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### **Session 608: China and Asian Pacific Americans: The Law and Politics of U.S. National Security**

The United States and China are the world's two largest economies with ever-growing business ties. China sends more university students to the U.S. than any other country (now nearly 200,000 annually), and many of these ethnic Chinese Ph.D.s in science, technology, engineering, and mathematics (STEM) are recruited by American technology companies and universities. However, the U.S. also officially views China as a potential military adversary, has severe limits on militarily-sensitive technologies that can be exported to China, and says China is the No. 1 source of intellectual property theft, cyber crime and government-directed economic espionage against the U.S. This situation places tens of thousands of Asian Pacific American STEM and business professionals at risk of investigation and prosecution under export control, economic espionage and computer crime statutes, and, in fact, dozens of such cases are being brought annually across the nation. This panel will address the demographics and history that give rise to this modern predicament, highlight official intelligence assessments of the "Chinese threat," examine the key criminal statutes used by federal prosecutors, review actual cases involving both convictions and possible "racial profiling" and bias, and explain how the Supreme Court's "border search" doctrine can allow warrantless searches of traveling APAs going to and from China today to produce evidence in such prosecutions. These cases raise many grave issues of constitutional due process and equal protection, racial and ethnic discrimination and stereotyping, and protection of U.S. intellectual property and national security.

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**EXTRACTED CASE SUMMARIES**  
**FROM**  
**U.S. DEPARTMENT OF JUSTICE RELEASE ON**  
**EXPORT CONTROL & ECONOMIC ESPIONAGE PROSECUTIONS (2007-2013)**

***Trade Secrets to China*** – On Jan. 25, 2013, Ji Li Huang, a Chinese business owner and his employee, Xiao Guang Qi, pleaded guilty and were sentenced in the Western District of Missouri for conspiring to steal trade secrets from Pittsburgh Corning Corporation, that produces FOAMGLAS® insulation. Huang is the CEO of Ningbo Oriental Crafts Ltd., which employs 200 factory workers to manufacture promotional products for export to the United States and Europe. Qi was his employee. Huang was sentenced to 18 months in prison and ordered to pay a fine of \$250,000. Qi was sentenced to time served and ordered to pay a fine of \$20,000. Pittsburgh Corning, headquartered in Pittsburgh, Penn., manufactures various grades or densities of cellular glass insulation sold under the trade name FOAMGLAS®. That material is used to insulate buildings, industrial piping systems and liquefied natural gas storage tank bases. Pittsburgh Corning considers the product formula and manufacturing process for FOAMGLAS® proprietary and trade secrets. By pleading guilty, Huang and Qi admitted that they attempted to illegally purchase trade secrets of Pittsburgh Corning for the purpose of opening a plant in China to compete with Pittsburgh Corning. The court ruled that the intended loss to Pittsburgh Corning exceeded \$7 million, based on the company’s investment of time and resources to research, develop and protect the proprietary information the defendants attempted to steal. Huang and Qi were arrested when they met with an individual they believed to be an employee of Pittsburgh Corning who had stolen documents that contained trade secret information and was willing to sell it to them for \$100,000. That employee, however, was cooperating with law enforcement and the meetings in Kansas City were a sting operation that led to their arrests on Sept. 2, 2012. The case was investigated by the FBI.

***Sensitive Microwave Amplifiers to China and India*** – On Jan. 17, 2013, Timothy Gormley was sentenced to 42 months in prison, three years supervised release and a \$1,000 fine in Eastern District of Pennsylvania for five counts of violating the International Emergency Economic Powers Act (IEEPA). On Oct. 17, 2012, Gormley, the former export control manager of AR Worldwide/Amplifier Research in Souderton, PA, pleaded guilty in connection with the illegal export of over 57 microwave amplifiers, which are controlled for National Security reasons due to their applications in military systems, including radar jamming and weapons guidance systems. The Aug. 9, 2012, information alleged that between 2007 and 2011, Gormley failed to obtain the required licenses on behalf of the company for shipments sent to destinations requiring such licenses for the shipment of these goods. The information cited specific shipments of amplifiers from the United States to customers in India and China that Gormley caused without the required export license. This investigation was conducted by the Department of Commerce.

***Dual-Use Programmable Logic Devices to China*** – On Dec. 18, 2012, federal prosecutors in the District of Oregon unsealed a 12-count indictment charging Wan Li Yuan, aka “Nicholas Bush,” a resident of China, and another Chinese resident known as “Jason Jiang,” with export and money laundering violations in connection with their alleged efforts to obtain dual-use

programmable logic devices (PLDs) from the United States for export to China. According to the indictment, while operating from China, Yuan and Jiang created a sophisticated scheme to conceal their true identity and location in order to mislead U.S. companies into believing they were dealing with American customers so they could procure and send sensitive technologies to China without the required export licenses. Yuan and Jiang allegedly sought to procure PLDs made by Lattice Semiconductor Corporation in Oregon, which are designed to operate at extreme temperature ranges and which can have military applications such as in missiles and radar systems. To further his efforts, the indictment alleges that Yuan created a fake website and email addresses using the name of a legitimate New York-based company. Yuan requested U.S. companies to ship the desired parts to the address of a freight forwarder in New York, which he also falsely represented as being associated with the New York company whose business name Yuan had stolen. Through the investigation and use of an undercover operation, the FBI and Department of Commerce were able to seize approximately \$414,000 in funds sent by Yuan as down payments for the Lattice PLDs. Lattice Semiconductor cooperated with the government in the investigation, which was conducted by the FBI and Department of Commerce's BIS.

***Coatings for Rocket Nozzles and Other Goods to Taiwan and China*** – On Dec. 6, 2012, Mark Henry, a U.S. citizen and resident of Queens, N.Y., who operated a company called Dahua Electronics Corporation, was arrested on an indictment in the Southern District of New York charging him with conspiracy to violate and violating the Arms Export Control Act and violating the International Emergency Economic Powers Act. According to the indictment, from April 2009 through September 2012, Henry purchased ablative materials that are used for protective coating for rocket nozzles from a Colorado company and caused 294 kilograms of these materials to be exported to a company in Taiwan. These particular materials are controlled under the U.S. Munitions List and may not be exported without a State Department license. Henry also purchased from a company in Pennsylvania microwave amplifiers that are controlled by the Commerce Department and have potential military uses and falsely stated that the goods were for an educational institution in New York. Henry allegedly attempted to ship the microwave amplifiers to a China without a Commerce license. This investigation was conducted by the Department of Commerce and the FBI.

***Carbon Fiber and Other Materials to Iran and China*** – On Dec. 5, 2012, prosecutors in the Southern District of New York unsealed charges against four individuals for exporting various goods to Iran and to China, including carbon fiber (which has nuclear applications in uranium enrichment as well applications in missiles) and helicopter components. Hamid Reza Hashemi, an Iranian national, and Murat Taskiran, a Turkish citizen, were charged in one indictment with conspiracy to violate and violating the International Emergency Economic Powers Act (IEEPA) by working to arrange the illegal export of carbon fiber from the U.S. to Hashemi's company in Iran via Europe and the United Arab Emirates. Hashemi was arrested upon arrival in New York City on Dec 1, 2012. Taskiran remains a fugitive. Peter Gromacki, a U.S. citizen and resident of orange County, NY, is charged in another indictment with violating IEEPA by using his NY company to illegally export carbon fiber from the United States to China. According to the indictment, in June 2007, Gromacki arranged for the illegal export of more than 6,000 pounds of carbon fiber from the U.S. to Belgium, which was then shipped to China. He allegedly made a variety of false statements on shipper's export declaration forms. Gromacki was arrested at his home on Dec. 5, 2012. Amir Abbas Tamimi, an Iranian citizen, was charged in a separate indictment with violating IEEPA by working to export helicopter component parts from the U.S.

to Iran, via South Korea. The components were for a particular type of helicopter that can be used for military purposes. Tamimi was arrested upon arrival in New York City on Oct. 5, 2012. None of the defendants obtained the requisite approval from the Department of Treasury for such exports. This investigation was conducted by the FBI, ICE, and Department of Commerce.

***Restricted Microwave Amplifier Technology to China*** – On Oct. 31, 2012, Fu-Tain Lu was sentenced in the Northern District of California to 15 months in prison. On Nov. 17, 2011, Lu pleaded guilty to selling sensitive microwave amplifiers to the People’s Republic of China without the required license. Lu was the owner and founder of Fushine Technology, Inc., corporation formerly located in Cupertino, Calif. Fushine was an exporter of electronic components used in communications, radar and other applications. At the time of the offense, Fushine had a sales representative agreement with Miteq Components, Inc., a New York-based manufacturer of microwave and satellite communications components and subsystems. Lu admitted that, on March 1, 2004, Fushine submitted a purchase order to Miteq for one microwave amplifier and requested that Miteq notify Fushine immediately if an export license was required. Miteq responded that the part was controlled for export to China. Nonetheless, on April 2, 2004, Fushine exported the amplifier to co-defendant Everjet Science and Technology Corporation (Everjet), located in China, without a license from the Department of Commerce. Lu further admitted that the amplifier he shipped was restricted for export to China for reasons of national security. Lu, along with the two corporate defendants, Fushine and Everjet, were first indicted on April 1, 2009. A superseding indictment was returned on Feb. 17, 2010. In addition to the count of conviction, the indictment also charged him with conspiring to violate U.S. export regulations, and lying to federal agents who were investigating that conduct. The

***Firearms to China*** – On Oct. 4, 2012, Zhifu Lin, a Chinese national and resident of West Virginia, pleaded guilty in the Eastern District of New York to violating the Arms Export Control Act and to illegal weapons trafficking. Lin’s plea came after Joseph Debose, a resident of North Carolina and former Staff Sergeant in a U.S. Special Forces National Guard Unit, pleaded guilty on Sept. 6, 2012 to violating the Arms Export Control Act. Lin, Debose and others exported multiple shipments of firearms from the U.S. to China by secreting them in packages and transporting them to shipping companies, including one in Queens, N.Y., to be sent to China. The weapons included numerous semiautomatic handguns, rifles, and shotguns. The smuggling scheme came to light after authorities in China seized a package containing firearms with defaced serial numbers shipped from Queens, N.Y. Thereafter, U.S. agents traveled to China and examined the firearms. Using forensic techniques, agents learned that one of the seized weapons had originally been purchased in North Carolina. Among the weapons seized in China were those Debose provided to his associates for export. On May 20, 2012, Debose was arrested in Smithfield, N.C., pursuant to a May 17, 2012 criminal complaint charging him with illegally exporting firearms to China without the required licenses. Lin and another Chinese national Lila Li, were also arrested and charged in connection with the case in an April 16, 2012 indictment in the Eastern District of New York. This investigation was conducted by ICE, ATF, IRS and BIS

***Military Technical Data and Trade Secrets to China*** – On Sept. 26, 2012, Sixing Liu, aka “Steve Liu,” a native of China with a PhD in electrical engineering who worked as a senior staff engineer for Space & Navigation, a New Jersey-based division of L-3 Communications, was convicted in the District of New Jersey of exporting sensitive U.S. military technology to China,

stealing trade secrets and lying to federal agents. The jury convicted Liu of nine of 11 counts of an April 5, 2012 second superseding indictment, specifically six counts of violating the Arms Export Control Act, one count of possessing stolen trade secrets in violation of the Economic Espionage Act, one count of transporting stolen property, and one count of lying to federal agents. The jury acquitted Liu on two counts of lying to federal agents. According to documents filed in the case and evidence presented at trial, in 2010, Liu stole thousands of electronic files from his employer, L-3 Communications, Space and Navigation Division. The stolen files detailed the performance and design of guidance systems for missiles, rockets, target locators, and unmanned aerial vehicles. Liu stole the files to position and prepare himself for future employment in China. As part of that plan, Liu delivered presentations about the technology at several Chinese universities, the Chinese Academy of Sciences, and conferences organized by Chinese government entities. However, Liu was not charged with any crimes related to those presentations. On Nov. 12, 2010, Liu boarded a flight from Newark to China. Upon his return to the United States on Nov. 29, 2010, agents found Liu in possession of a non-work-issued computer found to contain the stolen material. The following day, Liu lied to ICE agents about the extent of his work on U.S. defense technology. The State Department later verified that several of the stolen files on Liu's computer contained technical data that relates to defense items listed on the United States Munitions List. The jury also heard testimony that Liu's company trained him about the United States' export control laws and told him that most of the company's products were covered by those laws. Liu was first arrested on March 8, 2011, in Chicago on a complaint in the District of New Jersey charging him with one count of exporting defense-related technical data without a license. The investigation was conducted by the FBI, ICE and CBP.

***Aerospace-Grade Carbon Fiber to China*** – On Sept. 26, 2012, a criminal complaint was unsealed in the Eastern District of New York charging Ming Suan Zhang with attempting to illegally export thousands of pounds of aerospace-grade carbon fiber from the United States to China. According to the complaint, Zhang was arrested in the United States after trying to negotiate a deal to acquire the specialized carbon fiber, a high-tech material used frequently in the military, defense and aerospace industries, and which is therefore closely regulated by the U.S. Department of Commerce to combat nuclear proliferation and terrorism. The complaint alleges that Zhang came to the attention of federal authorities earlier this year after two Taiwanese accomplices attempted to locate large quantities of the specialized carbon fiber via remote Internet contacts. In July 2012, Zhang allegedly told an accomplice: “When I place the order, I place one to two tons. However, the first shipment will be for 100 kg [kilograms].” Shortly thereafter, Zhang contacted an undercover law enforcement agent in an effort to finalize the deal to export the carbon fiber from New York to China. In one recorded conversation, Zhang stated that he had an urgent need for the carbon fiber in connection with the scheduled test flight of a Chinese fighter plane. Zhang then arranged a meeting with an undercover agent to take possession of a carbon fiber sample, which was to be shipped to China and analyzed to verify its authenticity. Zhang was subsequently placed under arrest. This investigation was conducted by ICE and BIS.

***Theft of Trade Secrets for Potential Use in China*** – On Sept. 19, 2012, Chunlai Yang, a former senior software engineer for Chicago-based CME Group, Inc., pleaded guilty in the Northern District of Illinois to two counts of theft of trade secrets for stealing source code and other proprietary information while at the same time pursuing plans to improve an electronic trading exchange in China. Yang admitted that he downloaded more than 10,000 files containing CME

computer source code that made up a substantial part of the operating systems for the Globex electronic trading platform. The government maintains that the potential loss was between \$50 million and \$100 million. Yang began working for CME Group in 2000 and was a senior software engineer at the time of his arrest. Between late 2010, and June 30, 2011, Yang downloaded more than 10,000 computer files containing CME computer source code from CME's secure internal computer system to his CME-issued work computer. He then transferred many of these files from his work computer to his personal USB flash drives, and then transferred many of these files from his flash drives to his personal computers and hard drives at his home. Yang also admitted that he downloaded thousands of others CME files. Yang admitted that he and two unnamed business partners developed plans to form a business referred to as the Tongmei (Gateway to America) Futures Exchange Software Technology Company (Gateway), whose purpose was to increase the trading volume at the Zhangjiagang, China, chemical electronic trading exchange (the Zhangjiagang Exchange.) The Zhangjiagang Exchange was to become a transfer station to China for advanced technologies companies around the world. Yang expected that Gateway would provide the exchange with technology through written source code to allow for high trading volume, high trading speeds, and multiple trading functions. Yang was indicted on Sep. 28, 2011. This investigation was conducted by the FBI.

***Trade Secrets to China*** – On Sept. 4, 2012, Chinese citizens Ji Li Huang and Xiao Guang Qi were charged in a criminal complaint in the Western District of Missouri with attempting to purchase stolen trade secrets stolen from Pittsburgh Corning for the purpose of opening a plant in China to compete with Pittsburgh Corning. Pittsburgh Corning, headquartered in Pittsburgh, manufactures various grades or densities of cellular glass insulation sold under the trade name FOAMGLAS and had recently made technological advances in the formulation and manufacturing process of FOAMGLAS insulation. According to the complaint, the defendants attempted to pay \$100,000 to an FBI cooperating source for confidential and proprietary information stolen from Pittsburgh Corning. The defendants were arrested on Sept. 2, 2012 after meeting with the confidential source who provided them documents that were purportedly stolen trade secrets from the company. The investigation was conducted by the FBI.

***Motorola Trade Secrets to China*** – On Aug. 29, 2012, Hanjuan Jin, a former software engineer for Motorola, was sentenced in the Northern District of Illinois to four years in prison for stealing trade secrets from Motorola, specifically Motorola's proprietary iDEN telecommunications technology, for herself and for Sun Kaisens, a company that developed products for the Chinese military. According to court documents filed in the case, Motorola spent more than \$400 million researching and developing iDEN technology in just a matter of years. On Feb. 8, 2012, Jin was found guilty of three counts of stealing trade secrets. Jin, a naturalized U.S. citizen born in China, possessed more than 1,000 electronic and paper Motorola proprietary documents when she was stopped by U.S. authorities at Chicago's O'Hare International Airport as she attempted to travel to China on Feb. 28, 2007. The judge presiding over the case found her not guilty of three counts of economic espionage for the benefit of the government of China and its military. According to the evidence at trial, Jin began working for Motorola in 1998, and took medical leave in February 2006. Between June and November 2006, while still on sick leave, Jin pursued employment in China with Sun Kaisens, a Chinese telecommunications firm that developed products for the Chinese military. Between November 2006 and February 2007, Jin returned to China and did work for Sun Kaisens on projects for the Chinese military. On Feb. 15, 2007, Jin returned to the 2004 and 2006 – all without the required

State Department export licenses. The information also alleged that Academi possessed automatic weapons without registration or permission and that it falsely represented to the ATF that five firearms were owned by certain individuals, when the weapons had been given as a gift to the King of Jordan and his traveling entourage in June 2005. This case was investigated by the FBI, IRS, ATF, DCIS and ICE.

***Sensitive Military Encryption Technology to China*** – On July 31, 2012, Chi Tong Kuok, a resident of Macau, China, pleaded guilty in the Southern District of California to one count of conspiracy to illegally export defense articles and to smuggle goods from the United States. According to the guilty plea, Kuok and others conspired to purchase and export from the United States defense articles, including communication, precision location and cryptographic equipment, without a license from the State Department. Kuok also caused \$1,700 to be sent to the United States for the purchase and unlicensed export of a KG-175 Taclane Encryptor. According to court documents, the KG-175 Taclane Encryptor was developed by General Dynamics under a contract with the National Security Agency for use by the U.S. military to encrypt Internet Protocol communications. Kuok was first arrested on June 17, 2009 in Atlanta, Ga., after he arrived from Paris to catch a connecting flight to Panama in order to meet with undercover federal agents to take possession of controlled U.S. technology. A criminal complaint was filed on June 23, 2009 and an indictment returned on July 7, 2009. On May 11, 2010, Kuok was convicted at trial of conspiracy to export defense articles without a license and to smuggle goods to Macau and I-long Kong, China; smuggling goods; attempting to export defense articles without a license; and money laundering. On Sept. 13, 2012, Kuok was sentenced to 96 months in prison. Kuok appealed and in January 2012, the 9<sup>th</sup> U.S. Circuit Court of Appeals vacated Kuok's convictions on counts three and four and remanded to the district court for a new trial on counts one and two. The appeals court ruled that Kuok should have been allowed to put on a defense that he was forced into trying to procure the equipment by the Chinese government. Kuok pleaded guilty before the second trial. This investigation was conducted by ICE and DCIS.

***Military Gyroscopes to China*** – On July 30, 2012, Kevin Zhang, aka Zhao Wei Zhang, was arrested as he attempted to enter the United States from Canada at a port of entry in Washington state. Zhang had been charged on Jan. 14, 2011 in a sealed indictment in the Southern District of California with one count of conspiracy to export defense articles (specifically G-200 Dynamically Tuned Gyroscopes) from the United States to China without a license or approval from the State Department. According to the indictment, these particular gyroscopes may be used in tactical missile guidance and unmanned aircraft systems. Zhang allegedly instructed individuals in the U.S. to obtain and export defense articles, including the gyroscopes, to China and allegedly sought to use a courier to smuggle the gyroscopes out of the U.S. The indictment alleges that Zhang, acting on behalf of a client in China, sought to purchase three gyroscopes for \$21,000 from an individual in the United States as a prelude to future purchases of gyroscopes. This investigation was conducted by ICE.

***Military Software Used For China's First Modern Attack Helicopter*** – On June 28, 2012, in the District of Connecticut, Pratt & Whitney Canada Corp. (PWC), a Canadian subsidiary of Connecticut-based defense contractor United Technologies Corp. (UTC), pleaded guilty to violating the Arms Export Control Act and making false statements in connection with its illegal export to China of U.S.-origin military software that was used in the development of China's

first modern military attack helicopter, the Z-10. In addition, UTC, its U.S.-based subsidiary Hamilton Sundstrand Corp. (HSC), and PWC all agreed to pay more than \$75 million as part of a global settlement with the Justice Department and the State Department in connection with various export violations, including those related to the Z-10, and for making false and belated disclosures to the U.S. government about the illegal exports for the Z-10. A three-count criminal information was filed against the companies. Count one charged PWC with violating the Arms Export Control Act for the illegal export of defense articles to China for the Z-10 helicopter. Specifically, in 2002 and 2003 PWC knowingly and willfully caused HSC military software used to test and operate PWC engines to be exported to China for the Z-10 without any U.S. export license. PWC knew from the start of the Z-10 project in 2000 that the Chinese were developing an attack helicopter and that supplying it with U.S.-origin components would be illegal. According to court documents, PWC's illegal conduct was driven by profit. PWC anticipated that its work on the Z-10 attack helicopter in China would open the door to a far more lucrative civilian helicopter market in China potentially worth as much as \$2 billion to PWC. Count two of the information charged PWC, UTC, and HSC with making false statements about these illegal exports to the State Department in their belated disclosures, which did not begin until 2006. Count three charged PWC and HSC for their failure to timely inform the State Department of the unlawful export of defense articles to China, an embargoed nation, as required by U.S. export regulations. This is the first case in which the provisions in count three have been enforced

***Pressure Transducers with Nuclear Applications to China and Elsewhere*** – On May 22, 2012, Qiang Hu, aka Johnson Hu, 47, a Chinese national and resident of Shanghai was arrested after he arrived in Massachusetts for a business meeting. He had been charged in a May 18, 2012 criminal complaint in the District of Massachusetts with conspiracy to illegally export from the United States to China and elsewhere dual-use pressure transducers in violation of the International Emergency Economic Powers Act (IEEPA). The complaint was unsealed after his arrest. The pressure transducers in question, manufactured by MKS Instruments headquartered in Andover, Mass., are controlled for export by the Commerce Department because they can be used in gas centrifuges to enrich uranium and produce weapons-grade uranium, according to the complaint. Specifically, they can be used to measure gas pressure of uranium hexafluoride in centrifuge cascades. According to the complaint, Hu worked as a sales manager for a subsidiary of MKS Instruments in Shanghai, where he has been employed since 2008. Hu and his co-conspirators allegedly caused thousands of MKS export-controlled pressure transducers, worth more than \$6.5 million, to be illegally exported from the United States to unauthorized end-users in China and elsewhere using export licenses fraudulently obtained from the Department of Commerce. The complaint alleges that Hu and his co-conspirators used two primary means of deception to export the pressure transducers. First, the conspirators used licenses issued to legitimate MKS business customers to export the pressure transducers to China, and then caused the parts to be delivered to other end-users who were not themselves named on the export licenses or authorized to receive the parts. Second, the conspirators obtained export licenses in the name of a front company and then used these fraudulently obtained licenses to export the parts to China, where they were delivered to the actual end-users. MKS is not a target of the federal investigation into these matters. This investigation was conducted by FBI, ICE, and BIS.

***Trade Secrets to Competitors in China*** – On May 7, 2012, an indictment returned in the District of Utah in April 2012 was unsealed charging two people and two companies with theft of trade

secrets, wire fraud, and conspiracy to commit wire fraud in connection with the alleged theft of trade secrets from Orbit Irrigation Products, an irrigation company headquartered in Utah. The defendants are Janice Kuang Capener and Luo Jun, both citizens of China, as well as Sunhills International LLC, a California company established by Capener; and Zhejiang Hongchen Irrigation Equipment Co., LTD, a Chinese company under contract with Orbit. According to court documents, Capener worked at Orbit from June 2003 through Nov. 1, 2009, including serving chief of operations at Orbit's manufacturing plant in Ningbo, China. Capener allegedly stole Orbit trade secrets relating to sales and pricing and used that information for herself and others to the detriment of Orbit. Capener also allegedly worked with Jun, Sunhills International and Zhejiang Hongchen Irrigation Equipment to devise a scheme to undermine Orbit's position in the marketplace using illegally obtained proprietary pricing information. Capener and Jun were arrested on May 4, 2012. This case was investigated by the FBI.

***Drone, Missile and Stealth Technology to China*** – On April 25, 2012, an amended criminal complaint was unsealed in the District of New Jersey charging Hui Sheng Shen, aka “Charlie,” and Huan Ling Chang, aka, “Alice,” both Taiwanese nationals, with conspiracy to violate the Arms Export Control Act. Both had previously been arrested on Feb. 25, 2012 in New York in connection with a complaint in New Jersey charging them with conspiring to import and importing crystal methamphetamine from Taiwan to the United States. According to the amended complaint, during negotiations with undercover FBI agents over the meth deal, the defendants asked FBI undercover agents if they could obtain an E-2 Hawkeye reconnaissance aircraft for a customer in China. In subsequent conversations, Shen and Chang allegedly indicated they were also interested in stealth technology for the F-22 fighter jet, as well missile engine technology, and various Unmanned Aerial Vehicles (UAV), including the RQ-11b Raven, a small, hand-launched UAV used by the U.S. Armed Forces. Shen and Chang allegedly stated that their clients were connected to the Chinese government and its intelligence service. According to the complaint, they sent undercover agents a code book to facilitate communications relating to the proposed arms exports and opened a bank account in Hong Kong to receive and disburse funds related to the transactions. On a visit to New York in February 2012, the defendants allegedly examined a Raven RQ-11b UAV and manuals relating to the RQ-4 Global Hawk UAV (provided by undercover FBI agents) that they allegedly intended to export to China. Shen and Chang were arrested shortly thereafter. The export investigation was conducted by the FBI, while ICE was responsible for a parallel investigation into the import of counterfeit goods from China involving other defendants.

***Thermal Imaging Cameras to China*** – On April 23, 2012, Jason Jian Liang, the owner and operator of Sanwave International Corporation in Huntington Beach, Calif., was sentenced to 46 months in prison and three years supervised release after pleading guilty on July 18, 2011, in the Central District of California to violations stemming from his illegal exports of thermal imaging cameras to Hong Kong and China. Lian was first indicted on June 2, 2010. An Aug. 18, 2010 superseding indictment charged Liang, with illegally exporting more ‘diurnal imaging camera’s to

***DuPont Trade Secrets to China*** – On March 2, 2012, former DuPont scientist Tze Chao pleaded guilty in the Northern District of California to conspiracy to commit economic espionage, admitting that he provided trade secrets concerning DuPont's proprietary titanium dioxide manufacturing process to companies he knew were controlled by the government of the People's

Republic of China (PRC). On Feb. 7, 2012, a grand jury in San Francisco returned a superseding indictment charging Chao and four other individuals, as well as five companies, with economic espionage and theft of trade secrets for their roles in a long-running effort to obtain U.S. trade secrets from DuPont for the benefit of companies controlled by the PRC. The five individuals named in the indictment were Walter Liew, his wife Christina Liew, Hou Shengdong, Robert Maegerle, and Tze Chao. The five companies named as defendants are Pangang Group Company Ltd; Pangang Group Steel Vanadium Industry Company Ltd; Pangang Group Titanium Industry Company Ltd., Pangang Group International Economic & Trading Co; and USA Performance Technology, Inc. According to the superseding indictment, the PRC government identified as a priority the development of chloride-route titanium dioxide (TiO<sub>2</sub>) production capabilities. TiO<sub>2</sub> is a commercially valuable white pigment with numerous uses, including coloring paint, plastics and paper. To achieve that goal, companies controlled by the PRC government, specifically the Pangang Group companies named in the indictment, and employees of those companies conspired and attempted to illegally obtain TiO<sub>2</sub> technology that had been developed over many years of research and development by DuPont. The Pangang Group companies were aided in their efforts by individuals in the United States who had obtained TiO<sub>2</sub> trade secrets and were willing to sell those secrets for significant sums of money. Defendants Walter Liew, Christina Liew, Robert Maegerle and Tze Chao allegedly obtained and possessed TiO<sub>2</sub> trade secrets belonging to DuPont. Each of these individuals allegedly sold information containing DuPont TiO<sub>2</sub> trade secrets to the Pangang Group companies for the purpose of helping those companies develop large-scale chloride route TiO<sub>2</sub> production capability in the PRC, including a planned 100,000 ton TiO<sub>2</sub> factory at Chongqing, PRC. The Liews, USAPTI, and one of its predecessor companies, Performance Group, entered into contracts worth in excess of \$20 million to convey TiO<sub>2</sub> trade secret technology to Pangang Group companies. The Liews allegedly received millions of dollars of proceeds from these contracts. The proceeds were wired through the United States, Singapore and ultimately back into several bank accounts in the PRC in the names of relatives of Christina Liew. The object of the defendants' conspiracy was to convey DuPont's secret chloride-route technology to the PRC companies for the purpose of building modern TiO<sub>2</sub> production facilities in the PRC without investing in time-consuming and expensive research and development. DuPont invented the chloride-route process for manufacturing TiO<sub>2</sub> in the late-1940s and since then has invested heavily in research and development to improve that production process. The global titanium dioxide market has been valued at roughly \$12 billion, and DuPont has the largest share of that market. This investigation was conducted by the FBI.

***Radiation-Hardened Circuits to China*** – On Feb. 3, 2012, Chinese citizen and former California Department of Transportation (Caltrans) engineer Philip Chaohui He made his initial appearance in federal court in the District of Colorado after his arrest in San Francisco in connection with his alleged efforts to export defense articles to China without a State Department license, specifically more than 300 space-qualified and radiation-hardened computer circuits used in satellite communications with a total value of nearly \$550,000. A Dec. 15, 2011 indictment charged He with conspiracy to violate the Arms Export Control Act (AECA) and to smuggle goods; attempted violation of AECA; and smuggling. According to the charges, He, the only employee of an Oakland company called Sierra Electronic Instruments, arranged for the purchase of more than 300 radiation-hardened circuits from Aeroflex, a Colorado manufacturer, in May 2011. He arranged for the purchase after a co-conspirator sent him wire transfers totaling nearly \$490,000 from a bank in China. He then provided false certification to Aeroflex that the

items would remain in the United States. He received the first shipment of 112 circuits from Aeroflex in July 2011 and later traveled from Mexico to Shanghai in September. In October 2011, he received a second shipment of 200 circuits from Aeroflex. He drove to the Port of Long Beach in December 2011 and met with two men in front of a docked Chinese-flagged ship that was registered to a subsidiary of a China state-owned corporation. The ship had recently arrived from Shanghai and was scheduled to return on Dec. 15, 2011. He had allegedly concealed the 200 circuits in infant formula containers within boxes labeled “milk powder” in the trunk of his vehicle. He was arrested on Dec. 11, 2011 at the Port. This investigation was conducted by ICE and DCIS and Defense Security Service.

***Military Antennae to Hong Kong & Singapore*** – On Jan. 20, 2012, Rudolf L. Cheung, the head of research and development at a company in Massachusetts that manufactures antennae, pleaded guilty in the District of Columbia to one count of conspiracy to violate the Arms Export Control Act in connection with the illegal export of 55 military antennae from the United States to Hong Kong and Singapore. Cheung was charged in a criminal information on Dec. 2, 2011.

According to court documents, Cheung’s company received a query in 2006 from a firm in Singapore seeking two types of military antennae. After the Singapore firm refused to fill out the necessary end-user forms, the export compliance officer at Cheung’s company stopped the transaction. Cheung then conspired with an associate at another U.S. company to bypass the export compliance officer at Cheung’s company by having the associate purchase the antennae from Cheung’s firm and then export them separately to Singapore without a State Department license. The conspiracy resulted in the illegal export, between July and Sept. 2007 of 55 military antennae from the United States to the Hong Kong and Singapore addresses of a company called Corezing International. Corezing, based in Singapore, has been charged in a separate indictment for its role in this particular antennae transaction. Corezing has also been charged for its role in a separate conspiracy involving the illegal export of radio frequency modules from the U.S. to Iran, some of which later ended up in Improvised Explosive Devices in Iraq. This investigation was conducted by ICE, FBI and BIS

***Trade Secrets to US. Subsidiary of Chinese Company*** – On Jan. 17, 2012, Yuan Li, a former research chemist with the global pharmaceutical company Sanofi-Aventis, pleaded guilty in the District of New Jersey to stealing Sanofi’s trade secrets and making them available for sale through Abby Pharmatech, Inc., the U.S. subsidiary of a Chinese chemicals company.

According to court documents, Li worked at Sanofi headquarters in Bridgewater, N.J., from August 2006 through June 2011, where she assisted in the development of several compounds (trade secrets) that Sanofi viewed as potential building blocks for future drugs. While employed at Sanofi, Li was a 50 percent partner in Abby, which sells and distributes pharmaceuticals. Li admitted that between Oct. 2008 and June 2011, she accessed internal Sanofi databases and downloaded information on Sanofi compounds and transferred this information to her personal home computer. She also admitted that she made the stolen compounds available for sale on Abby’s website. This investigation was conducted by the FBI.

***Dow Trade Secrets to China*** – On Jan. 12, 2012, Wen Chyu Liu, aka David W. Liou, a former research scientist at Dow Chemical Company in Louisiana, was sentenced in the Middle District of Louisiana to 60 months in prison, two years supervised release, a \$25,000 fine and was ordered to forfeit \$600,000. Liu was convicted on Feb. 7, 2011 of one count of conspiracy to commit trade secret theft for stealing trade secrets from Dow and selling them to companies in

China, and he was also convicted of one count of perjury. According to the evidence presented in court, Liou came to the United States from China for graduate work. He began working for Dow in 1965 and retired in 1992. Dow is a leading producer of the elastomeric polymer, chlorinated polyethylene (CPE). Dow's Tyrin CPE is used in a number of applications worldwide, such as automotive and industrial hoses, electrical cable jackets and vinyl siding. While employed at Dow, Liou worked as a research scientist on various aspects of the development and manufacture of Dow elastomers, including Tyrin CPE. The evidence at trial established that Liou conspired with at least four current and former employees of Dow's facilities in Plaquemine, Louisiana, and in Stade, Germany, who had worked in Tyrin CPE production, to misappropriate those trade secrets in an effort to develop and market CPE process design packages to Chinese companies. Liou traveled throughout China to market the stolen information, and he paid current and former Dow employees for Dow's CPE-related material and information. In one instance, Liou bribed a then-employee at the Plaquemine facility with \$50,000 in cash to provide Dow's process manual and other CPE-related information. The investigation was conducted by the FBI.

***Military Accelerometers to China*** – On Jan. 4, 2012, Bulgarian authorities in Sofia, Bulgaria, arrested Bin Yang, aka “Raymond Yang,” a citizen and resident of China, pursuant to a U.S. provisional arrest warrant. A Dec. 7, 2011 criminal complaint filed in the Southern District of California charged Yang with smuggling goods from the United States and attempted illegal export to China of defense articles - specifically accelerometers used in aircraft, missiles, “smart” munitions and in measuring explosions. According to the complaint, Yang, operating out of Changsha Harsay Industry Co, Ltd. in Hunan, China, posted a request for Honeywell accelerometers in an online business-to-business forum in August 2010. An undercover federal agent responded to the request and agreed to supply the requested accelerometers. After nearly a year of negotiations, with no deal finalized, Yang allegedly asked for Endevco 7270-200K accelerometers, which are used for “smart” munitions, bunker-busting bombs and measuring ground motions caused by nuclear and chemical explosions, among other things. In August and October 2011, Yang allegedly caused two payments totaling \$4,875 to be sent to the undercover agent as a down payment for the accelerometers. According to the complaint, Yang subsequently agreed to meet with the undercover agent in Bulgaria so the undercover agent could hand deliver two Endevco accelerometers to him. After his arrest in Bulgaria, Yang was charged on Jan. 13, 2012 in a five-count indictment returned in the Southern District of California. In May 2012, a Bulgarian court signed a final order of extradition and Yang was extradited to the United States to face charges against him. On May 21, 2012, Yang was arraigned in the Southern District of California. This investigation was conducted by ICE.

***Dow and Cargill Trade Secrets to China*** – On Dec. 21, 2011, Kexue Huang, a Chinese national and former resident of Indiana, was sentenced to 87 months in and three years supervised release on charges of economic espionage to benefit a foreign university tied to the People's Republic of China (PRC) and theft of trade secrets. On Oct. 18, 2011, Huang pleaded guilty in the Southern District of Indiana to these charges. In July 2010, Huang was charged in the Southern District of Indiana with misappropriating and transporting trade secrets to the PRC while working as a research scientist at Dow AgroSciences LLC. On Oct. 18, 2011, a separate indictment in the District of Minnesota charging Huang with stealing a trade secret from a second company, Cargill Inc., was unsealed. From January 2003 until February 2008, Huang was employed as a research scientist at Dow. In 2005, he became a research leader for Dow in strain development

related to unique, proprietary organic insecticides marketed worldwide. Huang admitted that during his employment at Dow, he misappropriated several Dow trade secrets. According to plea documents, from 2007 to 2010, Huang transferred and delivered the stolen Dow trade secrets to individuals in Germany and the PRC. With the assistance of these individuals, Huang used the stolen materials to conduct unauthorized research to benefit foreign universities tied to the PRC. Huang also admitted that he pursued steps to develop and produce the misappropriated Dow trade secrets in the PRC. After Huang tell Dow, he was hired in March 2008 by Cargill, an international producer and marketer of food, agricultural, financial and industrial products and services. Huang worked as a biotechnologist for Cargill until July 2009. Huang admitted that during his employment with Cargill, he stole one of the company's trade secrets – a key component in the manufacture of a new food product, which he later disseminated to another person, specifically a student at Hunan Normal University in the PRC. According to the plea agreement, the aggregated loss from Huang's conduct exceeds \$7 million but is less than \$20 million. This investigation was conducted by the FBI.

***Radiation-Hardened Defense and Aerospace Technology to China*** – On Oct. 27, 2011, Lian Yang, a resident of Woodinville, Washington, was sentenced in the Western District of Washington to 18 months in prison and a \$10,000 fine. On March 24, 2011, Yang pleaded guilty to conspiring to violate the Arms Export Control Act by trying to sell radiation hardened military and aerospace technology to China. Yang was arrested on Dec. 3, 2010, pursuant to a criminal complaint filed charging him with conspiracy to violate the Arms Export Control Act. According to the complaint, Yang attempted to purchase and export from the United States to China 300 radiation-hardened, programmable semiconductor devices that are used in satellites and are also classified as defense articles under the U.S. Munitions List. The complaint alleges that Yang contemplated creating a shell company in the United States that would appear to be purchasing the parts, concealing the fact that the parts were to be shipped to China. Yang allegedly planned that false purchasing orders would be created indicating that parts that could be legally exported were being purchased, not restricted parts. Yang and his co-conspirators allegedly wire-transferred \$60,000 to undercover agents as partial payment for a sample of five devices. As part of the conspiracy, Yang allegedly negotiated a payment schedule with the undercover agents for the purchase and delivery of the remaining 300 devices in exchange for a total of \$620,000. This investigation was conducted by the FBI, ICE and CBP.

***Radiation-Hardened Aerospace Technology to China*** – On Sept. 30, 2011, defendants Hong Wei Xian, aka “Harry Zan,” and Li Li, aka “Lea Li,” were sentenced in the Eastern District of Virginia to 24 months in prison for conspiracy to violate the Arms Export Control Act and conspiracy to smuggle goods unlawfully from the United States, in connection with their efforts to export to China radiation-hardened microchips that are used in satellite systems and are classified as defense articles. Both defendants pleaded guilty to the charges on June 1, 2011. The defendants were arrested on Sept. 1, 2010 in Budapest by Hungarian authorities pursuant to a U.S. provisional arrest warrant. On April 4, 2011, they made their initial court appearances in federal court in the Eastern District of Virginia after being extradited from Hungary. According to court documents, Zan and Li operated a company in China called Beijing Starcreates Space Science and Technology Development Company Limited. This firm was allegedly in the business of selling technology to China Aerospace and Technology Corporation, a Chinese government-controlled entity involved in the production and design of missile systems and launch vehicles. According to court documents, from April 2009 to Sept. 1, 2010, the defendants

contacted a Virginia company seeking to purchase and export thousands of Programmable Read-Only Microchips (PROMs). The defendants ultimately attempted to purchase 40 PROMs from the Virginia firm and indicated to undercover agents that the PROMs were intended for China Aerospace and Technology Corporation. The investigation was conducted by ICE and DCIS.

***Outsourced Manufacture of Military Items to China*** – On Sept. 13, 2011, Staff Gasket Manufacturing Corporation, a defense contracting company in New Jersey, was sentenced in the District of New Jersey to five years probation and ordered to pay \$751,091 in restitution and an \$800 special assessment. Eric Helf, Staff Gasket’s president was sentenced to three years probation, a \$500 fine and a final order of forfeiture was entered for \$49,926. On April 19, 2011, Staff Gasket pleaded guilty to Arms Export Control Act and wire fraud violations, while Helf pleaded guilty to one count of wire fraud. From Aug. 2004 to March 2006, Staff Gasket entered into contracts with the Department of Defense to provide replacement parts for use in military operations. Many of the parts to be supplied were critical application items and were thus required to be manufactured in the United States. Nonetheless, Staff Gasket contracted with foreign manufacturers, including in China, and many of the parts ultimately supplied to the Defense Department, including lock pins for helicopters, were made overseas, substandard, and failed in the field. As a result, Staff Gasket caused the Defense Department to sustain losses of some \$751,091 in connection with the fraudulent contracts. This investigation was conducted by DCIS and ICE.

***Machine Gun Specifications and Components to China*** – On July 12, 2011, Swiss Technology (Swiss Tech), Inc., a company in Clifton, N.J. that makes equipment for the U.S. military, pleaded guilty in the District of New Jersey to a one count criminal information charging the firm with conspiracy to violate the Arms Export Control Act from August 2004 to about July 2009. On Nov. 15, 2011, Swiss Tech was sentenced to two years probation and ordered to pay restitution in the amount of \$1.1 million to the Defense Department in connection with fraudulent were sentenced for attempting to smuggle four machine guns and 30 grenades to Mexico. The investigation was conducted by ATF, ICE and Border Patrol.

***Illegal Exports of Military Night Vision Technology to China, Singapore & U.K.*** – On April 12, 2011, the Justice Department announced that a government motion to dismiss the remaining deferred criminal charge against ITT Corporation, the leading manufacturer of military night vision equipment for the U.S. Armed Forces, was granted by the court. On March 27, 2007, ITT Corporation pleaded guilty in the Western District of Virginia to two criminal counts of violating the Arms Export Control act stemming from its illegal exports of restricted military night vision data to China, Singapore, and the United Kingdom and omission of statements of material fact in required arms exports reports. As part of the plea agreement, ITT Corporation agreed to invest \$50 million toward the development of the most advanced night vision systems in the world for the U.S. Armed Forces. The Justice Department agreed to dismiss the remaining criminal charge against ITT Corporation after ITT Corporation implemented an extensive remedial plan overseen by an independent monitor to prevent future Arms Export Control Act violations. ITT Corporation and the Justice Department will continue to work together to utilize resources set aside by the deferred prosecution agreement to further the development and fielding of the most advanced night vision technology. This investigation was conducted by DCIS and ICE.

***Wire Fraud in Trade Secrets Case Involving China*** – On April 6, 2011, Yan Zhu, a Chinese citizen in the U.S. on a work visa, was convicted in the District of New Jersey on seven counts of wire fraud in connection with his scheme to steal confidential and proprietary business information relating to computer systems and software with environmental applications from his New Jersey employer. He was acquitted on the charge of conspiracy to steal trade secrets and two counts of unauthorized transmission of trade secrets in interstate or foreign commerce. April 10, 2009, Zhu was arrested on charges of theft of trade secrets, conspiracy, wire fraud, and theft of honest services fraud in connection with a plot to steal software from his former U.S. employer and sell a modified version to the Chinese government after he was fired. Zhu was employed as a senior environmental engineer from May of 2006 until his termination in July of 2008. Zhu worked for a comprehensive multi-media environmental information management portal that developed a proprietary software program for the Chinese market which allows users to manage air emissions, ambient water quality, and ground water quality. Zhu was sentenced on Jan. 5, 2012 to three years of probation and a \$700 special assessment. This investigation was conducted by the FBI

***Stealth Missile Exhaust Designs and Military Technical Data to China*** – On Jan. 24, 2011, a federal judge in the District of Hawaii sentenced Noshir Gowadia, 66, of Maui to 32 years in prison for communicating classified national defense information to the People’s Republic of China (PRC), illegally exporting military technical data, as well as money laundering, filing false tax returns and other offenses. On Aug. 9, 2010, a federal jury in the District of Hawaii found Gowadia guilty of 14 criminal violations after six days of deliberation and a 40-day trial. These included five criminal offenses relating to his design for the PRC of a low-signature cruise missile exhaust system capable of rendering a PRC cruise missile resistant to detection by infrared missiles. The jury also convicted Gowadia of three counts of illegally communicating classified information regarding lock-on range for infrared missiles against the U.S. B-2 bomber to persons not authorized to receive such information. Gowadia was also convicted of unlawfully exporting classified information about the B-2, illegally retaining information related to U.S. national defense at his home, money laundering and filing false tax returns for the years 2001 and 2002. Gowadia was an engineer with Northrop Grumman Corporation from 1968 to 1986, during which time he contributed to the development of the unique propulsion system and low observable capabilities of the B-2 bomber. Gowadia continued to work on classified matters as a contractor with the U.S. government until 1997, when his security clearance was terminated. Evidence at trial revealed that from July 2003 to June 2005, Gowadia took six trips to the PRC to provide defense services in the form of design, test support and test data analysis of technologies for the purpose of assisting the PRC with its cruise missile system by developing a stealthy exhaust nozzle and was paid at least \$110,000 by the PRC. The jury convicted Gowadia of two specific transmissions of classified information: a PowerPoint presentation on the exhaust nozzle of a PRC cruise missile project and an evaluation of the effectiveness of a redesigned nozzle, and a computer file providing his signature prediction of a PRC cruise missile outfitted with his modified exhaust nozzle and associated predictions in relation to a U.S. air-to-air missile. The prosecution also produced evidence which documented Gowadia’s use of three foreign entities he controlled, including a Liechtenstein charity purportedly for the benefit of children, to disguise the income he received from foreign countries. This case was investigated by FBI, the U.S. Air Force Office of Special Investigations, the IRS, U.S. Customs and Border Protection, and ICE.

***Valspar Trade Secrets to China*** – On Dec. 8, 2010, David Yen Lee, a former chemist for Valspar Corporation, a Chicago paint manufacturing company, was sentenced in the Northern District of Illinois to 15 months in prison for stealing trade secrets involving numerous formulas and other proprietary information valued up to \$20 million as he prepared to go to work for a competitor in China. Lee, formerly a technical director in Valspar Corp’s architectural coatings group since 2006, pleaded guilty in Sept. 2010 to using his access to Valspar’s secure internal computer network to download approximately 160 original batch tickets, or secret formulas for paints and coatings. Lee also obtained raw materials information, chemical formulas and calculations, sales and cost data, and other internal memoranda, product research, marketing data, and other materials from Valspar. Lee admitted that between September 2008 and February 2009, he had negotiated employment with Nippon Paint, in Shanghai, China and accepted employment with Nippon as vice president of technology and administrator of research and development. Lee was scheduled to fly from Chicago to Shanghai on March 27, 2009. He did not inform Valspar that he had accepted a job at Nippon until he resigned on March 16, 2009. Between November 2008 and March 2009, Lee downloaded technical documents and materials belonging to Valspar, including the paint formula batch tickets. He further copied certain downloaded files to external thumb drives to store the data, knowing that he intended to use the confidential information belong to Valspar for his own benefit. There was no evidence that he actually disclosed any of the stolen trade secrets. This investigation was conducted by the FBI.

***Ford Motor Company Trade Secrets to China*** – On Nov. 17, 2010, Yu Xiang Dong, aka Mike Yu, a product engineer with Ford Motor Company pleaded guilty in the Eastern District of Michigan to two counts of theft of trade secrets. According to the plea agreement, Yu was a Product Engineer for Ford from 1997 to 2007 and had access to Ford trade secrets, including Ford design documents. In December 2006, Yu accepted a job at the China branch of a U.S. company. On the eve of his departure from Ford and before he told Ford of his new job, Yu copied some 4,000 Ford documents onto an external hard drive, including sensitive Ford design documents. Ford spent millions of dollars and decades on research, development, and testing to develop and improve the design specifications set forth in these documents. On Dec. 20, 2006, Yu traveled to the location of his new employer in Shenzhen, China, taking the Ford trade secrets with him. On Jan. 2, 2007, Yu emailed his Ford supervisor from China and informed him that he was leaving Ford’s employ. In Nov. 2008, Yu began working for Beijing Automotive Company, a direct competitor of Ford. On Oct. 19, 2009, Yu returned to the U.S. Upon his arrival, he was arrested. At that time, Yu had in his possession his Beijing Automotive Company laptop computer. Upon examination of that computer, the FBI discovered that 41 Ford system design specifications documents had been copied to the defendant’s Beijing Automotive Company work computer. The FBI also discovered that each of those design documents had been accessed by Yu during the time of his employment with Beijing Automotive Company. Yu was ultimately sentenced to 70 months in prison in April 2011. This case was investigated by the FBI.

***DuPont Trade Secrets to China*** – On Oct. 26, 2010, Hong Meng, a former research chemist for DuPont, was sentenced in the District of Delaware to 14 months in prison and \$58,621 in restitution for theft of trade secrets. Meng pleaded guilty on June 8, 2010. Meng was involved in researching Organic Light Emitting Diodes (OLED) during his tenure at DuPont. In early 2009, DuPont’s OLED research efforts resulted in the development of a breakthrough chemical process (trade secret) that increased the performance and longevity of OLED displays. In the Spring of 2009, while still employed at DuPont and without DuPont’s permission or knowledge,

Meng accepted employment as a faculty member at Peking University (PKU) College of Engineering, Department of Nanotechnology in Beijing, China, and thereafter began soliciting funding to commercialize his OLED research at PKU. In June 2009, he emailed to his PKU account the protected chemical process from DuPont. He also downloaded the chemical process from his DuPont work computer to a thumb drive which he uploaded to his personal computer. In August 2009, he mailed a package containing 109 samples of DuPont intermediate chemical compounds to a colleague at Northwestern University and instructed his colleague at Northwestern to forward the materials to Meng's office at PKU. Eight of the 109 samples were trade secret chemical compounds. Meng also made false statements to the FBI when questioned about these samples. This investigation was conducted by the FBI.

***Restricted Electronics to China*** – On Oct. 11, 2010, York Yuan Chang, known as David Zhang, and his wife, Leping Huang, were arrested on charges in the Central District of California of conspiring to export restricted electronics technology to the People's Republic of China (PRC) without a license and making false statements. According to the Oct. 9, 2010 criminal complaint, the defendants are the owners of General Technology Systems Integration, Inc., (GTSI), a California company involved in the export of technology to the PRC. GTSI allegedly entered into contracts with the 24<sup>th</sup> Research Institute of the China Electronics Technology Corporation Group in China to design and transfer to the PRC technology for the development of two-types of high-performance analog-to-digital converters (ADCs). The defendants allegedly hired two engineers to design the technology and provide training to individuals in the PRC. Twice in 2009, U.S. Customs and Border Protection officials stopped the engineers upon their return to the United States and allegedly found computer files and documents indicating illegal technology transfer involving GTSI and China. According to the complaint, Chang and Huang allegedly sought to cover up the project after authorities contacted the engineers. The ADCs that the defendants allegedly attempted to export to the PRC are subject to export controls for national security and anti-terrorism reasons. This investigation was conducted by the FBI, BIS, ICE, IRS and DCIS.

***GM Trade Secrets to China*** – On July 22, 2010, an indictment returned in the Eastern District of Michigan charging Yu Qin and his wife Shanshan Du, both of Troy, Michigan, was unsealed. The indictment charged the defendants with conspiracy to possess trade secrets without authorization, unauthorized possession of trade secrets and wire fraud. According to the indictment, from December 2003 through May 2006, the defendants conspired to possess trade secret information of General Motors Company relating to hybrid vehicles, knowing that the information had been stolen, converted, or obtained without authorization. The indictment alleges that Du, while employed with GM, provided GM trade secret information relating to hybrid vehicles to her husband, Qin, for his benefit and for the benefit of a company, Millennium Technology International Inc. (MTI), which the defendants owned and operated. Five days after Du was offered a severance agreement by GM in January 2005, she copied thousands of GM documents, including trade secret documents, to a computer hard drive used for MTI business. A few months later, Qin moved forward on a new business venture to provide hybrid vehicle technology to Chery Automobile, a Chinese automotive manufacturer based in China and a competitor of GM. The indictment further alleges that in May 2006, the defendants possessed GM trade secret information without authorization on several computer and electronic devices located in their residence. Based on preliminary calculations, GM estimates that the value of the stolen GM documents is over \$40 million. This investigation was conducted by the FBI.

***Military Optics Technology to China, Russia, Turkey and South Korea*** – On June 22, 2010, in U.S. District Court for the District of Colorado, Rocky Mountain Instrument Company (RMI), a Colorado corporation located in Lafayette, Colorado, pled guilty to one count of knowingly and willfully exporting defense articles without a license in violation of the Arms Export Control Act. The company was then immediately sentenced to five years of probation and ordered to forfeit -\$1,000,000. Between April 2005 and October 2007, RMI exported from the United States to Turkey, South Korea, the People’s Republic of China, and Russia, prisms and technical data related to various optics used in military applications, which were designated as defense articles on the U.S. Munitions List, without having first obtained the required export licenses. The military technology that RMI illegally exported consisted of guidance or targeting systems used in such military items as unmanned aerial vehicles, AC-130 gunships, Abrams tanks, TOW missile systems, and Bradley fighting vehicles. RMI was originally charged by criminal information on March 17, 2010. The case was investigated by ICE and DCIS.

***Thermal Imaging Cameras to China*** – On May 14, 2010, Sam Ching Sheng Lee, part-owner and chief operations manager of Multimillion Business Associate Corporation (“MBA”), pleaded guilty in the Central District of California to conspiracy to violate the International Emergency Economic Powers for illegally exporting national security-controlled thermal imaging cameras to China. His nephew, Charles Yu Hsu Lee, pleaded guilty the same day to misprision of a felony for the same activity. Sam Lee was sentenced on Feb. 18, 2011 to 12 months in prison and a

***Economic Espionage / Theft of Space Shuttle and Rocket Secrets for China*** – On Feb. 11, 2010 former Rockwell and Boeing engineer Dongfan “Greg” Chung was sentenced to 188 months imprisonment and three years supervised release after his July 16, 2009 conviction in the Central District of California. Chung was convicted of charges of economic espionage and acting as an illegal agent of the People’s Republic of China (PRC), for whom he stole restricted technology and Boeing trade secrets, including information related to the Space Shuttle program and the Delta IV rocket. According to the judge’s ruling, Chung served as an illegal agent of China for more than 30 years and kept more than 300,000 pages of documents reflecting Boeing trade secrets stashed in his home as part of his mission of steal aerospace and military trade secrets from Boeing to assist the Chinese government. Chung sent Boeing trade secrets to the PRC via the mail, via sea freight, via the Chinese consulate in San Francisco, and via a Chinese agent named Chi Mak. On several occasions, Chung also used the trade secrets that he misappropriated from Boeing to prepare detailed briefings that he later presented to Chinese officials in the PRC. Chung was originally arrested on Feb. 11, 2008, in Southern California after being indicted on eight counts of economic espionage, one count of conspiracy to commit economic espionage, one count of acting as an unregistered foreign agent, one count of obstruction of justice, and three counts of making false statements to the FBI. The investigation was conducted by the FBI and NASA.

***Restricted Integrated Circuits with Military Applications to China*** – On Aug. 3, 2009, William Chai-Wai Tsu, an employee of a Beijing-based military contracting company called Dimigit Science & Technology Co. Ltd, and the vice president of a Hacienda Heights, CA, front company called Cheerway, Inc., was sentenced in the Central District of California to 40 months in prison. Tsu illegally exported more than 400 restricted integrated circuits with applications in military radar systems to China over a 10-month period, according to court documents. These dual-use items are restricted for export for national security reasons. Tsu purchased many of the

items from U.S.-distributors after falsely telling these U.S. companies that he was not exporting the circuits abroad. According to court documents, Tsu supplied restricted U.S. technology to several customers in China, including the “704 Research Institute,” which is known as the “Aerospace Long March Rocket Technology Company” and is affiliated with the state-owned China Aerospace Science & Technology Corporation. Tsu’s employer in China, Dimigit, boasted in brochures that its mission was “providing the motherland with safe, reliable and advanced electronic technical support in the revitalization of our national military industry.” Tsu was indicted in the Central District of California on Feb. 6, 2009 on charges of violating the International Emergency Economic Powers Act. He later pleaded guilty to two federal counts of the indictment on March 13, 2009. This case was the product of an investigation by the Export and Anti-proliferation Global Law Enforcement (EAGLE) Task Force in the Central District of California, which includes BIS, ICE, FBI, CBP, Diplomatic Security Service and the Transportation Security Administration.

***Restricted Thermal Imaging Technology to China*** – On July 27, 2009, Zhi Yong Guo, a resident of Beijing, was sentenced in the Central District of California to 60 months in prison, while `TahWei Chao, also a resident of Beijing, was sentenced to 20 months in prison. Both were sentenced in connection with a plot to procure and illegally export thermal-imaging cameras to the People’s Republic of China without obtaining the required export licenses. Guo and Chao were indicted on federal charges on July 17, 2008. Chao pleaded guilty to three federal counts in July 2008. On Feb. 23, 2009, following a one-week trial, Guo was convicted of two federal counts. The case related to ten cameras concealed in luggage destined for China in April 2008. The export of these thermal-imaging cameras to China are controlled by the Department of Commerce for national security and regional stability reasons because of their use in a wide variety of civilian and military applications. In March 2008, Chao ordered 10 thermal-imaging cameras from FLIR Systems, Inc. for \$53,000. Representatives from FLIR Systems repeatedly warned Chao that the cameras could not be exported without a license. Both Chao and Guo were arrested at Los Angeles International Airport in April 2008 after authorities recovered the ten cameras that had been hidden in their suitcases. In addition to the 10 cameras intercepted by federal authorities, Chao admitted that, acting at the behest of Guo, he shipped three cameras to China in October 2007. The evidence at trial showed that Guo, an engineer and a managing director of a technology development company in Beijing, directed Chao to obtain the cameras for Guo’s clients, the Chinese Special Police and the Special Armed Police. This case was the product of an investigation by the Export and Anti-proliferation Global Law Enforcement (EAGLE) Task Force in the Central District of California, including BIS, ICE, FBI, CBP, DSS, and TSA.

***Military Technical Data on Unmanned Aerial Vehicles to China*** – On July 1, 2009, Dr. John Reece Roth was sentenced in the Eastern District of Tennessee to 48 months in prison, two years supervised release and a \$1,700 assessment for illegally exporting sensitive military technical data related to a U.S. Air Force contract. Roth, a former Professor Emeritus at the University of Tennessee, was convicted on Sept. 2, 2008 of 15 counts of violating the Arms Export Control Act, one count of conspiracy, and one count of wire fraud. Roth had illegally exported military technical data relating to plasma technology designed to be deployed on the wings of Unmanned Aerial Vehicles (UAVs) or “drones” operating as a weapons or surveillance systems. The illegal exports involved technical data related to an Air Force research contract that Roth provided to foreign nationals from China and Iran. In addition, Roth carried multiple documents containing

controlled military data with him on a trip to China and caused other controlled military data to be e-mailed to an individual in China. On Aug. 20, 2008, Atmospheric Glow Technologies, Inc (AGT), a privately-held plasma technology company in Tennessee, also pleaded guilty to charges of illegally exporting U.S. military data about drones to a citizen of China in violation of the Arm's Export Control Act. AGT was sentenced on Feb. 12, 2010 to a \$4,000 assessment and a \$25,000 fine. Roth and AGT were first charged on May 20, 2008. In a related case, on April 15, 2008, Daniel Max Sherman, a physicist who formerly worked at AGT, pleaded guilty to an information charging him with conspiracy to violate the Arms Export Control Act in connection with this investigation. Sherman was later sentenced to 14 months in prison on Aug. 10, 2009 after cooperating in the investigation. The investigation was conducted by the FBI, ICE, U.S. Air Force Office of Special Investigations, DCIS and BIS.

***Military Night Vision Technology to China*** – On July 1, 2009, Bing Xu, of Nanjing, China, was sentenced in the District of New Jersey to 22 months in prison followed by two years of supervised release after pleading guilty on Feb. 24, 2009, to conspiracy to illegally export military-grade night vision technology to China. Xu, a manager at Everbright Science and Technology, Ltd, a company in Nanjing, China, admitted that he conspired with others at Everbright to purchase certain night-vision technology from a company in the United States, which required a license from the State Department for export. Xu admitted that he and others at Everbright first attempted to obtain the necessary export license for the night-vision equipment. When the license application was denied by the Department of State, Xu agreed with others at Everbright to take steps to export the night-vision optical equipment illegally. Xu has been in custody since his arrest in on October 2007 pursuant to a criminal complaint. Xu arrived in New York on Oct. 26, 2007 from China a day after his Chinese employer wire transferred \$14,080 to agents as payment for the purchase of the equipment. The investigation was conducted by ICE and the DCIS.

***Thermal Imaging Cameras to China*** – On June 9, 2009, a federal grand jury in the Southern District of Ohio indicted Hing Shing Lau, also known as Victor Lau, a foreign national living in Hong Kong, Peoples Republic of China, on charges of trying to buy 12 infrared thermal imaging cameras from a Dayton-area company in order to illegally export the cameras to Hong Kong and China. The indictment alleges that Lau tried to buy 12 thermal imaging cameras manufactured in Texas by contacting a company in the Dayton area. On three occasions, he wired transferred a total of \$39,514 from Hong Kong to the U.S. as partial payment for the cameras. The indictment charges Lau with two counts of violating export control laws and four counts of money laundering. Canadian authorities arrested Lau on June 3, 2009, at the Toronto International Airport pursuant to a provisional arrest warrant issued by U.S. authorities. The investigation was conducted by the FBI, and BIS, with the assistance of the U.S. Department of State.

***Stolen Military Optics Sold to Hong Kong, Taiwan and Japan via Internet*** – On June 1, 2009, in the Southern District of West Virginia, former U.S. Marines Timothy Oldani and Joseph Oldani were ordered to serve five months in prison and pay \$52,872 in restitution, add 21 months in prison and \$72,013 in restitution, respectively, for conspiring to steal military night vision optics and illegally export them from the United States. On Feb. 2, 2009, the Oldani brothers pleaded guilty. Joseph admitted that while on active duty with the Marines, he stole military optics from his station in Georgia and transported them to his brother Timothy in West Virginia, where Timothy sold the stolen items to overseas purchasers on the Internet, primarily via eBay.

The pair sold miniature night vision sights and target pointer illuminators via the Internet to purchasers in Hong Kong, Taiwan, and Japan. The investigation was conducted by DCIS and ICE.

***Amplifiers & Missile Target Acquisition Technology to China*** – On May 14, 2009, Joseph Piquet, the owner and President of AlphaTronX, a company in Port St. Lucie, Fla., that produces electronic components, was sentenced in the Southern District of Florida to 60 months in prison followed by two years supervised release. On March 5, 2009, he was convicted of seven counts arising from a conspiracy to purchase military electronic components from Northrop Grumman Corporation, and to ship them to Hong Kong and the People’s Republic of China without first obtaining required export licenses under the Arms Export Control Act and the International Emergency Economic Powers Act. Among those items involved in the conspiracy were high-power amplifiers designed for use by the U.S. military in early warning radar and missile target acquisition systems, as well as low noise amplifiers that have both commercial and military use. Piquet was first indicted on June 5, 2008, along with his company, AlphaTronX, Inc, as well as Thompson Tam, and Ontime Electronics Technology Limited. Tam is a director of Ontime Electronics, an electronics company in China. On March 2, 2009, the Court ordered the dismissal of the indictment against AlphaTronX. This investigation was conducted by BIS and ICE.

***Rocket / Space Launch Technical Data to China*** – On April 7, 2009, Shu Quan-Sheng, a native of China, naturalized U.S. citizen and PhD physicist, was sentenced to 51 months in prison for illegally exporting space launch technical data and defense services to the People’s Republic of China (PRC) and offering bribes to Chinese government officials. Shu pleaded guilty on Nov. 17, 2008, in the Eastern District of Virginia to a three-count criminal information. He was arrested on Sept. 24, 2008. He was the President, Secretary and Treasurer of AMAC International, a high-tech company located in Newport News, Va., and with an office in Beijing, China. Shu provided the PRC with assistance in the design and development of a cryogenic fueling system for space launch vehicles to be used at the heavy payload launch facility located in the southern island province of Hainan, PRC. The Hainan facility will house launch vehicles designed to send space stations and satellites into orbit, as well as provide support for manned space flight and future lunar missions. Shu also illegally exported to the PRC technical data related to the design and manufacture of a “Standard 100 M3 Liquid Hydrogen (LH) 2 Tank. In addition, Shu offered approximately \$189,300 in bribes to government officials with the PRC’s 101 Institute to induce the award of a hydrogen liquefier project to a French company he represented. In January 2007, the \$4 million hydrogen liquefier project was awarded to the French company that Shu represented. This investigation was conducted by the FBI, ICE, BIS and DCIS.

***Miniature Unmanned Aerial Vehicle Components to China*** – On March 12, 2009, a federal grand jury in the District of Columbia returned an indictment charging Yarning Nina Qi Hanson, her husband Harold Dewitt Hanson (an employee at Walter Reed Army Medical Center), and a Maryland company, Arc International, LLC, with illegally exporting miniature Unmanned Aerial Vehicle (UAV) Autopilots to a company in the People’s Republic of China. The UAV components are controlled for export to China for national security reasons. According to court documents, beginning in 2007, the Hansons began attempting to acquire the autopilots from a Canadian manufacturer in order to re-export them to Xi’an Xiangyu Aviation Technical Group in

China. Qi Hanson initially represented that the autopilots would be used for a model airplane civilian flying club in China. When Canadian company officials questioned the utility of autopilots - designed for use on unmanned aircraft - for flying club hobbyists, Qi Hanson claimed that autopilots would be used on US aircraft to record thunderstorm and tornado developments and ice-pack melting rates in the arctic. On or about August 7, 2008, after having fraudulently taken delivery of 20 of these autopilots (valued at \$90,000), Qi Hanson boarded a plane in the United States bound for Shanghai, and hand-delivered the items to Xi'an Xiangyu Aviation Technical Group in China. Both Hansons ultimately pleaded guilty on Nov. 13, 2009 to felony false statement violations. On Feb. 3, 2010, Harold Dewitt Hanson was sentenced to 24 months imprisonment, while his wife, Yarning Nina Qi Hanson was sentenced to time served. The investigation was conducted by BIS and FBI.

***Restricted Electronic Components to China*** – On Jan. 20, 2009, Michael Ming Zhang and Policarpo Coronado Gamboa were arrested pursuant to indictments in the Central District of California charging them with separate schemes involving the illegal export of controlled U.S. electronic items to China and the illegal trafficking of counterfeit electronic components from China into the United States. Zhang was the president of J.J. Electronics, a Rancho Cucamonga, CA, business, while Gamboa owned and operated Sereton Technology, Inc., a Foothill Ranch, CA, business. Zhang allegedly exported to China dual-use electronic items that have uses in U.S. Army battle tanks. He also allegedly imported and sold in the United States roughly 4,300 Cisco electronic components bearing counterfeit marks from China. Gamboa is charged with conspiring with Zhang to import Sony electronic components with counterfeit marks from China for distribution in the United States. On July 9, 2009, Gamboa pleaded guilty one count of the indictment and was later sentenced to 5 years probation and was ordered to pay \$13,600 restitution to Sony Electronics. On July 6, 2009, Zhang pleaded guilty to count one in each of the indictments. The case was investigated by the FBI, BIS, DCIS, ICE, the U.S. Postal Inspection Service, and the Orange County Sheriffs Department, in conjunction with the EAGLE Task Force in the Central District of California.

***Stolen Trade Secrets to Chinese Nationals*** – On Nov. 21, 2008, Fei Ye and Ming Zhong were sentenced in the Northern District of California to one year in prison each, based in part on their cooperation, after pleading guilty on Dec. 14, 2006 to charges of economic espionage for possessing trade secrets stolen from two Silicon Valley technology companies. The pair admitted that their company was to have provided a share of any profits made on sales of the stolen chips to Chinese entities. The case marked the first convictions in the nation for economic espionage. They were first indicted on Dec. 4, 2002. The investigation was conducted by ICE, FBI and CBP.

***Stolen Military Night Vision Systems to Hong Kong*** – On Oct. 29, 2008, a criminal complaint was filed in the District of Hawaii against six U.S. Marines based at Kane'ohe Bay, Hawaii, for conspiring to illegally export stolen military night vision. Ryan Mathers, Charles Carper, Ronald William Abram, Jason Flegm, Mark Vaught, and Brendon Shultz were each charged with conspiracy to smuggle goods out of the United States. According to the complaint, the investigation began when agents learned that one of the defendants was selling stolen U.S. military night vision equipment on the Internet via eBay. A cooperating defendant subsequently purchased several night vision systems from the defendants, representing they would be illegally exported to Hong Kong. The Court later dismissed the indictment against defendants Schultz

(April 24, 2009), Flegm (March 5, 2009), and Vaught (March 24, 2009) and a second superseding indictment was filed on April 14, 2010 charging Defendants Mathers, Carper, Abram, and Joshua Vaughn with conspiring to illegally export stolen military night vision monocular devices. The case was investigated by ICE, DCIS, and NCIS.

***Military Accelerometers to China*** – On Sept. 26, 2008, Qing Li was sentenced in the Southern District of California to 12 months and one day in custody, followed by three years of supervised release, and ordered to pay \$7,500 for conspiracy to smuggle military-grade accelerometers from the United States to the People’s Republic of China (PRC). Li pleaded guilty on June 9, 2008 to violating Title 18, USC Section 554. She was indicted for the offense on Oct. 18, 2007. According to court papers, Li conspired with an individual in China to locate and procure as many as 30 Endevco 7270A-200K accelerometers for what her co-conspirator described as a “special” scientific agency in China. This accelerometer has military applications in “smart” bombs and missile development and in calibrating the g-forces of nuclear and chemical explosions. The investigation was conducted by ICE and the DCIS.

***Military Aircraft Components to China and Iran*** – On Aug. 28, 2008, Desmond Dinesh Frank, a citizen and resident of Malaysia, was sentenced to 23 months in prison after pleading guilty on May 16, 2008, to several felonies in the District of Massachusetts in connection with a plot to illegally export military items to China and Iran. A six-count indictment returned on Nov. 15, 2007 charged Frank, the operator of Asian Sky Support, Sdn., Bhd., in Malaysia, with conspiring to illegally export items to Iran, conspiring to illegally export C-130 military aircraft training equipment to China, illegally exporting defense articles, smuggling, and two counts of money laundering. Frank was arrested in Hawaii on Oct. 8, 2007 by ICE agents. Frank conspired with others to illegally export and cause the re-export of goods, technology and services to Iran without first obtaining the required authorization from the Treasury Department. He also conspired with others to illegally export ten indicators, servo driven tachometers – which are military training components used in C-130 military flight simulators – from the United States to parts, he created airway bills that misrepresented the contents and value of his shipments. Such exports are of particular concern because F-14 components are widely sought by Iran, which is currently the only nation in the world that still flies the F-14 fighter jet. Humayun formed his own company, Vash International, Inc., in 2004, then, on eleven separate occasions between January 2004 and May 2006, exported to Malaysia F-5 and F-14 parts, as well as Chinook Helicopter parts. This investigation was conducted by ICE, BIS, FBI and DCIS.

***U.S. Military Source Code and Trade Secrets to China*** – On June 18, 2008, Xiaodong Sheldon Meng was sentenced in the Northern District of California to 24 months in prison, three-years of supervised release, and a \$10,000 fine for committing economic espionage and violating the Arms Export Control Act. Meng pleaded guilty in August 2007 to violating the Economic Espionage Act by misappropriating a trade secret used to simulate motion for military training and other purposes, with the intent to benefit China’s Navy Research Center in Beijing. He also pleaded guilty to violating the Arms Export Control Act for illegally exporting military source code involving a program used for training military fighter pilots. Meng was the first defendant in the country to be convicted of exporting military source code pursuant to the Arms Export Control Act. He was also the first defendant to be sentenced under the economic Espionage Act. Meng was charged in a superseding indictment on Dec. 13, 2006. The investigation was conducted by FBI and ICE.

***Controlled Amplifiers to China*** – On June 6, 2008, WaveLab, Inc. of Reston, Virginia, was sentenced in the Eastern District of Virginia to one year of supervised probation and a \$15,000 fine, together with \$85,000 in forfeiture previously ordered, for the unlawful export of hundreds of controlled power amplifiers to China. The exported items, which have potential military applications, are controlled and listed on the Commerce Control List for national security reasons. Wave Lab purchased these items from a U.S. company and assured the company that the products would not be exported from the United States, but would be sold domestically. WaveLab pleaded guilty on March 7, 2008 to criminal information filed the same day. The investigation was conducted by BIS and ICE.

***U.S. Naval Warship Data to China*** – On March 24, 2008, Chi Mak, a former engineer with a U.S. Navy contractor, was sentenced in the Central District of California to 293 months (more than 24 years) in prison for orchestrating a conspiracy to obtain U.S. naval warship technology and to illegally export this material to China. Mak was found guilty at trial in May 2007 of conspiracy, two counts of attempting to violate export control laws, acting as an unregistered agent of the Chinese government, and making false statements. The investigation found that Mak had been given lists from co-conspirators in China that requested U.S. Naval research related to nuclear submarines and other information. Mak gathered technical data about the Navy's current and future warship technology and conspired to illegally export this data to China. Mak's four co-defendants (and family members) also pleaded guilty in connection with the case. On April 21, 2008, Chi Mak's brother, Tai Mak, was sentenced to 10 years imprisonment pursuant to a June 4, 2007, plea agreement in which he pleaded guilty to one count of conspiracy to export defense articles. On Oct. 2, 2008, Chi Mak's wife, Rebecca Chiu, was sentenced to 3 years in prison for her role in the plot. On Oct. 1, 2008, Fuk Heung Li was sentenced to 3 years probation. On Sept. 24, 2007, Yui Mak was sentenced to 11 months imprisonment. The investigation was conducted by FBI, NCIS, and ICE.

***Military Amplifiers to China*** – On Dec. 19, 2007, Ding Zhengxing, Su Yang and Peter Zhu were indicted in the Western District of Texas for Arms Export Control Act violations in connection with an alleged plot to purchase and illegally export to China amplifiers that are controlled for military purposes. The amplifiers are used in digital radios and wireless area networks. Zhengxing and Yang were arrested in January 2008 after they traveled to Saipan to take possession of the amplifiers. Peter Zhu, of Shanghai Meuro Electronics Company Ltd., in China, remains at large. On July 1, 2009, Zhengxing was sentenced to 46 months imprisonment. He pled guilty on October 17, 2008, to count 1 of the second superseding indictment. The case was investigated by ICE.

***Military Night Vision Technology to China*** – On Dec. 3, 2007, Philip Cheng was sentenced in the Northern District of California to two years in prison and ordered to pay a \$50,000 fine for his role in brokering the illegal export of a night vision camera and its accompanying technology to

***Trade Secrets to China*** – On Sept. 26, 2007, Lan Lee and Yuefei Ge were charged in a superseding indictment the Northern District of California on charges of economic espionage and theft of trade secrets. The indictment alleged that the pair conspired to steal trade secrets from two companies and created a new firm to create and sell products derived from the stolen trade secrets. The charges also alleged that Lee and Ge attempted to obtain funds for their new

company from the government of China, in particular China's General Armaments Division and China's 863 Program, otherwise known as the National High Technology Research and Development Program of China. Ultimately, a jury acquitted the pair on two counts and deadlocked on three others. A judge subsequently dismissed two of the remaining three counts. In October 2010, the U.S. Attorney's office moved to dismiss the remaining charge against Lee and Ge. The case was investigated by the FBI.

***Restricted Technology to China*** – On Aug. 1, 2007, Fung Yang, the president of Excellence Engineering Electronics, Inc., pleaded guilty in the Northern District of California to a charge of illegally exporting controlled microwave integrated circuits to China without the required authorization from the Department of Commerce. Yang was charged by information on July 31, 2007. The investigation was conducted by BIS and the FBI.

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**UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA  
SOUTHERN DIVISION**

**UNITED STATES OF AMERICA**

**Plaintiff,**

**vs.**

**DONGFAN “GREG” CHUNG**

**Defendant.**

**Case No.: SACR 08-00024-CJC**

**MEMORANDUM OF DECISION**

**I. INTRODUCTION**

The United States of America (the “Government”) charged Defendant Dongfan “Greg” Chung with one count of acting as a foreign agent, one count of conspiring to violate the Economic Espionage Act of 1996 ( “EEA”), six counts of violating the EEA, one count of making a false statement to the Federal Bureau of Investigation (“FBI”), and

1 one count of obstructing justice. After conducting a ten-day bench trial in this matter, the  
2 Court finds Mr. Chung guilty on all counts except for the count of obstructing justice.

3  
4 Mr. Chung has been an agent of the People's Republic of China ("PRC") for over  
5 thirty years. Under the direction and control of the PRC, Mr. Chung misappropriated  
6 sensitive aerospace and military information belonging to his employer, The Boeing  
7 Company ("Boeing"), to assist the PRC in developing its own programs. To accomplish  
8 his mission, Mr. Chung kept over 300,000 pages of documents reflecting Boeing's trade  
9 secret and proprietary information in his home. Mr. Chung sent information that he  
10 misappropriated to the PRC through the mail, sea freight, a Chinese agent named Chi  
11 Mak, and even the Chinese consulate. On several occasions, Mr. Chung also used the  
12 information that he misappropriated from Boeing to prepare detailed briefings that he  
13 later presented to Chinese officials in the PRC. The trust Boeing placed in Mr. Chung to  
14 safeguard its proprietary and trade secret information obviously meant very little to Mr.  
15 Chung. He cast it aside to serve the PRC, which he proudly proclaimed as his  
16 "motherland." The Court now must hold Mr. Chung accountable for his crimes.

## 17 18 **II. FACTUAL BACKGROUND**

19  
20 Mr. Chung, a naturalized United States citizen, worked as an engineer for his entire  
21 adult life. Ex. 219-54. At the beginning of his career, Boeing hired him as a stress  
22 analyst on the airframe and rotor hub for the CH-47 helicopter. Ex. 302-12. In 1969, Mr.  
23 Chung moved to another company, McDonnell Douglas, where he worked as a strength  
24 engineer on the wing structure of the DC-10 airliner and on the wing and armament  
25 support for the F-15 fighter.<sup>1</sup> *Id.* In 1972 and part of 1973, Mr. Chung returned to  
26 Boeing and worked at its facility in Wichita, Kansas on the B-52 Life Extension Program.

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<sup>1</sup> Boeing acquired McDonnell Douglas in 1997.

1 *Id.* In the fall of 1973, Mr. Chung moved to Rockwell International (“Rockwell”) in  
2 Downey, California and worked there for the next twenty-six years. Boeing acquired  
3 Rockwell’s space division in 1996. In 1999, Mr. Chung moved to Boeing’s plant in  
4 Huntington Beach. For most of his career at Rockwell and Boeing, Mr. Chung worked as  
5 a stress analyst on the forward fuselage section of the Space Shuttle. Mr. Chung held a  
6 secret clearance<sup>2</sup> from 1973 until 2002. Ex. 302-11.

7  
8 In 2002, Boeing moved parts of its Space Shuttle program to Houston, Texas. Mr.  
9 Chung declined to move, and Boeing laid him off in September 2002. After the crash of  
10 the Columbia orbiter in February 2003, however, Mr. Chung came back to Boeing as a  
11 contractor to assist in the evaluation of the crash. He remained at Boeing until September  
12 11, 2006.

13  
14 Federal agents first suspected that Mr. Chung was spying for the PRC during its  
15 2005 investigation of another engineer named Chi Mak, who worked for a naval defense  
16 contractor. Mr. Chung had significant contact with Chi Mak over the years, and the  
17 federal agents were concerned that their relationship was more than purely social.  
18 Federal agents knew that Chi Mak was using his position and security clearance to pass  
19 sensitive naval technology to the PRC. In 2007, a jury convicted Chi Mak of conspiring  
20 to export defense articles, attempting to export defense articles, acting as an unregistered  
21 agent of a foreign government, and making a false statement. This Court sentenced Chi  
22 Mak to approximately twenty-four years in prison for his crimes.

23  
24 During a search of Chi Mak’s home in October 2005, federal agents found address  
25 books containing contact information for Mr. Chung. Exs. 353–355. As part of the  
26 investigation in the Chi Mak case, Mr. Chung was interviewed on April 24, 2006. Mr.

27  
28 <sup>2</sup> Because he held a security clearance, Mr. Chung had to disclose any foreign travel or contacts with  
foreign officials.

1 Chung told federal agents he first met Chi Mak in 1992 through a mutual friend “Mr. Gu”  
2 (later identified as Gu Weihao of the Chinese Ministry of Aviation), whom he described  
3 as an exchange scholar from China. In June 2006, during a second search of Chi Mak’s  
4 home, federal agents discovered letters to Mr. Chung from Gu Weihao. In one letter,  
5 dated May 2, 1987, Gu Weihao asked Mr. Chung to provide information on airplanes and  
6 the Space Shuttle and referred to information that Mr. Chung had previously provided to  
7 the PRC. Ex. 359.

8  
9 Following the discovery of the letter to Mr. Chung from Gu Weihao, federal agents  
10 conducted surveillance and trash searches at Mr. Chung’s home. In August and  
11 September 2006, federal agents discovered that Mr. Chung had disposed of technical  
12 documents taken from work by secreting them within the pages of newspapers. Tr.  
13 47:14–19, 50:6–8, 54:19–55:22, 63:19–24, 68:9–14, June 2, 2009. The documents  
14 included design drawings and diagrams, structural and material specifications, project  
15 management data, and engineering modification reports for the Space Shuttle and the  
16 International Space Station. Exs. 170–173.

17  
18 Based on the information found in Mr. Chung’s trash, federal agents believed that  
19 it was necessary to take a closer look at him and his activities. On September 11, 2006,  
20 federal agents interviewed Mr. Chung and searched his home.<sup>3</sup> Federal agents were  
21 astonished at what they found. Mr. Chung had over 300,000 pages of sensitive and  
22 proprietary documents belonging to Boeing. More specifically, federal agents found a  
23 veritable treasure trove of Boeing’s documents relating to the Space Shuttle, Delta IV  
24 Rocket, F-15 fighter, B-52 bomber, CH-46/47 Chinook helicopter, and other proprietary  
25 aerospace and military technologies. Federal agents also found numerous letters, tasking  
26 lists, and journals detailing Mr. Chung’s communications with officials in the PRC. As  
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28 <sup>3</sup> Federal agents conducted a follow-up search of Mr. Chung’s home on November 7, 2006, during  
which they found a few additional technical documents. Tr. 99:5–6, June 2, 2009.

1 federal agents sifted through the hundreds of thousands of pages of documents in Mr.  
2 Chung's home, the story of Mr. Chung's secret life became clear. He was a spy for the  
3 PRC.

4  
5 The Government presented the evidence that federal agents collected against Mr.  
6 Chung to the grand jury, and on February 6, 2008, the grand jury returned an indictment  
7 against Mr. Chung. The grand jury charged Mr. Chung with one count of acting as a  
8 foreign agent, one count of conspiring to violate the EEA, six counts of violating the  
9 EEA, one count of making a false statement to the FBI, and one count of obstructing  
10 justice. Mr. Chung waived his right to a jury, and the Court conducted a ten-day bench  
11 trial. This memorandum sets forth the Court's findings of fact and conclusions of law.

### 12 13 **III. FINDINGS OF FACT AND CONCLUSIONS OF LAW**

#### 14 15 **A. Foreign Agent**

16  
17 Mr. Chung is charged with acting as a foreign agent pursuant to 18 U.S.C. § 951,  
18 which provides, in pertinent part:

19  
20 (a) Whoever, other than a diplomatic or consular officer or attaché, acts in the  
21 United States as an agent of a foreign government without prior notification to the  
22 Attorney General if required in subsection (b), shall be fined under this title or  
23 imprisoned not more than ten years, or both.

24  
25 (d) For purposes of this section, the term "agent of a foreign government" means  
26 an individual who agrees to operate within the United States subject to the  
27 direction or control of a foreign government or official . . . .

1 18 U.S.C. § 951.

2  
3 To show that Mr. Chung is guilty of acting as a foreign agent, the Government  
4 must prove that: (1) Mr. Chung acted in the United States as an agent of the PRC; (2) Mr.  
5 Chung failed to notify the Attorney General of the United States that he would be acting  
6 in the United States as an agent of the PRC prior to so acting;<sup>4</sup> and (3) Mr. Chung acted  
7 knowingly and knew that he had not provided prior notification to the Attorney General.  
8 The Government proved each of these elements beyond a reasonable doubt.

9  
10 The extensive library that Mr. Chung maintained and concealed at his home is  
11 incredibly incriminating evidence of his service as a foreign agent for the PRC. This  
12 library was staggering in terms of its size and content. It contained over 300,000 pages of  
13 trade secret and proprietary information belonging to Boeing. For instance, Mr. Chung  
14 had over 700 documents related to the Shuttle Drawing System (“SDS”), a system that  
15 contains specifications created by Rockwell and Boeing engineers for performing  
16 processes related to all aspects of the Space Shuttle. Some SDS documents were found  
17 hidden in newspapers under stairs on the day of the search, and others were recovered  
18 from Mr. Chung’s fireplace and garbage. On one of the SDS documents, Mr. Chung  
19 wrote Chi Mak’s name, in Chinese, as well as Chi Mak’s work and home phone numbers.  
20 Ex. 19-3. In addition to the documents themselves, Mr. Chung created an index of the  
21 SDS documents on his home computer. Ex. 41.

22  
23 The SDS was, and is, export-controlled. Tr. 129:10–15, June 5, 2009. Engineers  
24 must have a password and a need to know in order to access to the system. *Id.* 129:3–4.  
25 Mr. Chung signed an SDS access agreement in 2001 in which he confirmed that he  
26 understood that the SDS was export-controlled. Ex. 70.

27  
28 <sup>4</sup> Mr. Chung never notified the Attorney General that he was acting as an agent of the PRC. Ex. 210.  
Mr. Chung did not contest this fact or present any evidence to the contrary at trial.

1 Mr. Chung's library also consisted of other Space Shuttle-related documents, many  
2 of which contain export-controlled or proprietary information. These documents include  
3 detailed Space Shuttle structure diagrams, Space Shuttle specifications, as well as an  
4 organization chart containing the names and contact information for Boeing's stress and  
5 structural specialties organization. Ex. 15. Mr. Chung possessed an export-controlled  
6 Space Shuttle parts list printed from the SDS. Ex. 19. Mr. Chung kept a Space Shuttle  
7 tutorial marked with export restrictions. Ex. 31. Mr. Chung had close to a thousand  
8 pages of documents relating to the Ku-Band Antenna on the Space Shuttle, some of  
9 which are proprietary. Exhibit 68; Tr. 39:13-22, June 9, 2009. A portion of the pages  
10 within these documents are Ku-Band project quotes that are marked "Trade Secret,"  
11 "Boeing Proprietary," "Confidential," "Privileged." Ex. 68-483-68-502. He had a  
12 document regarding the Space Shuttle hatch. Ex. 137. He possessed proprietary  
13 engineering data relating to the lower forward fuselage of the Orbiter Vehicle 102. Ex.  
14 139. He had Rockwell manuals, including a Rockwell design stress analysis manual on  
15 the Orbiter Vehicle 102 and a Rockwell manual titled "Space Shuttle Program  
16 Thermodynamic Design Data Book, Thermal Control System, Book 5." Exs. 143, 145.  
17 Mr. Chung kept proprietary information regarding the X-37 space vehicle. Ex. 85; Tr.  
18 66:16, June 10, 2009. Mr. Chung also had proprietary documents concerning the thermal  
19 protection system on the International Space Station. Ex. 87; Tr. 139:25-140:8, June 5,  
20 2009.

21  
22 Mr. Chung's library contained a variety of information on other wide-ranging  
23 military topics, too. Mr. Chung had proprietary documents related to the F-15 fighter and  
24 the CH-46/47 Chinook Helicopter. Exs. 25, 86, 125, 136, 141. Mr. Chung also had  
25 documents relating to the B-52 bomber, which, as information regarding a weapons  
26 system, is subject to export-control laws, Ex. 124, and B-1 manuals, which specified that  
27 they could not be shared with organizations other than Rockwell or selected federal  
28 agencies. Exs. 98-101.

1 Mr. Chung's library also provided an answer to a perplexing question: why did he  
2 take all of this sensitive Boeing information home? The undeniable answer provided by  
3 the numerous letters, tasking lists, and journals is that he was a spy for the PRC. Indeed,  
4 these documents tell a very disturbing story of his betrayal of Boeing's trust.

5  
6 In the 1970s, as part of its "Four Modernizations" program to improve its military  
7 and other industries, the PRC<sup>5</sup> began to undertake efforts to acquire scientific information  
8 and technology from the West. Mr. Chung had a profound desire to contribute to China's  
9 Four Modernizations, and did so by sending materials via sea freight to Professor Chen  
10 Lung Ku of the Harbin Institute of Technology. Ex. 274. Professor Ku thanked Mr.  
11 Chung for his efforts profusely. Professor Ku wrote, "[y]ou have spent so much time to  
12 reorganize the notes from several years ago; copying and finding the information that  
13 could be needed by us, and you have actively put in your efforts towards the Four  
14 Modernizations of the motherland. . . . We'd like to join our hands together with the  
15 overseas compatriots in the endeavor for the construction of our great socialist  
16 motherland." Ex. 278-3.

17  
18 Mr. Chung also agreed to return to the PRC in 1985 to conduct a "technical  
19 exchange" on topics requested by Chen Qinan, a project manager of CATIC. Exs. 259-  
20 261, 266. Again, Mr. Chung was eager to help the PRC in its endeavor to acquire  
21 advanced technology:

22  
23 It's a great honor and I am excited to be able to make some contributions to  
24 the four modernizations of the **motherland**. . . . As to the outline details for  
25

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26 <sup>5</sup> The PRC government controls its aviation and aerospace industries through a state-run military  
27 industrial complex that includes the Ministry of Aviation ("AVIC") and an AVIC-subsubsidiary that  
28 manufactures aircraft called CATIC, as well as such academies as the Beijing University of Aeronautics  
and Astronautics, and the Harbin Institute of Technology, which feed students into the PRC aviation and  
aerospace industries.

1 the exchange, I am working actively on its draft recently. I'm hopeful it can  
2 be done very well. . . . I may arrange a vacation of several weeks to take a  
3 good look at the **motherland** with my own eyes.  
4

5 Ex. 259-2 (emphases added). Mr. Chung also told Chen Qinan that he had particular  
6 experience "space shuttle design," so he could "provide some information in this field."  
7 Ex. 272. He went on to propose an outline including static analysis for the forward  
8 fuselage structural design of the Space Shuttle, finite element analysis for the forward  
9 fuselage of the Space Shuttle, and the heat shield on the skin of Space Shuttle. Ex. 272.  
10 As part of the exchange, Mr. Chung offered to give presentations in Beijing regarding  
11 flight general design, flight fatigue life analysis, Space Shuttle forward fuselage structure,  
12 and Space Shuttle thermal protection, and Mr. Chung informed Chen Qinan that prior to  
13 his arrival each topic had "been prepared." Ex. 265. Mr. Chung also prepared  
14 presentations regarding the Space Shuttle and helicopter structural design (as requested  
15 by Chen Qinan), despite acknowledging that "[i]nformation regarding the Space Shuttle  
16 is classified as secret" and helicopter structural design information is "controlled by the  
17 Department of Defense." Ex. 251. Mr. Chung indicated that he would spend one to two  
18 hours giving each presentation. Ex. 264.  
19

20 Mr. Chung further expressed a desire to visit aircraft manufacturers to "contribute  
21 [his] expertise." Ex. 264. After he departed from Beijing, Mr. Chung went to Nanchang.  
22 On July 14, 1985, Mr. Chung received a detailed tasking list from the Nanchang Aircraft  
23 Company, an aircraft production facility of AVIC. Ex. 267. The tasking list contained  
24 more than forty-five highly technical questions, including specific questions regarding  
25 U.S. military aircraft. *Id.* After returning to the United States, Mr. Chung sent Engineer  
26  
27  
28

1 Feng of Nanchang Aircraft “answers for the questions that were not answered when I was  
2 in Nanchang.”<sup>6</sup> Ex. 269 (letter to Engineer Feng); 252 (answers); 262 (answer).

3  
4 Mr. Chung also informed Engineer Feng that he had collected B-1 manuals that  
5 would be delivered through Zhao Zhen Lan, a PRC Consul based in San Francisco. Exs.  
6 220, 269. Mr. Chung later sent a list of the 27 design manuals he had provided for  
7 delivery to the PRC, including 24 manuals from the B-1 Bomber Division of Rockwell.  
8 Ex. 253.

9  
10 Two other tasking lists prepared by the PRC and clearly directed to Mr. Chung are  
11 significant. The first tasking list was kept in Mr. Chung’s home, and contained twelve  
12 items: aircraft design manuals; fatigue design manuals; materials manuals; S-N curve  
13 manuals; military specifications user manuals; fighter-jet structural details design  
14 manuals; Space Shuttle design manuals and information on the Space Shuttle’s  
15 environmental conditions; the Space Shuttle’s airtight cabin; the Space Shuttle’s heat-  
16 resistant tile design and material composition process; life-span extension/reliability  
17 analysis of U.S. fighter planes and airborne equipment; and S-N curves for fighter plane  
18 cabin plexiglass and cabin canopies. Ex. 273. Mr. Chung also possessed a large amount  
19 of information that was responsive to these requests. Exs. 15, 19, 35, 68, 137, 139, 143,  
20 145. The other tasking list prepared by the PRC and directed to Mr. Chung was kept at  
21 Chi Mak’s home. Ex. 352. The list stated an “urgent need” for “[m]anufacturing and  
22 [p]rocess [s]tandards for fighter planes,” “[p]rocess [s]tandards for the manufacturing of  
23 the F-15,” “finite element analysis” software for “NASTRAN - NASA Structural  
24 Analysis Program,” and requested “specific information” related to “Boeing Company’s  
25

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26 <sup>6</sup> Mr. Chung also documented his trip to the PRC in June 1985 in journal entries. Ex. 310-2. On his  
27 visit to the Institute of Aeronautical Materials in Beijing on July 3, 1985, Mr. Chung wrote that he  
28 “[d]iscussed presentation script” on July 5, 1985. Ex. 310-2. He also recorded a visit in Beijing by  
“Huang [Hui De] and Hu [Zi Xi] from the Ministry of Aviation Industry” on July 13, 1985. Ex. 310-2.

1 [t]echnical [i]nformation on [c]hemical [m]illing.” *Id.* The list requested other  
2 technologies, including information related to stress analysis software, computer-aided  
3 design software, and specific process standards and design manuals for U.S. fighter jets.  
4 *Id.* Chi Mak, a naval engineer, did not have access to these programs. Mr. Chung,  
5 however, did.

6  
7 Tasking lists were not the only method by which the PRC directed Mr. Chung.  
8 Mr. Chung also received numerous letters requesting specific information and informing  
9 him how he could most effectively transmit the information he gathered. In a letter to  
10 Mr. Chung, Gu Weihao wrote that “[i]t is your honor and China’s fortune that you are  
11 able to realize your wish of dedicating [yourself] to the service of your country.” Ex.  
12 359. Mentioning that there were some “difficult technical issues that need your  
13 assistance,” Gu Weihao requested that Mr. Chung “collect information on airplane design  
14 for the trunkline and the development of the Space Shuttle” in addition to the quality  
15 control information he had previously asked Mr. Chung to collect. Ex. 359. Gu Weihao  
16 instructed Mr. Chung that he could pass information through Chi Mak,<sup>7</sup> “a channel [that]  
17 is much safer than others,” and once in Guangzhou, Mr. Chung would be able to have a  
18 discussion with Gu Weihao and Gu Weihao’s colleagues in a “small setting, which is  
19 very safe.” Ex. 359. Gu Weihao also told Mr. Chung that his travel and stay to  
20 Guangzhou would be paid for by the PRC, and Mr. Chung could use various cover stories  
21 such as traveling to Hong Kong, visiting relatives, or accompanying his wife to an arts  
22 academy in the PRC. Ex. 359. In another letter, Gu Weihao later reiterated to Mr. Chung  
23 that “it [was] safer and faster” to forward information through Chi Mak. Ex. 336. Gu  
24 Weihao also noted that he “hope[d] that [Mr. Chung would] introduce advanced  
25 technologies and provide information on advanced technologies. . . . There is no need to  
26  
27

28  

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<sup>7</sup> Mr. Chung also used his brother-in-law, Wang Er-Chung, to pass information to the PRC. Ex. 251.

1 limit the scope that we proposed while we were in the United States. Please provide at  
2 any time.” Ex. 336.

3  
4 Mr. Chung did not respond to Gu Weihao’s letters immediately, but apologized in  
5 a follow-up letter to Gu Weihao. Mr. Chung explained that he had not had time to write  
6 for more than a year, but Gu Weihao was always on his mind. Ex. 245. Mr. Chung  
7 apologized that “[d]ue to interruptions in my busy life, I have put off [writing to you] . . .  
8 . Please forgive me!” *Id.*

9  
10 The journals in Mr. Chung’s library also reflect that his relationships with PRC  
11 officials were extensive and strong. Indeed, those relationships persisted for decades.  
12 Mr. Chung recorded in his journal on January 19, 1990 that “Chief Gu [Gu Weihao] and  
13 Professor Zhang came. Took a day off to host them.” Ex. 326-2. Mr. Chung also noted  
14 that he invited Mr. and Mrs. Chi Mak to come over that evening. Ex. 326-2. On  
15 February 2, 1991, Mr. Chung again wrote in his journal that he picked up Chief Gu from  
16 John Wayne Airport and brought him home. Ex. 326-3. He also documented spending  
17 time with Chief Gu and taking Chief Gu back to John Wayne Airport. Ex. 326-3. In  
18 August 1991, Mr. Chung wrote in his journal that he had dinner with Bu Shi Lin, a  
19 Department Director and Vice Senior Researcher of AVIC. Ex. 326-3. The following  
20 year, on December 22, 1992, Mr. Chung met with Gu Weihao. Ex. 314-2. On at least  
21 two occasions in August 1993, Mr. Chung met with Bu Shi Lin. Ex. 314-2. Mr. Chung  
22 continued to meet with Chi Mak and PRC consulate officials well into the next decade.  
23 *See, e.g.*, Ex. 326-2 (contact with Chi Mak on March 10, 1990, March 17, 1990, April 29,  
24 1990, and November 25, 1990); Ex. 326-3 (dinner with Consul Shang and Consul Yu on  
25 November 7, 1991); Ex. 314-3 (farewell party to Consul Shang on October 13, 1994); Ex.  
26 314-3 (dinner with Mr. and Mrs. Chi Mak on July 15, 1995); Ex. 325-2 (dinner at  
27 invitation of PRC Consul Wu Hui Jun on December 22, 2000); Ex. 325-2–325-3 (dinner  
28 with Consul Lan on January 13, 2001); Ex. 325-3 (dinner with “Little Wu” (PRC Consul

1 Wu Hui Jun) on February 10, 2001); Ex. 325-6 (contact with “Little Wu” on June 7,  
2 2001); Ex. 241-4 (contact with Chi Mak on July 28, 2001); Ex. 325-7 (went to party at  
3 Consulate); Ex. 325-7 (contact with “Little Wu” at dinner function to welcome Deputy  
4 Director of the Office for Taiwan Affairs of the Communist Party of China); Ex. 325-9  
5 (passed “stuff” to “Little Wu” from his family in Beijing on October 9, 2002); Ex. 325-9  
6 (contact with Chi Mak on November 1, 2002); Ex. 325-9 (PRC Consul Wu Hui Jun, wife  
7 and daughter came to Mr. Chung’s home for afternoon and evening together on  
8 November 10, 2002); Ex. 325-9 (invited “Little Wu” and Wu’s wife and daughter, for a  
9 farewell party on January 6, 2003). Finally, Mr. Chung continued to correspond with Gu  
10 Weihao through at least 2003. Exs. 314-3 (1996), 315-2 (1997), 325-6 (2001), 325-9  
11 (2003).

12  
13 Mr. Chung’s library contained voluminous evidence that Mr. Chung traveled to the  
14 PCR to share proprietary aerospace technology between 2001 and 2003. Mr. Chung’s  
15 library contained numerous proprietary briefings concerning various aspects of the Space  
16 Shuttle and aircraft design. Exs. 293–296, 298–300.<sup>8</sup> Mr. Chung’s journals reflect that  
17 he passed this information in a series of briefings in the PRC. In April 2001, Mr. Chung  
18 traveled to the PRC, and prior to his trip, Mr. Chung embarked on extensive preparations.  
19 Ex. 10-2. He noted in separate journal entries that he “[m]ade preparation for  
20 presentation materials on Space Shuttle,” “[r]ead Space Shuttle materials,” and  
21 “[p]repared presentation materials to be given in China.” Ex. 325-3. On the three days  
22 preceding his trip to Beijing, Mr. Chung wrote in his journal that he “[o]rganized  
23 presentation materials” and “[p]acked luggage(s), organize slides.” Ex. 325-4. After  
24 arriving in Beijing, Mr. Chung “review[ed] presentation materials” the day before he  
25 “[m]ade a presentation at the Peking University in the morning—introducing the Space  
26

27  
28 <sup>8</sup> A similar presentation found in Mr. Chung’s home that was written for a Chinese delegation visiting Rockwell in 1990 contains none of the sensitive details included in the other briefings federal agents found. Ex. 301.

1 Shuttle.” Ex. 325-4. On the same trip, Mr. Chung traveled to Shanghai where he also  
2 “[g]ave a presentation at Shanghai University . . . at the big classroom of the Civil  
3 Engineering Department in the old campus.” Ex. 325-5.  
4

5 Mr. Chung went back to the PRC on September 25, 2002 for the National Day  
6 Celebration. Ex. 10-3. In the months prior to his 2002 trip to the PRC, Mr. Chung  
7 downloaded a large number of specifications from the SDS. Mr. Chung’s library  
8 contained over 700 pages of documents from the SDS. Of the 600 SDS documents that  
9 contain time and date information, 514 of these documents indicate that they were printed  
10 in the period between when Mr. Chung first learned he would be laid off from Boeing  
11 and when Mr. Chung left for the PRC. Tr. 16:23–25, 18:1–5, 26:12–19, June 11, 2009.  
12

13 Mr. Chung last traveled to the PRC on December 27, 2003. Ex. 10-3. Prior to this  
14 trip, Mr. Chung created his own SDS index on his home computer. Tr. 11:24–25, 13:1–  
15 2, June 11, 2009. His journal entries from January 2003 to December 2003 refer to  
16 organizing and inputting information into this SDS index. Ex. 325-9–325-12. Mr.  
17 Chung modified the index on December 15, 2003, just two weeks before his trip, and he  
18 last accessed the index on August 29, 2006. Tr. 12:2–11, June 11, 2009.  
19

20 In the course of his extensive travels, technological exchanges, briefings, and  
21 correspondence with the PRC, Mr. Chung collected an immense library of information.  
22 By 2002, however, Mr. Chung had effectively shared much of the information he  
23 possessed with the PRC. Around the time when Mr. Chung was notified that he would be  
24 laid off from Boeing, Mr. Chung began to secretly dispose of the documents for which he  
25 no longer had a use. Ex. 325-7. In an effort to pare down his library without detection,  
26 Mr. Chung placed technical documents between the pages of newspapers and put them  
27 out for garbage collection. Tr. 47:14–25, June 2, 2009. During August and September  
28 2006, federal agents conducted five searches of Mr. Chung’s trash, and each time they

1 found technical documents hidden within the pages of newspapers. *Id.* 46:18–71:25.  
2 Based on these searches, federal agents interviewed Mr. Chung, searched his home, and  
3 learned that Mr. Chung possessed a secret library.<sup>9</sup>

4  
5 The Court finds overwhelming evidence of Mr. Chung’s guilt on the charge of  
6 acting as an agent for the PRC. The evidence presented at trial establishes without a  
7 doubt that Mr. Chung was collecting highly technical aerospace and military technology  
8 belonging to Boeing and then passing that technology to the PRC. Mr. Chung engaged in  
9 this conduct under the direction and control of PRC officials. Mr. Chung has no  
10 plausible explanation for misappropriating, cataloging, passing, and selectively  
11 destroying documents. The suggestion that Mr. Chung was doing so because he was a  
12 “pack rat” is ludicrous. Mr. Chung did so because he was a spy.<sup>10</sup>

## 13 14 **B. The EEA**

### 15 16 **1. Economic Espionage Act Counts**

17  
18 Mr. Chung is charged with six counts of possessing a trade secret with the intent to  
19 benefit the PRC under the EEA. The EEA provides, in pertinent part:

20  
21 (a) In general.—Whoever, intending or knowing that the offense will benefit  
22 any foreign government, foreign instrumentality, or foreign agent,  
23 knowingly—  
24

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25 <sup>9</sup> For his continued efforts over his nearly three decades of service, the PRC not only graciously  
26 acknowledged Mr. Chung’s service, but rewarded him. The PRC honored Mr. Chung with medals and  
27 pins from the aviation entities that benefited from Mr. Chung’s technical information. Exs. 14, 18, 308.  
28 Mr. Chung also received an invitation to the National Day celebration in the PRC in 2002. Ex. 297.

<sup>10</sup> At closing argument, Mr. Chung’s counsel argued that Mr. Chung did not act as an agent within the  
limitations period. This argument is contradicted by the evidence. Through 2006, Mr. Chung possessed  
documents, selectively destroyed documents, and accessed his personal SDS index.

1 (3) receives, buys, or possesses a trade secret, knowing the  
2 same to have been stolen or appropriated, obtained, or  
3 converted without authorization . . .  
4 shall . . . be fined not more than \$500,000 or imprisoned not more  
5 than 15 years, or both.

6  
7 18 U.S.C. § 1831.<sup>11</sup> Section 1839 defines “trade secret” as follows:

8  
9 (3) the term “trade secret” means all forms and types of financial, business,  
10 scientific, technical, economic, or engineering information, including  
11 patterns, plans, compilations, program devices, formulas, designs,  
12 prototypes, methods, techniques, processes, procedures, programs, or codes,  
13 whether tangible or intangible, and whether or how stored, compiled, or  
14 memorialized physically, electronically, graphically, photographically, or in  
15 writing if—

16 (A) the owner thereof has taken reasonable measures to keep  
17 such information secret; and

18 (B) the information derives independent economic value, actual  
19 or potential, from not being generally known to, and not being  
20 readily ascertainable through proper means by, the public.

21  
22 18 U.S.C. § 1839.

23  
24 It is not explicitly clear from the language of section 1831(a)(3) whether the word  
25 “knowingly” modifies the “trade secret” element of the offense. The Government argues

26  
27  
28 

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<sup>11</sup> The indictment also charges Mr. Chung with violating Section 1831(a)(1) by concealing the documents in his home. However, the Court need not address this issue given its finding that Mr. Chung is guilty of violating the EEA based on his possession of trade secrets pursuant to Section (a)(3).

1 that it does not, and therefore it does not have to prove that Mr. Chung knew the  
2 information that he possessed was a trade secret. Mr. Chung contends that the  
3 Government must prove that he had such knowledge. The Court agrees with Mr. Chung.

4  
5 Because the purpose of the criminal law is to punish intentional conduct, “[t]he  
6 existence of a *mens rea* is the rule of, rather than the exception to, the principles of  
7 Anglo-American criminal jurisprudence.” *Dennis v. United States*, 341 U.S. 494, 500  
8 (1951). “Traditionally, the *mens rea* of a crime extends to each element of that crime.”  
9 *United States v. Sua*, 307 F.3d 1150, 1154 (9th Cir. 2002) (citing MODEL PENAL CODE §  
10 2.02(1)). As Justice Stevens noted, “the normal, commonsense reading of a subsection of  
11 a criminal statute introduced by the word ‘knowingly’ is to treat that adverb as modifying  
12 each of the elements of the offense identified in the remainder of the subsection.” *United*  
13 *States v. X-Citement Video, Inc.*, 513 U.S. 64, 79 (1994) (Stevens, J., concurring).

14  
15 The United States Supreme Court has long recognized a presumption in favor of an  
16 intent requirement for “the crucial element” that separates lawful from unlawful conduct.  
17 In *Morissette v. United States*, 342 U.S. 246 (1952), the Supreme Court interpreted a  
18 statute that reads, in pertinent part: “[w]hoever embezzles, steals, purloins, or knowingly  
19 converts to his use or the use of another, or without authority, sells, conveys or disposes  
20 of any record, voucher, money, or thing of value of the United States or of any  
21 department or agency thereof.” 342 U.S. at 248 n.2 (citing 18 U.S.C. § 641). The  
22 Supreme Court held that to be convicted under the statute, the government must prove  
23 that the defendant knew that the property he converted belonged to the United States.  
24 Although “knowingly” is separated from the government property element of the offense,  
25 the Supreme Court concluded that “that the term ‘knowingly’ also required that the  
26 defendant have knowledge of the facts that made the taking a conversion—i.e., that the  
27 property belonged to the United States.” *X-Citement Video, Inc.*, 513 U.S. at 70. The  
28 Court held that the defendant “must have had knowledge of the facts, though not

1 necessarily the law, that made the taking a conversion.” *Morissette*, 342 U.S. at 271.  
2 The Court went on to write “it is not apparent how *Morissette* could have knowingly or  
3 intentionally converted property that he did not know could be converted, as would be the  
4 case if it was in fact abandoned or if he truly believed it to be abandoned and unwanted  
5 property.” *Id.*

6  
7 The Supreme Court reached a similar conclusion in *Staples v. United States*, 511  
8 U.S. 600 (1994). In that case, the Supreme Court interpreted the National Firearms Act,  
9 which criminalizes possession of an unregistered firearm, including a machinegun. The  
10 statute defines a machinegun as a weapon that automatically fires more than one shot  
11 with a single pull of the trigger. 26 U.S.C. § 5845. Mr. Staples was convicted of  
12 possessing an unregistered machinegun. *Staples*, 511 U.S. at 600. He appealed, arguing  
13 that he did not know that his semiautomatic rifle was a machinegun within the meaning  
14 of the statute. *Id.* The Supreme Court held that to obtain a conviction, “the Government  
15 should have been required to prove beyond a reasonable doubt that Staples knew that his  
16 rifle had the characteristics that brought it within the statutory definition of a  
17 machinegun.” *Id.* As the Supreme Court noted, “the Government’s construction of the  
18 statute potentially would impose criminal sanctions on a class of persons whose mental  
19 state-ignorance . . . makes their actions entirely innocent.” *Id.* at 614–15. Furthermore,  
20 the statute imposed substantial penalties for violations of the law. The Court concluded  
21 that a defendant should not face harsh criminal penalties for conduct that he truly  
22 believed was lawful. *Id.* at 619.

23  
24 Again in *United States v. X-Citement Video, Inc.*, 513 U.S. 64 (1994), the Supreme  
25 Court concluded that the government had to prove the defendant’s knowledge of the key  
26 element of an offense. The case involved a prosecution for interstate distribution of child  
27 pornography. In the statute at issue, knowingly did not appear near one of the key  
28 elements of the offense—“use of a minor.” 18 U.S.C. § 2252. Relying on *Morissette* and

1 *Staples*, the Supreme Court held that “the term ‘knowingly’ . . . extends to both the  
2 sexually explicit nature of the material and to the age of the performers.” 513 U.S. at 78.  
3 Because “the age of the performers is the crucial element separating legal innocence from  
4 wrongful conduct,” the Supreme Court concluded that Congress did not intend to  
5 dispense with an intent requirement for this key element. *Id.* at 73. Any other  
6 interpretation, the Supreme Court held, would yield results that are not only “merely odd,  
7 positively absurd.” *Id.* at 69. Again, the fact that the statute imposed severe penalties  
8 was a “ ‘significant consideration in determining whether the statute should be construed  
9 as dispensing with *mens rea.*’ ” *Id.* at 71 (quoting *Staples*, 511 U.S. at 616).

10  
11 Federal courts have also consistently held that a defendant must have knowledge of  
12 the underlying facts that make his conduct illegal. *United States v. Alghazouli*, 517 F.3d  
13 1179 (9th Cir. 2008) (holding defendant need not have specific knowledge of the fact that  
14 he was violating stratospheric ozone regulations by possessing a class I controlled  
15 substance under the Clean Air Act, but he must have knowledge that the substance he  
16 possessed was, in fact, R-12 freon); *United States v. Godin*, 534 F.3d 51 (1st Cir. 2008)  
17 (holding that defendant must have knowledge that he possessed an identification of  
18 another person in order to be convicted under an identity theft statute); *United States v.*  
19 *Bronx Reptiles, Inc.*, 217 F.3d 82 (2d Cir. 2000) (holding that a defendant must know he  
20 is transporting a wild animal under inhumane or unhealthful conditions to be convicted  
21 for the crime of knowingly causing or permitting a wild bird or animal to be transported  
22 to the United States under inhumane or unhealthful conditions, otherwise “a vast range of  
23 remarkably innocuous behavior is rendered criminal”); *United States v. Lynch*, 233 F.3d  
24 1139 (9th Cir. 2000) (defendant must know that the object he removed was an  
25 archeological resource in order to be convicted under statute prohibiting knowingly  
26 removing an archeological resource from public land).

1 In this case, too, the Government must prove that Mr. Chung knew that  
2 information he possessed was trade secret information. Whether the information was a  
3 trade secret is the crucial element that separates lawful from unlawful conduct.  
4 Possession of open-source or readily ascertainable information for the benefit of a foreign  
5 government is clearly not espionage. The essence of economic espionage is the  
6 misappropriation of trade secret information for the benefit of a foreign government. The  
7 EEA imposes a maximum sentence of fifteen years in prison and up to a \$500,000 fine.  
8 It would be unjust and inconsistent with the purpose of the criminal law to hold Mr.  
9 Chung accountable for possession of what he honestly believed was publicly available  
10 information. Mr. Chung should not be subject to fifteen years in prison based on conduct  
11 that he did not believe constituted espionage.

12  
13 Contrary to the Government's assertion, requiring it to prove that Mr. Chung knew  
14 the information he possessed was a trade secret does not impose an insurmountable or  
15 even difficult burden of proof. The Government must prove that Mr. Chung knew that  
16 the information he possessed was a trade secret, but not that he knew his behavior was  
17 illegal. *United States v. Nosal*, No. Cr 08-00237 MHP, 2009 WL 981336, at \*3 (N.D.  
18 Cal. Apr. 13, 2009). The statutory definition of a trade secret is not overly technical and  
19 requires no specialized knowledge or expertise to understand. Proving that a defendant  
20 knows that the owner of a trade secret takes reasonable measures to protect it and that the  
21 information has economic value is not exceedingly difficult. A defendant charged with  
22 economic espionage will necessarily have some understanding of the measures that have  
23 been taken to protect the information he possesses. He will know whether the facility he  
24 acquired the information from was gated. He will know if the information in his  
25 possession has proprietary, trade secret, or classified markings. If he is an employee, he  
26 will know his company's policy about whether documents can be taken home. The  
27 Government need not prove that a defendant knew all of the security measures taken to  
28 protect the information. Likewise, proving that a defendant charged with economic

1 espionage knows that the information he possesses has economic value is not exceedingly  
2 difficult. A spy does not deal in worthless or readily ascertainable information. He  
3 collects information without authorization precisely because it has independent economic  
4 value. He passes this information to a foreign government that cannot obtain the  
5 information lawfully.

6  
7 Accordingly, under Section 1831(a)(3), the Government must prove five elements:  
8 (1) Mr. Chung intended to benefit a foreign government; (2) Mr. Chung knowingly  
9 possessed trade secret information;<sup>12</sup> (3) Mr. Chung knew that the information was  
10 obtained without authorization; (4) the information Mr. Chung possessed was, in fact, a  
11 trade secret; and (5) Mr. Chung knew the information was a trade secret. Mr. Chung is  
12 charged in the indictment with six separate counts of violating the EEA: two counts  
13 related to the Tail Service Mast (“TSM”) assembly for the Delta IV Rocket and four  
14 counts related to the Phased Array Radar and Communications System for the Space  
15 Shuttle. The Government proved each of these elements beyond a reasonable doubt with  
16 respect to all six documents charged in the indictment.

17  
18 The Delta IV Rocket is a next-generation booster rocket that is designed to launch  
19 manned space vehicles. The TSM assembly is a sophisticated system that removes the  
20 TSM that feeds fuel to the rocket. The system moves the TSM and umbilical hoses,  
21 together weighing more than two tons, away from the rocket and into a protective shelter  
22 in less than one second. Tr. 16:23–17:19, June 5, 2009. The system also includes triple  
23 redundancy to ensure that the TSM is withdrawn even if the first and second  
24 contingencies fail. *Id.* 21:13–22:5. The first trade secret document, titled “Common

25  
26 \_\_\_\_\_  
27 <sup>12</sup> Counsel for Mr. Chung argues that because Mr. Chung did not first possess the documents within the  
28 limitations period, he cannot be found guilty on these counts. Counsel is mistaken. Because Mr. Chung  
continued to possess the documents in 2006, there is no statute of limitations problem here.  
“[P]ossessory offenses have long been described as ‘continuing offenses’ that are not complete upon  
receipt of the prohibited item. Rather, the statute of limitations does not begin to run until the possessor  
parts with the item.” *United States v. Krstic*, 558 F.3d 1010, 1017 (9th Cir. 2009).

1 Booster Core (CBC) Tail Service Mast (TSM) Overview,” contains a detailed overview  
2 of the TSM, including information regarding the location on the launch pad of the TSMs,  
3 diagrams detailing placement of umbilical hoses and installation of the TSM, electrical  
4 requirements for the system, and timelines for specific sequences. Ex. 76-1–76-54. The  
5 document includes a comprehensive overview of the separation methods used on the  
6 TSM system. Ex. 76-21–76-44. The second document, titled “Delta IV/EELV<sup>13</sup>  
7 Common Booster Core (CBC) Tail Service Mast (TSM) Overview,” provides extensive  
8 details regarding design and test requirements, design verification procedures, and design  
9 schematics and contains information on how the backup umbilical release system  
10 functions. Ex.76-55–76-106. This document also contains drawings and detailed  
11 descriptions of the technology. *Id.*

12  
13 The Phased Array Antenna was developed to address several problems with the  
14 current communications system—a gimbaled dish—on the Space Shuttle. Tr. 14:15–  
15 16:4, June 9, 2009. The Phased Array Antenna is placed in the skin of the Space Shuttle,  
16 and it provides better coverage and can be used at any time during flight. *Id.* 15:19–25.  
17 Mr. Chung possessed: (1) a document titled “Item Change Analysis;” (2) an email with  
18 the subject line “ROM For Cost of Cooling Phased Array Antenna” and related  
19 documents; (3) a document titled “Boeing Phased Array Antenna Internal Research &  
20 Development Option for Orbiter Communications Upgrades” dated March 1999; and (4)  
21 a document titled “Boeing Phased Array Antenna Internal Research & Development  
22 Option for Orbiter Communications Upgrades” dated May 1999. The four Phased Array  
23 Antenna documents detail processes and plans related to the technology. Ex. 65. The  
24 first and second documents contain internal costing data, which reveal the specific tasks  
25 that need to be accomplished in order to produce the technology. The third and fourth  
26 documents are overviews of the work being done to place a Phased Array Antenna on the  
27

28  

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<sup>13</sup> EELV stands for Evolved Expendable Launch Vehicle.

1 Space Shuttle. As the titles of the documents indicate, they contain internal information  
2 regarding the number of elements in the Phased Array Antenna.

3  
4 All six of the documents charged in the indictment contain trade secret  
5 information.<sup>14</sup> Boeing took more than reasonable measures to protect the documents.  
6 Armed guards secured the Boeing facility, and employees had to show their identification  
7 to enter the building. Tr. 121:15–25, June 5, 2009. Boeing reserved the right to search  
8 its employees’ belongings and their cars for violations of its security policies. Ex. 192.  
9 Access to the documents was restricted to those engineers who needed access and had  
10 approval from their managers. Tr. 128:5–9, June 5, 2009. Rockwell and Boeing  
11 disseminated written guidelines and conducted trainings in which the companies made  
12 clear the importance of not sharing the documents with outside parties. *Id.* 118:15–  
13 121:11, 126:12–25; Ex. 83. Boeing took even further precautions with respect to the  
14 TSM documents. Hard copies of the TSM documents had to be locked up at night and  
15 could not be removed from the facility. Tr. 48:7–10, June 5, 2009.

16  
17 The information contained in the six documents charged in the indictment also has  
18 independent economic value. None of the information in the six documents is available  
19 in the public domain. Tr. 26:8–24, 27:2–16, 38:10, 45:13–20, June 5, 2009; Tr. 40:24,  
20 June 9, 2009. The TSM documents found in Mr. Chung’s library constitute a “do-it-  
21 yourself kit” that would allow another engineer to build the system. Tr. 41:19–23, June  
22 5, 2009. The TSM assembly took a large team of engineers five years to develop, and its  
23 development cost Boeing close to \$50 million. Tr. 24:6–19, June 5, 2009. The TSM  
24 system is currently in use, and Boeing hopes to place the system at Vandenberg Air Force  
25

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26 <sup>14</sup> The definition of a trade secret includes all technical information that the owner has taken reasonable  
27 measures to keep secret, and the information derives independent economic value, actual or potential,  
28 from not being generally known to, and not being readily ascertainable through proper means by, the  
public. 18 U.S.C. § 1839. The documents at issue unquestionably contain business, scientific, and  
technical information within the meaning of the statute.

1 Base. *Id.* 48:17–49:2. If Boeing’s competitors were to acquire a “do-it-yourself” kit to  
2 recreate this technology, Boeing would be at a serious competitive disadvantage.  
3 Similarly, the four Phased Array Antenna documents reveal information that would allow  
4 a competitor to determine the number of elements needed and Boeing’s cost to produce  
5 the Phased Array Antenna. Tr. 29:7–15, 34:10–16, June 9, 2009. Based on this  
6 information, a competitor would be able to undermine Boeing’s ability to win  
7 competitive contracts. Although the first two Phased Array Antenna documents are not  
8 marked proprietary, they are never published or distributed by the company. *Id.* 29:18–  
9 30:21. This information has both actual and potential economic value to Boeing.  
10 Rockwell spent considerable time and well over a million dollars developing this  
11 technology. *Id.* 20:12–25:17. Although the Phased Array Antenna is not currently used  
12 on the Space Shuttle, the work done by Rockwell was successful and the technology is  
13 currently in use in a number of “black programs” at Boeing. *Id.* 26:7–11. Additionally,  
14 the Phased Array Antenna may be viable technology for the Space Shuttle in the future.  
15 *Id.* 19:23–25.

16  
17 The Court also has no doubt that Mr. Chung knew that he possessed trade secret  
18 information. Mr. Chung, a long-time employee of Boeing and Rockwell, was well aware  
19 of the numerous security measures in place to protect all of Boeing’s information. Mr.  
20 Chung had to show his identification each day to enter the building. Tr. 121:15–25, June  
21 5, 2009. Most of the documents Mr. Chung possessed were stamped proprietary. Mr.  
22 Chung signed agreements confirming his understanding that he could not disclose any of  
23 the information developed by Boeing. Exs. 83, 194, 195. Mr. Chung also did not request  
24 his supervisor’s permission to take any of the documents home. Tr. 95:22–96:9; 116:20–  
25 25, 124:4–9, 125:22–24, June 5, 2009. Had Mr. Chung requested permission to bring  
26 home the TSM and Phased Array Antenna documents, his supervisor would have denied  
27 Mr. Chung’s request because Boeing simply did not allow engineers to keep any of its  
28 proprietary documents at home—much less its highly valuable trade secret ones. *Id.*

1 Mr. Chung also knew that the information derived value from being not readily  
2 available to the public. If the information were worthless or readily available in the  
3 public domain, Mr. Chung surely would not have gathered it for the PRC in violation of  
4 well-established Boeing policies and subjected himself to immediate termination by the  
5 company. Mr. Chung knew that the PRC could not obtain the information and that it  
6 desperately wanted to get its hands on it. Tragically, Mr. Chung was willing to betray the  
7 trust Boeing placed in him to safeguard the information in the documents. The reason for  
8 that betrayal is obvious to the Court. Mr. Chung was a devoted spy for the PRC.

9  
10 Accordingly, the Court finds Mr. Chung guilty beyond a reasonable doubt on all  
11 six counts of economic espionage. Mr. Chung possessed six trade secret documents for  
12 the benefit of the PRC. Boeing took more than reasonable measures to protect the  
13 information in the documents, and the information in the documents derived substantial  
14 value because it was not known to Boeing's competitors. And finally, Mr. Chung knew  
15 the information in the documents was trade secret information.

## 16 17 **2. Conspiracy to Violate the EEA**

18  
19 Mr. Chung is charged with conspiracy to commit an offense against the United  
20 States pursuant to 18 U.S.C. § 371, which provides:

21  
22 If two or more persons conspire either to commit any offense against the  
23 United States, or to defraud the United States, or any agency thereof in any  
24 manner or for any purpose, and one or more of such persons do any act to  
25 effect the object of the conspiracy, each shall be fined under this title or  
26 imprisoned not more than five years.

1 18 U.S.C. § 371. To show that Mr. Chung is guilty of conspiracy, the Government must  
2 prove beyond a reasonable doubt that: (1) there was an agreement between two or more  
3 persons to commit at least one violation of the EEA; (2) Mr. Chung became a member of  
4 the conspiracy knowing of at least one of its objects and intending to help accomplish it;  
5 and (3) one of the members of the conspiracy performed at least one overt act for the  
6 purpose of carrying out the conspiracy. The Government proved each of these elements  
7 beyond a reasonable doubt.

8  
9 First, Mr. Chung conspired with numerous Chinese officials to collect trade secret  
10 and proprietary information for the benefit of the PRC. Exs. 274 (Professor Chen Lung  
11 Ku); 261 (Chen Qinan); 269 (Engineer Feng); 269 (Zhao Zhen Lan); 359 (Gu Weihao);  
12 325-2 (Consul Wu Hui Jun); 326-2 (Chi Mak); 326-3 (Bu Shi Lin); 326-3 (Consul  
13 Shang). Mr. Chung continued to correspond with his co-conspirators through at least  
14 2003. Exs. 314, 315, 325.

15  
16 Second, Mr. Chung joined the conspiracy with the intent to commit economic  
17 espionage. Mr. Chung communicated with numerous PRC officials about his desire to  
18 share his engineering expertise and gather information on behalf of the PRC. Exs. 259  
19 (“It’s a great honor and I am excited to be able to make some contributions to the four  
20 modernizations of the motherland. . . . As to the outline details for the exchange, I am  
21 working actively on its draft recently.”); 264 (offering to contribute his “expertise”); 269  
22 (providing “answers for the questions that were not answered” when Mr. Chung was in  
23 Nanchang); 272 (informing Chen Qinan that he had experience “space shuttle design”  
24 and offering to “provide information in this field”); 325-4–325-5 (journal entry detailing  
25 presentations at Peking University and Shanghai University in 2001).

26  
27 Finally, Mr. Chung committed many overt acts in furtherance of the conspiracy.  
28 Mr. Chung kept six trade secret documents as well as over 300,000 pages of other

1 documents in his home for the benefit of the PRC. Mr. Chung sent this information to  
2 the PRC via mail, sea freight, and through other Chinese agents. Mr. Chung also used the  
3 information that he misappropriated from Boeing to conduct technology exchanges with  
4 the PRC and to prepare detailed briefings that he presented in the PRC. And up to the  
5 time of his arrest, Mr. Chung maintained a secret library in his home and selectively  
6 destroyed documents in an ongoing effort to conceal the conspiracy and avoid detection  
7 by law enforcement.

8  
9 **C. False Statement**

10  
11 Mr. Chung is charged with making a false statement pursuant to 18 U.S.C. § 1001,  
12 which provides, in pertinent part:

13  
14 (a) Except as otherwise provided in this section, whoever, in any matter  
15 within the jurisdiction of the executive, legislative, or judicial branch of the  
16 Government of the United States, knowingly and willfully—

17 (2) makes any materially false, fictitious, or fraudulent statement or  
18 representation . . .

19 shall be fined under this title, imprisoned not more than 5 years.

20  
21 18 U.S.C. § 1001. To show that Mr. Chung is guilty on this count, the Government must  
22 prove beyond a reasonable doubt that: (1) Mr. Chung made a false statement on a matter  
23 within the jurisdiction of the FBI; (2) Mr. Chung acted willfully, that is deliberately and  
24 with knowledge that the statement was untrue; and (3) the false statement was material to  
25 the FBI's activities and decisions. The Government proved each of these elements  
26 beyond a reasonable doubt.

1 During their September 11, 2006 search, federal agents were shocked to discover  
2 both Mr. Chung's library of technical materials and the mountains of evidence that  
3 suggested he collected those materials for the benefit of the PRC. Federal agents  
4 immediately asked Mr. Chung why he had so much information stored in his home. Mr.  
5 Chung told FBI Special Agent Moberly that his supervisor at Boeing, William Novak,  
6 gave him permission to take all of the documents home. Tr. 90:10–11, June 2, 2009.  
7 Later the same day, Mr. Chung told FBI Special Agent Sheldon Fung that his boss had  
8 given him permission in 2001 to bring work documents home because the documents  
9 were otherwise going to be destroyed. Tr. 46:15–19, June 11, 2009.

10  
11 In fact, Mr. Novak never gave Mr. Chung permission to take work documents  
12 home. Tr. 124:1–9, June 5, 2009. At the time of the move from Downey to Huntington  
13 Beach, Mr. Novak instructed his engineers either to: (1) pack documents to take to  
14 Huntington Beach; (2) pack documents for storage at Iron Mountain; or (3) place  
15 documents in bins for disposal. *Id.* 123:13–124:9. Mr. Chung wrote a memo to Mr.  
16 Novak indicating that defendant had fourteen boxes packed and ready for shipment to  
17 Iron Mountain. Ex. 73.

18  
19 Mr. Chung knew his statements to the FBI agents were not true. Federal agents  
20 found a staggering 300,000 pages of work-related documents in Mr. Chung's home. Mr.  
21 Chung did not ask Mr. Novak for permission to take documents home, and employees  
22 were unequivocally not allowed to keep documents in their homes, for any purpose. Tr.  
23 95:22–96:9, 116:20–25, 125:22–24, June 5, 2009; Tr. 68:22–24, June 10, 2009. Mr.  
24 Chung nonetheless insisted to two different FBI agents that he had permission to keep the  
25 documents in his home. It is also very telling that Mr. Chung used correction fluid to  
26 cover information on the documents, and in one case, to cover a security warning. Ex.  
27 183. Mr. Chung also admitted that he was hiding SDS and other work-related documents  
28 in newspapers so that they would not be found at the dump. Tr. 89:23–90:2, June 2,

1 2009. If Mr. Chung truly believed that he had permission to keep work documents in his  
2 home, he would not have covered up information in the documents or secretly disposed  
3 of them.

4  
5 Mr. Chung's false statements were obviously material to the activities or decisions  
6 of the FBI. At the time Mr. Chung made the statements, Mr. Chung was the target of a  
7 very serious and ongoing investigation focusing on whether he was spying for the PRC.  
8 Whether he had approval to possess more than 300,000 pages of documents in his home  
9 was material to that investigation. Sadly, Mr. Chung chose to blatantly lie to the FBI.

10  
11 **D. Obstruction of Justice**

12  
13 Mr. Chung is charged with obstruction justice pursuant to 18 U.S.C. § 1512, which  
14 provides, in pertinent part:

15  
16 (b) Whoever knowingly uses intimidation, threatens, or corruptly persuades  
17 another person, or attempts to do so, or engages in misleading conduct  
18 toward another person, with intent to—

19 (3) hinder, delay, or prevent the communication to a law enforcement  
20 officer or judge of the United States of information relating to the  
21 commission or possible commission of a Federal offense . . .

22 shall be fined under this title or imprisoned not more than 20 years, or both.

23  
24 18 U.S.C. § 1512. To show that Mr. Chung is guilty of obstructing justice, the  
25 Government must prove that: (1) Mr. Chung persuaded, or tried to persuade, another  
26 person to withhold certain information from an FBI agent; and (2) Mr. Chung acted  
27 knowingly and with intent to hinder, delay, or prevent the communication to an FBI agent  
28 of information relating to the commission or possible commission of a federal offense.

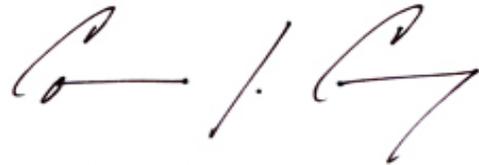
1 Because the Government has failed to prove beyond a reasonable doubt that Mr. Chung  
2 attempted to persuade or persuaded his son to withhold information, the Court finds Mr.  
3 Chung not guilty on this count.

4  
5 The Government argues that Mr. Chung obstructed justice by encouraging his son  
6 to tell federal agents that he could not remember anything about the family trip to the  
7 PRC in 1985. Before federal agents had an opportunity to interview Mr. Chung's son,  
8 Mr. Chung received a phone call from his son. Speaking in Chinese, Mr. Chung  
9 responded to his son and, according to FBI agents who understood Chinese, told his son  
10 to tell the FBI that he did not remember anything about their 1985 trip to the PRC. Tr.  
11 33:14–16, June 11, 2009. The Court finds the FBI agents' testimony credible. Mr.  
12 Chung's son, however, was not a credible witness. On the witness stand, Mr. Chung's  
13 son admitted that he has a poor memory, he is recklessly flippant, and even worse, he  
14 constantly lies. Without knowing what Mr. Chung's son actually said to Mr. Chung on  
15 the other end of the line, it is impossible to determine whether Mr. Chung attempted to  
16 persuade his son to provide false information. Mr. Chung's statement to his son may or  
17 may not be criminal depending on what Mr. Chung's son said to him. If Mr. Chung's son  
18 expressed concern that he had no recollection of the 1985 trip or indicated that he was  
19 afraid or nervous, then Mr. Chung's statement would have been an appropriate and  
20 lawful response. Without knowing what exactly Mr. Chung's son said to him, the Court  
21 simply cannot conclude that Mr. Chung is guilty of obstruction of justice.

1 **IV. CONCLUSION**

2  
3 For the foregoing reasons, the Court finds Mr. Chung guilty on all counts except  
4 the count of obstruction of justice.

5  
6  
7  
8 DATED: July 16, 2009



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10 CORMAC J. CARNEY  
11 UNITED STATES DISTRICT JUDGE  
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