



Chinese National Penalized for Attempts to Acquire High-Strength Carbon Fiber for China

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On October 18, 2012, the United States Federal Court in the Eastern District of New York indicted Ming Suan Zhang, 42, of the People's Republic of China, on charges of attempting to purchase one to two tons of Japanese-made Toray high-grade carbon fiber suitable for military aircraft, nuclear, and aerospace applications from the United States on behalf of an entity in China.¹ Evidence in the case points to the end-user being China North Industries Corporation or NORINCO, the largest state-run manufacturer of weapons in China and a major contractor of the Chinese military.² Zhang was indicted and arrested as the result of a U.S. sting operation, which involved an undercover Homeland Security Investigations (HSI) agent posing as an employee of an aerospace technology company. The indictment alleges that between July 18, 2012 and September 14, 2012 Zhang and two Taiwanese brokers attempted to establish a long-term contract for the procurement of one to two tons of specialized carbon fiber spools of the Toray type M60JB-3000-50B, or "M60," which is controlled by the Department of Commerce because of its dual use in aerospace and military programs. It is also controlled for nuclear non-proliferation and anti-terrorism considerations. In conjunction with carbon fiber with a rating at or above T300, M60 fiber, or for that matter M-fiber with a lower rating, can be used to make carbon fiber rotors for gas centrifuges. Iraq pursued a centrifuge rotor using T300 and M40 fibers prior to the 1991 Gulf War. The M60 fiber would not be viewed for use in Iran's centrifuge program because Iran has sought T700 and perhaps higher grade fiber for its advanced centrifuges, which is assessed to use only high quality T-grade fibers and not M-grade fibers.

Zhang alleged that the contract would provide a customer responsible for carbon fiber procurement in China with adequate carbon-fiber material for the test flight of a "jet fighter plane." NORINCO has in the past illicitly sought controlled goods on its behalf and for sanctioned countries.³ This entity was originally sanctioned in 2003 by the Bush administration for missile related exports to Iran but sanctions expired in 2011.⁴ Zhang indicated that "Chairman Lin" of NORINCO was the buyer of the carbon fiber material and that Lin was responsible for "handling the site of a new fighter aircraft test

¹ Department of Justice Press Release, "Chinese National Sentenced to 57 Months' Incarceration for Attempting to Illegally export Aerospace-Grade Carbon Fiber," December 10, 2013.

<http://www.justice.gov/usao/nye/pr/2013/2013dec10b.html>

² United States District Court of Eastern District of New York, *Sentencing Memorandum by USA as to Ming Suan Zhang*, December 5, 2013.

³ Shirley Kan, *China and Proliferation of Weapons of Mass Destruction and Missiles: Policy Issues*, (Washington, D.C.: Congressional Research Service, January 3, 2014). <http://www.fas.org/sgp/crs/nuke/RL31555.pdf>

⁴ "Chinese Firm Hit with U.S. Sanctions," *The Washington Times*, May 23, 2003.

flight.” This would indicate that despite actively working to be removed from U.S. sanctions lists, NORINCO may still be involved in illicit procurements for China’s state-run military programs.

Zhang became directly involved in the sting operation after two brokers working on his behalf, a man and woman located in Taiwan, obtained, during a meeting in New York, samples of carbon fiber from the U.S. agent after multiple internet based contacts. The U.S. sting operation next lured Zhang to New York under the pretense of a meeting to discuss a long term contract for the carbon fiber. He was placed under arrest at this meeting.⁵ Zhang pled guilty to charges on August 19, 2013 and was sentenced to 57 months’ incarceration on December 10, 2013.

The Scheme

In April 2012 the two Taiwanese brokers working for Zhang, attempted to locate large quantities of specialized carbon fiber by querying companies and distributors of the good located worldwide. After unsuccessfully attempting to procure carbon fiber directly from the world’s foremost distributor of high-grade carbon fiber, the Japanese firm Toray Industries, Inc., the brokers were referred by Toray to a purported aerospace technology company. The company was secretly a front controlled by the U.S. Immigration Customs Enforcement agency (ICE) for the purpose of stinging international smugglers seeking controlled U.S. goods. The brokers asked for information related to the high-grade carbon fiber material.⁶ They then contacted an undercover U.S. agent posing as a company representative via teleconference in order to negotiate the acquisition of multiple tons of high-grade carbon fiber, which the agent explained would require a government license to export from the United States to China. The brokers expressed their desire to circumvent that process and inquired whether the material could be shipped to a third, intermediary country that did not require an export license. After the agent declined this possibility the two asked the agent to purposefully mislabel the product, which the agent again indicated was illegal.

In July 2012, the two Taiwanese brokers traveled to New York under the pretense of a meeting with the undercover agent posing as a company representative. Their intention was to broker “a multi-million dollar deal for the export of carbon fiber.” They met with the agent at a hotel room to discuss pricing and shipping and the agent provided them (which may in this case mean for viewing purposes, but the indictment is unclear) with a sample of Toray type M60JB-3000-50B carbon fiber. U.S. agents recorded an outgoing call from the male Taiwanese broker from New York to Ming Suan Zhang. During the call, the Taiwanese broker told Zhang that he went to the Japanese manufacturer, Toray, but they were unable to make the sale without an export license. He noted that Toray introduced him to the New York seller and he had seen the goods in person. He said the United States would require an export license for the purchase, to which Zhang replied, “You won’t be able to get it if you apply.” He also indicated that he had found the Chinese military representative responsible for procuring M60 carbon fiber and was seeking the one to two tons on his behalf.

⁵ United States District Court Eastern District of New York, *Grand Jury Indictment: United States of America v. Ming Suan Zhang*, dated October 18, 2012.

⁶ United States District Court of Eastern District of New York, *Affidavit of Robert Dugan, Special Agent, Department of Commerce, United States of America v. Ming Suan Zhang*, December 2012.
<http://nylawyer.nylj.com/adgifs/decisions/092812zhangcomplaint.pdf>

Zhang became directly involved in seeking the sale of the carbon fiber after the undercover agent asked to meet face to face to discuss finding a way to circumvent export controls.⁷ In August 2012, Zhang contacted the undercover agent and asserted his urgent need for the carbon fiber. Zhang explicitly stated in an e-mail to the undercover agent that his customer was rushing him to obtain the material for a new fighter aircraft test flight to take place in October 2012. Zhang acquired a passport to travel to the United States to meet and discuss the deal as well as to acquire samples for shipment back to China. He hoped the meeting would lead to a long term arrangement for a steady supply of the specialized material. After meeting and providing him samples, which he shipped to China, Zhang was placed under arrest by the agents. The mislabeled shipment was later intercepted before it left the United States.

Other attempted exports of specialized carbon fiber to China in violation of U.S. export controls

Zhang is not the first illicit procurement agent to attempt to illegally export high-grade carbon fiber to China. In 2011, the Bureau of Industry and Security, U.S. Department of Commerce (BIS), initiated an administrative proceeding against “Prime Technology” alleging that the company conspired to export Toray M40 and M60 carbon fiber from the United States to the China Academy of Space Technology without a license.⁸ Jinawei Ding, 51, and two other Chinese agents were arrested for their involvement in the conspiracy.⁹

More recently, Lisong Ma, 34, was arrested in April 2013 after attempting to arrange the purchase of five tons of carbon fiber, Toray-type T800.¹⁰ Ma was netted by a similar sting operation orchestrated by undercover agents.

Lessons and Observations

This case shows that at least one Chinese state-run enterprise may be actively breaking export laws of the United States in its attempts to upgrade its own military technology. Zhang’s endeavor to obtain Toray M60 carbon fiber indicates that China still requires this high-strength material from abroad and cannot yet produce it indigenously. The repeated and aggressive efforts of Zhang and his associates, as well as other illicit procurement agents, underline this need. Companies and governments should remain vigilant because China will likely continue to make illicit attempts to acquire high-technology dual use materials.

NORINCO, the purported Chinese end-user of the carbon fiber, for example, sold missile related technology to Iran and had dealings with other sanctioned countries. It has since 2008 supposedly developed an internal compliance and export control system, but this case may indicate it is still

⁷ Department of Justice, “Summary of Major U.S. Export Enforcement, Economic Espionage, Trade Secret and Embargo-Related Criminal Cases,” January 2014. <http://www.justice.gov/nsd/docs/export-case-fact-sheet-201401.pdf>

⁸ United States Department of Commerce Bureau of Industry and Security, “Order Relating to Prime Technology Corporation,” 2011. http://efoia.bis.doc.gov/index.php/component/docman/doc_view/761-e2256?Itemid=

⁹ Federal Register/Vol. 76, No. 150, August 4, 2011. <http://docs.regulations.justia.com/entries/2011-08-04/2011-19830.pdf>

¹⁰ Department of Justice Press Release, “Cyber-Sting Nets Chinese National in Attempt to Export Sensitive Defense Technology,” May 30, 2013. <http://www.justice.gov/usao/nye/pr/2013/2013may30.html>

active in illicit procurement efforts for Chinese defense projects.¹¹ This underlines the finding that China continues to illicitly outfit its own military programs and that it may use state-run entities to do so. China should explain and halt such activities.

Zhang's arrest demonstrates the value and effectiveness of U.S. sting operations in combating illicit trade. Chinese nationals are the second most actively charged group (after Iranians) in U.S. export control or embargo cases including attempting in the past illegal exports of rocket launch data, space shuttle technology, missile technology, thermal imaging systems, and other materials.¹² Given the dual-use nature of high-grade carbon fiber, further preventive measures against China's illicit procurement of this material are crucial to impeding its unauthorized usage for proliferation and military applications.

Moreover, China remains a smuggling center for Iran and North Korea in its attempts to procure from foreign high-technology suppliers who have subsidiaries in China. Chinese private companies work in league with North Korea and Iran to acquire a range of banned goods. China, for example, has been a transshipment country for Iran in its search for high-grade Toray fiber used in its advanced centrifuges, such as the IR-2m centrifuge that has been deployed at the Natanz Fuel Enrichment Plant.

More pressure should be applied on China to implement its export control laws more effectively and stop its own illicit procurements from supplier nations.

¹¹ Kan, *China and Proliferation of Weapons of Mass Destruction and Missiles: Policy Issues*.

¹² Department of Justice Press Release, "More than 145 Defendants Charged in National Export Enforcement Initiative During Past Fiscal Year," October 28, 2008. <http://www.justice.gov/opa/pr/2008/October/08-nsd-958.html>