



Risk Mitigation Consulting Inc.

Intelligence and Analysis Division

OPEN SOURCE UPDATE

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INTENT

This open source periodical is designed to provide an overview of relevant, publicly available information on threat and hazard events and analysis of potential impacts to the interests of the United States, both at home and abroad. This product is not intended to be a comprehensive overview of all threat and hazard news and inclusion in this product does not constitute a confirmation of credibility nor precedence by RMC.



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Threats

Package Containing Ricin Sent to White House, Intercepted – CBRN

Summary: In mid-September, authorities intercepted a package addressed to President Donald Trump containing ricin and a threatening letter. The letter was mailed from St. Hubert, Quebec in Canada and was received offsite along with other White House mail. The suspect was arrested approximately a week later trying to enter the US at a border crossing in New York state. Her vehicle contained multiple weapons, including a semiautomatic handgun. She has pled not guilty and is being held without bond. The FBI has stated that six additional letters were sent to a location in Texas.

Ricin is a toxin extracted from castor beans and can be used in several forms. The extraction process can be done in a residential kitchen using commercially available ingredients. Ingestion or inhalation of as little as 500 micrograms can lead to catastrophic organ failure and death. There is currently no test for exposure and no antidote. Ricin has a history of use in mail attacks against elected officials and other targets. In 2018, several packages addressed to President Trump and Pentagon officials were intercepted. There were also packages with ricin mailed in 2003, 2004, 2011, 2013, and 2014. The targets included the U.S. Department of Transportation, President Barack Obama, and New York Mayor Michael R. Bloomberg, among others. As civil unrest escalates, international and domestic terrorists may increase their attacks through the mail using ricin and other homegrown CBRN agents.

Analyst Comment: Following the 9/11 attacks in 2001, a series of letters laced with anthrax were mailed to news media offices and two Democratic senators. The case was not closed until 2010. Mail services are accessible, inexpensive, and often difficult to trace. Additionally, foreign and domestic terrorists may be radicalized online. This process can include discussions of how to create CBRN agents and/or IEDs, along with potential targets and tactics, techniques, and procedures (TTPs). Many of these agents and explosives can be created using commercially available items, including cleaners, fertilizers, and botanicals. It is difficult, if not impossible, to prevent this radicalization process.

Mail to the White House is received and examined for potential threats at an offsite facility. However, many state and local government offices are not equipped to provide this level of security. There is an even greater risk for the private, education, nonprofit, and faith-based sectors, all of which have drawn the attention of homegrown violent extremists in the past. All levels of government and their respective law enforcement agencies (along with private entities) should anticipate the potential for these attacks and utilize best practices for mail screening in order to mitigate potential CBRN threats.

Sources: <https://www.cnn.com/2020/09/19/politics/package-poison-ricin-addressed-to-trump-intercepted/index.html>

<https://www.cnn.com/2020/09/20/politics/poison-ricin-addressed-trump-arrest/index.html>



<https://www.news4jax.com/news/national/2020/09/28/woman-pleads-not-guilty-denied-bail-over-trump-ricin-letter/>

<https://slate.com/news-and-politics/2013/04/how-to-make-ricin-you-dont-have-to-be-a-skilled-terrorist.html>

<https://www.cnn.com/2020/09/19/politics/package-poison-ricin-addressed-to-trump-intercepted/index.html>

<https://www.nytimes.com/2018/10/02/us/politics/ricin-pentagon-mail-poisoning.html>

<https://www.fbi.gov/history/famous-cases/amerithrax-or-anthrax-investigation>

<https://www.nytimes.com/2010/02/20/us/20anthrax.html>

Armenian, Azerbaijani Forces Clash – *Foreign Nation-State Military*

Summary: Beginning around 26 September, clashes have reignited between Armenian and Azerbaijani forces around the contested territory of Nagorno-Karabakh in the southern Caucasus. So far there are more than 100 confirmed deaths among civilians and Armenian combatants killed in action. Azerbaijan does not release data on its military losses, but these can be assumed to be at least as high. However, some sources have placed estimates in the thousands as of 30 September. The Armenians have reportedly blown up 137 tanks and armored vehicles, 72 aerial vehicles, 7 helicopters and aircraft, and Azerbaijan has made similar claims.

While both sides have accused the other of beginning the reescalation, the fighting appears to be driven by an attempt by Azerbaijani forces to recapture swathes of territories occupied by Armenian forces in the Karabakh war after the Soviet Union collapsed. Hundreds of thousands of ethnic Azeris were displaced from these areas in 1992-1994. Over the last year tension has been slowly rising amid a diplomatic standoff, belligerent rhetoric and clashes in July to the north in the area of the international border between Armenia and Azerbaijan.

Analyst Comment: Nagorno-Karabakh is a disputed region inside Azerbaijan and controlled by ethnic Armenians. It broke away from Azerbaijan in a war in the 1990s republic. Karabakh, a predominantly ethnic Armenian enclave inside Azerbaijan, declared independence 30 years ago. The area is not recognized by any country as an independent nation and Azerbaijan still claims the territory. However, Armenia backs the enclave. In 1988, the first confrontations began. The struggle escalated after both Armenia and Azerbaijan attained independence from the Soviet Union in 1991. In 1994, Russia, France, and the U.S. assisted in negotiating a cease-fire. The violence this week is the biggest eruption of the decades-old conflict since that ceasefire, though smaller clashes have occurred.

There is concern that as the conflict escalates, more nations could become involved, either directly or by proxy. French President Emmanuel Macron accused Turkey of using war-like rhetoric to prompt Azerbaijan to reconquer Nagorno-Karabakh. Two Syrian rebel sources reported Turkey is



sending Syrian rebel fighters to support Azerbaijan, which Turkey and Azerbaijan have denied. Armenia has posted pictures of the wreckage of a plane it said was a SU-25 warplane, shot down by a Turkish fighter jet on 29 September. Turkey and Azerbaijan have denied the claim. Furthermore, Russian Foreign Ministry said that illegal armed groups coming from Syria and Libya were being sent to the disputed Nagorno-Karabakh region. Additionally, Iranian media reported that a rocket from the conflict landed on Iranian soil. The international community has broadly called for a resumption of the cease-fire and urged a halt to the fighting. As the situation develops, the potential involvement of Russia and Turkey increases, elevating concerns that the conflict could have global repercussions.

Sources: <https://www.reuters.com/article/armenia-azerbaijan-idINKBN26L1RU>

<https://www.bbc.com/news/world-europe-54356336>

<https://www.aljazeera.com/news/2020/9/30/over-2000-armenian-soldiers-killed-turkish-state-media-live>

<https://www.aljazeera.com/news/2020/9/30/azerbaijan-armenia-reject-talks-as-karabakh-conflict-widens>

<https://www.nytimes.com/2020/09/28/world/asia/azerbaijan-armenia-nagorno-karabakh.html>

<https://www.usnews.com/news/world/articles/2020-09-28/armenia-azerbaijan-keep-up-deadly-fight-for-disputed-region>

NYPD Officer Accused of Spying for China – *Foreign Intelligence Entities*

Summary: On Monday, 21 September, NYPD Officer Baimadajie Angwang was arrested by Federal authorities and held without bond for acting as a foreign agent, among other charges. Angwang joined the NYPD in 2016 and served with its community affairs unit, serving as a liaison with the Tibetan community. Angwang is also a former Marine who served in Afghanistan. Since 2014, he has served as a US Army Reservist. He is ethnically Tibetan, but he is a naturalized American citizen after claiming asylum. However, since 2018, he had been reporting to two officials at the Chinese Consulate about Tibetans living in New York in exchange for around \$120,000. Tibet's independence has been a subject of dispute since 1950. Prior to his arrest, Tibetan community center's board became suspicious after seeing a photo of Angwang and his wife at the Chinese Consulate. Angwang was told by the leader of a Tibetan community center he was "cut off" after he suggested the center not fly the Tibetan flag or promote independence.

It is suspected that the Ministry of State Security, China's intelligence agency, recruits Tibetans to report on their own communities living abroad. Angwang reportedly collected little information of value in New York. But his case is not necessarily unique. Chinese intelligence is known to search social media for potential contacts. They look for expatriates and Americans that express sympathy for China. They also target individuals that have family living there who may be used as leverage, either through threats or favors. Secretary of State Mike Pompeo has stated



that the Chinese Consulate in New York may have additional contacts, and that more arrests may be forthcoming.

Analyst Comment: As an NYPD officer, Marine veteran, and US Army Reservist, Angwang was likely an enticing target for recruitment by China’s Ministry of State Security. He still has family living there and access to sensitive and/or classified information. He allegedly promised his contacts at the Consulate information he might obtain as an NYPD officer. In fact, one of his Federal charges stems from not disclosing his contacts with the Chinese government on the application for his security clearance. There were warning signs in advance, though, such as taking multiple trips to China after claiming asylum. More concerning is that if the allegations are true, then Chinese intelligence is willing to utilize U.S.-based agents to address even minor dissent among the Tibetan diaspora. Angwang mostly served as a liaison between the NYPD and a community center, which allowed him to conduct influence operations.

There are undoubtedly even more significant intelligence gathering opportunities in New York, which suggests a robust espionage operation. A former CIA official, speaking to open source media, estimated that there are likely 100 Chinese intelligence officers working in New York City alone. In this particular case, the Chinese Consulate was a focal point, echoing ongoing concerns regarding diplomatic facilities’ use for espionage purposes. While Angwang appears to have been unable to offer his contacts much information on Tibetans living in there, the potential activities of these other operatives remain a cause for concern.

Sources: <https://www.cnn.com/2020/09/21/us/nypd-officer-chinese-agent/index.html>

<https://www.theguardian.com/world/2020/sep/29/tibetan-diaspora-spying-new-york-china>

<https://nypost.com/2020/09/26/how-china-recruits-spies-like-nypd-officer-baimadajie-angwang/>

“Smishing” and “Vishing”: New Cyber Threats Emerge Amidst COVID-19 Pandemic – *Cyber*

Summary: “Smishing” and “vishing” are two emerging forms of social engineering-based cyberattacks similar to (and named similarly to) email-based phishing attacks. Smishing refers to social engineering via a fraudulent link sent via SMS text message, while vishing refers to the same tactic but instead using a voice-based approach over the phone to guide the user to the fraudulent link. Both forms of attacks are identified as having emerged amidst the COVID-19 pandemic, which has resulted in a large societal shift toward a remote workforce in industries that are capable of doing so. This shift has opened up unique opportunities for malicious cyber actors.

Smishing and vishing both rely on phones as an attack vector, as opposed to email-based phishing. However, all three approaches rely on the victim reaching a fraudulent link containing some sort of malicious payload. Phishing is typically used to gather login credentials or other private, personal information such as banking information or social security numbers. However, a recent “vishing” attack spoofed a company’s virtual private network (VPN), which has become a



requirement at a number of companies for remote work. Unwitting employees entered login credentials in what appeared to be a legitimate VPN portal, which was then collected by the perpetrators of the attack. The attackers also spoofed phone numbers in order to appear that they were calling from another office to guide victims to a legitimate page.

Analyst Comment: The COVID-19 pandemic has sparked a massive shift toward remote work in a number of industries. Social distancing restrictions and sanitary guidelines have made most traditional office work environments unfeasible for the time being, with many employees being ordered to conduct their workdays in a home setting. This new arrangement generally allows for greater flexibility and convenience for employers and employees alike, although it has also opened new vulnerabilities for malicious cyber actors to exploit. One security professional noted that, while in a pre-COVID office setting, individuals could simply walk across the office to get an IT/cybersecurity employee to verify a suspicious email in-person, while today a remote session may need to be established. The constantly evolving cyber threat landscapes necessitates ongoing cybersecurity awareness efforts, to include trainings, security memos, and the like.

The recent attack detailed above also reinforces the need to verify all links/websites requesting personal/private information, to include login credentials. As VPNs are frequently required for remote employees, they are a ripe target for spoofing by malicious actors. Furthermore, vishing/fishing tactics will require employees to verify the phone numbers and identities of individuals requesting personal/private information, as well as the links provided individuals using texts/phone calls for approach purposes. When in doubt, employees should not hesitate to reach out to their companies' IT/cybersecurity professionals. These best practices also apply to individuals' personal lives, as many phishing/smishing/vishing attacks are conducted for identity theft or other financial crimes.

Sources: <https://www.foxnews.com/tech/vishing-emerges-as-new-cyber-threat-what-is-it>

<https://www.csoonline.com/article/3411439/smishing-and-vishing-how-these-cyber-attacks-work-and-how-to-prevent-them.html>

<https://www.securityweek.com/evolution-phishing-welcome-vishing>

<https://www.theceomagazine.com/business/innovation-technology/cyber-threats/>



Hazards

Category 4 Hurricane Laura Strikes Louisiana – Meteorological Hazards

Summary: Hurricane Laura made landfall as a high-end Category 4 storm near Cameron, Louisiana on 27 August with sustained over-water wind speeds of 150 mph (240 kph). At least 33 direct storm-related fatalities occurred. It came ashore at peak intensity after tying the record for the fastest intensification rate in the Gulf of Mexico during a 24-hour period. Laura also tied as the strongest hurricane to make landfall in Louisiana since 1856. Catastrophic impacts were incurred across swaths of the Louisiana, particularly in Cameron and Calcasieu Parishes – including the City of Lake Charles – due to wind gusts topping 100 mph (160 kph), storm surge, and inland flooding. Hurricane Laura impacted numerous U.S. States, including Florida Mississippi, Louisiana, Texas, and Arkansas. 33 people in the U.S. died as a result of the storm, with a majority in Louisiana. Hurricane Laura produced storms surges, flooding, high winds, and tornadoes.

Analyst Comment: Prior to landfall, Hurricane Laura was expected to cause storm surges of up to 20 feet. Though the storm surge was not as severe and widespread as feared, surge flooding up to 19 feet was documented in Cameron Parish, Louisiana. Following the initial storm impact, high winds knocked out power to more than 800,000 homes and businesses in southeast Texas, Louisiana, Arkansas and Mississippi. Coastal communities in Louisiana suffered from an extended period of power outages and lack of clean drinking water, in addition to the damage caused by flooding and high winds.

Hurricane Laura occurred within an exceptionally active 2020 Atlantic hurricane season. The season's third named storm and all named storms from the fifth onwards have formed on an earlier date in the year than any other season since reliable records began in 1851 (this is in reference to the traditional naming convention used, following the alphabet in order of storm formation). In August alone, Hurricane Marco, Hurricane Isaias, and Hurricane Laura hit, causing over \$15 billion in damages and 48 deaths. September was already identified as the most active month on record after 10 cyclones were named by 18 September.

The record-breaking hurricane season has been fueled in part by the La Niña cycle. La Niña, the converse of El Niño in the ENSO-cycle, is the periodic cooling of the equatorial eastern and central Pacific Ocean. When La Niña is present, it can boost to the Atlantic hurricane season. The cooler waters of the Eastern Pacific Ocean cause less wind shear and weaker low-level winds in the Caribbean Sea; Less wind shear and weaker low-level winds are favorable conditions for tropical development. La Niña can also enhance rising motion over the Atlantic Basin, making it easier for storms to develop. La Niña is expected to continue at least through February 2021.

Sources: http://thoughtleadership.aonbenfield.com/Documents/20201109_analytics-if-august-global-recap.pdf

<https://www.washingtonpost.com/weather/2020/08/21/gulf-coast-hurricanes/>



https://www.nhc.noaa.gov/archive/2020/a113/a1132020.public_a.027.shtml?

<https://weather.com/storms/hurricane/news/2020-08-28-hurricane-laura-recap-louisiana-category-4-landfall>

<https://www.nytimes.com/2020/08/27/us/hurricane-laura-update.html>

<https://weather.com/news/weather/news/2020-09-10-la-nina-advisory-what-means-hurricanes-us-winter>

Western U.S. Wildfires Bring Blackouts and Landslides – *Meteorological Hazards*

Summary: Recent wildfires raging across the Western U.S. have resulted in a number of secondary and tertiary effects, both natural and manmade. For example, in the last edition of the Open Source Update, the connection between the fires’ smoke and COVID-19 (a respiratory illness) were examined. More recently, one California’s electricity providers cut temporarily cut power to thousands of homes and businesses due to wildfire concerns, and concerns have been raised in Oregon regarding the potential for post-wildfire landslides.

In California, the utility company Pacific Gas & Electric (PG&E) conducted what is known as a “Public Safety Power Shutoff,” or PSPS. Per PG&E, a PSPS is ordered when severe weather, to include “high temperatures, extreme dryness and high winds...[create] conditions in [California] where any spark at the wrong time and place can lead to a major wildfire.” If these conditions occur, PG&E may order a PSPS. The September PSPS affected 172,000 homes and businesses for approximately two days.

In Oregon, the recent fires were described by Governor Kate Brown as “unprecedented” and “once-in-a-generation,” with massive evacuations ordered for a number of suburban areas outside of Portland. After the fires had been contained and rainy conditions were forecast, the National Weather Service warned that the post-fire conditions could lead to a unique form of landslide known as a “post-fire debris flow.” These events are rare in Oregon, but can be very damaging and dangerous.

Analyst Comment: Per the National Interagency Fire Center (NIFC), as of 30 September 2020, seventy large fires were actively burning, and have burned nearly 4 million acres in 11 states (Arizona, California, Colorado, Idaho, Montana, Nevada, Oregon, South Dakota, Utah, Washington, and Wyoming). California had the largest number of active large fires, at 20, with Idaho coming in second with 14 and Oregon ranking third with 11. A number of DoD assets and personnel have been deployed to assist in fire suppression, along with support from neighboring Canada and Mexico.



California's recent precautionary power shutoff was not unprecedented, as PG&E has issued similar orders when the prevention of wildfires must take priority over electrical distribution. During a PSPS, even critical services (such as hospitals, police stations, and fire stations) must rely on backup power systems such as generators. This practice is particularly prudent given the fact that a faulty PG&E-owned distribution line was responsible for sparking the massive 2018 Camp Fire, which was the deadliest in California history with 85 victims. The Camp Fire was also the most destructive, destroying almost 19,000 structures.

Oregon has a limited history of post-fire debris flows, although they have been documented from time to time. For example, in 2017, a thunderstorm brought heavy rains to a burned area in Western Oregon, creating a post-fire debris flow. The area was relatively remote, although one motorist was trapped in his vehicle during the incident (the vehicle was damaged but no injuries were reported). Per the USGS, wildfires "can significantly alter the hydrologic response of a watershed to the extent that even modest rainstorms can produce dangerous flash floods and debris flows." Although rare, these unique conditions must be monitored and analyzed in order to predict the potential for post-fire debris flows, which can threaten life and property.

Sources: <https://www.sacbee.com/news/california/fires/article245593310.html>

<https://www.cnbc.com/2019/05/15/officials-camp-fire-deadliest-in-california-history-was-caused-by-pge-electrical-transmission-lines.html>

https://www.pge.com/en_US/safety/emergency-preparedness/natural-disaster/wildfires/public-safety-power-shutoff-faq.page

<https://www.opb.org/article/2020/09/18/oregon-wildfires-landslides-soil/>

https://www.kptv.com/news/gov-brown-on-wildfires-forcing-evacuation-in-oregon-unprecedented-a-once-in-a-generation-event/article_6350b01c-f228-11ea-b274-a78208e8265e.html

<https://news.yahoo.com/wildfires-closing-in-on-portland-suburbs-force-massive-evacuations-174757430.html>

https://www.usgs.gov/natural-hazards/landslide-hazards/science/emergency-assessment-post-fire-debris-flow-hazards?qt-science_center_objects=0#

<https://www.nifc.gov/fireInfo/nfn.htm>

A New 11-Year Solar Cycle Has Begun – *Space Weather*

Summary: This month it was announced that a solar minimum had occurred in December 2019, indicating the start of a new solar cycle. Due to the time needed to comprehensively analyze the trends in solar activity, it takes months before scientists can conclusively say when a new solar cycle has begun. To determine the start of a new solar cycle, monthly data on sunspots from the



World Data Center for the Sunspot Index and Long-term Solar Observations, which tracks sunspots and pinpoints the solar cycle's highs and lows, was assessed. Only by tracking the general trend in sunspot occurrence over many months can the tipping point between two cycles be identified.

With solar minimum behind us, scientists expect the Sun's activity to ramp up toward the next predicted maximum in July 2025. The current cycle, Solar Cycle 25, is anticipated to be as strong as the last solar cycle, which was a below-average cycle, but not without risk. The last cycle, Solar Cycle 24, was the fourth smallest cycle on record and the weakest cycle in 100 years.

Analyst Comment: Solar activity swings like a pendulum over an 11-year cycle. Sunspots, solar flares, and coronal mass ejections all have intense magnetic fields that store lots of energy. When tracking these occurrences over a long period of time, a consistent cycle can be identified, going from periods of very little activity here at solar minimum, ramping up to times of lots of solar activity at solar maximum, then declining again, and this is the 11-year solar cycle.

Constant monitoring of solar activity is necessary as some solar phenomena can result in impacts on satellites and on Earth. Some common impacts observed include the Northern Lights, disruptions to air traffic control, and a decrease in cellphone signal quality. NOAA divides space weather into three categories: geomagnetic storms, solar radiation storms, and radio blackouts. Geomagnetic storms can disrupt radio signals, navigation systems, and create harmful geomagnetic induced currents in the power grid and pipelines. Solar Radiation Storms may also absorb high frequency radio waves, making radio communication difficult or impossible. Solar flares can produce strong x-rays that degrade or block high-frequency communication radio waves, preventing shortwave radio communications. The strength of type of space weather can vary, causing a wide array of impact severity.

Sources: <https://phys.org/news/2020-09-solar-nasa-noaa-scientists.html>

<https://www.smithsonianmag.com/smart-news/new-solar-cycle-promises-calm-space-weather-180975859/>

<https://wqow.com/2020/09/23/sun-seasons-how-a-new-solar-cycle-could-impact-our-technology/>

COVID-19 and Herd Immunity – *Biological Hazards*

Summary: The death toll in the United States from the COVID-19 pandemic reached 200,000 on 22 September 2020, with nearly 7 million infections. The death toll worldwide has reached 1 million. Many states have experimented with reopening businesses, schools, and houses of worship, among other entities. All states except South Dakota have recommended or required the wearing of masks in public. All have recommended social distancing and sanitizing surfaces. While no vaccine for the virus is available yet, four different candidates have entered Phase 3 clinical trials. The CDC is preparing to assist local jurisdictions with administering the vaccine in the coming months with \$200 million in grants.



The goal of administering a vaccine is to achieve herd immunity through antibodies. Patients can also carry antibodies if they contract and recover from the virus. If enough people have them, then the virus will have a limited number of potential targets. Some have suggested that herd immunity can be achieved by allowing citizens to mingle with fewer restrictions. However, the World Health Organization has clarified that herd immunity requires 60-80% of the population to have antibodies. At a 23 September hearing before the Senate Health, Education, Labor and Pensions Committee, CDC Director Robert Redfield emphasized that 90% of Americans are still susceptible, having never contracted the virus. Achieving herd immunity in the general population without widespread vaccination could come with a catastrophic death toll.

Analyst Comment: At the beginning of the COVID-19 pandemic, some media pundits and elected officials suggested that lockdowns would delay the onset of herd immunity and damage economies in the process. Sweden was cited as an example, suggesting that the country's mitigation efforts worked without enforced closures of businesses, schools, and other places of public accommodation. The necessity of lockdowns versus the negative effects on employment and productivity will be debated for years. However, Swedish officials have emphasized that they recommended similar mitigation strategies as other countries without the force of law. Many of its citizens worked from home, practiced social distancing, and wore masks. Yet, the country's more relaxed attitude may still have allowed the virus to spread. On 24 September, Sweden recorded 554 new cases, which is its highest since early July.

The concept of herd immunity is dependent upon a healthy general population that can contract and recover from a virus. Many victims of COVID-19 already suffer from underlying conditions. The controversial strategy of ushering in herd immunity without a vaccine would infect thousands, if not millions, of immunocompromised Americans. Some of those who recover will also experience long-term health problems, including persistent symptoms, blood clots, and even organ damage. Therefore, most experts advocate for achieving herd immunity through vaccination.

Sources: <https://www.cdc.gov/nchs/nvss/vsrr/COVID19/index.htm>

<https://www.washingtonpost.com/graphics/2020/world/coronavirus-deaths-1-million/>

<https://www.nytimes.com/interactive/2020/us/states-reopen-map-coronavirus.html>

<https://doh.sd.gov/news/coronavirus.aspx>

<https://www.nih.gov/news-events/news-releases/fourth-large-scale-covid-19-vaccine-trial-begins-united-states>

<https://www.cdc.gov/media/releases/2020/p0924-200-million-jurisdictions-covid-19-preparedness.html>

<https://thehill.com/changing-america/well-being/longevity/517822-more-than-90-percent-of-the-population-remains>



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<https://www.washingtonpost.com/world/2020/05/12/swedens-coronavirus-strategy-is-not-what-it-seems/>

<https://www.washingtonpost.com/world/2020/09/25/sweden-coronavirus-debate-lockdown-new-cases/>

<https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-long-term-effects/art-20490351>



On the Radar

- **Worldwide Fires**

- In addition to the Western U.S. fires detailed in this and the previous Open Source Update, wildfires are currently raging in Australia, the Arctic, Siberia, Brazil, Argentina, and Indonesia. Each of these fires are unusual in that they are excessively large or hot given the respective climate, location, and/or environment.

- **Extreme Heat Records**

- Increasing extreme heat events have been recorded in dozens of U.S. cities this summer, and California's Death Valley has set new heat records, reaching 130 degrees Fahrenheit in August, the highest temperature recorded at the location since 1913. Many analysts have expressed concerns regarding climate change's connection to these increased temperatures.

- **La Niña**

- As noted in the Hurricane Laura section of this Open Source Update, La Niña conditions are expected to continue at least through February 2021. La Niña creates varying temperature and precipitation anomalies in different locations, which may impact certain meteorological hazards throughout the U.S.