



# **The Global Impact of Improvised Explosive Devices on Civilians**

Major Qualifying Project

Authors: Olivia Furner

Worcester Polytechnic Institute  
International and Global Studies

May 6th, 2021

This report represents the work of one or more WPI undergraduate students submitted to the faculty as evidence of completion of a degree requirement. WPI routinely publishes these reports on the web without editorial or peer review.

**TABLE OF CONTENTS**

**TABLE OF CONTENTS**.....1  
**ABSTRACT**.....2  
**LIST OF ABBREVIATIONS** .....3  
**INTRODUCTION**.....4  
**DEFINING IEDS** .....4  
**LIMITATIONS IN RESEARCH** .....5  
**HISTORY OF IEDS**.....6  
**IMPACT OF IEDS**.....6  
**REASONS FOR IED USE**.....10  
**COUNTERING THE IED THREAT**.....11  
**RECOMMENDATIONS**.....12  
**CONCLUSION** .....14  
**REFERENCES** .....15

## **ABSTRACT**

This paper is done in completion of a double major in international and global studies alongside chemical engineering. The global impact of improvised explosive devices (IEDs) is quantitatively examined, and recommendations on how to reduce civilian casualties are explored. IEDs have been increasingly used during the past decade as a method of asymmetric warfare by terrorist groups and insurgencies and disproportionately impact civilians throughout the world. This paper additionally explores the reasons behind this rise in IED use.

**LIST OF ABBREVIATIONS**

AOAV	Action on Armed Violence
AtN	Attack the Network
C-IED	Counter-Improvised Explosive Device
DoD	Department of Defense (United States)
DtD	Defeat the Device
ERW	Explosive Remnants of War
JIEDDO	Joint Improvised Explosive Device Defeat Organization
JIDO	Joint Improvised-Threat Defeat Organization
IED(s)	Improvised Explosive Device(s)
LOO	Lines of Operation
TtF	Train the Force
UN	United Nations

## Introduction

Over the past decade, the use of improvised explosive devices (IEDs) in and outside conflict zones has created security concerns for both armed personnel and civilians. Due to IEDs attacks often occurring in populated areas, civilians are disproportionately affected by these violent weapons.<sup>1</sup> IEDs have left families and communities with physical and mental injuries, killing and maiming people's friends and families and shifting the stability of different areas. IEDs are the most widespread and harmful explosive device, and often are used by terrorist groups in order to wage war against larger countries and their militaries.<sup>2</sup>

This paper looks at why IEDs have increased in use, how prevalent they are globally, and what should be done in the future to decrease the current levels of harm, especially against civilians. The overarching goal is a reduction in the harm experienced by civilians, which can only be done if the full extent of the issues and trends of IEDs is understood.

## Defining IEDs

The United Nations' (UN) definition of an IED is as follows:

“a device placed fabricated in an improvised manner incorporating explosive material, destructive, lethal, noxious, incendiary, pyrotechnic materials or chemicals designed to destroy, disfigure, distract or harass” which “may incorporate military stores, but are normally devised from non-military components.”<sup>3</sup>

It is important to define what is considered an IED for data collection purposes, but also because the form of an IED is continuously evolving as IED creators look to thwart counter-IED actions.

The UN also defines an IED as generally consisting of “a switch, power source, initiator, container, and explosive.”<sup>4</sup>

---

<sup>1</sup> Jane Hunter, “Tracking IED Harm,” Action on Armed Violence, 2014.

<sup>2</sup> Ibid.

<sup>3</sup> “Impact of IEDs,” Office for Disarmament Affairs, 2021.

<sup>4</sup> “Production and Delivery,” Office for Disarmament Affairs, United Nations, 2016.

In accordance with the UN definition of an IED, IEDs are assembled by non-state individuals or groups outside commercial or military production channels.<sup>5</sup> However, IEDs may contain materials that are sourced from military or commercially produced explosives, such as their main charges.<sup>6</sup> There is not any one typical casing or covering for an IED.

IEDs are delivered through a variety of methods. These include vehicles, rocket launchers, aircraft, mail, booby traps, drones, human delivery, and animal delivery.<sup>7</sup> IEDs can also be hidden underground and within buildings. The delivery methods of IEDs evolve with new technology developments. IED placement adapts quickly to counter-IED (C-IED) methods, as the adversary learns to further their IED campaigns through different delivery methods.<sup>8</sup> Armed non-state actors mainly carried out these campaigns, including IS, the Taliban, Al Shabab, CPI Naxal, the Pakistani Taliban, PKK, and Boko Haram.<sup>9</sup>

### Limitations in Research

Fully examining the global impact of IED usage has numerous limitations with data collection and analysis. Some limitations involving the data collection include the terminology used when defining what an IED is and whether an IED attack must have to be concerned directly with terrorism.<sup>10</sup> The terminology also impacts whether domestic attacks are recorded, or only attacks concerning an international view when people from two or more countries are impacted. Another limitation in data collection is language, as many of the reports are in English and some may be lost in translation or the collection process.<sup>11</sup> Another limitation is the

---

<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>8</sup> National Research Council et al, *Countering the Threat of Improvised Explosive Devices: Basic Research Opportunities*, 2007.

<sup>9</sup> Roger Davies et al, *IEDs: Past, Present, and Future*. Action on Armed Violence, 2020.

<sup>10</sup> Jane Hunter, "Tracking IED Harm," Action on Armed Violence, 2014.

<sup>11</sup> Jane Hunter, "Tracking IED Harm," Action on Armed Violence, 2014.

geographical scope of an attack tracking database, as it may only be concerned with a specific region of the globe and some impacted countries may not be recorded in a regional database.<sup>12</sup>

### History of IEDs

It is additionally important to make the distinction between an IED and other munitions because their separation is a modern-day necessity as explosive devices began to be manufactured on a larger scale for military and civilian use.<sup>13</sup> The concept of utilizing improvised explosives, creatively and intentionally, to thwart an enemy is not new or concentrated to one part of the world. However, IEDs have gone from being used as a state weapon to one that is now mainly used by non-state actors. IEDs have been increasingly used in combat throughout the 20th century, gaining traction as more technological innovations fall into the hands of non-state actors. IEDs allow these non-state groups, generally terrorist groups, to be able to compete with much more powerful militaries.<sup>14</sup> The options of roadside bombs and larger vehicle bombs can damage expensive foreign equipment for a small cost, making IEDs useful and overwhelmingly relied on for terrorist groups in combat. Other types of IEDs are classified as non-specific or those involved in suicide attacks, where bombs are generally strapped to an individual.<sup>15</sup>

### Impact of IEDs

Analysis of IED attacks from October 2010 to September 2020 by UK Charity Organization, Action on Armed Violence (AOAV), has found that IED use worldwide has “grown at an alarming rate.”<sup>16</sup> Between 2011 and 2013, civilians killed or injured by IEDs

---

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> Roger Davies et al, IEDs: Past, Present, and Future. Action on Armed Violence, 2020.

<sup>15</sup> Ibid.

<sup>16</sup> Jane Hunter, “Tracking IED Harm,” Action on Armed Violence, 2014.

through suicide attacks and roadside bombs increased by 70%.<sup>17</sup> 48% of people killed or injured by explosive devices globally were impacted by IEDs.<sup>18</sup> While IED use is not a new phenomenon, the increased rate of IED attacks in the 21st century points to the shifting means of warfare as terrorist groups and insurgencies look to counter the impact of traditional fighting forces.<sup>19</sup> The traditional laws of armed conflict have fallen away when the main adversaries are terrorists and other armed, non-state groups that must rely on asymmetric warfare tactics such as IEDs to pursue their causes.<sup>20</sup>

IEDs pose one of the largest direct threats to life in conflict areas to both armed personnel and civilians. Non-civilians injured by IEDs include police members, military personnel, and UN peacekeepers.<sup>21</sup> Between September 2011 and October 2020, 48.7% of US and UK military deaths were caused by IEDs.<sup>22</sup> Of those deaths, 73% were due to roadside bombs, 16% to suicide bombs, and 11% to car bombs.<sup>23</sup> However, IEDs, especially when used in populated areas, impact civilians at a far higher rate than government, military, or peacekeeper personnel.

From October 2010 to September 2020, 171,732 people were in recorded IED attacks.<sup>24</sup> 91% of casualties in populated areas impacted by IED attacks were civilians.<sup>25</sup> In total, 80% of casualties from IED attacks in populated and unpopulated areas were civilians, adding up to 136,669 people worldwide.<sup>26</sup> This is compared to the 35,063 non-civilians killed or injured by

---

<sup>17</sup> Ibid.

<sup>18</sup> Roger Davies et al, IEDs: Past, Present, and Future. Action on Armed Violence, 2020.

<sup>19</sup> Jane Hunter, "Tracking IED Harm," Action on Armed Violence, 2014.

<sup>20</sup> Ibid.

<sup>21</sup> António Guterres, "Use of Improvised Explosive Devices Increasing as Conflict Becomes More Urbanized, Secretary-General Tells Security Council's Open Debate on Mine Action," United Nations, 2021.

<sup>22</sup> Roger Davies et al, IEDs: Past, Present, and Future. Action on Armed Violence, 2020.

<sup>23</sup> Ibid.

<sup>24</sup> Roger Davies et al, IEDs: Past, Present, and Future. Action on Armed Violence, 2020.

<sup>25</sup> Ibid.

<sup>26</sup> Roger Davies et al, IEDs: Past, Present, and Future. Action on Armed Violence, 2020.



IEDs worldwide.<sup>27</sup> Terrorist groups use specific tactics to cause further harm to civilians, such as finding soft targets like worship places, markets, and schools, as well as detonating multiple IEDs in succession to harm helpers responding to the first attack.<sup>28</sup> The specific countries of Iraq, Pakistan, and Afghanistan are especially harmed by the daily use of IEDs impacting civilians.<sup>29</sup> Between 2011 and 2016, IEDs caused more harm to civilians than every other weapon type combined.<sup>30</sup>

Afghanistan serves as an example of a country whose civilians are impacted by the prevalence of IEDs. The presence of the Taliban, an insurgency that relies on IED use, long periods of instability, and a history of war and conflict has left IEDs and other ERW that threaten civilians.<sup>31</sup> IEDs are the primary cause of civilian deaths and injuries due to conflict.<sup>32</sup> There were 21,637 civilian casualties from IEDs between October 2010 and September 2020 caused by an estimated 2,288 IED attacks.<sup>33</sup> Methods for countering the IED attacks include social media, radio, and combating propaganda. Social media, with the rise of phone ownership in the country, is used to highlight the dangers posed by IEDs and warn others. Radio is used to inform those in rural areas, as access to radio is increasingly common while social media access is not.<sup>34</sup> These methods are used when contradicting propaganda from the Taliban.

Children are impacted by the use of IEDs and are sometimes intentionally targeted. Since October 2010, at least 3,540 children have been killed or injured by IEDs.<sup>35</sup> In attacks with

---

<sup>27</sup> Ibid.

<sup>28</sup> Jane Hunter, "Tracking IED Harm," Action on Armed Violence, 2014.

<sup>29</sup> Ibid.

<sup>30</sup> Roger Davies et al, IEDs: Past, Present, and Future. Action on Armed Violence, 2020.

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

<sup>33</sup> Ibid.

<sup>34</sup> Ibid.

<sup>35</sup> Roger Davies et al, IEDs: Past, Present, and Future. Action on Armed Violence, 2020.

reported ages from 2014, over 60% of casualties are those under 18 years old.<sup>36</sup> Children can also be used in supporting roles to facilitate attacks. IEDs caused casualties to nearly 1000 children in Iraq and Afghanistan in 2014.<sup>37</sup> These attacks were mainly perpetrated by the Taliban, ISIS, and IS in Afghanistan.<sup>38</sup>

In many cases, targets are intentionally decided to cause high numbers of civilian casualties. Beyond the casualties, the presence and frequent use of IEDs disrupts business, exacerbates internal displacement and movement within and outside impacted countries, interferes with governmental processes, delays healthcare and education plans, and impedes humanitarian responses like UN peacekeepers.<sup>39</sup>

The UN Security Council opened debate on mine action, specifically concerning explosive remnants of war (ERW) including IEDs. ERW burdens countries attempting to reconstruct after war.<sup>40</sup> In places of conflict, like Afghanistan, Iraq, Cambodia, and Colombia, these IEDs “maim and kill indiscriminately.”<sup>41</sup> IEDs are left behind or purposely placed in roads and fields, and their “presence can stall development and shatter stability.”<sup>42</sup> These IEDs are generally victim-activated, meaning the placer can completely abandon them until a victim sets off the explosive unintentionally. Their existence is disruptive in nature and poses a constant threat to communities.<sup>43</sup> IEDs can withhold the accessibility of infrastructure and living areas to

---

<sup>36</sup> Ibid.

<sup>37</sup> Jane Hunter, “Tracking IED Harm,” Action on Armed Violence, 2014.

<sup>38</sup> Ibid.

<sup>39</sup> “Impact of IEDs.” Office for Disarmament Affairs, United Nations, 2021.

<sup>40</sup> Ibid.

<sup>41</sup> António Guterres, “Use of Improvised Explosive Devices,” 2021.

<sup>42</sup> Ibid.

<sup>43</sup> “Impact of IEDs.” Office for Disarmament Affairs, United Nations, 2021.

civilians with the threat of bodily injury or death.<sup>44</sup> Vulnerable populations in these areas may be blocked from humanitarian aid that is desperately needed.<sup>45</sup>

When the purpose of IED attacks are to impede government processes, they can be used by non-state actors for power, territorial control, election control, and the specific targeting of government officials or institutions.<sup>46</sup>

The presence of IEDs has a socioeconomic impact on towns and countries as a whole. Explosions cause infrastructure to be ruined, imposing a high cost for rebuilding and recovering, as well as impacting the political stability of an area as IEDs are generally placed by non-state actors.<sup>47</sup> These factors may contribute to enduring poverty in the area.<sup>48</sup>

### Reasons for IED Use

IEDs are generally used by non-state groups to fight against their adversaries and progress their cause.<sup>49</sup> IEDs are attractive to these groups, including terrorist groups, because of their low cost, simple construction, and attainable delivery methods.<sup>50</sup> IEDs are easier to conceal than other weapons while still providing a deadly impact.<sup>51</sup> Terrorist groups in particular look to attack soft targets and inflict civilian casualties through IEDs in addition to their use against military personnel.<sup>52</sup> Terrorist groups carry out IED campaigns, meaning the coordinated and continuous use of IEDs in order to attain intended “strategic and tactical results.”<sup>53</sup> These

---

<sup>44</sup> António Guterres, “Use of Improvised Explosive Devices,” 2021.

<sup>45</sup> “Impact of IEDs.” Office for Disarmament Affairs, United Nations, 2021.

<sup>46</sup> António Guterres, “Use of Improvised Explosive Devices,” 2021.

<sup>47</sup> António Guterres, “Use of Improvised Explosive Devices,” 2021.

<sup>48</sup> Ibid.

<sup>49</sup> National Research Council et al, Countering the Threat of Improvised Explosive Devices: Basic Research Opportunities, 2007.

<sup>50</sup> Ibid.

<sup>51</sup> Roger Davies et al, IEDs: Past, Present, and Future. Action on Armed Violence, 2020.

<sup>52</sup> National Research Council et al, Countering the Threat of Improvised Explosive Devices: Basic Research Opportunities, 2007.

<sup>53</sup> Ibid.

terrorist groups include ISIS, IS, the Taliban, Boko Haram, and Al Shabab.<sup>54</sup> While IED attacks themselves cause harm, their use also generates fear and causes insecurity in already unstable regions.<sup>55</sup>

### Countering the IED Threat

Previous efforts include those made by an organization in the Pentagon, previously called the Joint Improvised Explosive Device Defeat Organization (JIEDDO) and now called the Joint Improvised-Threat Defeat Organization (JIDO), split its Lines of Operation (LOO) into three main operations. First is Attack the Network (AtN), then Defeat the Device (DtD), and finally Train the Force (TtF).<sup>56</sup> JIEDDO laid out a methodology behind an encompassing strategy to mitigate further deaths from IEDs.

AtN refers to interfering in the supporting network of people and organizations that allow for IEDs to be built, placed, and detonated. This includes trainers, financiers, and the infrastructure that supports them as well.<sup>57</sup> Without these resources to support the laying of IEDs, less and less will be able to reach conflict areas.

DtD refers to the detection, classification, neutralization, and mitigation of an IED threat.<sup>58</sup> These methods directly counter IEDs that have already been placed through technology, which the JIEDDO was responsible for providing.

TtF is set in place in order to adequately provide training for deploying forces that will likely encounter IEDs during their deployment. The missions of AtN and DtD rely on forces that

---

<sup>54</sup> Roger Davies et al, IEDs: Past, Present, and Future. Action on Armed Violence, 2020.

<sup>55</sup> Jane Hunter, "Tracking IED Harm," Action on Armed Violence, 2014.

<sup>56</sup>Brad Martin, Assessment of Joint Improvised Explosive Device Defeat Organization (JIEDDO) Training Activity, 2013.

<sup>57</sup> Brad Martin, Assessment of Joint Improvised Explosive Device Defeat Organization (JIEDDO) Training Activity, 2013.

<sup>58</sup> Ibid.

are well trained and can carry out specific tasks to achieve those goals. With a robust training program, combatants can enter their deployment with accurate IED information, making their actions safer for themselves and others.<sup>59</sup>

In order to counter the IED threat, the methods behind carrying out an IED attack must be understood. The steps of carrying out an attack are referred to as the IED threat chain by the US Department of Defense (DoD). These steps include: securing funding and bomb materials, recruiting people, constructing the IED, target selection, device delivery, the attack itself, and finally pushing out propaganda about the attack to fully impact the surrounding community.<sup>60</sup>

The DoD's counter-IED (C-IED) methods mainly concern operations other than the organizations or resources themselves. These operations include the manufacture of IEDs as well as their storage, preparation, and associated items.<sup>61</sup>

### Recommendations

IEDs pose an intense physical and psychological threat to people globally, but especially in past and present areas of conflict and areas with higher insurgency groups and non-state armed actors. The factors contributing to the increased rates of IED attacks over the last decade are related to their low cost, adaptability, ease of use, ability to conceal, and to deliver to exact violence on civilians and armed personnel alike. These factors also make countering the IED threat intensely difficult. Recommendations for addressing the threat of IEDs can be split up into different groups as research, education, and organizational movements or campaigns.

Recommendations in research and education concern the general public as well as state organizations. To counter the IED threat and ensure progress is being made, quantitative data must be made available between organizations concerning the global impact of IEDs. The

---

<sup>59</sup> Ibid.

<sup>60</sup> Ibid.

<sup>61</sup> Ibid.

previously discussed limitations with data collection can be countered through these recommendations. Information sharing poses a challenge to otherwise private and secure national intelligence agencies.<sup>62</sup> However, combining intelligence on IEDs will serve to make data accessible to civilians and the impact of these devices will be further understood.<sup>63</sup> Research into IED types, materials, placement methods, and detection should continue through state-sponsored work and through organizations like the UN. Further research into the impact of IEDs on civilians beyond the bodily harm they do will make the “reverberating effects of IEDs” understood and allow nations to address continuing problems to populations after IED campaigns are waged.<sup>64</sup> This further research and education also relates to the monitoring of IED use and recording of incidents. Data should concern, if possible, the location, perpetrators, number of victims, age of victims, gender of victims, victim nationality, motives, types of IED used, and method of placement. The threat of IEDs should be monitored, especially in populated areas, through organizations like the UN and the AOAV with funding from supporting countries.<sup>65</sup>

Along with monitoring the data behind IED attacks, organizations and governments can support the effort to limit the impact of IEDs on civilians by first outwardly distinguishing the disproportionate impact of IEDs on civilians, and understanding it is a persistent problem that has increased over the last decade. These governments should advocate for the public denunciation of IEDs in populated areas, where they cause the most civilian harm.<sup>66</sup> This should be done especially in areas where the public is afraid or unable to counter non-state groups because of the imminent threat of retaliation on individuals.

---

<sup>62</sup> Jane Hunter, “Tracking IED Harm,” Action on Armed Violence, 2014.

<sup>63</sup> Ibid.

<sup>64</sup> Iain Overton et. al. Improvised Explosive Device (IED) Monitor. Action on Armed Violence, 2017.

<sup>65</sup> Iain Overton et. al. Improvised Explosive Device (IED) Monitor. Action on Armed Violence, 2017.

<sup>66</sup> Ibid.

## Conclusion

IED use has increased over the past decade and disproportionately inflicts physical and psychological harm on civilian populations over armed personnel. Their use by terrorist groups and insurgencies as part of asymmetric warfare is violent, deadly, and regionally destabilizing. The threat of IEDs can be countered through dedicated IED research, education programs, and government and organizational campaigns. Continuing to monitor the impact of IEDs on civilians can assist in evaluating methods of countering IEDs. IEDs indiscriminately impact individuals and their families, neighborhoods, countries, and humanitarian efforts, but a future with less civilian deaths due to IEDs is possible.

## REFERENCES

- “Arria-formula Meeting on the Threat of Improvised Explosive Devices against Peace Operations.” Security Council Report, 2021. Web.  
<https://www.securitycouncilreport.org/whatsinblue/2021/03/arria-formula-meeting-on-the-threat-of-improvised-explosive-devices-against-peace-operations.php>
- Chantasen, Nattawat et al. “Automatic Detection and Classification of Buried Objects Using Ground-Penetrating Radar for Counter-Improvised Explosive Devices.” *Radio science* 53.2 (2018): 210–227. Web.
- Chiquito, Maria et al. “Blast Wave Characteristics and TNT Equivalent of Improvised Explosive Device at Small Scaled Distances.” *Defense science journal* 69.4 (2019): 328–335. Web.
- Davies, Roger et. al. IEDs: Past, Present, and Future. Action on Armed Violence, 2020. Web.  
<https://aoav.org.uk/wp-content/uploads/2020/10/IEDs-past-present-and-future.pdf>
- Guterres, António. “Use of Improvised Explosive Devices Increasing as Conflict Becomes More Urbanized, Secretary-General Tells Security Council’s Open Debate on Mine Action.” Meeting Coverage and Press Releases, United Nations, 2021.  
<https://www.un.org/press/en/2021/sgsm20676.doc.htm>
- Hunter, Jane. “Tracking IED Harm.” Action on Armed Violence, 2014. Web.  
[https://aoav.org.uk/wp-content/uploads/2015/03/ied\\_data.pdf](https://aoav.org.uk/wp-content/uploads/2015/03/ied_data.pdf)
- Hyde-Bales, Rob. “Counter-IED Report Winter 2020/21 Forward,” Counter-IED Report, 2020. Web.  
[https://issuu.com/deltabusinessmedialimited/docs/counter-ied\\_report\\_winter\\_2020-21\\_-\\_preview\\_editio?fr=sNzQzZTQ1MDA3NQ](https://issuu.com/deltabusinessmedialimited/docs/counter-ied_report_winter_2020-21_-_preview_editio?fr=sNzQzZTQ1MDA3NQ).
- “Impact of IEDs.” Office for Disarmament Affairs, United Nations, 2021. Web.  
<https://www.un.org/disarmament/convarms/impact-of-ieds/>
- Kuznetsov, Andrey and Hiltmar Schubert. *Detection and Disposal of Improvised Explosives*. Springer Science & Business Media, 2006.
- Lamothe, Dan. “The legacy of JIEDDO, the disappearing Pentagon organization that fought roadside bombs.” Washington, D.C: The Washington Post, 2015. Web.  
<https://www.washingtonpost.com/news/checkpoint/wp/2015/03/17/the-legacy-of-jieddo-t-he-disappearing-pentagon-organization-that-fought-roadside-bombs/>



Martin, Brad. Assessment of Joint Improvised Explosive Device Defeat Organization (JIEDDO) Training Activity. Santa Monica, California: RAND Corporation, 2013. Print.

National Research Council, et al. Countering the Threat of Improvised Explosive Devices: Basic Research Opportunities: Abbreviated Version. Washington, D.C: National Academies Press, 2007. Web.

Overton, Iain et. al. Improvised Explosive Device (IED) Monitor. Action on Armed Violence, 2017. Web.  
<https://aoav.org.uk/wp-content/uploads/2017/10/IED-Monitor-Report-for-web-final.pdf>

“Production and Delivery.” Office for Disarmament Affairs, United Nations, 2016. Web.  
<https://www.un.org/disarmament/convarms/production/#:~:text=The%20United%20Nations%20defines%20an,stores%2C%20but%20are%20normally%20devised> Production and delivery

Sisk, Richard. “Pentagon’s New Role for JIEDDO Counter-IED Agency.” Military.com, 2015. Web.  
<https://www.military.com/daily-news/2015/03/14/pentagon-dismantles-jieddo-counter-ied-agency.html>

Ufret, Sam. “Revamped agency, JIDA works to take down new improvised threats.” Federal News Network, 2015. Web.  
<https://federalnewsnetwork.com/defense-news/2015/08/revamped-agency-jida-works-take-new-e-d-threats/>