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

2020

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).

Table of Contents

EXECUTIVE SUMMARY

OPERATING HIGHLIGHTS

(U) The 2020 *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 **2,332** interagency partners and **11,184** registered users. This report examines the total number of explosives related incidents reported in BATS for calendar year 2020 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

(U) From January 1, 2020, through December 31, 2020, BATS captured a total of **12,957** *explosives related incidents.* Of the reported incidents, there were **984** *explosions* of which **428** were *bombings*, with Pennsylvania (113) and Washington (33) having the highest numbers. There were a total of **6,917** *recoveries* reported in 2020, with the majority being explosives (non-improvised explosive devices (IEDs)). There were a total of **5,482** *suspicious/unattended package* incidents, a decrease of 28 percent since 2019. Bomb threats decreased 25 percent in 2020. Assembly, education, residential, and office/business remain the top four targets of bomb threats during 2020. The number of reported incidents targeting education facilities decreased by more than half since 2019.

LOOKING AHEAD

(U) The United States Bomb Data Center's Bomb Arson Tracking System Section (BATSS) and Arson and Explosives Information and Analysis Section (AEIAS) continue to work 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.

James Watson
Director, USBDC

EXPLOSIONS – 2020

1.1 Explosion Incidents, Summary and Trends

(U) 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.

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

(U) There were 984 Explosion Incidents recorded in BATS during 2020, a significant increase from 2019. Bombings increased substantially, from 251 reported incidents in 2019 to 428 incidents in 2020, an increase of 71 percent.

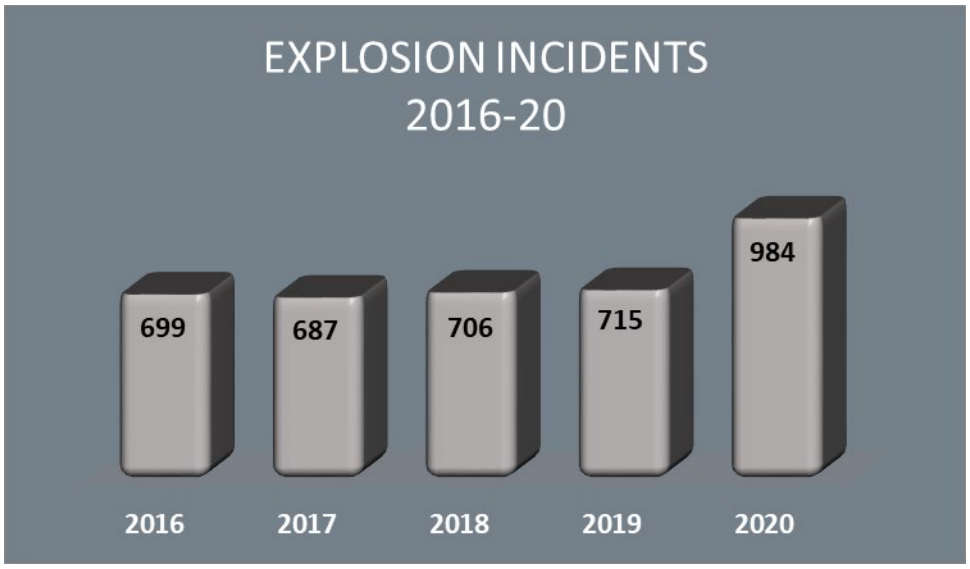

Figure 1. BATS Reported Explosion Incidents, 2016–20

EXPLOSIONS – 2020

1.2 Explosion Incidents with Reported Injuries

Victim injuries account for 79 percent of the total number of reported injuries in 2020 and were primarily caused by accidental explosions (67%).

Injuries					
Year	2016	2017	2018	2019	2020
Fire Service	3	0	2	1	3
Law Enforcement	1	2	2	3	5
Suspects	5	7	9	6	11
Victims	59	58	59	76	72
Total	68	67	72	86	91

Figure 2. Explosion Incidents – Injuries

1.3 Explosion Incidents with Reported Fatalities

Fatalities					
Year	2016	2017	2018	2019	2020
Fire Service	0	0	0	0	0
Law Enforcement	0	0	0	0	1
Suspects	2	1	1	3	1
Victims	7	16	15	13	11
Total	9	17	16	16	13

Figure 3. Explosion Incidents – Fatalities

EXPLOSIONS – 2020

1.4 Explosion Incidents, Type and Bombings by Subtype

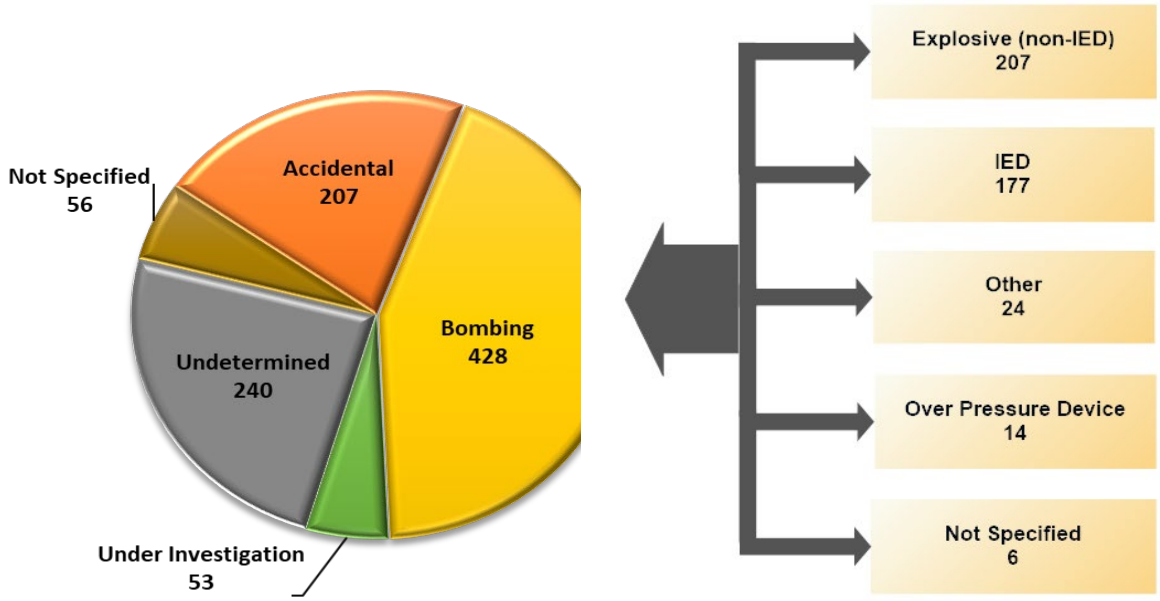

Figure 4. Explosion Incidents, Type and Subtype

1.5 Bombing Trends

(U) A total of 428 bombing incidents were reported in 2020, an increase of 71 percent from 2019. 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 (HMEs)). Twenty-four percent of the 428 bombings targeted residential structures. Bombings targeting businesses quadrupled from 15 to 69 incidents since 2019.

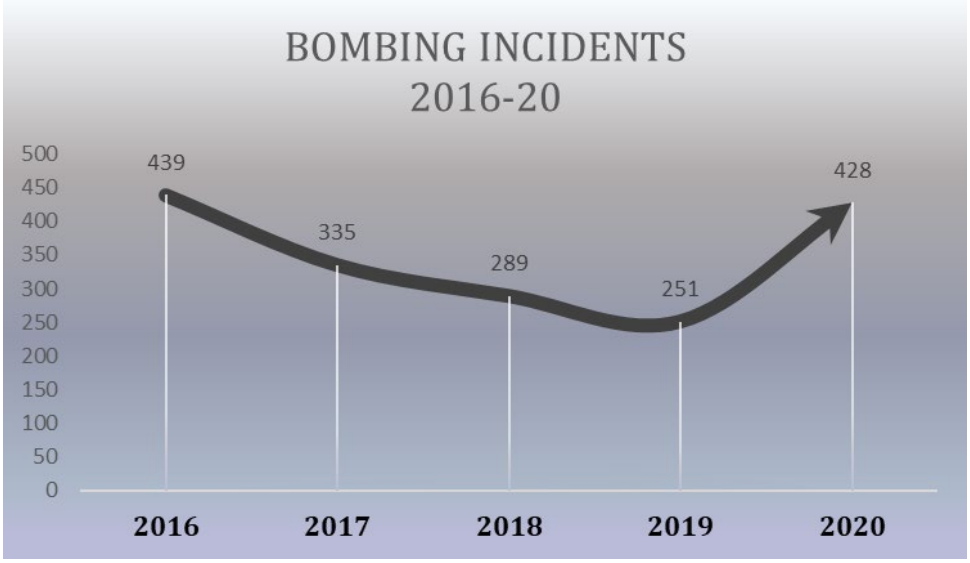

Figure 5. Bombing Incidents

EXPLOSIONS – 2020

Bombings by State 2019-20 Comparison *With 10 or more bombings in 2020			
States	**2019**	**2020**	**Difference**
PENNSYLVANIA	23	113	90
WASHINGTON	19	33	14
MARYLAND	17	22	5
KANSAS	14	22	8
MINNESOTA	3	22	19
MICHIGAN	3	16	13
OREGON	3	15	12
TENNESSEE	6	14	8
OKLAHOMA	4	13	9
MISSOURI	6	11	5
TEXAS	4	11	7
CALIFORNIA	27	25	-2
OHIO	13	11	-2

(U) Figure 6 represents all of the States that had 10 or more reported bombings in 2020. As a comparison, 2019 is included as well. There was a significant increase in Pennsylvania, from 23 incidents in 2019 to 113 incidents in 2020. Washington also increased (74%), whereas South Carolina decreased (83%), since 2019.

Explosions Device – Main Charges

(U) Pyrotechnics/Fireworks, Commercial Explosives–Propellant, and Improvised/Homemade Explosives (HMEs)–Fuel Oxidizer Mixtures were the most common device main charges reported in explosion incidents for 2020.

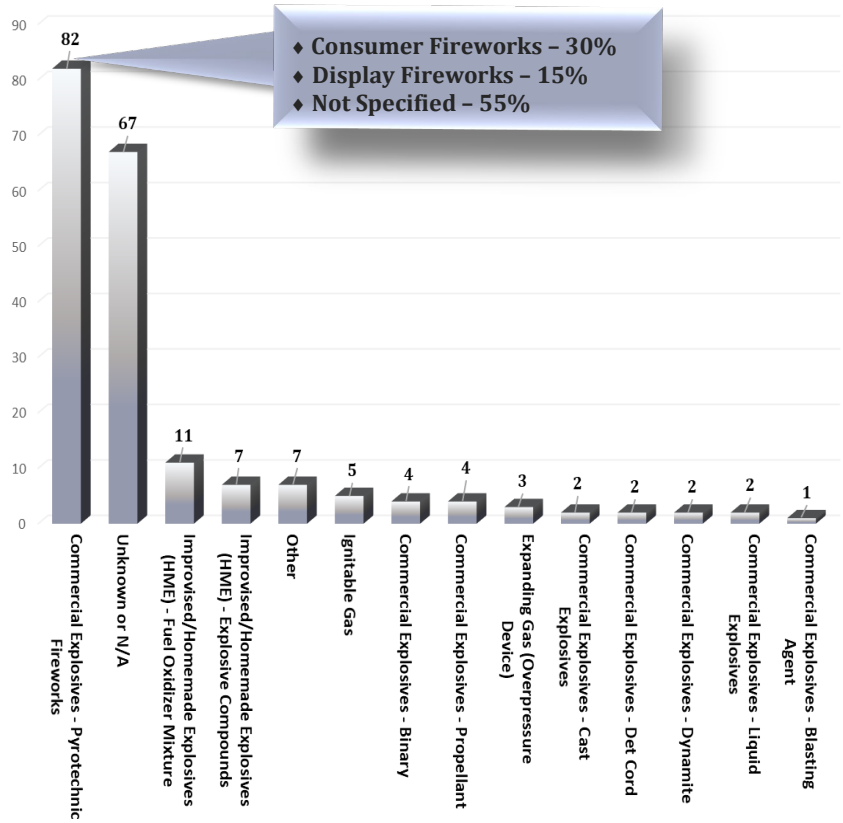

Figure 7. Explosions Device – Main Charges, 2020

EXPLOSIONS – 2020

1.6 Explosions, All Devices and Materials – Main Charges

(U) 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 the number of reported incidents where at least one or more main charges were identified.

(U) 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	**2016**	**2017**	**2018**	**2019**	**2020**	**Total**
Ammonium Nitrate/Prills	4	6	1	0	0	11
Expanding Gas (Overpressure Device)	6	7	0	6	3	22
Improvised/Homemade Explosives (HME) - Explosive Compounds	5	3	1	8	7	24
Improvised/Homemade Explosives (HME) - Fuel Oxidizer Mixture	53	47	43	14	11	168
Ignitable Gas	8	7	11	8	5	39
Ignitable Liquid	7	4	4	9	1	25
Ignitable Solid	0	0	0	1	0	1
Other (Not identified)	6	7	7	5	7	32
Commercial Explosives - Ammunition	0	0	2	3	0	5
Commercial Explosives - Cast Explosives	0	0	0	0	2	2
Commercial Explosives - Binary	9	2	3	7	4	25
Commercial Explosives - Det Cord	0	0	0	2	2	4
Commercial Explosives - Liquid Explosives	0	0	0	0	2	2
Commercial Explosives - Dynamite	0	0	0	0	2	2
Commercial Explosives - Blasting Agent	0	0	0	0	1	1
Commercial Explosives - Propellant	53	22	23	13	4	115
Commercial Explosives - Pyrotechnics/Fireworks	126	70	59	66	82	403
Military Explosives - Propellants	0	0	0	1	0	1
Unknown or N/A	0	43	69	80	67	259

Figure 8. Explosion – Main Charges, 2016–20

EXPLOSIONS – 2020

1.8 Explosion – Device Containers

(U) 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.

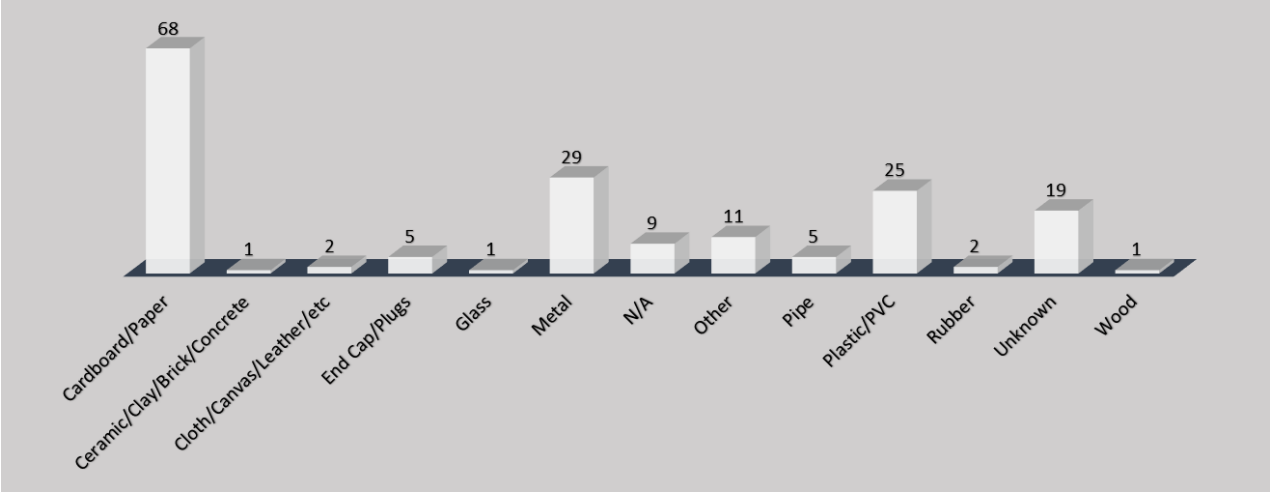

Figure 9. Explosion Device Containers – 2020

1.9 Explosion – Switches

(U) Figure 10 shows the total number of switches reported during an explosion incident for calendar year (CY) 2020. Time–Pyrotechnic Delay (Sage/Time Fuse, Hobby Fuse) switches were among the highest reported during 2020. Time–Pyrotechnic Delay switches decreased from six (6) in 2019 to three (3) in 2020. *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)	3
Unknown or N/A	72
Grand Total	76

Figure 10. Switches Related to Explosions – 2020

RECOVERIES – 2020

2.1 Recovery Incidents, Summary and Trends

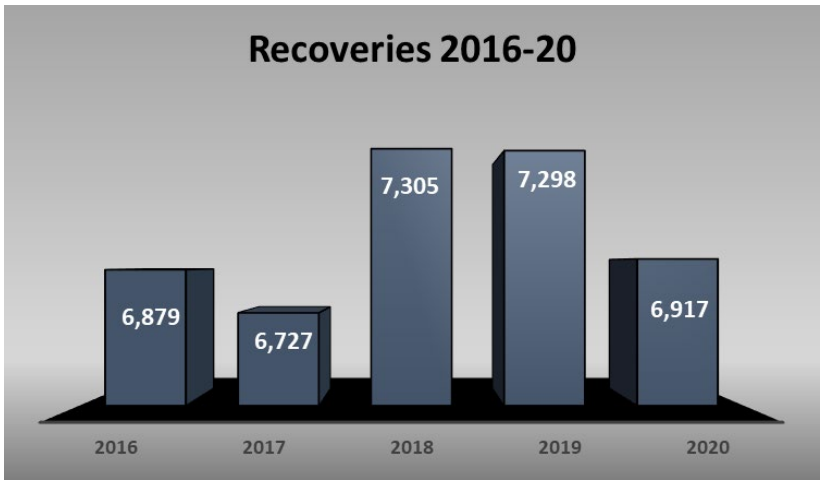

Figure 11. Recovery Incidents, 2016–20

2.2 Recovery Types

(U) Overall, the largest recovery type and subtype categories remain unchanged. Explosives (non-IED) recoveries represent the majority of recoveries during 2020. 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 (1,142) and Inert–Military (750) were the most reported. (See figures 12 and 13.)

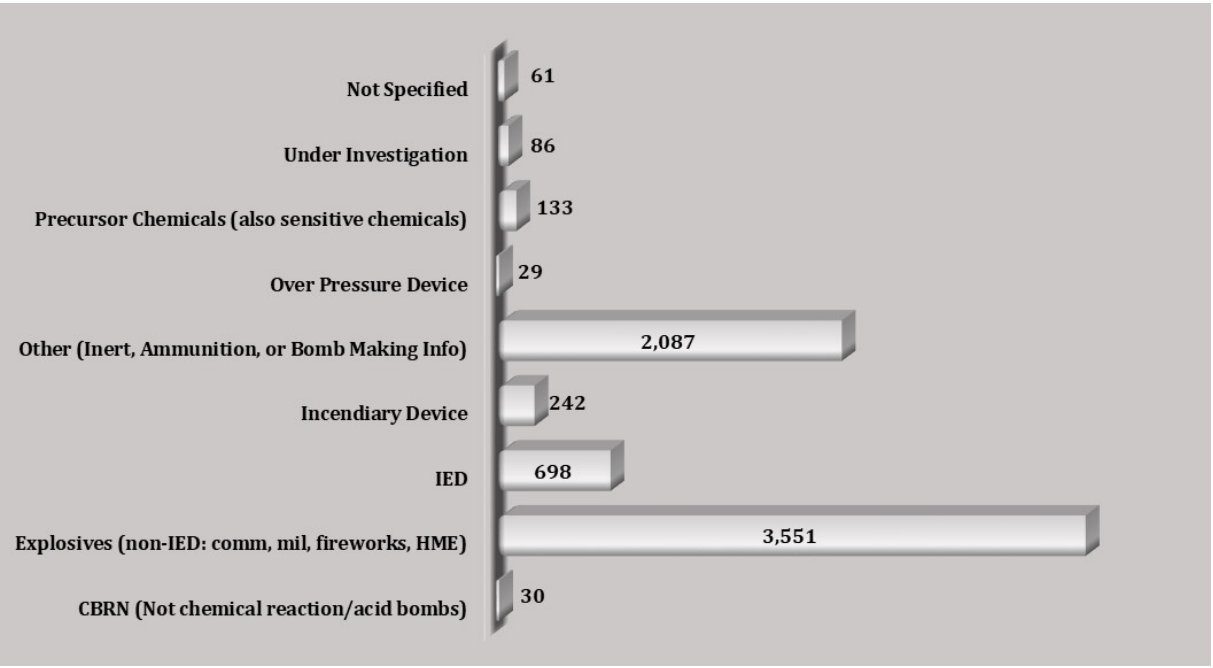

Figure 12. Recovery Types – 2020

RECOVERIES – 2020

2.3 Recovery Subtypes

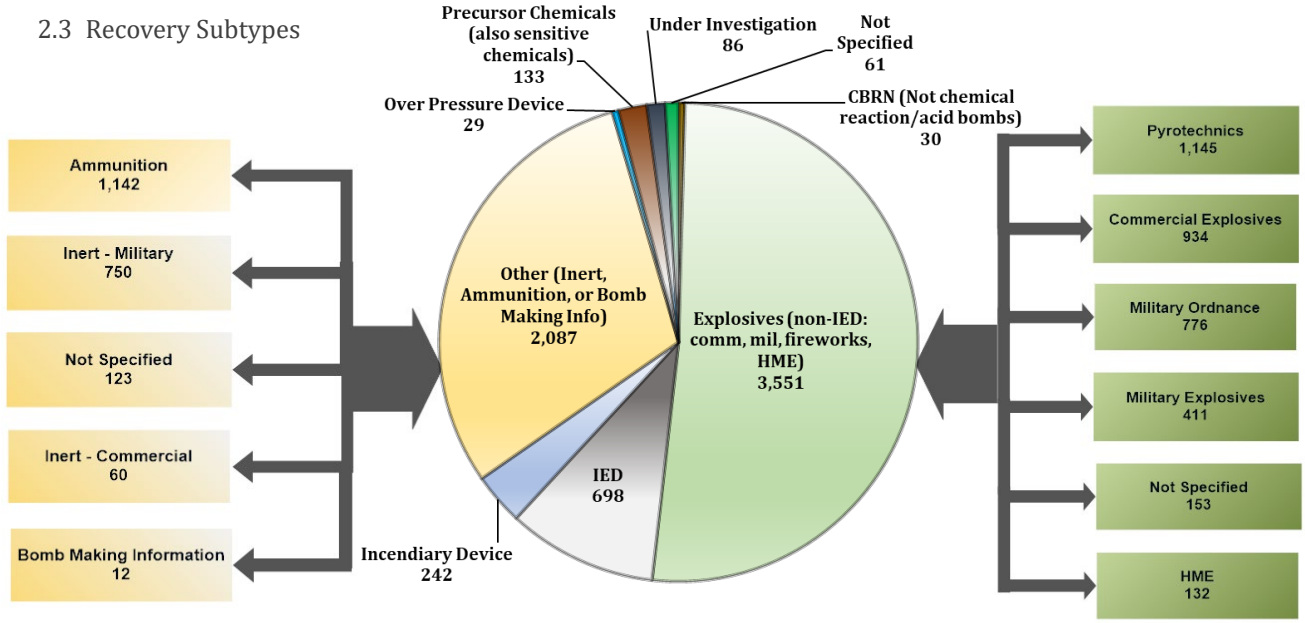

Figure 13. Recovery Subtypes – 2020

2.4 Recovery Incidents by Target Type

(U) Of the recovery incidents where a target was reported in 2020, the majority took place at Residential structures (29 percent), Detention/Corrections/Government (7 percent), and Law Enforcement/Emergency offices (5 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.)

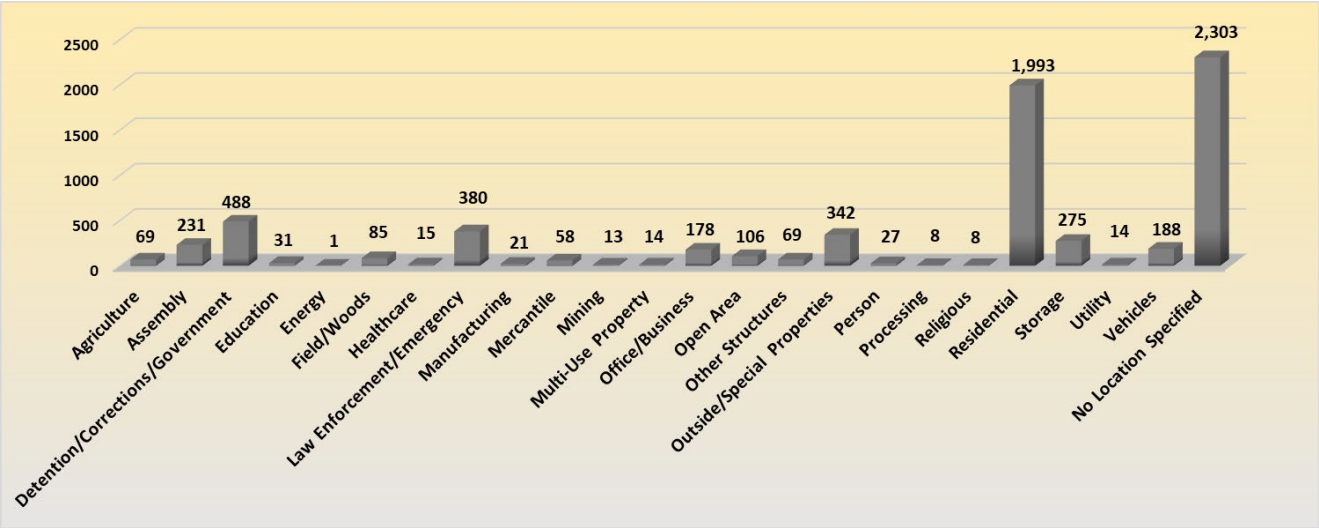

Figure 14. Recovery Incidents by Target Type – 2020

RECOVERIES – 2020

Recovery – All Devices and Materials - Main Charges

(U) 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 the number of reported incidents where at least one or more main charges were identified.

(U) 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	**2016**	**2017**	**2018**	**2019**	**2020**	**Grand Total**
Ammonium Nitrate/Prill	24	18	21	0	0	63
Commercial Explosives - Ammunition	0	0	11	33	39	83
Commercial Explosives - Binary	49	41	35	67	54	246
Commercial Explosives - Blasting Agent	38	52	37	39	45	211
Commercial Explosives - Det Cord	0	0	0	51	51	102
Commercial Explosives - Dynamite	101	91	73	88	99	452
Commercial Explosives - Propellant	500	386	435	228	186	1,735
Commercial Explosives - Pyrotechnic Fireworks	627	348	339	414	486	2,214
Commercial Explosives - Shaped Charge	13	16	4	9	13	55
Commercial Explosives - Plastic Explosives	12	3	10	21	12	58
Commercial Explosives - Cast Explosives	38	29	24	17	25	133
Commercial Explosives - Liquid Explosives	13	8	3	6	2	32
Improvised/Homemade Explosives (HME) - Explosive Compounds	18	12	20	22	30	102
Improvised/Homemade Explosives (HME) - Fuel Oxidizer Mixture	306	246	275	50	47	924
Military Explosives - Demolition Materials	30	12	43	25	17	127
Military Explosives - Incendiaries	0	0	1	12	11	24
Military Explosives - Munitions/Ordnance	0	0	31	87	54	172
Military Explosives - Propellants	0	0	1	11	3	15
Special Purpose Devices	4	1	9	23	18	55
CS/OC Grenade (LE)	12	6	7	0	0	25
Flashbang/Distraction (LE)	5	7	6	0	0	18
Ignitable Gas	5	9	4	9	7	34
Ignitable Liquid	81	43	30	33	34	221
Ignitable Solid	12	13	4	15	15	59
Match Heads	12	3	5	0	0	20
Ordnance	2	19	0	0	0	21
Other	71	62	50	71	0	254
PETN	6	6	19	0	0	31
Signaling Device	40	15	18	0	0	73
Simulator	25	5	20	2	0	52
Smoke Grenade (LE)	16	13	10	1	0	40
TNT	22	15	16	0	0	53
Unknown or N/A	0	314	579	508	534	1,935
Grand Total	**2,082**	**1,793**	**2,140**	**1,842**	**1,782**	**9,639**

Figure 15. Recovery – Main Charges, 2016–20

RECOVERIES – 2020

2.5 Recovery – Switches

(U) The majority of recovered switch types in 2020 included Time–Pyrotechnic (safety/time or hobby fuses) and Command Pull switches. Time–Pyrotechnic switches decreased by 24 percent. Command Wire/Mechanical Switch increased from one incident in 2019 to nine in 2020. (See figure 16 for a breakdown of switch types with corresponding total number of incidents.) *Note: Unknown or N/A (784) 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 – 2020

2.6 Recovery – Containers

(U) Figure 17 provides the number of incidents where a container was reported as recovered in 2020. 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.*

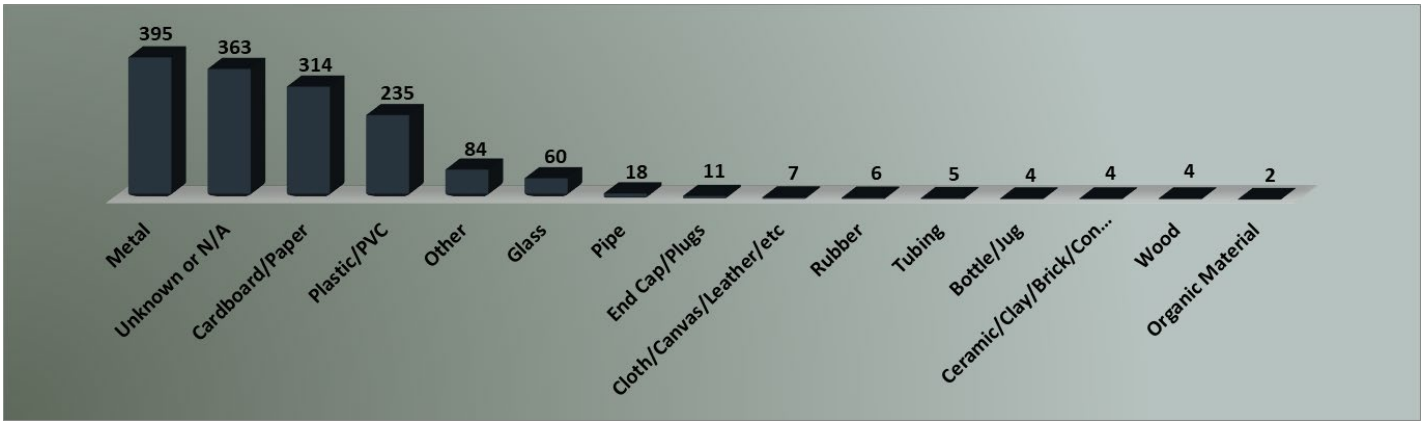

Figure 17. Recovery of Containers – 2020

SUSPICIOUS PACKAGES – 2020

3.1 Suspicious Packages, Summary and Trends

(U) There were 3,950 suspicious/unattended package incidents reported during the 2020 calendar year. This was a 28-percent decrease from 2019. This is below average when looking at a 5-year comparison.

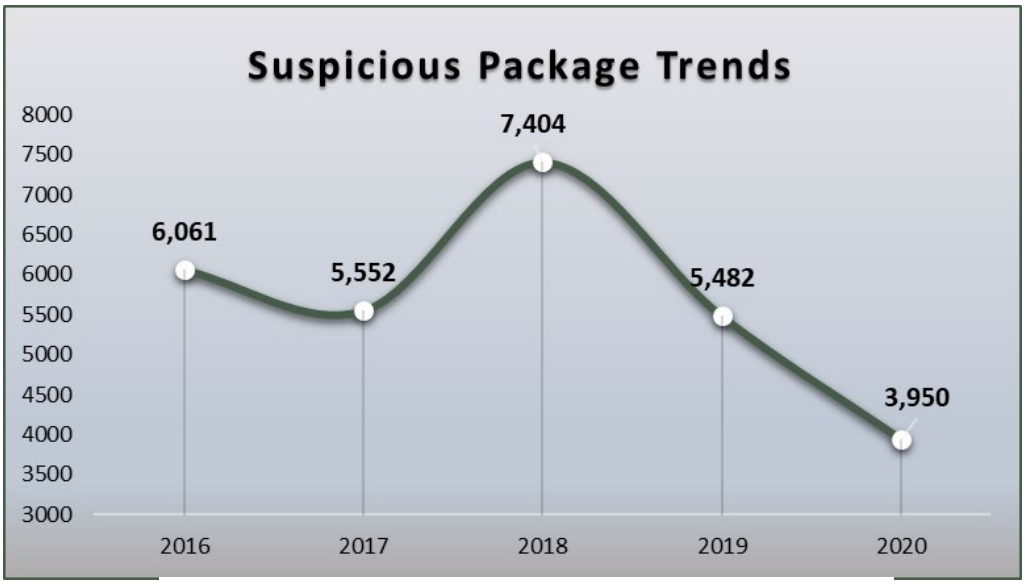

Figure 18. Suspicious/Unattended Packages, 2016–20

(U) Incidents involving suspicious book bags/purses decreased by half from 2019 to 2020; however, suspicious vehicles increased 13 percent since 2019. Incidents of suspicious persons also increased slightly. (See figure 19 for a comparison of suspicious package types between 2019 and 2020.)

Type	2019	2020	Difference
Book Bag / Purse	1,324	647	-677
Cargo (commercial)	63	20	-43
Letter / Envelope	201	177	-24
Luggage / Briefcase	764	445	-319
Other	910	775	-135
Package / Parcel	1,001	757	-244
Person	63	75	12
Powder (Without Envelope)	53	31	-22
Suspicious Container	926	842	-84
Vehicle	151	170	19
Not Identified	26	11	-15

Figure 19. Suspicious/Unattended Package Incident Types, 2019–20

BOMB THREATS – 2020

4.1 Bomb Threats, Summary and Trends

(U) A total of 818 bomb-threat incidents were reported in 2020, a decrease of 25 percent since 2019. This is the lowest number reported in the past 5 years. In 2020, bomb threats were highest during the months of January (94) and June (87), with the majority of incidents occurring on Thursdays (17%). Saturdays and Sundays had the least number of reported incidents.

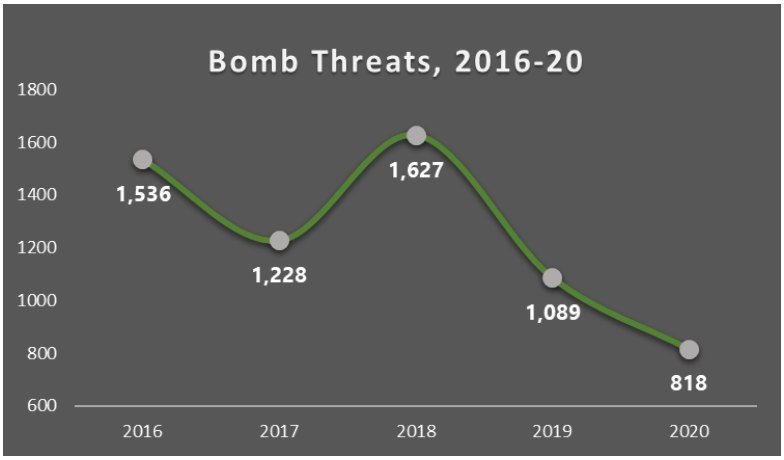

Figure 20. Bomb Threats – 5-year Trend Analysis

4.2 Bomb Threats by Target

(U) Residential, office/business and assembly locations were the top three targets of bomb threats during 2020. The number of reported incidents targeting education facilities decreased by more than half since 2C

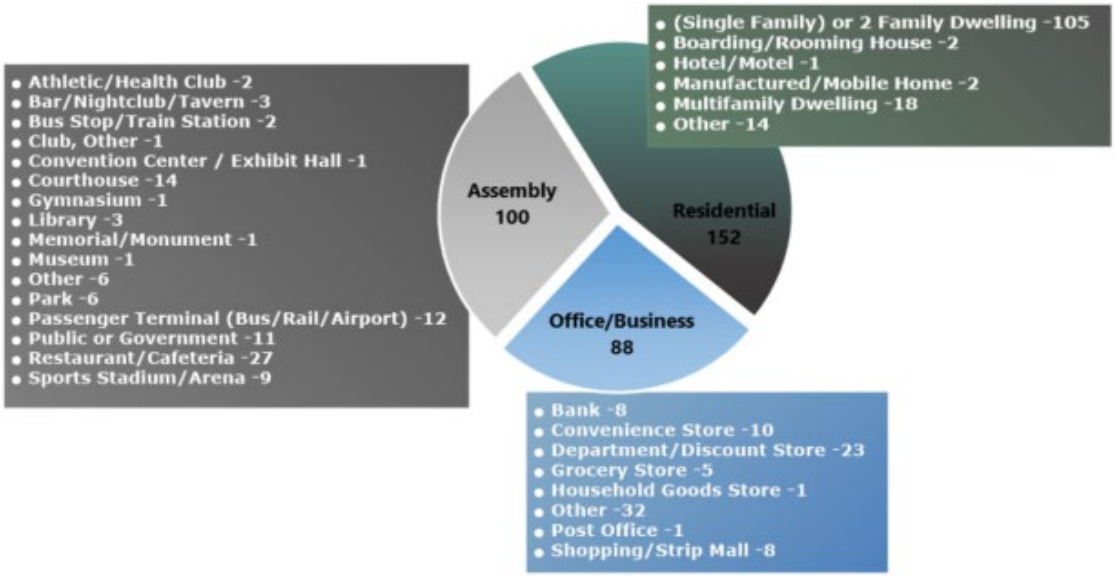

Figure 21. Bomb Threat Target Types (Top Three) and Subtypes

HOAXES – 2020

5.1 Hoax Device Incidents, Summary and Trends

(U) There were 287 hoax device incidents reported in 2020, a slight decrease of 19 percent since 2019. Ninety (90) percent of the reported hoax devices were IED-type hoax devices. Texas, California, Florida, Oregon, 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 in a downward trend since 2016 with the exception of a slight increase in 2018.

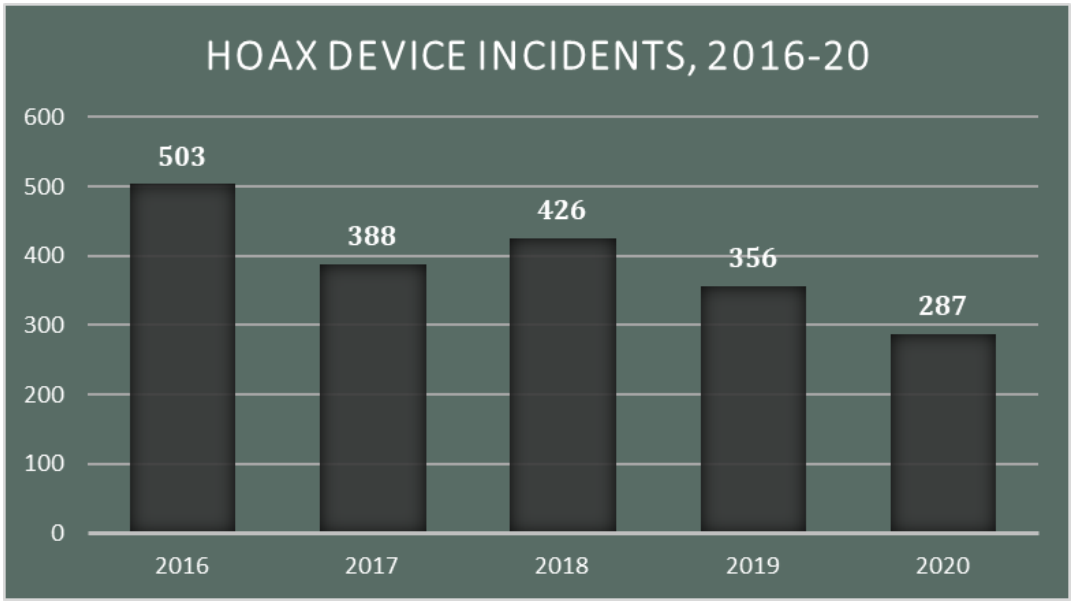

Figure 22. Hoax Device Incidents, 2016–20

5.2 Hoax Incidents by Incident Type

(U) The most commonly reported hoax devices in 2020 were IEDs. Nine (9) of the 287 hoax incidents did not specify a type.

Type of reported hoax devices	2016	2017	2018	2019	2020
IED	468	361	376	312	257
CBRN (Not chemical reaction/acid bombs)	12	11	14	11	3
Incendiary Device	23	16	19	16	18
Total	**503**	**388**	**409**	**339**	**278**

Figure 23. Hoax Incident Types and Subtypes, 2016–20

THEFTS/LOSSES – 2020

6.1 Explosives Thefts, Summary and Trends

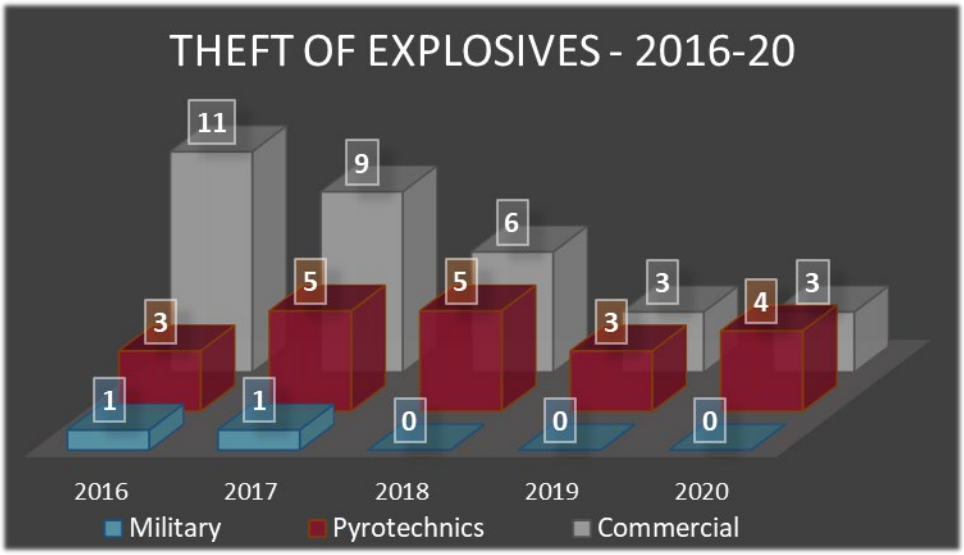

Figure 24. Explosives Theft Types, 2016–20

(U) There were seven (7) reported thefts of explosives in 2020, one (1) more than in the previous year. Commercial explosives and pyrotechnics were the most commonly stolen.

6.2 Explosives Theft Types per State

(U) Figure 25 identifies States where explosives thefts were reported in 2020.

State	Commercial	Military	Pyrotechnics	Total
CA	1			1
KS			1	1
NV	1			1
TX	1			1
UT			1	1
KS			1	1
WI			1	1
Grand Total	**3**	**0**	**4**	**7**

Figure 25. Explosives Theft Types per State – 2020

THEFTS/LOSSES – 2020

6.3 Explosives Losses, Summary and Trends

(U) There were 102 instances of explosives losses reported during 2020, a slight decrease from 2019. The majority of explosives losses were commercial explosives (73 percent) and pyrotechnics (15 percent).

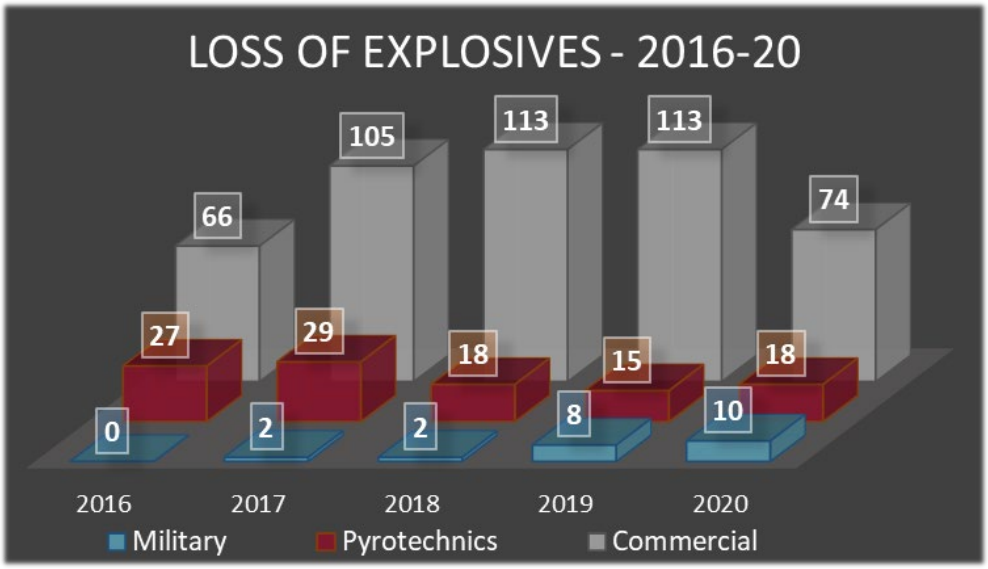

Figure 26. Explosives Loss Types, 2016–20

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

State	Commercial	Military	Pyrotechnics	Total
ND	1			1
NE	1			1
NH	1			1
NM	1		2	3
NV	3			3
NY			1	1
OK	1			1
OR		2		2
PA	4		6	10
SC			1	1
SD	1			1
TN	1		1	2
TX	14		1	15
UT	7	4		11
VA	2			2
VT	1			1
WA	1	1		2
WY	7		1	8
Grand Total	**74**	**10**	**18**	**102**

Figure 27. Explosives Loss Types per State – 2020

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