

IN THE NEWS

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Security

The risk of GPS jamming and manipulation appears to be active in the Middle East. For instance, the Israel Airports Authority announced disruptions to the GPS [1]. There is another report that Russia is jamming US warplane GPS systems in the Middle East [2]. Then, during June Iran shot down a US drone they claim was over their territory [3]. A question here is could GPS jamming have spoofed the drone into flying over Iranian air space? Recall that in 2016, two US Navy boats were captured when they got lost and strayed into Iranian waters [4]. At a minimum, the US military will likely have to address electronic warfare attacks, including those directed against GPS and other navigational aids.

Back in Newsletter Volume 11, Issue 13 (September 23, 2018) we explored the threats to natural gas lines controlled by Supervisory Control and Data Acquisition (SCADA) software and systems. This followed gas explosions in Massachusetts that caused several gas explosions and dozens of fires [5]. Now we have another high profile gas explosion in Florida [6]. Moreover, we continue to reports of gas related house explosion in the news [7, 8]. It is worth looking a bit deeper into the physics behind gas. Gas is dangerous once it reaches the lower explosive level, the mixture when gas will burn. For natural gas, which is mostly methane, an explosive mixture exists from 5% to 15% by air volume [9]. That is, the gas would have to build up to 5% (unattended) before an explosion could occur.

On the subject of critical infrastructure failures, a large part of New York City was without electricity and officials claimed it was due to a transformer fire [10]. At the same time, the Governor of New York announced the blackout was not caused by a cyber or terrorist attack [11]. Finally, the power company announced the blackout was due to a failure in the relay protection system [12, 13]. A question here is why did the protection system fail?

1. Reuters, *Israel says GPS mysteriously disrupted in its airspace but planes se-*

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World News

We have read of the many Chinese promises that the artificial islands in the South China Sea would not be militarized [1]. However, China continued to militarize these artificial islands [2]. Now it appears China has gone further and conducted an anti-ship missile test on one of the islands [3].

Meanwhile, China has a continuing problem with Hong Kong. There were violent protests that damaged government buildings

[4]. For the near-term, it appears the protesters were successful resulting in the defeat of the extradition bill [5]. However, the protests are continuing [6]. If the protests continue, this will likely not have a happy ending. Another problem for China, the US will sell Taiwan \$2.2 Billion in military equipment, including 108 Abrams tanks [7].

Elsewhere, Iran appears to be looking for armed conflict with the West. An Iranian tanker shipping oil

to Syria in violation of European Union sanctions, was seized by UK military forces off Gibraltar [8]. The UK offered to release the ship with the promise that it would not go to Syria [9]. In response, Iran tried to seize a UK oil tanker but was forced away by a UK warship [10]. Next, the US shot down an Iranian drone that was too close to a US warship [11]. Finally, Iran eventually seized two UK oil tankers traversing

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Special points of interest:

- GPS attacks
- New York City Blackout
- Hong Kong Turmoil
- Trouble with Iran

World News

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the Strait of Hormuz [12]. The UK has warned Iran to release the seized tankers or suffer serious consequences [13].

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9. Rodrigo, Chris Mills, The Hill, *UK ties Iranian tanker's release to promise on Syria*, July 14, 2019.
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11. Reid, David, CNBC, *Iran rejects Trump's claim that the US Navy destroyed one of its drones*, July 19, 2019.
12. CBS News, *British say Iran seizes 2 vessels in Strait of Hormuz*, July 19, 2019.
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It's tough to negotiate from a position of weakness.—
Robert Kiyosaki

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Terrorism

The future for Afghanistan looks bleak. While the West is eager to conclude involvement in Afghanistan, the Taliban fighters are not willing to change [1]. For instance, a bomb was detonated in Kabul killing at least 40 people [2,3]. Terrorists used a child in a suicide attack that killed at least 9 people [4]. In that attack, a 13 year old boy was used as a suicide bomber at a wedding [5]. In a separate incident, a bomb was detonated along the gate to Kabul University, killing at least 8 people [6]. Elsewhere, a car bomb detonation killed at least 12 people [7]. Finally, Taliban fighters attacked as police HQ in Kandahar resulting in at least 11 dead [8].

The US labels Iran and the Revolutionary Guard as terrorism sponsor [9, 10]. Now it appears Iran is getting more daring in its actions. For instance, several Iranian boats tries to intercept as British oil tanker but were forced to abandon their effort by a Brit-

ish naval vessel [11]. These actions could be viewed as pirate activities.

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Our greatest weakness lies in giving up. The most certain way to succeed is always to try just one more time.—Thomas A. Edison

Economy

The stock markets started this news cycles strong. On July 1, the S&P 500 stock index closed at a record high [1]. The next day, July 2, the S&P 500 closed at a new record high [2]. On July 3, The DJIA and the S&P 500 indices closed at record highs [3]. The upward trend continued on July 10 when the Dow, NASDAQ, and S&P 500 reached intraday highs with the NASDAQ closing at a new record [4]. On July 11, the Dow closed above 27,000 for the first time [5]. On July 12, the three indices closed at new record high and the S&P 500 closed above 3,000 for the first time [6]. More records were set on July 15 [7].

Meanwhile, the trade war between the US and China is having some positive impacts. For instance, Chinese Premier Li Keqiang promised that Beijing will push to create a level playing field for domestic and foreign owned businesses [8]. What is interesting is China admitted it had an unfair environment but now wants to correct it. Meanwhile, the trade deficit for May increased to \$51.2 Billion, with China holding the lion's share at \$30.2 Billion [9].

Another metric of the economy is unemployment rates. The number of unemployed workers for June increased to 3.7% [10]. For the week ending June 29, the number of first time unemployment claims was 221,000 [11]. Then for the week ending July 6, the number was 209,000 [12]. Finally, for the week ending July 13, the number was 216,000 [13].

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S&P 500 sets new all-time closing high, July 1, 2019.

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3. Heath, Thomas, Washington Post, Dow blasts past record in shortened session on heightened Fed expectations, July 3, 2019.

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Dow rallies 200 points to close above 27,000 for the first time ever, July 2019.

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Only strength can
cooperate. Weakness can
only beg.—Dwight D.
Eisenhower
