Improving Prevention and Protection against Terrorism and Other Criminal Attacks on Schools and Educational Institutions

Raymond H.A. Carter^A

Introduction

Today international terrorism directly or indirectly affects almost every part of our world, in various forms of dangerous blind aggression directed against populations of all ages in the countries concerned, those who pass through them, and their property. These attacks are most often perpetrated by a minority who takes advantage of "democratic freedoms" in order to carry out crimes resulting in the death of innocent victims who are ill-equipped or simply helpless to deal with them. Although this phenomenon is not entirely new, it is nonetheless a real threat to the equilibrium of our nations and to their future, at the level of the state, that of businesses, and that of citizens who welcome "migrants" into their homelands today. The primary aim of "terrorism" remains "the destabilization of society through violence and fear." What is more, as we have indicated elsewhere, organized crime is increasingly "flirting" with terrorism in the sphere of "narco-terrorism" and even that of "war crimes and crimes against humanity."

^A Colonel (retired) of the Gendarmerie Nationale, Doctor in public law and international penal law, Professor of International Criminal Law at the Centre d'Études Diplomatiques et Stratégiques (C.E.D.S.), Paris, and associate professor at several universities; he is also a nationally-qualified teacher in aquatic and swimming technique and in martial arts, and serves as an expert in the European Commission on the war against terrorism and international crime. He is the author of over twenty books. A Chevalier de la Legion d'Honneur, he is also an Officier des Palmes Académiques and recipient of the Médaille d'or de la Jeunesse et des Sports.

^{1.} See Raymond H.A. Carter, "La triangulaire du crime," in *Le Tribunal Pénal International pour l'Ex-Yougoslavie* (Paris: L'Harmattan, 2004); "Justice Pénale Internationale et 'criminel de guerre," in *Revue Enjeux diplomatiques et stratégiques*—2016 (Paris: C.E.D.S.), 95–105; "La Piraterie Maritime: à la fois 'Brigandage' et 'Terrorisme Maritime' dans le Golfe de Guinée et notamment en Côte d'Ivoire," *Fraternité Matin* (Côte d'Ivoire), January 2013; *La Sûreté des Transports* (Paris Presses Universitaires de France, 2008).

1. The General Context and the French Situation

These attacks have hit many countries,² and France is no exception, the most notable case being the attacks of November 13, 2015, which caused at least 129 deaths, many of them in the Bataclan theatre—an attack for which the terrorist group Islamic State (Daesh) claimed the responsibility. They are often perpetrated by means of a series of shootings and suicide bombings carried out with a vehicle and/or on foot. We now know that even "schools" constitute targets for these absolutely cowardly criminal acts. A counter-offensive is unavoidable if we are to deal with the situation and succeed in establishing the adequate "cooperation," genuine "collaboration," and "coordination" that goes beyond mere lip service and moves forward to mitigate this "evil," putting in place specific systems and appropriate information and training. One thing is certain: this terrorism is driven by the credo of a "global caliphate"; so we are all involved, and must react. For, as General De Gaulle said, either "the irresponsibility of intellect" must end, or "there will no longer be a West."³

2. A "Sensitive" Target Imperative to Take into Account: "Schools"

The threat against educational institutions in France is a known one, and it is not new. Let us recall right away the May 15, 1993 attack on the Commandant-Charcot elementary school in Neuilly-sur-Seine, where my friend Daniel Boulanger, then head of an intervention team of the anti-terrorist RAID unit, and to whom we pay tribute here, neutralized a man who was still holding six of the 21 children he had taken hostage 46 hours previously;⁴ or the attack on the Ozar Hatorah Jewish high school in Toulouse on March 19, 2012, when a man wearing a video camera on his bloodied chest arrived in front of the school on a motorbike and immediately opened fire in the direction of the school yard, killing a teacher attempting to protect his two 3 and 6 year-old sons, who were also killed. The attack claimed four victims in total. Further substantiation of this threat against "the school" comes from Daesh

² On March 22, 2016 in Brussels (Belgium), and March 13, 2016 in Bassam (Côte d'Ivoire), for instance. And once again on December 16, 2014 in Pakistan, where a group of Taliban insurgents from the Tehreek-e-Taliban (TTP) group, six in number, attacked a school in Peshawar in the north-west of the country, killing 141 people including 132 children, during an assault which lasted almost seven hours and also left all the attackers dead, one from detonating a bomb he was wearing. This was the bloodiest terrorist attack in Pakistan's history. In fact, a military doctor gave a course in emergency first aid when the attackers arrived at the back of the school and began to open fire; and one student who escaped the attack stated that the teachers had locked the door, that they were all lying on the ground, but that the militants broke down the door, fired into the air before aiming at the students, and left quickly afterwards.

³ Cited in André Malraux, *Fallen Oaks: Conversation with De Gaulle*, trans. Irene Clephane (London: Hamilton, 1972), 30–31.

⁴ Following a lengthy judicial investigation, the court concluded in favor of Boulanger, who had opened fire on Erick Schmitt, alias the "Human Bomb."

itself, who clearly announced it just after the attacks of November 13, 2015, in its French propaganda magazine *Dar al-Islam.*⁵ The magazine issued a call to arms against a French school, which it presented as "the antechamber to Hell." In France we have some 63,600 schools and other educational institutions (under the patronage of the Ministry of National Education, Higher Education, and Research [*Ministère de l'Éducation nationale, de l'Enseignement supérieur et de la Recherche*, MENESR]), 54,800 public sectors and 8,800 private sectors, including 52,200 schools, 7,100 colleges, 1,600 technical colleges, and 2,700 other (LEGT, LPO, and EREA) colleges, these institutions representing a total of 12,775,400 students and apprentices.⁶ In order to To confront the state of affairs outlined above, the French Government has taken specific measures.

3. National Directives

Following the 2015 attacks, and seeking to reassure the parents of these 12,775,400 students, after a first progress report presented on January 13, 2017 by Mme Najat Vallaud-Belkacem, the French Government, via the MENESR together with the Ministry of the Interior, announced measures for prevention and security in schools, high schools, and colleges to protect students, teachers, and personnel. Devised in consultations with staff organizations, representatives of Catholic education, and local authorities, the points on the governmental plan, a ministerial source revealed, revolve around "three watchwords": "Anticipate; Secure; Know how to react."

The first element of "anticipation" was set in order to involve the "training of the trainers" expected to be in place by the end of June 2017 (220 extra academic trainers in addition to 80 trainers for the regional education authorities for the beginning of the 2017–2018 school year), who will be trained in the centers of the Gendarmerie Nationale. They will be responsible for providing crisis management training for school directors from the beginning of the same school year. This should allow for a threefold increase in staff with such training (from 500 to 1,500 school principals, etc., in 2017–2018). Secondly, in order to ensure a stronger coordination

⁵ This magazine, which exists to promote the "Islamic State" created in 2014, is available online in France, as is Dabiq, the English magazine of Islamic State; both are products of the mysterious multimedia agency Al-Hayat, and constitute the organ of communication of Daesh, diffusing its propaganda on Twitter. The authors rejoice in being "the witnesses of a new era," that of the restoration of the caliphate, finally allowing Muslims to live in accordance with Islamic law. The anonymous authors of the articles contained in them also denounce the "idolaters"—that is, "those who defy the law of Allah": "democrats," but also "the crusaders who adore the cross, and believe the Lord of Heaven fathered a child."

⁶ This includes 6,788,600 schoolchildren, 3,335,200 11th grade and vocational school (SEGPA) students, 1,498,900 10th grade and technology students, 663,000 students at technical colleges, as well as 214,000 students of the ministries responsible for agriculture and health, and 275 students on apprenticeships or pre-apprenticeships. See "Le Système éducatif," http://www.education.gouv.fr/pid8/le-systeme-educatif.html for the current statistics.

of the actors responsible for crisis management, a National Crisis Center was created within the MENESR under the authority of a senior defense and security official, to promote the dissemination of good practice guidelines and feedback. This directive, together with the circulars of November and December 2015, emphasized the importance of meetings at the beginning of school term to inform parents of the security measures in place, and stipulated three exercises to be held during the school year, including an "attack-intrusion" exercise; strengthened security around institutions, and the training of (high-school and college) students in emergency first aid procedures—measures devised to best respond to a global strategy based on the triptych "anticipate, secure, know how to react." In fact, in each of the 101 déepartements, a "general staff" dedicated to the protection of educational institutions has been formed, and the measures mentioned above are being put into effect.8 The Gendarmerie Nationale, stationed across the whole of the national territory, has committed itself to the effort and has opened three new training centers within the Écoles de Gendarmerie in Rochefort-sur-Mer and Tulle and the École des Officiers de la Gendarmerie Nationale in Melun; from now until September 2018 they will train 500 staff (school principals, Ministry of National Education elementary school inspectors, etc.), compared to 135 in the previous school year. For the "anticipation" element, the government also added a measure calling for training courses designed for managers on issues around crisis management and security, in partnership with the Ecole supérieure de l'Education nationale and the Ecole nationale supérieure de la police.

As for the "secure" element, this was addressed with the allocation of a budget of €50 million in order to accelerate the securitization of the physical premises of schools, colleges, and high schools, and by providing a "practical guide" in partnership with local authorities, which was circulated nationally at the end of March 2017.9 In our view, we must create "sentinels" who inspire in others a real "vigilance" that is effective and suited to the present state of affairs and to particular circumstances—while maintaining such vigilance for themselves too. As we wrote, "the first duty of a sentinel is to stay alive." One measure is already in effect in some locations, with the visible and deterrent presence of security forces at key moments of the school year (surveillance of the routes of school transport, pickup points, the immediate vicinity

⁷ "La sécurité des établissements scolaires, une priorité absolue," http://www.gouvernement.fr/argumentaire/la-securite-des-etablissements-scolaires-une-priorite-absolue, January 16, 2017.

⁸ According to these directives, all rectors and their teams are to be formed by March 31, 2017.

⁹ "It explains security diagnoses and aims to facilitate their implementation by mayors together with the security services of the national police, gendarmerie, and national education personnel (security counselors, national education security services, mobile security teams)." See "Dossier de Presse: Sécurité des écoles, des collèges et des lycées; procédures de gestion de crise et sécurisation des établissements d'enseignement face à la menace terroriste," March 23, 2017, http://www.education.gouv.fr/cid114809/securite-des-ecoles-des-colleges-et-des-lycees-nouvelles-mesures-2017.html.

¹⁰ Raymond H. A. Carter, *Comment se défendre verbalement au quotidien; La parole, arme ultime de la 'communication psychotactique'* (Paris: L'Harmattan, 2016).

of institutions when schoolchildren, students, teachers, and parents assemble, etc.). Other tasks are continuously underway, namely those relating to the securing of the school space¹¹ together with the updating of the Special Precautionary Plans [Plans Particuliers de Mise en Sûreté, PPMS] and security diagnostics. Note that, since the beginning of the 2016 school year, €13 million (of the €50 million provided) have been fully committed.¹² In 2017, an extra €37 million will be in place to support these projects.

As for "knowing how to react," this is first of all tackled by creating a "handbook" to support the staff of educational institutions. Practical factsheets designed to aid the assimilation of a culture of security and the instinctive reflexes that best serve it have been created in order to provide better support to staff. In addition, joint training in security exercises was trialed with national education staff and heads of groups conducting extracurricular activities; and three déepartements were selected in which to set up joint training, at the national and commune level, of education staff involved with extracurricular activities. These trials sought to "clarify the process and responsibilities of those taking part in the school, at different moments of the child's day" and to "help strengthen the common culture of security for all staff"; and finally, "institutions will carry out exercises designed in order to prepare for any potential crisis, in close coordination with local authorities, domestic security forces, and management groups." Some 99 crisis-management exercises had already been organized by prefects in 2016. By the end of the 2016–2017 school year, all eighth-grade schoolchildren (810,000 in all) as well as all high school and

¹¹ Specifically, in relation to the 131 security measures ("référents sûreté"), and with 2,391 "police-gendarmerie/school security" consultants assisting the heads of institutions to identify which tasks should be prioritized.

¹² 90% of establishments receiving this funding are elementary schools, spread over more than 60 départements.

¹³ Five circulars were issued between November 2015 and July 2016, and numerous resources were placed at the disposal of staff.

¹⁴These factsheets "should allow us to better distinguish the major risks, on one hand, and the 'attack-intrusion' threat on the other, to approach the question of 'attack-intrusion' alarm systems, to clarify the tasks and action levels of measures on the ground, to disseminate instructions for partnership between schools and educational establishments and security forces. The handbook will be published by BOEN on April 13." (See the "Dossier Presse" cited in note 5 above). See in particular "Annexe 1: Mettre à jour le Plan Particulier de Mise en Sûreté PPMS Attentat-intrusion—Guide à destination des directeurs d'école et des chefs d'établissement (Bulletin Officiel n°15 du 13/04/2017)," "Annexe 2: PPMS « attentat-intrusion »—Fiche pratique à destination des directeurs d'école et des chefs d'établissements: Organiser un exercice « attentat-intrusion »" (Bulletin officiel n°15 du 13/04/2017)," "Annexe 3: PPMS « attentat-intrusion »—Fiche pratique à destination des directeurs d'école et des chefs d'établissements—l'Alarme « attentat-intrusion » en 8 points (Bulletin officiel n°15 du 13/04/2017)," "Annexe 4: PPMS « attentat-intrusion »—Fiche pratique à destination des directeurs d'école et des chefs d'établissements—Aide au diagnostic de mise en sûreté de l'école ou de l'établissement scolaire (Bulletin officiel n°15 du 13/04/2017)."

¹⁵ See "Dossier Presse" cited in note 5 above.

¹⁶ Ibid.

college students (400,000) will have to have received a course on or an introduction to first aid.

4. Three Levels to Take into Account

As argued in one of our articles,¹⁷ three levels must be taken into account from this perspective of "alertness and openness," moving towards an effective and fruitful vigilance for the good of all, beginning with our youngsters, the future of the nation. These three levels are "the state," throughout the nation; then "the companies" (and "schools") that lie within and between the state and the citizen; and then the citizen himself or herself; each of these levels must come into contact, and must remain in contact, with one another, in a rediscovered "team spirit."

4.1. First Level

The State, throughout the nation, must be "present," with the equipment and human resources to be able to "act" in real "cooperation" and effective "coordination" with all state and national actors, through "genuine collaboration." In particular, the ministries (National Education, Ministry of Security, Ministry of Defense, etc.) to which are attached the civil and military forces of law and order (the National Police, the Gendarmerie, the Army, the Municipal Police, Customs) and the Eemergency services (firefighters, etc.)—and even private security companies where applicable must work together, in real collaboration and above all with true coordination, in order to effectively succeed in the war against terrorism and other crimes, and must communicate at all times, since communication becomes a priority when faced with terrorism. They must avoid any kind of "isolation" from society, and must make efforts to regenerate a real ongoing contact with citizens at work (companies, etc.) and in their lives (home, school, etc.), following the fine example of the systematic daily work of our "rural guards [gardes champêtre]" in their own particular sphere. The directives and measures presented above invite us, at the very minimum, to undertake this kind of "renewal" in "relations" between "the school" and all safety¹⁸ and security¹⁹ actors.

4.2. Second Level

Just as "business" and "businesses," including "schools" in the generic sense we are using the word here—the institutions that constitute the "economic life-

¹⁷ "Le Terrorisme International peut-il être combattu plus efficacement?" (March 29, 2016), by Raymond H. A. Carter, President of the Union des Sociétés d'Education Physique et Préparation Militaire (USEPPM), founded in 1885, officially declared to be in the public interest in 1922.

¹⁸ Relating to any act of wrongdoing (See Carter, "La sûreté des transports").

¹⁹ Relating to any human or technical error (Ibid.).

force" of a country—must keep in contact with one other, they must also keep in contact with the "state organs" discussed above, and with schools and educational establishments. They should be in contact with the state "directly" or "indirectly" (through company "unions"), as well as with the population—that is to say, with the Ccitizen, and with his "offspring," our children. And they must also be in contact and maintain good "internal relations" with their own employees, in order to generate a true spirit of "vigilance," so as to develop within their midst the equipment and human resources to best "secure" (in every sense of the word) their personnel and goods, as well as their activities—to guarantee intra muros the requisite "safety" and "security" for their clients, both "direct" (in the place of business) and "indirect" (encountered elsewhere). Businesses must collaborate with the state, and a real and effective "synallagmatism"—if I may be permitted this neologism—should preside over a conjoint action that unites them and permits them to confront criminality in all its forms, beginning with terrorism. Today we must not so much "get used to living with terrorism" as "do everything in our powers to confront and eradicate it within our country."

4.3. Third Level

Here it is a matter of educating *the citizen* as well as the "future citizen" attending school, taking certain actions (information, training, practice, meetings) in order to sensitize them and provide them with the "knowledge" necessary for the adoption of correct attitudes and correct behaviors when faced with any criminal threat (terrorism, organized crime, etc.) whether present, permanent, or even "endemic," through lifesaving "reflexes and gestures"; we shall come back to this below. Our republic can offer an alternative to aimless youths who, out of spite and/ or through indoctrination, choose to become radicalized on the basis of false ideas that drive them to commit barbarous acts and even suicide. This alternative may also serve to uncover "lost" potential, thus decreasing the need for surveillance as the subject matures. Is it not our duty to launch a "counter-attack" in order to bring our population together under shared values and with honor, so as to avoid an irrevocable fracture that would play into the hands of these "religious fanatics"?²⁰

5. From Theory to Practice

The government directives emphasize the need to organize meetings between all of the "school" and "external" actors presented above. As we like to recall,

²⁰ During the nineties I observed a scheme of rehabilitation trialed by elite French troops within our army to help wayward young men, who had the choice between three and a half years in prison or twelve months of national service in a disciplinary camp. The results were very encouraging, with a non-recidivism rate of 75%. Some of the subjects who took to military values and military life even made a career of it. As a friend recently suggested to me, doesn't this path of rehabilitation—certainly tough, but fair—deserve to be explored once more, or even adapted to suit the current situation?

"cooperation is good; coordination is better."

5.1. Warning Systems

As indicated in the PPMSs, certain measures must be put in place in respect of warning systems, which constitute "stage one" of reaction. The sounding of an alarm²¹ in the presence of danger serves to protect persons (supervisors, students, etc.) from danger and to prompt an "appropriate reaction." In certain circumstances, depending on the site, this can be done "silently" so as to reduce as far as possible any panic and anxiety as events unfold. In addition, the use of "beepers,"²² designed to warn someone at a distance when the person *in situ* (agent, teacher, etc.) sounds the alarm, would allow law enforcement to be alerted discreetly and effectively, while leading endangered students toward a "protected" place designated in advance and maintained for such a purpose; thus allowing law enforcement to intervene wisely, rapidly, and effectively, fully informed as to the location and cause. "To protect is good, to defend is better!"

5.2. Securitization/Protection Systems

Whatever scenario is used for the "attack-intrusion" exercise, 23 "escape" or "lock in," order and rigor of movement must be uppermost, so as to ensure awareness of the "more haste, less speed" principle and guarantee an "effective system." The "escape" option must be optimally "secured" in order to avoid making students an easy prey for terrorist gunmen, and should be adapted appropriately to the site or sites in question. If the "lock in" scenario is used, we strongly recommend the construction of one or several rooms that can be sealed effectively with equipment capable of blocking all fire coming from without. The reliability of such equipment should permit the implementation of highly effective systems able to foil terrorist attacks and bombings against persons and property, whether private or public. Within schools and educational institutions, an "Assessment and Audit of Security and Safety" will allow the identification of strong and weak points of the institution in

²¹ A specific system, audio alarm, foghorn, siren, etc. which would be chosen by the head of the educational institution.

²² It is not a self-evident move to call a number ("911") when one is directly under the pressure of a "present, wrongful, and real" threat, and the facts prove it, sometimes even with men who have been "trained" for a "necessary, simultaneous, and proportionate" defense.

²³ Systematically divided into three phases: 1. Preparation of the exercise; 2. Sensitization; 3. Realization of the exercise, before an evaluation/RETEX by the participants (from the school) and/or external observers (law enforcement, municipality, etc.)

²⁴ The students cannot be left unsupervised, and in particular cannot be allowed to run at will randomly, since this would place them in grave danger when faced with fanatical gunmen.

²⁵ Of the institution, the environment, the external surroundings, fence, access points and their control, the perimeter space between the access points and/or the buildings, the securing of access points and/or "panic rooms," etc.

question. In order to better guard against any attack, systems can be installed within and outside the institution.²⁶

5.2.1. Within the Institution

Within the institution, the creation of one or more secure rooms of the "panic room" type in one or more suitable places, modified to match the general appearance of the institution, should make it possible for students, teachers, and staff of the institution in order to take shelter until the arrival of the competent law enforcement and special units. A specific material made to strengthen the security of these "security rooms," which can stop any bullet up to and including a Kalashnikov bullet (up to 2,500 Joules) would be the ideal for this kind of room, since one or many "classes" of weapons currently in use can be dealt with in this way. These requirements are met by "SQUAMA," produced by Rigomer Engineering, which can stop bullets moving with a force of up to 5,300 Joules²⁷; it seems to us among the most effective and easily adaptable materials with which to create this type of "panic room," as demonstrated by the results of tests carried out at a distance of 5m from the aforementioned "SQUAMA." The technologies and research projects of Rigomer Engineering in France seem to us particularly interesting and "ahead of the game" in confronting the new terrorist threats and actions more effectively, particularly in terms of prevention and intervention, and in their contribution to a better fight against modern terrorism. This ballistic protection allows the distribution of the force (pressure) of any projectile that strikes the aggregates integrated into the zone of assembly, which then in turn strikes aluminum honeycombs, developed by Renaud Rigomer and Olivier Poisson of the company AFL Foessel, directed by M. Patrick Poisson for this particular field of application, across a 25 times larger zone, transmitting the movement (imperceptible to the naked eye and at real speed) to the panels that make up the wall, which can be designed and arranged according to

²⁶ Video surveillance systems can also be installed for optimal surveillance of sites by state, municipal, or private services, allowing observation of events at the moment of the attack and in any legal process that follows.

²⁷Based on the principles of tribology (the study of surfaces in friction) and "controlled displacement," the Rigomer Engineering technology, to explain it as simply as possible, turns "the energy of the aggressor" against itself, redirecting it into a harmless zone and absorbing the greater part of its force by means of honeycomb aluminum cartridges made by the company AFT, which are fusible elements. Inspired by the study of martial arts techniques, and in particular Aikido, this technology allows one to more effectively "steer" aggression so as to control it and "turn it back on the adversary proportionately." The SQUAMA stops many 7.62×39 (Kalashnikov) bullets, steel core bullets which reach a force of 2,300 joules, and shots of large hunting caliber such as the 300 Win and the 9.3×62 all steel alloy bullet which reach a force of between 5,100 and 5,300 joules at a distance of ten meters from the protective surface, as we have ourselves been able to verify. Rigomer Engineering SAS, Combreux, France—contact@rigomer.com, http://rigomer.com.

operational need. Rigomer Engineering also carries out research on other products,²⁸ in particular for protection against detonations.²⁹

5.2.2. Outside in the surrounding area

Here either "fixed" or "mobile" systems can be deployed.

5.2.2.1. "Fixed systems"

As well as a possible video surveillance system, it is possible to station at the entrance and at "other weak points" an "anti-intrusion" system against a "vehicle battering ram" likely to transport criminals or explosives; this is the "ANTARIES," a freestanding "anti-passage obstacle" that is discrete, reusable, and economical, developed for the securing of specific zones (frontages, retaining walls, etc.) of an establishment (store, school, etc.). Having stopped a vehicle (vehicle-ram, etc.), the replacement of its (consumable) aluminum "cartridge" will restore its capacities in full. It can be customized in such a way as to blend in aesthetically with the surrounding decor without its presence being suspected. It can also be used, for safety and security purposes, by law enforcement (Gendarmerie, Police, Customs, Municipal Police, etc.) and their special units (SWAT teams, etc.) as well as by private companies for use in private properties they are responsible for safeguarding.³⁰

5.2.2.2. "Mobile" systems

Here it is once again a question of providing local law enforcement (Municipal

²⁸ Individual protective gilets and t-shirts based on the same technology as SQUAMA, protective shields, electric tonfa batons, anti-intrusion doors, quite "revolutionary" "lockers" for explosion containment or the adding of protection to an already-existing wall, and—of the greatest interest to us in the current context—"anti-explosion partitions" for all manner of access points into public sites with heavy footfall (airports, stations, exhibition fairs, etc.), which are now viable, and can be made with the same kind of functionality—namely, "to absorb the blast by redirecting its energy in non-lethal directions."

²⁹ These products need to achieve the displacement of molecules of oxygen (in blast effects) at speeds ranging from 350m/second to 750m/second for "homemade" explosives, which are our concern here; but the same technique can handle all types of explosives in use today. According to the ballistics research carried out by and still underway at Rigomer Engineering, a very satisfactory mechanical behavior and aptitude at speeds of 950 and 1,115m/second (which still leaves a large margin with this technology) have been observed; this provided the motive for a "meeting" with our fundamental French-German research (ISL), where the staff and research director confirmed the capacity of Rigomer Engineering to manage explosive blasts through absorption and redirection of the blast, highlighting that the aforementioned company of Renaud Rigomer was fifteen years ahead of the state of the art in current research.

³⁰ The ANTARIES is robust, 70 kg in weight, made of steel, and allows a 2-ton vehicle traveling at 64 km/h to be stopped. It is fixed to the ground, or ideally onto a 450-kg steel plate, which increases the absorption of kinetic energy upon impact.

Police, Gendarmerie, and National Police) with equipment that is transportable and can be placed according to the layout of the site (on roads, streets, etc.) and the "circumstances" (recess time, entrance and exit, etc.) in order to block, if need be, roads and other access points while permitting the interception of vehicles. The system in question is a "RATEL," a mobile vehicles interceptor which, like the ANTARIES, is freestanding and reusable, thanks to the same aluminum cartridges. It was developed by Intervention Groups, particularly in Special Forces units.³¹ Whatever happens, before and during or after the intervention of law enforcement, the imperative order to "touch no object," whether suspect or not, left behind by the assailants, is an indispensable basic rule which must be communicated to both staff and students of the institution under attack, as stated in the "information/training." The alert will be lifted by law enforcement.

6. Information and Training

The adoption of a "precautionary mindset" and the development of "correct reactions" takes place through "theoretical information and training" and "practical training" that is realistic and well-adapted to its audience, rendered simple and effective so as to strike the minds of "students," whatever their age may be, in the most natural way.

6.1. Theoretical Information/Training

"Theoretical information/training" of a "participative" nature must aim to sensitize students and staff, realistically but without paranoia, and should involve a "dialogue" on the different "themes" linked to the present context and current affairs, moving toward a "pragmatic relationship," through questions and answers, to yield "the correct responses" in the case of attack or intrusion. Personally, we often pose the same question: what would we do in our own home, for our family and ourselves? This training should be based on information about what terrorism is and what "terrorists" are; and delivered in such a way as to heighten the "vigilance" of one and all. Subsequently, as well as a better understanding of their "school," which becomes a place of "survival," a certain number of "issues" must also be brought forward in order to know the adversary better, to adapt, and to learn how to improvise on "non-improvised" bases. The more one is "trained," the more one practices, the less "anxiogenic" a situation will be. Fear does not deliver us from danger, so we

³¹ The RATEL is a 48-kg freestanding, easily transportable "mobile vehicles interceptor" equipped with an economical and replaceable aluminum cartridge. With dimensions of 941 × 52w × 45h cm, it allows the interception of a 2-ton vehicle at a speed of 64 km/h. Simple to set up, easy to maintain, using a patented process for energy dissipation through the translation of mass based on the principles of tribology, the RATEL can immobilize any vehicle that tries to force its way past, and is suitable for all types of terrain.

³² Carter, "Guide pratique de survie en zone urbaine et campagne."

should try instead to identify it (terrorist attack, etc.) so as to better cope with and confront it.

6.2. "Practical" Training

"Practical" training via good knowledge of the site (the school) and its actors and occupants (teachers, staff, etc.) so as to adopt adequate "movements" within the premises, averting any "panic" in reaction to an attack and minimizing "disorder," and to regroup in one or several "secured" places, through "practical exercises" realized in "real-world" conditions. With younger children, these movements could be studied in the form of a "game." The primary objective here is to elicit an appropriate reaction/action, with a minimum of panic, so as to "turn back the time" of the aggressor to advance that of the "savior"—in this case the agents of law enforcement. If, as the apostle Paul says, "I have the right to do anything, but not everything is beneficial," let us avoid the "non-beneficial." We must learn to be conscious of the danger in order to better control it.

In "elementary schools," promote the "ludic" over the "tragic." The game "king of silence" where everyone must stay quiet, and the first to speak is out, may be useful here—why not! The fact is that we must "act" in order to "react" better! "Self-defense" must justify "pre-emptive action"; for "learning to defend myself" does not mean "I love to fight"—quite the contrary! "To fight is to move," and one can "learn to fight" other than with one's fists—with language, with "Verbal Defense," for example;³³ one can learn to move within and get to know a "habitat," to "make friends" with it so that it does not become a "maze" when the hour of "survival" comes. The training should allow children to make their "school" a "special," "friendly," "safe" place within which students take on their share of responsibility and initiative, becoming conscious of dangers and "circumscribing" them in space (in the playground, in the stairway, in the building, etc.) and in time (upon entering, during the day and particularly at recess, on exiting). They should be able to create a "simulation exercise": "To the shelters"!

The "trinomial" above (information/training/practice) is a must for anyone who wishes to confront a situation of "stress" under optimal conditions. Exercises, from the "playful" to the "serious" depending on the age of the "students," and always rooted in reality, must be brought together with other skills such as "stress management" in order to decrease fear and anxiety, "cardiac coherence," "verbal defense," and others familiar to us, all of them constituting interesting means and responses for learning to "manage oneself" when faced with an urgent situation. In this way, discipline and cohesion are strengthened and become sure allies, indispensable "partners," and "comrades" that we must get to know and frequent.

³³ Carter, Comment se défendre verbalement au quotidien.

³⁴ Raymond H.A. Carter and Yves Le Mee, *Stress et Défense Personnelle, ou Bien s'en sortir en cas d'agression* (Paris: Chiron, 2006).

7. Problems and Proposals

The elements mentioned above deserve to be taken into consideration, given the "practical" side that they can bring into the daily life of Man, whatever his age may be. Information and training must promote "personal preparedness" (whether professional or not) when faced with terrorist risks and threats, permitting the latter to be better anticipated, either upstream of the "problem," during it, or after it.

"Without making matters worse," it is a matter of informing students and staff about the terrorist threats and risks that surround their everyday life, of awakening their vigilance through specific information and training tailored for "pre-emption" and "self-defense." They should be informed about the nature of reactions: how to react and act when faced with an attack or a terrorist bombing, particularly on the basis of the four points I have developed for "survival," namely (1) Hide/lie down, (2) Drink, (3) Eat, and (4) Move³⁵ as well as elements of first aid and the development of contact with "the Other," the civil and military authorities. It can also involve roleplaying based on "feedback" that informs us about the reality of conflict situations of all types that might be encountered on the ground, in everyday life, and in all sorts of circumstances. Alongside this can go as specific specialized training, such as "verbal defense," which teaches methods of intervention when faced with verbal aggression, so as to avoid or to maximally "defer" all physical aggression, through techniques that can be adapted depending on the circumstances, drawing on psychotactical communication, theories of motivation, stress management, therapies, professional intervention, the principle of disinterest, and self-defense.³⁶ "Stress management" with role-playing is a type of training during which stress and aggression are defined, along with the reactions one should have to them depending on the circumstances and places where the "problem" arises, 37 in order to best regulate them. Urban and rural "survival" techniques equip the individual to face any "social circumstance," even in the most difficult moments.³⁸ "Self-defense of oneself and others" enables one to face aggression against oneself and/or others with suitable and effective techniques of personal defense, guided by the experience of instructors, and many works of the author of the present document.³⁹

³⁵ Raymond H. A. Carter, *Guide pratique de survie en zone urbaine et campagne* (Paris: L'Harmattan, 2014).

³⁶ Carter, Comment se défendre verbalement au quotidien.

³⁷ Carter and Le Mee, Stress et Défense Personnelle.

³⁸ Carter, Guide pratique de survie en zone urbaine et campagne.

³⁹ In particular Raymond H.A. Carter and Kim Oriol, Techniques de Combat au corps-à-corps, vols 1, 2, and 3 (Paris: Chiron, 1991); Raymond H.A. Carter, Technique de combat au couteau—Knife Fighting techniques (Paris: Chiron, 1996); Raymond H.A. Carter and Pascal Boyard, La Boxe Thaïlandaise et le Kick-Boxing (Paris: Chiron, 1997); Raymond H.A. Carter, Combat et Défense Aquatiques (Paris: Chiron, 2007); Raphaël and Olivier Saint-Vincent, Le Close Combat: Techniques et entraînements (Paris: Chiron, 2006), vols 1, 2 et 3. This training, along with others incorporated into "safety" and "security," are provided by the company Cormoran-Group SAS, http://www.cormorangroup.fr>.

8. Conclusion

Terrorism today is increasingly disfiguring our society and others, which, like ours, continue to try and maintain confidence in Man, whatever may be the cost, despite his inconstancy, his fickle and unstable side, and the increasingly evident egotism that lies within him.

And even though "there is no such thing as absolute security," there is nothing to prevent us from coming closer to it and keeping "insecurity" contained in space and time, protecting our integrity and that of our fellow citizens. In a society where liberty does not always imply taking account of "the Other," and where "rights" increasingly supplant "duty," it is important to arm oneself and to be on guard sufficiently on a personal level so as to be able to face a daily life rendered increasingly difficult by those who respect neither the social framework that accommodates them, nor the rights and duties of Man, which must remain in balance for the happiness and salvation of all. Each must know himself in order to better know and recognize the Other. Only in this way will we be recognized in turn. Hence the necessity of understanding and improving our knowledge of social phenomena, certainly; but also that of knowing how to reassess things and being prepared to do so when necessary, for his happiness and that of his neighbor, as well as that of our "descendants." A return to the social values of our societies is necessary. We owe homage to other police and gendarmes, including our comrades in the GIGN, for what they do every day, often faced with the greatest indifference from those who owe them their "security" and "peace."

So yes, we believe that terrorism can be combatted more effectively, on condition that we are given the means, and that we know how to assess it. As we have written: "There is no such thing as a strong man, there are only well-trained men."

April 30, 2017 Raymond H.A. Carter