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Proliferation and Disarmament of Chemical Weapons in the NATO Framework. Lessons from history*

* *This research report is the result of an institutional research project edited by prof. Nicola Labanca (University of Siena) on account of the "Forum on the Problems of Peace and War" (Florence) based on a EAPC NATO fellowship.*

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The research is based on available international scientific literature (historical and on arms control) and on available, unclassified documents. The opinions presented here are personal and do not represent the host institute ("Forum on the Problems of Peace and War") nor the funding institution (NATO).

The authors would like to thank Italian Ministery of Defense's "Centro Militare di Studi Strategici" (Rome) and its Director (gen. Carlo Bellinzona), and the Documentation Center of the "Forum for the Problems of Peace and War" and its President (prof. Rodolfo Ragionieri), for all the help received.

Karen Whittle and Lourdes Flores translated from Italian into English.

A special thank goes to dr. Sirkku Salovaara, General Secretary of the "Forum for the problems of peace and war": without her, this paper could not be even thought.

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0. Foreword

Chemical weapons are specific weapons with a particular history and with the possibility of being used – in the present as well as in the immediate future – for quite specific purposes. Public opinion within many countries view these weapons with a sort of repulsion: around chemical weapons a "taboo" grew.

The resort to chemical weapons during the First World War, the threat of their use throughout the Second World War, and the creation and resort to them during the Cold War have greatly alarmed the public in a great number of countries. International agreements which have sought to limit the use and preparation of chemical weapons during the twentieth century could not be understood without this public opinion alarm, which in turn placed pressure on governments and their diplomats.

The international scene was radically transformed with the end of bipolarism. The reciprocal threat that legitimized, for some "justly so", the two superpowers in their race to rearm during the Cold War has disappeared. After 1989-91, humanity found itself with the possibility of having to reduce the greatest weapons stockpiles ever seen in human history. This is not possible, however, if at the same time threats to international security are not reduced. The stockpiling of chemical weapons by the major powers, such as some NATO countries, went on; and some minor powers made clear their willingness to use them. All this is but a limited part of this weapons and risks scenario, but an emblematic part in some sense. Uncertainties and risks connected to chemical weapons are more and more relevant when faced with proliferation of chemical weapons, or with just a increasing willingness to make use of them.

How should major powers, such as NATO countries, react in confronting these major risks? NATO has always paid careful attention to chemical weapons, their own and others', and after the end of bipolarism has launched a particular initiative against weapons of mass destruction (WMDI). What are or could be the major guiding lines for this initiative?

In particular, for this action, as we will see, that should be at the same time political, military, and addressed to the general public, do the policymakers of the post-bipolar age have to reinvent everything or can they (must they) learn some lessons from the past?

This paper does not seek to carefully outline proposals. Instead, the objective is to reexamine the general categories and major concepts on the topic of chemical weapons. Divided in two parts, it seeks to outline the major historical events (part 1), from a historical perspective, and to delineate some of the major questions tied to the resort to chemical weapons in their present post-bipolar context (part 2) from a defense-analysis, policy-oriented perspective.

The goal is to demostrate that, in the field of chemical weapons and the area of weapons of mass destruction in general, lessons from the past can be used in the present, that the past and the present are tied, just as are the political-diplomatic and military initiatives, the careful and necessary military preparation and the general public. To give priviledge to one of the two poles in this relationships has been, and can be, dangerous.

The first part of the research consists of the analysis of processes of proliferation and diffusion of the chemical weapons: a) between the two world wars and during the Cold War, and b) between 1989 and 1999. A second part of the research, more policy-oriented, will analyse the most recent realities and proposals.

Before concluding these introductory notes, however, it is necessary to highlight a problem that independent observers analyzing the subject of chemical weapons kept encountering.

Most of the vast available literature on chemical weapons, their characteristics and numbers, are quite general in nature but tend to focus on the status of chemical weapons creation and stockpiling by *rogue states*. The researchers were met with almost **complete silence** when trying to acertain the status of chemical weapon stockpiling and preparation for military uses by NATO forces (a similar situation exists as regards the individual Alliance partners) even where their use is forseseen only in defensive situations. The exceptional secrecy of the subject is proven by the generic and evasive substance of the analysis and documents produced on the topic by the most accredited research centers on arms control (e.g. SIPRI). Such silence, seen as necessary on significant points, seems disproportional with respect to the topic. Maybe - because of the contiguity of the **N** (nuclear) – on the **B** (biological) and, as here we are interested in, on the **C** (chemical) a curtain has left. But this sounds to be a legacy of the Cold War, excessive and dangerous both from a military point of view and from a political one.

To the external observer, the silence appears excessive given that the topics of chemical weapons, while delicate and significant, remains sectorial - on the sidelines of the international

scene. It appears dangerous too, because it is well known that (except for the obvious and necessary safety precautions) autarky and the solipsism of the military in front of the civilian sphere risk to be dysfunctional, and to facilitate uneconomic solutions. It also appears dangerous since the separation of the armed forces of a country, and the exceptional reserve of the military institutions with respect to the public opinion appears at risk for the entire country. This is not about understanding secrets, which must remain as such, but the lack of communication between civil society and military society is always a risk.

1. The past

1.a CW and history: two world wars

Some military historians have traced back modern chemical weapons, or at least their ancestors, all the way to the times of ancient Greece. But only in the nineteeth century and during the age of imperialism (the three decades prior to 1914), "modern" chemical weapons were perfected. *A contrario*, this is witnessed by the diplomatic efforts at the first international congresses to limit certain weapons (for example, to contrast the resort to these incendiary, poisonous or chemical weapons).

In reality, the birth of modern chemical weapons and their mass use coincide with the First World War. Between 1914 and 1918, the recruitment of mass national armies and the resort to every type of modern technology, especially to the most advanced, characterize the experience and fears of the mass of "death by gas." The possibility of the first modern chemical weapons, used in modern times against modern mass armies, constitutes the particular aspect that made the general public fantacize and become horrorized by their own thoughts. Even the Allied powers were not immune to the use of these effective war propaganda, particularly since the central powers had the initiative (the German chemical industry was quite strong and Germany was the first to make use of these weapons). Already in a war that had stunned by the use of technology to create mass deaths, chemical weapons then immediately attracted the loathing of soldiers and the fears of the civil populations. It was on the foundation of the general mass feeling of fear and hatred against "death by gas" that in the postwar period it was relatively easy for diplomacies and governments to agree on the Geneve Convention of 1925 which banned (in the west) the use of this type of weapon (even while not prescribing any system of control, pre-

vention, or restriction of their use outside of Europe, such as in colonial territories).

The relative ease, in the years of *No more war*, of the Dawes Plan and of the first steps of the League of Nations, with which this first important step – however insufficient – was taken is also owed to the belief reached in military circles that chemical weapons by themselves had never led to victory in battle. They had helped, in reinforcing obstacles, in substituting defense troops when they were scarce or in preparing infantry attacks (along with new methods of infiltration): but they were never able, by themself, for bringing about a resolution. Already during the war, then, and with more reason after 1925, the chemical weapon appeared to the military as a blunt spear to be used defensively as well as offensively, but overall, it appeared as a "political" weapon: the preparation, the training in how to use them, and then the recourse to a *banned* weapon from conventions could hardly not be "political."

This did not mean, after 1918, that the military chemical laboratories were destroyed but their actions were greatly reduced. The theories of Giulio Douhet on airpower as a final and complete weapon and the illusion of a *Blitzkrieg* that could "surgically" obtain the clausewitzian result of taking down the adversary without having to go through a prolonged war led, in the 1930s, to the restocking of chemical weapons. It was mostly, but not only, the fascist regimes (which were already secretly building up their militaries and which did not have to fear a public opinion, that were themselves manipulated by the totalitarian regime) that improved their own chemical weapons and to train their own armed forces in using them. The considerations of the chemical weapon as an insufficient weapon and "political" held by the general public had the upper hand: as it is well known, if the mass use by Japan in its imperialistic and racist wars in East Asia is excluded, neither the fascist powers in Europe nor the liberal-democratic United Nations forces made general use of chemical weapons. Even here, a specific military reason was not absent: in a mobile war the chemical weapon is not very useful, and Berlin and Rome must have understood that an Anglo-American response to the use of chemical weapons could have been quite strong. Military and dissuasion motivations aside, the fact remains that the fascist powers did not resort to the partial and "political" weapon they could have used.

1.b CW and history: bipolarism

There are many less historical studies for this period than for the preceding one. Archives, for this period, are not always available - public and open documentation is scarce. However, the importance of the subject and the long preparation of the 1993 convention, have created an extensive literature (even if mostly from political or technical arms control perspectives, rather than historical).

From the military preparedness perspective, it can be observed that the period of the Cold War and of bipolarism in general have witnessed a notable expansion and upgrade of chemical weapons. The centers of chemical-military production were not reduced after the Second World War as they had been after the First World War. But the appearance of nuclear weapons ultimately changed the general landscape of war. Whether one wanted or not to think the "unthinkable," the relative importance and use in war of chemical weapons could but decrease. Chemical weapons remained a "lateral" and "political" weapon.

Actually, the preparation of a conventional battle forsaw, however, from the Soviet side as from NATO, some recourse to a chemical offense (or defense). But the "taboo" surrounding its use had not been weakened from its almost non-use during the Second World War.

And, as a matter of fact, and most important, some regional powers or minor States (unable either to supply and maintain modern armies, or to balance other States with nuclear weapon capacity, or simply desiring to undermine at a relatively low cost the international equilibrium) armed themselves with chemical weapons. At the same time and following the great revolution in the international scene that followed decolonization, such weapons proliferated. Even in rudimental forms, some areas of crisis became from the military point of view environments potentially chemical. Often, in such countries, a civil society was not sufficiently developed and a public opinion independent of the political and military forces did not exist: the internal restraints to the use of chemical weapons were thus weakened further (even while international restraints remained strong and were even reinforced).

For all these reasons, resort to chemical weapons increased in some "wars in time of peace". Even then, the reaction of the public opinion to this resort was impressive. Between 1969 and 1971, after the admittance of having used aggressive chemicals in Vietnam and the immediate internal and international public opinion backlash, the U.S. through President Nixon expressed the intention to renounce the development and use of offesive

chemical weapons. These affirmations opened the way to a negotiation process that lead to the 1993 Convention. Such process developed among other events, not always propitious: the Reagan presidency coincided with an increased American attention to chemical weapons (while, in the meantime, Soviet policies towards chemical weapons were encountering several difficulties). In any case that process, not before the fall of the USSR, led to the Convention of 1993 and the creation of the OPCW. This was an exceptional success, judged from the history of the various attempts to control weapons' proliferation. Not only were the principles against chemical weapons reiterated, not only was the furter development of offensive weapons renounced, not only was a system of controls being created but it was also being decided that existing arsenals were to be destroyed.

In the final period of bipolarism, a control and destruction of chemical weapons regime was being prepared that had no precedents in history.

1.c CW between past and present

The end of bipolarism, as we have said, radically changed the international political scene. A well-known historian wrote, "The brief century has ended." The passage from bipolarism to a multipolarism "corrected" by the existence of one superpower level has transformed the scenario. That which was considered the principal threat has disappeared. New challenges and risks, and even threats, have emerged. In every casse, interstate conflcis have been reduced (while infrastatal crises and conflicts have increased).

The reduction of a third of military expenditures at the global level translates and reflects this new scenario. Not all States have cut at the same levels: Washington has wanted to maintain a standard of excellency for (some areas of) its military, in Moscow the spending fell by half, some countries have tried to take advantage from the military transformation (Iraq, Serbia, etc.) increasing their own expenditures and waging wars. Small countries far from zones of crisis have reduced their own military spending in smaller proportion compared to the global percentage, while NATO members (neither minor nor too far from new and old zones of crisis) have reduced in significant but variable ways their own military balances. In any case, the question of the "peace dividend" has been and is on today agenda of military policies everywhere. In such a transformation of the scenario, weapons retained as less necessary or less urgent have undergone various forms of reduction: in such sectors, the updating of weapons sys-

tems has slowed down. Single countries and alliance systems have preferred to rationalize and organize their military forces by capacity modules to save money and to share resources and weapons systems.

Chemical weapons have found themselves in quite a tight place: between diplomatic control and abolition, and local proliferation and dividend of peace.

We have already marked the importance of CWC, with its international control (and proposed abolition) regime: it is a system of garantees which would constitute an exceptional departure from the state of things and which – if applied and installed – would protect the international community.

Undere CWC, local proliferation of chemical weapons has been better measured and checked. Great arsenals like the Soviet one have undergone probable drastic reductions; the American arsenal has undergone some changes, while - as far as NATO chemical weapons capabilities are concerned - it is likely that only in part has its arsenal been upgraded. But more countries have chemical weapons, and among these are some countries whose governments are distinct by their readiness to use military forces. In particular, the diffusion of ballistic missiles capable of carrying heads armed with chemical weapons have alarmed the observers.

On the way from the end of bipolarism to the new international scene, NATO has carefully delineated a new strategic concept. In this new concept, the threats for countries in possession of WMD are emphasized by the Alliance. In particular, in the U.S. strategy, WMD have been and have a special decisive role in the construction of the enemy's image, no longer that of *evil empire* but at least that of *rogue states*. There is the fear that chemical weapons (and, at large, WMD) could cease to be partial or "political" weapons for some states and that they could be used offensively. In addition, for an Alliance now operating *out of area*, the risk that *peace-keeping* or *peace-enforcing* troops could be involved in a chemical environment grows higher and higher. For these reasons, a new attention has been focused on the possible defense chemicals, on the training and standardization of the divisions.

The risk of this kind of (mainly military) analysis is to forget some lessons that history has taught. The NATO initiative on WMD cannot think to be successful if it is constrained to the technical-military level. The non-use of chemical weapons during the Second World War demonstrates that it was also the particular status of political weapons that kept governments from using

them. The force of public criticism during the Cold War years and the resulting Convention in 1993 should suggest the importance of giving more consideration to the state of public opinion even within those states that hold WMD. In sum, it is difficult to ascertain that the chemical risk could be defeated only at the military level. Intelligence work, military updates and discussions between experts are certainly necessary at such a level, but these are not sufficient. Who can retain that, after the heavy air bombs of the Gulf War or of the war to gain control of Kosovo, that the chemical capacity of Iraq or of Serbia were eliminated by military means? As regards the proliferation of chemical weapons, as well as that of other weapons, the West as a whole cannot claim to be outside of it (both at the scientific/industrial level of chemical development as well as that of the vectors that carry them).

In conclusion, if the end of bipolarism has greatly reduced the nuclear threat, it has emphasized – if not increased – the chemical risk (and that of other WMD). All this obliges NATO countries to maintain chemical weapons (even of secondary tactical and strategic importance), while other non-NATO regimes have developed and threatened to use chemical weapons. Resort to such weapons seems therefore tied to the uncontrolled proliferation with which some States – before or in the immediate years following 1989 – have taken advantage to obtain such weapons. If the international community do not impose a reasonable control to such proliferation the risks could be much worse.

But ot has also been observed, on the other hand, that to counter such risks only with military means is not only inefficient but also very risky. Other types of action appear necessary, and in the long run more promising than military means: extending and deepening the non-proliferation regime (and, in the case of chemical weapons, that of control and destruction as well), resorting to reciprocal *confidence building measures* and reciprocal controls, etc. This type of action does not deveived itself that it can eliminate in brief time the risk, but it can on the medium-long term unroot it. Moreover, while the purely military initiative tends to exclue public opinion relying only on the force of weapons (certainly impressive, now, from the technological and "surgical" point of view: but hardly ever efficient, especially in contrast with chemical weapons), a more articulated initiave could involve internal and external public opinions, giving the initiative itself a greater force. Only at that point, if it hadn't been abolished or strongly reduced, would there be a possibility to turn to prohibit – for reasons as much techno-military as political – the recourse

to a weapon that time has revealed to be a lateral weapon that does not resolve conflicts and which is mostly "political."

More than other actors and single powers (that must follow national interests), as an alliance NATO should be interested to a similar more articulated initiative: it cannot forget to maintain its armed forces, but it should encourage keeping the general public informed while acting as the strong solicitor of the control regime of the CWC and OPCW.

2. The present

2.a In general

Many are the sources of tension and conflicts making the geographical area neighbouring NATO countries.

Proliferation of missiles and toxic weapons adds a worrying factor for NATO decision makers[1].

The risks connected with the proliferation of mass destruction weapons posed to European security from the South and East are essentially: terrorist acts, accidents with the emission of NBC agents into the air, regional or also world-wide instability (with growing violations of the international order) and, finally, attacks with chemical, biological or radioactive substances against European military divisions in service abroad, and/or against European territory (Krause 1996).

A detail needs to be underlined, a detail which is often omitted to public opinion: recent Western military overseas interventions have been carried out in areas where adversaries were frequently in possession of chemical weapons.

2.a.1The Balkans

It is sufficient to think of the Balkans - the scene of action of NATO military operations, both under the UN flag (UNPROFOR operations in Croatia and Bosnia-Herzegovina[2]

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[1] For a synthetic panorama on the state of some countries' toxic arsenals which are considered a potential threat, see the appendix.

[2] In the Bosnian case, *"there were many attempts by the various Serbian forces to test the resolve of UNPROFOR, and especially to defy the troops dispatched by major Western countries such as France and the United Kingdom. While British and French troops are certainly trained to survive and even operate in a CW environment, the political controversy in Paris and London that would have followed any chemical weapons attack (especially if*

and UNPREDEP in Macedonia), and under their own (IFOR/SFOR missions in Bosnia-Herzegovina, KFOR in Kosovo), as well as the Multinational Protection Force's intervention in Albania under the leadership of Italy in 1997 - where local players were in possession of toxic weapons[3].

For example, the Yugoslavian Federation was to start its own chemical programme at the end of the sixties and according to Western estimates, the chemical arsenal at Belgrade was made up of 545 tonnes of toxins (tabun, sarin, soman, phosgene, etc). The main carriers chosen for launching and spreading the chemical agents were artillery munitions and missiles of calibres starting from 122mm, air-bombs and finally, landmines (FAS 2000; HRW 1998 and 1997).

Yugoslavian experts on chemical warfare were furthermore to respond with particular interest to developing the psycho-incapacitating agent BZ and the offensive doctrine for its use. The latter advises the use of BZ in the following situations: to capture or destroy a surrounded enemy division, to debilitate an enemy unit making it easy prey for a successive attack, and, finally, to come off better against defensive positions already "blocked" by intense fire. It is important to note that the doctrine explicitly provides for an interval which varies from a minimum of some hours to a maximum of some days between the dispersion of the psycho-incapacitating agent and the final attack to allow the hallucinogenic and debilitating effects to take hold[4]. Furthermore, Yugoslavian military doctrine also proposes attacking command and logistic centres with BZ, as well as advising the use of BZ and CS combined or BZ and conventional projectiles to avoid the chemical agent being definitely identified.

During the Bosnian conflict, the Serbian forces may have made use of BZs against the column of Muslim fugitives from Srebrenica in August 1995. According to an accurate recon-

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it was difficult to determine who had actually fired them) would have been considerable" (Krause 1996).

[3] Amongst other things, the Western military came into contact with prohibited substances: for example in Pec, in the area assigned to Italian control, some undefined NBC materials were found in November 1999 (Irgens 1999).

[4] The effects of BZ, odourless and non-irritating, show after a period of latency which can vary from 30 minutes to 24 hours. No field system is currently available for detecting BZ in the environment. It can only be discovered with laboratory tests (CCCD 1999).

struction by the NGO Human Rights Watch, the escaping Bosnian Muslims underwent repeated bombardments with projectiles which instead of exploding gave off dense coloured smoke: BZ gas or signalling projectiles? Some Bosnian Muslims fell prey to hallucinations, other experienced extreme thirst, others still hurled themselves violently against fellow escapees mistaking them for Bosnian Serbs: the effects of BZ intoxication or the result of fear and the deprivations of the long and desperate march towards safety (HRW 1998)? A positive note is the Yugoslavian Federation's adhesion to the Convention on chemical weapons from 20th April 2000.

Again in the Balkans, during the struggle for independence Bosnia-Herzegovina may have produced a limited amount of deadly munitions filled with chlorine in a factory near Tuzla and made active use of CS tear gas (HRW 1997). According to press sources, in 1993, the United States' ambassador in Bosnia-Herzegovina, Victor Jackovich, warned the warring parties not to use prohibited weapons, after American personnel in the area had received "credible evidence" of traces of chemical substances in Bosnian Serb artillery shells near Sarajevo and after the Bosnian Muslims' open threat to use chemical weapons (ARC 1994; Alexander and Deans 1993)[5]. This threat, given the desperate situation of the Bosnian fighters of the Islamic faith, could be interpreted as a further element of the president Itzbegovic's war strategy, all set out to create the right conditions for a massive UN/NATO intervention.

Finally, also Albania probably had some deposits of chemical materials for military use. This affirmation can be deduced from the fact that *"in Tirana, Albanian Deputy Defence Minister Ilir Bocka welcomes a visiting team of Swiss military chemical experts,*

[5] During the UNPROFOR (*United Nations Protection Force*) mission, Norwegian troupes were equipped with 10 CAMs (*Chemical Agent Monitor*) programmed to be able to signal the presence of chlorine (CWCB 1994, 24). In the course of the following IFOR mission (*Implementation Force*) *"Intelligence Community resources collected and analyzed materials (in direct support of US forces in Bosnia) to identify potential CW capabilities in the region"* (Shelby 1997). However, from the first investigations carried out by an American NBC unit which was part of the IFOR mission, in north-east Bosnia-Herzegovina no proof emerged of the use of chemical weapons by the belligerents (CWCB1996, 28). German troupes also considered it useful to send chemical war specialists to ex-Yugoslavia (CWCB 1996, 22).

which is providing assistance in managing, collecting and eliminating chemicals in accordance with Albanian obligations under the Chemical Weapons Convention" (CBWCB 1999, 35). However, *"at a ceremony to mark the 44th anniversary of the founding of the Albanian military chemical-warfare organization in 1953, Secretary of State for Defence Policy Perikli Teta says that Albania does not possess weapons of mass destruction"* (CBWCB 1998, 27). Among other things, in Valona during the 1997 disturbances, according to a penal inquest still underway, to repress the demonstrations of popular protest, the Defence Minister Safet Zhulali and the Interior Minister Halit Shamata ordered the launch of a chemical cocktail (chloropicrin[6] and diesel). The two helicopter pilots charged with launching them however refused to arm their aircraft with chemical agent (ARC 1998).

2.a.2 Environment, too

Finally, a danger needs to be underlined, one which is often underestimated by decision-makers in NATO countries: the danger of attacks against plants containing toxic substances, chemical and oil factories, hospitals, etc. This is in practice what in technical jargon is known as a R.O.T.A. (*Release Other Than Attack*) event. For example, during the war between the Serbs and Croats several deliberate bombardments of the industrial chemical plant Petrochemia in Kutina in Croatia took place. Petrochemia still produces today, or keeps deposits of phosphoric, nitric and sulphuric acids, formaldehyde, ammonia etc. During the clashes in the Yugoslavian war this factory was attacked six times by Serb forces with missiles, bombs, mortars and machine-guns. To give an idea of the intensity of the attacks, it is enough to remember that on 23rd September 1993 Petrochemia was the target of numerous ground level missiles and that in 1995 a missile system for naval use modified by the Serbs and ready for action against the plant was destroyed by NATO planes in Bosnia. A simulation carried out by the Croatian government relative to the toxic cloud that would have been released if the Serb attacks had been successful, predicted a danger for public health 100km around, including territories of Slovenia, Bosnia, Hungary and Italy. As well as Petrochemia, other factories at risk of environmental damage, both chemical and not, were attacked by the

[6] Chloropicrin, which does not figure among the substances banned by the Convention on chemical weapons has a strong effect of irritation and inflammation (tracheitis, laryngitis, etc), but little power to provoke harm or edema to the lungs (SIDNBC 1999, 14).

Serbs: a gas refinery at Ivanic, a pesticide production plant at Sisak, a chemical factory near Jovan, etc. In this last case, a harmful cloud developed caused by 72 tonnes of anhydrous ammonia escaping and fortunately the 30 km separating the factory from the nearest town meant that the 32,000 inhabitants were able to be evacuated in time (Hughart 1998)[7].

The air campaign lead by NATO against the Yugoslavian Federation in 1999 also caused environmental damage. A UN mission ascertained that more than 80 industrial targets were attacked by Western airplanes, including chemical factories and refineries, causing chemical gas leaks or polluted liquids to escape into the air, earth and water. For example, in Pancevo, 15km north-east of Belgrade, the destruction of a petrol-chemical plant led to chlorine, vinyl chloride, propylene and ethylene-dichloride dispersing in the environment. Obviously, this *"may pose a serious threat to the health in the region, as well as to ecological systems in the broader Balkans and European region. Many of the compounds released in these chemical accidents can cause cancer, miscarriages and birth defects. Other are associated with fatal nerve and liver disease"* (IANAM 1999, par. 56).

2.a.3 Even underground

In general, the possession of chemical and biological weapons is perceived by Mediterranean and Balkan nationalist leaders as an extra tool which can increase possible challengers' level of uncertainty or throw out political warnings. It is in practice an extreme resource, a resource more *political* than military, more defensive than offensive. For example, if during the Gulf war, the allied coalition had advanced until Baghdad, there would have been a great possibility of Saddam Hussein using chemical and biological weapons and it is plausible that this scenario might have also made political planners and the United States' military reflect for a long time.

The importance given to possessing chemical and biological weapons by local leadership is proved by the level of se-

[7] It should be noted that in 1997 in the Krivolak rifle range in Macedonia *"nearly a thousand troops, including CBW defence troops, from 4 NATO countries (Greece, Italy, Turkey and the United States) and 5 NATO Partnership for Peace countries (Albania, Bulgaria, Macedonia, Romania and Slovenia) participate in* Rescuer 97*, an exercise simulating rescue operations following a chemical accident or environmental catastrophe. There are observers from the Czech Republic, Hungary and Poland"* (CBWCB 1997, 17).

crecy surrounding the subject and by the protection reserved to production and deposit sites. Generally, secret services or special military units loyal to the regime are charged with the security of NBC equipment. Often they are also destined to directly use the prohibited weapons. The requirements for secrecy and security also bring about resorting to protect these prohibited weapons, "burying" them. For example, Libya is said to have built a chemical factory inside a mountain frustrating any possible attempt of a conventional air and missile attack, like Iran is said to have buried part of its missile force in refuges and tunnels along the coast and Syria probably did the same in the mountains near Damascus (Cordesman 1998 and 1999b). As regards this, it needs to be remembered that to resolve this problem, id est being able to successfully attack buried NBC deposits or production centres, American air force is trying out a new fuse, called HTSF (Hard Target Smart Fuze), which can be programmed to instantly determine the depth it is at, analyse the "hardness" of the layers of earth it has passed through and automatically select the time of detonation (Cosentino 1998b). Furthermore, United States' air force is going ahead with the "Agent Defeat" project to create a weapon that can destroy underground deposits of chemical weapons without causing toxic clouds (CBWCB 1999, 35).

2.a.4 From the air

If chemical and biological proliferation is accompanied by a proliferation in the missile sector, it is obvious that risks and threats for the NATO line-up increase. The limited military value of ground level missile attacks - useful in practice only for terrorist attacks on cities, as happened during the fourth Arab-Israeli war, during the Iran-Iraq conflict, and finally in the last Gulf war - would not be sufficient to explain the immense efforts by some Mediterranean countries to procure missiles able to hit at a distance of hundreds (if not thousands) of kilometres. The strategic value of the missile arsenal is increased notably when the state owning it has the possibility of loading the heads with chemical and biological agents. Being able to mount conventional or toxic missile heads widens the number of options available to the political management, complicating possible attackers' military and strategic plans. Furthermore, obviously, a state owning chemical weapons and carriers able to take them to distant targets increases the strategic influence and the capacity of blackmailing other players in the area.

However, though it is also relatively easy for countries with dated technology to mount chemical heads on missiles, the

same cannot be said for biological weapons. In fact, the technical problems relating to assuring that a sufficient number of the biological weapons survive and that they keep their virulence on being launched, during the flight and on impact cannot be easily resolved (on the missile threat see Nativi 1999). Obviously, airplanes are also to be considered amongst the potential carriers for toxic weapons, even though modern anti-aircraft defence systems assure a higher level of protection with respect to the anti-missile technology available today.

In addition, modern Western sensitivity to the loss of human lives may increase the incentives for proliferation in Third World countries so that they know how gather up what was taught in recent armed operations led by industrialised states. So, as India and Pakistan reached nuclear maturity thus increasing their status in the international arena, other countries will prefer to maintain and/or develop their chemical and biological capacities in the military field in spite of all the conventions.

2.b A new military threat

During the Cold War, NATO feared a Soviet blitzkrieg accompanied by the launching of chemical substances on a tactical level, given that the Red Army had available great quantities of toxic weapons of all types, as well as a chemical service made up of about 95,000 specialists. The Soviet research, development, production and deposit equipment in the field of toxic weapons was of vast dimensions: about 65,000 people (of whom 9,000 scientists and engineers) dealt with the biological sector, while thousands more dealt with the more than 40,000 tonnes of chemical weapons stored in seven sites (Alibek 1999; Smithson 1999)[8].

Soviet military planners had identified cyanide hydrogen (HCN) as the ideal toxic agent for accompanying the rapid breakthroughs of tactical manoeuvre groups[9]. In fact, it was considered

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[8] *"According to a 26-year veteran of the Soviet chemical weapons complex, Dr. Vil Mirzayanov, the USSR developed, tested, and produced tens of tons of a few novel chemical nerve agents that are five to ten times more lethal than any other known chemical agents. This new generation of poison gas, known by the codename* novichok*, was built from agrochemicals so that offensive weapons production could more readily be hidden with a legitimate commercial industry"* (Smithson 1999, pp. 8-9).

[9] *"About 15 seconds after inhalation of a high concentration of cyanide vapor there is a transient hiperpnea followed in 15-30 seconds by the onset of convulsions. Respiratory activity stops two to three minutes later, and cardiac*

that HCN, if dispersed in massive doses, could degrade the carbon of the filters in the anti-NBC masks which the NATO had then and could have incapacitating effects in a few minutes (Hemsley 1987, 127n).

A typical Soviet scheme *"of attack in the forward areas would be characterised by short, but concentrated, artillery bombardments with chemical agents mixed with HE natures. Chemicals could consist of HCN, phosgene or non-persistent nerve agents; in addition it is most probable that toxic smoke would also be employed. Strikes would be directed against platoon or company locations, relying upon surprise to achieve a rapid overrunning of forward positions with a view to opening up avenues of potential exploitation of the tactical second echelons. Reconnoitered and identified positions in depth would be engaged by both artillery and helicopter gunships firing rockets with chemical fill. Tactical reserves and lines of approach for counterattack would be screened using semi-persistent agents, which are also likely to be used against replenishment facilities in the tactical rear area"* (Hemsley 1987, 54)[10]. It should be made known that in the eighties the Soviet doctrine for the use of toxic weapons identified the main targets of a chemical attack as airports and naval ports. However, it also needs to be revealed that *"some 80 per cent of all Soviet delivery capacity is geared to short-range delivery systems; that is, suitable only for the tactical battlefield with a range of under 32,000 metres"* (Hemsley 1987, 27; Utgoff 1990)[11]. A massive Soviet chemical attack would however have probably caused a violent escalation on the part of NATO, even resorting to nuclear weapons as first strike. However, it is curious to observe that in a recently declassified CIA document (even though twenty or so lines are cancelled here and

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activity ceases several minutes later still, or at about six to eight minutes after exposure (CCCD 1999).

[10] The doctrine for the offensive use of chemical weapons could also be deduced from analysing the means and equipment that the Red Army reconnaissance departments had. The latter were configured *"primarily to monitor their own strikes, particularly as it needs to know in broad terms the general area of contamination in order to be able to operate effectively to meet the doctrinal requirement to maintain the momentum of advance at a high tempo"* (Hemsley 1987, 35). Furthermore, this analysis was reinforced by the fact that *"Soviet prophylactic kits and detection apparatus have protection against agents which are neither part of the NATO inventory nor possessed by the West"* (*ibidem*).

[11] For example, a Soviet battery of 122mm BM-21s could launch 720 missiles onto its target, making a total of 1.46 tonnes of HCN, followed by a second bombardment ten minutes after (after having reloaded).

there) dedicated to analysing the hypothetical developments in the nineties of the armed forces and the doctrine of the countries belonging to the Warsaw Pact, there is not one mention of the chemical and biological enemy threat (CIA 1989).

2.b.1Lessons from the Gulf?

The Warsaw Pact[12] having disappeared, interventions abroad by the armed forces belonging to NATO countries, and afterwords by NATO itself, became more and more frequent.

In the case of the 1991 Gulf war, American, French, British etc military contingents found themselves faced with adversaries in possession of biological and/or chemical weapons. Even though Saddam Hussein did not make use of these banned weapons on the battlefield, the Gulf war sparked off a debate centred on the response to give to an attack with chemical and biological weapons. In this particular case, most maintain that Saddam Hussein did not use toxic weapons mainly for fear of a nuclear retaliation, others are of the opinion that Bush would never have authorised an atomic reprisal (Utgoff 1997)[13]. According to a more articulated, but arguable interpretation, the Iraqi leadership abstained from using NBC weapons because of various factors: 1) allied bombing (which would have heavily dam-

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[12] To avoid the thousands of scientists involved in the Soviet NBC programmes going to serve for rogue states to improve their economic position after the dramatic drop in their wages, Western countries set up various initiatives, amongst which the International Science and Technology Center, the Civilian Research and Development Foundation, etc, to finance civilian scientific research in the countries of the ex-Soviet Union (Smithson 1999). Moreover, Russia asked for monetary aid from Western countries to destroy their chemical weapons and reconvert military chemical industries in accordance with the obligations in the chemical weapons convention: *"it seems the plan is to force the West to invest resources to develop Russia's own disarmament and environmental clean-up industries. Russia expects that once its poison gas plants are converted for non-military use they could contribute as much as $ 1 billion annually to the Russian economy. Not bad for a bit of environmental extortion"* (Stratfor 2000).

[13] In the preparation stage for the Gulf war (operation Desert Shield) the hypothesis was also considered of transferring part of the chemical weapons located in Germany to Saudi Arabia for a possible reprisal attack, but president Bush opposed the idea and it was abandoned (Mauroni 1998, 48).

aged NBC logistics, production centres and deposits, command, control and communications equipment); 2) adverse meteorological conditions; 3) fear of losing international support; 4) inability to mount chemical heads on the Scud missiles; 5) the dispersion of enemy troupes; 6) the preparation of the allied forces to act in a contaminated environment and ready to "go nuclear" (Dumlouin 1995, 45-46). But the points listed here are arguable: allied bombings never completely interrupted the C3 processes (so much so that Saddam Hussein was able to give out orders for the whole duration of the conflict and also afterwards) and the notable damage to logistics and NBC plants did not have a direct effect on Iraqi troupes as they were equipped with well-stocked advanced deposits, including chemical weapons (GAO 1997, Eddington 1999). The weather conditions were not favourable on the whole, but it should be considered when the forces were deployed and during the air and ground attack, the allied forces remained in the Iraqi systems' range of fire for more than six months. Also the fear of losing international support does not hold up to the analysis of the facts, given that the coalition against Saddam Hussein consisted of more than 30 countries (some Arab) with the external support of many more (what presumed international support did the Baghdad dictator have to defend?). Also the technical difficulties linked to realising a chemical head for the Scuds had already been overcome by Iraqi scientists, as ascertained by UNSCOM (SIPRI 1998). Finally, the allied troupes were spread out, but there were nevertheless precious targets, such as logistic centres, air bases, etc, within the Iraqi launch systems' range and, furthermore, the main units were well grouped together on attacking. It is also improbable that Iraqi information bodies were in the dark about the real state of the allied divisions' NBC preparation. In conclusion, Saddam Hussein, more than because of the remote possibility of a nuclear bombardment, probably refrained from using toxic devices because he was dissuaded by the convincing American threat to remove him from power.

The uncertainty deriving from the contradictory public declarations released by members of the American administration on whether to use atomic weapons in response to NBC attacks, is the result of the policy of "calculated ambiguity" regarding the options available to respond to such an attack: an ambiguity that should terrify a possible attacker and leave space for manoeuvre for the US political decision-makers. According to Sagan, calculated ambiguity risks creating *"a commitment trap, in which U.S. leaders would feel compelled to use nuclear weapons after a biological and chemical*

attack because they believe that adversaries and allies perceive that the U.S. reputation for honoring its commitments was at stake" (Sagan 2000, 113)[14].

2.b.2 Difficulties

Often, the banned weapon (whether chemical or biological) is called "the poor man's atomic weapon" because of its theoretical capacity of eliminating a large number of people and because of its low production cost. In particular, the advantages of chemical and biological weapons[15] are given by the ability to: penetrate places and means without NBC defence; contaminate materials, foodstuffs, water, earth, etc.; make it difficult for the targeted troupes to detect the attack when it happens; hit the enemy personnel without causing permanent damage to the weapons, materials, industry, etc.; psychologically influence the adversary; force the enemy to operate in NBC uniform.

As far as this last point is concerned, the complete NBC uniform would, according to Pentagon research, notably reduce the soldier's ability to fight, as he is subject to heat and dehydration, unable to understand verbal and radio communications well, prevented from using night vision systems, able to carry out assigned tasks only by tripling the normal execution time (Stone 1999). In general, the United States CANE (*Combined Arms in a Nuclear/Chemical Environment*) drills demonstrated that the use of mass destruction weapons by the enemy causes losses (physical and psychological), slows down the manoeuvre and greatly debilitates military capacities (operation co-ordination, precision and intensity of fire, etc.). All this obviously leads to a great logistic effort to sustain operations, given that the combat units need on average more men, more resources and more time to successfully carry out assigned tasks (Orton and Neumann 1993, 66-67; Mo-

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[14] According to Utgoff, the United States should adopt a strategy that by *"combining reliable CB* [chemical-biological] *arms control at least among the nuclear powers, strong defenses against CB attacks by non-nuclear aggressors, and powerful conventional retaliatory options, could dramatically reduce the prospects that CB attacks against US forces and regional allies would ever be resorted to in wartime or, if they were, that they would generate overwhelming pressures on US leaders to retaliate with nuclear weapons"* (Utgoff 1997, 29).

[15] Obviously the physical characteristics of the toxic weapons must be compared with the military objectives and the meteorological and environmental conditions for it to be reasonably certain that their use will be effective.

jecki 1992). In a scenario of war, *"the NBC defense goal is to ensure that chemical exposures to the troops result in less than 1 percent lethalities and less than 15 percent casualties, enabling the affected unit to remain operationally effective"* (GAO 1998b, 5): a surely demanding task.

2.b.3 The Gulf, again

As far as recent cases of chemical warfare are concerned, the analysis of conflicts that involved Iraq provides interesting data on the concrete and potential use of toxic weapons. Iraq was in fact the first country to use nerve gases in war. During the conflict with Iran, Iraq widely used the chemical weapons at their disposal, so much so that Iranian losses due to attacks with mustard and nerve gas are respectively estimated at 3% and 5% of the total of war victims (Mauroni 1998, 76). The description of the decisive battle which took place on the southern border between Iran and Iraq in 1988 is emblematic in illustrating the tactics of using chemical weapons in war. At dawn, *the artillery started a preparatory fire for approximately two hours, hitting the advanced Iranian defences with highly powerful explosive and non-persistent nerve gas. The Iranian soldiers were decimated, but the contamination was already dissipated when the Iraqi front line forces reached the prime positions. Iran communicated the loss of 2000 victims due to nerve gases. Following this, as a back-up to the ground troupes, the Iraqi helicopters and fighter aircraft released mustard and nerve gas behind the Iranian front, in the C3 centres (Command, Control and Communications), in the logistic centres and the reserves area to prevent a possible counterattack. The Iranians thus lost control of their defences, and when the battle ended, Iraq easily took the territory which it had lost in the far-off 1984"* (USCS 1992, 18).

In the preparations for the 1991 Gulf War, the analysis of the experience of chemical clashes which happened in the Iran-Iraq war and the Iraqi arsenal of banned weapons, made it probable that the allied coalition would have to operate in a contaminated environment. Two operative scenarios were drawn up and simulated with the help of the computer: in the first, thought the most likely, the initial push of the 7th allied armed corps would have confronted a strong Iraqi counterattack with the launching of chemical projectiles 4 hours after the start of the initiative. Once the advance slowed down for a variable length of time estimated from 13 to 18 hours, it would have granted the time needed for the Republican Guard to attack along the sides, or the defence to stiffen and the breach to close. On the other hand, in the second scenario the military units would have given up ground faced with an allied assault for 24-36 hours and, following that, would have persistently launched great quantities of

nerve gas to prevent the international divisions being broken through further, thus assuring the necessary time to prepare a final, solid line of defence (Mauroni 1998, 89).

Despite years of constant preparations to affront a Soviet chemical and biological offensive *in grand style*, the American and British armed forces, amongst the best at NATO's disposal, arrived in the Persian Gulf not well-equipped and even less well-trained in the NBC defence sector (MoD 1999; Wallerstein 1998; Mauroni 1998).

Still today, despite the deficiencies met during the Gulf War, the United States' armed forces encounter numerous problems in the field of NBC defence. For example, they lack sufficient numbers of protective clothing, have inadequate detection systems, little attention is paid to the NBC threat by the commands, medical personnel is hardly trained to affront NBC emergencies, etc. (GAO 1996 and 1998a). Recent exercises held at the United States' national centre for training confirmed the lack of attention to NBC training by commanders. As well as all this, not regularly "refreshing" the US military's preparation in the field of operations in a contaminated environment, makes efforts to teach this in the past in vain (Reeves 2000).

During the conflict to free Kuwait, the United States' planners in particular feared the launch of Scuds equipped with chemical or biological heads and so some posts prepared equipped with the Patriot anti-missile system, able to "defend" Saudi Arabia and Israel. According to studies quoted by Mauroni, *"the twenty-one Patriot batteries in Saudi Arabia showed that actual confirmed warhead kills might have been as low as 9 percent. Still, it was used, as the Israeli military attaché in Washington stated, not because it was the best weapon against Scuds but because it was the only weapon available"* (Mauroni 1998, 97)[16].

Still today there lacks certain evidence of a single Scud being destroyed in action from the air, despite the 2500 air sorties effected against the approximately 220 Iraqi Scuds and the relative mobile launchers (GAO 1997). Missile launches on Israel (which did not cause fatalities) and Saudi Arabia continued until the end of the war to reach a final total of 80 Scuds which reached these countries. Also the air actions against the Iraqi NBC structure had partial success, given that the successive UNSCOM (*United Nations Special Commission*) mission revealed in reality that sites linked to the Iraqi NBC programme were many

[16] The debate on the effectiveness of the Patriots in the Gulf War is still open, for all see Sullivan et al. (1999).

more and that at the end of the war hundreds of thousands of projectiles loaded with toxic agents were still available (Butler 1999).

2.b.4Syndromes

One of the negative legacies from the armed conflict against Iraq has been the so-called "Gulf syndrome", variuous illnesses that have hit thousands of veterans (not only the approximately 100,000 Americans). The reasons for the appearance of the syndrome's symptoms are still unknown, although various hypotheses have been put forward by different experts, the following being a summary of the principle ones: 1) post-traumatic reactions and stress from combat; 2) vaccines and pills administered to troupes not being sufficiently tested; 3) exposure to toxic clouds caused by the bombardment of chemical weapons deposits; 4) voluntary Iraqi dispersion of low quantities of toxic agents; 5) exposure to leftover depleted uranium from allied projectiles. Obviously, the cause could be one of those listed above or the interaction of two or more of them.

One of the most probable cause of the syndrome seems to be the exposure to low quantities of toxic substances: with the French and Czechoslovakian units' detection instruments in the Gulf, calibrated to record even extremely low quantities of chemical agents, traces of nerve and blister gases were revealed (DoD 1998). According to the report styled by the Czechoslovakian Ministry of Defence, *"it is possible to conclude that the results measured could be produced by a hit of an industrial facility or a chemical ammunition store during allied forces' bombing"* (CMoD 1998, 3)[17]. A recent study by the University of Texas on a sample of 43 Gulf veterans ascertained that the brain damage suffered by United States' soldiers is similar to what was demonstrated by the Japanese victims exposed to sarin in the Tokyo underground in 1995.

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[17] The basic scientific hypothesis is that *"many of the targeted chemical warfare agents, which have very low flash points (comparable to kerosene), and several other toxic agent precursor compounds were ignited by the incendiary or explosive effects of the weapons used and the secondary fires initiated. Once heated, and obeying the second law of thermodynamics, sarin, which does not burn, and the other toxic substances would rise as heated vapors into the upper planetary boundary layer and lower troposphere to move with the weather patterns. Sarin, which is completely miscible with water, would linger with the water vapor until conditions for complete evaporation improved. Then the agent, which is 4.86 times heavier than air, would drop to the surface at highly reduced but still harmful levels"* (Tuite 1996).

Furthermore, the study in question denied the possibility that the cause of the current health problems of the soldiers who underwent the examination depends on the anxiety and stress experienced during the middle-eastern conflict (Goodman 2000).

Still on this subject, beside to the malaise of the soldiers who served in the Gulf, those felt by some Canadian soldiers after the UNPROFOR-Croatia mission (operation "Harmony") should also be recorded. The inquest commission formed to verify if the cause of the disorders was due to the presence of toxins in the Canadian sector finished its investigation without reaching a definitive explanation. It is worth partially quoting the conclusions of the commission members: *"based on the evidence presented, we were unable to conclude with certainty that exposure to the <red dirt> of southern Croatia and other suspected contaminants was the specific cause of the illnesses. Perhaps some form of water-borne, air-borne or transient contamination was responsible in some cases. It is doubtful that the cause will ever be identified for certain. In the interests of preventing contamination during future missions, we recommend that the Canadian Forces take the measures to better protect deployed personnel by improving environmental reconnaissance and monitoring for all missions"* (CBOI 2000, 2)[18]. Recently, news has appeared concerning the presumed contamination of Italian soldiers serving in Somalia thanks to the parliamentary commission's president, Massimo Scalia, revealing investigations on the illegal disposal of refuse. According to this some Italian soldiers from operation "Ibis" had to wear protective overalls to protect themselves from the exposure to toxic refuse near the port of El Maan, which was to be subsequently reclaimed by specialised American divisions (La Nazione 2000).

These disorders suffered by the soldiers ("Gulf syndrome", Croatian "red dust"), whatever their cause may be, are due to their service activity and, therefore, compensation must be provided for any illness and disturbances experienced. The lack of clarity by the military establishment and the often scarce consideration given to soldiers affected by disorders has led to protests and resentment on the part of the latter. This should worry both the politicians and high military circles, as the profession of soldier is put in a bad light by the fact that the system refuses to recognise what is due to those injured. In future, therefore, greater attention should be paid to the risks inherent to the de-

[18] In the period 1994-5, some samples of "suspect" earth were taken on four separate occasions by Canadian military health workers and sent for analysis in Zagreb, but, unfortunately, all the samples were lost (CBOI 2000, 19-20).

ployment of chemical weapons, even at the environmental level, with constant analysis of the soil, water, air and food.

2.c About CW and NATO

2.c.1 Arms control

To limit the proliferation of biological and chemical weapons, treaties and agreements have been made on an international level.

The most important of these are: the so-called "Australian Initiative", which today joins together thirty states and aims to establish uniform parameters to control the exportation of biotechnology, chemical substances and plant"s; the Chemical Weapons Convention" in 1993, which entered into force in 1997; the regime of missile technology control signed by 29 states and created in 1987 by the G7 countries; finally the 1994 "Wassenaar Agreement" intended to co-ordinate checks on the exportation of dual technology products and armaments (Haendly 1997).

The Chemical weapons convention, ratified by all the countries belonging to NATO is certainly the most important instrument available to the so-called international community to obtain chemical disarmament. The Convention defines chemical weapons as such: *"<Chemical Weapons> means the following, together or separately: a) Toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes; b) Munitions and devices, specifically designed to cause death or other harm through the toxic properties of those chemicals specified in subparagraph a), which would be released as a result of the employment of such munitions and devices; c) Any equipment specifically designed for use directly in connection with the employment of munitions and devices specified in subparagraph b)"* (OPCW 1994, 3).

The power of the Convention is in instituting a wide array of inspections: all chemical weapons and production sites are subject to systematic inspections, and equally the obligatory destruction of prohibited substances is continually checked. The civilian chemical industry does not escape the inspection regime, with particular attention given to dual-use technology and products (civilian and military). Given the complexity of the checks, the chemical substances have been classified in three groups, each with a different inspection regime according to the amount of danger posed by the substance and the reason for which they are produced. The first group of chemical substances *"includes those that have been or can be easily used as chemical weapons and which have very limited, if any, uses for peaceful purposes"*; the second *"includes those that*

are precursors to, or that, in some cases, can themselves be used as, chemical weapons agents, but which have a number of other commercial uses (such as ingredients in insecticides, herbicides, lubricants and some pharmaceutical products)"; the third *"includes those that can be used to produce, or that, in some cases, can themselves be used as, chemical weapons, but which are widely used for peaceful purposes (including in herbicides, insecticides, paints, coatings, textiles and lubricants"* (OPCW 1999, 15)[19].

As well as the routine inspections, *"the Convention also provides for the possibility of challenge inspections, or short-notice on-site fact-finding missions, to investigate any facility or plant located on the territory or under the jurisdiction or control of a state party, irrespective of whether that facility has been declared or not. Challenge inspections may be requested by any state party to clarify and resolve any questions concerning possible non-compliance with the Convention. The state party which is being challenged has no right to refuse the challenge inspection, and is obliged to provide access for OPCW inspectors, within specified time-lines, both to and within the challenged site"* (OPCW 1999, 14). During the inspection activity strict procedures are followed intended to minimise the risk of diffusion, intentional or not, of scientific, commercial, technological or military information beyond the tasks indicated by the Convention. The inspections of the personnel employed by the OPCW have been well received on the whole by the host State, even though there have been some problems relating to operative aspects of the inspections. For example, the technical instruments used by the inspectors sometime did not conform with the local laws, some States did not like the use of safe (cryptic) communication systems, objections were raised to the use of GPS (*Global Positioning System*), there was difficulty obtaining data for past production, etc. (Gilliquet 1999, 9).

2.c.2 Institutions and concepts

Faced with new post Cold War scenarios, NATO has taken note of the different types and directions of risks and threats to its security and, particularly after the ministerial meeting of the Atlantic Council in June 1994, placed importance on the dangers connected to the proliferation of NBC weapons. NATO policy is intended to prevent proliferation on any possible occasion or, if it has already happened, to reverse it firstly by dip-

[19] In addition to the three groups of chemical substances, *"the Convention also puts into place a reporting and verification requirement for production facilities making a wide variety of organic chemicals, with particular emphasis on plants that make organic chemicals containing the elements phosphorus, sulfur or fluorine"* (OPCW 1999, 15).

lomatic means. Even if *"proliferants will probably lack the capability to threaten the destruction of NATO member states, any crisis involving proliferants could carry the risk of NBC weapons being used. It is important to ensure that NATO's military posture makes manifest Alliance cohesion, and that it provides reassurance and maintains NATO's freedom of action in the face of proliferation risks. NATO's military posture should demonstrate to any potential aggressor that the Alliance cannot be coerced by the threat or use of NBC weapons and has the ability to respond effectively to threats to its security as they emerge"* (NATO 1995).

In NATO framework, the SGP (*Senior Politico-Military Group on Proliferation*) has been created, which has identified the political and economic instruments necessary to discourage or respond to the phenomenon of proliferation and deter the possible use of NBC weapons against the population and the NATO armed forces. In practice, the SGP advises giving maximum support to international regulatory initiatives aimed at contrasting proliferation, warning potential proliferants of the serious consequences of their efforts and, finally, creating a better security climate in those regional areas, Asia and the Mediterranean in particular, most at risk from proliferation (NATO 1997).

The DGP, after having stressed the dangers connected with NBC proliferation and carriers with an ever wider range, considered the destructive impact of the use of NBC weapons (even only threatened) on maintaining coherence within NATO and the possibility of the allies using military force. Furthermore, the DGP has revealed that the skills of NATO's military units in leading operations in a contaminated environment are not standardised and, therefore, the enemy could profit from the existing differences. Finally, the reaction of the civilian population is unknown: for example, would dockers (indispensable from an organisational point of view) continue working in the presence of an NBC threat? (Joseph 1996). The DGP has identified what should be the main guidelines for action by NATO towards the proliferation of toxic weapons: *"1) ensure Alliance cohesion through continued widespread participation in Allied Defence preparations for operations in the NBC proliferation risk environment; 2) maintain freedom of action and demonstrate to any potential adversary that the Alliance will not be coerced by the threat or use of NBC weapons; 3) reassure both Allies and coalition partners of the Alliance's ability effectively to respond to, or protect against, NBC threats or attacks; 4) ensure responsive and effective consultation procedures to resolve crises which have a potential NBC dimension at the earliest possible stage; 5) complement non-proliferation efforts with a mix of military capabilities that devalue NBC weapons, by reducing the incentives for, and raising the costs of, acquisition; 6) complement nuclear deterrence*

with a mix of defensive and responsive conventional capabilities, coupled with effective intelligence and surveillance means, that together would reinforce the Alliance's overall deterrence posture against the threats posed by proliferation by increasing the options available to Alliance decision-makers during crises and conflicts; 7) balance a mix of capabilities including nuclear forces and conventional response capabilities to devalue a proliferant's NBC weapons by denying the military advantages they would confer and through the prospect of an overwhelming response to their use; 8) prioritize needed capabilities in terms of their contribution to Alliance objectives; 9) conflict control, including the tempo and direction of military operations, and the ability to prevail in all phases of any conflict; 10) evolve capabilities as the threat evolves while focusing on existing conditions and expected near term trends, with their regional emphases, and maintaining options for deploying more capable systems if necessary in the future; 11) emphasise system mobility, given that NBC proliferation risks are expected to be primarily regional in character and that NATO forces may be called upon to operate beyond NATO's borders; 12) integrate NBC-related concepts into the Alliance's defence planning and standardization processes" (Carter and Omand 1996).

On concluding its analysis, the DGP pointed out the need for robust conventional military forces integrated with atomic weapons systems to raise the costs of potential aggressors, as well as underlining, among other things, the need for a vast information network (satellite recognition, systems for detecting far-off chemical and biological agents, etc.), widened air defence with tactical anti-missile systems and protective equipment for soldiers deployed in the operating zones (NATO 1997; Carter and Omand 1996; Joseph 1996). The final suggestions from the DGP are certainly (and intentionally) generic in their contents and must be taken as guidelines for military politics. Furthermore, if on one hand the DGP's indications foresee measures effectively correlated to the NBC threat (for example, those relative to a soldier's individual protection), on the other hand it is obvious that, for example, improvements of satellite surveillance network do not aim only to check on NBC arsenals in the risk countries, just as increased mobility of weapons systems is not only to avoid an attack with toxic substances. Therefore, the final document should certainly be looked at from the point of view of a recent development in the Alliance's strategic concept: strongly protected and highly mobile military units which are able to intervene rapidly in the so-called "arc of crisis" which stretches approximately from Russia to North Africa via the Middle East.

Finally, at the NATO summit in Washington 1999, the the so-called "Alliance's New Strategic Concept" contains several references to the NBC danger and the politico-military lines to

contrast it. In particular, *"the Alliance launched a Weapons of Mass Destruction (WMD) Initiative to improve political and military efforts in this area. The Initiative is aimed to expand the Allies' understanding of proliferation issues, to focus appropriate attention on WMD risks, and to coordinate the activities of the various NATO bodies involved in proliferation matters. The Washington Communiqué states that the Initiative will ensure a more vigorous and structured debate at NATO; improve the quality and quantity of intelligence and information-sharing among Allies on proliferation issues; support the development of a public information strategy by Allies; enhance existing Allied programmes which increase military readiness to operate in a WMD environment; and enhance the possibilities for Allies to assist one another in the protection of their civil populations against WMD risks. The Initiative also provides for the creation of a specific WMD Centre to improve coordination of all WMD related activities at NATO"* (Mates 1999, 14).

3. Nato, WMDI, WMDC: military options, policies and public opinion

The current world geopolitical situation poses challenges, risks and threats in various fields to NATO.

The international system's strong states, given the UN's recent difficulties in the field of security have now decided on ever more regionalisation in the future in peace operations (at the same time without, however, spurning the advantages of the option of non-intervention or other lines of action, for example the sending of weapons, satellite images, military counsellors, etc. to the local "defender of the faith"). Such regionalisation should include military operations in influential, or thought to be, areas of strategic interest according to political opportunities and Alliance or national choiches (for example, NATO in Kosovo and Bosnia-Herzegovina yes, Sudan and Chechnya no).

Looking to the future, to the extent that European countries and European Union will increase their collective commitment in the defence sector, equipping themselves with integrated armed forces outside NATO framework, one can hypothesise a growing commitment to assuring security in the countries that will gradually enter, directly or indirectly, the Euro economy. In this strategic direction one should point out the decision that was made at the Helsinki summit to constitute a rapid reaction corps of approximately 50-60,000 men (in the future

120,000) entirely made up of European soldiers[20]. This dawning architecture of European security leads to two important consequences for the European military: the quality and quantity of the armed forces needed to meet European standards and perfect interaction at least of the standby units.

Before any technical or diplomatic decision, it is evident that the countries within NATO should support with forces the extension and application of the prescriptions outlined in the Chemical Weapons Convention (CWC), in addition to extending the dialogue to countries in the Mediterranean region.

3.1 Military technicalities

In the field of NBC defence one could think of immediately standardising as many means and procedures as possible of using NATO units specialised in chemical and biological war. A European NBC unit could also be drawn up, an "empty box" to fill at the right time with pawns made available by different States and that can be projected beyond the area. In this way, as well as the obvious savings deriving from the standardisation of the means, doctrine and training, a precious resource would be created which would ensure the necessary flow of information towards the respective national authorities on a sensitive issue like that of the risk/threat of toxic contamination.

Following the United States' example[21], a training area could then be created which allows the NATO NBC departments to train in realistic conditions.

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[20] It needs to be remembered that the creation of Eurofor, the four-nation force of Italy, France, Spain and Portugal had caused worry beyond the Atlantic: *"NATO's political leadership must exercise care that a military force resulting from a southern <coalition of the willing> still represents the collective will of the Alliance as a whole. It is difficult to conceive of an effective deterrent of any type which does not include forces from, and represent the determination of, the United States. An American appreciation for southern European views on North Africa questions is essential to maintaining the solidity of NATO"* (Carlson 1998).

[21] *"In 1987 the Army established the Chemical Defense Training Facility (CDTF) at Fort McClellan, Alabama. In October 1999, the Chemical School started training students at its new facility at Fort Leonard Wood, Missouri. The CDTF trains military and civilian personnel in a toxic chemical environment. Since its opening, the Army has used this valuable resource to train over 51,000 U.S. and Allied military personnel as well as selected DoD civilians. The CDTF promotes readiness by providing realistic training in the areas of detection, identification, and decontamination of*

3.2 Policies

History teaches us that security - in the short, medium, and long term - is not assured through technical or diplomatic measures, but rather from big political choices. The non-use of chemical weapons was guaranteed, in the past, from the knowledge that one was dealing with a "political" weapon, supported by military only partially and strongly opposed disapproved by the general public opinion. The risk of relying only on counter-proliferation should be kept in mind and avoided by decision-makers, both political and military.

The measures stemming from the new NATO strategy and rendered public do not by themselves give any guarantee that they will be followed. Let's reread the important communication of April 1999: the same affirmation for which "*The proliferation of weapons of mass destruction and their means of delivery pose a serious and growing threat to NATO populations, territory, and military force"* it is not accepted with the same ardor on the two sides of the Atlantic. The same sentence afterwards ("*Joint action within the Alliance is necessary to address this threat* and *to reinforce the work of existing nonproliferation regimes",* not-italics added) suggest an action on two tracks that some consider, if not alternatives, at least doned wth two different priorities. It is not clear that the element list order of the WMDI (*Information-sharing; Defense Planning; Non-proliferation; Civilian protection; WMD Center)* if done in order of importance: there is, however, no doubt that on the two side of the Atlantic there are different sensibilities. For example, on the importance of defense military planning as opposed to a political and diplomatic course of non-proliferation..

One of the acts that received major attention was the creation of the WMD center. It is therefore best to analyze this point from close up.

The same report indicates in a general manner its financial functions and "t*o ensure effective coordination of NATO efforts on WMD": "This Center will be responsible for integrating and overseeing all aspects of NATO's efforts on WMD".*

An official source has defined the work of the WMD Center in very general manner *"It will strengthen political consultations*

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chemical agents. The training develops confidence in chemical defense tactics, techniques, procedures, and chemical defense equipment. Instructors ensure that trainees can adequately perform selected tasks on a chemically contaminated battlefield. To date, the CDTF has maintained a perfect safety and environmental record" (DoD 2000, 132).

related to non-proliferation, as well as defence efforts to improve the preparedness of Alliance forces and contribute to national efforts to protect civil populations. The Centre will: Maintain the Matrix of Bilateral WMD Destruction and Management Assistance Programmes, a database designed to expand information-sharing between member states on national contributions to WMD withdrawal and dismantlement in the former Soviet Union; Serve as a repository for information on WMD-related civil response programmes in Allied nations; Support the Alliance Groups dealing with WMD proliferation and through them, the North Atlantic Council; Develop briefings, fact sheets and other information documents on WMD issues for a wider public audience". (Crispin Hain-Cole, *The Summit Initiative on Weapons of Mass Destruction: Rationale and aims* , in "NATO Review", Vol. 47 - No. 2 Summer 1999 p. 33-34).

To be honest, other internal sources within NATO define more narrowly the work of the WMDC: the SACLANT website revealed that *"WMDC is tasked with developing a work Program to include: Support and background research for the routine SGP/DGP sessions. Preparation for Proliferation Conference (PC) and Disarmament Experts' meetings. Support for the ongoing Senior Proliferation Committee (Reinforced) - SPC(R) - meetings on National Missile Defense (NMD) and 'The Process'. Selection of the national expert secondees. Consultation with national delegations on the WMDI. Presentations to various fora (including the NATO School (SHAPE) - NS(S)) Liaison with national proliferation staffs. Completion of the inventory of NATO bodies involved in proliferation-related work".* In reality it is more or less a documentation center. This had to do with a certain scepticism towards the WMD threat and the role that NATO could perform within it, as the SACLANT itself confirms. *"*Although there is no imminent threat*, NATO nations remain vulnerable to the use of Weapons of Mass Destruction (WMD). The consequences* could be catastrophic*, so nations must be prepared to address the risks related to this threat. The nature of nuclear WMD limits the proliferation, while it is difficult to restrict the availability of components of chemical and biological weapons. As a result, the capability to limit the consequences of a chemical or biological WMD incident should be available,* even though the probability of occurrence is low. *The WMD threat to NATO forces and operational capability should be addressed by the NATO Force Structure. The primary response to WMD incidents involving civil populations will be by local and national authorities. In most countries, responsibilities are distributed among several civilian and military agencies, public and private institutions, and federal, state and municipal authorities. Among both military and civilian participants, there was a broad consensus that NATO should have a role in WMD Consequence Management.* NATO's main role should be to provide a "clearing-house" for

information national authorities *to respond to a WMD threat or incident. This includes intelligence and technical information as well as data on Alliance resources that could be made available after a WMD incident.* There were mixed views *on whether NATO should also create a "quick response team" to provide immediate support to national civil response efforts.* In order to implement a WMD role for NATO, firm political approval and support would be essential. It remains unclear at present whether this is likely to be given*"*.

Several more insights came from an academic report. The WMD Center was created at the end of May 2000 but didn't begin activities until September 2000 with the arrival of several national experts "*to respond more effectively to the challenges of proliferation". Esso sarebbe stato cresato "to support the Senior Political-Military Group on Proliferation (SPG) in overseeing the WMD Initiative. The official tasks of the Center are to 'improve co-ordination of WMD-related activities, as well as strengthen consultations on non-proliferation, arms control, and disarmament issues'".* That the more general material is object of debate is confirmed, it seems, by the fact that *"It took much negotiation within the Alliance to find common ground on what the nature and function of its WMD Center would be. According to NATO sources, differences in opinion arose over a multitude of major issues such as the size of the office, through what administrative office it should be run and how proactive it should be with own initiative taking. Another big issue turned out to be turf-related. Should the center conduct intelligence-related activities and thus possibly compete with the Intelligence Division within IMS (International Military Staff)? It is worth noting that the Washington Communiqué did not mention the word 'intelligence' in the Center's mandate".*

The adopted solution was of a medium, if not low, profile. "*The Center is part of the Political Affairs division and is staffed by three professional staff, an assistant and six national experts, who joined the Center in September. An interesting feature of the Center is that it is run within the existing budget of the NATO HQ secretariat. Thus no extra personnel costs result for the Alliance. The IMS members were taken from other offices and the six experts are provided by the member states".* From here the necessity to *"In practice, the Center will gather information from open sources (publicly available information) and from national position papers. It will then incorporate its own research to ultimately produce its own papers and initiate discussion within the Alliance on WMD threat assessment and other relevant topics under the heading of non-proliferation. According to one NATO source, the Center is restricted to focusing on WMD threats as they pertain to the protection of military forces. That is, the Center will* not *deal with WMD issues in the context of protection of NATO populations against the threats of WMD".* Always according to

this in general well informed source, *"Furthermore, the public information strategy envisioned by the Washington Communiqué will* not *be one of the tasks for the Center, as was hoped by some Allies. The concern of some Allies was reportedly that the WMD Center would become a NATO forum for member states, especially the United States, to publicly voice their national views on the issues of WMD proliferation (…) In cutting out the public information component, the impact on public awareness and the overall contribution to the global debate on proliferation will obviously be limited. In addition, this will not help changing the perception of some of NATO as a closed organization"(The New NATO WMD Center,* in Project on European Nuclear Non-Proliferation (PENN), *PENN Newsletter*, No. 12, October 2000)[22].

What were the reasons behind this solution? A few months before at the U.S. level, in the discourse on *The State of the Alliance: An American Perspective,* the Deputy Secretary of State Strobe Talbott, had clearly listed the objectives of the WMDI according to Washington against "*the proliferation of weapons of mass destruction and their means of delivery", "a terrorist strike against Alliance forces deployed beyond our borders or another state's missile attack against our forces or territory". "Now that danger is coming more sharply into focus. I realize that America's approach to these issues - in terms of arms control and defensive capability, especially missile defense - has generated some controversy on both sides of the Atlantic".* The American position was thus summarizes as follows: "*Our overall WMD policy must have three parts: first, we must pursue diplomatic prevention, including arms control; second, we need strong conventional and nuclear forces capable of acting as a deterrent; and third, we must consider how missile defense -national and collective - fits into the equation"* By the way, there had also been a reference to this at the WMD Center *"to coordinate NATO's response to the WMD threat. This will increase the information-sharing among Allies on issues of WMD concern. It is our hope that the Center will open as early as possible".*). It won't escape attention that, in terms of the fight against proliferation of WMD, the theme of NMD also enters the debate, as it goes on in Europe. (www.nato.org\NATO Speech US dSOS NAC - NATO HQ 15 Dec_ 1999.htm). Also in the sucessice meeting of NAC on December 4-5, 2000 WMDI and NMD are referred to in the same sentences: *"Sosteniamo tutti gli sforzi in corso nell'Alleanza per migliorare la capacità della NATO e delle forze militari alleate di operare efficacemente nonostante la minaccia o il possibile uso di armi NBC, tra cui*

[22] The same source leaked that, during hte Kossovo war, inside NATO "*a debate* [arose] *whether the role of NATO's nuclear arsenal should be widened to cope with all WMD threats*".

*il lavoro per adattare la preparazione del dispositivo difensivo e per accrescere le esercitazioni e l'addestramento della NATO. La NATO continuerà le consultazioni sulle questioni relative al possibile spiegamento da parte degli Stati Uniti di un limitato programma nazionale di difesa antimissile" (*www.nato.org\NATO Comunicato stampa M-NAC-D-2(2000)114 - 5 dicembre 2000.htm*).*

One should ask whether such a position, or linkage, had any relationship with the position taken by the WMDI and WMD Centers.

From the important communication of the April 23-25, 1999 Summit in Washington it was evident that a debate existed on the topic. (*An Alliance for the 21st Century: Washington Summit Communiqué, Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council, Washington, 24 April 1999*, NATO Press Release NAC-S(99)64, 24 April 1999*).* On the WMD point,*"to respond to the risks to Alliance security posed by the spread of weapons of mass destruction (WMD) and their delivery means"* the first thing that is said is that "*The WMD Initiative will: ensure a more vigorous, structured* debate *at NATO leading to strengthened common understanding* among *Allies on WMD issues and* how *to respond to them"* and it isn't a mystery that, from the European side, the important succeeding affirmation for who "*Arms control, disarmament and non-proliferation will continue to play a major role in the achievement of the Alliance's security objectives (..) All Allies are States Parties to the central treaties related to disarmament and non-proliferation of weapons of mass destruction, the Nuclear Non-Proliferation Treaty, the Biological and Toxin Weapons Convention and the Chemical Weapons Convention, and are committed to the full implementation of these treaties. NATO is a* defensive Alliance *seeking to enhance security and stability at the* minimum level *of forces consistent with the requirements for the full range of Alliance missions. As part of its broad approach to security, NATO* actively supports *arms control and disarmament, both conventional and nuclear, and pursues its approach against the proliferation of weapons of mass destruction and their delivery means"* (not-italics added*).*

It is possible that the NATO attitude towards recurring to nuclear weapons as a deterrent against WMD might have weighed down and lengthened the distance, or the friction, between the two sides of the Atlantic; an attitude certainly not accepted by some of the European members of NATO. An observer has maintained that on the theme of nuclear deterrence as a counter-proliferation strategy, NATO policies have changed much less than what they may seem.: *"Commanders have been tasked to create databases listing the information about possible targets from which targeting plans could be rapidly and easily developed during crisis and*

according to political guidance given within the crisis. Adaptive nuclear targeting and a focus on a much wider range of possible countries (such as states assumed to have the potential to develop Weapons of Mass Destruction (WMD)) have largely increased NATO's intelligence requirements for nuclear targeting. However, most of these countries are non-nuclear states, some are parties to Nuclear Weapons Free Zones. While the use of nuclear weapons was considered to be rather "remote", NATO's nuclear war-fighting options still consisted of three basic options: initial use, selected use and major nuclear response. They provide the Alliance military commanders with substantial flexibility to consider the utility of nuclear weapons in a wide range of situations.NATO's revision of the military strategy document during 1994-96 resulted in some additional change. However this was less substantial since the Alliance did not revise its overriding politico-military strategy. The most important change to NATO's nuclear strategy aspects reflects NATO's enhanced interest in out of area contingencies. Substantial room is given to risks resulting from the proliferation of weapons of mass destruction. This is also reflected in the role of nuclear weapons in deterring WMD attacks (…) Nevertheless, the strategy review of 1990/91 as well as the revision of MC 400/1 did not result in visible change to a number of politically critical areas". (NATO's Strategy Review: A Litmus Test for NATO-Russia Relations, in Berlin Information-center for Transatlantic Security (BITS), "Research Note", No. 97.5, December 1997).

The debate and different opinions came not only from the fact that the two sides of the Atlantic had ignored each other but also from general reciprocal major information: it had been noted that on NMD, in contrast with the past, *"During the year 2000 Foreign and Defence Ministers and several senior-level NATO committees were involved in substantive consultations on various aspects related to the US NMD plans, and the United States repeatedly sent high-level government representatives to NATO Headquarters in Brussels to brief Allies on how US thinking was evolving on this matter and to listen carefully to the comments put forward by European Allies and by Canada during those discussions" (On the discussion on NMD in NATO, Roberto Zadra).* This would mean that the debate was based on awareness of the issues but still founded on divergent political options.

Recourse to nuclear weapons aside, a more caustic observer has noted that, while the leaders of American policy "*has argued that WMD proliferation constitutes as much of a unifying threat to the Alliance as the Soviet threat of yesteryear, most European allies neither perceive it as an immediate threat to Europe nor regard NATO as the primary instrument for effectively dealing with the WMD threat. International treaties and organizations, including the United Nations, as well as more ad-hoc supplier regimes are generally regarded as the preferred*

instruments for addressing proliferation. In contrast to the U.S. penchant for a policy of isolation and confrontation, moreover, most Europeans believe that an emphasis on engagement is more likely to produce results. While the allies share an interest in halting proliferation, they neither see the threat in the same manner nor agree on NATO's role in combating it" (Ivo H. Daalder, *NATO, the UN, and the Use of Force,* Brookings Institution, March 1999*)*

The debate is political in nature and among other more general alternative, as has been observed: *"There were four general approaches which the alliance might have taken in developing an agreed policy on counterproliferation: defusing proliferation incentives; enforcing international sanctions against proliferators; offensive military action against proliferators; and developing ballistic missile defenses. The first two areas would supplement existing operations undertaken by other international organizations. Defusing incentives would entail measures such as promoting democratic control over military forces, peacekeeping operations, and maintaining stability in Europe for reassurance to the NATO allies. This could include efforts within existing NATO bodies, including the Euro-Atlantic Partnership Council and the Partnership for Peace (PfP). Second, NATO could use traditional military measures to enforce or support international measures sanctioned by the United Nations, particularly within its sphere of interest—nominally, those states that are members of the Organization on Security and Cooperation in Europe (OSCE). The third area, offensive operations against proliferators, is the approach NATO has been least likely to pursue in the past, since it is inherently a defensive alliance. However, offensive operations in a regional conflict may actually be seen as a form of preemptive defense, particularly when one's forces are threatened by WMD. And recent "out-of-area" operations, such as in Bosnia, may reflect greater willingness on the part of the Alliance to pursue actions deemed necessary that in an earlier era may have been politically impossible (…) The last option, pursuing BMD, would be merely a continuation of NATO's traditional collective defense role, extrapolated to the threats posed by the new post-Cold War world. Nevertheless, it must overcome residual skepticism by some European members engendered by the SDI program in the 1980's—a program to which critics point in comparison with counterproliferation as an example of yet another regularly appearing, big new American program (…) the need for and development of a NATO counterproliferation strategy had obviously made an impact on the Alliance and its often slow bureaucratic process" (NATO counterproliferation policy: a case study in alliance politics).*

In conclusion, we may assume that, even being a specific topic, probably NATO policies about proliferation of chemical weapons will feel the effects of more general debates on NATO

present and future. WMDC structure and aims, a detail inside this spiecific topic, could represent a litmus paper of all this.

3.3 Public opinion

With regards to the history of restraints on the use of chemical weapons, it seems, a certain factor has until been undervalued: the importance of public opinion.

The recourse to BCW is maybe that one which historically has most preoccupied public opinion (obviously after nuclear). Since it was used significantly as a military tool after World War I, "dying of gas" has been one of the most recurring nightmares for miliary and citizens in total warfare of the 20th century.

One cannot undervaluate the force of the passions and aversions of public opinion. A "realistic" and "cynical" valutation which observes that wars are decided by politicians and are prepared and carried out by the military but not by public opinion would only be stating a part of the truth. It would also risk the distortion of political-diplomatic action as much as it would the military's opportunity to freely prepare and use chemical weapons. The states which fought each other from 1914-1918 were, in the best of cases (the United Kingdom, France), liberal political systems: they did not yet know universal suffrage but even then liberal public opinion found difficulty in accepting the use of chemical weapons, preferring to think that it was the autocratic Germany to make a wider use of them. An echo of those fears were concretized in the Geneva Convention of 1925. In the years between the two wars, chemical weapons found use primarily in colonial campaigns, but even here when they were and their use came to be known, a scandalized public opinion was ready to criticize its use (this was not possible in fascist Italy, known to have used gas in the war against Ethiopia, but it did face criticism from the outside from the public opinion of other liberal and democratic powers). During the war from 1939 to 1945, chemical weapons were not widely used. But again, when a democracy such as the USA made ample use of chemical aggressors, during the war in Vietnam, it too found itself confronting a public opinion firm in the disapproval of that use. The use of napalm was not by itself the one to mobilize public opinion against republican governments and to impose slowly but inexorably, together with the all but satisfying results on the battlefield, the exit of the USA from Vietnam. However, the recourse to chemical weapons was a decisive element. President Nixon was constrained to publicly retreat, by ordering the

military to suspend its use. He ended up supporting the experts of arms control who had for a while raised the alarm against these types of weapons, and in a word, started the negotiations process in the beginning of the 1970's which brought the first draft of the international convention leading eventually to the important 1993 Convention on Chemical Disarmament.

For all these reasons, the role of public opinion, of its information and its "preparation," should not be undervalued by politicians and by the military.

The stability of the international scenario, the inversion of proliferaiton, the lessening of crises, the reduction of threats, the security of forces operating *out of area*, and the preparation of military strategies and centers of international debate all need out attention. All this cannot be considered a definitive strategy.

Only the extension of the international control regime, with a foundation of open information and intervention on that part of the general public opinion, can be hoped to become stronger and to represent a solution to the problem of contemporary chemical weapons proliferation and its effective risks. The risks are present, but it is not by dividing the international community into states more or less *rogues* and using against them military measures that we can hope to have success. The military initiative as well as that political-diplomatic are not in conflict with each other, at least in general terms. It has been sustained, with reason, that in more than one case "The success and failures of *military* and *non military* constituents in the prevention of conflicts shows that *none of them are perfect*" (Roberto Zadra, *European Integration and Nuclear Deterrence after the Cold War*, in "Cahiers de Chaillot", No. 5, November 1992). But between the two, history suggests that there is a gradual measurement of importance.

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