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

2019

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 2019 *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 **2,529** interagency partners and **12,515** registered users. This report examines the total number of explosives related incidents reported in BATS for calendar year 2019 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, 2019, through December 31, 2019, BATS captured a total of **14,940** *explosives related incidents.* Of the reported incidents, there were **715** *explosions* of which **251** were *bombings*, with California (27) and Pennsylvania (23) having the highest numbers. There were a total of **7,298** *recoveries* reported in 2019, with the majority being explosives (non-improvised explosive devices (IEDs)). There were a total of **5,482** *suspicious/unattended package* incidents, a decrease of 26 percent since 2018. Bomb threats decreased 33 percent in 2019. Assembly, education, residential, and office/business remain the top four targets of bomb threats during 2019. The number of reported incidents targeting education facilities decreased by almost half since 2018.

LOOKING AHEAD

In 2019, 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. AEIAS produced 223 arson and explosives intelligence products during calendar year (CY) 2019.

James Watson
Director, USBDC

EXPLOSIONS – 2019

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 715 Explosion Incidents recorded in BATS during 2019, a slight increase from 2018. Bombings decreased, from 289 reported incidents in 2018 to 251 incidents in 2019.

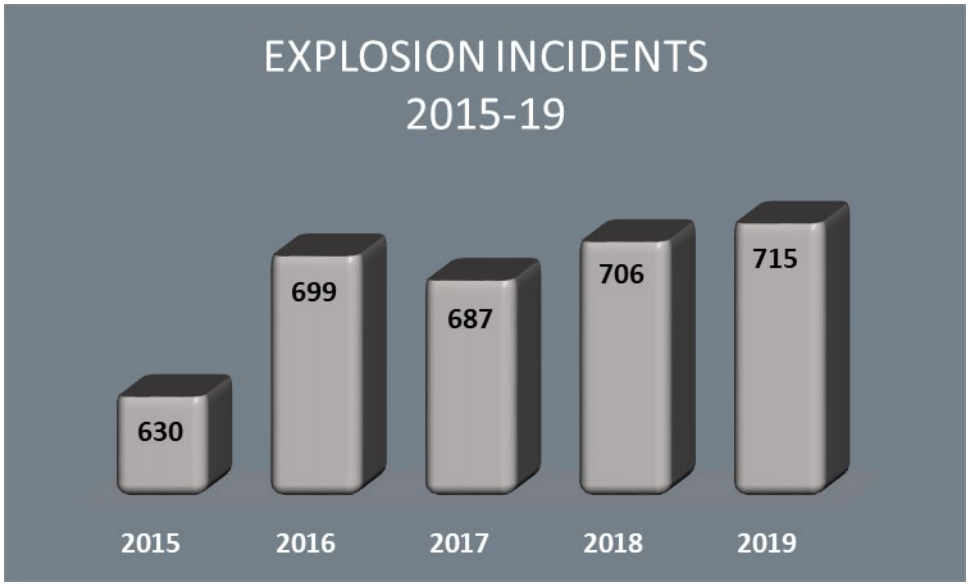

Figure 1. BATS Reported Explosion Incidents, 2015–19

EXPLOSIONS – 2019

1.2 Explosion Incidents with Reported Injuries

Victim injuries account for 88 percent of the total number of reported injuries in 2019 and were primarily caused by accidental explosions.

Injuries					
Year	2015	2016	2017	2018	2019
Fire Service	0	3	0	2	1
Law Enforcement	1	1	2	2	3
Suspects	5	5	7	9	6
Victims	58	59	58	59	76
Total	64	68	67	72	86

Figure 2. Explosion Incidents – Injuries

1.3 Explosion Incidents with Reported Fatalities

Fatalities					
Year	2015	2016	2017	2018	2019
Fire Service	0	0	0	0	0
Law Enforcement	0	0	0	0	0
Suspects	0	2	1	1	3
Victims	8	7	16	15	13
Total	8	9	17	16	16

Figure 3. Explosion Incidents – Fatalities

EXPLOSIONS – 2019

1.4 Explosion Incidents, Type and Bombings by Subtype

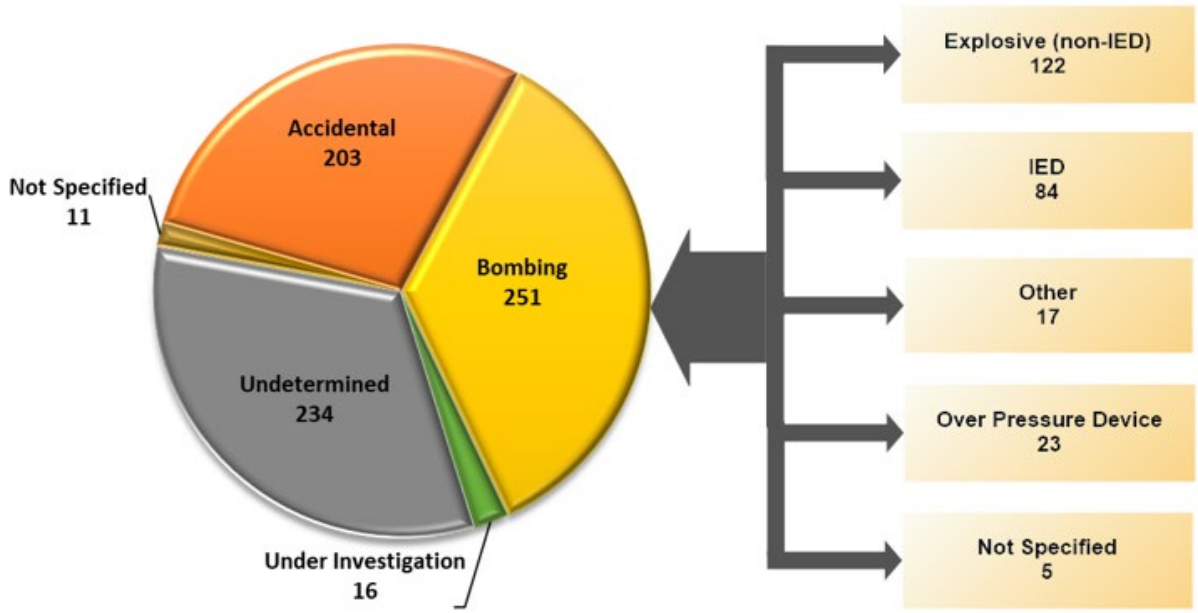

Figure 4. Explosion Incidents, Type and Subtype

1.5 Bombing Trends

A total of 251 bombing incidents were reported in 2019, a decrease of 13 percent from 2018. Bombings are broken down into the following categories: *IED*, *Over Pressure Devices*, *Other Criminal*, and *Explosive* (non-IED such as commercial, military, fireworks, and homemade explosives (HME)). Twenty-seven percent of the 251 bombings targeted residential structures. Bombings targeting educational institutions doubled from three (3) to six (6) incidents since 2018.

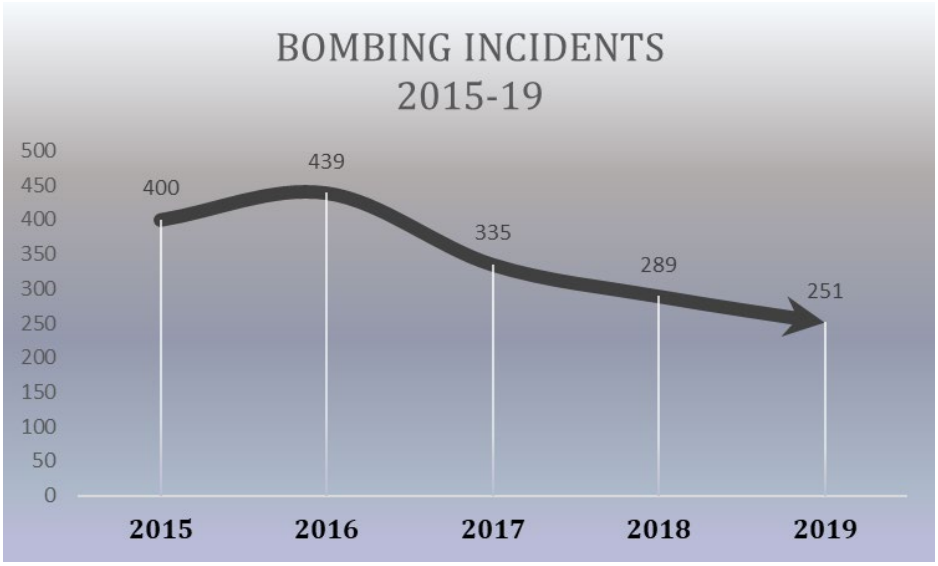

Figure 5. Bombing Incidents

EXPLOSIONS – 2019

The figure below represents all of the States that had 10 or more reported bombings in 2019. As a comparison, 2017 and 2018 are included as well. There was a significant decrease in California (45%) and Washington (42%), whereas South Carolina has seen an increase (71%) since 2017.

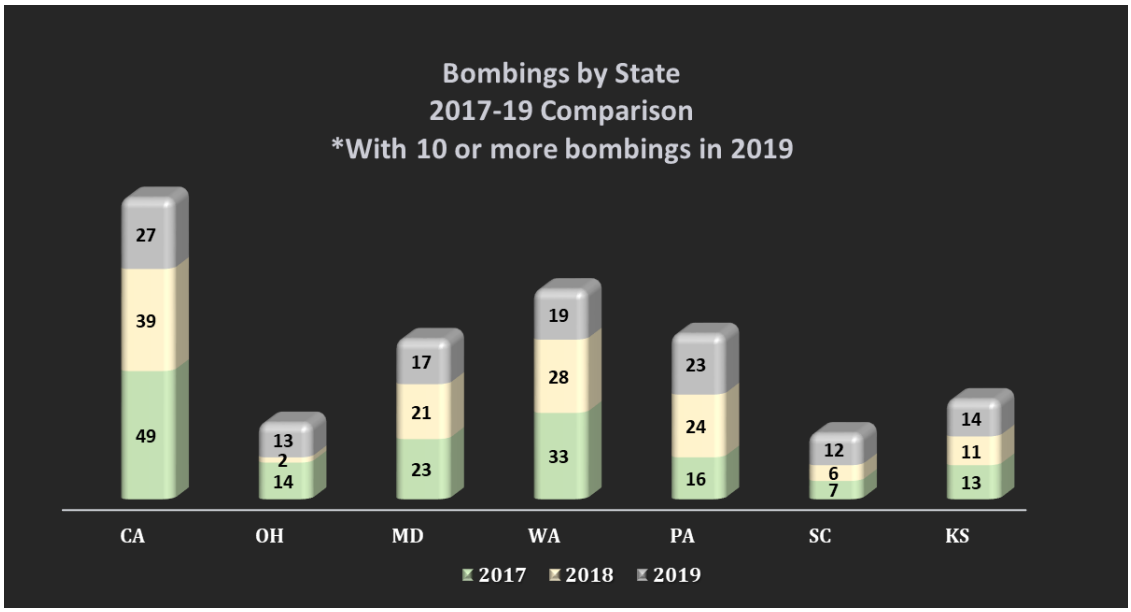

Figure 6. Comparison of Bombings by State

1.6 Explosions Device – Main Charges

Pyrotechnics/Fireworks, Commercial Explosives - Propellant, and Improvised/Homemade Explosives (HME) - Fuel Oxidizer Mixtures were the most common device main charges reported in explosion incidents for 2019.

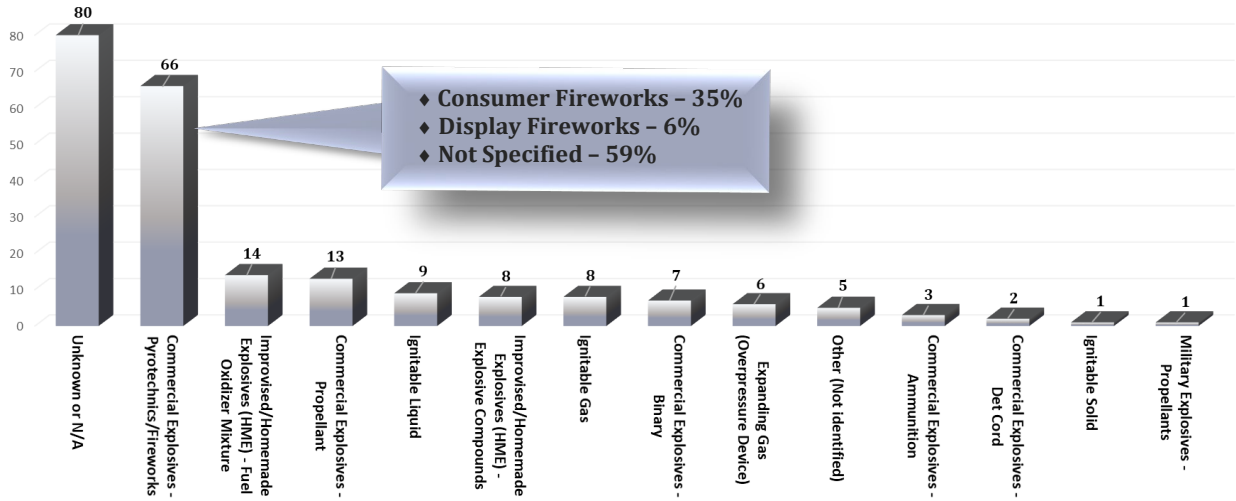

Figure 7. Explosions Device – Main Charges, 2019

EXPLOSIONS – 2019

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: In January 2019, the BATS materials hierarchy was updated. Statistics from previous years have been re-categorized to reflect the current schema in the chart below.

Explosion - Main Charges						
Material Subtype Description	**2015**	**2016**	**2017**	**2018**	**2019**	**Total**
Ammonium Nitrate/Prills	10	4	6	1	0	21
Expanding Gas (Overpressure Device)	10	6	7	0	6	29
Improvised/Homemade Explosives (HME) - Explosive Compounds	1	5	3	1	8	18
Improvised/Homemade Explosives (HME) - Fuel Oxidizer Mixture	46	53	47	43	14	203
Ignitable Gas	10	8	7	11	8	44
Ignitable Liquid	3	7	4	4	9	27
Ignitable Solid	0	0	0	0	1	1
Other (Not identified)	11	6	7	7	5	36
Commercial Explosives - Ammunition	0	0	0	2	3	5
Commercial Explosives - Binary	9	9	2	3	7	30
Commercial Explosives - Det Cord	0	0	0	0	2	2
Commercial Explosives - Propellant	35	53	22	23	13	146
Commercial Explosives - Pyrotechnics/Fireworks	115	126	70	59	66	436
Military Explosives - Propellants	0	0	0	0	1	1
Unknown or N/A	0	0	43	69	80	192

Figure 8. Explosion – Main Charges, 2015–19

EXPLOSIONS – 2019

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.

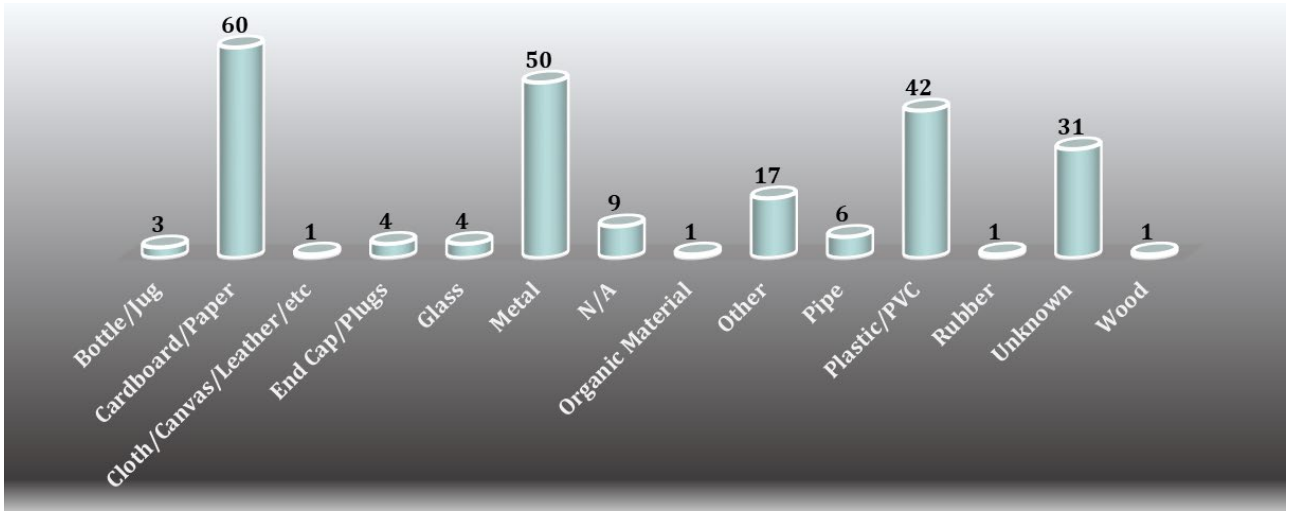

Figure 9. Explosion Device Containers – 2019

1.9 Explosion – Switches

Figure 10 shows the total number of switches reported during an explosion incident for calendar year (CY) 2019. Time-Pyrotechnic Delay (Sage/Time Fuse, Hobby Fuse) switches were among the highest reported during 2019. Victim Operated switches decreased from 10 in 2018 to 1 in 2019. *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	
Time - Mechanical (Clock Mechanism, Displacement)	1
Time - Pyrotechnic Delay (Safe/Time Fuse, Hobby Fuse)	6
Victim Operated - Pressure	1
Unknown or N/A	73
Grand Total	**81**

Figure 10. Switches Related to Explosions – 2019

RECOVERIES – 2019

2.1 Recovery Incidents, Summary and Trends

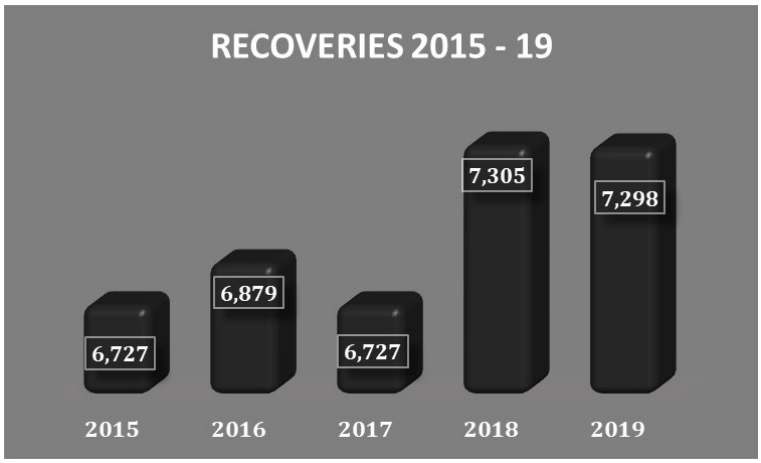

Figure 11. Recovery Incidents, 2015–19

2.2 Recovery Types

Overall, the largest recovery type and subtype categories remain unchanged. Explosives (non-IED) recoveries represent the majority of recoveries during 2019. 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 (1,473) and Inert–Military (866) were the most reported. (See figures 12 and 13.)

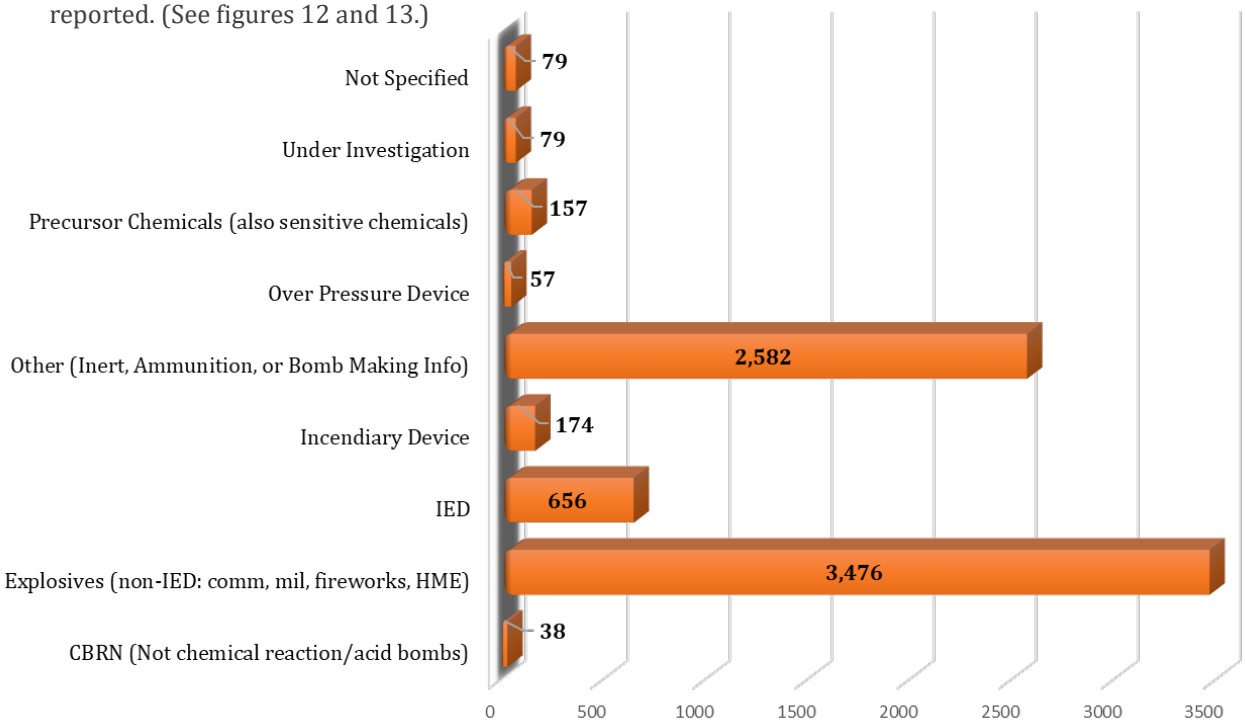

Figure 12. Recovery Types – 2019

RECOVERIES – 2019

2.3 Recovery Subtypes

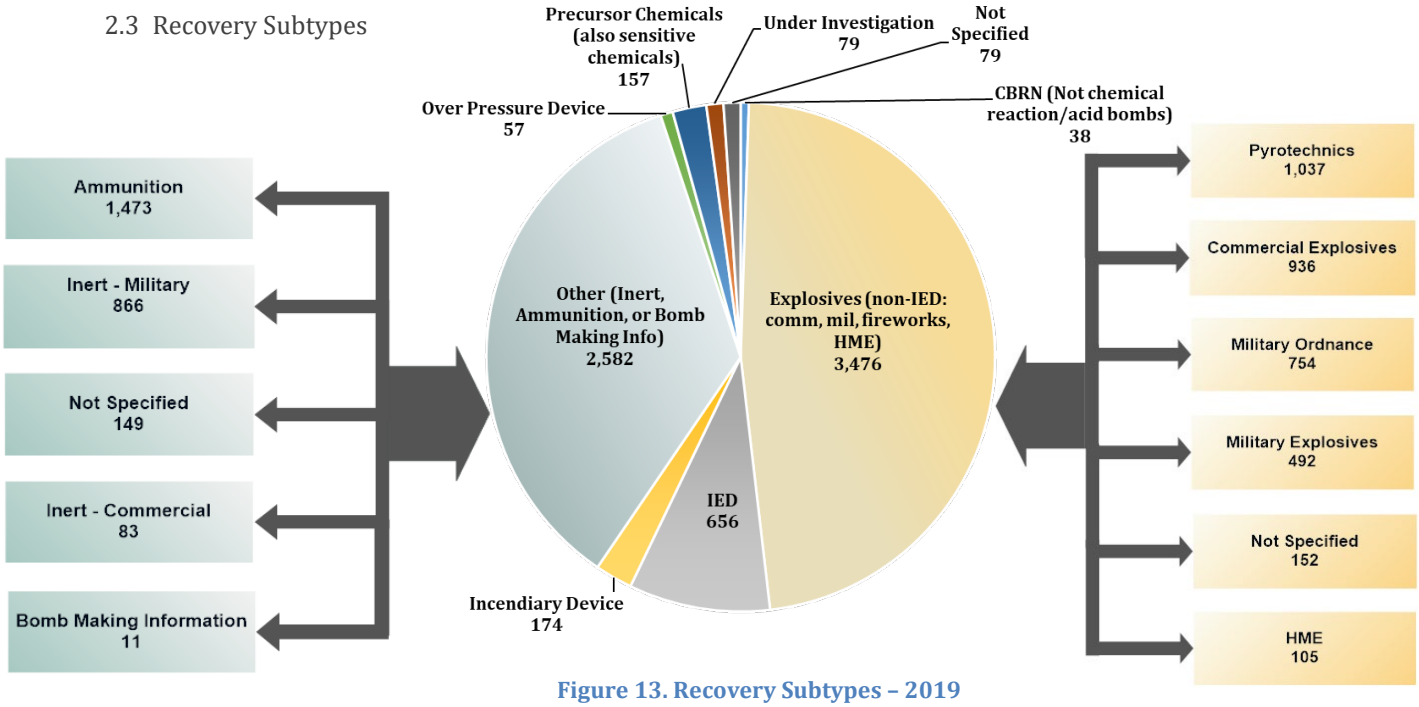

Figure 13. Recovery Subtypes – 2019

2.4 Recovery Incidents by Target Type

Of the recovery incidents where a target was reported in 2019, the majority took place at residential structures (26 percent), Detention/Corrections/Government (8 percent), and Law Enforcement/emergency offices (7 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.)

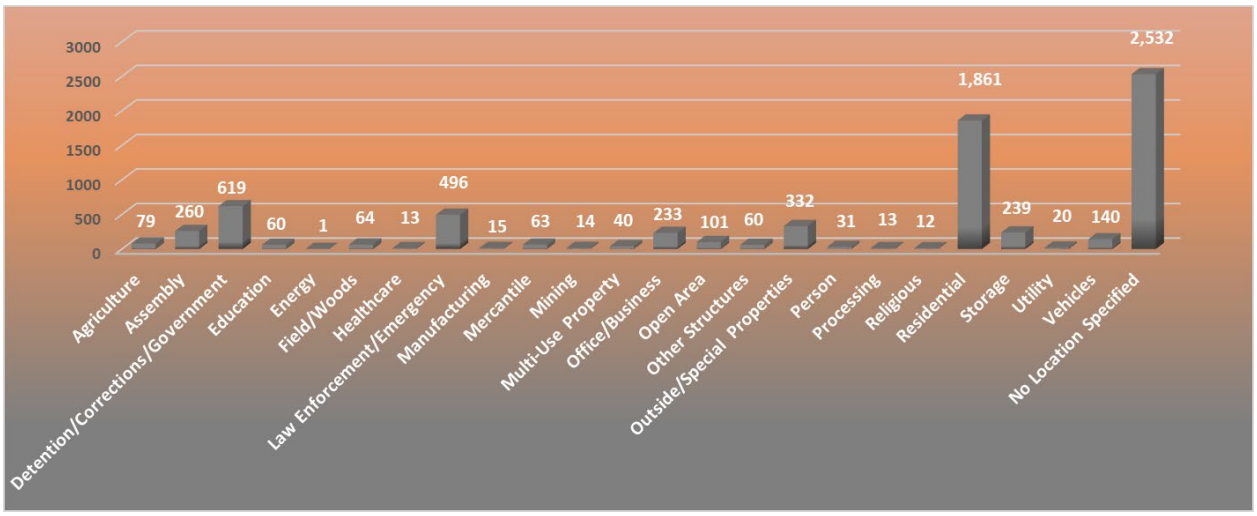

Figure 14. Recovery Incidents by Target Type – 2019

RECOVERIES – 2019

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. Statistics from previous years have been re-categorized to reflect the current schema in the chart below.*

Recovery - Main Charges						
Material Type	**2015**	**2016**	**2017**	**2018**	**2019**	**Grand Total**
Ammonium Nitrate/Prill	21	24	18	21	0	84
Commercial Explosives - Ammunition	0	0	0	11	33	44
Commercial Explosives - Binary	46	49	41	35	67	238
Commercial Explosives - Blasting Agent	57	38	52	37	39	223
Commercial Explosives - Det Cord	0	0	0	0	51	51
Commercial Explosives - Dynamite	128	101	91	73	88	481
Commercial Explosives - Propellant	436	500	386	435	228	1,985
Commercial Explosives - Pyrotechnic Fireworks	590	627	348	339	414	2,318
Commercial Explosives - Shaped Charge	21	13	16	4	9	63
Commercial Explosives - Plastic Explosives	6	12	3	10	21	52
Commercial Explosives - Cast Explosives	29	38	29	24	17	137
Commercial Explosives - Liquid Explosives	12	13	8	3	6	42
Improvised/Homemade Explosives (HME) - Explosive Compounds	16	18	12	20	22	88
Improvised/Homemade Explosives (HME) - Fuel Oxidizer Mixture	303	306	246	275	50	1,180
Military Explosives - Demolition Materials	31	30	12	43	25	141
Military Explosives - Incendiaries	0	0	0	1	12	13
Military Explosives - Munitions/Ordnance	0	0	0	31	87	118
Military Explosives - Propellants	0	0	0	1	11	12
Special Purpose Devices	15	4	1	9	23	52
CS/OC Grenade (LE)	17	12	6	7	0	42
Flashbang/Distraction (LE)	7	5	7	6	0	25
Ignitable Gas	7	5	9	4	9	34
Ignitable Liquid	72	81	43	30	33	259
Ignitable Solid	16	12	13	4	15	60
Match Heads	4	12	3	5	0	24
Nitroglycerene	8	4	2	0	0	14
Ordnance	13	2	19	0	0	34
Other	60	71	62	50	71	314
PETN	3	6	6	19	0	34
Primer	5	2	5	1	0	13
Signaling Device	37	40	15	18	0	110
Simulator	20	25	5	20	2	72
Smoke Grenade (LE)	13	16	13	10	1	53
TNT	16	22	15	16	0	69
Unknown or N/A	0	0	314	579	508	1,401
Grand Total	**2,009**	**2,088**	**1,800**	**2,141**	**1,842**	**9,880**

Figure 15. Recovery – Main Charges, 2015–19

RECOVERIES – 2019

2.5 Recovery – Switches

The majority of recovered switch types in 2019 included Time – Pyrotechnic (safety/time or hobby fuses) and Command Pull switches. Time – Pyrotechnic switches decreased by 14 percent, and Command – Pull switches has remained unchanged since 2018. (See figure 16 for a breakdown of switch types with corresponding total number of incidents.) *Note: Unknown or N/A (691) was left off the chart. It 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 – 2019

2.6 Recovery – Containers

Figure 17 provides the number of incidents where a container was reported as recovered in 2019. 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.*

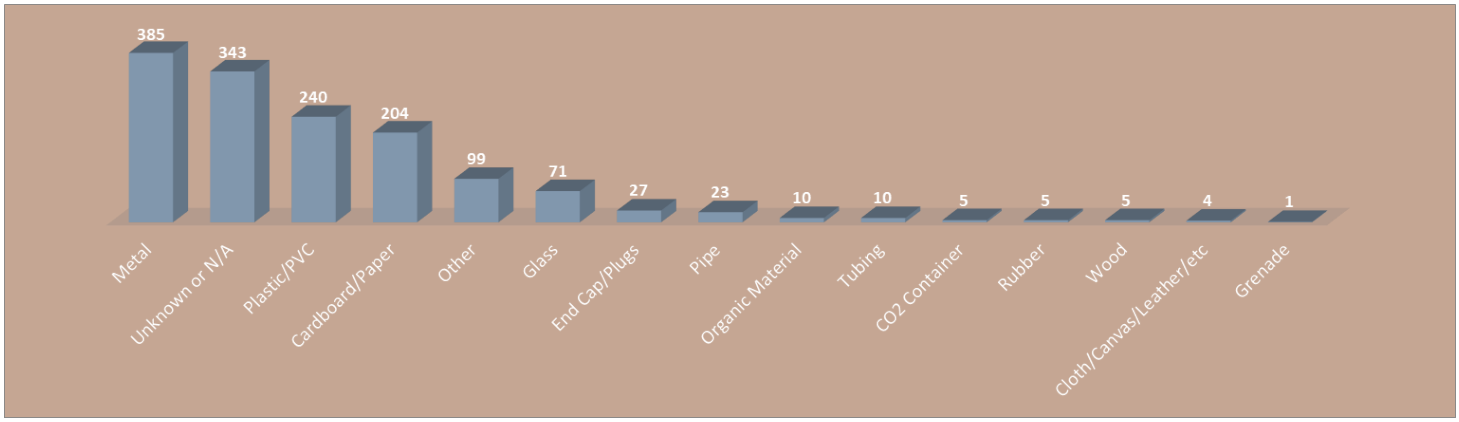

Figure 17. Recovery of Containers – 2019

SUSPICIOUS PACKAGES – 2019

3.1 Suspicious Packages, Summary and Trends

There were 5,482 suspicious/unattended package incidents reported during the 2019 calendar year. This was a 26-percent decrease from 2018, and is an average amount of incidents when looking at a 5-year comparison.

Figure 18. Suspicious/Unattended Packages, 2015–19

Incidents involving suspicious Packages/Parcels decreased by half; however, Book Bag/Purse increased from 1,136 incidents in 2018 to 1,324 incidents in 2019. Incidents of suspicious persons doubled since last year. (See figure 19 for a comparison of suspicious package types between 2018 and 2019.)

Type	2018	2019	Difference
Book Bag / Purse	1,136	1,324	↑ 188
Cargo (commercial)	161	63	↓ -98
Letter / Envelope	255	201	↓ -54
Luggage / Briefcase	1,235	764	↓ -471
Other	1,039	910	↓ -129
Package / Parcel	2,006	1,001	↓ -1,005
Person	31	63	↑ 32
Powder (Without Envelope)	55	53	↓ -2
Suspicious Container	1,132	926	↓ -206
Under Investigation	1	0	↓ -1
Vehicle	182	151	↓ -31
Not Identified	171	26	↓ -145

Figure 19. Suspicious/Unattended Package Incident Types, 2018–19

BOMB THREATS – 2019

4.1 Bomb Threats, Summary and Trends

A total of 1,089 bomb-threat incidents were reported in 2019, a decrease of 33 percent since 2018. This is the lowest number reported in the past 5 years. In 2019, bomb threats were highest during the months of April (105) and August (104) with the majority of incidents occurring on Thursdays (18%). Saturdays and Sundays had the least number of reported incidents.

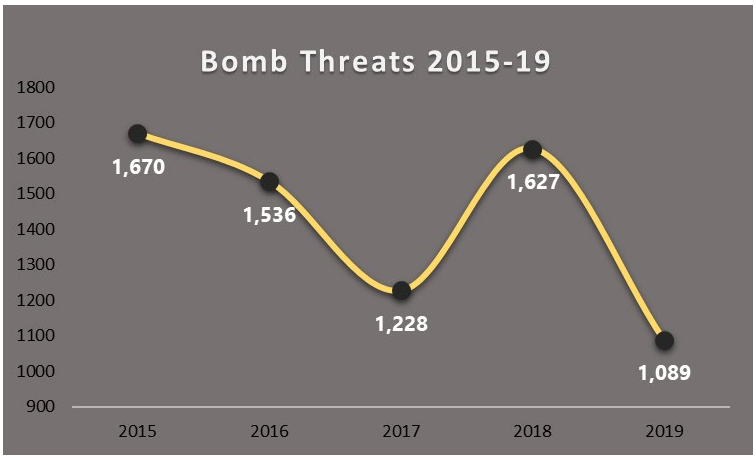

Figure 20. Bomb Threats – 5-year Trend Analysis

4.2 Bomb Threats by Target

Education, residential and assembly locations were the top three targets of bomb threats during 2019. The number of reported incidents targeting offices/businesses decreased by more than half since 2018.

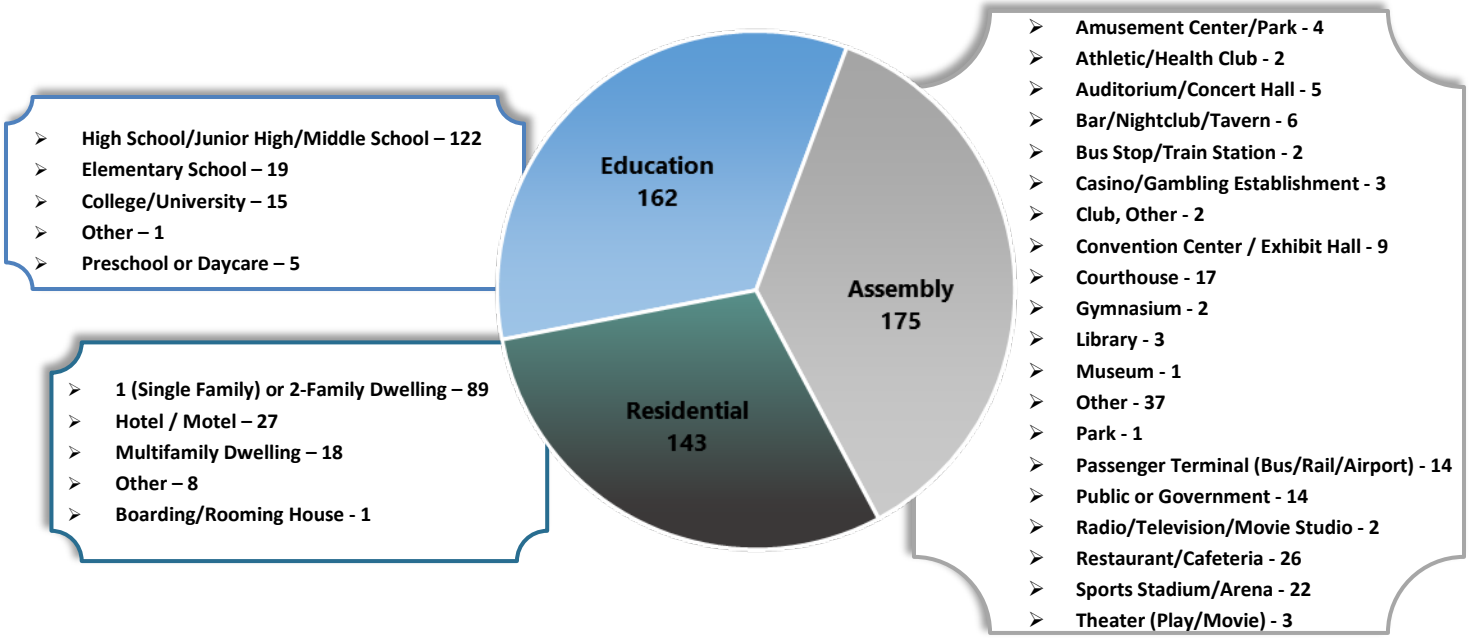

Figure 21. Bomb Threat Target Types (Top Three) and Subtypes

HOAXES – 2019

5.1 Hoax Device Incidents, Summary and Trends

There were 356 hoax device incidents reported in 2019, a slight decrease of 16 percent since 2018. Eighty-eight (88) percent of the reported hoax devices were IED-type hoax devices. Texas, California, Florida, Pennsylvania, and Arizona 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 2015 with the exception of a slight increase in 2018.

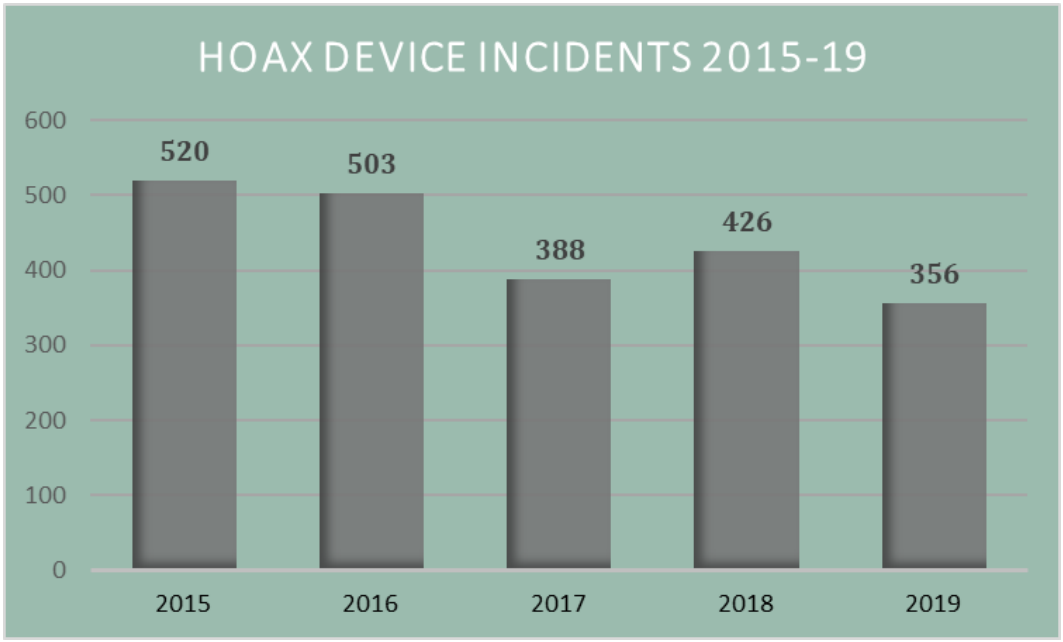

Figure 22. Hoax Device Incidents, 2015–19

5.2 Hoax Incidents by Incident Type

The most commonly reported hoax devices in 2019 were IEDs. Seventeen (17) of the 356 hoax incidents did not specify a type.

Type of reported hoax devices	2015	2016	2017	2018	2019
IED	474	468	361	376	312
CBRN (Not chemical reaction/acid bombs)	10	12	11	14	11
Incendiary Device	36	23	16	19	16
Total	**520**	**503**	**388**	**409**	**339**

Figure 23. Hoax Incident Types and Subtypes, 2015–19

THEFTS/LOSSES – 2019

6.1 Explosives Thefts, Summary and Trends

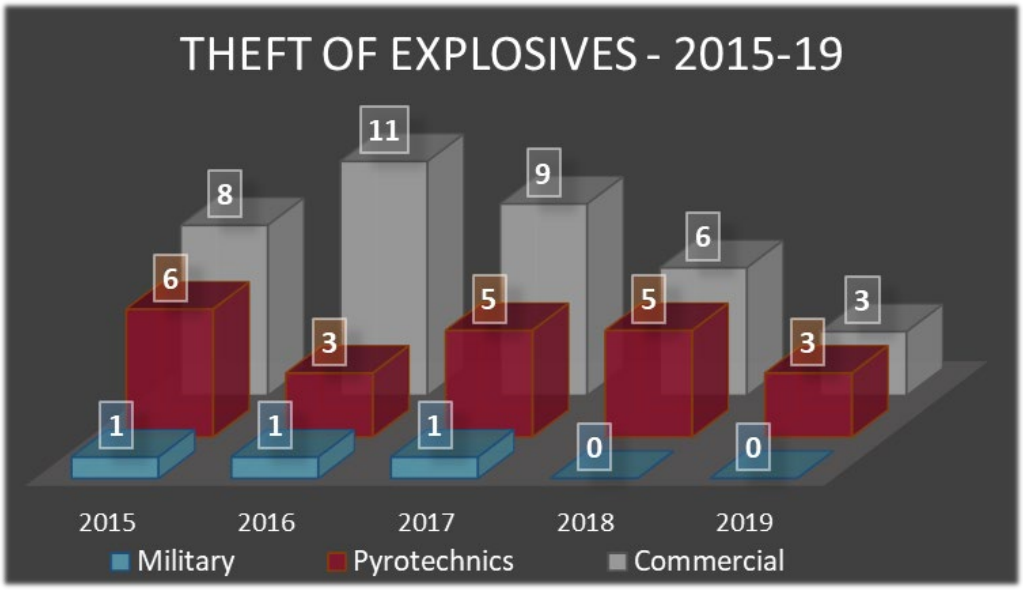

Figure 24. Explosives Theft Types, 2015–19

There were six (6) reported thefts of explosives in 2019, five (5) less than in the previous year. Commercial explosives and pyrotechnics were the most commonly stolen.

6.2 Explosives Theft Types per State

Figure 25 identifies States where explosives thefts were reported in 2019.

State	Commercial	Military	Pyrotechnics	Total
AZ	1			1
CO	1			1
HI			1	1
IL			1	1
KY	1			1
TX			1	1
Grand Total	**3**	**0**	**3**	**6**

Figure 25. Explosives Theft Types per State – 2019

THEFTS/LOSSES – 2019

6.3 Explosives Losses, Summary and Trends

There were 136 instances of explosives losses reported during 2019, a slight increase from 2018. The majority of explosives losses were commercial explosives (83 percent) and pyrotechnics (11 percent).

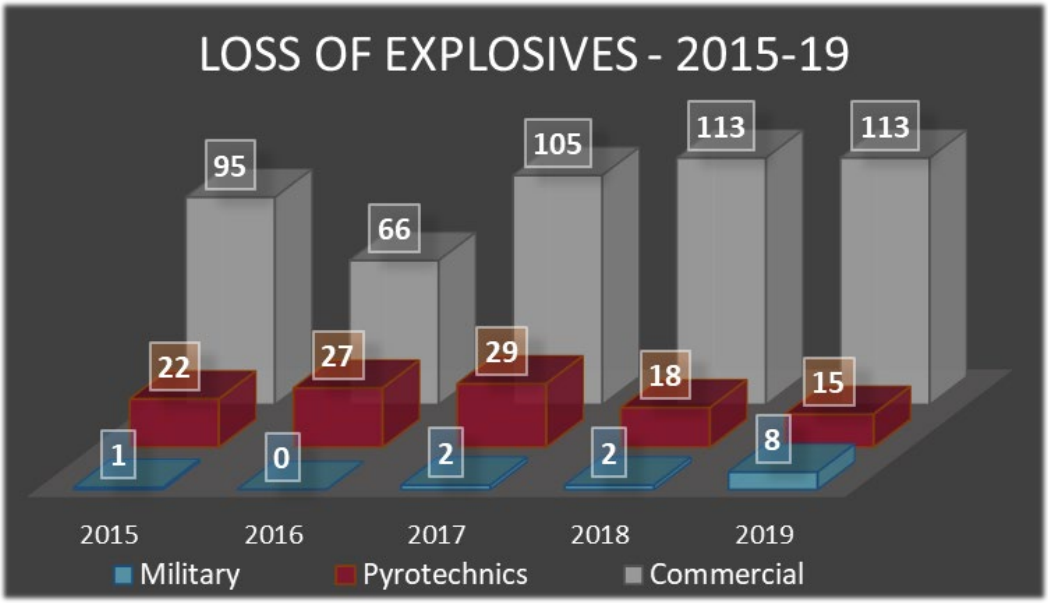

Figure 26. Explosives Loss Types, 2015–19

State	Commercial	Military	Pyrotechnics	Total
AK	1	1		2
AR	5			5
AZ	4			4
CA	5	1	1	7
CO	3	2		5
CT	1			1
FL	2		0	2
HI			1	1
ID	1			1
IL	4			4
IN	2		3	5
KS			1	2
LA	4			4
MI			2	2
MN	1			1
MS	5			5
NH	2			2
NJ	1			1

State	Commercial	Military	Pyrotechnics	Total
NM	1			1
NV	1			1
NY	1		2	3
OH	2			2
OK	8			8
OR	3	2		5
PA	2		2	4
SC	2		1	3
TN	5			5
TX	16			16
UT	13	2	1	16
VA	1			1
VT	1		1	2
WA	1			1
WI	1			1
WV	1			1
WY	13			13
Grand Total	**113**	**8**	**15**	**136**

Figure 27. Explosives Loss Types per State – 2019

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