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## COUNTER TERRORISM: INTELLIGENCE AND THE FIRE SERVICE

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While many would recognise and acknowledge the role fire services play in the response to terrorist attacks, few realise the role fire services can play within an intelligence context of counter-terrorism. As both consumers and producers of intelligence fire services can inform and prepare agencies and communities for the preparation, response, and recovery from terrorist events. In the years following 11 September 2001, some agencies within the United States and the United Kingdom have improved relationships and information sharing amongst counter-terrorism agencies and the fire service. These improved relationships and enhanced information-sharing pathways lead to improved preparedness and situational awareness. Firefighters can support counter-terrorism intelligence efforts by providing expert advice on topics such as hazardous materials and disaster response, reporting suspicious activity observed during their daily community interactions, and by providing intelligence agencies an additional viewpoint which may help them to interpret the information they are assessing.

Keywords: Counter-terrorism, intelligence, network fusion, fire service, national security

#### Introduction

Traditionally fire services have played a role in the response and mitigation of terrorism events, but rarely have they been considered as playing a broader role within an intelligence context. The reality is response and mitigation of a terrorist attack are a last resort, with intelligence agencies and law enforcement working to deter, detect and disrupt terrorists before they can undertake an attack. In the post-9/11 era it is import-

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ant to recognise not all significant intelligence gathered about terrorism is gathered by state intelligence agencies. Through intelligence practice, fire services can play a more substantial role in the prevention and preparedness activities for terrorism in the hope of contributing to a more effective response and recovery from such events. Being able to improve their situational awareness is important for emergency services, as it provides an increased ability to "identify, process and comprehend the critical elements of information about what is happening" <sup>2</sup> to allow for better decision making at strategic, operational, and tactical levels.

This article intends to highlight the role fire services can and are playing, both as consumers and producers of intelligence within a counter-terrorism context. Fire services can contribute to the intelligence process at various stages of the intelligence cycle, including collation, analysis, and dissemination.<sup>3</sup> These abilities have been gradually recognised across the world in the twenty-one years after 11 September 2001 (9/11), an attack that saw the Fire Department of New York (FDNY) suffer significant loss and a realisation of the terrorism risk fire departments face while serving their communities. While significant steps forward have occurred there is still a way to go to have fire services truly recognised for the contribution they can play. Within the United Kingdom (UK) and the United States (US) varying levels of recognition and cooperation are occurring, which will be discussed in this article. While a 'that's not our job' mentality may exist, it is important to help agencies and individuals recognise and understand that fire service involvement in the intelligence space will help fire services to do their jobs better, whilst also improving the safety of firefighters and the community.<sup>4</sup>

It is not the intention of this article to overemphasise the contribution fire services play, nor is it to encourage firefighters into harm's way. Instead, it is hoped to foster improved information sharing and relationships to better prepare and service the communities they protect. It is important to ensure that fire services maintain community trust and do not overstep by becoming an apparatus for specific collection operations which could raise some legal and ethical issues.<sup>5</sup> In order to establish the role fire services can play within the counter-terrorism intelligence space this article will discuss how the FDNY became a world leader for fire service involvement within the intelligence space, as well as the concept of network fusion and importance of the timely sharing of critical intelligence between agencies. It then moves on to how the fire service as consumers of intelligence can benefit from receiving relevant information that improves situational awareness and aids decision making, as well as providing examples of how the fire service can actually contribute to and produce intelligence relevant to counter-terrorism practice. Finally it will explore examples of fire services in the United States and United Kingdom who are currently contributing to counter-terrorism intelligence through various roles and activities.

#### FDNY post 9/11

The FDNY can be credited with some of the most notable work toward fire services involvement within a national security intelligence context. Suffering the significant loss of 343 of their firefighters on 11 September 2001, the FDNY realised there was a critical role for fire services to play within this space. With over 2.3 million calls a year, and daily operations interacting with their community and local industry, the FDNY have unprecedented potential to identify suspicious activity and potential threats.<sup>6</sup> The FDNY believed that all three of its missions: prevention, preparedness, and response, stood to gain from improved intelligence collection and sharing.<sup>7</sup> A major step was the creation of their Centre for Terrorism and Disaster Preparedness (CTDP) to improve their capabilities around terrorism and disaster response as well as consequence man-agement. Strategy and planning, information-sharing, exercise development, and risk assessment are all activities of the CTDP.<sup>8</sup> Various staff working within the CTDP have gained security clearances to assist with their ability to access and analyse intelligence.<sup>9</sup>

In 2006 another major step for the FDNY involved meeting with the Department of Homeland Security (DHS) to discuss information and intelligence sharing. <sup>10</sup> The relationship they formed led to a concept known as Fire Service Intelligence Enterprise (FSIE), an information-sharing template between DHS and major fire departments <sup>11</sup> with a goal to identify and develop information-sharing networks. <sup>12</sup> Apart from conventional methods of information exchange, agencies working with DHS can share unclassified information using the Homeland Security Information Network (HSIN), and for classified information the Homeland Security Data Network (HSDN) exists. Within the (HSIN) New York City has established the New York Situational Awareness Program (NYSAP) web portal. This allows for the sharing of real-time situational awareness and information between more than forty-five agencies. <sup>13</sup>

In 2007 FDNY held its inaugural FSIE conference, bringing together representatives from fifteen of the largest fire services in the US, as well as key federal stakeholders. This contributed to a concept plan that defined fire service intelligence requirements. The FSIE has since led to the FDNY creating their own intelligence products for dissemi-nation across their organisation and externally. Watchline is the FDNY's weekly intel-ligence periodical providing a one-page report targeted to the operational and tactical levels. Its readership totals over 100,000 consumers, including over 150 US organisa-tions and agencies in more than 20 countries. The Monograph Series provides greater detail on emergent and critical events and applies to the first responder community at strategic, operational, and tactical levels. Their third product, a powerpoint presentation called 'Fireguard', provides an expanded look at particular topics and is disseminated internally across the organisation. It highlights topics that pose particular dangers for the fire service and sometimes broader communities. It provides information on specific tactics that can inform decision-making at strategic, operational and tactical levels.

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#### **Network Fusion**

While FDNY does not supply personnel to a fusion centre, they advocate strongly for the concept of network fusion. Network fusion "encourages collaboration across multiple disciplines by leveraging technology to connect the unconnected at classified and unclassified levels." 18 It establishes integrated networks across various disciplines that have a role to play within counter-terrorism, including intelligence and law enforcement, fire services, and health care systems. It supports the mission of counter-terrorism, with a key benefit being the speed that its established network of key players can share information remotely without having to be co-located. Rather than wait for information to be pushed, this concept allows for partners to pull information and return it to the network in the form of enhanced intelligence.<sup>19</sup> It helps to ensure critical intelligence and information reaches key decision-makers promptly.

#### Consumers of Intelligence

It is important agencies have access to the necessary information to perform their duties through effective sharing. It is not possible or appropriate to share everything with everyone.<sup>20</sup> Information needed by fire services centres on "personal safety, operational and situational awareness, preparation, planning, and response."21 Intelligence provided to the fire service can greatly support critical decision-making at the strategic, operational, and tactical levels.<sup>22</sup> Strategic intelligence covers long-term developments and issues that affect the organisation or sector as a whole. Operational intelligence refers to more short to mid-term factors that relate to planning operations and the monitoring of events. Tactical intelligence is the critical intelligence during an event that aids in safety and decision-making specific to that incident.<sup>23</sup> To use a bushfire season as an example: a fire service may receive relevant weather predictions from government meteorologists detailing conditions likely to produce high fire danger over the summer period. This strategic intelligence may assist a fire service to plan for the upcoming fire season, increasing training and resources in the lead-up to the predicated high fire danger period; whilst in the summer period operational intelligence may provide the fire service information of high fire risks within the coming days, allowing them to plan resourcing for that period. Then if a bushfire occurs fire services will obtain tactical intelligence, such as predicted wind changes, to support decision making in the management of an incident.

The counter-terrorism environment is no different with fire services able to significantly benefit from various levels of intelligence that help to plan and prepare or respond to an event. In New York City in 2010, members of the FDNY responded to reports of smoke issuing from a vehicle in Times Square. Upon arrival, the crews recognised that something was not right, as the incident was not presenting like previous car fires they had attended. It was then discovered that the vehicle contained a bomb, placed there by a would-be terrorist who hoped to cause death and destruction in the busy tourist hub. Actions were then undertaken to evacuate the area and call in the police bomb squad to disable the device. The first responding FDNY crews credited their quick recognition and actions in this event to the counter-terrorism training, and improved understanding of the threat landscape, they had received.<sup>24</sup> This improved awareness can help crews understand the risk during attacks including the risk of secondary devices.

Increasing fire services' exposure to intelligence on counter-terrorism activities raises some challenges with a need to balance the classified nature of some intelligence against the importance of providing fire services with critical information. Fire services need to have an understanding of what intelligence they need, as well as an understanding of the relevance of the information they receive. <sup>25</sup> A fair portion of intelligence in a counter-terrorism context may be irrelevant to fire services, with difficulties from both sides in determining what should be shared. Intelligence analysts and law enforcement officials may struggle to determine what is relevant to fire services; while fire services may face difficulty in analysing the information they are provided. This is where relationships and collaborative efforts between organisations are important. As this cooperation increases, it allows for fire services to also play a role in the collection of information and production of intelligence.

#### **Producers of Intelligence**

Over the years fire services have grown into organisations that gather information for prevention activities and the improvement of their response capabilities. Fire services are subject matter experts and undertake considerable work in areas such as building design and fire safety, dangerous goods storage, and disaster response. Information gathering can lead to the production of intelligence capable of influencing decision-making and legislation. Traditionally this work may have had no relevance to terrorism, however since 9/11 the threat has increased, and fire services can produce intelligence specific to counter-terrorism activities. Fire services may come across small amounts of information in their daily activities which may be useful to intelligence agencies by assisting them to interpret and contextualise wider sets of information.<sup>26</sup>

The use of fire as a weapon by extremist groups has been quite evident in recent years with arson attacks carried out during situations of civil unrest and widely spreading conspiracy theories leading to an increase in targeted attacks on critical infrastructure such as 5G telecommunications towers.<sup>27</sup> While these are criminal matters that will be investigated by police the fire service can support these investigations through activities such as information gathering and the tracking of trends, providing specialist fire investigators, as well as providing expert advice on fire safety strategies and systems to help safeguard critical infrastructure.

In 2014, highly flammable aluminium composite panels (ACP) contributed to rapid external fire spread on a high-rise building in Melbourne, Australia. Recognising the risk, the fire service undertook immediate action to improve their planning and response to future fires in ACP-clad buildings. They also included cladding into part of their building inspection process and advocated for legislative change. They advised against the release of the affected buildings list out of fear of arson and became part of the Victorian Cladding Taskforce whose work led to the banning of these building materials in 2021. While not a specific terrorism example this highlights the ability of fire services to produce critical information and intelligence that influences decision-making. The fire service was able to provide expert advice and effectively gather, collate, analyse, and disseminate material that led to legislative changes and improved preparedness.

It is common around the world for fire services to provide expert response capabilities and knowledge for the mitigation of hazardous material (hazmat) incidents; this is achieved through reviewing previous incidents and preparing future responses. Many fire services maintain specially trained hazmat technicians and some even have scientists working within their organisation to provide expert knowledge and guidance.<sup>31</sup> In Sydney, Australia in 2017 police interrupted a terrorist plot that planned to use hydrogen sulphide (H2S) a highly lethal gas<sup>32</sup> as a chemical weapon. This is one of the most significant chemical agent threats Australia has experienced. The dangers of responding to H2S incidents had already been discussed in firefighting circles for almost a decade prior after it emerged as a popular suicide method in Japan in 2007<sup>33</sup>. A dramatic increase in H2S suicides globally saw fire services discussing this topic and acknowledging the potential for terrorists to exploit this method.<sup>34</sup> This highlights the ability of fire service subject matter experts to apply trends and emerging risks to a counter-terrorism context. Whether as consumers or producers of intelligence we are starting to see more fire service involvement in the intelligence space.

#### **United States**

Apart from the FDNY, other fire services within the US are contributing in varying degrees toward counter-terrorism through intelligence practice. Their level of involvement is dependent on their organisation's size, funding, and operating environment. The Chicago Fire Department (CFD) has established a Tactical Operations Intelligence Centre (TOIC) with intelligence dissemination and production coordinated with the Chicago Police Department.<sup>35</sup> The TOIC publishes internal bulletins focussing on significant incidents, international and national intelligence, significant dates, and special events. Elsewhere fire services within the Northern Virginia and Maryland jurisdictions have been involved in the region's High Threat Response Program (HTRP) aimed at "building capacity to respond to complex coordinated terrorist attacks in the region and across the country".<sup>36</sup> Part of the HTRP saw fire services team up with law enforcement

as part of the Fire as a Weapon (FaW) working group. This working group has conducted research and testing to produce reports on strategies and abilities to combat FaW incidents, providing critical information for policymakers.<sup>37</sup> They have also established a FaW database to start logging and tracking incidents globally.<sup>38</sup>

Fusion centres are another example of cooperation among agencies. Established at both local and state-level jurisdictions within the US, they are designed to maximise efforts to "detect, prevent, investigate, and respond to criminal and terrorist activity." Each fusion centre varies in configuration, capabilities, and key focus areas. The DHS is said to be leading the effort to have firefighters assigned to fusion centres, recognising the knowledge and experience they can contribute. That said, only a limited number of fusion centres have recruited fire services on national security activities; although some believe the inclusion of fire services could increase the effectiveness of the centres. In understanding the limitations of these collaborative relationships it should be acknowledged that some fusion centres focus more heavily on criminal activities rather than terrorism, thus reducing the need for fire service involvement. Trust needs to exist between the agencies involved with fusion centres often dealing with sensitive information. Building this trust is something that has been occurring at a federal level.

The US National Counterterrorism Centre operates the Joint Counterterrorism Assessment Team (JCAT), a fellowship program available to law enforcement, emergency medical and public health, fire, and intelligence service employees. JCAT allows fellows to work with the DHS and Federal Bureau of Investigation to research, produce, and disseminate counter-terrorism information, before returning to their respective agencies.<sup>43</sup> This helps to build trust and develop the fellows to return to their organisations with newly gained knowledge and relationships. This can aid in their work with other multi-agency teams and initiatives focused on the terrorism threat, such as JHATs.

Joint Hazard Assessment Teams (JHATs) are another example of fire services within the US being consumers of intelligence as well as assisting decision-makers in a counter-terrorism context. JHATs are a proven concept of multi-disciplinary teams comprising law enforcement, fire, and public health personnel with expertise focused on hazmat and weapon of mass destruction threats. 44 They are mobilised for major events such as sporting events, political conventions, and dignitary visits. JHATs receive intelligence in the lead-up to special events to help them in planning prior and the response during. They assist in providing a rapid assessment of emerging threats such as suspicious packages, providing technical advice so key decision-makers can balance their priorities of addressing the threat and maintaining public safety, whilst also limiting disruption of events where possible. 45 The Los Angeles JHAT operates a little differently with the multi-agency team available to respond 24/7. 46 LA City Fire Department has stated that the team does not necessarily have to be on the scene to provide live incident data across the response agencies. 47 Information sharing between agencies is important and it is not just agencies within the US that have recognised this.

#### **United Kingdom**

Within the UK, a standard of improved trust and information sharing was established when a local initiative reached a national level. This helped to improve planning and preparedness before an incident even occurs. In 2001 the London Fire Brigade created an Inter-Agency Liaison Officer role to better improve information sharing. Several other fire services went on to develop similar concepts which led to a national standard being created. National Inter-Agency Liaison Officers (NILOs) now exist and receive specific training as well as security clearances to allow them to be the point of contact for partner agencies with restricted or sensitive information. Agencies maintain a duty NILO to help improve planning and response to police-led operations.<sup>48</sup> The Fire Service College<sup>49</sup> states the NILO training;

- bridges information sharing and intelligence gaps between emergency services and CT agencies,
- improves planning, preparedness, and multi-agency command structures at incidents
- improves understanding and co-operation around capacity, capability, and strategic command
- reduces the risk to emergency service personnel and the public.

The NILO program is supported by the Civil Contingencies Act of 2004 (CCA) which addresses the challenges created by large-scale man-made or natural disasters. Parts of the CCA discuss specific information-sharing roles of the fire service and the importance they play in developing resilience.<sup>50</sup> One intelligence-led operation saw the fire services put on standby for police CT raids that involved terrorists handling precursor chemicals for ricin production. While the fire services were never needed, the trusted partnership that existed allowed the fire services to put plans in place with critical chemical data available should a hazmat intervention have been required.<sup>51</sup>

#### Conclusion

These examples demonstrate how fire services in the years following 9/11 play a role as both consumers and producers of intelligence in a counter-terrorism context, at strategic, operational, and tactical levels. Fire services can be effective contributors, consumers, and collaborators of national security intelligence and information sharing. Experience gained through intelligence activities around fire safety and emergency preparedness can contribute to work within the counter-terrorism space. The importance of established relationships and information exchange has been recognised as nations face the increased threat of terrorism. While some may consider fire services as just consumers of intelligence, work by leaders in the field, such as FDNY, have demonstrated that fire services have a role to play at various stages of the intelligence cycle with an

ability to produce their own. While the intention of this article was not to overstate the role fire services can play, it is equally important that fire service abilities and involvement are not downplayed to the detriment of community safety. Planning, preparedness, response, and recovery activities aimed at terrorist attacks stand to gain greatly from increased fire service involvement within the intelligence space.

1 Julian Richards, "Intelligence and Counterterrorism," in *Routledge Handbook Of Terrorism And Counterterrorism*, 1st ed. (Routledge, 2018), 395–405, https://doi.org/10.4324/9781315744636-34

<sup>2</sup> David Hall, "Terrorism & Homeland Security: Intelligence – The Role of the Fire Service," *IChiefs - International Association of Fire Chiefs*, March 17, 2017, https://www.iafc.org/iCHIEFS/iCHIEFS-article/intelligence-the-role-of-the-fire-service.

<sup>3</sup> Michael Warner, "The Past and Future of the Intelligence Cycle," in *Understanding the Intelligence Cycle*, ed. Mark Phythian (Taylor & Francis Group, 2013), 9–20, https://ebookcentral.proquest.com/lib/csuau/reader.action?docID=1209543.

<sup>4</sup> Hall, "Terrorism & Homeland Security: Intelligence – The Role of the Fire Service."

<sup>5</sup> Bryan Heirston, "Firefighters and Information Sharing: Smart Practice or Bad Idea?," *Homeland Security Affairs* VI, no. 2 (May 2010), https://www.hsaj.org/articles/84.

<sup>6</sup> Richard J. Blatus, "Altering the Mission Statement: The Training of Firefighters as Intelligence Gatherers" (Monterey, California. Naval Postgraduate School, 2008), http://hdl.handle.net/10945/3877.

<sup>7</sup> Daveed Gartenstein-Ross and Kyle Dabruzzi, "FireFighters' Developing Role in Counterterrorism," August 2008, https://media4.manhattan-institute.org/pdf/ptr\_03.pdf.

<sup>8</sup> Fire Department New York, "Terrorism Preparedness - Annual Report Fiscal 2006," 2006, http://www.nyc.gov/html/fdny/pdf/publications/annual\_reports/2006/ctdp.pdf.

<sup>9</sup> Gartenstein-Ross and Dabruzzi, "FireFighters' Developing Role in Counterterrorism."

<sup>10</sup> Thomas A. Robson, "A Burning Need to Know: The Use of Open Source Intelligence In the Fire Service" (Monterey, California. Naval Postgraduate School, 2009), http://hdl.handle.net/10945/4913.

<sup>11</sup> Joseph W. Pfeifer, "Network Fusion: Information and Intelligence Sharing for a Networked World," *Homeland Security Affairs* 8, no. 17 (October 2012): 1–20, https://www.hsdl.org/?abstract&did=.

<sup>12</sup> Michael J. Harrington, "New York City's First Responders: Enhancing Collaboration between NYPD and FDNY" (Monterey, California: Naval Postgraduate School, 2014), https://calhoun.nps.edu/handle/10945/44573.

<sup>13</sup> Pfeifer, "Network Fusion: Information and Intelligence Sharing for a Networked World."

<sup>14</sup> James W. Kiesling, "Establishing the Intelligence Required by the Fire Department City of New York for Tactical and Strategic Decision Making" (Monterey, California: Naval Postgraduate School, 2016), http://hdl.handle.net/10945/48540.

<sup>15</sup> Derrick D Phillips, "Fire Service Intelligence: Informed Strategies, Operations, and Tactics" (Naval Postgraduate School, 2020), https://apps.dtic.mil/sti/citations/AD1127048.

<sup>16</sup> Phillips.

<sup>17</sup> Phillips.

<sup>18</sup> Pfeifer, "Network Fusion: Information and Intelligence Sharing for a Networked World."

<sup>19</sup> Pfeifer.

<sup>20</sup> Kenneth Duncan, "The Role of Intelligence In the Prevention of Terrorism (Early Warning - Early Response)," in *Handbook of Terrorism Prevention and Preparedness*, ed. Alex Schmid, 1st ed. (The Hague: The International Centre for Counter-Terrorism - The Hague (ICCT), 2020), 644–75, https://doi.org/10.19165/2020.6.01.

#### 10 NATIONAL SECURITY JOURNAL

- 21 Phillips, "Fire Service Intelligence: Informed Strategies, Operations, and Tactics."
- 22 Phillips.
- 23 Phillips.
- 24 Dina Temple-Raston, "Firefighters Train To Fight Terrorists, Too" (Morning Edition NPR, June 1, 2010), https://www.npr.org/templates/story/story.php?storyId=127303858.
- 25 Kiesling, "Establishing the Intelligence Required by the Fire Department City of New York for Tactical and Strategic Decision Making.
- 26 Richards, "Intelligence and Counterterrorism.
- 27 Dr Alexander Meleagrou-Hitchens and Blyth Crawford, "5G and the Far Right: How Extremists Capitalise on Coronavirus Conspiracies," Insights Global Network on Extremism & Technology, April 21, 2020, https://gnet-research.org/2020/04/21/5g-and-the-far-right-how-extremists-capitalise-on-coronavirus-conspiracies/.
- 28 "Cladding," Our Story MFB: Melbourne's Metropolitan Fire Brigade, accessed September 6, 2021, https://www.ourstorymfb.org.au/cladding.
- 29 "Cladding."
- 30 State Government Victoria, "Victorian Cladding Taskforce Report from the Co-Chairs," July 2019, https://www.planning.vic.gov.au/\_\_data/assets/pdf\_file/0019/426034/DELWP0124\_Victorian\_Cladding\_Taskforce Final Report July 2019 v9.pdf.
- 31 "Specialist Response Hazmat," Fire Rescue Victoria, June 30, 2020, https://www.frv.vic.gov.au/specialist-response.
- 32 Andrew Zammit, "Operation Silves: Inside the 2017 Islamic State Sydney Plane Plot," *CTC Sentinel* 13, no. 4 (April 2020): 1–14, https://ctc.usma.edu/operation-silves-inside-the-2017-islamic-state-sydney-plane-plot/.
- 33 Sarah Jane D. Reedy, Michael D. Schwartz, and Brent W. Morgan, "Suicide Fads: Frequency and Characteristics of Hydrogen Sulfide Suicides in the United States," *Western Journal of Emergency Medicine* 12, no. 3 (July 2011): 300–304, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3117605/. we searched the multiple-cause-of-death data from the National Vital Statistics System. To collect as much information about the victims as possible, we sent an email to the National Association of Medical Examiners (NAME
- 34 Tony Tricarico, "Trics of the Trade: New Hazmat Threat Comes to the US," *Firehouse*, December 3, 2008, https://www.firehouse.com/rescue/article/10474076/suicide-method-using-hydrogen-sul-fide-or-other-household-chemicals.
- 35 Phillips, "Fire Service Intelligence: Informed Strategies, Operations, and Tactics,"
- 36 "About," Northern Virginia High Threat Response Program, accessed September 6, 2021, https://www.novahtrp.com/about.html.
- 37 Northern Virginia High Threat Response Program, "Active Violence With Fire Testing Session #1 Report," 2018, https://www.novahtrp.com/uploads/1/2/5/9/125988329/active\_violence\_with\_fire\_testing\_session\_1\_report.pdf.
- 38 Eva Jernegan, "The Fire as a Weapon Incidents Database (FWID) Highlights Gaps in Fire Reporting Systems," *LinkedIn*, January 9, 2021, https://www.linkedin.com/pulse/fire-weapon-incidents-database-fwid-highlights-gaps-jernegan-m-a-/?trackingId=Cw7XGG22bT3m7XjEvDR%2Fkg%3D%3D.
- 39 "JCAT Intelligence Guide For First Responders," Office of Director of National Intelligence, accessed September 6, 2021, https://www.dni.gov/nctc/jcat/jcat/ctguide/intel\_guide.html.
- 40 Blatus, "Altering the Mission Statement: The Training of Firefighters as Intelligence Gatherers."
- 41 Scott E. Goldstein, "Comparative Analysis of Fusion Center Outreach to Fire and EMS Agencies" (Naval Postgraduate School, 2015), https://www.hsaj.org/articles/9279.
- 42 Goldstein.
- 43 "Joint CT Assessment Team (JCAT)," The National Counterterrorism Center, accessed September 6, 2021, https://www.dni.gov/index.php/nctc-how-we-work/joint-ct-assessment-team.
- 44 Chris Hawley, Gregory G Noll, and Mike Hildebrand, "The Need for Joint Hazards Assessment Teams," *Fire Engineering*, September 1, 2009, https://www.fireengineering.com/technical-rescue/the-need-for-joint-hazards-assessment-teams/#gref.
- 45 Hawley, Noll, and Hildebrand.

- 46 "JHAT—An Important Part of The Team," Los Angeles Firemen's Relief Association, March 31, 2021, https://www.lafra.org/jhat-an-important-part-of-the-team/.
- 47 City of Los Angeles, "Emergency Operations Plan -Chemical Appendix," August 2018, https://emergency.lacity.org/sites/g/files/wph1791/files/2021-04/cbrn\_chemical\_2018\_6.pdf.
- 48 London Fire Brigade, "National Inter-Agency Liaison Officer (NILO) Policy," March 27, 2019, https://www.london-fire.gov.uk/media/3908/londonfireint-dfs-homedirs-olarewajuo-documents-lfc-0156-d-national-inter-agency-liaison-officer-nilo-policy.pdf.
- 49 "National Interagency Liaison Officer," The Fire Service College, accessed May 10, 2022, https://www.fireservicecollege.ac.uk/training/Course?id=3971.
- 50 Bryan. Heirston, "Terrorism Prevention and Firefighters: Where Are the Information-Sharing Boundaries?" (Monterey, California. Naval Postgraduate School, 2009), http://hdl.handle.net/10945/4930.
- 51 Heirston.
- 52 II Covert, Robert M., "Evolving the Local Fire Service Intelligence Enterprise in New York State: Implementing a Threat Liaison Officer Program" (Naval Postgraduate School (U.S.). Center for Homeland Defense and Security, 2012), https://www.hsdl.org/?abstract&did=.