UNITED STATES BOMB DATA CENTER (USBDC) EXPLOSIVES INCIDENT REPORT (EIR)

2016

The Annual Explosives Incident Report (EIR) reviews bombing and explosives related incidents and threats from information reported to the United States Bomb Data Center (USBDC) through the Bomb Arson Tracking System (BATS).

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Executive Summary – 2016

OPERATING HIGHLIGHTS

The 2016 *Explosives Incident Report (EIR)* is an informational product prepared by the United States Bomb Data Center (USBDC), using incident data reported in the Bomb Arson Tracking System (BATS) by its nearly 2,500 interagency partners and 12,153 registered users. This report examines the total number of explosives related incidents reported in BATS for calendar year 2016 and includes *explosions and bombings*, *recoveries*, *suspicious packages*, *bomb threats*, *hoaxes*, and explosives *thefts/losses*. It is important to note that BATS is a real-time dynamic incident management system that is strictly user dependent; therefore, it is possible that the data represented in this report may differ slightly from previously reported data due to updates or changes made by the owner of individual records.

STRATEGIC HIGHLIGHTS

From January 1, 2016, through December 31, 2016, BATS captured a total of **15,943** *explosives related incidents.* Of the reported incidents, there were **699** explosions of which **439** were *bombings*, with California and Washington having the highest numbers. There were a total of 6,879 recoveries reported in 2016, with the majority being explosives (non-improvised explosive devices (IEDs)). There were a total of 6,061 suspicious/unattended package incidents, which is up by 27 percent. Following previous years' reporting, there has continued to be a slight decrease in the overall numbers of bomb threats reported. There were 1,693 bomb threats reported in 2014, 1,670 in 2015, and 1,537 in 2016. Education and office/ business properties remain the most commonly reported targets of bomb threats; however, the overall numbers of bomb threats to both have decreased since 2015.

LOOKING AHEAD

During the latter part of 2016, the USBDC established two sections in order to provide enhanced operational support to all of our interagency partners and members of the BATS user community. The newly created BATS Section (BATSS) will focus on the BATS program and related systems, while the newly established Arson and Explosives Information and Analysis Section (AEIAS) will focus on arson and explosives analytical products as well as explosives identification, tracing and theft/loss reporting. AEIAS is responsible for developing and producing intelligence products such as this annual report as well as a variety of other standardized, automated and on-demand reports that serve to inform the BATS user community and increase regional and national situational awareness concerning explosives and arson related incidents. This realignment within the USBDC, along with the release of BATS 8.1 and mobile BATS (*m*BATS2.1), will continue to establish the USBDC as a center of excellence for arson and explosives related reporting within the United States.

Brandt A. Schenken
Director, USBDC

EXPLOSIONS – 2016

Explosion Incidents – 2016

1.1 Explosion Incidents, Summary and Trends

Explosion Incidents are identified by the following categories: *bombings*, *accidental explosions* and *undetermined explosion incidents*. The *undetermined explosion* category is used in ongoing investigations where the cause was either unidentified, pending further investigation or awaiting laboratory results.

Explosion Incidents include all incidents where explosive materials, chemicals, or ignitable mixtures were determined to be the primary cause of an explosion.

There were 699 Explosion Incidents recorded in BATS during 2016, a slight increase of 11 percent from 2015. Bombings also increased, from 400 reported incidents in 2015 to 439 in 2016.

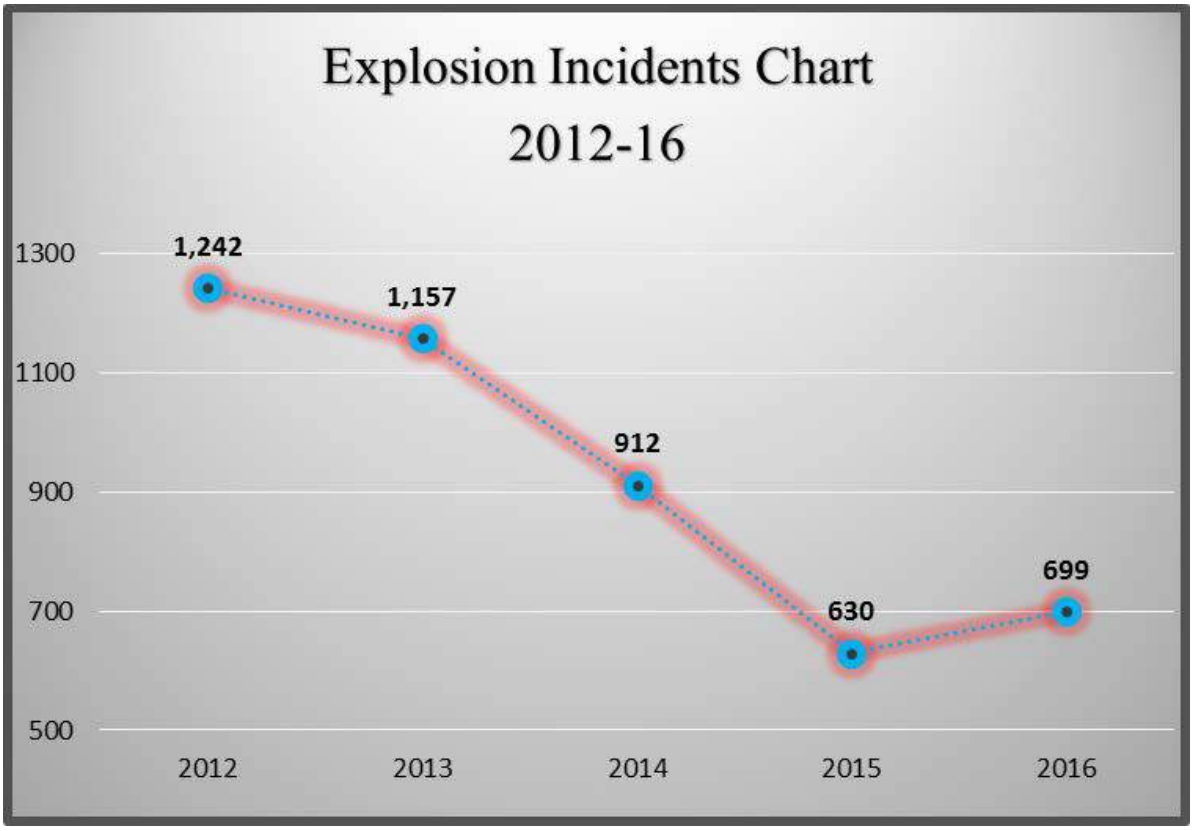


Figure 1. Explosion Incidents, 2012–16

EXPLOSIONS – 2016

1.2 Explosion Incidents with Reported Injuries

Figure 2. Explosion Incidents – Injuries

Note: There were two major explosions that accounted for the high number of injuries in 2014. One was caused by an accidental explosion at a detention facility (174 injuries), and the other was caused by an accidental explosion at a 5-story building with multifamily residences. This explosion caused 60 injuries.

Victim injuries account for 87 percent of the total number of reported injuries in 2016 and were primarily caused by accidental explosions.

1.3 Explosion Incidents with Reported Fatalities

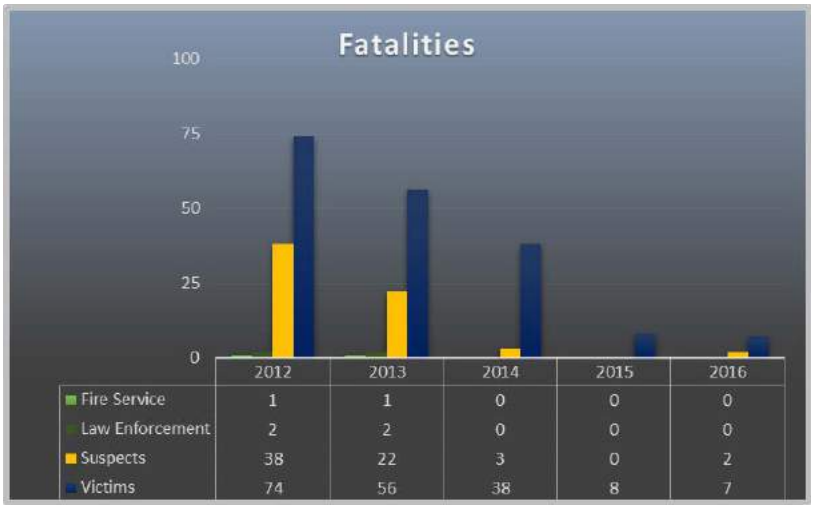


Figure 3. Explosion Incidents – Fatalities

EXPLOSIONS – 2016

1.4 Explosion Incidents, Type and Subtype

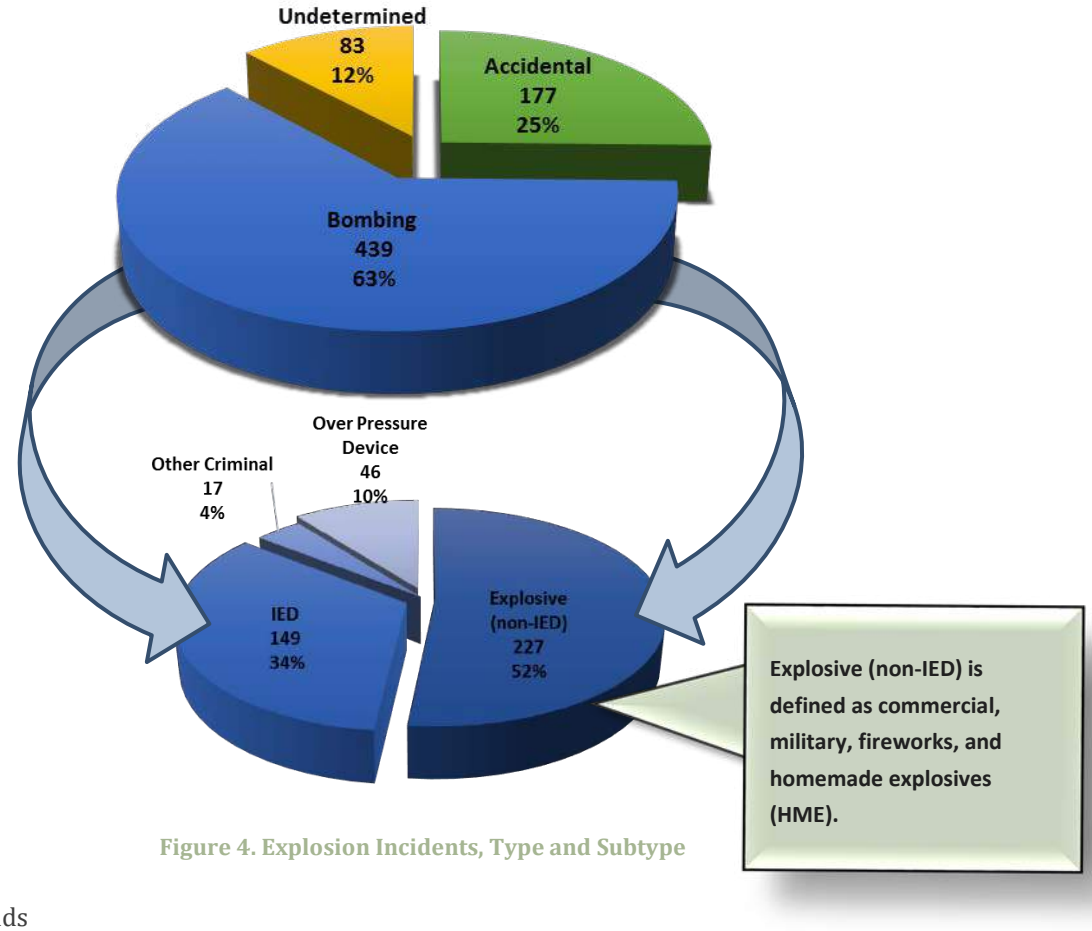


Figure 4. Explosion Incidents, Type and Subtype

1.5 Bombing Trends

A total of 439 bombing incidents were reported in 2016, an increase of 10 percent from 2015; 178 of the 439 bombings targeted Residential structures. Church bombings decreased from 6 to 2 incidents in 2016. Alternatively, school bombings are up by 16 incidents from 2015. The majority of the reported bombings took place at high schools and middle schools.

- **School Bombing Targets:** Nine (9) of the 22 school bombings were reported as *explosive non-IEDs*, 9 were reported as *IEDs*, and the remaining 4 were categorized as *over pressure devices*. California (4), Indiana (4), and New York (3) had the highest number of incidents.

- **Residential Structure Targets:** *Explosive (non-IEDs)* accounts for more than half of the bombing incidents to residential structures in 2016. This is followed by *IEDs* at 29 percent, *over pressure devices* at 15 percent, and *other* at 5 percent.

EXPLOSIONS – 2016

The top five States with the most reported bombings remain the same. However, there has been a significant increase in California and a slight decrease in Florida. Figure 5 shows a comparison of reported bombing incidents in 2015 and 2016 for the top five States with the most amount of incidents for both years.

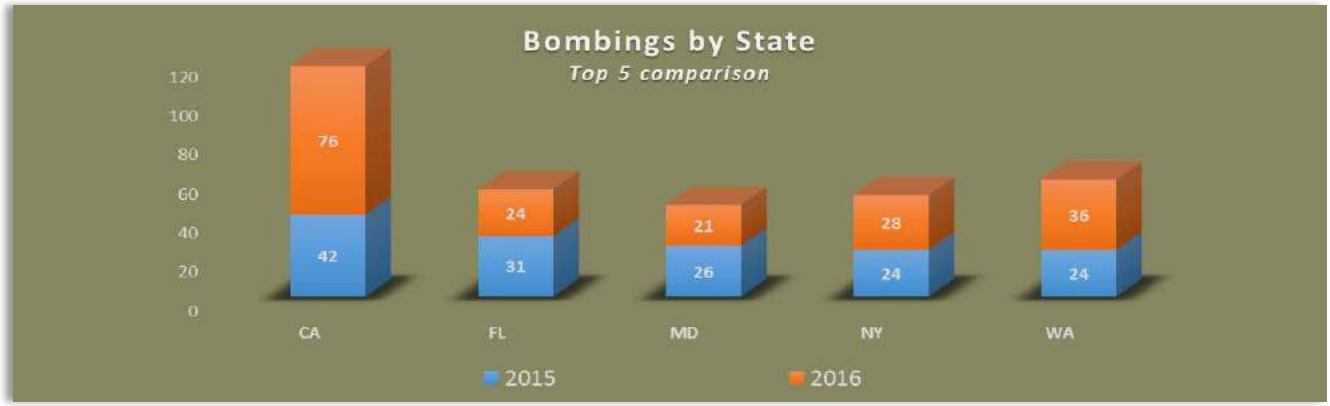


Figure 5. Bombing (Top Five States) Comparison

1.6 Explosion Device – Main Charges

Pyrotechnics/Fireworks, Flash Powder/Pyrotechnic Mixture, and Black Powder remain the most common device main charges reported in explosion incidents for 2016.

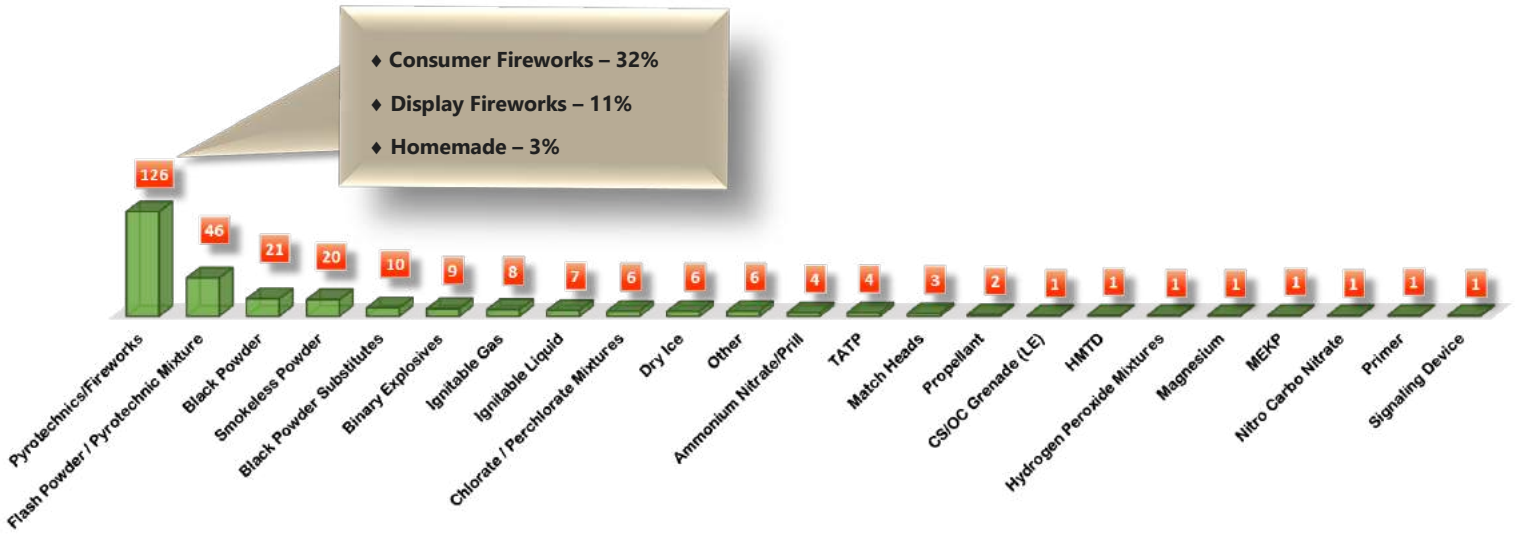


Figure 6. Explosion Device – Main Charges, 2016

EXPLOSIONS – 2016

1.7 Explosion – Main Charges

Explosion - Main Charges						
Material Subtype Description	**2012**	**2013**	**2014**	**2015**	**2016**	**Total**
Ammonium Nitrate/Prills	9	6	5	10	4	34
ANFO (Blasting Agent)	2	1		0	0	3
Binary Explosives	1	15	11	9	9	45
Black Powder	34	28	20	18	21	121
Black Powder Substitutes	5	11	7	5	10	38
Blasting Agent	1	0	1	0	0	2
Booster	9	1	1	0	0	11
Chlorate / Perchlorate Mixtures	45	7	2	2	6	62
Composition C4	7	0	0	0	0	7
CS/OC Grendade (LE)	0	0	0	0	1	1
Delay Mix	1	5	0	0	0	6
Dry Ice	38	20	22	10	6	96
Dynamite	0	0	1	0	0	1
Emulsion (Blasting Agent)	1	1	1	0	0	3
Flash Powder / Pyrotechnic Mixture	114	81	63	44	46	348
Flashbang/Distraction (LE)	0	1	0	0	0	1
HMTD	1	1	2	0	1	5
Hydrogen Peroxide Mixtures	2	0	2	0	1	5
Ignitable Gas	4	8	9	10	8	39
Ignitable Liquid	12	11	6	3	7	39
Ignitable Solid	1	1	1	0	0	3
Ignition Mix	0	2	1	0	0	3
Liquid Explosive	2	1	0	0	0	3
Magnesium	2	1	0	0	1	4
Match Heads	1	0	1	0	3	5
MEKP	0	0	0	0	1	1
Nitro Carbo Nitrate	0	0	0	0	1	1
Ordnance	0	0	0	1	0	1
Other (Not identified)	61	36	11	11	6	125
Pellet Powder	0	1	1	0	0	2
PETN	0	0	1	2	0	3
Primer	0	0	0	2	1	3
Propellant	4	1	2	1	2	10
Pyrotechnics/Fireworks	158	133	134	115	126	666
RDX	0	1	1	0	0	2
Seal Bomb	1	1	0	0	0	2
Signaling Device	1	0	1	0	1	3
Smokeless Powder	26	21	10	11	20	88
TATP	2	0	2	1	4	9

Note: The items in green highlight the top five Explosion Main Charges for 2016.

Figure 7 displays an overall view of main charges related to Explosion Incidents for the past 5 years. These numbers do not represent the actual quantity of main charges but rather represent the number of reported incidents where at least one or more main charges were identified.

Figure 7. Explosion – Main Charges, 2012–16

EXPLOSIONS – 2016

1.8 Explosion Device Containers: The data represented in figure 8 illustrate the number of *explosive incidents* for each container type and does not represent the actual quantity of identified containers. For example, if a pipe bomb was identified, the numbers below do not show if there were 5 pipe bombs taped together with 10 end caps, but rather they show at least 1 pipe and 1 end cap associated with that incident. However, if there were two (2) identical container types recovered in the same incident but both consisted of independent material subtypes, then both would be counted.

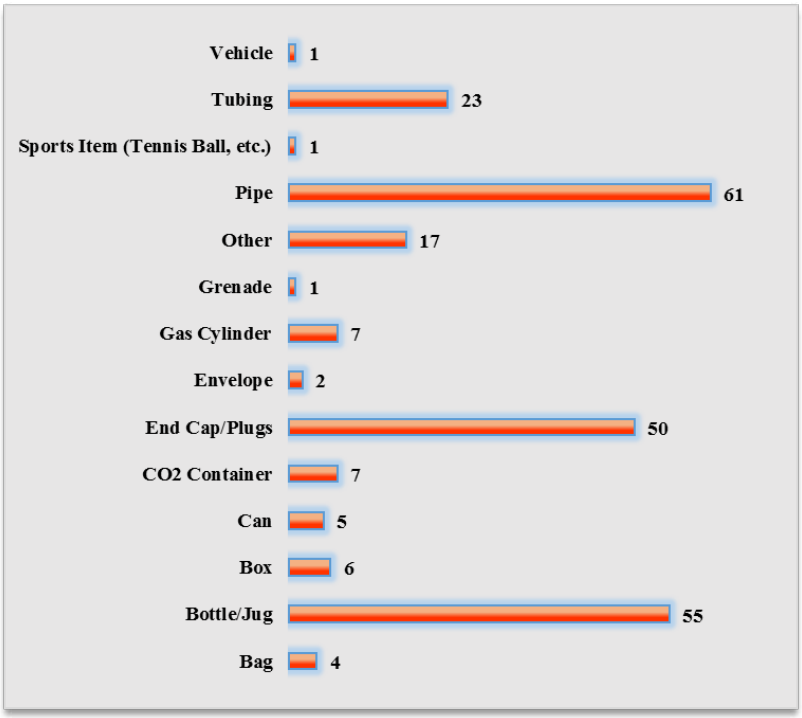


Figure 8. Explosion Device Containers

Container Type	Hand Placed	Other	Projected/ Launched	Thrown	Unknown	Not Specified	Grand Total
Bag	3				1		4
Bottle/Jug	32	2		10	10	1	55
Box	3				1	2	6
Can	3				2		5
CO2 Container	4				2	1	7
End Cap/Plugs	32	3		7	7	1	50
Envelope	2						2
Gas Cylinder	6				1		7
Grenade				1			1
Other	10	3			4		17
Pipe	38	1		7	13	2	61
Sports Item (Tennis Ball, etc.)	1						1
Tubing	14	3	1	2	1	2	23
Vehicle						1	1
Grand Total	**148**	**12**	**1**	**27**	**42**	**10**	**240**

Figure 9. Placement Method

RECOVERIES – 2016

Recoveries – 2016

2.1 Recovery Incidents, Summary and Trends

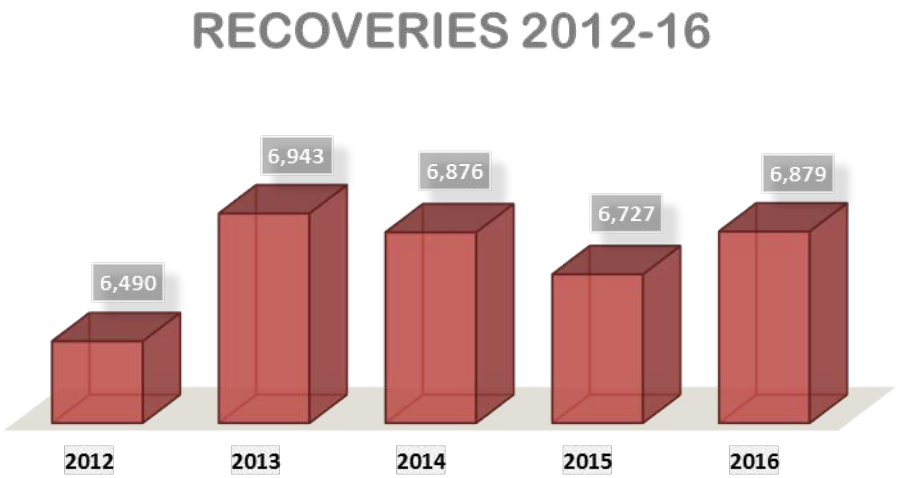


Figure 10. Recovery Incidents, 2012–16

2.2 Recovery Types

The largest recovery type and subtype categories, for the most part, remain unchanged. Explosives (non-IED) recoveries represent the majority, with commercial explosives recoveries and pyrotechnic recoveries in the lead. The "Other" category includes the following subtypes: Ammunition, Bomb Making Information, Inert Commercial, and Inert–Military. Of those categories, Inert–Military (962) and Ammunition (935) were the most reported. (See figures 11 and 12.)

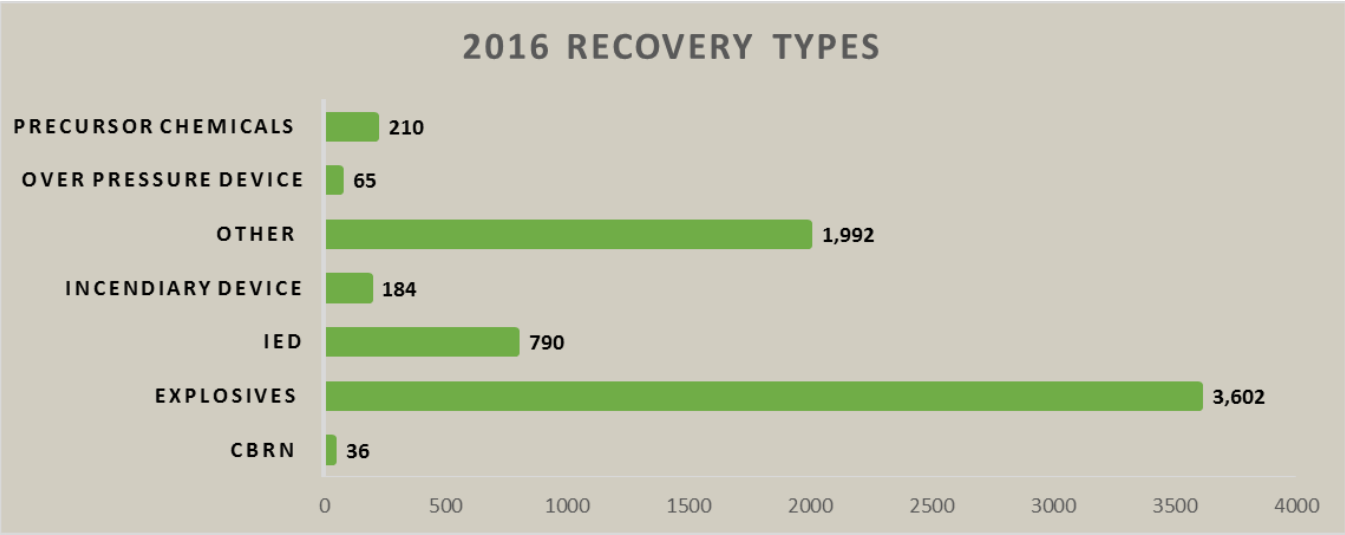


Figure 11. Recovery Types – 2016

RECOVERIES – 2016

2.3 Recovery Subtypes

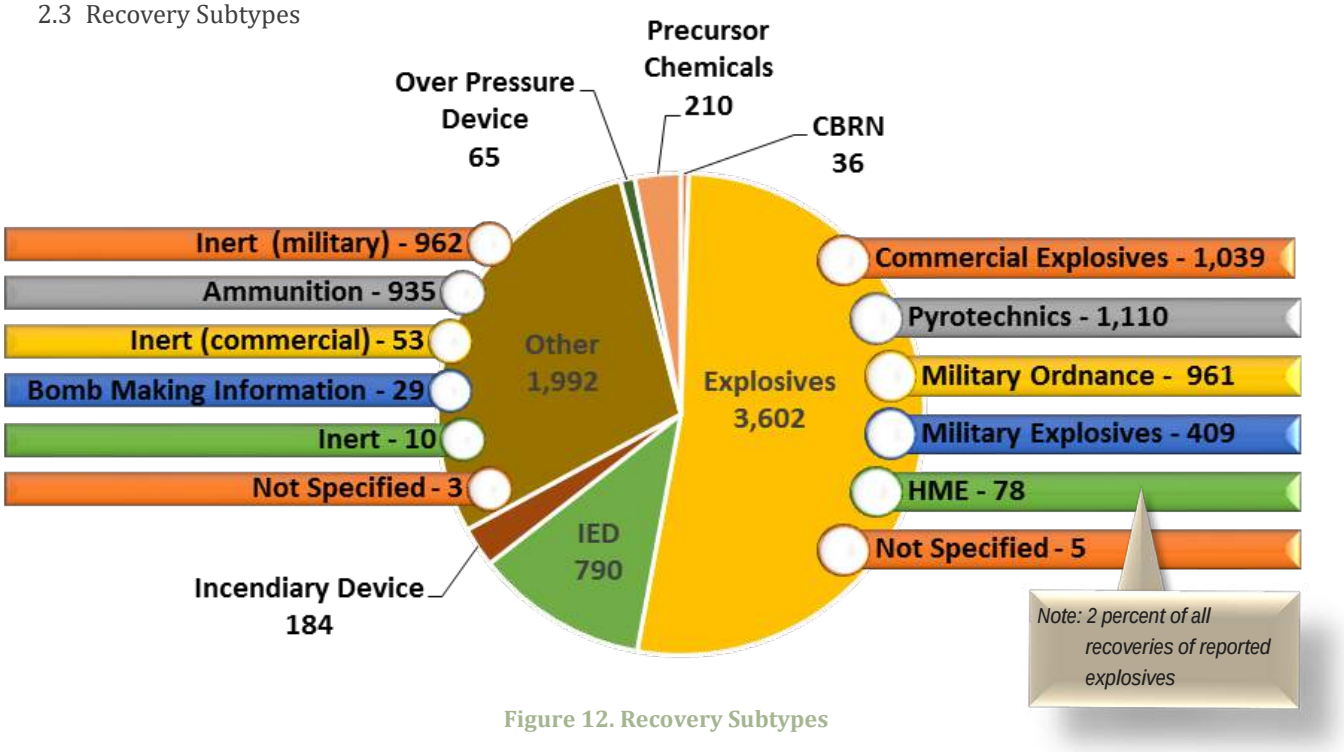


Figure 12. Recovery Subtypes

2.4 Recovery Incidents by Target Type:

The majority of recovery incidents during 2016 took place at residential structures (40%) and law enforcement/emergency offices (20%). This does not indicate all recovery incidents at law enforcement/emergency offices were a result of a device being placed at these locations, rather it is most likely due to a variety of circumstances to include, but not limited to, explosive material turn-ins, etc. See figure 13 for a complete list of all recoveries by location in 2016.

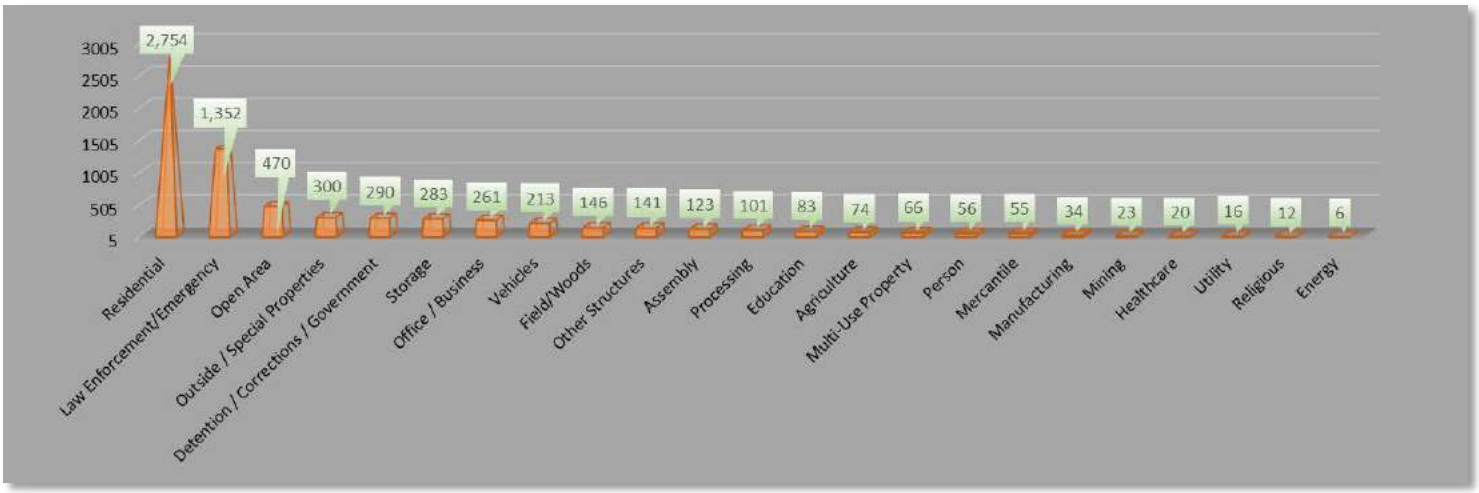


Figure 13. Recovery Incidents by Target Type

RECOVERIES – 2016

2.5 Recovery – Main Charges

Recovery - Main Charges						
Material Type	**2012**	**2013**	**2014**	**2015**	**2016**	**Grand Total**
Ammonium Nitrate/Prill	22	21	19	21	24	107
ANFO (Blasting Agent)	19	13	16	17	9	74
Binary Explosives	28	31	47	46	49	201
Black Powder	236	200	220	182	210	1,048
Black Powder Substitutes	76	72	74	77	79	378
Blasting Agent	13	7	6	5	5	36
Booster	37	25	39	22	30	153
Chlorate / Perchlorate Mixtures	30	17	12	18	15	92
Composition B	7	3	7	7	8	32
Composition C3	1	2	0	2	0	5
Composition C4	31	23	34	31	30	149
CS/OC Grenade (LE)	0	3	21	17	12	53
Delay Mix	2	1	1	2	1	7
Dry Ice	5	4	6	5	2	22
Dynamite	157	157	154	128	101	697
Emulsion (Blasting Agent)	18	23	41	28	19	129
Flash Powder / Pyrotechnic Mixture	389	363	303	285	291	1,631
Flashbang/Distraction (LE)	0	1	6	7	5	19
HMTD	2	4	2	4	6	18
Hydrogen Peroxide Mixtures	1	2	0	2	0	5
Ignitable Gas	8	9	1	7	5	30
Ignitable Liquid	107	89	91	72	81	440
Ignitable Solid	23	17	18	16	12	86
Ignition Mix	0	3	2	1	1	7
Liquid Explosive	2	2	3	1	3	11
Magnesium	4	2	1	2	2	11
Match Heads	12	11	5	4	12	44
Nitro Carbo Nitrate	2	0	0	0	0	2
Nitroglycerene	4	6	6	8	4	28
Ordnance	8	2	6	13	2	31
Other	101	67	51	60	71	350
Pellet Powder	7	7	5	2	2	23
Perforator-	13	11	12	14	9	59
Perforator Oil Well Gun Assembly	0	8	5	0	1	14
PETN	13	13	7	3	6	42
Picric Acid	21	21	16	12	13	83
Primer	15	13	10	5	2	45
Propellant	7	15	5	12	9	48
Pyrotechnics/Fireworks	704	721	593	590	627	3,235
RDX	6	2	6	8	7	29
Seal Bomb	11	11	13	15	4	54
Shape Charge	4	3	9	7	4	27
Sheet Explosive	9	10	11	6	12	48
Signaling Device	34	25	29	37	40	165
Simulator	16	23	18	20	25	102
Slurry (Blasting Agent)	26	21	17	12	8	84
Smoke Grenade (LE)	0	2	8	13	16	39
Smokeless Powder	183	205	184	163	200	935
Spent Shell (canine only)	0	0	0	1	0	1
TATP	6	8	3	4	5	26
TNT	29	17	31	16	22	115
Urea Nitrate	0	1	0	1	1	3
Water Gel (Blasting Agent)	5	5	2	0	2	14
Grand Total	**2,454**	**2,322**	**2,176**	**2,031**	**2,104**	**11,087**

Note: The items in green highlight the top five Explosion Main Charges for 2016.

Figure 14 displays an overall view of main charges related to recovery incidents for the past 5 years. These numbers do not represent the actual quantity of main charges but rather represent the number of reported incidents where at least one or more main charges were identified.

Figure 14. Recovery – Main Charges, 2012–16

RECOVERIES – 2016

2.6 Recovery – Containers

Figure 15 provides the number of incidents where a container was reported as recovered in 2016. The statistics represented in this chart include a count of every time the *specific* container type was reported as recovered but does not represent the exact *quantity* of containers that were recovered. For instance, if one incident reported a recovery of two (2) pipes, four (4) end caps/plugs, and two (2) bottles/jugs, it would be represented in the graph below as one incident. However, if there were two (2) identical container types recovered in the same incident but both consisted of independent material subtypes, then both would be counted.

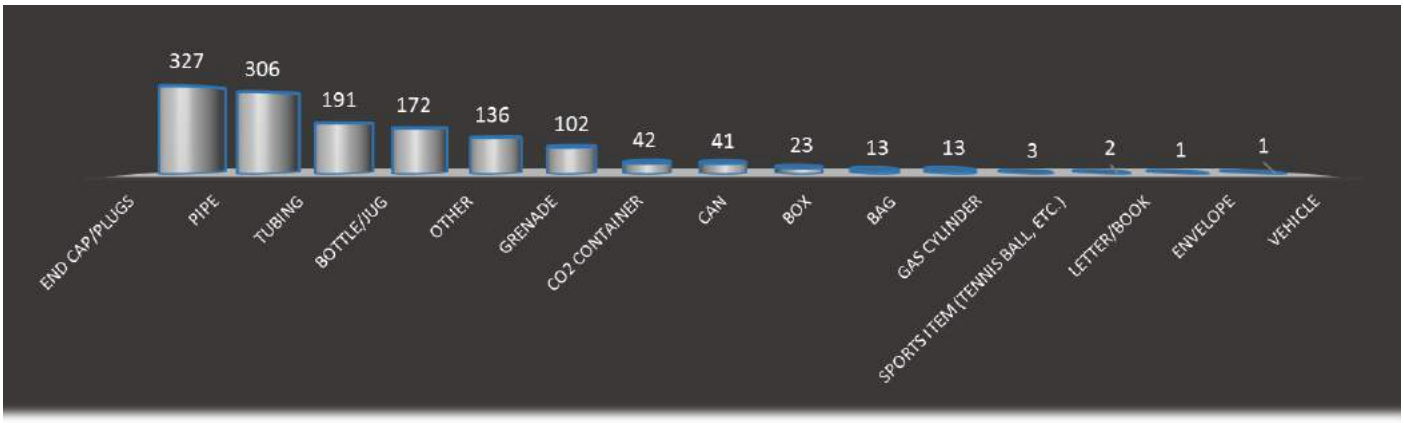


Figure 15. Recovery of Containers – 2016

2.7 Recovery – Switches

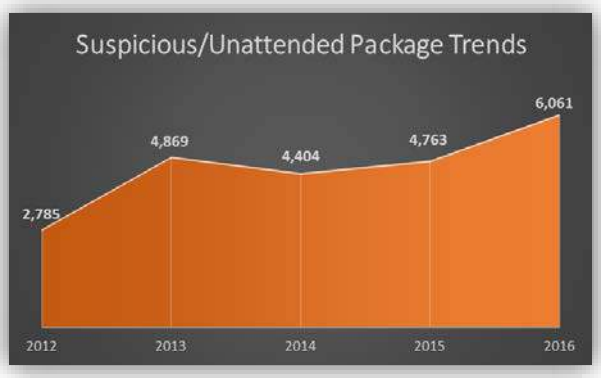
The majority of recovered switch types in 2016 included safety/time or hobby fuses and victim-operated switches. See figure 16 for a breakdown of switch types with corresponding total number of incidents.

Switch Type	Total
Command Push	5
Command Wire IED	2
Electronic (Clock, Timer, Watch, etc.)	4
Mechanical (Clock, Timer, Watch, etc.)	1
Pyrotechnic (Safe/Time Fuse, Hobby Fuse)	18
Radio Controlled IED	4
Victim Operated	12
Grand Total	**46**

Figure 16. Recovery of Switches – 2016

SUSPICIOUS PACKAGES – 2016

Suspicious Packages – 2016



3.1 Suspicious Packages, Summary and Trends

There were 6,061 suspicious/unattended package incidents reported during the 2016 calendar year. This was a 27-percent increase from 2015. Book bag/purse increased 57 percent, whereas package/parcel decreased by nearly half. The "other" category increased from 74 incidents in 2015 to 1,500 in 2016.

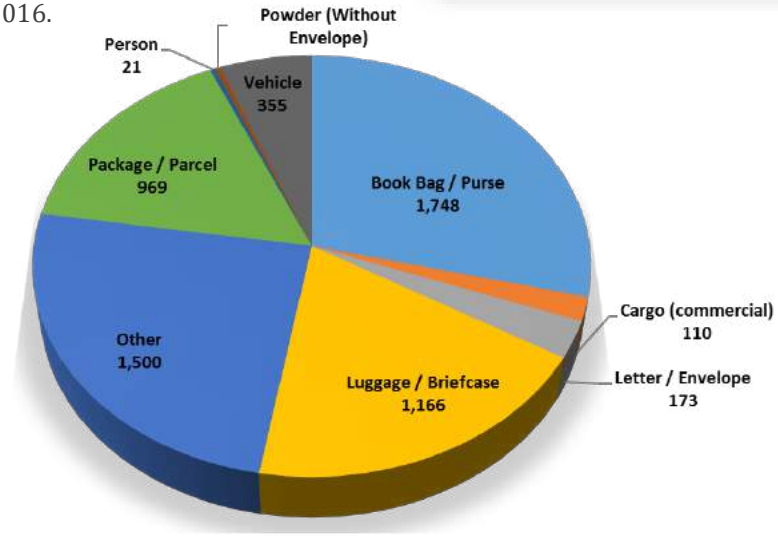


Figure 17. Suspicious/Unattended Package Incident Types

Figure 18 provides a comparison between 2015 and 2016 to identify the total number of incidents by type and whether the number of incidents increased or decreased.

Type	2015	2016	Difference
Book Bag / Purse	1,108	1,748	↑ 640
Cargo (commercial)	152	110	↓ -42
Letter / Envelope	188	173	↓ -15
Luggage / Briefcase	1,098	1,166	↑ 68
Other	74	1,500	↑ 1,426
Package / Parcel	1,739	969	↓ -770
Person	36	21	↓ -15
Powder (Without Envelope)	40	19	↓ -21
Vehicle	328	355	↑ 27

Figure 18. Suspicious/Unattended Package Incident Types, 2015–16 Comparison

BOMB THREATS – 2016

Bomb Threats – 2016

4.1 Bomb Threats, Summary and Trends

A total of 1,536 bomb threat incidents were reported in 2016, a slight decrease since 2015. Education, office/business, and residential remain the top three targets of bomb threats in 2016.

4.2 Bomb Threats by Target

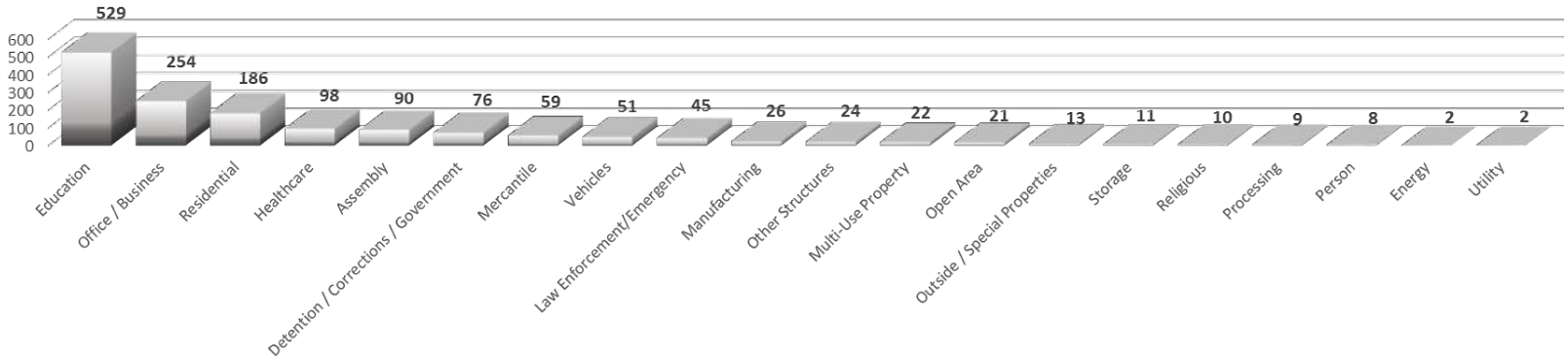


Figure 19. Bomb Threats by Target

Top Three Bomb Threat Target Types and Subtypes

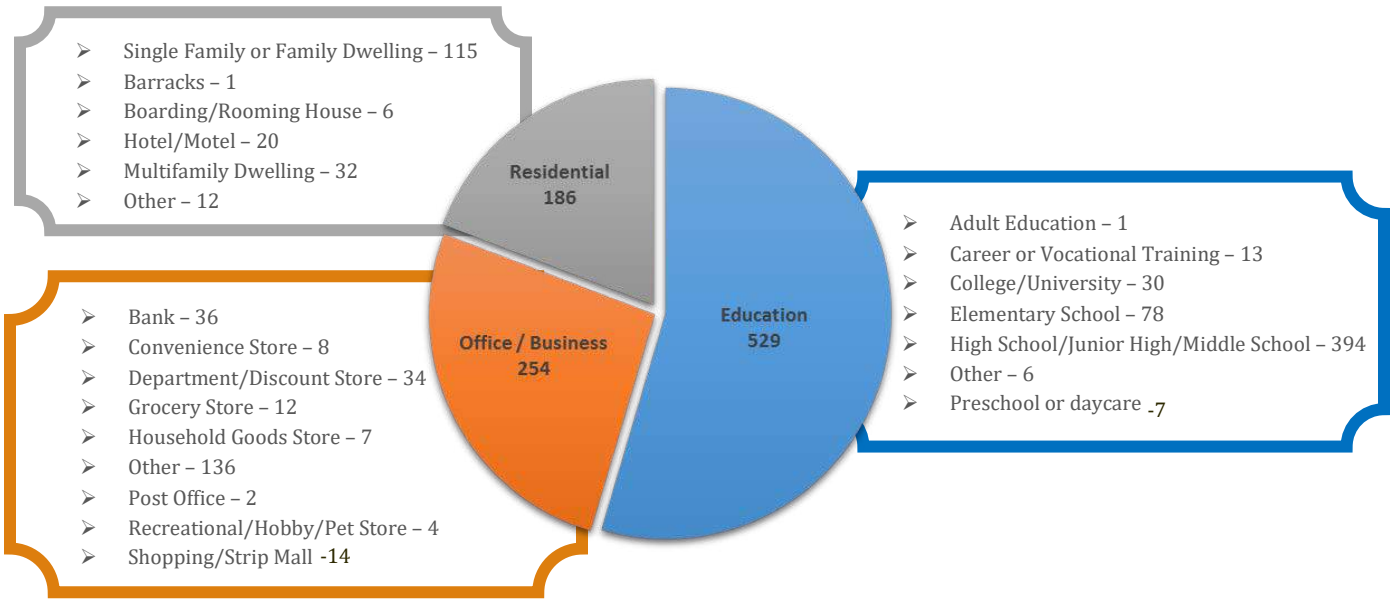


Figure 20. Bomb Threat Target Types (Top Three) and Subtypes

HOAXES – 2016

Hoaxes – 2016

5.1 Hoax Device Incidents, Summary and Trends

There were 503 hoax device incidents reported in 2016. Ninety-three (93) percent of the reported hoax devices were IED-type hoax devices. California, Florida, Washington, and Colorado had the most reported hoax devices. Residential structures remain the highest target of most reported hoax devices. Looking at figure 21, hoax device reporting is on a downward trend and is the lowest number seen since 2012.

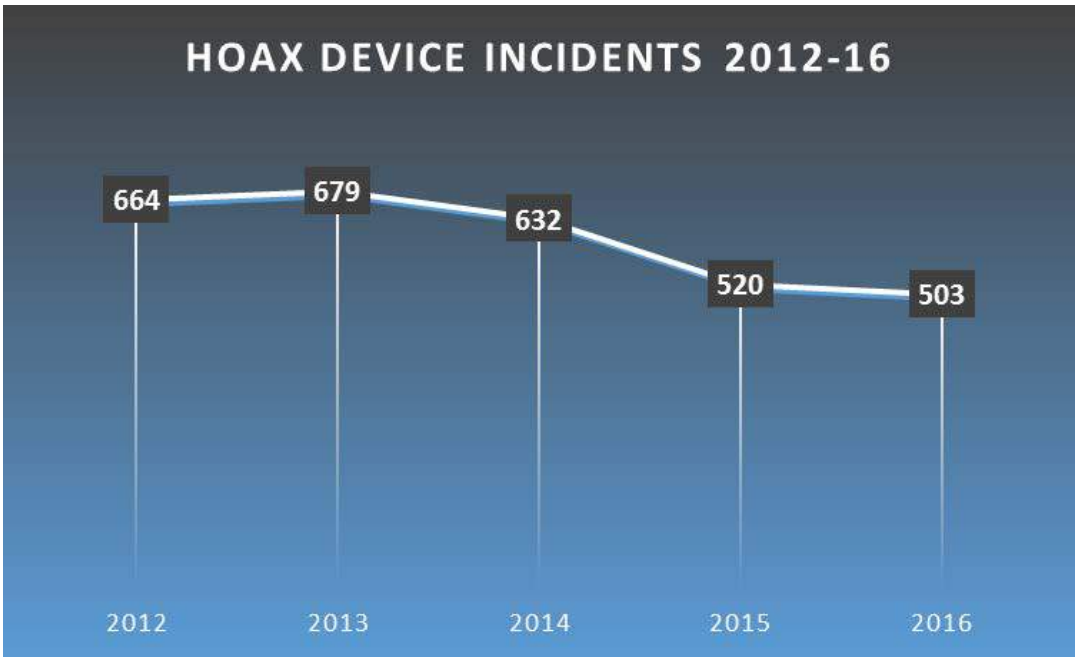


Figure 21. Hoax Device Incidents, 2012–16

5.2 Hoax Incidents by Incident Type

The most commonly reported hoax devices in 2016 were IEDs.

Type of reported hoax devices	2012	2013	2014	2015	2016
IED	613	627	579	474	468
CBRN (Not chemical reaction/acid bombs)	13	19	18	10	12
Incendiary Device	38	33	35	36	23
Total	**664**	**679**	**632**	**520**	**503**

Figure 22. Hoax Incident Types

HOAXES – 2016

5.3 Hoax Incidents by State

California had the highest number of reported hoax incidents. See figure 23 for a State-by-State view.

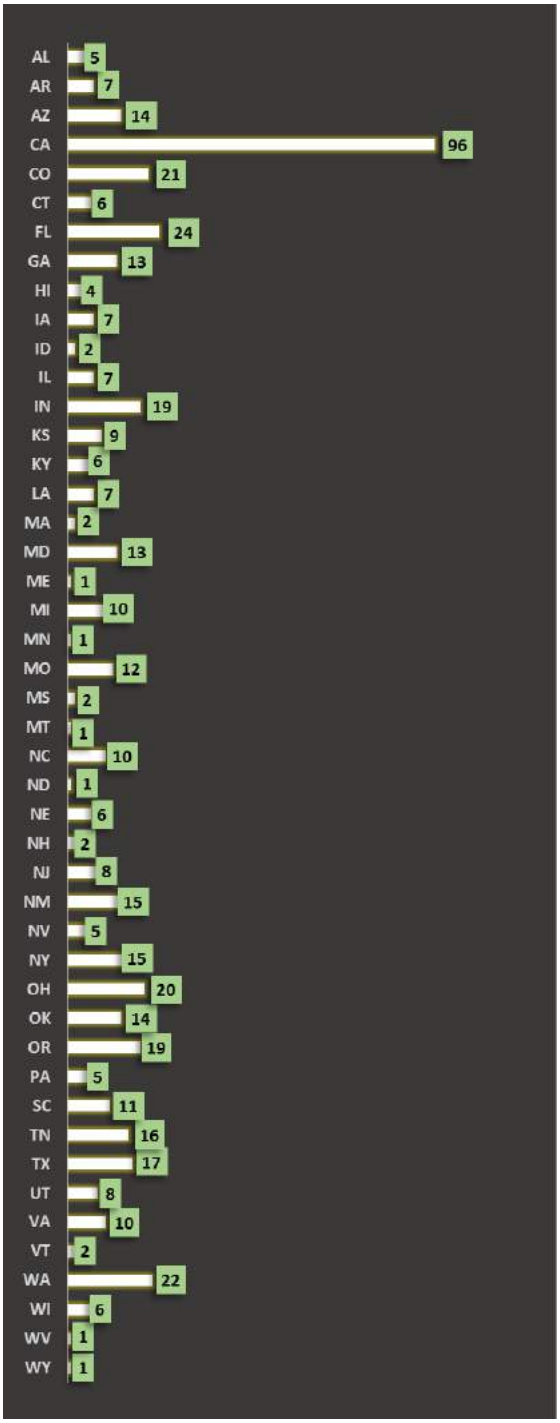


Figure 23. Hoax Incidents by State

5.4 Hoax Incidents by Target Type

The most commonly reported hoax incident target types in 2016 were residential, office/business and open areas. See figure 24 for a comparison between 2015 and 2016.

Target	2015	2016	DIFFERENCE
Agriculture	4	1	-75%
Assembly	18	11	-39%
Detention / Corrections / Government	13	24	85%
Education	41	29	-29%
Energy	3	2	-33%
Field/Woods	12	9	-25%
Healthcare	6	9	50%
Law Enforcement/Emergency	13	22	69%
Manufacturing	7	6	-14%
Mercantile	9	10	11%
Multi-Use Property	18	11	-39%
Office / Business	75	78	4%
Open Area	50	46	-8%
Other Structures	17	15	-12%
Outside / Special Properties	27	42	56%
Person	3	9	200%
Processing	6	3	-50%
Religious	7	6	-14%
Residential	149	145	-3%
Storage	12	7	-42%
Utility	2	2	0%
Vehicles	28	16	-43%

Figure 24. Hoax Incident Target Types

Residential, Office/Business, and Open areas were the top three target types in 2016. (See figure 25.)

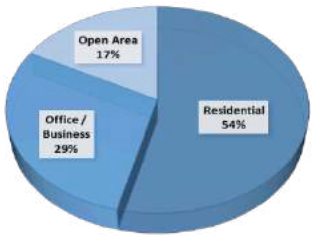


Figure 25. Top Three Targets of Interest for 2016

THEFTS/LOSSES – 2016

Explosives Thefts/Losses – 2016

6.1 Explosives Thefts, Summary and Trends

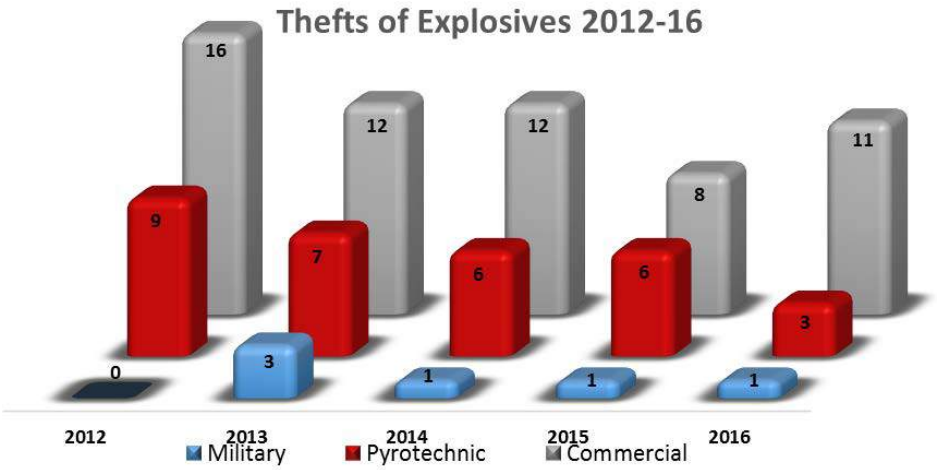


Figure 26. Explosives Theft Types, 2012–16

There were 15 reported thefts of explosives in 2016, the lowest number in the past 5 years, with the exception of 2015, which also had 15 thefts reported. Commercial explosives remain the most commonly stolen at 73 percent, followed by Pyrotechnics at 20 percent.

6.2 Explosives Theft Types per State

Figure 27 identifies States where explosives thefts were reported in 2016.

State	Commercial	Military	Pyrotechnics	Total
AL	1			1
CA		1		1
GA			1	1
HI			1	1
KY	1			1
ND	2			2
NM	2			2
SD			1	1
TX	3			3
UT	1			1
VA	1			1
Grand Total	**11**	**1**	**3**	**15**

Figure 27. Explosives Theft Types per State

THEFTS/LOSSES – 2016

6.3 Explosives Losses, Summary and Trends

There were 93 instances of explosives losses reported during 2016, the majority being commercial explosives (71 percent commercial explosives; 29 percent pyrotechnics).

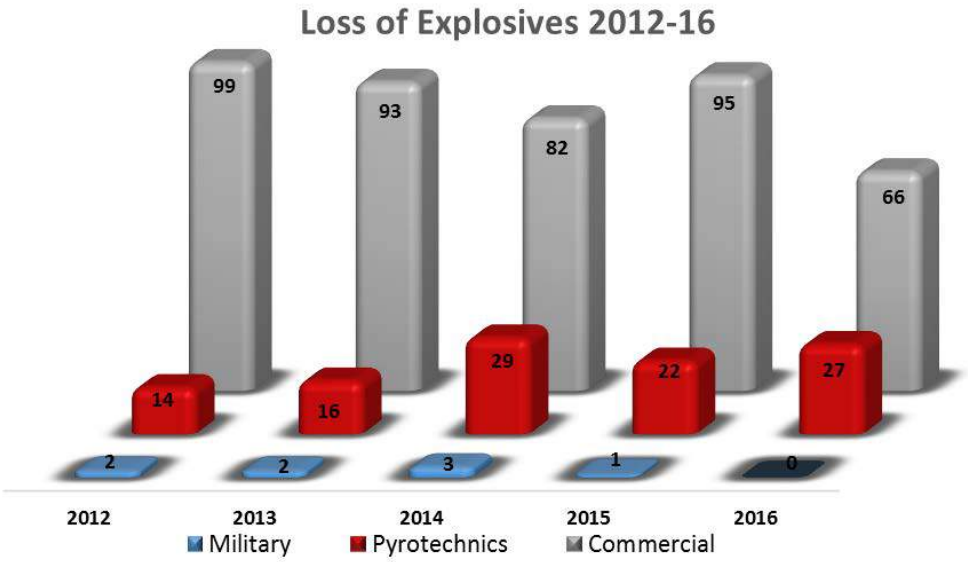


Figure 28. Explosives Loss Types, 2012–16

6.4 Explosives Losses, Reporting/Inspections

There were 551 instances of explosives losses reported from 2012 to 2016. Of these losses, 56 percent were a result of ATF compliance inspections of Federal explosive licensees/permitees. The remaining 44 percent were the result of industry self-reporting through internal controls (e.g. audits/inspections). The typical reasons given for the loss of explosives is improper documentation when issued, used, or they were deemed irretrievable after a failed shot.

Figure 29. Explosives Losses – Reporting/Inspections, 2012–16

THEFTS/LOSSES – 2016

6.5 Explosives Loss Types per State

Explosives Loss Types per State – 2016

State	Commercial	Military	Pyrotechnics	Total Per State
AL	3			3
AR	2			2
CA	4		1	5
CT	3			3
FL	3		1	4
ID	1			1
IL	1		3	4
IN			2	2
KS	2		1	3
LA	4			4
MA	1			1
MD			1	1
MI	1			1
MN	2			2
MO	2			2
MS			1	1
MT			1	1
NC			1	1
NE	1			1
NM	4		2	6
NV	1			1
NY	2		3	5
OH	1			1
OK	1			1
OR	2			2
PA	2		4	6
PR	1			1
SC	1		2	3
SD			1	1
TN	2			2
TX	10		1	11
UT	2		2	4
VA	5			5
WA	1			1
WY	1			1
Grand Total	66	0	27	93

Figure 30. Explosives Loss Types per State – 2016

CONTACT INFORMATION

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