Nuclear Weapon Free Zones (NWFZ) and subsequently of Regional Chemical Weapons Free Zones (CWFZ), an early example being the South Pacific NWFZ. For example, bilateral German talks took place during 1984 between:

the Socialist Unity Party (SED) on the eastern side and the Social Democratic Party (SPD) on the western, to discuss, *inter alia*, chemical weapon-free zone concepts for central Europe.<sup>66</sup>

These concepts might have been the only acceptable means of preventing the horizontal spread of CW had the CWC not come into effect.

### **US Policy Review**

An important factor advancing the cause of chemical and biological weapon disarmament occurred in the US. President Nixon had been carrying out a review of US policy on CBW resulting in his request to the Senate for advice and consent to

US ratification of the Geneva Protocol of 1925. The President announced a number of unilateral actions concerning US policy in respect of these weapons. The steps announced were :-

1. The United States would not be the first to use incapacitating or lethal chemical weapons.
2. The United States renounced entirely the use of all biological weapons, would destroy stocks of such weapons, and would discontinue research on biological warfare except research on defensive measures such as immunisation and safety measures.

The President stated his support for the British draft convention on BW, but would, 'seek to clarify specific provisions of the draft to assure the necessary safeguards are included.'<sup>67</sup> On 14 February 1970 the US Government announced that the US ban on biological weapons would also include 'biological toxins', substances that are chemicals despite the fact that 'the technology of their production resembles that of biological agents.' The essential difference between biological agents and biological toxins is that the latter do not have the capacity to reproduce themselves, typical examples being any of the numerous snake venoms. Their chemistry is incredibly complex and it has only recently become possible to synthesise these toxins in the laboratory. The relatively rapid elaboration of the BWC took place despite the misgivings of many delegations. They were concerned about the possibility that the treaty would open the Geneva Protocol to abuse by the US, which had not at that time ratified it. Although the US had technically vowed to respect the provisions of the Geneva Protocol, ratification was not finally achieved until several years later.

### **US Ratification of the Geneva Protocol**

The path to US ratification of the Geneva Protocol was prolonged, despite President Nixon's 'no first use' declaration. The delay was in part due to the intervention of the then Secretary of State William P. Rogers, who added a rider to the President's Message to the Senate:

It is the United States' understanding of the Protocol that it does not prohibit the use in war of riot-control agents and chemical herbicides.

This comment, tacitly confirming the worst suspicions of those who had expressed doubts concerning the reasoning behind the plan to separate chemical

from biological weapons. It also came close to inducing the Senate to reject the proposal in its entirety. It would prove to be the subject of vigorous debate both inside the influential Foreign Affairs Committee and on the floor of the House. Ratification became a hostage to the almost customary dispute between Congress and the Executive whenever the political orientation of the one is at odds with the other. US ratification of the Geneva Protocol took place in April 1975, fifty years after it had signed. But there were reservations: the US applied conditions similar to those of ‘no first use’ that had marred ratification by so many other states.<sup>68</sup>

### **The Conference of the Committee on Disarmament**

The ENDC was expanded in 1969 and became the Conference of the Committee on Disarmament (CCD). Amongst the many issues examined by the CCD was the need to seek, ‘a multilateral treaty on the complete and effective prohibition of the development, production and stockpiling of chemical weapons.’<sup>69</sup> Described as ‘the single multilateral disarmament negotiating forum’, its composition was technically limited but was structured so as to encompass global representation. Negotiations continued on a multilateral basis over a four-year period (1972-1976). The ‘Group of Socialist Countries’ submitted a draft CW treaty in 1972 modelled closely on the successfully negotiated BW Treaty.<sup>70</sup> The draft was limited in its compliance procedures, in that it had no in-built mechanism for action against transgressors other than complaint to the Security Council, a body all too frequently blocked by East-West rivalries.<sup>71</sup> The reason given for the rejection of this submission by the Western Group of states was that, ‘it fails to provide for any mandatory verification procedure.’<sup>72</sup> This contention highlighted a need for verification, apparently not required for BWC purposes, but which was considered essential for the CWC. They failed to suggest how this could be done, but ‘verification’ was to be the stumbling block that marred future negotiations for several years.

### **The CD and the UN**

In 1979 the CCD became the Committee on Disarmament (CD) and finally, the Conference on Disarmament, again using the acronym (CD). These successive disarmament negotiating bodies are not and were not United Nations directed activities, despite the existence in Geneva of the UN Centre for Disarmament and



the United Nations Institute for Disarmament Research (UNIDIR). The ENDC and successors:

have only a tenuous connection with the United Nations. They have, at the invitation of the Assembly, utilised the facilities of the United Nations and the services of the secretariat. At the request of the Assembly, they have submitted reports to the United Nations.<sup>73</sup>

Unlike the UN General Assembly, decisions of the CD are achieved by consensus rather than by majority vote. This procedure has the virtue of ensuring that agreement on any issue is unanimous, but inevitably progress tends to be very slow.

### **The Concept of an Organisation to Monitor Chemical Disarmament**

Over time, the delegates at Geneva were gradually drawn towards the concept of an organisation for the purposes of overseeing chemical disarmament.<sup>74</sup> They had become aware of the debilitating effects of non-compliance by States Parties to a variety of Treaty commitments not subject to some form of monitoring. Sea dumping, over-fishing, excess water extraction and arms sales had all been the subject of solemn Treaty commitments on the part of some or all States. The absence of any genuinely effective control measures rendered all such undertakings ineffective if a State Party opted to apply the needs of economic self-interest to the detriment of that particular regime. The NPT had a monitoring process that appeared reasonably successful. The important consideration was that if a suitable CW regime could be introduced it would be essential that an impartial and thoroughly responsible body perform the task. Sims pointed out that in the absence of a suitable existing body such as the IAEA or OPANAL, 'an entirely new organisation' would have to be constructed.<sup>75</sup> Moreover in the case of chemical weapons: 'the only existing organisation which could obviously be entrusted with disarmament control responsibilities was the United Nations.'<sup>76</sup> As will be seen, the UN was at that time undergoing very severe criticism in performing some of its other tasks and for its failure to act in allegations of CW use. If the UN could not be seen as the appropriate agency for this role then a logical consequence would be the development of a specialised body for the purpose, provided that such a body could be afforded the appropriate power and authority

## ENDNOTES

- <sup>1</sup> See for example "Chemistry in Britain" October 1995 pp. 782-786
- <sup>2</sup> Article XXI Convention on the Prohibition of the Development, Production, Stockpiling and use of Chemical Weapons and on their Destruction. Issued by OPCW, The Hague, Netherlands.
- <sup>3</sup> See for example, BERNAUER, Thomas, 'The Projected Chemical Weapons Convention: A Guide to the Negotiations in the Conference on Disarmament' United Nations Institute for Disarmament Research (UNIDIR) New York 1990, 'many countries thought it was necessary to strengthen the Geneva Protocol of 1925.' p.15
- <sup>4</sup> Technically, they would have arrived to take part in what was then the newly named 'Conference of the Committee on Disarmament' (CCD), successor to the Eighteen Nation Committee on Disarmament (ENDC).
- <sup>5</sup> BAILEY, Sydney D. 'Prohibitions and Restraints in War', Royal Institute of International Affairs, Oxford University Press, 1972, p.140. 'Nuclear weapons are not cheap.'
- <sup>6</sup> ROBERTS, Adam and GUELFF, Richard, 'Documents on the Laws of War', Clarendon Press, Oxford, 1982, p.2,
- <sup>7</sup> Treaty of Strasburg 1675
- <sup>8</sup> RICHTER, Donald, 'Chemical Soldiers', Leo Cooper, London, 1994, p. 15
- <sup>9</sup> PRICE, Richard, 'A genealogy of the chemical weapons taboo', *International Organisation*, Vol.49,1, Winter 1995, Footnote 35, p.83
- <sup>10</sup> Op.Cit. ROBERTS and GUELFF, p.36
- <sup>11</sup> For a German soldier's viewpoint of this event see 'Achtung – Panzer! By Heinz Guderian, Translated by Christopher Duffy, Cassell & Co. London, 1992 pp. 45-47. Note originally published in German in 1937
- <sup>12</sup> See Statement of the International Committee of the Red Cross Geneva to the Conference of States Parties of the Organisation for the Prohibition of Chemical Weapons, First Session, The Hague, 6 May 1997
- <sup>13</sup> Op.Cit. RICHTER, p.228
- <sup>14</sup> It is not unusual for a State or States to take on the role of depository for a Treaty. UK, US and USSR were joint depositories for the BWC.
- <sup>15</sup> Italy attacked Ethiopian troops and Japan attacked Chinese forces. Technically speaking, Japan could claim that it had signed but never ratified the Protocol. Similar excuses have been found for a variety of other breaches of commonly accepted International Law
- <sup>16</sup> WILLIAMS, Peter and WALLACE, David, 'Unit 731, The Japanese Army's Secret of Secrets', Hodder & Stoughton, London, 1989, p.94
- <sup>17</sup> PARKER, John, 'The Killing Factory', Smith Gryphon Limited, London, 1996, p.77 and Notes to Chapter 6
- <sup>18</sup> PEARSON, Dr Graham CB., 'Farewell to Arms' in Chemistry in Britain, October 1995, pp.782-783
- <sup>19</sup> At about the same time, the British Government under Harold Macmillan had decided to cast nuclear weapons in the role of primary deterrent against attack. This decision proved detrimental to the armed forces in general since all other equipment was neglected, but it also limited the British Government's options in the event of threats developing to which a nuclear response would be inappropriate.
- <sup>20</sup> Op.Cit. PARKER, p.104
- <sup>21</sup> CAMPBELL, Duncan, 'Thatcher Goes for Nerve Gas', *New Statesman*, 11 January 1985. Campbell gives no provenance for this claim, purportedly 'leaked' by a senior civil servant, but states that the Prime Minister, the Chief of the Defence Staff, General Sir Wilfred Bramall and the GOC 1 BR Corps, Lt. General Sir Martin Farndale were in favour of Britain developing a CW capability. Whereas the Defence Secretary, Michael Heseltine and the Foreign Secretary, Sir Geoffrey Howe were opposed.
- <sup>22</sup> According to the repository state (France), there were 121 signatories by July 1989
- <sup>23</sup> MANGOLD, Tom and PENYCATE, John, 'The Tunnels of Cu Chi', Guild Publishing, London, 1985. A vivid description of the lethal effects of CS Gas is given in pp.90-91
- <sup>24</sup> TANNENWALD, Nina, 'The Nuclear Taboo', *International Organisation*, Summer 1999
- <sup>25</sup> See 'Report of the enquiry into the medical and toxicological aspects of CS (orthochlorobenzylidene malononitrile)', Part 1 and Part 2. The Himsworth Committee 1961 and 1971, Cmnd 4713 and Cmnd 4775 respectively.

- <sup>26</sup> The 'Big Five' constituted the victorious Allied Powers, Britain, China, France, USA, and USSR. Since they formed the nucleus of the Security Council, they were the arbiters of the post-war world order.
- <sup>27</sup> UN. SC.3/32/Rev.1
- <sup>28</sup> BERNAUER, Thomas, *"The Chemistry of Regime Formation"*, United Nations Institute for Disarmament Studies 1993, p.20
- <sup>29</sup> *Ibid.* p.20
- <sup>30</sup> PERRY ROBINSON, Julian, *"Chemical Warfare Arms Control: A framework for considering policy alternatives"* Stockholm International Peace Research Institute 1985, p.116
- <sup>31</sup> HAMMICK, Murray, "All stick and no carrot, NBC's poor reputation persists", *International Defence Review*, 12/1991, p. 1323
- <sup>32</sup> *Op.Cit.* PERRY ROBINSON, p.37
- <sup>33</sup> For a detailed examination of this action see BAUDENISTEL, Rainer, "Forces versus law: the International Committee of the Red Cross and chemical warfare in the Italo-Ethiopian war 1935-1936", *International Review of the Red Cross* No.322 (March 1998), pp.81-104
- <sup>34</sup> *Ibid.* p.38
- <sup>35</sup> *Ibid.* p.39
- <sup>36</sup> International Institute for Strategic Studies, *The Military Balance 1988-1989*, 'Chemical and Biological Warfare', p.247
- <sup>37</sup> Belgium (1914 & 1940), Denmark (1940), Egypt (1967), Ethiopia (1935), Iran (1980), Israel (1974), Jordan (1967), Kuwait (1990), Netherlands(1940), Netherlands Indies (1941), Norway (1940), Poland (1939), Syria (1967), UK(Far East) (1941) USA (1941), USSR (1941). The list is not exhaustive.
- <sup>38</sup> During the first "Gas attack" at Ypres, in 1915, although the unfortunate French Colonial Infantry collapsed, Canadian troops stood firm and demonstrated that it was possible to survive and fight. In the Iran/Iraq war of 1980-1988, Iranian troops displayed a similar resolve against much more lethal CW. In both instances, the casualty rates for these very courageous soldiers were dreadfully high.
- <sup>39</sup> JOSEPH, Robert, *"Proliferation, Counter-Proliferation and NATO"* in *SURVIVAL*, Vol. 38, No1, Spring 1996, p.122
- <sup>40</sup> Israel has highly emotive historic reasons for disliking CW.
- <sup>41</sup> STEINBERG, Gerald M., *"Israeli Responses to the Threat of Chemical Warfare"*, Bar-Ilan University, Ramat-Gan, Israel, pp.87-88
- <sup>42</sup> ZANDERS, Jean Pascal, *"Towards Understanding Chemical Weapons Proliferation"*, in *Contemporary Security Policy*, Vol. 16, 1995, p.86, note 12
- <sup>43</sup> See for example SAGAN, Scott D. & WALTZ, Kenneth N. *'The Spread of Nuclear Weapons: A Debate'* W.W. Norton & Company, New York /London 1995
- <sup>44</sup> See BAILEY, Dr Kathleen, Statement Before the Senate Armed Services Committee, August 18, 1994
- <sup>45</sup> WALLERSTEIN, Mitchel B., *China and Proliferation: A Path Not Taken?* *Survival*, Vol. 38, No. 3, Autumn 1996, p.58
- <sup>46</sup> OPCW is the body set up to operate the CWC. It has its headquarters and secretariat in The Hague.
- <sup>47</sup> See Chemical Weapons Convention Bulletin, Issue No 28, June 1995. Especially News Chronology entries 19<sup>th</sup>, 20<sup>th</sup>, 23<sup>rd</sup> March 1995
- <sup>48</sup> SEAGRAVE, Sterling, *'Yellow Rain'*, Sphere Books Limited, London 1982, p.121
- <sup>49</sup> *Hansard*, 31<sup>st</sup> January 1967
- <sup>50</sup> UN A/2162 B(XXI)
- <sup>51</sup> UN A/2603 A(XXIV).
- <sup>52</sup> According to Mr Ian Kenyon, a member of the British delegation, meetings were convened, delegates attended, the subject of CW introduced and the meetings concluded, without any positive decisions being made other than to reconvene. (Interview with Mr Kenyon).
- <sup>53</sup> ENDC/255, (UK)
- <sup>54</sup> Article VIII of the BWC counters this objection.
- <sup>55</sup> Sir Solly, Later Baron Zuckerman has written extensively on the subject of disarmament, most particularly nuclear. See for example *'Scientists and War: The impact of science on civil and military affairs.'* Hamish Hamilton 1966 and *'Nuclear Illusions and Reality'*, Collins, 1982
- <sup>56</sup> See Director's Series on PROLIFERATION No 4, Lawrence Livermore National Laboratory, Edited By Dr Kathleen C. Bailey, May 23, 1994 UCRL - LR - 114070 - 4, p.18

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- <sup>57</sup> PATRICK, William C. III 'Biological Warfare: An Overview' in Director's Series on Proliferation No.4, Kathleen C. Bailey (Ed.) Lawrence Livermore National Laboratory, May 23, 1994, p.2
- <sup>58</sup> *Ibid.* FRANZ, David R. 'Physical and Medical Countermeasures to Biological Weapons'. 'For patients exposed to agents by aerosol, the latent or asymptomatic period varies from hours (the staphylococcal enterotoxins), to days (ricin, the botulinum toxins, anthrax, plague, tularemia, and the viral encephalitides) to even weeks (Q-fever and psittacosis).' p.62
- <sup>59</sup> *Op.Cit.* SEAGRAVE, p.107
- <sup>60</sup> BAILEY, Sydney D. 'Prohibitions and Restraints in War', The Royal Institute of International Affairs (Oxford University Press) 1972, p.137
- <sup>61</sup> Official Records of the Disarmament Commission, supp. For 1968/69, doc. DC231
- <sup>62</sup> See SIPRI Chemical & Biological Warfare Studies No.10 '*Strengthening the Biological Weapons Convention by Confidence-Building Measures*' Erhard Geissler (Ed.) Annexe 1. The 1972 Biological Weapons Convention.
- <sup>63</sup> BENNETT, A. LeRoy, 'International Organisations: Principles and Issues', Prentice-Hall International, Inc. Englewood Cliffs, New Jersey, USA, 1995, 6<sup>th</sup> Ed. p.224
- <sup>64</sup> *Ibid.*
- <sup>65</sup> Subsequently expanded to include Bolivia, Paraguay and Uruguay.
- <sup>66</sup> PERRY ROBINSON, J.P. '*Chemical and Biological Warfare developments*' in SIPRI Yearbook 1985, World Armaments and Disarmament, p.161
- <sup>67</sup> US Press Release USUN – 174 (69), 25 Nov. 1969
- <sup>68</sup> The US reservation read, "That the said Protocol shall cease to be binding on the Government of the United States with respect to the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials, or devices, in regard to an enemy State if such State or any of its allies fails to respect the prohibitions laid down in the Protocol.
- <sup>69</sup> SIMS, Nicholas A. 'International Organisation for Chemical Disarmament' SIPRI Chemical and Biological Warfare Studies No.8, Oxford University Press, Oxford, 1987, p.1
- <sup>70</sup> See CCD/361.
- <sup>71</sup> *Ibid.*
- <sup>72</sup> *Ibid.*
- <sup>73</sup> GOODRICH, Leyland M., HAMBRO, Edward and SIMONS, Anne, 'United Nations Charter: Commentary and Documents', 3<sup>rd</sup> ed. New York: Columbia University Press, 1969, p. 120
- <sup>74</sup> SIMS, Nicholas A, 'International Organisation for Chemical Disarmament', SIPRI Chemical & Biological Warfare Studies No 8. 1987
- <sup>75</sup> *Ibid.* p.3
- <sup>76</sup> *Ibid.* p.3

## CHAPTER 2

### THE NEGOTIATION OF THE CWC

It has been observed that '[F]rom 1972 to 1983, little progress on chemical disarmament was made in the CCD and its successor, the Committee on Disarmament.'<sup>77</sup> This comment is perhaps unfair since it is apparent that the CWC was the product of gradual development. Ideas proposed by one delegation were developed and expanded upon by others.

#### **The Netherlands Draft**

The first serious draft CW convention after the completion of the BWC was submitted by the Netherlands in July 1973 entitled, 'Working Paper on an International Organ for the support of a CW Convention and Other Disarmament Agreements'.<sup>78</sup> It was a remarkable document embodying considerable thought on the nature of such an organisation. The draft was apparently built on a wide variety of suggestions and private discussions that had occurred in unofficial forums. This was a procedure favoured by successive Netherlands Governments after World War II, as it has been their regular practice to circulate issues of importance to academic institutions and appropriately interested NGOs for comment and suggestion.<sup>79</sup> The product of this system set out the first tangible proposal for some form of organisation designed to oversee the conduct of the proposed CW Convention, especially in matters concerning the monitoring of compliance and the elimination of existing stocks of CW. It should be noted that the Netherlands presentation gave some credit to the US for the suggestion contained in their working paper CCD/360 concerning the 'creation of a standing organ for the operational support' of a CW Convention.<sup>80</sup> A further feature of this proposal was that it suggested that an 'International Disarmament Organisation' covering all aspects of disarmament might be necessary. In the light of the subsequently discovered need to monitor and control Nuclear, Chemical, Biological, Toxin, Missile, Anti-Personnel Land Mines and Light Automatic Weapons, the Netherlands suggestion was remarkably perceptive. However, it is likely that a single entity charged with responsibility for such widely diverse disarmament activities would prove both cumbersome and expensive.

### **Important Features of the Netherlands Proposal**

The Netherlands proposal had many features that can be detected in the CWC that was finally approved in terms of a possible structure and allied procedures. It drew attention to 'the familiar pattern of many international organisations, i.e. a plenary Conference, a Board and a Secretariat.'<sup>81</sup> Even the suggested 'Secretariat' had many features now evident in the OPCW Technical Secretariat. It was proposed that it should be headed by an 'Administrator' and, 'would consist of a permanent staff and such additional panels of experts as may be required for the performance of ad hoc or highly specialised activities.'<sup>82</sup> The draft contains a suggestion that there should be a list of banned substances and even a provision for the retention by states parties of small quantities of known CW for 'prophylactic, protective or other peaceful purposes'.<sup>83</sup> Taken in its broadest terms, this proposal contained virtually all the appropriate measures required to construct a satisfactory CWC. The only serious objection that could be levelled at this document is its cautious terminology.

### **Lack of Support**

In the context of the time, however, the Netherlands proposal did not secure extensive support. This was presumably because much of the attention of the CCD was directed towards the negotiation of the Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Techniques (ENMOD), which finally opened for signature in 1977. It seems strange that the various delegations at Geneva should have made such intensive efforts to negotiate a Convention concerning techniques forming the basis for speculative and theoretical discussion in scientific journals. Any exploitation of such theories would be beyond the capacity of any but the most advanced industrial states and then only after an incredible investment in technology.<sup>84</sup> The fact remains that elimination of CW did not rate the attention that its relative ease of production would seem to warrant.

### **The Japanese Proposals**

The Netherlands proposal was followed by a Japanese Draft Convention dated 30 April 1974.<sup>85</sup> Taking the view that verification would form an essential part of any successful CWC, Japan proposed the establishment of an International Verification Agency. Although not entirely original in concept, the Japanese proposal was the first

to put into words the need for a specific body to carry out the task rather than implying a role for the Office of the UN Secretary General. The Japanese proposal envisaged a gradually expanding prohibition regime designed to ban the production of listed chemical compounds known to be important in the production of CW. In effect, this proposal foresaw the need to control what subsequently came to be known as 'precursor' chemicals. These are chemical combinations that constitute an intermediate stage along the road to the production of CW. The proposal came to nothing, but it did identify the need for a verification agency and drew attention to the necessity for control measures concerning certain types of chemical substances.

### **The United Kingdom Draft**

The United Kingdom submitted a draft convention in 1976.<sup>86</sup> This draft proposed to ban the production, acquisition, or use of chemical weapons. It also proposed procedures for their phased destruction and the dismantling of production facilities. The UK proposal suggested the establishment of a 'Consultative Committee' tasked with overseeing verification procedures but was vague as to how these procedures were to be undertaken. It also failed to offer a definition of 'Chemical Weapons'. This proved to be a very difficult issue to resolve, but a draft convention on the subject of CW might reasonably be expected to include some attempt. The British proposal has been described as a document that showed signs of having been hurriedly put together.<sup>87</sup> Given that it had the benefit of both the Netherlands and Japanese proposals to use as models, it was lacking in detail and constructive proposals that might have advanced the negotiations. For all its faults, the draft did make one important suggestion, to the effect that signatories should declare their status regarding possession of CW. The UK proposal would have made this mandatory from the moment of signature. This suggestion received little support at the time but in due course declarations concerning past activities became part of the CWC, although significantly these only applied after 'entry into force' (EIF). The UK did develop a more comprehensive version of CCD/512 during the winter of 1976/ 1977, using procedures similar to those regularly employed by the Netherlands government, but this version was never submitted.<sup>88</sup>

## US-USSR Bilateral Negotiations

Throughout this period, crucial US-USSR bilateral disarmament talks were taking place. President Nixon and Chairman Brezhnev had held a summit meeting in 1974 during which a broad range of disarmament initiatives was discussed. One positive outcome of this meeting was the establishment of bilateral talks on Chemical Weapons through their respective delegations at Geneva, but outside the confines of the CCD. Most of these discussions took place in private during the period 1976 to 1980. They came to an end largely as the result of the Soviet intervention in Afghanistan in 1979 and were not renewed officially for several years. This disruption in the bilateral discussions roughly coincided with the renaming of the CCD. Despite this setback, it appears that bi-lateral unofficial contact was maintained on the fringes of the Geneva conference, largely due to the mutual respect that existed between the leaders of the two delegations.<sup>89</sup> Nonetheless, multilateral negotiations continued at Geneva. Before the rupture in US-USSR relations, two joint reports were issued, the first in 1979.<sup>90</sup> The second appeared in 1980.<sup>91</sup> The bases of these reports may be summarised as follows:

- The US and the USSR agreed that the proposed CWC must be comprehensive in its coverage.
- It should prohibit the development, production, stockpiling, acquisition, possession, retention, and transfer of CW.
- It needed to provide for the destruction of Chemical Warfare Agents (CWA)<sup>92</sup>, CW stockpiles and their production facilities.
- It could permit the conversion of both weapons and their production facilities to non-military uses.

These points are worthy of examination, since they drew on the contributions made by the Netherlands and Japan. The need for a 'Comprehensive' CWC was extremely important since there had been a great deal of prevarication during the earlier debates in the CCD concerning the right to retain precisely those reservations that had been applied to the earlier Geneva Protocol. Fundamentally, the proposal would hinge on the construction of a 'General Purpose Criterion'. This involved agreeing a precise definition of what constituted a CW without confining the definition to lists of known



agents, together with a solemn declaration not to develop, retain or use such weapons. The blanket ban on the possession or retention of CW and the need to destroy the means of production was itself a confidence building measure. But this needed to be coupled with efficient technical procedures for the destruction process to take place, as it would certainly give cause for alarm if these procedures were inadequately constructed and allowed the diversion of significant quantities of CW agents.

### **Peaceful Conversion**

The US proposal that production facilities and CW might be convertible to peaceful purposes had limitations, however. Given the quantities of known or suspected CW held by the US and the USSR, it seemed very unlikely that their respective chemical industries could make use of any but a fraction of the poisonous substances that would be likely to emerge from a recycling process. It is probable that the USSR was the most enthusiastic supporter of this concept, since its military/industrial infrastructure tended to concentrate military production facilities in areas of otherwise low employment prospects. Finally, the proposed attachment of 'Schedules' of chemical substances listed by their degree of toxicity, although not new, was an attempt to improve on the earlier Japanese proposal for gradually increasing the list of banned substances. It also seems to have incorporated the essence of a West German proposal for the construction of a table of 'evaluation numbers', in which various chemicals would be assessed as to their suitability for CW purposes and assigned a value amounting to a scale of toxic utility.<sup>93</sup> This proposal acknowledged the fact that some highly poisonous substances could not possibly be utilised as CWA, due to their nature or stability. Gasoline, for example, is highly poisonous if ingested, but it is difficult to envisage any means of delivering it to a target with the intention of employing its toxic properties. The construction of the schedules of prohibited, dangerous and restricted chemicals now forming part of the CWC owe much to these suggestions.

### **The Ad Hoc Working Group**

The very size of the CD made it difficult to discuss specific proposals without becoming enveloped in a mantle of procedural activity. In an attempt to overcome some of these difficulties, in March 1980, a special subsidiary body "The Ad Hoc

Working Group on Chemical Weapons (AHWGCW), was established for the duration of the 1980 session. It was given a specific brief to, 'define through substantive examination, issues to be dealt with in the negotiation on such a [chemical weapons] convention.'<sup>94</sup> The group was re-established for the 1981 session with precisely the same mandate. For the 1982 and 1983 sessions the group continued in existence but with a revised mandate, to 'elaborate such a [chemical weapons] convention, taking into account all existing proposals and future initiatives with a view to enabling the Committee to achieve agreement at the earliest date.'<sup>95</sup>

### **The US Draft Convention**

The 1984 session of the CD was significantly marked with the presentation by the then US Vice President, George Bush, of an American draft CWC that took into account much of what had been previously aired in the negotiations that had taken place in the previous ten years. Its general outline had been submitted in February 1983 but this new document represented a more detailed and refined proposal.<sup>96</sup> Arguably, its most important innovation was an attempt to settle the critical issue of 'verification', by suggesting what was termed an 'open invitation' clause.<sup>97</sup> This clause, in effect, would have incorporated the right to request 'on-site' inspection of government facilities owned by any party to the Convention with 48 hours notice. It denied the right of the 'requested' party to refuse such an inspection. This particular proposal met with resistance since the USSR and its allies believed that the term 'government facilities' would necessarily exclude the private sector facilities which formed a large part of the US Chemical Industry, but would include virtually all those facilities within states where 'private ownership' did not feature. In this respect, it should be noted that Soviet views on routine inspections had considerably softened since the absolute refusal stance of the early 1970s. . The USSR had proposed, during the United Nations Special Session on Disarmament II (UNSSOD II) that routine on-site inspections designed to monitor the destruction of CW stockpiles should be permitted.<sup>98</sup> The US, for its part, had obviously drawn up article X of its draft Convention with a view to avoiding the problems associated with the Fourth Amendment of the US Constitution, generally held to be sacred in all respects however inappropriate any particular interpretation might be considered. Between the two positions it appeared that there could be no possible agreement.

## **Ad Hoc Inspections**

Further proposals by the US concerning ad hoc inspections were contained within Article XI. These inspections were to cover all facilities, but did provide for the right of refusal. It appears that this proviso was also incorporated with the 4<sup>th</sup> Amendment in mind. At this stage it may be assumed that the US had not envisaged the establishment of an independent inspection team responsible to an International body, but rather that the proposed inspections would be carried out by officials nominated by the challenging state. US negotiators presumably had some indications as to the objections that might be raised by the US Chemical industry concerning inspections that might place trade secrets at risk. The US position on inspection of 'government institutions' remained firmly wedded to the concept of unrestricted access 'challenge' inspections without the right of refusal. In this respect, the US was generally supported by the Western Group of States. Despite these limitations, the Draft Treaty did contain the basic structure of an acceptable CWC, and when coupled with other material already agreed by the AHWGCW, provided an outline formula for more detailed discussion.

## **The Ad Hoc Committee**

In parallel with the submission of the US Draft Treaty, the Ad Hoc Group underwent a name change to the 'Ad Hoc Committee on Chemical Weapons' (AHCCW). It received a revised brief to:

conduct as a priority task the negotiations on a multilateral convention on the complete and effective prohibition of the development, production and stockpiling of chemical weapons and on their destruction, and ensure the preparation of the convention...to continue the full and complete process of negotiation, developing and working out the convention, except for its final drafting.<sup>99</sup>

The Ad Hoc Committee was re-established annually from 1984 onwards, reporting to the CD at least twice per year. The chair rotating annually among the representatives of the three political groupings at the Conference, although it is noticeable that this was actually confined to Western or European states.<sup>100</sup>

### **The Effect of Political Changes within the USSR**

Political changes in the USSR led to a gradual easing of East-West tensions, although there is evidence to suggest that informal contacts between the two delegations in Geneva had never been completely abandoned.<sup>101</sup> The developing burden of the Afghanistan intervention began to affect Soviet attitudes. This was because there appeared to be no reasonable solution to the problem without the insertion of enormous numbers of troops, which would weaken the Soviet contribution to the Warsaw Treaty Organisation (WTO) in the perceived area of greatest threat. Despite the involvement of US arms in the struggle, contact was maintained leading to a further 'summit' at Geneva in 1985 at which it was announced that 'relations were improving'. It was to lead to a further series of bilateral talks on CW.

### **The 'Rolling Text'**

Drawing on the US Draft Convention of April 1984<sup>102</sup> and earlier rather unfocused discussions in the AHCCW the Chairman, Swedish Ambassador Rolf Ekéus, adopted the concept of the 'Rolling Text', although it appears that the concept had been floated before his term of office.<sup>103</sup> The 'Rolling Text' format comprised text in the normal draft treaty form where agreement existed. Where there was disagreement, any alternative text(s) was placed within square brackets, together with appropriate explanatory footnotes for clarification purposes. This procedure was to become the primary tool of the AHCCW in order to focus thinking and eliminate debate on matters previously agreed. This was a prescient move, since much of the debate that had taken place over the previous years seemed to have involved matters already agreed. It may be that the 'Rolling Text' stimulated fresh ideas but the effect of re-examination would inevitably have slowed the proceedings even more. The debate in the AHCCW centred on the means by which the activities designed to control and direct Chemical Disarmament could be conducted. This involved defining the essential elements within some form of organisation that had become increasingly obvious as the only tenable solution to the problem. A United Kingdom proposal entitled 'Chemical Weapons Convention: The Organs and Constitution of the Organisation', dated 11 April 1985, outlined a basic structure.<sup>104</sup> The proposal incorporated much that had been agreed previously, such as the Executive Council and a 'Consultative Committee'. But, most importantly, it also identified the

necessity for a 'Secretariat' and an 'Inspection Service' to form part of the same body. This document also made reference to the need for the head of the proposed organisation to be a 'Director General' with executive powers in addition to the administrative tasks envisaged so long ago by the Netherlands proposal. Focusing on the problem of a complaints procedure, it proposed that the Director General (DG) would become the first point of reference for the submission of evidence of non-compliance by a State Party, thereby giving the DG powers to initiate 'challenge' procedures.

### **The Threat of US CW Rearmament**

A cause for concern was the revelation that in 1982 President Reagan had informed the US Congress that development of a new generation of CW known as 'Binary Weapons' was to be developed.<sup>105</sup> By 1985, Congress approved funding for the development. It was to be coupled with a programme for the destruction of outmoded CW, such as the M55 CW rocket for which, there was no longer a launcher in service. Many of these weapons had been found to be in poor condition and presented a danger if kept in store.<sup>106</sup> The then current strategic thought in the US forces was that in the absence of an agreement encompassing universal chemical disarmament, the US would have no retaliatory capacity to match the presumed CW threat posed by WTO forces. Boyle commented that, '[T]he US sees no alternative to maintaining an effective and credible CW capability to ensure maximum deterrence'.<sup>107</sup> In the event of hostilities this lack of a CW counter threat could precipitate early resort to nuclear weapons.<sup>108</sup> Binary weapons were considered desirable since they comprise two elements that individually are less dangerous than when combined, a process that only takes place when the weapon is being delivered to the target. The US Senate gave provisional authority to manufacture such weapons, conditional upon there being no effective CWC in place. There can be little doubt that part of this US decision was stimulated by a desire to force the Soviet authorities to engage more effectively in bringing about a satisfactory CWC. It also reflected that US Intelligence sources had evidence of continued Soviet manufacture and development of CW, in contrast to the US which had not done so after 1969. An additional factor was the belief in many US quarters that the USSR was continuing to carry out BW development in defiance of

the BWC and that, although never satisfactorily proven, there were allegations concerning the Soviet use of CW in Afghanistan.

### **Senate Approval for Binary Weapons Development**

The Senate finally approved funding for the Binary CW programme in June 1985. Funding was subject to considerable restrictions however, including a bar on the storage of the two elements of the weapon in the same State. In addition, the President was required to certify that the weapons were necessary for National Security. Not surprisingly, the Soviet Defence Minister responded by declaring that the USSR would match anything that the US could produce.<sup>109</sup> There was also a noticeable lack of enthusiasm by some of the US's NATO allies regarding whether they would permit the stationing of such weapons on their territories. The Federal Republic of (West) Germany's (FRG) agreement was obtained on the basis that the weapons would only be introduced onto its territory in the event of a state of emergency leading to the supposition that war was imminent. The details of how the US could introduce significant quantities of such weapons into the FRG in the face of potential air interdiction were not specified.<sup>110</sup> In addition, the FRG demanded the removal of US CW from its territory as a condition for their agreement to accept Binary Weapons deployment in times of heightened security threat.<sup>111</sup> This condition alone caused some concern in the US as the weapons scheduled for removal were in no better condition than those known to be deteriorating in US home arsenals.

US interest in the Binary Weapon project gradually declined as difficulties with the production of the 'Big Eye' bomb arose. This bomb was considered an essential delivery element of the Binary CW system, involving some of the 'smart' capabilities that subsequently became a feature of certain conventional munitions.

### **The First Persian Gulf War**

Some impetus may have been given to the negotiations on a CWC by Iran's complaint in November 1983 to the Secretary General of the United Nations that it had been subjected to CW attacks by Iraq in violation of the 1925 Geneva Protocol.<sup>112</sup> An investigation mounted by the UN in 1984 revealed conclusively that Iraq had used CW in the war between these two States, both of which were States Parties to the

Geneva Protocol. This positively identified instance of a breach of International Law caused very grave concern since it subsequently led to allegations of Iranian retaliation, (although Iran's ratification of the Geneva Protocol had been unconditional and therefore technically precluded retaliation). The war generated an estimated 27,000 Iranian CW casualties.<sup>113</sup> It was followed in due course by the further use of Iraqi CW against Kurdish rebels, resulting in an alleged 5000 more deaths.<sup>114</sup> 1984 was marked by several significant events. In April, the United States tabled a draft convention for a comprehensive ban on chemical weapons.<sup>115</sup> There had been numerous draft CWCs tabled by CD participating states and eventually the exasperated Chair asked members to refrain from introducing draft conventions and confine themselves to dealing with what was already in front of them. Thereafter, negotiations centred on the US Draft as a basic model. An important feature of this draft was the inclusion of a provision on intrusive inspections.

### **The Influence of the Iran - Iraq War**

During 1983 there were repeated Iranian allegations concerning Iraqi use of CW.<sup>116</sup> This resulted in the UN Secretary General appointing a fact finding mission of experts who were despatched to the region in 1984.<sup>117</sup> On site inspections resulted in the gathering of evidence leading to the conclusion that CW had been used but no evidence was offered as to which state had actually violated the Geneva Protocol.<sup>118</sup> A further report commissioned in 1985 involved a Spanish (former military) physician who had participated in the original fact finding mission examining alleged CW casualties receiving treatment in Belgium, FRG and The UK. His report concluded that CW had been used during March 1985 and, although not identifying the state responsible for inflicting these casualties, significantly identified all the victims as Iranians.<sup>119</sup> Reports of similar CW attacks against Iranian forces continued and to these were added reports stemming largely from NGOs to the effect that Iraq had used CW against dissident Kurdish minorities. Iraq refused to acknowledge responsibility for breaches of the Geneva Protocol and further refused to permit official inspections inside Iraqi territory, although in a somewhat confusing radio broadcast admitted that it had used CW 'from time to time' in response to Iranian use at the beginning of the war.<sup>120</sup> Iran denied having used these weapons although it very probably had developed the capacity to produce them. Iranian complaints had demonstrated that

their casualties comprised both military and civilian personnel leading to the supposition that CW attacks had been both general and indiscriminate. On the one occasion that Iraq produced casualties for inspection, all were military personnel, leading to the not unreasonable suspicion that they had been affected by their own CW.

### **The Failure of the Geneva Protocol**

One important effect of the Iran – Iraq war was that it drew attention to the inability of the UN Secretary General to respond rapidly and effectively to complaints concerning breaches of the Geneva Protocol. Apart from the fact that the UN itself had never been a party to the Geneva Protocol and was not its depository, some members of the UN were also not party and, finally, some states parties to the Protocol were not members of the UN.<sup>121</sup> France, as the depository, might have undertaken such responsibilities, but as a member of the Permanent 5 of the Security Council would be unlikely to receive sufficient support in that quarter. A further problem for France was the fact that it had made considerable efforts to establish itself as an arms supplier to Iraq and had also been responsible for the supply to Iraq of nuclear technology, subsequently destroyed in a pre-emptive strike by the Israeli Air Force.<sup>122</sup> In such circumstances, the French position as arbiter of the standards of conduct relating to the Geneva Protocol was undoubtedly weak. It was further complicated by the limitations of the Protocol that had failed to incorporate powers of investigation or effective means of censure against transgressors. The French position was even more compromised by its proposal that smaller States should have the right to ‘maintain or acquire a limited but militarily significant stockpile of chemical weapons (around 1000 to 2000 agent tons)’.<sup>123</sup> Such States to have the right to retain such ‘security stockpiles’ of CW until such time as the major CW holding States had reduced their own to a comparably modest level. It tended to illustrate the French tendency to mistrust US-USSR bilateral negotiations.

### **The Incapacity of the UN**

Within the office of the UN Secretary General, the commissioning of inspections and reports had proved incredibly slow and had failed to produce unequivocal identification of the guilty party. It pointed to the fact that if a CWC was to have any



effect it must incorporate provisions for a permanent inspection service technically competent, capable of rapid deployment to the scene of alleged CW use and protected from interference by immunities such as those granted to Diplomatic personnel. This inspection service would also have to be equipped with the necessary instruments and protective clothing to enable them to mount an inspection without delay. The UN Secretary General had been obliged to rely on some poorly defined procedures in order to obtain authority to undertake an investigation. Article 99 of the UN Charter states that, '[T]he Secretary General may bring to the attention of the Security Council any matter which in his opinion may threaten the maintenance of international peace and security'.<sup>124</sup> The difficulty for an aggrieved party might first be to bring the matter to the attention of the Secretary General and second for the Secretary General to induce the Security Council to take action.<sup>125</sup>

### **The Security Council Impediments**

Debate within the Security Council had invariably been coloured by the relationship of the permanent five to the participants in a given dispute. During the period under consideration, US attitudes to Iran were undoubtedly affected by the presumed involvement of the Iranian authorities in the Lebanese hostage problem. Furthermore, the US had been enraged by the seizure of the US Embassy and staff in Tehran in the aftermath of the collapse of the Shah's Government. The humiliating failure of the rescue attempt mounted by US Forces did little to endear the Iranians to the US government, which had also been covertly assisting the Iraqi military. For the Secretary General to persuade the Security Council to take action in the face of such difficulties would be to invite one or another of the permanent 5 to exercise the veto. In fact, the action taken by the Secretary General in respect of the Iranian complaint was technically *ultra vires* in that it came more properly within the role of the Security Council to request the Secretary General to carry out such an inspection. For reasons of its own, the Security Council seems to have tolerated this action.<sup>126</sup>

### **Security Council Action**

It was not until August 1988 that the Security Council moved into action, overtly supported the Secretary General in his actions and threatened sanctions against future breaches of the Geneva Protocol.<sup>127</sup> By this time President Saddam Hussein was

making overtures designed to bring the Iran-Iraq war to an end. These factors merely highlight the problems associated with having no dedicated organisation to deal with CW, guaranteed both access and authority by International treaty. It had the effect of concentrating minds at Geneva, but seemed to do little to speed up the process of negotiation. The alarming fact that both states in the conflict were signatories to the Geneva Protocol was of major concern since it finally destroyed the somewhat complacent view held by many delegations that the Protocol worked satisfactorily and would continue to do so for the foreseeable future. In this respect it is as well to note that Iraq had signed and ratified 'with reservations', whereas Iran had signed and ratified without equivocation. It should also be noted that in both states the Governments that had signed and ratified the Protocol were different from those that were engaged in the conflict during the 1980s. Without some more powerful constraints in place it could be assumed that virtually any state might claim that the internal political circumstances in which it had entered the original Protocol had changed and that consequently it no longer applied and need not be considered binding.

### **Political Changes in the USSR**

The appointment of Mikhael Gorbachev to the post of General Secretary to the Communist Party of the Soviet Union (CPSU) led directly to the easing of relations between the US and USSR, including measures to reduce the perceived Soviet CW threat. In April 1987 Gorbachev announced that the USSR had halted production of CW and that special facilities were being constructed to destroy existing stockpiles. Soviet attitudes towards secrecy became so relaxed that by 1987 the Soviet Delegation to the CD tabled an invitation to other participants to visit the CW establishment at Shikhany, 100 km north of Saratov on the Volga River.<sup>128</sup> A large party comprising delegates from some 50 States together with a number of journalists visited the establishment where they were shown a wide variety of ordnance designed for the delivery of a variety of CA including various Nerve Gases. There was some criticism that this had not been a completely honest display of the available CW since certain known weapons were not included. The USSR further revealed that it possessed 50,000 tons of CW.<sup>129</sup> This claim led to further accusations of insincerity since the wording of the Soviet text left it vague as to whether these were quantities of

Chemical Munitions or were 'Agent tons', the quantity of toxic material held within munitions or possibly holdings in bulk storage tanks awaiting insertion into munitions. There were also considerable doubts raised as to whether even this enormous quantity was a truthful revelation of the real state of affairs concerning Soviet CW. However, it is possible that the Soviet Authorities had little factual evidence on which to base its claim.<sup>130</sup> Despite these doubts, the visit to Shikhany led to a series of confidence building exchange visits to Western and Soviet CW production, training and destruction plants. The exchange visits and the questions raised, pointed to the absolute necessity for confidence building measures in the form of independent verification procedures if any form of CWC were to be successfully introduced. In 1989 the two states signed the 'Wyoming Memorandum' providing for the mutual exchange of confidential data on their respective CW inventories. Finally, they signed in June 1990 a bilateral agreement under which both sides undertook to stop further CW production and begin destroying existing stocks by 31 December 1992.<sup>131</sup> These events had a significant effect on the slow pace of negotiation taking place in Geneva. An unequivocal agreement on the part of the two known major CW holders to disarm pressured the negotiators somewhat. US-USSR unofficial discussions had been taking place for some years and the initial Soviet offer to permit a CD inspection at Shikhany had been conveyed at Geneva.<sup>132</sup> Some US pressure may have induced this response since the concept of Binary CW had been introduced during the Reagan Presidency and despite grandiose Soviet claims that they would match anything the US could do, Gorbachev introduced a sense of economic realism to the Soviet military. He managed to withdraw Soviet Forces from the disastrous adventure in Afghanistan without exposing them to the same ignominious experience that had featured in the US withdrawal from Vietnam. Similarly he had initiated the softening of relations with the FRG opening the way for a withdrawal of Soviet Forces from the Deutschen Demokratischen Republik (DDR).

### **The Role of NGOs**

Throughout the long and involved process leading to the establishment of the CWC it has been apparent that both during the negotiations that led to formulation of a workable treaty and subsequently during efforts to persuade signatory states to ratify the Convention, governments have been subjected to pressure from non-government

sources. These sources have, for the most part, but not exclusively, acted to persuade the governments concerned to accept the need for a CWC. Some governments have actively supported and encouraged such participation, e.g. Canada and the Netherlands, both of which accept and encourage active inputs from non-government bodies in all aspects of government.

A typical example of such a grouping is the 'Markland Group' of Canada that:

is composed of a number of professionals, academics and concerned citizens who have come together in the belief that more attention needs to be given to the problem of ensuring compliance under multilateral disarmament treaties.<sup>133</sup>

The group includes:

international lawyers, persons with expertise in the diplomatic fields, parliamentarians, scientists, lawyers, teachers, physicians and other concerned citizens.<sup>134</sup>

A group such as this is perhaps a transitional stage in the development of a more advanced form of pressure group. It may be what Keohane and Nye termed a 'transnational interaction' which is defined as, 'the movement of tangible or intangible items across state boundaries when at least one actor is not an agent of a government or an international organisation.'<sup>135</sup> The Markland Group has succeeded in achieving considerable penetration of international negotiation in part because the Canadian Government has adopted a positive approach to matters affecting disarmament. A further factor may be the professionalism of the Group's submissions, benefiting from the wide diversity of the group. Had this not been the case, it is questionable whether the Markland Group would have been afforded access at such a high level. It is noticeable that the Markland Group lists as 'Occasional Consultants', many distinguished figures in the fields of Politics, Economics, Education and Political Science.<sup>136</sup>

### **Pugwash Conferences**

In the development of the negotiations that brought about the CWC, arguably the most important event was the bilateral agreement between the US and USSR for the mutual destruction of CW stocks down to a nominal holding. It is suggested that this project was first mooted at the Pugwash Conference of 1986.<sup>137</sup> Pugwash is a loose gathering of concerned scientific personalities originally from both sides of the East-

West divide, who met at Pugwash in Canada in 1956 to discuss the possibilities of securing mutual reductions in nuclear weapons. It was noticeable that even at the height of the Cold War, Soviet personalities continued to attend subsequent Conferences and make a positive contribution. This suggests that the Soviet Authorities considered that this East-West International Non Government Organisation (INGO) was a valuable sounding board through which unofficial contacts could be maintained. Subsequently, Pugwash 'workshops' have been held covering all WMD and other aspects of disarmament. The Pugwash Conferences are now a highly respected series with an extremely loose structure. That the agreement between the US and USSR owed something to the efforts of unofficial bodies does not detract from the incontrovertible fact that significant changes had taken place within the Soviet Union and that these had brought about a softening of US attitudes. In the absence of the appointment of Mikhail Gorbachev to the office of Secretary of the CPSU, or of someone with similar views, it is doubtful if such a treaty requiring a considerable measure of mutual trust could have been achieved.

### **Further Changes in the USSR**

Events in the USSR indirectly affected both the Soviet and 'Socialist Group of States' attitudes to intrusive inspection. Secretary Gorbachev's drive for 'glasnost' (openness) in Soviet society received a considerable impetus when the disastrous fire broke out at Chernobyl Nuclear power plant in April 1986. The fact that initially officials had been afraid to inform even the national executive that a critical situation involving a nuclear plant had arisen strengthened Gorbachev's hand in dealing with entrenched attitudes. The USSR desperately needed technical assistance in dealing with the problems created by this event.

This change in attitude also had an impact on the Soviet position on CW. Soviet capabilities in terms of WMD, especially CW and Chemical Defence had repeatedly been demonstrated in military exercises and in the writings of the various Soviet military theorists. As a result, Western evaluations of Soviet CW capabilities would contain few surprises. In such circumstances, Gorbachev would have found it of value to augment his approach to the Conventional Forces in Europe Treaty (CFE) negotiations with offers designed to demonstrate the USSR's peaceful intentions.

### **Relaxation of US-USSR Tensions**

In the nuclear weapons context, President Reagan had used the expression 'trust but verify'. It could equally be applied to the problem of chemical disarmament. The steadily improving relationship between the USSR and the US led to numerous instances of relaxing tensions between the two States and this tended to accelerate the process of negotiation. The Soviet attitude to on-site verification, a considerable stumbling block respecting the US Draft CWC, steadily eased during 1986 and 1987. Mr Gorbachev startled the Geneva Conference and possibly even his own delegation, by declaring that once a CWC was in place, the Soviet Union would be prepared to declare the location of its CW production facilities.<sup>138</sup> Further statements concerning Soviet willingness to reveal the locations of CW stockpiles and submit to some international verification procedures once a CWC was in position surprised and delighted Western delegations. However, a Soviet statement to the effect that it had never kept CW outside its own territory and that other members of the WTO had never manufactured such weapons was treated with considerable scepticism. Western assessments could point to some highly suspicious sites in the DDR that displayed many of the features expected for the storage of CW.<sup>139</sup>

### **The 'Australia Group'**

An extremely effective move made by the Australian Government was the formation of the 'Australia Group'. The 'Australia Group' was conceived in 1985 after unofficial discussions at the Australian Embassy in Brussels in June of that year. It now meets in Paris twice a year:

The purpose of the group is essentially twofold. On one hand, the members of the group desire to frustrate and hinder the process of chemical weapons proliferation on a global scale as much as possible. On the other hand, the members also want to prevent companies in their own States from either intentionally or unwittingly transferring chemicals and equipment to other States for the production of Chemical Weapons.<sup>140</sup>

The most visible and arguably most important function of the Australia Group is the publication of a list of dual-use chemicals or precursors. These are chemicals that can be used for both legitimate peaceful purposes but that may with little difficulty, be transformed into essential elements of chemical weapons. The Australia group have

made it 'more difficult, more time consuming and more costly for would - be proliferators of chemical weapons to secure key ingredients', for the production of Chemical Weapons.<sup>141</sup> In addition, all Australia Group States undertake to inform each other if they find it necessary to refuse to supply a chemical product or chemical equipment to another State.<sup>142</sup> In some developing countries however, the 'Australia Group' is viewed as a cartel designed to deny them the technology and basic raw materials needed for development purposes. In defence of the Australia Group, it should be noted that no State has as yet produced evidence that it has been refused any specific request for a supply of even dual purpose chemicals for which a legitimate end-use has been demonstrated. Attitudes to the control of chemical exports and the willingness to accept intrusive inspection can be seen to soften during the period 1986 – 1989. In parallel with the 'Australia Group', the Group of Socialist States formed what was termed the 'Leipzig Group' which co-ordinated chemical exports and demanded end-user certification in respect of re-exports.<sup>143</sup> It was probably no less effective than the Australia Group and it indicated a willingness to impose and be subjected to controls. It is presumed that the 'Leipzig Group' is now moribund, since the reunited Germany and many of the former Leipzig Group states are now participants in the 'Australia Group'.

### **The Paris Conference**

President Reagan made a significant contribution to chemical disarmament when he attended the UN General Assembly in October 1988. In his speech he proposed that a conference be convened, open to all States to discuss ways and means of strengthening the Geneva Protocol. This suggestion may have caused some dismay to the delegations working in Geneva to precisely that end; but President Mitterrand of France gave the proposal his support, offering to host the Conference in Paris. Technically, France, as the Depository State for the Geneva Protocol could reasonably claim an interest and President Mitterrand declared that the Conference would be convened to:

solemnly reaffirm the commitment not to use chemical weapons, to prevent their proliferation, to encourage new accessions to the Protocol, to improve investigative procedures – in short, to indicate a common desire for the

success of the work currently being carried out at Geneva within the context of the Conference on Disarmament.<sup>144</sup>

The 'Conference of States Parties to the 1925 Geneva Protocol and Other Interested States on the Prohibition of Chemical Weapons', otherwise known as the 'Paris Conference', took place between 7<sup>th</sup> – 11<sup>th</sup> January 1989. It was considered a great success since representatives of 149 States attended.<sup>145</sup> The final act:

strongly condemned the use of chemical weapons, reaffirmed the validity of the Geneva Protocol, supported the early conclusion of a comprehensive ban on chemical weapons, and expressed support for the role played by the UN Secretary General in investigating alleged violations of the Protocol.<sup>146</sup>

It should be noted that this optimistic final note still made no mention of the necessity for an organisation designed to cope with matters related to the problems of control and verification of CW disarmament.

### **Australia and the Chemical Industry**

The Australian Foreign Minister Gareth Evans issued a press release on 6<sup>th</sup> March 1989 proposing the holding of an international Conference that would include representatives of both governments and the chemical industry to discuss the, 'growing problem of the international trade in feedstocks, plants, and equipment, which could be used for CW purposes.'<sup>147</sup> The 'Australia Group' had proved relatively successful in limiting the movement of important chemical weapon precursors, cutting off supplies to 'end-users' who did not fulfil the group's requirements. The need for such action had been illustrated by the supply of some 500 tons of thiodiglycol to Iraq in 1983.<sup>148</sup> This was used to manufacture 'Mustard Gas', and later used against both Iran and the Kurds. But, as noted earlier many of the Non-Aligned States considered such export controls to be expressly designed to limit the pace of their development. The response to the Australian initiative was so cautious that the Australian Government seriously considered cancellation. However, by the subtle modification of the title of the proposed conference to 'Government-Industry Conference Against Chemical Weapons' some objections were overcome. The Group of 21 (Non-Aligned States) challenged the initiative in a statement that criticised the proposed conference for endangering the single-track approach of the CD on matters concerning the CWC.<sup>149</sup> It also unequivocally rejected any restrictive



measures designed to impose export controls. Despite these difficulties, the Canberra Conference opened on 18<sup>th</sup> September 1989 and was attended by representatives of 66 States, together with a broad cross section of the international chemical industry.

### **Australia and the Pacific Region**

Another Australian initiative was the hosting of a series of regional seminars on the subject of the CWC. Recognising that in addition to Australia, only Indonesia and Myanmar (Burma) had delegations at the CD in Geneva, the Australian Government sought to involve other South East Asia and South Pacific States in a process designed to keep them abreast of the latest developments in the CWC negotiations. The first of these seminars, held in Canberra during August 1988 under the title the first Chemical Weapons Regional Initiative (CWRI), was attended by the representatives of no less than 22 States. Of the many issues covered during these discussions, the importance of all States becoming original States Parties to the CWC was enthusiastically received.<sup>150</sup>

### **The Mendoza Commitment**

Regional interest in anticipating the successful negotiation and implementation of the CWC can be seen in the signature of the Mendoza Commitment (September 1991). It was an agreement between Argentina, Brazil and Chile banning Chemical (and Biological Weapons) from their states. Bolivia, Paraguay and Uruguay soon joined them. The parties agreed that until the CWC came into force, they would, 'establish in their respective countries the appropriate inspection mechanisms for those substances defined as precursors of chemical warfare agents.'<sup>151</sup>

It should be noted that the 'inspection mechanisms' are somewhat vaguely defined but there is an acceptance of the principle that inspection constitutes a confidence building measure. This commitment acted in some respects as a catalyst for other states that recognised the practicability of a regime devoted to a comprehensive disarmament measure. It is possible that similar regional regimes would have been generated if the CWC had failed to come into force. There is certainly some indication that this might well have formed an Australian agenda for the South Pacific region.<sup>152</sup>

## **The Wyoming Memorandum**

Discussions between Presidents Bush and Gorbachev led to the signature of the Wyoming Memorandum of 22 – 23 September 1989 that was to prove probably the key feature of CW disarmament negotiation, since no CWC was practicable without the participation of the two declared CW possessor States. The Wyoming Memorandum signed by Eduard Shevardnadze for the USSR and James A. Baker III for the USA provided for a two-phase mutual declaration, inspection and verification procedure; a programme of CW destruction; and a timetable defining benchmark destruction levels.<sup>153</sup> It also referred to the CWC negotiations, in agreeing to modify the conditions of the Memorandum in order that the CWC should have precedence if and when it came into force. The critical feature of ‘challenge inspections’ was incorporated into the agreement whereby each side was allowed to make up to five challenge inspections and as far as was practicable the challenge inspections were to take place in both countries simultaneously. The agreement provided for the inclusion of an additional inspection of a ‘small scale production facility for Schedule 1 chemicals’. This was an interesting adoption of part of the on-going AHCCW ‘rolling text’ where the concept of schedules of chemical substances to be banned and others that ought to be closely controlled was taking shape. Both States appear to have complied with the Memorandum. Unfortunately the collapse of Communism prevented the full implementation of the subsequent US-USSR bilateral treaty on Chemical Disarmament of 1 June 1990. To date, only the US has given any evidence of a destruction programme, but even this is slower than anticipated under the terms of the agreement. Russia is experiencing acute financial difficulties in all areas of the economy and it is unlikely that this commitment can be honoured. The provision in the agreement for the CWC to supersede this arrangement is fundamentally in force although not specifically declared. It appears that neither state party will be able to conform to the time limits envisaged under either treaty.

## **The Problem of the 'Consensus Culture'**

The Wyoming Memorandum and the resulting treaty demonstrated that a mutually beneficial agreement could be negotiated between the two major CW possessor States. The event focused thinking in Geneva, but the final charge to establish a workable CW Convention was fraught with procedural complication. Technically,

within the CD, only consensus between all the participating states on a given subject is procedurally acceptable. However desirable in theory, majority voting is impracticable in the current international climate since any State aggrieved by the procedure could be tempted to reserve its position. In the UN context, majority voting without the veto only applies in the UN General Assembly. Within the Security Council no resolution can be passed against the wishes of any one of the permanent five.<sup>154</sup> Since consensus dominates all the proceedings of the CD, the Ad Hoc Committee found that it was obliged to form a series of sub - committees or 'working groups' tasked with resolving the special issues that constantly raised themselves. As a practicable Convention took shape it was found that more and more working groups were required, among them those covering 'security issues', 'verification issues', and 'legal and institutional issues'. In addition there was a requirement for a 'Technical working group' which examined the problems of instrumentation, databases and laboratories required for the verification process. In 1991, the last restriction on the activities of the AHCCW was lifted when the expression 'except for its final drafting', was removed from the mandate. This signalled the fact that significant progress had been made in the negotiations. At the same time the mandate was extended to:

intensify, as a priority task, the negotiations on a multilateral convention on the complete and effective prohibition of the development, production, stockpiling and use of chemical weapons and on their destruction with a view to striving to achieve a final agreement on the convention by 1992.<sup>155</sup>

This modification implies an acknowledgement by the international community that the 1925 Geneva Convention had failed to prevent the manufacture, and stockpiling of Chemical Weapons and had only precariously contained their use in war.

### **The 1991 Persian Gulf War**

There can surely be little doubt that the war that took place to liberate Kuwait from Iraqi occupation resulted in many surprises, not least because it did not degenerate into outright chemical warfare on the part of Iraqi forces. Iraq had previously demonstrated a capacity to manufacture and use such weapons, although it is generally assumed that the threats of overwhelming force available to the Coalition, especially through US capabilities, induced a certain sense of caution on the part of Iraq. In the aftermath of the Iraqi defeat, the UN authorised the introduction of a

unique disarmament commission, UNSCOM, charged with detecting and destroying all of Iraq's WMD. The work of UNSCOM is discussed elsewhere.

### **Softened US Attitudes**

In April 1991, the US put forward a proposal on challenge inspections which abandoned the 'anytime, anywhere' approach originally advanced in the 1984 US Draft Convention. This new approach was seen to be closer to that of the UK which had previously demonstrated that 'managed access' to a site deemed sensitive by the host State could be undertaken to satisfy the requirements of the inspectors without seriously compromising the need to protect industrial secrets.<sup>156</sup> The US Government change of heart has been attributed to the possible risks of revealing the composition of the material used to formulate 'stealth' technology during an unrestricted inspection. This proposal, representing a considerable softening of the US position, did not appear to have immediate effect and was slightly confused by representatives of the chemical industries of North America, Europe, Japan and Australia who:

offered a treaty verification proposal which would allow international inspectors to examine any commercial chemical manufacturing site for evidence of chemical weapons production.

Industry officials also endorsed an "anytime, anywhere" system of inspections.<sup>157</sup>

This was followed in May 1991 by a significant policy change statement from President Bush in which he stated that the US formally foreswore, 'the use of chemical weapons for any reason, including retaliation, against any state, effective when the convention enters into force.'<sup>158</sup>

### **The Bush Proposal**

The discoveries in Iraq by UNSCOM probably influenced President George Bush to propose that the AHCCW should aim to achieve a workable CWC by May 1992.<sup>159</sup> Presumably he had been pleasantly surprised by the effective deterrence of Iraqi CW use in the face of the presumed US conventional and nuclear capability.<sup>160</sup> This must have confirmed the impression held in some quarters that CW had no deterrence value. The proposal included the recommendation that the AHCCW 'stay in continuous session' in order that that end could be achieved. Although the other

members of the CD accepted the proposal, it must have come as something of a shock since the CD:

usually meets for around six months per year. The first part of its session lasts from the beginning of February until April. The second starts in mid-June and ends on an agreed date (often the end of August).<sup>161</sup>

This arrangement had been in force for some 30 years, probably contributing to the relatively limited progress of the CWC. Negotiations designed to produce a workable Convention had advanced incredibly slowly. By 1991 the 'Rolling Text' comprised some 220 pages of text and annexes covering detailed technical information on schedules of chemicals and inspection procedures.<sup>162</sup> At this stage, despite years of negotiation, 20 per cent of the Rolling Text was still in square brackets or footnotes.

### **The Australian Compromise Draft**

The Australian delegation took the initiative and in March 1992 tabled an Australian version of a complete draft text to the CD.<sup>163</sup> This text was an attempt to provide an acceptable solution for the unresolved issues in the negotiations. Using all the agreed language of the Rolling Text, this Australian Text demonstrated that a compromise was possible and more importantly that the stated goal of a complete text for signature before the end of 1992 could be achieved. The compromise draft submitted by the Australian delegation was not the end of the matter. There were still many clauses that were not considered satisfactory by the various delegations. The role of the Chairman of the AHCCW has been shown to be of critical importance in the process of negotiation. Rolf Ekeus of Sweden has already been mentioned but much credit must go to the German Ambassador, representing a re-united Germany, Adolf Ritter von Wagner. He had become chair in 1992, taking over from the former Soviet Ambassador Sergei Batsanov. Ambassador von Wagner submitted an updated draft convention incorporating the result of his personal negotiations with a large number of delegations.<sup>164</sup> After consultations with their home governments the delegations returned to find that the German Chair had introduced a resolution stipulating that modifications to the draft convention could only be made if they received unanimous approval. Since many delegations were in favour, the resolution was passed. This had the effect of virtually stifling any further attempts to modify the agreed text and

forcing the delegations to concentrate only on those areas where clarification rather than change was required. Negotiation of the CWC was now in its final phase.

### **The Final Drive for a Convention**

Much work remained to be done. China voiced very considerable reservations on the subject of intrusive on-site inspections, a view endorsed by Pakistan.<sup>165</sup> Pakistan also pressed for the inclusion of a commitment on the part of producer groups to remove restrictions on chemical supplies once the CWC was in place. The 'Australia Group' promised to review chemical export controls on those States that became parties to the CWC. This promise appears to have mollified Indian reservations. Many of the Arab States had declared themselves unwilling to sign the CWC unless Israel acceded to the NPT. The US seems to have been prepared to go ahead with a CWC even if it meant excluding certain States. One attractive feature of the draft CWC was that becoming a signatory would ensure that the State concerned could participate in the work of the Preparatory Commission which would be required to put the agreed text into a workable procedure. Finally an acceptable treaty was formulated and presented to the 47<sup>th</sup> Session of the UN General Assembly on 30 November 1992. A Paris Conference was convened and the CWC opened for signature by participating states in January 1993. Some 130 States signed as original parties. This event brought into play a second phase of NGO activity, the struggle for ratification. It had been assumed that it would be relatively easy to secure ratification. An optimistic timetable of between 12 and 18 months for entry into force (EIF), was promulgated. The PrepCom was appointed to deal with matters of detail, but in the event, this timetable proved grossly over optimistic.

## ENDNOTES

- <sup>77</sup> BERNAUER, Thomas, 'The Chemistry of Regime Formation', UNIDIR, 1993, p.25
- <sup>78</sup> CCD/410
- <sup>79</sup> Comment by Hans A. van den Berg, Chairman of Young Europeans for Security (YES) during a private interview.
- <sup>80</sup> Preamble, Para. I, CCD/410
- <sup>81</sup> *Ibid.* Section II, Para 4
- <sup>82</sup> *Ibid.* Section II, Para 7
- <sup>83</sup> *Ibid.* Section III, Para 8
- <sup>84</sup> Ironically in the later prolonged debate on the subject of whether herbicides constituted CW and should be banned, some delegations claimed that these were forbidden under the general provisions of the ENMOD Convention, See CD/342, p.5
- <sup>85</sup> See CCD/420
- <sup>86</sup> See CCD/512
- <sup>87</sup> SIMS, Nicholas A. in 'International Organisation for Chemical Disarmament, SIPRI 1987, p.24 is rather less complementary in that he describes the text as 'looking in parts like a rough draft rushed out in inexplicable haste'.
- <sup>88</sup> *Ibid.* p.25
- <sup>89</sup> According to Sergei Batsanov, former Soviet Ambassador to the Geneva Conference.
- <sup>90</sup> CD/48
- <sup>91</sup> CD/112
- <sup>92</sup> US enthusiasm for such a project may have been stimulated by a series of accidents involving old CW in storage.
- <sup>93</sup> CCD/458
- <sup>94</sup> CD documents CD/80, CD/131, CD/139
- <sup>95</sup> UN General Assembly Proceedings, Twelfth Special Session, Supplement No2 (A/S - 12/2), para. 66
- <sup>96</sup> CD/343
- <sup>97</sup> See Article X of the US proposal
- <sup>98</sup> SSOD II took place in 1982 in the United Nations General Assembly
- <sup>99</sup> CD/956, p.39
- <sup>100</sup> The ambassadors of the following states served as chairman; Sweden (1984, 1987, 1990), Poland (1985, 1988), United Kingdom (1986), France (1989), USSR (1991), Germany (1992)
- <sup>101</sup> Observation by Sergei Batsanov, sometime Soviet Ambassador to the CD in a private interview.
- <sup>102</sup> CD/500
- <sup>103</sup> Probably from Ambassador Stanislaw TURBANSKI who had chaired the AHCCW during 1985.
- <sup>104</sup> CD/589
- <sup>105</sup> 'Arms Control Reporter', (Institute for Defence and Disarmament Studies, 8 February 1982, 704.B.3.
- <sup>106</sup> BLACKWOOD, Milton E. Jr. 'Between 1982 and 1992, the Army reported nearly 1,500 leaking munitions, and in 1993 a 100-gallon spill of a mustard agent from a bulk container', see 'Beyond the Chemical Weapons Stockpile: The Challenge of Non-Stockpile Materiel', Arms Control Today, June/July 1998
- <sup>107</sup> BOYLE, Dan, 'An end to chemical weapons, what are the chances?' International Defence Review, 9/1988, p.1087
- <sup>108</sup> See US 'Armed Forces Journal' 1 October 1987, p.81
- <sup>109</sup> See for example KUNTSEVICH, Major General A.D. cited in SIPRI Yearbook 1983, p.404 and endnote 99
- <sup>110</sup> According to the US Department of Defence this would have required 'some 2000 trans Atlantic flights... which would take 15 or 16 days'! See International Defence Review 2/1990, p.123
- <sup>111</sup> West Germany also imposed a condition of 'non-singularity'. West Germany must not be the only US CW stationing country in NATO. The effect of this clause was to put some pressure on the UK. Comment by Nicholas Sims
- <sup>112</sup> See UN Doc. S/16128 (1983) This is a letter of complaint to the UN Secretary General from Iran alleging use of CW by Iraq against its armed forces.
- <sup>113</sup> HAMMICK, Murray, "All Stick and No Carrot : NBC's poor reputation persists", *International Defence Review*, 12/1991, p.1323

- <sup>114</sup> See Report of a Medical Mission to Turkish Kurdistan by Physicians for Human Rights, February 1989 "Winds of Death: Iraq's Use of Poison Gas Against its Kurdish Population", issued by Organisation of Human Rights in Iraq, London.
- <sup>115</sup> CD/500
- <sup>116</sup> See Iran's letter to the UN Secretary General S/16128 dated 3 November 1983
- <sup>117</sup> The mission comprised experts from Australia, Spain, Sweden and Switzerland.
- <sup>118</sup> UN A/39/210 and S/16433
- <sup>119</sup> See PV.2576
- <sup>120</sup> FBIS-NE, 1 July 1988
- <sup>121</sup> Switzerland was not at that time a member of the UN but had signed the Geneva Protocol.
- <sup>122</sup> The plant at Osirak some 20 kilometres outside Baghdad comprising the Tammuz 1 Reactor and the Tuwaittha Nuclear Research Centre was, according to France, 'destined for peaceful purposes'. The Israeli's were not prepared to give the benefit of the doubt. See BULLOCH, John and MORRIS, Harvey, 'Saddam's War', Faber and Faber Ltd., p.83
- <sup>123</sup> See CD/757 (France)
- <sup>124</sup> United Nations Charter, Chapter XV, 'The Secretariat'
- <sup>125</sup> For example, the Kurds as citizens of a UN member State had no direct access to the Secretary General since all procedures are based upon the presumption that aggrieved parties will be member States, not factions or minorities within them.
- <sup>126</sup> Sims points out that, 'Although he was careful not to invoke it, the Secretary General must have been aware of the French resolution, adopted by the General Assembly in 1982, which invited him to act in just such a manner to uphold the Geneva Protocol where allegations of CW or (BW) use were made. Written note from Nicholas S. Sims.
- <sup>127</sup> UNSC Resolution 620
- <sup>128</sup> PV.428
- <sup>129</sup> CD/790
- <sup>130</sup> See Statement on [UK] Defence Estimates 1989, Vol.1 2 May 1989 and NORRIS, John & FOWLER, Will, 'NBC Nuclear, Biological & Chemical Warfare on the Modern Battlefield', Brassey's (UK) Ltd., 1997, p.11
- <sup>131</sup> Signed but not ratified due to the collapse of the USSR, however, President Yeltsin undertook to be bound by its terms.
- <sup>132</sup> Interview with Sergei Batsanov.
- <sup>133</sup> Statement of Objectives, The Markland Group December 1994
- <sup>134</sup> *Ibid*
- <sup>135</sup> KEOHANE, Robert O and NYE, Joseph S. Jr. (eds) 'Transnational Relations and World Politics' in *International Organisation*, 25 (Summer 1971) p.332
- <sup>136</sup> A comprehensive list of the Markland Group Consultants Committee and Occasional Consultants may be found in Markland Group Information Brochure 1994
- <sup>137</sup> Personal comment by Ambassador Sergei Batsanov
- <sup>138</sup> See Novosti Press 15 January 1986. Statement by M Gorbachev.
- <sup>139</sup> PLUGGE, Mathias, 'CW in the FRG – a hazardous withdrawal?' 'The situation between the two Germans raises the question of CW depots in East Germany, of which there are nine. One of them is presumed to be located at Gardelegen, 30 km from the inner German border at the Soviet practice ground in the Colbitz – Letzlinger Heide', *International Defence Review* 2/1990, p.123
- <sup>140</sup> McCormack, Timothy L. "Some Australian Efforts to Promote Chemical Weapons Non-Proliferation and Disarmament", *Australian Year Book of International Law* 1994
- <sup>141</sup> *Peace and Disarmament News*, "The Origins and Functions of the Australia Group", July 1989, p.40
- <sup>142</sup> *Ibid*.
- <sup>143</sup> See FBIS-EE, 25 June 1987
- <sup>144</sup> See PV.484 (France)
- <sup>145</sup> Rather more in number than those who had deposited articles of ratification or accession.
- <sup>146</sup> UNIDIR/90/7
- <sup>147</sup> CD/897
- <sup>148</sup> Op.Cit. Norris & Fowler, p.11
- <sup>149</sup> CD/951
- <sup>150</sup> Op.Cit. McCORMACK, p.169
- <sup>151</sup> Para 3. The full text can be seen in *Verification Report*, J.B. Poole and R. Guthrie, 1993, p.300
- <sup>152</sup> See CWFZ, p.20



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<sup>153</sup> The text of the Wyoming Memorandum is reproduced in Annex VI of UNIDIR/90/7

<sup>154</sup> The Security Council has a qualified majority vote requirement (9 out of 15) in the absence of a veto being exercised by any of the Permanent 5.

<sup>155</sup> CD/ 1085

<sup>156</sup> Chemical Weapons Convention Bulletin No.12, June 1991, p.17 (Harvard Sussex Program)

<sup>157</sup> Ibid. p.22 citing CMA[Chemical Manufacturers Association] News Release, 25 June [1991]

<sup>158</sup> CD/1077 23 May 1991

<sup>159</sup> *Ibid*

<sup>160</sup> There is some debate as to whether the US would have used its WMD in response to Iraqi CW use. In the event it did not prove necessary.

<sup>161</sup> UNIDIR/90/7, p.6

<sup>162</sup> "Rolling Text" is a term used to describe a continuously updated version of a preliminary and non binding draft of a piece of international legislation. It permits the reservations and doubts of participants to be recorded and at the same time incorporates those items that have been agreed.

<sup>163</sup> CD/1143

<sup>164</sup> See CD/CW/WP.400

<sup>165</sup> Leonard, James F. 'Rolling Back Chemical Proliferation' in Arms Control Today, October 1992, p.15

## CHAPTER 3

### THE CONCEPT OF VERIFICATION

The concept of 'verification' is fundamental to the success of the CWC. The subject comprises a substantial portion of the Convention and was the most extensively debated subject throughout the long process of negotiation. At the heart of this problem is the vexed issue of sovereignty. This raised questions concerning what agency would carry out the process? What possible terms of reference could it have? What 'rights' could be accorded to the operatives employed by that agency in terms of access? Could they demand access to installations considered to be sensitive? Those states having no CW and little Chemical Industry might express considerable enthusiasm for the concept of intrusive verification, since they had little to lose and a certain amount to gain in the sense of employment opportunities for their nationals. Some participants considered that 'verification' was a misnomer for intelligence gathering, and once the concept of it being applied to the chemical industry was considered, it was taken to constitute an excuse for industrial espionage in an area of considerable commercial sensitivity. However, the primary role of the verification process is to ensure that States Parties do that which they have solemnly undertaken:

Verification is understood to be the process of demonstrating continuing compliance by all States Parties with the obligations undertaken under a disarmament treaty. It should not be confused with an early-warning system against attempts to depart from the Convention regime.<sup>166</sup>

#### **The Absence of Trust**

Verification is closely associated with the abandonment of the concept of 'trust'. In the post World War II era, the diplomatic assumption that parties to a treaty will comply with their undertakings (*Pacta sunt servanda*) no longer holds. In consequence, a key issue in the successful negotiation of the CWC was whether the compliance of participating states could be verified. Astonishingly, as early as 1932, Norway proposed in the context of 'General and Complete Disarmament' that in order to

prevent the manufacture of materials or apparatus capable of use for CB warfare. If such substances or apparatus meet a normal peaceful requirement,

the parties will keep their manufacture within the limits of commercial requirements, *and will supply the Permanent Disarmament Commission with annual statistics.*<sup>167</sup>

Verification techniques were discussed and debated at Geneva for the better part of two decades with varying degrees of success. Primarily, it was assumed that 'National Technical Means' (NTM) of verification would rapidly identify any attempt to circumvent the provisions of a Convention. While this may have been true in respect of the US and USSR, smaller states with regional fears would be unlikely to be in a position to expend much in the way of specialised resources. The much vaunted satellite imagery capability of both of the US and the USSR could not possibly detect the diversion of chemical products necessary for the manufacture of CW agents. Neither could it identify a CW processing plant as distinct from any other chemical processing facility. Munitions storage facilities for such weapons might appear to be rather more secure than conventional munitions dumps, but the same could be said for nuclear weapons storage. Communications intelligence might detect insecure speech references to CW, but there is a growing awareness of such capabilities and the serious cheat would be unlikely to be caught out by such a mundane error.

### **Secret Weapons**

In the more realistic sense, it would seem unlikely that any military capacity to conduct chemical warfare could remain concealed for very long since there has to be a strategic or tactical doctrine for the use of such weapons. There has to be a credible delivery means and the various arms of service trained and practised in their use and deployment. The concept of a 'secret weapon' is difficult to sustain in such circumstances since too many people need to know. Such a weapon might be developed without a doctrine for its use, perhaps as a weapon of last resort, but this would present grave difficulties for the logistic support units of the armed forces concerned and confront the government in question with a difficult moral dilemma. Both the US and USSR were possessors of a CW capability, but for the greater part of their mutual confrontation neither publicly announced any details of that capability. Although included in US assessment in a list of some 20 States thought to be capable of developing CW, India evoked surprise with its revelation to the OPCW that it

possessed a CW capacity. This development highlighted the limitations of 'national technical means' as a reliable verification tool.

### **CW as a 'Deterrent'**

The issue of secret CW development is one that causes considerable concern to some states. But any state wishing to develop such a capability must have reached a reasonable level of technological development and industrialisation before such a step becomes a serious practicability. As is often stated, it is not difficult to produce a chemical agent. However, it is much more difficult to turn such an agent into a practicable weapon and deliver it to a given target in a suitable concentration. The desire for secrecy over the possession of CW is one issue that has not been properly explored since it is unlikely that a 'secret' weapon can have a 'deterrent' effect. To be an effective deterrent, the possession of the weapon system and the will and ability to conduct its delivery must be credible. Nuclear weapon possession is considered capable of deterring a potential aggressor but only because both parties are aware of the capability. In such circumstances only Israel and South Africa under its former government have been less than forthcoming as to their potential as nuclear capable States. Israel's enemies are possibly 'deterred' by the suspicion that Israel has a nuclear capability. The revelations made by Mordechai Vanunu concerning Israel's nuclear weapons capability coupled with his abduction by Israeli secret agents must tend to infer Israel's possession of such weapons despite the fact that no real admission as to possession has been made.<sup>168</sup> In contrast all matters connected with the development of a CW capability have tended to be highly classified. Given such secrecy, it is difficult to understand how a rival state can be 'deterred' by the 'secret' possession of CW. Part of this secrecy may be due to a recognition that there is a sense of public disquiet concerning such substances. Once developed, CW require regular replacement and updating if they are not to deteriorate *in situ* to a point where they become more hazardous to the holder than to any potential enemy. A similar problem applies to nuclear weapons but the quantities involved are likely to be very much smaller than CW and in any event nuclear materials can be re-processed into new weapons. Once 'weaponised', CW tend to deteriorate due to a number of factors such as the instability of the chemical structures within the weapons and the fact that:

Subtle and slow chemical reactions between some agents and the metal of the munition casing cause[d] instability, which could result in the build up of pressure and dangerous leaking of the agent.<sup>169</sup>

Leakage from casings present a hazard to maintenance personnel and the weapons themselves may outlast the designed delivery means.<sup>170</sup> Whilst it is possible to deactivate chemical munitions, the value of the content is at best doubtful. Wild suggestions have been made concerning the potential conversion value of the Soviet/Russian Chemical Weapons containing Arsenic into Gallium Arsenide, which is used in microchip technology. Unfortunately, the quantities involved are likely to exceed the world's requirement for arsenical compounds for fifty years.<sup>171</sup> Chemical disarmament while technologically feasible is a slow and expensive process with many potential opportunities for diversion during all phases.

The Director General of the OPCW made the point that:

The oft repeated notion of chemical weapons as the poor man's atom bomb is actually quite misleading. While this notion reflects the comparative ease with which chemical weapons, as distinct from nuclear devices, can be produced, it implies that certain concepts associated with nuclear weapons (in particular, deterrence) would also apply to chemical weapons—something which is in fact not the case. Chemical weapons have no in-kind deterrence value, and certainly have no deterrence value with respect to the outbreak of a conflict in the first place.<sup>172</sup>

Until the public announcement of CW holdings by the US and USSR, States have been singularly reticent as to their CW capabilities, and it is noticeable that at least one State party to the CWC has utilised the confidentiality clause in the Convention to avoid being revealed as a CW Possessor.<sup>173</sup> The UK deliberately coupled its own announcement as to possession of CW with the decision to abandon them.

### **The Position of Developing Countries**

The fact that attempts to control, limit or eliminate CW have been largely led by western states is not without significance. The NPT has served to limit, less developed states from possessing nuclear weapons. As Zanders has pointed out:

Developing countries later complained that the nuclear powers displayed no serious intent to disarm as required by the NPT while they had to forswear the acquisition of such weapons and only had very conditional access to nuclear technology.<sup>174</sup>

Little wonder that many of these same states are concerned that the CWC will simply be used as an excuse to deny them chemical technology. The establishment of various 'suppliers clubs' such as the Australia Group has aggravated this suspicion.<sup>175</sup> These groups have the very laudable objective of preventing not only the proliferation of chemical weapons but also the accumulation of the essential precursor chemicals and processing equipment by a would be aggressor party. Unfortunately, many such precursor chemicals can be shown to have a legitimate alternative use. For example, thiodiglycol is used in huge quantities in a wide variety of industrial processes, particularly in the production of inks and colour dyes. The same substance can also be used to provide a simple route to the production of Sulphur Mustard Gas. Phosgene, a World War I CW, still considered to be an effective harassing agent, is used in large quantities by the plastics industry.

### **CW Disposal**

Having accepted that chemical disarmament was desirable the question of feasible destruction processes had to be examined. It was accepted that the expedient of ocean dumping could not be supported (it is today contrary to International Law) and that on-shore dumping presented even more serious hazards. In consequence, some form of chemical deactivation designed to change the chemical composition of the CW agents into inert substances would be required.<sup>176</sup> After long research, the US concluded that only some form of high temperature incineration process appeared to provide adequate destruction.<sup>177</sup> This tended to confirm the opinion of British researchers at Porton. Other scientific authorities have disputed the view, but as yet no practical alternative solution has been offered.<sup>178</sup> Essentially, the destruction of CW could be undertaken but the climate of suspicion so prevalent in international relations no longer permits such actions to be taken on trust. From this sense of unease developed the concept of verification.

## **Safeguards**

The problem of verification is not merely that destruction of existing weapons needs to be observed by other interested parties, but that there are safeguards to ensure more weapons are not being produced elsewhere. The means of CW production should also be destroyed, and that destruction witnessed to the satisfaction of the observers. Other problems manifested themselves. Chemical production facilities might very easily encompass some form of suspect activity within the confines of a perfectly legitimate enterprise, especially since much of the essential feedstock material could quite easily have an alternative and quite innocuous purpose. Scientific opinion seemed to suggest that provided a suspect CW production facility could be identified, then an on-site inspection would determine whether some form of CW agent was being produced. The difficulty would be to limit the inspection to a specific area and limit the scope of the inspection to a very restricted series of chemical compounds. The Chemical Industry broadly accepted that it had a duty to support measures designed to detect and expose clandestine production of CW. However, there was the suspicion that inspections could very easily be abused for industrial espionage purposes. If a State party were to accuse another of a breach of the proposed Convention, it would be virtually impossible to satisfy the concerns of both challenger and challenged parties without the participation of a third and mutually trusted party to carry out the inspection. Intellectual property in the sense of a newly developed chemical process is jealously guarded, since the time frame available to a manufacturer to exploit a new product or more likely a new process is extremely short.<sup>179</sup> Not surprisingly this sensitivity leads to the fear of 'fishing expeditions' in the guise of an inspection.<sup>180</sup> In addition, many chemical processes are at various stages extremely poisonous even if the end product is relatively benign. We have only to recall the Bhopal disaster where the accidental admission of water to a chemical process resulted in the discharge of a highly toxic vapour with tragic results. The real issue in respect of the role of verification is threefold:

- Whether the verification procedures can confirm compliance with the provisions of the CWC.
- Whether the verification procedures can detect non-compliance with the CWC.

- Whether in the event of a complaint that CW have been used contrary to the provisions of the Convention, the allegation can be confirmed or denied.

In each case, the verification organisation would need to be fairly confident of the results of its enquiries since a faulty conclusion could prove disastrous to the credibility of the organisation and the Convention it is designed to guard.

### **The Basic Declarations**

These concepts gradually developed as technology improved but it may be concluded that provided all States Parties to the Convention complied with its provisions, confidence would be established and a workable regime introduced. As has been observed, '[T]he basic foundation for creating confidence in the achievement of the objectives of the Convention is the system of declarations.'<sup>181</sup> Fundamentally, the declarations required from each state party are intended to identify those States that currently hold CW, had produced CW in the past, or had held CW produced by some other State. These declarations would thus serve to establish a baseline of CW capability and indicate where some form of inspection would need to be carried out. At the same time, routine declarations would establish the pattern of chemical consumption, particularly the consumption of chemicals relatively easily converted into CW. It was concluded that no significant accumulation of such chemicals could go undetected provided that the manufacturer, supplier and consumer each reported the relevant transactions, primarily to their respective National Authority, where such movements would be consolidated and subsequently passed to the OPCW. In theory, any significant stockpiling of CW precursor chemicals would be revealed through a relatively simple audit procedure. Some important CW precursors have limited civilian applications and consequently substantial acquisition or retention of such substances must inevitably invite suspicion, giving rise to requests for clarification. It may be presumed that the serious treaty violator would make provision to conceal such acquisition and stockpiling, but this requires the participation of greater numbers of personnel with increased risk of accidental disclosure. In fact, the value of these stock declarations is probably limited, especially in states where chemical consumption is large. Stock losses due to recording and handling errors need only be small percentages of the huge quantities involved to represent significant quantities of 'lost'



materials.<sup>182</sup> However, it is the pattern of stock losses that would be of importance in revealing some unlawful intent. In the broader sense, it must be presumed that the intentional diversion of such stocks would require transportation to some location where an activity prohibited by the Convention could take place. Such diversion might be possible under certain circumstances, but in general prohibited activities would probably give rise to warning indications that the Inspectors at a facility could scarcely miss.

### **Destruction of Facilities**

In addition to the verification of such declarations, verification would also be required to confirm that any declared CW, CW production facility or CW storage capacity had been destroyed in accordance with the agreed procedures laid down in the Convention. Verification in this sense must obviously amount to a physical inspection of the premises concerned and involve a progressive series of inspections to determine;

- Whether the declaration was genuine in the first instance.
- Whether a declared activity had actually ceased without the clandestine transfer of the means of production or the contents had not been moved clandestinely.
- Finally, whether the destruction had effectively removed the risk of reactivation.

Concerning the allegation of CW use, the verification procedures would demand unconditional right of access to the zone of conflict in which the alleged use had taken place, thereby placing the onus on both parties to that conflict to provide safe passage to those carrying out the investigation.

### **Remote Monitoring**

Mistrust of intentions was a key factor in the cold war context. At the Geneva Conference of Heads of Government that had taken place in 1955, President Eisenhower tabled a suggestion that the USSR and US should agree to permit aerial reconnaissance over the territory of the other super power.<sup>183</sup> Discussions on such an 'open skies' plan came to nothing possibly because the Soviet Union had not at that time developed the high altitude manned aircraft capability possessed by its rival and probably had not developed the sophisticated imagery interpretation facilities required. The plan was intended to provide mutual assurance in respect of nuclear weapon

deployments but, given the vastness of the territories involved, it also seems very unlikely that any real intelligence gathering could have taken place without the benefit of prior targeting derived from some other source. The subsequent development of satellite capability rendered such objections irrelevant since no part of the globe is free of surveillance provided that meteorological conditions do not obstruct the imagery.<sup>184</sup> The value of this particular form of verification in the context of CW is of course questionable since chemical plant for civilian or military purposes will tend to appear very much the same.<sup>185</sup> However, the fact that the Western Group had reached the conclusion that verification was an essential feature of a CWC was significant. It begged the question 'who will carry out such a role to our mutual satisfaction?' All states engaged in the debate had reason to be concerned since they were not unaware that CW developed clandestinely could only be countered by the hurried development of similar weapons. Such developments could only lead to another arms race and one well within the capability of many states. The nuclear umbrella had proved at least pragmatically effective but fear of the consequences of CW possession has probably held many potential developers in check since the more highly developed a rival state, the more rapidly it could be expected to respond. A CW 'first strike' would only prove effective in very exceptional circumstances and a potential aggressor might find itself extremely vulnerable to a devastating riposte, not necessarily chemical, in the event that the 'first strike' failed in its initial objective. The only practical alternative to the precautionary possession of a stock of CW must logically be for total chemical disarmament monitored by some form of verification procedure and one that would be undertaken without reservation. The difficulty presented by such a procedure would inevitably raise questions as to both the authority and independence of the body concerned.

### **The FRG Precedent**

In 1954, the FRG issued a declaration forswearing the right to produce or stockpile on its territory any weapons of mass destruction.<sup>186</sup> In so doing, the FRG undertook to accept international monitoring of its compliance with this obligation. The monitoring included on-site inspection, conducted by the Western European Union (WEU) Armaments Control Agency.<sup>187</sup> This was designed to allay Soviet fears concerning the FRG's application to join first the WEU and subsequently NATO. It

was to have no value in this respect. It did nothing to remove perceived threats to the USSR from US WMD that were stationed on German soil. Despite this failure to allay Soviet suspicions, the inspection and monitoring process in which the activities of a sovereign state were to be supervised by an Agency outside the control of that state must be considered unique for the time. It may have had some influence on the later development of the role of the International Atomic Energy Authority (IAEA).

### **Progress at Geneva**

It has been commented that, '[F]rom 1972 to 1983, little progress on chemical disarmament was made in the CCD and its successor, the Committee on Disarmament.'<sup>188</sup> However, there is evidence of a steady advance in the negotiating process towards an agreed position on verification of the chemical disarmament activity. In 1972, the Eastern Bloc tabled a draft Convention banning the production or retention of CW. It was flawed in the eyes of western delegations because it contained no provision for verification. The Japanese delegation tabled a draft convention in 1974, which allowed for challenge procedures but without any compulsion to permit inspection. This was again somewhat short of the minimum requirements for western states. The United Kingdom submitted a draft convention in 1976.<sup>189</sup> It proposed to ban the production, acquisition, or use of chemical weapons. It also proposed procedures for their phased destruction and the dismantling of production facilities. The UK proposal suggested the establishment of a 'Consultative Committee' tasked with overseeing verification procedures but was singularly vague in terms of detail. However, certain essential elements of a declaration and verification process can be perceived, for example Article II would have obliged participants to make declarations concerning their CW capabilities. The Document also mentions the need for a national authority to collect the data required and ensuring compliance with the Convention. Article VII covers the need for a programme of destruction or conversion of CW under the supervision of monitoring body and Article IX outlined proposals for a factory inspection procedure and the need for the inspectors to take samples as required. In addition, where the destruction of CW was involved, inspection was to include 'such access ..... as is necessary for the task of verification'<sup>190</sup> The UK proposals were not explicit in detail but they did highlight a number of areas where further discussion could take place.

## US Discussions

Outside the CCD, a more specific proposal appeared in a presentation prepared for the US Congressional Committee on Foreign Affairs in 1974.<sup>191</sup> This presentation identified the aim of verification as being to, 'provide assurance that parties to an agreement are abiding by its terms. This assurance could be attained through a variety of mechanisms, whose goal may one or more of the following:

- Control over the means of achieving a [Chemical] capability.
- Confidence that warning of a requirement to take defensive action will be given in sufficient time to take such action.
- Introduction of disincentives which will make an attempt to evade the treaty obligations unprofitable.'<sup>192</sup>

The presentation went on to define three primary verification techniques which might be used to control, give warning or produce disincentives as being, 'technical inspection, economic monitoring and intelligence activity.'<sup>193</sup> It should be noted that at this stage US policy was directed toward retaining a 'retaliatory' CW capability. Of the three 'primary verification techniques' described in the presentation it is interesting to note that 'economic monitoring' is credited with the 'ability to reduce substantially the demand for technical inspection, particularly on-site inspection.'<sup>194</sup> Another interesting feature of the presentation was the suggested model, 'for a national monitoring and control system to supply economic data to other parties for verification purposes.'<sup>195</sup> In addition, it proposed the establishment of a Chemical Control System (CCS), which was described as an, 'economic reporting and material control network designed to be part of an inspection system for an arms-control agreement controlling the production of chemical warfare agents.'<sup>196</sup> This document clearly outlines the development of an International Organisation and the establishment of the National Authority as the focus of efforts to record the movements of chemical substances. Coming as it did less than one month after the Japanese proposal to the CCD, it would appear that the problem of verification and how it should be carried out was beginning to register with the various participants in the negotiating field. It should be noted that the presenter of the brief, Alan R. Pittaway, had already put forward a proposal for a permanent Committee to verify a CW Convention at a SIPRI symposium as early as

1968.<sup>197</sup> With hindsight it can be seen that these US discussions were beginning to draw together the essential elements of a practical Convention.

### **Destruction of CW Agents**

In July 1974, the US presented to the CCD a 'Working Paper on chemical agent destruction'<sup>198</sup> Although primarily concerned with the mechanics of destruction of Mustard agents, it did include some discussion on possible verification methods, hinting that if access to the destruction process by verification personnel were to be restricted, several stages in the process might be contrived and therefore unreliable. In contrast, if adequate access were to be provided, full and effective verification could be achieved. Three years later the USSR issued a paper on 'Verification of the destruction of declared stocks of chemical weapons'<sup>199</sup> It involved the destruction of the agent by incineration or detoxification. The limitations of this paper were that it appeared to restrict the access to much of the process by the verification observers in respect of the preliminary activity, such as the removal of the agent from the warhead. It emphasised that the destruction should take place under 'National Control', which was to imply that the verification procedure was not intended to be an active involvement in the sense of measurement.

### **External Contributions**

Outside the CD, Finland quietly conducted research into the possibility of remote detection of CWC violations. The Pugwash Chemical Warfare Study Group (PCWSG) which had held its first meeting in Helsinki in 1974 probably stimulated the research effort.<sup>200</sup> The PCWSG owed its existence to the 5th Pugwash Conference held in Pugwash in 1959. This conference was wholly devoted to chemical and biological warfare issues and from it came the Pugwash Biological Warfare Study Group, 'in which scientists from a dozen countries participated, East, West and Non-aligned.'<sup>201</sup> The efforts of this group did much to stimulate the discussions that led to the 1972 Biological Weapons Convention, and 'also laid a foundation for subsequent researches in the area of CBW by the Stockholm International Peace Research Institute[SIPRI]. During 1968-72, SIPRI convened five international meetings specifically on CW matters.'<sup>202</sup> Gradually the PCWSG membership broadened to involve not only peace researchers and interested scientists, but also government

officials and military personnel. A significant role of the PCWSG during this period was in matters of international verification procedures, in particular:

techniques of verification that minimise intrusiveness into areas of legitimate secrecy - instrumented near-site and off-site inspection, for example, and reported-data monitoring; on confidence building measures; and on ways for dealing with CBW-use allegations.<sup>203</sup>

### **Finnish Institute for the Verification of the Chemical Weapons Convention**

The Government of Finland also undertook a long-term program designed to apply the latest scientific and technological advances to problems of verifying a CWC. The Finnish Institute for the Verification of the Chemical Weapons Convention (Verifin) was established for the task and work was carried out at the Department of Organic Chemistry in the University of Helsinki (Vuorikatu 20). Initial research in the first four years involved synthesising small quantities of nerve agents and developing methods for their analysis.<sup>204</sup> In some instances this meant devising specialised instruments for the purpose. By 1977 the first Finnish Blue Book was published in Geneva under the title 'Chemical and Instrumental Verification of Organophosphorus Warfare Agents'. It was, in effect, the first effective guide to the problem of detecting the presence of Nerve Agents both in Chemical Munitions and the residues that might be found after their use. Working with the Finnish Defence Forces, 'Verifin' developed techniques for environmental sample gathering and for the operation of monitoring instruments in the field. From 1985, Verifin project's researchers explored air monitoring to detect chemical agents. The Convention regulates many activities that are likely to release chemicals into the atmosphere. Air also traverses the borders of states; agents released in one state can be detected downwind in a neighbouring state. Verifin's researches indicated that even a few kilograms of a chemical warfare agent released into the air might be detected hundreds of kilometres downwind. The potential for detecting a violation of the Convention by such means is significant. The procedures pioneered by the Verifin organisation demonstrated that the residues to be found in soil, air and wastewater would tend to indicate attempts to circumvent the provisions of the Convention even if Inspectors were denied physical access to certain areas within an installation. These discoveries suggested that it was entirely possible to operate a verification system with a very high probability of violation detection. Further work

by Verifin established the first Standard Operating Procedures (SOPs) for sample gathering and a chemical database giving details of the products that CW in decay might be expected to produce was published. These efforts did much to show that verification of the use of CW could be determined, possibly long after the event.

### **National Trial Inspections**

Utilising many of the procedures established by Verifin, a series of National Trial Inspections (NTI) were instituted. It has been found that it is extremely difficult to remove evidence of the production of chemical substances from pipelines, valves and other vessels. The British demonstrated that the process of destruction of the CW experimental production facility at Nancekuke, Cornwall had revealed the continuing presence of traces of the CW agent Sarin despite the passage of some twenty years and having twice been subjected to steam treatment of the system.<sup>205</sup> Such tests, both 'real' and simulated, were carried out in several countries and in general the reports submitted were encouraging. Finland initiated a number of joint laboratory tests in which samples of soil, air, water, paint and concrete were 'spiked' with CW agents or products of their decay. For control purposes, a number of spurious substances were included. In virtually all these tests carried out by nationally recognised laboratories, the results were satisfactory although a few 'false positives' marred the results. However, there were no 'false negatives' which suggested that the results were impressively reliable.<sup>206</sup>

### **The 1991 Persian Gulf War**

The advent of the 1991 Persian Gulf War resulting from the Iraqi invasion of Kuwait had a profound effect on the negotiations for a workable CWC.<sup>207</sup> Overwhelmed by superior force and technology Iraq was militarily defeated and forced to surrender.<sup>208</sup> By order of UN Security Council resolution 687, Iraq was obliged to eliminate its WMD and accept monitoring by a special UN Commission (UNSCOM).<sup>209</sup> The formation of UNSCOM and the conduct of its operations in Iraq had been a matter for the UN Security Council and did not involve any participation on the part of the CD. Technically, UNSCOM was only responsible for non-nuclear WMD. The IAEA, working in close co-operation with UNSCOM, dealt with Iraq's nuclear weapons programme.<sup>210</sup> The structure of UNSCOM, although relatively simple composed of:

two distinct elements. One was a 'commission' proper composed of high level experts proposed by national governments and appointed by the UN Secretary General... The other consisted of teams of verification experts and other UN personnel carrying out the actual inspections and analysis.<sup>211</sup>

It will be seen that this structure matched in miniature the composition of the then proposed OPCW Executive Council and the Inspectorate. It may be presumed to have benefited from having the services as its first Executive Chair of the experienced Swedish Ambassador Rolf Ekeus, former Chair of the AHCCW. However, in contrast with the IAEA, which at least had some knowledge of fissile materials and their possible diversion to nuclear weapons production, 'no comparable verification body existed for chemical... weapons in 1991.'<sup>212</sup>

### **UNSCOM Operations**

UNSCOM, in conducting its task, found substantial evidence of the existence of sophisticated CW in the Iraqi arsenal together with delivery means that could have proved effective had the Iraqi leadership felt so inclined. The destruction of CW carried out by UNSCOM provided considerable guidance for the developing concept of a CWC detection and destruction monitoring service. Methods employed by UNSCOM in terms of record examination and sample analysis demonstrated to many previously unconvinced analysts that it was perfectly practicable to determine whether a State was actively developing CW. Production record checks showed that the diversion of chemical substances from acceptable civil activities to military purposes could be detected and that air, soil and water samples taken in locations some distance from a suspect establishment could provide evidence of the production of prohibited substances thereby confirming and justifying the quiet work of 'Verifin'. UNSCOM used some extremely sophisticated techniques in an attempt to overcome Iraq's supposed non-compliance, including the use of a Lockheed U2 high altitude reconnaissance aircraft.<sup>213</sup> It is possible that such methods could at least determine the location of 'hidden' installations that a scan of Iraqi records had given a hint might exist. Such methods are unlikely to be generally available without an overriding US interest in the outcome.

According to Ambassador Ekeus:



UNSCOM is now much better informed about most aspects of Iraq's activities related to its weapons of mass destruction programs than is any individual government. Critical to this success has been the operation, with the help of the United States, of the high-altitude U2 reconnaissance flights and UNSCOM's full access to imagery obtained from that operation. However, a severe bottleneck in the system remains UNSCOM's limited capability for photo interpretation.<sup>214</sup>

In due course it would also be alleged that some of the US members of the inspection team were either directly or indirectly in contact with a US intelligence agency rather than the UN.<sup>215</sup> These allegations led to the eventual enforced departure of UNSCOM from Iraq and may cause difficulties for the future of CWC inspection teams.<sup>216</sup>

Conversely, it may have contributed to the extremely rigorous standards of behaviour now required of CWC inspectors.

### **UNSCOM Mission Success**

The UNSCOM mission probably achieved some 90% of its aims in respect of CW in Iraq.<sup>217</sup> It certainly detected the existence of weapon quantities ten times larger than the initial declaration, but the fact remains that even if all CW and their precursor chemicals could be detected and destroyed, UNSCOM could not remove the essential knowledge from the minds of Iraqi chemical engineers. In that context, Ekeus remarked:

Even if UNSCOM and the IAEA at a given moment in the future could report that all proscribed items had been identified and eliminated, the monitoring of Iraq's dual-use capabilities would be necessary for many years thereafter. A major reason for that is the know-how available in Iraq through all the personnel involved in weapons development and production.<sup>218</sup>

### **UNSCOM and the CWC**

The operational role of UNSCOM took place during the period of the final negotiations of the AHCCW, the Paris Conference and the development of the PrepCom of the CWC and was still active during the period when the CWC entered into force. The embryo CWC inspectorate subsequently enjoyed the benefit of the operational experience of UNSCOM in Iraq to draw upon, particularly in the matter of

attempts to evade detection on the part of Iraq. In that context, it is interesting to note that:

At the request of UNSCOM, [PrepCom] Secretariat staff also participated in technical discussions related to the inspection of Iraq's chemical weapons and its declarations of chemical facilities to be monitored for future compliance with the relevant Security Council resolutions.<sup>219</sup>

Since the States Parties to the CWC have freely entered into its commitments it is presumed that the obstruction and intransigence reported by UNSCOM in their dealings with Iraq is unlikely to be experienced by CWC inspectors. However, the techniques developed by UNSCOM in order to circumvent Iraq's obstruction of its tasks will encourage CWC inspectors to have confidence in their procedures and equipment.

## ENDNOTES

- <sup>166</sup> TRAPP, Ralf, 'Verification under the Chemical Weapons Convention: On-Site Inspection in Chemical Industry Facilities', SIPRI Chemical & Biological Warfare Studies No.14, Oxford University Press 1993, p.1
- <sup>167</sup> The Problem of Chemical and Biological Warfare, Volume IV, CB Disarmament Negotiations, 1920-1970, VI.Prohibition of production of CB weapons, SIPRI, Almqvist & Wiksell Stockholm and Humanities Press, New York, p.369. NB emphasis added.
- <sup>168</sup> See *The Sunday Times* 5 October 1986, p.1. Vanunu was subsequently tried *In Camera* on charges of Treason and sentenced to 18 years imprisonment with a recommendation that imprisonment should involve solitary confinement.
- <sup>169</sup> BUD, Robert and GUMMETT, Philip (Eds.) 'Cold War, Hot Science', Harwood Academic Publishers, Amsterdam.1999, Chapter 11, Gradon Carter and Brian Balmer, 'Chemical and Biological Warfare and Defence, 1945-1990', p.301
- <sup>170</sup> This problem occurred with the US M60 Chemical Rocket. The Rocket launcher was phased out of service leaving a large number of gradually deteriorating rockets charged with a chemical agent.
- <sup>171</sup> Comment by Ian R. Kenyon, former Executive Secretary of the Preparatory Commission.
- <sup>172</sup> OPCW Synthesis 2000 p.1
- <sup>173</sup> *Ibid.* p.6. 'Four States Parties have declared CW stockpiles, and have informed the Secretariat of their long-term plans to perform CW destruction operations at up to 34 CWDFs.' Since India, US and USSR/Russia have publicly declared a CW stockpile, the fourth State Party is unidentified.
- <sup>174</sup> *Op.Cit.* ZANDERS, p.85
- <sup>175</sup> Formed in 1985 as a result of an initiative by the Australian Ambassador to Paris. The Group is unofficial and informal, but provided a considerable impetus to the establishment of the Chemical Weapons Convention (CWC)
- <sup>176</sup> See CRONE, Hugh D. 'Banning Chemical Weapons: The Scientific Background', Cambridge University Press 1992, p.95
- <sup>177</sup> *Ibid.* IX. Destruction of Stocks. 11. 1971, Sweden proposed that Chemical Agents be destroyed 'by means of reactive chemicals or through decomposition by heating, pyrolysis or combustion.' A fairly broad grasp of the available or potential means for destruction.
- <sup>178</sup> *Op.Cit.* CRONE. Law of Conservation of Matter. Crone points out that no method of destruction can possibly destroy a substance without leaving some residues. It is simply that the chemical combinations involved have been changed. p. 95
- <sup>179</sup> According to BP Chemicals this production time frame advantage can be as little as six months for a novel process.
- <sup>180</sup> It is understood that Israel is reluctant to ratify the Convention on the grounds that her Arab neighbours will wish to utilise the challenge procedure as an excuse for determining Israel's nuclear capacity.
- <sup>181</sup> The CBW Conventions Bulletin (Harvard Sussex Program on CBW Armament and Arms Limitation), Issue No.48, June 2000, Ian Roy Kenyon, 'Chemical Weapons in the Twentieth Century Their Use and Their Control', p.7
- <sup>182</sup> *Op.Cit.* Trapp. P.35. Trapp suggests that statistical errors could in certain circumstances permit the regular diversion of 'significant quantities' of a scheduled chemical.
- <sup>183</sup> CROFT, Stuart, 'Strategies of Arms Control', Manchester University Press, 1996, p.121
- <sup>184</sup> See RICHARDSON, Billy and CARRICO, John P. 'The Challenge of Biological Warfare Defence' in 'Directors Series on PROLIFERATION' No. 4, Kathleen C Bailey (Ed.) Lawrence Livermore National Laboratory, 1994, p.34
- <sup>185</sup> SMITHSON, Amy E. 'Dateline Washington: Clinton Fumbles the CWC', in Foreign Policy, 'Summer 1995,p.175,'the satellites that have been the bedrock of US nuclear assessments for the past several decades are not nearly as useful for monitoring chemical weapons proliferation.'
- <sup>186</sup> See Annex No.1 to the 1954 (Paris) Protocol No.3 on the control of armaments. This was a Protocol to the 1948 Brussels Treaty of Collaboration and Collective Self Defence
- <sup>187</sup> de JONGE, Oudraat, Chantal (1992) 'The Role of International Organisations' In SUR, Serge (Ed.) 'Verification of Disarmament or Limitation of Armaments: Instruments, Negotiations, Proposals.' UNIDIR, New York, 1992, pp.207-252 (WEU)
- <sup>188</sup> BERNAUER, Thomas, 'The Chemistry of Regime Formation', UNIDIR, 1993, p.25
- <sup>189</sup> CCD/512, 6<sup>th</sup> August 1976

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- <sup>190</sup> *Ibid* CCD/512 (UK Draft Convention 6<sup>th</sup> August 1976), Article IX
- <sup>191</sup> PITTAWAY, Alan R. 'Prepared Statement for Committee on Foreign Affairs Hearings on United States Chemical Warfare Policy', May 2, 1974, pp.5/6
- <sup>192</sup> *Ibid*
- <sup>193</sup> *Ibid*
- <sup>194</sup> *Ibid*.p.10
- <sup>195</sup> *Ibid*.p.14
- <sup>196</sup> *Ibid*.p.17
- <sup>197</sup> See 'Verification of a Convention on Chemical Weapons', Research Paper issued by Arms Control and Disarmament Research Unit, Foreign and Commonwealth Office, March 1979, p.2
- <sup>198</sup> CCD/436, 16 July 1974
- <sup>199</sup> CCD/539, 3 August 1977
- <sup>200</sup> ROBINSON, J.P. Perry, Memorandum on 'Prior Pugwash Work On Chemical Warfare' E2422, 19 June 1984. p.1
- <sup>201</sup> *Ibid*. p.1
- <sup>202</sup> *Ibid*. p.1
- <sup>203</sup> *Ibid*.p.2
- <sup>204</sup> It appears that Verifin was able to determine the chemical formulae of such agents without much difficulty.
- <sup>205</sup> See CD/856 'Past production of chemical warfare agents in the United Kingdom', 11 August 1988.
- <sup>206</sup> See for example 'International Interlaboratory Comparison (Round Robin) Test for the Verification of Chemical Disarmament F.1 Testing of Existing Procedures. Ministry of Foreign Affairs of Finland Helsinki 1990 ISBN 951-47-3872-1
- <sup>207</sup> 2<sup>nd</sup> August 1990
- <sup>208</sup> Iraq formally surrendered on 3<sup>rd</sup> March 1991
- <sup>209</sup> By chance, Ambassador Rolf Ekeus of Sweden was available to fill the post of chairman.
- <sup>210</sup> Technically, IAEA had no role in respect of Nuclear Weapons, being primarily concerned with verifying the non-diversion of fissile materials from officially recognised peaceful uses of Nuclear energy. In Iraq, this role was somewhat modified.
- <sup>211</sup> *Ibid*.
- <sup>212</sup> ANDREANI, Gilles, 'Dirty Laundry in Baghdad' a Review Essay. *Survival*, Winter 1999-2000, p.165
- <sup>213</sup> KAY, David, 'The Lessons of Intrusive Verification in Iraq', *Arms Control Today*, April 1993, p.205.
- <sup>214</sup> EKEUS, Rolf, 'Leaving Behind The UNSCOM Legacy in Iraq' Interview in *Arms Control Today*, July 1997
- <sup>215</sup> Tariq Azziz, Iraq's Foreign Minister complained that the UNSCOM final report was first handed to President Clinton rather than to the UN Secretary General
- <sup>216</sup> Scott Ritter, the former UNSCOM inspector charged that U.S. intelligence services conducted their own operations against Iraq under the guise of providing intelligence support to UNSCOM. See *Arms Control Today*, October 1999
- <sup>217</sup> *Op.Cit.* EKEUS
- <sup>218</sup> *Ibid*.
- <sup>219</sup> OPCW Synthesis, Issue No. 8, 13 June 1994

## CHAPTER 4

### THE VERIFICATION REGIME OF THE CWC

#### Verification the Key Issue

The success or failure of the CWC is dependent upon the level of confidence States Parties are able to place in compliance by their fellow signatories. Dr Josef Holik asserted that, '[T]he CWC is based on three sets of interlocking objectives which together provide the framework for the complete elimination of this horrible class of weaponry.'<sup>220</sup> The three objectives may be summarised as; the elimination of all stocks of CW within 10 years; the prohibition of use 'under any circumstances'; and the prohibition of development, production and transfer of CW. Dr Holik went on to state that, '[T]hese prohibitions would hardly be capable of giving confidence of compliance were they not backed up by an unprecedented, comprehensive verification regime.'<sup>221</sup> As noted earlier, verification has been described as the key issue in establishing the CWC. Many States Parties to the Convention expressed doubts during the negotiations phase as to whether a worthwhile verification regime could ever be agreed, or if agreed whether the conduct of such a regime would prove satisfactory. Some believed that any form of verification would be better than none, others took the view that unreliable verification would be worse than none.<sup>222</sup>

#### The Verification Annex

The Verification Annex to the CWC is somewhat larger than the Convention of which it forms an essential part. This Annex may be considered as the definitive specification as to the roles and duties of both the National Authorities and the Inspectorate of the OPCW. The regime set out in the CWC Verification Annex is complex. It relies fundamentally on the system of declarations made by States Parties to establish the grounds upon which inspection processes can be conducted. It states that, '[E]ach State Party shall submit to the Organisation, not later than 30 days after this Convention enters into force for it, the following declarations, in which it shall---'<sup>223</sup> There follows the list of declarations that must be made by each State Party without exception:

- With respect to chemical weapons, whether any are held or not, but if any are held, the precise location, quantity and a detailed inventory.

- The details concerning any CW owned by any other State but located on its territory.
- Provide details of any transfers of CW it may have made or received from or to any other State since 1 January 1946.
- Provide a general plan for the destruction of such CW that it might own or possess on its territory.
- With respect to Old or Abandoned CW, declare whether there are any such CW on its territory and provide the appropriate information as to their location.
- With respect to CW production facilities, declare whether it has or has had such a facility under its ownership; whether it has transferred or received any equipment for the production of CW since 1 January 1946; and provide a plan for the destruction of any such facility on its territory.
- Where appropriate, specify the actions to be taken to close any CW production facility; and if appropriate, provide plans for the temporary conversion of any CW production facility into a CW destruction facility.
- Specify the precise location of any establishment that has been designed constructed or used since 1 January 1946 for the development of CW including laboratories and test sites.
- Where the State Party holds riot control agents, identify precisely the chemical compositions of the riot control agent in question.

There is a final clause permitting State Parties to ignore for the purposes of declarations any CW buried on its territory before 1 January 1977 or dumped at sea prior to 1 January 1985. The initial role of OPCW inspectors involves visiting the declared locations and verifying that:

- a. The declarations are true
- b. The required actions have been taken.

It is assumed that in most instances these declarations will be truthful and accurate since the CWC does provide for other States Parties to request clarification or explanation concerning the conduct of a State Party in respect of its activities relating to the CWC. In the spirit of the Convention, State Parties are encouraged to make every effort to resolve doubts concerning, 'any situation which may be considered ambiguous or which gives rise to a concern about its possible non-compliance with

[the] Convention.<sup>224</sup> States Parties are expected to attempt to resolve such problems and there is provision for States Parties to make, by mutual consent, bilateral arrangements which amount to inspections or any other procedure that will resolve the doubts raised.<sup>225</sup> The US and USSR (subsequently Russia), have made considerable efforts to forestall questions arising from their conduct respecting their holdings of CW by arranging exchange visits to CW storage sites.

### **Clarification I**

States might from time to time act in a manner that could give its neighbours cause for concern and matters relating to the aims and objectives of the CWC are no exception. Whilst it is to be hoped that no State Party will threaten to develop, store or use CW contrary to the provisions of the CWC, it is conceivable, for example, that tactical training during military manoeuvres might give rise to the impression that some form of CW use is contemplated. The relationship between bordering States may be less than cordial, rendering the procedure of clarification by mutual consent difficult to achieve. In such circumstances, where doubt arises, a State Party may forward a request for 'clarification' to the Executive Council. However, in an effort to avoid a frivolous or vexatious complaint, it must be accompanied by the details of any information that gave rise to the doubt.<sup>226</sup> If satisfied as to the genuine nature of the doubt, the Executive Council will then forward the request for clarification to the State Party concerned, not later than 24 hours after its receipt. The requested State Party must then respond not later than 10 days after receipt of the request and this response must be communicated within 24 hours of receipt to the complaining State. There is further provision for the complainant to obtain additional clarification via the Executive Council, which may in turn request the Director General to utilise the services of the Technical Secretariat or obtain expertise from elsewhere. If the complainant is still unsatisfied by the response, it may request a special session of the Executive Council and if not a member of the Council itself, will be given the right to attend. The special session will consider all the evidence and make recommendations that it considers appropriate to resolve the situation.

### **Clarification II**

In order that there is no possibility of confusion and in an effort to permit a State Party to be made fully aware of the allegations made against it, a State Party has the right to

request the Executive Council to clarify any situation, 'which has been considered ambiguous or has given rise to a concern about its possible non-compliance with [the] Convention.'<sup>227</sup>

Should this occur, the Executive Council is required to inform all States Parties that such a request for clarification has been made. There is a possible 60 day period of grace permitted for the resolution of the doubt or concern after the submission to the Executive Council. However, if the matter has not been resolved, or if the State Party believes its doubts warrant urgent consideration, then a Special Session of the Conference of States Parties can be convened to consider the matter in accordance with Article VIII, Para. 12 (c) of the Convention. The Conference is empowered to consider the matter and make any appropriate recommendations. This procedure does not deprive a State Party of the right to request an on-site challenge inspection.

### **The Challenge Inspection**

It is to be hoped that challenge inspections are not made frivolously since they might raise animosity within the Conference of States Parties. A request for a challenge inspection must first be reviewed by the Executive Council, which may or may not include any of the parties involved in the question that led to the challenge procedure being initiated. Challenge inspections may be requested for:

any facility or location in the territory or in any other place under the jurisdiction or control of any other State Party, for the sole purpose of clarifying and resolving any questions concerning possible non-compliance with the provisions of [the] Convention.<sup>228</sup>

So far as is known, no challenge has, as yet, been initiated. It must be presumed that the OPCW will be reluctant to carry out the procedure unless the evidence presented is very compelling since it must necessarily threaten the mutual confidence of the States Parties. The Executive Council has the right to decide against carrying out the requested challenge inspection not later than 12 hours after receipt, the vote being taken on the basis of a three-quarter majority with the challenger and challenged parties being excluded from participation. The grounds for such a rejection being if the Executive Council considers the request to be, 'frivolous, abusive or clearly beyond the scope of [the] Convention'.<sup>229</sup> In the Middle East there is considerable interest in Israel's supposed nuclear capability and it is likely that should an Arab State Party seek a challenge inspection of an Israeli facility, it is very probable that the



facility in question will be Dinoma, allegedly the site of Israel's nuclear weapon development programme. Such a challenge is impossible until such time as Israel and the majority of Arab States become Parties to the CWC. However, if it were to occur at some future date, the Executive Council would find itself in a difficult position.

### **Designation of Inspectors and Inspection Assistants**

Inspectors and their assistants are recruited from the broadest possible national and geographical cross section of the composition of the OPCW. As has been mentioned earlier, this may present difficulties simply due to the fact those persons having the requisite skills and experience are in limited supply. Not less than 30 days after EIF the Technical Secretariat (TS) was required to inform all States Parties of, 'the names, nationalities and ranks of the inspectors and inspection assistants proposed for designation, as well as a description of their qualifications and professional experiences.'<sup>230</sup> In order that there should be no subsequent disputes, States Parties were required to acknowledge receipt of the list within 30 days, but were empowered to raise objections to individuals on that list.<sup>231</sup>

As objections were not raised within the stated time, it was assumed that the State Party concerned had no objection to newly specified inspectors and inspection assistants. Where objections are raised then the inspector or inspection assistant concerned will not be used to participate in any verification activity that is to take place on the territory of the State raising the objection. This process is not final, in that at any time a State Party may object to a designated inspector or inspection assistant but the objection only comes into effect 30 days after the receipt of the objection by the TS. In order that the inspection process cannot be manipulated, a State Party that has been notified that an inspection is to take place may not object to the presence of any of the inspection team named in the inspection list.<sup>232</sup>

### **Privileges and Immunities**

Inspection team members are to be accorded the degree of diplomatic protection and, the 'inviolability enjoyed by diplomatic agents pursuant to Article 29 of the Vienna Convention on Diplomatic Relations of 18 April 1961.'<sup>233</sup> The rules of the same Convention applies to their accommodation, their documents, and their equipment. They are to be granted freedom from taxes and duties on goods imported for their

personal use, other than prohibited articles. It will be recalled that inspection team entry and exit to and from the territory of a state Party is facilitated by the issue of visas provided by all States Parties and the additional advantage of the United Nations *Laisser Passer* (UNLP). In return inspection teams are obliged to refrain from participating in activities not directly connected with their inspection duties and must comply with the laws and regulations of the inspected State. Abuse of these privileges and immunities could result in the DG exercising his discretion to waive the immunity of an individual.<sup>234</sup>

### **Standing Arrangements**

Points of entry and exit to and from the territory of States Parties, for the purposes of meeting the needs of inspection teams are required to be notified to the TS. These points of entry may from time to time be altered by a State Party after due notice has been given. Provision exists for a State Party to change these points of entry but notice must be given so that all States Parties may be informed. If the TS considers that the points of entry are too few in number to permit the timely arrival of an inspection team at the point of inspection, it may approach the State Party in question and negotiate for additional entry points.

### **Non-Scheduled Aircraft**

It was agreed by States Parties that, where practicable, their respective scheduled Flag Carrying Aircraft would undertake transportation for inspection teams and their equipment from The Hague to appropriate points of entry. It will be recalled that the PrepCom considered the use of non-scheduled aircraft and subsequently, provision was made for States Parties to grant diplomatic clearance for such aircraft and their crews. The Verification Annex of the CWC allows for inspection teams to use non-scheduled aircraft, 'where timely travel is not feasible using scheduled commercial transport'.<sup>235</sup> In such circumstances the aircraft concerned must use agreed points of entry and travel along established international airways. The TS must provide through the National Authority, not less than six hours in advance, a flight plan from the last external airfield prior to entering the airspace of the inspected State Party. This flight plan must be in accordance with the International Civil Aviation Organisation (ICAO) regulations and include, 'the standing diplomatic clearance number'.<sup>236</sup> As an added precaution the inspected State Party is required to ensure

that the flight plan has been approved, not less than three hours before the departure of the aircraft from the last airfield prior to entry into the airspace of the inspected party. The inspected State Party is expected to provide parking, security protection, servicing and fuel as required by the TS for the aircraft in question and it is to be exempt from landing fees and other charges. It will be apparent that the costs of mounting an operation of this nature could prove very expensive, and in general the costs are borne by the inspected State Party. However, as a further deterrent to frivolous challenge inspections, the Executive Council having received the report of the inspection team, shall, in the case of abuse examine, 'whether the requesting State Party should bear any of the financial implications of the challenge inspection.'<sup>237</sup> The challenging and challenged State Parties have the right to attend and participate in the Executive Council review process. It is possible that, whatever the conclusions of the inspection report, the proceedings could be acrimonious and further reason for States Parties to make every effort to mutually resolve matters of doubt without recourse to the challenge procedure.

### **Arrival of Inspection Teams**

Whatever the purpose of the inspection, an inspection team does not arrive unannounced. The DG is required to notify the inspected State Party of the type of inspection to be carried out, the point of entry to the State, the estimated date and time of arrival together with details of the means of travel to that point. This will of course include any special aircraft clearance details. Notification will include details of the site to be inspected and the names of the inspection team members. The inspected State Party is required to acknowledge the notification within one hour of receipt. On arrival at the point of entry, the inspection team is to be conducted to the site safely and swiftly, accompanied by an in-country escort, which is likely to be provided by the National Authority of the State concerned. In the case of challenge inspections, the challenger is permitted to nominate an observer to accompany the inspection team. This observer may be objected to by the challenged State and it is possible that a neutral third party nominee may be acceptable to both challenger and challenged States. The hosting of the inspection team, including the observer and all their equipment, is the responsibility of the in-country escort.

### **Conduct of Inspections-Briefing**

The physical inspection process will probably not commence immediately. There is provision for an on-site briefing by the operators of the facility to be inspected. There are likely to be extensive plans and other documentation to be examined together with matters of safety procedure and conduct within the facility. The facility operators are entitled to insist on the observance of such rules, provided that there is no suggestion that the rules are intended for obstructive purposes. The operators of both commercial and military facilities due to undergo inspection are entitled to restrict the inspection process by means of the approved technique of 'managed access'. This is a technique in which specific items of equipment and certain records may be 'screened' from the eyes of the inspection team where it can be demonstrated that these items have no connection with the objectives of the inspection team for the purposes of the CWC. For example, it may be applied to prevent the exposure of intellectual property. Finally, there will be questions from the facility operators as to the logistic arrangements required by the inspection team to enable them to complete their task. The briefing should be thorough but not so extensive as to represent a diversionary effort. The time required for the briefing should not exceed three hours.

### **Conduct of Inspections-Tasks**

When the inspection does commence, the inspection team should be permitted to carry out its task without obstruction, but at the same time should not unduly hinder the work of the facility staff in carrying out their duties. The inspectors may ask for a particular process to be demonstrated and may question site personnel subject to the rights of the inspected State representatives to object on the grounds that the questions are not relevant to the purpose for which the inspection is being carried out. There is provision if required, for equipment to be photographed using 'instant development photographic print' means, copies of each photograph to be made available for the inspected party. Any information that may be gathered by the inspection team concerning a particular facility should also be made available to the inspected State Party at its request. It is the duty of the inspected party to answer any questions raised about the facility by the inspectors designed to clarify or resolve ambiguities. Should the inspected State Party fail to answer satisfactorily any question raised then the facts are to be reported to the TS immediately. Additional time for the conduct of the inspection may be requested by the inspection team but this is only obtained by

agreement with the representatives of the inspected Party. On completion of the inspection a debriefing meeting is required to be conducted by the inspection team, the representative of the operator and representatives of the inspected State Party. This meeting will provide an opportunity to review the preliminary findings and provide the opportunity for any ambiguities to be resolved.

### **Conduct of Inspections-Samples**

Unless otherwise agreed, representatives of the inspected party will take samples of soil, air, water and surface swabs as directed by the inspection team. The team may take its own samples but only if this has been agreed by the inspected party. It is highly desirable that these samples are analysed on site using equipment brought in by the inspection team. There is the provision that the analysis could be carried out by a third party in the presence of the Inspection team and representatives of the inspected State. If the inspection team deems it necessary, the samples taken may be transferred for analysis to an off-site laboratory designated by the OPCW. In either event, the inspected State Party has the right to retain portions of the samples used for analysis or take and retain parallel samples. It is the responsibility of the DG that the security, integrity, preservation and confidentiality of the samples transferred for analysis off-site are protected.

### **Laboratories**

The DG is required to certify the competence of the laboratories used for sample analysis and to ensure that the procedures and equipment used are standardised. Quality control tests are required for certification purposes at each designated laboratory and in the event that off-site tests are required the DG must ensure that two separate laboratories are used to examine the samples. A problem that arose from the implementation of this procedure was that the conditions attached to US ratification included a prohibition for any sample taken from a site inside the US to be removed to a laboratory outside the US. In fact the standards required of all laboratories certified by the OPCW are extremely exacting and not every potential laboratory has been found suitable.

## **Departure**

Whatever the findings of the inspection team may be, they should leave the site and the inspected State as soon as possible after completion of the inspection. Officials of the inspected State are expected to facilitate the departure of the inspection team and its equipment together with any samples that may have been taken.

## **Reports**

The inspection team is required to prepare a confidential report on the conduct of the inspection not later than 10 days after its completion. The report only covers matters relevant to compliance with the CWC and observations concerning the co-operation of the inspected State Party. The individual comments of members of the inspection team may be attached to the report, which is then transmitted to the inspected State Party. The inspected State Party may make a written response that will be annexed to the original report and submitted to the DG not later than 30 days after the inspection. If any uncertainties are highlighted in the report or the co-operation of the representatives of the inspected State Party was unsatisfactory, the DG will approach the State Party for clarification. There is provision for the DG to bring the matter to the attention of the EC if there are uncertainties that cannot be removed or that he has reason to believe that the obligations under the Convention have not been met.

## **Other Types of Inspection**

With the exception of an inspection undertaken to determine whether CW have been used against a State Party, the challenge inspection is perhaps the most extreme procedure envisaged by the Convention. There are several other types of inspection, dependent upon the content of the State Party's basic declarations. If it possesses CW then the quantities and storage locations must be declared and these facts verified. The appropriate destruction programme of CW and their storage facilities must be approved and again the procedure verified. The technical processes for CW destruction are subject to common standards of environmental protection that must be approved by the TS prior to commencement of the operation. If the State Party manufactured CW then steps must be taken to destroy the manufacturing facility or in certain circumstances obtain the agreement of the other States Parties to convert the facility to peaceful uses.<sup>238</sup> If a facility has to be constructed for the purpose of destroying CW then that facility must also be destroyed when the task has been

completed.<sup>239</sup> Verification is required for every procedure that is involved in chemical disarmament as part of the confidence building process.

### **Initial Inspections and Facility Agreements**

Based on the initial declarations made by State Parties all facilities involved in the manufacture, munitions filling, and storage together with facilities constructed for the purpose of destroying CW are subject to an initial inspection designed to verify the facts stated in the declaration. This procedure also applies to the SSSF that is used to produce small quantities of chemical agents for purposes not prohibited by the Convention. The Convention recognises that small quantities of such agents are required in order that CW protection systems can be ‘proved’ against ‘live’ agents. It also accepts that it is possible that beneficial uses for such agents might be discovered in due course.<sup>240</sup> Once the initial inspection has been carried out the State Party concerned is obliged to conclude a ‘facility agreement’ with the OPCW for each facility declared. These agreements set out the details of the inspections that may be undertaken by the OPCW and define the purposes for which the facility is in use. It also records, where appropriate, the programme for destruction agreed between the State Party and the OPCW. The TS is permitted to keep on-site a sealed container in which photographs drawings and notes concerning the initial and subsequent inspections may be kept for the benefit of the inspectors.

### **Monitoring Systems**

There is provision for on-site monitoring devices to be installed, modelled on some of those used by UNSCOM to remotely record activities on a given site. The equipment, comprising video recording systems and possibly some other sensors may be mounted in a position where it can detect movement within a facility, and the inspected State Party is required to provide, ‘the necessary preparation and support for the establishment of continuous monitoring instruments and systems.’<sup>241</sup> The inspected State Party is entitled to examine and request that the equipment be tested in the presence of its representatives, prior to installation. Seals may be affixed by the OPCW to detect attempts to tamper with the equipment.<sup>242</sup> The inspection team is entitled to examine, have tested and use any instrumentation installed at the facility by the inspected party for the purposes of monitoring the destruction of CW. It is the duty of the inspected State Party to inform the TS concerning any event that might

affect the functioning of the monitoring system. Whilst no specific examples have been discussed publicly, it may be presumed to include such events as catastrophic failures within the facility leading to a loss of electrical supply or the collapse of the mounting on which the monitoring system is placed. The inspected State Party is obliged to, 'co-ordinate subsequent actions with the [TS] with a view to restoring the operation of the monitoring system and establishing interim measures, if necessary, as soon as possible.'<sup>243</sup> The inspection team must verify during each inspection that any monitoring system installed functions correctly and that seals have not been tampered with. It is entitled to carry out routine maintenance inspections of the monitoring equipment and replace or adjust as necessary. In the event that an anomaly is detected by the monitoring system, the TS is required to take the appropriate action to determine whether this is due to a malfunction or possible tampering. In the event that the problem 'remains unresolved', the TS can initiate an 'on-site inspection of, or visit to the facility'.<sup>244</sup> Since it is assumed that State Parties will carry out their obligations under the CWC regime, the first point of contact is with the inspected State Party, which, is expected to assist in resolving the problem.

### **Verification of Destruction of CW**

Chemical Weapons are defined in the CWC under Article II. A State Party having made its declarations and revealed its possession of CW is required to undertake their destruction and this destruction process must be monitored. Existing CW are categorised in order of priority for destruction:

Category 1: Chemical weapons on the basis of Schedule 1 chemicals and their parts and components;

Category 2: Chemical Weapons on the basis of all other chemicals and their parts and components;

Category 3: Unfilled munitions and devices, and equipment specifically designed for use directly in connection with employment of chemical weapons.<sup>245</sup>

Category 3 is probably easier to carry out but Category 1 is the primary objective of the CWC since this category contains the most dangerous CW including the various Nerve Agents. However, the timeframe permitted for Category 1 CW destruction is reasonably generous in recognition of the necessity for a cautious approach to such substances. A State Party had up to two years after EIF in which to construct and test



a destruction facility for Category 1 CW and by the third year to have destroyed 1 per cent of its holding. A further 2 years was permitted in which to destroy not less than 20 per cent and a further 2 years in which to have completed the destruction of 45 per cent. All Category 1 CW should have been destroyed not later than 10 years after EIF. Category 2 CW are required to be destroyed over a 5 year period in equal increments and similarly for Category 3 CW.<sup>246</sup> Provision has been made for a State Party to seek an extension to the intermediate deadlines for destruction of CW by application to the EC for onward transmission to the Conference of States Parties. A similar extension is possible for the ultimate deadline, but this must be for the minimum necessary. The initial provision has already been invoked by Russia concerning its inability to destroy 1 per cent of its category 1 CW within the initial timeframe. The Conference has granted this extension but it may be presumed that in view of Russia's known financial difficulties, further applications will be made.<sup>247</sup> The State Party granted such an extension is obliged to report annually to the Conference of States Parties on its destruction plans and at 90 days intervals to the Executive Council. All destruction activities are subject to verification procedures.

### **Verification Procedures for CW**

The TS is required to visit each CW destruction facility of the inspected State Party not less than 240 days before each facility commences destruction operations.<sup>248</sup> The objective of this visit is to permit the inspectors to assess the adequacy of the facility and familiarise themselves with its layout. The inspectors are to be allowed to make further visits prior to the commencement of operations for the purposes of installing monitoring equipment and reviewing the engineering capability of the facility so far as is practicable.

### **Movement of CW from Storage to Destruction**

When operations commence, the inspected State Party is required to give at least 4 hours notice in writing of the intention to move CW from the storage site to the destruction facility. The notice must include details of the storage facility from which the CW are to be moved, the quantity and nature of the CW, the method of transportation and whether the shipment contains any 'tagged' items.<sup>249</sup> This procedure is required even when the storage and destruction facilities are contiguous such as the US CW Storage and Destruction Facility at Tooele in Utah. The

verification procedure is designed to ensure that nothing is lost *en route* and that the declarations and movement schedule is as stated in the written notification. The inspectors have to satisfy themselves that the CW:

- actually arrived at the destruction facility
- that they underwent destruction by the approved method
- that any residual materials were safely disposed of
- that any metal parts involved were properly mutilated beyond re-use.

### **Destruction of CW Production Facilities**

A condition of the CWC is that all production of CW shall cease and that the appropriate Chemical Weapons Production Facilities (CWPF), shall be destroyed. Similarly, storage facilities must also be destroyed once their contents have been removed and destroyed. State Parties are required to submit plans to the TS for the destruction of such plant. The plans must include:

- Envisaged time-frame for measures to be taken
- Proposed method of destruction

In certain circumstances a temporary stay may be granted in order that the facility concerned may be converted into a destruction facility. However this is a short-term procedure and the facility must be destroyed when its task has been completed. In every case the destruction procedure and method must be approved and the action monitored by verification inspectors. It is reported that:

All 61 CWPF declared by Bosnia-Herzegovina, China, France, India, The Islamic Republic of Iran, The Russian Federation, USA, the UK and one other State Party have been fully inactivated and verified by OPCW inspectors<sup>250</sup>

### **Industry Verification**

Uniquely, the civilian chemical industry is subject to inspection and verification by the OPCW. Initially the process of monitoring is carried out by the National Authority, which is required to pass detailed information as to production, distribution and consumption of scheduled chemicals to the OPCW. Whilst Schedule 1 chemicals may only be produced in small quantities at Single Small Scale Facilities (SSSF) which are subject to very considerable scrutiny, Schedule 2 and 3 chemicals comprise many toxic substances that might be diverted clandestinely. At the very least,

verification is required to ensure that legitimate Schedule 2 chemicals are not being processed into the forbidden Schedule 1 agents. Large producers of these substances are subject to inspection and scrutiny on a routine basis by the OPCW. The global chemical industry has accepted that this procedure is a valuable tool in the prevention of CW proliferation.

### **The Inspection Process**

The process involved in the conduct of CWC inspections is complex and detailed. In some respects both the State Parties and the OPCW are under scrutiny during the conduct of an inspection. The verification procedures are intrusive but efforts have been made to make the intrusiveness acceptable. Although suspicion coloured the negotiations, the possibilities for cheating are severely restricted by the interlocking processes of National Authority reporting, OPCW data analysis, routine and challenge inspections. The numbers of existing CWPF will be reduced in response to the terms of the Convention until such time as they are entirely eliminated, as will their products. The effect of these activities will be to make it extremely difficult for a State to manufacture CW without the facts coming to international notice.

## ENDNOTES

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- <sup>220</sup> HOLIK, Dr. Josef, 'From Negotiation to Implementation of the CWC', in Chemical Weapons Convention Bulletin, Issue No. 18, December 1992, p.5
- <sup>221</sup> *Ibid.*
- <sup>222</sup> Op.Cit BERNAUER, 'Arms control or disarmament treaties are, *a priori*, not 100 percent verifiable and a residual risk of violations going undetected always remains.' p. 222
- <sup>223</sup> CWC Article III, Declarations, 1.
- <sup>224</sup> CWC Article IX (4)
- <sup>225</sup> CWC Article IX (2)
- <sup>226</sup> CWC Article IX (3)
- <sup>227</sup> *Ibid* (5)
- <sup>228</sup> CWC Article IX , 8
- <sup>229</sup> *Ibid.*(17)
- <sup>230</sup> CWC Verification Annex, Part II, General Rules of Verification, A.1
- <sup>231</sup> This principal was established by Iraq, which frequently objected to the composition of UNSCOM inspection teams. It may be anticipated that should Iraq accede to the CWC, it will continue to object to inspection by nationals of the former coalition powers.
- <sup>232</sup> *Ibid.* A 2 - 5
- <sup>233</sup> Op. Cit. B. Privileges and Immunities, 11 (a)
- <sup>234</sup> *Ibid.* 14
- <sup>235</sup> *Ibid.* 22
- <sup>236</sup> *Ibid.* 23
- <sup>237</sup> CWC Article IX (23)
- <sup>238</sup> e.g. Nancekuke experimental CW facility in Cornwall.
- <sup>239</sup> e.g. JACADS US Pacific Territory has completed its CW destruction task and will be destroyed under supervision.
- <sup>240</sup> e.g. Nitrogen Mustard used in the treatment of Hodgkins Lymphoma and Leukaemia.
- <sup>241</sup> CWC Verification Annex, Part III, B. (12)
- <sup>242</sup> Modelled on similar equipment installed by UNSCOM in Iraq.
- <sup>243</sup> Op.Cit. Verification Annex, Part III, B. (14)
- <sup>244</sup> *Ibid.*(16)
- <sup>245</sup> CWC Verification Annex, C. Destruction (16)
- <sup>246</sup> *Ibid.* (17)
- <sup>247</sup> Report of the DG to the EC, 6 Nov 2000. The Conference of States Parties has confirmed the extension, 11 May 2001
- <sup>248</sup> CWC Verification Annex (54)
- <sup>249</sup> CW lodged in storage facilities may be 'tagged' by OPCW inspectors for identification purposes.
- <sup>250</sup> Report by the OPCW DG to the Executive Council 6 November 2000

## CHAPTER 5

### THE PRACTICAL PROBLEMS CONFRONTING THE OPCW

The PrepCom performed a remarkable service to the OPCW in preparing for the numerous tasks required for the successful operation of the CWC, however experience has tended to show that not all problems had been foreseen, or if foreseen no remedy had been proposed.

#### **Compliance**

The DG has been obliged to draw attention to the fact that a large number of States Parties had failed to make their initial declarations within the 30 day period specified in CWC Article III 1 (a) (b) (c) (d) and (e). In a statement to the Nineteenth Session of the Executive Council, he informed the members that:

Statistics indicate that 39 States Parties submitted their initial declarations on time. Fifty-nine other initial declarations required by the Convention were submitted during the first 21 months of the existence of the OPCW.<sup>251</sup>

Subsequently the DG has complained that returns required under Article VI, (Activities Not Prohibited Under This Convention), concerning Schedule 1, 2 and 3 chemicals, have been late and are often inaccurate thus rendering the audit system ineffective. This has an effect on the integrity and effectiveness of the verification system.

#### **Negligence on the part of State Parties**

Despite the initial enthusiasm displayed by the various State Parties to the CWC, the performance of the various States in respect of the commitments undertaken has been unsatisfactory and has hampered the work of the TS. Some State Parties have been extremely slow to introduce National Implementation Measures as required in Article VII. Some have failed to introduce the appropriate legislation providing for criminal proceedings against their citizens, in respect of acts prohibited by the terms of the CWC.

## **Decision Making**

Of considerable concern to the present Director General of the OPCW is the difficulty in obtaining consensus. The Conference of States Parties makes decisions on matters of substance ‘as far as possible by consensus.’<sup>252</sup> There is provision for a two-thirds majority vote after a period of negotiation but it appears that there is some reluctance to force issues to this point. A consequence of this reluctance is that proceedings are frequently delayed and decisions deferred.

## **The Executive Council**

This body, designed to undertake the day to day decisions, is of limited but rotating membership so that eventually all States Parties, ‘shall have the right, in accordance with the principle of rotation, to serve on the Executive Council.’<sup>253</sup> The Executive Council comprises 41 members and is composed of: Nine States Parties from Africa; Nine States Parties from Asia; Five States Parties from Eastern Europe; Seven States Parties from Latin America and the Caribbean; Ten States Parties from the Western European and other States group, collectively known as the WEOG,<sup>254</sup> and one further State Party to be designated consecutively by States Parties located in the regions of Asia, Latin America and the Caribbean on a rotating basis. Provision has been made within this complex table so that preference shall be given to those States within a given Region possessing significant chemical industries, ‘as determined by internationally reported and published data.’<sup>255</sup> In its original form, this ‘preference’ system was a UK proposal submitted in 1984 that would have limited the composition of the Executive Council by giving preference to those states with established and significant chemical industries.<sup>256</sup> During the negotiation phase, ‘Permanent membership of the CWC Executive Council for the five Permanent Members of the UN Security Council [was] favoured by both superpowers, and by some at least of their allies.’<sup>257</sup> Other members of the AHCCW rejected the suggestion with some indignation, consequently no privileged status is acceptable within the OPCW.

## **Possible Revisions to the Executive Council**

What has not been determined is how the States of the Eastern Europe Group (EEG) will be treated now that the political status of those States has significantly changed. The seats on the Council allocated to this group were designed to satisfy the

sensitivities of the former Soviet Union (fSU). Now that the fSU has dissolved into its constituent parts and a number of its former military allies no longer wish to be associated with the Russian Federation, the position is likely to be politically complicated. Some of these former allies are intent upon entry into the EU thus making the original distinction between the two European blocs difficult to justify. Poland, the Czech Republic and Hungary have significant chemical industries thereby creating an imbalance in the present system. At the same time, the former Soviet Central Asian Republics may wish to be included within the Asian Group. No specific Regional grouping has been established for the States of the Middle East, and it is in this geographical Region that the majority of the non-signatory States are located. Provision does exist within the rules governing the composition of the Executive Council for a review of its composition, but this is restricted to the following terms:

After the full implementation of Articles IV and V the Conference may, upon the request of a majority of the members of the Executive Council, review the composition of the Executive Council taking into account developments related to the principles specified in paragraph 23 that are governing its composition.<sup>258</sup>

If and when a 'Middle East Regional Group' is to be established, the international conflicts that have afflicted that part of the world might well resurface. For example it might prove impossible for some of the Arab States, in the present climate of political and military enmity, to accept the election of Israel in rotation to the Executive Council. It may be assumed that they would oppose representation on their behalf by Israel, which does not own anything like the extensive chemical industry of its Arab neighbours. In terms of the global stage, the League of Arab States has been pressing the UN Security Council for permanent membership, 'in view of their number and strategic political and economic importance.'<sup>259</sup> The precedent that such an application sets has implications for other regional groupings in that forum and might lead to resistance on the part of the Permanent Five, especially the US. However, if it is accepted, the pressure on the OPCW to conform could be irresistible. An alternative solution open to the OPCW Executive Council might be to include Israel within the WEOG especially since Israel tends to consider itself 'European' in many cultural activities. A further problem that might arise if a CWC Middle Eastern Regional Group were to be formed, is whether Iran constitutes a 'Middle-Eastern

state'? There is considerable enmity between some Arab States and Iran; there is no common language and there are several territorial disputes. Arab States have frequently cited the alleged nuclear weapons holdings of Israel as an important reason for not signing or ratifying the CWC.<sup>260</sup> It has been alleged that Iran is making some effort to acquire a nuclear capability and may already possess a CW capability, thereby placing an additional factor into the equation.<sup>261</sup> This form of linkage appears to have surfaced in the relationship between the two Koreas.<sup>262</sup> Finally there is the difficult position of Taiwan. China will not permit Taiwan to be recognised as a separate state, but the OPCW is aware that Taiwan has a substantial chemical industry and suspects that it may have developed a CW capability.<sup>263</sup>

### **Finance**

A constant cause for concern was the fact that financial contributions to the PrepCom were required from the moment of deposit of its instrument of ratification by a State Party to the Convention. Of the first nine instruments of ratification deposited only three States possessed what could be described as significant Chemical Industries and the remaining six had insignificant economies thereby limiting their potential contribution to the running of the PrepCom. Funding concerns were to hamper the activities of the PrepCom throughout its operating existence and only the generosity of the Netherlands Government as 'Host Nation' prevented serious embarrassment. Unfortunately, this problem has persisted and the TS has been obliged to limit its activities to essential tasks due to funding shortages.

### **Operational Costs**

An organisation such as the OPCW is likely to be expensive in terms of personnel costs, although in the initial stages of the PrepCom there were additional costs in respect of accommodation, equipment and facilities. Generous provision by the host nation permitted the temporary location of the Provisional Technical Secretariat in a satisfactory, if not perfect, working environment and loans were provided to meet the anticipated salaries of the newly recruited staff. As an official publication states:

The costs of the Organisation's activities shall be paid by the States Parties in accordance with the United Nations scale of assessment adjusted to take into



account differences in membership between the United Nations and this Organisation.<sup>264</sup>

In addition, '[E]ach State Party shall meet the costs of destruction of chemical weapons it is obliged to destroy'.<sup>265</sup> Similarly, it is required to meet the costs of destroying any 'chemical weapons production facilities it is obliged to destroy'.<sup>266</sup> In each case it is obliged to meet the cost of verifying that this destruction has been carried out. On this basis, not only is the US obliged to pay the largest share of the budgetary costs but also incur the not inconsiderable burden of destroying its extensive holding of CW and the associated CW production facilities. In addition, the US has the largest concentration of civilian Chemical Installations in the world, all of which may be at least theoretically subject to inspection by the OPCW and the costs met by the US taxpayer.<sup>267</sup> The requisite Russian contribution is substantially less, but the costs of destroying its enormous CW holdings are so vast as to be beyond its economic capability. According to former President Boris Yeltsin:

the continued storage and maintenance of stockpiles of chemical weapons creates serious problems for Russia of an economic and environmental kind, and in terms of military policy, and endangers its security and prestige among the international community.<sup>268</sup>

President Yeltsin went on to call for international assistance amounting to 'at least 20 percent of total spending for these purposes'.<sup>269</sup> Undoubtedly, Russia will be obliged to rely on external assistance if the weapons and their means of production are to be eliminated. The costs have variously been estimated at between \$5-6 billion, but one estimate puts the figure as high as \$13 billion. According to a report in the Environmental News Service, Russian 'citizens' groups' are calling for openness and accurate communication as a prerequisite for any chemical weapons destruction programme in Russia 'Otherwise,' warn the groups:

Russian public organisations will be unable to support the efforts of Authorities and will be forced to listen to the proposals of those who do not exclude the possibility of suspension of the Convention on CWs implementation and even its denouncement.<sup>270</sup>

US contributions to the Russian destruction plan are now subject to considerable restrictions in Congress as some Senators are raising objections to the expenditure of

US funds on infrastructure rather than the construction of CW destruction facilities. A House Armed Services Committee report accompanying the authorisation bill said that one of the reasons why Congress cut funds last year was Russia's 'inability to absorb all of the prospective costs' for the Shchuch'ye project. The report asserted, 'This concern has not abated.' The committee was also concerned that Russia would not be able to operate the facility long enough to fulfil its purpose, and consequently, the United States would spend 'more than a billion dollars' without having the facility 'accomplish its objective.'<sup>271</sup>

### **Budget Contributions**

It would seem to be inevitable in any international treaty activity, that the performance levels expected from State Parties to a Treaty do not match their enthusiasm for participation, and it is in respect of their financial commitments that many States fail to meet their obligations. During the prolonged negotiations, Venezuela proposed both to the AHCCW and the UN SSOD 3 that those States that had not and did not possess CW should not be expected to pay for an Organisation primarily concerned with the destruction of CW.<sup>272</sup> Fortunately, this view did not receive much support, since logically were such a rule to be applied some States might have been tempted to quietly dispose of their CW stocks without bothering to report the facts to the OPCW. There is some suspicion that both France and Spain took this step prior to ratification of the CWC.<sup>273</sup> It is to be presumed that Venezuela did not contemplate non-participation in the OPCW, thus depriving itself of the potential diplomatic and trading advantages of membership so evident to other States. Venezuela, owning a substantial indigenous Petro-Chemical industry, will certainly be subject to routine inspection if nothing else and will be required to meet the inspection costs and similarly will be required to provide detailed information as to the movement of scheduled chemicals from within its jurisdiction.

### **Contribution Shortfalls**

The vast majority of States Parties being relatively small States are each committed to paying 0.01% each of the agreed budget. Unfortunately only 64 of the 126 States Parties, or 50.8% had, by 20 November 1999, paid their assessment in full.<sup>274</sup> During the same period there was a considerable shortfall in the sums owed to reimburse the

costs of verification amounting to Netherlands Guilders (NLG) 10.2 million, roughly US\$5 million. This disinclination to meet costs will rapidly downgrade the efficiency of the OPCW unless very drastic steps are taken. UNSCOM tottered on the edge of insolvency throughout most of its operational period due to the fact that its financial support was in theory to be extracted from Iraq but without any suitable provision for making this occur. Former Ambassador Ekeus states that he was obliged to spend much of his time trying to beg or borrow from UN member States.<sup>275</sup> It must be presumed that the AHCCW had anticipated that this would be a problem, since the CWC provides that States Parties two years in arrears of their contributions can be denied their voting rights.<sup>276</sup> The DG will presumably be reluctant to advocate such a grave step, but the problem will not depart of its own accord. The saving grace for some States may be that there is also provision for this denial of voting rights to be waived if the CSP is satisfied, 'that the failure to pay is due to conditions beyond the control of the member.'<sup>277</sup> How this escape clause is interpreted may prove interesting, since a possible applicant might be the delegation of the US pleading that Congress has failed to sanction the expenditure in a given fiscal year. Technically, there is no guarantee that Congress will honour a commitment of this nature. In such circumstances, the assessed US contribution being three times larger than most other participating States, the OPCW could be placed in severe financial difficulties.<sup>278</sup>

### **The Threat to the Independence of the OPCW**

Although the OPCW is nominally an independent body it can be seen to be subject to considerable pressures from powerful member States having their own interests at heart. Some States may have been experiencing difficulties in paying their contributions in the first year of operation simply because they had not anticipated that EIF would occur quite when it did. Yet others may have found that their national budget was already committed at the time of EIF. This does not excuse the failure in subsequent years to make the appropriate provisions. These States expect to receive the benefits promised in the CWC but are unwilling to pay the requisite price. The DG has reported that due to non payment of dues:

'24 States Parties [are] at risk, in accordance with paragraph 8 of Article VII of the Convention, of losing their voting rights because their arrears [exceed] the amount of the contribution due from them for the years 1998 and 1999.<sup>279</sup>

It appears that the non-payment problem is actually worsening rather than improving.

### **US Reservations**

Despite Article XXII of the Convention declaring that 'this Convention shall not be subject to reservations', the US Senate applied 28 reservations including a very specific limitation on the amount of the US contribution to US\$25 Million. Congress also sought to insulate the US from the effects of any failure on its part to perform its commitments to the CWC in respect of its potential loss of voting rights. Despite the fact that these and other 'conditions' to ratification are actually contrary to both the spirit and the letter of the Convention, they were not specifically challenged when the US presented its instrument of ratification and the US delegation took its seat. The point was not lost on either Iran or Russia who both drew attention to the fact that their respective instruments of ratification had not been subject to reservations.

### **The CW Disposal Problem**

During the ratification process of the CWC, the question of the mechanics of the disposal of CW began to feature in the discussions of the participants in the PrepCom. Most calculations had involved the declared 'operational' chemical arsenals of the two major CW holding States and the possibility that one or two more 'secret' arsenals would require destruction. The question of the disposal of old and/or abandoned CW did not seem to feature as a particularly serious problem. The CWC defines 'Old Chemical Weapons as:

- (a) Chemical weapons produced before 1925; or
- (b) Chemical weapons produced in the period between 1925 and 1946 that have deteriorated to such extent that they can no longer be used as chemical weapons.<sup>280</sup>

‘Abandoned Chemical Weapons’ means, ‘Chemical weapons, including old chemical weapons, abandoned by a State after 1 January 1925 on the territory of another State without the consent of the latter.’<sup>281</sup> The definitions provided produce immediate questions as to interpretation.

### **Old CW.**

Of immediate concern in this definition is the date of manufacture. It may be very difficult to determine when the weapons concerned were actually manufactured. It may be even more difficult to determine whether the CW agent within ‘old’ CW munitions could not be withdrawn and reused. In order to conform with this aspect of the CWC, the State Party having on its territory such old CW must submit a report to the OPCW containing ‘all available relevant information’, a generalisation that could invite considerable risks on the part of those required to record such data.

Identification may be extremely difficult:

‘German stocks of chemical warfare agents during World War II included supplies acquired or captured not only from France, Hungary, Italy and Yugoslavia, but also from Czechoslovakia, Greece and Poland.’<sup>282</sup>

The nature of the markings (if any) on such munitions is unlikely to be of a uniform format and will certainly provide considerable difficulties in translation for the technicians tasked with identification. It is well known that WWI CW are still being discovered in Belgium and some still contain active CW Agents. Their source of manufacture may have been British, French or German and even possibly US. They may have been fired and failed to explode or alternatively simply dumped. In the sudden war of movement in late 1918, captured munitions were probably of little immediate value to the taker and possibly resulted in precipitate dumping as the exigencies of the moment demanded. The likely solution to such a problem would have involved simply tipping the munitions into the nearest shell hole. In consequence the question as to who was responsible for the dumping must enter the debate? If responsibility cannot be determined, the, ‘State Party on whose territory there are abandoned chemical weapons (hereinafter referred to as the ‘Territorial State Party)’, would remain the holder of unwelcome CW that cannot be disposed of by any of the simpler methods that previously applied.’<sup>283</sup>

The CWC is singularly vague concerning this problem and although 'technical advice and assistance' will no doubt be forthcoming, the more mundane but all-important question of funding will remain unresolved. A somewhat unsatisfactory feature of the procedures for the disposal of 'old' CW is that once the OPCW is satisfied with the classification, then destruction can take place as for 'toxic waste in accordance with ... national legislation.'<sup>284</sup>

### **Abandoned CW.**

The question of abandonment is fraught with the difficulty of definition since the abandoning State or the regime concerned may have ceased to exist. In such circumstances the Successor State or regime may be extremely unwilling to accept responsibility for the activities of its predecessor and may indeed have repudiated its actions. In both instances the presumption that CW of whatever age and provenance will simply be 'destroyed' is likely to prove both burdensome and difficult to put into effect. The implication that the current authority in a given State had any part in the events leading up to the abandonment of CW may be grossly unfair. The term 'consent' implies both knowledge and agreement. In the case of a State achieving independence from a Colonial or other hegemonic power, the 'consent' of the successor regime may well have been presumed, but it is less likely to have been sought. At least part of the Indian CW stock is believed to comprise British Mustard Gas Shells for the WWII 25 Pounder Gun-Howitzer that were left by the departing British Army at Dum Dum Arsenal in 1947.<sup>285</sup> It has been alleged that the Mustard Gas Bombs used by the Egyptian Air Force during their intervention into the Yemen Civil War came from British stocks abandoned in the former base at Tel-el-Kebir in the Suez Canal Zone at the time of the British withdrawal in 1952.<sup>286</sup> Such an allegation is difficult to confirm or refute, but since the official withdrawal was carried out in some haste the sheer volume of munitions abandoned to the Egyptians could easily have included CW without their immediate knowledge or consent.

### **Disposal By Sea Dumping**

Although many states have at various times held CW in their military inventories, few admit to current or recent possession. Some unilaterally elected to abandon research

into such weapons and disposed of their former CW stocks.<sup>287</sup> In the past, some methods of disposal would today be considered detrimental to the environment. It has been stated that, 'The UK Ministry of Defence...lost most of the records of the sea dumping programmes of the period 1945-63 during which the UK disposed of ...24 shiploads of chemical weapons.'<sup>288</sup> Some of these weapons were apparently dumped in the North Channel (at the northern end of the Irish Sea) from which unwelcome samples have been washed ashore on the Irish, Isle of Man and Scottish coasts from time to time. According to a report that appeared in *The Guardian*, 29<sup>th</sup> March 1995, these comprised some 700 canisters, some containing 'blistering gas'.<sup>289</sup> A disturbing feature of these and similar reports is the claim that scientists at 'Liverpool University had detected inexplicably high levels of arsenic in plaice caught in Liverpool Bay'.<sup>290</sup> Arsenic is a substantial component of the chemical agents Adamsite and Lewisite, both late WWI American contributions to the list of CW. Excess stocks might very easily have been dumped in that area. The fact that the toxic element Arsenic has only started to appear relatively recently is a confirmatory indicator to the suspicion that sea dumped CW do not necessarily decompose very rapidly.

### **UK CW Stock Disposal**

The precise tonnage of British manufactured CW disposed of after the decision to abandon this form of warfare is not entirely clear. One figure gives the UK total stock as 68,000 tons but different sources quote different figures. The evidence clearly supports the contention that Britain, having made the decision to abandon CW, arbitrarily dumped the greater part of its stocks of chemical munitions in various deep sea locations off the UK continental shelf and that some of this dumping may have occurred in much shallower water than was intended.<sup>291</sup> Included in the totals dumped must be the 71,000 captured German 'Tabun' bombs that were taken on to the establishment of the Royal Air Force in 1945. They were intended for use against the Japanese had there been a case for retaliation to Japanese 'first use', and retained for the same purpose in the 'Cold War'. Specially modified suspending lugs had to be designed and fitted since German bomb suspension lugs did not fit British bomb racks. It is reported that:

‘the bombs were not actually modified as their unsafe state resulted in occasional leaks, and led to the decision in the mid 1950s that they should be disposed of by the safest means available at that time, i.e. deep sea dumping.’<sup>292</sup>

The bombs were eventually dumped in an unspecified location but this may well have been off the Welsh coast since the bomb store concerned was at RAF Llandwrog in North Wales. Officially the dumping site is in Atlantic deep water (12°W: 56°30’N)<sup>293</sup> but there is suspicion that the site was not always reached before dumping began, especially if the dumping crew suspected that any of the munitions concerned were in an unsafe condition.

### **Safety of Deep Water Dumping**

Deep water dumping does not necessarily result in the rapid corrosion of the dumped items. Most munitions are lightly greased in storage and it is highly unlikely that this grease would have been removed prior to dumping. The grease would have inhibited corrosion that in any event takes place extremely slowly in deep water where there is very limited oxygen in solution. Whilst some CWA are readily rendered harmless by contact with water, this is certainly not true in respect of Mustard Gas which tends to form a protective skin around itself within which the active agent will remain.<sup>294</sup>

### **UK Onshore Recoveries of CW**

It now appears that the UK is in the process of recovering not insubstantial quantities of what must be considered to be onshore ‘abandoned’ CW. These include in particular Mustard Gas bombs that had been held at British Bomber Command airfields for immediate retaliatory use in the event that German CW had been used against British or allied targets during World War II.<sup>295</sup> It is alleged that at the end of the war such stocks were frequently buried in a convenient place on the airfields in question. Records, (where any were kept), do not reveal the extent of the threat that these items represent, but recent discoveries suggest the possibility that there may be similar dumps at many former Bomber Command airfields. This may be taken to infer that although the British declaration to the OPCW as to former CW activities as required by the CWC was as accurate as knowledge permitted, abandoned British CW will continue to appear for the foreseeable future. Britain operates a high temperature



furnace for CW disposal at the Chemical and Biological Defence Establishment (CBDE), Porton Down that is licensed under the terms of the UK Environmental Protection Act 1990 and is subject to inspection by the Environmental Protection Agency. The emissions from the 18.5 metre chimney are carefully monitored but there is invariably a residue of toxic waste that must be treated before final disposal via the Porton sewage treatment system.<sup>296</sup> The CBDE provides technical support for the British participation in the ongoing activities of the OPCW and has arranged specialised training courses for inspectors.<sup>297</sup>

### **Other Dumped CW**

Italy previously possessed CW, some of which were used against the Ethiopian Forces in 1936. The remaining Italian CW stocks were probably dumped into the Adriatic and the Mediterranean at the end of World War II, although there appears to be no official record of this action. Allied CW were delivered in great secrecy to advance airbases in Italy from 1943 onwards.<sup>298</sup> Given the then current practice, they were presumably dumped locally in the immediate post-war period. There have been occasional reports of fisherman recovering examples of CW charged munitions from the Adriatic but these reports do not seem to have attracted much attention and no evidence of identification has been published. It is known that Italy operates a high temperature chemical destruction facility at Civitavecchia that could be used for the destruction of CW recovered as the result of these chance discoveries. This establishment has been used for the training of OPCW inspectors. There appears to be no Italian programme for the recovery and subsequent destruction of CW in its former Colonial territories. Other states may be the unwitting holders of CW left by the forces of the Former Soviet Union (fSU), including, Estonia, Latvia, Lithuania, Poland, Hungary, East Germany and the Czech Republic although this is vehemently denied by Russia. In addition it is claimed that substantial quantities of fSU CW were dumped in the Gulf of Finland between 1947 and 1975.<sup>299</sup>

### **Dumping in the Baltic**

Britain in concert with her wartime allies was further responsible for the sea dumping of large quantities of CW that had been seized from the former Nazi Germany.<sup>300</sup> In

this instance, the chosen location was the Baltic from whence occasional examples are dredged up by fishermen, often with distressing consequences.

Currently, only Danish fishermen are covered by a programme which is designed to meet this problem. Each Danish fishing boat is issued adequate first-aid equipment, and Danish fishermen receive full compensation from the Danish Government for lost catch and time lost in port for decontamination.<sup>301</sup>

One report declares that, 'A Danish study cited over 150 cases where Danish Fishermen hauled in some type of chemical agent mostly mustard.'<sup>302</sup> The total quantity of Nazi German CW captured by the allies was approximately 300,000 tonnes.<sup>303</sup> It is reported that, '[T]hese stocks were disposed of primarily by dumping them into the sea, of which 42,000 to 65,000 tonnes were dumped in the Baltic Sea.'<sup>304</sup> This figure does not include the approximately 200,000 tons of CW munitions mainly Mustard Gas dumped near Bornholm, Maseskar and in the Norwegian Trench.<sup>305</sup> The Baltic CW dumping problem has been exercising the attention of Baltic littoral states since shortly after WWII. To deal with the problem, '[T]he Ad Hoc Working Group on Dumped Chemical Munitions of the Baltic Marine Environment Protection Commission of the Helsinki Commission was formed in 1993.'<sup>306</sup> HELLCOM CHEMU as it is termed meets fairly regularly and attempts to co-ordinate intelligence concerning marine dumping of CW in the Baltic region. Although Russia attends, it appears to have provided little information of a useful nature. However, some information from unofficial sources has revealed that possibly as much as 50,000 tons, 'of chemical bombs were dumped by the Soviet Navy in the Gulf of Finland close to the Island of Nerva.'<sup>307</sup>

There is ample evidence to suggest that the Baltic and Scandinavian States have long experienced problems associated with dumped CW in the Baltic. Much of this material may be in the form of phosphorus with certain coagulants and therefore less dangerous than nerve or blister agents. As prospective members of the EU and signatories of the CWC, the Baltic States' disposal of such substances needs clarification. Certainly the return of such pollutants to the Baltic is undesirable (it is actually contrary to the provisions of the CWC and would contravene several ocean dumping conventions), but it may be presumed that fishermen discovering such material trapped in their nets will be likely to adopt the most expedient methods of

disposal. What is not clear is the magnitude of the problem. Given the parlous state of the Baltic States' economies, it may be considered essential that funds be allocated to assist in carrying out the task of onshore destruction. The USSR in addition to dumping huge quantities of ex German CW into the Baltic also apparently dumped large quantities of its own CW largely in the Gulf of Finland. The Finnish authorities have apparently obtained sworn statements from seamen involved in the process.<sup>308</sup>

### **Other Disposals of German CW**

An intriguing item from this same source is that various quantities of German CW were transported to other countries. Thus, 'to Italy, 6090 tonnes; to Poland 210 tonnes; to North America 19,400 [mostly to the US]; to the former Czechoslovakia, 6103 tonnes.'<sup>309</sup> What became of these CW, especially those transported to European destinations is a matter for speculation. The Czech Republic delegate to the OPCW declared publicly that the Czech Republic had never produced or stored CW<sup>310</sup> It may be a question of semantics but there is evidence that Czechoslovakia had an active CW programme prior to WWII as did Poland, and that Germany seized their stocks to add to its own during the war.<sup>311</sup> The present government of Germany denies responsibility for any such CW and since it was not consulted at the time, considers that it is not responsible for the sea dumped CW. At the same time, Germany is one of several states known to be operating a high temperature CW incineration plant. This plant is primarily for the destruction of munitions discovered at on the Luneberger Heide that had been the German Army's chemical warfare experimental station and field trial area.<sup>312</sup> It is believed that this incineration plant is in operation for some 14 hours a day, 220 days a year suggesting that a not insubstantial quantity of CW munitions are still awaiting recovery.<sup>313</sup>

### **Recovery of CW in Belgium**

A small plant has recently been completed and commissioned at Poelkapelle in Belgium for the disposal of a variety of munitions, including chemical munitions recovered on Belgian territory, particularly in the Yser valley area. These munitions are apparently a residue from the First World War battles that took place in this small pocket of territory that remained in Belgian hands throughout World War I and was the subject of heavy and continuous bombardment throughout that period. In 1993

the existing stock of recovered munitions awaiting destruction was approximately 18,000 units. A Belgian spokesman is reported to have said, '[M]ore chemical shells will be found, and if they continue to be located at the current rate, it will take approximately 15 years to dismantle all of them.'<sup>314</sup> By September 1998, this stock had risen to 21,000 units. The Poelkapelle plant expected to proceed with destruction 'at a rate of 20 weapons per day'<sup>315</sup> It appears that until comparatively recently the Belgian authorities had been quietly dumping such munitions in the Bay of Biscay, citing the 'emergency' provision in Article 9 of the Oslo Convention.<sup>316</sup>

### **CW Recoveries in France**

In France, the Ministry of the Interior has announced that:

it will build the country's only disposal site for Chemical Weapons. This follows a number of accidents at locations where unearthed munitions, including World War 1 chemical munitions are kept, [in the open] often poorly guarded.<sup>317</sup>

A recent explosion at a dump near Lille required the precautionary evacuation of nearby residents due to the presence of old CW within the dump. Prior to EIF, the French authorities may have quietly dumped quantities of CW in the Bay of Biscay, without bothering to invoke Article 9 of the Oslo Convention.

### **US CW Disposal**

The United States itself was responsible for extensive sea dumping although the vast majority of this was in extremely deep waters off the continental shelf:

In all, the United States is responsible for 60 sea dumpings totalling about 100,000 tons of chemical weapons filled with toxic materials, according to a 1993 study by the US Arms Control and Disarmament Agency (ACDA). The US sites are located in the Gulf of Mexico, off the coast of New Jersey, California, Florida and South Carolina, and near India, Italy, Norway, Denmark, Japan and Australia.<sup>318</sup>

As the US dumped much of its share of former Nazi CW either in the Baltic or off the Norwegian coast, it is possible that some of the non-European locations give a hint as to what became of Japanese CW stocks. Sea dumping by the US Army continued until 1970 when it ceased 'after public opposition'.<sup>319</sup> It was permanently halted after

Congress passed the Marine Protection Research and Sanctuaries Act of 1972 leaving the US Army with a growing accumulation of obsolete CW many of which had begun to deteriorate. The resultant accumulation of ageing CW led to experiments in other destruction techniques and ultimately to the construction of the Johnson Atoll Chemical Agent Destruction System (JACADS).

### **US CW Trials in Panama**

There have been accusations that the US ‘abandoned’ CW in Panama. The US based Fellowship of Reconciliation (FOR) published a report concerning the magnitude of the problem associated with cleaning-up:

The Fellowship of Reconciliation estimates that over 3,000 unexploded chemical munitions are hidden in the jungle terrain of San Jose Island alone, not to mention other areas of Panama in which U.S. forces buried or abandoned chemical munitions.<sup>320</sup>

It further charged that the US declaration under the terms of Article III of the CWC submitted to the OPCW on 29 May 1997 was incomplete in that it, ‘did not include any declaration of chemical weapons abandoned in other countries.’ It continues, ‘Since at the very least the United States abandoned chemical munitions on San Jose Island in Panama’, the US is in violation of the CWC.<sup>321</sup>

No published response was made to this allegation, perhaps highlighting the dangers posed by the ‘confidentiality regime’ operated by the OPCW. If Panama made a complaint under the terms of the CWC, the US would have been quite entitled to restrict its response to the confines of the Executive Council and Panama would have been obliged to accept the principle.

### **Disposal Methods**

The CWC calls for the monitored destruction of existing stocks of CW. In addition, under the terms of the Convention a State Party to the Convention is obliged to, ‘Declare whether there are abandoned chemical weapons on its territory and provide all available information in accordance with Part IV (B) paragraph 10, of the Verification Annex’.<sup>322</sup> Destruction methods for CW have been the subject of intensive technical examination and debate, culminating in a general consensus that high temperature incineration is probably the most effective method, provided that in

the case of CW in munitions form, the explosive bursting charge can first be safely removed.

'Over the past 25 years, 'the [US] Army has studied varying methods of chemical neutralisation and thermal incineration and meticulously developed a technology known as 'reverse assembly followed by incineration' or simply 'baseline incineration.' This technology was pioneered at the Chemical Agent Munitions Disposal System (CAMDS) at Tooele [Utah] and validated at the Johnston Atoll Chemical Agent Destruction System (JACADS).'<sup>323</sup>

Koplow reports that during the JACADS plant campaign to destroy VX gas it, 'succeeded in destroying some 134,961 pounds of agent, but in the process it created some 1.2 million pounds of slag, brine, salt, ash, and residue (9.5 pounds of wastes for every pound of agent incinerated), all of which is classified as hazardous.'<sup>324</sup>

### **Public Concern**

Whatever methods of disposal are employed, public awareness of the environmental and safety threats can lead to protest as happened recently in Germany during the attempt to move nuclear waste for reprocessing, or the attempt by Shell International to sink the Brent Spar in a deep sea location. Physical obstruction will probably accompany attempts to move CW munitions or their bulk agents through populated areas towards destruction facilities that in any event do not at present exist. It may be of some significance that in the United States, plans to dispose of CW stocks by means of incineration devices co-located within the current storage facilities have met with considerable public outrage. Congress has been made aware that :

In the last few years, public concern in the regions where [CW] destruction facilities are planned or are under construction has heightened considerably. The primary fears are of toxic emissions from the destruction process and the possibility of catastrophic accident. The Chemical Weapons Working Group, an alliance of citizens' groups in communities with CW stockpiles, vigorously opposes incineration as a means of disposal.<sup>325</sup>

Environmental groups have successfully utilised existing Federal and State legislation to impose a total embargo not only on local incineration but on the movement of CW to existing and approved facilities elsewhere:

Public interest groups have persuaded some State governments to consider or enact highly restrictive standards for any CW destruction facility. Kentucky and Indiana have passed legislation that could significantly delay or even prevent, building destruction incinerators, while Colorado and Maryland have considered such legislation.<sup>326</sup>

Sea dumping, so often practised in the past, is no longer an acceptable method for CW disposal, being specifically forbidden:

Each State Party shall determine how it shall destroy chemical weapons, except that the following processes may not be used: dumping in any body of water, land burial or open pit burning. It shall destroy chemical weapons only at specifically designated and appropriately designed and equipped facilities.<sup>327</sup>

The dilemma posed by these environmental considerations and public objections may force Congress to face the unpleasant prospect of either failing to meet its obligations in respect of an international treaty or be prepared to enact legislation forcing compliance by State authorities. Technically, the US destruction programme is scheduled to be completed by December 2004, 'mandated by Public law 99-145, also known as the National Defence Authorisation Act of 1986'.<sup>328</sup>

However:

While public attention has largely focused on the [US]Army's stockpile disposal program, several accidental discoveries of chemical munitions on civilian-owned sites have increased interest in the non-stockpile program. The non-stockpile disposal program is currently projected to cost \$15.1 billion—nearly the cost of the stockpile disposal program [and] it will take until 2033 to complete and require 95percent of the program's budget to identify, recover and dispose of all buried chemical materiel.<sup>329</sup>

### **Modern CW Programmes**

Initially it was believed that no Western European State possessed modern operational CW. Such weapons that might exist were thought to be those old or abandoned weapons that came to light by accident during agricultural or construction activities.

This view has been modified by the suspicion that France did hold some operational CW.<sup>330</sup> This suspicion tended to be confirmed in a statement in 1987 emanating from the then Foreign Minister Jean-Bernard Raimond to the effect that 'France had decided to acquire new chemical weapons'.<sup>331</sup> France has had an inclination to attempt to match US developments in weapons technology, and this claim probably results from the revelations at about that time by both the US and former USSR as to their respective developments of Binary chemical weapons. Whether France ever developed such weapons is not clear although according to a report in the *New York Times*, 'France, Italy and Spain [have] already destroyed their small stockpiles of poison gas before the [CWC] treaty went into force.'<sup>332</sup> These states are States Parties to the Convention and as such are obliged to conform to the requirements of the CWC and carry out a destruction programme not merely of any weapons but of the production facilities themselves.<sup>333</sup> The quantities of such weapons (if any), will no doubt be revealed by their declarations to the OPCW. Unfortunately, the CWC does not require such declarations to be made public consequently such publication will only be in the public domain if the government concerned elects to publish. What is not established is precisely where and by what means any CW located within Western Europe are to be destroyed in order to conform to the provisions of the CWC. In the case of possible French CW the previously mentioned environmental groups may gain access to the appropriate information and take steps to bring the matter to public notice. It will obviously cause considerable unrest if there is any attempt to move CW to a designated destruction location or ship them to any of the former French Colonial territories. Apart from the obvious dangers arising from transportation through populated areas, there has been much adverse public comment concerning the dumping of dangerous chemical wastes in developing countries by major conglomerates. Even if shipment were to be approved and gained public acceptance, the destruction of CW in such locations would certainly require the strictest observation of agreed procedures.

### **Abandoned CW in former Colonial Territories**

In parallel with the forgoing, there is the possibility that there are quantities of old/abandoned CW in the former colonial territories of Belgium, France, Italy, Netherlands, Portugal, Spain and the United Kingdom. It is known that UK carried



out trials in India at Rawalpindi (now in Pakistan) and Cannanore; Puallo Tenggol near Dungun, Malaysia and Obanokoro near Sapele, Nigeria. The Nigerian site is of some significance since field trials with GB (Sarin) were conducted there as late as 1955 and involved, amongst others, the use of cluster bombs dispensing sub-munitions.<sup>334</sup> There can be no guarantee that all such sub-munitions either detonated or, having failed to detonate, were subsequently recovered.<sup>335</sup> It is reported that the Netherlands government undertook a destruction programme at Batujajar, West Java, at the request of the Indonesian Government of a quantity of Dutch CW stored there since WWII, apparently representing a retaliatory capability in the event that the Japanese had first used CW.<sup>336</sup> It appears that this material (Mustard Gas) had been locally produced, tending to confirm that the process is neither technically difficult nor the equipment required being highly sophisticated. It is reported that the Mustard Gas in question was contained in a bulk storage tank and despite being in storage for nearly 40 years, 'retained its full potency and was estimated to be 95% pure.'<sup>337</sup> Spain is believed to have used CW during the Riff war in Spanish Morocco, presumably using equipment provided by the German Chemical Weapon entrepreneur, Dr Hugo Stolzenburg between 1921 –1927. He is believed to have sold Mustard Gas technology to Yugoslavia (1927 – 31) USSR (1923-27), Brazil (1937-42) and that he had dealings with China, Japan, Romania, Sweden and Turkey.<sup>338</sup> Italy probably used CW in Libya and certainly used them in the 1936/1937 Ethiopian War. Since the raids on Abyssinia, during which Mustard Gas bombs were dropped, were mounted from Eritrea and the former Italian Somaliland there is the distinct possibility that some CW remain in situ. Such CW, if they do exist, cannot be considered the responsibility of the post-colonial administrations within such territories. A further problem arises in that should Old/Abandoned CW be discovered, and the responsible party can be identified, then there will be a need to construct appropriate destruction facilities. These facilities will also require destruction when they have fulfilled their function, and each of these activities will require monitoring by the OPCW inspectorate.

### **Japanese CW**

The Japanese appear to have used considerable quantities of CW against Chinese forces during their prolonged war in China during the 1930s and 40s. The

Government of the Peoples Republic of China has been conducting negotiations with the Government of Japan concerning the recovery and disposal of Japanese CW left on Chinese territory by the retreating Japanese forces at the end of WWII.<sup>339</sup> The Chinese claimed to have discovered no less than 18 dumps containing some 2 million chemical munitions and 120 tonnes of bulk CW Agents.<sup>340</sup> The Japanese authorities have not repudiated responsibility for the disposal of these weapons and have established a programme for their recovery and subsequent destruction. Precisely how this is to be undertaken has not been revealed, but it may be presumed that the Chinese authorities will not be satisfied with anything less than destruction to the highest standards currently available. A Chinese estimate of costs in 1995 was of the order of US\$1 billion, a figure that seems modest considering the size of the alleged stock. What is also missing from these figures is the fate of whatever Japanese 'Homeland' CW stocks that might have been found by the US forces in 1945. It may be assumed that these too were dumped in the Pacific but no official statement has been forthcoming. The USSR would probably have captured Japanese CW stocks in Manchuria and may have incorporated them into its own national stocks or alternatively dumped them offshore forming part of the vague totals of CW ascribed to Soviet dumping.

### **Former Soviet Union CW**

In addition to sea dumped CW, there may be substantial quantities of CW onshore in the Baltic States, Hungary and Poland that are technically the problem of the fSU successor, Russia. The Russian government has consistently denied that any CW were ever deployed into the WTO States or that any of its allies ever held CW of their own manufacture. However, the Polish government is sufficiently concerned as to the possible existence of such abandoned weapons that it is seeking means to clarify this situation. It should also be noted that, 'Poland has recently completed its programme for the destruction of adamsite. The destruction technology used was developed in Poland and was found to be efficient, relatively inexpensive, and environmentally friendly.'<sup>341</sup> The report does not indicate the origin of the Adamsite in question although the Polish Delegate claimed at the CWC First Conference of States Parties, that Poland had never possessed CW.



Whether Soviet Forces had CW deployed in the DDR is open to question since it appeared to be an open secret that there were nine CW Depots in East Germany. One of these was, 'located at Gardelegen, 30km from the inner German Border at the Soviet... [Training] ground in the Colbitz-Letzlinger Heide.'<sup>342</sup> Russia has ratified the CWC, and despite considerable assistance from Germany, the Netherlands, the UK and the US, has as yet failed to make any significant progress in its CW destruction programme agreed under the terms of either the US/USSR Bilateral CW destruction agreement or the CWC. The probability is that the extent of the problem is far beyond the capacity of the Russian State to attempt to carry out within the foreseeable future. Although Russia admitted to holding 40,000 agent tonnes of CW:

Alexei Yablokov, chairman of Russia's Security Council Interagency Commission on Environmental Security, independently estimates the real total produced over time is 100,000 to 200,000 tons. His major concern is that the weapons that have already been dumped, buried or sunk are 'the underwater portion of the iceberg which poses a more serious environmental threat than CW civilised destruction.'<sup>343</sup>

### **The White Sea**

There are disturbing reports as to the quantities of military pollutants in the White Sea:

'According to some estimates, a total of between 500,000 and one million tonnes of chemical agents were manufactures in the USSR, most of which were buried or dumped in the sea when their service life ended.'<sup>344</sup>

It was reported that in the period May to June 1990 some 6 million dead starfish, 7500 crabs, 30 seals and 10 Belugas were washed ashore in the Dvinskaya inlet of the White Sea.<sup>345</sup> There had been reports to the effect that considerable quantities of CW had been dumped in the White Sea by the Soviet authorities during the 1950s.<sup>346</sup> No satisfactory explanation was produced to determine what caused the death of these creatures, but the inference must be that they had been suddenly subjected to an unusually toxic environment. Starfish are an extremely sensitive indicator of seawater condition and the numbers of deaths reported suggest a catastrophic release of toxic material. It may be presumed that some of the other creatures died as a result of eating the poisoned starfish or other creatures further up the food chain.

### **The Volga, Caspian and Pacific Areas**

The Volga River is extensively polluted from Astrakhan to its mouth on the Caspian, so much so that the Sturgeon has ceased to breed. There are at least three acknowledged former CW production sites situated on the river. Further dumping is alleged to have taken place in the Pacific, presumably off Vladivostok and in the Sea of Japan. It is quite possible that the Soviet authorities kept no record as to where the dumping took place or what quantities were involved.

### **The Black Sea**

The Ukrainian authorities are currently searching for a large quantity of Soviet CW believed to have been dumped into the Black Sea somewhere off Odessa and Sevastopol during June 1942 in the Great Patriotic War in order to prevent them from falling into German hands.<sup>347</sup> Due in part to its unique composition comprising low salinity saltwater overlaying a stagnant base layer that contains no marine life, the Black Sea has already been declared 'dead' by the UN Environmental Programme, and it is unlikely that this situation will be improved by the potential leakage of toxic substances deriving from WWII CW. With such an enormous burden facing Russia in respect of two treaty commitments, it is unlikely to be persuaded that it bears any responsibility for CW abandoned beyond the boundaries of the present Russian Federation whatever their provenance. In 1997 it was admitted by the Russian authorities that:

because of the difficult economic situation in the country no money has actually been allocated for measures connected with the destruction of chemical weapons. In 1994 only 18.3 percent of the required sums were allocated, 17.5 percent in 1995 and only 1 percent in 1996. This brought the implementation of the programme virtually to a standstill and the lag behind schedule is 2-3 years.<sup>348</sup>

Colonel General Stanislav Petrov, Chief of the Radiological, Chemical and Biological Defence at the Russian Federation MoD stated that, '[S]hortage of money is hindering the destruction of such chemical weapons as Yperite and Lewisite, many of which have been in store since the 1940s.'<sup>349</sup> In the intervening period since that interview, the economic situation in Russia has worsened and it is likely that any spare funds earmarked for CW destruction will have been transferred to the Ministry of Defence

in order that the stretched resources of the Russian Armed Forces can be moderately relieved. It may be presumed that so far as Russia is concerned the entire subject of CW destruction has been placed firmly in abeyance. No practical result can be achieved by pressing the issue since the most likely response would be a Russian notice of withdrawal from the CWC; an outcome that the Russian government is quite well aware would spell disaster for the Convention. The Russian Federation has already informed the OPCW that it has been unable to comply with the Phase 1 obligation to destroy 1% of its Category 1 CW stock, not later than three years after EIF.<sup>350</sup> If Category 1 applies to the entire declared Russian CW holding, this means that Russia has destroyed less than 400 tonnes. The prospect of Russia meeting Phase 2 obligation to have destroyed 20 per cent of these weapons not later than 5 years after EIF seems remote.

### **Soviet Dumping Policy**

The various central and eastern European based military formations of the fSU may not have been equipped with chemical munitions, but seems unlikely in view of the then Soviet Artillery tactical doctrine that required a specific proportion of all munitions carried to be of a chemical nature. It may be that the withdrawing armed forces of the fSU carried all stocks of CW back to Russia. Again this seems unlikely since so much other military material was abandoned. What is certain is that whenever and wherever CW munitions became obsolete, due for replacement or simply dangerous, it was Soviet practice to dump them in the most convenient location rather than the safest.<sup>351</sup> Assuming that such munitions were present within Group of Soviet Forces Germany (GSFG) and Northern Group of Forces (NGF), a percentage would presumably have failed whatever safety monitoring procedures that might have been in use. In consequence and in conformity with normal Soviet practice, such faulty CM would have been dumped at the nearest convenient spot. If such dumps do exist, it may be presumed that caches of such munitions are likely to be uncovered from time to time. Their subsequent safe disposal becomes, of necessity, a matter of interest to the both the Territorial State Party and of its neighbouring states. In a report to the Second Session of the Conference of States Parties, the Government of Ukraine informed the Conference that one reason for the delay in submission of its Instrument of Ratification was, 'the need to determine

whether chemical weapons had been dumped or buried on its territory prior to its independence only six years' previously.<sup>352</sup> The Russian Government continues to assert that no such weapons have been left on the territories of States over which it once had control but the Ukrainian and Polish comments suggest that these assurances are not considered to be entirely acceptable. According to one source, 'Russia's program [of CW destruction] has been delayed by technical difficulties, lack of money, and popular opposition that is at least as strong as that in the United States.'<sup>353</sup>

### **The CW Destruction Problem**

The forgoing indicates that more information is required on the extent of the environmental threat that the location and destruction of this particular WMD poses to the environment. European states have signed and ratified the CWC without exception. Co-ordination of their individual efforts to dispose of this chemical legacy is an ill-defined area. To achieve this end, each state may require more precise information from its neighbours concerning the nature of any CW of whatever origin that may be found on their various territories, including those of former colonial administrations. In this respect, the National Authorities, having the right of direct communication with each other, will presumably be rather better equipped to deal with questions relating to provenance, markings and content. They are required to specify the proposed locations and methods of destruction to the OPCW and these activities are generally subject to inspection. Where appropriate the States concerned may need to specify modes of transportation, methods of temporary storage and handling procedures. Advance warning notification may be required. Appropriate safe destruction certification may be necessary in order to allay public concerns. There may be a need to standardise procedures in the event of accidents involving CW munitions that detonate after recovery or are found to be too dangerous to move. According to a SIPRI report, 'destroying chemical weapons may cost up to 10 times as much as it cost to produce them.'<sup>354</sup> The OPCW may have to take a more active part in the processes of recovery and subsequent destruction if the toxic legacy left as a direct result of the profligate abandonment of CW is not to create more serious problems as we enter a new century.

### **Disposal of CW in the European Union**

It might be anticipated that any destruction programme for both modern and old CW within the European Union (EU) would touch on the remit of the European Commission Directorate - General XI (Environment, Nuclear Safety and Civil Protection),(DG XI). At present, this body is broadly concerned with the problems of pollutants and waste disposal, including nuclear waste products. Any programme to dispose of CW within a European territory must certainly threaten air and water safety, with all the potential for down-stream and down-wind hazards. The EU has tended to avoid involvement in matters that can be considered as being of a military nature. Organisations such as NATO and The West European Union (WEU) have a legitimate interest but within the EU it is assumed to be a matter for the individual states. CW destruction demands great care, since, due to the effects of down-wind and down-stream pollution, the health and wellbeing of citizens far beyond the borders of the originating state can be affected. As has been mentioned earlier, of the European States, Germany, UK, and possibly Italy, dispose of their onshore recoveries of old CW through high temperature furnace processes. It appears that Belgium and France intend to operate similar facilities. It is not suggested that such processes are anything less than efficient, but questions arise. Who monitors or will monitor their performance and safety? If other states feel the need to set up similar plant, what controls will be exercised and by whom?

### **The Language of Treaties**

Multilateral treaties tend to have complicating features involving administrative tasks that may lead to misunderstanding. Almost invariably an International Treaty involves the use of more than one language and consequently the primary language(s) for the purpose of identifying the definitive version needs to be specified within the treaty documentation, often termed the 'Authentic Text'. In the case of the CWC Article XXIV defines the 'Arabic, Chinese, English, French, Russian and Spanish texts' to be 'equally authentic'<sup>355</sup> echoing Article 111 of the United Nations Charter. This may lead to complications since very rarely do two languages provide for precise translation of meaning, nuance or innuendo and these problems are exacerbated by the determination on the part of some states to 'protect' the purity of their own language from the intrusion of foreign words or usage. It has already been claimed that the

English and French texts in some parts of the CWC do not have precisely the same meaning.<sup>356</sup> It may be presumed that this differentiation between ‘Authentic Texts’ will lead to disputes, especially in matters of interpretation. This merely serves to indicate that the manifestation of nationalism in the guise of sovereignty is still intensely prevalent.

The CWC is a complex document that was only partially complete when signed by the participating states. Virtually all the operational procedures required in order that the Convention could be put into effect were left to the PrepCom to formulate. A consequence of this procedure was that the PrepCom was obliged to establish priorities, some of which were not met. Issues that were not considered to be of immediate concern were given less attention. The almost inevitable outcome is that there are still outstanding matters that have yet to be addressed.



## ENDNOTES

- <sup>251</sup> Opening Statement by the Director General To The Nineteenth Session Of The Executive Council, 20 April 2000
- <sup>252</sup> CWC, Part B. The Conference of States Parties, Composition, procedures and decision making, Para. 18
- <sup>253</sup> Article VIII C. Para. 23
- <sup>254</sup> The WEOG includes all the present members of the EU, the US, Japan, Australia and New Zealand.
- <sup>255</sup> CWC Article VIII C. Para 23 Sub Paras (a) to (e)
- <sup>256</sup> CD/589
- <sup>257</sup> Op.Cit. SIMS re CD/500 (US) and CD/532 USSR
- <sup>258</sup> CWC Article VIII C. Para 25
- <sup>259</sup> See 'Arabfile' Vol.1, Issue 3, January 1994, p.6
- <sup>260</sup> ROBINSON, J.P. Perry, 'The 1993 Chemical Weapons Convention' Bulletin of Arms Control, Number 9, February 1993
- <sup>261</sup> DEVLIN, Paul, 'Iran Builds a New Poison Gas Plant', International Review, Vol. 16, No 39, Summer 1995, p.18
- <sup>262</sup> See LEE Sun Ho, 'North Korea's Development of Weapons of Mass Destruction, Korea Focus, Vol.4, 2, 1996, pp. 39 - 49
- <sup>263</sup> Comment by Ian Kenyon
- <sup>264</sup> CWC Article VIII, The Organisation, A. General Provisions, Para. 7
- <sup>265</sup> *Ibid.* Article IV, Para. 16
- <sup>266</sup> *Ibid.* Article V, Para. 19
- <sup>267</sup> Possibly amounting to some 6000 separate installations.
- <sup>268</sup> YELTSIN, Boris, Address to the State Duma concerning ratification of the Convention on the Prohibition and Destruction of Chemical Weapons, 24<sup>th</sup> October 1997
- <sup>269</sup> *Ibid.*
- <sup>270</sup> See www.eneews, 'Russia's Chemical Weapons Destruction Way Off Track' 18 January 1999
- <sup>271</sup> BRUGGER, Seth, 'US Funding for Shchuch'ye in Jeopardy', Arms Control Today, 29 November 2000, p.30
- <sup>272</sup> See CD/Venezuela/ PV.398
- <sup>273</sup> See The CBW Conventions Bulletin, Issue No.37, September 1997, p.33 (17 August)
- <sup>274</sup> Op.Cit. DG Statement OPCW p.9
- <sup>275</sup> Op.Cit. EKEUS, 1 July 1997
- <sup>276</sup> CWC, Article VIII (8)
- <sup>277</sup> See Article VIII (8) CWC
- <sup>278</sup> This is not entirely out of the question since the US owes huge sums to the UN for the same reason.
- <sup>279</sup> OPCW, Opening Statement by the Director General to the Eighteenth Session of the Executive Council. 16 February 2000
- <sup>280</sup> CWC. Article II, 5
- <sup>281</sup> *Ibid.* Article II.6
- <sup>282</sup> Op.Cit. SIPRI No. 13, p.20, Note a.
- <sup>283</sup> CWC Part IV C. Regime for Abandoned Chemical Weapons. 8
- <sup>284</sup> CWC Part IV B Regime for Old Chemical Weapons, 6.
- <sup>285</sup> CBW Conventions Bulletin, Issue No.37, September 1997, Entry for 26 June, pp.24-25
- <sup>286</sup> Comment by Dr Graham Pearson former Head of CBDRE Porton Down
- <sup>287</sup> e.g. United Kingdom
- <sup>288</sup> Chemical Weapons Convention Bulletin, June 1995, News Chronology November 1994 through February 1995, entry for 27 April 1995, p.31
- <sup>289</sup> *Ibid.* Entry for 29 March 1995
- <sup>290</sup> *Ibid.* Entry for 29 March 1995
- <sup>291</sup> Operation Sandcastle, see RUSI Journal, Feb 1996, "Past British Chemical Warfare Capabilities", G.B.Carter and Graham S. Pearson CB, p.62
- <sup>292</sup> *Ibid.*
- <sup>293</sup> *Ibid.*
- <sup>294</sup> Interview Dr Thomas Stock
- <sup>295</sup> BBC Lunchtime TV News 30 October 1997 featured the accidental discovery of a cache of Mustard Gas bombs at an unnamed former airfield in Yorkshire. It was inferred that this incident was by no

means unique and there may well be a considerable number of such caches around the country awaiting discovery.

<sup>296</sup> See United Kingdom of Great Britain and Northern Ireland Declaration of Past Activities Relating to its former Offensive Chemical Weapons Programme, Section 7.2.1/C, p.229 (Annual Destruction Plan).

<sup>297</sup> See 'The Chemical and Biological Defence Establishment, Porton Down 1916-1991 by G.B. Carter in RUSI Journal, Autumn 1991, p.73

<sup>298</sup> See 'Disaster at Bari' Glenn Infield, Robert Hale & Co., 1974

<sup>299</sup> Radio Rossii Network, 14 March 1992; FBIS-SOV-92-055, 20 March 1992, pp.35-36

<sup>300</sup> KROHN, Axel W. "The Challenge of Dumped Chemical Ammunition in the Baltic Sea", Security Dialogue Vol.25(1):1994, p.106

<sup>301</sup> Baltic and North Sea Dumping by Fredrik Laurin in Op Cit. SIPRI No.16, p.277

<sup>302</sup> CHEPESIUK, Ron, 'A Sea Of Trouble' in The Bulletin of the Atomic Scientists,

September/October 1997, p.43

<sup>303</sup> APPLER, Bernd, 'The production of chemical warfare agents by the Third Reich, 1933-1945 in SIPRI Chemical & Biological Warfare Studies No 16, 'The Challenge of Old Chemical Munitions and Toxic Armament Wastes', Thomas Stock and Karlheinz Lohs (Eds.) Oxford University Press 1997, p.97

<sup>304</sup> *Ibid*

<sup>305</sup> *Ibid*, Table 19.1, Note a, p.264

<sup>306</sup> *Ibid* p. 276

<sup>307</sup> *Izvestia* 26 January 1991. Interview with Konstantin Terskov, allegedly a former officer in the Soviet Navy. He claimed to have taken part but fails to name his ship nor does he give a date for the action.

<sup>308</sup> *Ibid*.

<sup>309</sup> Op.Cit. SIPRI No. 16, p.276

<sup>310</sup> *Ibid*, See especially Chapter 7, 'Chemical weapon production in the former Czechoslovakia' by Jiri Matousek. Pp.104-111

<sup>311</sup> *Ibid*.

<sup>312</sup> Op.Cit. RUSI Journal, Feb. 1996, pp..62/ 63

<sup>313</sup> See Bonn International Centre for Conversion Paper 6, "Dismantlement and Destruction of Nuclear, Chemical and Conventional Weapons", December 1996, p.13

<sup>314</sup> ZANDERS, Jean Pascal, 'The destruction of old chemical munitions in Belgium', in Op.Cit. SIPRI Chemical & Biological Warfare Studies No. 16,

<sup>315</sup> Op.Cit CBWCB No. 41, September 1998, Page 25, Entry for 26 May 1998

<sup>316</sup> The Oslo Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, 1972. Belgium signed and ratified the Convention on 8<sup>th</sup> February 1978

<sup>317</sup> The CBW Conventions Bulletin, (Harvard Sussex Program), Issue No.37, September 1997, p.34

<sup>318</sup> Op.Cit. The Bulletin of the Atomic Scientists, Sep/Oct 1997, pp.42-43

<sup>319</sup> *Ibid*

<sup>320</sup> CBW Chronicle, January 1999

<sup>321</sup> The CBW Conventions Bulletin, Issue No. 41, September 1998, News Chronology, Entry for 31 July 1998

<sup>322</sup> Chemical Weapons Convention, Article III, (b) (ii) "Declarations"

<sup>323</sup> COVINGTON, Dr. Ned, 'The DoD Chemical Demilitarisation Program: Start-Up at Tooele', Chemical and Biological Defence Information Analysis Centre(CBIAC) Newsletter, Fall-1996 Vol.2, No.4, p.1

<sup>324</sup> KOPLOW, David Alexander, 'By Fire and Ice: Dismantling Chemical Weapons While Preserving the Environment', Gordon and Breach Publishers, 1997, p.168

<sup>325</sup> Congressional Research Service Reports 94029: Chemical Weapons Convention: Issues for Congress, January 6, 1997,

<sup>326</sup> *Ibid*

<sup>327</sup> Chemical Weapons Convention Part IV C (13)

<sup>328</sup> Op.Cit. COVINGTON

<sup>329</sup> BLACKWOOD, Milton E. Jr. 'Beyond the Chemical Weapons Stockpile: The Challenge of non Stockpile Material, in Arms Control Today, June July 1998

<sup>330</sup> UNIDIR/90/7 "The Projected Chemical Weapons Convention: A Guide to the Negotiations in the Conference on Disarmament" Thomas Bernauer

- <sup>331</sup> See The Bulletin of the Atomic Scientists, September/October 1997, p.39
- <sup>332</sup> Op.Cit. CBW Conventions Bulletin, p.33
- <sup>333</sup> CWC Article IV, Sections 6 & 7
- <sup>334</sup> Op.Cit. RUSSI Journal, Feb 1996, p.63
- <sup>335</sup> During the clear-up operations after the recent Kosovo conflict the MoD admitted that on average 10% of all Cluster Bomb Unit (CBU) sub munitions fail to explode on detonator initiation.
- <sup>336</sup> CD/270, 31 March, 1982
- <sup>337</sup> SIPRI Yearbook 1983, Chemical and Biological Warfare: developments in 1982, p.409
- <sup>338</sup> SIPRI Chemical & Biological Warfare Studies No. 13, 'Verification of Dual-Use Chemicals under the Chemical Weapons Convention: The Case of Thioglycol' S.J.Lundin (Ed.) Stockholm International Peace Research Institute, Oxford University Press, 1991, p.20, Note a.
- <sup>339</sup> To be fair, the Japanese have found that at least some of the weapons concerned are 'not Japanese', implying that at least a proportion date from the Chinese Nationalist era.' See CBW Conventions Bulletin No.41, September 1998, entry for 24 June, p.31
- <sup>340</sup> CD (China) P.V. 614, 27 Feb. 1992, pp.18-19
- <sup>341</sup> MANLEY, Ron, 'Overview of the Status of Chemical Demilitarisation Worldwide, and the Way Ahead', OPCW Synthesis, 29 November 2000.
- <sup>342</sup> PLUGGE, Mathias, 'CW in the FRG – a hazardous withdrawal?', International Defence Review, 2/1990, p.123
- <sup>343</sup> KHRIPUNOV, Igor, "The Human Element In Russia's Chemical Weapons Disposal Efforts" in *Arms Control Today*, July /August 1995, p.17, Quoting from an interview in *Nzavisimaya Gazeta*, 24 March 1995
- <sup>344</sup> Op.Cit. SIPRI No. 16, p.123, quoting 'Interfax News Agency, 19 Jan. 1993
- <sup>345</sup> TASS News Agency 18 July 1990
- <sup>346</sup> *Novoye Vremya* 27 October 1992, however it should be noted that this was an interview with Dr Vil Mirzayanov and Dr Lev Fedorov, who had been responsible for the 'whistle blowing' on the 'Novichok' affair.
- <sup>347</sup> CBW Conventions Bulletin No. 37, September 1997, News Chronology, 9 June, quoting Moscow Mayak Radio, p.22
- <sup>348</sup> *Ibid.* Entry for 20 June, p.23
- <sup>349</sup> *Kraznaya Zvezda* 25<sup>th</sup> March 1997
- <sup>350</sup> CWC Part IV(A) 'Destruction of Chemical Weapons and its Verification Pursuant to Article IV', Para.17 (a) (i)
- <sup>351</sup> *Ibid.* p.17; Khripunov claims that "according to a former employee of the Chapayevsk CW production facility, sizeable quantities of mustard gas were buried near the railway in specially excavated cavities."
- <sup>352</sup> OPCW Secretariat Brief Number 001, 10 December 1997
- <sup>353</sup> Bonn International Centre for Conversion (BICC) The Cost of Disarmament Brief 6
- <sup>354</sup> ROBINSON, J. P. PERRY; STOCK, Thomas; SUTHERLAND, Ronald G., "The Chemical Weapons Convention: The Success of Chemical Disarmament Negotiations." SIPRI, 1993, pp.705-734
- <sup>355</sup> Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction.
- <sup>356</sup> According to Maitre Jocelyn CLERKX, Department of International Law, University of Rheims, France.

## CHAPTER 6

### THE PREPARATORY COMMISSION

At the conclusion of the Paris Conference in January 1993, a resolution was passed setting out a mandate for the establishment of a 'Preparatory Commission' (PrepCom) to facilitate the entry into force of the CWC.<sup>357</sup> Although the 'Convention incorporates general principles and basic obligations',<sup>358</sup> in the final stages of the negotiations at the CD it was agreed that detailed regulations and procedures would be left to this Preparatory Commission.<sup>359</sup> Original proposals suggested that the trigger for the establishment of such a PrepCom would be the deposit of the 35<sup>th</sup> Instrument of Ratification. This proposal was replaced by the adoption of a more realistic trigger of 30 days after the opening of the Convention for signature. It would be a further two years before the 35<sup>th</sup> Ratification was deposited and, in the meantime, a considerable amount of work was required to convert the requirements of the CWC into a practical working organisation. As has been noted:

The work of the Preparatory Commission convincingly shows how difficult it is both politically and practically to transform agreed verification theory into functional arrangements supported by adequate financing, staffing and equipment.<sup>360</sup>

It can be demonstrated that the work of the PrepCom was far more complex, intensive and detailed than any that had taken place in the AHCCW. Virtually every Article in the CWC required some form of administrative procedure in order that its terms could be put into effect. Procedural Manuals were required to cover every activity from Chemical Inspection to Staff Rules. In addition, the PrepCom was forced to attempt to resolve many matters that had not been satisfactorily determined at Geneva. Stock points out that, '[T]he final stages of the negotiations [at Geneva] had involved compromises, and the PrepCom was concerned that some signatory states would attempt to reopen discussion under the pretext of elaborating detailed procedures.'<sup>361</sup>

#### **The Working Groups and Committees**

All signatory States were entitled to join in the work of the PrepCom, eventually resulting in 162 representatives participating. It had been agreed that, 'The

Commission could establish other subsidiary bodies, as necessary, for the exercise of its functions. Specific issues were considered in Working Groups that met concurrently with the Plenary.’<sup>362</sup>

These were:

Working Group A; dealing primarily with the establishment of the host of administrative structures that would be required in order that the PrepCom and its ultimate successor body, the Technical Secretariat, could function. Working Group A was tasked with settling virtually all the administrative procedures and formed subsidiary bodies to carry out the tasks within the Working Group A remit. These subsidiary groups comprised: Expert Groups on the Rules of Procedure, Privileges and Immunities; Programme of Work and Budget; Staff Regulations; Financial Regulations; OPCW Building; Data Systems; OPCW Headquarters Agreement and Other Agreements; Transitional Arrangements; and Administrative, Finance and Personnel Matters.<sup>363</sup>

Working Group B was tasked to deal with all those matters relating to the fundamental role and purpose of the CWC and all the attendant measures designed to build confidence in the Convention. It formed similar specialised units dealing with, Safety Procedures; Chemical Engineers; Inspection Team Composition; Technical Co-operation and Assistance; Analytical Chemists; Industrial Declarations; Equipment; Training, Inspectorate Planning; Single Small Scale Facilities and other Schedule 1 Production Facilities; Chemical Weapons Production Facilities; Challenge Inspection; Chemical Industry Issues; Old and Abandoned Chemical Weapons; Confidentiality; Declarations and Model Facility Agreements; Inspection Procedures; and Chemical Weapons Issues.

### **Relations with the Host Nation**

In addition to these two Working Groups with their separate functions of expertise, an additional body, the Committee on Relations with the Host Country (open to all Member States) was formed. It had as its task all issues pertaining to the relationship with the Netherlands government and incidentally the Municipal Authority in The Hague, including matters relating to the acquisition of the accommodation for both the PrepCom and ultimately the OPCW. This involved the proposed new building and the temporary accommodation required during the preparatory phase. It had also to

negotiate on matters relating to a proposed OPCW Laboratory and Equipment store and on Conference facilities. In addition, it negotiated the privileges and immunities of representatives and experts to the Commission and of representatives to the OPCW and finally it established the methodology for consultation with the Host Country. The role of this Committee was ultimately to prove to be one of the most demanding tasks of the entire PrepCom activity.

### **Task Forces**

In support of these activities a series of Task Forces were established. The concept of Working Groups and Task Forces was by no means novel. It had been used extensively in the negotiating processes during the CWC negotiations in the AHCCW, proving remarkably successful as a means of dealing with problems requiring special attention that tended to distract from the primary task. The Task Forces tended to work separately and render reports of their progress and problems to the appropriate Working Group which would then consolidate reports and present them to the PrepCom at the plenary sessions that, 'were convened for about one week, several times a year, at intervals of roughly three months.'<sup>364</sup> These plenary sessions 'adopted decisions covering all areas of work.'<sup>365</sup> The virtue of this procedure was that all representatives, despite being engaged in specific tasks suited to their own skills and interests, were at least kept informed as to progress in other areas.

### **Limited Diplomatic Representation**

An early problem that was encountered was that rather less than half the signatory states to the CWC had representation in The Hague. Considerably more were represented in Brussels, but many were from developing States with extremely limited budgets and were consequently unwilling or unable to make the expensive 200 kilometre return journey on a regular basis.<sup>366</sup> To meet this need, arrangements were made to undertake the 'Brussels Project' in which senior officials of the PrepCom regularly travelled to Brussels to hold specialised briefing meetings, conferences and workshops for the benefit of such missions. It is understood that NATO played a significant part in providing facilities in Brussels, as did the building housing delegations from the African, Caribbean and Pacific States, the ACP House.<sup>367</sup>

### **The Headquarters Building**

The Netherlands government provided generous help and assistance to the PrepCom. A temporary Headquarters comprising a modern 3,300 square metres building, was provided rent free including the maintenance, energy and ‘turnkey’ costs. In addition, Conference facilities were provided in the Netherlands Conference Centre, again free of charge, although the Commission did share in the costs of renovation. Finally, the Host Country made available meeting rooms in the Netherlands Ministry of Foreign Affairs at no cost to the Commission. The temporary accommodation used by the PrepCom was too small for its permanent successor body. Initially, it had been thought that a suitable existing building might be found in The Hague in which to accommodate the OPCW when the CWC came into force. To this end, a real estate consultant was engaged to examine the possibilities. The report from this agent was that, ‘no suitable building available for rental in The Hague could be identified.’<sup>368</sup> A purpose built headquarters was suggested and after further liaison with The Netherlands Government it was proposed that the OPCW commission the construction of an 18,000 square metres building together with 110 parking spaces.

The Netherlands Government arranged for meetings with various architects and speculative builders and eventually a suitable project was initiated. The Host Country agreed to meet the rental together with the maintenance, energy and ‘turnkey’ costs for three years during the implementation phase of the Convention. The building itself is leased to the OPCW and since the CWC is to remain in force ‘in perpetuity’, it may be presumed that it will remain the operational headquarters of the OPCW for the foreseeable future. Although it had the support of the Netherlands Government, the PrepCom ran into difficulties almost immediately in respect of the lease for the building. The developer of the building had requested an initial lease for a fifteen-year guarantee of occupancy. Despite the earnest hope that the OPCW would exist for very many years, the PrepCom could not commit an organisation that was technically not yet in existence to a contract for such a lengthy period. The PrepCom had been negotiating with the Host Country a ‘Headquarters Agreement’ included *inter alia*, ‘the legal personality of the OPCW, privileges and immunities, the inviolability of the headquarters, public services to the OPCW and taxes and duties.’<sup>369</sup>

This agreement was promptly thrown into disarray over the negotiations for the

Headquarter building itself. As one early OPCW publication indicated, 'A .... problem is that a legal agreement with the OPCW (or the Commission) as tenant is not enforceable in the Dutch courts due to the diplomatic immunity granted to the OPCW under the Headquarters Agreement.'<sup>370</sup>

As if this were not problem enough, budget estimates for the rental costs were thrown into doubt by the announcement of a new Dutch VAT Law [31 March 1995] that appeared to apply to the proposed rental agreement for the new building. During the process of these negotiations some fairly harsh exchanges occurred between the Netherlands Government and The Hague Municipal authority. At one point, the Chair and Executive Secretary were authorised to write:

to the Dutch Foreign Minister asserting that the prevailing practice in host countries providing a seat to an international organisation is to provide a site on a long lease at a nominal cost, and stating that the member states do not expect to pay a commercial price for the use of the site.<sup>371</sup>

### **Problems with the Municipal Authority**

This was in response to a request from the Municipal Authority of The Hague for a 'commercial price for the land at the Catsheuvel site.'<sup>372</sup> These problems threw the entire subject of the Headquarters building into doubt and put considerable pressure on the Provisional Technical Secretariat. Eventually, the Host Country arranged for the OPCW Trust, an organisation set up by the Netherlands government to handle matters relating to the OPCW, to sign the lease on behalf of the OPCW. It also apparently gave some undertakings on the subject of VAT, but this seems to have been a private agreement that was not publicised.<sup>373</sup> To add to the problems, when EIF appeared to be imminent, the original developer of the OPCW building, 'Peace Building Catsheuvel BV' notified the PrepCom of the decision to sell the freehold to 'RaboFonds GmbH', a 100% subsidiary of 'Rabobank Deutschland AG', necessitating the formal approval of the transaction by the OPCW.<sup>374</sup>

Matters were again thrown into doubt by a decision on the part of the Municipal authority to construct an open-air theatre adjacent to the building site, raising questions of security concern. These concerns were brought to the attention of the Municipality, which undertook to construct a fence and a pond between the theatre and the OPCW building. The Municipality promised that the number of events proposed for the open -air theatre would be very restricted and that compensation



would be paid to the OPCW for any additional security costs that these events might incur.<sup>375</sup> These issues were eventually resolved to general satisfaction, but the fact remains that to establish an International Organisation requires considerably more than simple good will. It is possible that in its anxiety to secure the establishment of the OPCW in The Hague, the Netherlands Government failed to address the administrative burdens that this establishment would generate.

### **The First Conference of States Parties**

The Committee on Preparations for the First Session of the Conference of the States Parties had a difficult and unenviable task. Since the conference was required to take place as soon as practicable after EIF of the CWC, it had to be planned with a degree of urgency since no estimate of the requisite time frame could be determined. All that the Committee could be sure of was that it could not be less than two years ahead. In the event it found that it would require rather more than three years before the advent of the trigger of the 65<sup>th</sup> deposit of Instruments of Ratification that set in motion the 180 day period before the CWC came into force. During the period between the euphoric signature exercise and the trigger event of the 65<sup>th</sup> deposit, members of the PrepCom were constantly reminded that the tasks they had to perform were overwhelming and yet they had to be seen to be keenly anticipating the trigger date. Literature distributed by the PrepCom incorporated a 'pie-chart' representation of ratifications received against ratifications required before tripping the trigger mechanism.<sup>376</sup> Awareness of the magnitude of the task caused senior officials of PrepCom to have doubts as to the practicability of the time frame envisaged. The Committee was faced with the daunting task of ensuring a, 'smooth beginning of that [Conference] Session and the timely commencement of the mandated activities of the OPCW.'<sup>377</sup> This included conducting consultations on the proposed agenda for the Conference and of the First Meeting of the Executive Council. It also had to make preparations for the appointment of a Director General and arrange the procedures for the first election of members of the Executive Council.

### **Document Preparation**

Within its tasks, the Committee took on the responsibility for the preparation of all the background documentation that would be required at the First Conference and was responsible for all the practical arrangements for that Conference. Since it had no

idea how long it might be before that event took place, and notwithstanding the extremely optimistic forecasts made in that respect, the Committee was obliged to work in much the same fashion that prevails in military planning. Timings were extrapolated from a theoretical 'trigger' day from which there would be 180 days during which all the appropriate procedures would have to be initiated. This included the preparation of invitations to all those distinguished personalities who might wish to attend, with fair advance warning to be inserted in their respective diaries and due consideration for the appropriate precedence required by protocol. That this was actually achieved without serious problems speaks volumes for the administrative effort carried out by the PTS.

### **Delays and Uncertainties**

Sergei Batsanov has remarked that:

Another difficulty is ... uncertainty about the date of deposit [with the UN Secretary General] of the 65<sup>th</sup> instrument [of Ratification] and consequently, of the entry into force of the Convention. The nature of several critical projects that have to be undertaken during the six month period immediately prior to entry into force is such that they require serious advance preparation work which entails financial consequences.<sup>378</sup>

He went on to suggest that with so much to do it might be advantageous to persuade states ready to deposit their instrument of ratification to make a declaration of their readiness to do so but withhold the instrument until a specific predetermined date when all outstanding instruments could be deposited together.<sup>379</sup> Given the constant urging of the need to speedily bring the CWC into force made by so many of the active supporters of chemical disarmament, such a proposition could only have been greeted with dismay. The staunch opponents of chemical disarmament, particularly in the US Senate, would have been greatly heartened and given time to marshal their objections to US ratification. How such a suggestion might have been viewed at the CD is not difficult to imagine. An additional problem would have been that the delays to the payment of assessed contributions from ratifying states then being experienced by the PrepCom would have been greatly amplified.

## **Budgets**

At the commencement of the PrepCom in 1993, the UN provided a loan of US\$500,000, repayable within 90 days. A provisional budget of US\$8.84 million was agreed. After considerable debate it was agreed that States Parties would provide budgetary contributions on the basis that the most economically capable (the US) would contribute 25 percent of the budget whereas the least capable would provide what amounts to a nominal 0.001 percent. It was agreed that the, 'budget of the Organisation shall comprise two separate chapters, one relating to administrative and other costs, and one relating to verification costs.'<sup>380</sup> This division of the budget is a reflection of the enormous number of specially constructed 'Working Groups', 'Expert Groups' and 'Task units' that were developed by the PrepCom in order to deal with development of the Convention into practical operational procedures. During the run-up to EIF, the Executive Secretary requested that States Parties to the CWC pay their annual contributions in advance. Progress in this respect was slow, and the Executive Secretary was obliged to issue frequent reminders.

## **Data Systems**

The 'Expert Groups' formed by 'Working Group A' included the 'Expert Group on Data Systems'. This Group had been tasked to examine suitable computer based systems for use by the Technical Secretariat. It set up a Task Force on Data Systems to evaluate the Information Management System (IMS) Security Study. Considerable reservations had been expressed as to the security of proprietary information (Trade Secrets) and matters of military security interest that might be revealed in the mandatory declarations by States Parties. The Task Force recommended that there should be a, 'strong separation between the critical and non-critical parts of the system', with no classified information being stored or processed in the non-critical part of the IMS. They further suggested that, 'the critical part [should be] operated on a need-to-know basis only', with an extensive auditing and control of printer output, use of floppy disk drives and other copying means. This suggestion, closely impinging on matters under consideration by the Working Group on Confidentiality, was accepted but served to hinder the development of suitable computer based systems for the use of the OPCW. The PrepCom found that there was:

a need to obtain jurisdiction in various member states over, or bring legal action against, for Technical Secretariat staff, or other natural or legal persons, who

divulge confidential information and those whose immunity is waived by the Director General.<sup>381</sup>

Another concern was, 'how to implement the obligation of all states parties to prosecute breaches of confidentiality.'<sup>382</sup> This might well involve a need to prosecute a national who happened to have served on the staff of OPCW for a breach of confidentiality performed in another State while carrying out properly mandated duties.

### **Equipment**

The equipment required to perform inspections was an activity undertaken by the, 'Expert Group on Inspection Procedures'. Depending on the nature of the inspection to be undertaken, the inspection team would probably require a package of specialised instruments including Gas Chromatograph-Mass Spectrometers and Infrared Spectrometers, test equipment, sample containers and protective clothing. These items were to be carried in a specially designed sealed package so constructed as to meet airline regulations, the whole unit costing US\$50,000 at 1994 prices.

### **Training**

In the initial phase of recruitment, all staff required some form of in post training in order to familiarise them with the tasks they were required to perform. Of crucial importance was the training of those individuals selected to join the ranks of the Inspectorate who would be carrying out the primary role of verification. National Trial Inspections (NTI) had been carried out by many of the States participating in the CD negotiations and these had demonstrated that suitably skilled chemists could detect violations of the provisions of the CWC. Properly conducted inspections would verify conformity both within the Chemical Industry and in respect of undertakings given concerning the CW destruction obligations. Training of the recruits for the Inspectorate was, and continues to be, provided by several State parties. In the earliest instance Finland undertook training courses for small groups of suitably qualified chemists. Subsequently training courses were run in Britain, Germany, Japan and the US.

Training was also undertaken at several different locations covering such activities as

'Inspection Logistics', and 'National Escort' tasks together with a series of regional seminars on National Implementation attended by staff from the PrepCom. There were also Trainee Performance Evaluation Workshops and Official Inter-Laboratory Proficiency Tests organised by the Secretariat.

### **Personnel Selection**

Selection of suitable personnel was to prove a serious problem for the Executive Secretary of the PrepCom. The problem was exacerbated because some States have few citizens with the appropriate technical knowledge or experience in order to fit them for the demanding roles envisaged by the Convention:

Most posts require as a minimum, a university degree in chemistry or chemical engineering and six years professional experience in related specialised fields. Fluency in English is essential and a good working knowledge of one of the other PrepCom languages (Arabic, Chinese, French, Russian, Spanish) is desirable.<sup>383</sup>

The language of instruction on all training courses was, and remains, English.<sup>384</sup>

Potential recruits are also required to undergo a fairly exacting medical examination. It has been taken as axiomatic that the OPCW should not accept applications for the inspector posts from chemistry academics. The requirement is for experienced chemists and chemical engineers with extensive practical knowledge of the industry. The recruitment of chemistry academics from small States Parties to fill these roles, however desirable from the 'widespread geographical basis' point of view, would inevitably deny their respective educational systems of valuable resources.<sup>385</sup> For the potential recruits from such states, the desirability of an appointment to an International Organisation, with its extensive opportunities for gaining technical experience and comparatively generous funding, can be appreciated. The salary for an Inspector is in the range US\$55,000 to US\$77,000, non-taxable together with, 'an attractive benefits package that will include medical and dental insurance, moving and relocation allowance, retirement fund, rental subsidy, education grant and home leave.'<sup>386</sup> The following figures indicate the complex nature of the problem of recruitment as, '[F]rom a total of 342 applications received, 98 candidates are still being considered, 244 (71% of the total number) have been screened out as

inadequately qualified.<sup>387</sup>

Among the many problems affecting recruitment was the need to ensure that 'home' governments respected the tax-free status of the salaries in question. An additional problem that arose was the difficulty associated with finding a quorum for meetings of the Executive Council comprising 50% or more of the State Signatories participating in the PrepCom. This was in part due to the fact that many of the smaller States had no representation in The Hague and those that did, possessed little technical expertise. A further difficulty was almost self inflicted:

The PTS also continued to grow owing to its recruitment of specialists from national delegations. One consequence of this was that the number of experts able to chair Expert Groups decreased, which led to greater demands on the PTS.<sup>388</sup>

### **Diplomatic Immunity**

Among the problems that immediately presented themselves was the need to obtain Diplomatic Immunity from customs search in respect of the inspection instrument packages. This being due to the fact that the calibration of the instruments could be affected by inexpert handling. Within the package there are small samples of known CW for comparison purposes and these immediately brought into question the survivability of the package in the event of a serious accident.<sup>389</sup> It had initially been considered that the OPCW might need to have available an aircraft ready to fly at short notice to any point on the globe. To this end, examination of the need to seek non-scheduled over-flight and transit rights was undertaken. The Netherlands State Airline KLM examined the proposition and pointed out that to be practicable it would require the commitment of two aircraft since one might fail for any number of technical reasons. In addition, it would require the commitment of highly qualified flight deck crew with possible stand-by replacements to be available. Such a proposition would be out of the question in economic terms. In order that this problem could be resolved, the PrepCom initiated a series of discussions with major airlines in order to discover their availability and preparedness to carry the requisite personnel and their equipment. These discussions led to the production of the standardised equipment package. State Party representatives undertook to raise the question with their respective national flag carriers with the result that there is now an accepted procedure that will enable inspection teams to reach their objective within 48

hours.<sup>390</sup> In the meantime, all States Parties were requested to, ‘provide multiple entry/exit/transit visas valid for at least two years, for the inspectors and inspection assistants within 30 days of acknowledging receipt of the lists [of such inspectors and assistants] from the Secretariat.’<sup>391</sup>

Pursuing the question of non-scheduled aircraft used for OPCW purposes, the Secretariat sought clarification, (from the UN) as to the visa procedures for the captain and crew of such aircraft. It was agreed that Inspection team members would be better protected if they carried a UNLP, but this required complicated negotiations with the UN Secretary General’s Office, since the relationship between the UN and the OPCW had not been formally established. However, the UN agreed:

to the concept of an OPCW sticker being adhered to the amendments and endorsements page of the UNLP, opposite a UN sticker declaring under which Article of the Chemical Weapons Convention the bearer is to be granted diplomatic privileges and immunities. It was also agreed that OPCW inspection team members would be issued with blue UNLPs from the UN issuing authority in Geneva, and that favourable consideration would be given to requesting a special printing of UNLPs with twice the number of pages normally available, in order to accommodate the inordinate number of visas which inspectors would be required to have.<sup>392</sup>

The UN could not provide these documents free of charge and the PrepCom was obliged to give an undertaking on behalf of the OPCW that the costs to the UN of such printing would be met by the OPCW.<sup>393</sup> To further complicate the matter, the UN declared itself unable to delegate the issue of UNLP to a non-UN organisation. The effect of this decision was to force the PrepCom and subsequently the OPCW to make individual application through the UN office in Geneva, a procedure that was both slow and cumbersome.<sup>394</sup> In order that the procedures thus agreed could be implemented, the Executive Secretary recommended that:

a draft resolution and explanatory memorandum need to be submitted as soon as possible to the UN General Assembly in New York by members of the UN. To achieve this, .....the Permanent Mission of the Netherlands in New York [would] request the inclusion of ...this matter in the agenda of the current (fifty-first) session of the General Assembly.<sup>395</sup>

### **The Countdown to EIF**

The 65<sup>th</sup> Instrument of Ratification was deposited by Hungary in October 1996, thereby triggering the 180 day period before EIF. It prompted a sense of panic in both the PrepCom and amongst those States that had yet to carry out the necessary processes for ratification. Both the US and Russia were in this category. There was immediate concern amongst their delegations, since failure to ratify by the time EIF took place rendered the representatives and nationals of non-ratifying signatory States ineligible to hold a post within the OPCW. By a process of pressure and promise the US President was able to obtain sufficient support in the Senate for 'advice and consent' although 28 reservations were attached to the notification. US officials obtained posts within the Organisation but some officials from other states such as the Russian Federation did not gain the anticipated posts. At the Second Session of the Conference of States Parties, the,

'Russian Federation, noting that it would become a State Party [shortly]... went on to express the belief that decisions would be taken in the course of this session of the Conference to ensure that the Russian Federation would be represented in the working bodies of the OPCW to an extent that would adequately reflect its role and significance in the implementation of the Convention.'<sup>396</sup>

At the same conference, the South African delegate stressed that Africa's participation in the Convention, 'ought to be reflected in its level of representation in the staffing structure of the Technical Secretariat.'<sup>397</sup> This view was echoed by Kenya's representative who alluded to, 'the importance of honouring the principle of equitable geographical distribution of staff within the Secretariat.'<sup>398</sup> It may be inferred that position and authority within the OPCW is attractive at least in terms of providing an opportunity of furthering career prospects for aspiring diplomats. The present DG has been regularly obliged to remind the various delegations that the OPCW is not intended to be a career organisation.

### **The PrepCom Legacy**

When the work of the Preparatory Commission had been completed, the Provisional Technical Secretariat handed over to the new Technical Secretariat a functioning system in which a substantial proportion of the tasks set by the Paris Resolution had been resolved satisfactorily. Many unresolved issues remained and these were to



trouble the TS and the DG long after the PTS had been dissolved. For example, the Foreign Ministers of the Non-Aligned Movement meeting in Delhi noted that:

of the 72 issues which the Preparatory Commission has sought to address, consensus eluded [the PrepCom] on as many as 52 issues. Of the 39 tasks mandated to the Preparatory Commission by the Paris Resolution, [it was] unable to recommend any decisions on 33 of them.<sup>399</sup>

It was noticeable that when the draft final report of the PrepCom was being prepared, it included the paragraph heading:

Tasks Contained in Paragraphs 10, 11, 13 and 16 of the Paris Resolution on the Organisation and Work of the OPCW and its Technical Secretariat requiring immediate attention after Entry into Force of the Convention.<sup>400</sup>

These matters are still not entirely resolved.

The question of Computer security required continuous attention, although a 'Security Audit' found that the system provides adequate levels of protection to sensitive material. The selection and training of Inspectors and Assistants, 'on as wide a geographical basis as possible', has yet to be achieved and the same problem exists to a lesser degree within the TS. The 'Trial Inspections' initiated by PrepCom to test procedures have proved remarkably effective and consequently the professionalism of the Inspection Teams has not been called into question. Financial problems due to the failure of some State Parties to make their contributions in good time, continue to cause difficulties. Some States Parties to the Convention declared themselves unable to pay their assessed contributions:

In March 1993, Viet Nam informed the PTS that it could not afford to participate in PrepCom activities and thus did not need to pay its assessment. [S887.54] In June 1993 Lithuania followed suit.<sup>401</sup>

This difficulty presents a challenge to the universality of the Convention in that the poorer States may be obliged to withdraw from the CWC simply through economic pressures.

It should be noted that Executive Council has elected to continue with the use of Working Groups, Task Forces and 'Expert Groups' in order to facilitate the development of the operational functions of the OPCW.

## ENDNOTES

- <sup>357</sup> Originally proposed by the UK in 'The Organs and Constitution of the Organisation' Part C, Preparatory Commission, Para. 36-39, CD/589, 11 April 1985
- <sup>358</sup> MATHEWS, Robert J and McCORMACK, Timothy L. 'Prevention is better than Cure: Pre-empting Inspection-Related Disputes under the Chemical Weapons Convention' in Contemporary Security Policy Vol.16, No.3 (December 1995) p.396
- <sup>359</sup> CD/CW/WP.400
- <sup>360</sup> BATSANOV, Sergei, Director for External Relations, PTS, September 1996
- <sup>361</sup> SIPRI 'Arms Control and Disarmament, 1993. 'The Chemical Weapons Convention: institutionalization and preparation for entry into force' by Thomas Stock, p.686
- <sup>362</sup> *Ibid*
- <sup>363</sup> Paris Resolution 8(a)
- <sup>364</sup> PTS-OPCW-IS/2(Revision 6) (E) 'The Preparatory Commission For The Prohibition Of Chemical Weapons And Its Provisional Secretariat', May 1997
- <sup>365</sup> *Ibid*
- <sup>366</sup> Primarily for relations with the EU
- <sup>367</sup> KENYON, Ian, interview
- <sup>368</sup> OPCW Synthesis: Supplement 1 October – 22 November, 1994
- <sup>369</sup> OPCW Synthesis: Supplement No.6 July 1996
- <sup>370</sup> OPCW Synthesis: Supplement No3, 27 July 1995
- <sup>371</sup> Chemical Weapons Convention Bulletin, Issue No. 25, September 1994
- <sup>372</sup> *Ibid.* p.9
- <sup>373</sup> KENYON, Ian, interview
- <sup>374</sup> PrepCom Documents PC-XVI/36, p.4, item 7.2
- <sup>375</sup> Note by the Executive Secretary, PC-XIII/HC/4
- <sup>376</sup> See for example the OPCW publication of the period 'Synthesis'.
- <sup>377</sup> Paris Resolution 16 and 17
- <sup>378</sup> Op.Cit. BATSANOV interview
- <sup>379</sup> Ian Kenyon admitted that there was considerable support for this view within the PrepCom
- <sup>380</sup> CWC Article VIII A 'General Provisions' Para. 7
- <sup>381</sup> Chemical Weapons Convention Bulletin, Issue No. 25, September 1994
- <sup>382</sup> *Ibid.*
- <sup>383</sup> 'Recruitment of Inspectors for the Organisation for the Prohibition of Chemical Weapons.' Issued by the Provisional Technical Secretariat of PrepCom, March 1996
- <sup>384</sup> See Provisional Secretariat PC XVI/B/1 3 Feb 1997 (Candidates for Courses).
- <sup>385</sup> Comment by Mr Ian Kenyon. It may be presumed that this would not be the view of the academics in question since the terms of service in the OPCW are not without their attractions.
- <sup>386</sup> Op.Cit 'Recruitment of Inspectors'
- <sup>387</sup> KENYON, Ian R. 'Update on the Recruitment Process for the Organisation for the Prohibition of Chemical Weapons' PrepCom Press Release Number 102, 24 June 1996
- <sup>388</sup> SIPRI 'The Chemical Weapons Convention :institutionalization and preparation for entry into force', Thomas Stock in SIPRI 'Arms Control And Disarmament,' 1993, p.693
- <sup>389</sup> Interview with Mr Ian R. Kenyon
- <sup>390</sup> *Ibid.*Kenyon
- <sup>391</sup> OPCW Synthesis, Issue 15, July 1996
- <sup>392</sup> Report of the Executive Secretary to the Preparatory Commission for the Organisation for the Prohibition of Chemical Weapons, PC – XVI/ / 12, para.6.11, 7<sup>th</sup> April 1997
- <sup>393</sup> *Ibid.* para. 6.11
- <sup>394</sup> *Ibid.*
- <sup>395</sup> *Ibid.*6.12
- <sup>396</sup> OPCW Secretariat Brief Number 001, 10 December 1997, p.2
- <sup>397</sup> *Ibid* p.2
- <sup>398</sup> *Ibid* p.3
- <sup>399</sup> Final communiqué, XII Ministerial Meeting Non-Aligned Movement, New Delhi. 2 April 1997
- <sup>400</sup> Draft Final Report of the Preparatory Commission for the Organisation for the Prohibition of Chemical Weapons, produced by Mr Ian Kenyon, Executive Secretary, April 1997
- <sup>401</sup> Op.Cit. SIPRI 'Arms Control And Disarmament,' 1993, p.701

## CHAPTER 7

### CONCLUSIONS

The CWC is undoubtedly a bold experiment in international disarmament treaty drafting. The Convention contains some extremely original devices the intentions of which are to enhance inter-state confidence and co-operation. It is a remarkably compact document, comprising only 24 Articles although the extent and complexity of the Annexes and Schedules that form part of the whole tend to mar this commendable brevity. As a concept the CWC is likely to have a profound effect on the manner in which treaties having disarmament objectives are both negotiated and their performance monitored. Non-compliance will in theory be met by a variety of sanctions short of war designed to bring a recalcitrant state to heel. There is certainly ample room for a broad range of disarmament treaties having as an objective the complete removal of specific classes of weapons from the worlds' armouries. That the long and protracted negotiations that finally brought about the CWC could still fail in their objective is not disputed: the acid test will be the first challenge and how the international community reacts to events creating that challenge.

#### **States Parties Failures**

There is still the danger that the Convention could deteriorate into what amounts to a "no first use" treaty.<sup>402</sup> This danger is particularly aggravated by the fact that individual States Parties to the Convention have been extremely slow in meeting their defined obligations. Relatively few states have made their declarations to the OPCW within the thirty-day time limit required by the Treaty.<sup>403</sup> (Had they done so it is quite possible that the administrative resources of the OPCW PrepCom would have been stretched to breaking point). More seriously, the financial contributions required from each state to maintain the OPCW and forming a specific condition of accession to the Convention are substantially in arrears.<sup>404</sup> The Director General of the OPCW was obliged to refer to this problem in less than veiled terms, at the First Conference of States Parties to the Convention.

Unfortunately, very few states have contrived to install their requisite domestic legislation in place in order that their respective civil chemical industries can be

properly monitored and regulated.<sup>405</sup> Failure on the part of major state participants to carry out this task with some alacrity may encourage prevarication on the part of others. A failure on the part of the US Administration to force through this essential legislation will almost certainly be interpreted by Japan as compromising the security of its own Chemical industry. Japanese legislation may then be withheld rendering a critical aspect of the Convention ineffective. Russian legislation is also slow in being introduced. That administration continues to operate on the brink of collapse at every turn. Resort to Presidential Decree is commonplace, but it is a device that is largely ignored within Russia and is increasingly viewed with scepticism by the world at large.

### **Disarmament Treaties**

It would seem appropriate to examine the conceptual aspects of the CWC in turn, commencing with the nature of the CWC as a disarmament treaty. Numerous attempts have been made in the past to limit the effects of a variety of weapon systems or to mitigate the consequences of their use. Historically, most pleas for a disarmament treaty have tended to be initiated by an aggrieved party in response to the use of some military development which for reasons of technical inability they have failed to produce their own version. In addition there have been a variety of treaties designed to restrict the use of particular weapon systems. A notable example being Canon 29 of the Second Lateran Council of 1139 (that outlawed the use of crossbows against Christians).<sup>406</sup> It was apparently perfectly acceptable to kill or maim those of other faiths with this devastating weapon. Quite when the decision was made to incur the wrath of the Church and ignore the ban on use against Christians is not clear, but in all probability some person of rank in the opposing force had the misfortune to be excommunicated at the opportune moment. Gunpowder might well have received a similar embargo, however it was rather inconvenient that this popular material arrived in "Christian" Europe probably from China and certainly via the Islamic Middle East. Most attempts at weapons control during this period were initiated in the interests of the Knightly class since weapons such as the cross-bow were great levellers and were generally wielded by the lower orders. It is noticeable that once parity has been achieved, limiting treaties tend to lapse.

### **The Norms of Behaviour**

In the present instance the CWC may be said to have altered or modified the normative behaviour of States concerning what is acceptable conduct. During the period when the Geneva Protocol set the standards, most States of significant military capability interpreted the Protocol as not prohibiting the possession of CW thereby establishing an implied 'norm' of possession.<sup>407</sup> The fact of the existence of such weapons meant in effect that a retaliatory capacity was established created a second 'norm'. The only saving grace that might have been derived from these two 'norms' was the explicit or implied commitment of 'no first use' undertaken by most of the possessor States, thereby defining a third 'norm'. A few States declared that their commitment to 'no first use' only applied to States that were similarly parties to the Protocol. The 'norm' of no first use has been interpreted as defining a particular limit of 'customary behaviour' in International Law although exactly how a breach would have been prosecuted remains obscure.

### **A Novel Disarmament Treaty**

The CWC presents a completely novel form of disarmament treaty. Unlike earlier attempts, the CWC is not 'unequal'. It has not been negotiated in the immediate aftermath of a destructive conflict leading to the subjugation of a State Party. The negotiators in Geneva contrived to deal with a novel situation in that there was a seemingly universal desire to remove a particularly unpleasant form of warfare from the global arsenals. In order that this goal might be achieved a series of novel procedures were introduced into the Convention that were designed to instil confidence in the regime. This was at least partly achieved by the universality of the negotiating process. No State expressing a desire to participate was actually excluded from the CD. Consequently the sense of privileged status that can be said to apply to a limited element in the NPT does not apply to the CWC. The new norms of State behaviour in response to the CWC are first; virtually universal non possession;<sup>408</sup> second, a commitment to the destruction of existing CW stocks and their means of production;<sup>409</sup> third, co-operative conduct in the monitoring of the movement of chemical substances, particularly those from which CW might be manufactured, fourth; transparency concerning research into chemical defence activities and fifth, a virtually universal commitment never to use such weapons in war. Thus 'normative behaviour' in respect of CW is that of non-use and non-possession and to this may be

added a commitment not to encourage, assist or otherwise permit a third party to obtain the means of manufacturing CW. The Convention does not attempt to prevent research into CW for defensive purposes but makes a duty of technical and material assistance to any State Party attacked with CW or threatened by a CW possessor State. Since virtually all States will be adherents to the Convention the norm of non-possession will itself tend to guarantee that States will not be attacked or threatened in such a fashion. A transgressor State will experience almost universal opprobrium and the very real threat of universal sanctions.

### **Domestic Changes - Their Influence**

It has been said that the CWC was a 'child of its time'<sup>410</sup> and this would appear to be true in the sense that negotiations within the CD were overshadowed by 'cold war' rivalries between the US and the USSR. The critical events that led to the achievement of a practicable CWC were primarily influenced by the gradual relaxation of tensions between the superpowers and this itself was the product of profound political change within the USSR. Secondly, the CD and its predecessor bodies were for long considerably distracted by problems associated with the threat of nuclear proliferation and the pressing need to reduce the size of nuclear arsenals. Other systems of making war, although possibly of a more widespread distribution, were never quite perceived as posing a similar degree of threat. Despite the classification of both Biological and Chemical weapons in the category of WMD, it cannot be claimed that there was any firm belief on the part of the delegations at Geneva that they warranted the attention accorded to nuclear weapons. At the same time the CD was constantly distracted by a need to discuss new threats or old threats in new guises. These distractions directly led to the establishment of an ad hoc body charged with the task of producing a draft CWC.

### **Cold War Rivalries**

The 'cold war' rivalries of the US and USSR, although serious enough within the UN Security Council and in media exchanges, were never quite as fierce at the CD where the delegations of both States conducted themselves with dignity and with some attempt at mutual understanding. Both super-powers possessed CW, but examination of the records suggests that possession was perceived by both as a 'counter-threat' to balance or offset or perhaps 'deter' the CW capabilities of the other. Secrecy over

their holdings of CW could be interpreted as counter-productive since both States were 'deterred' by the presumed CW capabilities of the other. For both seemed to assume that in the event of a NATO/WTO clash, the other would resort to CW use despite the belated adherence by the US to the Geneva Protocol.<sup>411</sup> Both States were apparently firmly committed to the 'no first use' concept embraced by many participants to the Geneva Protocol.<sup>412</sup> In contrast, there can surely be no dispute that the US-USSR bilateral CW disarmament agreement ensured a positivist approach to that subject by the other participants in the Geneva negotiations. If the reverse case scenario is examined, it seems highly improbable that the remainder of the delegations could have contrived to produce an effective CWC that sidelined the two superpowers in the hope that they would be shamed into conformity. The absence of the superpowers from the CWC would surely have rendered the Convention ineffective due to their tendency to operate pragmatically in their international relations. The application of this tendency to any given situation would have been sufficient to ensure that any political, military or economic sanctions directed against a transgressor by a truncated CWC could readily be ignored. The US has often supported questionable regimes for its own purposes despite almost universal opprobrium. The USSR more than once demonstrated an indifference to any interests but its own. Russia appears to be quite unaffected by global reactions to the brutal war in Chechnya.

### **The Influence of Positive Action**

Negotiations at the CD for a CWC have been subjected to 'external' stimulus in the form of a willingness on the part of interested governments to take 'positive action' in order to demonstrate practical solutions to apparently insoluble problems. The formation of the 'Australia Group', although unpopular with some emergent States, demonstrated that governments and the chemical industry could combine to restrict the movement of CW precursor chemicals to States suspected of having dubious motives. This initiative can be seen as having provided the structure for what became part of the role of the 'National Authorities' in accounting for the production and movement of chemicals possessing specific properties. Without such an initiative it seems unlikely that the role of the CWC could have been developed to the extent that it now fills in terms of monitoring the production and movement of important chemical substances without seriously hindering legitimate trade.

It must be admitted that some States have declared vehement opposition to the aims and objectives of the 'Australia Group'. Others consider that with the entry into force of the CWC, the Australia Group' should have been disbanded under the terms of Article XI of the Convention. Both points of view have their merits. India, one of the most vociferous opponents to the continued existence of the Australia Group, was obliged to admit when making its declaration of former CW activities that it had not only developed indigenous CW but possessed a stockpile of significant size. India has a substantial domestic chemical industry and consequently could probably have produced the appropriate precursor chemicals without being hindered by limitations imposed through a producer group cartel.<sup>413</sup> The same cannot be said of some other States with questionable motives, consequently the 'Australia Group' can be seen to perform a valuable function for the time being, subject to its eventual replacement by a more universal authority. In theory almost any State could 'adhere' to the Australia Group regime and derive whatever benefits might thereby accrue, but this should not be taken as an excuse to over-ride or usurp the role of the OPCW that might be weakened in consequence.

A further contribution by the Australian government was a seizure of the initiative by producing from the tangle of conflicting material in the 'rolling text' a 'Model Compromise Convention.' Without this intervention showing clearly and unequivocally that compromise wording could be found to meet most objections it can safely be predicted that the process would have dragged on *ad infinitum*. This manoeuvre in itself forced a certain concentration of minds, but credit must be given to Ambassador Adolf Ritter von Wagner of Germany who contrived to force the issue by proposing that there should be no changes to the new draft 'without consensus'. The delegates may well have accepted this proposal without realising precisely what it implied. In effect it was a reversal of the normal procedure at the CD and was something of a *coup d'éclat*.

### **The Effect of Universality**

The sharing of Chemical Defence knowledge is an important benefit resulting from the signature of the CWC. Having abandoned a CW capability, every State Party is entitled to claim all the available assistance and protection from the effects of the use



of CW that may be at the disposal of fellow States Parties. In effect, this means that the very latest technology and equipment will be placed at the disposal of any State Party attacked by an opponent using CW.<sup>414</sup> It may be assumed that the more universal the status of the CWC, the less likely such an attack will be, but it is now recognised that CW may become the weapons of terrorists and sub-state groups. An obvious limitation is the fact that *post facto* assistance in the aftermath of an unexpected chemical attack will be too late to prevent the infliction of casualties. Civil Defence against such weapons is extremely difficult to put into practice and could be dauntingly expensive. Only Israel in its very special circumstances has attempted to equip its population with protective measures and even these precautions resulted in unnecessary casualties due to misuse of CW prophylactics during the second Gulf War. In theory all CW defence equipment and techniques should be available to all other CWC adherents,<sup>415</sup> yet there is a danger that ‘reverse engineering’ could be employed to detect vulnerabilities inherent in such systems. Unfortunately due to the presence of non-state actors within the equation it can never be assumed that such information will be confined to responsible governments.

### **Why Did it Take So Long?**

The OPCW itself is a complex organisation and its complexity is aggravated by the need to ensure that the rights and interests of small States Parties are no less important than those of a super-power. These interests are protected by the voting procedures in the Conference of States Parties’ that calls for a two-thirds majority vote in the absence of consensus. It is unlikely that any State Party could induce such a large proportion of the delegations to support an issue that was not clearly in their interests. With a Convention having so many obvious merits, it poses the question, why did it take so long to negotiate? It is suggested that the answer involved a series of only indirectly related factors.

1. The CD (and its predecessors) is not the most efficient negotiating body since its proceedings were and are steeped in diplomatic nicety. The establishment of the AHCCW was a positive step but this was slow in coming. A contributory factor has been the slow pace of the negotiating procedure in Geneva. For all practical purposes, the delegations meet for approximately six months of any given calendar year. Only the suggestion of US President George Bush that the

AHCCW should remain in permanent session after the Paris Conference until a workable CWC had been achieved produced a more intense effort. It still took a further three years before the Convention was completed for signature. It may be inferred given normal CD practice that this outcome could not have been achieved before 1996, if then.

2. It can be seen that the politics of major State rivalries, in this instance ‘cold war’ interests, tended to subject proceedings to pressures other than those strictly concerned with disarmament measures.
3. Failure on the part of the delegations to concentrate on the primary issues of defining the nature of CW, and the closely associated problems of destruction and verification meant that all too easily, matters of detail came to be discussed. It may be concluded that before it is possible to begin constructing an organisation, it is essential that its *raison d’être* be determined. For one reason or another, delegations tended to submit revised draft Conventions for consideration without having resolved these three essential features of the task in hand.
4. Until the overt and extensive use of CW during the first Gulf War, the records of the CD seem to suggest that the CWC was something of an academic exercise of no great urgency. The Geneva Protocol existed and was probably considered to have proved effective in most instances. This is not to criticise that view, the Geneva Protocol is still in existence and forms an essential element of the preamble to and content of the CWC. What has now been applied to support that Protocol is the requisite procedures for dealing with breaches of both treaty obligation and of good faith. Most signatory States of the Geneva Protocol have formally withdrawn their ‘no first use’ condition.
5. The prolonged failure of the CD and its predecessors to grasp the fact that any effective CWC must involve the chemical industries of the various States Parties. These chemical industries showed themselves to be far more supportive of the concept than their respective governments seem to have realised, despite the fact that conformity tends to subject the industry to not inconsiderable cost factors. It may be that the nature of the global chemical industry is far more ‘Trans-national’

and less 'nationalist' in its outlook and relationships than had been realised. This conceivably derives from a business culture in which mutually convenient exchanges of product and information frequently take place despite the inevitable commercial rivalries; contrary to Marxist concepts, business does not automatically benefit from a state of conflict but rather from market growth. With a few exceptions, the chemical industry in most States is highly regulated and subjected to stringent safety regimes.<sup>416</sup> Product movement monitoring and the levying of Revenue charges commence at the refinery gate consequently it may be inferred that the industry is accustomed to control and supervision at several levels. These controls have generally not precluded a steady growth in either product or demand. The Schedules of chemicals incorporated within the CWC are restrictive only in a very limited series of chemical groups. Schedules 1 and 2 have currently relatively little commercial application at present although it may be that suitable uses may be found in due course.

### **The Influence of INGO/NGO**

It has been shown that the process of negotiation of the CWC has been subject to pressures from external bodies. Mention has been made of the 'epistemic community' and its role in the guise of 'conscience' within civil society. There are indications that this role is beginning to develop in some ways with the advent of electronic means of communication. Virtually any issue can readily be provided with a 'web site'. This facility has resulted in a substantial development of public awareness, particularly where the issue involves environmental threats. It has tended to foster the growth of pressure group participation. It is noticeable that many government agencies now feel themselves obliged to submit to public exposure via 'the web', in order to match or counter the activities of pressure groups able to demonstrate almost instantly that there is public concern over government conduct. Whatever reservations governments may have over the reliability of instant polling, it is noticeable that they feel the need to respond defensively. In this sense the leadership role of the epistemic community may have changed from that of a relatively confined academic grouping to that of a broader but still extremely loose discussion forum. It is still the catalyst from which more formal organisations such as NGOs appear to develop.

Having examined at length the role of NGOs in the political arena it would be

appropriate to attempt to determine whether such bodies actually influenced the development of the CWC. It has been shown that the Netherlands government is constitutionally constructed to accept input from Dutch NGOs on any appropriate issue. The British Foreign and Commonwealth Office has displayed a positive attitude to representations from interested bodies on matters of disarmament and there is evidence that Parliament itself is not averse to seeking expert opinion on such issues.<sup>417</sup> Canada has the Markland Group that is technically a NGO, however it does include members of the Canadian Parliament within its ranks.<sup>418</sup> It also includes consultants from a very broad international catchment area. The US has an enormous number of foundations directed towards matters of disarmament, although these are not necessarily all in favour. These groups tend to have the ear of particular Senators; consequently any issue is likely to be brought to the attention of the appropriate Committee of the Senate. The procedures peculiar to the American political system are such that public access to a Committee hearing is unlikely to be denied. In the peculiarly Swedish compromise, SIPRI is funded by the Swedish Parliament but acts independently. Since the Chairman of the Governing Board is invariably a distinguished Swede, it may be presumed that SIPRI has access to the Swedish government at the highest level. It may be noted in passing that Swedish official contributions to the CD have generally been in accord with the current SIPRI viewpoint. Whether similar activities took place within the Socialist States before the collapse of the Soviet system is unknown but certainly delegates from the Soviet Academy of Sciences attended numerous gatherings of the Pugwash Conference during the Cold War period. Science and the Arts were accorded a privileged status within Soviet society and it may be presumed that the delegates concerned transmitted the appropriate signals to their government. Since the fall of the USSR, Green Cross (Russia) has been involved in organising public hearings concerning the destruction of Russian (former Soviet) CW. It would appear that this body has some influence on the Russian government presumably because of its access to overseas funding.

Internationally, Green Cross has links with sister organisations located in Switzerland and the US. In the strictly international forum, attention has been drawn to the fact that the relationship between the CD or the OPCW and the UN is not all that might be desired but the UN is generous in its recognition of INGOs and accords them very considerable access. The International Red Cross, Greenpeace, the World Council of

Churches and *Medicins sans frontiers* have all been accorded this status. It may be presumed that the UN would use its right of access to the OPCW Conference of States Parties on behalf of these bodies if they needed to be heard. Within the CD, INGO submissions do not appear to receive any official recognition but are presumably noted. There may be grounds for believing that the representatives concerned have to some extent exaggerated the contribution by INGOs in the role of 'honest broker'. What they may have achieved is to present an occasional vehicle of communication between parties officially not on speaking terms. It is possible that national NGOs have a more direct effect in that they may be able to lobby their own national delegations more constructively.

### **The Influence of the Wyoming Agreement**

It has been demonstrated that the critical feature of all CWC negotiation was the Wyoming (bilateral agreement) between the US and the USSR, an agreement that provided for mutual verification of a substantial CW reduction and destruction programme. In so doing the two participants set the agenda for the construction of a universal verification programme subsequently incorporated into a Verification Annex to the CWC. It is questionable if in the absence of significant political changes within the USSR the bilateral agreement with the US would have come about. If that is the case then it infers that the negotiating process within international *fora* will always be hostage to domestic political pressures within the principal States participating.<sup>419</sup> It may be observed in passing that such effects tend to be transitory. If the present disordered circumstances prevailing in Russia today had been present during the late 1980s, it might have proved impossible to secure Soviet agreement to the bilateral arrangement, and in consequence the CWC must have become seriously crippled.

Undoubtedly the negotiating process would have continued and in due course the economic facts of life would presumably have brought about political change within the USSR. Such changes could readily have resulted in anarchic fragmentation with all the problems that such an event would have entailed for the International Community. Russian inability to comply with the provisions of the CWC has already been noted but this inability does not betoken an unwillingness to conform and play a part in disposing of its chemical arsenal. It is simply that the burden is too great and

the other needs too pressing for the matter to be accorded any serious level of priority. It is to be hoped that the International Community will find the means to provide material assistance to Russia to carry out the task of CW destruction, with due provision to prevent the haemorrhage of funds that currently marks most other forms of aid to Russia. Provided that this is done within a reasonable time frame, there is no reason to suppose that what might be termed 'currently operational' CW will not ultimately be eliminated.

### **The Problem of Old and Abandoned CW**

The global community will then be faced with the no less serious problem of disposing of Old and Abandoned CW that present a hazard to future generations in the form of pollutants and even potentially dangerous ageing CW.<sup>420</sup> This threat will continue well into the current century and may have to form the subject of an entirely new Convention concerning their retrieval and subsequent disposal. For the time being the perceived wisdom of the Scientific Community, especially concerning CW dumped at sea is that such CW are probably best left where they are. As technical capability advances, this view may have to be revised and a serious attempt at retrieval undertaken. Destruction of CW using the best technology available is believed to remove toxic chemicals to the order of 99.9999 percent;<sup>421</sup> environmentalists will point to the fact that even the incredibly small fraction remaining must accumulate to the detriment of the environment given a large enough base quantity. The problem posed for science is whether this risk is worth taking for the ultimate good.

If the CWC was a 'child of its time' then the OPCW PrepCom can surely be described as a 'child of convenience'. The delegations to the CD and those engaged in the celebrations that accompanied the signature ceremonies in Paris appear to have had little appreciation as to the magnitude of the problem that they handed to the PrepCom. The anticipated lapse time between signature and ratification was grossly underestimated but this was a fortunate accident. As has been shown, progress in developing procedures designed to put the Convention into effect was extremely difficult to achieve. Virtually every Article of the Convention called for some form of procedural activity, many requiring complex manuals. At the EIF date, there were still many items on which decisions had to be made and some are still outstanding.

### **The Dangers of Reinterpretation**

There is a certain danger that some States Parties are attempting to rewrite or at least reinterpret the terms of the Convention in order that their own difficulties may be overcome. This is not to suggest that there is a covert attempt to undermine the Convention but it is possible that once the citadel has been breached a general decline could take place. An encouraging feature of the process that brought about the CWC is that the concept of the Ad Hoc Committee charged with detailed negotiation of specific disarmament treaties within the CD is now firmly established. The procedure is now being employed in order to facilitate the introduction of a verification procedure for the BWC. It is to be hoped that some lessons have been learned from the prolonged debates that finally established the CWC.

### **Lessons from Research**

The CWC is a new phenomenon. No previous Convention had been negotiated in which the aims and objects had not been left to the individual States Parties to perform in their unquestioned sovereignty. No conveniences of interpretation have been permitted although the conditions applied by the US Senate have gone unchallenged. Research into the problems associated with the development of the OPCW has revealed several interesting concepts that have been developed during the negotiation process. Firstly, that the CD conducts its activities at an extremely pedestrian pace. Other disarmament issues on the agenda may well be constrained by this lack of intensity. Movement is only induced when unconventional approaches to a problem are introduced. Secondly, assuming that disarmament observance issues are best monitored and controlled by some form of agency, then the mechanics of the operational role of that agency require extensive development beyond the structures envisaged within the basic Convention document. The CWC determined the tasks to be carried out by the OPCW but had no real contribution to make in establishing the norms of procedure. This may well be appropriate, however the PrepCom was established as a result of the Paris Resolution not the CWC. Had serious consideration been given to proposals to delay initiation of the PrepCom until after the 35<sup>th</sup> ratification, it is probable that the enormous workload undertaken by the PrepCom would not have been completed before the Convention came into force. The consequences of such a failure can be imagined. At the very least, there would have been serious delays in engaging and training suitable personnel for the verification

role.

The tasks undertaken by the PrepCom were daunting and great credit should be given to those who participated in a spirit of co-operation and mutual respect. The records of the PrepCom suggest that while there were doubts and concerns, the delegates undertook their tasks in relative harmony. To this should be added that the Provisional Secretariat bore an immense burden that has not been properly recognised. It is the complexity and minutiae of the tasks that were undertaken by the PrepCom that surprises. Every step taken seemed to reveal a further problem requiring resolution. The complex negotiation over the Headquarters building is but one example. Having secured the appropriate diplomatic status for the Organisation and its staff, it was then faced with the not unreasonable reluctance of the building's developer to sign a lease with a body that could not be subject to Dutch law. That the PrepCom was unable to resolve all the problems before it was dissolved is scarcely surprising in the circumstances. What is surprising is that even those issues that it was unable to resolve were at least defined and presented to the successor body with recommendations as to the appropriate action required. It was surprising to learn that the 'host nation' had been obliged to shoulder such enormous burdens especially during the development phase. Granted that there are advantages to be gained from the presence of an International Organisation within the National Capital, the support given by the Netherlands government was and is remarkable for its patience, tolerance and generosity.

### **Credibility**

A question that arises concerns the credibility of the CWC in the global environment. It is still relatively early in the development process of the OPCW but there are indications that it is establishing for itself a reputation for impartiality and reliability. Some State Parties have tended to neglect the tasks that they have undertaken to perform, in particular the appropriate declarations required under the various Articles of the Convention. By a process of adroit handling and discreet pressure, the DG has been able to remind them of their commitments without public opprobrium. This is beginning to prove more difficult where the subject of financial contribution is concerned. In general, the provisions of the Convention appear to be observed by all States Parties. The next potentially sensitive phase will occur when the time arrives



for the implementation of chemical supply restrictions to non-State Parties. This may mean that either business is lost or that there is a temptation to evade these restrictions. If this should occur, then the OPCW will be faced with a challenge requiring action from all other State Parties. The execution of that action will demonstrate the strength or weakness of the CWC.

## ENDNOTES

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<sup>402</sup> Comment by Mr Ian Kenyon

<sup>403</sup> Article III, 1.

<sup>404</sup> Article VIII, 7.

<sup>405</sup> Article VII, 1 (a), (b) and (c)

<sup>406</sup> CROFT, Stuart, 'Strategies of Arms Control', Manchester University Press 1996, p.24

<sup>407</sup> At one stage this amounted to some 40 States.

<sup>408</sup> Unfortunately at the time of writing, Egypt, Iraq, The Peoples Republic of Korea, Libya, and Syria have yet to accede to the CWC. Israel having signed has so far failed to ratify.

<sup>409</sup> If the highly dangerous condition of some of the older US CW can be considered indicative of the general state, the destruction clause in the CWC might be considered a blessing.

<sup>410</sup> Address by the UN Secretary General, Kofi Annan to the First Conference of States Parties to the CWC.

<sup>411</sup> It should be noted that the US had played a significant part in the drafting of the Geneva Protocol and that its non-ratification was due to the nature of the US political system rather than to any desire to conduct unrestricted Chemical Warfare.

<sup>412</sup> The US was a latecomer to the Protocol but had invariably claimed to be prepared to adhere to acceptable norms.

<sup>413</sup> The Bhopal disaster demonstrates that India's domestic chemical industry like any other is capable of producing highly toxic substances without necessarily having any covert aims.

<sup>414</sup> CWC Article X

<sup>415</sup> *Ibid* Para. 3

<sup>416</sup> Flixborough and Bhopal notwithstanding.

<sup>417</sup> Julian Perry Robinson of the Harvard Sussex Programme briefed committees of both Houses on matters relating to British ratification of the CWC. Comment by JPR

<sup>418</sup> See 'The Markland Group'

<sup>419</sup> An obvious example would be the weakening of the US government's position in its negotiations with the Peoples Republic of Vietnam due to domestic discontent over US involvement in that conflict.

<sup>420</sup> The provisions of the CWC need not apply to Old and Abandoned CW buried on the territory of a State Party before 1 January 1977 or dumped at sea before 1 January 1985 *at the discretion of the State Party concerned.*

<sup>421</sup> CBIAC statement.

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