EMERGENCY ON OUR TERRITORY

military and civilians,
To unite in order to provide help?

SUMMARY OF PRESENTATIONS AND Q & A
Symposium November 19th, 2008
## Table of contents

### Opening of Meeting
- Major General Thierry OLLIVIER Commanding the CDEF  
  page 3
- Briefing by French Air Force General (Rtd) Jean RANNOU  
  page 4

### Symposium Acts
- The Armed Forces: guarantors of the nation’s resilience capacity in the event of a major disaster on the homeland  
  page 6

### First Round Table: Testimonies
- Being able to draw lessons learned from recent crises and disasters  
  page 16
- HURRICANE KATRINA: Lessons learned for aftermath management  
  page 18
- HURRICANE KATRINA: Lessons learned from a «beyond the scope» crisis  
  page 21
- Intervention of German military forces in the case of a large-scale natural disaster: The Elbe River floods (August 2002)  
  page 29
- Evacuation of Vimy depot, from April 12th to 20th, 2001: an exemplary civil-military cooperation  
  page 32
- Committed armed forces during a disaster on the homeland  
  page 35

### Second Round Table: Futures
- To be ready: The Armed Forces and the future major crises  
  page 39
- Military units assisting citizens  
  page 40
- Armed forces intervention as seen by the populace  
  page 42
- Nationwide operations coordination  
  page 44
- Consequences for Land Forces  
  «The dear Lord always forgives, sometimes man does, but nature never will»  
  page 47

### Closing Briefing
- General Elrick IRASTORZA, Chief of Staff, French Army  
  page 51
Regarding the defense and security field in France, 2008 was marked by the strategic and prospective thought over current and future threats that are likely to hit our country. The Defense White Paper was launched and settled by the French President. In this field, it is—from now on – the basis on which we can rely to prepare for our future.

Our attention should more particularly focus on four scenarios – described in this work:

- a major terrorist attack carried out on the homeland;
- a global pandemic with a high casualty rate;
- a high-scale technological or natural disaster;
- A major cyberattack.

All four scenarios have a common feature: they are likely to justify a commitment of the French forces on the homeland. Undoubtedly, it is an innovation in comparison with the missions to which we have been led by history, in particular overseas operations. However, Toulouse, the Erika, and Haumont more recently, are names that have affected our collective memory, reminding us of natural or technological disasters that justified the commitment of units from our armed forces on our national territory. But I would daresay that these commitments were «conventional» ones, as they mainly dealt with the commitment of logistic assets within the framework of a contingency health and material support.

There is no choice but acknowledging the limited aspect of these disasters, although we deplored casualties and losses, a trauma for affected populations, the negative consequences resulting from these disasters, and damages from a social and economic point of view. They were limited in terms of affected geographical area, in terms of the magnitude of resulting destructions, in terms of impact on the way our national community was running. Nothing can be compared to the disaster represented by hurricane Katrina in the United-States or by the more recent earthquake in China in summer 2008. All this leads us to ask ourselves an easy but critical question: Should we face a nation-wide crisis, quite unusual regarding its origins, its consequences and its duration, would we be ready?

As it is not the computer, natural, technological or terrorist fact that is at the heart of our concerns. Indeed this fact has its own specific features and its results into relevant answers that have to be brought. But specialized –military and civilian - institutions are already preparing for these specific responses. Whatever the origin of a disaster is, we are mainly interested in its consequences, in particular regarding major social disorders.

It deals here with disastrous consequences, which require implementing other support beyond civilian support owing to their magnitude. It deals with consequences that justify the commitment of the armed forces, among which the French Army is a major contributor as far as we are concerned. From the military point of view, we are facing original factors, which differ from our overseas operations on many issues. Indeed, and first of all, hazards replace threats, protection replaces defense, the national legal framework replaces the law of armed conflicts, and adversity replaces the enemy.

Lessons learned are part of the missions devoted to the CDEF (Forces Employment Doctrine Center); therefore, we pondered some disastrous circumstances suffered in France and in the world, which justified an early expertise. At the symposium, and during the first round table, we dealt with testimonies about major disasters that occurred in France, in Europe, and in the United-States. During the second round table, we dealt with the various aspects of possible – civilian, and military – responses, coordinated to support our fellow citizens, all the social and economic components in our country, and the French Government. This awareness is undeniable, and the way ahead has to be carefully considered.

General Elrick IRASTORZA, the Chief of Staff of the French Army concluded our meeting as arbitration to our works. You will be able to catch the level of commitment in the comprehensive version included in this «Doctrine» special issue.

Major General Thierry OLLIVIER
Commanding the Forces Employment Doctrine Center
Ladies and Gentlemen,

I fully share in thanks to Major General Thierry Ollivier, commanding the CDEF (Forces Employment Doctrine Center).

In turn, I would like to thank you, Sir, for having taken the initiative to debate on a tricky and difficult issue. Indeed, armed forces taking part in providing help during disasters occurring on the homeland is not as easy as it could seem. This is a mission which is not obvious for the armed forces because it is not part of their core missions.

This issue had been discussed for a long time by the 1994 White Paper Committee, but it hardly resulted into an outcome, with the exception of the homeland deployment concept, which has just been tackled. In addition to civil support teams, whose mission consists in providing this support – it is to be dealt with during the second round table – the armed forces are present when serious events occur on the national territory, and this has been the case for many years – as we have just been reminded of. They are committed every time it is necessary to support our fellow citizens. They do it with their own assets and according to well-established plans that have already won their spurs. On many occasions, I could notice that our armed forces were outstanding in this field – as some other armed forces certainly are – but possibly in different conditions. We are going to consider it through lessons learned from our US and German friends.

I think that emergency is the core of this debate. When a disaster occurs, everyone is mobilized into helping, it goes without saying. Obviously, the military must be on
the spot most quickly – simultaneously with all specialized backup/first aid assets – as early actions are often critical. However, they are not the only ones, as all skills and capabilities have to be mobilized. The pending issue is about keeping military assets when urgency no longer exists.

We have to tackle this issue as we do during overseas operations. We are aware of the time when such a commitment starts, but we do not know when we are going to withdraw. Lessons learned show us that urgent situations always justify the commitment of armed forces when a disaster occurs, but it is often difficult to put an end to it. If conscripts enabled us to have a numerous and cheap manpower, the situation is quite different with an all-volunteer force: their strength keeps downsizing, among others in the French Army. This is the reason why, from now on, it is necessary to justify a protracted commitment of the armed forces to carry out tasks that are not specific to them, and which could be and should be carried out by other people, who have specific skills and are empowered to do so. Of course, it is necessary to set priorities to the various missions, at a time when units – in particular land forces – take part in numerous overseas operations.

Once again, if armed forces taking part in support when a disaster occurs on the homeland is not questioned, on the other hand we have to withdraw them as early as the emergency stage is over, as early as their commitment is no longer justified. This is all the more critical as the armed forces will have to meet an increasing number of overseas operations.

When the military are committed, they implement their own assets. Very often, we hear people saying that they are the only ones to have them to justify their commitment. This is true in some cases (transportation capabilities for example) but it can be questioned in many other cases because assets meeting these requirements, and sometimes better fitted ones – do exist elsewhere (Department of Transportation, civil engineering firms, etc...); but it seems that emergency leads us to choose the solution that is most easily implemented. All this brings me to ask another couple of questions, which will be tackled this afternoon, I hope so!

First, the issue pertaining to the proper use of the armed forces, of their assets, and of their skills bearing in mind that they are all-volunteer servicepeople. I think that on many occasions the military are not the most skilled – hence the most efficient – people to carry out some specific missions dealing with first aid or help to populations. This is not a satisfactory situation.

Then the issue about costs, especially when it is a protracted commitment. Financing armed forces’ commitments to take part in emergency and assistance missions affects the budget of the armed forces. Therefore, I think it is justified to wonder whether these budgets are properly used as they are diverted from their specific use. I would add that the fact that we take costs into account also leads us to ponder about the right use of these assets and their relevance to the requirements. We can no longer avoid this issue.

Should a disaster occur, Major General Thierry Ollivier has reminded us of the actions that can be carried out by the armed forces and by the French Army that has been doing so for years when our fellow citizens needed it. I think that time has come now to better set ROEs (Rules of Engagement) regarding the commitment of the armed forces in these exceptional circumstances, by making especially clear the operating environment, the conditions to commit servicepeople and to use their equipment, so that their commitments become ever more efficient to the benefit of their fellow citizens.

I am sure that debates this afternoon will enable us to make progress in this direction.
The post Cold War world is very quickly being replaced by a more mobile world, more uncertain and unpredictable, exposed to new international as well as national vulnerabilities against which the Armed Forces must be better prepared. Be it a major terrorist attack on the homeland, a highly lethal pandemic, a large technological or natural disaster, or a major computer attack, the Armed Forces and particularly the Army must be prepared to respond to any situation that might overwhelm by its intensity, the capabilities of the civilian authorities and means.

The traditional split between domestic and external security is progressively vanishing.

Be they natural or technological, we must envisage from now on the management and the processing of crises which would be more important compared to the past and likely to jeopardize the national balance in all its dimensions: the urgency is also on the homeland.

Last June, the White Paper on defense and national security was a major innovation compared to the previous one by comprehensively integrating our security interests. Without limiting them to defense issues, it defines a national security strategy which encompasses defense policy, homeland security policy and civil security policy. In concrete terms, it entails a close cooperation between the ministries and a daily presence of the Army on the homeland.

Fortified by this new context, the White Paper on defense and national security emphasizes the violence and the stunning nature of natural or technological risks likely to strike the country, the consequences of which could be out of the proportion of past experiences, thus justifying the commitment of the Armed Forces, particularly the Army.

The protection of the population and the French territory is therefore back in the heart of the French strategy. Brand new, the operational objectives are from now on assigned at the same time to homeland security and civilian means as well as to armed forces for protection missions. As highlighted by the different people taking part in the symposium, the coordination between the civilian and the military layout is one of the key principles of the security strategy. The raising of new threats and risks able to destabilize the country thus implies a particular mastering capability of the forces on the homeland.
Lessons learned from Hurricane Katrina in the USA, the floods and the interventions which occurred during the catastrophe which took place in 2002 in Germany and the testimony of the main civilian and military actors in France provide an obvious heuristic interest which could lead to enhancing the Armed Forces’ reaction capability.

The fifth meeting on «Lessons learned and future» organized by the Forces Employment Doctrine Center (CDEF) together with the European Strategic Intelligence Company (CEIS), which took place in the Foch lecture hall in the «Ecole Militaire» (Military School) in Paris, has chosen to address in its doctrinal agenda the theme of the contingency on the territory by the civil and military actors and to investigate the whole spectrum in order to develop a better understanding and interoperability on the field.

The generic theme of the emergency therefore has been studied during a half-day of reflection during which were compared European, US and French lessons learned to show what we must plan, study, and prepare in order to be able to answer, when the time comes; «we are ready».

The following reflection endeavors to synthesize the main ideas of the briefings and debates by highlighting the foreseeable improvements. Of course disasters, owing to their nature and consequences provide different lessons learned, but it appears very clearly that the Army is a key factor of the resilience capability in the event of a major crisis.

As in the framework of state rebuilding in a foreign theater, it clearly appears that success requires that we do not think and act in a sequential process and that efforts must be coordinated at the inter-agency policy level.

The White Paper on defense and national security initiated and decided by the President of the Republic is from now on the reference base on which defense authorities will rely to prepare for the future. As for natural or technological large scale disasters, it reminds us that the recurrence of major events of growing gravity has been confirmed these last years, particularly due to the growing density of population in the hazardous areas. The combination of a technical disaster (like AZF for example) with a natural one becomes increasingly possible.

The four scenarios depicted in the White Paper, a major terrorist attack on our soil, a highly lethal pandemic, large scale technological or natural disasters, or a major terrorist attack have in common to likely justify an intervention of the armed forces (10,000 men) on the homeland which is quite new regarding the former missions. The disaster of Toulouse (AZF), of the Erika or Haumont have mainly required logistical means in the framework of contingency health and equipment aid. The land safeguard which is defined as the set of actions carried out by the Army on our national territory is particularly impacted in the new environment described by the White Paper. We will be obliged to admit that the current risks to be managed by the Armed Forces are more and more complex (I), that they are taking place in an evolving context of employment (II), with always perfectible assets (III).
1. The risks to be managed are more complex.

The Armed Forces are naturally familiar with the aid provided to citizens during natural disasters. **Relief operations and life saving remain in the core priorities for the Armed Forces.** As such, the recognition of the population towards the Armed Forces is symbolic of a very high expectation in case of distress. The usual cases that the Armed Forces have had to face in recent years (fight against the swine flu, searching for children, floods, etc...) are very fruitful as for lessons learned but must be reconsidered from now on in an amplified way.

The White Paper on defense and national security emphasizes the unprecedented violence of the technological and natural disasters that are likely to entail massive destabilization for the population and the authorities.

By its foreseeable effects, a very large scale disaster, while jeopardizing people’s lives would provoke the destruction of private property and public infrastructure, disorganize public services and encourage looting. The outcome would have on the one hand, medical consequences- diseases linked to the pollution resulting from a technological accident for example -, on the other hand, the economic and social consequences which would generate a disorganization of the collective life of millions concerning employment, transportation, economic activities and social cohesion. Lastly, the environmental consequences would result in the pollution of large areas – owing to the dissemination of highly proved toxic products – and by a long-term insalubrity making difficult the guarantee in the future of the harmless aspect of infected areas and buildings. For example, the avian flu might cause 20 million ill people, cause a great number of deaths and likely paralyze a third of the economic activity. It therefore seems advisable to rethink the order of priorities (1) and to favor a better coordination between the civil and military means (2), while keeping the action within a well sustained communication policy (3).

1.1. Rethinking the order of priorities

One of the main requirements in the management of “post disaster” situations is to know how to master urgency, which means to know how to conduct staff work systematically combined with information work, and all that in the very sensitive period of the initial shock. The example of Hurricane Katrina in New Orleans is a good example of the lessons learned about the consequences of new risks for the Armed Forces? One of the major lessons learned is that people had to work **according to some logic about how to reach the hit areas which were until now not used.** Hurricane Katrina simultaneously combines the results of the 1999 tempest, the AZF disaster, the wreck of the ship Prestige, the South-East Asian tsunami, and the Argentine social unrest. This 400- kilometer perimeter cyclone corresponds more or less to half of France’s surface. It presents the combined effects of several disasters: flooding, ecological disaster, anarchy and loss of a strategic hub.

In this context priorities are no longer the same. The guidelines as well as the rules of engagement seem outmoded. The interweaving of human, ecological, energy and other crisis creates a chaos very difficult to sort out where the guidelines do not exist. The complexity of this kind of disaster thus requires us to rethink the answers with modesty and humility. **It is the primary needs which will take precedence and the basic actions which will be decisive.** The United States, contrary to expectations, has realized that it had to deal with a Liberia-type scenario within the territory of the world’s first superpower.

What the involved Armed Forces and the civil services will have to do is to reestablish living conditions, and to know “how to live together”. For instance, we will have to avoid a financial crash. The systemic approach, which calls for good coordination among all the actors concerned as well as a good capability of anticipating the action of this group, is therefore to be favored. **The main idea is to think “in totally destroy conditions” and to reestablish the procedures in a downgraded mode since we will have effectively to work with destroyed or neutralized crisis centers.** The capability to adapt will be necessarily the key for success. Human qualities will therefore turn out to be decisive, often even more than technical skills. To know how to manage trauma, to inspire confidence and good spirits, favor creativity, and foster the cleverness appropriate for survival, are so many examples at the motivating forces which become vital in these circumstances. In short, we will have to rely more on “vital intuitions” than on logical certainties.
1.2. To favor the coordination of civil-military assets.

In order to upgrade the efficiency of the already existing organizations, the White Paper reminds us that cooperation between different actors taking part in defense on the homeland must rise to a new level. The current context, the tight entanglement of the military and civil actions, and the necessity for new planning and implementation details is aimed at strengthening the efficiency of committed actions and the nation’s resilience capability. As such, the civil-military dialog will have to be optimized, particularly through a better mutual understanding, as well as better interoperability when it comes to communications.

If the headquarters of the flag officers commanding the defense sectors are in the first analysis the most concerned, the land forces are playing a major role due to their function of supporting the state agencies. In this case again, good relationships in peacetime between local and regional administrative authorities likely to be concerned, will prove to be the key for success (common exercises will provide good training opportunities).

On the one hand, the example of the evacuation of Vimy's depot in April 2001 shows an exemplary civil-military cooperation, at the highest level, between the General Commanding the defense sector and the Prefect of the area. What people had to do was to set up a joint planning headquarters to reinforce the defense operations center, to take part in the evacuation of the population in support of the requisitioned civil means, to move and preposition NRBC equipment..., 12 000 people were evacuated, which is the biggest population evacuation on the homeland since WWII. This operation, carried out on a site of the Ministry of Interior, under the responsibility of the “Sécurité Civile” (i.e. civil support) Directorate and supported by the Armed Forces has been a real challenge that people successfully met.

On the other hand, during the avian flu in 2006, due to a lack of anticipation, the means likely to be deployed would not have been sufficient compared to the needs, had the crisis really struck the territory (retrovirus, vaccines, protection masks...).

To face this problem, in particular the management of the stocks of vaccines, the budget for health crisis prevention from now on will go up to more than 800 million Euros a year. It is therefore necessary to ensure a good mix of assets, which means having available on site the maximum of assets, in order to face every evolving situations, as was particularly highlighted in the management of the crisis following the very significant Rhone flooding which required the deployment on the ground of extremely diversified assets.

Good coordination between the civil and military means also presupposes the existence of a clear and real political will. This factor, which cannot be overstated, is determining in the good implementation of the process and coordination on the field. Without a real political will, it will be difficult for the actors to efficiently fulfill their mission.

The Chikungunya crisis in the Reunion Island, illustrates another kind of coordination problem: that of the difficulty for the politicians to categorize the event as an «incident» or a «crisis». Analysts were presenting some conflicting medical diagnoses, some arguing in favor of an hyper-sensitivity of the population regarding the bites, and for others in direction of a real medical «exportable» crisis...
1.3. To place action in a sustained communication policy.

The management of a major crisis involves protecting the confidence of the population in the authorities. Communication is therefore fully integrated in the national security strategy. It effectively leaves lasting and deep marks in the collective memory, owing to the stressful environment in which events are perceived.

In emergency case, people demand to be informed and to understand everything immediately. It is therefore important to “saturate the crisis area” through a physical presence, a watchful listening and a constant communication. Any failure is serious, just as such in short term as in the long term. The silence of the authorities, the withholding of information, the appearance of improvisation and dispersal, or even the provision of pleas which are exclusively defensive feed an anxiety which is amplified by the media.

It is important to immediately manage the media in all its aspects: the internet, press, TV, radio. There is a real demand for information, supported by a lot of associations, and a number of actors. The necessity for a good communication coordination is one of the essential conditions for the success of the mission. To set up an information center is compulsory.

As for an example, numerous rumors spread in the days following Hurricane Katrina. The insufficient informed main actors were unable to answer questions raised by the media. In order to avoid this kind of situation, it is vital on the one hand that the information be centralized and on the other hand to get an efficient coordination to forward information as quickly as possible and to be in a position to answer to medias in a quasi-real time frame.

The axes of effort will in the end focus on modernizing of the warning system of the population, the planning and professionalization crisis communication, developing tools enabling the distribution of the information (before, during and after the crisis), and lastly establishing a preferential partnership with the medias. Furthermore, it is important to bring into prominence the action of the Armed forces however without using a dramatic situation for a already sorely afflicted population.

2. An evolving employment context.

The management of major disasters on the homeland has been for a long time carried out by the Armed forces and particularly by the Army, which is familiar with contingency deployments everywhere at any time in a very precise legal framework.

However, the increased importance of the risks implies that the missions be reasserted in a more formal and practical way. It is therefore more in the evolution of the continuity that the Armed Forces are committed on the homeland.

We must effectively recall that the primary aim of national security is to defend the population and the country in the constant framework of the operational commitment in support of the citizens.

Therefore a logical continuum exists between the temporary duty (TDY) and the operations carried out on the homeland. This continuum is underlined, developed and even sorted out by the White Paper, on defense and national security, particularly by reminding us of the continuous involvement of the land forces in domestic security missions.

In this respect, the Armed Forces are committed in a very precise framework of action (1), legally well-proportioned (2), with a more and more demanding population (3).

2.1 A very precise general framework of action.

The different large size technological or natural disasters cover the involvement of the Armed Forces in civil support tasks, thanks to military means or general security.

In the framework of civil support, it will be primarily a matter of preventing the risks of all kinds as well as the relief and the protection of the people, of property and environment in case of accidents, damage or disasters.

As for the missions of general security they concern the defense and protection of the essential state structures, the protection of civil agencies, premises or assets which affect the upholding of essential activities for defense and the life of the population, the support of public utilities, the prevention and counter-attacking of terrorist threats, and exceptionally taking part in maintenance of law and order.
The different examples of disasters developed during the 5th meeting “Lessons learned and futures” underline that at any time, with or without any notice, the government might be accidentally or deliberately in difficulty. In these cases, acting in a coordinated manner on behalf of or on order of the Joint Territorial Defense Organization (OTIA), the land forces, alongside with the other Services, might have to intervene in support of the police, the gendarmerie, the civil support forces, or any public or private bodies. They intervene, as shown for example during the Gard flooding or the protection of Vimy’s depot, when the means usually deployed turn out to be insufficient, unsuited, non-existent or not available, or even when a political decision requires them.

The White Paper reminds us that the intervention of the Armed Forces will probably be more important in the future than in the past. It also reminds us that a legal framework exists, which has to be improved with the aim of an interagency crisis management.

Today two legal principles are delineating the commitment of land forces on the homeland. On the one hand, the state of necessity, and on the other hand respect for legitimate authority. The commitment of Armed Forces on the homeland constitutes a strong political signal. It encompasses the contingency commitments when the civil means are insufficient, unsuited, not available or do not exist. Moreover, the civil authority is, as for civil defense, the legitimate authority. As such, it is the only one which can take full responsibility for the operation.

Domestic missions are not carried out as freely as overseas missions. They are legally well-defined and by the following practical provisions. The Armed Forces are therefore committed:
- on order of the civil authority,
- in addition to specialized assets,
- upon order of military commanders,
- without any specific police power,
- except the very particular case of maintaining law and order.

As set out, it is a professional contract closely linked to the “protection” function which has been assigned to the Armed Forces. As for the land forces, the contract may grow up to 10,000 men in a few days to the benefit of civil authorities. It will affect in priority the security of key points, that of ground movements which are vital for the life of the country as well as the control and access to the territory.

Without having to reshape the legal structure in which the Armed Forces are acting on our soil, it is therefore necessary, in the event of a major disaster which can lead to a total disorganization of the government agencies, to define an overall interagency policy taking place in a legal framework, encompassing rules of engagement to be deepened, particularly regarding the last lessons learned such as Hurricane Katrina in 2005.

In fact, we will have to clarify in the end the place that the Army wishes to occupy in the land protection (a widened
concept which takes into account the threat as a whole). If strictly military operations on the homeland are excluded, except supporting the operations of crisis management which are the result of terrorist attacks or a natural or biological disaster, the White Paper however does not address the concept of the operational defense organization (DOT). However we must remind that, within the context of the Armed Forces participation in maintaining law and order, the land forces might be requisitioned for operations requesting exceptional security measures. Of course, such a decision, which was rarely used in the French history, requires a particular context of employment.

2.3. An “effective mission” always more demanding regarding the citizens.

The western societies are psychologically more and more vulnerable, particularly because they are networked, which weaken them. Moreover, the cultural and life values inevitably do not prepare them to face difficulties. As a result, citizens are becoming more demanding as for security issues towards the authorities, who are obliged at the same time to satisfy the immediate population’s need and to prepare in the long term the necessary means to face bad-defined risks. More reasons which multiply and increase the expectations towards the Armed Forces which are seen, imagined and waited as always acting in an extreme panel.

The citizen, who is a taxpayer, expects from the Armed Forces they protect him both outside the homeland or inside it. He would not understand that his protection will not be ensured within the borders. The Armed Forces are therefore at the same time projection and protection forces.

As the events of Vimy have particularly reminded it, or even Haumont, the Armed Forces have a psychological impact on the population which is more significant that this of the police or gendarmerie since they are representing the “ultima ratio” of the nation.

The deployment of the military reassures populations and strengthens them in the idea that the authorities have the situation well in hands with the necessary and suited means for their protection. This soothing role is vital as this was noticed during the Gard flooding.

All the different lessons learned from disasters briefed during the symposium highlight the importance for the Armed Forces to take into account the citizens’ growing demand.

It is essential to underline that it is also in the long term, even though their lives will be no longer in danger, that the wounded citizens, feeling that they have lost everything, will need the nation’s support and that the Armed Forces will also fulfill their mission.

3. Capabilities which can be improved.

The Army does not have available specifically devoted means for civil defense. However it can provide assets in particular fields. The effect of natural disasters (storms, flooding, major floods, pollution, forest fires,...) which regularly strike the homeland are electricity or heating cuts, as well as the destruction of road or railway transportation infrastructure, housing, industrial production buildings, tourists sites, with more and more complex ecological consequences.

In these extreme conditions, the Armed Forces have the unique opportunity to implement, in case of emergency, a wide and various panel of skills and capabilities. The independent, fighting, disciplined and hierarchically organized nature of the military units is actually irreplaceable and has hardly an equivalent in the civil sector. Moreover, the equipment, the technologies and the skills which are likely to be implemented – such as in particular communications, engineer assets, helicopters, boats or even vehicles – are of a decisive utility even if they are not sufficient. If it is undoubtedly that the land forces are a key member of the nation resilience capability, this resilience however might be eased thanks to an equipment optimization (1), a better coordination of the human resources (2) and by preserved specific skills.

3.1. Skills to be maintained.

The White Paper sets new orientations for which a quite important part of the Army means are suited. Within this framework, the military mission does not consist in acting as a substitute for humanitarian means, but in protecting citizens, in supporting the concerned state agencies.
The Armed Forces, and more specifically the Army, are virtually the only ones able to cover, in particular for support, all the aspects of the crisis thanks to specific capabilities and skills. Thus the land forces can intervene in case of emergency to directly help the population or provide services in addition to public services.

This logic of complementing the other agencies is mainly achieved through the use of specific and dual skills and capabilities equipped helicopters, night vision devices, engineer crossing assets, a set of means that the civil services need due to the damages caused, for example, to infrastructure, bridges, communication networks, water supplying. In these cases, the strength of the forces is to have available means which can be coordinated on very short notice and in difficult conditions.

Despite the fact that military means exist and that the context of employment is defined, The White Paper however imposes to conduct some adaptations. In this view, if the operational contract has well defined the personnel strength who could be placed under the control of the civil authority, we have to better define the content, it means “the tool box” which specifies the capabilities to be detained. These capabilities will be converted into specialized units, in particular in the field of NRBC, engineers, air mobility or common Army missions (area or spot monitoring, security of movements on land, ...).

In the same way, emergency planning requires a confirmed and recognized military know-how. Moreover, in a totally different field, the participation of some security experts might be particularly useful (as it was notably the case for the building of a “bastion wall” in Vimy).

For the military we must, starting from a crisis scenario, clarify the effects to be obtained and the necessary means, define a commitment agenda and study the support.

**3.2. Human resources are to be coordinated**

The Armed Forces have a confirmed experience about overseas operations as well as organization and structures systems which have been proven, particularly in the C2 field. Units are familiar to react in emergency cases, with the spirit of necessary discipline, while being able to be autonomous and not depend from an outside communications network (being often itself a victim of the crisis).

Furthermore, the land forces are the only ones able to immediately implement C2, planning and conduct of operations capabilities, under the responsibilities of the Prefect and in coordination with the other services, the gendarmerie and the other state agencies. Within this framework, they can rely on the Force Headquarters (EMF) or brigade HQs, able to set up, in case of emergency, large scale operations. As for example, in the event of a major crisis, such as the important Seine flood (which is supposed to occur once per century), 10,000 Army soldiers might be tasked in a few days. Moreover, authorities always might, in the event of a major crisis, rely on the Army Forces specificities, i.e. professional thoroughness, the permanent availability and the structural autonomy which will guarantee efficiency.

In the framework of The White Paper, 10,000 soldiers are planned, to whom we have to add reservists who might constitute an additional augmentation force nevertheless still to be well defined.

Several examples in the past show how useful it was that civil and military assets complemented each other. It was in
particular the case in the 1999 storms during which more than 8,000 servicemen and around 60 helicopters had to intervene to provide drinking water and electricity, to evacuate populations or even to set up emergency telephone networks.

3.3. Specific skills which are always to be confirmed.

As it was underlined during the different disasters which occurred in the West Indies, the critical phases of the intervention require to anticipate (which is particularly the case for the storage\textsuperscript{20}, to warn, to plan, to inform, to engage oneself, to command, control and coordinate, to support the forces logistics, to secure and lastly to withdraw, a spectrum of skills and functions which are fully integrated in the Armed Forces culture.

The experience of the cyclones in the West Indies has notably shown that, regarding gaining and transmitting information, to have available on its own some military radio-telephone operators who are pre-positioned on various key sites of the homeland. Moreover, Plan “Vigipirate” with requisitioned units, as well as Plan “Neptune” in the event of a flood of the Seine River, supposed to occur only once in a century, highlight the Armed Forces specific skills within the framework of the large size disasters management. The control of areas affected by the disasters, as soon as possible, is basic in order to avoid looting (as it occurred after the explosion of AZF factory in Toulouse where numerous shops were looted, or even at the time of the disaster of Roissy terminal 2E in May 2004)\textsuperscript{21}. On this account, it is a basic necessity for the Armed Forces to be also a proposition force, i.e. to prioritize action towards planning.

Last, the final phase of the withdrawal must be very carefully prepared, with a suited progressiveness., since it is during this tricky phase that the Prefect authorities will progressively take again the lead, relying on the civil means which have become again available and efficient.

### Conclusion

The lessons learned about the disasters management on our territory highlight a real French know-how in this matter, mainly held by the Armed Forces. However despite quick positive results of Armed Forces action, it appears from all interventions that nothing currently guarantees that France is in a position to face a Katrina type major disaster. Until now, disasters which have affected our territory were geographically reduced in their impact.

Of course, equipment capabilities for managing these phenomena are there, but for the time being it is not enough to face a major disaster and this, despite a real French capability as for crisis management and reaction.

Therefore, if a European crisis management coordination exists, it is still not enough as for the medical field\textsuperscript{22} as well as the counter-terrorism are concerned, despite the increasing development of exchanges between different States. The political Europe is facing this challenge. Lessons learned from studied disasters show that, if need be, each crisis imposes to rethink everybody’s role and particularly the Armed Forces’ one in the French administrative organization.

The results of technological or natural disasters could be softened thanks to adequate measures, written down in prevention plans against technological and natural disaster and taken over by military and civil actors who know how to work together. The population information is essential and is particularly aimed at wide-spreading a self-protection behavior which has been proven to significantly minimize casualties. Because emergency happens on our territory, it is thus basic that the military and civilians unite in order to meet the major goal which is to assist the population and to reach a sufficient resilience level for the nation.
1 The White Paper put forward the resilience concept which could be defined as the will and capability of a country, the society and the authorities to withstand the results of serious events and then to quickly restore the usual functioning, at least in acceptable social conditions. The stronger the nation’s resilience will be, the more it will stick to the defense and security objectives and the more the national security will be ensured. Resilience is at the same time an objective (for the state administration) and a behavior (for the society in a broad sense).  
2 Since the Navy and the Air Force are daily ensuring their missions of maritime protection and air security.  
3 The risk comes from a natural or accidental potentiality whereas the threat is linked to a will of damaging.  
4 New viruses appear at the average rate of one every two years and pass on before the means of disease prevention and treatment are found and spread. During the 15 forthcoming years, such a pandemic due to this kind of virus is possible, without being able to assess the risk of contagion or lethality.  
5 We will be mainly interested in this study by the massive highly lethal pandemics and the large scale technological or natural disasters.  
6 With or without the participation of other services in support of the civil defense (i.e. the civil and general security).  
7 Lessons learned from this hurricane have been studied in a lot of US universities, experts colleges and numerous institutions.  
8 The word hub means a platform of freight break and exchange. This word is frequently used for Paris major airports.  
9 Vimy’s depot showed signs of visible decay. Boxes of conventional and chemical ammunition dated from WWII were stacked one on the other, with a risk of sudden contact, thus setting out risks of explosion and production of a highly toxic cloud (like mustard gas for example).  
10 Among which the Army specialized units which are the fire brigade of Paris (BSPP) and the “Sécurité Civile” (civil support) military units.  
12 Known as the 4 I. rule.  
13 Whatever it depends from the field of the civil support or the general one.  
14 It is definitely the civilian authority (prefect of zone or department) who tasks the Armed Forces. In concrete terms, after a dialog between the Prefect and the General Officer commanding the Land territorial defense District, the Prefect requisitions the Armed Forces and specifies the mission and the end state.  
15 In fact the Armed Forces do not intervene first; for that it is the mission of specialized civil assets.  
16 Military engaged in domestic operations, despite the fact that they have the use of force, since they are committed in operational mission, in fact have no more power than the simple citizen, at least as long as the state of siege is not declared…The rules of engagement in domestic operations (MISSINT) are therefore only based on self-defense and the duty to arrest anyone in the act.  
17 Ministerial instruction 500.  
18 In August 2008, a level 4 tornado saws the distress in the north of France, in a 12 km long and 500m wide corridor, destroying several quarters of the town of Haumont.  
19 Light Crossing Assets; modular rafts which could be used either as a light bridge for pedestrians or as separate craft.  
20 From now on, there are in the Armed Forces operational support and logistics facilities throughout the territory, which have tents, cots as well as different equipment ready to be deployed on short notice.  
21 In which the unit was able to check and ensure a security perimeter, thus denying the access to ill-intentioned people.  
22 As such, we must recall that some European countries are still not equipped with masks, anti-viruses or vaccines. No answer has therefore be provided to the issue of sharing the available means.
The armed forces: a well structured organization to meet crises or disasters in which the role and the image of the State are greatly committed.

Still, we have to be able to identify and describe these situations including major crises and military commitments that are new owing to their nature and their extent. From which point, from which time, will any commitment of the armed forces be considered as legitimate and relevant?

Natural disasters, industrial accidents, and terrorist attacks are likely to lead to major disorders, a disorganization of public services, civil life, insecurity, violence or looting. State protection, authority, and continuity are subsequently required. Training to difficult or dangerous situations, discipline, State and general interest attitude, availability of human and material resources financed by the national community: as many criteria of legitimate resort.

Therefore, resorting to the armed forces is an additional and efficient tool provided to civilian skills that are insufficient towards events that affect the whole community, even if they are local and one-shot ones. Indeed, the armed forces provide us with a precious set of specific technical skills and a capability to plan, federate, coordinate, and possibly command the various actors that are about to get committed.

Five French and foreign testimonies highlight a couple of unanimously recognized features: legitimately resorting to the armed forces on the one hand and efficiency in the cooperation carried out with civilian forces on the other hand.

**Katrina (August 2005):** highlighted the urgent requirement to evacuate 2 million people within 72 hours, to restore destroyed communication networks, to prevent looting, anarchy, abandonment feeling, and social decay.
River Elbe floods (2006): in front of the floods – a chaos beyond expectations – the requirement to reconsider the scale of priorities, the issue about links between local authorities and French armed forces, but also the importance of local reserve forces, organized and well aware of the area and populations.

Vimy (April 2001): a situation which was specifically under the responsibility of local authorities; but the political authority, the prefectural authority, and the population well received the critical commitment of the armed forces, with specific tools and organization assets.

Haumont (August 2008): support from “Sécurité Civile” (i.e. civil support) teams and firefighters to immediately rescue the populations, then take part in clearing wooded areas and streets, and rebuilding.

As regards several kinds of possible and probable crises, planning works have been launched to train the armed forces in the fields of organization, know-how and assets.

It also prepares us to be reactive and imaginative regarding unidentified crises by developing capabilities to operate together, regular and reserve armed forces, civil support teams, gendarmeries, and a better informed and trained population.
Hurricane Katrina: lessons learned for aftermath management

By Mr. Albert Musgrove (US), Joint Center for Operational Analysis (JCOA), Deputy Chief of Overseas «Deployments Department».

On August 29th, 2005, Hurricane Katrina struck the Gulf of Mexico coast. Today, it is believed it caused the death of 1,500 people: it has been the most lethal hurricane since 1928 (Okeechobee hurricane, 5,000 dead), the third most lethal in American history (Galveston, in 1900, took 8,000 lives). Katrina destroyed an area equivalent to half the surface of France.

This hurricane came too unexpectedly for all experts’ prospective work concerning crisis management, since the scope of the disaster had eluded all previous simulations. The disastrous Katrina experience generated numerous lessons learned regarding the way to face natural disasters, but also those with a human origin, because past experience must prepare for the future, particularly as far as doctrine and training are concerned.

1st part: Katrina will stay a reference in US history

Katrina will stay alive in people’s memory, not only because of the damage caused, but also (as an almost obvious consequence) because of the very numerous lessons likely to improve response in case of a large-scale disaster, whatever its origin.

To measure the scope of the damages caused by hurricanes that regularly strike the south of the US, American authorities use a star-shaped diagram with six input parameters (damages assessed in dollars, destroyed dwellings, damaged dwellings, number of evacuees, number of displaced persons and number of dead).

When Hurricane Camilla struck the south of the US in 1969, 250 people were killed. As the area was quite poor, the cost of the damages caused by the hurricane was not very high.

After that disaster, the US developed a warning system in order to improve the populace’s evacuation. In 1992, Andrew struck a much richer area, in which many private properties were therefore located: 2 million people were evacuated, many houses were destroyed, but there were few people killed, because the system of evacuation had actually been improved. This was to be confirmed with Hurricane Ivan: a few damages and no more.

On the whole, Hurricanes Camilla, Andrew and Ivan claimed comparatively few lives.
On August 29th, 2005, around 11 o’clock (local time), Katrina would assume a far larger scope. Under the pressure of the waves raised by the violent winds, seven dikes were broken, which brought about the flooding of two thirds of New Orleans. Within 18 hours, the city was completely out of all authorities’ control.

Much of the population lives below sea-level. Moreover Lake Ponchartrain and the Mississippi lie above sea-level.

The toll of the disaster was of a much greater scale than those of past occurrences (the assessments for each star entry are on top of diagram): a considerable number of evacuees, displaced persons and destroyed houses, a very heavy toll in human lives, and tremendous financial losses. A nuclear weapon terrorist attack might entail consequences which would be very similar to what occurred in New Orleans, because in this city, as well as in its immediate outskirts, this was a disaster of a scope unheard of, in terms of cost, destruction, number of dead.

2nd part: Lessons learned from the Katrina disaster

Since September 11th, 2001, the US had been getting prepared for facing again such disasters, obviously focusing on large-scale terrorist attacks. Floods were of course part of considered scenarios, but the latter made little room for natural disasters.

A large-scale crisis, whether of a natural or technological nature, is characterized by the conjunction of two completely opposed factors: on the one hand an increase – at an exponential rate – in the needs of affected populace and, on the other hand, a downgrading of available assistance means, since they are themselves affected by the disaster.

Communication with the damaged area is often impossible, due to the destruction of telecommunication equipment and damaged lines of communication. As an example, on August 29th, 2005, only one of the 24 TV or radio channels could still operate.
The main effort must indisputably be focused on military communications.

The communication problems and difficulties in having emergency relief assets available in the area preclude right from the start any correct assessment of the scope of the ongoing event, and possibly its description as a major crisis. The problem is that the decision to call upon out-of-area assets depends on that assessment.

In the case of Katrina the assessment process concerning the scope of the disaster, then the requests for help addressed to the State of Louisiana, as well as those addressed to the federal administration (including the deployment of the assets) spread over three days. Now, within that period, many people died because they had not been rescued.

Therefore it is advisable to organize things early in order to make time allowance for organizing intervention as short as possible; this can be achieved thanks to good situational awareness\(^2\). It is necessary to perceive as early as possible the local capability constraints, and without any delay address specific requests to higher echelons.

Concerning specific equipment, as soon as floods are expected, special attention should be given to waterways crossing equipment.

In the same line, everything that will prove necessary to restore lines of communication (roads, bridges) as well as facilitate the repair of transportation systems, harbors and airports, should be subjected to specific research.

Last, specific attention should be given to information control. Many rumors circulated in the days after Katrina struck. For each incident, due to a lack of knowledge of the facts, it turned out to be impossible to answer the media's inquiries, which fueled accordingly rumors. Information should be centralized and make use of a very comprehensive network, enabling as well to forward information to higher echelons as soon as possible, as to be in a position to provide answers to the media in near-real time.

All these elements were taken into account when, on September 1\(^st\) 2008, while initially it had been described as a category 3 hurricane (like Katrina), then very quickly turned down into category 1 and then categorized as a tropical storm\(^3\), “Gustav” struck the US. In the evening, US President George W. Bush could announce that “cooperation of the emergency response to get prepared for the Gustav aftermath was a lot better than three years ago”.

Since Katrina hit, the coming round of the hurricane season has been an opportunity to play exercises in order to face that type of situation successfully. This being said, you can never be sure that you are 100% prepared for such occurrences.

But there are still problems which should be solved when it comes to defining the responsibilities, at the time of intervention, of the National Guard, of territorial units and federal forces. The same can be said about defining whether the federal administration or the state governor is responsible on a case by case basis.

Lessons drawn from Katrina are helping the US to make progress in disaster prevention, but this will be a long-drawn-out job, which will have to be continued.

1 waves 30 feet tall struck the coast.
2 this phrase is often used particularly in air flight, referring to the way a crew perceive their environment (flight conditions, threats, personal parameters, etc.) as well as how far this perception affects the way the mission is performed and achieved.
3 on September 1\(^st\) in the evening, the water submerged two dikes, threatening to break them down, but these eventually held fast.
1. A “beyond the scope” crisis

To face multiple crises generating hard times for the major vital networks1, EDF (French Electricity Board) Risk Department tasked Xavier Guilhou2 and Patrick Lagadec3 to perform a review of the strategic and operational lessons learned from Hurricane Katrina. Between February and April 2006, they carried out this mission in the field, by building a real “task force”, led by EDF. It included private and public, civilian and military personnel who could meet, most of the involved players for Louisiana and Washington DC. The mission benefited from the support of the French CNO (Chief of Naval Operations)4, the Prefect of the South Territorial Defense Area and the Prefect of the Provence-Alpes Côte d’Azur and Bouches-du-Rhône5 Region. In the US, assistance was provided by the French Ambassador6 and the French Consul7 in New Orleans.

This “Lessons learned” task on the disaster scene, was followed by more institutional other ones in the US. It was also the subject of a significant number of developments at academic level in conjunction with US universities, Canadian and British researchers, as well as the Royal Belgian College. It also generated specific developments in Morocco, in order to think over the crisis management organization with the Moroccan Royal House and the Moroccan armed forces, and with the French Navy and Gendarmerie as well. The investigation continued, in partnership with EDF, towards the major vital networks, particularly the banks, which now draw their inspiration from the Katrina model to manage the financial crisis. It generated operational extents to make aware and train companies in respect of “beyond the scope” crises within MEDEF (The French Businesses CEOs Confederation) and within the crisis management training course organized by IHEDN.

In order to fully understand how important this Lessons Learned (LL) are, we should go back over the dimensions of this exceptional crisis and consider its magnitude and brutality. For most people, New Orleans first reminds us of jazz and tourist attraction of the old French District. However, this area represents first a strategic hub8 for the United States. New Orleans harbors (1st harbor in the US, 5th in the world) actually contribute to supply the South with the whole agricultural production of the Wheat Belt9 as well as manufactured goods from the Great Lakes area, via the strategic corridor of the Mississippi River. It also enables the transportation of oil and gas products from the Gulf of Mexico up to the north. It is really a strategic axis like those intended for Europe product supplying: the Rhône and Rhine Rivers with harbors like Marseille or Rotterdam.
The New Orleans area is characterized by a huge river delta and a coastal front with a quite dense settlement. Therefore it is equipped to fight against water actions (pumping stations, dykes ...) in the same way of what is done to protect similar types of environment like for example Dutch polders or Venice lagoon. This area is already familiar with the constraints that are due to hurricanes and the population, which already has suffered many of them, is regularly informed and is subsequently prepared to them. At first sight, local, regional and federal authorities are not likely to be surprised by such events. In addition, they are supported by an alarm network system10 which is one of the most effective in the world. Moreover the area is outstandingly provided with logistics facilities. Just regarding the road network, we can observe for example that the Americans were successful in the evacuation of almost 2 million people11, within 72 hours, over thousands of kilometers, despite the magnitude of the hurricane threat, and without any incident. This evacuation had to be repeated 3 weeks after Katrina with Hurricane Rita over Houston...

On August 29, 2005 the hurricane hit the Mississippi delta on a radius over 650-kilometers (of which 190 with cyclonal winds and 340 with tropical storms), which more or less corresponds to half the area of France12. The areas that have been affected correspond to half the UK territory. If we try to transpose this event to Europe, we have to imagine patterns like an earthquake in the Mediterranean Sea with one or several tsunami waves on Marseille and Genoa; or the consequences of very violent winter storms on the Northwest of Europe, with dykes breaking in Holland, and neutralization, and even destruction of harbors on the Atlantic Ocean and the North Sea. Similar situations could be imagined on our islands in the DOM-TOM (French overseas departments and territories – the Caribbean Islands and the Reunion Island). Those patterns, which are not likely to come true, seem to be likely for meteorologists. For their part, the Dutch integrated them and are carrying out permanent training13.

As already mentioned, the population was prepared to the consequences of a standard hurricane, with its subsequent rain and cyclonal winds. However, this case, being categorized 5 to 4 by the meteorologists14, the intensity of the hurricane was caused neither by the rain nor by the wind but by the sea. The sea was actually moved by the velocity of the wind (225 km/h). It was not limited to a mere "overflowing"15, but it broke levees at multiple locations. These were however insufficiently maintained. Beyond the debate on the maintenance level ensured by the US Army Corps of Engineers16, the protections were anyway too weak to resist to the water pressure and to the brutality of the storm wave that swept through the coast (equivalent to a tsunami wave). The sea and the waters of Lake Pontchartrain devastated the landscape and immediately submerged all the first-response means that have been deployed on the ground as for a category 1 hurricane. In particular, it was the case in Katrina’s path for the National Guard which had to face a new space-time frame that had nothing to do with the usual maps. NG was denied access to the city and was subsequently neutralized. Katrina was equivalent to the aggregated and simultaneous effects of the year-99 storm, the AZF disaster, the sinking of the Prestige, the Southeast Asia tsunami and the social unrest in Argentina17. To the predictable consequences of a hurricane, we must add levees breaches, persistent flooding, industrial accidents, water pollution, major urban unrest, 350,000 destroyed houses, 2 million people displaced within 72 hours, the complete loss of daily life and communication networks (80 to 90% of vital means were destroyed in less than 3 hours) and officially 1,836 dead and 705 people missing. As clarified by Admiral Thad Allen18:

"Given our mental state and our own experience, we prepared ourselves to deal with a category 1 hurricane. We had actually to face the equivalent although with no criminal intentions"19.
of a weapon of mass destruction”. In fact the whole crisis management capability was hampered by this wrong initial assessment of the event.

The global cost of Katrina was estimated at 200 billion US dollars, i.e. 6 times more than the cost of Hurricane Hugo (1989) or 5 times the cost of the 9-11 terrorist attacks. For insurance companies, this hurricane remains the biggest disaster ever recorded for a nation, in terms of complete damage to property and vital infrastructure.

2. The lessons learned from Katrina

Well beyond the analysis of what we can do on the grounds of this disaster, on the difficulties in the management at political level and on the managerial challenges for all the vital networks, it comes out of this report a significant number of principles for action as well as strategic, tactical and operational lessons that could be used to initiate any further reflections about these “beyond-the-scope crises”. They are considered hereafter in a summary of the main lessons to remember:

21 – Principles of action

These principles are basic:

N°1 - Search and rescue the populations
This is the priority in such a situation. Within three weeks, the US Coast Guard, who were the first players in the area (and with no doubt, the more effective), performed the equivalent of 30 years of tasks. Their spectrum of responsibilities and crisis management capabilities is quite similar to what we have in France, with PREMAR missions and the action of the State at sea. Their method for the evacuation of disaster victims is very close to our RESEVAC (i.e. NEO) concept. Moreover they were supported by a well trained reserve force, with specific skills in handling sea/coast/river/harbor interfaces. In that type of event, the decisive factor lies in the control of the sea with a noticeable air interface (key role for helicopters).

N°2 – Give priorities
Prioritization of tasks is essential in order not to consume all the available means only in searching people (which conversely focus 95% of media attention). In the present case it enabled not to ignore a major environmental disaster, not to neglect the Mississippi River which represents a strategic axis in terms of inland navigation, not to forget the issue of securing the nuclear plants upstream from New Orleans. It also allowed to deal with the off-shore platforms in the Gulf of Mexico that supply the northeast of the US with oil, avoiding then New York City's fuel supply to be disrupted.

N°3 - Re-establish telecommunications and communication networks
Telecommunications became rapidly ineffective. The US Navy responded in conjunction with the Coast Guard, without waiting for orders issued at federal level. A headquarters was activated from USS Iwo Jima (equivalent to a French BPC amphibious assault ship). The Navy also requisitioned several cruise ships (Carnival group) which were positioned along the commercial harbor wharfs. This “Sea to land” operation is a concept favored by the French Navy. Through this principle, telecom networks could be very quickly restored. Meanwhile a civilian-military coordination center for operations was built up (we must be aware that all the standard ground assets and their back-up were destroyed or out of order). It also enabled to deal with the accommodation of thousands of disaster victims during the crisis and mainly after it.

Moreover and in parallel, it is indispensable to manage as soon as possible the media communication aspect of the events, in all its dimensions: TV channels, radios,
the Press, the Internet. In this field, it is important to correctly and timely assess the situation on the ground as security risks have a huge psychological impact on the populations. Then trust and bonds with the population will not be broken.

In this respect, the radio and SMS were the most effective means forward information.

**N°4 - Control an air-platform and/or harbor platform**

As far as crisis management is concerned, preservation of air and/or sea platforms is essential. Methods used for Katrina come close to the well-known military concepts\(^5\) of SPOD (Seaport of Debarkation) and APOD (Airport of Debarkation). In the present case, two personalities immediately stood out: Roy Williams, New Orleans Airport CEO and USCG Captain Frank Paskewitch, Commanding the Louisiana CG District. The American nation considered them and their teams as well, as the actual heroes of the population and city rescue operations.

**N°5 - Quantify, coordinate and control**

Side by side with intervention teams which were rapidly burned out and overloaded with work, there must be another team which works in anticipations to imagine the consequences of the disaster and the crisis management strategies. It is absolutely essential to have available atypical expertise in order not to be short of imagination, initiative capacities and above all leadership.

**22 - Strategic lessons learned:**

Facing such important unconventional situations, we must:

**N°1** - Be able to work for at least 72 hours (even a week or more) while being self-sufficient, without hoping for an immediate and massive assistance from a higher level. The absence or destruction of communication infrastructure (telecommunications, transportation network, airport hub ...) is the decisive factor for managing such a type of crisis. Besides, the levels of sideration and saturation are so important as far as politics and media are concerned that there is nothing to expect from the administrative levels in term of responsiveness. There lies the main point of this LL report: we should be able to get quickly organized with the available resources, as close as possible to the events and the populations.

**N°2** - Be able to set up a grid of transverse networks in order to rapidly re-establish minimum structures on which it will be possible to insert specific organizations.

**N°3** - Consider the key points of the ground and, as soon as possible, get a clear view of the complexity of the situation, which helps to rapidly assess the event, to establish a conduct that, at the same time, is both operational and strategic and as close as possible to the population, and above all, to show leadership in order to protect the concerned community from chaos.

**N°4** - As quickly as possible, understand the level of the crisis in terms of threshold crossing, scale, speed and brutality.

**23 - Tactical lessons learned:**

They fall in with the continuity of the previously considered items:

**N°1** - The true response is local; the major operators (linked to vital networks and security issues) know what they have to do and they have to be trusted. The authorities have a distorted vision of reality and the political and institutional trap is the more dreadful. When the LL reports were issued, most of those who controlled the terrain were in the state of mind of the FEDEX slogan: “my family, my company, the friends of my company, the volunteers of my parish... more than the government!”.

**N°2** - Empowerment of the population is the key to success: whatever the evacuation or the resources mobilization after the crisis are. It is the only management system that allows the creation of a significant operational lever effect while facing a “beyond the scope” issue.
N°3 - Employment of Reserve Component constitutes a strategic lever effect in order to multiply the “first response” capabilities, liaison with the population and an effective terrain control. Methods that were used for Katrina are close to the CIMIC (Civil/Military Cooperation) concept.

N°4 - The media issue is a key problem (distortion, disinformation, saturation of information). Medias are made aware of the situation before players operating in the field and they are resources consuming. With regard to this particular item, during the first operations, the Coast Guard Command was confronted to difficult arbitration issues between coverage of events by the medias and population rescue.

N°5 - The role of leaders is to be aware of the needs, to have the information feed back and to facilitate the operations. Given the complexity of that “beyond the scope” type of situation, it is not a matter of controlling the operations but of facilitating them.

N°6 - To face with the over-complexity, there should be RRF (Rapid Reflection Forces) that are trained to “beyond the scope” issues in contact with HQ and C4i.

N°7 - During a crisis, post-crisis problems have to be considered such as the repositioning of investments and costs should be taken into account (when the consumer/citizen cannot afford to pay, or when he is not coming back).

N°8 - The biggest key issue for post-crisis is when the economic activities go under the break-even point, when the populations have no cash and cannot rely on protection against any financial crash (cf the Argentinean case with freezing of the accounts and the case of the US companies which had to be placed under protection of the bankruptcy law).

N°9 - In a regular situation, always keep two organizations in parallel: one meant for normal operations and the other for “beyond the scope” operations. Public and private organizations which outlasted Katrina were those having that type of management and regularly training with “ruthless” scenarios.

24 - Operational lessons learned:

Well beyond the organization issues, LL report pointed out numerous items related to mindset and crisis management behavioral issues. This type of context requires:

N°1 - To be prepared, as an individual and on a family perspective, to “beyond the scope” situations. You have to be clear in your head, accept the reality and prepare for the worst.

N°2 - To be very professional beforehand (training, preparation of useful networks), to prepare your teams to think that they can expect the worst.

N°3 - To write down a list of the minimum you should keep for survival, for yourself, for your first-level team and for the first operational circle, even allow for pooling at a higher level than yours.

N°4 - To consider “human nature” (stress, tiredness, vital needs).

N°5 - To be clear on what everybody has to do: “You have to do it and We do the same thing!” “They know what they have to do! They are proud to do it”. Never leave staff and support teams without guidance or information.

N°6 - Do not underestimate communication and information issues (media saturation – collapsing conventional networks).

N°7 - To have vital intuitions more than logical certainties (there is no more rationality in that type of context).
N°8 - Plans are outdated within a few hours and the adaptation capability is the key of the success (which does not exclude a rigorous execution). Process and professionalism should not be mixed up. You should rely more on your trade response than following the letter of a crisis check list.

N°9 - To know how to operate with crisis centers that are destroyed or out of service.

N°10 - To take into account the key role of the professional communities (confer the experience for the airport, harbor, Entergy, Mississippi River, Cox). In France, a network like the sea cluster could play a major role in that type of situation.

Conclusion

As a conclusion, five key points should be favored. They relate to the following fields:

**Human resources:** not to lose anyone, his/her skills, and know how to handle traumas. In that type of situation, the capacity to innovate, inspire confidence, launch support organizations for staff (as well as for families) becomes vital.

**Telecommunications and communication mode:** consider complete destruction and permanently readapt procedures in a downgraded mode.

**Logistics:** Be prepared to restore a supply-chain and have operational withdrawal sites available (importance of fuel, water and health-chain). Be prepared to exceptional resourcefulness (loss of communication, means of payment, means of transportation, hospitals...).

**Communication:** mark pace of the progress for rescue actions thanks to visible events in order to restore trust.

**Security:** re-learn the rules related to survival and insecurity. The US understood that they almost had to deal with Liberia-type situations within the first world superpower homeland.

This crisis allowed to point out lessons learned that, at first sight, were obvious, even basic, but not necessarily part of the plans. Many things had been neglected, even underestimated in crisis procedures. This is due to bad habits (a new hurricane chases the previous one away...) and loss of memory or the lack of expertise of the institutions in charge of these issues. No consideration was given for telecommunications collapse, destruction of crisis management facilities, poor resistance of emergency teams to stress, and security issues. An absolute and then excessive confidence had been put in the plans while most of the teams (insufficiently trained) were unable to re-write them after the hurricane occurred.

Many questions remain in the management capacity of that kind of "beyond the scope crisis". With hindsight, it is always easier to criticize than to face the events brutality. Nevertheless, the American teams which had to take over this disaster did quite a good job, even if the media and politicians considered that the overall result was unacceptable for a country like the US.

In France many people think that we are ready because a large number of plans is available to face any type of situation (ORSEC, Blanc, Rouge, Ouragan, Polmar...). The Katrina example showed that within three hours, all the best plans were wiped out, placing the biggest world superpower in default on many points. The real question to come up with concerns the capability of the teams that are in charge of this type of crisis: are they really able to instantly re-write the plans, not to confuse emergency and priority, know how to manage energy and to understand which resources are activated and involved in the field, while as a background, the space-time
framework is completely ruined and victims are in numbers, the whole being under a world media pressure?

Besides that, the coordination issue between all the players is of primary importance. For the United States, given the size of the country, it has proved to be complex but, with hindsight, relatively well controlled if we consider the magnitude of the disaster. It has been made possible thanks to pragmatism in the field, “citizens” sense of initiative and a strong responsiveness shown by the populations (confer the key role of “volunteers”). Should such a disaster hit France, whatever the place where it would happen inland or overseas, the issue of coordination with the civilian society has to be tackled (this concern was at the heart of the management of this crisis in the US). The issue of coordination with other countries should also be included as such a heavy unconventional crisis can not be managed on our own.

Finally, this type of crisis showed that a doctrine on “coastal crises” had to be thought about. Once again the deployment of “sea to land” strategies demonstrated its efficiency. We should not forget that 50% of the world population lives within a distance of 200 km from the sea and that 90% of world trade passes through harbors. At the time of Katrina, the US Navy, following the example of the French Navy operations performed in assistance to populations during the South East Asian tsunami in January 2005 or in another context during Operation Baliste in Lebanon in July 2006, also proved the interest of assets such as BPCs and TCDs to forward the first response teams when nothing was possible from the land. Besides, this LL report shows how topical are joint concepts like NEOs, Apod, Seapod, Cimic, Logistics, and Health, and their possible duplication to face such civil crises.

It also showed all the interest to have a reserve available. As it is coming from the civil society and is well-trained, it can complement both military forces (National Guard, 82nd Airborne...) as well as the civil support agency (FEMA).

As a conclusion, among the major lessons learned, we have to remember the huge difficulties encountered by Admiral Thad Allen, acting as Director of Operations. When arriving in New Orleans, he had, according to his own words, to “classify” the crisis. Regarding LL, this point is essential because the real crisis may fall more in its management than the practical handling of the situation. In this case, it clearly appeared that doctrines could sometimes disturb the analysis of the situation if they are too restrictive, especially when the national security instructions cover threats but ignore risks. However, some natural events can have consequences, as heavy if not more, than malicious actions. It is one of the essential lessons learned from Katrina, which in the first place was perceived as a mere hurricane and with hindsight was classified like a weapon of mass destruction, although with no criminal intent. As an organization comes out of every doctrine, we should be well aware, in that kind of crisis, how to get rid of the doctrinal and conceptual framework. We should show our adaptability and manage the crisis in relation to the effects produced themselves and their consequences while ignoring their origin. Armed with this important lesson and from the perspective of such types of patterns, we could reflect about the interest of the positioning of the Maritime Prefects’ roles, who have operational control on civil and military resources directly reporting to the Prime Minister for the security of our coasts. Here is a type of organization and employment flexibility for the management of national security issues and “beyond the scope” crisis which the US people who were interviewed in the field would have been more than happy to have, in order to facilitate the operations, both at sea and on land.
1. For a long time, EDF has enacted the Lessons Learned report as a rule with respect to numerous “beyond the scope” situations in order to harden its organization and its teams in charge of crisis management. See Xavier Guilhou and Patrick Lagadec in the “Préventique sécurité” review: Confer N°88, “Katrina: Quand les crises ne suivent plus le script” p.31 to 33 and N°101 «Quand les fondamentaux sont touchés, la gestion de crise en mutation» p.33 to 37.
2. Xavier Guilhou, besides his French Navy reserve officer position is also XAG Conseil CEO, IHEDN Auditor and French Foreign Trade Adviser www.xavierguilhou.com
3. Patrick Lagadec is Director of Research at the Ecole Polytechnique and Member of the French Academy of Technologies www.patricklagadec.net
4. Admiral Alain Oudot de Dainville, current ODAS Chairman
5. Prefect Christian Frémont, current Adviser to the President of the French Republic
6. Ambassador Jean-David Levitte, Diplomatic Advisor to the President of the French Republic
7. French Consul Pierre Lebovics
8. The word “hub” means the principle of an exchange and transshipment platform. This term is often used for major airports and harbors.
9. Wheat Belt: terminology that defines the US Midwest cereal areas. 55 % of US cereal exports usually pass in transit through New Orleans harbor.
10. Confer the Miami National Hurricane Center: www.nhc.noaa.gov
11. This figure of 2-million people corresponds to the average volume of population movements (refugees, displaced persons, etc. confer LL reports from Former Yugoslavia, of the Great Lakes, of Sudan, of Southeast Asia Tsunami).
12. By way of comparison, the occurrence of two storms in 1999 affected the equivalent area in France to the one of Katrina, but to a lesser extent, destruction-wise.
13. The Dutch and the Japanese are the only countries which took interest in the lessons learned from this disaster in order to review their national security concepts. Besides they provided their expertise to the US in order to reinforce the New Orleans Area protections in the post-crisis and rebuilding stage.

<table>
<thead>
<tr>
<th>Hurricane category</th>
<th>Central barometric pressure (mbar)</th>
<th>Wind speed (km/h)</th>
<th>Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&gt;980</td>
<td>119-153</td>
<td>minimum</td>
</tr>
<tr>
<td>2</td>
<td>965-979</td>
<td>154-177</td>
<td>moderate</td>
</tr>
<tr>
<td>3</td>
<td>945-964</td>
<td>178-209</td>
<td>extended</td>
</tr>
<tr>
<td>4</td>
<td>920-944</td>
<td>210-250</td>
<td>extreme</td>
</tr>
<tr>
<td>5</td>
<td>&lt;920</td>
<td>&gt;250</td>
<td>catastrophic</td>
</tr>
</tbody>
</table>

14. Hurricane scale:
15. Overflowing of dykes.
16. On many occasions, the local authorities and the US Army Corps of Engineers claimed effectively for funds to reinforce the dykes. Thus not only these requests have been rejected but the Bush administration cut down the annual budget of the New Orleans Corps of Engineers by 71,2USD million – which means 44.2% down since 2001.
18. Commander of the US Coast Guard, then in charge of the crisis management to President Bush and Head of FEMA (Federal Emergency Management Agency).
19. Abstract taken from an interview run by Lieutenant Colonel De Smets (Royal Belgian College), while defending his doctoral dissertation on “Développement d’une architecture robuste d’organisation de gestion de crise”. This research work is run by the research center “Risk, Crisis, Disaster Management (RCDM)” from the Belgian Military and Social Sciences University under shared supervision of Patrick Lagadec from the French Ecole Polytechnique. It belongs to the unconventional crises management area, also called “disruptive crises” or “crises out of the box”.
23. In France, the only difference lies in the management mode of crises which is more centralized (directs links between Maritime Prefects and the Prime Minister), while the Coast Guard Command is much more decentralized, the federal level being activated only on demand from the States.
24. In order to face the biggest natural disaster ever recorded in the Gulf of Mexico, the United States mobilized the whole available resources in the area. Three amphibious ships and a rescue and hoist ship from Hampton Roads harbor rapidly join those already involved in operations USS Bataan. The Navy deployed two Wasp-class amphibious assault ship, LHD 5 Bataan and LHD 7 Iwo Jima (40,000 tons and 40 helicopters each), Amphibious Transport Dock ship LSD 46 Tortuga (15,700 tons, 10 amphibious craft and a helicopter landing platform) and LPD 12 Shreveport (17,500 tons, four amphibious craft and a 4-helicopter landing pods ) and the Rescue and salvage ship ARS 50 Grapple (3,200 tons, hoisting capacity: 54 tons. A 40-ton hoisting capacity crane at the stern and a 7.5-ton capacity crane at the bowl).
25. Aerial Port of Debarkation – APOD and Sea Port of Debarkation – SPOD are two well-known concepts in NATO doctrines. APOD is the arrival point of Strategic Air Transport then Tactical Air Transport.
Intervention of German military forces in the case of a large-scale natural disaster: The Elbe River floods (August 2002)

BY COLONEL (GERMANY), MANFRED MOLITOR CHIEF OF SAXONY DEFENSE COMMAND

First part: the Elbe River floods

When the floods occurred in 2002, the country was not really prepared for such a large-scale disaster, particularly for floods in the Czech Republic border area. Since then, international cooperation with Poland and the Czech Republic has made it possible to manage more efficiently this kind of natural disaster, and to be up to the task.

Two days after their arrival on the site, committed German troops had performed their task very well. This can be seen as resulting from the remarkable capability for command of armed forces, taking shape in obedience to and execution of received orders, which is not always the main feature of civilian units.

After the Elbe River disaster, former Bundeswehr Inspector General Kirchbach drafted a report in order to recommend a number of measures regarding civil-military cooperation.

These were essentially intended to:

- hand practical tasks over to the Bundeswehr
- optimize preliminary anti natural disaster measures through civilian government agencies;
- improve regulations as regards civilians’ evacuation
- set up a common radio communication network; this is a crucial point for commanders who have to face such situations;
- make use of armed forces competences with discrimination
- improve the information system at horizontal and cross levels

The floods which occurred in 2002, although they were something different from a hurricane, were quite as devastating, as reminded by the enclosed photographs.

Second part: the organization of anti disaster measures in Germany

The administrative structure includes three levels:

- central level: Federal Republic of Germany
- regional level: the Länder: Article 3 of the fundamental law provides that the Länder are to take charge of the immediate consequences of a natural disaster. Each Land has its own legislation, including measures to be taken when a natural disaster occurs. Therefore the regional level is in charge in case of a natural disaster (as well as of fires and rescue operations).
• local level: the Landkreis (districts): execution and implementation of all response measures lie within the responsibility of Landkreis and autonomous city authorities.

Warning is initiated by local authorities, at Landkreis level. The district prefect officially declares a “disaster administrative status” and determines the area concerned. Warning also concerns German armed forces deployed within this area.

Then, local administrative authorities take all necessary measures to fight against the disaster, determine competences and guarantee the operational efficiency of command.

The Landrat (District Prefect) can mobilize all resources and agencies located within his area in order to support administrative and operational components. It can thus make use of all existing organizations, whether governmental or non-governmental, such as the Red Cross or any other charity. Moreover, any person over 16 can be enlisted to help fight against the natural disaster.

Article 35 of the fundamental law provides that in case of a natural disaster, Land authorities may (in case they are unable to control the situation) request help from the federal authorities or other Länder. This request for support is issued by the Land government and is forwarded to military forces, provided only that civilian capabilities available in the Land have previously been all used.

**Third part: the basis for armed forces intervention**

Conditions for armed forces intervention were specified by the Department of Defense in 2008. Help from the Bundeswehr is only supplementary, in the sense that it does not make available specific capabilities or additional competences, but actually stays within the confines of additional or subsidiary help.

An order in priorities should be established in case of a disaster, because armed forces cannot permanently have available forces ready for intervention. Moreover, once a decision for intervention has been made, they remain free to determine the courses of action.

The territorial structure (see opposite) is composed of a support forces command located in Cologne, with four subordinate regional territorial commands (Wehrbereichskommando).

Each regional command covers an area including several Länder.

Each Land in turn has a Land territorial command (Landeskommando). This command is contacted by the Land government first and foremost. Then, at district (local) level there are liaison teams, manned by reserve personnel: actually these are well acquainted with the local aspects of the area where they live, are available and prepared for instant intervention. Moreover, they have been trained when playing common exercises, with fire fighters in particular.

Coordination of military operations lies at regional level, that is to say with Wehrbereichskommando.

In the course of intervention, the territorial command takes care of military aspects. In particular, it assesses the situation, the possibility of forces employment, and the necessary logistical support. It organizes forces preparation as well as relief if required, and provides co-ordination for armed forces commitment with all other non-military units fighting against the disaster.
The principle of subsidiarity is always basic to intervention. However the general officer commanding the territorial area is empowered to request support from all military units garrisoned in his area. In the fight against the disaster, he assumes integral command of all committed units. Forces are subordinated but this does not in the least alter responsibilities among troops.

Concerning the materiel and equipment necessary for armed forces to be in a position to intervene efficiently, the basic tenet is that they will always be able to get it from private companies. On the other hand, communication means are a real problem, in so far as it will then be necessary to have available assets which are interoperable with civilian teams (cell phones will prove insufficient even if they can operate without electrical power lines). This is why a common communication system is being developed in Germany.

Last, it should be reminded that intervention of armed forces has a cost. This being said, in the last few years, no Land has had to pay anything to the Department of Defense, because the operations which have been performed could be considered to be part of their training (like for example an aircraft flying over dikes in order to spot possible cracks in the structure). The Department did not deem it necessary to ask payment for participation of armed forces in response to natural disasters.

Today, are German armed forces ready to respond to future disasters? We should consider things carefully, and it is always possible to do better. It is simply possible to say that with assets today available, they are well prepared. The real question is to know what a nation is willing to spend for the prevention of natural disasters.

1 The Land (plural “Länder”) is a federated entity of the Federal Republic of Germany (since re-unification in 1990, Germany has been composed of 16 Länder). Since Germany is a federal state, the Länder have far more extensive power than French “regions”, similarly to Swiss cantons. The scope of their competence mostly includes police and education, but also protection of the environment, construction, social services, or retail trade. [Internet/Wikipedia].
1 - Framework of intervention

I was in office in Lille at the time, as Defense Area Prefect and Prefect of the Nord Pas-de-Calais region; on April 10th, 2001 I was summoned to go at once to the Prime Minister’s office (Mr. Lionel Jospin). He had just heard that on the storage depot located at Vimy, conventional ammunition crates, as well as others containing chemical ammunition dating from World War I, stored one on top of the other, were showing signs of deterioration. According to experts it was very likely that the conventional ammunition would eventually come into contact unexpectedly with the chemical ammunition, resulting in risks of explosion and highly toxic emissions (of mustard gas among others).

While the defaults in control that brought about such a situation should be made clear, that operation was made exemplary by the exceptional character of the civil-military cooperation implemented at highest level, namely between Major General Gaubert, Defense Area General Officer, and the Prefect of the Defense Area.

We should also underline the size and quality of human and equipment assets deployed by the Department of Defense (1,085 soldiers deployed on site), and by the Department of Interior.

While it seemed obvious that what would be done was evacuation of part of the local residents, the point was to find an agreement on the scope of evacuation: experts insisted that a twenty-kilometer (or more) radius protection area should be decreed around the place. This would mean evacuation of 150,000 people! This was impossible in such limited time in satisfactory conditions. The Nord Pas-de-Calais Region is heavily urbanized and densely populated. I decided on a more practical solution: a 3.5-km radius area around the depot, which would entail evacuation of 12,000 people in a few hours, which would be in April 2001 the largest evacuation operation of civilians on French territory since the start of World War II.

The operation was to be performed from a site of the Department of Interior, under responsibility of the “Sécurité Civile” (i.e. civil support)Directorate, and contribution of armed forces was not initially planned. Now, this contribution appeared to me at once to be absolutely crucial, even a prerequisite to respond successfully to the challenge. After an outspoken debate at the Department of the Interior, military participation was given the go-ahead.

It must be admitted that in the initial phases my staff were rather uneasy about that decision, including the member working closest to me, the prefect in charge of security. This was interpreted as evidence that I lacked confidence in them, which of course was not the case. Once more I emphasized the fact that Major General Gaubert was
unreservedly ready to provide support, and that without help from the military the operation obviously could not be successful. These views eventually convinced them, and in the following proceedings civil-military cooperation was all the way remarkable, in particular at defense area level.

2 - Armed forces missions and assets committed

Prior to operation

• Setting up of a joint operations planning center at the defense area prefect’s staff office; everyone could observe the professionalism of these personnel, who are accustomed to perform planning duties within a multidisciplinary framework.
• Reinforcement of the COD² (Defense Operational Center) at the Pas-de-Calais Prefect’s HQ.
• Support to evacuation of civilians, as a reinforcement of requisitioned civilian buses.
• Assistance to displaced persons, with equipment supplied.
• Prepositioning of CBN equipment.

During operation

• Construction at Suippes of the compound intended for reception of yperite shell containers.
• Support to loading of trucks bound for Suippes.
• Participation in providing security measures for Vimy to Suippes convoy, with CBN assets and helicopters.
• Construction of a storage site at Vimy (bastion wall³).
• Support to Prefect’s communications.

After operation

• Support to return of civilians.
• Extension of the Vimy storage site.

I would like to emphasize the psychological aspect of the employment of armed forces. Employment of law and order forces only i.e. police, CRS⁴ (mobile police forces), gendarmes mobiles (mobile gendarmerie units), familiar to civilian populace, did not seem significant enough to me, both because of the number of troops deployed and above all because of their nature: the presence of the military would reassure the people, strengthening the feeling that state authorities had taken control of things, with all assets required for their protection.

Assets:
Medical support:
• 2 advanced dressing stations; 3 aid stations; 205 stretchers

CBN:
• 2,750 S3P protection kits; 1,000 ANP⁵ (gasmasks); 2,500 filter cartridges; 40 AP2C portable contamination control kits; 36 ASATOX chemical-attack warning devices.
• 3 CBN detection armored vehicles; 2 CBN decontamination vehicles; 1 wheeled decontamination station (4 trucks, 2 buses; 2 light wheeled vehicles; 1 tanker).

personnel service support:
• 6,240 camp beds; 9,600 blankets; 9,000 MREs.

Vertical dimension
• 6 airlifters; 3 utility helicopters; 2 light helicopters.

Vehicles and trucks:
• 4 armored vehicles; 32 buses; 36 cross-country trucks; 61 cross-country light vehicles.

logistical transport vehicles: 3 forklifts.

Engineer:
• 1 tracked mechanical shovel; 2 wheeled hydraulic shovels; 2 tracked bulldozers; 1 road roller; 11 hydraulic dump trucks; 1 15-ton trailer; 6 illumination posts.

The deployment of such assets would contribute to reassuring the populace considerably. This is most probably what was missing in the Somme a few days later during
the dramatic floods\textsuperscript{6}, when the prefect’s decision not to request armed forces support immediately left him without that important asset in the management of the crisis.

3 - Lessons learned from the mission

Concerning lessons learned, there was none suggested. In any case it did not involve defense area level, which was never asked anything, which seemed to be a little peculiar from an administrative point of view, to say the least.

However, it is possible to draw some lessons from this civil-military cooperation which in my opinion can be set as an example.

1 – Emergency planning

Planning of the operation was performed by the military, whose skills in this field are widely recognized and proven.

2 – Experts participation

Securing the depot, which was a priority, was also an activity for experts. As for “Sécurité Civile” (i.e. civil support) units, they first set the chemical ammunition apart from the conventional ones (crating, then covering them with a layer of earth). Soldiers surrounded the depot with bastion wall.

3 – A political will

I would like to emphasize the genuine political will to perform the mission successfully\textsuperscript{7}. Thus the Prime Minister gave free rein from a financial point of view in order to cover expenses (bastion wall for example) as they occurred. Quick and unreserved participation of armed forces was a convincing illustration of that political will.

4 – The advantages of proximity-based support

We should also underline the extremely soothing role of a military presence on the site among the populace, who could thus witness concretely the priority given by the government to people’s welfare. Again, this was undoubtedly what was missing a little later, when it was necessary to lend assistance to the victims of the Somme river floods, when armed forces were actually present only after a few days; this was why the local citizens voiced loudly their feeling of exasperation and rebellion at the time.

\textsuperscript{1} Institut d’Etudes et de Recherche pour la Sécurité des Entreprises.
\textsuperscript{2} Centre opérationnel de défense.
\textsuperscript{3} a rigid metal-framed case, of variable size, filled with stones. When stored in staggered rows, these cases build modular walls, used to protect military bases in overseas operations.
\textsuperscript{4} companies républicaines de sécurité.
\textsuperscript{5} appareil normal de protection.
\textsuperscript{6} those floods have affected the “département”\textsuperscript{6} since the beginning of 2001, more particularly between March 23\textsuperscript{rd} and the beginning of May.
\textsuperscript{7} it should not be forgotten that French town elections had occurred the month before. Moreover, the French Prime Minister had just received a rough welcome from the populace when he visited the Somme département on April 9\textsuperscript{th}, at the time of the floods.
Within the framework of a symposium dealing with «emergency on the homeland», comparing so different experiences to each other, owing to the very nature of disasters and their consequences, consists in risking having some discrepancies among lessons learned. It also means that we accept that the way we tackle this issue could be slightly different between central headquarters and local levels.

Then, no repair was possible, and houses had to be brought down completely, in order to fully rebuild them, which was quite shocking for the inhabitants.

During the first stage of the rescue operation to the benefit of the populations, the military helped “Sécurité Civile” (civil support) teams and firefighters, in particular to set up emergency reception areas and dormitories.

The police set up a safety cordon, as some ready-to-loot offenders were immediately attracted by this area, though families hit by the disaster were modest.

Then, a few days after the disaster, the armed forces were committed to clear the wooded areas and the streets, in particular thanks to engineer equipment that had eventually stayed nearly one month in zone, whereas the families were confronted with contentious insurance matters.

The armed forces took part in this action within a well-known and regulated framework. The French CJCS (Chairman of the Joint Chiefs of Staff) does like to mention – in his addresses – the three major strategic ways in which - historically – our armed forces have been committed. «The first way...» he said, on September 22, this year, during an address to the ENA (Government official training university) «aims to protect our fellow

1 – The commitment framework for the armed forces

Of course, the Haumont disaster cannot be compared to the New Orleans one; similarly, lessons learned will be quite different from those resulting from the Vimy ammunition transportation or from the river Elbe floods.

The hurricane consequences were particularly traumatic for the populations: within a very short time, they saw the walls and their houses collapse; then, they experienced a kind of actual bombing of their houses, they said. If a hurricane in the West Indies brings trees down, and blows roofs off, the hurricane that occurred on August 3 in the evening left whole districts as pounded.
citizens and our interests against actual and immediate threats and hazards. I think... of probable natural or ecological disasters. This field is the archetypal field where the commitment of our armed forces cannot be considered out of an interagency framework. Of course, to avoid any confusion, I consider that looking for this synergy requires a clear definition of the role and the limits of commitment regarding the tools available to each Department».

Regarding the DOD (Department of Defense), the legal framework was set and the missions were defined nearly nine years ago. Indeed, in the aftermath of the 1999 storms, the authorities had become aware of the requirement to be able to use assets in a large area and on several fronts simultaneously, while being able to coordinate them. It resulted into setting up the OTIAD (Joint territorial defense organization), as it is known today, together with its central level, its local level, and its county level – each of them including a HQ (Headquarters) structure, a mirror to its civilian counterpart with the prefectural chain.

This is a straightforward, clear, and reactive structure. Indeed, as early as an event occurs in a county, the county military authority is immediately warned by the prefectural services. He immediately reports to the flag officer commanding the defense area, who, in turn, warns the joint operation center. Everyone, at his own level, thinks about a possible involvement of the armed forces and prepares himself for having the required assets used.

Besides, in this scheme - quite focused on the Parisian area - the speed and quality of communications enable to make decisions without delay at this last level, as it is informed nearly at the same time than local authorities of what is going on.

For all that, it is important for each actor – within a joint or interagency framework – to be well aware of these information and decision chains and to comply with the way they operate, so that they remain performing. Indeed, to be relevant, the overall safeguard concept requires a visible and clear display of the armed forces’ organization, so that input points, decision cycles, and the follow-up of activities in progress are not hurt by any ambiguity at the time of a crisis, and so that the set-up organization remains practical and is used cleverly.

As I was tasked to possibly coordinate our operations with our Belgian and British neighbors, I was in a position to carry out some comparisons.

On the one hand, the Belgians have a structure nearly identical to ours: province governors have an available military authority by their side; it commits the armed forces by liaising with the joint staff in Brussels. On the other hand, the British have no similar structures and they chose to set up ad hoc structures depending on the crisis, but without any pre-established or standing structure. No doubt, it does not hamper their efficiency, but it is another approach and it deserves to be mentioned.

### 2 – Major commitment stages

Lessons learned during these last four years at responsibility level 3 in this field convinced me of the importance of being well aware of common skills and assets that could operate together. However, we still have to improve this conviction and to have it shared. Let us see some aspects of it from the important verbs that characterize the different stages of an operation.

#### Anticipating

The anticipation function is part of the armed forces’ culture. It is particularly relevant regarding the gathering and storage of assets. The example of the West Indies is exemplary as the pre-positioned humanitarian stock was used on several occasions in the area, including for Katrina, but especially for Grenada, and for Haiti. From now on, there are operational and logistical support establishments (civil support teams) that have tents, cots, and sundry pieces of equipment that are stored, palletized, etc, and that can be transported on short notice.

#### Warning

The three Services have numerous technical and human assets to take part in searches, and to forward and disseminate warnings.
Planning

The meaning of the word «planning» is different according to the environment. For many people, it mainly deals with compiling monographs, available directories, etc. For the military, it mainly consists in defining the end state from a crisis scenario, and the required assets, and in setting an agenda regarding their commitment, without forgetting their support. This is an area where civilians and the militariy should make improvements by carrying out common headquarters works about issues pertaining to large-scale crises as required by the White Paper.

Gathering and providing information

Of course, the information stage is vital. Lessons learned from hurricanes in the West Indies show the extent to which prefectural authorities need to know what is going on in the field, in order to set priorities among operations to be launched. While disseminating a hurricane warning, it was the reason why military signal troops set up on some hills of the Martinique or Guadeloupe territories; and they stayed there while the hurricane passed by. Then, once it was completed, they opened out antennas and they were prepared to immediately forward terrain data, with a reliable communications network on which prefects and security forces could rely, whereas other communications networks were either ineffective or overloaded (mobile phone networks).

Getting committed

First of all, a prerequisite consists in reconnoitering the affected area prior to any commitment of the armed forces. Then, units are being deployed, and they should be met and guided by people who know the territory or the country very well; this is especially true when it deals with overseas units, as we should not forget that any armed forces commitment relies on a reservoir of national-level capabilities and assets. Therefore, it is rather unusual when committed forces are from the local area. The role of DMDs (county military authorities), reinforced with their reserve officers and NCOs, is thus predominant.

C2 (Commanding and Controlling)

Commanding and controlling operations is not easy, especially when it deals with a contingency headquarters. In the five French Northern departments (equivalent to counties), prefects have a wholly fitted control room available that can be used at any time. But it mainly deals with control center rooms. On the other hand, there is no «plans» cell, as we call them in the armed forces, likely to be used to plan operations for the day after or for two days after.

Supporting forces

As the armed forces are accustomed to support remote operations, they do have skills in this specific field that could be shared with actors rather accustomed to be committed in the vicinity of their bases, and hence, less accustomed to heavy logistics issues.

Protecting

The essential protection mission (regarding the population, assets, etc...) requires an accurate definition of the legal framework about which we now
have to think ahead of a crisis, as the commitment of the armed forces is likely to change rapidly in disaster circumstances (see New-Orleans).

Withdrawing

The commitment of armed forces is generally praised by the population. Beyond their efficiency, their mere presence does show State commitments. Hence, authorities will be reluctant to withdraw them, even if the early mission is completed. This withdrawal often requires a step-by-step and fit-to-circumstances pedagogical preparation, carried out in collusion with civilian authorities.

3 – Are we ready?

No doubt the armed forces are better prepared to carry out a significant commitment on the homeland than they were ten years ago. Improvements have been achieved, both regarding organization and equipment, yet without reaching the level reached by other bodies regarding these last ones (for example NBC assets regarding civilian support teams).

As regards equipment, the armed forces have assets available – organic to their units or provided by commercial firms, or even by specialized bodies (for example hospitals). This issue would be quite different during a large-scale disaster; a large amount of assets would be required, fitted to meet the consequences of a specific event.

No doubt, we are well trained for limited crises, for which there is often an over-response, certainly resulting from current political and media phenomena. Indeed, as soon as a crisis breaks out, the authorities become rapidly aware of their own involvement, of their presence in the field among their fellow citizens. In particular, I notice that a large amount of energy is used up when accompanying such authorities while controlling crises. As for knowing whether we are better prepared for larger crises, we really can doubt it because scales are different. Stakes will also be different, and I fear that our capability to control limited crises rather well will lead us to wrong conclusions regarding large-scale events.

No doubt, we should improve our capability for contingency planning, and set up regional command posts that could operate together, with the same culture, and which have the same approach in order to better carry out efficient common (interagency) commitments. The area structure (prefectural office in a defense area, OGDZ) seems to be the best fitted one for this planning; it would also be necessary for a defense area prefect to have an authority enabling him to take precedence over county ones.

The French Joint Staff, and its employment division, permanently keeps improving the OTIAD thanks to Retex (lessons learned) and by relying on a very open command and control dialogue. The culture of a true Retex and this very open exchange are not shared by all our partners. Yet, we cannot progress without them and our future performance can only result from a more largely shared culture, much more than from artificially implemented structures!

Therefore, after one month’s commitment in the Haumont area, the Northern OGDZ achieved a very detailed and critical lesson learned report, forwarded to the Joint Staff and to all the OGDZs. Simultaneously, the Northern Prefect gathered all the actors to draw conclusions and to congratulate himself on carried-out operations, but especially to consider the difficulties that had still to be overcome over a protracted time (insurances, support to rehoused people, etc…) and that were no longer part of the very crisis.

1. On Sunday, August 3, 2008, about 22h30, a force 4 tornado (winds with a speed ranging from 270 km/h to 320 km/h) wreaked havoc in the Val de Sambre area (Northern France), along a 12-km long by 500-meter wide corridor, destroying numerous parts of the town of Haumont within ten minutes, as well as neighborhoods located in Boussières-sur-Sambre and Maubeuge. 3 killed and 18 injured people, among them 4 seriously wounded. 1,000 houses were destroyed, among which a couple of houses built in concrete and razed to the ground.

2. The storm that occurred on December 26, 1999, destroyed forests in France, Switzerland, Germany, and Denmark, wreaking havoc - unknown so far – with winds up to 259 km/h (recorded at the German-Swiss border); The storm moved at 100 km/h along an axis Brittany, Lorraine, and Alsace axis, over a 150-meter wide front line. On the day after, it was followed by a second storm blowing in the south (Spain, Corsica, South-Eastern France, and Italy). Casualties resulting from these storms amounted to 24 people killed.

In front of a disaster or a crisis, be it natural, terrorist, technological or medical, the protection of the French population and the national territory is a major challenge, in a context of high uncertainty, marked by the multiplication of new risks at a national, but also European if not world-wide level.

This challenge requires a massive and very quick answer from the public authorities and the capability to take adequate and well-proportioned measures. Today, in France, the monitoring and warning systems, be they civil or military are widely sufficient and can be compared to other major nations.

The Army is more and more taking part in relief operations, which is a sign of gratefulness recognition and a strong request from the population under the aegis of the Prefect who is designed to ensure the control of the deployed means to get back to a normal civilian life and public order level.

Moreover the Army has particularly useful skills in the event of crisis: an ability to deploy in a contingency context where reactivity is as important as planning, adequate means to restore infrastructure or communications networks, skills, soldiers’ behavior, the sense of the general interest, the planning, command and control capabilities. Some units are more suited to meet specific requirements: engineers, the Army Aviation, and NRBC units.

But beyond this, the Army is an actor of the nation’s resilience capability which cannot be ignored. We start to think how to prepare the future, particularly how to use the scarce resources (UAVs, cross-country assets, night vision devices, crossings means and helicopters), but also about the legal and operational context of use, the interagency global policy and the call-up conditions which enable to notably increase the available manpower.

The speakers have highlighted the importance of preparing real information procedures, ensuring a permanent information flow for a coordinated efficiency of intervention forces, but also to the benefit of helpless populations who are subject to all rumors, who have sometimes unrealistic expectations and who have a strong need to know and understand in real time the management of the crisis.

The dialog between general and civil support forces and the Armed Forces must be improved by favoring the mutual understanding and interoperability of all assets, in particular the communication ones. The rules of engagement and behavior must also be updated according to the ROE which have been proven.

Finally, the European coordination will have to be developed in favor of an increased aid to be brought to countries which are affected by crises and management methods enabling to face cross-border crises, for example medical ones.

In front of these major challenges, the land forces operational commitment will therefore fully meet the legitimately demanding requirements for protection of the population and durability of the State and its institutions.
I would like to specify right from the start that I shall not speak about the two army units specialized in civil support, namely the BSPP (Paris fire brigade) and the FORMISC (Civil support military unit). To help you understand what I am going to say, let us go back into the past a little: when military service was suspended in France, while however we were worrying about the link between armed forces and the nation, we must admit that at the time the message from the army was: “we are all deployable”, thus ignoring the other aspect “we are all protection forces too”. I said “the Army”, because the Navy and the Air Force perform daily their maritime and air security and protection missions.

Neither shall I linger on what was in my opinion a strategic misjudgment based on short-term vision. The Army should have assumed alone the military tasks of home defense, and should have been fully committed in this field.

This being a prospective round table talk, I will suggest a number of tracks to follow in order to respond to the general guidelines of the “White Paper on Defense”.

Concerning civil support, each crisis entails a specific tempo. There is a very wide spectrum of crises, ranging from floods to CBRN hazards. Lastly, delegation given to OGZDs (Defense Area General Officers) who know the local context because they work in the vicinity of events, will enable to highlight the responsiveness of our units, the know-how and above all the know-how-to-behave of our soldiers.

PARTICIPATING, of course. But how?

From lessons learned in Military Support to Civilian authorities, I would like to pay homage to firefighters and to all Civil support personnel for their availability, devotion to duty and professionalism. Also, I would like to emphasize that organization of command and logistics is quite outstanding in this type of operations. I emphasized this because concerning civil support, army personnel operate under command of the COS (emergency relief operations commander) who generally is a firefighter, who in turn is under command of the DOS (directeur des opérations de secours: director of emergency relief operations) who is actually the Prefect. And since soldiers are well acquainted with the rule according to which “position takes precedence over rank”, whatever the COS’s rank may be, there is no problem. As for the OGZD, even if he does not meddle with operations, he has operational control of troops made available. Naturally he may be a source of suggestions, for reinforcement in particular.

So then, what is more important? the number of soldiers committed as prefects ask, or the mission to perform as OGZDs demand?

Please let us stop being so rigid, because this goes against our interests. Obviously if troops are committed, this is because there is a mission to achieve! But let us admit that the number of soldiers is what is in the headlines! So we should be ready to accept the number and suggest missions which will enable to relieve our fellow citizens while bringing into prominence our soldiers’ skills. Highlighting does not mean that we have to perform highly technical missions only. To lend assistance heartily and considerately to a helpless man, woman or child is no light thing. Those who have been lucky to have occasion to do it know it very well.

Actually the selection of missions can be made only on terrain in conjunction with the COS, taking into account the scope of the disaster and of available equipment and human resources. Therefore it would be harmful to believe that planning
performed by EMIAZD$s^5$ (joint defense area staff), even if it is close to that performed by EMZ$s^6$ (area staff) (collocated with the defense area prefects), enables to feel prepared. Potential detachment commanders should be trained to be committed in this way and to provide recommendations; in other words, to prioritize responsiveness over planning.

This is not a gift of nature. This requires training, experience and above all a certain SPIRIT. This positive behavior lies within the responsibility of the whole hierarchical spectrum. So as to emphasize the will to reach this goal, the following tracks can be followed:

- Include special equipment within the common kit pack.
- Restore “pioneer” training sessions.
- Take part in civil support major exercises, like the VAR 2008 European exercise recently played in CANJUERS ...

... and others, which would constitute powerful signals addressed to leaders.

Concerning training and experience gained, I think that management of officers and NCOs of the SEC (civil support) branch can be a partial answer, with activation of a dedicated post in each army unit or base. Reserve personnel can also be called up, provided we agree to give more flexibility to the current constraints in the process of hiring experts of CBRN, floods, personal relief, etc... without necessarily requiring of them to be full-fledged soldiers. I would even suggest using the “réserve citoyenne” (non operational reserve personnel).

What type of mission?

Emergency relief? My answer is “no”, because this requires professionalism, firefighter’s competence, which entails constraints which are inconsistent with the current rhythm of activity of units. However, units located in the vicinity will be committed immediately and even without orders given, in order to render assistance to people whose lives are endangered, while other units will quickly be committed for support, logistical, transportation, securing or locating missions..., with much desired assets such as helicopters or off-the-road vehicles.

But armed forces will find their place with time only: when lives are no longer jeopardized, but when badly affected citizens still need public assistance.

Let us take the example of a “dirty bomb” attack. Proximity-based assets will be deployed in support in order to secure the area or provide support for people. Army specialized assets, except in the case of prepositioning, cannot be quickly conveyed to the site. They will participate in relief of decontamination chains, then will be in charge of area decontamination in particular, when thing go back to normal.

Concerning natural disasters, once the threat has gone, our fellow-citizens are often left on their own, feeling they have lost everything, as can often be seen on television. There is no stronger symbol than the soldier to represent the nation during these hard times. Everyone knows that soldiers do not perform their job in this case, but act out of solidarity. This new role, easily achievable, would be a remarkable pillar of the “resilience” often mentioned in the White Paper on Defense. However, contrary to appearances, it cannot be improvised, neither on the part of the soldier, nor on the part of the populace or civilian authorities. I shall mention only one of the numerous hints to be addressed to “defense” correspondents, which could contribute to taking the soldier’s role into account within the PCS$^7$ (town security and protection planning) which town authorities are to draft when threatened by disaster.

I would like again to emphasize the fact that these recommendations do not require the implementation of a warning system like those that the elders of my generation have known in the past. A simple warning system using SMS for example will be sufficient. However it will be agreed that the detachment will be committed with no more than the strength and assets available, even if the required number of personnel is not there. I would like to emphasize this point because this does not reflect usual military proceedings. The detachment’s strength will be increased with time, with personnel gradually added to it.

In my opinion what is crucial is to respond quickly, and then after a time to respond satisfactorily.

So, those are a number of hints, briefly sketched, which would enable the army to play a new noticeable part on national territory without too many constraints, meeting the requirements stated in the Defense White Paper, in particular by resuming its role as a pillar of resilience; I said “resuming” because when you think of it, it was already playing this part in the days of conscription.

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1 Brigade des Sapeurs Pompiers de Paris.
2 Formation Militaire de la Sécurité Civile.
3 officiers généraux de zone de défense.
4 commandant des opérations de secours.
5 état-major interarmées de zone de défense.
6 état-major de zone.
7 plans communaux de sauvegarde.
Armed forces intervention as seen by the populace

BY MR. FRÉDÉRIC PONS, EDITOR FOR VALEURS ACTUELLES, CHAIRMAN OF THE ASSOCIATION OF DEFENSE EXPERT JOURNALISTS, AUDITOR AT IHEDN (INSTITUT DES HAUTES ÉTUDES DE DÉFENSE NATIONALE)

1 - The context

In a situation of natural disaster or serious crisis (of the Katrina scale), the civilian populace does not respond in the same way than the military, because public opinion generally wants everything done immediately. This takes shape in the expression of specific, extremely urgent requirements which, if not managed as soon as possible with desirable efficiency and quantity of assets, will result in explosive situations for the organizations and institutions which will have to manage the crisis.

It is also necessary to understand that the civilians do not always draw a distinction between military organizations, whether dressed in khaki (army) or dark blue (air force, navy), and that they often cannot tell the military from gendarme personnel, firefighters, «Sécurité Civile» (civil support) units or even the police.

Failure to distinguish between these personnel means that the military should not expect from civilians any specifically favorable response, sympathy or indulgence; which does not preclude the following question, very often asked as soon as the crisis goes beyond a specific critical point: “where are the military?”, “what are armed forces doing?”

The people’s “common sense” may still prevail, but within limits. The populace may show patience, but no further than a certain point. This is all the more true if the crisis is prolonged and gets worse. Confidence in the intervening institution, whether it is a civilian one or wears uniform, will necessarily be confined within limits.

It is precisely in the course of those exceptional situations, and more particularly in the first phase, which is an extremely critical moment because the people are still feeling the shock, that it will be necessary to determine what is to be done, define the priorities and the operation of adequate state organizations. During this phase, the populace may be subjected to all sorts of feelings and assume all sorts of behavior. During this phase, it will be necessary to take control of things, thanks to the organizations deployed as well as to the personnel dispatched and operating modes used, and to ensure or restore an atmosphere of confidence.

2 – Answering the needs of the populace (information, assistance, property and people security, reconstruction aid).

The requirement for information, as early as the first hours of the crisis, is crucial, as has been shown in all recent crises, whether natural disasters, major incidents or large-scale strikes in public services. The populace may prove to be able to accept the discomforts of a crisis, provided people receive adequate information. This was what was often lacking in the management of a number of crises: from the recent large-scale strikes in RATP (Paris Transit Authority) or SNCF (French Rail Authority) to the major disaster of AZF type (2001) or the tornadoes during the winter of 1999. In this perspective, the tempest in January 2008 in the south west of France seems to have been better managed, with manifest use of private and State information assets.

Then priority should be given to emergency assistance. Whatever the basic cause may be – flood, chemical disaster, electrical bug, etc. – this is an absolute must if the crisis is to be well managed. This involves implementation of assets to perform initial intervention over the whole of the area concerned, as well as preparation for implementation which can not be improvised. It is almost necessary to “saturate” the crisis area with military assets and personnel. The purpose is primarily to reassure people, make them be patient and start to restore basic services in order to get a firm hold on the situation. What is really important is that presence, even if it does not allow immediately efficient effects.

There is an urgent and permanent need for property and people security. Our country is not completely safe against occurrences typical of what happened in Congo or Kosovo in their worst periods, as was shown by scenes of looting on homeland territory on the occasion of major disasters. This evidences that appropriate services may not be numerous enough, or not well enough organized, or may not assess risks properly. In our societies, in particular in cities and periurban
areas, the danger of looting, violence and total insecurity in a situation of crisis is a reality that undoubtedly should be taken into consideration better than it used to be.

After a crisis, the populace also expects genuine evidence of concern during the reconstruction phase. As a general rule, the end of a crisis leads to an overall dismantling of the disposition which has been set up, often leaving the people helpless, with local firefighters or gendarmerie personnel only to help them face reconstruction. It is also during that post-crisis phase that armed forces can substantially improve their public image and gain sympathy by providing moral and material support.

2 – The statement of requirements in support of casualties

As soon as a crisis strikes, local authorities are the first concerned. They want everything at once. Naturally they consider their local problem only, without always taking into account the whole area affected, or the limited scope of available assets. It seems to me necessary to try to inform local authorities as thoroughly as possible so as to explain to them better how civil defense operates, as well as the practical details of emergency assistance.

Associations can also be mobilized very quickly and often with much efficiency, as was seen for example in New Orleans. Coordination of efforts is then absolutely a key factor, so as to avoid any waste of energy and assets. The media will initially be working in the very heart of the crisis through their information activities, responsiveness and omnipresence. Cell phones and the Internet enable – if still operating – instant communications all over the affected area, for better but also for worse, because hyper responsiveness of media, which sometimes appeal exclusively to the emotional, can increase the people’s anxiety and the feeling they have of being ignored.

The persons in charge of the management of a crisis should therefore be trained to manage media pressure. They must be aware that at any time inadequate information may fuel rumor, saturate the populace with emotion or indignation, and over amplify the response of the political leaders, who will in turn exert too much pressure on the main players working in the field.

Openness and information flow should be permanent.

The setting up of a real crisis information center is crucial. The populace will put constant demands on deployed soldiers. People expect to see things taken in hands by men who have been trained not to wage war (because this is not their problem) but to be able to deploy on the homeland in degraded conditions and be efficient to face a situation of disaster successfully. Any rivalry between services or civil or military authorities, as was sometimes seen in the past, would then be very negatively perceived.

4 – Prerequisites for armed forces intervention

The military must be convinced of the importance of their presence and action on the occasion of a disaster on the homeland. They also have to manage things so that the populace may very quickly know that armed forces are ready to face this kind of situation. The military perform similar missions during overseas operations. They must also be enabled to do it on the continental homeland as well as in the DOM-COM (départements d’outre-mer – collectivités d’outre-mer: French overseas departments and territories), with enough assets and well trained personnel. Among military personnel as well as civilians, there is still a measure of doubt hovering about that reciprocity.

Management of the information flow throughout the duration of the crisis is an absolute must. The most urgent needs must be identified as soon as possible, particularly on the basis of the first information items that the people receive.

Complementarity of assets is crucial, so as to have as many of them available as possible on terrain when faced with the most fluctuating situations. The Rhône River overflowing its banks combined with chemical pollution requires much diversified means. It is necessary to be enabled to have them available on terrain because the people would not readily understand that these assets are not immediately available. Coordination of available forces is obviously absolutely crucial. Past experience shows that it is not always achieved as quickly as may be expected.

Last point, the management of emergency assistance in this type of situation is undoubtedly one of the most difficult tasks to achieve. This has been remarkably worded by Prefect Christian Blanc, former Air France CEO: “In case of emergency, it is sometimes advisable not to hurry too much”. The commander’s responsibility is then to know how to determine priorities and to stick to these priorities.

In a word, to be a competent leader.

1 Institute of National Defense Advanced Studies
2 Régie Autonome des Transports Parisiens
3 Société Nationale des Chemins de Fer Français
1. Three statements stand out right away: the increase in the number of threats, the population’s high expectations from the State, and the response to the crisis, as soon as it is identified, at the highest level.

First of all, the increase in the number of new threats, clearly identified in the White Paper, has to be taken into consideration: terrorism, natural disasters, more frequent and violent; epidemiological risk, etc... Then we must reckon the requirements of our compatriots regarding protection against a disaster, whatever its extent or nature is (terrorist, epidemiological, sanitary or natural). Actually, they expect from the authorities both the guarantee of a minimum risk, even non-existent and a total and immediate protection in the event of a crisis. All the lessons learned confirm it. In this respect, Bruno Le Maire mentions the case of Sharm El-Sheikh air disaster causing the death of 110 French nationals. Confronted to tragic situations or a crisis, our compatriots require the authorities to take steps and get results, a challenge which is often difficult to take up. Only an efficient system in response to the crisis can face up to it. Finally, the new threats are less perceptible and tangible than before. It is obvious that the avian flu virus is less easy to detect than the nuclear threat coming from the Eastern Bloc. Therefore the difficulty consists in getting a fix on the reality of the threat and assessing the consequences in a very uncertain context.

The chikungunya crisis in Reunion Island can be taken as an example: was it a simple incident in front of which involved people overreacted? Or was it instead a “true” crisis requiring the setting up of immediate and very important means. In an uncertain world that often depends on technical considerations or divergent assessments, political leaders have to address a major issue: they have to make a realistic assessment of whether a crisis is occurring or not and to determine the appropriate response.
2. Avian flu crisis management: a textbook case for alert, immediate reaction and lessons learned

The Alert:

Once the crisis has been identified, initial arrangements have to be taken. Therefore it is necessary that political authorities be alerted through an effective warning system, like the one used in our country. Because only the political authority is legitimately entitled to make the obvious decision, at local or national level, an adequate warning system consists in a system through which the political authority is warned within minutes following the triggering of the crisis or the realization of a threat. As far as the avian flu is concerned, the political authorities were informed at the right time and at the appropriate level; moreover, the seriousness of the threat could be clearly identified.

The immediate reaction capability:

First of all, the authority that is entitled to act has to be identified (prefect? commander of the military zone? departments of the Ministry of Health or Ministry of the Interior?) as well as the one in charge of the crisis management.

Then a response to the crisis has to be defined, depending upon the means that are available or that can be made ready for use. With respect to avian flu and for lack of sufficient anticipation, means that were immediately available to the population would have been insufficient (anti-retroviral drugs, vaccines, protection masks, etc.), should the whole national territory be affected by the crisis. The possibility of an avian flu crisis affecting France on a large scale had not been seriously considered.
Finally the conceivable duration of the reaction has to be taken into account. Once specific measures have been set up (passing through foot bath, vaccine doses at infected places) how long should the plan be maintained? Because, from the moment that threat has been reduced and in order to put an end to the protection plan, a political responsibility has to be taken, without being completely sure that risk doesn’t exist anymore.

Lessons learned:

Experience drawn from the first episode of avian flu in France was eventful and conducted in a pragmatic way. Without any doubt, the first lesson shows that threat of avian flu remains as strong in 2008 as it could have been in 2006 or 2007. The risk of virus transmission from man to man remains. Besides, it is noticeable that the number of deaths is still high, even slightly higher in 2008 than it was in 2006 and 2007, especially in Asia.

The second lesson concerns the financial area: only for health expenditure regarding the avian flu, the budget for prevention of health crises amounts to more than 800 million euros per year. Thus France grants an important amount dedicated to the only management of vaccine stock reordering or to the building up of necessary mass stocks that would be made available, should an avian flu outbreak occur.

The third lesson learned from the avian flu crisis is related to the general organization of the fight against the threat, now clarified. However, the need to answer some issues and to define the distribution of responsibilities among civilians and military actors will probably remain.

3. Main lessons learned from crises in France

At government level, crises management on the national territory highlights a real French know-how on the subject. The military play a crucial part in this process.

As for the European coordination, it will have to be developed.

With regard to crisis management, a true French expertise is available. The French territory has not been spared by hardships (terrorism, health issues, etc.) and the lessons learned were followed by measures. Indeed, the system is not perfect yet, but it is most likely one of those that are in best position to face up to the crises.

Each crisis commands to reconsider everyone’s part, and especially the task of the armed forces within the French administrative organization; it is necessary since the military will end up having a very visible part to play. This role will eagerly be awaited by the French.

The worst the crisis is, the more the French expect the use of last resort means, i.e. the armed forces.

Finally, if there is a true European coordination, as far as crisis management is concerned, it has to be constantly improved. Thanks to a warning process managed by the European Commission, the Union internal crises are taken care of; thanks to a civil-military response within the framework of European security and defense policy, risks are managed everywhere in the world, The French Presidency of the European Union represents an opportunity to make concrete strides in order to answer our fellow citizens’ concern.

1 In December 2008, Bruno Le Maire was appointed Secretary of State in charge of European Affairs.
2 Viral illness, highly contagious, mainly infecting poultry and pet or wild birds. According to an evaluation report issued by the French Institute for Public Health Surveillance in October 2004, such a pandemic could possibly affect 9 to 21 million people and cause from 91 000 to 212 000 deaths.
3 It should be noted that, on January 13, 2006, 58 departments were concerned by concentration measures regarding poultry.
4 The French Presidency obtained a whole series of decisions that will allow to strengthen solidarity between the member states, effectiveness and coordination of national assets and preparation of all the key players through common training within the scope of a school network as well as institutes responsible for civil defense and humanitarian action. A concept of European mutual assistance has been adopted to guarantee a better risk coverage. Thus, on a voluntary basis, interoperable and mobilizable pre-identified emergency modules have been made available by the member states. This concept lies within the framework of the European civil defense mechanism. The initiatives, as a whole, will be monitored thanks to a roadmap defining; in most of areas, specific objectives and a timetable to achieve them.
Reminding the lessons learned by the military when participating in a crisis on the homeland, it is important to mention that the whole armed forces are concerned, since the population does not look at the color of the uniforms, but mainly at the assistance they can get.

In September 2002, the Gard department went through considerable floodings, then one year later it was the Rhône River's turn to jeopardize dike-contained areas, especially the Camargue, thus exposing population to serious flooding.

Pictures of helicopters (Nîmes French naval air station enabling accommodation for aircraft from Air force, Navy and Army) and of the military rescuing population with their specific resources remain in our memory and have had a strong media impact, not to forget pictures of evacuation of a few animals (bulls and horses), once the situation became less tragic.

As Paris Defense Area General Officer, my current experience is supported by three operations well known by inhabitants of the Ile-de-France (Paris conurbation). First of all, Operation Vigipirate, involving “requisitioned” units within the framework of fight against terrorism. A 600 strong joint task force is permanently deployed inside Paris, as well as in key points like Roissy Charles-de-Gaulle or Orly airports.

Lieutenant General Bruno DARY, the Paris Military Governor, commanding the “Ile de France” Land Military District, relates his own experience, when assigned high responsibilities positions, especially in 2000 as Head of the Doctrine section for the Joint Chiefs of Staff, then in 2002 as Commanding General of the 6th Light Armored Brigade, based in Nîmes. He also shares his former experience as military representative of the Gard “département” (department) and since 2007 as Paris Defense Area General Officer.

"The dear Lord always forgives, sometimes man does, but nature never will"
Then comes Plan Neptune, concerning the participation of the Armed forces in the fight against the Seine River centennial floods. Coordination would be ensured by the Paris Police Commissioner, leader under these circumstances. This plan includes preliminary planning and training exercises.

Finally I do not forget the assistance provided by the Land District Command which takes in homeless people in case of freezing cold, although this mission falls beyond the scope of normal employment of the Armed forces.

Seven lessons learned from the crisis to be used by the Armed forces

1 - The Armed forces which use can only be considered in times of crisis

When the situation is calm, in peacetime, there are organizations, government agencies mainly tasked to assist the population. Calling the military is neither desirable nor wished by the Armed forces; Taking in homeless people is one of these typical examples. Of course, as soon as the cold winter shows up, pressure is high (especially from the media) to accommodate and feed them. However this does not fall within the scope of the Armed forces. If an icy and enduring cold was to fall down on Paris, the situation would obviously be completely different. We would here highlight the benefits provided by the Armed Forces. In other words, most of the time, in an emergency situation, the challenge is to temporarily provide assets whereas these appear to be insufficient, nonexistent, unavailable or unsuitable for civilian needs.

The Armed forces gain strength from the fact that they have equipment available, like for example helicopters with night vision capability, engineers crossing assets (light type). Moreover they know how to use this equipment in a coordinated way, on very short notice and under difficult conditions.

2 - forces available with a sole priority: save lives

Rescuing remains one of the Armed forces’ top priorities. During the September 2001-flooding in Nîmes, military units choose by themselves to assist devastated cities. On a Sunday evening, with their own assets, whereas the waters already cover many roads, helicopters take off from Nîmes-Garons naval air station to rescue people in places that are more dangerous the one than another. Deployed units rescue populations on their own, since there is a threat on human lives. They respond with their own assets, often putting their own lives at risk. Here lie the limits of the system.

It is not impossible that one day, motivated by the unique goal of saving lives, a military commander, whatever his level is, decides to involve forces, without proper judgment and without having really been given specific orders. Should the mission fail or lead to disastrous consequences, he may have to account for this to his seniors or to justice… But it is essential to state that taking initiative for a rapid reaction is paramount and should prevail over a possible assistance request.
3 - Terrain control: essential capability, as soon as the crisis is triggered off

As soon as possible, controlling the disaster areas is essential and could be illustrated with two examples. On the one hand, the explosion of hangar 221 at the AZF chemical plant: not only the scene of the explosion was concerned but also many blocks around. Department stores which were partially or totally destroyed were looted within a few hours because of a lack of an effective terrain control. On the other hand, when Terminal 2E collapsed at Roissy airport, the Vigipirate unit, which was permanently involved, could secure the area within less than one hour, while creating a safety zone and prohibiting access to persons with possible malicious intents (voyeurism, looting, etc).

4 - The State authority should remain strong (Prefect)

Whatever could be the circumstances justifying the resort to the Armed forces, restoring primacy of the State, as soon as possible is fundamental. The Prefect is authorized to use the Armed forces on a disaster area. He can task military commanders. In turn, these officials give orders to units under their command. Thus the current system favors the government authority.

5 - To know how to disengage

Withdrawal of forces should be clearly announced and managed. In September 2001, at the time of Nîmes flooding, it had been made clear from the beginning that “military reinforcements would come in with water and go out with water”. This picture, for the attention of the authorities, conveys the concern of the military to pull out from the field, as soon as the emergency situation did not require the real use of their means any more. The situation could be compared to the one of the Armed forces involved in overseas operations, when this is about the withdrawal from a territory because the normalization process comes close. But it means a political decision to be made. This happens to be generally slow.
To go back to September 2001 in the Gard department, if emergency interventions intended to assist the population are not questionable, other missions ordered later revealed debatable (transport in assistance of wineries). Once again the example of accommodation for homeless people shows that it is sometimes less easy to withdraw from a mission which must be handled carefully, essentially media-wise. We can also refer to the fight against “Chikungunya” on the Réunion Island where the Armed forces had some difficulties to withdraw, whereas, a long time before, the government agencies already were gone ...

6 - Relationships built in peacetime make the management easier in times of crisis

If consistent, friendly and continuous relationship with the Prefect has not been built in daily life, when the crisis occurs, this relationship can only become difficult as everyone will naturally follow his own logic. There will inevitably be incidents. For military officials, it means setting up consistent relationships with administrative local and regional authorities, the Press, the medias, etc. Common training exercises provide a great opportunity to explain that the Armed forces means are limited and this should be taken into account when viewing possible patterns. Because in the end, in case of emergency, the decision to involve the Armed forces actually belongs to the Chief of Staff of the Armed forces. He is the only one with an overall view, encompassing units commitments on the homeland or in overseas operations. The department military representative, at the department Prefect’s level then the commanding general of the territorial defense district at the upper level of the area Prefect has in hands the decision from the Chief of Staff of the Armed forces. This has frequently to be explained to the Prefects.

7 - The importance of a moderate communication

The action of the Armed forces has to be highlighted, because humanitarian aid enhances the status of deployed military units. But this communication should not be based on the tragic situation undergone by populations that already suffered a lot. At the end, such communication would be counter-productive. Communication specialists should keep this pertinent action in mind and act with proper judgment.
Conclusion

Are today the Armed forces prepared to assist their fellow citizens in case of a large-scale crisis? It would be conceited to unhesitatingly assert it, but the Armed forces are doing their best efforts for it. In the case of a centennial flood, we will have some time (3 or 4-day notice period). The crisis reveals to be much more difficult to manage, as soon as it breaks out without notice, and especially when it is not expected. What matters is the capacity of reaction, terrain control, evaluation of needs and decision-making.

Experiences gained by the Armed forces in overseas operations provide them with many skills and proven structures, especially in the field of command. Units are used to respond, always in a rush, with discipline spirit, but being self-sufficient, without relying on the communication network that would be one of the first victims of the crisis, with means they will be the only one to own at that moment.

Then comes the time where the civilian companies can take over from the military. The withdrawal stage should be gradually set up. Then the Prefect completely takes over with many existing and appropriate means that are available and operational again.

1 An administrative district: France is composed of 95 continental “departments” (départements) and four overseas “départements”.

2 During September 8–9 night, 2002, pouring rain falls on the Nimes area. The day after the tragedy, there are 13 dead and 6 people missing, and it causes millions of euros worth of damage. Several communes (the smallest administrative subdivision in France) are devastated. All the areas have been hit by destruction: electrical network, drinking water supply, road and rail networks and a large quantity of public equipment. A few weeks later, pouring rain will fall on the north of the department.

3 Between December 2 and 5, 2003, there was an exceptional Rhône River flood, downstream from Lyon. The flood spread from Bouches du Rhône department to Hérault department.

4 On September 21, 2001, at 10:17am, at a 5-kilometer distance south from Toulouse city center, close to the beltway, an important stock (between 300 and 400 tons) of downgraded ammonium nitrate intended to fertilizer production, exploded, devastating AZF (Nitrogen fertilizer) plant and its neighborhood, causing great harm (300 dead, 2900 wounded with 30 among them in a serious condition) and important material damage. The detonation was heard at an 80-kilometer distance from Toulouse; a earthquake of magnitude 3.4 on the Richter scale was recorded.

5 On May 23, 2004, at 07:00am, a part of the vault of a boarding walkway at Roissy CDG 2E terminal (the more recent one) collapsed; approximately 20 persons were trapped. The loss of 4 persons was lamented. The Plan rouge was immediately activated, with mobilization of emergency services, the Gendarmerie, the firefighters and the military.

6 The chief administrative officer of a “département”.
To start off my briefing, I would like to make three initial statements, from my own experience:

- in case of disaster or distress, victims strongly expect help or support from the military;

- of course, the armed forces are quite accustomed to provide our fellow citizens with this support. Our battalions are regularly committed to the benefit of the population, supporting Government services;

- But I think that today, we have to anticipate more important and more sophisticated crisis management.

As the French President highlighted it in his introductory note to the White Paper: «the after-Cold-War world has rapidly been replaced by a more mobile, more uncertain, and more unpredictable world prone to new vulnerabilities»; and I will not go back over them again. But in the White Paper, we also stress the violence and the devastating character of terrorist threats and natural or technological hazards likely to strike the country; there could have no comparison between their consequences and what we have known so far: «high magnitude and unexpected shocks likely to be devastating or to cripple networks or infrastructures vital to the life of the country» are also mentioned, and they could result into «massive destabilization hazards for population and Authorities». To illustrate this excessiveness, avian flu could induce between 9 and 21 million sick people, between 100,000 and 200,000 deaths – paralyzing more than one third of activities – if faced with a total lack of high-scale health intervention.
In 2007, the role of the French Army was described with 5 verbs: «winning, stabilizing, normalizing, protecting, and helping»; eventually, it conveys what we have been doing for years, including on the French territory, and there should have no ambiguity about this formalization.

When facing high magnitude phenomena, and in case of hard blow, I can but reassert that many of us will naturally be present to help and protect our fellow citizens, because they are well aware of our specific features: readiness, discipline, but also a sense of common interest. Therefore, and when facing threats, they can rely on our commitment on a high scale, as the armed forces are a key element in support of all Government services, and especially the French Army, owing to its capability for contingency commitment anywhere and at any time.

Indeed, land forces are a tool fit for purpose to support civilian authorities when having to meet a high-scale shock, though some adaptations – strongly recommended in the White Paper – are necessary. This is what I am going to show you.

1. Operation framework and major trends are settled in the White Paper.

Right away, the operation framework for the armed forces is set in the White Paper: «the first aim for national security strategy is to protect the population and the territory» (page 62); thus, it ties up again with the spirit of the 1959 ordinance law. Therefore, we have to remind all the people that could doubt it that any commitment on the homeland is not in contradiction with commitment capabilities beyond borders; out of the French territory, they also protect the interests of France, in particular by participating in the control of areas of instability prone to the development of international terrorism. By the way, the French President underlines it in the foreword to the White Paper: «the conventional division between homeland security and out-of-border security has even more decreased».

Taking this as read, the White Paper also provides us with the features of any future commitment, in particular in terms of overall security, as it is also mentioned in this book that «purely military operations on the homeland are excluded in the near future, with the exception of support to crisis management operations in the aftermath – for example - of terrorist attacks or natural or biological disasters» (page 129). In the first analysis, the concept of homeland defense (DOT) is not tackled.

In order to deal with large-scale attacks and disasters that could occur on the national territory, an operational contract – closely linked to the Protection function – is laid down to the armed forces: regarding land forces, «it could include a strength going up to 10,000 servicemen/women within a few days if necessary; thus, it would enable – as a matter of urgency - to take part in the protection of VPs (Vulnerable Points), of land flows essential to the life of the country, as well as in the control of access to the territory, to the benefit of civilian authorities» (page 196).

Of course, we have to add the civil support team chapter through support to populations. Therefore, the standing commitment of land forces within the framework of homeland security missions has just been acknowledged – I would even say regularized – by this contract, because I remind you that the French Army daily provides the country with 1,000 servicemen to protect the national territory within the framework of homeland missions (VIGIPirate, Hephaistos...). The 5,700 personnel committed in GUEPARD warning operations should not be forgotten - who are prepared to get committed on the homeland – as well as the 5,100 standing and rotating personnel stationed in French overseas territories – who are regularly committed to the benefit of our overseas fellow citizens (Chikungunya in Reunion, hurricanes and various earthquakes or volcano eruptions).

Eventually, we will have to «improve» cooperation among the various – public and private - actors taking part in homeland defense to improve the efficiency of this structure, as mentioned in the White Paper. For this purpose, we will have to improve the CIMIC dialogue by favoring mutual awareness and interoperability regarding communications assets. If the first structures that are to bridge this gap are DFOs (District Flag Officers) – reporting to the French CJCS (Chairman of the Joint Chiefs of Staff) – land forces do also take part in it as they will be the first forces to get committed to support the Government and to handle any major crisis. As an example, I would like to underline our standing commitment in the process of drafting and authenticating plans for safeguarding the homeland:
• PIRATE plans against specific terrorist threats (PIRATOX, PIRATOME…);
• Neptune plan;
• The standing commitment of our CBRN (Chemical, Biological, Radiological and Nuclear) forces that regularly train their scouting teams on industrial sites;
• Or the successful initiative carried out by the French Army Signal School in Rennes: it gathered officials from the French DOI (Department of the Interior) (firefighters, police and Gendarmerie forces) and civilian operators – among which France Telecom – in early October, to increase this interoperability; should a large-scale disorganization occur, it would be one of the conditions for success.

Therefore, trends are being provided by the White Paper; and an important part of French Army’s assets are well fitted to them.

*   *

2. Land forces can provide the country with a critical support within the framework of a major upheaval...

Within the framework of a major clash, the armed forces – and the French Army in particular – are nearly the only structures to be able to provide an overall support encompassing all the aspects of a crisis thanks to its specific capabilities and skills. Of course, by using specific and dual skills and capabilities, this commitment takes place within a complementarity framework towards the other bodies that lack them or have them in insufficient quantities. Therefore, land forces can carry out contingency operations to:
• assist populations straight away;
• provide services in addition to services provided by public services, in particular when infrastructures have been damaged (bridges, networks);
• assess damages very quickly;
• or set up highly specialized expertise assets, always according to the principles of subsidiarity and appropriate sufficiency.

It is useful to remember the 1999 storms, when over 8,500 servicemen and 56 helicopters intervened in about sixty counties within three weeks; they concentrated their operations on population evacuation, power and water supplies to isolated villages, as well as the setting-up of a backup telephone network.

Anyway, we have to clearly remind you that the mission of the military does not consist in «carrying out humanitarian missions» but in protecting their fellow citizens, supporting the relevant government services against any kind of threat and/or hazard.

Simultaneously, the disorganization of the country resulting from a major disaster could lead to disorders and troubles. In particular, land forces could be called for by government authorities as third category armed forces to fulfill operations carried out by security forces – police and Gendarmerie forces - in order to enable them to fully devote themselves to LO (Law and Order) missions. They can operate on their own or within the framework of mixed structures, and they show their capabilities to deter and reassure through an active presence. To let oneself get convinced over it, we just have to remember the major floods in December 2003 that hit 5 counties in Southern France. Land forces carried out actual area control missions to deter anyone from any attempt of looting in the evacuated areas.

As a last resort, they could be «called for to carry out forceful operations requiring exceptional security measures» according to the wording of IM (Ministerial Directive) 500. This meaningful decision with serious consequences in a country fitted with security forces, sets land forces in an «ultima ratio» position for the political power. Should we mention that we have to go back to the Algerian war to see such an employment for Army units? There again, we learn from history that the methods of employment should be carefully studied to commit units at the right time with clear orders and under the full responsibility of relevant civilian authorities once such a decision has been made; but we will then have to manage protracted consequences. Let us also remember that in 2007, some people did commemorate the hundredth birthday of the rebellion of soldiers from the 17th Infantry Battalion in Sète, committed in the Beziers area to quell the disorders that had resulted from angry wine-growers. One century later, we remembered that the use of military force for LO operations is not a commonplace action in our country.
Eventually, – as it is the case in overseas operations – land forces are the only forces able to instantaneously implement planning, and command and control capabilities regarding operations, under the responsibility of prefectural authorities and through coordination with the other Services, the Gendarmerie and the other government bodies. To do so, FHQs (Force HQs) in particular are available, or brigades able to set up a large-scale contingency operation. Thus, within the framework of a major crisis that could result from an important rise in the water level of the River Seine (so-called «centennial rise in the water level»), 6,000 Army servicemen could be called up within a few days; the EMIAZD (Defense area joint headquarters) would interact with the defense area HQ regarding CIMIC, and the set-up FHQ would command and control the land forces committed for this purpose. Exercise ALMA 2007 enabled to validate the decision-making process with FHQ Nr. 1 from Besancon.

Thus, the French Army can meet a major crisis on the homeland in order to solve it thanks to its capabilities and skills, but some slight changes should be completed as required in the White Paper.

3. ...But some adjustments and thoughts are necessary.

First of all, we now have to better define the contents, i.e. «a toolbox» describing the required capabilities, whereas manpower’s strength available to civilian authorities is set in the operational contract; these capabilities should be broken down into a specific number of specialized units (CBRN - Chemical, Biological, Radiological and Nuclear – engineers, airmobility...), and into units able to carry out specific missions, so-called MICAT - French Army’s general missions - (AS – Area Surveillance – location surveillance, protection of land flows...). Of course, we do not start from scratch, because a list of locally available assets is available in EMIAZDs, but this essential work should be sharpened under the aegis of the EMA (French Joint Staff). Within this framework, we will have to redefine the use of some of our assets depending on the directions included in the White Paper, such as CBRN; a massive use of CBRN is not to be excluded, but these assets are scarce; or we could think of more systematically using some other capabilities that could happen to be very useful within a highly damaged framework: for example UAVs (Unmanned Air Vehicles), which have the capability of gathering information over some damaged areas while keeping helicopters for other compulsory purposes or major engineer crossing pieces of equipment (ribbon bridges...).

However and without any doubt, land forces could be used to provide forces to a much higher extent than previously defined depending on the magnitude of the disaster. For this purpose, all capabilities will have to be gathered (discontinuing training activities) and reserve forces will be an additional force; they will still have to be upgraded if they are not already committed to the benefit of other Government services, even with their own specific concerns (floods).

We will also have to think about the position of the French Army in «land safeguard»; this broadened concept takes the overall aspect of threats into account, from their origin – often beyond our borders – up to a potential area of operation on our homeland territory, as well as population protection against any kind of threat and hazard, and the protection of the country and the defense of its vital interests, through defense spirit within the French society and its resilience capability. This safeguard - which is placed under the authority of civilian authorities – leaves the armed forces without any permanent responsibility, with the exception of the protection of their facilities. Owing to its skills, the French Army seems to be the best fitted Service to carry out a true expertise by relying more on the OTIAD (Joint territorial defense organization) chain (reporting to the French CJCS), vouching for a high-standard CIMIC cooperation.
Eventually, within the framework of a major disaster that could lead to a full disorganization of Government services, the French Army's role – by taking part in overall security missions – should take place within an accurate legal and operational framework, falling under an overall interagency policy. Without departing from common law, it should guarantee a freedom of action to military commanders in the field within the framework of directives given out by the civilian employment authority and translated into a set of relevant ROEs (Rules Of Engagement), similar to those implemented for overseas operations. These ROEs and corresponding rules of behavior - formalized about ten years ago – could even be improved owing to lessons learned from disasters, for which the security aspect is prevailing – such as hurricane Katrina in New-Orleans in 2005. I am convinced that on our homeland the commitment of our servicemen should rely on very accurate and permanently updated ROEs, as we cannot make any mistake because it deals with the lives of our citizens. But we have to think about it before D-day depending on credible scenarios – based upon our own lessons learned and lessons learned from other countries – for it to work properly when required.

Should a major crisis take place, this necessary cooperation between (civilian and general) security forces and armed forces is not new, as Count de Guibert, in his «Public Force Treatise» in 1790 – the year when he died – already mentioned the complementary roles of «outside forces», forces to be committed beyond our borders, and «inside forces» (National Guard), dealing with LO operations: «both forces should be committed together, when their joint commitment is likely to better restore order». Today, I would just add to it: whatever the kind of disorder and its magnitude.

In conclusion, the French Army is an unavoidable component of the resilience capability of our country, should a major crisis occur. It is quite obvious that all our servicemen will never hesitate to get committed to protect, even to save their fellow citizens by supporting the relevant Government services, whatever the circumstances are. Should a major crisis occur, the Authorities will always be able to rely on the specific features of land forces, i.e. professional rigor, standing availability, and their specific self-containment, which enables them to be efficient within a very large range of missions, even if nothing else is running properly.

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