



JOINT INTELLIGENCE BULLETIN



12 April 2016

(U//FOUO) Tactics, Techniques, and Procedures Used in the 22 March 2016 Brussels Attacks**(U) Scope**

(U//FOUO) This *Joint Intelligence Bulletin (JIB)* is intended to provide a review of the tactics, techniques, and procedures demonstrated by the perpetrators of the 22 March 2016 attacks in Brussels, Belgium. The analysis in this *JIB* is based on statements by European government and law enforcement officials cited in media reporting and is subject to change with the release of official details from post-incident investigations. This *JIB* is provided by DHS, FBI, and NCTC to support their respective activities and to assist federal, state, local, tribal, and territorial government counterterrorism and law enforcement officials, first responders and private sector partners in deterring, preventing, preempting, or disrupting terrorist attacks against the United States.

(U//FOUO) Coordinated with NPPD, TSA-Office of Intelligence & Analysis, and Department of State, Bureau of Diplomatic Security, Overseas Security Advisory Council (OSAC).

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(U//FOUO) Attacks in Brussels Reaffirm ISIL's Ability to Conduct Complex Attacks in Europe

(U//FOUO) DHS, FBI, and NCTC assess the 22 March 2016 attacks in Brussels, Belgium targeting Zaventem International Airport and the Brussels Metro system—for which the Islamic State of Iraq and the Levant (ISIL) has claimed responsibility—demonstrate the group's continued ability to conduct complex, coordinated attacks in Western Europe using multiple operatives and relatively simple tactics. We are not aware of any direct links to the Homeland; however, radicalized individuals inspired by ISIL operating alone or in small groups continue to have the ability to conduct relatively unsophisticated attacks with little to no warning in the United States.*

(U//FOUO) We judge the Brussels attackers probably conducted preoperational surveillance, did some level of tactical planning, and had familiarity with the targets prior to the attack, but may have expedited their plans after the arrest—several days prior in Belgium—of the sole surviving attacker involved in the November 2015 Paris attacks. We further assess the large amount of explosives used, willingness to operate despite well-publicized efforts by security officials to locate potential ISIL operatives, and the use of operational security to avoid law enforcement detection during the preoperational phase indicate some level of training. The attackers were part of an extensive support network and infrastructure in Belgium that also conducted the Paris attacks. This same network may have allowed the operatives to acquire materials and false documents, fabricate explosives, and may have facilitated connections with individuals based in Syria.

(U//FOUO) **Attack Overview:** On 22 March 2016, at least four and as many as five operatives divided into two teams that detonated homemade explosive devices estimated to contain between 30 and 60 pounds of triacetone triperoxide (TATP) at Brussels Zaventem International Airport and onboard a train in the Brussels subway, killing at least 32 and injuring over 300. Two operatives at the airport and one individual at the metro conducted suicide operations, which also resulted in over a dozen American casualties, including at least two deaths. Belgian authorities have arrested a man believed to be the third operative seen in CCTV footage at the airport and are investigating the possibility of an accomplice at the metro prior to the explosion.

(U) **Airport Attack:** At approximately 0758 local time, two improvised explosive devices (IEDs) believed to have been concealed in luggage detonated seconds apart in the passenger check-in area for several international airlines, including a US carrier. The attackers did not attempt to enter areas where their bags would be subject to security screening. Authorities later found a third viable device at the airport, which Belgian officials speculate might have been designed to target first responders, according to a statement from the Belgian federal prosecutor to the press. The device was later detonated by explosive ordnance disposal technicians. The third alleged operative at the airport was seen in security footage with the two suicide operatives in the moments prior to the attack, but he fled the scene and was arrested by Belgian authorities on 8 April.

(U) **Subway Attack:** Approximately 80 minutes after the airport explosions, at 0910 local time, an explosion occurred on a train as it departed the Maelbeek metro station, killing 13, according to the Brussels transit operator STIB. At least one operative, possibly aided by a second operative, entered the Maelbeek metro station and boarded the middle car of the three-car train, according to Belgian officials cited in media reporting. The blast occurred during morning rush hour near the European Union buildings, raising the possibility the operatives were targeting European government employees.

* (U//FOUO) DHS and FBI define radicalization as the process through which an individual changes from a non-violent belief system to a belief system that includes the willingness to actively advocate, facilitate, or use unlawful violence as a method to effect societal or political change.

(U//FOUO) Attacks in Brussels Highlight that Transportation Sector Remains an Enduring, Vulnerable Target

(U//FOUO) The Brussels attacks reinforce that the transportation sector continues to be an enduring and vulnerable target for violent extremists associated with a wide range of violent ideologies. Al-Qa'ida and its affiliates have been committed to attacking the transportation sector in the Homeland and we cannot rule out that groups such as ISIL and its adherents, which to date have been mostly focused on targeting commercial and government facilities and personnel in the Homeland, may develop external operations efforts that specifically target the transportation sector in the Homeland, given the group's expanded targeting patterns overseas. Successful overseas terrorist attacks over the last few years—such as the 2012 Lebanese Hizballah bombing of a shuttle bus containing Israeli passengers at the Burgas, Bulgaria, airport; the shooting of several US military members on a shuttle bus outside Frankfurt am Main International Airport in Germany in 2011; and the bombing at the Moscow Domodedovo International Airport baggage terminal in 2011—underscore the vulnerability of locations outside the secure areas of the airport.

(U//FOUO) While we are not aware of any specific threats, we assess the potential tactics that could be used against the transportation sector in the Homeland most likely would involve the use of IEDs or firearms in ground-based attacks targeting passenger areas. Areas outside secure zone at airports, such as check-in terminals, baggage claim areas, shuttle bus and parking areas, and passenger rail systems, are the most likely areas to be considered for attacks due to the relative openness to the public and adversaries' likely perceptions that passenger screening is likely to detect weapons and explosives. As in the Brussels airport attack, individuals using luggage in transportation environments to conceal explosives or firearms may not ordinarily arouse suspicion and can easily blend into the environment.

- » (U) As of 29 March 2016, German authorities were aware of images released on the Internet by ISIL's al-Furat media that threatened the Cologne-Bonn airport and the Office of the German Chancellor, according to representatives of the federal police cited in press reporting. One image featured a terrorist in a military uniform looking at the airport with a caption imploring brothers in Germany to do what the Brussels operatives did. An ISIL video celebrating the attacks also contained a three-second clip of Frankfurt airport.
- » (U//FOUO) In August 2015, ISIL-affiliated operative Ayoub El-Khazzani attempted to kill passengers by conducting a mass shooting and stabbing attack on an Amsterdam-to-Paris Thalys train. The attacker was overpowered by passengers after shooting at least one, according to open source reporting.

(U) Brussels is the Latest Example of TATP Use in Terrorist Attacks in the West

(U//FOUO) ISIL's external operations network in Europe used TATP in the fabrication of the IEDs they employed during the March 2016 attacks in Brussels and the November 2015 attacks in Paris. TATP has been featured in several of the more complex plots against the West over the last 15 years, including the 2009 plot by Umar Farouk Abdulmutallab to blow up a US-bound aircraft; the 2009 plot by Najibullah Zazi^{USPER} to attack the New York subway; the 2005 attack against the London transit system; and the November 2001 plot by Richard Reid^{USPER} to blow up a US-bound aircraft.

(U//FOUO) TATP is made from concentrated hydrogen peroxide, acetone, and other chemicals readily available on the open market through store front and on-line retail companies and supply stores. The production of TATP is extremely dangerous and yields an exceptionally sensitive primary explosive that can detonate without any external stimuli, according to US government reporting. A production site

would likely require fans to disperse fumes and possibly refrigeration to enhance stability. TATP produced in small batches, however, could be achieved with an ice bath for cooling and a small fan for dispersing vapors. Terrorists may be vulnerable to detection during the production of TATP because of acetone's strong odor—of nail polish remover or paint remover—and the reaction of relatively odorless hydrogen peroxide in concentrated doses that causes skin to bleach and hair to turn to blonde or orange. The Brussels operatives exhibited observable indicators in the weeks and moments before the attack that could have provided opportunities for interdiction and disruption if they had been reported.

- » (U//FOUO) The taxi driver who took the alleged bombers to the airport reported to police they did not allow him to place the luggage in the trunk and that he could smell a strong odor emanating from the luggage, according to Belgian officials cited in press reporting. He did not report this activity until after he learned of the attacks.
- » (U//FOUO) The owner of the apartment building where the men were picked up reported smelling a very strong chemical odor from the apartment for weeks and, upon visiting, saw open windows, two large fans on the floor similar to ones found on construction sites, and an exhaust fan on the wall, according to a statement he gave to the press. Police later found 30 pounds of TATP at the apartment, as well as nearly 40 gallons of acetone and eight gallons of hydrogen peroxide, according to open source information.

(U) Importance of Suspicious Activity Reporting

(U//FOUO) We encourage reporting of suspicious activity to appropriate authorities and encourage our homeland security, military, law enforcement, first responders, and private sector partners to remain vigilant. We face an increased challenge in detecting in-progress terrorist plots by individuals or small groups acting quickly and independently or with only tenuous ties to foreign handlers. Pre-operational indicators are likely to be difficult to detect; therefore, state, local, tribal, territorial, and private sector partners play a critical role in identifying and reporting suspicious activities and raising the awareness of federal counterterrorism officials.

(U//FOUO) The acquisition of materials for constructing an explosive device, a necessary stage in the execution of any IED attack, offers an opportunity for detection and disruption of plots. Thus, it is critical that point-of-sale employees understand how their products can be misused and are trained to recognize indicators of suspicious purchases and methods of reporting this information.

- » (U//FOUO) In May 2015, a tip by a vigilant hardware store clerk to local police about a potentially suspicious purchase of an explosive precursor led German authorities to foil a possible attack against a major sporting event in the country after a couple purchased an unusually large amount of hydrogen peroxide. German authorities later discovered the couple presented fraudulent credentials and were associated with the local violent extremist community in Germany.
- » (U//FOUO) The FBI arrested Saudi national Khalid Aldawsari in late February 2011 after he attempted to purchase a highly concentrated phenol solution—a precursor for the explosive tri-nitro-phenol or picric acid—and raised suspicions of a freight company in Texas after the delivery of an unexpected package from a North Carolina chemical company. Aldawsari attempted to bypass the chemical company's restriction on sending shipments to an individual or a residence, but he did not have permission from the freight company to have the package delivered. Aldawsari was sentenced to life in prison in June 2012 for attempted use of a weapon of mass destruction, according to a January 2014 FBI press release from the US Court of Appeals affirming his conviction.

(U) Outlook

(U//FOUO) We assess ISIL plots involving multiple teams of operatives—at least some of whom are dispatched from or received training in Syria or Iraq—are more likely to occur in Europe and other overseas locations than in the United States due to a variety of geographic and societal factors. Europe and the Middle East’s geographic proximity to the conflicts in Syria and Iraq and the number of Western foreign fighters currently theater highlight both the significant challenges for Western law enforcement to detect and investigate multijurisdictional threats and the necessity of interagency information sharing about emerging and ongoing threats. We judge ISIL will continue efforts to direct mass-casualty attacks in Europe such as those seen in Brussels and Paris.

(U//FOUO) We assess homegrown violent extremists (HVEs) either inspired by or in communication with Syria-based external operatives represent the most likely ISIL threat to the Homeland.* We remain concerned HVEs acting alone or in small groups could seek to develop the capability to replicate the effects of the Paris or Brussels attacks using similar weapons against transportation and commercial venues. We remain concerned also about US persons who connect with violent extremist groups overseas—regardless of their original reasons for traveling—because they could gain combat skills, violent extremist connections, and possibly become further radicalized or persuaded to conduct organized or lone offender violent extremist-style attacks, potentially targeting the United States and US interests abroad.†

(U) Additional Resources on ISIL-associated Complex Plotting and IEDs

(U) The following products are available on the Homeland Security Information Network (HSIN) and may provide amplifying information on ISIL external operations in Europe:

- » (U//FOUO) DHS, FBI, and NCTC; *Joint Intelligence Bulletin*; “(U//FOUO) Tactics, Techniques, and Procedures Used in the 13 November 2015 Paris Attacks,” dated 23 NOV 2015.
- » (U//FOUO) DHS; *Intelligence Assessment*; “(U//FOUO) Future ISIL Operations in West Could Resemble Disrupted Belgian Plot.” Dated 13 MAY 2015.

(U) The following products are available on HSIN and may provide amplifying information on Homemade Explosives (HME) and suspicious activity:

- » (U//FOUO) DHS; *Intelligence Assessment*; “(U//FOUO) Disrupted German Bomb Plot Reinforces Value of Suspicious Activity Reporting”; 7 AUG 2015.
- » (U) DHS and FBI; *Homeland Security Reference Aid*; “(U) Indicators of Suspicious Activity: Commercially Available Homemade Explosives and Methamphetamine Precursors”; 8 JAN 2015.

* (U//FOUO) DHS, FBI and NCTC defines a HVEs as a person of any citizenship who has lived and/or operated primarily in the United States or its territories who advocates, is engaged in, or is preparing to engage in ideologically motivated terrorist activities (including providing support to terrorism) in furtherance of political or social objectives promoted by a foreign terrorist organization, but is acting independently of direction by a foreign terrorist organization. HVEs are distinct from traditional domestic terrorists who engage in unlawful acts of violence to intimidate civilian populations or attempt to influence domestic policy without direction from or influence from a foreign actor.

† (U//FOUO) DHS and FBI define a lone offenders as an individual motivated by one or more violent extremist ideologies who, operating alone, supports or engages in acts of violence in furtherance of that ideology or ideologies that may involve influence from a larger terrorist organization or a foreign actor.

- » (U//FOUO) DHS; *Intelligence Assessment*; “(U//FOUO) Concealment Techniques Used in IED Plots Against Commercial Facilities,” dated 22 MAY 2014.

(U) Possible Indicators of Attacks Featuring IEDs

(U//FOUO) Based on background and analysis of a body of past attacks and plots, the following activities may suggest pre-operational activities, although not necessarily demonstrated in the Belgium attacks. Some of these behavioral indicators may be constitutionally protected activities and should be supported by additional facts to justify increased suspicions. No single behavioral indicator should be the sole basis for law enforcement action. The totality of behavioral indicators and other relevant circumstances should be evaluated when considering any law enforcement response or action. Independently, each behavioral indicator may represent legitimate recreational or commercial activities. Multiple indicators, however, could suggest a heightened threat:

- » (U//FOUO) Garments not appropriate for the weather or season without a reasonable explanation;
- » (U//FOUO) Injuries consistent with experimentation with explosives and chemicals, such as missing fingers or scarring, discoloration, or burns on skin without a reasonable explanation;
- » (U//FOUO) Strong chemical odors emanating from a container—such as a backpack or luggage—or a building, and the presence of large quantities of chemicals in a location inconsistent with the mixture or storage of those chemicals;
- » (U//FOUO) Unusual inquiries about the availability of explosive precursors such as highly concentrated hydrogen peroxide, gasoline, propane, fertilizer, acetone, phenol, or acids, including nitric, sulfuric or citric many of which are readily available in retail outlets;
- » (U//FOUO) Display of nervous behavior and lack of knowledge or evasive responses to inquiries about intended use;
- » (U//FOUO) Purchase or attempted purchase in quantities apparently exceeding personal needs or inconsistent with a customer’s stated use, business, or purchase history;
- » (U//FOUO) Suspicious insistence on paying in cash for bulk purchases or using someone else’s credit card;
- » (U//FOUO) Attempts to purchase all available stock of explosives precursors or to acquire materials in bulk without reasonable explanation, or making numerous smaller purchases of the same products at different locations within a short period of time—a possible sign of covert stockpiling;
- » (U//FOUO) Suspicious use of rented or out-of-state vehicle to transport bulk purchases;
- » (U//FOUO) Loitering, parking, or standing in the same area over multiple days with no reasonable explanation;
- » (U//FOUO) Attention to or avoidance of surveillance cameras without a reasonable explanation;
- » (U//FOUO) Demonstrating an unusual interest in entry points, peak days and hours of operation, security personnel, surveillance assets (including cameras), and access controls such as alarms, barriers, doors, gates, or locks;

- » (U//FOUO) Interest, without justification, in obtaining site plans, ingress and egress routes, and information on employees or the public;
- » (U//FOUO) Demonstrating an unusual interest in security reaction drills or procedures or initiating multiple false alarms or fictitious emergency calls to the same locations or similar venues;
- » (U//FOUO) Sharing of media glorifying violent extremist acts in attempting to mobilize others to violence; and
- » (U//FOUO) Participation in paramilitary exercises that are reasonably indicative of pre-operational planning related to terrorism, particularly in conjunction with advocacy of violence.

(U) Suggested Protective Measures for Complex Attacks Featuring IEDs

(U//FOUO) We continue to urge security personnel to consider protective measures that should integrate available equipment, personnel, current procedures, and information to improve threat detection. The following protective measures have been effective in assisting safety, security, and counterterrorism efforts:

- » (U//FOUO) Establish liaison and regular communications with local, state, and federal law enforcement, emergency responders, and public health organizations to enhance information exchange and develop comprehensive security and emergency response plans that include interaction and integration with these entities;
- » (U//FOUO) Develop a comprehensive security plan specific to the facility and exercise security plans regularly with employees and other appropriate personnel (e.g., building management, tenants, law enforcement) to ensure that adequate resources are available to implement the plan;
- » (U//FOUO) Ensure personnel receive training and briefings on active shooter preparedness, IED and vehicle-borne IED awareness and recognition, and suspicious activity reporting procedures;
- » (U//FOUO) Consider all unattended baggage, vehicles, or items in a high-traffic, unusual, or otherwise strategic location as hazardous;
- » (U//FOUO) Increase visibility of armed security and law enforcement personnel in areas adjacent to and in front of security checkpoints to deter unwanted activity;
- » (U//FOUO) During times of heightened threat, maintain awareness of travel and patrol patterns, and, if possible, vary times and routes to avoid predictability, and increase random patrols to reduce predictability and reduce the perceived value of potential targets;
- » (U//FOUO) Conduct law enforcement and security officer patrols around drop-off and pick-up points at venues where there are large numbers of people concentrated in restricted spaces;
- » (U//FOUO) Test and repair electronic security systems to ensure they operate as designed, and review all emergency Action Plans to ensure they are up-to-date and complete;

- » (U//FOUO) Conduct outreach with point-of-sale locations in your community that sell explosive precursor chemicals and other bomb-making materials (see <https://www.dhs.gov/bomb-making-materials-awareness-program> for more information); and
- » (U//FOUO) Encourage employees, tenants, and visitors to be familiar with the "If You See Something, Say Something™" campaign and appropriately report all odd or suspicious activity to agency security officers, DHS Federal Protective Service, or local law enforcement.

(U) Responding to Active Shooters and Improvised Explosive Devices

(U) To assist law enforcement in better understanding and responding to violent situations, active shooter resources are available on www.fbi.gov. Additional resources are available below.

- » (U) FBI Active Shooter Study: <http://www.fbi.gov/news/stories/2014/september/fbireleases-study-on-active-shooter-incidents/pdfs/a-study-of-active-shooter-incidents-in-the-u.s.-between-2000-and-2013>
- » (U) DHS Active Shooter Resources: www.dhs.gov/active-shooter-preparedness
- » (U) Counter-IED information: <https://TRIPwire.dhs.gov>

(U) State Department Resources on the Current Threat to Europe

(U) The following products available on the OSAC portal provide an update on the current situation in Brussels.

- » (U) State Department Europe Travel Alert: <https://travel.state.gov/content/passports/en/alertswarnings/europe-travel-alert.html>
- » (U) US Embassy Brussels Security Message.
- » (U) OSAC Stakeholder Benchmarking Survey.

(U//FOUO) Source Summary Statement

(U//FOUO) The analysis in this JIB of the tactics, techniques, and procedures used in the Brussels attack is drawn from a body of unclassified reporting, including open source media reports, public statements of senior foreign government officials, and public accounts of foreign law enforcement investigations. We have **medium confidence** in the press reports used in this product, some of which have been corroborated by public statements made by senior foreign and law enforcement officials.

(U) Report Suspicious Activity

(U) To report suspicious activity, law enforcement, Fire-EMS, private security personnel, and emergency managers should follow established protocols; all other personnel should call 911 or contact local law enforcement. Suspicious activity reports (SARs) will be forwarded to the appropriate fusion center and FBI Joint Terrorism Task Force for further action. For more information on the Nationwide SAR Initiative, visit <http://nsi.ncirc.gov/resources.aspx>.

(U) Administrative Note: Law Enforcement Response

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(U) Tracked by: HSEC-8.1, HSEC-8.2, HSEC-8.3, HSEC-8.5, HSEC-8.5.3.7, HSEC-8.6.2.17, HSEC-8.8