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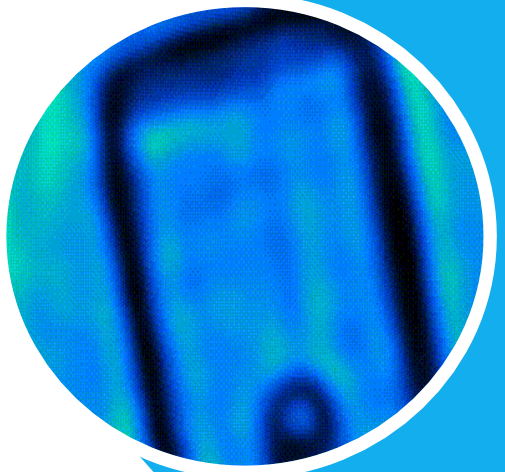
State of Mail Security

2021 Annual Report



Will Plummer
Chief Security Officer

Cody Martin
Director of Mail Security

Chuck Randolph
Executive Director,
Strategic Intelligence

RaySecur Mail Security Panel

Will Plummer

Chief Security Officer

EODSecur Program Director

25 Year U.S. Army EOD

Cody Martin

Director of Mail Security

SOP Team Lead

12 Year U.S. Postal Inspector

Chuck Randolph

Executive Director,

Strategic Intelligence, Ontic

IPSB President

RaySecur

The Standard in Mail Security

National Lab Spin-Out Technology

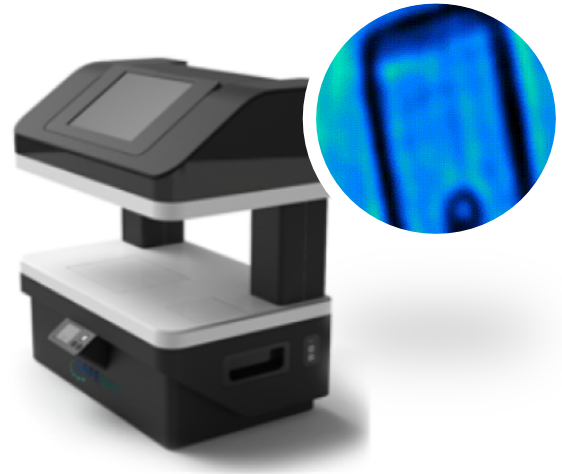
Patented, real-time, safe T-ray imaging systems.

US Department of Homeland Security

Designated QATT under US DHS SAFETY Act.

Security Innovation and Tech Leadership

Imaging and Photonics Technology and AI.



esa European Space Agency

EARTHCARE

INO

AI TECH AWARDS

SECURITY & FIRE EXCELLENCE AWARDS

2019 R&D 100 WINNER

PRISM AWARDS

Outstanding Security Performance Awards

NSF

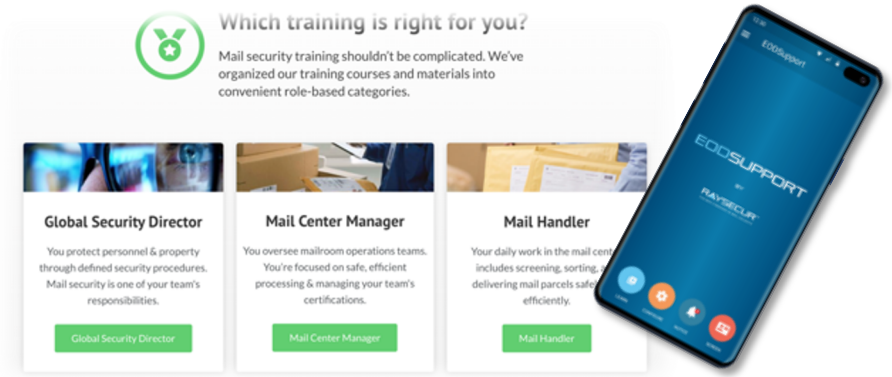
SPIE. The international society for optics and photonics

Scalable Enterprise Mail Security — Five Pillars

(2) Standard Operating Procedures

- Global Mailroom Mail Screening Process
- SOP-001: Mail Security Screening
- SOP-002: Suspicious Item Screening
- SOP-003: Emergency Response
- Appendix: Site-Specific Information
  - Site #1 | Site #2 | Site #... | Site #... | Site #...

(3) Web-Based Training Platform



2021 Annual
Mail Threat Report

> Single Source of Mail Threat Data

- Aggregate individual government data sources into a single report
- Updated on an annual basis

> Actionable and Timely Intelligence

- Government data may lag actual events by 6–12 months (2021 data not yet published)
- Includes open-source data for last 12 months
- Support decision makers in planning and risk mitigation

Federal Mail Threat Data Sources

2020 Key Statistics

> USPIS Annual Report

400
Inspectors Dangerous Mail Investigations (DMI) Unit

6K+
Suspicious Mail Incidents Responded to

262K
Forensics Examinations

> United States Bomb Data Center

4K
Suspicious Packages

1K
Incidents Involving Letters or Parcels

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Key Statistics and Analysis

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About the Data

> 400+ Mail Threat Incidents
> US and International

> Media Reporting and
> Public Domain

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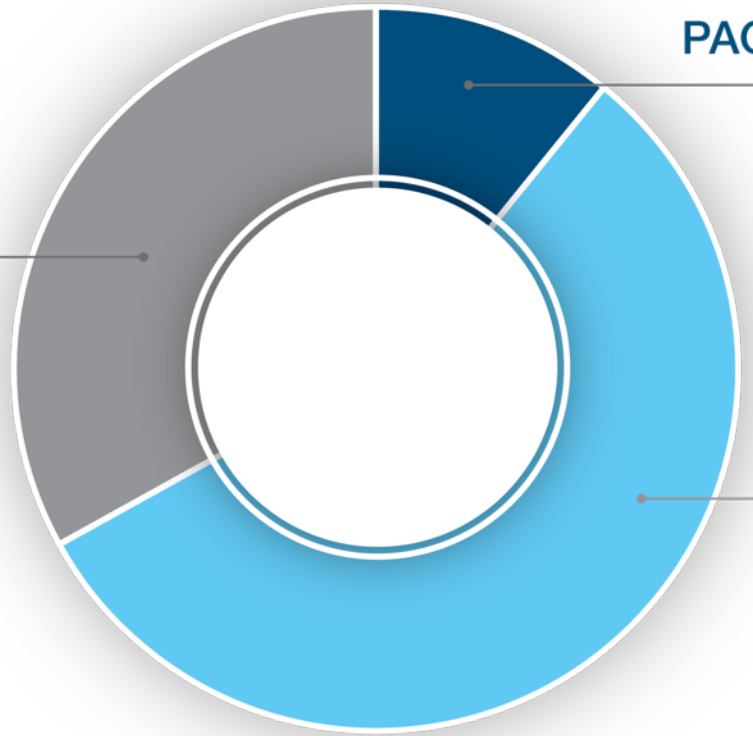
Delivery Method



11%
PACKAGES
Package item is larger than .5” thick and weighs more than 10 ounces and amounted to 11% of mail threats.

33%
PARCELS
Parcel is defined as an item that can fit in a curbside dropbox and comprised 33% of threats tracked by the TDC in 2021.[7]

56%
LETTERS
Primary delivery method for dangerous mail threats comprising 56% of threats tracked by TDC in 2021.

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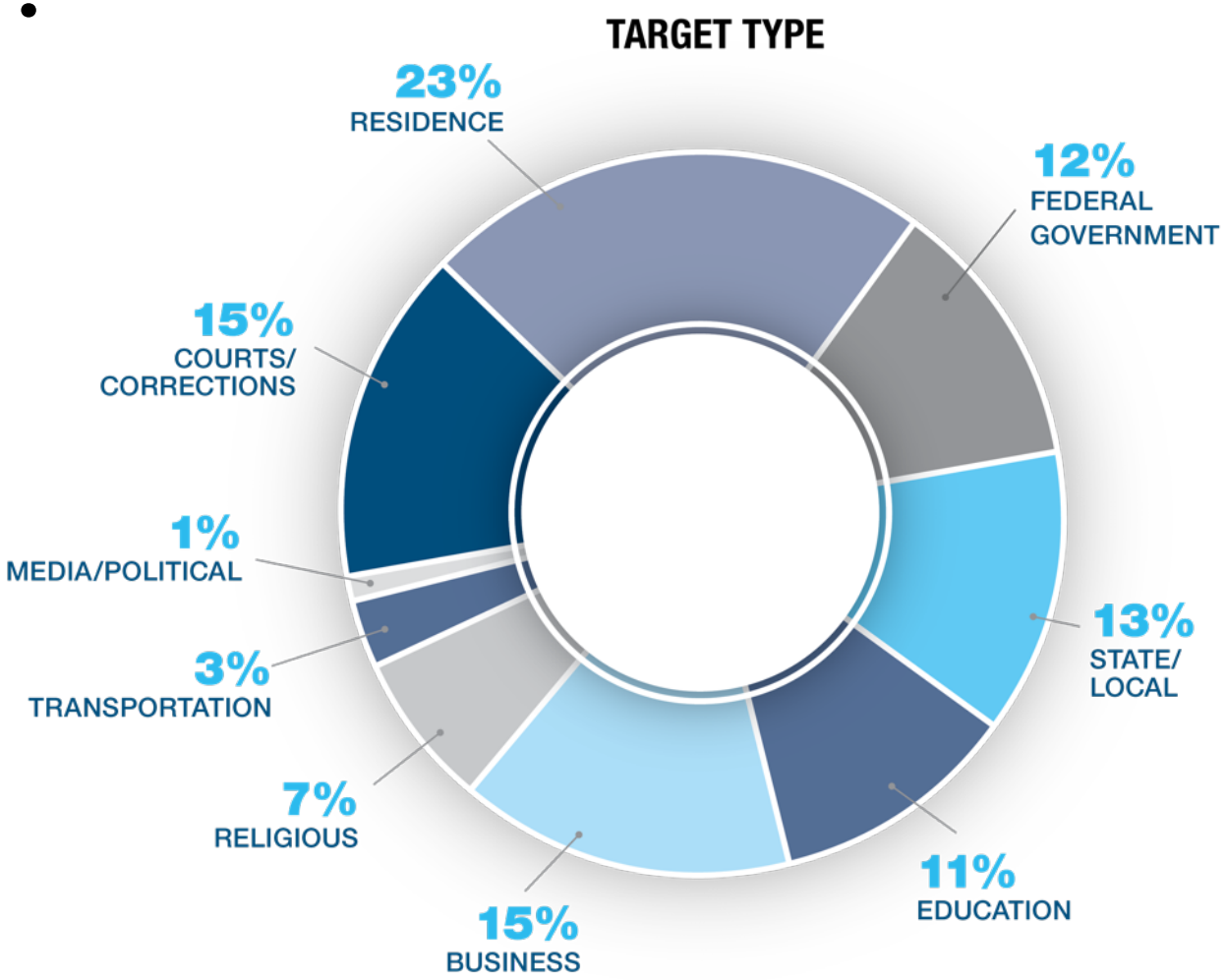
What is being targeted?



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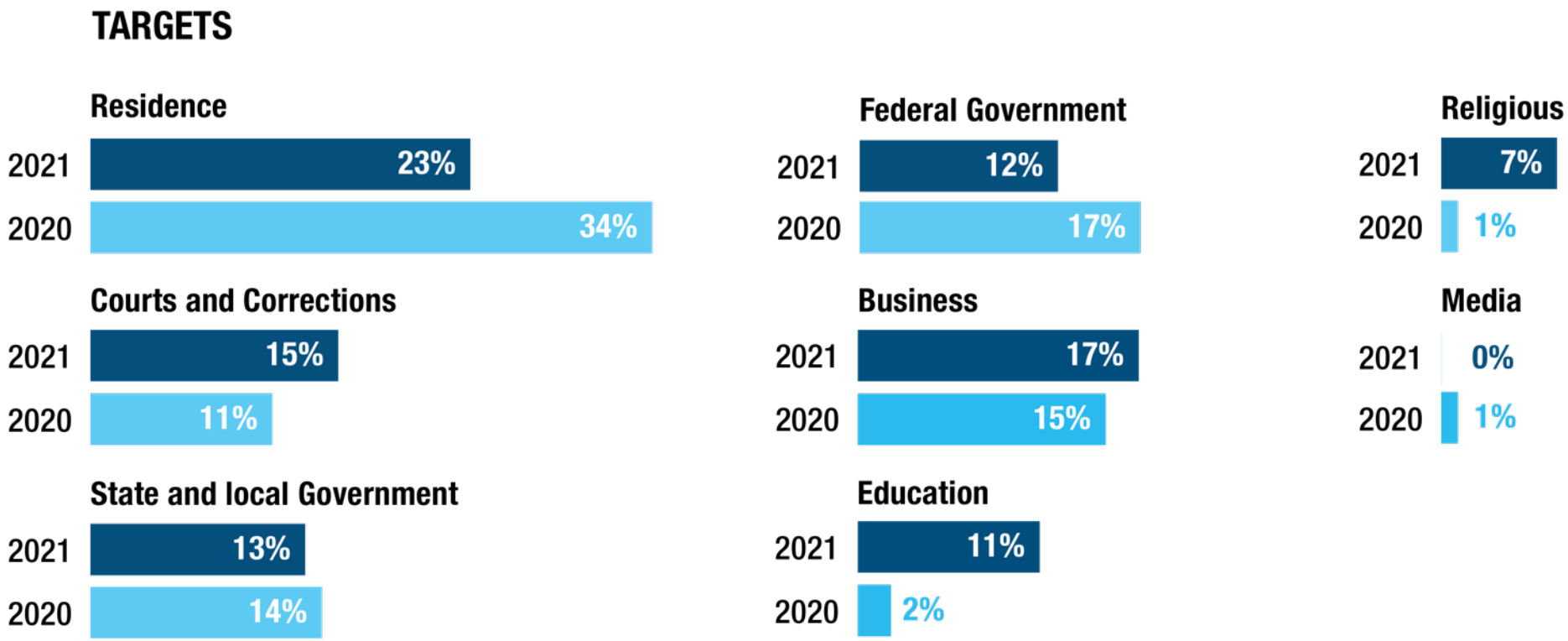
Year-over-Year



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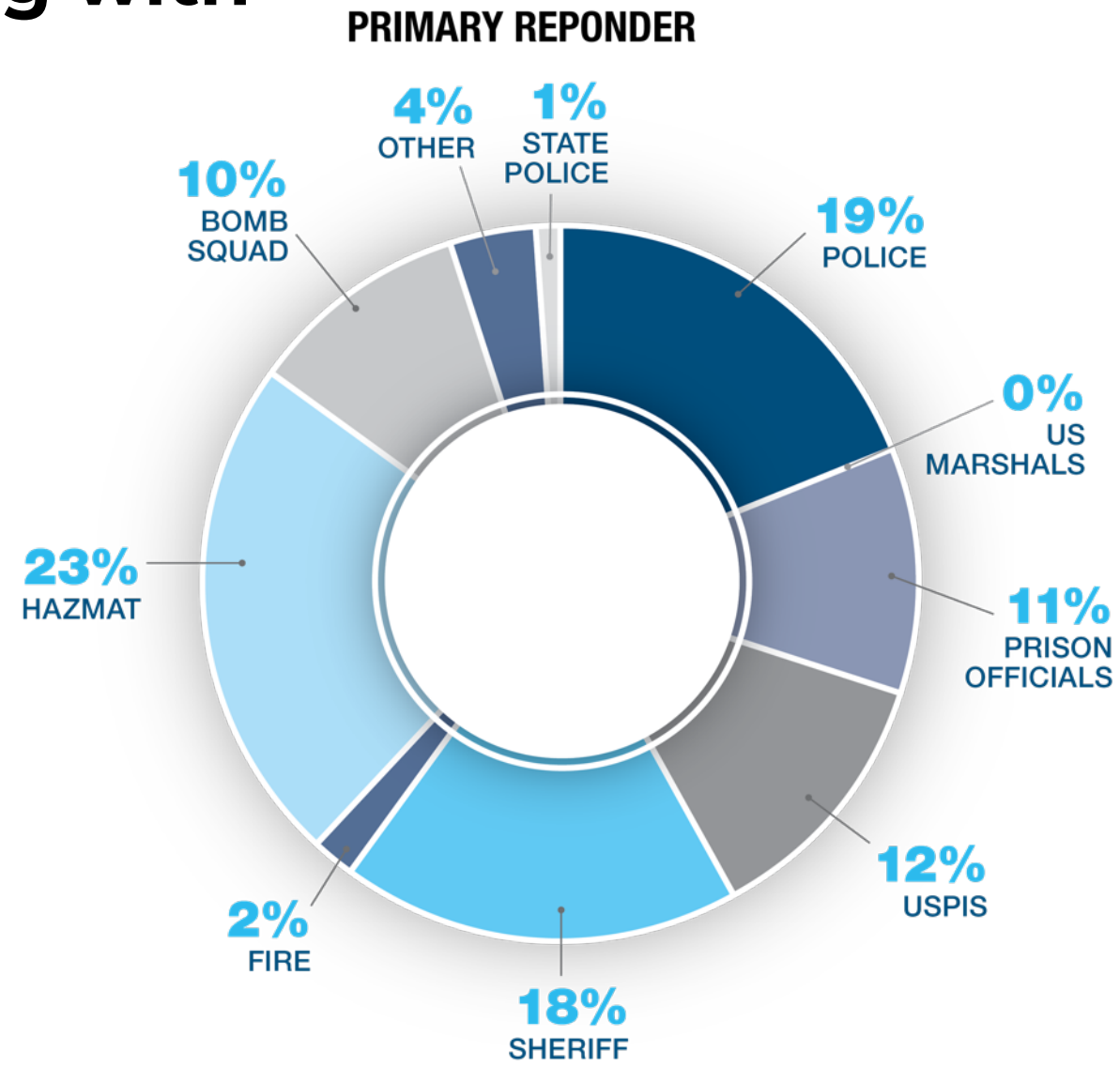
Who is dealing with the problem?



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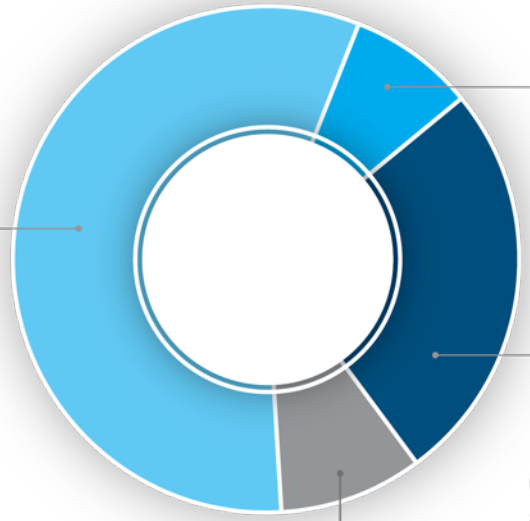
What do screeners think is the threat?

SUBSTANCES



57% OF LETTER THREATS

Contained white powder (41%) and drugs (16%)

8% EXPLOSIVES

The minority of threats were incendiary - IED 7%, bomb threat 1%

26% ILLEGAL DRUGS

Continuing the shift away from personal transactions due to the pandemic and the rise in smuggling.

9% OTHER

TOP 10 SUSPECTED SUBSTANCES*

1	Ricin	19%
2	Anthrax	18%
3	Other Drugs	18%
4	Marijuana/THC	11%
5	Unknown	7%
6	Cocaine	6%
7	Fentanyl	5%
8	Methamphetamine	5%
9	Other	5%
10	Suboxone	3%

* As suspected by first responders prior to lab testing.

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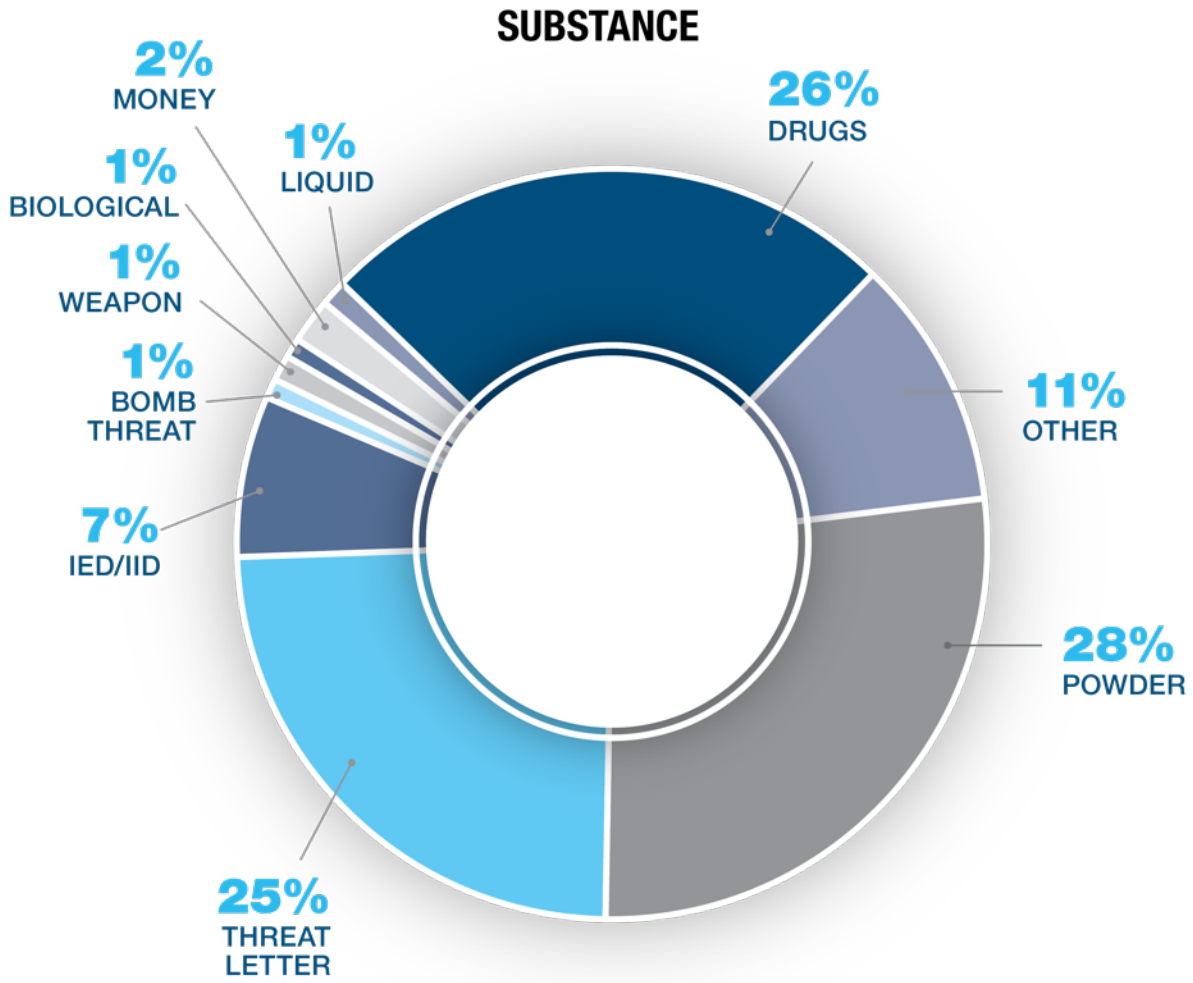
What's in the package?



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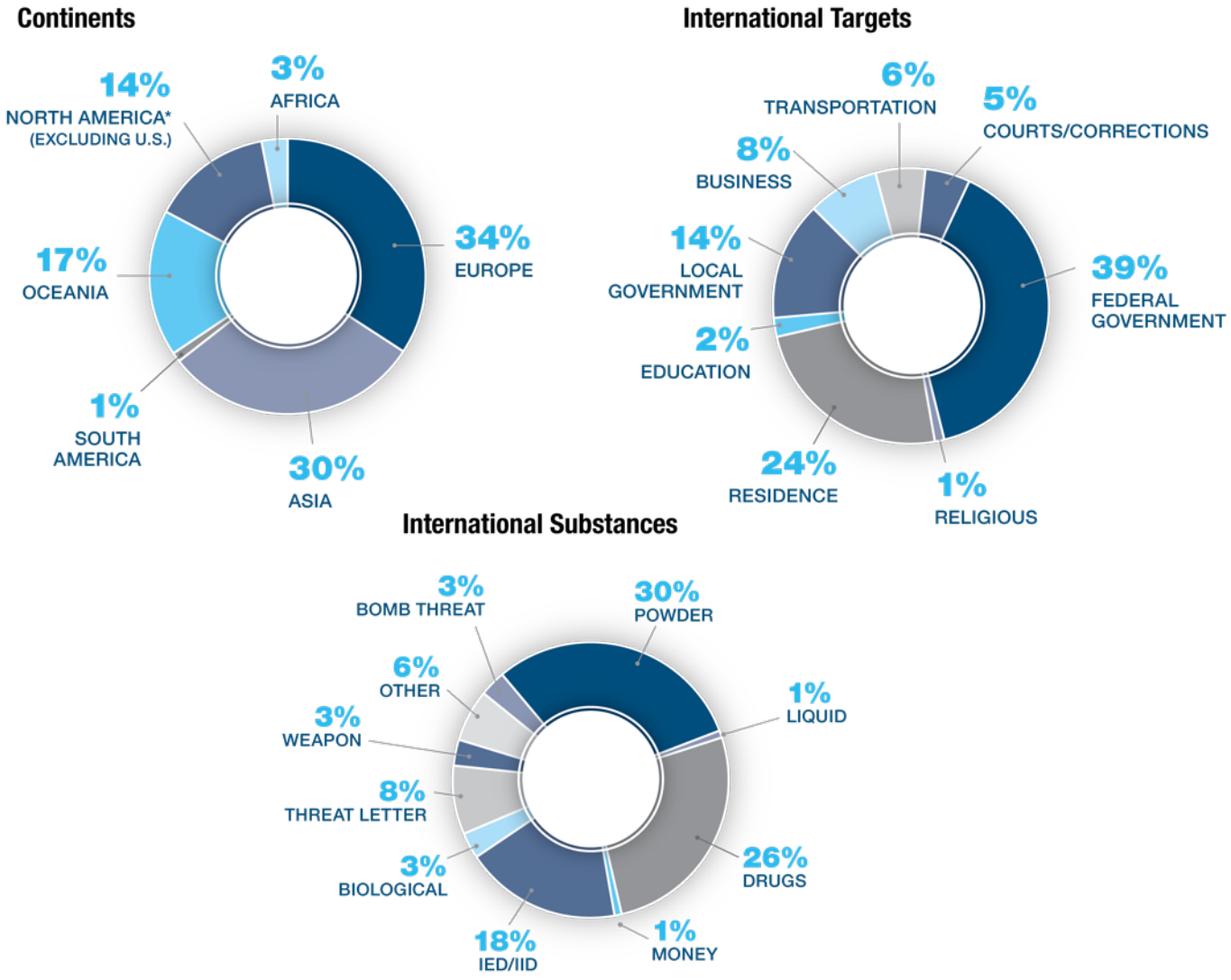
Global Incidents



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2021 Case Studies:
Successful Mail-borne Attacks

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Driving Factors

> Mistrust in the Media and Government

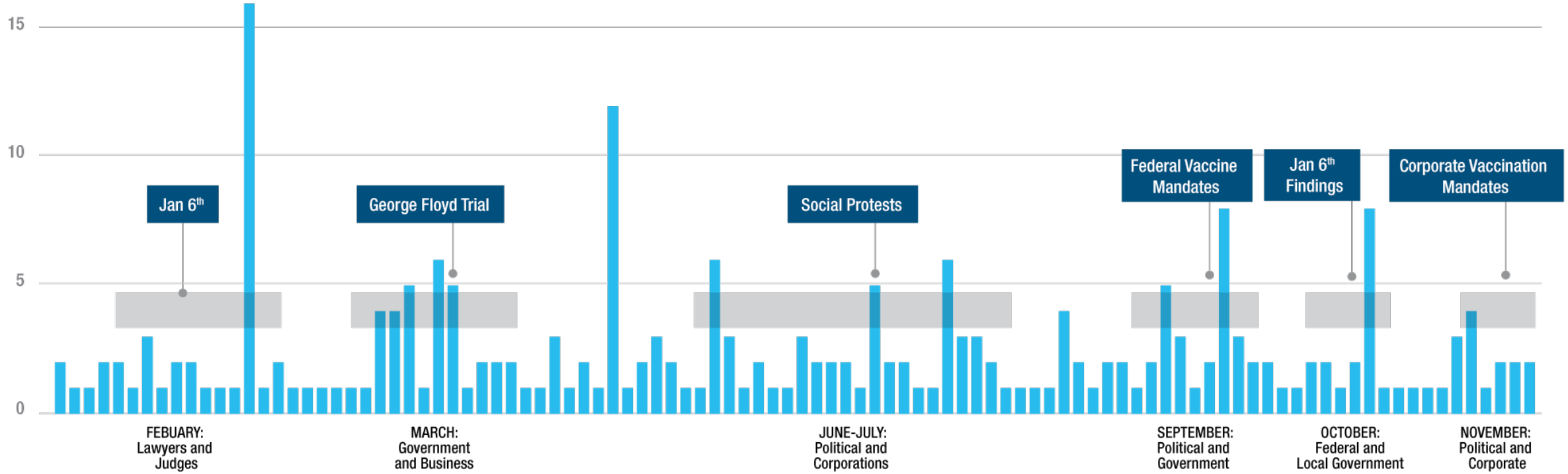
> Continued COVID Response Threats

> Mandatory Vaccine Policies

> Feeling “Lack of Representation”

Clear Escalation Pattern

Mail incidents closely follow societal events



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Emerging Trends in Mail Attacks

Notable increases:

- **Harmful Intent**
  Toxicity in white-powder attacks
- **Illegal Drugs**
  Distribution to residential and correction facilities
- **Social Intolerance**
  Targeting ethnic and religious classes
- **Individual Targeting**
  Government, political, and corporate figures
- **Digital & Physical**
  Convergence of cyber and mail

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Smuggling

Man accused of smuggling drugs into Georgia prisons with paper

- Police uncovered drugs funneled into Georgia prisons by concealing them in laced pieces of paper, ***disguised as legal correspondence*** to inmates.
- "This person had been purchasing cannabinoid in powder form, converting the powder into liquid form, soaked it into the paper, and that paper was then being turned into basically disguised formal correspondence.

Terrorism Threat

'Breaking Bad' inspired Boston researcher to seek poisons

- The former head of advanced research at a Boston-area biotechnology company told investigators he was inspired by the television show “Breaking Bad” when he tried to obtain the powerful poison ricin, federal prosecutors said.

- After he spoke to agents, they alleged he researched poisons that could be made at home, prosecutors said.

Government Officials & World Leaders

Death Threats, White Powder and Rand Paul

- An unknown person mailed a package containing suspicious white powder to the home of Republican Kentucky Senator Rand Paul—the second instance in five days.

Letter addressed to the Pope with three bullets inside

- Italian police are investigating a disturbing death threat addressed to Pope Francis. Law enforcement in Milan has confirmed an envelope containing three bullets was sent to the Vatican.

Anti-vaccine Sentiment

Man arrested over a package sent to vaccine plant

- A hoax package mailed to a Covid-19 vaccine production plant in southeast Wales caused a shutdown that lasted several hours.
- The package itself was not a complete threat but it was a clear message that the 53-year-old man charged with sending it wanted to disrupt the facility.
- The man has been charged with dispatching an article by post "to induce the belief it is likely to explode or ignite."

Looking Ahead:

Prepare for 2022

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What will 2022 bring?

Trends

- Insider threats
- Workplace violence
- Response to vaccine mandates
- Response to mid-term elections

Trigger Topics

- COVID Response
- Personal Biases
- Firing/Layoff
- Growing Empowerment

Locations

- Corporate
- Government
- Labs and Testing Facilities
- Jails and Prisons

Types

- White Powder Toxicity
- Death Threats
- Hate Crimes
- Extortion

2022 Forecast

- White Powder Increasing
- Mid-Term Election Response
- Higher Profile Targeting
- Drug Increase
- Local officials

- Through February, 2022
  - United States — up 5% over 2021
  - International — jumped 100% from 2021

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Understanding Risk

In general, the risk associated with the operation of an organization's mail center can be viewed through three basic factors. The following "formula" can be used as the basis for determining an organization's mail center risk level:

RISK = THREAT + VULNERABILITY + CONSEQUENCE

§3.2 US DHS Risk Definition (pg. 13)

- **THREAT – known or perceived motivations and mechanisms (CBRNE or hoax)**
- **VULNERABILITY – strengths and weaknesses of the physical organization or site**
- **CONSEQUENCE – magnitude of impact should a threat occur**

Five Pillars of Effective Mail Security

- People
- Procedures
- Training
- Technology
- Emergency Response

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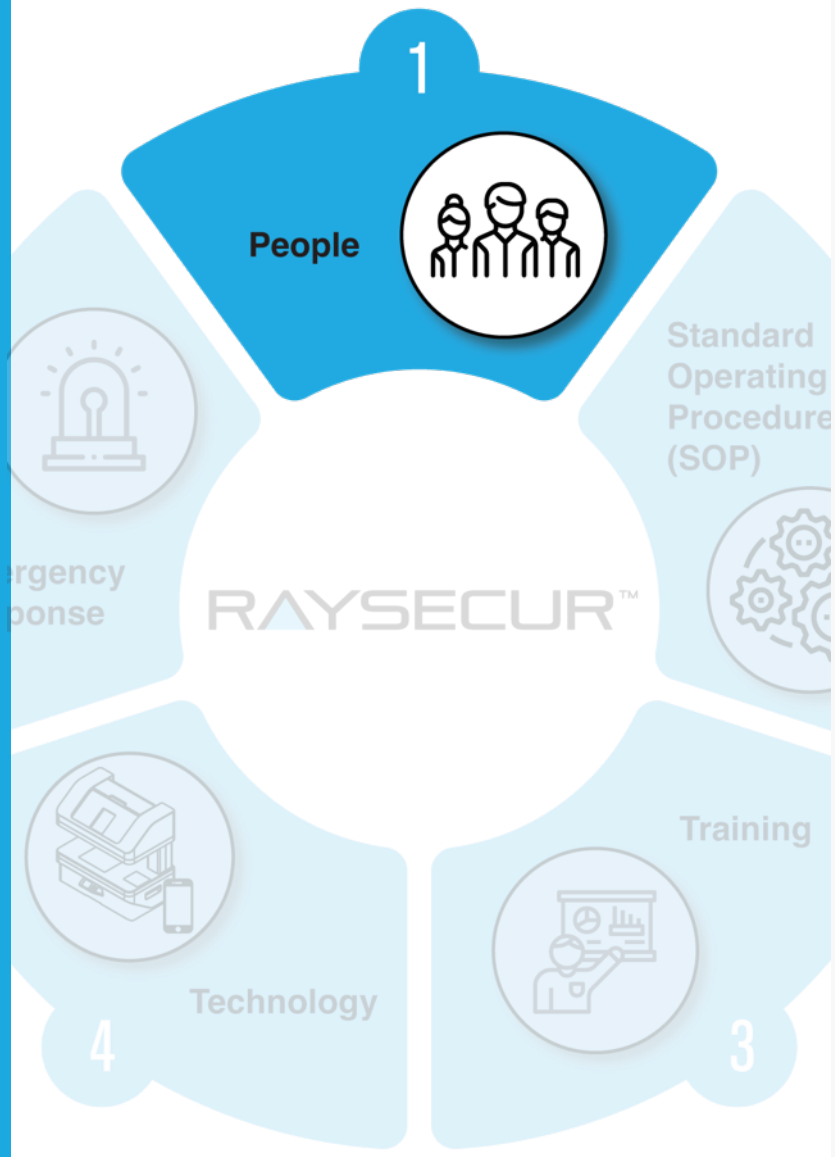


Preventing the People Risk

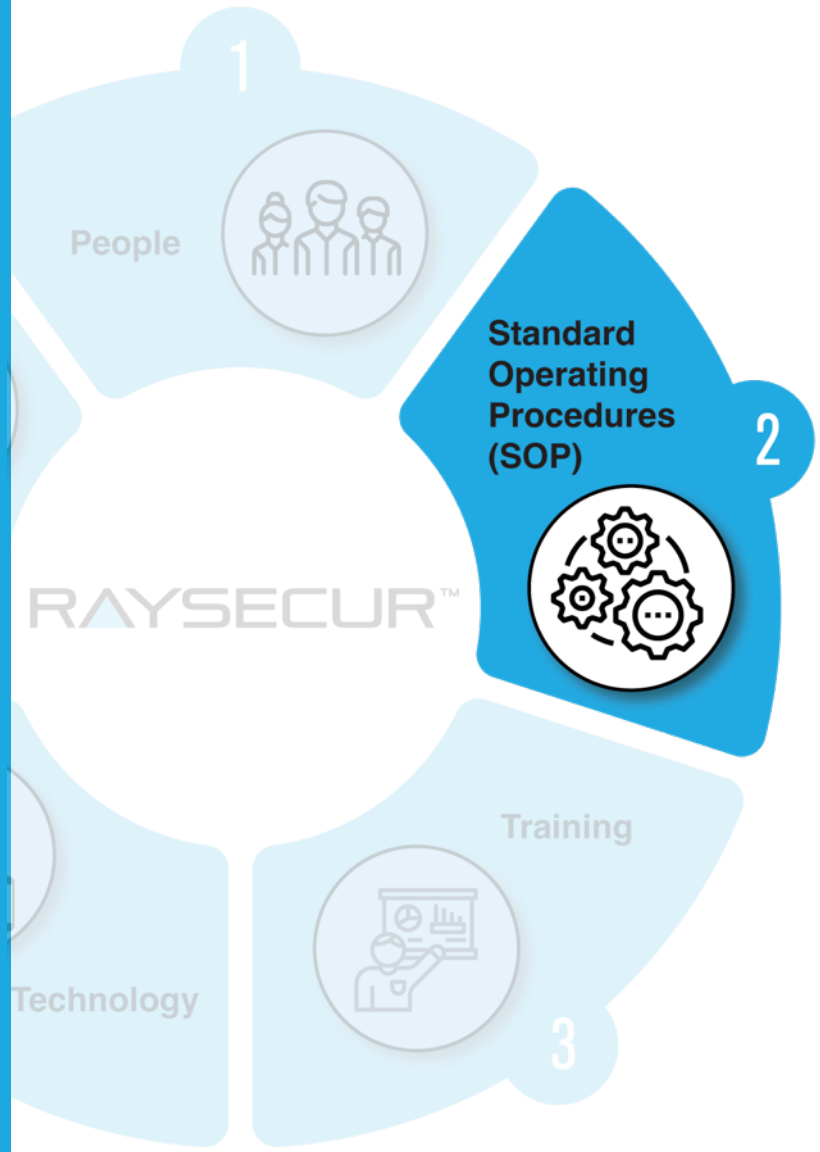
U.S. Postal Inspection Service Report

- Most mail threats motivated by someone within or close to the organization
- Know your people, your customers, and anticipate changes in the business climate

Overt Mail Security

- Let employees know all mail is subject to screening
- Stamp security screened mail
- Discourage insider threats and reinforce security culture

Operating Procedures and Standards Matter



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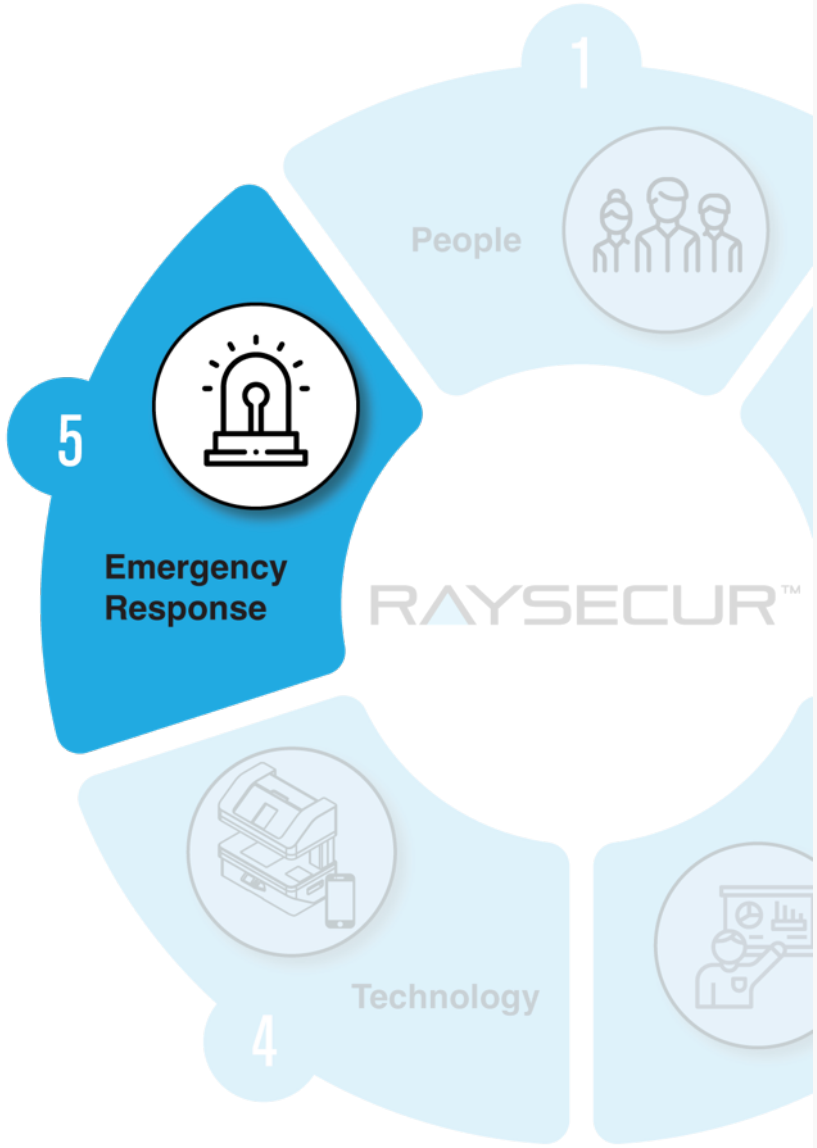
> Global Mail Security Standards

- US Department of Homeland Security (USDHS)
- UK Center for the Protection of National Infrastructure (CPNI)

> Risk Evaluation Approach

- Based on established government guidelines
- Flexible to adapt to individual risk criteria for each facility
- Provides objective criteria to quantify risk

Emergency Response Planning



USPIS Response

- 4 hours
- Unmarked SUV
- Dangerous Mail Specialist
- Screen up through identification
- Resolve or escalate

Local (911) Response

- Faster response times
- Numerous personnel
- Evacuations
- Very similar mail screening equipment

Closing the Mail Security Gap

Dangerous Mail in Context — Think Globally

- **10 times** per day on average, according to USPIS data
- **~3×** greater risk in EU, relative to North America
- Need to consider in the aggregate vs. isolated individual events

Combating Mail Threats

- Understand your organization's risk profile
- Advance planning, countermeasure implementation, and prevention
- **RISK** = THREAT + VULNERABILITY + CONSEQUENCE

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Additional Resources

2021 Annual **Mail Threat Report**

The Industry's Only Comprehensive Report on Mail-borne Threats

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Monthly Security Alerts
Delivered to Your Inbox

Mail Security Alerts

RaySecur is designated by the US DHS, and we'd love for you to join our community.

We provide ongoing mailroom threat incident analysis – find out what is happening near you so you can respond quickly

Sign up for Alerts

Mail Security Alert, Nov 2021: Drugs, Governments & Vaccine Mandate Impact

November 2021's mail security threats continued recent patterns of

Mail Security Alert, Oct 2021: Drugs Mailed to Prison Inmates Inside "Legal Mail"

Drug-related incidents increased, especially in prisons. Paper soaked

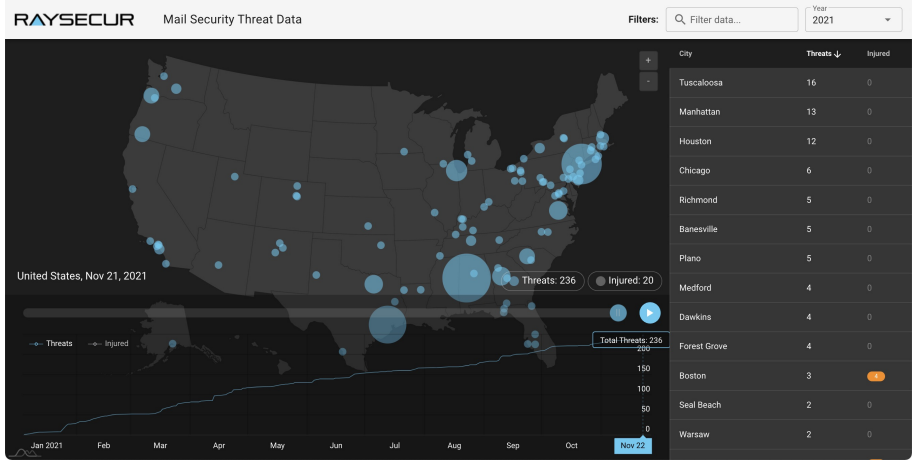
Mail Security Alert, Sep 2021: Bomb Threats Return After 3 Months

September's mail threat totals trended downward with fewer total overall incidents reported. Although

Mail Security Alert, Aug 2021: Drugs Spike with Delta Variant

US incidents were heavily skewed towards drugs. International events revolve around political and criminal

Mail Threat Data Center
Interactive, Dynamic Map of Incidents



RaySecur Mail Security Experts

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Info@raysecur.com

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Thank you!

Questions?