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

2018

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

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EXECUTIVE SUMMARY

OPERATING HIGHLIGHTS

The 2018 *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 **2,764** interagency partners and **13,059** registered users. This report examines the total number of explosives related incidents reported in BATS for calendar year 2017 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, 2018, through December 31, 2018, BATS captured a total of **17,968** *explosives related incidents.* Of the reported incidents, there were **706** *explosions* of which **289** were *bombings*, with California (39) and Washington (28) having the highest numbers. There were a total of **7,305** *recoveries* reported in 2018, with the majority being explosives (non-improvised explosive devices (IEDs)). There were a total of **7,408** *suspicious/unattended package* incidents, an increase of 38 percent since 2017. Bomb threats increased 32 percent in 2018. This is the first noted increase in the past 5 years. Education, office/business, residential and assembly remain the top four targets of bomb threats during 2018. The number of reported incidents targeting offices/businesses has doubled since 2017.

LOOKING AHEAD

In 2018, the United States Bomb Data Center's two sections, Bomb Arson Tracking System Section (BATSS) and Arson and Explosives Information and Analysis Section (AEIAS), worked to collect, analyze and disseminate information regarding arson and suspected criminal misuse of explosives to increase situational awareness to detect, deter and prevent criminal acts. Specifically, BATSS provided training to 2,574 registered and potential BATS users, in 1,346 law enforcement and fire agencies. AEIAS produced 172 arson and explosives intelligence products.

James Watson
Director, USBDC

EXPLOSIONS – 2018

1.1 Explosion Incidents, Summary and Trends

Explosion Incidents are identified by the following categories: *bombings*, *accidental, undetermined,* and *under investigation*. There may be some that were left blank or unspecified. The *undetermined explosion* category is used when the investigation has concluded, but the explosion type was unidentified. The *under investigation* category is used when the cause of the explosion is still pending 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 706 Explosion Incidents recorded in BATS during 2018, a slight increase of 3 percent from 2017. Bombings decreased, from 335 reported incidents in 2017 to 289 incidents in 2018.

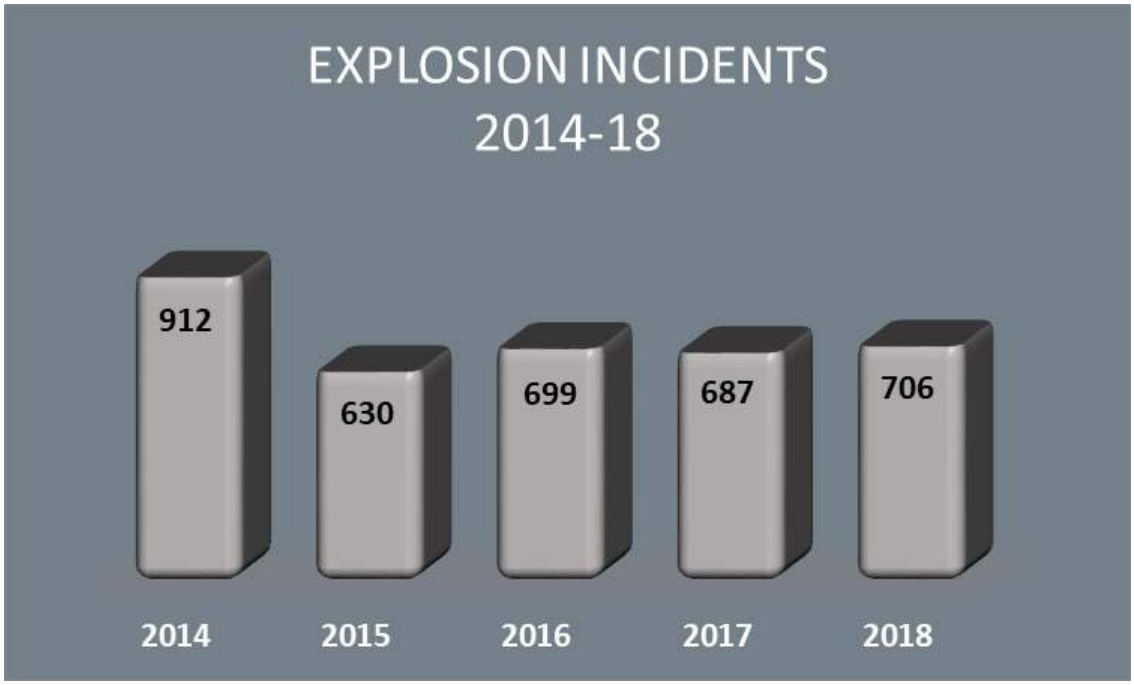

Figure 1. BATS Reported Explosion Incidents, 2014–18

EXPLOSIONS – 2018

1.2 Explosion Incidents with Reported Injuries

Victim injuries account for 82 percent of the total number of reported injuries in 2018 and were primarily caused by accidental explosions.

Injuries					
Year	2014	2015	2016	2017	2018
Fire Service	1	0	3	0	2
Law Enforcement	18	1	1	2	2
Suspects	17	5	5	7	9
Victims	437	58	59	58	59
Total	473	64	68	67	72

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. That explosion caused 60 injuries.

1.3 Explosion Incidents with Reported Fatalities

Fatalities					
Year	2014	2015	2016	2017	2018
Fire Service	0	0	0	0	0
Law Enforcement	0	0	0	0	0
Suspects	3	0	2	1	1
Victims	38	8	7	16	15
Total	41	8	9	17	16

Figure 3. Explosion Incidents – Fatalities

EXPLOSIONS – 2018

1.4 Explosion Incidents, Type and Subtype

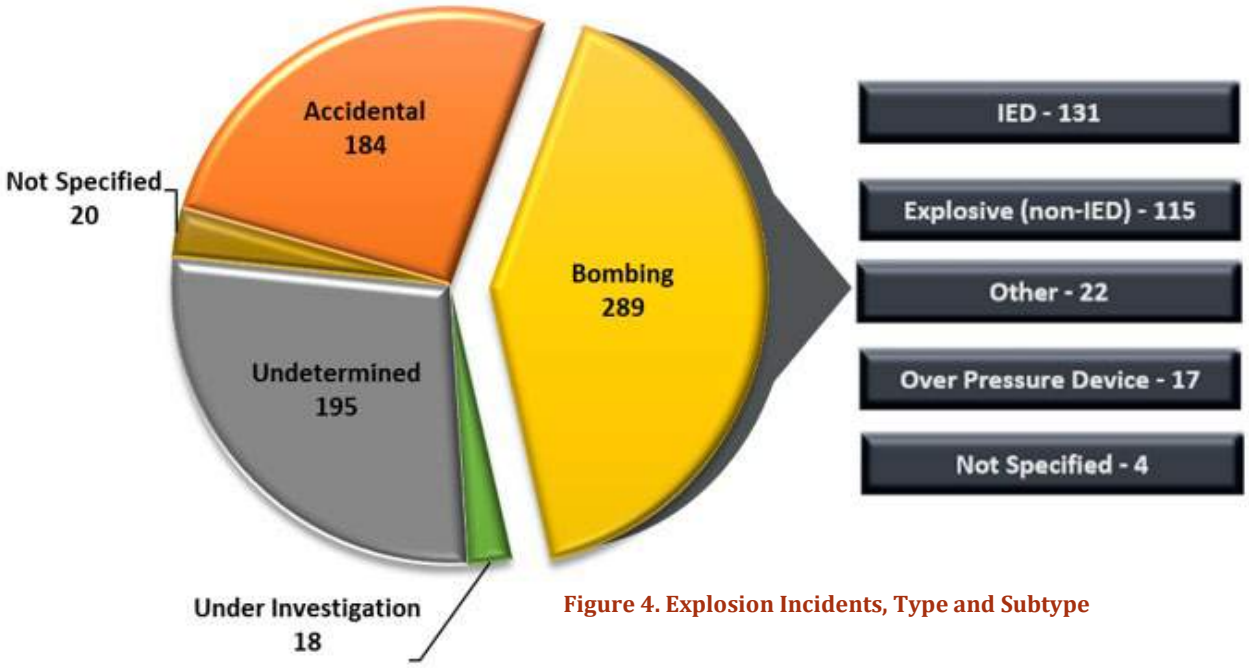

Figure 4. Explosion Incidents, Type and Subtype

1.5 Bombing Trends

A total of 289 bombing incidents were reported in 2018, a decrease of 14 percent from 2017. Bombings are broken down into the following categories: *IED*, *Over Pressure Devices*, *Other Criminal*, and *Explosive* (non-IED such as commercial, military, fireworks, and HME). Thirty percent of the 289 bombings targeted residential structures. Bombings targeting educational institutions have decreased 86 percent since 2016.

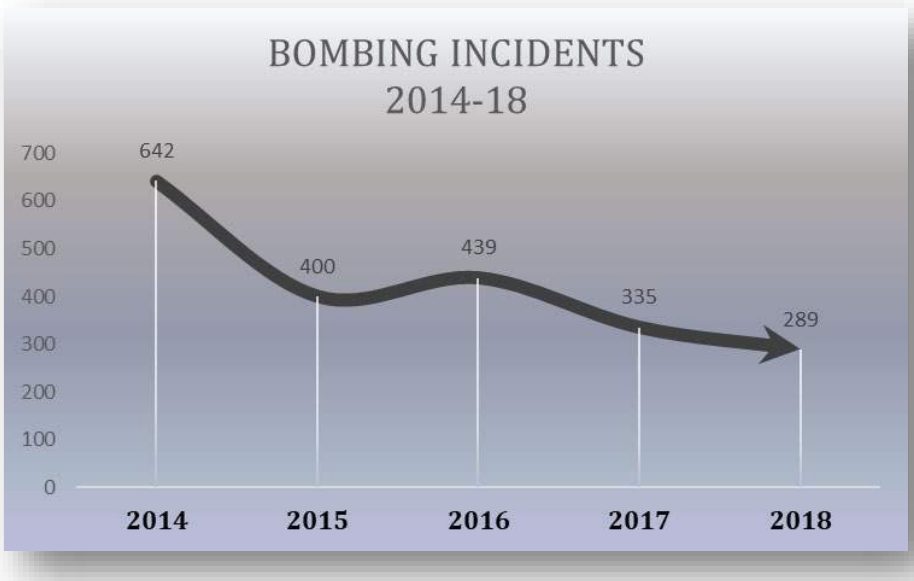

Figure 5. Bombing Incidents

EXPLOSIONS – 2018

The figure below represents all of the States that had 10 or more reported bombings in 2018. As a comparison, 2016 and 2017 are included as well. There was a significant decrease (49%) in California whereas Pennsylvania has seen an increase (85%) since 2016.

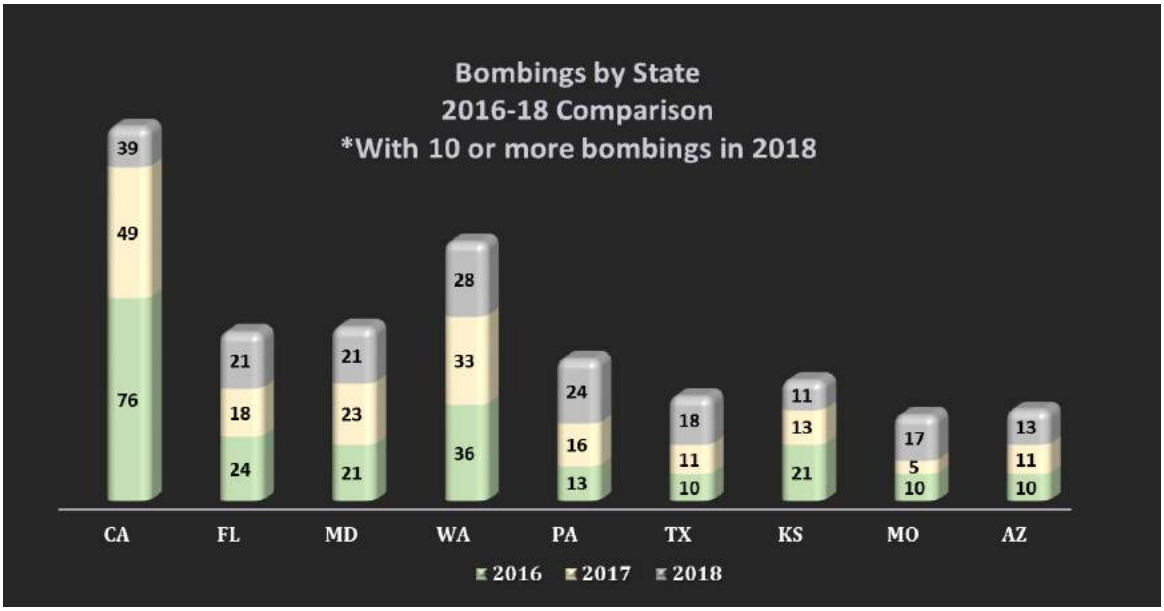

Figure 6. Comparison of Bombings by State

1.6 Explosions Device – Main Charges

Pyrotechnics/Fireworks, Flash Powder/Pyrotechnic Mixture, and Smokeless Powder were the most common device main charges reported in explosion incidents for 2018.

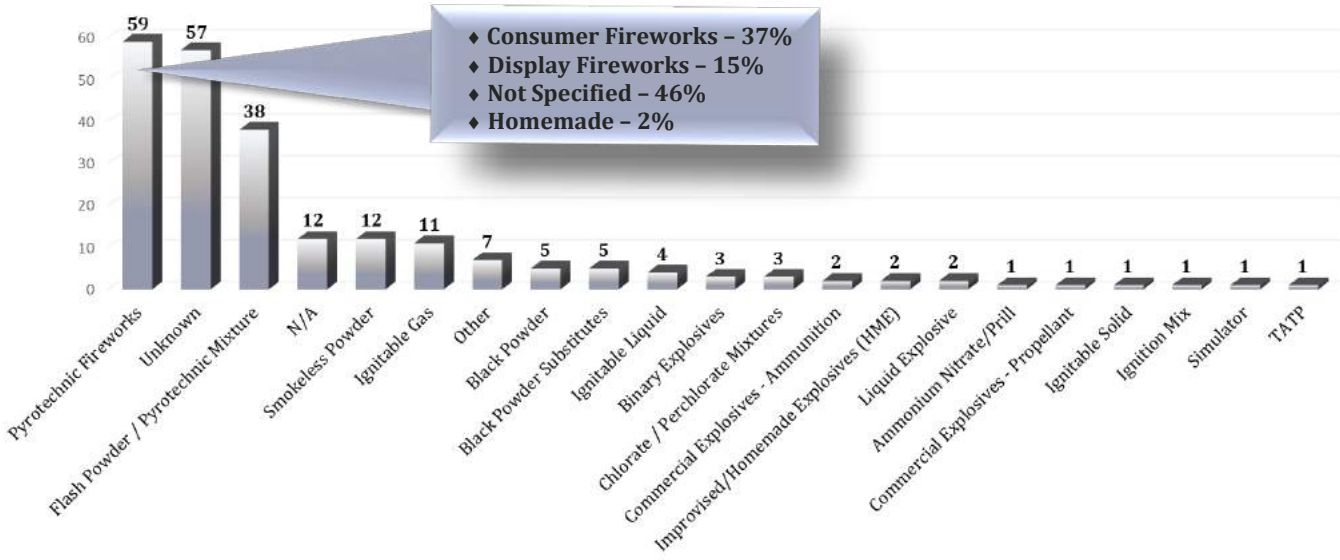

Figure 7. Explosions Device – Main Charges, 2018

EXPLOSIONS – 2018

1.7 Explosions, All Devices and Materials – Main Charges

Figure 8 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.

Unknown or N/A (located at the bottom of the chart) indicates there was no main charge identified or the main charge was unknown at the time of the record entry.

Note: Due to the large amount of data, if a main charge had a grand total of 10 or fewer, it was not included in the chart. This excludes Improvised/Homemade Explosives (HME) – Fuel Oxidizer Mixture, HMTD, and Hydrogen Peroxide Mixtures.

Explosion - Main Charges						
Material Subtype Description	**2014**	**2015**	**2016**	**2017**	**2018**	**Total**
Ammonium Nitrate/Prills	5	10	4	6	1	26
Binary Explosives	11	9	9	2	3	34
Black Powder	20	18	21	9	5	73
Black Powder Substitutes	7	5	10	7	5	34
Chlorate / Perchlorate Mixtures	2	2	6	3	3	16
Dry Ice	22	10	6	7	0	45
Flash Powder / Pyrotechnic Mixture	63	44	46	44	38	235
Improvised/Homemade Explosives (HME) - Fuel Oxidizer Mixture	0	0	0	0	2	2
HMTD	2	0	1	0	0	3
Hydrogen Peroxide Mixtures	2	0	1	0	0	3
Ignitable Gas	9	10	8	7	11	45
Ignitable Liquid	6	3	7	4	4	24
Other (Not identified)	11	11	6	7	7	42
Commercial Explosives - Propellant	2	1	2	2	1	8
Commercial Explosives - Pyrotechnics/Fireworks	134	115	126	70	59	504
Smokeless Powder	10	11	20	4	12	57
TATP	2	1	4	3	1	11
Unknown or N/A	0	0	0	43	69	112

Figure 8. Explosion – Main Charges, 2014–18

EXPLOSIONS – 2018

1.8 Explosion – Device Containers

The data represented in figure 9 illustrates the number of *explosives incidents* for each container type and does not represent the actual quantity of identified containers. For example, if there were multiple pipe bombs with end caps discovered in the same incident, the numbers below would represent one pipe and one end cap associated with that incident. However, if there were two identical container types recovered in the same incident but both consisted of independent material subtypes, then both are counted.
Note: Unknown or N/A is selected when either a container was not known at the time of entry or there was no container associated with the device.

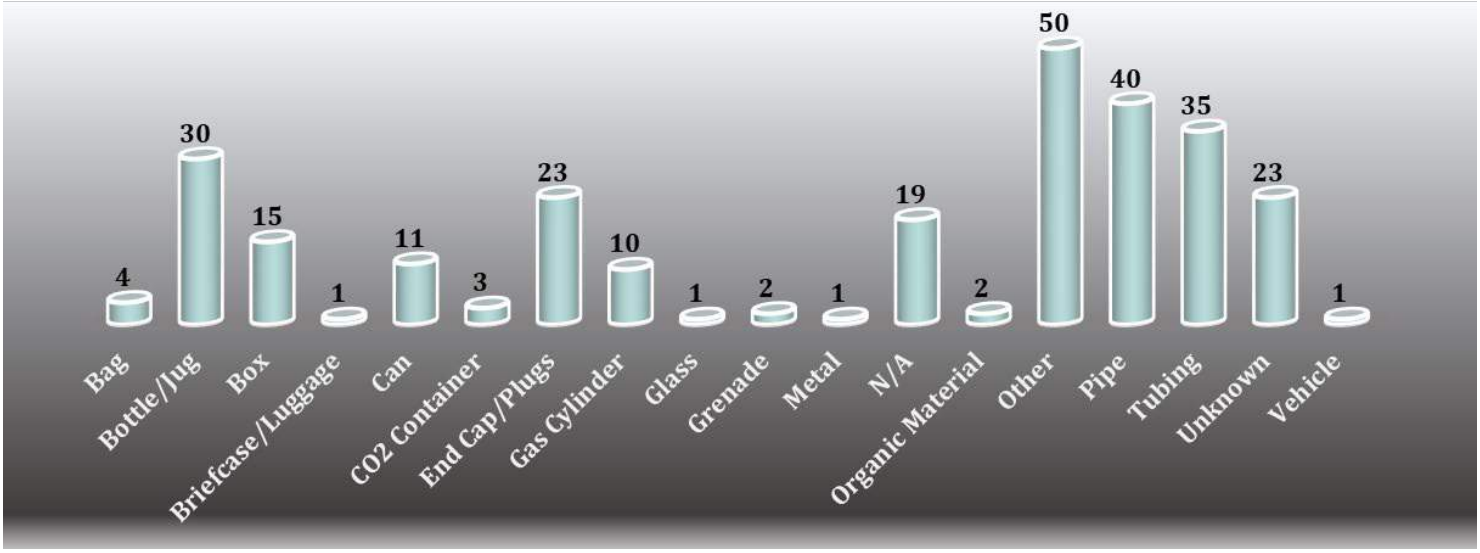

Figure 9. Explosion Device Containers – 2018

1.9 Explosion – Switches

Figure 10 shows the total number of switches reported during an explosion incident for calendar year (CY) 2018. Victim Operated switches were among the highest reported during 2018 and increased by 7 incidents since 2017. *Note: Unknown or N/A is selected when either a switch was not known at the time of entry or there was no switch associated with the device.*

Switch Type	
Command Wire/Mechanical Switch	1
Time - Chemical Reaction (Corrosive, Dissolution)	1
Time - Electronic (Clock, Timer, Watch, etc.)	1
Time - Pyrotechnic Delay (Safe/Time Fuse, Hobby Fuse)	7
Victim Operated	10
Unknown or N/A	86
Grand Total	**106**

Figure 10. Switches Related to Explosions – 2018

RECOVERIES – 2018

2.1 Recovery Incidents, Summary and Trends

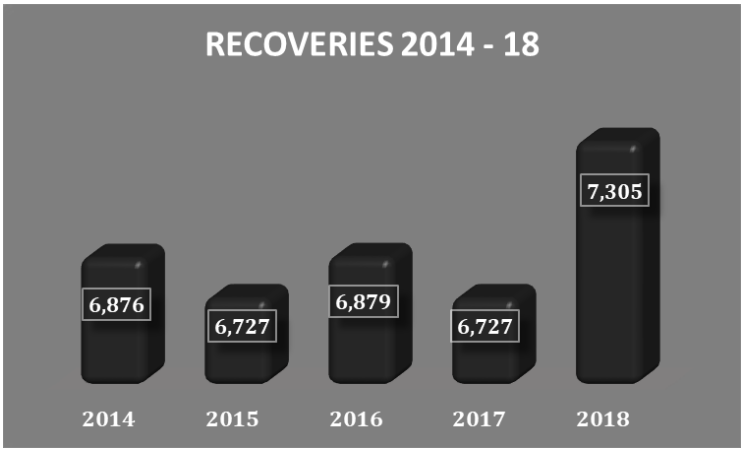

Figure 11. Recovery Incidents, 2014–18

2.2 Recovery Types

Overall, the largest recovery type and subtype categories remain unchanged. Explosives (non-IED) recoveries represent the majority of recoveries during 2018. This is followed by the "Other" category, which includes the following subtypes: Ammunition, Bomb Making Information, Inert–Commercial, and Inert–Military. Of those subtypes, Ammunition (1,206) and Inert–Military (839) were the most reported. (See figures 12 and 13.)

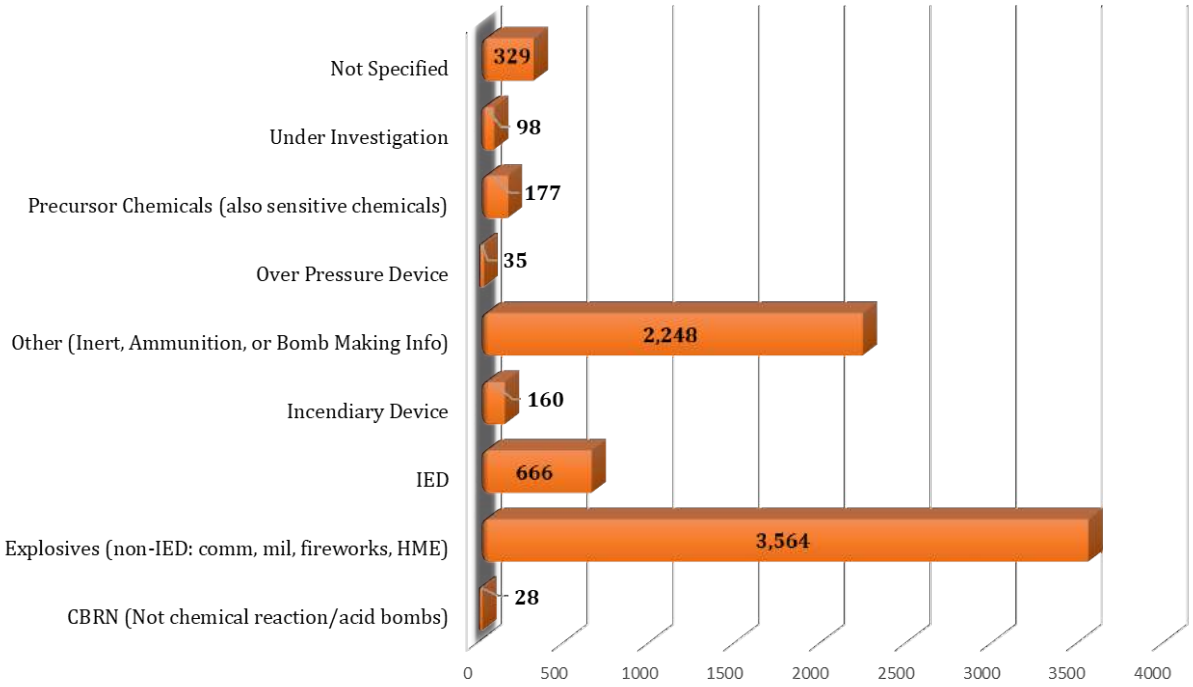

Figure 12. Recovery Types – 2018

RECOVERIES – 2018

2.3 Recovery Subtypes

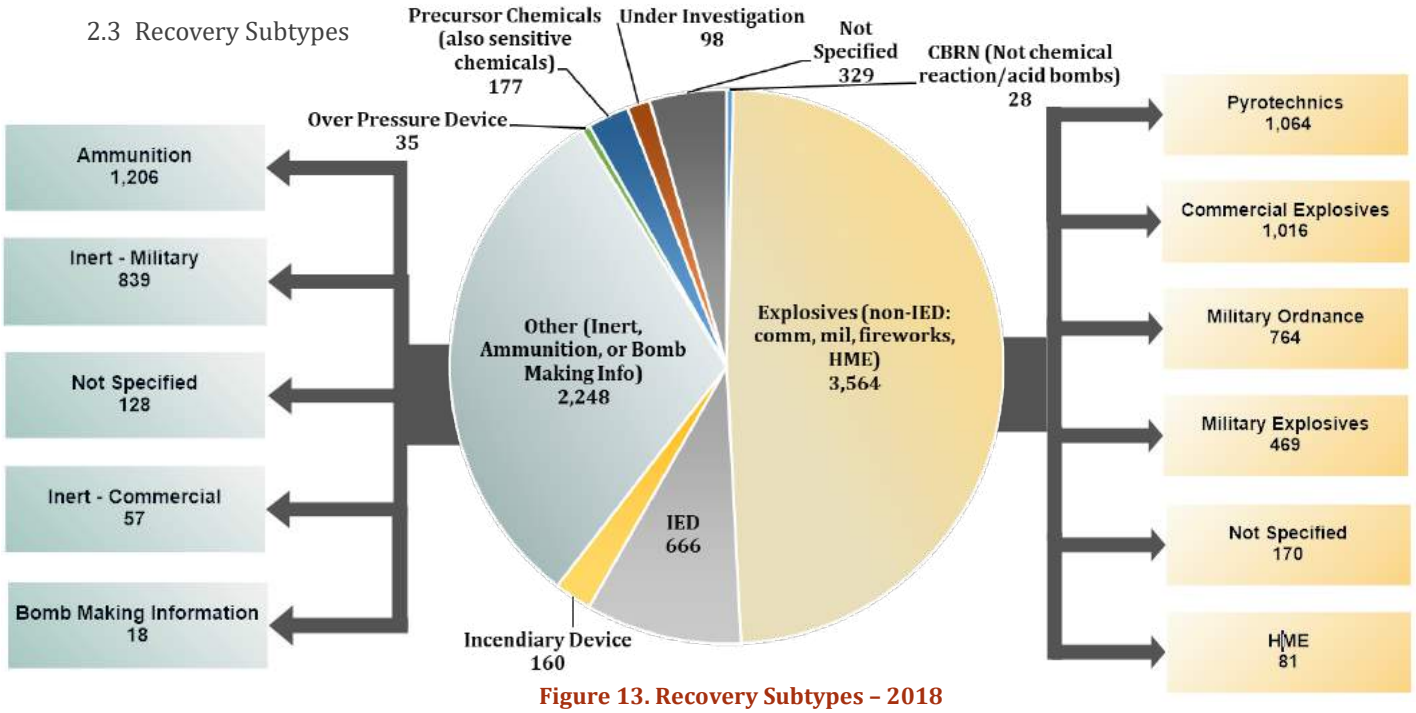

Figure 13. Recovery Subtypes – 2018

2.4 Recovery Incidents by Target Type

Of the recovery incidents where a target was reported in 2018, the majority took place at residential structures (29 percent) and law enforcement/emergency offices (10 percent). The majority of recovery incidents at law enforcement/emergency offices does not indicate that a specific device was recovered after being placed at the location; rather, it is most likely due to explosives material turn-ins, etc. (See figure 14 for a complete list of all recoveries by location.)

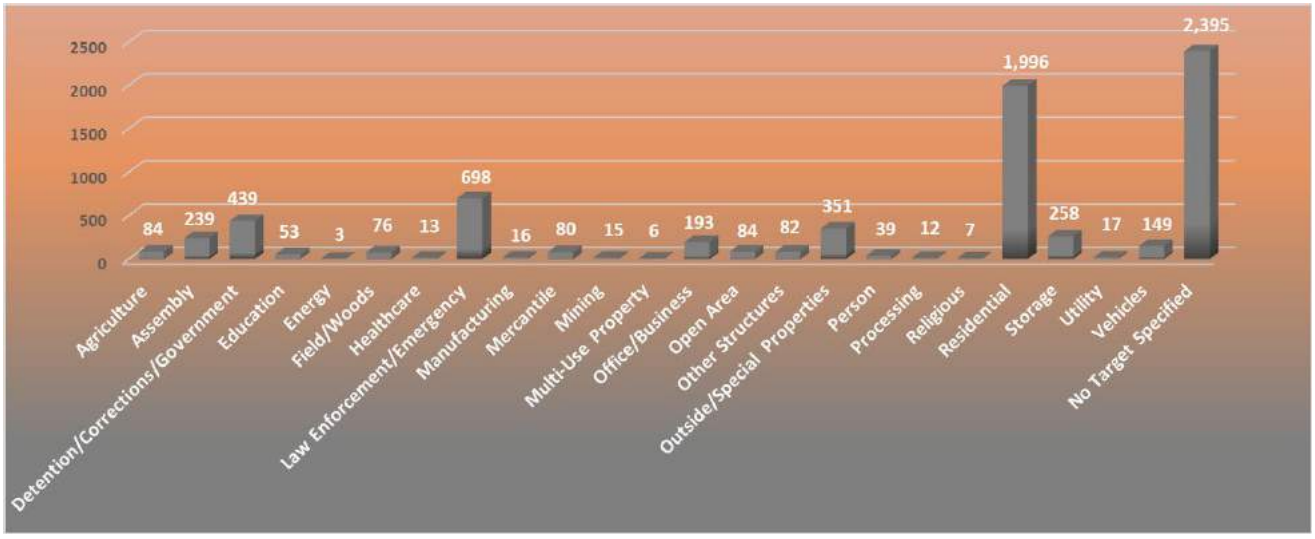

Figure 14. Recovery Incidents by Target Type – 2018

RECOVERIES – 2018

2.5 Recovery – All Devices and Materials - Main Charges

Figure 15 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.

Unknown or N/A (located at the bottom of the chart) indicates there was no main charge identified or the main charge was unknown at the time of the record entry.

*Note: Due to the large amount of data, if a main charge had a **grand total** of 10 or fewer recoveries, it was not included in the chart. Additionally, in January 2019, the BATS materials hierarchy was updated. Additionally, statistics from previous years have been re-categorized to reflect the current schema in the chart below.*

Recovery - Main Charges						
Material Type	**2014**	**2015**	**2016**	**2017**	**2018**	**Grand Total**
Ammonium Nitrate/Prill	19	21	24	18	21	103
Commercial Explosives - Ammunition	0	0	0	0	11	11
Commercial Explosives - Binary	47	46	49	41	35	218
Commercial Explosives - Blasting Agent	76	57	38	52	37	260
Commercial Explosives - Dynamite	154	128	101	91	73	547
Commercial Explosives - Propellant	488	436	500	386	435	2,245
Commercial Explosives - Pyrotechnic Fireworks	593	590	627	348	339	2,497
Commercial Explosives - Shaped Charge	21	21	13	16	4	75
Commercial Explosives - Plastic Explosives	11	6	12	3	10	42
Commercial Explosives - Cast Explosives	46	29	38	29	24	166
Commercial Explosives - Liquid Explosives	16	12	13	8	3	52
Improvised/Homemade Explosives (HME) - Explosive Compounds	11	16	18	12	20	77
Improvised/Homemade Explosives (HME) - Fuel Oxidizer Mixture	315	303	306	246	275	1,445
Military Explosives - Demolition Materials	34	31	30	12	43	150
Military Explosives - Munitions/Ordnance	0	0	0	0	31	31
Special Purpose Devices	13	15	4	1	9	42
CS/OC Grenade (LE)	21	17	12	6	7	63
Ignitable Liquid	91	72	81	43	30	317
Ignitable Solid	18	16	12	13	4	63
Match Heads	5	4	12	3	5	29
Ordnance	6	13	2	19	0	40
Other	51	60	71	62	50	294
PETN	7	3	6	6	19	41
Signaling Device	29	37	40	15	18	139
Simulator	18	20	25	5	20	88
Smoke Grenade (LE)	8	13	16	13	10	60
TNT	31	16	22	15	16	100
Unknown or N/A	0	0	0	314	579	893
Grand Total	**2,129**	**1,982**	**2,072**	**1,777**	**2,128**	**10,088**

Figure 15. Recovery – Main Charges, 2014–18

RECOVERIES – 2018

2.6 Recovery – Switches

The majority of recovered switch types in 2018 included Time – Pyrotechnic (safety/time or hobby fuses) and Command Pull switches. Time – Pyrotechnic switches increased by 58 percent, and Command – Pull switches increased by 54 percent since 2017. (See figure 16 for a breakdown of switch types with corresponding total number of incidents.) *Note: Unknown or N/A is selected when either a switch was not known at the time of entry or there was no switch associated with the device.*

Figure 16. Recovered Switches – 2018

2.7 Recovery – Containers

Figure 17 provides the number of incidents where a container was reported as recovered in 2018. 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 pipes, four end caps/plugs, and two bottles/jugs, it would be represented in the graph below as one incident. However, if there were two identical container types recovered in the same incident but both consisted of independent material subtypes, then both would be counted. *Note: Unknown or N/A is selected when either a container was not known at the time of entry or there was no container associated with the device.*

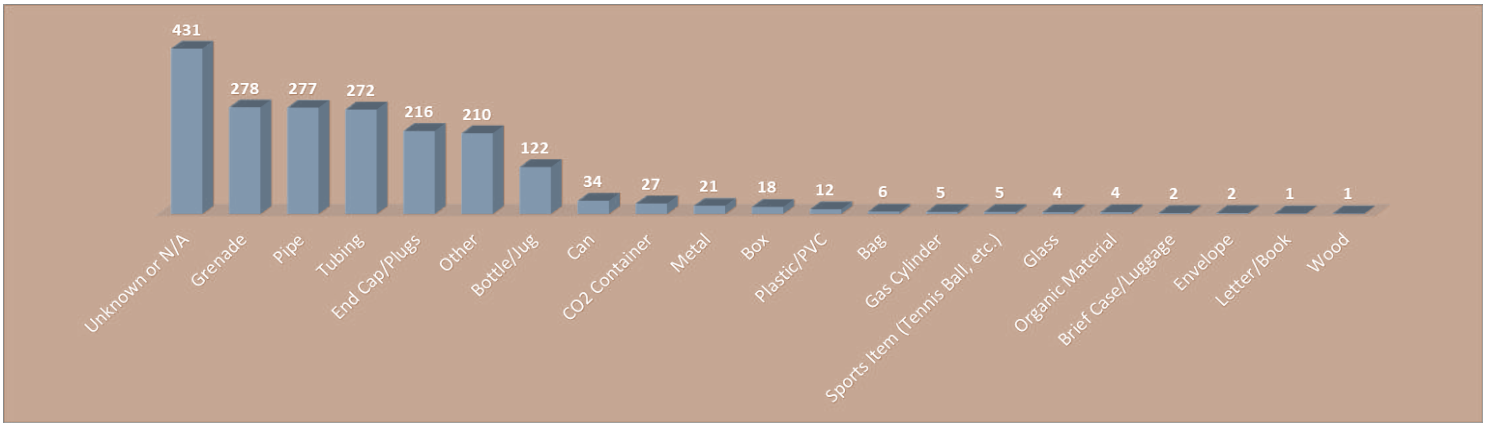

Figure 17. Recovery of Containers – 2018

SUSPICIOUS PACKAGES – 2018

3.1 Suspicious Packages, Summary and Trends

There were 7,404 suspicious/unattended package incidents reported during the 2018 calendar year. This was a 33-percent increase from 2017.

Figure 18. Suspicious/Unattended Packages

Incidents involving Luggage/Briefcases decreased by 32 percent; however, Book Bag/Purse increased from 197 incidents in 2017 to 1,136 incidents in 2018. There was a significant increase in Package/Parcel incidents as well (99-percent increase since 2017). (See figure 19 for a comparison of suspicious package types between 2017 and 2018.)

Type	2017	2018	Difference
Book Bag / Purse	197	1,136	939
Cargo (commercial)	106	161	55
Letter / Envelope	144	255	111
Luggage / Briefcase	1,813	1,235	-578
Other	1,165	1,039	-126
Package / Parcel	1,008	2,006	998
Person	33	31	-2
Powder (Without Envelope)	45	55	10
Suspicious Container	840	1,132	292
Under Investigation	2	1	-1
Vehicle	199	182	-17
Not Identified	0	171	171

Figure 19. Suspicious/Unattended Package Incident Types

BOMB THREATS – 2018

4.1 Bomb Threats, Summary and Trends

A total of 1,627 bomb threat incidents were reported in 2018, an increase of 32 percent since 2017. This is the first noted increase in the past 5 years. In 2018, bomb threats were highest during the month of December (28%) with the majority of incidents occurring on Thursdays (32%).

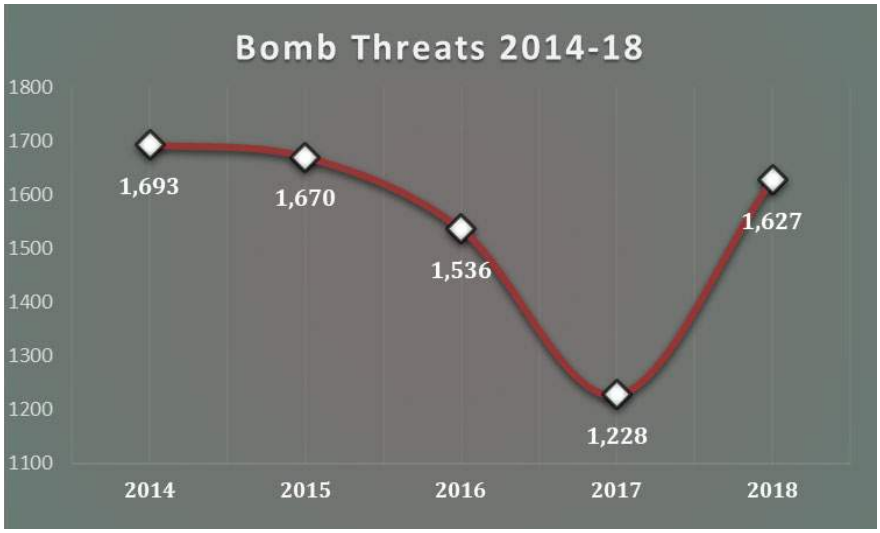

Figure 20. Bomb Threats – 5-year Trend Analysis

4.2 Bomb Threats by Target

Similar to 2017, education, office/business, residential and assembly remain the top four targets of bomb threats during 2018. The number of reported incidents targeting offices/businesses has doubled since 2017.

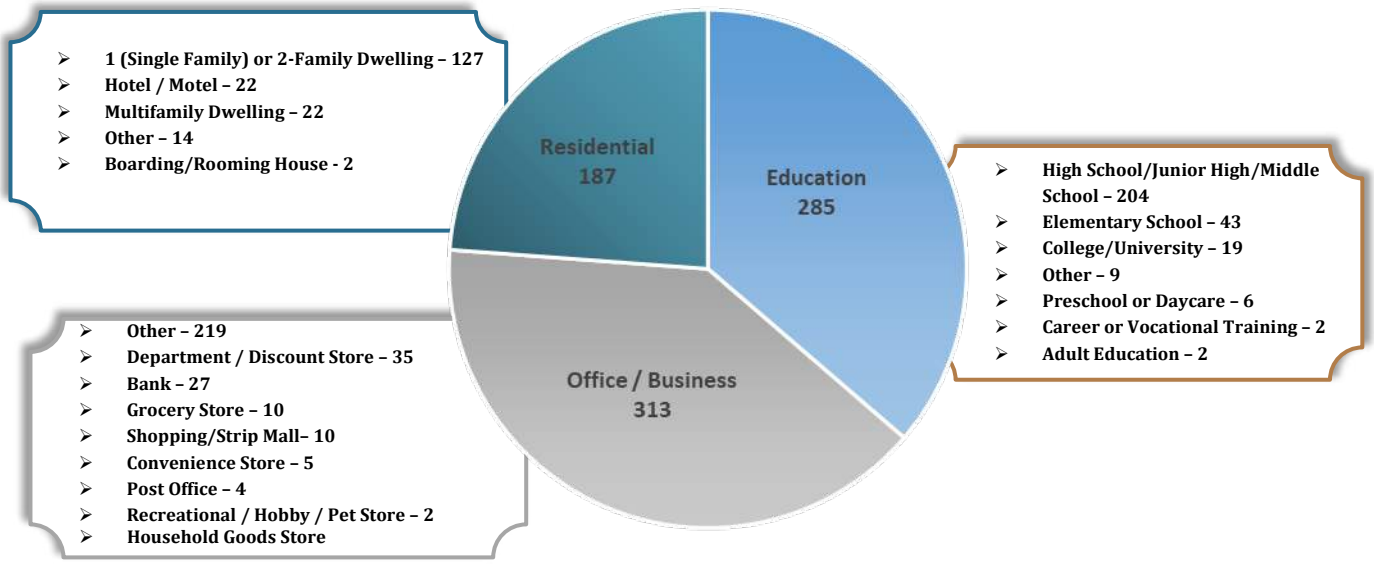

Figure 21. Bomb Threat Target Types (Top Three) and Subtypes

HOAXES – 2018

5.1 Hoax Device Incidents, Summary and Trends

There were 426 hoax device incidents reported in 2018, a slight increase of 10 percent since 2017. Seventy-seven (77) percent of the reported hoax devices were IED-type hoax devices. Texas, California, Florida, Washington, and New York had the most reported hoax devices. Residential structures remain the most common target of reported hoax devices. Figure 22 shows that hoax device reporting is on a downward trend since 2014 with the exception of a slight increase in 2018.

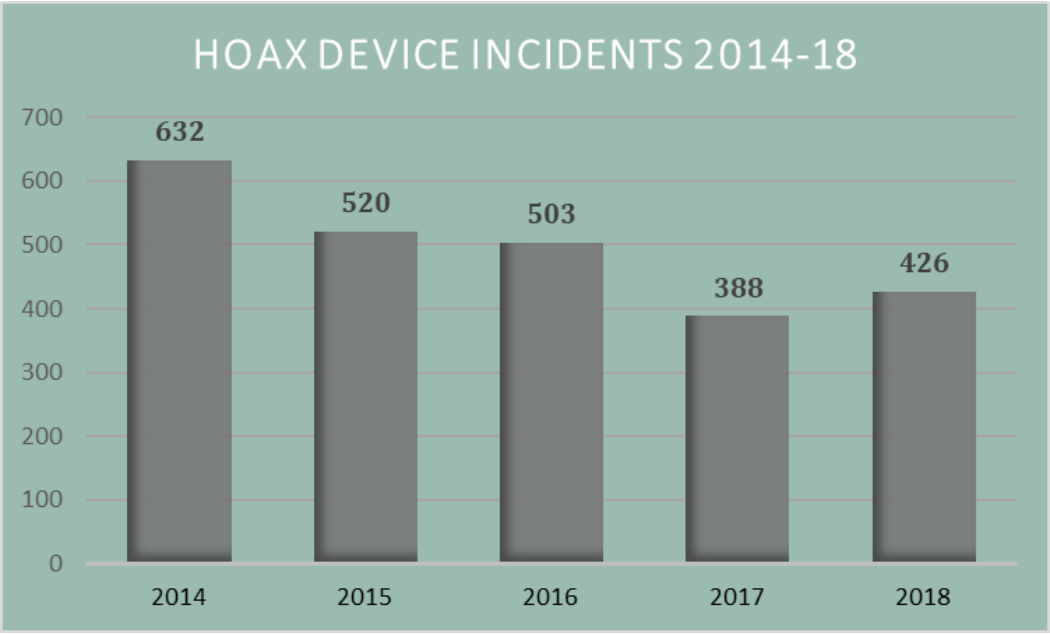

Figure 22. Hoax Device Incidents, 2014–18

5.2 Hoax Incidents by Incident Type

The most commonly reported hoax devices in 2018 were IEDs. Seventeen (17) of the 426 hoax incidents did not specify a type.

Type of reported hoax devices	2014	2015	2016	2017	2018
IED	579	474	468	361	376
CBRN (Not chemical reaction/acid bombs)	18	10	12	11	14
Incendiary Device	35	36	23	16	19
Total	**632**	**520**	**503**	**388**	**409**

Figure 23. Hoax Incident Types and Subtypes

THEFTS/LOSSES – 2018

6.1 Explosives Thefts, Summary and Trends

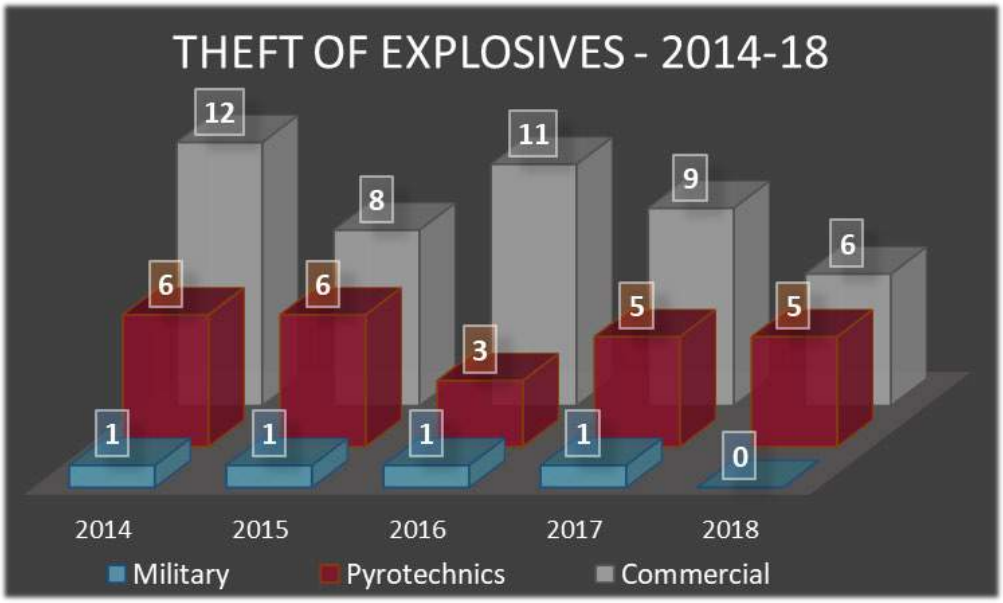

Figure 24. Explosives Theft Types, 2014–18

There were 11 reported thefts of explosives in 2018, four less than last year. Commercial explosives remain the most commonly stolen, followed by pyrotechnics.

6.2 Explosives Theft Types per State

Figure 25 identifies States where explosives thefts were reported in 2018.

State	Commercial	Military	Pyrotechnics	Total
AR	1			1
CA			1	1
CO	1			1
GU			1	1
PA	1		1	2
TX	1		1	2
UT			1	1
VA	1			1
WV	1			1
Grand Total	**6**	**0**	**5**	**11**

Figure 25. Explosives Theft Types per State

THEFTS/LOSSES – 2018

6.3 Explosives Losses, Summary and Trends

There were 133 instances of explosives losses reported during 2018, a slight decrease from 2017. The majority of explosives losses were commercial explosives (77 percent) and pyrotechnics (21 percent).

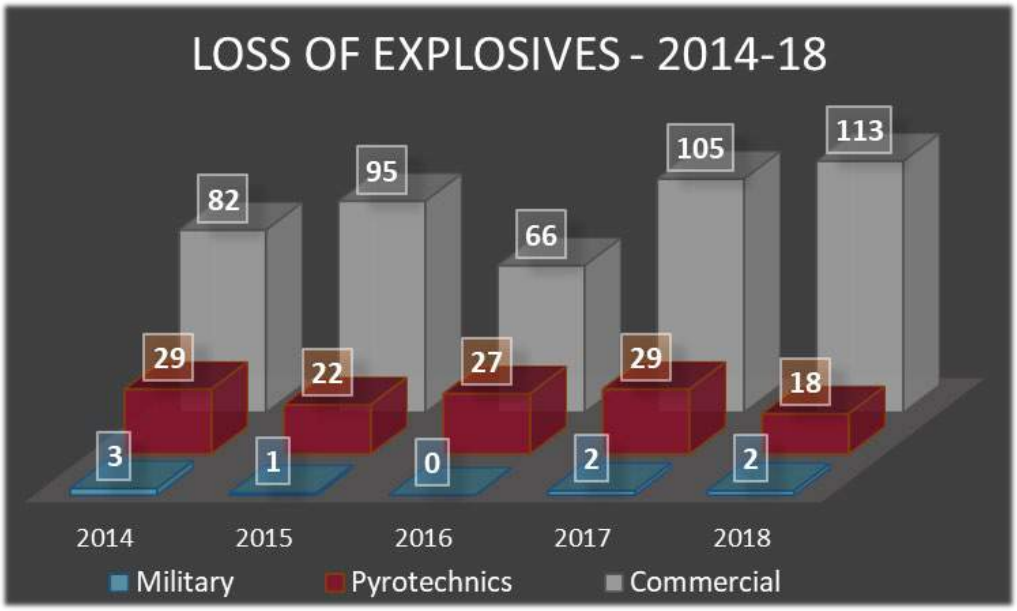

Figure 26. Explosives Loss Types, 2014–18

State	Commercial	Military	Pyrotechnics	Total
AK	3			3
AL	1			1
AR	5			5
AZ	5			5
CA	4	1		5
CO	4		1	5
CT	1			1
FL	3		1	4
GA			1	1
IA	1			1
IL	2			2
IN			3	3
KS	1		2	3
KY	3			3
LA	3		1	4
MA			1	1
MN	1			1
MO	2		1	3
MS	4			4

State	Commercial	Military	Pyrotechnics	Total
MT	1			1
NC	3		1	4
ND	4			4
NV	5			5
NY	4			4
OH	2			2
OK	6			6
OR	2			2
PA	4			4
TN	4		4	8
TX	16			16
UT	2	1	2	5
VA	5			5
VT	1			1
WA	3			3
WV	5			5
WY	3			3
Grand Total	**113**	**2**	**18**	**133**

Figure 27. Explosives Loss Types per State – 2018

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