



European
Commission

JRC SCIENCE FOR POLICY REPORT

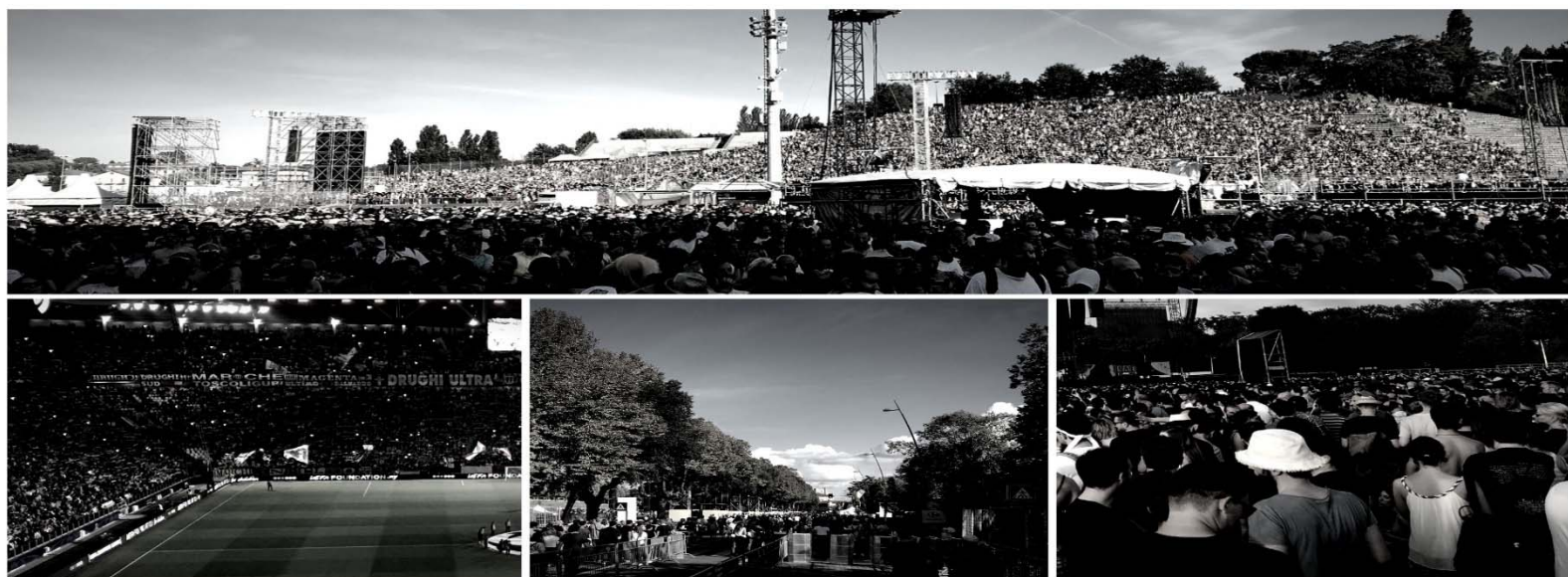
Review on Soft target/Public space protection guidance

Karlos, Vasilis

Larcher, Martin

Solomos, George

2018, 2nd Edition



This publication is a Science for Policy report by the Joint Research Centre (JRC), the European Commission's science and knowledge service. It aims to provide evidence-based scientific support to the European policymaking process. The scientific output expressed does not imply a policy position of the European Commission. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use that might be made of this publication.

Contact information

Name: Vasilis Karlos

Address: Protection and Security of Buildings Unit, via Enrico Fermi 2749, 21027, Ispra (VA), Italy

Email: vasileios.karlos@ec.europa.eu

Tel.: +39 0332 78 5934

JRC Science Hub

<https://ec.europa.eu/jrc>

EUR 29116 EN

PDF ISBN 978-92-79-79907-5 ISSN 1831-9424 doi:10.2760/553545

Luxembourg: Publications Office of the European Union, 2018

© European Union, 2018

The reuse of the document is authorised, provided the source is acknowledged and the original meaning or message of the texts are not distorted. The European Commission shall not be held liable for any consequences stemming from the reuse.

How to cite this report: Karlos, V., Larcher M., Solomos G. *Review on soft target/public space protection guidance*, EUR, ISBN 978-92-79-79907-5, doi:10.2760/553545

All images © European Union 2018

Title Review on soft target/public space protection guidance

Abstract

The current report provides a list of the available information sources with documents focusing on the protection of the so-called soft targets against terrorist attacks. The list aims at bringing to the interested security stakeholders information on measures to prevent potential attacks and/or mitigate their consequences.

Contents

Executive summary 1

1 Introduction 2

2 Availability of information sources..... 4

3 Soft Target Protection Information Sources 6

4 Conclusions18

References19

Executive summary

The current document provides a list of the available information sources focusing on the protection of soft targets against terrorist and other types of malicious extremist attacks. The list aims at bringing to the interested security stakeholder existing documents with information and practical guidance on measures to prevent a potential attack and to mitigate the consequences, should such an attack materializes.

The collected documents do not address critical infrastructure, but they mainly focus on the so-called soft targets, the term being used to represent vulnerable material or human assets, which in principle should not be specifically protected. However, such targets are often selected by terrorists in their effort to maximize casualties, inflict fear to the population and attain media coverage. The documents are grouped according to the following broad domains relating to soft targets: public places, education/religious/health installations, transport, building facades, urban resilience, security planning & risk management, policy/regulation/finance, people involvement, and drones.

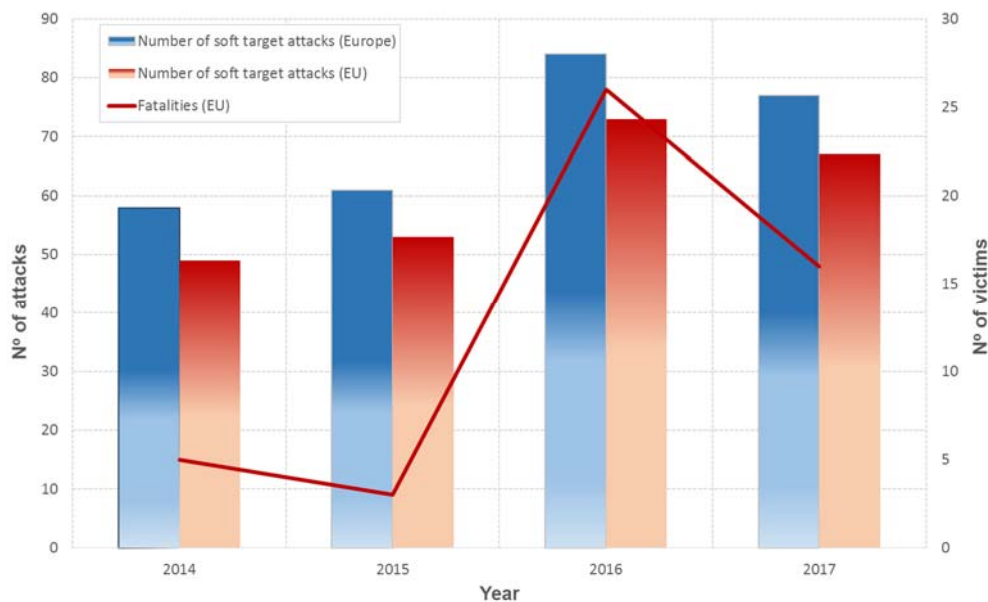
The referenced information sources originate from various countries and bodies, such as UK, France, Sweden, Czech Republic, USA, Australia etc. The list is quite comprehensive but it is limited to the publicly available documents and practically to those found in English and French.

1 Introduction

The worldwide rise of terrorism has been accompanied by a series of attacks against targets that were characterized by limited protection measures. A tendency has appeared for assaults at unprotected places of people congregation, irrespective of the gathering purpose (recreational, political, religious, commercial etc.). The recent terrorist attacks in Paris, Brussels and Barcelona in 2015, 2016 and 2017, respectively, led into the realization that areas with high people concentration (metro and train stations, airports, means of mass transportation, stadiums, concert venues, shopping malls, pedestrian areas etc.) are becoming potential bombing and/or armed assault targets of terrorist groups. Fig. 1 shows the number of attacks and the number of victims from soft target attacks that were performed in Europe* in the last four years (numbers from internal calculations). The graph shows that there exists a recurrent targeting of crowded places and that over the last years this has resulted in a significant increase in the death toll.

*excluding Ukraine, Moldavia, Belarus, Turkey and Russia

Figure 1. Number of victims in soft target attacks in the last four years in Europe



The term “soft targets” is typically adopted to indicate vulnerable places that may be selected by terrorists in their effort to maximize casualties, thus inflicting fear to the population and attaining media coverage. The methodology of the attackers has shifted during the last years by placing the citizens as their main target instead of hardened structures, which would require better planning, larger support and funds, and where the chances of success could be lower. In response to this threat, considerable attention has been drawn by many countries to methods and techniques for enhancing the security of soft targets and providing protection to places that would otherwise remain fully unprotected. This has resulted in a considerable number of guidance and best practice documents, which, by not being in the form of official standards, may not always be known to all security officers, premise owners, building designers or other interested professionals.

Introducing effective protection measures for safeguarding soft targets can prove a challenging task. The characteristics of soft targets vary greatly depending on their category and can range from public spaces with no protection to areas and/or structures where some basic degree of protection has been introduced. Standardized solutions may not exist or may not be sufficient due to the uncertain and ever changing nature of the hazard. As a result, protection guidance or best practice techniques are urgently needed. The European Commission has recently presented an Action Plan that aims at supporting Member States in protecting and reducing the vulnerability of public spaces [COM(2017)612]. As declared in this communication, technical solutions need to be sought

that can help to make public spaces more secure while at the same time preserving their open and public nature. Moreover, it is highlighted that “security by design” concept need to be integrated from an early stage in their development.

An effort has been made in the current document to provide a list of the available information sources focusing on the protection of the so-called soft targets against terrorist and other types of malicious extremist attacks. These documents aim at bringing to the interested security stakeholder information on measures to prevent potential attacks and mitigate their consequences, should such attacks materialize. The list of such documents included in the present report can serve as a tool for the soft target definition and for establishing techniques that could be adopted for enhancing the security of specific sites. The referenced information sources originate from a wide variety of countries and bodies (UK, France, Sweden, Czech Republic, USA, Australia etc.). The majority of the documents are recent and their categorization is based on the soft target type, i.e. public places, education/religious/health installations, transportation, building facades, urban resilience, security planning & risk management, policy/regulation/finance, people involvement, and drones. As will be noted, in the European Union the listed guidelines originate mainly from the UK and France, while similar documents were not found publicly available in the other member states.

The documents are of public domain and most of them freely downloadable from the indicated web sites.

Towards enriching this list, the authors would be grateful to receive any additional information regarding missing or newly-produced documents on the subject.

2 Availability of information sources

The following tables contain the guidance documents available from the various information sources regarding soft target protection. A short description and keywords of each document are included. The identified sources originate from several countries and the documents found, at the first phase of this search, are predominantly written in the English, French, or German languages. As a result, in the EU relevant guidance has been found in reports, the majority of which has been produced in the UK and France. As mentioned above, it would be highly appreciated if informed readers point out to the authors the existence of similar documents in other languages.

The first table below graphically summarises the current state of guidance availability and completeness of coverage per soft target category.




| Documentation availability on soft targets* | | | | |
|--|------------------------|--------|-----------------------|-----------------|
| | Action Guidance | | | |
| | France | UK | Rest EU member states | International** |
| Public spaces | Yellow | Green | Green | Green |
| Education/Religion/Health | Yellow | Green | Red | Green |
| Transport | Yellow | Green | Red | Yellow |
| Facades | Red | Yellow | Red | Yellow |
| Urban resilience | Red | Green | Red | Green |
| Security Planning/Risk assessment | Yellow | Green | Green | Green |
| Policy/Regulation/Finance | Red | Red | Red | Green |
| People involvement | Green | Yellow | Red | Yellow |
| Drones | Yellow | Red | Red | Red |

| | Design recommendations/Planning checklists | | | |
|-----------------------------------|---|--------|-----------------------|-----------------|
| | France | UK | Rest EU member states | International** |
| Public spaces | Yellow | Green | Green | Green |
| Education/Religion/Health | Yellow | Green | Red | Green |
| Transport | Yellow | Green | Red | Yellow |
| Facades | Red | Yellow | Red | Yellow |
| Urban resilience | Yellow | Green | Red | Green |
| Security Planning/Risk assessment | Yellow | Green | Yellow | Yellow |
| Policy/Regulation/Finance | Red | Red | Red | Green |
| People involvement | Green | Yellow | Red | Yellow |
| Drones | Red | Red | Red | Red |

| | Analysis options | | | |
|-----------------------------------|-------------------------|--------|-----------------------|-----------------|
| | France | UK | Rest EU member states | International** |
| Public spaces | Red | Red | Yellow | Yellow |
| Education/Religion/Health | Red | Red | Red | Yellow |
| Transport | Green | Green | Red | Green |
| Facades | Green | Yellow | Red | Green |
| Urban resilience | Yellow | Yellow | Red | Green |
| Security Planning/Risk assessment | Yellow | Yellow | Yellow | Green |
| Policy/Regulation/Finance | Red | Red | Red | Green |
| People involvement | Green | Yellow | Red | Yellow |
| Drones | Red | Red | Red | Red |

*Publicly available in EU working languages

** USA, Canada, Australia, India

| | |
|-------------------------------|---|
| Good coverage/availability |  |
| Partial coverage/availability |  |
| No coverage/availability |  |

3 Soft Target Protection Information Sources

| Category | Publisher/ Author | Document type | Specification | Issue date | Keywords | Link |
|------------------------|---------------------------------------|-----------------------------------|---|------------|--|---|
| Soft target definition | Czech Republic (Ministry of Interior) | Guideline | Basics of Soft Targets Protection | 2016 | vulnerability, soft target types, terrorist threats, security components, protection principles, resilience recommendations | http://www.mvcr.cz/cthh/soubor/basics-of-soft-target-protection-guidelines.aspx |
| | M. Fagel, J. Hesterman (CRC Press) | Book | Soft targets and crisis management : what emergency planners and security professionals need to know | 2016 | soft target psychology, hardening, planning, operations, emergency management, deter measures, mitigation, treat assessment, hardening tactics, protection | https://www.crcpress.com/Soft-Targets-and-Crisis-Management-What-Emergency-Planners-and-Security/Fagel-Hesterman/p/book/9781498756327 |
| | J. Hesterman (CRC Press) | Book | Soft target hardening | 2015 | soft target-terrorist psychology, attack motives, threat assessment, hardening tactics, security & mitigation measures | https://www.crcpress.com/Soft-Target-Hardening-Protecting-People-from-Attack/Hesterman/p/book/9781482244212 |
| Public spaces (1/4) | UK (NaCTSO) | Counter Terrorism Security Advice | Bars and Pubs | 2007 | | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/374593/Pubs_and_Clubs_Reviewed.pdf |
| | | | Cinemas and Theatres | 2008 | | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/374629/Cinemas_Theatres_Reviewed.pdf |
| | | | Commercial Centres | 2008 | security planning, physical security, access control, CCTV, evacuation, VBIEDs, CBR, suicide attacks, firearm attacks, hostile reconnaissance, threat levels, checklists | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/374638/Commercial_Centres_Reviewed.pdf |
| | | | Hotels and Restaurants | 2008 | | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/374923/Hotels_Restaurants_Reviewed.pdf |
| | | | Stadia and Arenas | 2008 | | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/375168/Stadia_and_Arenas_Reviewed.pdf |
| | | | Major Events | 2009 | | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/375117/Major_Events_Reviewed.pdf |
| | | | | | | |

| Category | Publisher/ Author | Document type | Specification | Issue date | Keywords | Link |
|---------------------|--|-----------------------------------|--|------------|--|---|
| Public spaces (2/4) | UK (NaCTSO) | Counter Terrorism Security Advice | Shopping Centres | 2006 | security planning, physical security, access control, CCTV, evacuation, VBIEDs, CBR, suicide attacks, firearm attacks, hostile reconnaissance, threat levels, checklists | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/375143/Shopping_Centres_Reviewed.pdf |
| | | | Visitor Attractions | 2007 | | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/375180/VisitorAttractions_Reviewed.pdf |
| | UK (HO-Communities) | Guideline | Crowded Places: The Planning System and Counter-Terrorism | 2012 | Counter-terrorism design principles, risk assessment, planning process | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/375208/Crowded_Places-Planning_System-Jan_2012.pdf |
| | USA (Department of Homeland Security-FEMA) | Guideline | Best Practices in Anti-Terrorism Security for Sporting and Entertainment Venues | 2013 | risk assessment, threat identification, organisation recommendations, information management | https://www.safeyact.gov/externalRes/refdoc/CCICADA%20BPATS.pdf |
| | USA(B/A) | Note | Preventing Soft Target Terrorist Attacks | 2015 | terrorism indicators, airports, shopping malls, stadiums, convention centres, hotels, surveillance, preparation, solutions | http://www.k12.wa.us/SafetyCenter/pubdocs/2016JanAdvMtng/PreventingTerrorist.pdf |
| | | | Protection of Places of Mass Gathering from Terrorism | 2011 | security principles, stakeholder responsibilities | http://www.nationalsecurity.gov.au/Media-and-publications/Publications/Documents/national-guidelines-protection-places-mass-gatherings.doc |
| | Australia (ANZCTC) | Guideline | Improvised Explosive Device (IED) Guidelines for Places of Mass Gathering | 2016 | IEDs, VBIEDs, threat assessment, prevention, preparedness, response | https://www.nationalsecurity.gov.au/Media-and-publications/Publications/Documents/IED-Guidelines/IED-guidelines-places-mass-gathering.pdf |
| | | | Active shooter guideline for Places of Mass Gathering | 2015 | weapons, incident characteristics, prevention measures, preparedness, response | https://www.nationalsecurity.gov.au/Media-and-publications/Publications/Documents/active-shooter-guidelines-places-mass-gathering.pdf |

| Category | Publisher/ Author | Document type | Specification | Issue date | Keywords | Link |
|---------------------|--|---------------|--|------------|--|---|
| Public spaces (3/4) | Australia (ANZCTC) | Strategy | Protecting Crowded Places from Terrorism | 2017 | security information sharing and access, tactic selection, responsibility distribution, partnerships, layered security, proposed security measures, security culture | https://www.nationalsecurity.gov.au/Media-and-publications/Publications/Documents/Australias-Strategy-Protecting-Crowded-Places-Terrorism.pdf |
| | France (Secrétariat général de la défense et de la sécurité nationale) | Guide | Vigilance attentat : les bons réflexes - Guide à destination des organisateur s de rassemblements et festivals culturels | 2016 | festival, preparedness, threat assessment, security plan, site protection, crisis response, reaction modes, alert | http://www.gouvernement.fr/sites/default/files/contenu/piece-jointe/2016/06/guide_bonnes_pratiques_surete_des_festivals_et_rassemblements_culturels.pdf |
| | | | Vigilance attentat : les bons comportements - Guide pratique pour les équipes de direction des centres commerciaux | | commercial centre, preparedness, response measures, alert, adaptiveness | http://www.gouvernement.fr/sites/default/files/contenu/piece-jointe/2016/03/reagir_en_cas_dattaque_terroriste_-_guide_pratique_pour_les_equipes_de_direction |
| | France (Secrétariat général de la défense et de la sécurité nationale) | Guide | Vigilance attentat : les bons comportements - Guide pratique pour les équipes de direction des espaces commerciaux | 2016 | commercial centre, preparedness, response measures, alert, adaptiveness | http://www.economie.gouv.fr/files/files/directions_services/hfds/OKSGDSN-BROCH-DIR-CENTRES_HD.pdf |
| | | | Vigilance attentat : les bons réflexes - Guide à destination des dirigeants d'établissements culturels patrimoniaux | | cultural sites, museums, preparedness, crisis response, reaction modes, alert, adaptiveness | http://www.gouvernement.fr/sites/default/files/contenu/piece-jointe/2016/06/guide_bonnes_pratiques_surete_institutions_patrimoniales.pdf |
| | France (Secrétariat général de la défense et de la sécurité nationale) | Guide | Vigilance attentat : les bons réflexes - Guide à destination des dirigeants de salles de spectacle , de cinémas ou de cirques | 2016 | cinemas, cirques, preparedness, crisis response, reaction modes, alert, adaptiveness | http://www.gouvernement.fr/sites/default/files/contenu/piece-jointe/2016/06/guide_bonnes_pratiques_surete_salles_de_spectacle_-_cinemas_-_cirques.pdf |

| Category | Publisher/ Author | Document type | Specification | Issue date | Keywords | Link |
|---------------------------------|--|--|--|--|---|---|
| Public spaces (4/4) | France (Secrétariat général de la défense et de la | Guide | Vigilance attentats : les bons réflexes (maires et des présidents d'intercommunalité) | 2016 | internal organisation, threat assessment, preparedness, good practise, vigilance, attack characterisation, appropriate actions, alert | http://www.gouvernement.fr/sites/default/files/contenu/pieces/contenu/pieces/jointe/2016/08/guide_pratique_amf_sgdsn_mai_2016.pdf |
| | Sweden (MSB) | Guide | Event safety guide | 2011 | safety planning, preparedness, risk management, assessment criteria, organisation principles, safety measures | https://www.msb.se/RibData/Filer/pdf/26172.pdf |
| Education Religion Health (1/2) | UK (NaCTSO) | Counter Terrorism Security Advice | Health | 2009 | security planning, physical security, access control, CCTV, evacuation, VBIEDs, CBR, suicide attacks, firearm attacks, hostile reconnaissance, threat levels, checklists | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/374771/Health_Reviewed.pdf |
| | | | Higher and Further Education | | | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/374752/Education_Reviewed.pdf |
| | | | Places of Worship | | | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/375136/Places_of_Worship_Reviewed.pdf |
| | USA (Homeland Security) | Buildings and Infrastructure Protection Series | Primer to design Safe School projects in Case of Terrorist Attacks and School Shooting | 2012 | risk assessment, design recommendations, attack methods, access control, protection levels | https://www.dhs.gov/xlibrary/assets/st/bips07_428_schools.pdf |
| | France (Ministry of National Education) | Guideline | Guide de bonnes pratiques - Sécurité des Ecoles, des Collèges et des Lycées | 2016 | security advice, CCTV, action measures | http://www.interieur.gouv.fr/content/download/96673/756359/file/2016_DP_securite_616583.pdf |
| | India (Ministry of Human Resource Development) | Operating Procedure | Terrorist attacks on Schools | 2014 | preventive measures, alarms, response drill, terrorist scenarios, suggestions | http://www.preventionweb.net/files/15043_circularsonmandinclusiveducationp.docx |
| UK (Foreign Office-NaCTSO) | Counter Terrorism Protective Security Advice | Business outside of the UK | 2011 | security planning, physical security, access control, CCTV, evacuation, VBIEDs, CBR, suicide attacks, firearm attacks, hostile reconnaissance, threat levels, checklists | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/375233/NaCTSO_Your_Business.pdf | |

| Category | Publisher/ Author | Document type | Specification | Issue date | Keywords | Link |
|--|---|---------------|---|------------|---|---|
| Education Religion Health (2/2) | France (Secrétariat général de la défense et de la sécurité nationale) | Guide | Vigilance attentat : les bons réflexes - Guide à destination des équipes de direction des établissements de santé, sociaux et médico-sociaux | 2016 | hospital direction, health care, vigilance, threat characterisation, appropriate reaction, action, alert | http://www.gouvernement.fr/sites/default/files/contenu/pieces jointes/2016/07/guide_pratique_pour_les_equipements_de_sante_sociaux_et_medico_sociaux.pdf |
| | | | Vigilance attentat : les bons réflexes - Guide à destination des personnels des établissements de santé, sociaux et médico-sociaux | | hospital, health care, vigilance, threat characterisation, appropriate reaction, action, alert | http://www.gouvernement.fr/sites/default/files/contenu/pieces jointes/2016/07/guide_pratique_pour_les_personnels_des_etablissements_de_sante_sociaux_et_medico_sociaux.pdf |
| | France (Secrétariat général de la défense et de la sécurité nationale) | Guide | Vigilance attentat : les bons réflexes - Guide à destination des chefs d'établissement, des inspecteurs de l'éducation nationale et des directeurs d'école | 2016 | threat analysis, organisation optimisation, control access, crisis management, threat characterisation, alert | http://www.gouvernement.fr/sites/default/files/contenu/pieces jointes/2016/08/2016_guide_sgdsn_men_616_100-1.pdf |
| | | | Vigilance attentat : les bons réflexes - Guide à destination des présidents d'université, des directeurs d'établissement supérieur et des référénts défense et sécurité | | threat analysis, organisation optimisation, control access, crisis management, threat characterisation, alert | http://www.gouvernement.fr/sites/default/files/contenu/pieces jointes/2016/09/guide_a_destination_des_presidents_duniversite_des_directeurs_detablissements_denseignement_superieur_et_des_referents_de_defense_et_securite.pdf |
| Transportation (1/3) | Joint Research Centre | Guidance | Review on vehicle barrier protection guidance | 2017 | vehicle-ramming, public spaces, information sources, list, availability of information, testing, selection, design, aesthetics, security by design, application, cost | https://ec.europa.eu/jrc/en/publication/scientific-and-technical-research-reports/review-vehicle-barrier-protection-guidance |

| Category | Publisher/ Author | Document type | Specification | Issue date | Keywords | Link |
|----------------------|------------------------------|---|--|---|---|---|
| Transportation (2/3) | Joint Research Centre | Journal article | Effectiveness of finite-element modelling of damage and injuries for explosions inside trains | 2010 | terrorist attack, train carriages, risk assessment, human injuries model, carriage design | http://www.tandfonline.com/doi/full/10.1080/19439962.2015.1046619 |
| | | Journal article | Influence of Venting Areas on the Air Blast Pressure Inside Tubular Structures like Railway Carriages | 2010 | terrorist bomb, train carriage, venting area influence, mitigation of carriage internal explosions | http://www.gouvernement.fr/sites/default/files/contenu/piece-jointe/2016/08/guide_pratique_amf_sgdsn_mai_2016.pdf |
| | Journal article | Experimental and Numerical Simulation Activities for the Assessment of Explosion Effects in a Train Station | 2011 | internal organisation, threat assessment, preparedness, good practise, vigilance, attack characterisation, appropriate actions, alert | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/387221/CAP_1223_Framework_for_Aviation_S_eMS.pdf | |
| | Manual | Framework for an Aviation Security Management System (SeMS) | 2014 | risk management, threat identification, risk assessment, accountability, training | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/316816/light-rail-security-best-practice.pdf | |
| | UK (Department of transport) | Best Practice | Light Rail Security | 2014 | carriage security, vehicle security, response techniques, access control CCTV, station security | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/3261/bus-coach-guidance.pdf |
| | | | Bus and Coach Security | 2012 | security training, security of buses-coaches, passenger controls, CCTV, security at bus-coach stations, access control, suspicious behaviour | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/4345/sidos-guide.pdf |
| | UK (Transport police, CPNI) | Guideline | Security in Design of Stations (SIDOS) | 2012 | stations, physical security, mitigation techniques, site evaluation, design requirements, access control, parking, perimeter protection, façade, measures | |

| Category | Publisher/ Author | Document type | Specification | Issue date | Keywords | Link |
|-------------------------|-------------------|-----------------------------------|--|------------|---|---|
| Transportation (3/3) | UK (NaCTSO) | Counter Terrorism Security Advice | General Aviation | 2012 | security planning, physical security, access control, CCTV, evacuation, VBIEDs, CBR, suicide attacks, firearm attacks, hostile reconnaissance, threat | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/374665/aviation-security-reviewed.pdf |
| | Springer | Book | Railway Infrastructure Security | 2015 | security methodologies, vulnerability assessment, practical study, security technologies, security devices | http://link.springer.com/book/10.1007%2F978-3-319-04426-2 |
| | ACI | Policy | Security at Airports | 2009 | responsibilities, security programmes, preventive measures, access control, cabin baggage, hold luggage, passengers, awareness | http://www.aci.aero/media/ba82b936-9ae6-4a59-92e0-dbb37b245257/GgplYA/AboutACI/Priorities/Security/ACI_Policies_and_R |
| | UIC | Leaflet | Human Factors- Preventive Measures Against Terrorist Acts on Railway Premises | 2015 | terrorism, preparedness, protective measures | http://www.shop-ef.com/fr/gratuits/human-factors-preventive-measures-against-terrorist-acts-on-railway-premises.html |
| | | Security Handbook | Rail High Speed Network | 2016 | planning, prevention measures, threats, assessment, threat scenarios, security management, people & structural protection measures | http://www.uic.org/IMG/pdf/2015-hs-security_handbook_public.pdf |
| | | | Influence of delamination of laminated glass on its blast performance | 2013 | laminated glass, edge retention reduction, delamination, failure, delamination protection measures | https://www.cpmi.gov.uk/system/files/documents/4d/8f/Delamination-of-laminated-glass.pdf |
| Facades (1/2) | UK (CPNI) | Guidance note | Fixed-Point Glass: Specification for Blast Enhanced Fixings | 2013 | panel fittings, fixing types, bolt types, fixing figures | https://www.cpmi.gov.uk/system/files/documents/f6/bb/Specification-for-blast-enhanced-fixings.pdf |
| | | | Measures to Improve the Blast Resistance of Glazing | 2014 | mitigation measure, protection measures, laminated glass, anti-Shatter Film, bomb Blast net curtains, secondary glazing | https://www.cpmi.gov.uk/system/files/documents/89/49/Improve-the-blast-resistance-of-glazing.pdf |

| Category | Publisher/ Author | Document type | Specification | Issue date | Keywords | Link |
|-------------------------------|--|------------------|---|------------|---|---|
| Facades (2/2) | | | Installation of Bomb Blast Net Curtains (BBNC) | 2016 | BBNC specifications, curtain properties, installation principles | https://www.cpni.gov.uk/system/files/documents/be/91/Installation-of-bomb-net-curtains.pdf |
| | UK (CPNI) | Guidance note | Use of Anti-Shatter Film (ASF) and Bomb Blast Net Curtains (BBNC) | 2013 | ASF, BBNC, mitigation measures, design recommendations | https://www.cpni.gov.uk/system/files/documents/2f/89/Use-of-ASF-and-BBNC.pdf |
| | | Technical report | Specifying Anti Shatter Film as a Blast Mitigation Measure | 2013 | ASF application, ASF availability, ASF certification | https://www.cpni.gov.uk/system/files/documents/e5/ca/ASF-blast-mitigation-Daylight-application.pdf |
| | JRC (ERNCIP) | | Resistance of Structure to Explosion Effects (glazing) | 2013 | experiments, shock tubes, glass facades, numerical simulations | https://erncip-projectdev.jrc.cec.eu.int/downloads |
| Urban resilience (1/2) | EU (EU Forum) | Project outcome | Sécurités Villes Contre Le Terrorisme | 2005 | prevention measures, communication strategies, case studies | https://efus.eu/files/fileadmin/efus/securepics/Villes_Contra_le_Terrorisme.pdf |
| | J. Coaffee (Ashgate) | Book | Terrorism, Risk and the Global City | 2009 | city, crowded places, defensive design, resilient planning, response techniques | https://www.routledge.com/Terrorism-Risk-and-the-Global-City-Towards-Urban-Resilience/Coaffee/p/book/9780754674283 |
| | USA (Department of Homeland Security-FEMA) | Guidance | Site and Urban Design for Security (against potential terrorist attacks) | 2007 | design considerations, blast effects, cost, defence layers, perimeter security design, open site design, access points, parking | https://www.fema.gov/media-library-data/20130726-1624-20490-9648/fema430.pdf |
| | | Guideline | Design of Commercial Buildings to Mitigate Terrorist Attacks | 2003 | threat characterization, damage prediction, design approach, design guidance, occupancy, cost | https://www.fema.gov/media-library-data/20130726-1455-20490-6114/fema427.pdf |
| | USA(NCPC) | Design Plan | The National Capital Urban Design and Security Plan | 2004 | design framework, design concepts, implementation strategy, project design | https://www.npc.gov/DocumentDepot/Publications/SecurityPlans/NCUDSP/NCUDSP_Section1.pdf |

| Category | Publisher/Author | Document type | Specification | Issue date | Keywords | Link |
|-------------------------|---|---------------|--|------------|---|---|
| Urban resilience (2/2) | UK (HO-CPNI-NaCTSO) | Guideline | Protecting Crowded Places: Design and Technical Issues | 2014 | terrorist methodology, IEDs, protective security measures, design principles, CCTV, vehicle mitigation measures, case studies | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/302016/DesignTechnicalIssues2014.pdf |
| | UK (CPNI) | Booklet | Integrated Security - A public realm design guide for hostile vehicle | 2014 | VBIEDs, blast effects, mitigation techniques, design principles, barriers, attack scenarios | http://www.frontierpitts.com/fileadmin/user_upload/downloads/cpni/2011mar01-integrated_security_v1.0.pdf |
| | UK (RIBA) | Guidance | Designing for Counter-terrorism | 2010 | crowded places, risk assessment, new materials, vulnerability, case studies | https://www.architecture.com/Files/RIBAHoldings/PolicyAndInternationalRelations/Policy/CounterTerrorism/RIBADesigningforCounterTerrorism.pdf |
| | CEN | Guidance | Vehicle Security Barriers | 2010 | barriers, test methods, design methods | http://shop.bsigroup.com/ProductDetail/?pid=000000000030237303 |
| | USA (FEMA) | Manual | Safe Rooms and Shelters (Protecting People against Terrorist Attacks) | 2006 | shelters, design considerations, blast effects, hardened construction, threat protection, response | https://www.fema.gov/media-library-data/20130726-1523-20490-3180/fema453.pdf |
| | UK (CPNI) | Guidance | Protecting Against Terrorism | 2010 | threat identification, risk assessment, protective measures, Response planning, staff awareness | https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/62120/protecting-against-terrorism-3rd-edition.pdf |
| Security planning (1/2) | UK (MI5) | Booklet | Protecting Against Terrorism | 2005 | security planning, security measures, bomb attacks, protected spaces, checklists | http://www.lancsresilience.org.uk/Documents/Bcm/Protecting_Against_Terrorism.pdf |
| | Austria (Bundesministerium für Inneres und des Kuratoriums) | Leaflet | Sicherheit in öffentlichen Gebäuden - Eine Information für Führungskräfte | 2010 | preparedness, crisis team, measures, crisis management, threat scenarios, detention, evacuation, safety instructions, safety considerations, safeguards | http://www.bmi.gv.at/cms/bk/praevention_neu/projekte/files/ffentliche_gebude_fhrungskraefte_web.pdf |

| Category | Publisher/ Author | Document type | Specification | Issue date | Keywords | Link |
|-------------------------------|--|---------------|--|------------|--|---|
| Security planning (2/2) | Sweden | Communication | Prevent, Pre-empt and Protect -the Swedish Counter-Terrorism Strategy | 2015 | counter-terrorism strategies, attack management, prevention-protection techniques | http://www.government.se/4a80d6/contentassets/b56cad17b4434118b16cf449dbdc973d/en_strategi-slutlig-eng.pdf |
| | USA (Interagency Security Committee) | Guide | Best Practices for Planning and Managing Physical Security Resources: An Interagency Security Committee Guide | 2015 | roles, responsibilities, resource requirements, threat assessment, cost management, personnel, physical security, planning, maintenance, training, measure integration | https://www.dhs.gov/sites/default/files/publications/isc-planning-managing-physical-security-resources-dec-2015-508.pdf |
| | | | The Risk Management Process for Federal Facilities: An Interagency Security Committee | 2016 | security level determination, factors, security criteria, scoring guides, symbolism, size, occupancy mission, access, countermeasures, risks, protection level, decision process | https://www.dhs.gov/sites/default/files/publications/ISC_Risk-Management-Process_Aug_2013.pdf |
| | JRC | Article | Access control points: Reducing a possible blast impact by meandering | 2018 | access control points, internal blast, protective wall, wave propagation, injury risk reduction, pressure mitigation | https://www.hindawi.com/journals/ace/ |
| | USA (National Academy Press) | Book | Protecting People and Buildings from Terrorism | 2001 | protection principles, blast effects, blast mitigation strategy | https://www.nap.edu/catalog/10230/protecting-people-and-buildings-from-terrorism-technology-transfer-for-blast |
| | USA (Department of Homeland Security-FEMA) | How-to Guide | Risk assessment | 2005 | threat identification, asset assessment, vulnerability assessment, risk assessment, mitigation options | https://www.fema.gov/media-library-data/20130726-1524-20490-7395/fema452_01_05.pdf |
| | | Handbook | Rapid Visual Screening of Buildings to Evaluate Terrorism Risks | 2009 | rapid visual screening procedure, consequences assessment, vulnerability assessment, risk assessment, mitigation options | https://www.fema.gov/media-library-data/20130726-1457-20490-3521/fema_455.pdf |
| Critical infrastructure (1/2) | | | | | | |

| Category | Publisher/ Author | Document type | Specification | Issue date | Keywords | Link |
|--------------------------------------|---|---------------|---|------------|--|---|
| Critical infrastructure (2/2) | USA (Department of Homeland Security-FEMA) | Manual | Mitigate Potential Terrorist Attacks against Buildings | 2011 | vulnerability, risk, site design, building design, glazing, security system design, CCTV | https://www.fema.gov/media-library-data/20130726-1455-20490-6222/fema426.pdf |
| | Germany (Bundesministerium des Innern) | Guideline | Schutz Kritischer Infrastrukturen- Risiko- und Krisenmanagement (Leitfaden für | 2011 | selection criteria, pre-planning guidance, risk, criticality, protective design, mitigation, hardening, residual risk, crisis management, evaluation | http://www.bbk.bund.de/SharedDocs/Downloads/BBK/DE/Publikationen/PublikationenKritis.pdf?__blob=publicationFile |
| | | | Schutz Kritischer Infrastrukturen- Basisschutzkonzept (Empfehlungen für | 2005 | hazard, risk, vulnerable areas, basic protection, requirements, interactions, protection objectives, mitigation, management, risk, | https://www.bmi.bund.de/SharedDocs/Downloads/DE/Broschueren/2005/Basisschutzkonzept_kritische_Infrastrukturen.pdf?__blob=publicationFile |
| | India (Gujarat State Disaster Mitigation Authority) | Guideline | Measures to Mitigate Effects of Terrorist Attacks on Buildings | 2007 | damage estimation, site planning, design principles, mitigation treatments, vulnerability assessment, risk evaluation | http://www.iitk.ac.in/nicee/IITK-GSDMA/TM01.pdf |
| | Australia (ANZCTC) | Guideline | Protecting Critical Infrastructure from Terrorism | 2015 | critical infrastructure, threat assessment, prevention measures, preparedness, response | https://www.nationalsecurity.gov/Media-and-publications/Publications/Documents/national-guidelines-protection-critical- |
| | Australia (ANZCTC) | Guideline | Protecting Critical Infrastructure and Personnel | 2007 | threat assessment, targets, weapon types, risk assessment, protection measures, security principles, response considerations | http://eu.wiley.com/WileyCDA/WileyTitle/productCd-047177152X.html |
| Policy (1/2) | USA (Homeland Security-FEMA) | Guideline | Insurance, Finance, and Regulation Primer | 2003 | business interruption, insurance risk, terrorism risk, finance risk, building regulation, vulnerability assessment | https://www.fema.gov/media-library-data/20130726-1456-20490-9906/fema429.pdf |

| Category | Publisher/ Author | Document type | Specification | Issue date | Keywords | Link |
|---------------------|--|---------------|---|------------|---|---|
| Policy (2/2) | USA (Department of Justice) | Policy | Policing Terrorism (executive's guide) | 2008 | preparedness, threat assessment, plan development, hardening principles | http://www.popcenter.org/library/reading/pdfs/policingterrorism.pdf |
| | Germany (Bundesministerium des Innern) | Policy | Nationale Strategie zum Schutz Kritischer Infrastrukturen (KRITIS-Strategie) | 2009 | infrastructure definition, vulnerability, objectives, legislation, implementation procedure, threat assessment | https://www.bmi.bund.de/SharedDocs/Downloads/DE/Broschueren/2009/kritis.pdf?__blob=publicationFile |
| Drones | France (SGDSN) | Report | L'essor des drones aériens civils en France: enjeux et réponses possibles de l'Etat | 2015 | sector evolution, accident risk, terrorist acts, operational proposals, responsibilities, detection, identification, neutralisation | http://www.ladocumentationfrancaise.fr/rapports-publics/154000748/index.shtml |

4 Conclusions

In the current document, sources of guidelines and other informative material concerning the protection of soft targets against terrorist attacks have been collected and presented. The illustrated informative sources cover a wide range of vulnerable places that may become the target of malicious attacks. The list included herein, is divided in categories based on the soft target type and contains practical guidance originating from a variety of countries. As noted, in the European Union detailed documentation on security upgrade options for specific soft targets (facades, education/religious facilities, drones) is rather limited. It is considered that special care should also be paid to the citizen involvement in the event of terrorist attacks. The future guides to be produced should aim at providing advice to the security stakeholders for reducing the risk of an attack and introducing proper measures for mitigating the damage and other consequences, should such an incident occurs.

References

- Airports Council International, *Security at Airports*, ACI Policy and Recommended Practices Handbook, November 2009.
- Australia-New Zealand Counter-Terrorism Committee, *Active Shooter Guidelines for Places of Mass Gathering*, Commonwealth of Australia, 2015.
- Australia-New Zealand Counter-Terrorism Committee, *Australia's Strategy for Protective Crowded Places from Terrorism*, Commonwealth of Australia, 2017.
- Australia-New Zealand Counter-Terrorism Committee, *Improvised Explosive Device (IED) Guidelines for Places of Mass Gathering*, Commonwealth of Australia, 2016.
- Bennett, B., *Understanding, Assessing, and Responding to Terrorism, Protecting Critical Infrastructure and Personnel*, John Wiley & Sons, Hoboken, New Jersey, 2007.
- Bundesministerium des Innern, *Nationale Strategie zum Schutz Kritischer Infrastrukturen (KRITIS-Strategie)*, Berlin, 2009.
- Bundesministerium des Innern, *Schutz Kritischer Infrastrukturen- Risiko- und Krisenmanagement- Leitfaden für Unternehmen und Behörden*, Berlin, 2011.
- Bundesministerium des Innern, *Schutz Kritischer Infrastrukturen- Basisschutzkonzept-Empfehlungen für Unternehmen*, Berlin, 2005.
- Bundesministerium für Inneres und des Kuratoriums Sicheres Österreich, *Sicherheit in öffentlichen Gebäuden- Eine Information für Führungskräfte*, Wien, 2010.
- Centre for the Protection of National Infrastructure, *Integrated Security – A Public Realm Design Guide for Hostile Vehicle Mitigation*, Crown, London, 2014.
- Centre for the Protection of National Infrastructure, *Fixed-Point Glass: Specification for Blast Enhanced Fixings*, London, January 2013.
- Centre for the Protection of National Infrastructure, *Guidance Note: Measures to Improve the Blast Resistance of Glazing*, London, April 2014.
- Centre for the Protection of National Infrastructure, *Guidance Note: Installation of Bomb Blast Net Curtains (BBNC)*, London, September 2016.
- Centre for the Protection of National Infrastructure, *Guidance Note: Use of Anti-Shatter Film (ASF) and Bomb Blast Net Curtains (BBNC)*, London, December 2013.
- Centre for the Protection of National Infrastructure, *Guidance Note: Specifying Anti Shatter Film as a Blast Mitigation Measure (Daylight Application)*, London, December 2013.
- Centre for the Protection of National Infrastructure, *Influence of Delamination of Laminated Glass on its Blast Performance*, London, July 2013.
- Centre for the Protection of National Infrastructure, *Protecting Against Terrorism*, Crown, London, 2010.
- Coaffee, J., *Terrorism, Risk and the Global City – Towards Urban Resilience*, Ashgate Publishing Limited, Surrey, England, 2009.
- Command, Control and Interoperability Center for Advanced Data Analysis, *Best Practices in Anti-Terrorism Security for Sporting and Entertainment Venues Resource Guide*, Department of Homeland Security, United States of America, July 2013.
- Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Action Plan to support the protection of public spaces, COM(2017) 612 final. Department for Transport, *Framework for an Aviation Security Management System (SeMS)*, Civil Aviation Authority, London, 2014.
- Department for Transport, *Light Rail Security – Recommended Best Practice*, Crown, London, June 2014.
- Department for Transport, *Bus and Coach Security – Recommended Best Practice*, Crown, London, 2012.

Department for Transport, *Security in Design of Stations (SIDOS) Guide*, British Transport Police, Centre for the Protection of National Infrastructure, Crown, London, July 2012.

European Commission, Joint Research Centre, *Resistance of Structure to Explosion Effects: Review Report of Testing Methods*, ERNCIP thematic are-Resistance of Structures to Explosion Effects, EUR26449EN, ISBN 978-92-79-35104-4 Luxembourg, December 2013.

European Committee for Standardization, *Vehicle Security Barriers – Performance Requirements, Test Methods and Guidance on Application*, CWA 16221, Brussels, 2010.

European Forum for Urban Security, République Française Service d'information du Gouvernement, *Sécurités Villes Contre le Terrorisme*, Paris, France, October 2007.

Fagel M., Hestermann J., *Soft Targets and Crisis Management: what emergency planners and security professionals need to know*, CRC Press, New York, 2017.

Federal Emergency Management Agency (FEMA), *Site and Urban Design for Security-Guidance Against Potential Terrorist Attacks*, Department of Homeland Security, United States of America, December 2007.

Federal Emergency Management Agency (FEMA), *Primer for Design of Commercial Buildings to Mitigate Terrorist Attacks*, Department of Homeland Security, United States of America, December 2003.

Federal Emergency Management Agency (FEMA), *Primer to Design Safe School Projects in Case of Terrorist Attacks and School Shootings*, FEMA-428, Department of Homeland Security, United States of America, January 2012.

Federal Emergency Management Agency (FEMA), *Safe Rooms and Shelters – Protecting People Against Terrorist Attacks*, FEMA-453, Department of Homeland Security, United States of America, May 2006.

Federal Emergency Management Agency (FEMA), *Risk Assessment – A How-To Guide to Mitigate Potential Terrorist Attacks Against Buildings*, FEMA-452, Department of Homeland Security, United States of America, January 2005.

Federal Emergency Management Agency (FEMA), *Handbook for Rapid Visual Screening of Buildings to Evaluate Terrorism Risks*, FEMA-455, Department of Homeland Security, United States of America, March 2009.

Federal Emergency Management Agency (FEMA), *Reference Manual to Mitigate potential Terrorist Attacks Against Buildings*, FEMA-426, Department of Homeland Security, United States of America, October 2011.

Federal Emergency Management Agency (FEMA), *Insurance, Finance, and Regulation Primer for Terrorism Risk Management in Buildings*, FEMA-426, Department of Homeland Security, United States of America, December 2003.

Government Offices of Sweden, *Prevent, Preempt and Protect – The Swedish Counter-Terrorism Strategy*, Ministry of Justice, Stockholm, August 2015.

Hesterman J., *Soft Target Hardening*, CRC Press, New York, 2015.

Indian Institute of Technology Kanpur, *Guidelines on Measures to Mitigate Effects of Terrorist Attacks on Buildings*, Gurajat State Disaster Mitigation Authority, Kanpur, India, July 2007.

Interagency Security Committee, *Best Practices for Planning and Managing Physical Security Resources: An Interagency Security Committee Guide*, Department of Homeland Security, United States of America, December 2015.

Interagency Security Committee, *The Risk Management Process for Federal Facilities: An Interagency Security Committee Standard*, Department of Homeland Security, United States of America, November 2016.

International Union of Railways, *Rail High Speed Network Security Handbook*, Paris, 2016.

International Union of Railways, *Human Factors – Preventive Measures against Terrorist Acts on Railway Premises*, UIC Security Platform, Paris, 2016.

Kalvach Z., *Basics of Soft Targets Protection Guidelines*, Czech Republic, Prague, June 2016.

Karlos, V., Larcher, M., Solomos, G., 'Review on vehicle barrier protection guidance', *JRC Science for Policy Report*, EUR 28938EN, doi:10.2760/845599, 2017.

Larcher, M., Forsberg, R., Bjornstig U., Holgersson, A., Solomos, G., 'Effectiveness of finite-element modelling of damage and injuries for explosions inside trains', *Journal of Transportation Safety & Security*, Vol. 8, Is 1, 2016, pp. 83-100.

Marquise R., *Preventing Soft Target Terrorist Attacks*, Department of Justice, Bureau of Justice Assistance, United States of America, October 2015.

Ministère de la Culture et de la Communication, *Guide de bonnes pratiques - Vigilance attentat : les bons réflexes - Guide à destination des organisateurs de rassemblements et festivals culturels*, Secrétariat général de la défense et de la sécurité nationale, France, 2016.

Ministère des Finances et des Comptes Publics, *Guide de bonnes pratiques - Vigilance attentat : les bons comportements - Guide pratique pour les équipes de direction des centres commerciaux*, Secrétariat général de la défense et de la sécurité nationale, France, February 2016.

Ministère des Finances et des Comptes Publics, *Guide de bonnes pratiques - Vigilance attentat : les bons comportements - Guide pratique pour les équipes de direction des espaces commerciaux*, Secrétariat général de la défense et de la sécurité nationale, France, February 2016.

Ministère de la Culture et de la Communication, *Guide de bonnes pratiques - Vigilance attentat : les bons réflexes - Guide à destination des dirigeants d'établissements culturels patrimoniaux*, Secrétariat général de la défense et de la sécurité nationale, France, 2016.

Ministère de la Culture et de la Communication, *Guide de bonnes pratiques - Vigilance attentat : les bons réflexes - Guide à destination des dirigeants de salles de spectacle, de cinémas ou de cirques*, Secrétariat général de la défense et de la sécurité nationale, France, 2016.

Ministère de l'éducation Nationale, de l'enseignement Supérieur et de la Recherche, *Guide de bonnes pratiques - Sécurité des Ecoles, des Collèges et des Lycées*, Secrétariat général de la défense et de la sécurité nationale, France, August 2016.

Ministry of Human Resource Development, *Standard Operating Procedure (SOP) for dealing with any Terrorist Attack on School*, Department of School Education & Literacy, New Delhi, India, December 2014.

Ministère des Affaires Sociales et de la Sante, *Guide de bonnes pratiques - Vigilance attentat : les bons réflexes - Guide à destination des équipes de direction des établissements de santé, sociaux et médico-sociaux*, Secrétariat général de la défense et de la sécurité nationale, France, June 2016.

Ministère des Affaires Sociales et de la Sante, *Guide de bonnes pratiques - Vigilance attentat : les bons réflexes - Guide à destination des personnels des établissements de santé, sociaux et médico-sociaux*, Secrétariat général de la défense et de la sécurité nationale, France, June 2016.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for Bars, Pubs and Nightclubs*, Home Office, London, 2007.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for Cinemas and Theatres*, Home Office, London, 2008.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for Commercial Centres*, Home Office, London, 2008.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for Hotels and Restaurants*, Home Office, London, 2008.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for Stadia and Arenas*, Home Office, London, 2006.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for Major Events*, Home Office, London, 2009.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for Shopping Centres*, Home Office, London, 2006.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for Visitor Attractions*, Home Office, London, 2007.

National Counter Terrorism Security Office, *Crowded Places: The Planning System and Counter-Terrorism*, Centre for the Protection of National Infrastructure, Home Office, London, January 2012.

National Capital Planning Commission, *The National Capital Urban Design and Security Plan*, Washington, United States of America, October 2002.

National Counter-Terrorism Committee, *National Guidelines for the Protection of Places of Mass Gathering*, Commonwealth of Australia, 2011.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for Health*, Home Office, London, 2009.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for Higher and Further Education*, Home Office, London, 2009.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for Places of Worship*, Home Office, London, 2009.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for your Business outside of the UK*, Foreign and Commonwealth Office, London, 2011.

National Counter Terrorism Security Office, *Counter Terrorism Protective Security Advice for general Aviation*, Home Office, London, 2012.

National Counter Terrorism Security Office, *Protecting Crowded Places: Design and Technical Issues*, Centre for the Protection of National Infrastructure, Home Office, London, March 2014.

Newman, G., Clarke, R., *Policing Terrorism: An Executive's Guide*, U.S. Department of Justice, United States of America, 2008.

République Française, Service d'information du Gouvernement, *Guide de bonnes pratiques - Vigilance attentat : les bons réflexes - Guide à destination des maires et des présidents d'intercommunalité*, Secrétariat général de la défense et de la sécurité nationale, France, 2016.

République Française Service d'information du Gouvernement, *Guide de bonnes pratiques - Vigilance attentat : les bons réflexes - Guide à destination des présidents d'université, des directeurs d'établissement d'enseignement supérieur et des référents défense et sécurité*, Secrétariat général de la défense et de la sécurité nationale, France, 2016.

République Française Service d'information du Gouvernement, *Guide de bonnes pratiques - Vigilance attentat : les bons réflexes - Guide à destination des chefs d'établissement, des inspecteurs de l'éducation nationale et des directeurs d'école*, Secrétariat général de la défense et de la sécurité nationale, France, 2016.

République Française Service d'information du Gouvernement, *L'essor des drones aériens civils en France : enjeux et réponses possibles de l'Etat*, Secrétariat général de la défense et de la sécurité nationale, France, 2015.

Royal Institute of British Architects (RIBA), *Guidance on Designing for Counter-Terrorism*, Centre for the Protection of National Infrastructure, London, 2010.

Security Service MI5, *Protecting Against Terrorism*, Home Office, London, 2005.

Setola, R., Sforza, A., Vittorini, V., Pragliola, C., 'Railway Infrastructure Security', *Springer International Publishing, Switzerland*, 2015.

Solomos, G., Casadei, F., Giannopoulos G., 'Experimental and Numerical Simulation Activities for the Assessment of Explosion Effects in a Train Station', *Internal Security*, Vol. 3, Is 1, January-June 2011, pp. 49-62.

Solomos, G., Casadei, F., Solomos, G., 'Influence of venting areas on the air blast pressure inside tubular structures like railway carriages', *J. Hazard. Mater.*, Vol. 15, 2010, pp. 839-846.

***Europe Direct is a service to help you find answers
to your questions about the European Union.***

Freephone number (*):

00 800 6 7 8 9 10 11

(*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

More information on the European Union is available on the internet (<http://europa.eu>).

HOW TO OBTAIN EU PUBLICATIONS

Free publications:

- one copy:
via EU Bookshop (<http://bookshop.europa.eu>);
- more than one copy or posters/maps:
from the European Union's representations (http://ec.europa.eu/represent_en.htm);
from the delegations in non-EU countries (http://eeas.europa.eu/delegations/index_en.htm);
by contacting the Europe Direct service (http://europa.eu/europedirect/index_en.htm) or
calling 00 800 6 7 8 9 10 11 (freephone number from anywhere in the EU) (*).

(*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

Priced publications:

- via EU Bookshop (<http://bookshop.europa.eu>).

JRC Mission

As the science and knowledge service of the European Commission, the Joint Research Centre's mission is to support EU policies with independent evidence throughout the whole policy cycle.



EU Science Hub
ec.europa.eu/jrc



@EU_ScienceHub



EU Science Hub - Joint Research Centre



Joint Research Centre



EU Science Hub



Publications Office