LONE WOLF ATTACKERS; A POTENTIAL BOOM IN THE INDUSTRY

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Introduction: The Worst Terrorist Attack Australia Never Had

On Friday 8th May 2015, Victorian police arrested a seventeen-year-old man from his home in Melbourne, thwarting an anticipated bomb attack that would become referred to by the media as the ‘Mother’s Day Massacre’¹. A raid on the teenager’s home uncovered three partially made bombs (a pipe bomb and two pressure cooker bombs), intended for detonation the following Sunday in a central area in Melbourne city while crowds celebrated Mother’s Day². Though the bombs were dangerous enough to be taken away by the Victoria Police Bomb Squad and safely detonated, they were described as rudimentary. In addition to the bombs, the home raids uncovered the first issue of Inspire, an electronic magazine published by Al-Qaeda, in which an article titled How to Make a Bomb in the Kitchen of Your Mum listed instructions on how to make pipe and pressure cooker bombs. This was accompanied by separate instructional material titled Pressure Cooker Back Pack Bomb, along with items such as pressure cookers, pipes, switches, match heads and shrapnel to use in the explosives³.

Pipe bombs, in their complete form, can look like a typical one to two kilogram dumb-bell that you would see in a gym, and be just as easy to carry. Pressure cooker bombs are slightly bigger (the size of a medium saucepan, varying between five to ten litres) and therefore less concealable, but easily transported in a backpack. When these devices detonate they release an enormous burst of lethal pressure, sending sharp and deadly metal fragments flying in all directions⁴. These effects can easily kill those within the blast’s reach. And while the bomb containers themselves produce fragmentation in the blast, they may also be filled with shrapnel (e.g. screws, nails, nuts, bolts, etc.) that produce an even deadlier spray, reaching out to a radius of tens of metres. On the day the teenager planned to detonate these bombs in Melbourne, the annual Mother’s Day Classic fun run was being held. This event had

So is a terrorist bombing something Australians should be worried about? The answer to this will vary, thanks to a wide range of opinions on terrorism patterns throughout the country. An article published by *The Conversation* in October 2016 claimed that Australia has little to worry about in terms of terrorism, due to effective monitoring services and that the number of people intending to carry out terrorist attacks in Australia has been reported to be low. The article points out that more deaths have occurred in Australia from domestic violence in two years than terrorist attacks have caused in twenty⁹. A month after this article however, reports emerged in the *Global Terrorism Index* that countries belonging to the Organization for Economic Cooperation and Development (OECD), among which Australia is included, have experienced a 650 per cent increase in terrorist attacks in just twelve months, indicating that the threat of terrorism has been on the rise⁶. Not only this, it also reported that since the year 2000 bombings and explosions accounted for more than half of all terrorist attacks around the world, towering in preference to the next most common form of attack, which was armed assault, sitting at around twenty percent. In the wake of this report an article published by *News.com.au* pointed out that it could take just one attack that caused mass casualties to upend the statistics in Australia altogether.¹⁰

A dramatic change in the statistics would not be the only effect of a bomb attack to take into consideration, in fact a bomb attack might not affect the statistics at all. The above research also found that while armed assaults accounted for less than a quarter of all global terrorist attacks since 2000, they caused twice as many deaths than those caused by bombs. That bomb attacks outweigh armed assaults as a chosen method of attack, despite having a proven track record of resulting in far less casualties, suggests that there might be more to an attacker’s agenda than inflicting death, and that the nature of the bomb attack might elicit a more appropriate reaction in accordance with the broader agenda of inflicting terror. In Australia, a country with no recent history of terrorist bombings, such an attack would elicit knee-jerk reactions across political and social spheres, likely exacerbating ethnic and religious divisions carved out by current attitudes towards terrorism and immigration, and have far-

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⁸ Austin, Greg. (18 October, 2016), Australians Have Little to Fear From Terrorism at Home - and Here is Why, The Conversation -http://theconversation.com.australians-have-little-to-fear-from-terrorism-at-home-heres-why-66823
reaching economic repercussions. One former senior police officer illustrated this by pointing out that if someone shot two people in Melbourne it might make headline news across Australia, but if someone killed those same two people with a bomb it would make headline news around the world. It would have a knock-on effect, impacting such areas as tourism, and have more ability to threaten Australia’s Triple A rating through economic upheaval.\(^{11}\) Two types of attacks with the same immediate outcome would likely result in vastly different consequences across the country.

Australia seems to be in two minds over the issue of terrorist bombings on home soil. While it is recognised that a bomb attack would be devastating to the country, such an event is also dismissed in public discourse as unlikely, thanks to the absence of successful terrorist bombings in the statistics. In 2014 an article published by *News.com.au* stated that “Australia’s terrorist threat has never been higher, but it’s also never been lower”.\(^{12}\) This reflects the social conflict on the matter. While we are reassuring ourselves with our statistics that a terrorist bombing is unlikely, we are also walking around our airports and train stations on high alert ready to “report suspicious activity as well as unattended items”.\(^{13}\) Are we unnecessarily afraid of bomb attacks that are unlikely to happen in Australia? Or are bomb attacks unlikely to happen in Australia because we are necessarily afraid of them and subsequently work to prevent them?

In this paper we break down the issue by asking this question: In the last twenty years, with the rise of terrorism and associated bomb attacks in Western countries, why has there not been a successful terrorist bombing in Australia? In considering this question we look at recent terrorism trends and counter-terrorism efforts in Australia, in particular at the rise of the ‘lone wolf’ phenomenon and the nation’s response to it, before looking at what it would take for a terrorist bombing to be successfully executed in Australia. To do this we have developed a framework that breaks down the full span of a bomb attack, from inception to execution, into four stages. We look specifically at who is behind lone wolf attacks, how accessible instructions are for planning a bomb attack, materials and processes required to actually build the bomb, and the process of executing the attack. We critically analyse the factors at each stage and ask whether they might account for why there has been no recent terrorist bombing in Australia. Finally, we analyse the role of Australian security monitoring services, and surmise wether the lack of recent terrorist bombings in Australia is due to the lack of threat from such attacks, or due to the effective prevention of such attacks.

\(^{11}\) Mullins, Sam. (2016), *Counter-Terrorism in Australia: Practitioner Perspectives*, Journal of Policing, Intelligence and Counter Terrorism, 11:2, 93-111 - DOI: 10.1080/18335330.2016.1161228


Counter Terrorism in Australia

From September 2014 to the end of 2016 there were four terrorist attacks in Australia, and over ten plots that had been foiled. Of the attacks that eventuated there were two stabbings and two shootings, and those that were prevented included plans to stab, shoot, kidnap and behead, and detonate bombs. The attacks that were foiled were done so through the collaborative counter-terrorism efforts of Australian security monitoring and law enforcement services, in some cases with assistance of public tip-offs.

Given the dynamic nature of terrorism, its fast-growing rate thanks to modern communication technologies, and its transcendence of traditional national, jurisdictional and geographical boundaries, terrorism as a security threat requires a diverse and dynamic response. Most security-related government departments, and state and federal jurisdictions in Australia, feature their own counter-terrorism (CT) policies and functions, in accordance with federal law. In an effort to keep Australia’s CT response unified and coordinated, and to help regulate Australia’s CT strategy, the Australian and New Zealand Counter Terrorism Committee (ANZCTC - formerly the National Counter-Terrorism Committee) was established. The ANZCTC report to the Council of Australian Governments (COAG), who, among other functions, work to coordinate Australian governments and jurisdictions in accordance with the Inter-Governmental Agreement on Australia’s National Counter-Terrorism Arrangements. The key engine at the centre of these inter-governmental efforts is the Australian Counter Terrorism Centre (ACTC), led by the Australian Security Intelligence Organisation (ASIO). The ACTC comprises the Australian Federal Police, the Australian Secret Intelligence Service, the Australian Signals Directorate, the Australian Border Force, the Australian Criminal Intelligence Commission, the Department of Foreign Affairs and Trade, and the Australian Transaction Reports and Analysis Centre.

These agencies and organisations adhere to a ‘whole-of-government’ model, heavily relying on the seamless cooperation of thousands of personnel across multiple departments, in collaboration with federal, state and territory governments.

18 Department of the Prime Minister and Cabinet (Jan 2015), Review of Australia’s Counter-Terrorism Machinery. Australian Government.
Ultimately the combined efforts of these departments and jurisdictions involve the coordination of intelligence sharing, execution of CT operations, and advising the government on policy development and CT strategies by keeping abreast of terrorism trends both in Australia and around the world, as they pertain to Australia’s national security interests.

In a review of Australia’s CT efforts\textsuperscript{19} the government noted that the threat of terrorism in Australia was on the rise, and getting increasingly harder to combat. This has been due to the increasing influence of overseas extremist groups adhering to a violent interpretation of Islam, and the evolution of sophisticated communications technologies that have greater capacity to provide both anonymity for those wanting to stay under the radar, and the media platforms and social networks for those wanting to propagate their ideology. One of the most recent and significant terrorism trends to have grown within Australia has been the rise of the lone attacker.\textsuperscript{20}

\textsuperscript{19} Department of the Prime Minister and Cabinet (Jan 2015), \textit{Review of Australia’s Counter-Terrorism Machinery}. Australian Government.

The Rise of the ‘Lone Wolf’

There is no universally recognised description of the ‘lone wolf’. The term has gained traction over the last decade due to the rise of terrorist attacks across the globe that have been engineered by attackers either working alone, or as part of a small group of people. But much like the term ‘terrorism’, with which it has become synonymous, the term ‘lone wolf’ is open to broad interpretation. Generally, lone wolves are considered to be acting by themselves or in association with a few others, but are ultimately removed from broader command structures. Given the lack of definition on the term there has been some debate on just how ‘lone’ these attackers are, and questions as to whether the term is applied too liberally.\(^{21}\) Throughout the media the ‘lone wolf’ label has been used to describe a broad range of attacks. The murder of British MP Jo Cox in 2016 by right-wing extremist Thomas Mair was a referred to as a lone wolf attack.\(^{22}\) Mair was acting in accordance with his own agenda, with no known affiliation with a broader organisation. The husband and wife who shot dead fourteen people in the 2015 San Bernadino attack had planned and executed their attack themselves, making them ‘lone wolves’. They pledged allegiance to the so-called Islamic State of Iraq and the Levant (ISIL) but were not found to have been instructed by or have had any direct contact with them.\(^{23}\) And the Paris and Brussels bomb attacks in 2015 and 2016, respectively, were referred to as lone wolf attacks. These attacks were executed by an organised cell of people, some of whom had joined and received training from ISIL. They then returned to Europe, having broken away from the ‘pack’ to carry out the predetermined attacks.\(^{24}\) Within the context of this paper the term ‘lone wolf’ will be referring to attackers who either act alone, or operate with a few others, either according to their own political ideology or to that of a broader organisation, but who have no direct communication with that organisation, and therefore have received no instructional orders or guidance in carrying out their attacks.

Just as there is no globally recognised description of the lone wolf there is no one profile of who these attackers are either. In 2014 a comprehensive study of lone actors across Europe and the US concluded that there was no uniformity characterizing these attackers. The only dominant pattern to emerge was that attackers were mostly, but not exclusively, male.\(^{25}\) These findings were reflected two years later by the comprehensive Global Terrorism Index.\(^{26}\) The index also revealed that the rise of terrorist attacks in OECD countries had been largely characterized by the ideology peddled by ISIL. ASIO have identified this pattern in Australia also, and have attributed much of the country’s recent terrorist activity to Australia-based


individuals and small groups radicalised by this ideology.

Though not specific to Islamic extremism, the lone wolf attack has been widely encouraged by ISIL in recent years, and to a lesser extent by Al-Qaeda. This method provides a new avenue for expanding their ideologies and recruiting advocates for their agendas without needing to invest significant resources or risk detection from security monitoring services and law enforcement. The supposed benefit of propagating these kinds of attacks is that would-be perpetrators typically sit on the periphery of investigations, engaging less with broad social networks, and are thus able to organise their attacks under a greater blanket of secrecy and make them harder to detect.  

In the absence of a command structure crafting and engineering these cases, attacks by lone wolves tend to be simpler and less convoluted, but it is important not to misread here the ‘simple’ nature of the attack. Due to isolation, limited resources and lack of manpower, a lone attacker may resort to a weapon or technique that is easier to access or at their disposal, like a knife for a stabbing or a vehicle for a car ramming, but lack of network connections and association does not exclusively limit an attacker to these methods. In *Australia’s Counter Terrorism Strategy 2015* COAG highlighted that the extremist ideology behind this type of attack calls for “small-scale, high-impact”. So while these acts are designed to wreak devastation, their intended ‘terror’ effect feeds off and relies on the attention this act attracts. In a country with no recent terrorist bombings, a bomb attack, whether it takes two lives or hundreds of lives in the Melbourne city centre, would attract just the right kind of attention required of a high-impact terrorist attack.

**The Framework Applied Here**

To answer the question as to why there have been no recent successful terrorist bombings in Australia, despite a global rise of terrorism largely characterised by lone wolves exhibiting a preference for explosives, we need to look at what elements are required for both a lone wolf attack and for a bomb attack to be executed successfully. The absence of a successful terrorist bombing in Australia in the last twenty years makes it impossible to research recent cases for possible correlations or characteristic features that might account for such success, and likewise the lack of a uniformed profile amongst lone wolf attackers makes it difficult to identify correlations and patterns that account for their ability to execute such attacks. In light of this, to conduct our research we have developed a framework that shares similarities with many military doctrinal planning processes (e.g. the Australian Military Appreciation Process). This application bears principles that are applicable to carrying out almost any operation or task. The principles of the application fundamentally translate to identifying four factors in carrying out a mission; 1) *Intent*, that is, ascertaining what the mission is, who is involved and why; 2) *Means*, planning out a course of action; 3) *Method*, developing the course of action in preparation for the mission; and 4) *Execution*, carrying out the mission.

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Within the context of a lone wolf bomb attack this is broken down and critically analysed as follows:

1) Intent, or The Recruitment/Radicalisation Process. The first stage here is to establish who is recruiting or radicalizing would-be lone wolves, who is susceptible to this process, and what ideas are being propagated at this point. The aim of this stage is to establish whether the people resorting to lone wolf tactics are capable of carrying out a bomb attack in Australia, or if indeed they are being encouraged to resort to bomb attacks at all, and not being indoctrinated with other methods to carry out their attacks. This will help answer whether the capability of the attacker, or the nature of their intent, could account for the absence of terrorist bombings in Australia.

2) Means, or Planning the Attack. The second stage looks at once the mission for a bomb attack has been conceived, how the planning required for such an attack unfolds. Whether the lone wolf has access to reliable instructional materials that teach them not only how to build explosives, but how to plan, prepare for and execute the attack. Here a potential attacker would need to learn how to conduct target research, identify and understand the materials required for building a bomb, what associated costs are, and what administrative processes are involved. The purpose of this step is to ask if the very process of planning a bomb attack in Australia discounts the probability of its fruition.

3) Method, or Preparation for the Attack. This stage ascertains the obstacles potentially faced by the lone wolf throughout the process of preparing to carry out their attack. The stage is broken down into four steps required for successful preparation; the selection of a target and reconnaissance of its site, the procurement of precursors, testing of the explosives material and firing device, and the construction of the final device. Each step outlines what is required for the attack to be successful, and analyses if the obstacles faced throughout this stage is enough to hinder the attack’s successful execution.

4) Execution, or The Execution. The final step looks at the practicality of carrying out an attack once the target has been decided upon and the bomb has been built. This asks whether the transportation of the device is feasible and looks at potential disruption from security monitoring. It also looks at how changes in psychological, habitual and social patterns might attract attention from monitoring services, and also from friends, family and members of the community. This final stage ascertains if the heightened tension and associated actions of carrying out an attack, along with the potential to raise suspicion, is to account for the lack of successful terrorist bombings in Australia.

Stage One: The Recruitment/Radicalisation Process

The concept of ‘recruitment’ here requires some re-imagining, because, as has been established, lone wolves act on their own or with a handful of others, without being connected to a structure of command. In 2016 ISIL issued a publication called Safety and Security Guideline for Lone Wolf Muhajideen and Small Cells, not only explaining how to execute attacks in the name of their cause but how to do so without direct contact with ISIL,
and subsequently avoiding detection. To those unable to join ISIL it is a call to arms to strike the 'enemies' of ISIL wherever they are. In the guideline ISIL speaks to the would-be lone wolves, saying "Remember in Modern Jihad, you can claim responsibility for an attack by contacting News agencies (through; email, phone, social media etc). They will happily report it to spread the news first for popularity of their newspaper and you will claim responsibility to show you can attack deep in enemy territory and put fear into their hearts". And once a lone wolf attack is carried out and a link to ISIL, or at least their ideology, has been confirmed, ISIL claim the attack as their own. Thus, recruitment within this context is a loose term, as the process of the lone wolf phenomenon actively avoids the contact, initiation, teaching and leadership processes traditionally associated with recruitment. While in effect ISIL have built upon Al-Qaeda’s tactics and evolved the creative ways in which to 'recruit' from a distance, ‘radicalisation’ better encapsulates what is happening in this process. Those propagating extremist Islamic ideology typically target and attract people marginalized in their own communities by preying on vulnerabilities, inspiring and eliciting allegiance to their ideology. And where those who want to fight for ISIL’s or Al-Qaeda’s cause are unable to physically join their side, these organisations have established one way communication channels, primarily online, and discreetly developed a web of contacts through secure network application like Telegram, disseminating propaganda designed to further inspire and instruct.

As established, most of the recent terrorist attacks in Australia, both those that have been thwarted and those that eventuated, were informed by extremist Islamic ideology. And while there has been no official pattern that describes the lone wolf specifically in Australia, many who have been radicalised by Islamic extremism have tended to be young males who have typically been disenfranchised and marginalised. In 2017 ASIO announced that the age of those susceptible to radicalisation continues to get younger. In answer to our question regarding why a terrorist bombing has not recently occurred in Australia, being a young marginalised male is not enough of a factor to discount one’s ability to make a bomb. The Melbourne teenager in 2015 was well on his way to making bombs in the Mother’s Day incident. Even so, lone wolves do not exclusively have to be young disenfranchised males, anyone can engage in the activity, so ‘who’ the lone wolf is not enough to account for why there have been no recent terrorist bombings in Australia. What we need to look at then is, once radicalised, what direction are these lone actors receiving, and might this account for the lack of bomb attacks in Australia.

In an article published in their magazine released in October 2014, ISIL wrote to their readers:

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32 Fenstermacher, Laurie and Leventhal, Todd. (2011), Countering Violent Extremism; Scientific Methods and Strategies.
“If you can kill a disbelieving American or European… or an Australian, or a Canadian, or any other disbeliever from the disbelievers waging war, including the citizens of the countries that entered into a coalition against the Islamic State, then rely upon Allah, and kill him in any manner or way...”

Al-Qaeda in 2012 published the following:

“The goal of... the Individual Terrorism Jihad is to inflict as many human and material losses as possible upon the interests of America and her allies...

The type of attack, which repels states and topples governments, is mass slaughter of the population. This is done by targeting human crowds in order to inflict maximum human losses.”

In a 2010 article titled May Our Souls be Sacrificed for You, Al-Qaeda published the following:

“The entire Western system is staunchly protecting and promoting the defamation of Muhammad ‘and therefore, it is the entire Western system that is at war with Islam. Assassinations, bombings, and acts of arson are all legitimate forms of revenge against a system that relishes the sacrilege of Islam.”

Furthermore, in numerous publications there are articles bearing such titles as Designing a Timed Hand Grenade, Making Acetone Peroxide and the previously mentioned Make a Bomb in the Kitchen of Your Mum. There is no lack of call to action from those who propagate extreme Islamic ideology. Their propaganda specifically mentions inflicting human loss and bombings as a form of causing this, and they actually produce and point to material that explain how to build a bomb and ultimately execute the attack.

Given that a lone wolf in Australia could be almost anybody, capability of bomb-making in Australia cannot be ruled out based on who is being radicalised alone, so other factors in the process of executing a bomb attack will need to be considered. And while organisations like ISIL and Al-Qaeda do not exclusively promote bombs as an attack method, their rhetoric clearly calls for mass or high-profile destruction, and is accompanied by instructional material explaining how to execute various types of attacks, including different bomb attacks.

Indicators here suggest that lone wolves are not only being inspired to inflict destruction and terror, but are actively being prompted to resort to bomb attacks as a method of achieving this. The lack of bomb attacks in Australia then is not due to the lack of calls for it. This leads to the next question: if ISIL and Al-Qaeda are releasing publications inspiring and explaining how to make bombs, how easy is that material to access in Australia? And if it is accessible, is it reliable enough to coach a would-be lone wolf through the planning stages of the attack?

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Stage Two: Planning the Attack

It is not hard to obtain material in Australia published by or inspired by ISIL or Al-Qaeda, or others following their extremist ideology. A simple Google search will source many publications, videos and websites, such as jihadi sites linking to primary sources. While there has been a movement away from terrorist organisations overtly propagating extremist ideology on typical social media platforms, like Facebook and Twitter, to more discreet platforms like Telegram in an attempt to keep-safe anonymity and avoid being detected, these organisations still rely on information technology and public discourse to spread their ideology and attract followers. Even without ISIL publishing its propaganda, the result of using terror as a tactic is that people who fall prey to this terror will likely do the legwork of spreading terror and peddling social dissent themselves. For example, a search for the hashtag #Jihad on Twitter will bring up hundreds of results of people arguing their views on jihad, assigning certain events in the media with the label, linking it to Islamic extremism and its key figures such as ISIL, and generally perpetuating fear around the subject. These are people who may not pertain to extremist Islamic ideas, or claim to belong to any ideology at all. ISIL does not need to publish every article and video, promote hash-tags or expand the ideas of terrorism to draw attention to its extremist ideology all by itself, our social discourse helps them. Amongst the wealth of information, and the (rapid) replication of that information enabled by our modern communication technologies, it is easy to promote and locate key publications that both encourage bomb attacks and instruct on how to execute them.

Key publications that spread and teach extreme and violent interpretations of Islam have typically been Al-Qaeda’s magazine Inspire, and Dabiq - now Rumiyah, published by ISIL, but thousands of other sources have been published and linked to in the name of their extremist ideology. These are the publications known for releasing the aforementioned articles and instructions on how to execute bomb attacks, and often include links to instructive videos (easily found on YouTube), other printed and online resources, and instructions on how to communicate safely with publication editors and those on anonymous networks who could mentor and further instruct, if needed. These publications are easily found through a Google search or linked to by other websites and networks promoting jihad and Islamic extremist ideology. For example, in a period of just three months from October 2016 to January 2017, an edition of Al-Qaeda’s Inspire was downloaded 55,000 times in the UK. That is just one edition of one publication in one country. Downloading these materials and actively searching for extremist Islamic propaganda and contacts online can risk attracting the attention of security monitoring services, but anonymous-centric software like the Tor browser and the social network Telegram, or virtual private networks that are easily set up through mainstream service providers, can provide the blanket of coverage one needs to acquire these materials undetected.

This vast network of accessible resources provides material that teaches would-be attackers how to choose and research targets and to anticipate timeframes for carrying out bomb

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43 Moore, Daniel and Rid, Thomas, Cryptolik and the Darknet, Survival 58:1, 2016.
attacks. These resources help identify the materials attackers will need, provide step-by-step guidelines on how to build bombs, highlight financial and administrative tasks that may be required, such as rehearsals of the attack, and provide further tips on internet browsing and communicating securely. These available resources have proven to be valid. Attackers responsible for the Boston Marathon bombing built their bombs using instructions published in Al-Qaeda’s *Inspire* magazine. This was the same publication retrieved from the house of the seventeen-year-old Australian intending to carry out the 2015 Mother’s Day bombing.

Even if the bomb-making instructions in Islamic extremist propaganda had not been proven valid instructional material, there is still a wealth of information regarding bomb-making on the Internet and published in books that are not linked to Islamic extremist ideology. Terrorists are not the only people interested in backyard chemistry or blowing up bombs. Published books like the *Big Book of Mischief* (1993), the *Black Book Companion* (1995), *Uncle Fester* (2002) and the *Anarchist Cookbook* (2012), are valid instructional materials widely circulated amongst backyard enthusiasts, home chemists and amateur explosive makers, and these are just some of the resources available. With growing communications technology websites, videos, forums, discussion boards and social networks have broadened the pool of accessible sources in this field. These publications and networks provide instructions on how to manufacture explosives (such as black powder), how to make initiation systems, and how to source ingredients for the former. Resources and networks that clearly instruct and support a novice building a bomb do exist and can be accessed relatively easily.

If the materials that could radicalise would-be lone attackers are accessible in Australia, as are the instructions on how to effectively build a bomb and execute a plan of attack, then the lack of substantive information cannot be used as a reason to explain why there have been no recent terrorist bombings in Australia. Nor, given that this material has been used successfully elsewhere, and for other explosive-related purposes, can it be argued that the information being accessed is flawed or outdated, and unable to instruct someone successfully in the ways of bomb-making. This necessitates a shift in focus. If attackers in Australia can obtain material inciting them to execute a bomb attack and instructing them how to do it, then answers to why there have been no recent terrorist bombings in Australia need to be sought at the next stage of the process, which is the preparation for the attack.

**Stage Three: Preparation for the Attack**

Preparation for a bomb attack involves four key steps; the selection of a suitable target, the procurement of precursors, manufacturing and testing of the explosive material and firing device, and the construction of the final device. Knowing what each of these four steps require will help gauge how plausible it is that the overall stage of preparing for a bomb attack could be executed successfully in Australia.

The first step is where an attacker chooses a target. They do their research and reconnaissance of the target, note potential vulnerabilities in security monitoring, and choose a site to which they can realistically transport a bomb whilst remaining undetected.

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This step is relatively straightforward and encounters few obstacles, so long as the attacker maintains a reasonable level of secrecy regarding their intent, discretion in their approach, and do not make obvious deviations from their regular life patterns, working to avoid possible detection by intelligence services or others in the community, including friends and family. The second stage is where the lone wolf finds more hindrance to the bombing plan.

Australia’s National Code of Practice for Chemicals of Security Concern\(^\text{46}\) was developed in answer to the evolving terrorism threat. In particular it is part of Australia’s CT effort designed to prevent would-be terrorists from obtaining and using chemicals that are associated with home-made explosives. Approximately 40,000 chemicals are permitted for use in Australia. Of these 40,000, ninety-six are of potential security concern, and fifteen are deemed ‘high-risk’ and are specifically covered in the code, as they can relate directly to explosives manufacture. The code, and accompanying educative and training resources provided by the government,\(^\text{47}\) are exhaustive in explaining not only what type of chemicals are of risk, but the percentage at which they are considered a precursor, and in what form (whether water-based or other). These resources are designed to train those working in the industry to be aware of and report suspicious activity, adhere to strict security policies, and to facilitate cooperation and communication between the industry and government. This makes it difficult for the lone wolf to obtain chemicals like nitric acid or ammonium nitrate, both of which are extremely useful when building a bomb.

It is not just the procurement of chemicals however, that can attract unwanted attention. The pipe bomb is an example of this. Items required to manufacture this weapon include the pipe and end caps (sold at hardware stores), matches (a couple of hundred boxes), a filament-style light bulb like in old Christmas tree lights, a household battery (such as a 9V), and a timer. While most of these can be sourced without raising any suspicion, purchase of pipe can attract scrutiny from a retailer or can be tracked, and anyone trying to purchase a shopping trolley full of matchboxes will likely draw unwanted interest. This is a result of ongoing community education programs implemented by the police and designed to elicit neighbourhood diligence in noticing potential nefarious activity.

Other types of homemade explosives, such as the pressure cooker bomb or car bomb, also require materials that can attract suspicion if purchased out of context or are bought in bulk, but this is not to say there are not ways around this. The fact that these items can be bought and sold on their own means they can legally be bought for legitimate purposes. Buying one or two materials on their own, or in conjunction with other materials not required for the bomb, can help avoid suspicion, as can avoiding buying materials needed in high quantities in bulk, but instead making only incremental purchases through different retailers. Regarding chemicals, even though some materials are restricted in terms of sales, the same compounds are often contained in otherwise harmless materials sold at hardware stores. In these cases the raw precursor material can be obtained using extraction techniques. Furthermore, the accumulative costs of materials to make the total bomb can start at $500 AUD (a basic pipe bomb can cost as little as this) or up to $10,000 AUD (a car bomb), so prices are arguably


affordable. Obtaining precursors for a bomb in Australia might be difficult, but it is not impossible, and this has been exemplified through explosive-related instances not relating to terrorism. In November 2014 a man in his thirties was caught preparing a variety of hobbyist fireworks, rockets and explosives in his home, not far from one of the sites hosting the G20 summit that year. In February 2016 a man was killed in Dubbo when a pipe bomb he had built unexpectedly exploded. And at the Adelaide Zoo in May 2016, an ATM was attacked using a liquid homemade explosive in a robbery attempt.

Once the precursors have been procured the third step is manufacturing and testing the explosive material and firing device. This is a rehearsal stage used to make sure the materials are working together and that the builder is constructing the bomb correctly. The first and primary factor needing to be considered at this stage is safety. If the builder here is acting alone and has not received training in this area, extreme prudence needs to be exercised, which may require some time. To begin with practices might be conducted using micro batch amounts of the explosive materials, starting at milligram quantities before working up to practices involving hundreds of grams. The instructional material provided by the extremist publications are exhaustive in explaining how to execute this step, advising the bomb-maker to wear safety equipment like gloves and glasses, as well as providing safety tips on handling acids and other procedural ‘best practice’ techniques. So long as the guidelines are strictly followed here it can be handled safely.

The next factor to be considered at this step is the practicality of blowing up the testing materials. This obviously needs to be executed somewhere discreetly and where there is not a risk of damaging personal property or people nearby. The lone wolf would need access to a remote location like a large national park or country area to follow through on testing without being noticed. It may be that the bomb-maker does not have access to such a location, in which case testing can still be done to a certain extent, in that if a small quantity of the materials flames very quickly when lit by a match then it is energetic. The bomb-maker can be assured of being on the way to building something explosive.

The fourth step in this stage is the construction of the final device, and it is much like the previous step. It needs to be conducted under a blanket of discretion, and it requires a high level of focus, but so long as instructions are strictly followed almost anyone can make a bomb. It does not necessarily require someone of a certain skill or aptitude, though steady hands, patience and a specific desire and motivation are highly advantageous. Depending on the desired bomb type, it can be made in a matter of days or weeks. One factor to point out here however is that homemade explosives do not store well. Some peroxide-based explosives will sublime in a number of days, and other nitrate-based explosives are susceptible to moisture. Peroxide explosives also reach extreme levels of ‘touch’ sensitivity in a matter of days. So while the practice stage may take a longer period of time, once the final device is constructed events need to move quickly to ensure the device stays reliably explosive.

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The four steps required in preparing for a bomb attack can, with varying degree, raise alarm and attract attention from monitoring services, communities and industry professionals, but as has been demonstrated here, no one step has ruled out the possibility of making a bomb. There are methods of planning the attack, obtaining materials, and building the bomb undetected. It is also not unrealistic to make a bomb. Often the materials required are everyday objects, or at least not obscure or rare objects, are within access and are not just sold at one outlet. This helps makes bombs affordable too. That the bomb can be researched, planned and made with affordable and mostly common materials, within an achievable timeframe, and that it has in fact been achieved numerous times outside the realm of terrorism, suggests that not only is it possible to manufacture a bomb in Australia, it is not as unlikely as is broadly believed. So we move to the final stage of the framework for answers.

Stage Four: The Execution

Once the preparation stages for a planned bomb attack are complete, all that is left is the practicality of transporting the bomb to the target and detonating it at the intended time. The complexity of this remaining stage will depend on whether the lone wolf plans the attack to be a suicide mission or not. A suicide mission will involve only the delivery of the payload, while there are administrative implications associated with intending to escape the aftermath of the attack, such as covering tracks and anticipating the mode of escape. Either way, the processes here are not ones that are likely to be hindered by practical obstacles or issues of capability, rather this stage will find its hindrance in security service monitoring.

The transportation of a bomb, such as the pipe bomb or pressure cooker bomb, can be relatively easy. As mentioned, these bombs are small enough to fit in backpacks or briefcases, and subsequently do not restrict the bomber due to weight or size issues. If the attacker has crafted the bomb in accordance with the instructions and transports it to specificity, without exposing it to undue heat, shock, friction or the elements, they are unlikely to run into issues here. Furthermore, these bombs are easily concealable, there are no obvious indicators that a backpack has a bomb inside it just by looking at its outside. Likewise a car bomb is concealed by its vehicle. So long as the attacker maintains discretion in public these bombs can go unnoticed. Of course this will depend on the security of the target site. Standard bag checks at big public gatherings and metal detectors are designed to pick up on such items, however these monitoring methods are mostly employed at large events or airports and buildings of note. Attackers are possibly able to avoid this if they have done their target research properly and opted for a site with a lower security profile.

The only other factor that could potentially prevent the attack from materialising is to do with the behaviour of the attacker. Changes in established patterns and routines of life can be picked up by friends, family, the community or monitoring services that may be paying attention, as can a significant change in communication online. If it is a suicide bombing then behaviours to do with preparation can indicate an attack of this nature may be imminent. Suicide bombers pertaining to Islamic extremism may be adhering to religious protocol for such incidents, including the shaving off of beards directly prior. The success of this stage however largely comes down to who is watching and paying attention.
Findings

At no stage, between the radicalisation of a lone wolf terrorist to the execution of a bomb attack, did we find any one definitive reason to account for the lack of recent terrorist bombings in Australia. There are obstacles to building a bomb and planning and executing an attack, but there are also proven ways around these obstacles. So while obstacles may render the task difficult, they do not make it impossible. A common theme noted however, was that at each stage there was the potential for a would-be bomber to be picked up by security monitoring services or have suspicious behaviour noted by the local community. A lone wolf engaging with networks and materials known for propagating Islamic extremism could attract the attention of security monitoring services, as can the obtainment resources instructing on how to make bombs. Many materials used to make bombs are heavily regulated by industry policies, legal codes of practice, and are traceable by law enforcement to a specific buyer. Security monitoring and intelligence services are able to monitor suspicious activity and behaviours associated with carrying out a bomb attack. In addition, in all instances, the attacker may also be subject to the scrutiny of the community, and family and social circles that may pick up on and report changes in the attacker’s ideology, life patterns and psychological behaviour.

The dominating factor here is the heavy presence of monitoring, and the multiple opportunities there are for suspicious activity to be picked up throughout the stages of planning a bomb attack from inception to execution. The avoidance of being noticed by monitoring services might be relatively easy at any one of these stages alone, but when combined in the overall task of planning and executing a bomb attack, the amount of chances there are to attract unwanted attention ultimately boosts the probability of getting caught. This suggests that either security monitoring services are picking up would-be attackers before they get the chance to fully execute their planned bomb attack, or the obstacles that security monitoring services present makes the option of planning and executing a bomb attack appear too hard and unappealing to a would-be attacker, in which case they opt for other methods. Either way, in regards to thwarting potential terrorist bombings in Australia, it seems that security monitoring services are working.

Conclusion

In an interview in September 2014 then ASIO director, David Irvine, pointed out that yes, Australia had been lucky to avoid terrorist attacks at home thus far, but that Australia’s security services also had prevented attacks from occurring. This implies that a lack of terrorist attacks in Australia does not indicate the lack of threat from them. Counter-terrorism legislation is pre-emptive in nature, it has achieved its objective when a terrorist attack has been averted, when there is no terrorist attack to speak of in the statistics. This

makes the statistics regarding terrorism hard to gauge. In a report published by the ABC a statistician told viewers that people were more likely to die from car accidents or heart disease than terrorist attacks in Australia.\(^{53}\) This would be a relevant point if the nature of these events were comparable. But if you applied the same counter strategies and law enforcement efforts in terrorism to stopping people from driving cars or running around knocking cheeseburgers out of people’s hands, those statistics would change. Furthermore, car accidents and heart disease are known risks associated with everyday activities, and can largely be avoided if certain rules and lifestyle patterns are followed. If these causes of death stopped appearing in statistics it would largely mean that their associated risks were eliminated through the application of these rules and patterns. A lack of terrorist bombings in the statistics does not mean there is not a risk of such attacks; it just means that there are people working to prevent these attacks from becoming statistics. The threat is still there.

The research here highlights the need to correctly interpret ‘statistics’ and patterns regarding terrorist attacks in Australia, specifically terrorist bombings. Faced with the evidence that a lone wolf bombing is possible, discussions on the matter need to reflect how Australia will continue to deal with this real threat, not disregard such an event as unlikely just because it has not happened. Admitting that there is a real threat of a terrorist bombing being carried out in Australia should not be viewed as a concession to terror or dramatic social over-reaction to global hype. Rather, it should be viewed as a level-headed understanding of the facts, and elicit action from governments, media and communities alike, as to how all can work together to address this issue appropriately and ensure the statistics stay the way they are. Because the alternative is to go on assuming whatever has worked will continue working. In an article analysing global lone wolf attacks, released in the wake of the terrorist attack on Westminster in March 2017, it was highlighted that many of the lone wolf attacks that have eventuated, such as the Christmas 2016 attack in Berlin, and the Westminster attack itself, were carried out by attackers who had been known threats to security services. Many of these attacks slipped through the cracks of security services because “someone screwed up”.\(^{54}\) Let’s not wait for someone to ‘screw up’ to admit that a terrorist bombing in Australia is a real threat that requires a serious and calculated response, rather than a vague reception and naive dismissal.

It is possible to plan for, manufacture and execute a bomb attack in Australia. And there are those out there who have the motive and means to pull it off. It is not less likely for a terrorist bombing to occur in Australia, it is just more likely that Australian security services are preventing it.

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