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Satellites & Hong Kong's Independence: How the Trade of Commercial Satellites Impacts Democracy Abroad and National Security at Home

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**SATELLITES & HONG KONG'S INDEPENDENCE: HOW THE
TRADE OF COMMERCIAL SATELLITES IMPACTS
DEMOCRACY ABROAD AND NATIONAL SECURITY AT
HOME**

*By: Nicholas A. Beekhuizen**

ABSTRACT

Trade laws have always struck a balance between political freedom and national security. The trade of commercial communication satellites ("CCS") between the United States and Hong Kong is no exception. Until recently, Hong Kong held a special trade designation that allowed it to purchase CCS from the United States. This exception from the strict ban on sales of certain advanced technologies to China was allowed due to Hong Kong's semi-autonomous status. However, China's continued encroachment on Hong Kong's autonomy led the United States to strip Hong Kong of its special trade status and ban the free exchange of advanced technologies.

This note examines whether the decision to end Hong Kong's special trade status will ultimately erode their political freedom. Additionally, this note argues that the United States' strict ban on the sale of satellite technology will ultimately hurt its own national security interests. Therefore, the United States should maintain open trade with Hong Kong to ensure political freedom abroad and national security at home.

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I. INTRODUCTION

On November 27, 2019, President Trump signed into law the Hong Kong Human Rights and Democracy Act of 2019 (the "Act" or the "Hong Kong Act").¹ The Act requires the Secretary of State to assess and certify whether Hong Kong remains sufficiently autonomous from China to justify its special trade status.² This special

¹ Hong Kong Human Rights and Democracy Act of 2019, 133 STAT. 1161 (2019).

² CONGRESSIONAL-EXECUTIVE COMMISSION ON CHINA, *Commissioners Reintroduce The Hong Kong Human Rights and Democracy Act* (June 13, 2019), <https://www.>

status, among other things, permits “U.S. exports of advanced technology equipment to Hong Kong that may not be sold elsewhere in China.”³

Exactly six months after the Act passed, Secretary of State Mike Pompeo announced that “Hong Kong does not continue to warrant treatment under United States laws in the same manner as U.S. laws were applied to Hong Kong before July 1997.”⁴ This decision, which was the United States’ response to China’s imposition of new national security laws on Hong Kong, removed Hong Kong’s special trade status and put a question mark on the future trade of sensitive technology.⁵

There is a great deal of difficulty in balancing “any decertification decision” that challenges China’s ability to further erode Hong Kong’s democracy “against the need to maintain support for Hong Kong’s democratic-leaning population.”⁶ On the one hand, restricting the trade of advanced technology would prevent China from improving their own technological capabilities, potentially improve U.S. national security, and create an incentive for China to ease its oppressive grip on Hong Kong. On the other hand, to abandon free trade with Hong Kong could very well be an open invitation for China to complete its dissolution of all democratic institutions in the semi-autonomous city.

This paper applies these two opposing arguments directly to the trade of commercial communication satellites (“CCS”) between the United States and Hong Kong. Besides its use as a bargaining chip against China, restricted trade of CCS could improve the security of U.S. and Chinese citizens. This is because despite stringent regulations and export controls prohibiting the direct sale of American-made

cecc.gov/media-center/press-releases/commissioners-reintroduce-hong-kong-human-rights-and-democracy-act.

³ Jessica Donati, *U.S. Officially Declares That Hong Kong Is No Longer Autonomous*, WALL ST. J. (May 27, 2020) <https://www.wsj.com/articles/u-s-officially-declares-that-hong-kong-is-no-longer-autonomous-11590596133>.

⁴ U.S. DEP’T OF STATE, *P.R.C. National People’s Congress Proposal on Hong Kong National Security Legislation* (May 27, 2020), <https://www.state.gov/prc-national-peoples-congress-proposal-on-hong-kong-national-security-legislation/>.

⁵ Donati, *supra* note 3.

⁶ *Id.*

satellites to China,⁷ there is nonetheless “a fleet” of such satellites serving the Chinese State.⁸ These satellites are used by China to bolster police power throughout its vast swaths of territory, which ultimately have assisted in the violation of human rights in Tibet and Xinjiang.⁹ The human rights violations in Xinjiang, a northwestern region of China, are particularly dreadful, where “re-education” camps have been used to forcibly assimilate over a million Uighur Muslims into “acceptable Chinese citizens.”¹⁰

This paper argues, however, that despite the potential benefits of restricted trade, the United States and Hong Kong would be better served by free trade of advanced technology. Part II of this paper will discuss the complex moving parts that have led to this critical moment in Hong Kong’s history, including: the passage of the Hong Kong Act; how Hong Kong received its special trade status; the state of political tension between Hong Kong and mainland China; and how China’s circumvention of U.S. export controls through Hong Kong is a national security threat. Part III will analyze how the restriction of CCS may ultimately erode Hong Kong’s autonomy and undermine the national and economic security of the United States.

II. BACKGROUND

To understand the unique risk that Hong Kong faces, this section seeks to describe the various moving parts playing into Hong Kong’s status under U.S. law, which include the following: the unique relationship of Hong Kong to both China and the United States; the history of Hong Kong’s fight to remain autonomous; how this fight led to the signing of the Hong Kong Act; and how the Chinese government

⁷ See International Traffic in Arms Regulations, 22 C.F.R. §§ 120-30 (2020) [hereinafter ITAR]; see also Export Administration Regulations, 15 C.F.R. §§ 730-74 (2020) [hereinafter EAR].

⁸ Brian Spegele & Kate O’Keeffe, *China Exploits Fleet of U.S. Satellites to Strengthen Police and Military Power*, WALL ST. J. (Apr. 23, 2019), <https://www.wsj.com/articles/china-exploits-fleet-of-u-s-satellites-to-strengthen-police-and-military-power-11556031771>.

⁹ *Id.*

¹⁰ Jane Perlez, *China Wants the World to Stay Silent on Muslim Camps. It’s Succeeding.*, THE N.Y. TIMES (Sept. 25, 2019), <https://www.nytimes.com/2019/09/25/world/asia/china-xinjiang-muslim-camps.html>.

has used Hong Kong's unique status to circumvent U.S. export controls.

A. The Hong Kong Human Rights and Democracy Act of 2019

The Hong Kong Human Rights and Democracy Act of 2019 “reaffirm[s] the principles and objectives set forth in the United States-Hong Kong Policy Act of 1992.”¹¹ The 2019 Act sets out to support Hong Kong's autonomy, democracy, and human rights, while also requiring that Hong Kong “remain sufficiently autonomous from the People's Republic of China to ‘justify treatment under a particular law of the United States, or any provision thereof, different from that accorded the People's Republic of China.’”¹² The referenced treatment (or special status) under U.S. law has allowed Hong Kong to be a financial hub for the United States and its companies, which is reflected by the operation of 1,300 U.S. firms in Hong Kong and a \$31.1 billion trade-in-goods surplus in favor of the United States in 2018.¹³ The special trade status also allows Hong Kong to import sensitive technologies from the United States that are not otherwise available to China, which creates a national security concern for the United States.¹⁴

To protect Hong Kong's fundamental freedoms and autonomy, the Act requires the President to identify and sanction any persons “responsible for the extrajudicial rendition, arbitrary detention, or torture of any person in Hong Kong; or other gross violations of internationally recognized human rights in Hong Kong.”¹⁵ These sanctions include ineligibility for visas, admission, or parole for anyone identified by the President in violation of the Act.¹⁶ These sanctions vocalize American support for the pro-democracy movement in Hong Kong; however, the sanctions also leave open the

¹¹ Hong Kong Act, *supra* note 1, at § 3(1).

¹² *Id.*

¹³ U.S. DEP'T OF STATE, BUREAU OF EAST ASIAN AND PACIFIC AFFAIRS, *2019 Hong Kong Policy Act Report* (Mar. 21, 2019), <https://www.state.gov/2019-hong-kong-policy-act-report/>.

¹⁴ Spegele & O'Keefe, *supra* note 8.

¹⁵ Hong Kong Act, *supra* note 1, at § 7(a).

¹⁶ *Id.* at § 7(c).

risk of closing trade between Hong Kong and the United States, thus leaving Hong Kong's autonomy vulnerable to further encroachment by China.

The Act requires the Secretary of State to issue an annual certification that "indicates whether Hong Kong continues to warrant treatment under United States law in the same manner as United States laws were applied to Hong Kong before July 1, 1997."¹⁷ Of importance is Section 5 of the Act, which requires an annual report on violations of United States export control laws.¹⁸ In particular, the Secretary of Commerce is to determine whether China uses Hong Kong to gain access to U.S. exports that are otherwise restricted.¹⁹ If it is found that these provisions are violated, the President is authorized "to block and prohibit all transactions in property and interests in property of a foreign person identified in the report required under subsection (a)(1) if such property and interests in property are in the United States, come within the United States, or come within the possession or control of a United States person."²⁰

Put succinctly, the President can halt trade with Hong Kong if Hong Kong is deemed not sufficiently autonomous from Beijing. Upon the re-introduction of the Act to Congress on June 13, 2019, U.S. Representative Chris Smith (R-NJ) stated, "[i]t is in everyone's interest that Hong Kong remain a free and prosperous bridge between China and the world. But if Beijing intends to force Hong Kong into becoming just another mainland Chinese city under authoritarian rule, the United States must reevaluate whether Hong Kong warrants the special status granted under U.S. law."²¹ This statement summarizes the cautious intent of the Act to 1) support the pro-democracy movements in Hong Kong through free trade and sanctions against those who would harm Hong Kongers and their autonomy, and 2)

¹⁷ *Id.* at § 205 (The provision means to treat Hong Kong as if it were still leased to the United Kingdom).

¹⁸ *Id.* at § 5.

¹⁹ *Id.* at § 5(a)(4).

²⁰ Hong Kong Act, *supra* note 1, at § 7(c)(1). Note that "subsection (a)(1)" refers to § 7(a)(1) of the Hong Kong Act, which requires the President to identify persons who undermine human rights or autonomy in Hong Kong.

²¹ CECC, *supra* note 2.

protect the national security interest of the United States should it be determined that Hong Kong is simply a proxy of China's will.

B. Hong Kong's Relationship with China and the West

Hong Kong has had a rich history as a Chinese territory since the third century B.C.²² However, the scope of this subsection begins with Hong Kong's history as a British colony through its current state as a semi-autonomous city belonging to China.

i. Control Under Britain

In 1842, China ceded Hong Kong to Britain under a treaty at the end of the First Opium War.²³ In 1898, Britain and China agreed upon a 99-year lease, which would end precisely at midnight on July 1, 1997.²⁴ In 1984, as Hong Kong's transition to China grew near, the Joint Declaration on the Question of Hong Kong (Joint Declaration) was signed by both the United Kingdom and China, and was later ratified and registered with the United Nations in 1985.²⁵

The Joint Declaration outlined what would happen to Hong Kong once the city was transferred to China. The Joint Declaration included the establishment of the Hong Kong Special Administrative Region ("HKSAR") and its semi-autonomous status under China rule, which would ultimately be coined as the "One Country, Two System" model.²⁶ Under this model, Hong Kong would "become part of one communist-led country but retain its capitalist economic system and

²² Becky Little, *How Hong Kong Came Under 'One Country, Two Systems' Rule*, HISTORY (Sept. 3, 2019), <https://www.history.com/news/hong-kong-china-great-britain>.

²³ British Broadcasting Corporation, Hong Kong profile – Timeline (June 24, 2019), <https://www.bbc.com/news/world-asia-pacific-16526765>; Guiguo Wang & Priscilla M F Leung, *One Country, Two Systems: Theory into Practice*, 7 PACIFIC RIM LAW & POLICY JOURNAL 279, 280-81(1998).

²⁴ Little, *supra* note 22.

²⁵ George E. Edwards, *Applicability of the "One Country, Two Systems Hong Kong Model to Taiwan: Will Hong Kong's Post-Reversion Autonomy, Accountability, and Human Rights Record Discourage Taiwan's Reunification with the People's Republic of China*, 32 NEW ENGLAND L. REV. 751, 756 (1998).

²⁶ *Id.* at 756-57; Little, *supra* note 22.

partially democratic political system for 50 years after the handover.”²⁷ A mini-constitution for Hong Kong, known as the Basic Law, was promulgated by China on April 4, 1990, and has been in force in Hong Kong since July 1, 1997.²⁸ The Basic Law was intended to maintain Hong Kong’s high degree of autonomy, basic rights and freedoms recognized while under British Rule, and other laws previously in force in Hong Kong.²⁹ How the Basic Law was to be implemented and interpreted was unclear, as demonstrated by social unrest in the region.³⁰

On August 11, 1992, the United States passed the United States-Hong Kong Policy Act of 1992 (the “1992 Act”).³¹ The 1992 Act expressed Congress’s intent to continue to treat Hong Kong as a separate legal entity from China upon the city’s transition on July 1, 1997, thus establishing Hong Kong’s semi-autonomous status and special trade designation under U.S. law.³² The 1992 Act states that “[t]he United States should continue to support access by Hong Kong to sensitive technologies controlled under the agreement of the Coordinating Committee for Multilateral Export Controls (commonly referred to as ‘COCOM’) for so long as the United States is satisfied that such technologies are protected from improper use or export.”³³ However, if the President is to determine that “Hong Kong is not sufficiently autonomous to justify treatment under a particular law of the United States,” the President may issue an Executive Order which suspends Hong Kong’s preferential status under U.S. law.³⁴

Thus, the great experiment began to see whether capitalism and democracy could survive under the “One Country, Two System” model.

²⁷ Hong Kong profile, *supra* note 23.

²⁸ Wang & Leung, *supra* note 23, at 756-57.

²⁹ *Id.*

³⁰ Little, *supra* note 22.

³¹ United States-Hong Kong Policy Act of 1992, 22 U.S.C. §§ 5701-5732 (1992).

³² *Id.*

³³ *Id.* at § 103(8).

³⁴ *Id.* at § 202(a).

ii. Political Tensions Between Hong Kong and Mainland China

Since the 1997 transition, the Chinese government has consistently encroached upon the sovereignty of Hong Kong and the tenets of the Basic Law, leading to mass protests on multiple occasions.³⁵ In September 2002, Tung Chee-Hwa, the then-Chief Executive of Hong Kong, released a consultation document outlining its proposals to implement Article 23 of the Basic Law (the “Article”), which requires the Hong Kong government to quell any acts of subversion by the people.³⁶ On July 1, 2003, approximately 500,000 people marched in Hong Kong to protest the Article because of its clear encroachment on the autonomy of Hong Kong.³⁷ Ultimately, on September 5, 2003, Tung Chee-Hwa withdrew the Article.³⁸ Various protests in Hong Kong, involving crowds numbering in the thousands, would ensue over the years, including a June 2009 vigil on the 20th anniversary of the Tiananmen Square massacre.³⁹

Similar to the Article 23 protest, Hong Kong’s current battle for democracy began in response to a proposed bill that would encroach upon the city’s autonomy. On April 3, 2019, Hong Kong introduced a bill that would allow Hong Kong citizens to be extradited to China for alleged criminal activity.⁴⁰ In a demonstration stemming from fear that China would use the Bill to prosecute Hong Kong citizens for political reasons,⁴¹ approximately one million Hong Kongers protested on June 9, 2019.⁴²

³⁵ Hong Kong profile, *supra* note 23.

³⁶ Tom Kellog, *Legislating Rights: Basic Law Article 23, National Security, and Human Rights in Hong Kong*, 17 COLUMBIA J. OF ASIAN L. 307, 309 (2004).

³⁷ *Id.* at 308.

³⁸ *Id.*; see also *Huge protest fills HK streets*, CABLE NEWS NETWORK (July 2, 2003, 12:20 PM), <http://edition.cnn.com/2003/WORLD/asiapcf/east/07/01/hk.protest/>.

³⁹ Hong Kong profile, *supra* note 23 (Hong Kong is the only region of China that recognizes the anniversary of the Tiananmen Square protest).

⁴⁰ *Hong Kong: Timeline of extradition protests*, BRITISH BROADCASTING CORPORATION (Sept. 4, 2019), <https://www.bbc.com/news/world-asia-china-49340717>.

⁴¹ Jessie Yeung, *From an extradition bill to a political crisis: A guide to the Hong Kong protests*, CABLE NEWS NETWORK (Dec. 20, 2019), <https://www.cnn.com/2019/11/15/asia/hong-kong-protests-explainer-intl-hnk-scli/index.html>.

⁴² Hong Kong: Timeline of extradition protests, *supra* note 40.

On June 15, 2019, in an effort to calm the city, Chief Executive Carrie Lam announced that the passage of the extradition bill would be delayed indefinitely.⁴³ However, the next day, on June 16, 2019, approximately two million people took to the streets of Hong Kong demanding the Bill be withdrawn completely.⁴⁴ In the ensuing months, protests became increasingly violent between citizens and the police.⁴⁵ These protests caught the attention of the United States, leading to the passage of the Hong Kong Human Rights and Democracy Act of 2019.

In response to the increased tension with Hong Kong, China imposed new national security laws on Hong Kong that “criminalizes activities deemed as secessionist, subversive or terrorist and gives Beijing the authority to deploy state security agencies in the city.”⁴⁶ These new measures led the Secretary of State to declare that “[n]o reasonable person can assert today that Hong Kong maintains a high degree of autonomy from China”⁴⁷ Pursuant to the Hong Kong Act, President Trump revoked Hong Kong’s special trade status.⁴⁸

C. How China Used Hong Kong to Circumvent U.S. Export Controls

The revocation of Hong Kong’s special status means that the trade of CCS can be halted at any time. However, even while Hong Kong maintained its special status, China abused this trade relationship on several occasions.

Two recent examples illustrate how China circumvented U.S. export controls to gain (or attempt to gain) use of American satellites through Hong Kong’s special trade status. These examples illustrate why the trade of advanced technologies has raised national security concerns for the United States and threatened the loss of Hong Kong’s special status. The first example, involving the company Asia Satellite

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ Yeung, *supra* note 41.

⁴⁶ Joyu Wang, *What Is the Hong Kong Security Law*, WALL ST. J. (Aug. 10, 2020, 8:00 AM), https://www.wsj.com/articles/hong-kongs-security-law-what-china-is-planning-and-why-now-11590088410?mod=article_inline.

⁴⁷ U.S. DEP’T OF STATE, *supra* note 4.

⁴⁸ Donati, *supra* note 3.

Telecommunications Co. (AsiaSat), shows how China has taken advantage of loopholes within U.S. export control laws. The second example, involving a company named Global IP, was a thwarted attempt by China to funnel money through offshore firms to fund a Boeing satellite.

i. AsiaSat

Although the United States prohibits the sale of satellites to China,⁴⁹ the United States does not regulate how a satellite's bandwidth is used once the device is in space.⁵⁰ Because of this loophole, nine satellites built in the United States are currently being used by China for various purposes, including beaming communications for police forces domestically as well as bolstering military power abroad.⁵¹

AsiaSat, a Hong Kong company that defines itself as "Asia's premier satellite operator,"⁵² has long acted as "a bridge between mainland China and U.S. satellite makers."⁵³ "AsiaSat's two major shareholders are CITIC Group Corporation and Carlyle Asia Partners IV, L.P.,"⁵⁴ which together own about seventy-five percent of the firm at the time of this note.⁵⁵ Citic Group is a conglomerate owned by the Chinese government, while Carlyle is an American private-equity firm.⁵⁶

U.S. companies can sell satellites to AsiaSat, despite being partially owned by mainland China, because of Hong Kong's semi-autonomous status.⁵⁷ Up to the time of this writing, AsiaSat has

⁴⁹ ITAR, *supra* note 7.

⁵⁰ Spegele & O'Keeffe, *supra* note 8.

⁵¹ *Id.*

⁵² Asia Satellite Telecommunications Holdings Limited, <https://www.asiasat.com/aboutus> (last visited Oct. 22, 2020).

⁵³ Spegele & O'Keeffe, *supra* note 8.

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Id.* (Carlyle is one of the most politically connected private-equity firms in the United States).

⁵⁷ *Id.*

already launched nine U.S. satellites into orbit.⁵⁸ Boeing is currently constructing a tenth satellite that, if it were to fall into the hands of the Chinese government, would be used to bolster China's competitor to the U.S. GPS system.⁵⁹ Once these satellites are in the possession of AsiaSat, nothing stops them from renting the bandwidth to the Chinese government.

In response to this loophole, Congress added a provision to the National Defense Authorization Act ("NDAA"), which "instructs the Commerce Department to investigate the national-security implications of the current [export controls] system and make recommendations on potential new export rules to prevent China from using U.S. satellites."⁶⁰ Carlyle Group claims that it "sends annual reports to the State Department to confirm AsiaSat's compliance with U.S. export controls, ensuring that sensitive technical information is shared with authorized users only."⁶¹ Additionally, Boeing has stated that it was unaware of any transfer of satellite technology that would violate its export license. "[Boeing] said it was neither possible nor required by law to monitor each bandwidth user after a satellite it built is in space."⁶²

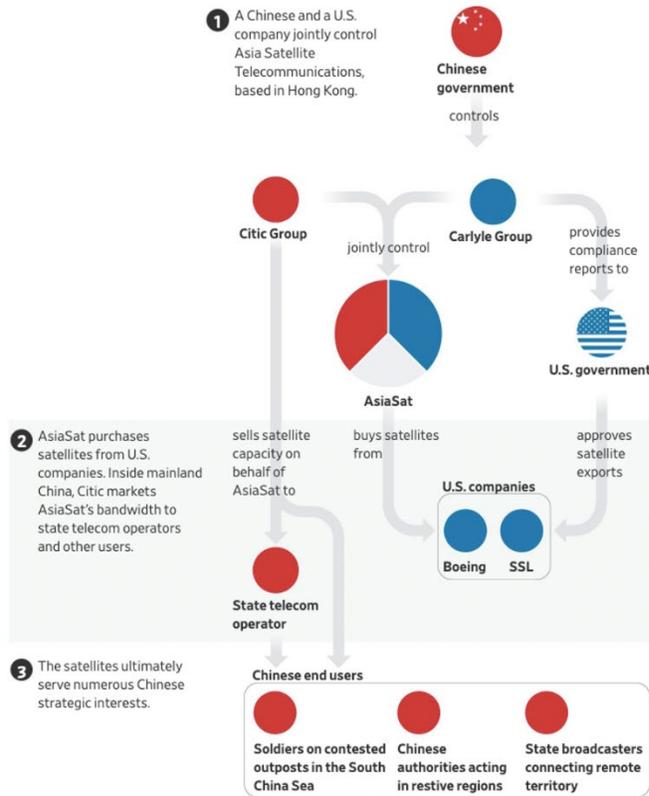
⁵⁸ Spegele & O'Keeffe, *supra* note 8 (the satellites were manufactured by Boeing and SSL).

⁵⁹ *Id.*

⁶⁰ Brian Spegele & Kate O'Keeffe, *Congress Orders Probe of Satellite Loophole China Exploited*, WALL ST. J. (Dec. 17, 2019), <https://www.wsj.com/articles/congress-orders-probe-of-satellite-loophole-china-exploited-11576624306>; *see* National Defense Authorization Act for Fiscal Year 2020, Pub. L. No. 116-92, 133 § 1198 (2019).

⁶¹ Spegele & O'Keeffe, *supra* note 8.

⁶² *Id.*



Sources: Asia Satellite Telecommunications; Citic Group (Chinese end users); Carlyle Group (compliance reports)

Sources: Asia Satellite Telecommunications; Citic Group (Chinese end users); Carlyle Group (compliance reports)⁶³

The NDAA seeks to fill the loophole that Boeing and Carlyle allegedly exploited. Among other things, the NDAA requires an examination of the effects on national security in regard to the AsiaSat scenario, as well as recommendations for a licensing/export regime that would prevent China from making use of U.S. satellites.⁶⁴

⁶³ *Id.*

⁶⁴ See NDAA § 1283(c).

ii. Global IP

China again attempted to circumvent U.S. export controls by ordering a nearly completed Boeing satellite through an American startup called Global IP, which was funded by Chinese state money.⁶⁵ The satellite was intended by the startup to provide internet services in Africa and “uses restricted technology relied on by the U.S. military.”⁶⁶ However, had the deal been completed, China would have ownership over the satellite and would be able to use it for their own military, or reverse-engineer the satellite to bolster its own satellite development.⁶⁷

Global IP needed approximately \$100 million in equity to convince a manufacturer to develop the satellite.⁶⁸ They found their answer in China Orient Asset Management Co. (China Orient), a State-owned Chinese company whose top executives are senior Communist Party members.⁶⁹ Although China Orient agreed to fund the project, they could not directly fund Global IP, and hence Boeing, without setting off red flags and violating U.S. export controls.⁷⁰

Therefore, China Orient funneled their money to Global IP through an intermediary.⁷¹ The intermediary company, Bronzelink Holdings Ltd., was created in the British Virgin Islands by a Chinese businessman named Charles Yiu Hoi Ying.⁷² Global IP was informed by its lawyers that the investments from China Orient could now come through legally because Mr. Yiu “held a passport from Hong Kong, which is semiautonomous and deemed separate from mainland China under U.S. export controls.”⁷³ A subsidiary of China Orient, Dong Yin Development (Holdings) Ltd., would lend the funds to Bronzelink, who would subsequently funnel the money to Global IP, who would

⁶⁵ Brian Spegele & Kate O’Keeffe, *China Maneuvers to Snag Top-Secret Boeing Satellite Technology*, WALL ST. J. (Dec. 4, 2019), <https://www.wsj.com/articles/china-maneuvers-to-snag-top-secret-boeing-satellite-technology-1543943490>.

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ Spegele & O’Keeffe, *supra* note 65.

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.*

finally pay Boeing to make the satellite.⁷⁴ In total, approximately \$200 million made its way to Boeing in this manner.⁷⁵

Hidden Link

How Chinese state money flowed to a Boeing satellite filled with sensitive technology.



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Eventually, the relationship between Global IP and its backers soured.⁷⁷ Mr. Youssefzadeh, one of the founders of Global IP, was concerned that Global IP could not prove its independence from Beijing and thus would be unable to own an American satellite.⁷⁸ This

⁷⁴ *Id.*

⁷⁵ Spegele & O'Keeffe, *supra* note 65.

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Id.*

concern, after being echoed by one of Global IP's attorneys, led to the resignation of the founders of Global IP.⁷⁹

Boeing would later back out of the deal,⁸⁰ which was followed by an investigation by the Securities and Exchange Commission⁸¹ and pressure from at least one House member to determine when Boeing originally discovered China's relationship with the deal.⁸² The recently passed NDAA will certainly give this issue a hard look, and will seek ways to prevent a similar incident from occurring.

III. ANALYSIS

A. Why China's Illegal Obtainment of CCS Puts Hong Kong's Special Status in Permanent Jeopardy

Even if China were to revoke their most recent national security laws, China's historical exploitation of Hong Kong's special status creates another question of whether the special status is justified. Two specific provisions of the Hong Kong Act could require that the United States put the special status' reinstatement on hold.

The first provision is Section 5(a)(3) of the Act, which requires an assessment of "whether sensitive dual-use items subject to the export control laws of the United States are being transshipped through Hong Kong; and used to develop the Sharp Eyes, Skynet, Integrated Joint Operations Platform, or other systems of mass surveillance and predictive policing; or the 'social credit system' of the People's Republic of China."⁸³ Indeed, both the Global IP satellite,

⁷⁹ *Id.*

⁸⁰ Brian Spegele & Kate O'Keeffe, *Boeing Backs Out of Global IP Satellite Order Financed by China*, WALL ST. J. (Dec. 6, 2019), <https://www.wsj.com/articles/boeing-backs-out-of-global-ip-satellite-project-financed-by-china-1544142484> ("[Boeing] cites default for nonpayment in canceling controversial satellite order").

⁸¹ Brian Spegele & Kate O'Keeffe, *U.S. Probes Boeing Satellite Deal Backed By China*, WALL ST. J. (Jan. 11, 2019), <https://www.wsj.com/articles/u-s-probes-failed-boeing-satellite-deal-backed-by-china-11547248296>.

⁸² Brian Spegele, *House Member Presses Boeing on China-Backed Satellite Deal*, WALL ST. J. (Jan. 31, 2019), <https://www.wsj.com/articles/ranking-house-member-presses-boeing-on-china-backed-satellite-deal-11548967170> (referring to Rep. Patrick McHenry).

⁸³ Hong Kong Act, *supra* note 1, at § 5(a)(3). Dual-use, as defined by the Department of Commerce, means items which are those having both commercial and military or

which uses “restricted technology relied on by the U.S. military,”⁸⁴ and the AsiaSat satellite, which “would enhance China’s competitor to the U.S. Global Positioning System,”⁸⁵ are dual-use technologies subject to U.S. export controls.⁸⁶ These dual-use satellites are then (or are intended to be) “transshipped through Hong Kong”⁸⁷ and used by China. Although it is not with one-hundred percent certainty that all satellites are used for “mass surveillance,”⁸⁸ a Wall Street Journal investigation found that Citic Group stated “AsiaSat’s satellites helped ensure communications for authorities as they quelled antigovernment protests and riots in Tibet and in Xinjiang, a heavily Muslim region in far-northwest China.”⁸⁹

The second applicable provision of the Hong Kong Act is Section 5(a)(4), which requires “an assessment of the efforts by the Government of the People’s Republic of China to use the status of Hong Kong as a separate customs territory to import items into the People’s Republic of China from Hong Kong in violation of the export control laws of the United States.”⁹⁰ The language of the provision indicates that a conscious effort by the Chinese Government to exploit Hong Kong as a conduit of sensitive technology is required. For both AsiaSat and Global IP, the “effort” by China is apparent. China Orient, the financier of Global IP, had executives who were “senior Communist party members,”⁹¹ and financed Global IP through Bronzelink knowing that the deal would be impossible without Bronzelink’s ties to Hong Kong.⁹² Furthermore, AsiaSat has openly bought U.S.

proliferation applications. U.S. Department of Commerce, Bureau of Industry and Security, https://www.bis.doc.gov/index.php/licensing/forms-documents/doc_download/91-cbc-overview. For an interesting history of the United States’ “dual-use distinction” as a means of arms control, see Roger Handberg, *Dual-Use as Unintended Policy Driver: The American Bubble*, <https://history.nasa.gov/sp4801-chapter18.pdf>.

⁸⁴ Spegele & O’Keeffe, *supra* note 65.

⁸⁵ Spegele & O’Keeffe, *supra* note 8.

⁸⁶ EAR, *supra* note 7, at 15 CFR § 730.3.

⁸⁷ Hong Kong Act, *supra* note 1.

⁸⁸ *Id.*

⁸⁹ Spegele & O’Keeffe, *supra* note 8.

⁹⁰ Hong Kong Act, *supra* note 1, at § 5(a)(4).

⁹¹ Spegele & O’Keeffe, *supra* note 65.

⁹² *Id.*

satellites for decades despite their use by China.⁹³ Citic Group has said that a satellite purchased by AsiaSat in 2013 was in the South China Sea, “where China has been building military infrastructure in a bid to control waters also claimed by the Philippines, Vietnam and others.”⁹⁴

It is apparent from China’s surreptitious use of Global IP and AsiaSat that China is taking advantage of Hong Kong to import items that would violate U.S. export controls. When the Secretary of State issues the next report regarding the autonomy of Hong Kong,⁹⁵ the elephant in the room – besides the status of China’s national security laws – will be whether the United States can trust Hong Kong with dual-use/sensitive technology in light of China’s prior actions. The Secretary of State will have to determine whether “Hong Kong continues to warrant treatment under United States law in the same manner as United States laws were applied to Hong Kong before July 1, 1997.”⁹⁶ There is a strong argument suggesting that trade of dual-use/sensitive technology with Hong Kong should be halted because Hong Kong has been unable to repel China’s attempts to snag U.S. technology. However, to abandon trade with Hong Kong would lead to the erosion of the “One Country, Two System” model far before 2047.

Indeed, many Hong Kongers see the United States as one of their greatest allies in the fight against China’s encroachment. After President Trump signed the Hong Kong Act, pro-democracy protestors again took to the streets, but this time waving American flags in celebration of the support from their Western ally.⁹⁷ To halt trade with Hong Kong now would not only break its economic and cultural ties with the United States, but would also symbolically act as a concession to China’s authoritative fist over the region. As much as the United States’ commitment to Hong Kong’s freedom has provided

⁹³ Spegele & O’Keeffe, *supra* note 8 (“Since AsiaSat launched its first satellite around 30 years ago, the Chinese government has used it to link state-run broadcasters to the provinces.”).

⁹⁴ *Id.*

⁹⁵ Hong Kong Act, *supra* note 1, at § 205.

⁹⁶ *Id.*

⁹⁷ Ella Torres, Guy Davies, & Karson Yiu, *Why exuberant Hong Kong protesters are waving American flags*, ABC NEWS (Nov. 28, 2019), <https://abcnews.go.com/International/exuberant-hong-kong-protesters-waving-american-flags/story?id=67371063>.

hope and morale to those fighting for democracy, the withdrawal of that commitment will certainly have the opposite effect.

B. National Security as a Factor to Consider

National security is a central question to consider when determining who may receive sensitive technology from the United States. Current economic realities, as well as the United States' experience with periods of strict export regulation and de-regulation, point to the conclusion that restricting trade with Hong Kong would harm U.S. national security.

i. Beginnings of Export Control

Throughout the years, the Department of State and the Department of Commerce have swapped responsibility for licensing communication satellite exports.⁹⁸ The Department of State, which regulates sensitive technology under the International Traffic in Arms Regulations ("ITAR"), imposes restrictive measures on the export of items on the United States Munitions List ("UMSL").⁹⁹ The Commerce Department, which regulates sensitive technology under the Export Administration Regulations ("EAR"), imposes less restrictive measures on the export of items on the Commerce Control List ("CCL").¹⁰⁰

The switching of satellite export control between the Department of State and the Department of Commerce reflects America's constant policy battle between national security and economic growth.¹⁰¹ The United States' modern export control system stems from the Cold War, where the United States' primary concern was preventing American technology from reaching the former Soviet Union.¹⁰² This focus on national security did not change significantly until March 14, 1996, "when President Bill Clinton moved the satellite

⁹⁸ Kurtis J. Zinger, *An Overreaction that Destroyed an Industry: The Past, Present, and Future of U.S. Satellite Export Controls*, 86 U. COLO. L. REV. 351, 357 (2015).

⁹⁹ David R. Fitzgerald, *Leaving the Back Door Open: How Export Control Reform's Deregulation May Harm America's Security*, 15 N.C. J. OF L. & TECH. 65, 71 (2014).

¹⁰⁰ *Id.*

¹⁰¹ *See id.*

¹⁰² *Id.* at 68-71.

licensing function from the State Department to the Commerce Department.”¹⁰³ By October 1996, the business-friendly Commerce Department had control over all communication satellites.¹⁰⁴

The move towards less-restrictive satellite exports was quickly washed away in the wake of the “Hughes and Loral Incidents.”¹⁰⁵ Put succinctly, Hughes and Loral, two satellite manufacturers, transferred sensitive technical data to the Chinese government, with whom they were doing business.¹⁰⁶ In response, the United States created the Select Committee on U.S. National Security and Military/Commercial Concerns with the People’s Republic of China (Cox Committee), which among other things, was tasked to answer whether “the transfer of technology contributed to the enhancement of the accuracy of nuclear armed intercontinental ballistic missiles of the People’s Republic of China, missiles that right this minute are aimed at the United States of America.”¹⁰⁷

The Cox Committee issued a report on its findings and recommended thirty-eight changes to the Clinton Administration’s export controls with respect to China.¹⁰⁸ In response to the report, “Congress passed legislation transferring the authority, effective March 15, 1999, to license exports of CCS to the Department of State.”¹⁰⁹ Thus, almost as soon as the commercial satellite industry received a more business-friendly environment, export controls once again became more stringent.¹¹⁰

¹⁰³ Zinger, *supra* note 98, at 361.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.* at 361-68.

¹⁰⁶ *Id.*

¹⁰⁷ *Id.* at 367 (quoting 144 CONG. REC. 12, 881 (1998)) (internal quotations omitted).

¹⁰⁸ Zinger, *supra* note 98.

¹⁰⁹ IAN FERGUSSON & PAUL KERR, CONG. RSCH. SERV., R41916, THE U.S. EXPORT CONTROL SYSTEM AND THE EXPORT CONTROL REFORM INITIATIVE (2020), <https://crsreports.congress.gov/product/pdf/R41916>.

¹¹⁰ Zinger, *supra* note 98.

ii. Obama-era Deregulation

In May 2012, an amendment to the 2013 National Defense Authorization Act (“2013 NDAA”)¹¹¹ was put forth that “[w]ould remove commercial satellites and related components from the United States [M]unitions [L]ist.”¹¹² Both proponents and detractors of the amendment believed that pure economics was the reason for the change.¹¹³ Although control by the Department of State resulted from national security concerns, it turned out that the resulting non-competitiveness of American satellite manufacturers against the rest of the world would overshadow the need for a strict export regime.

Indeed, the State and Commerce Departments agreed that more stringent export controls caused a lack of American competitiveness in the space industry, which would be detrimental to U.S. national security.¹¹⁴ The negative economic effect of ITAR is evidenced by the United States’ control of 73 percent of the world’s commercial satellite market in 1998 (the year before ITAR), and only 27 percent of the market two years later.¹¹⁵ In this period, “Europe’s share rose from about a quarter to more than half.”¹¹⁶

Obama’s export control overhaul was outlined by then-Secretary of Defense Robert M. Gates, who proposed a four-prong approach to export reform, which included: a single export control licensing agency for both dual-use, munitions and exports licensed to embargoed destinations; a unified control list; a single enforcement coordination agency; and a single integrated information technology system.¹¹⁷ The Obama Administration planned on implementing these changes through three phases. Phase I would “harmonize the Commerce Control List (CCL) with the U.S. Munitions List

¹¹¹ National Defense Authorization Act for Fiscal Year 2013, Pub. L. No. 112-239, 126 Stat. 1632.

¹¹² Zinger, *supra* note 98, at 368-69 (quoting H.R. REP. NO. 112-485, at 43 (2012)).

¹¹³ Compare Zinger, *supra* note 98, with Fitzgerald, *supra* note 99.

¹¹⁴ Zinger, *supra* note 98, at 375.

¹¹⁵ *Id.*

¹¹⁶ *Id.* (quoting Benjamin Sutherland, *Why the U.S. Space Industry Lags Behind Europe’s*, NEWSWEEK (Jan. 30, 2009, 7:00 PM), <http://www.newsweek.com/why-us-spaceindustry-lags-behind-europes-77797>).

¹¹⁷ Fergusson & Kerr, *supra* note 109, at 1-2.

(USML).¹¹⁸ Next, “Phase II would implement a harmonized licensing system with two identically-structured tiered control lists, potentially allowing for a reduction in the amount of licenses required by the system.”¹¹⁹ Finally, Phase III, which would require legislation, “would establish a single licensing agency; merge the two harmonized, tiered control lists, with mechanisms for review and updating; merge the two primary export control enforcement agencies, OEE and ICE; and operationalize a single IT system for licensing and enforcement.”¹²⁰

President’s Export Control Reform Initiative¹²¹

Phase	Control List	Licensing	Enforcement	Information Technology
I	Refine, understand, harmonize definitions to end jurisdictional confusion between two lists; establish new control criteria	Implement regulatory-based improvements to streamline licensing	Synchronize and de-conflict enforcement; create Enforcement Fusion Center	Determine enterprise-wide needs
II (requires congressional notification; requires additional funding)	Restructure two lists into identical tiered structures; apply criteria; remove unilateral controls where appropriate; submit proposals multilaterally to add/remove controls	Complete transition to mirrored control list; fully implement licensing harmonization	Expand outreach and compliance	Transition toward a single electronic licensing system
III (requires legislation)	Merge two lists into a single list; implement process for updating list	Implement single licensing agency	Consolidate enforcement activities under one agency	Implement a single system for licensing and enforcement

Source: Prepared by Dianne Rennack, CRS, based on White House Fact Sheet, April 20, 2010.

It was not until January 2017 that the Obama Administration finally moved Commercial Communication Satellites from the USML to the CCL.¹²² The move was controversial because CCSs often contain embedded sensitive technology.¹²³ However, a review of the U.S. space export control policy by the Secretaries of State and Defense in 2011 found that CCSs could be transferred to the CCL “without posing

¹¹⁸ *Id.* at 9.

¹¹⁹ *Id.*

¹²⁰ *Id.*

¹²¹ *Id.* at 11.

¹²² Fergusson & Kerr, *supra* note 109, at 19.

¹²³ *Id.* at 19.

an unacceptable security risk.”¹²⁴ This review, along with persistent lobbying by satellite manufacturers, ultimately allowed for the January 2017 change to the CCL.¹²⁵ The de-regulatory approach to CCSs and export controls in general continued into the Trump Administration.

iii. Export Control Under President Trump

The Trump Administration’s continuation of Obama’s export control de-regulation is part of a larger overhaul of the entire U.S. space industry.¹²⁶ Some of the major proposals affecting the space industry, and commercial satellites specifically, include the Space Policy Directive-2 (“SPD2”), Streamlining Regulations on Commercial Use of Space; the American Space Commerce Free Enterprise Act (H.R. 2809); and the Space Frontier Act of 2018 (S. 3277).¹²⁷ One of the goals of the Trump Administration is to make the export of commercial satellites easier for private entities, but of course, “the challenge for that process is balancing industry’s need for timeliness and transparency with the government’s need to meet national security and foreign policy objectives.”¹²⁸

The main proposal affecting the Department of Commerce’s control over commercial satellites is the Space Policy Directive-2. SPD2 states several regulatory goals, the first being to “promote economic growth,” and the penultimate to “protect national security, public-safety, and foreign policy interests.”¹²⁹ SPD2 proposes a reorganization of the Department of Commerce, with the purpose of “consolidat[ing] its commercial space regulatory responsibilities,”

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ Daniel Morgan, CONG. RSCH. SERV., R45416, COMMERCIAL SPACE: FEDERAL REGULATION, OVERSIGHT, AND UTILIZATION (2018), <https://crsreports.congress.gov/product/pdf/R/R45416/2>.

¹²⁷ *Id.*

¹²⁸ *Id.*

¹²⁹ White House, Office of the Press Secretary, “Space Policy Directive – 2, Streamlining Regulations on Commercial Use of Space,” presidential memorandum, May 24, 2018 at <https://www.whitehouse.gov/presidential-actions/space-policy-directive-2-streamlining-regulations-commercial-use-space/> (the order of the policy goals may be a clear indicator of their importance to the Administration).

which would move several offices within the Department to a new office called the Space Policy Advancing Commercial Enterprise (SPACE) Administration.¹³⁰ SPACE will serve to act as a “one-stop shop” attempting to streamline the various licenses required for commercial space flight and commercial exports of space technology.¹³¹ In light of the recent scandals involving AsiaSat and Global IP, the Trump Administration will have to take a hard look at how far deregulation will go, and whether a proper balance can be struck between economic growth and national security.

iv. National Security Would Be Undermined if Trade with Hong Kong Halted

Although seemingly counter-intuitive, it is likely that U.S. national security will benefit from maintaining open trade (and specifically continued exportation of satellites) with Hong Kong, even if it risks satellite technology making its way to the Chinese government. Certainly, there should be restrictions for highly sensitive or military technology. However, the export of commercial satellites to Hong Kong should become *less* restrictive. U.S. national security would benefit from a less restrictive satellite export regime to Hong Kong for the following two reasons. First, the economic benefits from open trade would promote U.S. dominance in the world satellite market, which would ensure that the United States continues to develop the best technology, while older technology trickles its way to China. Second, satellite technology would make it to China through other competitors regardless of whether the United States halts trade with Hong Kong.

Despite the persistent workaround of U.S. export controls by the Chinese, “U.S. officials and industry players have said the profits American satellite exports generated could be reinvested in

¹³⁰ *Id.*

¹³¹ Todd Harrison & Kaitlyn Johnson, *How Might Space Policy Directive 2 Affect Commercial Space?*, CTR. FOR STRATEGIC & INT’L STUD. (May 30, 2018), <https://www.csis.org/analysis/how-might-space-policy-directive-2-affect-commercial-space> (some commercial space flight activities may require a license from the FCC, the DoC, and the FAA).

development to keep the U.S. ahead.”¹³² Indeed, as the commercial satellite industry continues to burgeon,¹³³ it is imperative that the U.S. allows its private sector,¹³⁴ which has increasingly been at the forefront of the U.S. space industry, to have more freedom in its operations.

Since Obama’s export control overhaul and continuing through the Trump Administration’s broader space industry overhaul, the United States has been on track for its private sector to lead the world in space and satellite technologies. In 2017, the National Space Council met for the first time since it was disbanded in 1993 to discuss how the United States can assert leadership in space.¹³⁵ There, “SpaceX¹³⁶ President and COO Gwynne Shotwell called for deregulation” and stated “it requires heroics” to deal with the current regulatory state.¹³⁷

A perfect example of where supporting the U.S. private sector is necessary to outpace China’s satellite technology is a comparison of SpaceX’s Star Link project with China’s Belt and Road Initiative. The goal of Star Link is to surround the globe with approximately 12,000 small¹³⁸ satellites, which would “[blanket] the Earth with high-speed, low-latency, and affordable internet access.”¹³⁹ The initial focus is to provide services to the United States and Canada,¹⁴⁰ but eventually

¹³² Spegele & O’Keeffe, *supra* note 8.

¹³³ Robert Wall, Yaryna Serkez and Joel Eastwood, *How to Profit in Space: A Visual Guide*, WALL ST. J. (June 25, 2019), <https://www.wsj.com/graphics/new-space-race/>.

¹³⁴ See Tim Fernholz, *Rocket Billionaires: Elon Musk, Jeff Bezos, and the New Space Race* (2018) (explaining how private actors are replacing governments in the domination of space).

¹³⁵ Michael Sheetz, *SpaceX president slams space regulations: ‘It requires heroics’ to make minor changes*, CNBC (Oct. 5, 2017), <https://www.cnbc.com/2017/10/05/spacex-president-gwynne-shotwell-slams-space-regulations.html>.

¹³⁶ SpaceX is short for Space Exploration Technologies Corporation.

¹³⁷ Sheetz, *supra* note 135.

¹³⁸ Dave Mosher, *Elon Musk just revealed new details about Starlink, a plan to surround Earth with 12,000 high-speed internet satellites. Here’s how it might work.*, BUSINESS INSIDER (May 16, 2019, 5:59 PM), <https://www.businessinsider.com/spacex-starlink-satellite-internet-how-it-works-2019-5> (describing how the satellites are approximately 500 pounds each and will be deployed sixty at a time).

¹³⁹ *Id.*

¹⁴⁰ Jackie Wattles, *Here’s what you need to know about SpaceX’s Starlink internet service*, CNN BUSINESS (Oct. 26, 2019), <https://www.cnn.com/2019/10/26/tech/spacex-starlink-elon-musk-tweet-gwynne-shotwell/index.html>.

even remote areas of the world will be reached.¹⁴¹ So far, Star Link is moving at a steady pace with its third batch of sixty satellites launched into orbit on January 6th, 2019.¹⁴²

With a similar goal of connecting the world, China's Belt and Road Initiative ("BRI") seeks to "[create] a vast network of railways, energy pipelines, highways, and streamlined border crossings, both westward—through the mountainous former Soviet republics—and southward, to Pakistan, India, and the rest of Southeast Asia."¹⁴³ Additionally, over sixty countries have signed on to projects or indicated interest with the BRI.¹⁴⁴ While the BRI purports to bolster the economy of involved countries, "the United States shares the concern of some in Asia that the BRI could be a Trojan horse for China-led regional development, military expansion, and Beijing-controlled institutions."¹⁴⁵

The BRI is also competing with the United States and its private sector in space. Similar to Starlink, BeiDou satellites, China's competitor to the U.S. GPS system,¹⁴⁶ are being used to make a "space silk road" that will attempt to provide global coverage.¹⁴⁷ With the addition of BeiDou to the BRI, the project has now been described as

¹⁴¹ Cecelia Smith-Schoenwalder, *SpaceX Plans Next Satellite Launch for Internet Service*, U.S. NEWS & WORLD REPORT (Nov. 8, 2019), <https://www.usnews.com/news/national-news/articles/2019-11-08/spacex-plans-next-starlink-satellite-launch-for-internet-service>.

¹⁴² Christine Lunsford, *SpaceX Launches Third Batch of 60 Starlink Satellites to Orbit*, SPACE.COM (Jan. 8, 2020), <https://www.space.com/spacex-starlink-2-launch-photos.html> (this launch also achieved two milestones, as it was the first launch "under the governance of the newly established U.S. Space Force" and "made SpaceX the operator of the largest satellite fleet in space").

¹⁴³ Andrew Chatzky & James McBride, *China's Massive Belt and Road Initiative*, COUNCIL ON FOREIGN RELATIONS (Jan. 28, 2020), <https://www.cfr.org/backgrounders/chinas-massive-belt-and-road-initiative>.

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ Pratik Jakhar, *How China's GPS 'rival' Beidou is plotting to go global*, BBC MONITORING (Sept. 20, 2018), <https://www.bbc.com/news/technology-45471959> ("Originally designed for the Chinese military to reduce reliance on the US-owned GPS, Beidou has turned into a commercial opportunity as its coverage has expanded.").

¹⁴⁷ *Id.* Like Starlink, Beidou will use a constellation of satellites to achieve global coverage.

“a multi-dimensional super-project with a land, sea and space presence” and creating a “virtual umbrella” with an “extensive zone of influence.”¹⁴⁸ With such an aggressive expansion of Chinese influence, it is apparent why the United States would be cautious about China using Hong Kong as a customs territory to steal U.S. satellite technology. However, the focus of the United States should be on its ability to use free markets and private enterprise to keep ahead of its competitors.

Private companies such as SpaceX and Blue Origin, with their respective satellite constellation projects, are the United States’ way of competing with China. The strength of the United States has always been its free markets and private enterprise, and the United States should depend on this strength to lead the world in space technology, which would consequently further protect U.S. interests. Thus, for national security purposes, the United States should maintain Hong Kong as another valuable marketplace for private companies. Evidence of Hong Kong’s importance in supporting the economic needs of U.S. companies is the \$31.1 billion trade-in-goods surplus in favor of the United States in 2018.¹⁴⁹ By easing restrictions in this lucrative market, private space companies can use their profits to reinvest into technology and ensure that the United States remains dominant in the new space race.

One counterargument seems commonsensical, in that even if U.S. technology growth slows, China will have a harder time catching up if the United States completely halts satellite exports to Hong Kong. However, if China doesn’t get commercial satellite technology from the United States, then they will get it from other competitors. For example, a “2012 risk assessment of the United States’ export control policy conducted by the Departments of State and Commerce” said that “[c]urrent law forces the U.S. Government to continue to protect **commonly available satellites** and related items on the [USML], thus impeding the U.S. ability to work with partners and putting U.S.

¹⁴⁸ Sabena Siddiqui, *BRI, BeiDou and the Digital Silk Road*, ASIA TIMES (April 10, 2019), <https://www.asiatimes.com/2019/04/opinion/bri-beidou-and-the-digital-silk-road/>.

¹⁴⁹ U.S. DEP’T OF STATE, *supra* note 13.

manufacturers at a disadvantage, but providing no noticeable benefit to national security.”¹⁵⁰

Additionally, when commercial satellite exports were severely restricted under ITAR, U.S. companies went as far as to market “ITAR-free product lines” to European buyers.¹⁵¹ The extreme restrictions caused European firms who built, launched, or operated American space technology to consider “American know-how [as] a liability.”¹⁵²

Between restrictions on commonly available satellites and frustrated international markets, the conclusion that China will eventually purchase CCS technology is clear. If it is not the United States that makes the sale to China or Hong Kong, some other global entity will fill the gap. In this scenario, the only player not profiting in some manner will be the United States. In addition, because of the United States’ inability to “regulate how a satellite’s bandwidth is used once the device is in space,”¹⁵³ it is likely that the workaround of U.S. law by AsiaSat can be done by any company or country, not only a company in Hong Kong.

In summary, the national security of the United States would benefit from maintaining and improving open trade of commercial satellites with Hong Kong. This is because less restrictive export controls of CCSs to Hong Kong would allow the United States to reinvest into its own technology, thus maintaining an edge over China. Additionally, even if the United States halted trade with Hong Kong completely, China would eventually obtain this technology through some other method.

C. Recommendations the NDAA Should Consider

Because both Hong Kong’s independence and the United States’ national security rely on open markets between Hong Kong and the United States, any new rules considered by the Department of Commerce under the NDAA should keep economic freedom as a priority. Two possible suggestions would be 1) to put less stringent control on exports of commercial satellites while explicitly stating

¹⁵⁰ Zinger, *supra* note 98 (emphasis added).

¹⁵¹ Fitzgerald, *supra* note 99.

¹⁵² Zinger, *supra* note 98.

¹⁵³ Spegele & O’Keeffe, *supra* note 8.

what types of technology are not to be transferred, and 2) to legislate contractual obligations between satellite manufacturers and their foreign buyers that allow regulation of how commercial satellite bandwidth is regulated.

Relaxing the restrictions on commercial satellites export would be a massive boon to the relationship between Hong Kong and the United States. Hong Kong's ability to prosper economically through free trade would reinforce and reinvigorate its democratic movements against its communist oppressors, as well as further strengthen Western ideals of freedom. Of course, there is the risk that China would eventually make use of CCS technology for nefarious purposes, but as discussed above, that risk is present whether or not the United States continues trade with Hong Kong.

Balancing national security and economics is difficult because the U.S. export control system, as Obama's then-Defense Secretary Gates described it, is a "byzantine amalgam of authorities, roles, and missions scattered around different parts of the federal government."¹⁵⁴ However, the Trump Administration continues to follow Obama's path of narrowing and specifying the items subject to ITAR regulations.¹⁵⁵ The NDAA should lead to further legislation that makes it a priority to specifically state what items, if made a part of commercial satellites, cannot be exported. Through extreme specificity, the United States can avoid the old problem of losing its share of the global marketplace, resulting from foreign buyers' hesitance to deal with an overly strict ITAR regime.

Finally, it is possible that the United States finds a way to regulate the use of satellite bandwidth once exported. If the United States had the ability to regulate bandwidth, then the AsiaSat issue would be moot.¹⁵⁶ However, this will surely prove difficult. One possibility is to force contractual obligations between U.S. satellite manufacturers and foreign buyers that require compliance with U.S. use-of-bandwidth regulations. However, two major problems stem from this idea. First, the United States has already seen the use of a tangled web of companies and countries in China's attempt to purchase a satellite through Global IP. There is simply no way to

¹⁵⁴ Fergusson & Kerr, *supra* note 109.

¹⁵⁵ Fitzgerald, *supra* note 99.

¹⁵⁶ See Spegele & O'Keefe, *supra* note 8.

guarantee that as the satellite changes hands from jurisdiction to jurisdiction that any contractual obligation will be honored. Second, the United States runs into the same problem of economic unfeasibility. The global marketplace would simply be less inclined to purchase a satellite that has additional cost associated with U.S. compliance. This would ultimately lead to a loss in the United States' share of the global CCS market, which would lead to a decrease in competitiveness and national security. One of the foreign markets is, of course, Hong Kong, with whom the United States should want to improve economic relations, not restrict them. Thus, it appears that any severe economic inhibitors would risk both Hong Kong and the United States' economic and national security. Therefore, the NDAA should indeed focus on solutions that open free markets, not close them.

IV. CONCLUSION

If Hong Kong's independence and democracy are to last beyond 2047, it will require strong economic ties with the United States. Although the transfer of satellite technology through companies like AsiaSat and Global IP are of concern, the United States should not make any drastic changes to the free market relationship it currently has with Hong Kong. Through free trade, and a less restrictive export control regime over the sale of commercial satellites, the United States can both support the independence of Hong Kong and bolster its own national security. The other option, to restrict or abandon trade with Hong Kong, will surely result in a two-prong negative where Hong Kong is left to China's encroachment, and the United States will once again lag in the global marketplace of commercial satellites.