

Chapter 3

Counteraction to CBRN Terrorism in Switzerland

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Abstract. In Switzerland, the planning of security policy measures now increasingly factors in scenarios involving the use of CBRN weapons on Swiss soil. While there have been no terrorist “spectaculars” or dramatic news reports in recent years, this does not mean that the CBRN threat has diminished. In 2003 a project called National NBC Protection was started in order to guarantee efficient coordination of all partners involved in CBRN prevention and incident management at all levels with the aim of improving the NBC protection in Switzerland in the long term. The availability of outstanding expertise in terms of NBC protection therefore remains as important as ever for the Swiss population.

Keywords. National NBC Protection Project, NBC Protection Strategy for Switzerland, Emergency Organisation Radioactivity, SPIEZ LABORATORY, NBC Competence Centre of the Swiss Armed Forces

3.1. Introduction

The end of the cold war-period was paralleled by a marked decrease of the threat of military deployments of weapons of mass destruction (WMD). However, terrorism, violent extremism and the proliferation of WMD as well as transport accidents and technical incidents involving hazardous materials evoked “new” CBRN-threats. Especially the sarin attack in Tokyo (1995), the US Anthrax attacks (2001) and the SARS epidemic (2002/2003) have provoked serious debates about the risks of potential CBRN incidents and their respective management in Switzerland. Consequently the security policy of Switzerland with respect to potential CBRN risks has profoundly changed and called for the availability of consistent professional competence in order to serve an all-inclusive civil-based and military-supported CBRN-protection to the Swiss population. To cope with this new situation it was necessary to reassess all organisations and structures involved in today’s CBRN defence.

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3.2. Switzerland's Federal Political Structure

Switzerland has quite a unique democratic tradition and 27 political systems (one federal and 26 cantonal systems). Basic facts and features about Switzerland's political organisation are [1, 2]:

- Switzerland is a Confederation of 26 cantons. Twenty of 26 cantons are considered full cantons, six are considered half cantons because they originated from internal divisions in three cantons. Concerning their institutions, all cantons have equal competences and rights of autonomy and their internal organisation does not depend on whether they are full or half cantons. But as they are different in size (both area and population), cantonal structures differ widely. The distinction between full and half cantons is relevant in voting arithmetics, however: full cantons may send two, half cantons only one member to the small chamber of Switzerland's federal parliament.
- The political philosophy can be described as a form of federalism granting cantons and municipalities a maximum of political self-determination and restricting the competences of the federation to the minimum that is indispensable to run a modern state.
- Governments, administrations, parliaments and courts are organized on federal, cantonal and municipality levels.
- The political system is a Direct Democracy with frequent Referendums on national, cantonal and municipality levels.
- Switzerland has four official languages: German, French, Italian and Romanish.

3.3. The Swiss Civil Protection System

On January 1, 2004, the Federal Council enacted the new "Federal Law on Civil Protection and Protection and Support" (BZG). On October 4, 2002, it had been passed by the federal parliaments (only one dissenting vote). A referendum was subsequently held on the BZG on request by a citizens' initiative, making use of its statutory right. On May 18, 2003, 80.6% of the Swiss population voted in favour of the new law.

The new joint Civil Protection System is the ideal response to current security challenges. It enables a comprehensive protection of the population, its vital resources and cultural property. The joint system brings together the combined forces of five partner organisations. The 'Civil Protection Concept' was adopted by the federal council (Swiss government) on October 17, 2001. The corresponding law on civil protection is based on this concept, which outlines the mission and structure of civil protection in Switzerland.

Civil Protection therefore is an integrated management, protection, rescue and relief system. The partner organisations – police, fire services, health services, technical services and P&S (protection and support) – are in charge of their specific tasks, and provide mutual support. Joint management ensures coordinated planning and preparation, and operational command in case of deployment.

Events that cause damage must be brought under control on site and near to the population affected. Therefore operational responsibility for civil protection lies first and foremost with the cantons and municipalities. The Confederation sees to the coordination of civil protection services and defines its fundamental aspects. For events with a national impact, the Confederation coordinates the deployment of the relevant partners and takes over responsibility for managing the situation.

The Federal Office for Civil Protection (FOCP) supports the cantons and municipalities as well as the partner organisations in their civil protection activities. With the creation of the FOCP in 2003, all areas of the Federal Department of Defence, Civil Protection and Sport (DDPS), which specialise in Civil Protection issues were grouped together. This restructuring reflects the growing importance of civil protection.

3.4. The Swiss Armed Forces

The manifold activities of the Swiss Armed Forces are derived from the three main missions which have been assigned to the armed forces:

- Civil affairs support
- Area protection and defence
- Peace support

Civil affairs support comprises supportive operations of the armed forces on behalf of the population. They are carried out at the request of the civilian authorities, when the resources of Confederation, cantons and municipalities are no longer sufficient. These operations include military disaster relief, maintaining air sovereignty, support of police and Border Guard and protection of conferences and facilities. The operations are carried out in a *subsidiary manner* which means, that responsibility and management are in the hands of the respective civilian authority.

Area protection operations serve to protect important areas and airspaces. Defence is concerned with repelling a military attack against Switzerland.

Peace-keeping operations are aimed at consolidating peace abroad and preventing renewed outbreak of hostilities. They are carried out on the basis of an international mandate (UN or OSCE), usually in cooperation with other states.

The most important legal foundations for the armed forces include the Swiss Constitution, the Armed Forces XXI Guidelines and the Swiss Military Act.

3.5. Modern CBRN Threats

Disasters, emergencies, and terrorist attacks: these are the main hazards Switzerland faces today. Due to our modern and high-tech society, they can cause even greater damage than before. Their likelihood of occurrence is high and may appear without any or only a brief prior warning period. All hazards may also include CBRN aspects. This has also been stated by the Report of the Federal Council to the Federal Assembly on the Security Policy of Switzerland 2000 [3].

3.6. Basic CBRN Tasks Repartition

According to the Swiss Constitution, *the Confederation and the cantons see to the security of the country and to the protection of the population within the limits of their respective competencies*. While the responsibility for nuclear and radiological (NR) events is at the federal level, the management of chemical and biological (CB) incidents is largely a municipal and/or cantonal responsibility (civil protection system). They rely on the relevant cantonal intervention organisations. For CB incidents, the Federal Law on Civil Protection states that the Confederation, in agreement with the cantons, can be asked to coordinate activities and, when necessary, take over responsibility for the management of intervention resources when a disaster impacts on several cantons, the country as a whole, or cross-border regions. Various and different responsibilities that are organised in 26 different (cantonal) ways for different incidents, however, may lead to duplications, misunderstandings and inefficient management of crisis prevention and handling.

3.7. The National NBC Protection Project and the NBC Protection Strategy for Switzerland

In 2003, the Swiss Armed Forces and the Association of Swiss Cantonal Chemical Officers signalled the need for a national NBC protection plan, which would take account of not only all possible threats in this field but also the country's existing political structures. The Federal Council agreed, and asked the Federal Commission for NBC Protection (ComNBC) and the Director of the Federal Office for Civil Protection (FOCP) to carry out a project on "National NBC Protection". The aim of this project was to identify what action was needed, and to propose recommendations on how processes and organisations could be optimised. When examining the "current status", the project team identified several weak points that could seriously hamper the effective management of major incidents. These include a lack of coordination between federal and cantonal levels, the involvement of myriad agencies and individuals, noticeable overlapping, and the lack of a uniform approach to operational planning at the cantonal level. The project has therefore put forward 16 measures (Table 3.1) such as optimised federal command structures, National coordination of strategic and operational tasks in prevention of CBRN incidents, optimised availability of resources, review of responsibilities at the federal and cantonal level, and standardisation of operation doctrines, training courses and material components [4, 5].

On July 5, 2006, the Federal Council ordered the implementation of four priority measures, based on the project findings:

- Development of a national "NBC Protection Switzerland" strategy by the ComNBC
- Creation of a "National NBC Protection and Coordination Centre"
- Expansion of the Radioactivity Steering Committee (LAR) to an NBC Steering Committee (LA ABC)
- Greater federal support for the cantons

The ComNBC was put in charge of developing the national “NBC Protection Strategy for Switzerland” [6].

As part of the national NBC protection project, 14 reference scenarios were developed which the NBC Commission believes cover the entire hazard spectrum (Table 3.2). These scenarios were documented according to their duration, their potential impact and incident management. They provide a valuable tool to identify shortcomings in relation to prevention and intervention, and to develop the appropriate measures to resolve these problems.

Table 3.1. Measures of the project “National NBC Protection”

1.	Global strategy (ComNBC)
2.	National NBC Protection & Coordination Office
3.	Federal command support (Staff of the Federal Council Security Committee)
4.	Strategic command, NBC steering committee
5.	National report and alert centre (NEOC)
6., 7., 8.	Subsidiary deployment – federal
	– Personnel
	– Monitoring capabilities
	– Decontamination
9.	Coordination platform/NBC Protection & Coordination Office (cantons)
10.	Decontamination capabilities – cantons
11.	Availability of monitoring capabilities – cantons
12.	Clarification of federal/cantonal responsibilities
13.	National B-reporting concept
14.	NBC terrorism – operational bases
15.	Communications infrastructure
16.	Revision of plan on chemical and radiation response units

Several also include variations which involve the threatened deployment of NBC resources. On the whole these scenarios widely correspond to the assumptions found in the Technical NBC Protection Strategy developed by SPIEZ LABORATORY [7].

Table 3.2. CBRN reference scenarios

RN	1. Accident in a nuclear facility: release of radioactivity with prior warning 2. Dirty bomb: spontaneous release of radioactivity causing contamination 3. Deployment of a nuclear weapon: ground explosion close to the Swiss border 4. Attack on a transport carrying highly radioactive waste
B	5. Deliberate contamination of food with ricin 6. Terrorist attack involving the pox viruses 7. Terrorist attack involving anthrax 8. Pandemic (SARS, etc.) 9. Accident in a Biosafety Level 3 laboratory with unintentional release of contaminants
C	10. Transport attack or accident 11. Accident in a chemical storage facility 12. Chemical terrorism: Hydrocyanic acid attack in a shopping centre 13. Chemical terrorism: Sarin attack in an airport 14. Long-range missile attack on Switzerland

The “NBC Protection Strategy for Switzerland” [6] focuses solely on measures which must be implemented if the objectives of the Swiss NBC Protection Strategy are to be met. The Commission also believes that this document should help improve the protection system currently in use. The report also contains additional recommendations:

- Recommendation 1: *Review of the legal bases of NBC security.*

The ComNBC is responsible for examining whether the existing legal bases adequately prevent the abuse of dangerous NBC substances.

- Recommendation 2: *Evaluation and management of NBC risks based on 14 NBC reference scenarios.*

The cantons are called upon to re-examine their NBC risk portfolio based on the 14 NBC reference scenarios, to re-evaluate their intervention resources and, where necessary, to adapt them accordingly.

- Recommendation 3: *Further development of the National NBC Protection and Coordination Office and the cantonal coordination platform.*

The ComNBC will also assist with the introduction of the cantonal coordination platform.

- Recommendation 4: *Promotion of regional cooperation.*

The cantons are called on to promote cooperation on NBC matters by developing intercantonal regions. Their work could be modelled on the regional biological laboratory network.

- Recommendation 5: *Consensus on NBC intervention resources.*

Together with the Confederation and the cantons, the ComNBC is responsible for reaching a written consensus on the NBC intervention resources which should be procured and managed at cantonal, regional and federal levels.

- Recommendation 6: *Decentralisation of Federal NBC intervention resources.*

In line with the aforementioned written consensus, the Confederation is advised to decentralise its NBC intervention resources. These resources must be included in all cantonal plans and training exercises.

- Recommendation 7: *Organisation of a Federal interdepartmental command structure.*

The cantons demand the introduction of a single point of contact at the federal level for all NBC incidents. The NBC protection tasks of existing staffs and bodies (Staff of the Security Committee to the Federal Council, the Special Staff Unit for Hostage-Taking and Extortion-SOGE, Special Staff Unit for Pandemics, LAR, National Emergency and Operations Centre NEOC etc.) must be reviewed. The Confederation is therefore advised to set up a federal interdepartmental command structure for NBC incidents (14 reference scenarios). This body must also ensure efficient cooperation with the chiefs of staff of the cantonal command bodies. This cooperation will be put to the test during training exercises.

- Recommendation 8: *Updating the Swiss NBC Protection Strategy by the ComNBC.*

The ComNBC will also be responsible for regularly reviewing and updating the Swiss NBC Protection Strategy (Figure 3.1). It will also be in charge of submitting their proposals for change to the Confederation and the cantons. The legal bases of the ComNBC must be adapted accordingly.

The decision to incorporate the new National NBC Protection and Coordination Office as a special unit within the SPIEZ LABORATORY was motivated by the fact that this would be the ideal environment in terms of shared expertise and would optimise synergies with the Swiss Armed Forces NBC Competence Centre. One of the main responsibilities of the National NBC Protection and Coordination Office is coordinating the establishment of operational principles, as well as liaising with representatives from the “first responders”, strategic national partners (especially with the cantons and the relevant federal agencies) and international organisation such as the EU, NATO and the PfP (www.abcschutz.ch).

Since many – if not most – CBRN incidents may not sufficiently be managed by the cantons alone the government must be prepared to support them accordingly. This is actually guaranteed by the government, amongst others, through conducting a C-terror Task Force (EEVBS) which is currently on the point of being restructured to a CBRN Task Force, through carrying on the Emergency Organisation Radioactivity (EOR), the SPIEZ LABORATORY as the Swiss centre of expertise for protection against CBRN threats and hazards, and through arming the CBRN defence within the Swiss Armed Forces.

3.7.1. The Emergency Organisation Radioactivity (EOR)

The Emergency Organisation Radioactivity (EOR) consists of the Steering Committee on Radioactivity (LAR) and its staff; the National Emergency Operations Centre (NEOC) and its military staff; additional departments and bodies of the federal authority, state organisations (Swisscom, SBB), as well as sampling and monitoring organisations. The press centre of the Federal Chancellery supports the EOR with the provision of information to the general public.

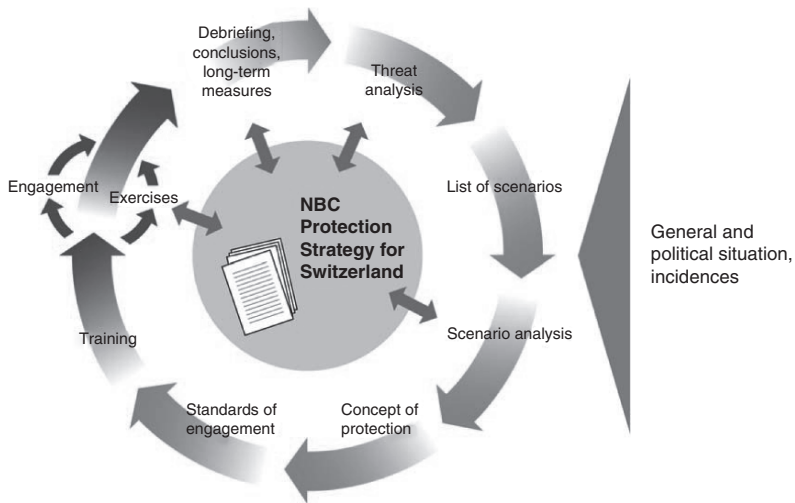


Figure 3.1. National NBC protection as a cyclical process

Should risks arise from accidents in either domestic (Switzerland has five nuclear power plants) or foreign nuclear power plants, the EOR receives additional assistance from the Swiss Federal Nuclear Safety Inspectorate (ENSI - formerly known as HSK).

The LAR is chaired by the heads of the federal offices which may be directly concerned by an incident involving increased radioactivity, namely the Federal Office for Civil Protection (FOCP), the Swiss Federal Office of Public Health (SFOPH), the Federal Office for Energy (FOE), the Federal Office for Agriculture (FOAG), the Federal Veterinary Office (FVO), the Federal Office for the Environment (FOEN), the Federal Office of Transport (FOT), the Directorate of International Law (DIL), the State Secretariat for Economic Affairs (seco), the MeteoSwiss (MCH), the Swiss army command staff (FST A), the Directorate General of Customs (DGC), and the Federal Council spokesperson. In addition to the federal representatives, two members of the cantonal governments sit on the LAR. The LAR checks and discusses the measures developed by the NEOC. These are then submitted to the Federal Council which is responsible for the final decision.

The ComNBC, the Federal Commission for Radiation Protection and Radioactivity Monitoring (KSR), and the Swiss Federal Commission for Nuclear Safety (KNS) support the work of the LAR by giving it access to a number of additional experts.

As one of the four priority measures from the National NBC Protection Project, the expansion of the Radioactivity Steering Committee LAR to an entire NBC Steering Committee LA ABC is now under planning.

3.7.2. The SPIEZ LABORATORY

Routine commissions, laboratory analyses as well as national and international field deployments are central to safeguarding the specialist expertise of the SPIEZ LABORATORY. As the Swiss Centre of Expertise for Protection against CBRN Threats and Hazards, its primary mission is the development and enhancement of the technical and scientific knowledge needed to ensure comprehensive CBRN protection, and to share this know-how with the civilian authorities and the Swiss Armed Forces. The SPIEZ LABORATORY also has the necessary testing and monitoring resources at its disposal and plays an active role in the development of CBRN protection technologies. By building on and preserving its specialist know-how and expertise, the SPIEZ LABORATORY helps ensure that any operational response to an emergency situation will be the right one.

3.7.3. The NBC Competence Centre of the Swiss Armed Forces

The NBC Competence Centre of the Armed Forces ensures operational readiness of the armed forces NBC resources. Apart from managing the armed forces NBC defence, it also ensures various NBC training courses for civilian partners in Switzerland and abroad. After the successful integration of a new CBRN decontamination system, specialist aspects of CBRN reconnaissance and mobile CBRN detection (many parts of the included technical detection equipment have been tested by the experts of the SPIEZ LABORATORY) will now follow.

The NBC Competence Centre in Spiez is mobilised in the event of a major NBC incident which exceeds the capabilities of the on-site civilian operational forces. Thanks to its wide range of resources and services, the NBC Competence Centre can be rapidly deployed in order to provide both civilian and military organisations with subsidiary back-up. If a nuclear or radiological incident occurs, the Radioactivity Monitoring Team of the Swiss Armed Forces (MORA), NBC Competence Centre personnel, and all available NBC Defence militia personnel are called on to offer their specialist expertise in this field. The DDPS Deployment Team (EEVBS) and the SPIEZ LABORATORY will both be deployed during a chemical incident. A request can be sent to the National Emergency Operations Centre (NEOC) for further assistance with field measurements, localisation of contaminated areas, sampling and advice.

3.8. Outlook

Coordinated CBRN protection in Switzerland is still in its infancy. Nevertheless, the introduction of measures is well on track and we shall soon see whether the objectives of this new approach have been achieved. Whatever happens, the foundations for coordination at national level have been laid and there is an undeniably strong sense of commitment among all partners involved.

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