



# Deadly Detours: Why Terrorists Do Not Attack US Bridges and Tunnels

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ICCT Research Paper  
December 2022

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## Acknowledgements

This paper is dedicated to my mom, who was the first person to hear me ask this question. Thanks to Sam Stanton, Bruce Butterworth, Victor Asal, Ayse Lokmanoglu, Mark Stewart, Alex Schmid, and Hannah Howard for their feedback on earlier drafts of this paper. I am particularly indebted to the Mineta Transportation Institute for providing me with a summary of data from their Database on Terrorist and Serious Criminal Attacks on Public Surface Transportation, and to the Clements Center for National Security at the University of Texas at Austin for funding this research.

## Abstract

Given the potential economic, psychological, and human consequences of such attacks, it seems terrorists would attack US bridges and tunnels regularly. After all, terrorists have attacked such critical infrastructure in other countries; why not in the United States? Shockingly, while there has been some discussion of the risk of such attacks, there is a lack of research addressing why they have not happened. Using foiled plots as case studies, I present several major explanations as to why these plots fail—and, more importantly, what deters terrorists from pursuing them. These include counter-terrorism measures, perceived structural soundness and target hardness, expense, and terrorist preference for high body counts.

**Keywords:** Terrorism, US, infrastructure, transportation, target selection, decision making

## Introduction

Terrorists often consider transportation infrastructure—especially chokepoints like tunnels and bridges—to be attractive targets. Osama bin Laden himself allegedly mulled over such attacks against public rail systems on several occasions, and reportedly planned an assassination attempt against President Bill Clinton on a bridge in the Philippines in 1996.<sup>1</sup> Indeed, an al-Qaeda training manual found in 2000 explicitly endorsed “Blasting and destroying bridges leading into and out of [ . . . ] cities.”<sup>2</sup> In 2013, an al-Qaeda in the Arabian Peninsula (AQAP) publication, *Lone Mujahid Pocketbook*, advocated ambushes on bridges and in tunnels.<sup>3</sup> A 2017 issue of AQAP’s *Inspire* magazine contained a guide to derailing trains in the West, and suggested employing such attacks at points near or traversing tunnels and bridges and other “very high places.”<sup>4</sup> In July 2022, the Terrorgram collective published a terrorist attack manual advocating damaging and destroying bridges as part of a broader campaign against American infrastructure.<sup>5</sup>

Americans have worried about the possibility of such attacks for some time, especially since 9/11—indeed, that very day, CBS News’ New York affiliate reported that police had arrested the occupants of a van purportedly loaded with explosives on or around the George Washington Bridge, but later issued a correction, noting there were no explosives.<sup>6</sup> There have been other scares, hoaxes, and bomb threats targeting tunnels and bridges in the United States, but none seriously endangered the public.<sup>7</sup> Explosives have also been placed or even detonated on, in, or

1 Joby Warrick, “Al-Qaeda data yields details of planned plots,” *Washington Post*, May 5, 2011; Nelly Lahoud, *The Bin Laden Papers: How the Abbottabad Raid Revealed the Truth about Al-Qaeda, Its Leader and His Family* (New Haven, CT: Yale University Press, 2022), 59. Lahoud, an expert on bin Laden, does not believe bin Laden was interested in attacking American bridges by 2010, and does not recall him mentioning attacking bridges in a 2004 letter that could be read as implying such. Email correspondence, Lahoud to Allison, June 9, 2022. On the Clinton assassination attempt, see Ken Gormley, *The Death of American Virtue: Clinton vs. Starr* (New York, NY: Crown Publishers, 2011).

2 Jerold M. Post, ed., *Military Studies in the Jihad Against the Tyrants: The Al-Qaeda Training Manual* (Maxwell Air Force Base, AL: USAF Counterproliferation Center, August 2004), 23. See also Thomas Joscelyn, “AQAP publishes guide for derailing trains in the US, Europe,” *FDD’s Long War Journal* (August 13, 2017), <https://www.longwarjournal.org/archives/2017/08/aqap-publishes-guide-for-derailing-trains-in-the-us-europe.php>.

3 “Causing Road Accidents w/ Ibnul Irbab,” *Lone Mujahid Pocketbook* (Spring 2013): 4, in Exhibit A (Doc. 25-1), in Declaration of David Cohen in Support of Defendants’ Opposition to Plaintiffs’ Motion for Expedited Discovery, Hamid Hassan Raza, et al. v. City of New York, et al., Case No. 1:13-cv-03448-PKC-JMA (October 30, 2013), [https://www.aclu.org/sites/default/files/field\\_document/25\\_declaration\\_of\\_david\\_cohen\\_in\\_supp\\_of\\_defs\\_opp\\_to\\_pls\\_mot\\_for\\_discovery\\_2013.10.30.pdf](https://www.aclu.org/sites/default/files/field_document/25_declaration_of_david_cohen_in_supp_of_defs_opp_to_pls_mot_for_discovery_2013.10.30.pdf).

4 External Operations Reconnaissance Team, “Field Tactics,” *Inspire* 17 (Summer 2017): 91.

5 *The Hard Reset: A Terrorgram Production* (2022), 47, 100-102, 111.

6 Jim Rutenberg, “After the Attacks: The Coverage,” *New York Times*, September 17, 2001.

7 Brian Michael Jenkins, *Protecting Surface Transportation Systems and Patrons from Terrorist Activities: Case Studies of Best Security Practices and a Chronology of Attacks*, (San Jose, CA: Norman Y. Mineta International Institute for Surface Transportation Policy Studies, December 1997), 178; Ashley Crockett and Jessica Gertler, “FBI warns of possible plot to blow up Memphis bridge,” *WREG Memphis* (December 22, 2014), <https://wreg.com/news/fbi-warns-of-possible-plot-to-blow-up-memphis-bridge/>; Reuters Staff, “UPDATE 1-US-Canada tunnel reopens after bomb threat,” *Reuters*, July 12, 2012; Katrease Stafford, “Suspected smoke bomb temporarily closes tunnel,” *Detroit Free Press*, January 20, 2015; “Possible explosives incident was ‘misunderstanding,’ Colorado State Patrol says,” *Fox 31 KDVR* (May 8, 2021), <https://kdvr.com/news/local/westbound-i-70-closed-at-eisenhower-tunnel-due-to-police-situation/>; Jonah Spangenthal-Lee, “Homemade Lightsaber Forces Closure Of Bus Tunnel,” *SPD Blotter* (April 29, 2013), <https://spdblotter.seattle.gov/2013/04/29/homemade-lightsaber-forces-closure-of-bus-tunnel/>; Liz Jassin, “Police detain man claiming to have a bomb on Carquinez Bridge,” *KRON 4* (January 25, 2022), <https://www.kron4.com/news/bay-area/police-detain-man-claiming-to-have-a-bomb-on-carquinez-bridge/>; Richard Esposito, “Mexican Drug Cartels’ New Weapon In Border War – The Car Bomb,” *ABC News*, August 12, 2010; KCRA Staff, “Woman surrenders after blocking Tower Bridge in West Sacramento,” *KCRA 3* (February 1, 2017), <https://www.kcra.com/article/officials-shut-down-tower-bridge-in-west-sacramento/8660330>; Gaige Davila, “Bomb threat closes Causeway on eve of collapse anniversary,” *Port Isabel-South Padre Press*, September 15, 2020; Julie McCormick, “Tacoma Narrows Bridge: Bomb-threat suspect arrested in Port Orchard,” *Kitsap Sun*, March 3, 2001;

around American bridges and tunnels; none, however, were obvious acts of terrorism, but rather were unclear or mischievous in intent.<sup>8</sup>

Why don't terrorists attack American bridges and tunnels? Given the potential economic, psychological, and human consequences of such attacks, terrorists would presumably attempt them regularly. After all, terrorists have attacked such structures in other countries; why not in the United States? Shockingly, while there has been some discussion of the *risk* of such attacks, there is a lack of research addressing *why* they have not happened.<sup>9</sup> Recent examinations of plots and attacks against critical infrastructure in the United States frequently neglect to consider the threat to bridges and tunnels.<sup>10</sup> While one might argue that terrorists attack—or do not attack—all manner of targets, and that we should not focus on such a specific target set, there is much to be learned from studying highly-specific targets.<sup>11</sup>

Drawing on a variety of primary sources including court documents and interviews, this article provides an unprecedentedly in-depth examination of terrorist decision making vis-à-vis American

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Harry Harris, "FBI says possible explosive device that forced Oakland evacuations was a hoax," East Bay Times, January 19, 2022 (updated January 20, 2022), <https://www.eastbaytimes.com/2022/01/19/possible-explosive-device-forces-downtown-oakland-evacuations/>; "No Bomb Threat at Baily Bridges in Fort Payne, police say email scam," News 19 (March 24, 2021), <https://whnt.com/news/active-bomb-threat-reported-at-bailey-bridges-in-fort-payne/>; Eddie Davis, "Bomb scare forced closure of bridge into Long Beach Island, NJ Sunday," Lite 96.9 WFGP (September 13, 2021), <https://wfgp.com/bomb-scare-forced-closure-of-bridge-into-long-beach-island-nj-sunday/>; "Ambassador Bridge owner links bomb threat to cutbacks," CBC News, July 16, 2012; John Carroll, "Bomb found under rural bridge 'could have done some real damage,'" KWTX (May 4, 2016), <https://www.kwtx.com/content/news/Explosive-found-under-bridge-378067051.html>; Larry Celona and Ben Feuerherd, "George Washington Bridge temporarily shut down after report of pipe bomb," New York Post, August 22, 2019; Brett Dahlbert, "State Police Say Mackinac Bridge Bomb Threat Was Called In From Mackinaw City," WKAR (July 20, 2021), <https://www.wkar.org/news/2021-07-20/state-police-say-mackinac-bridge-bomb-threat-was-called-in-from-mackinaw-city/>; "Man In Custody After Claiming To Have Bomb On Benicia Bridge, Forcing Closure," CBS Bay Area, April 5, 2019; Riley Mack, "Ambassador Bridge closed for seven hours Monday due to discovery of two inactive grenades," WZZM (updated October 5, 2021), <https://www.wzzm13.com/article/news/ambassador-bridge-closed-in-both-directions-due-to-possible-explosives/69-71dc4445-a653-4e70-bb00-d0a4eebf7c96>.

8 See, for example, Kevin Krause, "Tarrant County bomber who set off explosions for fun will spend almost 4 years in prison," The Dallas Morning News, September 23, 2021; Pat Loeb, "Police: IED Found Near Chester Train Tracks," CBS Philly Keith Rushing, "Worker Finds Pipe Bomb in Bridge-Tunnel Building," Daily Press, June 6, 2002; Mark Maynard, "Couple indicted for blowing up bombs," The Daily Independent (Kentucky), August 25, 2014; Mike James, "Tunnel bomber pleads guilty (with video)," The Daily Independent (Kentucky), July 17, 2015.

9 Blue Ribbon Panel on Bridge and Tunnel Security (hereafter BRP), Recommendations for Bridge and Tunnel Security (Washington, DC: American Association of State Highway and Transportation Officials, September 2003); Ray Cotton and Gregory M. Jizba, Comparative Analysis Reports on Bridge Security, and Comparative Analysis Reports on Tunnel Security (Washington, DC: Transportation Security Administration, 2015); Department of Homeland Security, Office of Cyber and Infrastructure Analysis, U.S. Critical Infrastructure 2015: A Strategic Risk Assessment (Washington, DC: Department of Homeland Security, 2016); Damian J. Kulash, "A Letter from the President: It's a Long Road to Security," Transportation Quarterly 56, no. 4 (Fall 2002): 5-7; Laurie A. Schuster, "Bridge and Tunnel Security," Civil Engineering 74, no. 9 (September 2004): 40-49; Mark G. Stewart and John Mueller, "Terrorism Risks for Bridges in a Multi-Hazard Environment," International Journal of Protective Structures 5, no. 3 (September 2014): 275-289.

10 See, for example, Erin Miller, Terrorist Attacks Targeting Critical Infrastructure in the United States, 1970-2015 (College Park, MD: START, 2016); Ilana Krill, "The Evolution of Critical Infrastructure Targeting by Violent Extremists," Lawfare (October 20, 2022), <https://www.lawfareblog.com/evolution-critical-infrastructure-targeting-violent-extremists>; Ilana Krill and Bennett Clifford, Mayhem, Murder, and Misdirection: Violent Extremist Attack Plots Against Critical Infrastructure in the United States, 2016 – 2022 (Washington, DC: Program on Extremism at George Washington University, 2022).

11 See, for example, János Besenyő, et al., "Hospital Attacks Since 9/11: An Analysis of Terrorism Targeting Healthcare Facilities and Workers," Studies in Conflict & Terrorism (2021); <http://dx.doi.org/10.1080/1057610X.2021.1937821>; Bryan McNeilly, et al., "The Rising Threat of Terrorist Attacks Against Hospitals," Prehospital and Disaster Medicine 37, no. 2 (2022): 223–229; and Nitzan Ulmer, et al., "Terrorist Attacks against Hospitals: World-Wide Trends and Attack Types," Prehospital and Disaster Medicine 37, no. 1 (2022): 25–32.



bridges and tunnels. Using foiled plots as case studies, I present several major explanations as to why these schemes fail and, more importantly, what deters terrorists from pursuing them. These factors include counter-terrorism measures, perceived target hardness or structural soundness, expense, and terrorists' desire for high-casualty attacks. While these deterrents all point to terrorists' use of cost-benefit analysis, these individual findings are critical to understanding the nature of the threat and the value of each deterrent.

## Why Would Terrorists Target Bridges and Tunnels?

The intermodal and cross-sector characteristics of bridges and tunnels mean that attacks on them can have “cascading effects,” i.e., their impact extends far beyond the immediate target.<sup>12</sup> This effect is exacerbated if the bridge or tunnel is particularly important to several transportation modes or critical infrastructure sectors. For example, as Daniel Goodrich and Frances Edwards write, “[O]ne major highway bridge in a western state carries a road, a railroad, a natural gas pipeline, electrical lines and communications system lines. Its destruction or compromise would have an impact throughout the region for all of these uses, as there is no immediate workaround available in this isolated area for providing access without this bridge.”<sup>13</sup>

Even in cases where a bridge or tunnel is not critical to multiple sectors, actions against them can have sundry effects, broadly classifiable as human, financial, psychological, and socioeconomic.<sup>14</sup> The human costs of such an operation could be astronomical; a bridge or tunnel collapse during rush hour traffic might kill hundreds or thousands. Repairs could cost billions of dollars and hamper or divert commerce, industry, agriculture, and investing both locally and nationally.<sup>15</sup> Furthermore, even if the economic effects of a collapse are mitigated or quickly remedied by the built-in redundancy of the national highway system, a series of strikes on several bridges or tunnels leading into a major financial centre could cripple the national economy.<sup>16</sup> Economics aside, such “spectacular” attacks on national landmarks could severely damage a population’s morale.<sup>17</sup> Even a failed or partly-successful attack could leave people wary of driving on highways or taking the train.<sup>18</sup>

<sup>12</sup> See, for example, “2020 Surface Security Plan” in TSA, 2020 Biennial National Strategy for Transportation Security, 65-66.

<sup>13</sup> Daniel C. Goodrich and Frances L. Edwards, *Transportation, Terrorism and Crime: Deterrence, Disruption and Resilience* (San Jose, CA: Mineta Transportation Institute, January 2020), 7. Indeed, the 2018 Biennial Strategy for National Transportation Security notes that the 2017 collapse of a bridge on Interstate 85 near Atlanta closed both lanes of the highway, resulting in “detours and alternative routing [that] sent ripples through supply chain networks and rail and bus transit services serving Atlanta with secondary impacts on multiple sectors”. TSA, 2018 Biennial Strategy for National Transportation Security, 52.

<sup>14</sup> That is, those “systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters”. USA PATRIOT Act, Public Law 107-56, U.S. Statutes at Large 115 (2001): 401.

<sup>15</sup> Estimates on the cost of repairing a bridge or tunnel vary. See, for instance, BRP, *Recommendations*; and John Mueller and Mark G. Stewart, *Terror, Security, and Money: Balancing the Risks, Benefits, and Costs of Homeland Security* (Oxford: Oxford University Press, 2011).

<sup>16</sup> JiYoung Park, et al., “Bridge and tunnel closures (TransNIEMO),” in *National Economic Impact Analysis of Terrorist Attacks and Natural Disasters*, ed. Harry W. Richardson, et al. (Cheltenham, UK: Edward Elgar, 2014), 24-43.

<sup>17</sup> Robin Goodwin, Michelle Willson, and Gaines Stanley Jr., “Terror threat perception and its consequences in contemporary Britain,” *British Journal of Psychology* 96, no. 4 (November 2005): 389-406; Tom Pyszczyński, Sheldon Solomon, and Jeff Greenberg, *In the Wake of 9/11: The Psychology of Terror* (Washington, DC: American Psychological Association, 2003); Mark Schuster, et al., “A National Survey of Stress Reactions after the September 11, 2001, Terrorist Attacks,” *The New England Journal of Medicine* 345, no. 20 (November 2001): 1507-1512; Joop van der Pligt, “Risk perception and self-protective behaviour,” *European Psychologist* 1 (1996): 34-43.

<sup>18</sup> Brian Michael Jenkins and Bruce Robert Butterworth, with William T. Poe, Douglas A. Reeves, Karl S. Shrum, and Joseph E. Trella, *Potential Terrorist Uses of Highway-Borne Hazardous Materials* (San Jose, CA: Mineta Transportation Institute, January 2010), 13.

Attacking a bridge or tunnel can be tactical or strategic in purpose. If a terrorist actor aims to destroy the target for the sake of the larger impact it may have (e.g., casualties, economic problems, psychological effects), then such an attack would be strategic. Other strikes on bridges and tunnels, however, are more tactical, as they use the destruction or disabling of that structure as part of a larger operation, especially to cut off the enemy's path. We will return to this point below.

## The Historical Record

How frequently have terrorists attacked bridges and tunnels globally? According to the Global Terrorism Database (GTD), terrorists have launched around 209,280 attacks from about 1975 through 2020. Approximately 958 terrorist operations targeted bridges or tunnels (including footbridges), making them less than 0.5 percent of all attacks in that period. Most attacks occurred outside of the West, particularly in South Asia (293, or 30.58 percent). Unsurprisingly, the overwhelming majority of these attacks (849, or 88.62 percent) primarily entailed bombings or explosions. Most attacks (775, or 80.89 percent) produced no victim fatalities, and 10 percent (96) killed an unknown number; the average number of fatalities per attack was less than one. Most attacks caused minor (i.e., less than \$1 million) or unknown damage, and 19—or less than 2 percent—caused major damage (likely more than \$1 million but less than \$1 billion).<sup>19</sup> Although the GTD data includes some pedestrian bridges and tunnels—and is not always explicit about this inclusion—and is somewhat inconsistent in its coding of bridge and tunnel attacks, it gives a decent sense of their scope, characteristics, and patterns.

Data from the Mineta Transportation Institute (MTI), likewise, suggests such attacks are extremely rare. MTI's database of terrorist attacks against surface transportation infrastructure from 1970 to 2022 contains 6,364 attacks, of which attacks on vehicle bridges and tunnels comprise a measly 354 (5.56 percent). South Asia comprised 40.7 percent (144) of the strikes against bridges and tunnels. Only 2.3 percent (8) of attacks targeted tunnels, and the rest were bridges or overpasses. Nearly all attackers (337, or 95.2 percent) used explosives, and all attacks on bridges and tunnels in the database resulted in a combined 36 fatalities (0.1 fatalities per attack) and 146 injuries (0.4 injuries per attack).<sup>20</sup>

As the tables in the Appendix show, most attacks occurred in South Asia, though in the GTD data, the 1980s saw a notable number of attacks in Central America and the Caribbean (coded as one region in both datasets) as well as Southeast Asia. Elsewhere, many of these attacks came during major conflicts, particularly those featuring irregular warfare as seen in the drug wars and communist insurgencies in Central America and the rise of the Islamic State in the Middle East. Most of the attacks in South Asia, similarly, were carried out by Indian communists and/or Maoists. These examples suggest that most of the time when terrorists target bridges or tunnels, they do so in the context of a broader conflict, often involving insurgency against a central government.<sup>21</sup>

On a global scale, terrorists have not executed many attacks against bridges and tunnels in the last five decades. Throughout the past century, terrorists have certainly proven eager to attack such targets in the United States.

<sup>19</sup> START (National Consortium for the Study of Terrorism and Responses to Terrorism), Global Terrorism Database (GTD), [Data set] (University of Maryland), <https://www.start.umd.edu/gtd>.

<sup>20</sup> MTI Database on Terrorist and Serious Criminal Attacks on Public Surface Transportation. Special thanks to Bruce Butterworth for obtaining the aggregate data for me, and to MTI for allowing me to use it.

<sup>21</sup> Thanks to Bruce Butterworth for his insights in this regard.

Labour disputes in the early 1900s and mid-1960s featured bombings of bridges, viaducts, dams, and other targets.<sup>22</sup> A German spy bombed a bridge between Canada and the United States during World War I.<sup>23</sup> In the 1970s and 1980s, authorities discovered liquid explosives—albeit without detonators—beneath at least one bridge in San Francisco and received several unsubstantiated threats against bridges in Florida, Massachusetts, and Missouri.<sup>24</sup> In 1995, unknown actors derailed a passenger train passing over a bridge in rural Arizona, killing one and injuring one hundred.<sup>25</sup> As discussed above, under Osama bin Laden, al-Qaeda showed consistent interest in attacking American bridges.<sup>26</sup>

From 1975 (at the latest) to the present, however, —although there were a fair number of terrorist attacks against bridges and tunnels internationally, and despite terrorists’ clear desire to attack such targets in the US—only a handful of such attacks occurred in North America; even then, these attacks targeted private individuals rather than the structures themselves. For example, in 1980, Joseph Paul Franklin, a white supremacist, shot and killed an interracial couple on a bridge in Johnstown, Pennsylvania.<sup>27</sup> Four years later, members of the white supremacist group The Order robbed an armoured car at the Northgate Mall in Seattle, Washington. As part of the robbery, they dumped roofing nails in a highway tunnel, hoping—but failing—to cause a traffic jam.<sup>28</sup> This, however, was more a terrorist financing operation than a terrorist attack, proper. In 2011, local police discovered explosives under the Commodore Barry Bridge in Philadelphia, but never publicly detailed the findings of their investigation.<sup>29</sup>

Despite the lack of attacks, there have been several plots against American bridges and tunnels since 1990. These conspiracies ultimately failed, but details from each help explain why terrorists do not attack such targets in the United States.<sup>30</sup>

22 Beverly Gage, *The Day Wall Street Exploded: A Story of America in Its First Age of Terror* (Oxford: Oxford University Press, 2009), 84, 91, 137; *New York Times*, “Florida Railway Dynamited Again,” *New York Times*, February 15, 1964, p. 1; *New York Times*, “3 Held in Florida in Rail Bombings,” *New York Times*, March 14, 1964, p. 52. See also Burton Altman, “In the Public Interest?: Ed Ball and the FEC Railway War,” *Florida Historical Quarterly* 64, no. 1 (July 1985): 32-47.

23 Graeme S. Mount, *Canada’s Enemies: Spies and Spying in the Peaceable Kingdom* (Toronto, CA: Dundurn Press, 1993), 31-33.

24 Associated Press, “Explosives Found Under Bay Bridge,” Associated Press, February 16, 1982; Jenkins, *Protecting Surface Transportation Systems*, 135, 139; Brian Michael Jenkins and Bruce Robert Butterworth, *Explosives and Incendiaries Used in Terrorist Attacks on Public Surface Transportation: A Preliminary Empirical Examination* (San Jose, CA: Mineta Transportation Institute, March 2010), 12; No Headline in Original, Associated Press, September 2, 1977; Joanne Omang, “2 Groups Claiming Bomb Credit Well-Known in Miami’s Little Havana,” *Washington Post*, September 8, 1977; *Chronicle News Services*, “5 Miami police accused of excessive force during riots,” *Houston Chronicle*, May 22, 1980, p. 7; *New York Times*, “Threat Shuts Florida Bridge,” *New York Times*, May 10, 1984, B22.

25 Federal Bureau of Investigation, “Train Derailment Mystery,” Federal Bureau of Investigation (October 9, 2020) <https://www.fbi.gov/news/stories/investigators-working-to-solve-25-year-old-case-of-amtrak-train-derailment-100920>; Stephen Labaton, “F.B.I. Studies Note for Clues On Derailment,” *New York Times*, October 11, 1995; James Graebner, “Amtrak: The Derailment of Sunset Limited,” in Jenkins, *Protecting Surface Transportation Systems*, 23-32.

26 Warrick, “Al-Qaeda data yields details of planned plots”; Lahoud, *The Bin Laden Papers*, 59. Gormley, *The Death of American Virtue*; Post, ed., *Military Studies in the Jihad Against the Tyrants*, 29.

27 Dave Sutor, “Death nears for couple’s killer,” *The Tribune-Democrat* (Johnstown, PA), November 18, 2013.

28 Mark S. Hamm, *Terrorism as Crime: From Oklahoma City to Al-Qaeda and Beyond* (New York, NY: New York University Press), 131.

29 CBS Philadelphia, “Police: IED Found Near Chester Train Tracks,” CBS Philadelphia (May 6, 2011), <https://www.cbsnews.com/philadelphia/news/police-ied-found-near-chester-train-tracks/>; UPI, “Police: Bomb found on Pa. train tracks,” UPI (May 7, 2011), [https://www.upi.com/Top\\_News/US/2011/05/07/Police-Bomb-found-on-Pa-train-tracks/52501304807107/](https://www.upi.com/Top_News/US/2011/05/07/Police-Bomb-found-on-Pa-train-tracks/52501304807107/).

30 This analysis does not consider hoaxes, general calls to action, overturned cases, or plots against targets outside of US territory. It also does not include the 2015 case of Munther Omar Saleh and Fared Mumuni, as their targets were never detailed by law enforcement beyond the vague description of “various notable New York City landmarks and tourist attractions”, and Saleh’s presence on the George Washington Bridge was never explicitly tied to attack planning. Nor does it include Sayfullo Saipov’s 2017 vehicle-ramming attack in New York City, in which he allegedly planned to attack pedestrians on the Brooklyn Bridge, but was stopped before reaching it. Complaint (doc. 1), United

### *Spring 1993: NYC Bridge and Tunnels*

A group of ten jihadists affiliated with al-Gam'a al-Islamiyya, led by Omar Ahmad Ali Abdel Rahman, planned to bomb the United Nations, the Manhattan Federal Building, the Lincoln and Holland Tunnels, and the George Washington Bridge. An informant infiltrated the group for most of the planning process, and an FBI (Federal Bureau of Investigation) raid in June 1993 stopped the would-be terrorists, who were convicted.<sup>31</sup>

### *Spring 2003: Brooklyn Bridge*

lyman Faris, an al-Qaeda member, sought to attack the Brooklyn Bridge by loosening the bolts or cutting the suspension cables on the Brooklyn Bridge, per al-Qaeda official Khalid Shaikh Mohammed's orders. He aborted the attack and was arrested in Columbus, Ohio.<sup>32</sup>

### *August 2004: Herald Square*

Shahawar Matin Siraj and James Elshafay plotted with an undercover police informant to attack Herald Square subway station in Manhattan. They also discussed the possibility of attacking targets with greater economic value, including four bridges on Staten Island—especially the Verrazano-Narrows Bridge—but concluded at the informant's prompting that bombing those structures was too complicated and risked detection by law enforcement, and opted to attack the subway station instead.<sup>33</sup> Although they scouted the station, the trio never acquired materials for a bomb.<sup>34</sup> Siraj and Elshafay were arrested and convicted, and Siraj's appeals failed, despite strong allegations of entrapment.<sup>35</sup>

### *April 2006: Hudson River Tunnel(s)*

Assem Hammoud, a professor in Lebanon, along with seven other individuals, developed a scheme to bomb a Port Authority Trans-Hudson Corporation (PATH) rail system tunnel between

States v. Fareed Mumuni, Case No.1:15-CR-393-MKB (E. D. New York, June 17, 2015), <https://storage.courtlistener.com/recap/gov.uscourts.nyed.373946/gov.uscourts.nyed.373946.1.0.pdf>; CBS New York, "College Student In Queens Accused of Plotting Terror Attack In New York City," CBS New York, June 16, 2015, <https://www.cbsnews.com/newyork/news/queens-college-student-terror-plot-nyc/>; Complaint, United States v. Sayfullo Habibullavic Saipov, Case No. 1:17-CR-722-VSB (S.D New York, November 1, 2017), paras. 10b-e, <https://storage.courtlistener.com/recap/gov.uscourts.nysd.484263/gov.uscourts.nysd.484263.1.0.pdf>.

31 Second Circuit Court Opinion, United States v. Omar Ahmad Ali Abdel Rahman, et al., 189 F.3d 88, 1999 U.S. App. LEXIS 18926.

32 Statement of Facts, United States v. lyman Faris, Case No. 3-189-A (E.D. Virginia, Alexandria Division, May 1, 2003), Investigative Project on Terrorism (hereafter IPT) [https://www.investigativeproject.org/case\\_docs/us-v-faris-brooklyn-bridge-plot/229/statement-of-facts.pdf](https://www.investigativeproject.org/case_docs/us-v-faris-brooklyn-bridge-plot/229/statement-of-facts.pdf); Benjamin Weiser and Al Baker, "A Bridge Under Scrutiny, by Plotters and Police," New York Times, April 26, 2011; Richard B. Schmidt, "Guilty Plea in Terrorist Plot," Los Angeles Times, June 20, 2003.

33 Unfortunately, few relevant legal records are publicly available for this case. Craig Horowitz, "Anatomy of a Foiled Plot," New York Magazine, November 26, 2004; William K. Rashbaum, "Police Informer in Terror Trial Takes Stand," New York Times, April 25, 2006; Rashbaum, "In Tapes of Subway Plot Suspect, a Disjointed Torrent of Hate," New York Times, April 26, 2006; Rashbaum, "Staten Island Man Describes Shattered Life, Then a Plot to Bomb a Subway Station," New York Times, May 10, 2006; Rashbaum, "Defendant Says Police Informer Pushed Him Into Bomb Plot," New York Times, May 16, 2006.

34 US Attorney's Office, Eastern District of New York, "Shahawar Matin Siraj Convicted of Conspiring to Place Explosives at the 34th Street Subway Station," Department of Justice (May 24, 2006), <https://www.justice.gov/archive/usao/nye/pr/2006/2006may24.html>.

35 Spencer Ackerman, "Shahawar Matin Siraj: 'impressionable' young man caught in an NYPD sting," The Guardian, July 21, 2014; Rozina Ali, "The 'Herald Square Bomber' Who Wasn't," New York Times Magazine, April 15, 2021; Jennifer B. Lee, "Entrapment Evidence Lacking, Jurors Say," New York Times, May 25, 2006; Human Rights Watch (HRW) and Columbia Law School Human Rights Institute (HRI), Illusion of Justice: Human Rights Abuses in US Terrorism Prosecutions (New York, NY: Human Rights Watch, July 2014).

New Jersey and New York City. The FBI learned of the plot in 2005, and by April 2006, Lebanese police arrested Hammoud. The plotters allegedly also considered targeting the Brooklyn and Golden Gate bridges but concluded the tunnel attack was the “most viable plan”, according to an American official.<sup>36</sup> The plot seemingly never moved past the earliest planning stages, though Hammoud allegedly downloaded maps of the target(s).<sup>37</sup>

### *November 2008: Long Island Railroad*

While in Pakistan in 2007-08, Long Islander, Bryant Neal Viñas, discussed bombing the Long Island Railroad (LIRR) with al-Qaeda leadership, in hopes of hurting the New York economy.<sup>38</sup> They considered targeting the primary LIRR tunnel leading into Manhattan. Pakistani police arrested Viñas in November 2008 and turned him over to the FBI.<sup>39</sup> According to Viñas, the plot “never got put into motion.”<sup>40</sup>

### *January 2012: Tampa*

Sami Osmakac, an Islamist extremist, planned bombings in Tampa, Florida. At one point, he considered bombing Tampa’s bridges due to the potential economic impact, but opted to target a casino instead, recognising that he needed more collaborators for the bridge attack.<sup>41</sup> Law enforcement arrested him after he obtained inert weapons from undercover FBI agents.<sup>42</sup> Osmakac’s lawyers argued entrapment, but have not secured his release.<sup>43</sup>

### *April 2012: Route 82 Bridge*

A group of anarchists led by Douglas Wright planted two bricks of C-4 explosives at the base of the Brecksville-Northfield High Level Bridge over the Cuyahoga River in Brecksville, Ohio. After the bombs—provided by an undercover FBI agent, who knew they were inert—did not detonate, they were arrested and convicted on terrorism-related charges. The perpetrators accused the FBI of entrapment, but their appeals have failed.<sup>44</sup>

### *July 2014: Tremonton Police*

Police arrested John David Huggins, a Utah man with reported anti-government sentiments, after learning he allegedly planned to attack police officers and blow-up bridges in Tremonton.<sup>45</sup> He ultimately pleaded guilty to one count of possession of an unregistered destructive device. As

36 Mohamad Bazi, “Before Tunnel, Suspects Plotted against Bridge,” Daily Press, July 8, 2006.

37 CBS/AP, “Plot To Attack NYC Tunnels Foiled,” CBS News, July 7, 2006,

<https://www.cbsnews.com/news/plot-to-attack-nyc-tunnels-foiled/>; Josh Meyer, “Plot Possibly Went Beyond N.Y. Tunnels,” Los Angeles Times, July 10, 2006.

38 Carla Power, “How a Long Island Man Became the ‘Forrest Gump of Jihad’—and Then Flipped,” Politico, September 5, 2021.

39 Phil Hirschorn, “Homegrown terrorist Bryant Neal Vinas shows his face in Brooklyn,” CBS News, April 25, 2012; Claire Suddath, “Bryant Neal Vinas: An American in Al Qaeda,” Time, July 24, 2009.

40 Bryant Neal Viñas and Mitchell D. Silber, “Al-Qa`ida’s First American Foreign Fighter after 9/11,” CTC Sentinel 11, no. 8 (September 2018): 6. See also Corrected Final Transcript of Criminal Cause for Motion to Close Courtroom (Doc. 23), United States of America v. John Doe [Bryant Neal Viñas], Case No. 1:08-cr-00823-NGG (E. D. New York, January 28, 2009), <https://storage.courtlistener.com/recap/gov.uscourts.nyed.286251.23.0.pdf>.

41 Criminal Complaint, United States v. Sami Osmakac, Case No. 8:12-MJ (M. D. Florida, Tampa Division, January 9, 2012), para. 19, IPT [https://www.investigativeproject.org/documents/case\\_docs/1873.pdf](https://www.investigativeproject.org/documents/case_docs/1873.pdf).

42 John Mueller and Mark G. Stewart, Chasing Ghosts: The Policing of Terrorism (Oxford, UK: Oxford University Press, 2016), 272; Anna M. Phillips, “Sami Osmakac Gets 40 Years in Prison for Plotting Terrorist Attacks in Tampa,” Tampa Bay Times, November 5, 2014.

43 Trevor Aaronson, “How the FBI Created a Terrorist,” The Intercept, March 16, 2015.

44 Erick Trickey, “A Bridge Too Far,” Cleveland Magazine, September 15, 2012; United States v. Wright, 747 F.3d 399, 2014 U.S. App. LEXIS 5736.

45 The Plots: A Timeline of Terror (Montgomery, AL: Southern Poverty Law Center, 2015), 32.

part of the plea deal, prosecutors dropped two lesser charges related to possessing explosives and distributing information on their manufacture and use.<sup>46</sup>

### October 2020: Whitmer Kidnapping

In a plot to kidnap and/or assassinate Michigan Governor Gretchen Whitmer, a group of anti-government extremists planned to bomb a bridge to slow any police response. The group had been infiltrated by government informants and were arrested.<sup>47</sup> While some of the conspirators have signed plea deals, others have successfully argued the government entrapped them, while most have been convicted.<sup>48</sup>

A word of caution is in order. Several of these cases contain elements of alleged or proven entrapment by law enforcement—a troubling theme in many allegedly foiled plots in the United States.<sup>49</sup> Although the entrapment defence has rarely worked in terrorism cases since 9/11, there is good reason to proceed with caution when evaluating cases potentially involving such entrapment: the defendants often argue that they would not have engaged in these plots without encouragement from undercover law enforcement or informants.<sup>50</sup> Therefore, this analysis weighs whether discussions of attacking bridges or tunnels were initiated by the defendants or by informants.<sup>51</sup>

Despite accusations of entrapment, the available evidence suggests that government informants did not influence the men convicted in the *Herald Square*, *Tampa*, and *Route 82 Bridge* plots to target bridges or tunnels; therefore, we can examine their decision making as would-be terrorists, even if questions remain about how they found themselves in those positions. In the *Whitmer Kidnapping* scheme, only two defendants were acquitted due to government entrapment, and while others have also alleged entrapment (and will likely do so in future appeals), the evidence

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46 US Attorney's Office, District of Utah, "Huggins Sentenced To 27 Months In Federal Prison For Possession Of An Unregistered Destructive Device," Department of Justice (June 11, 2015), <https://www.justice.gov/usao-ut/pr/huggins-sentenced-27-months-federal-prison-possession-unregistered-destructive-device>. See also Indictment (Doc. 13), *United States v. John Huggins*, Case No. 1:14-CR-00035 DN (D. Utah, July 23, 2014) <https://storage.courtlistener.com/recap/gov.uscourts.utd.93720.13.0.pdf>.

47 Continuation of a criminal complaint (ECF No.1-1), *United States v. Adam Fox, et al.*, Case No. 1:20-CR-183-RJJ (W.D. Mich., October 6, 2020), paras. 26, 31, and 36, [https://storage.courtlistener.com/recap/gov.uscourts.miwd.99931/gov.uscourts.miwd.99931.11.1\\_1.pdf](https://storage.courtlistener.com/recap/gov.uscourts.miwd.99931/gov.uscourts.miwd.99931.11.1_1.pdf).

48 Devlin Barrett, "Jury acquits two in Michigan governor kidnap plot; deadlocks on two others," *Washington Post*, April 8, 2022; Corey Williams, "Judge: No FBI entrapment for 3 in Gov. Whitmer kidnap plot," *Associated Press*, March 1, 2022; Joey Cappelletti and Ed White, "2 men convicted in plot to kidnap Michigan Gov. Whitmer," *Associated Press*, August 23, 2022; "2 men convicted in Gov. Whitmer kidnap plot seek new trial," *Associated Press*, September 8, 2022; Frank Witsil, "3 men convicted of all counts in Whitmer kidnapping plot," *Detroit Free Press*, October 26, 2022.

49 Trevor Aaronson and Margot Williams, "Trial and Terror," *The Intercept* (updated January 25, 2022), <https://trial-and-terror.theintercept.com/>. See also Sahar F. Aziz, "State Sponsored Radicalization," *Michigan Journal of Race & Law* 27, no. 1 (Fall 2021): 125-161; Center for Human Rights and Global Justice, *Targeted and Entrapped: Manufacturing the "Homegrown Threat" in the United States* (New York, NY: NYU School of Law, 2011); Dejan M. Gantar, "Criminalizing the Armchair Terrorist: Entrapment and the Domestic Terrorism Prosecution," *Hastings Constitutional Law Quarterly* 42, no. 1 (Fall 2014): 135-160; HRW and HRI, *Illusion of Justice*; Elizabeth E. Joh, "Breaking the Law to Enforce It: Undercover Police Participation in Crime," *Stanford Law Review* 62 (December 2009): 155-199; Jesse J. Norris and Hanna Grol-Prokopczyk, "Estimating the Prevalence of Entrapment in Post-9/11 Terrorism Cases," *Journal of Criminal Law and Criminology* 105, no. 3 (Summer 2015): 609-678; Jon Sherman, "'A Person Otherwise Innocent': Policing Entrapment In Preventative, Undercover Counterterrorism Investigations," *Journal of Constitutional Law* 115 (July 2009): 1475-1510; Dru Stevenson, "Entrapment and Terrorism," *Boston College Law Review* 49, no. 1 (2008): 125-215.

50 Jesse J. Norris, "Accounting for the (Almost Complete) Failure of the Entrapment Defense in Post-9/11 US Terrorism Cases," *Law & Social Inquiry* 45, no. 1 (February 2020): 194-225.

51 Special thanks to my colleagues who engaged in a lively discussion of this matter on Twitter. <https://twitter.com/BenVAllison/status/1542863099480375296?s=20&t=cZtolb6eoRC7z7TgJnU5pw>.

is unclear.<sup>52</sup> Regardless, the bridge bombing component of that plot only features two basic points of interest for the present analysis: the purpose and the cost of such an attack.

The *Tremonton Police* plot is less straightforward. Although the case did not go to trial due to a plea agreement, the defence intended to argue entrapment, and it remains unclear whether the alleged bridge plot actually existed. Indeed, the only information suggesting the bridge attack, according to defence lawyer Adam Bridges, came from a drug-addicted informant who, he alleges, “had all kinds of incentives” to produce information that the police would be interested in. Not only was the informant’s account of the bridge plot purportedly never corroborated, but the police allegedly never asked Huggins about it, and he was not charged with any terrorism-related offenses—had law enforcement possessed appropriate evidence, they presumably would have brought such charges.<sup>53</sup> Fortunately, this case does not significantly impact the present analysis, as there are no substantive details available regarding Huggins’ alleged targeting of the bridge in Tremonton.

## What Can These Cases Tell Us?

Having reviewed the basic facts of these cases, we now turn to assessing their implications for our understanding of terrorist decision making. But how much can we really learn from foiled terrorist plots? After all, as Brian Jenkins writes, “It is difficult counting events that don’t occur.”<sup>54</sup> Besides, there are several problems implicit in studying foiled plots: (1) information on these failed attacks could help future plotters evade detection; (2) examining such cases could artificially inflate the threat, since terrorists usually plan and even consider far more attacks than they can realistically execute; and (3) terrorists may invent plots to flood intelligence agencies with disinformation.

But Erik Dahl argues that “[W]hile standard accounts of successful terrorist attacks can help us understand where intelligence and security procedures went wrong, the study of failed plots might be able to tell us what works.”<sup>55</sup> He also posits that, despite the risk of inadvertently helping terrorists avoid detection by discussing the details of other failed plots, such information is often already public knowledge.<sup>56</sup> Dahl and Germain Difo studied thwarted plots as a means of understanding what makes effective counter-terrorism policy.<sup>57</sup> It is therefore reasonable to assume that examining plots against American bridges and tunnels can reveal which policies are effective in preventing such attacks and shed some light on terrorist decision making.

Explaining the lack of terrorist attacks on American bridges and tunnels requires identifying what prevents or discourages terrorists from executing them. Such deterrents may be real or perceived, and may be created intentionally or unintentionally by the state or even the terrorists themselves. In their analysis of why terrorist attacks fail, Brian Jackson and David Frelinger argue

<sup>52</sup> See especially Attachment (ECF No. 366-2) to “Defendants’ Motion for Leave to File Defendants’ Motion In Limine Regarding Admission of Out-of-Court Statements and Memorandum in Support,” *US v. Fox et al.* (December 17, 2021), <https://storage.courtlistener.com/recap/gov.uscourts.miw.99933/gov.uscourts.miw.99933.366.2.pdf>. The motion was approved in ECF No. 381 (December 29, 2021),

<https://storage.courtlistener.com/recap/gov.uscourts.miw.99935/gov.uscourts.miw.99935.381.0.pdf>.

<sup>53</sup> Telephone interview with Adam G. Bridge, Office of the Federal Public Defender, District of Utah (July 1, 2022); Sentencing Memorandum (doc. 48), *US v. Huggins* (June 5, 2015),

<https://storage.courtlistener.com/recap/gov.uscourts.utd.93720/gov.uscourts.utd.93720.48.0.pdf>. When asked about the bridges plot, a member of the prosecution could not recall whether there was corroborating evidence for the bridge plot accusation. Telephone interview with anonymous, US Attorney’s Office, District of Utah (July 5, 2022).

<sup>54</sup> Brian Michael Jenkins, “Lessons for Intelligence in the Campaign Against al Qaeda,” *Vanguard*, March 2, 2006.

<sup>55</sup> Erik J. Dahl, “The Plots that Failed: Intelligence Lessons Learned from Unsuccessful Terrorist Attacks Against the United States,” *Studies in Conflict & Terrorism* 34 (2011): 623.

<sup>56</sup> Dahl, “The Plots that Failed,” 623.

<sup>57</sup> Germain Difo, *Ordinary Measures, Extraordinary Results: An Assessment of Foiled Plots Since 9/11* (Washington, DC: American Security Project, May 2010).

that “The past success or failure of a terrorist operation—or the likelihood that a future attack will succeed—can best be understood by thinking about the match or mismatch between three key sets of characteristics: terrorist group capabilities and resources[,] the requirements of the operation it attempted or is planning to attempt[, and] the relevance and reliability of security countermeasures.” Successful terrorist attacks, in their view, require “(1) a match between [an attacker’s] capabilities and resources and the operational requirements of the attack it is seeking to carry out and (2) a mismatch of security countermeasures and intelligence/investigative efforts with both the group and its plans.”<sup>58</sup>

Given the value of studying failed terrorist plots, we begin with a simple question: What did the plotters hope to achieve in attacking American bridges and tunnels? Most seemed to consider their targets to be effective means to hurt the American economy, and therefore considered them strategic targets. In the *Tremont Police* and *Whitmer Kidnapping* cases, however, bridge destruction was allegedly part of broader plots and aimed to slow law enforcement response time and were, therefore, tactical in nature.

Objectives aside, what does terrorist target selection and attack planning look like in practice? There are several models of this process, known as the “terrorist attack cycle,” “terrorist attack planning cycle,” or the “hostile event attack cycle.”<sup>59</sup> Despite minor differences, the ‘ideal’ non-suicide attack planning process may be seen as broadly consisting of the following phases, some of which overlap: (1) target selection, (2) surveillance, (3) planning, (4) weapons acquisition, (5) rehearsal, (6) attack, (7) escape, and (8) exploitation. Obviously, not all terrorist attacks follow this exact pattern. Sometimes the terrorist(s) change targets. They often perform multiple rounds of surveillance. Sometimes they do not rehearse the attack. Dynamics, of course, vary between groups, which in turn behave differently than lone wolves. Nevertheless, the general pattern of attack planning remains consistent.

All of the case studies in this article were stopped prior to the *attack* phase. Aside from intercepting communications or planting a source inside a group, security services are most likely to catch a terrorist plot in the surveillance, planning (including training), and (especially) weapons acquisition phases.<sup>60</sup> Detection is more difficult with lone wolf attackers, but not impossible.<sup>61</sup> On the one hand, the thwarted attacks outlined above indicate that would-be terrorists clearly desire to attack American tunnels and bridges. Conversely, their rarity suggests that some of the same elements that stopped the plotters from ultimately carrying out their plans deter others from even making such plans. These deterrents include counter-terrorism measures, target hardness and structural soundness, expense, and their preference for high casualty yields.

Counter-terrorism measures are the primary cause of failure in terrorist plots against American bridges and tunnels. These measures include investigation, arrest, and security, and often deter or pre-empt terrorist plots. Every plot analysed in this paper ended due to some form of counter-

58 Brian A. Jackson and David R. Frelinger, “Understanding Why Terrorist Operations Fail,” RAND Homeland Security Program Occasional Paper (2009).

59 Stratfor, “Defining the Terrorist Attack Cycle,” Stratfor, February 23, 2012, archived at <https://web.archive.org/web/20120227220652/http://www.stratfor.com/image/defining-terrorist-attack-cycle> ; Scott Stewart, “Detection Points in the Terrorist Attack Cycle,” Stratfor, March 1, 2012; Stewart, “The Terrorist Attack Cycle Remains Unbroken,” Stratfor, July 27, 2017; Office of the Director of National Intelligence, “JCAT Counterterrorism Guide for Public Safety Personnel,” Office of the Director of National Intelligence, <https://www.dni.gov/nctc/jcat/index.html> ; David Pounder and Andy Jabbour, “White Paper: The Hostile Event Attack Cycle (HEAC), 2021 Update,” Gate 15 (2021), <https://gate15.global/white-paper-the-hostile-event-attack-cycle-heac-2021-update/>. For an application of terrorist planning models to water critical infrastructure, see David Michael Birkett, “Water Critical Infrastructure and Its Dependencies,” *Journal of Terrorism Research* 8, no. 2 (May 2017): 12.

60 Stewart, “Detection Points.”

61 Paul Gill and Emily Corner, “Lone-Actor Terrorist Target Choice,” *Behavioral Sciences and the Law* 34 (2016): 699.



terrorism action. Seven of these nine scenarios ended in arrests within the United States; most of which were the direct result of information from independent or planted sources (e.g. undercover agents, informants). Both international arrests occurred because the FBI informed foreign police of the suspects' presence on their soil.

Enhanced operational security foiled several plots. In 2003, lyman Faris told his al-Qaeda handler that “[T]he weather is too hot”, meaning he thought severing the *Brooklyn Bridge’s* suspension cables would not cause a collapse. US officials believe that Faris cancelled the attack because of increased security around the bridge, and that he believed the attack method would not suffice to cause the bridge’s collapse.<sup>62</sup> Similarly, in 2012, Sami Osmakac decided to target the Hard Rock Casino in *Tampa* instead of local bridges because “[t]here’s not as many police.”<sup>63</sup> *The Route 82 Bridge* plotters expressed concern that their attack might prompt the government to increase “[...] security on almost every bridge in the entire [expletive] country.”<sup>64</sup> Their leader, Douglas Wright, had also allegedly considered conducting an attack of some sort—presumably diversionary, involving the use of smoke bombs—on “tunnels” (likely the abandoned subway) beneath Cleveland, Ohio, but was deterred by the security cameras and personnel he assumed were there.<sup>65</sup> Furthermore, he allegedly lost interest in bombing the Detroit-Superior (aka Veterans Memorial) Bridge in downtown Cleveland because “There was [*sic.*] too many cameras, too many eyes downtown,” leading him to explore the possibility of attacking the bridge in Brecksville.<sup>66</sup>

Perceived target hardness or structural soundness can also deter terrorists. Target hardness refers to a target’s level of protection; for instance, while a shopping mall full of unarmed civilians is a *soft* target, a military base is very much a *hard* target.<sup>67</sup> Whereas target hardness is primarily concerned with security but has an impact on safety, structural soundness is essential to safety but impacts security. In addition to the security measures discussed above, target hardening can also consist of structural modifications such as increased standoff distances and structural hardening of infrastructure components; thus, target hardness and structural soundness are mutually intertwined.<sup>68</sup> Bridges and tunnels are built to withstand tremendous amounts of stress, making them difficult to destroy. When terrorists perceive that a bridge or tunnel is too structurally sound, their interest in conducting such attacks weakens.

One member of Omar Abdel Rahman’s group in the *NYC Landmarks* plot, expressed doubts about their ability to blow up the George Washington Bridge due to the perceived strength of its suspension cables, though this did not deter the terrorists from continuing their planning.<sup>69</sup> Conversely, lyman Faris was partly deterred from proceeding with the *Brooklyn Bridge* attack by the bridge’s perceived structural soundness. Ironically, a former New York City police commissioner considered Faris’ plot “doable,” and local officials believed “[A] saboteur would need just 15 minutes of sustained cutting with a heavy-duty gas-powered saw to sever a few of

62 Weiser and Baker, “A Bridge Under Scrutiny”; Department of Justice, “lyman Faris Sentenced For Providing Material Support To Al Qaeda,” Department of Justice (October 28, 2003), [https://www.justice.gov/archive/opa/pr/2003/October/03\\_crm\\_589.htm](https://www.justice.gov/archive/opa/pr/2003/October/03_crm_589.htm).

63 United States v. Osmakac, 868 F.3d 937, 2017 U.S. App. LEXIS 15663.

64 Redaction in original. Wright, 747 F.3d at 405.

65 Affidavit (Doc. 1-1), United States v. Douglas Wright, et al., Case No. 1:12-cr-00238-PAG (N. D. Ohio, April 30, 2012), para. 17, PACER.

66 Transcript of Detention Hearing Proceedings (Doc. 37), US v. Wright et al. (May 30, 2012), 32-33, PACER.

67 For a discussion of soft and hard targets, see Alex P. Schmid, “Layers of Protective Measures for Soft Target Protection against Terrorist Attacks,” in Handbook of Terrorism Prevention and Preparedness, ed. Alex P. Schmid (The Hague, NL: International Centre for Counter-Terrorism, 2021), 817-818.

68 See, for example, BRP, Recommendations for Bridge and Tunnel Security, 27.

69 Trial transcript 3 of 8, United States v. Omar Ahmad Ali Abdel Rahman, et al., S5 93 Cr. 181 (MBM) (S. D. New York, April 5, 1995), at 7153, and Trial transcript 8 of 8, US v. Rahman, et al. (September 6, 1995), at 18752, IPT, <https://www.investigativeproject.org/case/319/us-v-rahman-et-al>.

the thinner gables and undermine the bridge.”<sup>70</sup> On the other hand, a top CIA counter-terrorism official privately mocked the plan, claiming that “[I]f these are the types of attacks ksm [*sic.*, Khalid Shaikh Muhammad] was planning, [KSM] was more of a nuisance [*sic.*] than a threat and you have to wonder how he ever thought of anything as imaginative as the 11 sept [*sic.*] attacks.”<sup>71</sup> Similarly, the Interagency Intelligence Committee on Terrorism (IICT) considered the bolt-loosening plan “unrealistic.”<sup>72</sup>

The confidentiality of security measures and structural details contributes to perceived target hardness.<sup>73</sup> Sometimes this confidentiality is not maintained. For example, after news of Assem Hammoud’s arrest for the *Hudson River Tunnel(s)* plot broke, a *New York Times* article outlined an official analysis of New York’s PATH Tunnels, revealing they “[...] are more vulnerable to a bomb attack than previously thought,” as “[...] a relatively small amount of high explosives could cause significant flooding of the rail system within hours.”<sup>74</sup> Providing such analyses to the press, intentionally or otherwise, jeopardises the safety of those structures and the people using them, as they can point out vulnerabilities and opportunities to would-be attackers.

A final factor in the perception of target hardness or structural soundness is that, as John Mueller and Mark Stewart (2011) put it, “[A] bridge [or tunnel] is very difficult to damage severely because its concrete and steel construction makes it something of a hardened structure from the outset.”<sup>75</sup> This perception of a pre-hardened target raises the cost of carrying out such an attack and increases its chances of failure, boosting the odds of deterrence.

Third, terrorists may believe such attacks are too expensive. Expenses may be monetary or related to expertise—for instance, attacking a bridge or tunnel requires considerable bombmaking experience, which is not easily obtained.<sup>76</sup> Alternatively, after performing a basic cost-benefit analysis, terrorists may decide that such an attack would not yield the desired results, or that such results are not worth the expense. Many of our cases only involved a handful of individuals, who ostensibly lacked the funding or expertise needed to present a serious threat. For instance, the 1993 *NYC Bridge and Tunnels* plotters used fertiliser and diesel fuel in their bombs.<sup>77</sup> Although such bombs are cheap to make and are effective for cratering, ditching, and blasting, their detonation velocity is too low to effectively cut or breach steel and concrete.<sup>78</sup> While this factor did not stop the plot, the lower quality of the available equipment and resources would have inhibited the attack’s efficacy, at least in terms of structural damage to the bridges and tunnels. Furthermore, the group lacked the technical expertise to construct or place a bomb, leading them to consult friends and acquaintances; one of whom was an informant who ultimately brought the whole operation down.<sup>79</sup>

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70 Weiser and Baker, “A Bridge Under Scrutiny.”

71 Quoted in U. S. Congress, Senate, Select Committee on Intelligence, Committee Study of the Central Intelligence Agency’s Detention and Interrogation Program, 113th Cong., 2d sess., 2014, S. Rep. 113–288, 283, n. 1605. Hereafter Torture Report.

72 *Ibid.*, 284.

73 Shuster, “Bridge and Tunnel Security,” 49; BRP, Recommendations.

74 William K. Rashbaum and William Neuman, “PATH Tunnels Seen as Fragile in Bomb Attack,” *New York Times*, December 22, 2006.

75 Mueller and Stewart, *Terror, Security, and Money*, 122.

76 Koehler-Derrick and Milton, “Choose Your Weapon,” 916.

77 Rahman, 189 F.3d at 110-111, 124-125.

78 David Harber, *Guerilla’s Arsenal: Advanced Techniques for Making Explosives and Time-Delay Bombs* (Boulder: Paladin Press, 1994), 36; Global Security, “Explosives—ANFO (Ammonium Nitrate Fuel Oil),” Global Security, <https://www.globalsecurity.org/military/systems/munitions/explosives-anfo.htm>.

79 Trial transcript 1 of 8, *US v. Rahman, et al.*, (January 30, 1995), at 1597 and 1599, and Trial transcript 2 of 8, *US v. Rahman* (March 22, 1995), at 5653-5654, IPT; Second Circuit Court Opinion, *Rahman, et al.*, at 110.

Clearer examples include the *Tampa* and *Route 82 Bridge* plots. The money Osmakac needed to purchase weapons came from an FBI informant. Since Osmakac was broke, he could not have possibly afforded the “dud” weapons the FBI later sold him through another agent; indeed, his lawyers argued entrapment, as the government provided both the weapons for the attack and the money to buy them.<sup>80</sup> Similarly, the anarchists led by Wright only used two blocks of what they thought was live C-4 explosive for their attempted bridge attack, and were unsure as to how many blocks of C-4 it would take.<sup>81</sup> As an explosives expert argued in a contested report submitted during the trial, if the C-4 had been live, those two blocks would have been insufficient to do any real damage to the bridge’s supports. Even if the two blocks could have collapsed part of the bridge, the group lacked the necessary expertise to conduct such an attack; hence, they had to seek outside help, which proved to be their undoing.<sup>82</sup>

Similar dynamics appeared in the 2003 *Brooklyn Bridge Plot*. Although Faris was an al-Qaeda operative, and thus, might have had financial and technical support, he sought to use gas-powered cable cutters (aka a blowtorch) to fell the Brooklyn Bridge—likely because preparations to employ a less mundane attack method could draw attention. Despite the relative simplicity of operating a blowtorch (compared to constructing a bomb), Faris displayed a lack of technical know-how. There seem to be two law enforcement accounts of his actions in this regard, which are not necessarily contradictory: (1) he had to ask “[...] an acquaintance who had a technical background” about how to *obtain* a blowtorch, after his internet research on the subject presumably did not provide the answer he wanted, and/or (2) he and his acquaintance discussed *how* blowtorches worked.<sup>83</sup> With better financing and equipment, he may not have decided to abort his plot, as the chances for a getaway are far greater using a remote- or timer-detonated bomb than with a process of cutting cables for at very least fifteen minutes.<sup>84</sup> Instead, fearing detection, he called off the attack. An increase in perceived capability may have raised the chances of Faris attempting the attack.

Likewise, a lack of technical skill plagued Sami Osmakac, who unknowingly bought non-working weapons from an FBI operative ostensibly because he could not assemble the car bomb and suicide vest for himself; indeed, one news article notes that “In the ultimate sign of the [FBI’s] regard for Osmakac’s know-how, the car bomb came with instructions telling him how to detonate it.”<sup>85</sup> Although Osmakac ultimately decided not to attack bridges in Tampa for a different reason, his lack of technical expertise would have made it much harder to do so had he stuck to that plot.

Finally, there is the matter of terrorist preference. Research shows that over the last few decades, terrorists have increasingly targeted private persons rather than property; in other words, they want to maximise casualties.<sup>86</sup> Because attacking bridges and tunnels is *not* the most effective way to kill large groups of people, as seen in the above discussion of such attacks globally,

80 Phillips, “Sami Osmakac Gets 40 Years in Prison.”

81 The FBI’s confidential human source, however, asked the undercover FBI agent selling the inert explosives how many blocks it would take. Affidavit, *US v. Wright, et al.*, para. 42.

82 *Wright, et al.*, 747 F.3d at 405-406.

83 *United States v. Faris*, 388 F.3d 452, 107 Fed. Appx. 308, 2004 U.S. App. LEXIS 16637 at 456. Indeed, Faris had communicated to Khalid Shaikh Muhammad (through an intermediary) the month prior that he was unable to find the tools needed to “loosen the nuts and bolts” of the Brooklyn Bridge. Torture Report, 282.

84 Weiser and Baker “A Bridge Under Scrutiny.”

85 Phillips, “Sami Osmakac Gets 40 Years in Prison.”

86 Peter Bergen, Albert Ford, Alyssa Sims, and David Serman, “Terrorism in America after 9/11,” *New America*, <https://www.newamerica.org/in-depth/terrorism-in-america/>; Brandt and Sandler, “What Do Transnational Terrorists Target?”; Mueller and Stewart, *Terror, Security, and Money*, 122; Charlinda Santifort, Todd Sandler and Patrick T. Brandt, “Terrorist attack and target diversity: Changepoints and their drivers,” *Journal of Peace Research* 50, no. 1 (2012): 75-90; Brian Michael Jenkins and Bruce Robert Butterworth, *Changing Patterns of Violence Pose New Challenges to Public Surface Transportation in the United States* (San Jose, CA: Mineta Transportation Institute, August 2022), 25.

terrorists seek out softer targets with higher casualty yields.

The *Route 82 Bridge* and *Herald Square* plots underscore this point. The anarchists led by Douglas Wright considered numerous possible targets, such as casinos and banks. Several members of the group expressed concern that attacking a high-traffic bridge, like the Veterans Memorial Bridge in Cleveland, might cause casualties and lead the population to view them as terrorists, so they explored several other options before deciding on the Brecksville-Northfield High Level Bridge. According to the affidavit, the group debated which targets were best for slowing the flow of money to the super-rich “One Percent” without killing, inconveniencing, or angering regular civilians.<sup>87</sup> Wright and at least one other member consistently opposed attacks causing civilian casualties. He only suggested bombing the bridge after the FBI informant told him that his plan to attack cargo vessels using submerged explosives would not work.<sup>88</sup> Even then, he sought to place the explosives in such a way as to avoid hurting civilians.<sup>89</sup> It therefore seems the anarchists chose the bridge *because* they viewed it as a low-casualty target.<sup>90</sup>

Similarly, in the *Herald Square* case, it appears that Siraj (and possibly Elshafay) considered bridges good targets because they would run a lower risk of killing civilians.<sup>91</sup> When they considered the bridge attacks, Siraj explicitly referenced the economic damage such strikes could cause.<sup>92</sup> In response to the police informant telling them that “the Brothers”—a fictitious terrorist group in Upstate New York—decided bombing the Verrazano Bridge would have to wait while the trio moved forward with the Herald Square plot, Siraj immediately protested, “Tell [them] that we are very careful about people’s lives”. He made it clear that his aim in any attack was “No killing. Only economy problems”.<sup>93</sup> Although Siraj formulated the Herald Square plot,—purportedly because he was jealous of the informant’s praise of Elshafay’s bridges plan, even though Siraj had thrown himself into planning the bridge attack(s)—he immediately made it clear that he had no interest in hurting civilians or being the bomber at Herald Square.<sup>94</sup> We can assume, then, that Siraj saw the bridge plot as less likely to cause civilian casualties—and, therefore, was a better option. This perception of bridges and tunnels as low-casualty targets may explain why so few terrorists have been caught plotting against them in the last forty years or so: they simply are not as attractive as targets with higher casualty yields. Of course, this factor cannot be separated from the other deterrent elements of expense, target hardness or structural soundness, and security measures.

## Conclusions

The foiled plots examined here suggest four key reasons why terrorists do not attack American bridges and tunnels: (1) counter-terrorism measures deter and/or interrupt planning for such strikes; (2) perceived structural soundness or target hardness deters some from attacking; (3) perceived expense in terms of expertise, manpower, money or material can serve as powerful

87 Affidavit, US v. Wright, et al., especially paras. 33 and 51-70.

88 Wright, et al., 747 F.3d at 405, 410, 413, and especially 406.

89 Affidavit, US v. Wright, et al., 82.

90 It should be noted, however, that unlike in their discussions of bombing the Detroit-Superior/Veterans Memorial Bridge in Cleveland (e.g., with traffic cones), the group did not consider taking actions to divert traffic away from the Brecksville-Northfield Bridge, though they did time the attack to occur at night. When asked “how are we going to know if someone’s on the bridge” when they blew it up, Wright answered “We’re not going to know. Once they feel the bridge shaking, they’ll just have to speed up to get off”. Transcript of Detention Hearing Proceedings, US v. Wright et al., 47-49.

91 The bridges plot was Elshafay’s idea. Rashbaum, “Staten Island Man Describes Shattered Life.”

92 Rashbaum, “In Tapes of Subway Plot Suspect, a Disjointed Torrent of Hatred.”

93 “Band of Brothers,” Harper’s Magazine (October 2006): 20-21.

94 “Band of Brothers,” 20-22; Ali, “The ‘Herald Square Bomber’ Who Wasn’t”. On Siraj’s role in planning the bridge attacks, see Rashbaum, “Police Informer in Terror Trial Takes Stand”; and United States v. Siraj, 468 F. Supp. 2d 408, 2007 U.S. Dist. LEXIS 306, at 416 and 420.

deterrents; and (4), the difficulty of carrying out a mass-casualty attack on a bridge or tunnel makes them less attractive than other, softer targets. Taken together, these findings reinforce the notion that terrorists perform cost-benefit analyses when choosing between targets. It would be a mistake, however, to assume that this renders this article's analysis and findings irrelevant. First, it offers insights into *why* terrorists are interested in attacking American bridges and tunnels, and suggests why they might find other targets more attractive—those other targets do not present the same drawbacks and/or offer greater benefits. Second, each component of deterrence is important, though to varying degrees, as discussed below. Additionally, knowing the effects of individual deterrents can contribute to more cost-effective counter-terrorism.

These findings are relevant in considering what could change terrorists' calculus. For example, Terrogram's *The Hard Reset* advocates attacking small but (ideally) essential rail and highway bridges, particularly using thermite.<sup>95</sup> This is part of a strategic shift toward a more accelerationist framework that seeks to cause societal collapse by prioritizing attacks on infrastructure over direct anti-personnel actions—that is, targeting the larger society, which they view as wholly corrupt, instead of targeting groups perceived as inferior. It is also predicated on the mistaken and racist notion that “Many bridges are engineered by qualified whites, but built by incompetent [*sic.*] non-whites,” and are therefore vulnerable to attack.<sup>96</sup> This is a striking example of ideology shaping perceptions of vulnerability. Although the same challenges of expertise and expense make such thermite attacks unlikely, they suggest that a terrorist group obtaining high-grade thermite and the technical knowledge to use it properly on a bridge or tunnel could change the likelihood of such an attack.

Assuming that accelerationism—especially its white supremacist variant—is the greatest terrorist threat to the United States, attacks on critical infrastructure may increase. Indeed, one study of attacks on US critical infrastructure from 2016 to 2022 found that white supremacists mostly targeted the American energy grid, though they also took aim at the transportation sector.<sup>97</sup> Even then, the resources needed for strikes on tunnels or bridges are more likely to be directed at other, easier-to-attack targets with greater rewards for the terrorists, such as power stations or water supplies.

This article's findings have several implications for policymakers. First, counter-terrorism measures serve an ambiguous role in protecting American bridges and tunnels. Intelligence and security are the most effective methods for preventing such attacks, but it is unclear whether decreasing such efforts would lead to an increase in strikes against tunnels and bridges. Threat information sharing networks, security cameras, and barriers are likely the most effective means of deterrence. While on-site security personnel are also effective deterrents, they are expensive, and their added value is unclear for anything but the most important potential targets.

Second, the notable government efforts to protect bridges and tunnels from attack through threat assessments and structural hardening programs appear to have (at least in part) successfully deterred terrorists. This paper's findings seem to justify some of these expenditures, at least for major landmarks that are more likely to attract terrorists' attention.<sup>98</sup> Conversely, it seems that massive spending on target hardening is unlikely to enhance security in a significant way, since structural (i.e. safety) improvements will likely suffice to prevent such attacks. Thus, the United States government should avoid falling into the trap described by Timothy Mathews and Anton Lowenberg: if a state knows terrorists prefer a target, it will allocate more resources to defend

95 *The Hard Reset*, 47, 100-102, 111.

96 *The Hard Reset*, 100.

97 Krill and Clifford, *Mayhem, Murder, and Misdirection*, 19-23.

98 Mueller and Stewart, *Terror, Security, and Money*; Stewart and Mueller, “Terrorism Risks for Bridges in a Multi-Hazard Environment.”

it, regardless of the state's independent valuation of the target. This suggests that "It may be best for the state to leave a target completely undefended, even if it will be attacked".<sup>99</sup> The government must not simply defend a target for the sake of defence alone, especially if the costs of protecting it will outweigh those of the attack occurring—suggesting that security policy is as much a matter of cost-benefit analysis as target selection is.

Finally, increasing the expense terrorists incur in orchestrating such an attack can also help secure bridges and tunnels. Admittedly, increasing such expenses—whether related to funds, resources, expertise, or otherwise—is generally difficult to do directly. Even increasing the perceived costs, however, can be enough to deter attacks on bridges and tunnels. For example, a terrorist cell may believe recent improvements to a bridge have made the target significantly harder, necessitating the use of a higher-quality explosive. If the group lacks the expertise or materials needed to construct such an explosive, they will likely shift their aim to a different, ostensibly softer, target. Increased counter-terrorism and target-hardening or structure-enhancing measures can indirectly create this perceived expense, but once again, they should be reserved for major landmarks carrying high numbers of civilians.

Even then, terrorists are unlikely to attack bridges or tunnels in the United States. It is too difficult to obtain the weapons and expertise needed to execute such an attack without attracting attention, and it is far less expensive and time-consuming to attack softer targets. As such, except for prominent landmarks, it seems that taxpayer dollars are better spent simply maintaining the structural integrity of most bridges and tunnels than hardening them against attacks that will likely never come.

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99 Timothy Mathews and Anton D. Lowenberg, "The Interdependence Between Homeland Security Efforts of a State and a Terrorist's Choice of Attack," *Conflict Management and Peace Science* 29, no. 2 (2012): 195-218.

## Bibliography

- Aaronson, Trevor and Margot Williams. "Trial and Terror." *The Intercept*. <https://trial-and-terror.theintercept.com/>. Updated January 25, 2022.
- Aaronson, Trevor. "How the FBI Created a Terrorist." *The Intercept*, March 16, 2015.
- Ackerman, Gary A. and Lauren E. Pinson. "An Army of One: Assessing CBRN Pursuit and Use by Lone Wolves and Autonomous Cells." *Terrorism and Political Violence* 26, No. 1 (2014): 226-245.
- Ackerman, Spencer. "Shahawar Matin Siraj: 'impressionable' young man caught in an NYPD sting." *The Guardian*, July 21, 2014.
- Ahmed, Ranya. "Terrorist Group Types and Tactic Choice." *Journal of Applied Security Research* 13, No. 1 (2018): 89-110.
- Ahmed, Ranya. "Terrorist Ideologies and Target Selection." *Journal of Applied Security Research* 13, No. 3 (2018): 376-390.
- Ali, Rozina. "The 'Herald Square Bomber' Who Wasn't." *New York Times Magazine*, April 15, 2021.
- Altman, Burton. "'In the Public Interest?': Ed Ball and the FEC Railway War." *Florida Historical Quarterly* 64, No. 1 (July 1985): 32-47.
- Asal, Victor and R. Karl Rethemeyer. "The Nature of the Beast: Organizational Structures and the Lethality of Terrorist Attacks." *The Journal of Politics* 70, No. 2 (2008): 437-449.
- Asal, Victor, R. Karl Rethemeyer, Ian Anderson, Allyson Stein, Jeffrey Rizzo, and Matthew Rozea. "The Softest of Targets: A Study on Terrorist Target Selection." *Journal of Applied Security Research* 4 (2009): 258-278.
- Associated Press. "Explosives Found Under Bay Bridge." Associated Press, February 16, 1982.
- Aziz, Sahar F. "State Sponsored Radicalization." *Michigan Journal of Race & Law* 27, No. 1 (Fall 2021): 125-161.
- Barrett, Devlin. "Jury acquits two in Michigan governor kidnap plot; deadlocks on two others." *Washington Post*, April 8, 2022.
- Bazi, Mohamad. "Before Tunnel, Suspects Plotted against Bridge." *Daily Press*, July 8, 2006.
- Becker, Michael. "Explaining Lone Wolf Target Selection in the United States." *Studies in Conflict & Terrorism* 37 (2014): 959-978.
- Bergen, Peter, Albert Ford, Alyssa Sims, and David Sterman. "Terrorism in America after 9/11." *New America*, <https://www.newamerica.org/in-depth/terrorism-in-america/>.
- Birkett, David Michael. "Water Critical Infrastructure and Its Dependencies." *Journal of Terrorism Research* 8, No. 2 (May 2017): 1-21.
- Blue Ribbon Panel on Bridge and Tunnel Security. *Recommendations for Bridge and Tunnel Security*. Washington, DC: American Association of State Highway and Transportation Officials, September 2003.
- Brandt, Patrick T. and Todd Sandler. "What Do Transnational Terrorists Target? Has It Changed? Are We Safer?" *The Journal of Conflict Resolution* 54, No. 2 (2010): 214-236.
- CBS New York. "College Student In Queens Accused of Plotting Terror Attack In New York City." CBS New York, June 16, 2015. <https://www.cbsnews.com/newyork/news/queens-college-student-terror-plot-nyc/>.
- CBS/AP. "Plot To Attack NYC Tunnels Foiled." CBS News, July 7, 2006. <https://www.cbsnews.com/news/plot-to-attack-nyc-tunnels-foiled/>.

- Center for Human Rights and Global Justice. Targeted and Entrapped: Manufacturing the “Homegrown Threat” in the United States. New York, NY: NYU School of Law, 2011.
- Chronicle News Services. “5 Miami police accused of excessive force during riots.” *Houston Chronicle*, May 22, 1980, p. 7.
- Clarke Ronald V. and Graeme R. Newman. *Outsmarting the Terrorists*. Westport, CT: Praeger, 2006.
- Cotton, Ray and Gregory M. Jizba. *Comparative Analysis Reports on Bridge Security*. Washington, DC: Transportation Security Administration, 2015.
- Cotton, Ray and Gregory M. Jizba. *Comparative Analysis Reports on Tunnel Security*. Washington, DC: Transportation Security Administration, 2015.
- Cox, Jr., Louis Anthony. “Game Theory and Risk Analysis.” *Risk Analysis* 29, No. 8 (2009): 1062-1068.
- Dahl, Erik J. “The Plots that Failed: Intelligence Lessons Learned from Unsuccessful Terrorist Attacks Against the United States.” *Studies in Conflict & Terrorism* 34 (2011): 621-648.
- de la Calle, Luis and Ignacio Sánchez-Cuenca. “The Production of Terrorist Violence: Analyzing Target Selection in the IRA and ETA.” Working Paper (2006): [https://www.researchgate.net/publication/28200788\\_The\\_Production\\_of\\_Terrorist\\_Violence\\_Analyzing\\_Target\\_Selection\\_Within\\_the\\_IRA\\_and\\_ETA](https://www.researchgate.net/publication/28200788_The_Production_of_Terrorist_Violence_Analyzing_Target_Selection_Within_the_IRA_and_ETA).
- Department of Homeland Security, Office of Cyber and Infrastructure Analysis. *U.S. Critical Infrastructure 2015: A Strategic Risk Assessment*. 2016.
- Department of Justice. “lyman Faris Sentenced For Providing Material Support To Al Qaeda.” Department of Justice (October 28, 2003), [https://www.justice.gov/archive/opa/pr/2003/October/03\\_crm\\_589.htm](https://www.justice.gov/archive/opa/pr/2003/October/03_crm_589.htm).
- Difo, Germain. *Ordinary Measures, Extraordinary Results: An Assessment of Foiled Plots Since 9/11*. Washington, DC: American Security Project, May 2010.
- Dode, Robert O. and Henry U. Ufomba. “A Game-theoretic Hypothesis on the Relations between Victim States and Terrorist Organizations Based on the Eminue-Ufomba Model.” *Journal of Conflictology* 5, No. 1 (2014): 13-18.
- Dode, Robert O. and Henry U. Ufomba. “National power and the search for a generalized theory of terrorist target selection: An introduction to the Uyo School.” *African Journal of Political Science and International Relations* 8, No. 8 (November 2014): 266-270.
- Drake, C. J. M. “The role of ideology in terrorists’ target selection.” *Terrorism and Political Violence* 10, No. 2 (Summer 1998): 53-85.
- Drake, C. J. M. *Terrorists’ Target Selection*. New York, NY: St. Martin’s Press, 1998.
- Eminue, Okon E. and Henry U. Ufomba. “Modeling Terrorist Target Selection: Organski’s Power Transition Theory.” *Defense & Security Analysis* 27, No. 4 (2011): 375-382.
- External Operations Reconnaissance Team. “Field Tactics.” *Inspire* 17 (Summer 2017): 89-95.
- Federal Bureau of Investigation. “Train Derailment Mystery.” Federal Bureau of Investigation (October 9, 2020) <https://www.fbi.gov/news/stories/investigators-working-to-solve-25-year-old-case-of-amtrak-train-derailment-100920>.
- Gage, Beverly. *The Day Wall Street Exploded: A Story of America in Its First Age of Terror*. Oxford, UK: Oxford University Press, 2009.
- Gantar, Dejan M. “Criminalizing the Armchair Terrorist: Entrapment and the Domestic Terrorism Prosecution.” *Hastings Constitutional Law Quarterly* 42, No. 1 (Fall 2014): 135-160.



- Gill, Paul and Emily Corner. "Lone-Actor Terrorist Target Choice." *Behavioral Sciences and the Law* 34 (2016): 693-705.
- Global Security. "Explosives—ANFO (Ammonium Nitrate Fuel Oil)." Global Security, <https://www.globalsecurity.org/military/systems/munitions/explosives-anfo.htm>.
- Goodrich, Daniel C. and Frances L. Edwards. *Transportation, Terrorism and Crime: Deterrence, Disruption and Resilience*. San Jose, CA: Mineta Transportation Institute, January 2020.
- Goodwin, Robin, Michelle Willson, and Gaines Stanley Jr, "Terror threat perception and its consequences in contemporary Britain." *British Journal of Psychology* 96, No. 4 (November 2005): 389-406.
- Gormley, Ken. *The Death of American Virtue: Clinton vs. Starr*. New York, NY: Crown Publishers, 2011.
- Gruenewald, Jeff, Steven Chermak, and Joshua D. Freilich. "Distinguishing 'Loner' Attacks from Other Domestic Extremist Violence: A Comparison of Far-Right Homicide Incident and Offender Characteristics." *Criminology & Public Policy* 12, No. 1 (February 2013): 65-91.
- Gutfraind, Alexander. "Targeting by Transnational Terrorist Groups." Working Paper (2010): <https://arxiv.org/abs/1008.4776>.
- Hamid Hassan Raza, et al. v. City of New York, et al. Case No. 1:13-cv-03448-PKC-JMA, E. D. New York.
- Hamm, Mark S. *Terrorism as Crime: From Oklahoma City to Al-Qaeda and Beyond*. New York, NY: New York University Press.
- Harber, David. *Guerilla's Arsenal: Advanced Techniques for Making Explosives and Time-Delay Bombs*. Boulder, CO: Paladin Press, 1994.
- Hausken, Kjell. "The economics of terrorism against two targets." *Applied Economics Letters* 19 (2012): 1135-1138.
- Hemmingby, Cato and Tore Bjørgo. "Terrorist Target Selection: The Case of Anders Behring Breivik." *Perspectives on Terrorism* 12, No. 6 (December 2018): 164-176.
- Hirschhorn, Phil. "Homegrown terrorist Bryant Neal Vinas shows his face in Brooklyn." *CBS News*, April 25, 2012.
- Horowitz, Craig. "Anatomy of a Foiled Plot." *New York Magazine*, November 26, 2004.
- Human Rights Watch and Columbia Law School Human Rights Institute. *Illusion of Justice: Human Rights Abuses in US Terrorism Prosecutions*. New York, NY: Human Rights Watch, July 2014.
- Investigative Project on Terrorism (IPT). <https://www.investigativeproject.org/>.
- Jackson, Brian A. and David R. Frelinger. "Understanding Why Terrorist Operations Fail." *RAND Homeland Security Program Occasional Paper* (2009).
- Jenkins, Brian Michael. "Lessons for Intelligence in the Campaign Against al Qaeda." *Vanguard*, March 2, 2006.
- Jenkins, Brian Michael and Bruce Robert Butterworth, with William T. Poe, Douglas A. Reeves, Karl S. Shrum, and Joseph E. Trella. *Potential Terrorist Uses of Highway-Borne Hazardous Materials*. San Jose, CA: Mineta Transportation Institute, January 2010.
- Jenkins, Brian Michael and Bruce Robert Butterworth. *Changing Patterns of Violence Pose New Challenges to Public Surface Transportation in the United States*. San Jose, CA: Mineta Transportation Institute, forthcoming.
- Jenkins, Brian Michael and Bruce Robert Butterworth. *Explosives and Incendiaries Used in Terrorist Attacks on Public Surface Transportation: A Preliminary Empirical Examination*. San Jose, CA: Mineta Transportation Institute, March 2010.

- Jenkins, Brian Michael. *Protecting Surface Transportation Systems and Patrons from Terrorist Activities: Case Studies of Best Security Practices and a Chronology of Attacks*. San Jose, CA: Norman Y. Mineta International Institute for Surface Transportation Policy Studies, December 1997.
- Joh, Elizabeth E. "Breaking the Law to Enforce It: Undercover Police Participation in Crime," *Stanford Law Review* 62 (December 2009): 155-199.
- Joscelyn, Thomas. "AQAP publishes guide for derailing trains in the US, Europe." *FDD's Long War Journal* (August 13, 2017), <https://www.longwarjournal.org/archives/2017/08/aqap-publishes-guide-for-derailing-trains-in-the-us-europe.php>.
- Kenney, Michael. "'Dumb' Yet Deadly: Local Knowledge and Poor Tradecraft Among Islamist Militants in Britain and Spain." *Studies in Conflict & Terrorism* 33, No. 10 (2010): 911-932.
- Koehler-Derrick, Gabriel and Daniel James Milton. "Choose Your Weapon: The Impact of Strategic Considerations and Resource Constraints on Terrorist Group Weapon Selection." *Terrorism and Political Violence* 31, No. 5 (2019): 909-928.
- Kulash, Damian J. "A Letter from the President: It's a Long Road to Security." *Transportation Quarterly* 56, No. 4 (Fall 2002): 5-7.
- Labaton, Stephen. "F.B.I. Studies Note for Clues On Derailment." *New York Times*, October 11, 1995.
- Lahoud, Nelly. *The Bin Laden Papers: How the Abbottabad Raid Revealed the Truth about Al-Qaeda, Its Leader and His Family*. New Haven, CT: Yale University Press, 2022.
- Lee, Jennifer B. "Entrapment Evidence Lacking, Jurors Say." *New York Times*, May 25, 2006.
- Mathews, Timothy and Anton D. Lowenberg, "The Interdependence Between Homeland Security Efforts of a State and a Terrorist's Choice of Attack." *Conflict Management and Peace Science* 29, No. 2 (2012): 195-218.
- Meyer, Josh. "Plot Possibly Went Beyond N.Y. Tunnels." *Los Angeles Times*, July 10, 2006.
- Mount, Graem S. *Canada's Enemies: Spies and Spying in the Peaceable Kingdom*. Toronto, CA: Dundurn Press, 1993.
- MTI Database on Terrorist and Serious Criminal Attacks on Public Surface Transportation. 2022.
- Mueller, John and Mark G. Stewart. *Chasing Ghosts: The Policing of Terrorism*. Oxford, UK: Oxford University Press, 2016.
- Mueller, John and Mark G. Stewart. *Terror, Security, and Money: Balancing the Risks, Benefits, and Costs of Homeland Security*. Oxford, UK: Oxford University Press, 2011.
- New York Times*. "3 Held in Florida in Rail Bombings." *New York Times*, March 14, 1964, p. 52.
- New York Times*. "Florida Railway Dynamited Again." *New York Times*, February 15, 1964, p. 1.
- New York Times*. "Threat Shuts Florida Bridge." *New York Times*, May 10, 1984, p. B22.
- No Headline in Original. Associated Press, September 2, 1977.
- Norris, Jesse J. "Accounting for the (Almost Complete) Failure of the Entrapment Defense in Post-9/11 US Terrorism Cases." *Law & Social Inquiry* 45, No. 1 (February 2020): 194-225.
- Norris, Jesse J. and Hanna Grol-Prokopczyk. "Estimating the Prevalence of Entrapment in Post-9/11 Terrorism Cases." *Journal of Criminal Law and Criminology* 105, No. 3 (Summer 2015): 609-678.
- Office of the Director of National Intelligence. "JCAT Counterterrorism Guide for Public Safety Personnel." Office of the Director of National Intelligence, <https://www.dni.gov/nctc/jcat/index.html>.

- Omang, Joanne. "2 Groups Claiming Bomb Credit Well-Known in Miami's Little Havana." *Washington Post*, September 8, 1977.
- Phillips, Anna M. "Sami Osmakac Gets 40 Years in Prison for Plotting Terrorist Attacks in Tampa." *Tampa Bay Times*, November 5, 2014.
- Phillips, Peter J. and Gabriela Pohl. "Prospect Theory and Terrorist Choice." *Journal of Applied Economics* 17, No. 1 (May 2014): 139-160.
- Post, Jerold M., ed. *Military Studies in the Jihad Against the Tyrants: The Al-Qaeda Training Manual*. Maxwell Air Force Base, AL: USAF Counterproliferation Center, August 2004.
- Pounder David and Andy Jabbour. "White Paper: The Hostile Event Attack Cycle (HEAC), 2021 Update." *Gate 15* (2021), <https://gate15.global/white-paper-the-hostile-event-attack-cycle-heac-2021-update/>.
- Power, Carla. "How a Long Island Man Became the 'Forrest Gump of Jihad'—and Then Flipped." *Politico*, September 5, 2021.
- Public Access to Court Electronic Records (PACER). <https://pacer.uscourts.gov/>.
- Pyszczynski, Tom, Sheldon Solomon, and Jeff Greenberg. *In the Wake of 9/11: The Psychology of Terror*. Washington, DC: American Psychological Association, 2003.
- Rashbaum, William K. "Defendant Says Police Informer Pushed Him Into Bomb Plot." *New York Times*, May 16, 2006.
- Rashbaum, William K. "In Tapes of Subway Plot Suspect, a Disjointed Torrent of Hate." *New York Times*, April 26, 2006.
- Rashbaum, William K. "Police Informer in Terror Trial Takes Stand." *New York Times*, April 25, 2006.
- Rashbaum, William K. "Staten Island Man Describes Shattered Life, Then a Plot to Bomb a Subway Station." *New York Times*, May 10, 2006.
- Rashbaum, William K. and William Neuman. "PATH Tunnels Seen as Fragile in Bomb Attack." *New York Times*, December 22, 2006.
- Richardson, Harry W., JiYoung Park, James E. Moore II, and Qisheng Pan, eds. *National Economic Impact Analysis of Terrorist Attacks and Natural Disasters*. Cheltenham, UK: Edward Elgar, 2014.
- Rutenberg, Jim. "After the Attacks: The Coverage." *New York Times*, September 17, 2001.
- Santifort, Charlinda, Todd Sandler and Patrick T. Brandt. "Terrorist attack and target diversity: Change points and their drivers." *Journal of Peace Research* 50, No. 1 (2012): 75-90.
- Schmidt, Richard B. "Guilty Plea in Terrorist Plot." *Los Angeles Times*, June 20, 2003.
- Schuster, Laurie A. "Bridge and Tunnel Security." *Civil Engineering* 74, No. 9 (September 2004): 40-49.
- Schuster, Mark A., Bradley D. Stein, Lisa H. Jaycox, Rebecca L. Collins, Grant N. Marshall, Marc N. Elliott, Annie J. Zhou, David E. Kanouse, Janina L. Morrison, and Sandra H. Berry. "A National Survey of Stress Reactions after the September 11, 2001, Terrorist Attacks." *New England Journal of Medicine* 345, No. 20 (November 2001): 1507-1512.
- Sherman, Jon. "'A Person Otherwise Innocent': Policing Entrapment In Preventative, Undercover Counterterrorism Investigations." *Journal of Constitutional Law* 115 (July 2009): 1475-1510.
- Spaaij, Ramon. *Understanding Lone Wolf Terrorism: Global Patterns, Motivations and Prevention*. New York, NY: Springer, 2012.

- START (National Consortium for the Study for the Study of Terrorism and Responses to Terrorism). Global Terrorism Database (GTD). [Data set] University of Maryland. <https://www.start.umd.edu/gtd>.
- Stevenson, Dru. "Entrapment and Terrorism." *Boston College Law Review* 49, No. 1 (2008): 125-215.
- Stewart, Mark G. and John Mueller. "Terrorism Risks for Bridges in a Multi-Hazard Environment." *International Journal of Protective Structures* 5, No. 3 (September 2014): 275-289.
- Stewart, Scott. "Detection Points in the Terrorist Attack Cycle." Stratfor, March 1, 2012.
- Stewart, Scott. "The Terrorist Attack Cycle Remains Unbroken," Stratfor, July 27, 2017.
- Stratfor. "Defining the Terrorist Attack Cycle." Stratfor (February 23, 2012), archived at <https://web.archive.org/web/20120227220652/http://www.stratfor.com/image/defining-terrorist-attack-cycle>.
- Suddath, Claire. "Bryant Neal Vinas: An American in Al Qaeda." *Time*, July 24, 2009.
- Sutor, Dave. "Death nears for couple's killer." *The Tribune-Democrat* (Johnstown, PA), November 18, 2013.
- The Hard Reset: A Terrorgram Production. 2022.
- The Plots: A Timeline of Terror. Montgomery, AL: Southern Poverty Law Center, 2015.
- Transportation Security Administration. 2018 Biennial Strategy for National Transportation Security. 2018.
- Transportation Security Administration. 2020 Biennial Strategy for National Transportation Security. 2020.
- Trickey, Erick. "A Bridge Too Far." *Cleveland Magazine*, September 15, 2012.
- U. S. Congress, Senate, Select Committee on Intelligence. Committee Study of the Central Intelligence Agency's Detention and Interrogation Program. 113th Cong., 2d sess., 2014. S. Rep. 113–288.
- United States v. Adam Fox, et al. Case No. 1:20-CR-183-RJJ. Western District of Michigan.
- United States v. Douglas Wright, et al. 747 F.3d 399. 2014 U.S. App. LEXIS 5736.
- United States v. Douglas Wright, et al. Case No. 1:12-cr-00238-PAG. Northern District of Ohio.
- United States v. Fareed Mumuni. Case No.1:15-CR-393-MKB. Eastern District of New York.
- United States v. Faris. 388 F.3d 452, 107 Fed. Appx. 308. 2004 U.S. App. LEXIS 16637.
- United States v. Lyman Faris. Case No. 3-189-A. Eastern District of Virginia, Alexandria Division.
- United States v. John Doe [Bryant Neal Viñas]. Case No. 1:08-cr-00823-NGG. Eastern District of New York.
- United States v. John Huggins. Case No. 1:14-CR-00035 DN. District of Utah.
- United States v. Omar Ahmad Ali Abdel Rahman, et al. 189 F.3d 88, 1999 U.S. App. LEXIS 18926.
- United States v. Omar Ahmad Ali Abdel Rahman, et al. S5 93 Cr. 181 (MBM). Southern District of New York.
- United States v. Osmakac. 868 F.3d 937. 2017 U.S. App. LEXIS 15663.
- United States v. Sami Osmakac. Case No. 8:12-MJ (Middle District of Florida, Tampa Division).
- United States v. Sayfullo Habibullavic Saipov. Case No. 1:17-CR-722-VSB. Southern District of New York.
- United States v. Siraj. 468 F. Supp. 2d 408. 2007 U.S. Dist. LEXIS 306.

- US Attorney's Office, District of Utah. "Huggins Sentenced To 27 Months In Federal Prison For Possession Of An Unregistered Destructive Device." Department of Justice (June 11, 2015), <https://www.justice.gov/usao-ut/pr/huggins-sentenced-27-months-federal-prison-possession-unregistered-destructive-device>.
- US Attorney's Office, Eastern District of New York. "Shahawar Matin Siraj Convicted of Conspiring to Place Explosives at the 34th Street Subway Station." Department of Justice (May 24, 2006), <https://www.justice.gov/archive/usao/nye/pr/2006/2006may24.html>.
- USA PATRIOT Act. Public Law 107-56. U.S. Statutes at Large 115 (2001).
- van der Pligt, Joop. "Risk perception and self-protective behaviour." *European Psychologist* 1 (1996): 34-43.
- Viñas, Bryant Neal and Mitchell D. Silber. "Al-Qa`ida's First American Foreign Fighter after 9/11." *CTC Sentinel* 11, No. 8 (September 2018): 1-8.
- Warrick, Joby. "Al-Qaeda data yields details of planned plots." *Washington Post*, May 5, 2011.
- Weiser, Benjamin and Al Baker. "A Bridge Under Scrutiny, by Plotters and Police." *New York Times*, April 26, 2011.
- Williams, Corey. "Judge: No FBI entrapment for 3 in Gov. Whitmer kidnap plot." *Associated Press*, March 1, 2022.

## Appendices

### Appendix 1: Bridge and Tunnel Attacks, 1975–2020 (GTD)

Year	Australasia & Oceania	Central America & Caribbean	Central Asia	East Asia	Eastern Europe	Middle East & North Africa	North America	South America	South Asia	Southeast Asia	Sub-Saharan Africa	Western Europe	Total
1975	0	0	0	0	0	0	0	0	0	0	0	3	3
1976	0	0	0	0	0	0	0	0	0	0	0	1	1
1977	0	0	0	0	0	0	0	0	0	0	0	2	2
1978	0	0	0	0	0	1	0	0	0	0	0	0	1
1979	0	0	0	1	0	2	0	0	0	1	2	2	8
1980	0	2	0	0	0	2	0	2	0	1	0	1	8
1981	0	24	0	0	0	2	0	1	2	3	0	1	33
1982	0	25	0	0	0	1	0	3	0	0	0	1	30
1983	0	22	0	0	0	0	0	16	0	0	1	0	39
1984	0	6	0	0	0	0	0	32	1	1	0	0	40
1985	0	5	0	0	0	0	0	11	3	0	0	0	19
1986	0	1	0	0	0	1	0	10	2	0	2	0	16
1987	0	9	0	0	0	1	0	9	2	6	1	0	28
1988	0	2	0	0	0	1	0	8	3	1	0	2	17
1989	1	3	0	0	0	1	0	4	1	2	1	3	16
1990	1	1	0	0	2	3	0	3	3	0	2	0	15
1991	0	3	0	0	1	0	0	10	2	4	3	1	24
1992	0	1	6	0	5	0	0	12	2	3	1	1	31
1994	0	4	0	0	0	0	0	2	0	0	1	0	7
1995	0	0	0	0	0	2	0	0	3	12	0	0	17
1996	1	0	0	0	0	2	0	3	2	0	0	1	9
1997	0	1	0	0	3	1	0	1	1	3	0	0	10
1998	0	0	1	0	0	0	0	1	2	1	0	1	6
1999	0	1	0	0	2	0	0	1	3	0	1	0	8
2000	0	0	0	0	1	2	0	2	0	2	0	2	9
2001	0	0	0	0	2	0	0	3	1	0	2	1	9
2002	0	0	0	0	1	0	0	5	2	1	3	0	12
2003	0	0	0	0	1	0	0	0	3	2	0	0	6
2004	0	0	0	0	0	1	0	0	2	0	0	0	3
2005	0	0	0	0	1	1	0	1	3	0	0	0	6
2006	0	0	0	0	0	3	0	1	3	2	0	0	9
2007	0	0	0	0	0	16	0	0	1	1	0	0	18
2008	0	0	1	0	1	3	0	1	22	2	2	1	33

<b>2009</b>	0	0	0	1	0	12	0	0	18	9	1	0	<b>41</b>
<b>2010</b>	0	0	0	0	1	5	0	4	30	1	0	2	<b>43</b>
<b>2011</b>	0	0	0	0	0	4	1	2	37	2	1	0	<b>47</b>
<b>2012</b>	0	0	0	0	0	2	0	3	15	2	4	0	<b>26</b>
<b>2013</b>	0	0	0	0	0	6	0	0	18	6	3	0	<b>33</b>
<b>2014</b>	0	0	0	0	18	32	0	3	15	2	10	0	<b>80</b>
<b>2015</b>	0	0	0	0	9	16	0	1	24	10	2	0	<b>62</b>
<b>2016</b>	0	0	0	0	1	1	0	0	24	4	0	0	<b>30</b>
<b>2017</b>	0	0	0	0	0	6	0	0	12	3	3	0	<b>24</b>
<b>2018</b>	0	0	0	0	0	7	0	7	11	3	5	0	<b>33</b>
<b>2019</b>	0	1	0	0	2	5	0	3	8	2	6	0	<b>27</b>
<b>2020</b>	0	0	0	0	0	3	0	1	12	0	3	0	<b>19</b>
<b>Total</b>	<b>3</b>	<b>111</b>	<b>8</b>	<b>2</b>	<b>51</b>	<b>145</b>	<b>1</b>	<b>166</b>	<b>293</b>	<b>92</b>	<b>60</b>	<b>26</b>	<b>958</b>

## Appendix 2: Bridge and Tunnel Attacks, 1970–2022 (MTI)

Year	Australasia & Oceania	Central America & Caribbean	Central Asia	East Asia	Eastern Europe	Middle East & North Africa	North America	South America	South Asia	Southeast Asia	Sub-Saharan Africa	Western Europe	Total
1970	0	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	1	1
1981	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	1	0	0	0	0	0	0	1
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	1	1
1985	0	0	0	0	0	0	0	3	0	0	0	0	3
1986	0	0	0	0	0	0	0	0	2	0	0	0	2
1987	0	1	0	0	0	0	0	0	0	1	0	0	2
1988	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	1	0	0	0	0	0	0	0	1
1991	0	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	1	2	0	0	3
1993	0	1	0	0	0	0	0	1	1	1	0	0	4
1994	0	0	0	0	0	0	0	0	0	1	0	0	1
1995	0	0	0	0	1	0	0	0	0	0	0	0	1
1996	1	0	0	0	2	0	0	0	2	0	1	1	7
1997	0	0	0	0	0	0	0	0	0	1	0	0	1
1998	0	0	1	1	0	0	0	1	1	0	0	1	5
1999	0	1	0	1	1	0	0	0	2	0	0	0	5
2000	0	0	0	0	0	0	0	1	0	1	0	1	3
2001	0	0	0	0	0	0	0	3	0	1	0	2	6
2002	0	0	0	0	0	0	2	21	5	0	1	1	30
2003	0	0	0	0	0	0	1	1	1	2	0	0	5
2004	0	0	0	0	2	0	1	0	5	3	0	0	11



<b>2005</b>	0	0	0	0	2	0	2	2	5	3	0	0	<b>14</b>
<b>2006</b>	0	0	0	0	1	0	0	5	9	1	0	0	<b>16</b>
<b>2007</b>	0	0	0	0	0	0	0	0	5	2	1	0	<b>8</b>
<b>2008</b>	0	0	0	0	0	0	2	3	25	1	1	1	<b>33</b>
<b>2009</b>	0	0	0	0	0	0	0	1	20	3	0	0	<b>24</b>
<b>2010</b>	0	0	0	0	0	0	0	3	6	0	0	0	<b>9</b>
<b>2011</b>	0	0	0	0	0	0	0	2	21	5	1	0	<b>29</b>
<b>2012</b>	0	0	0	0	0	1	0	2	4	1	1	0	<b>9</b>
<b>2013</b>	0	0	0	0	7	0	0	0	11	2	2	0	<b>22</b>
<b>2014</b>	0	0	0	0	21	0	1	6	2	0	4	0	<b>34</b>
<b>2015</b>	0	0	0	0	10	0	1	0	2	1	1	0	<b>15</b>
<b>2016</b>	0	0	0	0	0	0	0	0	0	2	0	0	<b>2</b>
<b>2017</b>	0	0	0	0	4	0	0	0	6	1	1	0	<b>12</b>
<b>2018</b>	0	0	0	0	2	0	0	1	2	0	2	0	<b>7</b>
<b>2019</b>	0	1	0	0	2	0	0	2	4	2	4	0	<b>15</b>
<b>2020</b>	0	0	0	0	2	0	0	0	0	0	0	1	<b>3</b>
<b>2021</b>	0	0	0	0	0	1	0	0	0	3	1	0	<b>5</b>
<b>2022</b>	0	1	0	0	0	0	0	1	2	0	0	0	<b>4</b>
<b>Total</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>58</b>	<b>3</b>	<b>10</b>	<b>59</b>	<b>144</b>	<b>40</b>	<b>21</b>	<b>10</b>	<b>354</b>

## About the Author

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Benjamin V. Allison is a Ph.D. student in history at the University of Texas at Austin and a graduate fellow at the Clements Center for National Security. He specializes in the history of US foreign and national security policy since 1945, especially toward the Middle East and Russia. His dissertation project draws on Russian and Arabic sources to explore relations between the United States, Soviet Union, and Arab rejectionists in the late 1970s and early 1980s. Ben also dabbles in political science methods, studying terrorism, insurgency, and proxy war. His first scholarly article, “The Devil’s in the Details—or Is He?” was published in the April 2021 issue of *Perspectives on Terrorism*. He has authored multiple encyclopedia entries and scholarly book reviews.

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