EIB World Trade Headlines

Evolutions In Business • www.eib.com • (978) 256-0438
Fax: (978) 250-4529 • P.O. Box 4008, Chelmsford, MA 01824

CELEBRATING OVER 30 YEARS

June 15, 2019 - Volume 11, Issue 12

Lexington, MA Man and Semiconductor Company Indicted for Theft of Trade Secrets

BOSTON – A Chinese born naturalized U.S. citizen living in Lexington, and a company he and his wife established, were charged in federal court in Boston in connection with stealing proprietary information from his former employer, Analog Devices, Inc. (ADI), a semiconductor company headquartered in Norwood. Yu is also charged with allegedly selling and illegally exporting integrated circuits that incorporated ADI's stolen trade secrets.

Haoyang Yu, a/k/a "Jack Yu," a/k/a "Harry Yu," a/k/a "Jack Tricon," 40, of Lexington, was arrested and charged along with his company, Tricon MMIC LLC, in an indictment unsealed today. Yu was indicted on four counts of theft of trade secrets; four counts of copying, uploading, downloading, and attempted copying, uploading, and downloading of a trade secret; four counts of possession and attempted possession of a trade secret; and three counts of smuggling. Tricon MMIC LLC was also indicted on three counts of smuggling. Yu will appear this afternoon in federal court in Boston.

"Theft of trade secrets from American companies is a pervasive economic and national security threat, which makes Massachusetts, a worldwide leader in technological research and innovation, a target," said United States Attorney Andrew E. Lelling. "Yu is charged with a massive theft of proprietary trade secret information from his former employer for the purpose of setting up his own company and marketing their products as his own. Today's charge should make it clear that combatting the theft of trade secrets from American businesses is one of my office's top priorities."

"Today's actions are the result of the seamless coordination and collaborative counter proliferation efforts by the Office of Export Enforcement, the Justice Department, Homeland Security Investigations, NCIS and the FBI," said Acting Special Agent in Charge William Higgins of the Office of Export Enforcement. "The Boston Field Office, Office of Export Enforcement will continue to work with all its Law Enforcement partners to stem illicit trade that threatens U.S. national security and undermines U.S. foreign policy. We will continue to vigorously pursue violators wherever they may be."

"Violations of U.S. export laws like the ones charged in this case are serious offenses that undermine national security through the illegal export of sensitive U.S. technology and compromise the economic viability of American companies," said Peter C. Fitzhugh, Special Agent in Charge, U.S. Immigration and Customs Enforcement's (ICE), Homeland Security Investigations, Boston. "Today's enforcement actions could not have occurred without the coordinated efforts of a very dedicated team of law enforcement partners that included members of HSI's Counter-Proliferation Investigations Center, the agency's specialized unit dedicated to preventing the illegal export of U.S. technology and protecting American businesses by combatting transnational criminal networks and violators of our export laws."

"As alleged, Mr. Yu stole trade secrets from his employer for his own financial gain," said Joseph R. Bonavolonta, Special Agent in Charge of the Federal Bureau of Investigation, Boston Field Division. "We are deeply concerned about American innovation ending up in the wrong hands, and the FBI is committed to investigating rogue actors and foreign nations who steal our trade secrets, technology, and proprietary information for military or economic gain. While we all welcome fair competition, we cannot and will not tolerate stealing and cheating. It's illegal, unethical, and unfair, and this type of conduct hurts American businesses, jobs, and consumers, and in many instances, jeopardizes our national security."

NCIS Northeast Field Office Special Agent in Charge Leo S. Lamont stated: "NCIS works closely with our partners in the FBI, HSI, and Department of Commerce to aggressively combat the theft of trade secrets and the illegal export of sensitive defense technologies. These crimes not only weaken our national security but also jeopardize the safety of our brave men and women in uniform."

According to the charging document, Yu was born in Harbin, China, and first came to the United States in 2002 through the student visa program. He became a lawful permanent resident in June 2009, and a naturalized U.S. citizen in March 2017. In July 2014, Yu started working at ADI as a principal design engineer.

As alleged in the indictment, Yu worked for ADI designing and developing parts of monolithic microwave integrated circuits (MMICs), which are used in radio, cellular, and satellite communications as well as defense and aerospace applications. As a result of his work, Yu had access to data and information relating to the present and future product designs, schematics, manufacturing files and testing procedures. It is alleged that, while working for ADI, Yu downloaded hundreds of highly confidential schematic design files and modeling files that belonged to ADI, and copied portions of those files into spreadsheets which he uploaded to his personal Google drive account. The files Yu allegedly stole from ADI were worth millions of dollars.

In March 2017, approximately five months before he resigned from ADI, Yu and his wife established Tricon MMIC LLC, which according to its website, "specializes in wide band MMIC amplifiers," and serves customers in "defense and aerospace, test and instrumentation, [and] satellite communications."

On July 31, 2017, Yu resigned from ADI and signed an agreement affirming that he had surrendered all proprietary information or data. Nevertheless, in December 2018, Yu allegedly had propriety ADI files in his possession. Furthermore, since creating Tricon in March 2017, Yu marketed and sold approximately 20 ADI designs as his own, and even used the same semiconductor fabrication plant as ADI. Yu used the Tricon website to target ADI customers, claiming that Tricon could better serve customers because ADI "has hit many customers by sudden announcements of obsolete parts." For each purported obsolete part, Tricon listed a replacement part on its website. These replacement parts contained specifications identical to or substantially similar to ADI.

It is alleged that since leaving ADI, from August 2017 to June 2019, Yu has been working at a cleared defense contractor while simultaneously operating Tricon and selling parts that are identical to, or substantially similar, to ADI products and which incorporate ADI's stolen trade secrets. Yu has also allegedly used Tricon to illegally export several parts to Spain by concealing both his name and the export control classification number of the parts being exported on the shipping documents.

ADI, the named victim of the Yu's theft of trade secrets, has been cooperating with the government throughout this investigation.

The charge of stealing, copying, downloading, and possessing a trade secret provides for a sentence of no greater than 10 years in prison, three years of supervised release and a fine of $250,000. The charge of smuggling goods from the United States provides for a sentence of no greater than 10 years in prison, three years of supervised release and a fine of $250,000. Sentences are imposed by a federal district court judge based upon the U.S. Sentencing Guidelines and other statutory factors.

U.S. Attorney Lelling; Acting DOC – Office of Export Enforcement SAC Higgins; HSI Boston SAC Fitzhugh; FBI Boston SAC Bonavolonta; and NCIS SAC Lamont made the announcement today. The following agencies also assisted in this investigation: Customs and Border Protection; Coast Guard Investigative Service; Defense Criminal Investigative Service; Massachusetts State Police; Lexington Police Department; and Hingham Police Department. Assistant U.S. Attorney B. Stephanie Siegmann, Chief of Lelling's National Security Unit, and Assistant U.S. Attorney George Varghese, of Lelling's National Security Unit, are prosecuting the case.

Restricting the Temporary Sojourn of Aircraft and Vessels to Cuba

84 FR 25986

In this final rule, the Bureau of Industry and Security (BIS) further limits the types of aircraft that are authorized to fly to Cuba and the types of vessels that are authorized to sail to Cuba on temporary sojourn. Specifically, this rule amends License Exception Aircraft, Vessels and Spacecraft (AVS) in the Export Administration Regulations (EAR) to remove the authorization for the export or reexport to Cuba of most non-commercial aircraft and passenger and recreational vessels on temporary sojourn. Additionally, this rule amends the licensing policy for exports and reexports to Cuba of aircraft and vessels on temporary sojourn to establish a general policy of denial absent a foreign policy or national security interest as determined by the U.S. Government. Consequently, private and corporate aircraft, cruise ships, sailboats, fishing boats, and other similar aircraft and vessels generally will be prohibited from going to Cuba. BIS is making these amendments to support the Administration's national security and foreign policy decision to restrict non-family travel to Cuba to prevent U.S. funds from enriching the Cuban regime, which continues to repress the Cuban people and provides ongoing support to the Maduro regime in Venezuela. These amendments are consistent with the National Security Presidential Memorandum on Strengthening the Policy of the United States Toward Cuba. Signed by the President on June 16, 2017.

U.S. Customs and Border Protection says photos of travelers into and out of the country were recently taken in a data breach

On Monday, CBP said it learned last month that the images, which also include license plate photos, were accessed through the network of one of its subcontractors. Customs maintains a database including passport and visa photos. CBP declined to say what images were stolen or how many people were affected.

The CBP database is used at airports as part of a facial-recognition program from the agency.

Chinese Exporters Dodge Tariffs With Fake Made-in-Vietnam Labels

By Mai Ngoc Chau and John Boudreau,
June 9, 2019, 10:54 PM

Some Chinese exporters are going to extreme lengths to avoid the hit from Donald Trump's tariffs.

Vietnam said on Sunday that it found dozens of fake product-origin certificates and illegal transfers by companies trying to sidestep U.S. tariffs on everything from agriculture to textiles and steel. It was one of the first times an Asian government has publicly alleged such misbehavior since trade tensions between the world's two biggest economies escalated this year.

The statement from Vietnam, which pledged to increase penalties on trade-related fraud, adds to concerns that some Chinese exporters are illegally rerouting orders after Trump imposed tariffs on $250 billion of Chinese goods and threatened to target an additional $300 billion. U.S. trading partners including Vietnam face growing pressure to stop on illicit exports as they seek to avoid being hit by tariffs themselves.

"It's always a cat-and-mouse game," said Fred Burke, managing partner at law firm Baker & McKenzie (Vietnam) Ltd. "As long as people are willing to take risks in search of those arbitrages of say 25 percent duties, it's very difficult to enforce."

Vietnam is concerned it may be punished by the U.S. for allowing mislabeled Chinese products to flow to America, Do Van Sinh, a standing member of the National Assembly's economic committee, was quoted as saying in the government's statement.

The Southeast Asian country's reported shipments to the U.S. have jumped this year as China's have slumped. While there's evidence that some of those gains are due to shifting supply chains, analysts have questioned how much of the recent surge is legitimate.

Fraudulent cases discovered by Vietnam's government include packaging on Chinese goods being changed to say "Made in Vietnam" before certificates of origin are processed. The government cited an example of U.S. customs officials uncovering Chinese plywood being shipped to America through a Vietnamese company.

*(*Continued On The Following Page)*

"A cottage industry for circumventing U.S. tariffs will likely bloom, given the high tariff rates and huge potential profit," said Chua Hak Bin, a senior economist at Maybank Kim Eng Research Pte. in Singapore. "ASEAN governments will likely crackdown on such re-routing for fear of being seen as a backdoor," Chua said, referring to the Association of Southeast Asian Nations.

Questionable shipments are likely to be a "relatively small" portion of China's total exports to the U.S., said Rahul Kapoor, a senior analyst at Bloomberg Intelligence in Singapore. "There will always be leakages and work arounds to avoid tariffs, but we do not see it as a widespread phenomenon," Kapoor said.

Vietnam already faces scrutiny from the U.S. after the Treasury Department added the country to a watchlist for currency manipulation last month.

Vietnamese authorities have said the exchange rate won't be used to create an unfair trade advantage, even as they've grown concerned that the U.S.-China conflict will hurt economic growth. Deputy Prime Minister Pham Binh Minh told the National Assembly last week that gross domestic product could drop 6 trillion dong ($256 million) in the next five years because of the trade war.

Vietnam is concerned it may be punished by the U.S. for allowing mislabeled Chinese products to flow to America, Do Van Sinh, a standing member of the National Assembly's economic committee, was quoted as saying in the government's statement.

The Southeast Asian country's reported shipments to the U.S. have jumped this year as China's have slumped. While there's evidence that some of those gains are due to shifting supply chains, analysts have questioned how much of the recent surge is legitimate.

Fraudulent cases discovered by Vietnam's government include packaging on Chinese goods being changed to say "Made in Vietnam" before certificates of origin are processed. The government cited an example of U.S. customs officials uncovering Chinese plywood being shipped to America through a Vietnamese company.

"A cottage industry for circumventing U.S. tariffs will likely bloom, given the high tariff rates and huge potential profit," said Chua Hak Bin, a senior economist at Maybank Kim Eng Research Pte. in Singapore. "ASEAN governments will likely crackdown on such re-routing for fear of being seen as a backdoor," Chua said, referring to the Association of Southeast Asian Nations.

*(*Continued On The Following Column)*

Questionable shipments are likely to be a "relatively small" portion of China's total exports to the U.S., said Rahul Kapoor, a senior analyst at Bloomberg Intelligence in Singapore. "There will always be leakages and work arounds to avoid tariffs, but we do not see it as a widespread phenomenon," Kapoor said.

Vietnam already faces scrutiny from the U.S. after the Treasury Department added the country to a watchlist for currency manipulation last month

Vietnamese authorities have said the exchange rate won't be used to create an unfair trade advantage, even as they've grown concerned that the U.S.-China conflict will hurt economic growth. Deputy Prime Minister Pham Binh Minh told the National Assembly last week that gross domestic product could drop 6 trillion dong ($256 million) in the next five years because of the trade war

--With assistance from Miao Han and Nguyen Kieu Giang.

To contact the reporters on this story:
Mai Ngoc Chau in Ho Chi Minh City at cmai9@bloomberg.net;
John Boudreau in Hanoi at jboudreau3@bloomberg.

Dem, GOP senators want to check Trump's power to sell arms to Saudis

WASHINGTON — Two senators plan to introduce a bill Monday designed to force a vote on current and future U.S. arms sales and other military support to Saudi Arabia, saying it was time lawmakers checked President Donald Trump's attempts to bypass Congress on foreign policy.

The bill, sponsored by Sens. Todd Young, R-Ind., and Chris Murphy, D-Conn., who both sit on the Foreign Relations Committee, marks the latest counterpunch by lawmakers who strongly oppose selling weapons to Saudi Arabia and who are outraged at the Trump administration's recent decision to sidestep Congress on an arms deal worth billions of dollars.

"The process we are setting in motion will allow Congress to weigh in on the totality of our security relationship with Saudi Arabia, not just one arms sale, and restore Congress's role in foreign policy-making," Murphy said in a statement.

(*Continued On The Following Page)

Last week, a bipartisan group of senators, including Murphy and Young, proposed nearly two dozen resolutions that would require votes on each of the arms sales that make up the $8.1 billion weapons package to Saudi Arabia, the United Arab Emirates and Jordan announced by the Trump administration on May 24. By law, arm sales require congressional approval but the Trump administration avoided any review by lawmakers for the controversial deal by declaring a national security "emergency," citing the threat posed by Iran.

Now Murphy and Young are proposing a separate resolution that would allow Congress to vote on not only the expedited arms deal last month but to block or restrict future weapons sales and military assistance to Saudi Arabia.

Frustration over Saudi Arabia's killing of Washington Post columnist Jamal Khashoggi and its intervention in Yemen's civil war — and Trump's reluctance to criticize Riyadh — has sparked a growing bipartisan response in Congress.

"Our arms sales to Saudi Arabia demand Congressional oversight," Young said in a statement. "This bipartisan resolution simply asks the Secretary of State to report on some basic questions before moving forward with them. The ongoing humanitarian crisis and complicated security environment in Yemen requires our sustained attention and we cannot permit U.S. military equipment to worsen the situation on the ground."

Murphy said the administration "has effectively given a blank check to the Saudis — turning a blind eye to the brutal murder of Jamal Khashoggi and allowing their ballistic missile program to expand," and added: "Congress needs to change how we do business with the Kingdom."

In a vote in March to end U.S. military support for the Saudi-led war in Yemen and to curtail presidential war powers, seven Republican senators sided with Democrats to pass the bill. But Trump vetoed the legislation last month.

It remains unclear whether more Republicans will join Democratic senators to form a sufficient majority to overcome a future presidential veto on the new resolutions being proposed on Saudi arms sales.

"We believe we would gain lots of bipartisan support on this," said a Democratic congressional aide, who was not authorized to speak on the record.

The Trump administration has rejected criticism of its staunch support for Saudi Arabia, portraying the country as an important bulwark against Iran, citing Iran's backing of Houthi rebels in Yemen and Houthi rocket attacks into Saudi territory. Trump often has argued that arms sales to Saudi Arabia are important for U.S. defense companies and generate jobs for Americans.

(*Continued On The Following Column)

Secretary of State Mike Pompeo defended the decision last month to fast-track the massive arms package, saying the threat from Iran required urgent action and that Washington needed to act as a reliable supplier of weapons and ammunition for its Arab partners.

“The United States is, and must remain, a reliable security partner to our allies and partners around the world," a U.S. State Department spokesperson said Sunday. "While we will not comment on proposed Congressional actions, the Department has met the requirements of the law and followed relevant practice in invoking this emergency authority, and is moving the arms transfers forward.”

The State Department oversees U.S. arms exports.

The resolution cites an obscure provision of the Foreign Assistance Act, which allows Congress to request information on a country's human rights record within 30 days. After receiving a report, Congress can then vote on restricting or halting security assistance to that country, congressional aides said.

Apart from setting up votes on weapons deals for Riyadh, the resolution would also force the administration to offer a public accounting to Congress on the kingdom's human rights record.

The Trump administration has yet to provide a report to Congress as required by law as to whether Saudi Arabia's crown prince, Mohammed bin Salman, was personally responsible for the death of Khashoggi, who was killed at the Saudi consulate in Istanbul.

Hundreds of thousands protest bill in Hong Kong

Hundreds of thousands of protesters flooded the streets of Hong Kong on Sunday to demonstrate against proposed amendments to an extradition bill, which would allow the transfer of criminals to mainland China. Police estimated the crowd at 240,000; organizers said it was closer to 1 million. After around 10 hours of peaceful protest, tensions rose when demonstrators stormed the government headquarters. The group briefly made it to the lobby, but police responded with batons and pepper spray. The massive demonstration took place three days before Hong Kong's full legislature considers the bill, which critics fear would let China target political opponents in the former British colony and could undermine its judicial independence.

Who Won The Mexican Trade War Of 2019?

FORBES

Jun 8, 2019, 08:12pm

The Mexican Trade War began with a Tweet and concluded with a Tweet. As it happened, no actual tariffs were applied, but there were still consequences. The President and his supporters have claimed the result as a victory, although most politicians do not hold their victories for public announcement on a Friday evening.

Applying the same approach we did to the launch of hostilities, here are five thoughts about the sudden cessation of hostilities:

What was in the deal?

President Trump announced that the United States and Mexico had signed an agreement which removed the need for the tariffs. The joint declaration put out by the State Department described Mexican deployment of its National Guard on its southern border as well as moves against human trafficking networks. It also references the distinction between illegal immigration and asylum seekers, with Mexico referencing international obligations for dealing with asylum applicants.

President Trump also said Mexico had agreed to "BEGIN BUYING LARGE QUANTITIES OF AGRICULTURAL PRODUCT FROM OUR GREAT PATRIOT FARMERS!" While agriculture was an issue in the NAFTA talks, there was no diplomatic release describing any new agricultural agreements reached this past week.

Will it fix the problems President Trump identified?

Almost certainly not. On migratory flows and human trafficking from Central America, the problems seem to run substantially deeper than just a lack of Mexican willpower. Few countries have ever had the ability to control their borders completely.

Further, President Trump did not limit his aspirations to controlling immigration. He also called for Mexico to stop the flow of drugs and claimed, "They can do it if they want!"

*(*Continued On The Following Column)*

Mexico has had many of the problems common to developing countries – difficulty maintaining control of a vast territory with limited resources. In fact, the United States has its own issues with law enforcement – homicide and narcotics use are illegal, yet they persist. And this continues despite the fact that the United States is vastly richer – per capita income of almost $60k per year as compared to almost $9k per year in Mexico. This all suggests that the problems run deeper than a lack of willpower.

Where does this leave U.S. trade with Mexico?

In trouble. It's tempting to think that, without the coming imposition on tariffs on Monday, all is well. Now it just remains for Mexico, Canada, and the United States to pass the USMCA, as they were planning before this interruption.

The problem is that the tariff threat entirely undercut the rationale of the USMCA. Such trade agreements are heavily premised on the idea that trade is linked to investment and that industries need a degree of certainty to take full advantage of the trade relationship. This was the reason there was such strong pushback against the Trump administration's proposal to introduce a "sunset clause" that would create an expiration date for the deal.

When President Trump made his tariff threat, he demonstrated that the USMCA offered no guarantees of certainty. He could and would ignore it with just over a week's notice. Trade uncertainty would reign supreme.

Ironically, the only reason the USMCA won a positive rating from the U.S. International Trade Commission last month was because that body assumed the deal would reduce trade policy uncertainty. In the absence of such a presumption, the USMCA was predicted to actually reduce U.S. GDP. And the basic argument about the costliness of trade policy uncertainty shows exactly why the mere threat of Mexican tariffs can have negative effects, even if the President never slaps them on. So it now looks like a loser for the United States.

What about for Mexico? Mexico is being asked to make changes to its economic policy as part of its USMCA commitments. What does it get for those concessions? The old answer was that it got a guarantee of trade peace. It's now clear that, at least from the Trump administration, such a guarantee is worthless.

NAFTA and USMCA were valuable if they prevented the member countries from arbitrarily applying tariffs. President Trump has called the whole rationale into question.

*(*Continued On The Following Page)*

Where does this leave Trump administration trade policy?

This problem extends well beyond Mexico. Consider the rest of the Trump trade agenda. In the Asia-Pacific, the Trump administration opened by denying U.S. farmers and businesses the market access they would have gotten from agreements such as the Trans-Pacific Partnership. The U.S. absence from the TPP's successor agreement has meant, for example, that Canadian and Australian ranchers can ship their beef into Japan on better terms than U.S. ranchers.

President Trump promised to remedy this by striking new bilateral deals with Japan, Europe, the UK, and more. All of those countries will have watched the Mexican episode closely. All will now be exceedingly wary about trading anything of value for Trump administration promises of trade peace.

Is it over?

There are at least two clues that the threat to U.S.-Mexico trade has not gone away. First, President Trump's Friday night announcement was of an "indefinite suspension." The language strongly suggests the threat could return.

Second, the joint declaration put out by the State Department says:

> Both parties also agree that, in the event the measures adopted do not have the expected results, they will take further actions. Therefore, the United States and Mexico will continue their discussions on the terms of additional understandings to address irregular migrant flows and asylum issues, to be completed and announced within 90 days, if necessary."

Thus, there will be two conflicting forces at work. On the one hand, predictable disappointment will restoke pressures to lift the tariff suspension – it is exceedingly likely that the measures adopted in the joint declaration will not have the expected results. On the other hand, pushing against new imposition of tariffs will still be the strong resistance from markets, businesses, and political leaders that stymied the push for tariffs this past week.

The President's devotion to tariffs and his refusal to forswear them will mean that, even without actual imposition of duties, some adverse effects are likely to remain.

Rare metals used in most tech products could be cut off from U.S. by trade war with China

From smartphones to cars and defense missiles, modern U.S. life depends on rare earth elements, but China dominates the industry and may end U.S. access to the unusual metals

Nearly five years ago, " 60 Minutes " reported a story on something called rare earth elements. Now, they've become a major element of the U.S.-China trade war. Rare earths are unusual metals that can be found in almost every piece of high tech you can think of: from new cars to precision-guided missiles to the screen you're watching this story on right now.

China controls roughly 80% of the mining, refining and processing of rare earths. Now,in response to President Trump's tariffs on Chinese goods, Beijing is making not-so-subtle threats to cut off our supply of rare earths. And that's especially troubling, because as we reported in 2015, it was the United States that started the rare earth revolution in the first place.

United Technologies to merge aerospace business with Raytheon

By Harry Brumpton and Kate Duguid

United Technologies Corp agreed on Sunday to combine its aerospace business with U.S. defense contractor Raytheon Co and create a new company worth more than $120 billion, in what would be the industry's biggest ever merger.

The deal would reshape the competitive landscape by forming a conglomerate which spans commercial aviation and defense equipment. United Technologies provides primarily commercial plane makers with electronics, communications and other equipment, whereas Raytheon mainly supplies the U.S. government with military aircraft and missile equipment.

Raytheon shareholders will receive 2.3348 shares in the combined company for each Raytheon share, the companies said in a statement. The merger is expected to result in more than $1billion in cost synergies by the end of the fourth year.

United Technologies shareholders will own about 57% of the combined business, called Raytheon Technologies Corporation, which will be led by Greg Hayes, the current chief executive of United Technologies. Raytheon shareholders will own the remaining stake, and Raytheon CEO Tom Kennedy will be named executive chairman.

*(*Continued On The Following Page)*

United Technologies and Raytheon have market capitalizations of $114 billion and $52 billion, respectively.

The deal is expected to close in the first half of 2020, following the previously announced spin-off of United Technologies' Carrier air conditioning and Otis elevator businesses.

The newly created company is expected to return between $18billion and $20 billion of capital to shareholders in the first three years after the deal's completion, the companies said. The new company will also assume about $26 billion in net debt, they added.

Raytheon, maker of the Tomahawk and the Patriot missile systems, and other U.S. military contractors are expected to benefit from strong global demand for fighter jets and munitions as well as higher U.S. defense spending in fiscal 2020, a lot of it driven by U.S. President Donald Trump's administration.

However, Pentagon spending is projected to slow down after an initial boost under Trump. A deal with United Technologies would allow Raytheon to expand into commercial aviation, which does not rely on government spending like the defense sector.

United Technologies could benefit from reducing its exposure to commercial aerospace clients amid concerns that the rise of international trade protectionism will weigh on the flow of goods through air traffic.

The International Air Transport Association, which represents about 290 carriers accounting for more than 80% of global air traffic, cited these concerns earlier this month, when it said the industry is expected to post a $28 billion profit in 2019, down from a December forecast of $35.5 billion.

(Reporting by Harry Brumpton and Kate Duguid in New YorkAdditional reporting by Rama Venkat in BengaluruEditing by Bill Trott and Richard Chang)

A Look at the US/China Battle for AI Leadership

The US and China are waging a behind-the-scenes war over who will emerge as the global powerhouse of artificial intelligence. Where do each country's strengths and weaknesses lie?

by:
Ralf Llanasas
Electronics & Test
Artificial Intelligence, IoT, Automotive, Automation & Motion Control, Government/Defense, Electronics & Test
June 07, 2019

The battle over AI technologies has already fueled a full-scale trade dispute between the US and China. And the economic powerhouses are quickly entering into a full-blown war in the artificial intelligence (AI) arena.

As a pioneer of AI, the US has always remained one step ahead of China and the rest of the world where the technology is concerned. But will it relinquish this lead in the foreseeable future? Current trends show that's certainly a possibility. China is pushing harder to get its nose to the front of the industry, outspending the US government by multiple folds on AI research and infrastructures. The Chinese government believes its aggressive AI strategies will propel the country into the leadership position in the field by 2030.

However, with every passing day, the tussle between both countries grows more complicated, even as many US tech companies turn to China to implement their AI research and development projects. The struggle continues to evolve, with current concerns revolving around national security, economic warfare, and many other sensitive issues. Accusations of theft and espionage have been a common theme, as the US government is currently putting its foot down with sanctions on Chinese imports.

The AI race is becoming even more frenzied with the emergence of 5G. The US leads the rest of world in this race, primarily due to the government’s commitment to the research and development of AI military applications.

However, the current Administration seems to be resting on its oars and paying much less attention to AI developments, presenting an opportunity for China and other countries to catch up and even take the lead.

*(*Continued On The Following Page)*

Recognizing the growing threat that China poses to the United States' AI dominance, President Donald Trump, to his credit, signed an executive order on the 11th of February aimed at revitalizing the country's AI-related R&D initiatives.
The order contained directives for federal agencies to increase spending in "AI-relevant skills," increase availability of federal data and computing resources to AI researchers, and more.
But a conspicuous omission has been the lack of funding or well-instituted formal structures to support AI initiatives, which are critical to the country's ability to fend off competition from China.

On the other hand, China continues to double down heavily on its AI capabilities, making the technology a key part of its long-term economic and military policies.

Here's how both countries are currently fairing in the four key aspects of AI research and development:

1.) Government Spending

The Chinese government has been quite aggressive in AI spending. According to Airforce Lieutenant General Veralinn Jamieson, the US Deputy Chief of Staff for Intelligence, Surveillance, and Reconnaissance, China spent nearly $12 billion on AI systems in 2017 alone. And that amount is estimated to skyrocket to $70 billion by 2020.
But while China is rolling out multi-billion dollar AI-related projects, the US government is struggling to sketch out any official AI R&D plans. Currently, US spending on AI has mostly targeted military applications -- the highest-profile AI expenditure being a $2 billion fund for the Department of Defense's AI Next project.

2.) Access to Talent

According to a recent report by the World Intellectual Property Organization (WIPO), *WIPO Technology Trends 2019 – Artificial Intelligence*, "Chinese universities and public research organizations account for more than one-fifth of the top 500 [AI] patent applicants" globally.
China is also looking to surpass the US in the number of AI engineers within its borders, pursuing a national educational policy designed to produce more STEM graduates than any other country. According to the World Economic Forum, China produced at least 4.7 million STEM graduates in 2016; compared to the 568,000 STEM graduates in the US.
China also holds 10 of the top 20 organizations in AI scientific publications, compared with six in the US, according to the WIPO.
any time.

3.) Private Sector Investment

Data from CB Insights shows that US currently holds the lead in the number AI firms globally. However, growing efforts from the Chinese government to see the country become the global leader may reverse this trend in the future

While the US government takes a hands-off approach towards the private sector, China's AI firms are working more closely with their government. The Chinese government has tapped large Chinese firms that develop AI technology, including Alibaba, Badu, Tencent, and BAT, to create AI hardware and software that other companies can leverage in the future, particularly around autonomous driving, facial recognition, and natural language processing.
Reports also show that AI companies in China may have access to more venture capital than their US counterparts. In 2017, Chinese venture capital investment in AI made up 48 percent of AI venture funding globally. But while Chinese firms received more venture funding than their US counterparts, US venture funding went to more companies.

4. Access to Data

Data is the most valuable currency in the AI world, and China realizes that. As a result, the Chinese government has been making efforts to legally require that data having anything to do with Chinese citizens must be stored within China, where it can be accessed by the government at

Is The Scale Tipping?

Experts believe that the US still has an edge over China in AI. However, they warn that if the US Congress and Trump Administration continue in their lax approach towards AI, the scale may soon tip in favor of China.
This isn't a far-fetched view in the least. In fact, it is a likely outcome if the current trends persist. With the aforementioned steps taken by China in the AI sector, there is a clear zeal evident there.
To maintain a leadership role in the sector, the US must take the same zealous approach China is currently taking.
Accusations of espionage can only go so far, and aren't likely to slow down any country's AI aspirations. Concrete steps, on the other hand, are the only option.

Ralf Llanasas is a tech blogger, he writes about the latest mobile phones and technology news. He currently works as a content manager at WhatPhone and his writings can be seen on various technology blogs

(*Continued On The Following Page)

*(*Continued On The Following Column)*

Web Notice: The Directorate of Defense Trade Controls (DDTC) is currently in the process of modernizing its IT systems. During this time period, we anticipate there may be delays in response times and time to resolve IT related incidents and requests. We apologize for any inconvenience, and appreciate your patience while we work to improve DDTC services. If you need assistance, please contact the DDTC Service Desk at (202) 663-2838, or email at DtradeHelpDesk@state.gov (06.28.16)