



Global Mail Security Risks

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Research Methodology

Detailed mail threat data for USA from USPIS, ATF, not readily available for all countries globally. As a result, this report uses the following approach:

- Highlights recent high profile dangerous mail threats outside USA
- Compares global terrorism risk index for each country relative to USA baseline as a proxy for terrorism risk in general, of which mail is one threat vector
- Compares global incidence of letter bombings for which more data is available (relative to powder threats and other types of mail threats)

U.S. Data

Baseline Reference

I. United States Official Dangerous Mail Data – Primary Data Sources

- US Postal Inspection Service (USPIS): mail threats and related crimes
- US Bomb Data Center (BDC): explosives-related incidents including mail

II. Interpretation of Official Data

- Reporting threshold may vary over time complicating historical view
- Categorization or incident classification varies between agencies and over time
- *Official data may lag actual events by 6 – 12 months (2020 data not yet published)*

III. Global Perspective

- Reporting detail and scope varies by country – “explosives” incidents more widely reported
- Terrorism risk index may serve as a proxy to estimate potential risk by country

10 per day

Mail threat reports
on average

USPIS 2019 Annual Report

- Dangerous Mail Investigations (DMI) Unit
- 400 specially-trained inspectors
- 3,289 suspicious incidents (powders, liquids)
- 125,000 suspicious mail items subject to forensics exam



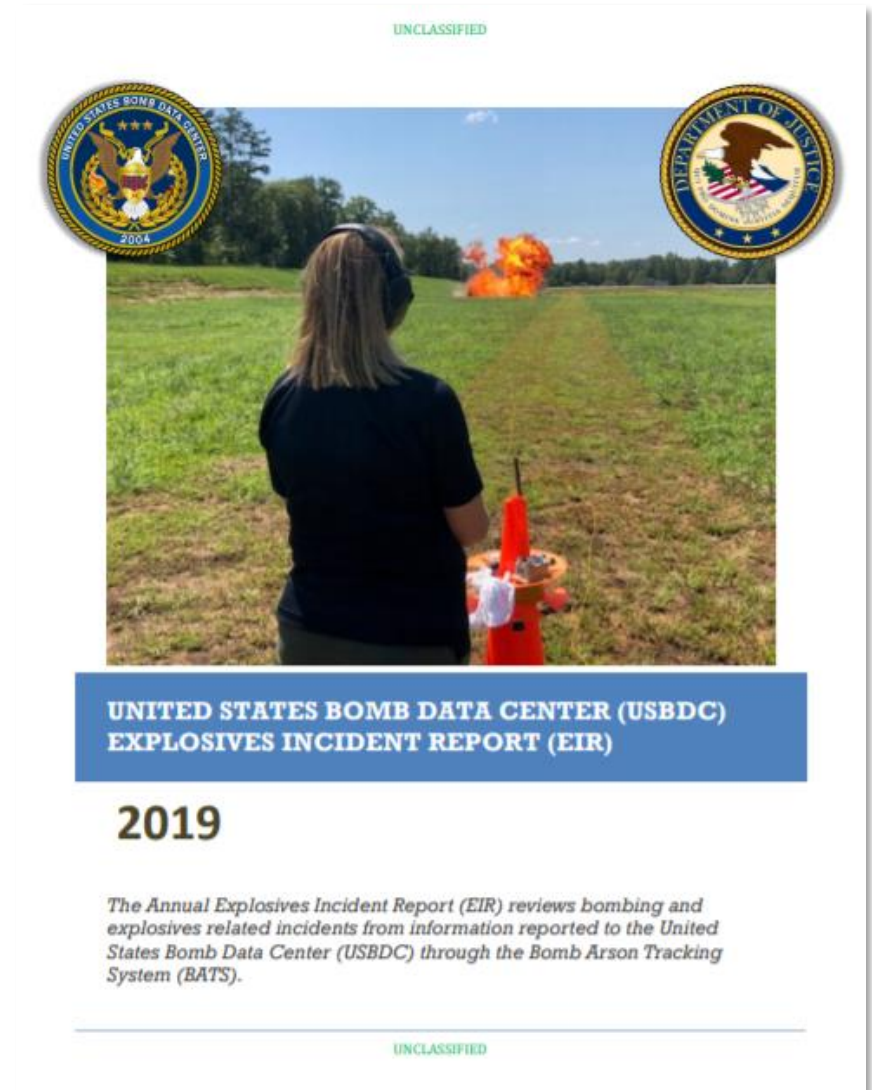
US Bomb Data Center 2019 Report

- 14,940 explosives related incidents
- 5,482 suspicious or unattended package incidents
- 1,202 incidents involving letters or parcels
- 910 incidents not categorized

Impact of Incidents

- 715 explosions with 251 classified as bombings
- 78 injuries
- 16 fatalities

Data Source: <https://www.atf.gov/file/143481/download>



International Data

Risk Estimates

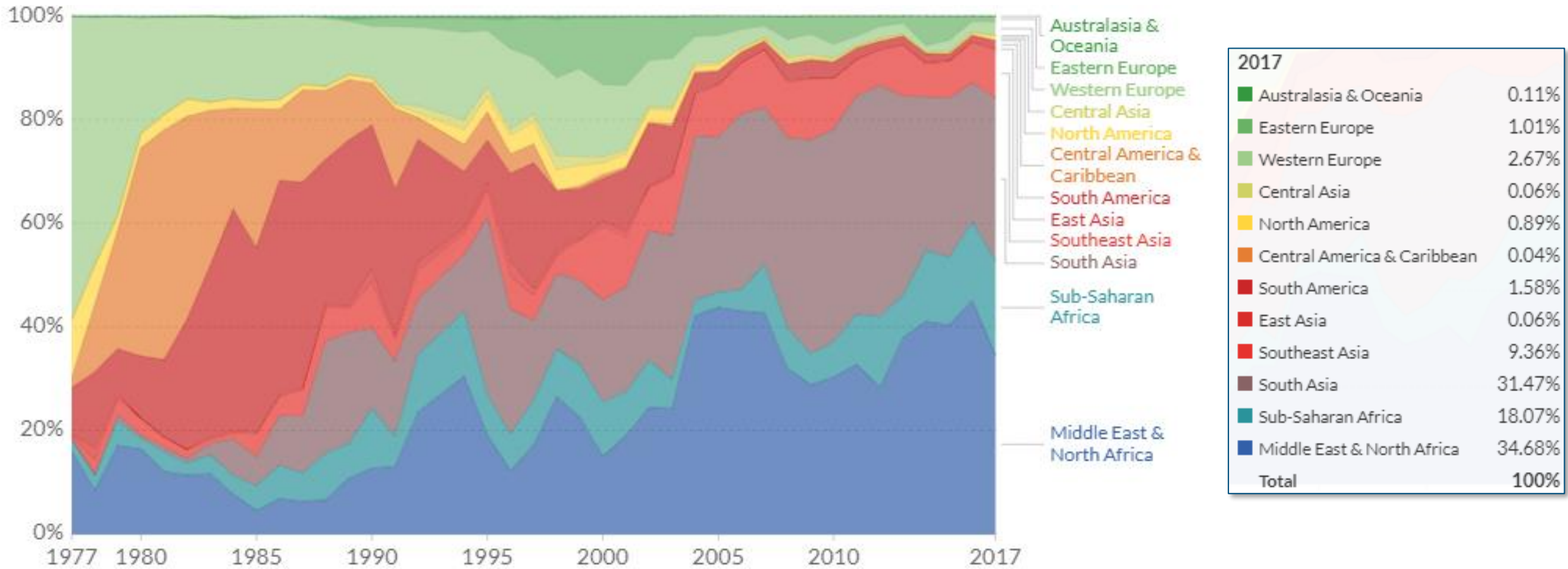
High Profile Recent Global Events

Dangerous Mail Attacks – Global

Date	Location	Target	Incident
2021 - Feb	Germany	LiDL (HQ) and other food manufacturers	Mail bomb, 3 injured
2021 – Jan	UK	AstraZeneca Covid Vaccine Plant	Suspect package
2021- Jan	Canada	Private Residences (Bitcoin Scam)	Multiple white powder letters
2020- Sept.	UK	Individual Consumers (Amazon/PayPal Fraud)	Multiple explosive devices
2020 – May	United States	Subway (HQ)	White powder letter
2020 – April	Hong Kong	HK Chief of Police	White powder letters, followed by letter bomb
2020 – Feb	Netherlands	Ricoh, UNISYS ING Bank, ABN Amro	20+ Mail bombs, several detonations
2019 – Jan	Japan	12+ Drug Companies, Newspapers, Food Mfg.	12+ White powder letters containing cyanide



Terrorist Attacks – Western Europe 3X More Prevalent than North America



Source: Global Terrorism Database (2018)

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Mail and Letter Bomb Density 2000-2017

Mail Bombing Data Consistent with Terrorism Risk Data
Western Europe 3X More Prevalent than North America



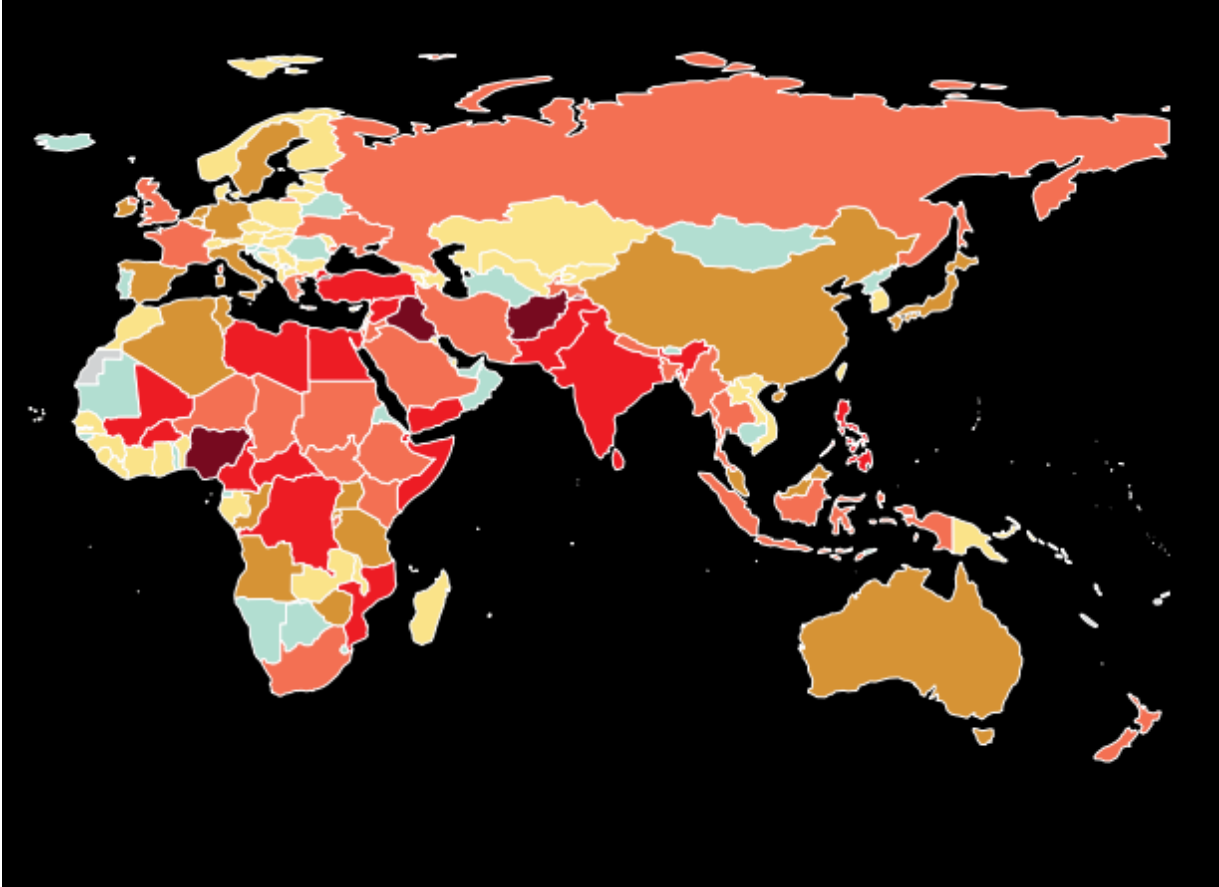
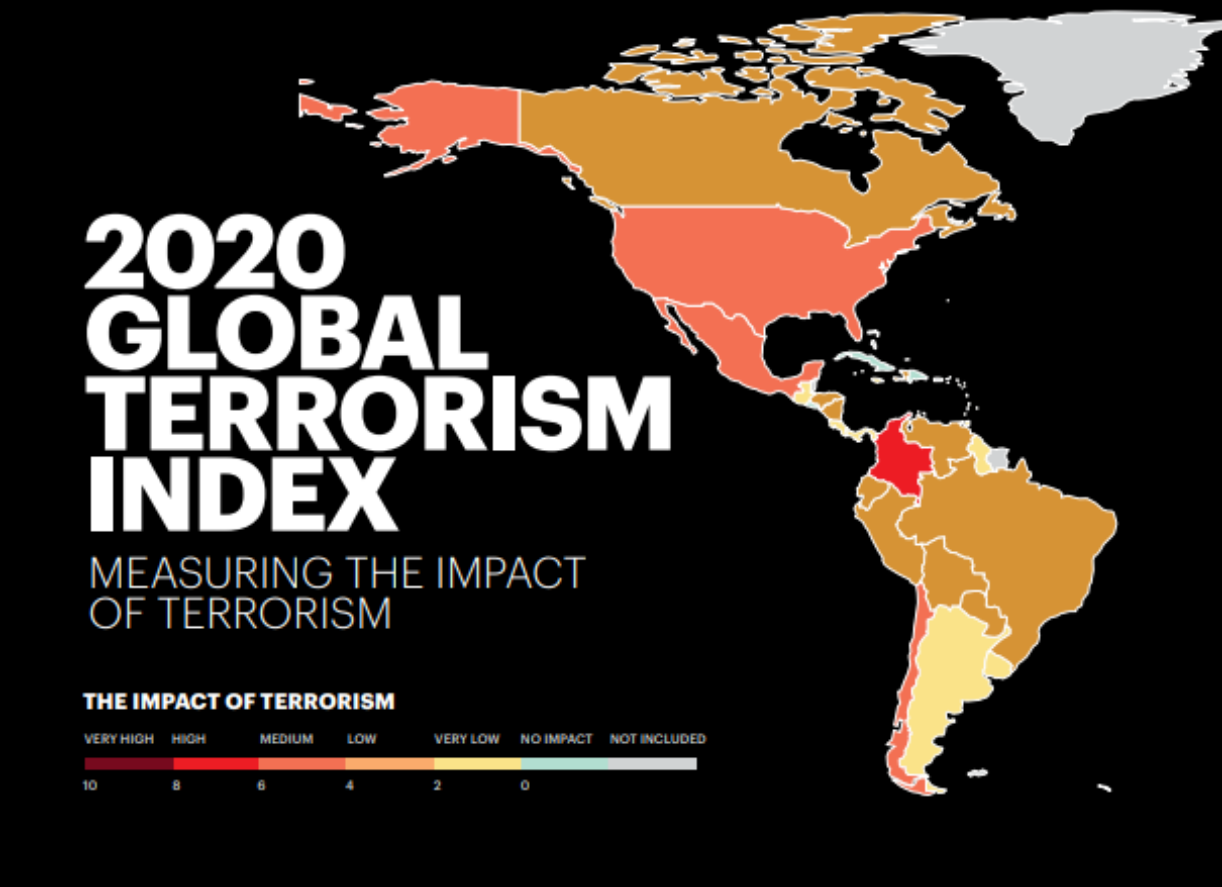
See link to primary source data: [2000-2017 Mail Bomb Worldwide Density](#)

Individual Mail Bombing Events



See link to primary source data: [2000-2017 Mail Bomb Worldwide](#)

Most Recent 2020 Global Terrorism Risk Data Shows Similar Trends

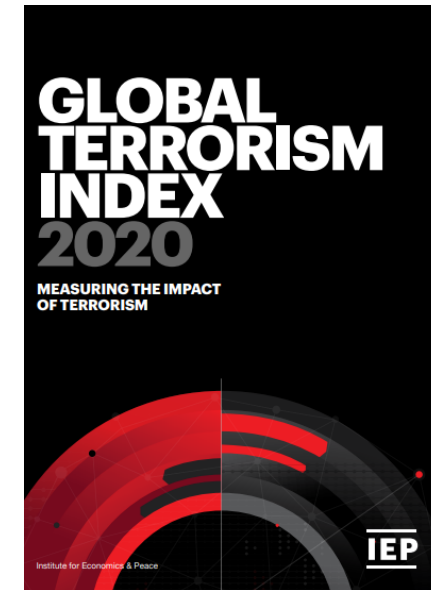


2020 Country Risk (1 of 2)

RANK	COUNTRY	SCORE	RANK CHANGE
1	Afghanistan	9.592	↔
2	Iraq	8.682	↔
3	Nigeria	8.314	↔
4	Syria	7.778	↔
5	Somalia	7.645	↑ 1
6	Yemen	7.581	↑ 1
7	Pakistan	7.541	↓ 2
8	India	7.353	↔
9	Democratic Republic of the Congo	7.178	↑ 1
10	Philippines	7.099	↓ 1
11	Mali	7.049	↑ 2
12	Burkina Faso	6.755	↑ 15
13	Cameroon	6.627	↑ 1
14	Egypt	6.419	↓ 3
15	Mozambique	6.400	↑ 8
16	Libya	6.250	↓ 4
17	Central African Republic	6.241	↓ 2
18	Turkey	6.110	↓ 2
19	Colombia	6.100	↔
20	Sri Lanka	6.065	↑ 35
21	Thailand	5.783	↓ 3
22	South Sudan	5.726	↓ 5
23	Kenya	5.644	↓ 2
24	Niger	5.617	↓ 2
25	Myanmar	5.543	↓ 1
26	Sudan	5.401	↓ 6
27	Nepal	5.340	↑ 7

RANK	COUNTRY	SCORE	RANK CHANGE
28	Ethiopia	5.307	↔
29	United States of America	5.260	↑ 2
30	United Kingdom	5.161	↓ 4
31	Palestine	5.077	↑ 1
32	Saudi Arabia	5.000	↓ 3
33	Bangladesh	4.909	↓ 3
34	Chad	4.829	↑ 4
35	Burundi	4.702	↓ 2
36	Ukraine	4.692	↓ 11
37	Indonesia	4.629	↓ 2
38	France	4.614	↓ 2
39	Russia	4.542	↓ 2
40	Israel	4.522	↔
41	South Africa	4.358	↔
42	New Zealand	4.337	↑ 79
43	Mexico	4.316	↑ 5
44	Greece	4.182	↑ 2
45	Tajikistan	4.180	↑ 6
46	Iran	4.157	↓ 7
47	Chile	4.031	↓ 2
48	Germany	3.965	↓ 4
49	Tunisia	3.858	↑ 1
50	Rwanda	3.754	↑ 16
51	Lebanon	3.661	↓ 8
52	Venezuela	3.658	↓ 5
53	China	3.587	↓ 11
54	Angola	3.429	↓ 2
55	Uganda	3.278	↓ 6

RANK	COUNTRY	SCORE	RANK CHANGE
56	Canada	3.171	↓ 3
57	Jordan	3.149	↑ 5
58	Tanzania	3.112	↑ 2
=59	Belgium	3.043	↓ 6
=59	Italy	3.043	↑ 3
61	Sweden	2.892	↓ 5
62	Ireland	2.845	↑ 7
63	Spain	2.810	↓ 4
64	Bolivia	2.795	↓ 6
65	Algeria	2.696	↓ 8
66	Netherlands	2.689	↑ 11
67	Ecuador	2.606	↑ 6
=68	Brazil	2.443	↑ 6
=68	Zimbabwe	2.443	↓ 1
70	Paraguay	2.414	↓ 6
71	Bahrain	2.402	↓ 10
=72	Haiti	2.355	↑ 6
=72	Nicaragua	2.355	↓ 8
74	Australia	2.148	↓ 2
75	Peru	2.141	↓ 8
76	Malaysia	2.090	↓ 5
77	Republic of the Congo	2.043	↓ 7
78	Honduras	2.023	↑ 20
79	Japan	2.014	↓ 1
80	Cote d' Ivoire	1.945	↓ 6
81	Kuwait	1.795	↓ 5
82	Ghana	1.743	↑ 4
83	Finland	1.721	↓ 3



2020 Country Risk (1 of 2)

RANK	COUNTRY	SCORE	RANK CHANGE
84	Malawi	1.635	↑ 19
85	Denmark	1.484	↑ 15
86	Gabon	1.43	↑ 18
87	Norway	1.297	↑ 40
88	Madagascar	1.19	↓ 7
89	Costa Rica	1.066	↑ 74
90	Argentina	1.024	↓ 8
91	Austria	1.016	↓ 8
92	Kyrgyz Republic	0.95	↓ 8
93	Kazakhstan	0.901	↓ 8
94	Papua New Guinea	0.691	↓ 6
=95	Albania	0.677	↑ 13
=95	Bosnia and Herzegovina	0.677	↓ 9
=97	Benin	0.663	↑ 65
=97	Guatemala	0.663	↓ 8
99	South Korea	0.656	↑ 15
100	Georgia	0.635	↓ 11
101	Taiwan	0.607	↓ 6
102	Morocco	0.565	↓ 11
103	Hungary	0.551	↑ 15
104	Armenia	0.53	↓ 11
105	Guyana	0.477	↑ 26
106	Laos	0.439	↓ 12
=107	Montenegro	0.42	↓ 11
=107	Vietnam	0.42	↓ 11
109	Guinea	0.41	↓ 10
110	Senegal	0.391	↓ 18
111	Czech Republic	0.315	↓ 10

RANK	COUNTRY	SCORE	RANK CHANGE
112	Azerbaijan	0.296	↓ 10
113	Switzerland	0.286	↑ 3
114	Poland	0.239	↓ 9
=115	Jamaica	0.229	↓ 11
=115	Lithuania	0.229	↓ 9
=115	Sierra Leone	0.229	↓ 9
118	Liberia	0.191	↑ 7
119	Bulgaria	0.172	↓ 9
120	Trinidad and Tobago	0.162	↑ 15
121	Zambia	0.153	↓ 9
=122	Latvia	0.115	↓ 6
=122	Cyprus	0.115	↓ 8
124	North Macedonia	0.105	↓ 11
125	Uruguay	0.086	↓ 5
=126	Estonia	0.057	↓ 4
=126	Moldova	0.057	↓ 4
=126	Serbia	0.057	↓ 4
129	Lesotho	0.048	↓ 3
130	Djibouti	0.038	↓ 19
131	Slovakia	0.029	↓ 3
132	Panama	0.019	↓ 1
133	Qatar	0.014	↔
134	Uzbekistan	0.010	↑ 1
=135	Belarus	0.000	↔
=135	Bhutan	0.000	↓ 27
=135	Botswana	0.000	↔
=135	Cambodia	0.000	↔
=135	Croatia	0.000	↔

RANK	COUNTRY	SCORE	RANK CHANGE
=135	Cuba	0.000	↔
=135	Dominican Republic	0.000	↓ 44
=135	El Salvador	0.000	↔
=135	Equatorial Guinea	0.000	↔
=135	Eritrea	0.000	↔
=135	Guinea-Bissau	0.000	↔
=135	Iceland	0.000	↓ 30
=135	Kosovo	0.000	↔
=135	Mauritania	0.000	↔
=135	Mauritius	0.000	↔
=135	Mongolia	0.000	↔
=135	Namibia	0.000	↔
=135	North Korea	0.000	↔
=135	Oman	0.000	↔
=135	Portugal	0.000	↔
=135	Romania	0.000	↔
=135	Singapore	0.000	↔
=135	Slovenia	0.000	↔
=135	Eswatini	0.000	↔
=135	The Gambia	0.000	↔
=135	Timor-Leste	0.000	↔
=135	Togo	0.000	↔
=135	Turkmenistan	0.000	↔
=135	United Arab Emirates	0.000	↓ 34



USA Baseline Data 2019

- 3,289 mail threat responses by USPIIS (approx. 10 per day)
- Over 125,000 mail items sent to USPIIS forensics labs for examination
- ATF and USBDC report additional 5,482 suspect and unattended package incidents
- Open source 2020 data indicates 38% of mail threats are powders and 95% fit in drop box

Global Mail Threat Risk

- Recent **events in Germany** highlight the risk of mail threats – currently under investigation
- Significant dangerous mail incidents in Western Europe and Asia, limited reporting for Middle East
- Depending on data source and timeframe country specific risk index greater than or comparable to USA for most major EU countries and business centers in Asia
- Publicly available data specific to letter or mail bombings indicate ~ **3X greater risk** for locations in Europe and Asia relative to USA

Countermeasures

Against Dangerous Mail Attacks

Five Pillars of Mail Security



People



Procedures



Training



Technology



Emergency Response



Best Practices for Mail Screening and Handling Processes: A Guide for the Public and Private Sectors

September 27, 2012

1st Edition



Homeland Security



Interagency Security Committee



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

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:

$$\mathbf{RISK = THREAT + VULNERABILITY + CONSEQUENCE}$$

§3.2 US DHS Risk Definition (pg. 13)

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

mmWave (THz) Mail Threat Scanner



Customer Benefits Optimized for Mail Screening

1. Performance: All in one device for Chemical, Biological, Explosive, Rad.
2. Simplicity: Anyone can scan mail
3. Safety: non-ionizing mmWaves
4. Intuitive: hold and move objects by hand in the viewing area
5. Compact: desktop setup, no special requirements
6. Peace of Mind: expert support 24/7



USDHS Designated MailSecur™

EODSecur™
24/7 expert remote support

THz Scanning Comparison with X-Ray

Detection Capabilities Comparison

X-Ray Provides Limited Scope of Detection



- Static 2-D images
- Radiation permits required
- Radiation safety program
- Trained operators needed

Threat Type	X-Ray	MailSecur™
Explosives	●	●
Dangerous Items and Contraband	●	●
Hoax Letters		●
Biological Threats		●
Chemical Threats		●
Radiological Threats		●

MailSecur Provides Comprehensive Detection



- Dynamic 3-D images
- Safe imaging, no permits needed
- Existing staff easily trained to use



Revenge is the motivation that most often triggers a letter or package bomb, or a bomb threat.

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



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