

From: Andrew Janca <andrew.janca.2@outlook.com>
Sent: Tuesday, February 21, 2023 5:23 AM
To: andrew.janca@fema.dhs.gov
Cc: Andrew Janca
Subject: 2/2 - National risk. Pandemics, pp. 173-86. Power grid attacks 365-77. Power loss deaths 197-98. Hurricanes 187-96. Heat 509-14. Cold 237-46. Fire 231-36. Flood 165-72. Drought 147-53. Explosion 563-80. Terrorism 307-78. Climate change 472-88.
Attachments: Strategic National Risk Assessment (SNRA) 2015 - Consolidated unclassified documentation.pdf; Document notes.docx; Context and justification for lawful disclosure (5 USC 2302).zip; Attachment list 20230221.pdf

Hello -- This was supposed to go out to every state, tribal, territorial, Federal, and community emergency manager in the Nation in 2015. It got buried instead. That was originally my fault, but I haven't been able to undo it since (*How this happened*, p. 2 [SNRA FAQ](#) in *Context...zip*).

The Strategic National Risk Assessment (SNRA) is the master risk assessment that the current (2011-present) national preparedness system is based on (https://www.fema.gov/sites/default/files/2020-06/national_preparedness_goal_2nd_edition.pdf pp. 4-5). I was the technical lead for FEMA's 2015 update. Its disappearance broke a lot of things. I'm sending it to you (one state at a time) because its invisibility is enabling the fraud that is keeping it from you now, and doing other bad things, to continue (*Context...zip* / *Cover letter.doc*).

I am not speaking for DHS or FEMA in this letter. I'm cc-ing them for their awareness, not to suggest their endorsement.

Initial notes

You should have already gotten email #1/2 from my work account (andrew.janca@fema.dhs.gov), with the full unclassified documentation of record. If not, it is also at <https://5usc2302.github.io/risk/Full%20documentation/index.html> or (single file) https://5usc2302.github.io/risk/Full%20documentation/Full_unclassified_2015_documentation.zip.

The first attachment on this email, a single-volume version of that documentation, is also on email 1/2: I'm attaching it again for redundancy. It consolidates the unclassified documentation of the original (2011) and current (2015) versions of this national risk assessment, which are reproduced separately in the documentation of record. A free-standing version of the 2011 part by itself is at https://5usc2302.github.io/risk/Full_documentation/SNRA_2011_unclassified_documentation.pdf.

2a/2 – Documentation (national risk).

The first attached is a consolidated single-volume version of the unclassified documentation of record (email 1/2). Page numbers below refer to the first attached.

Everything is 100% unclassified.

Some relevant parts (note that not everything below is bad):

- **Pandemics.** Relative risk, p. 27 (figure 2a). Detail, pp. 173-186, 593-596.
- **Electric grid** related risks. The SNRA's power loss mortality model (*Context.zip* / *SNRA follow-up letter 20201016.pdf*, pp. 1-2) is primarily documented in the space weather chapter, pp. 197-198, 201, 204-205. The low estimate (which the SNRA uses for its own numbers) is 1.8 deaths/million people-days. The high estimate which accurately predicted Maria's deaths is 11.25 deaths/million people-days.
 - **Physical attack on the electric grid**, pp. 365-377.
 - **Electric grid failure (natural/accidental)**, pp. 503-508.
 - **Cyber-attacks** on the electric grid, pp. 642-645.

- **Space weather**, pp. 27 (figure 2b), 197-215.
- **Climate change**, pp. F-21 - F-23 [front insert], 472-488, 559-560.
 - The final (2016) versions of the maps on pp. 485-488 are in www.rand.org/pubs/research_reports/RR1400/RR1453/RAND_RR1453.pdf.
- **Drought**, pp. 147-154.
- **Earthquakes**, pp. 155-164.
 - **Tsunamis** (Cascadia scenario), pp. 411-416. Note that the expected impacts should be 10-100 times larger (Hazus's tsunami module was still in development in 2011).
- **Heat waves**, pp. 509-514.
 - The missing low/best/high frequencies in the data table on page 514 are 0.14 / 0.29 / 3 events/year respectively [1]. For annualized risk comparisons, the average (1,500 deaths / year) of the 1,000-2,000 deaths/year range on page 511 is a suitable best estimate. [2]
- **Hurricanes**, pp. 27 (figure 2b), 187-196.
- **Floods**, pp. 165-172.
- **Tornadoes**, pp. 217-230.
- **Volcanoes** (Mount Rainier scenario), pp. 417-424.
- **Wildfires**, pp. 231-236 and 537-538.
 - **Fires and explosions** of generally unintentional origin, pp. 269-278, 527-542, 563-569.
- **Winter storms**, pp. 237-246.
- **Radiological accidents** (nuclear power plant accidents), pp. 287-294.
- **Chemical accidents** (some of these are also listed above):
 - **Toxic inhalational hazards**, pp. 253-268.
 - **Flammable/combustible rail** accidents (train explosions), pp. 269-278.
 - **Industrial accidents** (fire, explosions) (static sites), pp. 563-580.
 - **Pipeline failures** (including oil spills on land), pp. 519-526.
 - **Oil spills** (maritime), pp. 515-518.
- **Dam failure**, 279-286.
- **Biological food contamination** (food poisoning), pp. 247-251.
- **Bridge failure** (Transportation Systems Failure), pp. 295-306.
- **Migrant surges / mass migration**, pp. 543-562.
 - DHS defines risk as the potential for an *unwanted* outcome (SNRA terms of reference page 1 footnote 4, https://5usc2302.github.io/risk/short/SNRA_terms_of_reference_20110709.pdf), not a bad outcome. Border surges are unwanted events, but the people in them are good.
- **Energy, food, water, and supply chain** risks to society, pp. 465-468, 479-480, 638-641.
- **Artificial intelligence, cognitive enhancement, nanotechnology** (brief overviews), pp. 469-471.
 - The most relevant source for other “future” risks [some of which are arriving now] that I know of is the 2010 Project on National Security Reform’s Vision Working Group scenario set, <https://apps.dtic.mil/sti/pdfs/ADA526455.pdf> pp. 37-77.
- **Terrorism and political violence** (non-state actors):
 - Unclassified conventional and 2015 cyber-terrorism analyses, pp. 58-60, 307-378, 501-649.
 - Details that the SNRA omits in its own tables are in their cited sources (most are in pp. 57-66 of https://www.fbi.gov/file-repository/stats-services-publications-terrorism-2002-2005-terror02_05.pdf).
 - Unclassified portions of CBRN and 2011 cyber-terrorism analyses, pp. 61-66, 379-408.
 - The classification (pp. 451-454 black text [blue text is superseded]) of most of the SNRA’s CBRN risk numbers unfortunately leaves a big hole for most users, including me (I gave up my clearance years ago). The National Planning Scenarios (<https://web.archive.org/web/20140502084541/https://www.llis.dhs.gov/sites/default/files/NPS-LLIS.pdf>) are great for consequence numbers, but the likelihoods are missing. There are some insurance numbers in the last attached (*Context.zip / Supporting files and context / Other / CBRN probabilities in insurance models.xls*) which may be helpful.
- **Nation-state attacks** are not in the 2015 SNRA, but comparable numbers are public [3].

[1] Low frequency: $0.14 = 1/7$ years, the longest gap between events in table 7 (p. 513). Best estimate frequency (which is missing from the data table on page 514 because I [incorrectly, in retrospect] decided that we should leave it blank) = 0.29/year, 6 events in 21 years (p. 512). High frequency = 3 / year (max # of events in one year [1999]).

[2] Since most fatality risk comes from heat events outside the 100+ fatality threshold for this SNRA hazard, the 1,000 – 2,000 deaths / year number referenced on page 511 is more appropriate for annualized risk comparisons than the 73 deaths / year average of the threshold set (258 average deaths / event times 0.29 events / year).

[3] FEMA's last (1983) published probability estimate for nuclear war (0.1% per year) is similar to Lloyd's estimate today (0.11% per year). Post Cold War public USG likelihood estimates for nation-state attacks range from 0.24% to 1% for steady-state conditions, and 10% in years of heightened risk. See the document [Public USG and insurance probability estimates, nuclear war.pdf](https://web.archive.org/web/20220921011919/https://5usc2302.github.io/risk/References/Other%20cited/Public_USG_and_insurance_probability_estimates_nuclear_war.pdf) in the zipfile (*Context.zip / Supporting files and context / Other / Public USG...pdf*), or at https://web.archive.org/web/20220921011919/https://5usc2302.github.io/risk/References/Other%20cited/Public_USG_and_insurance_probability_estimates_nuclear_war.pdf.

2b/2 – Context and justification for lawful disclosure.

This email/letter is divided in two parts (#2a/2 documentation, #2b/2 context) to mirror the two-email structure that many of the attachments are keyed to because they might be confusing otherwise. The documentation (#2a/2) description is above, and the context (#2b/2) is in the attached zipfile *Context...zip*.

- Since this email already is the second of a pair with the full documentation [[https://5usc2302.github.io/risk/Full%20documentation/Strategic_National_Risk_Assessment_\(SNRA\)_2015_-_Consolidated_unclassified_documentation.pdf](https://5usc2302.github.io/risk/Full%20documentation/Strategic_National_Risk_Assessment_(SNRA)_2015_-_Consolidated_unclassified_documentation.pdf) and https://5usc2302.github.io/risk/Full%20documentation/Full_unclassified_2015_documentation.zip] on an email #1/2 which I just sent you, this may be overkill. I'm doing it to make this email self-contained, in case the former doesn't come through. If the structure makes things more confusing instead of less, please just ignore all of this explanation and use the attached risk data however it may be useful for you. That's the only reason why I'm writing all this anyway.

I've put the rest of this email in that *Context...zip* zipfile as a rough cover letter (*Cover letter.doc*) because it's lengthy, and secondary to the purpose of this letter (getting the attached documentation to you, in case #1/2 doesn't come through).

Notes

If FEMA has a master list of every emergency manager in the United States, I've never found it. I assembled this national mailing list of county-level emergency management coordinators myself from public sources over several months in fall 2022. I'm sure it has errors: if you think one of them may have put you on it, I apologize. Regardless of your current position, please use this risk information however it may be useful, and please forward it to colleagues who may also find it useful.

In addition, if you held a civil defense, emergency management, homeland security, or public health emergency coordinating position for your county, parish, borough, city, town, or tribal nation in 2022 but no longer do, if you could also please forward this to your colleagues in your old job I would appreciate it very much.

I am not speaking for my Department or Component (DHS/FEMA), any past or present DHS organization, or any past or present colleagues. I will forward this email and attachments to your State government [in addition to the state-government recipients of this email], other parts of the Federal Government, and other parts of DHS and FEMA once I've finished sending these letters to other states.

Everything is unclassified, and non-security sensitive.

The information that these letters, attachments, and links communicate is explicitly within the scope of 5 U.S.C. § 2302 (the Federal whistleblower law), and communicated solely for its lawful purposes.

Thank you,

Andrew Janca, PhD
andrew.janca.2@outlook.com (external recipients)
andrew.janca@fema.dhs.gov (internal recipients)

From: Andrew Janca

Sent: Tuesday, February 21, 2023 5:19 AM

To: andrew.janca.2@outlook.com

Cc: andrew.janca.2@outlook.com; andrew.janca@fema.dhs.gov

Subject: 1/2 - DHS/FEMA Strategic National Risk Assessment (SNRA). Unclassified documentation

The Strategic National Risk Assessment (SNRA) is the national risk assessment that the U.S. national preparedness system is based on. Its unclassified documentation (attached) was supposed to go out to every state, tribal, territorial, Federal, and community emergency manager in the Nation in 2015, but it got buried instead. Its disappearance broke a lot of things.

I was the technical lead for FEMA's 2015 update. I was supposed to send this to you seven years ago, but I didn't. I'm sending it to you now to stop the damage from compounding further, and to help my organization speak truthfully about FEMA's risk data going forward.

I'll send the context and justification details in a second email (#2/2) from a non-work account (andrew.janca.2@outlook.com), to avoid confusion. In case you don't get that, a generic (without state-specific differences) version of email 2/2 is at https://5usc2302.github.io/risk/5_U.S.C._2302_justification/20230221/.

I am not speaking for my Department or Component (DHS/FEMA), any past or present DHS organization, or any past or present colleagues. I'm cc-ing DHS and FEMA for their awareness, not to suggest their endorsement. I will forward this email and attachments to your State government [in addition to the state-government recipients of this email], other parts of the Federal Government, and other parts of DHS and FEMA including my own management once I've finished sending these letters to other states.

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I apologize for the awkwardness of this letter.

Andrew Janca, PhD

andrew.janca@fema.dhs.gov