



UNCLASSIFIED



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

2021

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) and Open-Source information through TRIPwire.

UNCLASSIFIED

Table of Contents

Executive Summary _____	1
Explosions – 2021 _____	2
Recoveries – 2021 _____	8
Suspicious Packages – 2021 _____	12
Bomb Threats – 2021 _____	13
Hoaxes – 2021 _____	15
Thefts/Losses – 2021 _____	16
Contact Information _____	18

2021 Explosives Incident Report (EIR)

EXECUTIVE SUMMARY

OPERATING HIGHLIGHTS

(U) The 2021 *Explosives Incident Report (EIR)* is an informational product prepared by the United States Bomb Data Center (USBDC) in collaboration with the Cybersecurity and Infrastructure Security Agency (CISA), Office for Bombing Prevention (OBP), using incident data reported in the Bomb Arson Tracking System (BATS) and open-source information through the Technical Resource for Incident Prevention (TRIPwire). BATS currently has **1,861** interagency partners and **9,323** registered users. This report examines the total number of explosives related incidents reported in both BATS and TRIPwire for calendar year (CY) 2021. These incidents include *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, 2021, through December 31, 2021, there was a total of **13,892** *explosives related incidents* reported in **BATS**. Combined, there were **860** explosions reported in **BATS** and **TRIPwire**. Of the reported explosions, **381** were *bombings*. There was a total of **7,039** *recoveries* reported in **BATS** and **TRIPwire** in 2021, with the majority being explosives (non-improvised explosive devices (IEDs)). There was a total of **4,935** *suspicious/unattended package* incidents reported in **BATS** and **TRIPwire** in 2021. Bomb threats increased in 2021 with a total combined number of **1,876** reported incidents. *Assembly, education, and residential* were the top three targets of bomb threats during 2021.

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.

(U) As previously mentioned, this report will differ from previous reports because it will incorporate data from both TRIPwire and BATS. For the main categories (explosions, recoveries, suspicious packages, hoaxes, and bomb threats), there will be three (3) separate graphs (one for BATS data, one for TRIPwire data and one showing a combination of both). Moving forward, the 2022 EIR will only consist of one (1) graph combining both TRIPwire and BATS data.

James Watson
Director, USBDC

2021 Explosives Incident Report (EIR)

EXPLOSIONS – 2021

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 785 Explosion incidents reported in **BATS** and an additional 75 reported in **TRIPwire** during 2021. This is an overall decrease from 2020.

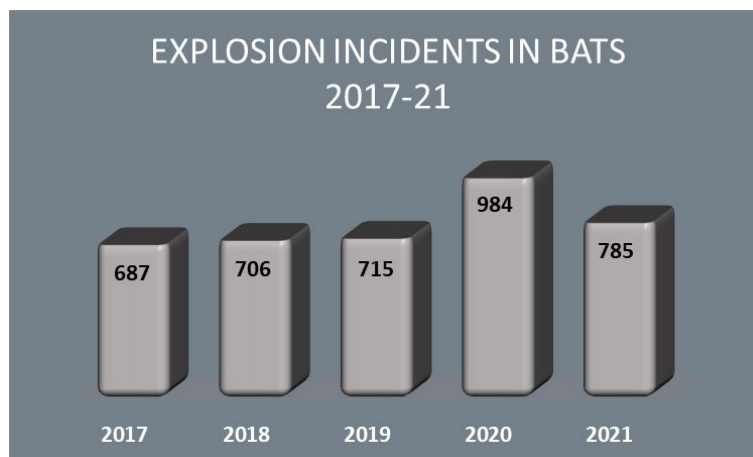


Figure 1. BATS Reported Explosion Incidents, 2017-21

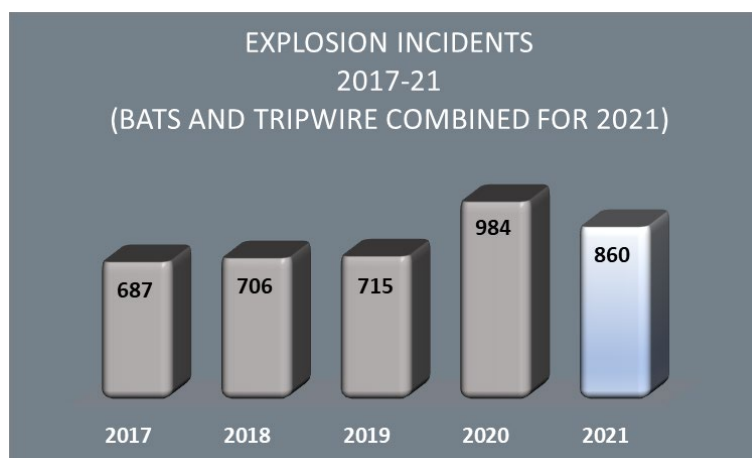


Figure 2. BATS Explosion Incidents, 2017-20
BATS and TRIPwire (CY 2021)

2021 Explosives Incident Report (EIR)

EXPLOSIONS – 2021

1.2 Explosion Incidents with Reported Injuries

(U) The chart below identifies the number of reported injuries as a result of explosion related incidents for the past 5 years. Note: CY 2021 represents data from both **BATS** and **TRIPwire**.

Injuries					
Year	2017	2018	2019	2020	2021
Fire Service	0	2	1	3	8
Law Enforcement	2	2	3	5	1
Suspects	7	9	6	11	24
Victims	58	59	76	72	67
Total	67	72	86	91	100

Figure 3. BATS Explosion Incidents – Injuries, 2017-20
BATS and TRIPwire (CY 2021)

1.3 Explosion Incidents with Reported Fatalities

(U) The chart below identifies the number of reported fatalities as a result of explosion related incidents for the past 5 years. Note: CY 2021 represents data from both **BATS** and **TRIPwire**.

Fatalities					
Year	2017	2018	2019	2020	2021
Fire Service	0	0	0	0	0
Law Enforcement	0	0	0	1	0
Suspects	1	1	3	1	2
Victims	16	15	13	11	25
Total	17	16	16	13	27

Figure 4. BATS Explosion Incidents – Fatalities, 2017-20
BATS and TRIPwire (CY 2021)

2021 Explosives Incident Report (EIR)

EXPLOSIONS – 2021

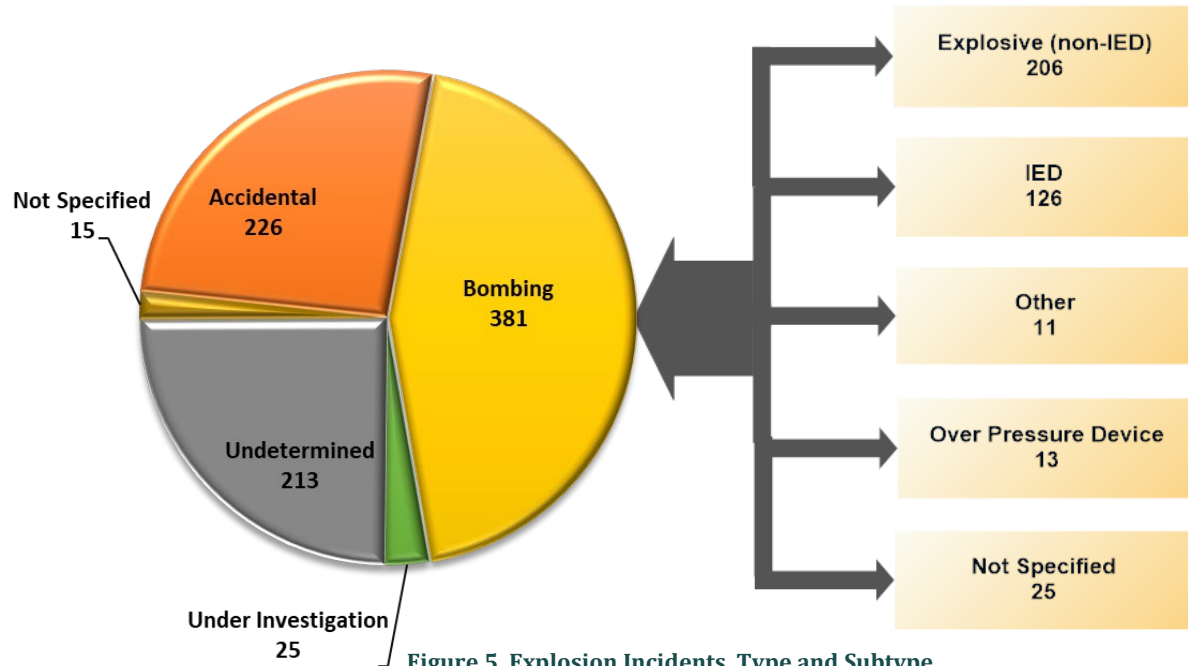
1.4 BATS and *TRIPwire* explosion incidents and type of bombing

Figure 5. Explosion Incidents, Type and Subtype
Source: BATS and *TRIPwire*

1.5 Bombing Trends

(U) There were 338 bombing incidents reported in **BATS** and an additional 43 incidents reported in **TRIPwire**, for a combined total of 381 bombing incidents in 2021. Combined, this is a decrease from last year. 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)).

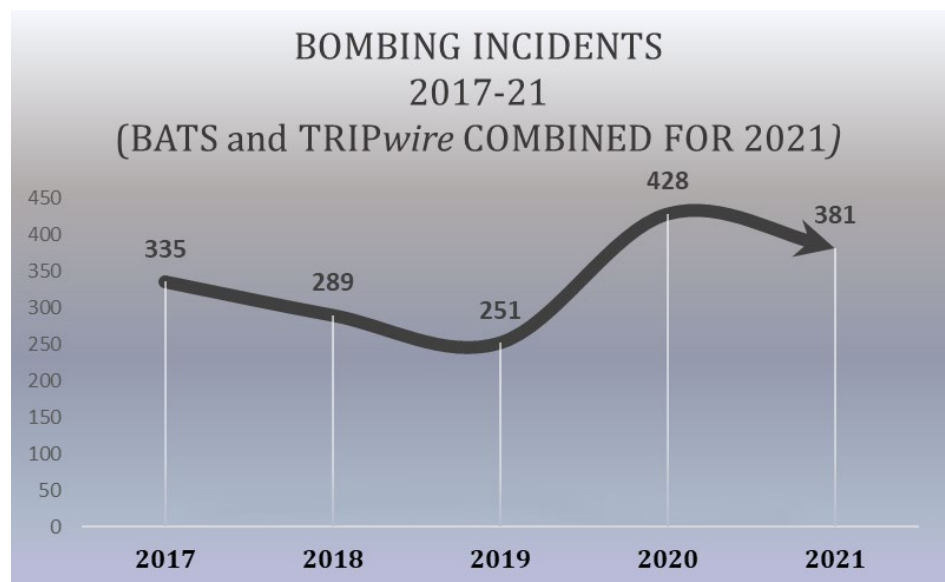


Figure 6. BATS Bombing Incidents, 2017-20
BATS and *TRIPwire* (CY 2021)

2021 Explosives Incident Report (EIR)

EXPLOSIONS – 2021

(U) Figure 7 breaks down the total number of bombing incidents by State during CY 2021.

Bombings by State CY2021	
STATES	TOTAL
ALABAMA	3
ARIZONA	12
ARKANSAS	2
CALIFORNIA	45
COLORADO	9
DELAWARE	1
FLORIDA	11
GEORGIA	2
ILLINOIS	15
INDIANA	10
IOWA	2
KANSAS	11
KENTUCKY	2
MAINE	1
MARYLAND	19
MASSACHUSETTS	5
MICHIGAN	20
MINNESOTA	4
MISSOURI	12
NEBRASKA	8
NEVADA	4
NEW HAMPSHIRE	4
NEW JERSEY	9
NEW MEXICO	4
NEW YORK	15
NORTH CAROLINA	9
NORTH DAKOTA	1
OHIO	13
OKLAHOMA	5
OREGON	15
PENNSYLVANIA	29
RHODE ISLAND	2
SOUTH CAROLINA	7
SOUTH DAKOTA	1
TENNESSEE	9
TEXAS	12
UNKNOWN	2
UTAH	3
VIRGINIA	6
WASHINGTON	31
WISCONSIN	6

Figure 7. Bombings by State – Source: BATS and TRIPwire

2021 Explosives Incident Report (EIR)

EXPLOSIONS – 2021

Explosions, All Devices and Materials – Main Charges

(U) Figure 8 displays an overall view of main charges reported in **BATS** 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.

Explosion - Main Charges						
Material Subtype Description	2017	2018	2019	2020	2021	Total
Ammonium Nitrate/Prills	6	1	0	0	0	7
Expanding Gas (Overpressure Device)	7	0	6	3	4	20
Improvised/Homemade Explosives (HME) - Explosive Compounds	3	1	8	7	6	25
Improvised/Homemade Explosives (HME) - Fuel Oxidizer Mixture	47	43	14	11	12	127
Ignitable Gas	7	11	8	5	8	39
Ignitable Liquid	4	4	9	1	4	22
Ignitable Solid	0	0	1	0	0	1
Other (Not identified)	7	7	5	7	5	31
Commercial Explosives - Ammunition	0	2	3	0	2	7
Commercial Explosives - Cast Explosives	0	0	0	2	0	2
Commercial Explosives - Binary	2	3	7	4	9	25
Commercial Explosives - Det Cord	0	0	2	2	2	6
Commercial Explosives - Liquid Explosives	0	0	0	2	1	3
Commercial Explosives - Dynamite	0	0	0	2	1	3
Commercial Explosives - Blasting Agent	0	0	0	1	0	1
Commercial Explosives - Propellant	22	23	13	4	7	69
Commercial Explosives - Pyrotechnics/Fireworks	70	59	66	82	87	364
Military Explosives - Propellants	0	0	1	0	0	1
Unknown or N/A	43	69	80	67	95	354

Figure 8. Explosion – Main Charges, 2017–21
Source: BATS

2021 Explosives Incident Report (EIR)

EXPLOSIONS – 2021

1.8 Explosion – Device Containers

(U) The data represented in figure 9 illustrates the number of *explosives incidents* reported in **BATS** 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.*

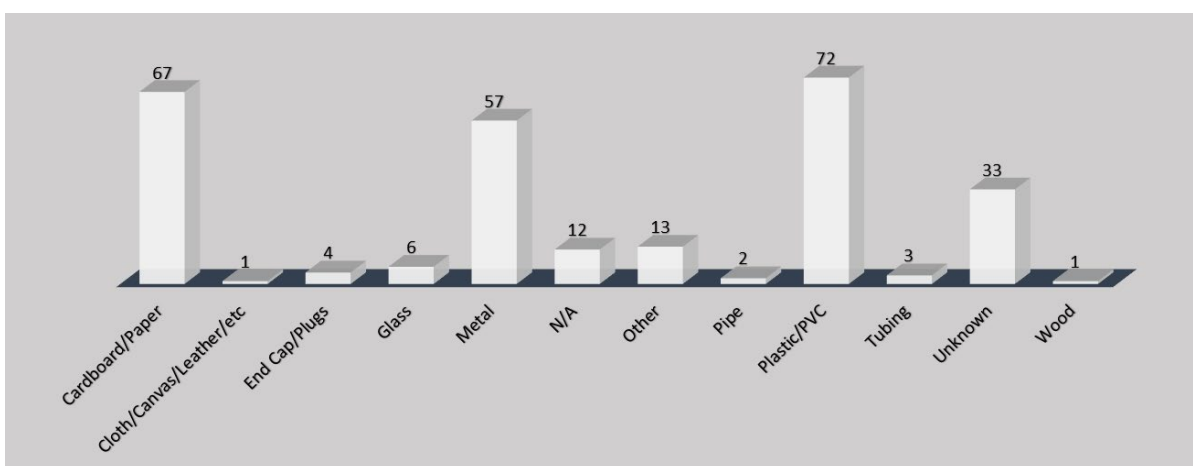


Figure 9. Explosion Device Containers – 2021
Source: BATS

1.9 Explosion – Switches

(U) Figure 10 shows the total number of switches reported in **BATS** during an explosion incident for calendar year (CY) 2021. Time-Pyrotechnic Delay (Safe/Time Fuse, Hobby Fuse) switches were among the highest reported during 2021. Time-Pyrotechnic Delay switches increased from three (3) in 2020 to seven (7) in 2021. *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 - Radio Controlled	2
Victim Operated - Collapsing Circuit	1
Victim Operated - Pressure Release	1
Time - Pyrotechnic Delay (Safe/Time Fuse, Hobby Fuse)	7
Unknown or N/A	92
Grand Total	103

Figure 10. Switches Related to Explosions – 2021
Source: BATS

2021 Explosives Incident Report (EIR)

RECOVERIES – 2021

2.1 Recovery Incidents, Summary and Trends

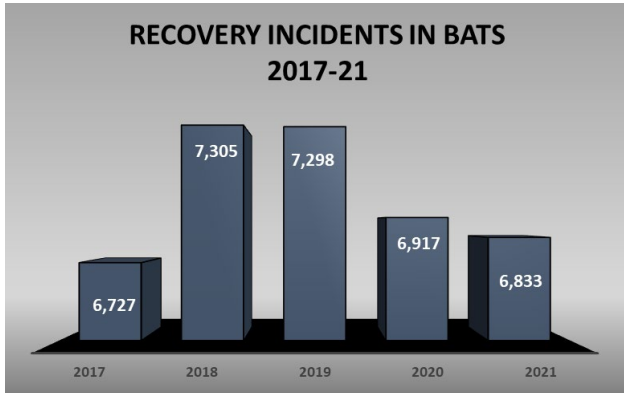


Figure 11. BATS-reported Recovery Incidents, 2017-21

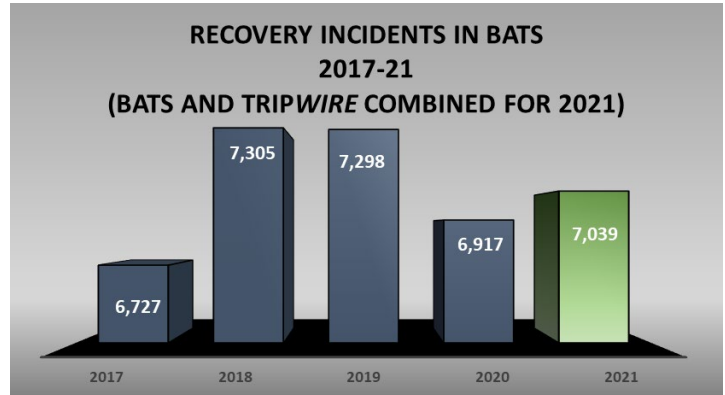


Figure 12. BATS Recovery Incidents, 2017-20
BATS and TRIPwire Recovery Incidents (CY 2021)

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 2021 as reported in **BATS** and **TRIPwire**. 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 (1,088) and Inert-Military (812) were the most reported. (See figures 13 and 14.)

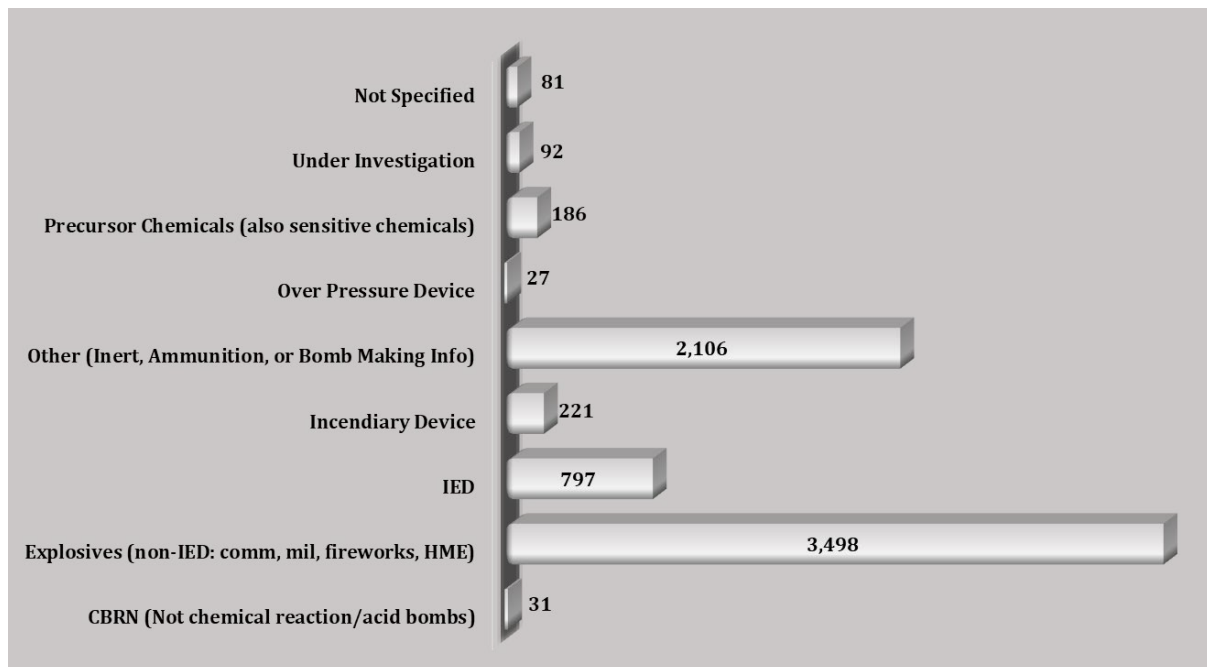
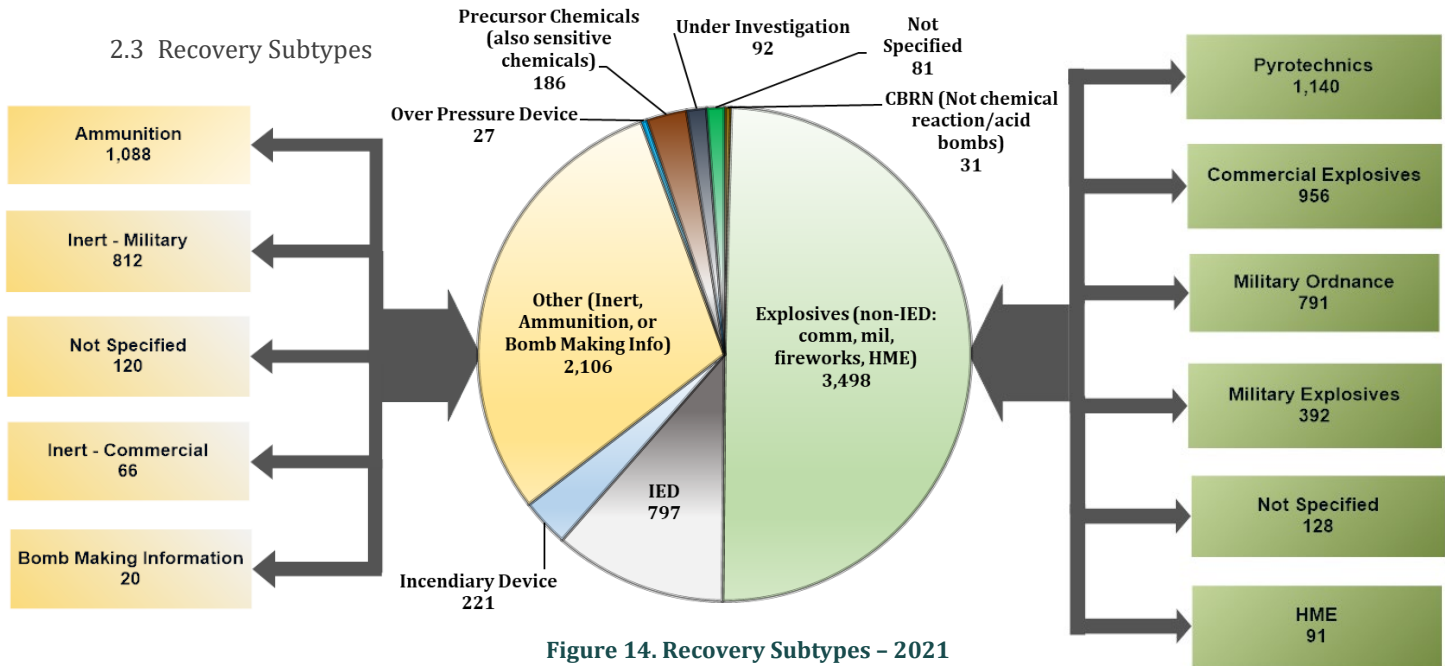


Figure 13. Recovery Types – 2021
Source: BATS and TRIPwire

2021 Explosives Incident Report (EIR)

RECOVERIES – 2021



2.4 Recovery Incidents by Target Type

(U) Of the recovery incidents where a target was reported in both **BATS** and **TRIPwire** during 2021, the majority took place at Residential structures (30 percent), Detention/Corrections/Government (8 percent), and Law Enforcement/Emergency offices (6 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 15 for a complete list of all recoveries by location.)

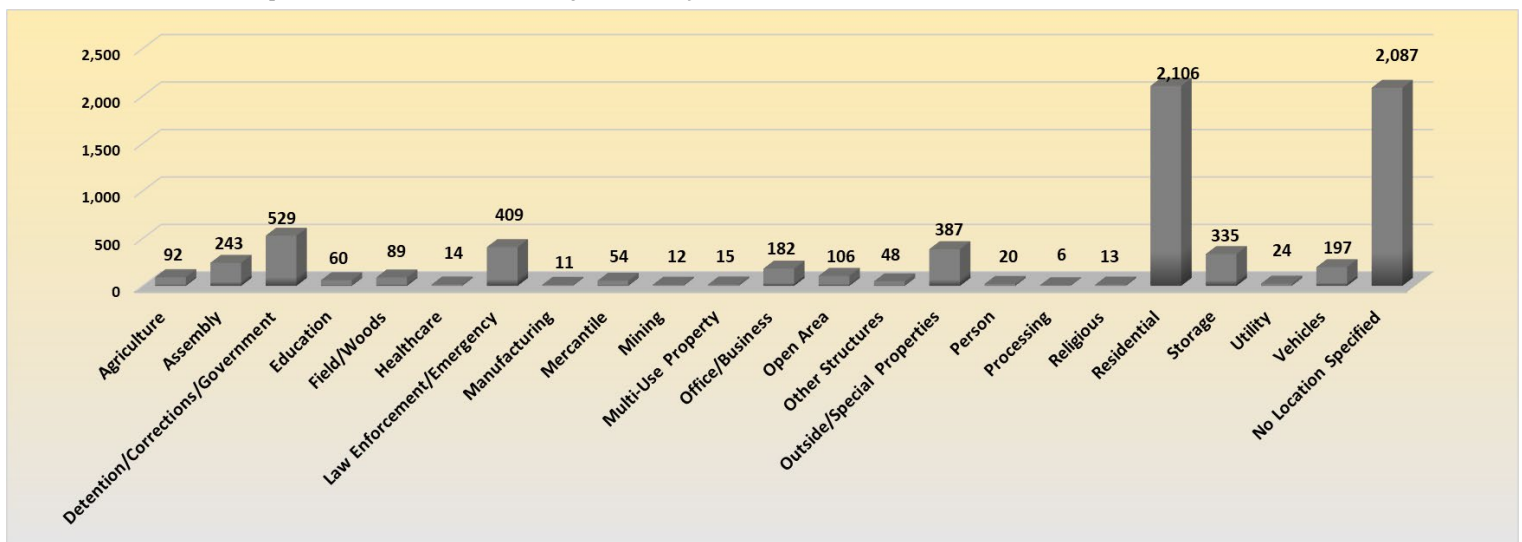


Figure 15. Recovery Incidents by Target Type – 2021
Source: BATS and TRIPwire

2021 Explosives Incident Report (EIR)

RECOVERIES – 2021

Recovery – All Devices and Materials - Main Charges

(U) Figure 16 displays an overall view of main charges related to recovery incidents reported in **BATS** 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.

Ammonium Nitrate/Prill	18	21	0	0	0	39
Commercial Explosives - Ammunition	0	11	33	39	25	108
Commercial Explosives - Binary	41	35	67	54	59	256
Commercial Explosives - Blasting Agent	52	37	39	45	49	222
Commercial Explosives - Det Cord	0	0	51	51	47	149
Commercial Explosives - Dynamite	91	73	88	99	112	463
Commercial Explosives - Propellant	386	435	228	186	196	1,431
Commercial Explosives - Pyrotechnic Fireworks	348	339	414	486	458	2,045
Commercial Explosives - Shaped Charge	17	8	9	13	2	49
Commercial Explosives - Plastic Explosives	3	10	21	12	11	57
Commercial Explosives - Cast Explosives	29	24	17	25	15	110
Commercial Explosives - Liquid Explosives	8	3	6	2	1	20
Improvised/Homemade Explosives (HME) - Explosive Compounds	12	20	22	30	52	136
Improvised/Homemade Explosives (HME) - Fuel Oxidizer Mixture	246	275	50	47	90	708
Military Explosives - Demolition Materials	12	43	25	17	28	125
Military Explosives - Incendiaries	0	1	12	11	18	42
Military Explosives - Munitions/Ordnance	50	74	90	54	89	357
Military Explosives - Propellants	0	1	11	3	10	25
Expanding Gas (Overpressure Device)	1	1	1	2	4	9
Special Purpose Devices	1	9	23	18	0	51
Ignitable Gas	9	4	9	7	9	38
Ignitable Liquid	43	30	33	34	59	199
Ignitable Solid	13	4	15	15	7	54
Ignition Mix	5	3	0	0	0	8
Lab Use Only	0	0	0	2	2	4
Match Heads	3	5	0	0	0	8
Other	62	50	71	0	72	255
PETN	6	19	0	0	0	25
Primer	5	1	0	0	0	6
Signaling Device	15	18	0	0	1	34
Special Purpose Devices	0	0	0	0	21	21
TNT	15	16	0	0	0	31
Unknown or N/A	314	579	508	534	703	2,638

Figure 16. Recovery – Main Charges, 2017–21
Source: BATS

2021 Explosives Incident Report (EIR)

RECOVERIES – 2021

2.5 Recovery – Switches

(U) The majority of recovered switch types reported in **BATS** in 2021 included Time-Pyrotechnic (safety/time or hobby fuses) and Command Pull switches. Time-Pyrotechnic switches decreased by 22 percent. Command - Pull Switches increased from 11 incidents in 2020 to 14 in 2021. (See figure 17 for a breakdown of switch types with corresponding total number of incidents.) *Note: Unknown or N/A (1,057) 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 17. Recovered Switches – 2021
Source: BATS

2.6 Recovery – Containers

(U) Figure 18 provides the number of incidents where a container was reported as recovered in 2021 in **BATS**. 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.*

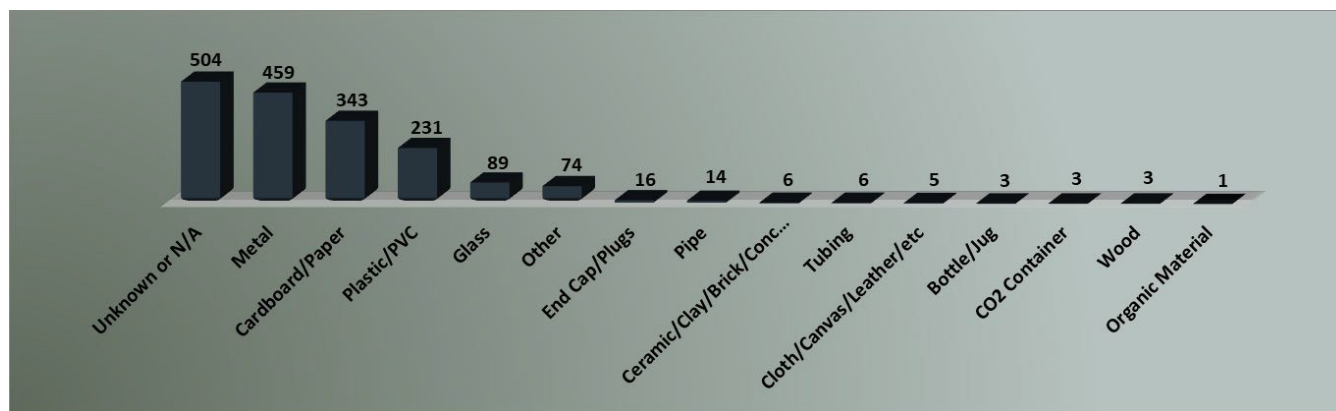


Figure 18. Recovery of Containers – 2021
Source: BATS

2021 Explosives Incident Report (EIR)

SUSPICIOUS PACKAGES – 2021

3.1 Suspicious Packages, Summary and Trends

(U) There were 4,716 suspicious/unattended package incidents reported in **BATS** and an additional 219 incidents reported in **TRIPwire** during the 2021 calendar year. Combined (4,935), this is an increase from 2020. This is still below average when looking at a 5-year comparison.

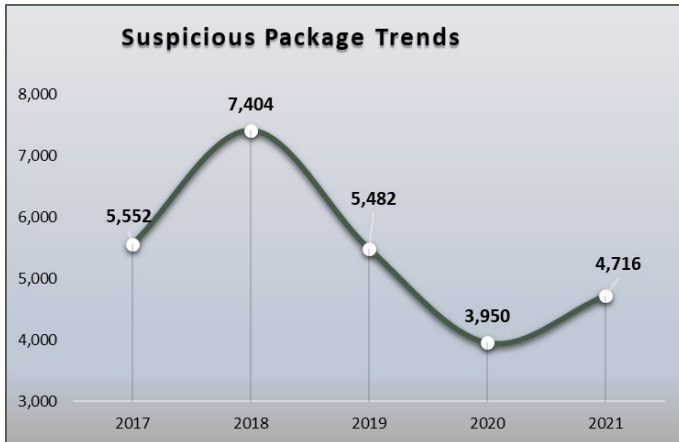


Figure 19. Suspicious/Unattended Packages, 2017–21
Source: BATS

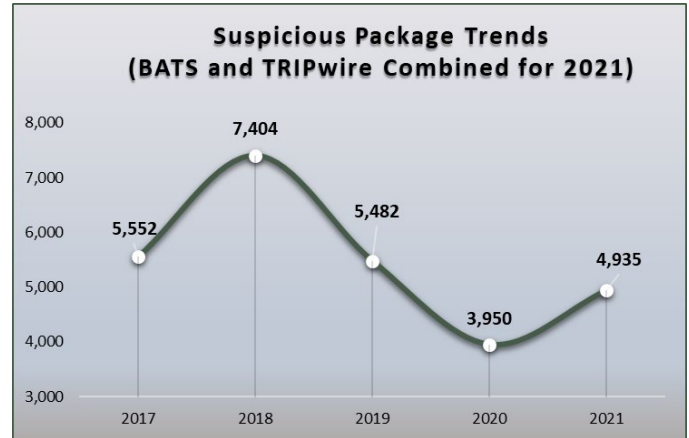


Figure 20. BATS Suspicious/Unattended Packages, 2017–20
BATS and TRIPwire (CY 2021)

(U) All categories, with the exception of letter/envelope and person incidents, increased in 2021.
Note: Calendar year 2021 represents data from both **BATS** and **TRIPwire**. Calendar year 2020 reflects only **BATS** data.

Type	2020	2021
Book Bag / Purse	647	931
Cargo (commercial)	20	113
Letter / Envelope	177	105
Luggage / Briefcase	445	697
Other	775	878
Package / Parcel	757	948
Person	75	40
Powder (Without Envelope)	31	53
Suspicious Container	842	906
Vehicle	170	173
Not Identified	11	91

Figure 21. BATS Suspicious/Unattended Package Incident Types, 2020
BATS and TRIPwire combined, 2021

2021 Explosives Incident Report (EIR)**BOMB THREATS – 2021**

4.1 Bomb Threats, Summary and Trends

(U) There were 1,136 reported bomb-threat incidents in **BATS** and an additional 740 incidents reported in **TRIPwire** for a combined total of 1,876 incidents in 2021.

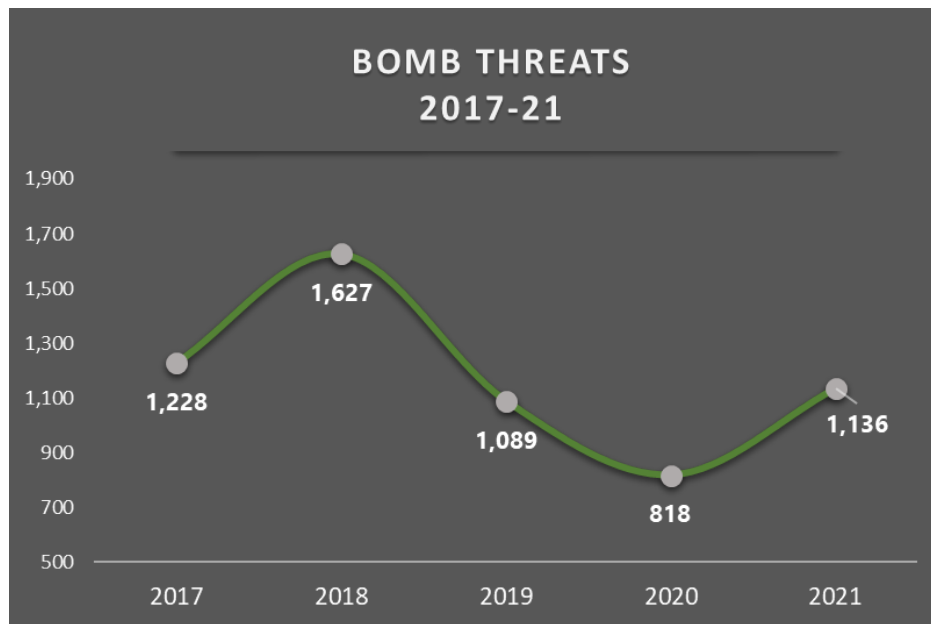


Figure 22. Bomb Threats, 2017-21
Source: BATS

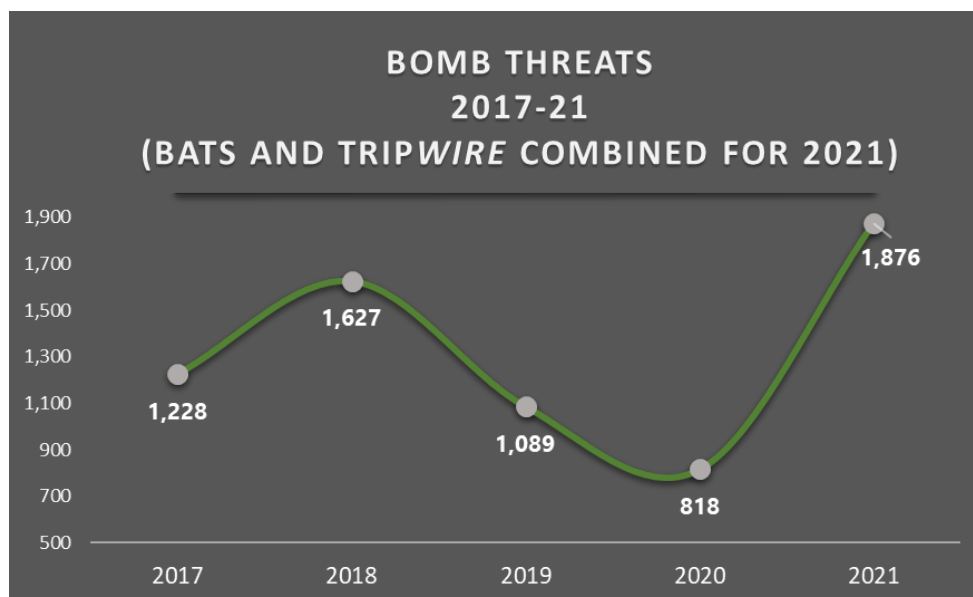


Figure 23. BATS Bomb Threats, 2017-20
Source: BATS and TRIPwire (CY 2021)

2021 Explosives Incident Report (EIR)

BOMB THREATS – 2021

4.2 Bomb Threats by Target

(U) Education facilities (517), Assembly (324), and Residential (181) locations were the top three targets of bomb threats during 2021.

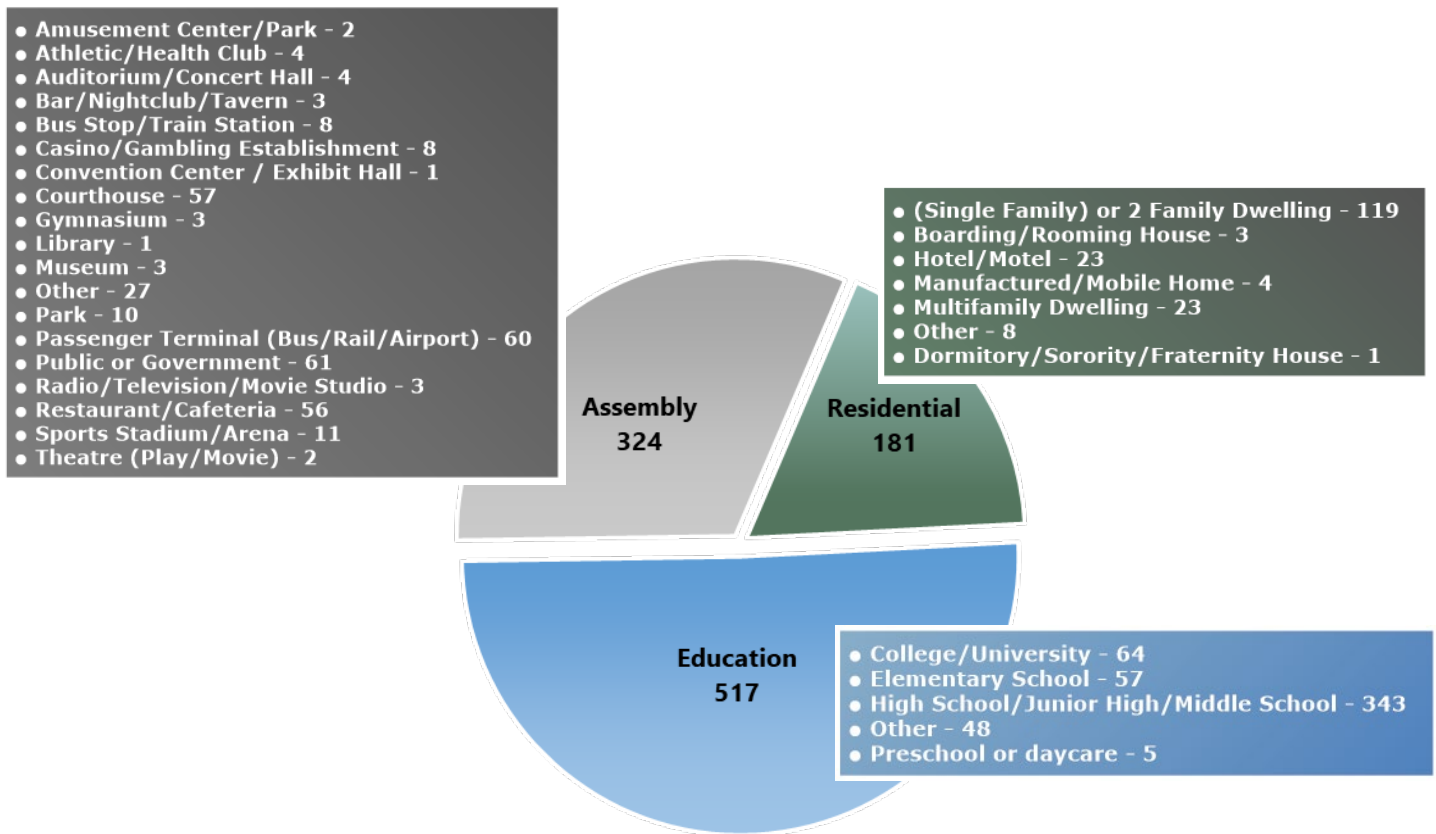


Figure 24. Bomb Threat Target Types (Top Three) and Subtypes
Source: BATS and TRIPwire

2021 Explosives Incident Report (EIR)

HOAXES – 2021

5.1 Hoax Device Incidents, Summary and Trends

(U) There were 348 hoax device incidents reported in **BATS** and an additional 29 incidents reported in **TRIPwire** in 2021, an increase since 2020. Eighty-one (81) percent of the reported hoax devices were IED-type hoax devices. California, Florida, Ohio, Texas and Oregon had the most reported hoax devices. Residential structures remain the most common target of reported hoax devices (20 percent) followed by Office/Business (10 percent). Figures 25 and 26 show that hoax device reporting is in an upward trend since last year.

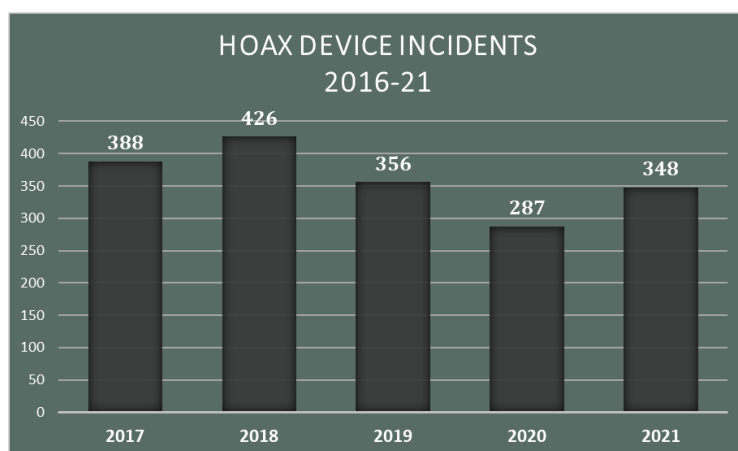


Figure 25. Hoax Device Incidents, 2017-21
Source: BATS

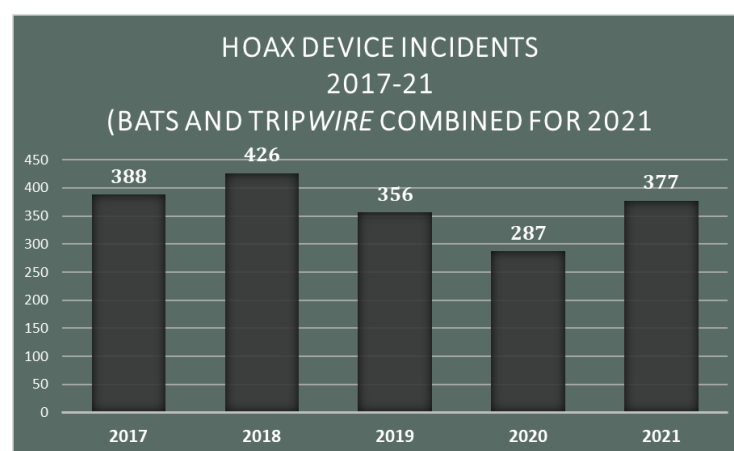


Figure 26. BATS Hoax Device Incidents, 2017-20
Source: BATS and TRIPwire (CY 2021)

5.2 Hoax Incidents by Incident Type

(U) The most commonly reported hoax devices in 2021 were IEDs. Twenty-two (22) of the 377 hoax incidents did not specify a type.

Type of reported hoax devices	2017	2018	2019	2020	2021
IED	361	376	312	257	307
CBRN (Not chemical reaction/acid bombs)	11	14	11	3	35
Incendiary Device	16	19	16	18	13
Total	388	409	339	278	355

Figure 27. Hoax Incident Types and Subtypes, 2017-21

2021 Explosives Incident Report (EIR)

THEFTS/LOSSES – 2021

6.1 Explosives Thefts, Summary and Trends

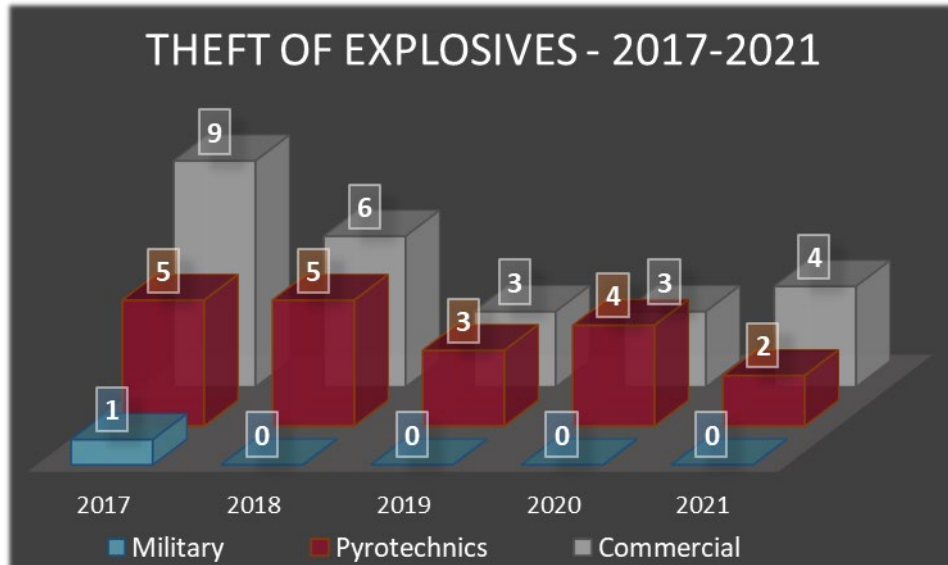


Figure 28. Explosives Theft Types, 2017-21
Source: BATS

(U) There were six (6) reported thefts of explosives in 2021, one (1) less than in the previous year. Commercial explosives and pyrotechnics were the most commonly stolen.

6.2 Explosives Theft Types per State

(U) Figure 29 identifies States where explosives thefts were reported in 2021.

State	Commercial	Military	Pyrotechnics	Total
CA	1			1
AR			1	1
NV	1			1
TX			1	1
MO	1			1
IL	1			1
Grand Total	4	0	2	6

Figure 29. Explosives Theft Types per State - 2021

2021 Explosives Incident Report (EIR)

THEFTS/LOSSES – 2021

6.3 Explosives Losses, Summary and Trends

(U) There were 116 instances of explosives losses reported during 2021, a slight increase from 2020. The majority of explosives losses were commercial explosives (89 percent) and pyrotechnics (11 percent).

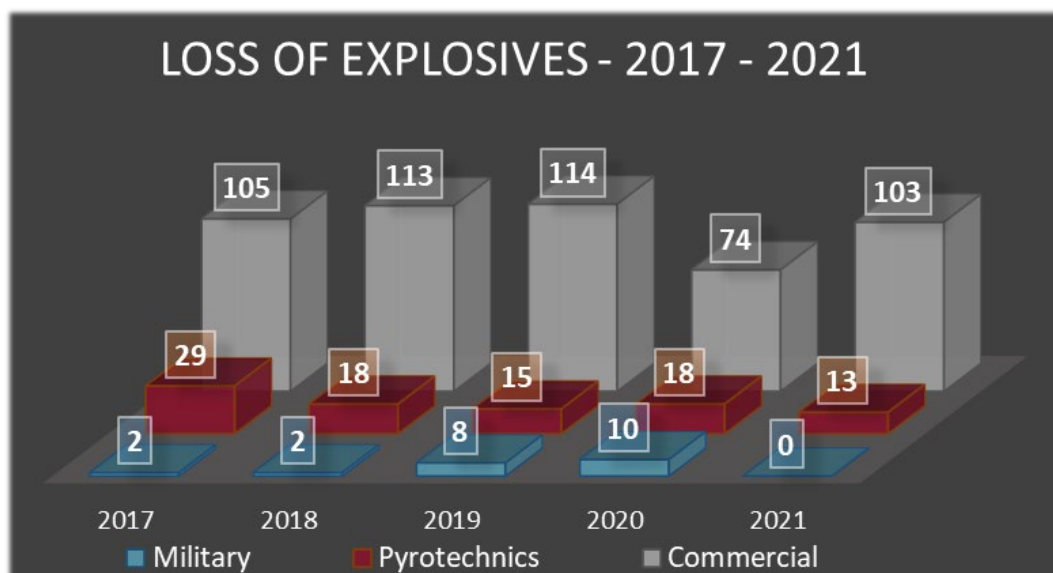


Figure 30. Explosives Loss Types, 2017-21

State	Commercial	Pyrotechnics	Total
AK	3		3
AL	2		2
AR	2	1	3
AZ	2		2
CA	9	1	10
CO	17		17
CT	2		2
FL	4		4
GA	5		5
IA	1		1
ID	1		1
IL	1		1
IN	1		1
KS		2	2
KY	1		1
LA	6		6
MA	3		3
MD	1		1
MI	2	2	4
MN	1		1
MO		2	2
MS	1		1
MT	1		1
NC	1		1
ND	1		1
NH	1	1	2
NM	1		1
OH	1		1
OR	4		4
PA	1	3	4
SC	1		1
TN	2	1	3
TX	7		7
UT	9		9
VA	1		1
VT	2		2
WA	1		1
WV	1		1
WY	3		3
Grand Total	103	13	116

Figure 31. Explosives Loss Types per State – 2021

2021 Explosives Incident Report (EIR)

CONTACT INFORMATION

Contact Information

United States Bomb Data Center

3750 Corporal Road,
Redstone Arsenal, AL 35898
Tel 256-261-7580
Fax 866-927-4570
usbdc@atf.gov



Office for Bombing Prevention

1310 N. Courthouse Road
Arlington, VA 22201
OBP@cisa.dhs.gov

TO REQUEST ADDITIONAL INFORMATION, PLEASE SEND AN EMAIL

TO: USBDC@ATF.GOV OR CALL 1-800-461-8841

[HTTPS://TRIPWIRE.DHS.GOV/](https://tripwire.dhs.gov/)