



Risk Mitigation Consulting Inc.

Intelligence and Analysis Division

OPEN SOURCE UPDATE

15 August 2017

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

Minnesota Mosque Bombing – *Terrorism*

Excerpt: A mosque in the state of Minnesota was bombed early on Saturday while worshippers gathered inside for morning prayers.

No one was injured in the attack at the Dar Al Farooq Islamic Center in Bloomington, but police say the imam's office had been damaged.

The Federal Bureau of Investigation has launched an investigation into the attack, which took place at around 5am local time (09:00 GMT).

Analyst Comment: The FBI has said that the explosion was caused by an "improvised explosive device." The resulting fire was quickly extinguished by worshippers from the mosque. Members of the mosque have reported witnessing "something being thrown at the imam's office window from a van or truck before the blast," then the vehicle sped away. This attack comes amid a massive surge in anti-Muslim incidents and hate crimes within the U.S. The number of anti-Muslim hate groups and organizations opposing Muslims has also dramatically increased over the past 2 years.

Source: <http://www.aljazeera.com/news/2017/08/minnesota-mosque-bombed-morning-prayers-170805212937086.html>

North Korea Will Develop Guam Strike Plan by Mid-August – *Foreign Nation-State Military*

Excerpt: North Korea will develop a plan by mid-August to launch four intermediate range missiles at the U.S. territory of Guam before presenting it to leader Kim Jong Un who will make a decision on whether to proceed, the North's state media said on Thursday.

The unusually detailed report on the attack plan marked a further escalation in tensions between Pyongyang and Washington after U.S. President Donald Trump warned North Korea earlier this week it would face "fire and fury" if it threatened the United States.

Analyst Comment: North Korea's latest threat to fire missiles at the U.S. territory of Guam comes amidst extremely high tensions between the rogue nation and the international community. In July, North Korea successfully tested two intercontinental ballistic missiles (ICBMs), a major milestone in the country's ballistic missile development program. Additionally, on 8 August, Japan released its annual defense white paper which assessed that it is possible North Korea may have already achieved the miniaturization of nuclear warheads; a development that would allow for warheads to be mounted on existing missile platforms.

Guam is an island in the western Pacific Ocean that is home to approximately 160,000 people. Additionally, Guam hosts approximately 7,000 U.S. military personnel at two major installations:



Naval Base Guam and Andersen Air Force Base. As a result, Guam is a major U.S. power projection asset; which makes the island an alluring target for adversaries such as North Korea. While it is currently unclear whether North Korea will pursue its stated plan to strike near Guam, tensions remain high between North Korea and the U.S. and its allies. These tensions would certainly increase if North Korea chooses to act, which, in turn, could potentially lead to retaliatory action.

Source: <https://www.reuters.com/article/us-northkorea-missiles-kcna-idUSKBN1AP2P5>

Russian Surveillance Plane Soars Over Washington Sites – *Foreign Intelligence Entities*

Excerpt: A Russian surveillance plane soared through secure airspace over Washington on Wednesday, presumably collecting intelligence as it traveled near the Pentagon, the Capitol and other government buildings, two U.S. officials said.

The Russian Air Force Tupolev Tu-154 aircraft made the flight through the Treaty on Open Skies, which Russia, the United States and 32 other nations have signed. The treaty established criteria under which countries can make unarmed observation flights over the soil of other treaty members in an effort to promote transparency and international arms control efforts, according to the State Department.

The Capitol Police issued an alert Wednesday that warned that an “authorized low-altitude aircraft” would enter restricted airspace between 11 a.m. and 3 p.m. The alert did not state who owned the plane, but said it “will be large and may fly directly over the U.S. Capitol.”

Analyst Comment: The Treaty on Open Skies was signed in 1992, although it was not fully implemented until 2002 when the first flights authorized under the treaty began. 34 countries are party to the treaty, which allows for unarmed surveillance flights over signatories’ territory. Open Skies aircraft are typically equipped with optical sensor packages that allow for the collection of imagery. The recent flight conducted by Russia is considered to be routine and wholly aligned with the spirit of the treaty. Nonetheless, the latest garnered considerable media attention due to heightened tensions between the U.S. and Russia. Per open source reporting, the route chosen by Russia overflew the Washington, D.C. region, including the airspace over the Pentagon and the U.S. Capitol Building. U.S. personnel were also reportedly onboard the aircraft serving in an observational role.

Source: https://www.washingtonpost.com/news/checkpoint/wp/2017/08/09/russian-surveillance-plane-soars-over-the-pentagon-capitol-and-other-washington-sights/?utm_term=.fccfb3d8920b

A Hacker Turned an Amazon Echo into a Wiretap – *Cyber*

Excerpt: Every good paranoid sees an always-listening device like an Amazon Echo as a potential spy sitting in plain sight. Now one security researcher has shown exactly how fine the



line is between countertop computer and surveillance tool. With just a few minutes of hands-on time, a hacker could turn an Echo into a personal eavesdropping microphone without leaving any physical trace.

On Tuesday, British security researcher Mark Barnes detailed a technique anyone can use to install malware on an Amazon Echo, along with his proof-of-concept code that would silently stream audio from the hacked device to his own faraway server. The technique requires gaining physical access to the target Echo, and it works only on devices sold before 2017. But there's no software fix for older units, Barnes warns, and the attack can be performed without leaving any sign of hardware intrusion.

While that shouldn't raise alarms for every Echo owner that hackers are about to hijack their smart speaker, it does raise questions about the security of the devices, which are increasingly left in hotel rooms or offices, out of their owners' constant control.

Analyst Comment: The Amazon Echo and other similar devices (such as the Google Home) are “smart speaker” devices, which offer internet-connected audio playback and “personal assistant” functions. For example, users can ask the device for the latest weather conditions or news headlines. As a result, the devices utilize a passive listening interface which activates when a “wake word” is spoken by the user. Because this interface requires continuous audio recording, the devices have come under scrutiny by privacy advocates.

The Echo's recently-discovered vulnerability allows the device to be utilized as a sort of “wiretap” providing constant eavesdropping ability. However, in order to exploit this vulnerability, a would-be hacker would first need to gain physical access to the device and re-solder a number of wires. This act would allow the device to transmit audio remotely. Still, this recent revelation highlights ongoing privacy concerns surrounding “smart” devices, which are currently experiencing widespread popularity in the consumer electronics market.

Source: <https://www.wired.com/story/amazon-echo-wiretap-hack/>

How Advanced Targeted Attacks Evolved in Q2, 2017 – Cyber

Excerpt: The second quarter of 2017 saw sophisticated threat actors unleash a wealth of new and enhanced malicious tools, including three zero-day exploits and two unprecedented attacks: WannaCry and ExPetr. Expert analysis of the last two suggests the code may have escaped into the wild before it was fully ready, an unusual situation for well-resourced attackers. These and other trends are covered in Kaspersky Lab's latest quarterly threat intelligence summary.

The months from April to end June witnessed significant developments in targeted attacks by, among others, Russian-, English-, Korean-, and Chinese-speaking threat actors.

These developments have far-reaching implications for business IT security: sophisticated malicious activity is happening continuously almost everywhere in the world, increasing the risk of companies and non-commercial organizations becoming collateral damage in cyber warfare.



Analyst Comment: A zero-day exploit is a previously undisclosed computer-software or hardware vulnerability that hackers can exploit to adversely affect computer programs, data, additional computers or a network. A zero-day attack then happens once the software or hardware vulnerability is exploited and attackers release malware before a developer has an opportunity to create a patch to fix the vulnerability. It is highly likely these types of attacks will continue to occur in the future.

Source: <http://tempo.com.ph/2017/08/15/from-zero-day-exploits-to-rampant-ransomware-how-advanced-targeted-attacks-evolved-in-q2-2017/>



Hazards

Florida Sinkhole Claims Five More Homes – *Geological Hazards*

Excerpt: Seven houses have now been condemned in Land O’Lakes, Fla., thanks to the county’s largest sinkhole in 30 years.

Two homes were destroyed when the ground gave way on July 14, but the sinkhole has since expanded and now stretches 260 feet at its widest point, The Tampa Bay Times reported. Two more houses along its edge were condemned on Saturday, followed by three on Sunday, according to a Pasco County news release.

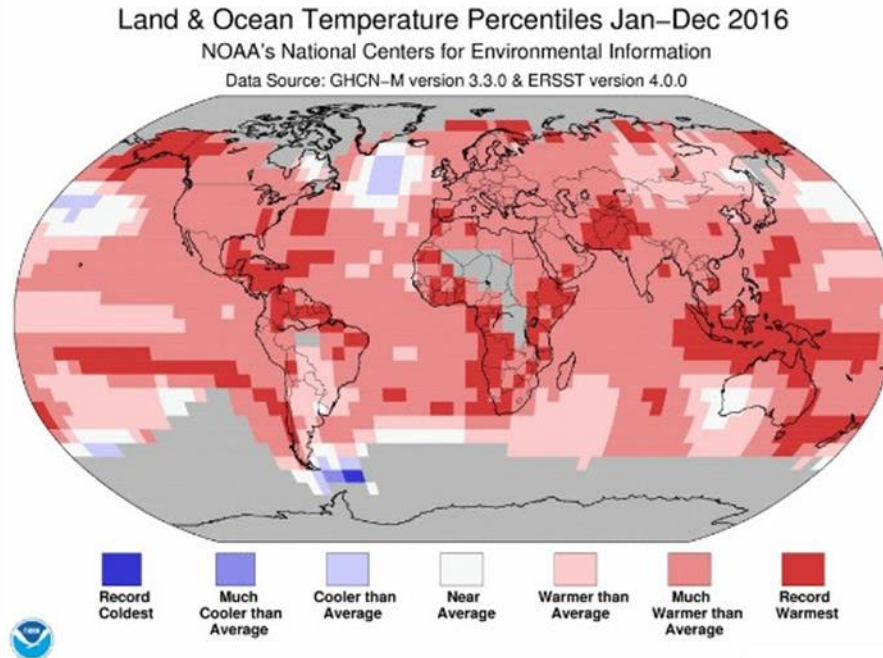
The full cleanup is expected to take months, the county said.

Analyst Comment: The sinkhole in Land O’Lakes, which is located near Tampa, Florida, has been growing in size since mid-July. According to the USGS, about 20 percent of U.S. land is susceptible to sinkholes, and the most damage from sinkholes tends to occur in Florida, Texas, Alabama, Missouri, Kentucky, Tennessee, and Pennsylvania. Florida and the other states mentioned are susceptible to sinkholes because of the underlying bedrock which consists primarily of carbonate and evaporite rock (such as limestone and gypsum, respectively). Sinkholes can develop when water washes away parts of these types of bedrock, which can result in property damage. Land O’Lakes is located in a part of Florida known as “Sinkhole Alley,” named for its susceptibility to the geological phenomenon.

Source: <https://www.nytimes.com/2017/08/07/us/florida-sinkhole.html>

NOAA, State of the Climate Findings – *Meteorological Hazards*

Excerpt: The 27th annual State of the Climate report has confirmed that 2016 topped 2015 as the warmest year in 137 years of record keeping. The report found that most indicators of climate change continued to follow trends of a warming world, and several, including land and ocean temperatures, sea level and greenhouse gas concentrations in the atmosphere broke records set just one-year prior. Last year’s record heat resulted from the combined influence of long-term global warming and a strong El Nino early in the year.



Analyst Comment: The NOAA’s report is based on contributions from more than 450 scientists in nearly 60 countries. It provides a detailed update on global climate indicators, notable weather events and other data collected from land, water, and space. Last year was the third year in a row to break global temperature records. The combination of an early, strong El Niño and rising temperatures caused the highest sea levels ever recorded, extremes in rain cycles, and declines in global ice and snow cover. According to the report, the United States experienced a record breaking 15 major weather/climate-related disasters. In January, the United States’ NOAA and NASA declared 2016 as the hottest year so far. This report confirms those findings with global data. The last record cold year occurred in 1911.

Notable findings from the report include:

- Greenhouse gases were the highest on record and the largest annual increase observed in the 58-year record.
- Global surface temperature was the highest on record aided in part by the strong El Nino early in the year.
- Average sea surface temperature was the highest on record, surpassing the previous mark set in 2015 by 0.02–0.05 degrees F.
- Heat in the uppermost layer of the ocean, the top 2,300 feet (700 meters), saw a slight drop compared to the record high set in 2015.
- Global sea level was the highest on record.
- Arctic sea ice coverage was at or near record low.

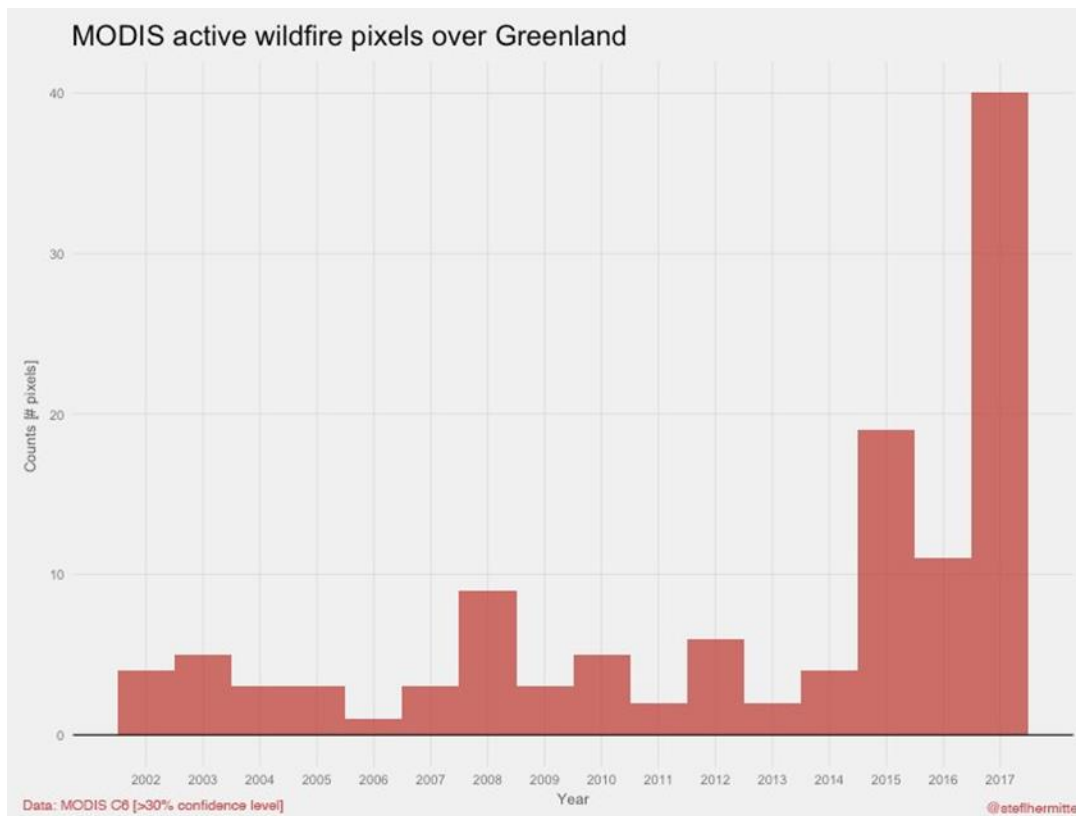
Tropical cyclones were above-average overall. There were 93 named tropical cyclones across all ocean basins in 2016, above the 1981–2010 average of 82 storms.



Source: <http://www.noaa.gov/news/international-report-confirms-2016-was-warmest-year-on-record-for-globe>

Wildfires in Greenland – Meteorological Hazards

Excerpt: A cluster of large wildfires is currently spreading through western Greenland, near the town of Kangerlussuaq, a base camp for researchers studying the island’s ice sheets. The strange event has surprised researchers, who are unaccustomed to blazes of this size in the area. The fires started on July 31 and are still going strong. Researchers suspect that the fire is fueled by peat, a dark soil rich in organic material found throughout the northern latitudes. Besides peat, only grasses and rocks make up the landscape in this region, McCarty says. The largest of these fires covers an area that is 3,000 acres in size, and the blaze is likely the largest ever observed on the island, says Jeff Weber, a scientist with the University Corporation for Atmospheric Research in Boulder, Colorado.



Analyst Comment: After observing the progression of the fire line, experts believe that at least two fires are burning from peat. Some experts think that the peat may have dried out as temperatures have risen. Researchers say that across Greenland there is now less surface water than in the past, which could be making vegetation more susceptible to fire. The current fire is the largest wildfire spotted in Greenland since a NASA satellite instrument was turned on in 2002. The cause of the fires is unknown. Police have warned hikers and tourists to stay away from the region because of the dangers posed by smoke. There are also concerns that the fire will damage



grazing for reindeer. While there is a chance of rain in the forecast for the area, police say the fires are expected to burn on, at least for a few more days.

Source: <http://www.newsweek.com/fire-greenland-climate-change-global-warming-648818>

Pump Crisis in New Orleans – *Accidental Events*

Excerpt: On Saturday, heavy rains fell on New Orleans, causing floodwaters to rise in low-lying areas — and linger for hours. At first, officials said the city's pumps and drainage system were working fine and that the storm was just unusually strong. But that wasn't true. Many of the pumps were out of service or operating at partial strength.

The problem has yet to be fixed. In fact, it has gotten worse: A fire has left the city with just one generator, out of five, to power its pumps. And with even more rain in the forecast, the city is bracing for the possibility of more flooding.

Mayor Mitch Landrieu is encouraging residents to move their vehicles to higher ground, and Louisiana Gov. John Bel Edwards says he has declared a state of emergency out of "an abundance of caution."

Analyst Comment: The city of New Orleans, LA heavily relies on pumping stations throughout the city to remove and reduce accumulated rainfall. As the city lies below sea-level, various degrees of flooding would be inevitable without the pumping stations. Because of this, an average amount of rainfall can still result in flooding if the infrastructure behind the pumps fails.

On Saturday the 5th, city officials initially said the pumps were working fine, despite the accumulating rainfall. On Tuesday, the director of the Sewage and Water Board acknowledged that this was not true and that there were power generation issues and sixteen pumps were not working. Some drainage stations were functioning at less than 60% capacity. At the time, 3 out of the 5 generators powering the city's largest pumps were out of service and under repair. On Wednesday the 9th, a fourth generator caught fire, leaving only one functioning generator. The single generator does not have the ability to run all available pumps.

Mitigation and preparedness for natural disasters can sometimes fail to account for human errors, exacerbating the situation. As evidenced by these events, failing infrastructure, such as water pumps, can also cause a natural weather event to become a man-made disaster. New Orleans experiences a high number of thunderstorms in August. This also falls in the middle of the Atlantic hurricane season.

Source: <http://www.npr.org/2017/08/10/542606964/hit-by-flooding-and-pumping-system-crisis-new-orleans-braces-for-more-rain>



In the Spotlight

'In the Spotlight' is designed to highlight a threat or hazard event, or associated events, that have been observed over recent history, and provide contextual analysis and trend based analysis on these events.

Unite the Right Rally

The city of Charlottesville was engulfed by violence on Saturday as white nationalists and counter protesters clashed in one of the bloodiest fights to date over the removal of Confederate monuments across the South.

White nationalists had long planned a demonstration over the city's decision to remove a statue of Robert E. Lee. But the rally quickly exploded into racial taunting, shoving and outright brawling, prompting the governor to declare a state of emergency and the National Guard to join the police in clearing the area.

These skirmishes mostly resulted in cuts and bruises. But after a rally at city park was dispersed, a car bearing Ohio license plates plowed into a crowd near the city's downtown mall, killing a 32-year-old woman. Some 32 others were injured, at least 19 in the car crash, according to a spokeswoman for the University of Virginia Medical Center.

Analyst Comment: The rally had been both promoted by members of the alt-right and white extremist organizations and widely criticized in the months leading up to the rally. The 'Unite the Right' rally was expected to be one of the largest gatherings of white nationalists in recent times. Attendees identified themselves as neo-Nazis, neo-Confederates, members of the Ku Klux Klan, members of the alt-right, white nationalists, and white supremacists. While some of these groups have an organizational structure and set goals, this rally united the attendees under a banner of white nationalism. The unusually high publicity surrounding the event prompted the organization of a counter protest by members of Antifa, members of Black Lives Matter, religious leaders, and the general public. When a rally or protest event is met by counter protesters, there is always the likelihood that violence could occur.

The Friday night before, several hundred of the rally's attendees staged a march across the University of Virginia's campus, bearing tiki-torches and chanting. A brawl between counter protesters and those marching broke out and the group was dispersed by police with at least one arrest.

Saturday's rally was declared an unlawful assembly and dispersed by noon. Several brawls occurred and multiple arrests were made. Shortly thereafter, a car accelerated into a crowd of counter protesters. One arrest has been made in connection to the incident and the FBI is investigating. The deliberate car crash mimics Islamic terror attacks that have occurred in Europe over the past few years, though currently no motive has been confirmed.



*Open Source Update
15 August 2017*

The 'Unite the Right' rally saw violence resulting from civil disturbances and potential domestic terrorist activity. Looking to the future, tensions between political protestors and counter protestors is likely to grow. Caution should be taken when attending or residing near any protest as the potential for violence will exist. The size of the protest or rally, the presence of counter protestors, and the amount of publicity surrounding the event can all effect the likelihood of violence occurring in connection to the event.

Source: <https://www.nytimes.com/2017/08/12/us/charlottesville-protest-white-nationalist.html>