

ASSESSING A SUITABLE CONTRIBUTION OF THE FRENCH ARMOR BRANCH
TO THE DOCTRINAL DEVELOPMENT OF VIOLENCE: MASTERING
OPERATIONS IN THE URBAN ENVIRONMENT

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General Studies

by

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

ASSESSING A SUITABLE CONTRIBUTION OF THE FRENCH ARMOR BRANCH TO THE DOCTRINAL DEVELOPMENT OF VIOLENCE: MASTERING OPERATIONS IN THE URBAN ENVIRONMENT, by Major Jean-Michel Millet, 96 pages.

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This study analyzes the current state of the French Army doctrinal development of armor employment in the violence-mastering mode in the urban environment and compare it to the lessons learned from recent operations in Somalia, Chechnya, Israel and the Balkans as well as trends for future operations. It focuses more specifically on operations involving the control of violent and instrumentalized crowds.

It concludes that a successful approach of violence mastering operations will require a more dynamic, more integrated, and more diverse role for armor elements. In turn, those requirements will affect the current operational doctrine and French armor force development.

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ACRONYMS

| | |
|-------|---|
| APC | Armor Personnel Carrier |
| HMMWV | High Mobility Multipurpose Wheeled Vehicle |
| IDF | Israeli Defense Force |
| IFOR | Interim Force |
| IFV | Infantry Fighting Vehicle |
| IPB | Intelligence Preparation of the Battlefield |
| JRTC | Joint Readiness Training Center |
| KFOR | Kosovo Force |
| MBT | Main Battle Tank |
| MOOTW | Military Operations Other Than War |
| MOUT | Military Operations on Urban Terrain |
| PLO | Palestine Liberation Organisation |
| RPG | Rocket Propelled Grenade |
| RS | <i>Republika Srbska</i> Serbian Republic |
| SFOR | Stabilization Force |
| TTA | <i>Toute Troupes Armées</i> Nonbranch-specific field manual |
| TTP | Tactics, Techniques and Procedures |
| UN | United Nations |

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CHAPTER 1

INTRODUCTION

Urban Operations--the tankers' nightmare--will be the growth area for armored warfare.¹

Ralph Peters, *Fighting for the Future*.

It is accepted that the final stake of modern warfare is the control of populace. The army should therefore make its main effort in those areas where the population is densest; that is, in the cities.²

Colonel Roger Trinquier, *Modern Warfare, a French View of Counterinsurgency*.

Three factors are underlining the importance of dealing with popular violence with mounted forces in urbanized terrain: the increasing role of stability operations in the post Cold War environment, the growing importance of urban operations and the increasingly reduced number of dismounted troops to act in that environment.

There has been a multiplication of stability operations since the end of the Cold War as the United Nations (UN) was freed from the constraints of bipolarization, and also as the ethnical, nationalist, and religious feuds checked by the ideological divisions of the world were rekindled. Control of the populations and of the political centers of gravity are thus key in this framework, stressing the role and intensity of urban operations in the last decade, as exemplified by the operations in Somalia, Bosnia, and Kosovo. With an increasingly blurred delimitation between combatant and noncombatants, populations are at stake in an ambiguous way, being both an objective and a potential threat. Moreover, the inherent complexity of the urban environment poses the greatest challenge to conventional forces and thus lends

itself ideally to asymmetric warfare as the fights in Grozny (Chechnya) and Jenin (Cisjordan) have shown.

Simultaneously, the general trend in modern armies in the Nineties has been to transition from large conscript armies to all-volunteer forces, with an emphasis on the quality and readiness of the manpower over the quantity.

In the nineties, the French Army had to face those challenges. It has been committed in the Balkans since 1992 and has been involved in most stability operations of the decade. In 1995, it began its transition to an all-volunteer army, which was completed in 2001. To cope with the new challenges of the post-Cold War era, the French forces have redefined their operational doctrine. The current French Joint and Army doctrines³ envision two action modes⁴ (overarching mindsets for conducting military operations): violence mastery⁵ (*maîtrise de la violence*-maintaining violence to the lowest possible level) and coercion⁶ (*coercition*). The French doctrine is underlining the continuity between those action modes through the principle of reversibility (*principe de réversibilité*: in as much as possible, a course of action should make provisions to smoothly transition from one action mode to the other).

One of the peculiarities of the organization of the French armed forces is the existence of the Gendarmerie Nationale as a distinct service. The Gendarmerie is a military police force, almost the size of the Army, tasked on the national territory to enforce law and order in rural areas, providing homeland intelligence and defense, as well as dealing with mob control with mobile units. Abroad, it fulfills the traditional

supporting missions of a military police. It was thus naturally the best-suited service to address the issue of popular violence.

However, the heavy casualties sustained initially by the Gendarmerie forces in Mitrovica (Kosovo) demonstrated the need for a specific concept addressing the issue of the upper end of the scale of popular violence in a hostile and volatile environment. The principles of the new French doctrine and the lessons learned in Bosnia and Kosovo have thus led to a joint doctrinal development. The current draft for the field manual for crowd control operations⁷ is the product of the collaborative work of the doctrinal directorate of the Gendarmerie and the Infantry Directorate For Studies and Prospective Research (Directions des Études et de la Prospective). The armor and cavalry branch has not been deeply involved in these doctrinal works for the following reasons.

The commonality of those stability operations has been the ambiguity and volatility of the situations. Starting as low-intensity, police-oriented operations with strictly defined rules of engagement and consequently a limited room for military decisive actions, those situations degenerated with deliberate outbursts of violence endangering the credibility of the peacekeeping force. In most cases, it would appear that the presence and use of armor units at a critical time would have prevented losses.

However, it is the ambiguity of those situations that hindered the use of armor in the first place, and beyond that, the doctrinal development of armor employment in those situations. By design, armor units are offensive weapons, used to achieve a decisive action in military operations. In operations where the initial objective is to lower the level of violence, the use of armor has been seen as counterproductive, since the reaction against armor units implying the use of specific or ad-hoc anti-tank weapons would likely

increase the level of violence, and potentially affect the credibility of the peacekeeping force.

Furthermore, the urbanized terrain is certainly the most hostile environment to the armor units, as recent operations in Chechnya demonstrated. Thus the branch culture has been playing a negative role in the doctrinal development of the deliberate use of armor units in a crowd-control environment. OOTW and MOUT are simply on the farthest end of the cultural spectrum of the armor and cavalry branch.

Other factors precluding the use of armor are linked with the force generation process and the impact of the media. Expeditionary units with a limited mandate for stability operations are not likely to be equipped with heavy equipment, with the exception of those operations where there was a clearly identified risk of force on force confrontation (as was the case in Kosovo). Even in those cases, Armor units have been used without a clear doctrinal framework, limiting the role they could have played.

The omnipresence of media in current military operations, especially in the tight environment of urban operations have also greatly limited the opportunity of using armor units, as the famous picture of a Chinese student blocking a tank platoon on Tien an Men square exemplifies.

However, the growing importance of the cities and the scale of urbanization in future conflicts, the increasing uncertainty on the potential level of violence involved in peacekeeping and peacemaking operations have led to consider that the scope of operations dealing with popular violence as experienced in the Balkans may not be the pattern of future operations. Indeed the current draft for operations in the context of popular violence makes provisions for an extended definition of these popular violence,

not limited to classical riot control--but ranging from sheer crowd control to dealing with non-combatant in war operations .

There is nonetheless little specific development for the employment of armor units in this environment. A review of allied published doctrine reveals the same lack of specific TTPs for armored units trends and, in most cases, without even the support of a specific updated doctrine for popular violence in Peacekeeping and peacemaking operations.

It is thus the primary question to determine the suitable contribution the French Armor branch should make to the doctrinal development of violence-mastering operations in the urban environment. This question clearly calls for secondary questions including estimating the impact of potential armor employment doctrine on the combined/joint doctrine, the constraints--real or perceived--for armor employment in this specific environment, as well as the benefits, in terms of mission achievement, that the armor units could yield if they would be used with a specific doctrine, based upon the lessons learned in recent operations and the trends for future operations. In turn this comparative study will call for answers on definitions of the necessary conditions, the way to optimize the doctrine and training of the French armor branch. It will also require defining the technological characteristics of those armored units, an essential factor to analyse at a time where major western armies are considering the transformations of their armored units,⁸ specifically the integration of armor with infantry units.

As far as the methodology of this study is concerned, a review of the existing doctrinal work is the essential first step (chapter 2). Given the fact that this is an emerging phenomenon, with many differences in national military cultures, current

doctrine provides a fragmented basis for critical approach. The second step (chapter 3) is to evaluate the lessons learned for armor employment in situations involving popular violence in the last decade. Comparing the current doctrine with the lessons learned from those case studies and the trends of the factors that will affect the management of popular violence in the urban environment in the foreseeable future (chapter 4) will enable the definition of doctrinal and force development requirements for the armor branch (chapter 5).

Assumptions

This study is based on the current doctrinal framework of the French armed forces, which distinguishes between two operational modes--violence mastering and coercion. It is assumed that this will remain the doctrinal reference in the timeframe considered --the next fifteen years. It is also considered that the most advanced countries will stay committed to solve the challenging situations of emerging crises in urban environment in developing countries, even in view of the increasing complexity of factors involved in the decision-making process at the lower level will increase to include political, legal and psychological considerations.

The distinction between military and non-military elements of hostile belligerents is likely to be increasingly blurred. As far as the role of the Armor branch is concerned, the assumption is made that, in the foreseeable future, there will still be a distinct armor and cavalry branch within the French army, in charge of defining its internal doctrine and acting as the main proponent for doctrinal development of mounted combat within the framework of the combined arms doctrine.

Definitions

Terms defined as part of this thesis are described below. These are the manner in which these terms are used within the context of this thesis.

Doctrine:⁹ Fundamental principles guiding the armed forces towards an objective. Those principles are imperative, but their application requires judgment.

Mastery of Violence: One of the two operational action modes (the general manner of operating on a theatre of operations in order to reach one or several objectives selected at the strategic level) in the current French doctrine¹⁰ (the other being Coercion by means of force). It is defined as:

Operating mode or course of action for the Land Forces, requiring the ability to conceive and conduct, in coordination with a number of diplomatic, economic and media actions, military action aimed at the resolution and stabilization of a crisis situation.

This mode combines measures of safety, confidence and even assistance, for those factions involved, and control. It might lead to constraints or coercion actions.¹¹

Armored units: Armored units are defined by the functions they perform on the battlefield. They provide a means for tactical protected mobility (including mobility for mounted infantry), constitute protected platforms for precise lethal and nonlethal direct fires and protected platforms for Command and control, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR). This last function is often overlooked but is gaining importance in the perspective of the increased importance of information dominance.

To precisely delineate the difference between protected vehicles and armored vehicles, it will be considered in this thesis that armored units are those organically equipped with armored vehicles armed with weapons designed to destroy other armored

vehicles (equipped with a main gun of a caliber superior or equals to twenty millimeters. The armor of those vehicles must be sufficient to defeat small caliber projectile (inferior or equal to twelve millimeters and artillery bursts. It excludes light armor personnel carriers and includes the larger infantry fighting vehicles (IFV).¹²

Urbanized Terrain:FM 90-0 describes military operations on urban terrain as:

All military actions that are planned and conducted on a terrain complex where manmade construction impacts on the tactical options available to the commander.¹³

This study considers city, urban area, and builtup area as interchangeable, defined as “a concentration of structures, facilities, and population that forms the economic and cultural focus for the surrounding area.” The diversity implied by this definition should be clearly emphasized, as it constitutes one the major factor for advocating a specific armor doctrine for the crowd-control operations.

“*Contrôle des Foules*,”(Crowd Control--Control of Popular Violence)

The phrase of *contrôle des foules*, now well known and widely used by French forces, is not well translated by the more restricted term of “crowd control.” Its definition is:

A tactical task of ground forces to deny this crowd from hampering or preventing the mission execution or constituting a hazard for the personnel or equipment. This task is executed before the contact with the crowd (intelligence gathering, prevention, deterrence), during the contact and in the stabilization phase.¹⁴

The main emphasis is on special operational functions (civil-military actions, psychological operations (PSYOP), information operations (INFOPS), Intelligence). The tasks associated with crowd control are not limited to the classical street riot control. It encompasses the control of any movement of crowd (including the protection of a moving crowd from an hostile force). The phrase “crowd control” can only be used for

operations outside the national territory.¹⁵ In the context of this thesis, the broader concept of control of violent populations will be used to describe all the military operations ranging from crowd control to counter-guerilla operations, where combatants and noncombatants are not only mixed but also interact.

Réversibilité (Reversibility): Ability to quickly change the style of the current task in relation to the stance of the adverse force(s), especially in order to maintain the level of violence at the lowest possible level in a violence mastery environment.¹⁶

MOOTW (Military Operations Other Than War): Operations that encompass the use of military capabilities across the range of military operations short of war. These military actions can be applied to complement any combination of the other instruments of national power and occur before, during and after war.¹⁷

This is the closest notion in US doctrine to the “violence mastery” mode. However, the French doctrine was specifically written to prevent any artificial distinction between war operation and “nonwar” operations.

Limitations

As stated above, one of the major limitations for this study is that armor units are seldom deliberately committed in situations of crowd control, with notable exceptions (Kosovo and Intifada). Thus, most lessons learned tend to stress what could have been achieved with armor units or with the limitations of the commitment of light infantry units. But they fail to address the impact of armored units in real-life situations.

Furthermore, any doctrinal research is limited by the extent of the assumptions made. Admittedly, the issues of the growing uncertainty of the nature of future operations in urbanized environment, the ever changing face of the urban environment, the social

and cultural aspects of those operations imply numerous assumptions which are as many limitations to the points developed in this thesis. Another limitation is the limited use of allied doctrinal publications when they conflict with the conceptual framework of violence mastery.

Delimitations

Stemming from the need to define a contribution from the Armor branch to the TTA 950 (draft of the field manual on crowd control operations), this thesis is deliberately focused on the issue of violent crowds, although the broader term of violent populations has been used to underline the useful lessons learned from situations of counter-insurgency in the urban environment.

The correlated delimitation is the importance of constrained rules of engagement (ROE). Although the use of lethal weapons is within the scope of this topic, given that it is difficult to imagine situations where heavily armored vehicles would be committed without accepting the risk to resort to lethal weapons, it should be considered as a last resort and, admittedly, as a failure to maintain the level of violence at its lowest. The other delimitation is the framework of the state of the French Army and Joint doctrine as of 1 December 2002.

Significance of the Study

As stated above, currently the role of armored units in crowd control situations is doctrinally very limited¹⁸ and has been confined to a supporting role. This study has been required by the French Armor school directorate of studies and prospective (*Direction des Études et de la Prospective*) to decide upon the drafting of a specific doctrinal manual on the employment of armor units in operations dealing with violent populations.

Depending on the results of this research, the extent of the involvement of armored units in such operations may or may not be developed, and the techniques, tactics and procedures may be differentiated from those employed in high intensity combat in urbanized terrain. As far as the significance of this work for multinational operations is concerned, it should be noted that the lessons learned in Kosovo underlined the mutual doctrinal understanding as the key factor to enable multinational contingents to be successfully committed in operations dealing with violent populations.

¹Ralph Peters, *Fighting for the Future: Will America Triumph?* (Mechanichsburg, PA: Stackpole, 1999), 9.

²Roger Trinquier, *Modern Warfare: A French View of Counterinsurgency* (New York: Praeger Publisher, 1964), 104.

³Instruction 1000, *Doctrine D'emploi Des Forces*, chapter 6, *Les Grandes Familles d'Options Stratégiques*.

⁴Ministère de la Défense. *TTA 106, Terminologie et Symbologie Militaire*. 56. Paris. 2002.

⁵Ibid. “The purpose of the strategic option of violence mastery is to prevent, contain and control the graduation of violence. It implies that those actions cannot be directed to the adversary centers of gravity without running the risk to drag the mandated force in a protracted conflict that the political leader is specifically trying to avoid.”

⁶Ibid., chap 6, section 4 “Coercive action on a declared adversary to impose national or international will is a political choice. It can be deliberately decided or result from an escalation from the violence mastery option.”

⁷See the definition of “controle de foule,” literally “crowd control” infra.

⁸The Stryker Brigade in the US Army, as well as the force development plans for the French and German armies are good examples of the current transformation trends

⁹Ministère de la Défense. *TTA 106, Terminologie Et Symbologie Militaire*, Paris, 2002.

¹⁰République Française, Ministère de la Défense, *Le Concept: d'Emploi des Forces*, 1998 ed. (Paris: Service D'Information et de Relations Publiques des Armées, 1997), 28.

¹¹Interestingly, in the on-going *Intifada*, media use the word “tanks” to designate any tracked vehicle with a gun. In this study where the perception of the psychological effects of armor units is considered, this is an important consideration. These armor units need not to be considered as “pure” armored units. It would be irrelevant to consider any role for “tank only” units in an urbanized environment with a peacekeeping mission. See Général Loup Francart and Jean-Jacques Patry, *Mastering Violence: An Option for Operational Military Strategy*, 3. Unpublished English language summary of the TTA 900 (photocopy), Paris, December 1998.

This action mode is, in large part, the work of General (ret.) Loup Francart, who wrote it as a reaction to efforts to strictly differentiate between combat and peacekeeping—a distinct trait of the current US doctrine. It is an attempt to think through the ways that force can be used in violent situations where there are no declared enemies. The heart of Francart's analyses is that violence itself, rather than an identifiable opponent, will likely be the primary future enemy of French and allied soldiers. Consequently, operations must first be analyzed so that commanders can “penetrate the rationality or the irrationality of the various parties,” which while not being considered as real enemies, “cannot be regarded as neutral elements.” He or she must distinguish between a variety of dynamics, ranging from actual hostility to generalized unrest, to determine the nature and degree of force required to “control, dominate, and eliminate” the threat. Since the aim of military action is to achieve exactly this end-state, it must be employed in a manner to “remove from the belligerents both their physical and moral freedom of action” without provoking an escalation in their opposition. This requires that a commander understand an environment's operational dimensions (land, sea, air, human, electromagnetic), and networks (human and physical), and be able to assert control over them.

¹²Interestingly, in the on-going *Intifada*, media use the word “tanks” to designate any tracked vehicle with a gun. In this study where the perception of the psychological effects of armor units is considered, this is an important consideration. These armor units need not to be considered as “pure” armored units. It would be irrelevant to consider any role for “tank only” units in an urbanized environment with a peacekeeping mission.

¹³Department of Defense, *FM 90-10 Military Operations on Urbanized Terrain*. Available from <http://155.217.58.58/cgi-bin/atdl.dll/fm/90-10/toc.htm>. Accessed on 15 March 2003.

¹⁴*Ibid.*

¹⁵Ministère de la Défense. *TTA 106, Terminologie Et Symbologie Militaire*, 56. Paris. 2002.

¹⁶*Ibid.*, 72.

¹⁷Department of Defense. *JP1-02 DOD Dictionary of Military Terms*. Available from <http://www.sbcom.army.mil/programs/mout>. Accessed on 15 January 2003.

¹⁸TTA950 *Manuel provisoire des forces terrestres dans le contrôle des foules.*
Etat-Major de l'Armée de Terre. Paris June 2001.

CHAPTER 2

DOCTRINAL REVIEW

The study of armor employment in violence mastering operations on urbanized terrain is at a crossroad of doctrinal developments--military operations other than war, urban operations, and armor tactics. However, this precise topic is rather on the edge of those doctrinal works: the French doctrinal documentation on violence mastering barely addresses the tactical level, urban operations doctrine is still emphasizing high-intensity conflict, and there is a distinct reluctance of armor doctrinal proponents to address either violence mastering and urban operations--not to mention the issues related to noncombatants in the urban environment. To determine the suitable contribution of the armor branch to the doctrinal development of violence-mastering operations in the urban environment, it is thus necessary to review the current French doctrinal architecture, to track its potential gaps or inconsistencies as far as this topic is concerned and to examine allied doctrinal references that could provide a basis for specific recommendation.

The concept of mastery of violence is the dominant factor in this study. As shown on table 1, it is specifically mentioned in the manuals that constitute the framework of this study: both at the operational and tactical levels, in relation to other battlefield operating systems and in relation with other factors (civil-military considerations, legal framework, operations on urban terrain, and psychological operations).

Table 1. Architecture of the Mastery of Violence Mode in the French Doctrine

| Level | General Doctrinal Publication | Specific Doctrinal Publication |
|---|---|---|
| Joint (<i>Interarmées</i>) | Livre Blanc sur la défense Concept d'emploi des forces Doctrines d'emploi des forces (IM 1000) | Notice relative à la préparation des armées aux opérations de maintien de l'ordre Doctrines interarmées sur la prévention des crises Evacuation des Français à l'étranger (IM 6000) La maîtrise de la violence Les actions dans les champs psychologiques |
| Army (<i>Armée de terre</i>) | Mémoire de l'Action des forces terrestres au sein des forces armées (TTA 900) Forces terrestres en opérations (TTA 901) Manuel d'emploi de la division (TTA 903) Manuel d'emploi de la brigade générique (TTA 904) Mémoire de connaissance de l'environnement opérationnel | TTA 950 Manuel provisoire pour l'emploi des forces terrestres en contrôle des foules. Manuel d'emploi des forces terrestres en zone urbaine Doctrines des ACM menées par les forces terrestres |
| Armor (<i>Arme Blindée Cavalerie</i>) | Doctrines d'emploi des unités blindées (ABC 100-1) Manuel d'emploi des unités blindées (ABC 100-2) Manuel d'emploi du groupement interarmes à dominante roués-canon ABC100-3 Manuel d'emploi du groupement à dominante Leclerc Manuel d'emploi de l'escadron AMX 30B2 Manuel d'emploi de l'escadron d'éclairage et d'investigation (ABC105-11) | |
| Mechanized Infantry | Doctrines d'emploi de l'infanterie Inf 433 Manuel d'Emploi du Groupement Interarmes à Dominante Infanterie | |

This frame of reference provides the medium to define the boundaries of this study (the overarching principles limiting the role of armor units in violence mastery), as well as the means to track potential inconsistencies.

Doctrinal Publications Providing A Framework For Crowd-Control Operations

As of fall 2002, two doctrinal publications are specifically addressing the subject of mastering violent populations at joint and army levels. At joint level, the Notice Relative à la Préparation des Armées aux Opérations de Maintien de l'Ordre (Training Circular for Public Order Mission) and the TTA (Field Manual) 950 at Army level.

Notice Relative à la Préparation des Armées aux Opérations de Maintien de l'Ordre

This joint level publication is basically the Gendarmerie manual for law enforcement and was published in 1997, that is before the specific events in Kosovo that triggered the decision to publish a specific manual on crowd-control operations. It does not address the issue of reversibility (switching to the coercion mode) as it is only applicable on the national territory. However, it does provide specific and detailed techniques for the use of armored vehicles for the control of civilian population in urban areas and provides a useful guide to define tactics and Rules of engagement in an ambiguous and changing situation.

TTA 950

At Army level, the manual for crowd-control operations in the French Army is the TTA 950 (tentative field manual for land forces in crowd control operations), which was approved on 8 August 2001 and serves as the capstone doctrinal manual for the French Army on this specific issue. As acknowledged in its introduction, it was written as a quick fix and in direct response to the Kosovo operations.

Table 2. Comparison of Rules of Engagement and Behaviour in Coercion and Violence Mastering Operational Modes

| Urban combat (coercition mode) | Crowd control (violence mastering) |
|---|---|
| Flanking maneuver and encirclement tactics are favored Courses of action, enemy lines of communications are objectives. | Crowd must always have an open exit. |
| Desperation of enemy's morale is an objective. | Desperation of the crowd must be avoided to prevent desperate violent (psychotic/suicidal) actions. |
| Deliberate destruction of enemy shelters and equipment. | Private property is sacrosanct. |
| Freedom to enter buildings. | Buildings are private properties. |
| Enemy personnel must be neutralized. | Crowds must be dispersed. |
| Exploitation and pursuit follow enemy withdrawal. | No pursuit. |
| Surprise is favored. | Show of force is favored. |
| Low-density formations. | Massive, high-density formations. |
| Camouflage and dissimulation are enhanced. | Publicity and show of force are favored. |
| Individual initiative is favored. | No individual initiative, strict adhesion to SOPs, ROEs and detailed orders. |
| Optimized use of lethal weapons is favored | Use of lethal weapons is exceptional. |

The principles are consistent with higher doctrinal publication (*Concept D'emploi Des Forces, doctrine d'emploi des forces*), specifically with the endeavor to maintain violence level at the lowest level still compatible with the execution of the mission.¹ It is also consistent with the principle of reversibility between the violence mastery mode and the coercion mode.² It provides the necessary framework for any proposal of armor employment in this type of mission.

The preamble of TTA 950³ fully acknowledges the advent of crowds as a major actor in any future crisis, as well as the limitations put by medias influence and the constraints of the legal framework on means available to deployed military forces to deal with outbursts of violence endangering the accomplishment of the mission. It defines the three goals of crowd control:

1. Mastering space
2. Mastering mass movements
3. Mastering weapons

It also sets an integral framework for crowd control operations which includes not only operations involving contact with the crowd (which are to be avoided) but also intelligence gathering, deterrent and security actions and post-dispersal steps.

It describes the crowd behavior as highly instable and instrumentalized, and thus acknowledges the continuity between MOOTW missions (violence mastering missions in the French doctrine) and War missions (Coercion missions). This constitutes the principle of “reversibility,” which emphasizes the permanent ability of a force in a given posture to either, within minutes, escalate to war fighting (full-fledged urban combat) or

deescalate to reduce the level of violence. It is directly linked to the transition of elements of the crowds from protagonists to “enemy force.”⁴

In itself, the principle of reversibility calls for a specific role of armored units, as they constitute a unique means to quickly transition from a protected static stance to a dynamic one.

The TTA 950 acknowledges the city as the basic milieu for crowd control, because:

It is in cities that crowds meet, it is in cities that, more and more, the violence is brought to life and expresses itself. Cities are a leverage to compensate technological weakness. Cities are an opaque milieu where forces can regenerate. Cities are entry points. Cities have a deep symbolic value.⁵

It also acknowledges the changes in the definition of cities and the blurring distinction between rural and urbanized areas. This is essential, as those twilight areas, with a lesser density (physical and symbolical) are the preferred milieu for armor units where their inherent capabilities (mobility, protection, detection means, imbedded command and control systems) can be brought to bear.

The TTA 950 also elaborates the differences between force and violence, based on distinctions between legal, institutional and ethical frameworks and proposes a definition for the concept of force control (in the same vein as zone control). It poses a challenge for armored units, inherently optimised in their design for lethality (blind areas created by the sheer mass of armor create risks of uncontrolled collateral damages, tracked vehicles create additional damages to the road network).

It defines principles for the use of nonlethal weapons: the main role of nonlethal weapons is to prevent the interlocking of friendly forces with the crowd. It discards the idea of any nonlethal operation, deterrence being the only fundament of the force. Thus

lethal and nonlethal weapons must be paired at all time,⁶ while clear identification of nonlethal weapons as such must be facilitated. Lethal weapons must be used within a graduated scale and video means must be associated with the use of nonlethal weapons to counter media exploitation of nonlethal weapons. Although not specifically mentioned, these principles lend themselves to the use of armor units, both as platforms for nonlethal weapons and to maintain a flexible, highly visible deterrent lethal capability for the force dealing with violent populations.

It emphasizes the paramount role of rules of engagement and rules of behavior in dealing with violent populations. Armored units provide capabilities in line with the principles of self-defense--they enable the use of minimum necessary force, which is inversely proportional to the perceived threat,⁷ they constitute inherently impartial roadblocks and provide stable platforms to deliver a precision response to a deliberate attack.

The TTA 950 is the conceptual framework for psychological actions on crowds--whatever means are employed. Thus the developed typology of crowds and crowd behaviors constitutes a critical reference for this specific topic. Chapter 1 of the TTA 950 distinguishes mass from crowds, mass being considered at the operational level and crowds at the tactical level. It further distinguishes the differences between *resisting masses* (and crowds)--the traditional rioters, *fleeing masses* (and crowds)--flows of refugees for example, and *alerted masses* and crowds--crowds moved by fear. It has considerable implications for this topic since the use of armored units in crowd control is not to be considered only in the case of the traditional resisting crowds--but also when

dealing with fleeing and alerted crowds potentially simultaneously (as exemplified in Kosovo, but also in Rwanda, and more recently in the Ivory Coast).

A consideration is given to the types of violence that can be developed by those crowds, ranging from the non-violence to the deliberate violence, as well as the psychotic violence.

Each of this type of violence poses a distinct problem for the employment of armored units. Non-violence and psychotic violence are worth mentioning as they constitute the two extremes and equally challenge the use of armored units. Media uses non-violence, whereas psychotic violence can lead to suicide attacks against armored vehicles, minimizing the deterrent factor of these elements.

The developed typology also considers elements of crowd analysis such as the nature of the crowd, its physical description (density, grouping, structure), its goals (available means and willingness to use a given type of violence). It emphasizes the elements of multiplicity and simultaneity, as well as the role of political leaders (“strategists”) at the operational level and instrumentalisation of crowds at the tactical level by meneurs (“tacticians”).

It also provides basic elements of crowd behavior:

1. Volume is not an indication of the behavior.
2. Majority of passive elements (women and children) who can be-and are-instrumentalized.
3. Inappropriate reaction of crowd control element can trigger a very sudden and violent reaction.

4. Principle of inertia. The mobilization of a crowd is a lengthy process, but it gains a lot of energy. Thus it is necessary to disrupt very early the mobilization process some shelter.

5. Principle of collective energy. The action of leaders is to capitalize on that principle to further inhibit individual critical thinking.

6. Principle of mutual attraction of masses. Crowds attract themselves and can combine their energy, even if they initially don't share the same characteristics.

7. Life of its own, difficult to perceive reaction without contact, but analysis of contact requires.

These conceptual developments constitute the basis for the situation analysis when considering the employment of armored units. It broadens the spectrum of potential use of armored units, as well as underlines serious legal constraints on these uses.

Consistency and Relationship Between Doctrinal Publications as far as Armor
Employment in Violence-mastering is Considered

The TTA 950 develops TTPs for specific missions within the framework of crowd control operations. Specifically it deals with five different missions⁸ (“*modes d’action*”):

1. Monitoring a flow of refugees.
2. Monitoring a peaceful demonstration.
3. Controlling a riot.
4. Reacting to a deliberate attack of the force by elements of the crowd.
5. Reacting to the intimidation of an isolated unit.

For each of these missions it provides tasks for the armor unit. Those tasks are limited to flank-guards, intelligence gathering and acting as the tactical reserve. However

it provides no details on the employment of those elements, should they be actively committed. It does not provide either any rule for the coordination with dismounted elements.

It also provides doctrinal elements on the task organisation of a crowd-reacting task force which is composed of: a screening force, a blocking force, an interception element (mainly focused on neutralizing sniper elements and riot leaders) and a reserve. However the mix of armored/infantry units is not detailed.

Strict criteria for armor employment are detailed. Armored vehicles have mainly a deterrent role; their use must be strictly balanced with the risks involved.

Table 3. Comparison of efficiency of armor employment and potential risks incurred.⁹

| Criteria for efficiency | Potential Risks |
|--|--|
| Enables the force to avoid direct contact with the crowd Maintain freedom of action | Creates panic |
| Maintain a visible, lethal tactical reserve | Useless show of force can be interpreted as a provocation |
| Platoon size units are the smallest element that can be committed | Armor units must not be committed as static roadblocks or in isolation (vulnerability) |
| Deep psychological effect on the crowd | Exploitation by media. Commitment of armor must be supported by IO/PA. |

The role of sirens, light projectors and cameras associated to gun sights are emphasized. However, the TTPs for the coordination with dismounted units are not detailed. In the same way, procedures for the crowd-control missions beyond riot control are not detailed. Specific ROEs, legal and logistical considerations are not detailed. On the whole, the TTA 950 is well adapted for specific situations as encountered in

Kosovo and traditional crowd control. However, it does not provide specific and detailed indications for the employment of armored units, including the infantry fighting vehicles of mechanized infantry.

French MOUT and Armor Doctrinal Publications

French MOUT Doctrine

The framework of operations in urban environment is mainly discussed in the *Manuel d'Emploi des Forces Terrestres en Zone Urbaine* (Field Manual Of Army Operations In Urbanized Zone). The main emphasis of this manual is on the premium role of synergy between traditional combat functions and emerging functions (PSYOPS, civil affairs, Public information, legal considerations) to retain freedom of action of the army force. It describes at length the specific urban environment, its impact on symmetric and asymmetric threats, the human urban environment- typology, logistical constraints on the force, as well as the impact on combined arms mix.

It does not address per se the employment of armored units in crowd control operations. However it does provide the specific framework for both the employment of armor units in urbanized terrain in a “violence mastering” setting and the constraints of crowd control operations in urbanized environment. It thus complements the TTA 950 by precisely defining elements of situation analysis specific to the urban setting.

It provides its own set of urban-specific missions, most of them being simultaneous:

1. Assistance to the populations.
2. Noncombatants Evacuation Operations (NEO).
3. Protection/control of a force.
4. Control of an area.

5. Control of a threat.
6. Area denial/seizure.
7. Dominance of the threat.

It should be noted that these are not exactly the same missions as those described in the TTA950. However, there are obvious links between them. This linkage is underlined in the specific chapter on crowd control operations in urban environment.¹⁰

The legal framework for crowd control operations is a good complement of TTA 950. It defines the relationship between Army forces (including multinational forces under Operational Control), Gendarmerie forces (or equivalent military police forces) and local police forces depending on the existing legal environment:

1. Existing rule of law.
2. Rule of law non-existent, forces acting upon an international resolution.
3. Open conflict between parties.

The principle is that the army must have greater latitude in ROEs if the legal environment is weak or ill defined.

This chapter also insists on the role of a specific training of military forces for this type of operations, especially for direct action (riot control).

As far as armor employment is concerned, it insists on the close cooperation with dismounted units for which it provides a close protection and fire support and also on the use of mounded units for the control of peri-urban areas (noncontiguous array of forces). However, there are several lacks and inconsistencies in this manual as far as the use of armor in a violence-mastering environment is concerned. The manual does not address the specific constraints of armored units in urban environment, specifically logistical

constraints. It does not address the specific coordination between mounted and dismounted units, although it states this coordination is essential. It does not address either the specificity of the transition between violence mastering operations and coercion operations that is implied by the use of armored units in direct action. Finally whereas, needs for technological development are given a full section of a chapter,¹¹ little, if any, of those needs pertain to armored units.

French Armor Field Manuals

This constitutes the third element of the doctrinal review. French Armor publications are divided into a capstone manual, the *doctrine d'emploi des unites blindees* (armor units doctrine) ABC 100-1, a generic Armor field manual, *Manuel d'emploi des unites blindées*, ABC 100-2, as well as field manuals for specific units :

1. *Manuel d'emploi du groupement interarmes a dominante roues-canon* ABC 100-3 (Wheeled Armored Vehicles Combat Team Field Manual).
2. *Manuel d'emploi du groupement a dominante Leclerc* ABC111 (Leclerc Tanks Combat Team).
3. *Manuel d'emploi de l'escadron AMX 30 B2* (AMX30B2 Tank Company Team Field Manual).
4. *Manuel d'emploi de l'escadron d'éclairage investigation* ABC 105-11 (Scout Troop Field Manual).

The oldest of those publications dates from 1998 (Concept for Armor Employment), and most of them have been published between 1998 and 2000 (i.e. before the publication of TTA 950). None of those manuals address specifically the missions of crowd control. Little consideration is given to either combat operations in urban

environment or missions in a violence--mastering mode. The tasks of area control, force protection and intelligence gathering are given limited coverage. The coordination with infantry and engineer units is presented only in the coercion mode. The constraints and specific tasks for urban operations are also considered only in the coercion mode. There is no specific coverage of the logistical constraints on armor employment in the urban environment.

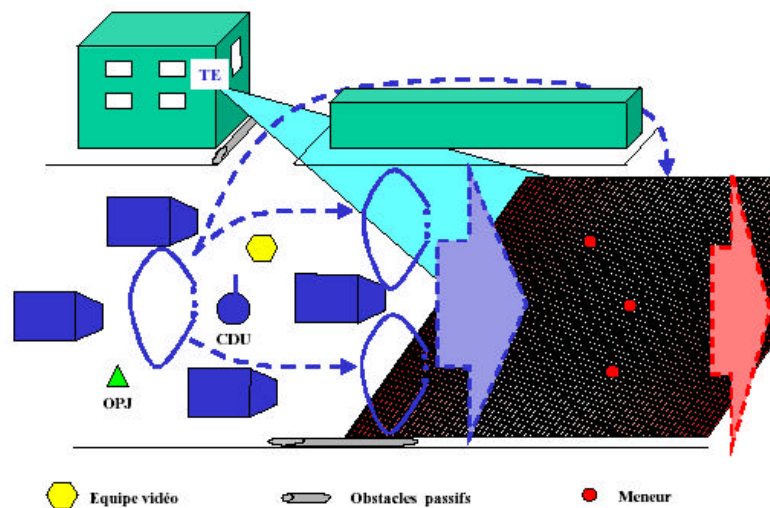
The training requirements of armored units for violence mastering missions--which represent the mainstay of the current operations of armored units--are not defined. There are, however, some exceptions. The ABC 103 (Field Manual For The Wheeled Armored Vehicles Units) does provide elements on techniques and procedures for operations in peri-urban environment.¹² The field manual for the scout troop does provide TTPs for missions focused in intelligence collection and surveillance in an urbanized environment, in a violence mastering environment.¹³

Finally, given the definition of "armored units," French infantry field manuals must be considered to analyze the current doctrine of mechanized infantry and crowd control. However the field manual for infantry-heavy task force¹⁴ envisions only violence mastery operations involving non-combatants only as classical riot control. In that setting, armored vehicles are considered only as mobile roadblocks and shelters as illustrated on the sketch.

Thus, if the current French doctrine does provide an exhaustive framework for operations other than war in the urbanized environment (including those dealing with violent populations) and acknowledges the necessity of combined arms synergy, very little consideration is given to the employment of armored units in that setting. Tasks

given to armor units in the TTA 950 (field manual for crowd control operations) are not detailed in Armor field manuals. The missions given to armor units in that framework are not sufficiently detailed and thus essential considerations such as training, procedures for close coordination with other branches, transition to coercion operations, media considerations in the decision to use armor, are not developed. Finally, there is a heavy emphasis on crowd control operations experiences in the Balkans, but very little on future developments of operations in the urban environment, specifically in the field of instrumentalized psychotic violence.

Figure 1. INF 433 *Manuel D'emploi Du Groupement Interarmes à Dominante Infanterie*, Positionning Armored personnel Carriers in Crowd Control Formations, 132.



Related foreign doctrinal publications

The final step in that doctrinal review is to consider elements of foreign-published doctrine that could supplement the aforementioned lacks.

The latest nonclassified doctrinal publications on Urban operations, Counter-insurgency/support operations/Operations other than war/Civil disturbances, Armor field manuals of the British, US army, USMC and Canadian Army have been studied. However, the study of current, non-classified, US, British and Canadian doctrinal references did not yield a single document, or chapter, dealing specifically with the use of armored vehicles in support of operations dealing with violent populations on urbanized terrain. Much like in the case of the French doctrine, Anglo-saxon doctrinal publications suffer from a rather exclusive focus on either armor employment, urban operations or civil disturbances, with only a limited linkage between those categories in the annexes of the documents.

Nonetheless, the studied foreign doctrinal publications did provide useful references for future doctrinal development in two ways. First, the most recent doctrinal publications on urban warfare stem from the realization that urban warfare, although not desirable and extremely demanding is just unavoidable in the current environment. Thus, they provide a convenient framework for the operational significance of the commitment of mounted forces in the crowd control operations by acknowledging the concept of “three-block” war,¹⁵ that is the blurring between support operations, peacekeeping operations and high intensity conflict both in time and space--assumptions in line with the French concept of violence mastery--but that facilitate the permanent transitions with coercion.¹⁶

Indeed, the rapid transitions from one form of operation to another calls for platforms and structures which are equally able to cope with the full spectrum of operations. Obviously, this and the constraints of limited forces on the theater call for a

renewed interest for consideration of armored units which versatility provide a unique way to transition from one type of operation to another.

Second, the very detailed anglo-saxon type of Tactics, Techniques, and Procedures (TTPs) lend themselves well to the necessity of a very controlled environment such as the one of armored formations in crowd control operations. Specifically, the procedures on the employment of light/heavy teams, coordination of infantry with armored vehicles in urban operations, employment of nonlethal weapons, logistical considerations for the support of armored vehicles, tank/infantry close coordination, consideration for the employment of tracked vehicles in urban areas, conditions to open fire and cordon-search operations are much more detailed than in the French publications.¹⁷

This doctrinal review underlines two facts. First, like all the other emerging doctrinal concepts in Operations Other Than War, Violence Mastering doctrinal development is still in its infancy and has been extensively influenced by the specific lessons learned in the operations conducted in the Balkans--which may not be applicable in future operations in urban environment.

Third, within the current doctrine, the role of armored units has received so little coverage that, given the mentioned constraints and the lack of combined training in that area, the commitment of armored formations would face numerous challenges--for which the armored and mechanized forces are just not prepared.

¹*Concept d'emploi des forces*, 2-3 “permanent mastery of the level of violence.”

²*Doctrine d'emploi des forces*, chapter 6, sections 3 and 4.

³*TTA 950*, 2.

⁴“A party which manifests itself by deliberate hostile acts towards friendly forces and which must be fought by using force if necessary.”

⁵*TTA 950* chap 1-2, section 213.

⁶I.e; some elements of a given force must be ready at all time to make use of lethal weapons.

⁷In Los Angeles riots, the preception by rioteers that the Humwees were armored vehicles had a distinct deterrent effect, and no shot was foired at these vehicles.

⁸*TTA 950*. chap 2-4, section 324.

⁹*Ibid.*, 52.

¹⁰Manuel d’emploi des forces terrestres en zone urbaine chap 3, section 2

¹¹*Ibid.*, chap 4 section 2.

¹²ABC 103 chap 2, section 24-11.

¹³ABC 105-11 chap 3, section 34.

¹⁴INF443 *Manuel Du Groupement Tactique à Dominante Infanterie*, 25.

¹⁵General Charles C. Krulak, “The Strategic Corporal: Leadership in the Three Block War,” *Marines Magazine*, January 1999

¹⁶*Ibid.* In one moment in time, our service members will be feeding and clothing displaced refugees--providing humanitarian assistance. In the next moment, they will be holding two warring tribes apart--conducting peacekeeping operations. Finally, they will be fighting a highly lethal mid-intensity battle. All on the same day, all within three city blocks. It will be what we call the three-block war.

¹⁷See Appendix A

CHAPTER 3

LESSONS LEARNED

This chapter principal aim is to determine the applicable lessons drawn from military operations conducted in the 1990s where conventional forces using armor had to deal with violent populations in an urban environment.

The first section deals with two extreme situations: the first Russian attack on Grozny (Chechnya) in 1994 and the rescue of the Ranger detachment in Mogadishu (Somalia) in October 1993. The purpose of this section is to set limitations on the range of options available when dealing with armor in crowd-control situations, with one situation exemplifying the inherent risks of armor operations in any urban setting and the other the potential risks incurred when ruling-out the use of armored vehicles.

The second section focuses on the lessons learned in Bosnia and Kosovo, a familiar setting for the French forces that has served as a primer and a test of the current crowd-control doctrine.

The third section deals with the lessons drawn from the urban inherently operations of the Israeli Defense Force, as these operations have seen an extensive use of armored units in the task of dealing with violent populations.

Setting the Extremes: Grozny and Mogadishu

One should be very careful in drawing comparisons between operations designed in very contrasting environments. Whereas the Russian raid on Grozny in 1994 was part of a large-scale operation using conventional armored and mechanized forces to seize an urban area from insurgents--with little concern for collateral damage--the raid of a rangers task force that took place in 1994 was a limited operation, within the framework

of a multinational peacemaking, stabilization operation with clear-cut limitations on the use of force.¹

However these two historical cases provides extreme examples of what should not be the doctrine of armor employment in crowd dealing with violent populations--either to forget the limitations and vulnerabilities of armored units in the urban environment or to dismiss completely and deliberately their potential.

Beyond that statement, it is necessary to determine the path which led to the tactical decisions to hastily commit armor formations without infantry support in the Chechen case and that led to discard the idea of an armored reserve in the Somalia case. Lessons learned from the First battle of Grozny (December 1994-January 1995)² The raid on Grozny in 1994 exemplifies the dangers incurred by armor units in any constrained environment when facing insurgents.³ It is well documented and has been the object of numerous researches,⁴ so only the main lessons drawn from this operation, as far as this topic is concerned, will be considered.

In December 1994 the Russian forces launched an armored raid into Grozny, the capital of Chechnya, in order to seize important symbolic Chechen nodes and deny them to the insurgent.⁵ The Russian Plan called for a swift movement of a brigade sized armored column (tanks and BMP Infantry Fighting vehicles of the 131st mechanized infantry brigade. For the sake of surprise, the supporting infantry did not dismount. The Chechen insurgents, well equipped in anti-tank weapons, were very successful in their anti-tank ambushes and were able to destroy or immobilize all but a few of the armored vehicles⁶ from overlooking buildings and street-corners. With a clever exploitation by media, the Chechen challenged the Russian army in a classical case of asymmetric

warfare. Although, after this bitter defeat, the Russians (re)-learned lessons about combined arms in urban warfare, they nonetheless suffered another defeat during the Chechen counter-attack on Grozny in August 1996,⁷ when all the armored relief columns were again destroyed by ambushing Chechen anti-tank teams.

When considering the relevance of this operation to this topic, one has to underline the role of specific factors. Clearly, the poor planning, reconnaissance and training for urban operations⁸ and the overall morale of the Russian troops, as opposed to the Chechen “Freedom fighters” were instrumental in the Russian defeat or, stated another way, there is no certainty that any deliberate, carefully planned offensive using classical principles of combined arms in urban warfare would have met more success, given those overriding factors. The proficiency of Chechen insurgents in anti-tank warfare,⁹ the fact that they had large supplies of anti-tank ammunition and the support of most of the population are also specific. Obviously a deliberate, well-coordinated anti-tank action by insurgents in a crowd-control environment would change the nature of the conflict and justify more robust ROEs.

However, the operation did demonstrate lessons that would be applicable to armored units in a crowd control mission. The most obvious is that the inherent mobility of armored units does not justify that they be employed “pure” in order to seize a positional advantage or to react to an urgent requirement. The Chechen insurgents purposely maintained close proximity with the enemy forces (“hugging techniques”¹⁰) to mitigate the firepower superiority of Russian armored troops.

The cross-attachment of infantry units, dismounted in the area of operation, is a prerequisite of any commitment of armor in an urban environment--whatever the type of

operation. It has far-reaching implications since it means that those forces actually train together in order to gain the necessary mutual understanding and confidence. Training together implies that they share a common doctrine as far as discrete TTPs are concerned. Obviously, given the current organization of the French Infantry and Armor battalions, as well as the training doctrine, this is far from being the case.¹¹

This operation in the first Chechnyan war also reminded the doctrinal community that the employment of armored units required the sustainment of armored vehicles in the urban environment is one of its main vulnerability, because of its size, and due to the fact that most logistical vehicles are not protected (fuel tanks, ambulances, supply and maintenance trucks). The use of armor in the urban environment thus calls for the use of supporting vehicles (armored fuel tanks or “loop system”) that benefits from some form of armored protection.¹²

Also, the difficulty to orient and communicate--even more so for armored vehicles- in the ever-changing urban environment, was emphasized.¹³ To cope with this critical factor, Russian doctrine emphasized the use of ground and airborne retransmitters.¹⁴ This would evidently apply to the commitment of armored units in a violence-mastering environment due to the necessity to tightly control the committed forces. The Chechen insurgents, on the other hand, did not face the same constraints, as they used mainly cheap cellular radios to maintain command and control.¹⁵

There would be a natural tendency to interpret the raid on Grozny as the demonstration that armored units have little use in current urban warfare, given the increased efficiency of portable anti-tank weapons and of the “focusing effect” that the presence of tanks and IFV produces on any operation.¹⁶ However, one should also

consider the fact that, for example, 98 percent of the destroyed tanks were hit where reactive armor could not be placed, which paradoxically demonstrates the efficiency of such a parade. In the same way, the Russian reports emphasized the clear distinction between tanks and lighter, much more vulnerable, armored vehicles. Clearly, if the urban environment affects the equipment of infantry units, it also calls for specific equipment for armor units, well adapted to the specific urban constraints.

On the whole, the lessons learned in Grozny are paradoxical, as far as this topic is concerned the necessity to carefully weigh the constraints of armor commitment in an urban environment were clearly demonstrated. At the same time, most of the lessons dearly learned would apply, in the same way, to any mix of forces--armored or not--transitioning abruptly from a violence mastering context to a coercion scenario. Because the possibility of this transition is implied, to some extent, by the commitment of armored units in a violence-mastering environment, it deserves to be studied closely.

Somalia- Mogadishu

OPERATION RESTORE HOPE, the United States-led operation in Somalia, began on the 9 December 1992 to provide a peacekeeping force monitoring a cease fire between the warring factions and facilitating the distribution of international aid to stop starvation in the country. The United States-led mission was designated Unified Task Force Somalia (UNITAF). UNITAF was given the full political support of the United Nations, but the operation would be planned and executed by the United States. UNITAF, in May of 1993, turned the mission back to the United Nations under UNOSOM II with a much-reduced US contingent.

On the night of 3 October 1993, in Mogadishu, a company of U.S. Rangers and a delta force commando squadron helicopter-assaulted the house of one of the lieutenants of Mohammed Aideed, the most powerful Somali warlord.¹⁷

After two transport helicopters were destroyed, the main effort went to the rescue of the downed crews. The preplanned airborne rescue force was able to secure the site of one of the helicopter. However the ground convoy retasked to rescue the other helicopter's crew was only lightly equipped with HMMWV, whereas insurgents were using crowds and roadblocks to prevent the evacuation of the prisoners and was submitted to continuous ambushes. Another rescuing convoy equipped with light vehicles was similarly forced to turn back for the same reasons.

Eventually, hours later, an ad-hoc relief convoy made up of Pakistani tanks and Malaysian Armor Personnel Carrier (APCs) was able to rescue the task force, which, in the meantime had suffered heavy casualties, filmed by the medias. This led to the American withdrawal from Somalia.

Whereas the commitment of unsupported armored units was admittedly the hallmark of the first battle for Grozny, the rescue of Task Force Ranger in Mogadishu, Somalia in 1993 is a case of self-censorship on the use of armores units and thus provides the most contrasting situation. It exemplifies an operation in an urban environment featuring violent population where the use of armor is self-restrained. The important thing here is not so much to remake history to see what could have happened if an armored reaction force had been planned to extract Rangers from the Somalia crowd. It is rather to analyze what led to the decision to refrain from incorporating armored elements in the contingency planning.

General Montgomery, who was acting in the dual role as a deputy commander of UN forces and as a commander of the US forces requested tanks to support the US forces in a request to the US central command a month before the raid, on the grounds that “[he believed] that US forces [were] at risk without them.” However Defense Secretary Lee Aspin turned down the request because “There was no need to increase the violence or increase the aggressiveness,”¹⁸ and also because he thought the armor was needed to escort convoys and for general force protection, not to support raids.

This demonstrates both the political implications brought up by the use of tanks in peacekeeping operations, and the lack of doctrine on the role of armored units in this type of operation. Other reports show that actually there was no request for armor support from the task Force Ranger¹⁹--due mostly to the cultural bias between light and heavy forces. Interestingly, if the US Army had no armor unit left at that time in Somalia, such was not the case for the Marine Expeditionary Unit that took part earlier in Operation Restore Hope (UNITAF I). This unit fielded one platoon of M1A1 tanks and used them extensively in direct support of marines and Coalition forces. The tactical operations accomplished were, for the most part, consistent with the definition of armor units operations as defined in the TTA950: surveillance and patrolling, show of force, raids and limited objective attacks, MOUT, convoy escort, mobility enhancement, extraction of personnel as well as area denial.

The difference between the US Army approach and the Marines Corps approach on this issue was that actually the armored element was an inherent part of the MEU, which enabled the commander to develop SOPs to address the constraints of very restrictive Rules of Engagement:

It [the M1A1 tank] allowed the infantry to be much more accepting of the restricted ROE and dissuaded the hostile elements from attacking the Combined Joint task Force . . . The forces that were the most protected and best armed were most able to maintain control of the operational environment and maintain the initiative thereby imparting their will upon the populace.²⁰

These two extreme case studies thus shed a light on the relationship between specific branch doctrine and the enhancement, or the limitation of the operational commander's freedom of action. In both cases the absence of an adapted and accepted doctrine for the employment of armor led to a disaster--in one case because the risks were not carefully analyzed, in the other because the task organization of an armored force would have required a considerable political will that was beyond the possibilities of the administration at that time.

Bosnia and Kosovo

The missions pertaining to the control of violent populations executed in the Balkans constitute the roots of the current French doctrinal works. As described in the second chapter, the French Draft Field Manual for crowd-control, the TTA 950, like most of the doctrinal development on the "violence mastering" mode, stems from the lessons learned on that theater of operations. Thus, in order to better appreciate the objective value of a potential specific doctrine for armor elements in crowd control missions, it is necessary to distinguish the lessons learned that were common to other case-studies, the specificities of that theater.

Set Patterns For The Control Of Violent Populations

The most important factor as far as patterns of operations dealing with violent populations are concerned is certainly the uncertainty of the overall operational environment. As explained by Brigadier General (UK) Jonathan Bailey :

The experience of the Kosovo Force (KFOR) seems to indicate that in complex and rapidly developing political circumstances, the mission of a force is bound to evolve. Perhaps “mission creep” is what you call “mission evolution” when you cannot cope with it. If we controlled events, we would not be in that position in the first place.²¹

Like in Somalia, the role of public opinion support, and consequently the role of Media perception was an essential factor when considering the employment of armored forces. This factor should however be mitigated when considering--at least for European forces and specifically French forces--the disastrous impact of forces taken as hostages in 1995. Clearly, in 1995, the public opinion was favoring more latitude for committed forces and certainly would accept the use of armored vehicles in order to impose peace and protect soldiers.²² Forces that were sent to Bosnia, much like in Chechnya or Somalia, were not trained for operations in such a constrained environment. Consequently the ability (or failure) to develop and apply imaginative tactics and procedure--as opposed to “textbook solutions,” while maintaining a thorough command and control structure, were again validated.

Much like in Somalia, the legal framework was a central issue when considering the use of armored units. However this factor works both ways. Certainly, the ROE impose a drastic constraint on the use of force- armor units, thanks to the armored protection they afford- increase the “critical threshold” where commander have only the option to use lethal force or endanger the survival of its force. Another lesson shared by the other case studies is the limited number of dismounted infantry available to deal with a potentially violent situation between opposed populations and consequently the necessity to maintain a thorough intelligence on the ground as well as sufficient mobility and freedom of action of troops. Contrary to internal civil disturbances in a tighter legal

environment,²³ the crowds in Bosnia and Kosovo were deemed to be very unpredictable and fluid, as well as deliberately instrumentalized by ethnic leaders as an asymmetric weapon and a direct answer to the deployment of an international force.²⁴ The net result is that forces, like the Russians in Chechnya²⁵ and the UN forces in Somalia, had to limit their footprint in the city and develop a comprehensive plan to maintain situational awareness, quick reaction force and graduated response, while maintaining the physical freedom of action at all times--that is to maintain a mobile posture.

Specificity Of Violence Mastering Operations In The Balkans

Operations in the Balkans have had specificities that need to be understood so that any doctrine should not be driven by those specificities and assumptions that may not be true on another theater. The primary specificity is the close cultural links between local populations and the peace enforcement forces. This cultural framework includes a measure of respect for the individual lives, an understanding of negotiation processes and some form of mutual respect. It also implied that crowds displayed little example of “psychotic violence” as described in the first chapter and more of “nonviolent” techniques. The long term end-result and objective has been the integration of these populations in the greater European community. The specificity of those operations lies in the necessity to simultaneously maintain apart opposing ethnic factions, while retaining the possibility of decisive, high- intensity operations against the former unifying structure--The Former Republic of Yugoslavia.

The urban geography found in Bosnia and Kosovo is also relatively close to what could be expected in western cities. For example the narrowness of streets--a distinct

limitation for armor employment in Mogadishu- seems not to have been a critical factor in the Balkans.

Lessons Learned

The lessons learned concerning the doctrine of armor in crowd control is a product of those commonalities and specificities of this theater of operation.

The evolution of the overall mission worked in a positive way. Whereas the forces initially deployed in Bosnia under the UN mandate lacked any armored reaction force (with the noticeable exception of the Danish force),²⁶ forces deployed later in the frameworks of IFOR and KFOR, facing a potential high intensity/conventional/mechanized confrontation with Serb forces, were inherently heavily armored forces. This also applied to the freedom of action granted by the Rules of Engagement, once again demonstrating the crucial importance of the legal framework when considering any use of armor in a given theater of operations.

At the tactical level, the role of armored element was deemed crucial to desorganize the crowds by exploiting their main weakness--their inability to react in different directions. The lessons learned in Brcko and Bjelina are an excellent illustration of that point.²⁷ Brcko is the most important city in Bosnia and is a central bone of contention between the three communities that constitute Bosnia and is under the authority of a UN appointed mayor. Bjelijna contained the headquarters of the RS Ministry of police and of the Special Police (anti-terrorist). On 28 August 1997 the stabilization forces (SFOR) belonging to Task Force (TF) 1-77 Armor (US ARMY) were conducting peace enforcement operations in that area in conjunction with the International Police Task Force. Large, deliberately manipulated hostile crowds of

attacked throughout their sector. However, this armored force succeeded in defending itself against more than two thousand civilians.

In this example, an effective answer against deliberately manipulated crowds was to confuse and overwhelm the crowd by the simultaneous intervention from multiple directions. It required an adequate synchronization between the different units and an intimate cooperation between mounted and dismounted elements, as well as an excellent knowledge of the complex urban geography down to crew level. The critical factor as far the armored element is concerned is not so much its size but its ability to quickly react and destabilize the crowd (isolate, dominate, mass and attack).

It clearly underlines that the armored forces were no longer being used only in the traditional “physical,” force-on-force setting--their usual frame of reference--but much more so at the moral and organizational levels.²⁸ This calls for a specific training and, beyond that, for a different mindset for armored units. In order to enable the armored elements to use these tactics and techniques of “crowd destabilization,” preconditions must be met. Namely, this includes a very good situational awareness down to the crew level, an excellent knowledge of the urban geography and robust training and working relationship between the combined elements of the “strike-force” including tanks, IFVs, dismounted elements, armored engineer crews and dismounted engineers.

Technical lessons learned are essential in that they permit or prohibit doctrinal development the possibilities for the desired tactical effects in operations in the violence--mastering mode in the urban environment. On the whole, armored platforms proved crucial because they enabled the force to maintain its mobility, they provided protection to dismounted troops and had a distinct psychological effect. However, the adaptation of

armored platforms to the constraints of operation other than war has been emphasized. Specifically, field modifications to prevent “hugging tactics” by the crowd were deemed essential (such as the protection of the most vulnerable aspects of armored vehicles: optics, antennas, crew personal equipment). Infantry Fighting vehicles (M2/M3, British Warriors, German Marder 2, French AMX 10P) proved to be the most effective due to their ability to pivot steer and traverse low walls, while their mobility enabled them to extract from tight spots.²⁹ It should be noted, however, that none of those vehicles fielded reactive armor. Hence, they would have been very vulnerable to portable anti-tank weapons, should the “active elements” in the violent population had been equipped and trained with such.

The tanks, when they were used, provided a powerful psychological effect, and also distinct capabilities such as the ability to breach roadblocks and an excellent observation post (the thermal imagery camera on tanks are superior to those in IFV such equipped). Up-armored vehicles--such as the armored HMMWV, were considered less relevant due to their lack of mobility and their vulnerability.

Considering the impact of lessons learned and doctrinal culture, there is a sharp contrast between the way instrumentalized crowds were dealt with in Brcko and in the northern part of Kosovo, especially in Mitrovica.³⁰

Whereas the US forces were deployed with an equipment and a doctrine of conventional warfare and adapted the use of armor units to the constraints of the new missions, the French forces, involved in the Balkans since the beginning of the nineties, mainly with professional units belonging to “light” units,³¹ did not develop a culture of “heavy peace-enforcement mission.” Significantly, when the “Brigade Leclerc,” an

armored unit, was committed in the Northern area of Kosovo, the initial answer to the violent riots in Mitrovica consisted in the deployment of a Gendarmerie Mobile unit (a unit of the Gendarmerie specialized in civil disturbances). After this unit suffered several serious casualties, the realization that missions involving violent populations were leaning more towards war operations than towards traditional law enforcement lead to mix army units and Gendarmerie units in a graduated response scheme of maneuver.³²

Even so, the employment of the reinforced Leclerc tank company was never seriously considered, the Leclerc element being focused on area denials, zone control missions in more open environment. The mechanized infantry companies equipped with AMX 10P (the French IFV) were the most heavily armored forces deployed in crowd control missions in an urban environment.³³ As it is, the current doctrine (both the infantry branch field manuals and the TTA 950) tends to be heavily influenced by the static and terrain-oriented missions in Mitrovica. A closer study of the lessons learned by other multinational contingents in Brcko, making a more deliberate and dynamic use of armored forces would certainly provide an alternative doctrinal approach to armor deployment in crowd control.

The Israeli Defense Force (IDF) Armored Unit Experience In Urban Riot-Control

Between 1982 and the present-day, Israel had to face the issue of using armor forces to master violent Palestinian populations and fundamentalist Muslim guerillas in an urban environment in four distinct campaigns: the invasion of Lebanon and the siege of Beirut in 1982, the occupation of south Lebanon from 1985 to 2000, the first *Intifada* or “war of rock throwers” between 1987 and 1993 and the second Intifada, since 2001, in the “occupied territories” of the Gaza strip and Cisjordan.

In 1982, the IDF invaded Lebanon in order to defeat the Palestinian Liberation Army that was using Lebanon as a rear-area basis for guerilla action in Israel. Although the control of violent population was not the main factor considered in that campaign, it does provide a basis for the critical analysis of the Israeli doctrinal approach.

The distinction between combatant and noncombatants was a concern due to the mixed conventional and unconventional techniques used by the adversaries and also because of the internal and international pressures on the relevance and legitimacy of this operation. Thus, the IDF applied its MOUT doctrine, for the seizing of the main urban areas of the theater of operations, from Tyre to Beirut.³⁴

The doctrine put the emphasis on the use of a well-protected combined arms task force taking the control of an urban area simultaneously from several directions, followed by a thorough, deliberate and slow clearing operations. M113 APCs were not considered as suitable due to the limited protection they would provide against RPG fired by PLO fighters hiding in the crowd. Although a lot of effort had been placed to limit collateral damages and civilian loss of life, little attention had been given to the issue of refugees and rioting crowds.³⁵ This lack of consideration backfired in Tyre, as the refugees clogged the movement of armored columns on the road and enabled PLO fighters to escape and move north.

Emphasis was clearly given to well-protected tanks, especially when clearing the PLO refugee camps. For the first time, armored bulldozers were used to support the “salami tactic” of slicing-off pieces of PLO--controlled territory, pushing the PLO into an ever-shrinking area. Decentralized command and control, putting the emphasis on company size task forces to clear controlled areas was the hallmark of the doctrine used.

Although the influence of crowds had been lost of sight, the main lesson learned was that the control of urban areas was only possible if vehicles used, both for combat and support, were affording sufficient protection against light anti-tank weapons.

In 1985, after Israel forces had been withdrawn from most of Lebanon, the Israelis created a “security zone” running across south Lebanon to prevent PLO and Hizbullah guerillas from attacking sttelements in northern Israel. The armor units were used mainly to canalize guerillas by forcing them to move only outside of the area observed by thermal cameras.³⁶

The IDF also fielded for the first time heavily armored APCs--named *Nagmachon* and *Achzarit*, based on centurion and Syrian T62 chassis, a clear demonstration of the emphasis put on protection at the expense of speed.

Between 1987 and 1993, Palestinian civilians protested Israeli occupation in an ongoing campaign of loosely organized confrontations in which Palestinian youths burned cars and pelted IDF troops with rocks. IDF troops increasingly resorted to deadly force, including armor, to control the violent crowds. The resulting civilian casualties, amplified by the media perception of “David against Goliath”³⁷ undermined international support for the Israeli government’s policy. Another side effect was that the limited antitank resources available to Palestinian insurgents led the IDF to believe in the enduring value of its doctrine of deliberate urban area control by heavily armored forces.³⁸

During the 2nd Intifada, the tactics and techniques used by Palestinians have significantly improved, through the use of more sophisticated techniques, better management of information operations, use of ad-hoc antitank weapons, such as remote-

controlled mines detonated under a Merkava tank.³⁹ There again, the amplifying effect of media played against the IDF with a lesser tolerance of the international public opinion to the indiscriminate use of tanks and armored vehicles to destroy civilian properties--even for the sake of counterterrorism. Although the Israeli did have increased the nonlethal means, even officials of the IDF have noted a distinct lack of integrated tactics and procedure for the employment of such weapons.⁴⁰

In a way, the Israeli Defense Force experience in mastering violent populations, as far as armor employment is concerned, has followed an opposite path to the NATO contingent in the Balkans, evolving from an "all-armor" doctrine to a more refined concept.

Traditionally, the IDF has put a lot of reliance on its armored force (which includes the mechanized infantry) to protect Israel. This emphasis stems from Israel history--the operations of 1967 brought Israel Armor branch to its high tide--but also from Israel demographic concern.⁴¹ The essential concern on the limitation of the level of violence exerted on civilian population has had also less relevance on this theater, as Israel has viewed the military operations as instrumental for its survival. Those two reasons have led the IDF to make a deliberate use armored units in urban operations in situations involving civilian populations, specifically during the operations in Lebanon in 1982, and in the occupied territory during the first and second Intifada.

It should be noted that the political and psychological environment, is significantly different than that currently assumed in the TTA950. The type of violence exerted by the crowd is different, with a larger measure of psychotic violence (suicide bomb attack, specifically). The relationship between crowd and military forces differs

due to a strong feeling of hatred from both sides. As such, it needs to be closely considered as a potential future scenario.

On the whole, the experience gained by the IDF since 1982 has underlined the need to better integrate the armored element in a fully combined effort, fully involving information operations, in order to restore the factor of initiative and freedom of action essential to any armored force.

Conclusion

Through those four case studies, several patterns appear concerning the operations of mastering violent populations with armor. The deliberate integration of armored elements in the combined maneuver (including the Information operation dimension) is the most essential. When armor elements were engaged in crowded urban areas on an ad-hoc basis, their inherent limitations were emphasized, sometimes in a catastrophic way. This integration was very difficult to realize without a political will, a mindset, and a training to distinguish between the type of mission at hand and the type of unit used.

Several of the examples used demonstrated that the idea that heavy armored vehicles were inherently not adapted to the crowd control environment was not only wrong but, that, well integrated they were a decisive force multiplier.

The main cause of this false idea lies in a mis-interpretation of the nature of violent crowds, as the difference in kind between crowds with legitimate grievances to which western culture is accustomed and crowds deliberately used as asymmetric weapons, is not fully realized.

However, the trends of future operations indicate that the radicalized nature of crowd will be an increasingly important factor.

¹Our primary source on the battle for Grozny was *Russia's Chechen Wars 1994-2000--Lessons For Urban Combat*, Olga Olikier. However, Dr. Lester W. Grau at the Foreign Military Studies Office (FMSO) and George J. Mordica II from the Center for Army Lessons Learned (CALL) have published extensive works on the technical and tactical aspects of that battle. See bibliographic references.

²Although the main focus of the case-study on grozny is not on noncombatants, the factor they represented should not be neglected. During the fighting, about 300,000 Chechen civilians did flee the city. Adam Geibel Lessons in Urban Combat: Grozny, New Year's Eve, 1994, *Infantry*, vol.85, no.6, November-December 1995, 24.

³Many factors influenced the outcome of the initial battle, though, beyond the tactical mistake of committing unsupported armored vehicles. See Timothy L. Thomas, *The Battle of Grozny: Deadly Classroom for Urban Combat, Parameters*, Summer 1999, 88.

⁴Which actually demonstrates, if there was any need, the impact on media of armor commitment.

⁵*Ibid.*, 22.

⁶*Ibid.*, 24.

⁷*Ibid.*, 31.

⁸Timothy L. Thomas, *Battle Of Grozny*, 89.

⁹*Ibid.*, 93.

¹⁰*Ibid.*, 93. Hugging tactics consist in negating the range overmatch of armored platforms by maintaining the closest contact with the enemy force. Originally used by the Soviet forces against the Germans in Stalingrad, they are particularly detrimental to the armored forces with numerous dead angles at close ranges.

¹¹Interview of Captain (FR A) Pichon, commanding the 4th Company, 3rd Regiment d'Infanterie de Marine in Mitrovica, Kosovo from November 1999 to April 2000, in *Les cahiers du Retex #5*, Commandement de la Doctrine et de l'Enseignement Militaire Superieur de l'Armee de Terre, May 2002.

¹²On the logistical implications of committing armored vehicles in the urban environment, see Lester W. Grau, FMSO, *Logistic Support During Urban Operations In The City's Many Faces*, Annex 4A.

¹³Thomas, *Battle of Grozny*, 96.

¹⁴*Mars Unmasked*, 81.

¹⁵*Ibid.*

¹⁶By focusing effect we mean that, due to their symbolic value, armor attract the attention of neutral elements of the crowd, of active elements (anti-tank teams), of friendly troops (effect on morale, constraints of force protection) and of media.

¹⁷*Mars Unmasked*, 11.

¹⁸Senator John Warner and Senator Carl Levin, Report to the Senate Armed Services Committee.

¹⁹*Ibid.*, Preface of Senator Levin, Major General William Garrison, Commander of Task Force Ranger, “stated that he had all the equipment he needed.”

²⁰Captain Mike Campbell, USMC, *Somalia Lessons Learned*, lecture presented at the U.S. Armor School for the American and German Symposium, Ft. Knox, KY, 29 August 1994.

²¹Brigadier Jonathan D. A. Bailey, British Army, *the Urban Area During Stability Operations: The British Experience in Kosovo In Capital Preservation*, Appendix H.

²²The French assault on Serb held Verbanja Bridge and the creation of the Rapid Reaction Force in the summer of 1995 exemplify this determination. For a detailed account of the psychological context of the French population and political class, see Audition de M. Charles MILLON, *Comptes rendus des auditions de la mission d'information commune ministre de la Défense (1995-1997)* (Thursday April 26, 2001) retrieved from www.assemblee-nat.fr/dossiers/srebrenica/audition16.asp, accessed 02/15/03.

²³As would have been the case in dealing with mobs on the national territory, for example.

²⁴Colonel James Greer, *Capital Preservation*, 217.

²⁵Timothy L. Thomas, “Grozny 2000: Urban Combat Lessons Learned” *Military Review*, July-August 2000.

²⁶In May 1994, a Danish tank company from the peacekeeping force in Bosnia defeated a Serbian force near Tuzla, see <http://exrsdave.00page.com/Civvy%20Stories.htm>, accessed 02/15/03.

²⁷Colonel James K. Greer, “US Army Fighting Crowds in the cities of Bosnia 28 August 1997,” *Capital Preservation*, appendix G.

²⁸A reference to general Grange’s model on positional advantage and maneuver theory. See *Capital Preservation*, annex H.

²⁹*Ibid.*, 234-235.

³⁰Report of Capitaine Pichon.

³¹In the early 1990s French heavy divisions were manned essentially by conscripts, whereas all-volunteer units constituted the bulk of rapid reaction units, equipped only with light armored vehicles. Since 2001, the French Army is an all-volunteer force.

³²CREDAT, *Le contrôle des Foules*, *Objectif Doctrine*, May 2002.

³³Although Captain’s Pichon report recommends the deployment of armored engineer’s armored track vehicles (Engin Blinde du Genie)--on an AMX 30 B2 tank chassis--these were not used in Mitrovica.

³⁴Captain James D. Leaf Mout and the 1982 Lebanon Campaign: The Israeli Approach, *Armor Magazine*, July-August 2000.

³⁵*Ibid.*

³⁶Second Lieutenant Noah Kanter, “Employing Armor in Low-Intensity Conflicts: Some Lessons for the US Armor Force, *Armor Magazine*, January-February 2002.

³⁷See picture Laurent Rebours/Associated Press, *Jordan Times*, Monday, October 30, 2000. A Palestinian boy faces an Israeli tank with a stone during clashes between protesters and Israeli occupation army at the Karni crossing point between Israel and the Gaza Strip, on the outskirts of Gaza City, Sunday, October 29, 2000.



³⁸Kanter, 11.

³⁹Ibid. The IDF lost at least two Merkavas in February-April 2002. See <http://www.observer.co.uk/worldview/story/0,11581,656169,00.html> The techniques had been tested in the less urbanized environment of South Lebanon by the Hezbollah in the 1980s.

⁴⁰Colonel Daniel Reisner, "Violence: the Legal Perspective," Press briefing retrieved from <http://www.isrinfo.demon.co.uk/artic142.htm>, date accessed 02/15/03 head of the international law branch of the IDF legal division .

⁴¹For example, the heavy emphasis of the Merkava tank's design on protection is a deliberate endeavor to limit casualties in tank crew.

CHAPTER 4

PERSPECTIVES AND SYNTHESIS

The future is not the son of Desert Storm, but the stepchild of Somalia and Chechnya.¹

General Charles Krulak, *The Three Block War*.

This chapter's purpose is dual. First it assesses the probable evolution of the environment--the urban setting, the violent populations and the political framework in the next twenty years on the one hand, and the limits of possible evolution for the roles and structures of armored units within the context of French forces as well as the reasonable prospect for technological development on the other hand.

Second it synthesizes the conclusions drawn from the previous chapters as far as the role of armor in mastering violence populations and the architecture of the French Army doctrine is concerned.

The Foreseeable Environment

When considering the future environment in which armored French units may be committed, three factors need to be examined: the trends in urbanization, the evolution of violent populations and the political framework that, admittedly, binds together the two other factors.

Bearing in mind the tendency of analysts to draw the darkest perspectives on the urban phenomenon,² one has nonetheless to acknowledge the objective trends for the developments of urbanized areas. To summarize this evolution, it will be characterized by

its expansion, its diversification and an increasingly blurred delimitation between urbanized and non urbanized populated areas.

Expansion of urbanized areas in the most unstable and critical areas, i.e. the areas where the probability of committing French troops is the greatest, is unavoidable. In 2000, 53 percent of the 6 billion human beings were living in cities. Among the seventeen cities with more than ten million inhabitants, twelve are located in developing countries. Lagos, the largest African city had 16 million inhabitants in 1994. It hosts now the third largest urban population in the world with twenty-four million inhabitants. The population of Seoul has been multiplied by twenty since 1950.³ Exodus from the rural areas and the higher birth rate in urbanized areas⁴ compound to foster the development of large urbanized areas in underdeveloped areas.

Those urban areas are also increasingly diversified. Whereas simple urban models were sufficient to cope with MOUT until the last twenty-five years, the anarchic development of urbanized areas creates a need for more complex models of development. The contrast between a dense, well structured old center and more open suburban areas--the model of the Western European city, is less relevant when dealing with "multicultural" and "tribal" cities.⁵ This diversification creates more complexity. Ralph Peters summarizes this complexity:

We know more about the atmosphere of Mars than we do of the ties for which men [of tribal cities] kill.⁶

This complexity tends to blur the delimitation between the urbanized areas and the populated rural areas.

Urbanization radiates from dense poles of political or economic significance and tend to link the different poles between themselves. These are no longer cities by the traditional definition, but rather undefined areas very difficult to delineate.⁷

The consequence in regard to the other factors is clear, the expansion of urban areas presents military forces with the challenges of increased urban density with a sharp decrease in battlefield density.⁸ It will have a direct effect on the need to move under protection, and will require also that a greater slice of armored forces be devoted to the protection of non-armored units (humanitarian convoys, logistic units).⁹ It gives extended role for mounted patrols, or, even for dismounted patrols to move them, under protection, from one place to another.

As far as violent populations are concerned, the extension of the urbanized area has an effect on the violence itself, as well as an effect on forces called to deal with this violence. The new urbanized areas foster the perception of inequalities and act as a “concrete jungle” to shelter criminal activities from legal authorities when they exist.

The local populations will often be the only ones to understand the topography of these opaque areas. However, it will require a form of command and control system that, even if unsophisticated, can be jammed.¹⁰

The Violent Populations

The question of the future of violent population is a highly political one, and has generated, much in the way of the chaotic urbanization many catastrophic scenarios, driven by a neo-Malthusian ideology.¹¹ Whatever the global intensity, there is however objective factors that will influence the behavior of those populations. An increased perception of disparity, a youth and unemployment, the increasing number of available

and uncontrolled antipersonnel and antitank small arms, the loss of legitimacy of organize, regular armed forces in the failed states and the risks in the emerging states.

The extension of urban areas, will force violent population to retain some form of mobility to achieve a mass effect. Their politic/religious/ethnic feuds will be compounded with economic needs and that they will be drawn towards the economic centers of the urban areas, which are often connected to the political centers. Thus the ability to rapidly move to monitor and dissuade the crowds before they reach a threshold of critical mass will thus be key to maintain a control over the situation and to prevent situations where the military forces either back down or use lethal force and potentially lose its international credibility to maintain a low level of violence.

As far as the armor branch is concerned, those violent populations will increasingly consider the tank as an attractive target to reduce the credibility of the military force. Increasingly, they will understand, like in the process of the Intifada, not only that the widely available antitank weapons are more than a match for armored forces that, for the most part, were not designed to fight in cities.¹² They will also understand the limitations put by rules of engagement and the pressure of media on regular forces and, at the opposite the benefits of portraying a “David against Goliath situation” when destroying armored vehicles under media coverage.¹³

The Political Framework

The evolution of the political framework should be a direct consequence of the experience of the 1990s. The realization that the actions of expeditionary units have an impact on domestic security and also that the naïve reaction towards displays of

instrumentalized violence may not be the best answers to the complex situation linked to the destabilization.

Asymmetric warfare, specifically in the urban areas, that had an appearance of novelty in the 1990s, will become much more the norm than the exception. However the legal framework will remain a main constraint on the use of force, as it remains a reference for the meaning given to the interventions in the name of distinct values of a given civilization (belief in the rule of law). As far as the urban environment is concerned, there will be an intensification of the role of the political symbol that represents the control of the city, if only because of the higher percentage of the population which depends on the political control of the city.

Potential for the Evolution of French Forces

In the 1990s, the French forces had to face the challenge of violence mastery with a doctrine initially written for a large, conscript army and had to contend, in the second half of the decade with the challenge of transitioning to an all volunteer army. While its doctrine will certainly evolve to fully integrate the new operational framework, its equipment will not undergo fundamental changes.

Role

In the last decade the French forces were involved in peacemaking operations of medium intensity in cities (Sarajevo, Mitrovica, Mogadishu) and in high intensity operations in large deserted area (in the Gulf War). However, the blurred distinction underlined in the new urban environment shows that it may not be the case in the future. As defined by in the SUPEROPS study,¹⁴ the role of armed forces will essentially consists in combining:

1. A capability of coercion, limited in time and space (precision engagement) to achieve a discrete effect, locally decisive. It will not focus on the systematic destruction of the physical capabilities of the adversary, but rather to discrete, definitive and dissuasive effects.

2. A capability to exert a flexible control over populace in an extended time/space environment¹⁵ effects.

Structure¹⁶

Within the next two decades, the structures of the French Army should not have changed drastically. The term of the current transformation has been set in 2015. At this time, the French Army will have achieved its transformation into an all-volunteer army with all the implied changes in the fields of the doctrine, training, education of leaders, equipment, organization and recruiting. According to the current Defense programming law, whereas the overall force strength will not change, a slight shift to augment the number of available infantrymen will be made, to the detriment of armored units.

The doctrinal choice of a “modular environment”¹⁷ will also mean that the forces will not be specialized in a given type of operation. Infantry units, for example, have all been structured and trained to be able to interoperate in the most variable types of environment. Some of the proposals to increase the training of mountain units for urban operations, for instance, have been rejected¹⁸ on the very ground of polyvalence. Similarly, the experience of units clearly trained in the perspective of counter-insurgency like the regional light cavalry regiments or the experience of regiments stationed in Berlin has been lost.

Equipment

The SUPEROPS study used in 2000 by the *Bureau de Conception des Systèmes de Forces*,¹⁹ clearly demonstrates that the emphasis in the next two decades will not be towards developing new platforms (vehicles, with the exception of the new VBCI (the future French IFV, very similar in its specifications and performance to the US Stryker vehicle), but rather on the “software,” the ability to better acquire intelligence, understand and disseminate it and act decisively in the physical, informational and psychological fields, which will have an urban setting for the most part.

Thus the current armored platforms, the AMX Leclerc, upgraded AMX 10 RC, the family of VBCI (wheeled), the up-armored ERC 90,²⁰ VBL (*Véhicule Blindé Léger*,)²¹ and the VAB will be the same with only limited technological changes--mostly in the field of ad-hoc armor kits, improved ammunitions, improved communications and identification friend or foe/ situational awareness devices.

The most probable and well-developed prospect is the increased ability of dismounted troops to better communicate with mounted platforms through the FELIN Program.²²

Specific automated platforms, designed to alleviate the risks taken by soldiers although described in les engagements futures, will be of limited value for the operations conducted in the next twenty years.

However, most of those “software” developments are dual systems, with military and civilian applications. As such, they will be widely available to potential violent populations that will thus leverage, to some extent, their inherent lack of discipline.

Automated platforms and nonlethal weapons are two items that are regularly emphasized to point out the technological edge professional western armies should maximize. However, when considering the issue of violent populations, one should consider that the very early stage of the current doctrine and equipment, as far as the French Army is concerned at least, limits the role these elements will play in the near future.

On the whole, most of the issues raised by the case studies of the nineties will have to be solved first through better doctrine and training rather than through limited technological advances, in particular as far as the reduction of the logistical footprint, the orientation and command and control of own troops, the vulnerability to antitank portable weapons and closer coordination with other actors are concerned.

How does the interaction of the future environment with the projected capability of armored forces would affect the relevance of lessons learned in chapter 3?

As far as physical lessons learned are concerned, the need for protected mobility will remain and the available platforms are not likely to provide a means to ensure a lasting control on the urban environment--the force will not likely have a more permanent effect on the environment. Enhanced integration of the elements of the force will be matched by new capabilities of potential adversaries to quickly shift effects on the asymmetric urban battlefield, while maximizing the ambiguities of the combatant/non-combatant riddle.

Armored vehicles will continue to be the best platforms to monitor violent populations, and for that reason will remain priority targets for asymmetric crowds. In the psychological fields, violent populations will more often display forms of

desperate, psychotic violence that will be instrumentalized to disrupt the combined conventional, informational and psychological maneuver. Quick transitions from almost stable stance to highly volatile violent situations are to be expected.

Combining the physical and psychological fields, the need to permanently assess the nature of the critical factor to prevent destabilization will be even more important. The swift actions taken to influence that factor will likely require the ability to conduct rapid, focused actions under protected mobility.

Whereas there is no doubt that the French forces will have to face ambiguous threats stemming from ever more violent and desperate populations in the urban or peri-urban environment (as exemplified in the Ivory coast at the time of the writing of this thesis), the prospect for a specific, technology driven system to cope with the challenges of the urban environment is dim and most of the capacity of forces to successfully manage transition and to retain initiative both on the physical and psychological planes. In that regard, the lessons drawn from the recent case-studies will retain their validity.

Synthesis

Given the points drawn from previous chapters, it is now necessary to assess the potential for doctrine development of French armored forces in a violence-mastering mode in the urban environment. This assessment considers the two aspects of the topic: the potential role of armor in that environment and the overall architecture of the doctrine.

In synthesis, the potential role of armor in that environment is increased but diversified, must be integrated to limit its inherent constraints and is oriented towards the restoration of mobility.

This role is increased but diversified, in that there is a definite role for protected mobility, a need to better control areas but also, simultaneously, a role for a psychological deterrent and a requirement for a shock effect.

The main role of tanks in the city, in spite of all the constraints detailed in previous chapters, remains, in the foreseeable future, to provide the means of a protected tactical mobility. This protected mobility is not dependent of the action mode considered, although, at times, the desirable end-state or external constraints may limit the role of such platforms.

The downsizing of available dismounted personnel and the extension of areas of interest are the main factors that underline this increased role for protected mobility. Simultaneously, other roles are being given to armored platforms. The need to control larger urban areas and the flexibility of uses that armored platforms can accommodate compound to increase the roles they can play. Command and control nodes, Surveillance and target acquisition and precision engagement, protected evacuation of casualties and noncombatants and protected logistic supplies are roles that were and will increasingly have to be considered.

Finally, the armored platforms have had traditionally a direct psychological impact on operations. As the center of gravity of operations tends to focus increasingly rather towards the “hearts and minds” of population rather than the physical control of locations,²³ this psychological role is enhanced. However it is enhanced in three different dimensions. It can be a potent deterrent, it can be an overpowering threat creating a shock effect or it can be a vulnerable target symbolizing the power of asymmetric warfare. In the first two cases, well illustrated by the case study of Brcko in the Balkans, it is a

powerful tool. However, in the case of Chechnya, and, potentially of the “static shelters” used in Mitrovica by the French forces, armored units actually enhance the psychological strength of belligerents by showing their weaknesses.

This illustrates the need for armor units to be more fully integrated when used in that specific environment. This integration works both ways. When forces understood the potential of armored forces early because they were imbedded (as in the case of the Marines in Somalia or of the 1st Infantry Division in Bosnia), they trained together and they were integrated in the planning. Constraints inherent to the armored forces were better appreciated and streamlined, details stemming from the psychological and informational impacts of committing armored units in cities to deal with belligerent populace were worked out. To the opposite, when those forces were not integrated early, their role was at best minimal, or, worse, as in the case of Chechnya, detrimental to the operation. This integration goes far beyond the traditional combined arms array of tactical means. Obviously when the objective is not so much a symmetric opponent but a varied populace which is both an instrument of violence, an environment facilitating concealment especially in urban areas and an operational goal, fire and move tactics of infantry and tanks are not sufficient. Other combat multipliers, such as civil affairs, Special operations forces, public affairs and psychological operations assets are necessary to succeed.

The corollary effect of that trend is that numbers, including number of armored platforms, are meaningful only in regard of the psychological effect they produce. If a static isolated armored vehicle incarnates a tempting prey for violent populations, a platoon of four tanks driving at full speed along converging controlled urban lanes,

carefully advertised by a Psyops element and synchronized with an operation to disrupt active elements in a crowd may prove to be a decisive action not commensurate with the means committed.

This exemplifies the third aspect of the potential role of armored elements in the considered environment. The current doctrine has laid the emphasis more on the protection than on the mobility, more on the reactive role of armor elements than on the proactive role. There may be situations where this is fully justified in regard to the overall environment. However it should be carefully studied in the planning phase whether it is necessary to consider that armored forces should have a purely reactive rather than a proactive stance. The influence of internal public disturbances doctrinal publications--the basic block upon which the doctrine of violence mastering has been designed-- might have been misleading in that regard by leading to take that assumption for granted, no matter the environment considered. Restoring the idea of a real maneuver in violence mastering operations is key to fully develop the role of armored element in that type of operations.

The other aspect to consider is the integration of the armor role in violence mastering environment in the overall doctrine, given the current state of the French doctrinal pyramid, the lessons learned of the case studies and the evolution of the different factors of this topic in the foreseeable future. Two dimensions should be considered: the need to reconcile the upper and the lower ends of the doctrinal pyramid and the need to ensure that the different factors are interacting in a consistent way, that is an horizontal and vertical integration of the doctrine.

As developed in the second chapter, there is currently a lack of consistency between the higher echelon of the doctrine--the joint perspective on violence mastering operations, and the lowest echelon--the armored units field manuals. Tactics and techniques to fulfill the tasks given in violence mastering operations by armored elements are not, for the most part, developed. They are not included in the training as a consequence, leading to a lesser number of options to the tactical commander. And this is specifically this disconnect that led to disastrous results in Chechnya for instance, as almost no combined training in urban environment had been conducted prior to the raid on the city.²⁴

When considering the “horizontal” consistency of the doctrine, it appears that, whereas higher doctrinal publications emphasize the legal, political and psychological aspects of the issue, the unit field manuals almost entirely focus on the physical aspect of the fighting, with no consideration almost for the psychological effects.

It is thus necessary to ensure that all elements considered, sometimes very different from those in conventional battles, are consistently interacting to act as force multipliers to each other and in view of a positive end. These considerations drive the requirements to define the doctrinal development of armor employment the urban environment for violence mastering operations.

¹General Charles C. Krulak, “The Strategic Corporal: Leadership in the Three Block War,” *Marines Magazine*, January 1999.

²Spiller, *Sharp Corners*, 2.

³Jean-Louis Dufour, *La Guerre, la Ville et le Soldat*, 263-265, Editions Odile Jacob, 2001, Paris.

⁴*Ibid.*, 264.

⁵Ralph Peters, “The Human Terrain of Urban Operations” *Parameters*, spring 2000. The author opposes the traditional model of the western civilization city to other models based on sociological ties.

⁶Ibid.

⁷Robert Sole, Ville géantes, Au chevet de la Démesure, *Le Monde*, June 6th, 1996.

⁸Russel W. Glenn, *Heavy Matters Urban Operations’ Density of Challenges*.3. The chart on declining density of regular fighters on the battlefield, specifically the urban one, is a clear illustration of this particular challenge.

⁹See Bureau Conception des Systèmes de Forces, *Les Engagements Futurs des Forces Terrestres*, Ministère de la Défense, November 2000, Paris.

¹⁰In Somalia, the clans were using improvised drums to call the populace to “swarm” the UN troops.

¹¹Robert D. Kaplan, *The Coming Anarchy*, 22.

¹²As a matter of fact, except for specific Israeli APCs mentioned in chapter 3, no other army fields armored personnel carriers able to withstand hits by the latest portable antitank weapons.

¹³See <http://electronicintifada.net/features/mediaonmedia/20001028.html>the electronic intifada craven images: Israel obsessed with its image--not with morality. By Roger Alpher, ha'aretz, Friday, October 27, 2000. Alpher describes the role of the media in the intifada as “the continuation of war by other means.”

¹⁴*Les Engagements Futurs Des Forces Terrestres*, 61.

¹⁵Ibid.

¹⁶Frédéric Drion, “France: New Defense for a New Millennium,” *Parameters*, winter 1996-87, 99-108.

¹⁷George A. Bloch, “French Military Reform: Lessons for America's Army?” *Parameters*, summer 2000, 33-45.

¹⁸Doctrine d’emploi de l’infanterie, 2001.

¹⁹*Les Engagements Futurs Des Forces Terrestres*, 59.

²⁰The ERC 90 Sagaie is a wheeled light armored reconnaissance vehicle, featuring a 90mm gun. It is used mainly by the Mountain brigade cavalry battalion and the

Airborne brigade cavalry battalion. Stocks of ERC 90 are also prepositioned with French detachments in western Africa.

²¹The Vehicule Blinde Leger is an armored, NBC protected vehicle of the HMMVW class.

²²FELIN Futur Equipement de L'Infanterie, a comprehensive program of the French Directorate for weapons procurement (Direction Generale de l'Armement) to enhance the capabilities of dismounted troops.

²³Although the physical control of locations may still be a decisive point to achieve a psychological effect.

CHAPTER 5

REQUIREMENTS AND CONCLUSION

Peace Operations require readiness in precision MOUT. There is a general attitude of avoidance in dealing with fighting in built-up areas in heavy units--and heavy units are very capable for these operations.¹

Lieutenant-Colonel Cucolo, *Denying The Widow-Maker*

As developed in chapters 3 and 4, the answer to the thesis primary question about doctrinal development for the armor community of a violence mastery capability goes far beyond the design of a field manual and is more akin to a force development process. In the late 1980s General Carl Vuono, then chief of staff of the US Army,² developed the Doctrine, Training, Leader Development, Organization, Material, Soldiers (DTLOMS) model to underline the linkage between those elements. Refining this idea, General Schoemacher (US ARMY, ret.) proposed the following formula to tackle with the issue of transformation: (D+O+M) SL (TEE).³ It clearly emphasizes that developing doctrine and equipment in isolation of soldier training and leader education would equate to give a racing car to a teenager. This chapter thus determines the necessary requirements in each of those fields to enable French armor units to provide a decisive effect in operations of violence mastery in urban environment.

The guiding principle in the proposed development is to implement a deliberate and proactive approach to the use of armored formations in this ambiguous environment to produce a rapid and decisive psychological reaction instead of the current doctrine mostly adapted from manuals dealing with national civil disturbances and which tends to leave the initiative to adversaries.⁴

Doctrine

The gist of trends in urban operations and the potential use of armor developed in previous chapters demonstrates that armor units need to have a more proactive role in future military operations in urban terrain to mitigate the use of violent crowds as an asymmetric weapon. It would be modeled from the lessons learned in the Balkans,⁵ with a view to more radical violent actions that may be displayed on future theaters of engagement.

The decisive role of armor units would be to retain or restore initiative in violence mastering operations in order to disrupt the adversary's course of action by enabling friendly units to maintain a protected mobility superior to that of the potential threat (the hostile crowd), maintain a better control over the level of violence applied (*rheostatic effect*) and facilitate the transition to the coercive mode.⁶ However, when used in a deliberate way, armored units should be used in a framework that emphasizes the mastery of effects over the principle of mass.

The main tenets of this doctrine would be:

1. To integrate all elements of the response force in the planning phase. (combined mounted forces, dismounted force, support force⁷ law enforcement element, Psyops element, PA and CA elements, legal adviser and host nation element).
2. To train mounted and dismounted elements together.
3. To develop and maintain a situation awareness commensurate with the commitment of mounted forces (route reconnaissance, urban IPB).
4. To prevent direct and close confrontation with the violent populace as much as possible.

5. To maintain a mobility overmatch.
6. To keep the capability to mass effects at all times (both physical and psychological) and to create an unexpected event (principle of unpredictability).
7. To show the capability to discriminate the most violent / active elements within a violent populace and precisely engage them.
8. To confront violent masses from multiple directions (swarm tactics) to disorient and disrupt them.
9. To maintain at all times a control over the level of violence applied, through the use of graduated response matrix.⁸
10. To maintain at all times a psychological and physical alternative to desperate violence--as well as a venue for dialog with representative of opposing crowds/ insurgents.
11. To absorb/diffuse crowd energy.

Admittedly, this constitutes an important doctrinal change that impacts not only on the armor branch doctrinal publications, but also on the doctrinal development of doctrinal references of the two other factors involved: violence-mastering doctrine (including crowd-control) and urban operations doctrine.

Overall Impact On The Use Of Armor On Population Control Operations

The proposed tenets of a doctrine for armor employment for violent populace control have an impact on the doctrinal framework of violence mastery that was provided in the second chapter. Specifically some of the tenets of the *Notice Relative À La Preparation Des Armees Aux Operations De Maintien De L'ordre*, that still serves as the joint reference for dealing with violent crowds, would be questioned. In the proposed

recommendation, surprise would play a distinctive role, as well as the ability to neutralize designated adversaries. It is justified, since the violent populaces are instrumentalized and the battle for maintaining the initiative is key.

As shown in the previous chapters, the typology of crowd developed both in the TTA950 and in the IM 1000 *Doctrine d'Emploi Des Forces* needs also to include the definition of “violent populace” i.e the environment of insurgent crowds using *the* assumption of innocence that surrounds the idea of civilian crowds to facilitate and support a deliberate military or psychological action. The expected benefit would be a clearer distinction between those crowds and the “legitimate” crowds in the framework of national civil disturbances.

The TTA 950 does not address the idea of crowds used deliberately as weapons, or the transition from violence mastery to coercion, a decisive role for armored units. Thus the uneasiness to define a role, except as shelters for armored platforms. It would thus be recommended that a chapter be added on crowds as weapons and another on mastering transition towards coercion operation. In the same way, specific constraints of armored units in urban environment, including logistic ones, should be addressed as well as the specific coordination between mounted and dismounted units.

As far the Field Manual on Urban Operations (*Manuel d'Emploi des Forces Terrestres En Zone Urbaine*) is concerned, the role of active crowds used as weapons should be given a chapter, consistent with the principles developed in the TTA 950 and emphasizing the tactics and techniques to monitor, preempt and/or disorient these instrumentalized crowds. The active role of armor and a more detailed chapter on heavy/light combined forces should be added (heavy/mix TTPs).

On the whole, there would be a need to verify the consistency and the nesting of the doctrinal publications “vertically”--from joint level down to squad/ platoon level and “horizontally,” between branch manuals (armor and infantry in that case) and specific manuals (urban operations and crowd control). Beyond the national level, the STANAG⁹ board should review the proposed doctrinal development, since many operations would be conducted in a multinational framework. Furthermore it would facilitate the doctrinal dialog over the concept of violence--mastery which is very specific to the French forces.

Structure Of Armor Doctrine

The proposed capstone field manual on the topic would be an addition to the existing *ABC 100-2 Manuel d'Emploi des Unites de L'Arme Blindee Cavalerie*. It would answer the question: how to optimize the use of armored units in a violence mastery environment?

It would be divided into four parts:

The environment of armored units in violence mastery (with a typology of the potential scenarios ranging from peacekeeping to rioting crowds compounded with a conventional threat, settings (including the different types of urban and periurban environments), relationship with the human element, both neutral, passively hostile and deliberately hostile).

The second part would address the “action modes” or tasks given to armor units, including all the tasks mentioned in the TTA 95011, where armored units have mostly a supporting role. It would also include the tasks where armored units have a proactive and leading role, such as mounted patrols and mounted show of force, hasty reaction of an

armored element, deliberate reaction of an armored force (including reinforcing an isolated element) and transition to the coercion mode.

The third part would address the combination with other branches and functions

1. Task organization.
2. Command and control of the force.
3. Planning and rehearsing considerations.
4. Infantry and armor cross attachment and coordinated tactics, techniques and procedures.
5. Legal considerations.
6. Coordination with host nations law enforcement and military forces.
7. Psyops, Info-ops, Public Affairs, Civil Affairs considerations and coordination.
8. Engineer consideration.

The fourth part would address specific TTPs of armor units in violence mastering environment including:

1. Specific preparation of equipment (protection of armored units).
2. Use of night vision devices for monitoring purposes.
3. Crew rotation consideration.
4. Logistical considerations (including healthcare).
5. Generic rules of engagement and rules of behavior.
6. Reconnaissance of avenue of approach.
7. Dealing with nonviolent crowds (Tian An Men syndrom).

In addition to the proposed manual, a revision of unit specific armor branch field manuals¹² must be considered to include TTPs for violence mastering operations related to

the specific type of equipment considered. For instance, preparing a Leclerc tank company to participate in an urban violence mastering operations would require very different steps than preparing an AMX 10RC. To reinforce the consistency and compatibility of Armor field manuals, using ABC 103 and ABC 105-11 chapters on violence mastering¹³ tasks as a model for the revision of the other specific armor manuals would be recommended.

Training

Implementing change in violence mastering doctrine would require first a clear doctrine on training for operations in the urban environment, which is currently under development in most armies, including the French Army.

Like all conventional armies, the French army has still to decide whether to emphasize training for high-intensity urban operations--the most demanding, but not conceptually the most complex mode--or to emphasize the training for stability urban operations, with the risk to lose the focus on warfighting. Of course, there is no clear delineation between these operations, and units will have to be trained to transition from one mode to another in the potential "three-block war" of the future.¹⁴

In 2001, the decision to build a training center dedicated to urban training operations in Sissone (Centre d'Entrainement en Zone Urbaine, CENZUB) was made. Although the focus is primarily on Infantry training in high intensity combat, the doctrine for armor in violence mastering environment can only become a reality if armored units have an active contribution and participate in rotations in that training center, not only in order to familiarize armor units with those missions, but also to familiarize infantry and engineer units to cross attachments with armor units.

In the meantime, it would be necessary to include armored units in rotations of deploying units at the Gendarmerie Civil disturbances training center in St. Mandrier,¹⁵ if only to better grasp the challenges of committing armored units in that environment.

However, this CENZUB will have the same inherent drawbacks as other urban training center (the SHUGART–GORDON facility in the JRTC of Fort Polk, Louisiana, for example), that is, it will be too small to replicate the limitations infantry units face in the real world, that is the limited coverage they can provide of an area and the subsequent need for a protected movement capability which is, as we have seen, one of the main justification for armored units in that setting. It will thus be necessary to develop partnership with cities for live training exercises.¹⁶ Facilities dedicated to urban training tend also to oversimplify the urban environment. Although it may not be a real issue for warfighting skills, it is one for confronting the threat of violent, psychotic population. It is difficult to recreate the complexity of a large, instrumentalized crowd as well as the tension and energy it represents.

Due to the cost of this type of exercise, constructive simulations should be developed, under the form of a modified Janus (the JCATsimulations developed for the US army has a urban combat capability)¹⁷ or, more probably, an event driven situation like SPECTRUM currently under development by the CROSAT¹⁸ and well-adapted to the gamut of events in a violence mastering environment.

Leader Development

Currently, the French Armor officer basic course emphasizes the combat in open environment against symmetric threats. Asymmetric threats are depicted, but more as a nuisance than as the gist of a mission. As the school lacks a specific urban training

facility, consideration for this environment is theoretical and limited to the fight on the urban periphery in a high intensity environment. Whereas the academic and military background of officers prepares them remarkably to deal with violence mastering operations,¹⁹ there is a disconnect at the Armor school which reinforces the reasons for not committing armor units in a complex environment. Given the high probability that several of the junior officers will be committed with their platoon in an ambiguous situation in an urban environment, one recommendation would be that the TTPs developed in the proposed field manual for armor employment in the violence mastering environment be used as a basis for a tactical decision exercise at the end of the Officer Basic course.²⁰

At the French Advanced Armor officer course, the emphasis should be put on the integration of combined arms²¹ in a violence-mastering mission at combat-team level. One of the exercises is currently focused on MOUT,²² and could be modified to incorporate the principle developed in the violence mastering manual in the transition phase towards coercion mode.

Organization And Structure Of Units

As exemplified in chapter 3, massing armor in the urban environment is rarely feasible, nor desirable. Whereas the physical isolation of a tank or an infantry fighting vehicle is a commensurate fault, the task organization of forces for an operation on urbanized terrain should emphasize swarming techniques, where well-coordinated combined elements of a limited size produce a synergistic effect on a decisive point. In the specific environment of violence mastery, a deliberate action to regain the initiative over an instrumentalized crowd in the urban environment could be organized, for

example, as a combined force including a Civil Affairs/Gendarmerie/legal and liaison team, a HUMINT team, a surveillance team/ combat camera, a fixing force and reaction nodes as well as a command and control team and a support element.

The size of the elements could vary depending on specific situations, but the principle of integration of specific functions such as civil affairs and legal advisers down at the lowest level should be maintained.

The specific equipment needed by armored units to cope with violence mastery in a constrained environment stems from three requirements: the ability to protect armor vulnerabilities in a close environment, the ability to maintain open options in the escalation of violence²³ and the ability to apply violence precisely.

The protection of vulnerabilities does not require a lot of development, and the return on investment is commensurate. As shown in chapter 3 the retrofitting of add-on reactive armor on IFV and light tanks (AMX 10 P, AMX 10 RC, VBL and, later, VBCI) would drastically improve the protection against RPG type of light antitank weapons. Protection of optics, exhausts and exposed personnel are also critical and are readily feasible. It requires first a good understanding of the risks associated with a potential confrontation with crowds at close quarters.²⁴

The ability to maintain initiative in the escalation of violence mainly depends on the development of nonlethal weapons. These are not specific to armor units, although armor units represent a useful platform for the more cumbersome forms of nonlethal weapons. Two principles should prevail in the development of those weapons. First the weapons or their ammunition should be easy to install and uninstall. Second, those weapons should not prevent, as much as possible, the use of lethal weapons on the

armored vehicle, as one of the decisive factor for the success of these weapons is the psychological perception that, at any moment, the vehicle may transition to lethal weapons.

The precision in engagement depends on precise and timely information, as well as on precise means of destruction. In spite of its psychological perception of a blind Leviathan, the armored platforms readily provides the inherent means for precision engagement of the threat, while limiting collateral casualties without many changes in technology: The armored platform lends itself ideally to consolidate live data, thermal imagery which can be recorded and real time command and control.

These requirements will have to be taken into account for the development of future armored platforms.

Soldiers

Tank crews are currently not trained for operations in the urban environment with strict rules of engagement. Although the current deployments of the French Army mean that most senior enlisted and NCO will have had the experience of a rotation in the Balkans theater of operations, most of them will have been deployed without their usual equipment (with the exception of the few Leclerc and AMX10 RC companies deployed in Kosovo). It means that they don't have currently mastered the ability and the constraints associated with using tanks and armored vehicles in a violence mastery environment.

The individual equipment is also inadequate, as currently armor crews are not provided with protective gears such as the flak vest or the civil disturbance protective collection. The general ergonomics of armored vehicles should also incorporate the fact

that crews must benefit from a reasonable degree of protection when exposing themselves. As it is now, a Leclerc crew has no protection when operating the external machine-gun and cannot even wear a protective flak- jacket due to the exiguity of the crew stations.

Conclusions

The role that the French armor branch can play to provide a more consistent approach to violence mastering operations is essential but has not been given the attention it deserves, in part due to the fact that initial assumptions on violence mastering techniques have precluded almost entirely any dynamic role for armored platforms, and in part also because the armor branch doctrinal community may not have fully grasped the dramatic changes implied by asymmetric, post-Cold War warfare. Violence mastering has so far been assimilated to low-intensity operations, requiring essentially light forces, whereas “heavy forces”--armored units, would be earmarked for “decisive,” “coercive,” and “free-fire” operations. This assimilation of the technical level of war to the operational level of war will not be relevant in the future.

The consistent application of the greatest variety of means to achieve a given objective within the constraints of a controlled level of violence will be the relevant factor.

The proposed recommendation for a field manual for armor operations in the violence mastering mode would be the first step to better integrate the different elements and would provide a basis for developing the other factors of force development that were examined. Ultimately, this should provide a greater flexibility to the operational and the tactical commanders to achieve their mission.

The proposed recommendations would not only impact on the doctrine for armor units, but would affect more broadly the way the army trains and operates for urban operations. It should be emphasized, however, that most of the recommendations have a very limited costs in technological developments, as the current technology already allows significantly improved techniques to control violent populations in the current and future urban environment.

This study, once translated, will be transmitted to the French Armor School Directorate for Studies and Prospective Research (Direction des Etudes et de la Prospective- Arme Blindée Cavalerie) for further development. A useful additional step could be to analyze the validity of the proposed recommendations in view of the recent lessons learned in the Ivory Coast and, to another scale, with the current events in Iraq.

¹LTC Cucolo, *Denying the Widow-maker*, appendix G- MOUT in Bosnia, experiences of a heavy task-force, December 95 to December 96.

²*Sharp Corner*, 124.

³General Schoemacher, lecture to the CGSC, March 7 2003. D stands for doctrine, O for organization, M for material equipment, S for soldiers, L for leaders, T for training, E for experience and E for endurance.

⁴This is mainly a side-effect of the legal framework used for national disturbances--which tends to be reproduced through the ROEs in Stability operations.

⁵The case study of Brcko operations in August 1997 (Colonel Fontenot, Colonel Greer) constitutes the basis of the recommendations for this doctrine.

⁶The rheostatic effect, of controlling violence and the transition from violence mastery to coercion would not be synonymous. Applying direct violent means against the adversary centers of gravity would mark the transition from one mode to another.

⁷Support elements include FSO, Engineer element (with mobility/counter-mobility element, EOD team), recovery element and signal element.

⁸Call Newsletter no. 00-7, *Civil Disturbances*, chapter 3.

⁹NATO Standardization Agreement board, created to ensure doctrinal compatibility within NATO.

¹⁰The concept of task is used for the sake of clarity, although there is a significant difference in definitions and uses of the concepts of “tasks” and “missions” between the US Army and the French Army.

¹¹Monitoring a flow of refugees, monitoring a peaceful demonstration, controlling a riot, reacting to a deliberate attack of the force by elements of the crowd, reacting to the intimidation of an isolated unit.

¹²*Doctrine d’emploi des unités blindées (ABC 100-1)*

Manuel d’emploi des unités blindées (ABC 100-2)

Manuel d’emplo du groupement interarmes a dominante roués-canon ABC100-3

Manuel d’emploi du groupement a dominante Leclerc

Manuel d’emploi de l’escadron AMX 30B2

Manuel d’emploi de l’escadron d’éclairage et d’investigation (ABC105-11)

¹³C.F., chapter 3.

¹⁴*Denying the Widow-maker*, 11.

¹⁵Since 2001, at least one infantry unit (*Compagnie de reserve operationnelle*- Quick reaction unit) of a deploying brigade has a three-week rotation in that center. Additionally, every infantry platoon- leader is trained in that center during the Basic Infantry Officer Course.

¹⁶A partnership of this type was established by the 3rd (FR) Mechanized Brigade in Limoges in 2002.

¹⁷Joint Conflict and Tactical Simulation--an enhanced version of JANUS.

¹⁸Centre de Recherche Operationelle de L’Armee de terre--an equivalent of both TRADOC TRAC and the National Simulation Center of Fort Leavenworth.

¹⁹The curriculum at the military academies- Ecole Speciale Militaire de St CYR and Ecole Militaire Inter-armes--put the emphasis on the complex civil-military environment, legal considerations.

²⁰Traditionally, the end of course exercise is synthetical in nature and puts the emphasis on ambiguity, transitions and endurance to test the versatility of junior officers.

²¹Combined arms understood in the broader sense, including civil affairs, psyops and info-ops and legal considerations.

²²Exercise Chambord.

²³Colonel Greg Fontenot, US Army (ret.), when asked (interview with the author, Fort Leavenworth February 2003) about the piece of equipment he lacked during the operations in BRCKO, said that the absence of nonlethal weapons created a permanent dilemma between backing down or using lethal weapons.

²⁴*Capital Preservation*, appendix G. The study of those vulnerabilities includes TTPs to recover stalled vehicles, stripping down armored vehicles from external fuel tanks and personal items.

APPENDIX A

THEMATICAL REFERENCE OF ALLIED PUBLICATIONS FOR FUTURE DOCTRINAL DEVELOPMENT

Framework Of Crowd Control Operations

Department of the Army, FM 100-23, *Peace Operations*. Washington, D.C.:
Government Printing Office, 30 December 1994.

FM 90-29, *Noncombattant Evacuation Operations*. Washington, D.C.: Government
Printing Office, October 1994.

Centers for Army Lessons Learned (CALL), *Handbook For The Soldier In MOOTW*,
Leavenworth, 2000.

Armor

Department of the Army, FM 17-95, *Cavalry Operations*. Washington, D.C.:
Government Printing Office, 30 December 1999.

_____. *Training Plan for Stability Operations*. Washington, D.C.: Government
Printing Office, 30 December 2000.

_____. FM 17-15, *Tank platoon*. Washington, D.C.: Government Printing Office,
April 1996.

_____. FM 7-100-2, *Combined Arms Tactics*. Washington, D.C.: Government
Printing Office, April 1996.

United Kingdom Ministry of Defence. UK army Pamphlet No. 4 Armored Infantry
Company Group Tactics. London, 2002.

Urban Warfare

Department of Defense. JCS Pub 3-06, *Urban Operations*. Washington, D.C.:
Government Printing Office, April 2000.

Department of the Army, FM 90-10-1, *MOOT Operations*. Washington, D.C.:
Government Printing Office, April 2002

_____. FM 7-10, *The Infantry Rifle Company*. Washington, D.C.: Government
Printing Office, 2002.

United States Marine Corps, MCWP 3-35.3, *Military Operations on Urbanized Terrain (MOUT)* . Washington, D.C. Government Printing Office, 1998.

_____. Civil disturbances/OOTW/ crowd- control/ counterinsurgency/SASO.

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