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Security and Terrorism

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30.1

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On 11 September 2001, two hijacked planes rammed into the World Trade Center buildings in New York City, killing more than 3000 people (The National Commission on Terrorist Attacks Upon the United States, 2004). This tragedy is known as the most fatal terrorist act on American soil. Since then, the United States has pursued various policies and created safeguards to protect its homeland. Post-9/11, security and terrorism have also become very important research topics in the United States (Koh, 2007; Gordon, 2010). While this chapter will not dwell on the debates about the semantics and usage of the word “terrorism,” suffice it to say that “terrorism” is committed to killing mass numbers of people. Terrorism is usually a rare event and could originate from within or outside a country (Roberts and Wang, 2010; Nafday, 2011). While intelligence and law agencies should be playing bigger and more crucial roles in thwarting terrorism, this chapter is intended to help to prepare for cases of terrorism, especially where current loopholes exist and where new technology and engineering solutions could help to fix these loopholes. From the loss prevention engineering perspective, past experience could help to design safeguards and serve as a powerful lesson in order to minimize the aftermath of terrorism.

This chapter, therefore, will first explore two past acts of terrorism which have shaped much of our current discourse about security and terrorism: (i) the Oklahoma City bombing and (ii) the World Trade Center attacks on 11 September 2001. There are many lessons that we can learn from these two events. It is also important to note that “terrorists” are constantly in search of new loopholes to commit terrorism, so one has to keep up with the news and scientific literature that deals with security and terrorism.

30.2

The Oklahoma City Bombing

The bombing of the Murrah Federal Building in Oklahoma City was one of most brutal acts of domestic terrorism before 2001. Timothy McVeigh was the culprit behind this bombing and he executed the attack on 19 April 1995 using a vehicle parked outside the building (Kifner, 1995; Thomas, 1997; ODCEM, 2011). A total of 168 people perished in this bombing although emergency and medical agencies and personnel fought hard to save as many lives as they could (Amundson and Burkle, 1995; Spengler, 1995; White and Hall, 1995; Maningas, Robison, and Mallonee, 1997; Anteau and Williams, 1998; ODCEM, 2011). Most of those who survived were rescued from the building within 30 min of the bombing and very few pulled out from the building within 90 min of the bombing survived (Anteau and Williams, 1998). The number of survivors after that became even fewer (Anteau and Williams, 1998; Maningas, Robison, and Mallonee, 1997). In the aftermath of the bombing, hospitals were overwhelmed by volunteers who were trying to donate blood and provide help (Amundson and Burkle, 1995; Anteau and Williams, 1998), and many of the nurses present stated that the support they received from these volunteers and well-wishers played an important role that day (Amundson and Burkle, 1995; White and Hall, 1995). The Oklahoma City bombing also witnessed children becoming victims of terrorism (Amundson and Burkle, 1995; Brandenburg and Regens, 2006).

The Murrah Federal Building was not built to resist a bomb attack from a vehicle parked outside the building even though it complied with all the building codes of the time (Corley, 2004). The collapse of the building and the blast from the parked vehicle caused most of the fatalities and injuries (Hogan *et al.*, 1999; Glenshaw *et al.*, 2007; Glenshaw *et al.*, 2009; Kapur, Pillow, and Nemeth, 2010). Most of the injuries were sustained in the building and were due to flying glass from the blast (Corley, 2004; Glenshaw *et al.*, 2009).

30.3

The 9/11 Attacks

All the information in this section is taken from the 9/11 Report (The National Commission on Terrorist Attacks Upon the United States, 2004). Even though the 9/11 attacks took place in various locations, the attacks on the World Trade Center came to define that day. It was not the first time the World Trade Center had been attacked. In 1993, a rental van parked in the garage of the towers was detonated. The attacks on World Trade Center 2001 were committed using hijacked planes, which rammed to the upper levels of the twin towers. The first plane rammed the upper level of the North Tower and the second plane rammed to the South Tower, and both towers eventually collapsed. Those trapped on the upper level floors of the North Tower had little chance of being rescued as rooftop evacuation could not take place as the door to the rooftop was locked and the software to release

the locked door was damaged. When the first plane rammed the North Tower, it took 12 min before the Fire Department of New York (FDNY) and members from the Port Authority of New York and New Jersey officially ordered the evacuation of the South Tower. The Report also noted the lack of coordination and effective communication when the evacuation orders were made. Furthermore, there was a lack of coordination among all emergency responder agencies. Many of their first respondents entered the twin towers without recognizing that they might collapse. Many of the first respondents might also have died due to the failure of radio communication that demanded them officially to evacuate the towers. The Report noted that the 911 emergency telephone system was inadequate to face this major disaster. Many victims trapped in the twin towers were told by the 911 operators to stay put in their offices or had no idea where to tell them to go (McConnell *et al.*, 2010; Zimmerman and Sherman, 2011). It was therefore imperative to have coordination and a flow of information between the 911 operators and the 911 dispatchers and victims trapped in the towers. Post-9/11, multiples agencies were created to improve security and to fight terrorism, including the Transportation Security Administration and the Department of Homeland Security.

30.4

Lessons Learned from the Oklahoma City Bombing and 9/11

Rapid emergency rescue is needed during the aftermath of a terrorist attack. In a short span of time, the emergency healthcare system must be able to handle many patients who would have injuries ranging from severe internal bleeding to mere cuts. This called for an effective and rapid rescue system to be created in case of terrorism. One study of hospitals in Mississippi found that almost 60% of them were incapable of handling such a sudden increase in patients (Bennett, 2006). A study in Pakistan found that the emergency healthcare system was overwhelmed after a terrorist act and many patients were transferred to different hospitals than those to which they were initially admitted (Zafar *et al.*, 2011). Emergency and medical agencies should also learn to coordinate in treating massive numbers of injured victims who need immediate medical attention (Maxson, 2002). From 911 dispatchers to ambulance drivers to paramedics, all individuals embedded within the emergency healthcare system should be trained to handle the aftermath of a terrorist attack (Zafar *et al.*, 2011). This training could mimic the current fire or earthquake evacuation training ubiquitous in our society. They must also know how to manage volunteers, as this was one of the problems witnessed in the Oklahoma bombing event. Although terrorism is a very rare event, an effective emergency healthcare system is crucial in minimizing casualties. Creating a network and system where rapid and effective emergency management and medical attention could be provided in case of a terrorist attack should be made an important priority.

Another issue related to the Oklahoma City bombing is the blast injuries. Blast injuries can be categorized into four types, primary, secondary, tertiary, and quaternary, depending on the proximity of the victims to the blast (Phillips, 1986;

Wightman and Gladish, 2001; Glenshaw *et al.*, 2009; Kapur, Pillow, and Nemeth, 2010). For example, primary blast injuries occur in “gas-containing organ systems, notably the middle ear, the lungs, and the bowel” (Clemedson, 1956; Wightman and Gladish, 2001, p. 667) and target the tissues and internal organs (Phillips, 1986), secondary blast injuries are due to shrapnel from the bombing, tertiary blast injuries are due to persons being thrown about due to the force of the blast, and quaternary blast injuries are due to peripheral causes such as smoke inhalation and burns (Phillips, 1986; Wightman and Gladish, 2001; Glenshaw *et al.*, 2009; Kapur, Pillow, and Nemeth, 2010). These various types of blast have different effects on the victims.

Apart from the medical preparation, buildings should also be constructed or prepared to face terrorism and disaster (Osteraas, 2006; Glenshaw *et al.*, 2007). In order to minimize blast injuries, we can learn from procedures adopted by chemical and hydrocarbon manufacturing companies to reduce blast impact by building steel-fabricated plants (Gehring and Summers, 2005). We can also use other methods:

- 1) Windows in the building can be retrofitted to resist and mitigate the blast force (Lin *et al.*, 2004). The window frames can be reinforced or the windows can have security film or wet-glazed film applied (Lin *et al.*, 2004). Laminated tempered windows or a catch system can be installed to collect the broken window glass due to the blast (Lin *et al.*, 2004). The Air Force Research Laboratory has also developed a blast-resistant window called a Flex window (Strickland, Anderson, and Dover, 2003).
- 2) Columns in the building can also be retrofitted and reinforced in order to take the force of the blast (Morrill *et al.*, 2004; Shalouf and Ahmad, 2006).
- 3) An enamel-coated steel rebar was found to reduce the blast impact (Yan *et al.*, 2011).

Németh and Hollander (2010) reported that in the post-9/11 world, public space is shrinking in New York City due to security. They found that one-third of the Civic Center and one-sixth of the Financial District had been turned into security zones. While it is important to provide security solutions, engineers and urban planners must be aware of the other side of the problem: the shrinking of public space open to the community. This is an important conundrum that needs to be taken into account. One simple method to limit space for vehicles while allowing access to the public is to install large flowerpots as barricades. Penn Station in Baltimore has a concrete flowerpot barricade outside this public terminal, as shown in Figure 30.1.

The Oklahoma City bombing also witnessed children becoming victims of terrorism. Brandenburg and Regens (2006) reported that children have different vulnerabilities to adults, and recommended the following:

- 1) pediatricians to be present to treat children who are victims of terrorism
- 2) having sufficient medical supplies, prenatal and neonatal care, and proper drugs for children
- 3) providing pediatric mental health expertise to handle the mental health of these children

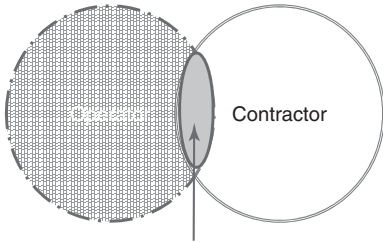


Figure 30.1 Flowerpot barricade at Penn Station, Baltimore.

- 4) uniting these children with their parents and raising awareness among parents that these children are more susceptible to sustain unintentional injuries post-terrorist attack
- 5) creating options for children who have lost their parents due to terrorism.

Apart from that, other victims of terrorist acts include emergency personnel and firemen. Many of them experienced trauma and other types of health-related problems (Rom *et al.*, 2010). For instance, one fireman who was present at the scene recalled how he stood in awe and was helpless when he saw many 18 ton beams around him (Squillace, 2003). That fireman was so focused on saving lives that he “worked almost 24 h for 2 months straight” (Squillace, 2003, p. 104). While working this hard, the fireman recalled neglecting his family (Squillace, 2003). Many of his co-workers were also battling with depression after 9/11 (Squillace, 2003). This is an important consideration as even the most physically and perhaps emotionally strong men battle against depression after a traumatic event such as 9/11. Help and therapy should be created post-terrorist attacks for these emergency respondents. This is especially important given that one-quarter of respondents who answered surveys show signs of “probable depression” (Biggs *et al.*, 2010). This “probable depression” was 4.59 times higher in non-white respondents than white respondents (Biggs *et al.*, 2010). Therefore, training emergency personnel and firemen physically and mentally to face any act of terrorism should also be considered.

30.5

Bioterrorism

Another central issue of terrorism is bioterrorism. Since 9/11, the United States has spent an astonishing \$60 billion on biological defense alone (Graham and Talent, 2011). However, the Commission on the Prevention of WMD (Weapons of Mass Destruction) Proliferation and Terrorism, which received bipartisan support, gave a fail grade to America’s preparedness for bioterrorism (Graham and Talent, 2011). This is perhaps because one study found that federal funding has no direct effect on local-level preparedness (Avery and Zabriskie-Timmerman, 2009).

One of the most recent agents in bioterrorism has been ricin, which can be created from castor beans (Audi *et al.*, 2005). Very small amounts of ricin can cause

death when inhaled or ingested, making it a deadly source of bioterrorism (Audi *et al.*, 2005). To make things worse, ricin poisoning could easily be mistaken for symptoms of other illnesses such as food poisoning (Audi *et al.*, 2005). Therefore, training physicians to be aware of this source of bioterrorism is important.

Another source of bioterrorism is botulin, a neurotoxin produced by *Clostridium botulinum* (Josko, 2004). Josko (2004, p. 32) described botulin toxin as the “most potent neurotoxin known to mankind.” The routes of exposure are food and water ingestion and inhalation (Josko, 2004). The toxin may cause death through respiratory paralysis (Josko, 2004).

Anthrax is another source of bioterrorism. Anthrax is endospores of *Bacillus anthracis* and can be fatal if inhaled or ingested (Dixon *et al.*, 1999). It produces flu-like symptoms and there is a vaccine for it (Dixon *et al.*, 1999; Baccam and Boechler, 2007).

Another form of bioterrorism is terrorism targeted at agriculture (Casagrande, 2000; Crutchley *et al.*, 2007; Seebeck, 2007). Terrorists can target not just crops but also animals (Casagrande, 2000; Blancou and Pearson, 2003). Casagrande (2000) argued that there have been weaknesses in the law targeting agroterrorism, because terrorists targeting crops are punished with relatively short prison sentences whereas terrorists targeting humans are punished much more severely. Given the lesser severity of punishment, agroterrorism might seem attractive to terrorists. In order to stop this, Casagrande (2000) and Crutchley *et al.* (2007) recommended:

- 1) making agroterrorism pathogens more rare
- 2) making sure that agrochemical manufacturers demand stringent access to their facilities and that agroproducts are carefully and safely stored
- 3) quarantining new animals from different farms and making sure outsiders have no access to these animals
- 4) creating better surveillance systems to monitor agroterrorism
- 5) funding new vaccines and antibiotics
- 6) training emergency responders and increasing awareness about agroterrorism using education
- 7) improving the effectiveness of communications during an outbreak.

Norton (2003) also suggested creating a privately funded National Agroterrorism Defense Center. Ventilation filters could be installed in buildings to prevent bioterrorism (Goyal *et al.*, 2011). There is also software that can be used to protect our food system. One software tool that can be used to assess the vulnerability of food production and safety from terrorism is CARVER + Shock, which was initially developed by the US military before being adopted by the US Food and Drug Administration (FDA) and US Department of Agriculture (USDA) (FDA, 2011a). The software can be downloaded from the FDA web site (FDA, 2011b). Overall, reviewers have praised this software, but they also have made some recommendations to further improve it (Yadav and Sharma, 2011).

30.6

Cyber Terrorism

Cyber terrorism is another form of terrorism which will become more prominent as we rely increasingly more heavily on computers. Cyber terrorists used the Internet to spread propaganda, plan attacks, collect intelligence, and raise funds for their organizations (Furnell and Warren, 1999; Cohen, 2002). Cyber crime and cyber terrorism are usually differentiated by their motives (Yunos and Suid, 2010). Cyber terrorism, which is intended or caused death, is punished with life imprisonment in the United States through the Patriot Act (Hardy, 2011). Many governments such as that in the United Kingdom are taking steps to safeguard their networks from cyber terrorism (Zolfagharifard, 2010), given that cyber terrorism could be used by many state and non-state actors to disrupt computer systems in other parts of the world (Gjelten, 2010; Piggin, 2010; Zolfagharifard, 2010). Cyber terrorism using worms could affect industrial control systems such as in power plants (Piggin, 2010). This is especially true for industrial control systems that are old and not ill-equipped to face cyber terrorism (Piggin, 2010). Piggin (2010) recommended that industrial control systems be prepared to face these worms and minimize their effects. He called for multiple measures to safeguard industrial control systems, from limiting access to networks to installing antivirus software. Further, his recommendation that sensitive network be made physically limited to only special individuals should also help to minimize threats. Yunos and Suid (2010) recommended constant upgrades of knowledge, skills, and competencies to deal with rapid changes of cyber threats. They also called for laws that transcend national borders to be created in order to safeguard networks from cyber terrorism originating from outside each country. Some researchers have even suggested that cyber terrorism and other cyber aggression should face retaliation in order to minimize cyber attacks (Harknett, Callaghan, and Kauffman, 2010). From the loss prevention perspective, updating knowledge and being aware of recent forms of cyber attacks and cyber terrorism should lead to better preparation to face these threats.

30.7

Conclusion

A lot can be learned from the Oklahoma City bombing and the 9/11 World Trade Center attacks. A federal building such as the Murrah Federal Building in Oklahoma City was targeted to make a political statement against the federal government (Kifner, 1995; Thomas, 1997). Likewise, prominent buildings such as the World Trade Center might be targeted for their cultural and national significance, and these demand extra precautions and call for engineering solutions.

These two events can help us to understand how terrorist attacks were executed and their consequences. Reviewing and keeping up-to-date with the latest literature and trustworthy news are good ways to improve security and face the ever-changing

terrorists' methods. This is especially true for bioterrorism and cyber terrorism as these two forms of terrorisms are evolving. Laws should also be enacted and updated with the rise and severity of terrorism while being aware that it could also lead to abuse. Urban areas should also receive more attention because given its population size and density it might be the prime target of terrorists.

Engineering solutions must be the paramount solutions, followed by enforcement and education. Hence engineers, especially in the post-9/11 United States, must design buildings and public space that minimize the probability of terrorist attacks and casualties of an attack. Much of the research related to terrorism is funded by governments. If funding starts to decrease, research related to terrorism will also shrink. New sources of private funding and new centers of research should be established to help further research in this field.

All in all, terrorism is a rare event with the intention of causing mass casualties, creating fear, and disrupting our everyday life. Given its low probability and frequency, it might slip away from our attention. It is important to prepare for this without being alarmists.

References

- Amundson, S.B. and Burkle, A.M. (1995) *J. Emerg. Nurs.*, **21** (5), 401–407.
- Anteau, C.M. and Williams, L.A. (1998) *Nursing*, **28** (3), 52–55.
- Audi, J., Belson, M., Patel, M., Schier, J., and Osterloh, J. (2005) *JAMA*, **294** (18), 2342–2351.
- Avery, G.H. and Zabriskie-Timmerman, J. (2009) *Eval. Health Prof.*, **32** (2), 95–127.
- Baccam, P. and Boechler, M. (2007) *Biosecur. Bioterror.*, **5** (1), 26–34.
- Bennett, R.L. (2006) *Int. J. Environ. Res. Public Health*, **3** (1), 67–75.
- Biggs, Q.M., Fullerton, C.S., Reeves, J.J., Grieger, T.A., Reissman, D., and Ursano, R.J. (2010) *Am. J. Orthopsychiatry*, **80** (4), 586–592.
- Blancou, J. and Pearson, J.E. (2003) *Comp. Immunol. Microbiol. Infect. Dis.*, **26** (5–6), 431–443.
- Brandenburg, M. and Regens, J.L. (2006) *J. Homeland Secur. Emerg. Manage.*, **3** (4), 1–17.
- Casagrande, R. (2000) *Nonprolif. Rev.*, **3** (Fall–Winter), 96.
- Clemedson, C.J. (1956) *Physiol. Rev.*, **36** (3), 336–354.
- Cohen, F. (2002) *Netw. Secur.*, **2002** (5), 17–19.
- Corley, W.G. (2004) *J. Perform. Constr. Facil.*, **18** (2), 68–78.
- Crutchley, T.M., Rodgers, J.B., Whiteside, H.P. Jr, Vanier, M., and Terndrup, T.E. (2007) *J. Food Prot.*, **70** (3), 791–804.
- Dixon, T.C., Meselson, M., Guillemin, J., and Hanna, P.C. (1999) *N. Engl. J. Med.*, **341** (11), 815–826.
- FDA (Food and Drug Administration) (2011a) CARVER + Shock: Enhancing Food Defense, <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm094560.htm> (last accessed 6 August 2011).
- FDA (Food and Drug Administration) (2011b) CARVER Software – New Release, <http://www.fda.gov/Food/FoodDefense/ToolsResources/ucm295900.htm> (last accessed 6 August 2011).
- Furnell, S.M. and Warren, M.J. (1999) *Comput. Secur.*, **18** (1), 28–34.
- Gehring, G. and Summers, P. (2005) *Hydrocarbon Process.*, **84** (11), 55–57, 59–61.
- Gjeltén, T. (2010) *World Aff.*, **173** (4), 33–42.
- Glenshaw, M.T., Vernick, J.S., Li, G., Sorock, G.S., Brown, S., and Mallonee, S. (2007) *Disaster Med. Public Health Prep.*, **1** (1), 27–31; discussion 31–33.

- Glenshaw, M.T., Vernick, J.S., Li, G., Sorock, G.S., Brown, S., and Mallonee, S. (2009) *J. Trauma*, **66** (2), 508–515.
- Gordon, A. (2010) *Crit. Stud. Terrorism*, **3** (3), 437–458.
- Goyal, S.M., Anantharaman, S., Ramakrishnan, M.A., Sajja, S., Kim, S.W., Stanley, N.J., Farnsworth, J.E., Kuehn, T.H., and Raynor, P.C. (2011) *Am. J. Infect. Control*, **39** (7), e30–e38.
- Graham, B. and Talent, J. (2011) *Disaster Med. Public Health Prep.*, **5** (Suppl. 2), S170–S171.
- Hardy, K. (2011) *Comput. Law Secur. Rep.*, **27** (2), 152–161.
- Harknett, R.J., Callaghan, J.P., and Kauffman, R. (2010) *J. Homeland Secur. Emerg. Manage.*, **7** (1), 22.
- Hogan, D.E., Waeckerle, J.F., Dire, D.J., and Lillibridge, S.R. (1999) *Ann. Emerg. Med.*, **34** (2), 160–167.
- Josko, D. (2004) *Clin. Lab. Sci.*, **17** (1), 30–34.
- Kapur, G.B., Pillow, M.T., and Nemeth, I. (2010) *Prehosp. Disaster Med.*, **25** (6), 595–600.
- Kifner, J. (1995) Terror in Oklahoma: the suspect; authorities hold a man of “extreme right-wing views”, *New York Times*, 22 April, <http://www.nytimes.com/1995/04/22/us/terror-oklahoma-suspect-authorities-hold-man-extreme-right-wing-views.html?ref=timothyjamesmcveigh> (last accessed 11 August 2011).
- Koh, W.T.H. (2007) *Technol. Forecast. Soc. Change*, **74** (2), 129–138.
- Lin, L.H., Hinman, E., Stone, H.F., and Roberts, A.M. (2004) *J. Perform. Constr. Facil.*, **18** (2), 86–94.
- Maningas, P.A., Robison, M., and Mallonee, S. (1997) *Prehosp. Disaster Med.*, **12** (2), 80–85.
- Maxson, R.T. (2002) *Clin. Pediatr. Emerg. Med.*, **3** (4), 256–261.
- McConnell, N.C., Boyce, K.E., Shields, J., Galea, E.R., Day, R.C., and Hulse, L.M. (2010) *Fire Saf. J.*, **45** (1), 21–34.
- Morrill, K.B., Malvar, L.J., Crawford, J.E., and Ferritto, J.M. (2004) Blast resistant design and retrofit of reinforced concrete columns and walls. In Proceedings of the 2004 Structures Congress – Building on the Past: Securing the Future, pp. 1471–1478.
- Nafday, A.M. (2011) *Struct. Saf.*, **33** (1), 108–114.
- Németh, J. and Hollander, J. (2010) *Int. J. Urban Reg. Res.*, **34** (1), 20–34.
- Norton, R.A. (2003) *Poult. Sci.*, **82** (6), 958–963.
- ODCEM (Oklahoma Department of Civil Emergency Management) (2011) After Action Report: Alfred P. Murrah Federal Building Bombing, 19 April 1995 in Oklahoma City, Oklahoma, <http://www.ok.gov/OEM/documents/Bombing%20After%20Action%20Report.pdf> (last accessed 15 August 2011).
- Osteraas, J.D. (2006) *J. Perform. Constr. Facil.*, **20** (4), 330–335.
- Phillips, Y.Y. (1986) *Ann. Emerg. Med.*, **15** (12), 1446–1450.
- Piggin, R. (2010) *Eng. Technol.*, **5** (17), 36–38.
- Roberts, C.W. and Wang, Y. (2010) *Comparative Sociology*, **9** (4), 463–494. <http://www.ingentaconnect.com/content/brill/comps/2010/00000009/00000004/art00002>
- Rom, W.N., Reibman, J., Rogers, L., Weiden, M.D., Oppenheimer, B., Berger, K., and Prezant, D. (2010) *Proc. Am. Thorac. Soc.*, **7** (2), 142–145.
- Seebeck, L. (2007) *Stud. Conflict Terrorism*, **30** (8), 691–721.
- Shalouf, F. and Ahmad, S.I. (2006) Blast loading and earthquake effect on reinforced concrete structures. In Proceedings of the 3rd International Conference on Bridge Maintenance, Safety and Management – Bridge Maintenance, Safety, Management, Life-Cycle Performance and Cost, pp. 315–316.
- Spengler, C. (1995) *J. Child Neurol.*, **10** (5), 392–398.
- Squillace, M. (2003) *Occup. Ther. Ment. Health*, **19** (3-4), 103–114.
- Strickland, W.S., Anderson, M., and Dover, D. (2003) Blast-resistant window concepts, in *ASME Conference Proceedings. ASME 2003 Pressure Vessels and Piping Conference (PVP 2003)*, American Society of Mechanical Engineers, New York, pp. 175–184.
- The National Commission on Terrorist Attacks Upon the United States (2004) *The 9/11 Commission Report. Final Report of the National Commission on Terrorist Attacks*

- Upon the United States, US Government Printing Office, Washington, DC.
- Thomas, J.O. (1997) McVeigh jury decides on sentence of death in Oklahoma bombing. *New York Times*, 14 June, <http://www.nytimes.com/1997/06/14/us/mcveigh-jury-decides-on-sentence-of-death-in-oklahoma-bombing.html?pagewanted=all&src=pm> (last accessed 11 August 2011).
- White, G. and Hall, N. (1995) *J. Emerg. Nurs.*, **21** (4), 277–278.
- Wightman, J.M. and Gladish, S.L. (2001) *Ann. Emerg. Med.*, **37** (6), 664–678.
- Yadav, V. and Sharma, A. (2011) *Compr. Rev. Food Sci. Food Saf.*, **10** (2), 109–117.
- Yan, D., Chen, G., Baird, J., Yin, H., and Koenigstein, M. (2011) Blast test of full-size wall barriers reinforced with enamel-coated steel rebar. In Structures Congress 2011 – Proceedings of the 2011 Structures Congress, pp. 1538–1551.
- Yunos, Z. and Suid, S.H. (2010) Protection of critical national information infrastructure (CNII) against cyber terrorism: development of strategy and policy framework. In ISI 2010 – 2010 IEEE International Conference on Intelligence and Security Informatics: Public Safety and Security, p. 169.
- Zafar, H., Jawad, A., Shahzad Shamim, M., Memon, A.A., Hameed, A., Shahrukh Effendi, M., and Qureshi, S. (2011) *J. Pakistan Med. Assoc.*, **61** (6), 561–566.
- Zimmerman, R. and Sherman, M.F. (2011) *Risk Anal.*, **31** (5), 787–804.
- Zolfagharifard, E. (2010) Defending against the cyber threat. *Engineer*, **295** (7805), 28.