



FEDERAL BUREAU OF INVESTIGATION  
INTELLIGENCE BULLETIN  
WMD Intelligence Analysis Section  
Terrorist Explosive Device Analytical Center



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**(U//FOUO) Exploding Targets: Potential Use as Explosives in IEDs and Alternative Source of Ammonium Nitrate**

(U//FOUO) The FBI assesses with high confidence<sup>a</sup> recreationally used exploding targets (ETs), commonly referred to as tannerite,<sup>b</sup> or reactive targets, can be used as an explosive for illicit purposes by criminals and extremists<sup>c</sup> and explosive precursor chemicals (EPCs) present in ETs can be combined with other materials to manufacture explosives for use in improvised explosive devices (IEDs).

(U//FOUO) The FBI further assesses with medium confidence as the regulations and restrictions on ammonium nitrate-based fertilizers continue to increase, motivated criminals and extremists seeking ammonium nitrate for illicit use will be more likely to seek alternative sources, such as ETs. The FBI assesses with high confidence criminals and extremists in the United States and overseas have access to information about exploding targets due to the wide availability of such information on the Internet.

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**(U) Source Summary Statement**

(U//FOUO) This intelligence bulletin is based on FBI case information, US legal proceedings, open source industry publications about exploding targets, and Bureau of Alcohol, Tobacco, Firearms, and Explosives regulations. The FBI judges the industry information and regulatory information is of sufficient quality and consistency to render high confidence judgments about the current and near future availability of ETs in the United States. The FBI relies on its subject matter expertise on explosive precursor chemicals to render high confidence judgments on the plausibility of using ETs as both an explosive and precursor for ammonium nitrate-based explosives. The FBI considers its review of multiple incidents involving ETs is sufficient to make high confidence judgments about the potential risk posed by ETs in the United States. These judgments would have to be reevaluated if the regulations on the sale or use of ETs change or if there is a significant extremist incident that involves ETs.

<sup>a</sup> (U) **High confidence** generally indicates that the FBI's judgments are based on high-quality information or that the nature of the issue makes it possible to render a solid judgment. **Medium confidence** generally means that the information is credibly sourced and plausible, but can be interpreted in various ways, or is not of sufficient quality or corroborated sufficiently to warrant a higher level of confidence. **Low confidence** generally means that the information's credibility or plausibility is questionable, the information is too fragmented or poorly corroborated to make solid analytic inferences, or that the FBI has significant concerns or problems with the sources.

<sup>b</sup> (U//FOUO) **Tannerite** is the largest manufacturer of ETs in the United States, and the term **exploding target** is often used interchangeably with tannerite, even when it is manufactured by other ET companies.

<sup>c</sup> (U//FOUO) For the purposes of this bulletin, the term **extremists** includes international terrorists, homegrown violent extremists, domestic terrorists, and lone wolf offenders operating in the United States or abroad.

*(U//FOUO) ETs May Serve as an Alternative Source of Ammonium Nitrate for Individuals Interested in Manufacturing Improvised Explosives*

(U//FOUO) The FBI assesses with medium confidence criminals and extremists may actively be attempting to acquire ETs to obtain the ammonium nitrate for use in the manufacture of improvised explosives based on FBI investigations of individuals interested in manufacturing explosives. While other methods for illicit acquisition of commercial products containing ammonium nitrate exist, the FBI assesses with medium confidence the use of ETs as a source of ammonium nitrate could represent the latest evolution in tradecraft by which criminals and extremists attempt to circumvent existing regulations based on recent reported incidents of ET acquisition for explosives manufacturing.

(U//FOUO) Currently, ETs contain ammonium nitrate, and their purchase is not regulated to the same degree as ammonium nitrate-containing fertilizers.<sup>d</sup> Alternatively, the personal manufacture of ETs could be used by criminals and extremists as a rationale for purchasing large amounts of ammonium nitrate from retailers.

- (U//FOUO) In April 2012 an identified US person in Washington State, who may have undergone aggressive online radicalization, sustained serious injury after an explosive device detonated prematurely. The device's main charge consisted of an improvised explosive mixture containing ammonium nitrate, which likely was obtained from ETs purchased online, according to a law enforcement source.<sup>1</sup>

<sup>d</sup> (U//FOUO) The most commonly recognized source of ammonium nitrate is ammonium nitrate-based fertilizer, available at home improvement and farm supply stores.

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**(U) EXPLODING TARGETS**



(U//FOUO) ETs are commercially available explosives kits consisting of binary explosives and are widely used by firearms enthusiasts as shot indicators at shooting ranges. Binary explosives are mixtures of two nonexplosive precursors—an oxidizer and a fuel that are stored and transported separately. Binary explosive precursors do not form an explosive until the two components are thoroughly mixed.

(U//FOUO) ETs require the customer to mix the two components inside a container, which can then be detonated by the bullet from a high-powered rifle. Although formulations and, therefore, the strength of ETs vary by manufacturer, typically the oxidizer is ammonium nitrate—either explosives grade or fertilizer grade—and the fuel is aluminum powder. Some ET manufacturers make the ET easier to detonate by adding magnalium (magnesium and aluminum alloy) or by substituting the aluminum powder with a more sensitive oxidizer, such as potassium perchlorate.

(U) *Source:* FBI; Case Information.

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- (U//FOUO) There have been multiple instances in the past three years in which law enforcement officers discovered ETs stored with other explosives and EPCs when executing search warrants at personal residences.<sup>2,3</sup>
- (U//FOUO) Since 2008 the FBI ammonium nitrate tripwire initiative has detected at least 18 incidents related to attempts to directly purchase ammonium nitrate, allegedly to manufacture ETs, although no nexus to terrorism was immediately apparent.

(U//FOUO) The FBI assesses with high confidence criminals and extremists remain interested in using improvised ammonium nitrate-based explosives as the main charge in IEDs and are actively seeking new ways to acquire sufficient amounts of ammonium nitrate, based on recent incidents illustrating these acquisition methods. Following the use of ammonium nitrate in the Oklahoma City bombing, the US Government instituted a number of programs designed to

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**(U) Regulations and Sales of Exploding Targets**

(U) The individual components of ETs are not regulated by the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) because they do not meet the definition of “explosives” outlined in the Code of Federal Regulations (CFR) Title 27 §555.11. Once the binary components are mixed, the result is an explosive material and subject to ATF regulatory requirements.

(U) Persons manufacturing explosives for their own personal, nonbusiness use only (e.g., personal target practice) are not required to have a federal explosives license (FEL) or permit. However, individuals or companies must obtain a federal explosives manufacturing license if they intend to engage in the business of manufacturing binary explosives for sale or distribution or for their own business use, such as targets for demonstration or product testing.

(U) Currently, anyone can purchase ETs without an FEL and have them shipped without expensive hazardous materials shipping fees or placards. This makes ETs relatively easy and cheap to purchase in gun stores, sporting goods stores, online marketplaces, and auction houses. ETs are also available online directly from manufacturers. Many retailers sell ETs in individual half-pound containers, which cost approximately \$5 each or \$10 per pound. Some manufacturers sell bulk bags of up to 50 pounds at a cost of roughly \$3.50 per pound. By comparison, fertilizer-grade ammonium nitrate retails for 19 cents per pound.



(U) Source: Code of Federal Regulations 2012; Title 27; “Alcohol, Tobacco Products, and Firearms, Chapter II, Subchapter C–Explosives (Part 555), Subpart B–Meaning of Terms (Section 555.11)”; The source is the document that codifies general and permanent rules published in the *Federal Register*.

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increase security awareness of the possible uses of ammonium nitrate-based fertilizers for use in IEDs. As a result, criminals and extremists have adapted and sought other means of acquisition, either through complex pre-operational planning to clandestinely acquire ammonium nitrate-based fertilizers or through purchasing alternative commercial products containing ammonium nitrate.

- (U//FOUO) The FBI is concerned domestic extremists could use tactics similar to those used by Anders Breivik to acquire large amounts of ammonium nitrate. Breivik, who conducted coordinated attacks in Oslo, Norway, involving a vehicle-borne IED (VBIED) and an active shooter scenario on 22 July 2011, acquired the ammonium nitrate for his device by renting a remote piece of farmland to legitimize the purchase of ammonium nitrate-based fertilizer over an extended period of time, according to Joint Regional Intelligence Center analysis of Breivik's "Compendium."<sup>4</sup>
- (U//FOUO) Individuals have attempted to acquire ammonium nitrate by removing it from cold packs, a nonregulated commercially available product. In 2010, a Knoxville, Tennessee, resident was arrested and subsequently convicted for constructing an IED using this method. Among the recovered evidence were three cold compresses and three cold compress boxes from three well-known drug stores, according to FBI information.<sup>5</sup>

*(U//FOUO) ETs Can Be Used Directly in Criminal and Terrorist Acts*

(U//FOUO) While the intended purpose of ETs is for verification of a successful shot on target, the FBI has identified multiple incidents where criminals and extremists have explored the possibility of employing the binary explosive mixture obtained from ETs as a means to commit criminal and terrorist acts.

- (U//FOUO) In December 2011 an identified US person in Missouri threatened to blow himself up in a mayor's driveway using an IED containing 20 pounds of material harvested from ETs, according to law enforcement reporting. The US person was involved in a legal action against the city.<sup>6</sup>

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**(U//FOUO) ET Purchase and Manufacture May also Be Used to Support Illicit Drug Production**

(U//FOUO) Attempts by individuals to utilize the loophole in existing regulations surrounding the purchase of large quantities of ammonium nitrate for ET manufacture or use may not always be terrorism related. There have been cases where illicit drug producers have attempted to use the same loophole to purchase large quantities of ammonium nitrate. Ammonium nitrate is required in one production method used to manufacture methamphetamine.

(U//FOUO) One such case occurred in August 2011 when an identified US person attempted to acquire ammonium nitrate-based fertilizer at a farm supply store in Maryland. During a subsequent law enforcement investigation, the individual explained that the ammonium nitrate was to be used for manufacturing ETs. It later became apparent that the ammonium nitrate was actually meant for use in methamphetamine production, and the individual believed he could legally obtain ammonium nitrate if the stated purpose was for ET production.

(U) Source: FBI; Case Information.

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- (U//FOUO) In March 2009 an identified US person attempting to purchase ETs at a gun show in Arkansas asked if the ETs were capable of blowing up cars and if strapping them on a person would “make them go away,” according to law enforcement reporting. He was later arrested on felony charge of solicitation to commit criminal acts with an explosive device.<sup>7</sup>
- (U) An identified US person was charged in 2007 with using homemade bombs to destroy property after he blew up a portable toilet in Connecticut in 2006 by firing a bullet from an assault rifle into a one-pound charge of an ET, according to open source reporting. The individual was also charged with blowing up three other toilets, a road sign, a vacant building, an abandoned gas station, and the door of a school using similar ET charges. While no injuries were caused by the blasts, the detective indicated the toilets were close to the road and shrapnel could have killed someone.<sup>8,9,10</sup>
- (U//FOUO) In 2007, in preparation for a standoff with federal officials pending an arrest on outstanding charges, individuals associated with a militia/sovereign citizen group in New Hampshire hung containers of ETs around the perimeter of their property, which could be detonated via impact from a high-caliber rifle. Two .50 caliber rifles, numerous other firearms, and 30 pipe bombs were discovered in the residence, according to FBI information.<sup>11</sup>

*(U//FOUO) Popularity of and Experimentation with ETs Could Provide Ideas for Future Illicit Use*

(U//FOUO) The FBI assesses with medium confidence the increasing popularity of ETs and the availability of information online has led to extensive experimentation, which could provide criminals and extremists with ideas for future illegal acts. While ET manufacturers typically recommend using no more than one-half pound for legitimate range purposes, some enthusiasts have tested and posted video of the large explosions caused when large quantities of ETs of up to 100 pounds were used.

- (U//FOUO) An FBI review of open source search results identified hundreds of home videos on media-sharing Web sites depicting large quantities of ETs being used to blow up automobiles, storage sheds, and other items contrary to the intended purpose of the ETs.
- (U//FOUO) In early 2008 an identified US person in Minnesota was arrested by county law enforcement for initiating the detonation of approximately 100 pounds of ETs inside the bed of a dump truck by shooting it with a .50 caliber rifle, according to FBI information. Effects of the blast were felt by persons at the Prairie Island Nuclear Generating Plant located more than a mile away from the explosion site.<sup>12</sup>

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**(U) Outlook**

(U//FOUO) Given existing restrictions on the purchase of ammonium nitrate-based fertilizers and the need to remain undetected by law enforcement, it is likely that criminals and extremists will continue to seek alternative sources of ammonium nitrate. Among the possible alternative sources of ammonium nitrate, ETs are seen by the FBI to be one of the greatest sources of concern, since ETs can be easily acquired domestically and have the potential to be used directly as an explosive charge in criminal and terrorist IEDs or as an alternative product for explosive precursor acquisition. This concern could be mitigated to some extent in the future by state legislation enacted in Maryland, which designates ETs as explosives. Other states may draft similar legislation, which could impact the ability of criminals and extremists to acquire ETs.

**(U) Implications**

(U//FOUO) Although ETs are not new products, the FBI is providing this information to ensure situational awareness and highlight the potential threat to law enforcement and emergency responders should they encounter criminals and extremists using ETs directly or indirectly for illegal purposes.

(U//FOUO) To date, self-initiated reporting through tripwire programs demonstrates public awareness of suspicious activities regarding the purchase of chemical precursors or other materials remains the most effective way to identify potential criminal or terrorist activity. Identification and outreach efforts targeting commercial outlets that are involved in the sale of ETs or ET components is critical to mitigating the potential for criminal or extremist acquisition of ammonium nitrate. To this effect, the Chemical Countermeasures Unit of the FBI's Weapons of Mass Destruction Directorate, in partnership with the ET industry, has developed an awareness campaign related to the manufacture, distribution, and retail of ETs.

(U//FOUO) Examples of suspicious behavior and activities indicating the potential misuse of ETs are listed below. While none of these indicators alone suggest that an individual is engaged in using ETs for illicit purposes, the presence of multiple indicators should be seen as suspicious and reported accordingly:

- (U//FOUO) Payments in cash or using someone else's credit card;
- (U//FOUO) Requests to ship ETs to a Post Office box;
- (U//FOUO) Reluctance or unwillingness to produce valid identification;
- (U//FOUO) Request to purchase only one of the ET components, such as ammonium nitrate;
- (U//FOUO) Unusually large bulk purchases inconsistent with stated reason;
- (U//FOUO) Multiple, large-quantity purchases within a short timeframe;
- (U//FOUO) Lack of knowledge regarding firearms or target shooting;
- (U//FOUO) Hints at illegal or misuse of explosives; and
- (U//FOUO) New or unknown customers, especially with an out-of-town driver's license or license plates.

**(U) Intelligence Collection Requirements**

(U//FOUO) This intelligence bulletin addresses the FBI National Standing Intelligence Collection Requirements for Terrorist/Criminal Acquisition and Use of Chemical Weapons contained in WW-WMDC-WMD-SR-0005-13, and Terrorist Efforts to Defeat CBRN Countermeasures contained in WW-TERR-WMD-SR-0001-13.

(U//FOUO) This intelligence bulletin was jointly prepared by the FBI's WMD Chemical Countermeasures Unit (CCU) and WMD Emerging Threats Unit (ETU), and the Terrorist Explosive Device Analytical Center (TEDAC). Comments and queries regarding the ET Tripwire Program should be addressed to the CCU Unit Chief at 202-324-6344. Comments and queries regarding analysis presented in this intelligence bulletin should be addressed to the ETU Unit Chief at 202-324-2057.

**(U) Endnotes**

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<sup>1</sup> (U//FOUO) FBI; Case Information.

<sup>2</sup> (U//FOUO) FBI; Case Information.

<sup>3</sup> (U//FOUO) FBI; Case Information.

<sup>4</sup> (U) Joint Regional Intelligence Center; Special Bulletin; 25 July 2011; “(U) Oslo Suspect’s ‘Compendium’ Details How to Avoid Detection in the Planning Stages of an Operation”; UNCLASSIFIED; UNCLASSIFIED; Joint Regional Intelligence Center analysis of Breivik’s “Compendium.”

<sup>5</sup> (U//FOUO) FBI; Case Information.

<sup>6</sup> (U//FOUO) FBI; Case Information.

<sup>7</sup> (U//FOUO) FBI; Case Information.

<sup>8</sup> (U) Online News Article; McClatchy-Tribune Business News; *The Stamford Advocate*; John Nickerson; 11 May 2006; “Bombing Suspect Faces Federal Charges”; UNCLASSIFIED; News article accessed through TAC, a Web-based program hosted by the DIA formerly known as Tripwire Analytic Capability, on 20 September 2012.

<sup>9</sup> (U) Online News Article; Knight Ridder-Tribune Business News; *The Stamford Advocate*; John Nickerson; 13 February 2007; “Toilet Bomber Pleads Guilty”; UNCLASSIFIED; News article accessed through TAC on 20 September 2012.

<sup>10</sup> (U) Online News Article; Knight Ridder-Tribune Business News; *The Stamford Advocate*; Matt Breslow; 29 March 2006; “Charges Mount on Suspect in Bombings”; UNCLASSIFIED; News article accessed through TAC on 20 September 2012.

<sup>11</sup> (U//FOUO) FBI; Case Information.

<sup>12</sup> (U//FOUO) FBI; Case Information.



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