

State of the Bands

December 10, 2020



Stop Watching | Start Living



Our Mission

To enthusiastically provide dynamic tools, research, and services within the financial community by empowering institutions and individuals to redefine what financial freedom really means.



Introduction

In this issue of State of the Bands - I think we're in a pickle, that's a nice piece of glass. Baby... Shark what did they do to you.. And Extra, Extra... this paper is extra.



Baby... Shark What Did They Do To You?



We missed out on shark week this year, but we are making up for it by gift wrapping these weird shark related facts for you. In fact, much of the internet you are currently consuming is powered by massive stretches of underwater cables. In 2018, the Marea cable (a submarine cable that stretches more than 6000km in the Atlantic Ocean, connecting the United States to southern Europe) began operating between Bilbao, Spain, and the US state of Virginia, with transmission speeds of up to 160 terabits per second. If you need a reference, that is 16 million times faster than the average home internet connection.

As of 2019 there are around 380 underwater cables in operation around the world, spanning a length of over 1.2 million kilometers (745,645 miles) that control our global internet.

Fun Fact: Sharks do not have any bones and their skin feels like sandpaper.



Baby... Shark What Did They Do To You?

Unfortunately, these cables are vulnerable to natural phenomena such as earthquakes, changes in current, pressure, and shark bites. Yes, you read that correctly. There has been some underwater surveillance footage that has shown a shark chomping into a submarine cable.

Potentially, these cables can be protected with different coatings that are resistant to such attacks, such as Kevlar or something similar. These coatings would encase the fragile glass fibers and prevent them breaking under the pressure of a shark bite. Scientists suspect that sharks possess a sixth sense that enables them to detect electromagnetic fields that help the sharks navigate and track prey. This ability would explain why the sharks have an appetite for these cables- we see the internet while the sharks see a buffet. It is important to note that the International Cable Protection Committee (ICPC), which provides guidance on issues related to submarine cable security, says cable damage from shark attacks is rare.



Baby... Shark What Did They Do To You?

This is not the only case of sharks vs technology. There is a small, tailless domestic cat sized shark known as the cookie cutter shark that has historically been an issue. Like the name implies, the cookie cutter shark is known for its feeding habit of gouging round plugs, as if cut out with a circular cookie cutter. While there have been some “Jaws” moments, what is more interesting is that back in the 1970s, these sharks were noted to be a problem for the US Navy. Cookie cutter sharks would take chunks out of the neoprene-covered sonar domes of American submarines, which caused the sound-



transmitting oil to leak and thus blinded the submarines. It happened enough times that in order to solve the problem, the sonar domes were covered with fiberglass. Telecommunications and oceanographic research equipment have also faced damage from cookie cutter sharks. Crazy, right?

National Defense Stocks & Ammunition

OLN — Olin Corp

VSTO — Vista Outdoor

POWW — Ammo Inc.

NOC — Northrop Grumman Corp.

SWBI— Smith & Wesson Brand Inc.



Extra! Extra! This Paper Is Extra!

Next in weird science advancements that are seemingly not helpful, engineers at Purdue University have determined a way to make paper interactive. What exactly did they do? The engineers developed a printing process that can turn an ordinary sheet of paper (among other things) into a Bluetooth-connected, self-powered, wireless, interactive keyboard or keypad. Sounds like some crazy Twilight Zone science fiction, but it is true. How did the engineers manage to do this?



First, the team took a plain old sheet of paper with a typical alphabetical keyboard printed on it and coated it with a neon-green, omni phobic solution (meaning the solution repels just about everything). Once dry (thankfully it dries clear) the engineers can then “print” circuit layers over the page without smearing the ink.

Fun Fact: There are more than 900 species of **slime** mold in the world . Slime in nature is called mucus, and you have some in your nose right now! The mucus, or snot, in your nose protects your body by trapping dirt and bacteria.



Extra! Extra! This Paper Is Extra!



Fun Fact: Friction can generate static electricity. The harder two surfaces are pressed together, the more force it takes to overcome the friction and get them to slide. Fluid friction is used a lot in water parks so we can slide smoothly and fast down giant slides.

The layers are triboelectric, which means that friction is the force that generates the electricity. In other words, each time a "key" is pressed, energy is produced. So the paper never needs to be charged or connected to an external battery- the paper can be used as is in the state that it is in without any additional external power sources. What does this type of technology mean?

Depending on which industry adopts this technology first, the options are potentially limitless. This technology could be used to facilitate the user interaction with food packaging, to quickly see when the meat was packaged, the sell by date, and whether or not it is safe to consume. The technology could be used in the shipping industry, enabling users to sign the package that arrives at home by dragging their finger over the box to properly identify themselves as the owner of the package or even trace the path of the package including delivery driver and shipping conditions.



Extra! Extra! This Paper Is Extra!

Potentially, this paper technology could be used in the music industry as well- a pianist could carry their instrument and write or practice practically anywhere.

This really makes you think twice about throwing away paper. In some instances, you could very well be throwing out a pretty important piece of technology.

Industrial Stocks & Banks

MMM — 3 M Company

IP — International Paper Co.

CAT— Caterpillar Inc.

X — U.S. Steel

FRBK— First Republic Bancorp Inc.

LARK — Landmark Bancorp Inc.

JMP—JMP Group LLC



Fun Fact: The Chinese invented paper from Hemp in 100 B.C. They later began to use tree bark, bamboo, and other plant fibers to create **paper**.



Striker! Striker? Striker!

Especially with the holidays around the corner, something we should be thinking right now is the treatment of other people. Sometimes during the holiday season people will avoid speaking of certain topics that are hard to face. This is one of those topics. Did you know that the largest worker's strike to date occurred last month in India? More than 200 million people participated in this strike. To put

that in perspective, that is more than 75% of the total population in the United States counting children. That is also roughly 3% of the entire world's population. This one day strike involved at least ten central trade unions, and is expected to impact several different industries including banking, plantations, telecommunication, natural resource production, power and transportation.

What is this strike about? Recent policies that have been passed by the Prime Minister of India, Narendra Modi.



Fun Fact: The world population is **7.83 billion**. The Earth can sustain a population of about 1.8 billion people. The world sustainable population was reached over 100 years ago. Sounds great right?



Striker! Striker? Striker!



The CAA act would prevent people of Muslim belief who seek refuge in India from obtaining citizenship and the NRC act would nullify all previous citizenship laws and require all Indian citizens to provide extensive documentation to prove their citizenship– something hundreds of millions will surely be unable to do. In effect, Modi would be giving his political group the power to choose who has Indian citizenship rights and that would result in absolute government control by his specific political party.

The worst part is that this situation in the Indian government has already removed almost two million people’s citizenship in the northeastern state of Assam– around half of them

Muslims. The Indian government is also currently building a network of detention centers (similar to what ICE in the U.S uses) to house the newly criminalized population of “illegal immigrants.”

Fun Fact: Harbin International Ice and Snow Sculpture Festival takes place in Harbin, Heilongjiang, China between January 5th and goes on until the end of February.



Striker! Striker? Striker!



In fact, it has been seen that the Indian government is even going as far to employ people who are newly considered illegal immigrants to build the detention centers that would then hold them. Modi's government threatened that any employee going on strike in any form would face the consequences, suggesting that the government sees the nationwide strike as a threat to its legitimacy.

Fun Fact: Airplane! was almost a direct parody of the 1957 movie Zero Hour! David Letterman, Sigourney Weaver, and other future stars auditioned for **Airplane**



I Think We're In A Pickle

You may have heard the name John McAfee before. Yes, as in THAT McAfee. He founded McAfee Associates that then went to produce the McAfee antivirus software. The company was bought in 2011, and he promptly left and created more companies: Tribal Voice, Future Tense Central, and QurorumEx to name a few.

However, we are not gathered here to showcase his accomplishments. No, we are here to discuss one of his interests. that has recently put him in the hot seat. No, this is not about the tax evasion related arrest in October of this year. In fact, this is about a claim that he made back in 2017. McAfee boldly predicted that by the end of 2020 that Bitcoin would be at about \$500,000 per coin or he would live stream himself eating a certain part of his anatomy. Hint: this part is typically used for excreting liquid waste and reproduction.

Fun Fact: the Dutch phrase *in de pekel zitten* literally means "to sit in the pickle brine," which would, obviously, be an unpleasant place to sit.



I Think We're In A Pickle



As of November 2020, he has backed out of this bet, claiming that it was all a PR stunt to get people interested in Bitcoin. In a storm of very confusing and combative tweets he seems to go back and forth on the prediction and the bet and ultimately landed on Bitcoin likely not doing what his model predicted and backing out of the bet. But this begs the question: what is actually going on with cryptocurrency and what do your friends at Arbitrage Trade Analytics predict will happen?

First and foremost, we knew that Bitcoin would not hit anywhere near where McAfee predicted, in fact, our predictions are showing that this should be a double top for BITCOIN.

Ethereum however is another story all together. We are seeing a very bright future for Ethereum and most of it forked currencies. Ethereum is allowing people, companies and countries to cash in on it's technology. Most of the new cryptocurrencies that have been launched in the past 2 years were all Ethereum based.



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Contact Us

Arbitrage Trade welcomes your questions or comments regarding the Terms:

Arbitrage Trade Analytics, LLC

5100 Poplar Ave.

Suite 2223

Memphis, TN 38137

Email Address: info@arbitragebands.com

Telephone number: 901-721-3720

Effective as of February 4, 2019

