

**Statement before the House Homeland Security Committee
Subcommittee on Transportation and Maritime Security**

***“Beijing’s Air, Space, and Maritime
Surveillance from Cuba: A Growing
Threat to the Homeland”***

A Testimony by:

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Tuesday, May 6, 2025

Chairman Gimenez, Ranking Member McIver, and distinguished Members of the Subcommittee, I am honored to share my views with you on this important topic. CSIS does not take policy positions, so the views represented in this testimony are my own and not those of my employer. In my testimony, I would like to reflect on the People's Republic of China's historical and burgeoning role in Cuba, the Cuban Communist Party's repressive tactics and China's role in regime security, as well as China's use of Cuba as a staging ground for espionage activities against the United States, including its signals intelligence.

“In my recent trip to Santiago, I heard reports from several sources of big military installations under construction in mountains of Oriente Province.”

—Graham Greene, *Our Man in Havana*

Peering into the United States

Cuba has long served as a perch for great power rivals to the United States. Indeed, the memory of those fateful days in October 1962 when the United States and Soviet Union came perilously close to a nuclear exchange over the latter's stationing of nuclear tipped missiles in Cuba has tinged discourse about the island ever since. The question of Chinese bases in Cuba touches on some of the same sensitivities—that a rival of the United States might clandestinely exploit the strategic position of Cuba to build up a military presence directly under the nose of the United States, to the detriment of the entire Western Hemisphere's security. A brief history of the PRC's partnership with Cuba reveals worrying patterns.

When Soviet missiles left the island, eyes, ears, and antennas stayed. From bases across the island, Soviet and Cuban intelligence and military personnel worked together to gather information on the United States. Of particular note was the Lourdes Signal Intelligence Complex located near Havana. At its peak, the facility was reportedly home to an estimated 1,500 operatives and supplied the USSR with 75 percent of its military intelligence.¹ But Lourdes was one of many such facilities, all dedicated to gathering and processing the firehose of signals coming from the southeastern seaboard of the United States. It is telling that of the facilities identified and surveyed in CSIS' analysis, just one, the new Circular Disposed Antenna Array in El Salao, was not a preexisting signals intelligence (SIGINT) site left over from the Cold War.

After the fall of the Soviet Union, however, Cuba's strategic importance for Moscow diminished, and finally in 2002, Lourdes was shuttered as an intelligence facility and converted into the University of Informatic Sciences.² Along with a decrease in military presence, the Soviet collapse engendered economic turmoil for Cuba, known as the “special period,” where a lack of subsidized fuel and economic aid brought about shortages of critical goods and near economic collapse for the island. By the end of the 1990s, Cuba was desperately seeking new partners to fill the void its former communist ally had left.

Into this breach stepped, partially, the Chinese Communist Party (CCP). The CCP and the Communist Party of Cuba (PCC) had enjoyed strong relations since the latter's inception, and as one of the few remaining communist parties at the turn of the century, fell into China's foreign policy category of both “good friend” and “good comrade.” While Cuba's economic turmoil meant

that it had little to offer by way of trade, its strategic geography remained unrivaled. In February 1999, China's Minister of Defense, General Chi Haotian, visited Cuba, where he met with his counterpart then-Defense Minister Raúl Castro. According to an article in *El Nuevo Herald*, the two reportedly signed an agreement granting China access to a number of former Soviet listening stations across the island, including the Bejucal base less than 10 miles from the old Lourdes station.³ Coverage also cited a leaked Federal Communications Commission report claiming China had facilitated the transfer of jamming equipment to help block signals from Radio Martí reaching the island.

China-Cuba ties have continued to grow apace over the past decades. In 2005, Raúl Castro traveled to China to meet with President Hu Jintao, and President Xi Jinping toured Cuba in 2014 as part of his first official trip to Latin America as President of China and General Secretary of the CCP.⁴ The PCC has been the number one recipient in Latin America of International Liaison Department Engagements, the CCP's organ for foreign party-to-party diplomacy, helping further cement ties between Cuban and Chinese leadership.⁵ In the military domain, China and Cuba have continued to fortify their ties through high-level delegations and at times more active measures. Havana was home to a rare PLAN port call in the Western Hemisphere when three warships docked in November 2015 to commemorate fifty years of China-Cuba relations. As recently as April 2024, He Weidong, Vice Chairman of China's Central Military Commission, and Cuban general Víctor Rojas Ramos, proclaimed an "unbreakable friendship" between the two nations. On January 1, 2025, Cuba officially joined the BRICS as an associate member, a major boost for Havana as the alliance's efforts to weaken the hold of the U.S. dollar over the global financial system are a boon to the embargoed island.⁶

Cuba has received an estimated \$369 million in development finance from the PRC, but this pales in comparison to the island's true financial needs.⁷ Venezuela's collapse has also made Cuba's other historical partner unable to fill the void. Today, Cuba is in the midst of its worst economic crisis since the Special Period, registering 30 percent inflation and a 2 percent decline in GDP in 2023. Last fall, island-wide blackouts underscored the fragility of Cuba's dilapidated energy infrastructure. Privately, Chinese officials have even reportedly expressed frustration that the Cuban government has not introduced more market-oriented reforms to ameliorate its deep economic woes.⁸ Without much to offer China in terms of trade and raw materials, Cuba has played one of its only cards: its strategic location and relationships with senior CCP officials for support as the regime seeks to weather the present crisis.

China and Cuba's Regime Security

In addition to general financial and development support for the Cuban regime, China has played a critical role in sharing authoritarian best practices and transplanting those tactics in a phenomenon known as "authoritarian export" or "authoritarian diffusion." For instance, China built the island's telecommunications infrastructure. The primary providers to Etecsa, Cuba's sole internet provider, are exclusively Chinese: Huawei, TP-Link, and ZTE.⁹ The Swedish organization Qurium discovered that Cuba uses Huawei network management software eSight to help filter web searches.¹⁰ In doing so, China has built telecommunications infrastructure capable of surveillance and repression. This was visible in the July 2021 protests, when the Cuban regime shut off the internet and telephone services, blocking the island's protestors from communicating with the

outside world. This is just one example of how China supports the Cuban regime through the diffusion of authoritarian practices and tools.

Strategic Battleground

On June 8, 2023, the *Wall Street Journal* first reported that Cuba hosted secret Chinese spy bases in return for billions of dollars for the Cuban regime.¹¹ That same day, the Biden administration's Defense Department denied the *Wall Street Journal's* reporting, characterizing the report as "inaccurate."¹² Three days later, however, National Security Council spokesperson, John Kirby, reversed course and admitted to China's spy bases in Cuba, but insisted that its presence had existed since 2019 under the first Trump administration, implying the Biden administration had "inherited" the challenge.¹³ Around the same time, reports surfaced that China was pursuing the construction of a military training base in Cuba.¹⁴

Subsequently, CSIS published a groundbreaking report, "Secret Signals: Decoding China's Intelligence Activities in Cuba." The CSIS team scoured the island using commercially available satellite imagery, identifying four likely sites for signals intelligence collection in the process.¹⁵ This was followed by a *Wall Street Journal* Exclusive confirming its earlier reporting on the spy stations.¹⁶ CSIS published another updated set of images in December 2024 as it tracked China's progress at these four sites.¹⁷

Although open-source research and satellite imagery have fueled speculation about nearly a dozen potential SIGINT sites in Cuba, CSIS positively identified four specific facilities as highly likely sites supporting Chinese intelligence operations targeting the United States. Three of these sites—Bejucal, Wajay, and Calabazar—are located around Havana.¹⁸ A fourth site, El Salao, is a previously unreported facility located on the opposite side of the island, just east of Santiago de Cuba.¹⁹ In response to reporting on the Cuba-China SIGINT nexus, high-level PCC officials either outright denied any connection, or attempted to disarm criticism with humor (see appendix for the responses of Foreign Minister Bruno Rodríguez and President Miguel Díaz-Canel to CSIS' reports).

To coincide with this hearing, CSIS is releasing brand new imagery updates. First, after the publication of CSIS' initial reports, construction progress at El Salao appears to have ceased according to image captures dated April 18, 2025. Furthermore, the CDAA site appears to be abandoned for the moment, as evidenced by hitherto well-trimmed and graded areas being taken over by foliage. Second, the PRC appears to be enhancing its SIGINT at a previously identified facility near Havana, Bejucal. On satellite imagery, a new area of the site, some antennas have been removed to make way for a large CDAA. The facility is also active, as evidenced by multiple image captures showing dishes moving positions to different angles and targets. Interestingly, the Soviets also operated a CDAA not far from this exact spot.

Motivation and Capability

The CSIS open-source reports have brought unprecedented clarity to the scope and capabilities of several suspected Chinese SIGINT sites in Cuba, offering fresh insights into how they may be used to monitor sensitive military, commercial, and government activity across the region, but especially in the United States. Given its proximity to both the wider Caribbean and the southern

United States, Cuba holds significant strategic value for signals intelligence collection in the region. The United States maintains critical military installations concentrated in states like Florida and Georgia, so Cuba's location just 93 miles from the Florida Keys gives adversaries such as China a prime vantage point to peer into the United States and intercept sensitive communications.

Both China and Cuba stand to gain significantly from this arrangement. Mired in a socialist nightmare, Cuba is currently facing its worst economic crisis in decades. Presently, the government presides over a moribund economy, daily power outages, and an exodus of over 10 percent of the island.²⁰ For Cuba, China's financial support represents an important lifeline. For China, the proximity to the United States and potential to access critical military and commercial intelligence strongly incentivizes the PRC to engage in this strategic arrangement with Cuba. Beyond the intelligence efforts, collaborating with Cuba in this domain expands China's military and intelligence footprint across the globe.²¹ By pursuing these objectives in partnership with Cuba, China also reinforces the presence of a communist ally in close proximity to the United States.²²

From a capability standpoint, SIGINT plays a pivotal role in contemporary spy craft and intelligence gathering.²³ Through the use of antennas and specialized equipment, actors can configure SIGINT systems for maximum effectiveness.²⁴ As the technology leverages antennas and gathers signals, distance and geography are essential. Depending on the objective and scope of the intelligence gathering mission, facilities can be configured in various ways to maximize data collection and operational effectiveness.²⁵

For optimal success, SIGINT systems rely on the beamforming technique to ensure the antennas are properly assembled for the mission efforts. The technique behind beamforming is used to enhance the effectiveness and precision of antenna arrays.²⁶ A single isotropic antenna radiates energy in all directions, resulting in limited range and greater vulnerability to interference. With just two antennas, signals can be synchronized to constructively interfere, producing a stronger, more focused beam. With more antennas, operators can fine-tune the phase and amplitude of signals for even greater directional control. When arranged in a grid, these arrays can steer the beam electronically without physically repositioning the antennas, allowing for flexible and efficient signals interception.²⁷ Because these antennas are gathering signals, it is imperative that SIGINT operations are within range of their target, meaning Cuba is an ideal partner for China's espionage efforts.²⁸

Due to Cuba's proximity to Florida, these facilities grant China SIGINT coverage of around 20 key bases and installations on the peninsula.²⁹ The most significant military installations in and around Florida include Naval Air Station Pensacola, Tyndall Air Force Base, MacDill Air Force Base, Naval Air Station Key West, King's Bay Submarine Base, Cape Canaveral, and of course, the United States Southern Command.³⁰

Policy Recommendations

Offer Classified Briefing to Every Member of Congress: This development is significant enough to national security to justify briefings for members of congress. All members of congress should be able to receive a classified briefing on the topic of China's SIGINT operations in Cuba. Importantly, this should be made available to members of congress on an ongoing basis, to ensure updates on imagery are also briefed.

Consider Selective and Strategic Declassification of Images: Given that El Salao appears to have been abandoned since the publication of CSIS' reports, we may reasonably believe that transparency efforts and public criticism have the potential to derail China's ambitions. The United States should consider the strategic declassification of select images at moments that could derail China's operations and apply select pressure to these operations.

Develop and Articulate Red Lines: Given Cuba's historically outsized role in U.S. national security calculations and its close cooperation with U.S. adversaries, ensuring clear communication is of the utmost importance to reduce potential misperceptions. If the United States believes China or Cuba to be credibly cooperating to share intelligence with one another, the United States should make this clear to both Havana and Beijing. Simultaneously, while it is difficult to displace existing facilities from the island, the United States should be crystal clear that the permanent installation of offensive military capabilities in Cuba (as was reported as a possibility by the *Wall Street Journal* around the same time as the original reporting on spy bases), or the basing of PLA combat assets, would be seen as a significant escalation and a redline for the United States. Passivity in the face of SIGINT facilities should not be interpreted by Havana as a green light to deepen Cuba-China cooperation.

Harden Sensitive Civilian Infrastructure Against SIGINT: So long as China's SIGINT facilities operate in Cuba, the United States cannot be completely certain that no sensitive information will be obtained by an adversary. While modern military communications are encrypted and designed to prevent vital intelligence from leaking, civilian firms may lack the knowledge, means, or resources to safeguard their own infrastructure. Additionally, some private entities like SpaceX, which launch rockets from Cape Canaveral within theoretical range of some of the equipment observed in the CSIS reports, engage in highly strategic activities. The Chinese are top competitors of the United States in space. The U.S. Cybersecurity and Infrastructure Security Agency should spearhead an effort to review which companies operating in range of Cuban SIGINT sites are most vulnerable to this form of intelligence-gathering and develop a plan to help these firms bolster their operational security. This could include training, basic encryption, or financing to help acquire necessary security equipment.

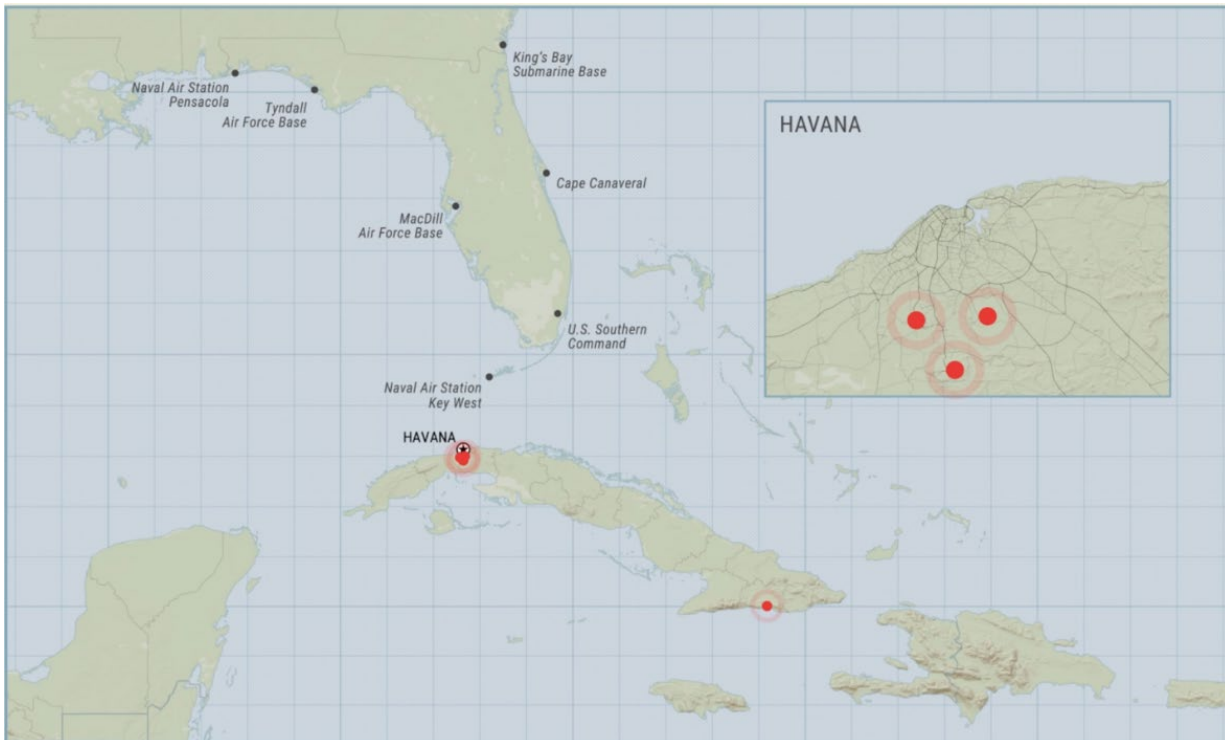
Enlist Neighbors and Allies: The presence of SIGINT facilities in Cuba does not pose a risk to the United States alone. Tools like CDAAAs collect information omnidirectionally, meaning anything within range is liable to be picked up. Regional allies may be even more vulnerable, as they lack the same sophisticated encryption and stealth technology as the United States, possibly allowing Cuba and any of its partners a window into critical national security functions. As CISA works domestically with private sector actors, the States Department should engage countries like the Bahamas, the Dominican Republic, and Jamaica, to highlight risks and steps these countries can take to reduce their vulnerability to Cuba's SIGINT facilities.

Appendix of Images

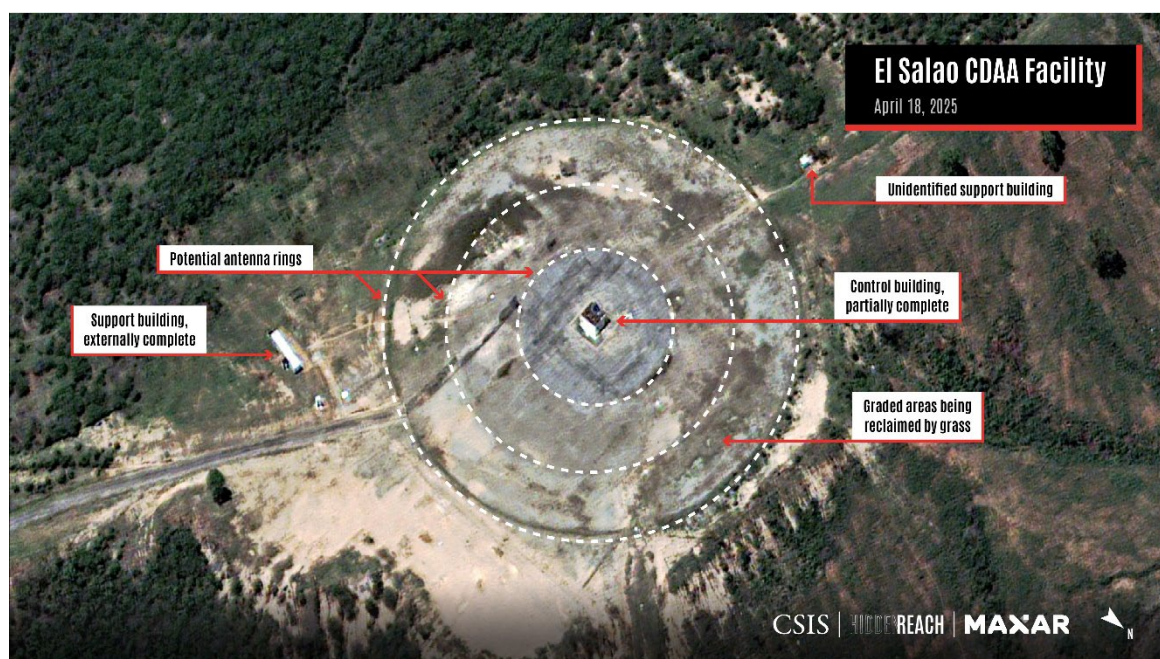
Public response of the Cuban president and foreign minister to initial revelations.



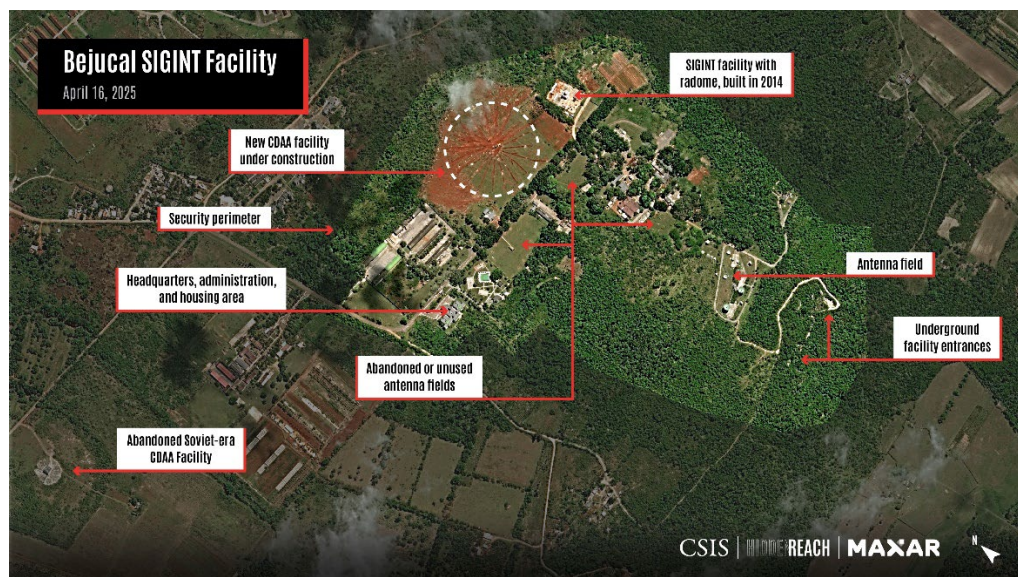
US Military and sensitive installations within range of China's SIGINT in Cuba.

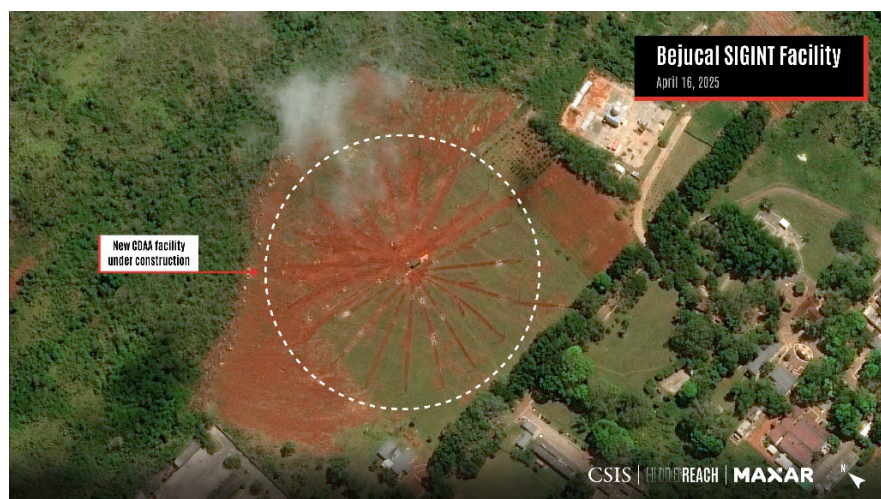


Imagery updates from the El Salao site



Imagery updates from the Bejucal site





Endnotes

- ¹ https://irp.fas.org/congress/1996_hr/s960222d.htm
- ² <https://www.uci.cu/en/university/history>
- ³ <https://www.csis.org/analysis/chinas-intelligence-footprint-cuba-new-evidence-and-implications-us-security>
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- ⁹ <https://thediplomat.com/2021/08/how-china-helps-the-cuban-regime-stay-afloat-and-shut-down-protests/>
- ¹⁰ <https://www.qurium.org/alerts/internet-blocking-in-cuba-silencing-dissent-in-the-name-of-moral-and-good-manners/>
- ¹¹ <https://www.wsj.com/world/cuba-to-host-secret-chinese-spy-base-focusing-on-u-s-b2fed0e0>; see also, <https://www.politico.com/news/2023/06/08/china-spy-on-us-cuba-00100990>.
- ¹² <https://www.reuters.com/world/pentagon-dismisses-wsj-report-china-spy-station-cuba-2023-06-08/>
- ¹³ <https://www.wsj.com/politics/white-house-says-china-has-had-cuba-spy-base-since-at-least-2019-42145596>; see also, <https://www.politico.com/news/2023/06/12/kirby-nsc-china-balloon-cuba-00101575>.
- ¹⁴ <https://www.wsj.com/politics/beijing-plans-a-new-training-facility-in-cuba-raising-prospect-of-chinese-troops-on-americas-doorstep-e17fd5d1?mod=mhp>; see also, <https://www.politico.com/news/2023/06/20/china-negotiating-with-havana-about-joint-military-training-facility-in-cuba-00102636>.
- ¹⁵ <https://features.csis.org/hiddenreach/china-cuba-spy-sigint/>
- ¹⁶ <https://www.wsj.com/politics/national-security/china-cuba-suspected-spy-bases-da1d6ec9>
- ¹⁷ <https://www.csis.org/analysis/chinas-intelligence-footprint-cuba-new-evidence-and-implications-us-security>
- ¹⁸ <https://features.csis.org/hiddenreach/china-cuba-spy-sigint/>
- ¹⁹ <https://features.csis.org/hiddenreach/china-cuba-spy-sigint/>
- ²⁰ <https://www.csis.org/analysis/chinas-intelligence-footprint-cuba-new-evidence-and-implications-us-security>
- ²¹ <https://www.csis.org/analysis/chinas-intelligence-footprint-cuba-new-evidence-and-implications-us-security>
- ²² <https://www.csis.org/analysis/chinas-intelligence-footprint-cuba-new-evidence-and-implications-us-security>
- ²³ <https://www.csis.org/analysis/chinas-intelligence-footprint-cuba-new-evidence-and-implications-us-security>
- ²⁴ <https://www.csis.org/analysis/chinas-intelligence-footprint-cuba-new-evidence-and-implications-us-security>
- ²⁵ <https://www.csis.org/analysis/chinas-intelligence-footprint-cuba-new-evidence-and-implications-us-security>
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- ²⁷ <https://www.csis.org/analysis/chinas-intelligence-footprint-cuba-new-evidence-and-implications-us-security>
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- ²⁹ <https://features.csis.org/hiddenreach/china-cuba-spy-sigint/>
- ³⁰ <https://features.csis.org/hiddenreach/china-cuba-spy-sigint/>

Havana and Beijing: A Malign Partnership in the Americas

Testimony Before Homeland Security Committee / Subcommittee Name

United States House of Representatives

May 5, 2025

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My name is Andres Martinez-Fernandez. I am the Senior Policy Analyst for Latin America at The Heritage Foundation. The views I express in this testimony are my own and should not be construed as representing any official position of The Heritage Foundation.

Havana's Hostility

Since its inception, the Cuban dictatorship has repeatedly proven itself to be a willing partner and staging ground for anti-American, extra-hemispheric powers. During the Cold War, Cuba was an active partner for the Soviet Union, even hosting Soviet nuclear arms and military forces to target the United States. Much has changed in the U.S. since the end of the Cold War, however unfortunately the same cannot be said of Cuba.

The communist dictatorship in Havana remains as repressive as ever, controlling every major aspect of Cuba's economy and the lives of the Cuban people while denying their basic political freedoms and human rights. Cuba's dictatorship also remains actively hostile to the United States. Havana continues to launch clandestine operations and espionage against the United States in an effort to harm U.S. interests. Indeed, two of the most damaging spies in U.S. history both worked as agents of Havana and were both operating well after the collapse of the Soviet Union. Indeed, Manuel Rocha, who reached the top rungs of the U.S. State Department while acting as a Cuban agent, was only arrested in 2023.ⁱ

Today, Cuba's communist dictatorship also offers itself as a partner for a new extra-hemispheric patron, the China's Communist Party. Analysis of the Center for Strategic International Studies and others have revealed the growing footprint of Chinese intelligence gathering facilities in Cuba to undermine U.S. security. Indeed, China's accelerating espionage partnership with Cuba poses a major threat for U.S. and hemispheric security, bringing together Beijing's resources and technology with Havana's unsurpassed experience in penetrating U.S. agencies and security institutions.

The growth of China's spying footprint in Cuba is indicative of Beijing's broader malign presence and operations in the Americas. Washington should take note and respond to the anti-American alliance between Havana and Beijing is consolidated just 90 miles off the U.S. coast.

China in the Americas

It is no secret that China has aggressively bolstered its presence and influence across the Western Hemisphere in recent years. The principal avenue for Chinese influence in Latin America is undoubtedly economic engagement. Through substantial infrastructure investments, offering market access, attractive financing offers, and more, China has displaced the United States as the primary economic partner in South America and increasingly Central America and the Caribbean.

While economic engagement has led the way for China's regional approach, Beijing's influence has spread quickly into the political and security spheres. Across the hemisphere, China's offering to the region erodes sovereignty and stability while empowering the Chinese government. Indeed, China's economic influence has secured for Beijing important levers of influence in the Western Hemisphere, including expanding strategic control of critical infrastructure while also allowing China to increasingly use its economic power to influence regional policies.

China's strategic focus around dual-use and critical infrastructure in the Americas highlights the intrinsic military and security nature of China's hemispheric encroachment. As Beijing grows increasingly belligerent against Taiwan and U.S. forces in the Indo Pacific, China's is likely to operationalize and militarize its presence and influence in Latin America and the Caribbean against the United States. This includes leveraging dual-use infrastructure such as ports for military purposes.

Chinese infrastructure projects across Latin America and the Caribbean offer Beijing crucial vectors for espionage and disruptive operations in and around the U.S. Control over ports and other infrastructure can even be leveraged to impede the movement of U.S. warships and military resources or directly target U.S. assets.

While some downplay the security threats posed by China's economic presence, Beijing's own actions highlight the operational and even military dimensions of its approach to Latin America and the Caribbean. In Panama, for example, President Trump has highlighted the worrying presence of Chinese controlled infrastructure, including two ports proximate to the Panama Canal. Given U.S. vulnerabilities to potential disruption of the Panama Canal, through which over a third of U.S. container traffic flows, the Trump administration has wisely sought to extract the Chinese presence there.

In March, the Chinese firm CK Hutchinson agreed to sell the ports to the U.S. firm Blackrock, however the Chinese Communist Party stepped in to halt the sale. While the Chinese firm CK Hutchinson determined that the sale of the ports was in its financial interests, Beijing decision to halt the sale shows the Chinese government is clearly has non-economic motivations to its presence in Latin America. Tellingly, Chinese state media had called the sale of the Chinese ports, "tantamount to handing a knife to an opponent."ⁱⁱ

Unfortunately, these vulnerabilities for the U.S. are not limited to Panama. Elsewhere in Latin America and the Caribbean, China has leveraged its influence and investments to secure worrying control over dual-use infrastructure and vital trade arteries with little to no oversight by local governments.

Beijing's Caribbean Strategy

Beijing's inroads in the Caribbean and Central America may be the most concerning aspect of its hemispheric encroachment. Geographic proximity to the United States and around crucial U.S. maritime routes makes the Caribbean of outsized strategic importance for the United States. China appears to recognize this strategic importance given the relative attention and engagement Beijing has given to the region, both economically and politically. As with Pacific Island nations, Beijing appears to seek the consolidation of its influence and presence over strategically important island chains in the Caribbean with the goal of counterbalancing U.S. presence in Asia and empowering China to even destabilize the U.S. through asymmetric means.

In the Caribbean, China is also applying its ample experience at consolidating influence over small island nations with strategic importance for the U.S. Indeed, China's Communist Party has been waging wars of influence in small island nations across the world for years, effectively leveraging a mix of economic engagement, corruption, and subversion to assert its control.ⁱⁱⁱ

Weak institutions and small and stagnant economies in the Caribbean offer easy geopolitical gains for Beijing's influence, an opportunity which the Chinese government has seized upon. In 2018, Trinidad and Tobago opened a new path for Beijing in the Caribbean, becoming the first island country in the world to join China's Belt and Road Initiative. Today, over half of CARICOM member states are signatories to the Belt and Road Initiative and China's economic engagement with the Caribbean has seen dramatic growth.

As of 2023, Chinese investments in the Caribbean have surpassed \$30 billion, with a broad presence across multiple industries, particularly infrastructure.^{iv} In some parts of the Caribbean, Chinese investments come to dominate sectors, reflecting Beijing's long-term predatory approach. Indeed, much of China's investments in the Caribbean are dubious business propositions for any traditional lender or firm.^v However, Beijing's political impetus pushes these investments forward, again revealing their geopolitical and strategic nature.

While returns on investment may be lacking for China's Caribbean investments, they have bought important influence for Beijing, as well as control over infrastructure such as maritime ports and special economic zones with little to no local oversight.

China's broader influence has also allowed it to expand its regional intelligence gathering capacities beyond Cuba, including in the democratic Caribbean nations. Indeed, Beijing's has even secured

unusually sprawling embassies in the Caribbean, such as in Antigua, the Bahamas, and elsewhere, with cites that are widely considered to be active intelligence centers for China.^{vi}

A Path Forward for the U.S.

The approach of China in the Americas highlights a set of worry strategic goals that regional governments fail to recognize and that even the U.S. has failed to fully appreciate. The Trump Administration has clearly prioritized addressing these hemispheric vulnerabilities posed by China and its partnership with the Cuban dictatorship, among other actors. Secretary of State Marco Rubio has wisely prioritized engagement with the Caribbean, traveling twice already to the region. Concerted political and economic engagement such as this is a crucial element of confronting the hemispheric threat posed by Beijing and Havana.

Conditioning economic engagement and investment on regional cooperation to limit malign Chinese influence, for examples, should help guide this renewed hemispheric engagement. At the same time, the United States can and should bolster its security partnerships and capacities in the Caribbean and more broadly across the Americas in order to mitigate risks posed to vital infrastructure and other vulnerabilities. To this end, Department of Homeland Security partnerships that increase local oversight capacities and oversight over port facilities and similar infrastructure should be prioritized.

At the same time, the U.S. should leverage its underappreciated territorial presence in the Caribbean. U.S. territories, particularly including Puerto Rico, can be better used to counterbalance Chinese and Cuban malign activities in the Caribbean. Bolstering the U.S. Coast Guard presence and capacities in Puerto Rico, for example, will support U.S. security in the broader Caribbean region amid these growing threats. At the same time, U.S. territories can be force multipliers in bolstering economic engagement in the Caribbean through targeted measures that offset regional dependence on China.

Confronting China's hemispheric encroachment poses a substantial challenge for the United States. However, by recognizing the importance of U.S. engagement and defending U.S. interests, the Trump Administration is already making substantial shift toward protecting U.S. national security in our hemisphere.

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**“Beijing’s Air, Space, and Maritime Surveillance from Cuba: A Growing Threat to the
Homeland”**

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**House Subcommittee on Transportation and Maritime Security
U.S. House of Representatives – May 6, 2025**

Introduction

Chairman Gimenez, Ranking Member McIver, and distinguished members of the Subcommittee, thank you for the opportunity to testify before you today.

My name is Leland Lazarus, and I serve as the Associate Director of the National Security Program at Florida International University (FIU)’s Jack D. Gordon Institute for Public Policy, and Non-Resident Fellow at the Atlantic Council’s Global China Hub. Throughout my career as a Fulbright Scholar studying the Chinese diaspora in Panama, a State Department Foreign Service Officer in China and the Caribbean, and the Special Assistant to two Commanders of U.S. Southern Command, I have seen firsthand China’s growing strategic engagement in Latin America and the Caribbean (LAC), especially in the area of national security.

As we gather here for today’s hearing, Xi Jinping is preparing to host various regional leaders—including Cuba—in Beijing next week for the China-Community of Latin American and Caribbean States (CELAC) Summit on May 13th. They will most likely announce the next three-year Joint Action Plan including more Chinese investments in electric vehicles, solar panels, and renewable energy. But the Summit is also an example of the robust strategic presence China has steadily built in our own neighborhood over the past two decades. Cuba, in particular, is

emerging as a centerpiece of China's efforts to challenge the United States near its shores, echoing Cold War dynamics but with 21st-century tools.

China's presence in Cuba is a microcosm of how the PRC approaches the entire LAC region. In Cuba, we see every dimension of Chinese strategy on display: commercial port investments by sanctioned Chinese state-owned enterprises; dual-use telecommunications infrastructure provided by firms like Huawei and Nuctech; signals intelligence (SIGINT) sites likely supporting Chinese military and space goals; and academic and military exchanges that further embed the Chinese Communist Party's influence within Cuban institutions. Chinese journals describe Cuba and other key LAC countries as "strategic support points" (战略支点) serving commercial and security purposes. Chinese sources frame the PRC's engagement in Cuba as a legitimate counterweight to U.S. activities in Asia. The logic is clear: if the U.S. insists on maintaining freedom of navigation operations near Chinese waters, Beijing reserves the right to operate near Florida. That form of "strategic reciprocity" is evident in everything from China's cyber footprint on the island to reported upgrades at Chinese SIGINT facilities.

This testimony draws on open-source information, Chinese-language sources, and cutting-edge research—especially from our FIU Chinese Activities in Latin America Dashboard, a tool we have built to aggregate and visualize all of China's regional activities and projects. I will also offer a set of concrete, actionable recommendations for U.S. policymakers to mitigate these risks, strengthen our regional posture, and support transparency and resilience across the Americas.

The U.S. cannot afford to treat the Western Hemisphere as an afterthought in our global competition with China. If Beijing is willing to establish listening posts, upgrade ports, and export authoritarian technologies to a country just 90 miles from Florida, then we must treat this challenge with the urgency and strategic clarity it deserves.

Ports as "Strategic Support Points"

China's global ambition is to seek "national rejuvenation" by 2049, which includes transforming the People's Liberation Army into a world-class military with global reach.ⁱ Since the late 2000s, China's expanding global maritime strategy has increasingly incorporated Latin America and the Caribbean (LAC) as part of its "far seas" vision. In Chinese strategic discourse, analysts use the term "战略支点" (zhànlüè zhīdiǎn) – sometimes also "战略支撑点" (zhànlüè zhīchēngdiǎn) – meaning strategic support point or strategic fulcrum, to describe key overseas locations that can support China's military and economic operations.ⁱⁱ PLA naval strategist Captain Zhang Wei wrote in a 2018 China Military Science article that PLA presence on both the Atlantic and Pacific coasts of the Americas would "improve the PLA's far-oceans strategic disposition" (完善我军远洋战略布势) by providing more options for deployments and supply in a contingency.ⁱⁱⁱ

Unlike traditional foreign “bases,” these strategic strongpoints would provide logistical support and economic benefits without constituting offensive military garrisons.^{iv}

Just as Chinese private and state-owned enterprises have invested in port facilities from Panama to Peru, they have also helped expand Cuba’s port terminals. China Communication Construction Company—a state-owned enterprise sanctioned for directly supporting China’s military-industrial complex^v—expanded Santiago de Cuba’s port, Cuba’s second-largest.^{vi} This mirrors Chinese port projects in the Bahamas, Panama, and across the Caribbean, aiming to secure logistical hubs and footholds astride vital sea lanes. Control or influence over ports gives China dual-use benefits – commercial leverage and potential naval access. Cuba’s location at the gateway of the Gulf of Mexico means that Chinese involvement in its ports could position Beijing to monitor or, in a crisis, disrupt shipping routes that lead to U.S. ports like Miami, New Orleans, and Houston.



Snapshot of Chinese port projects in the FIU Chinese Activities in LAC Dashboard^{vii}

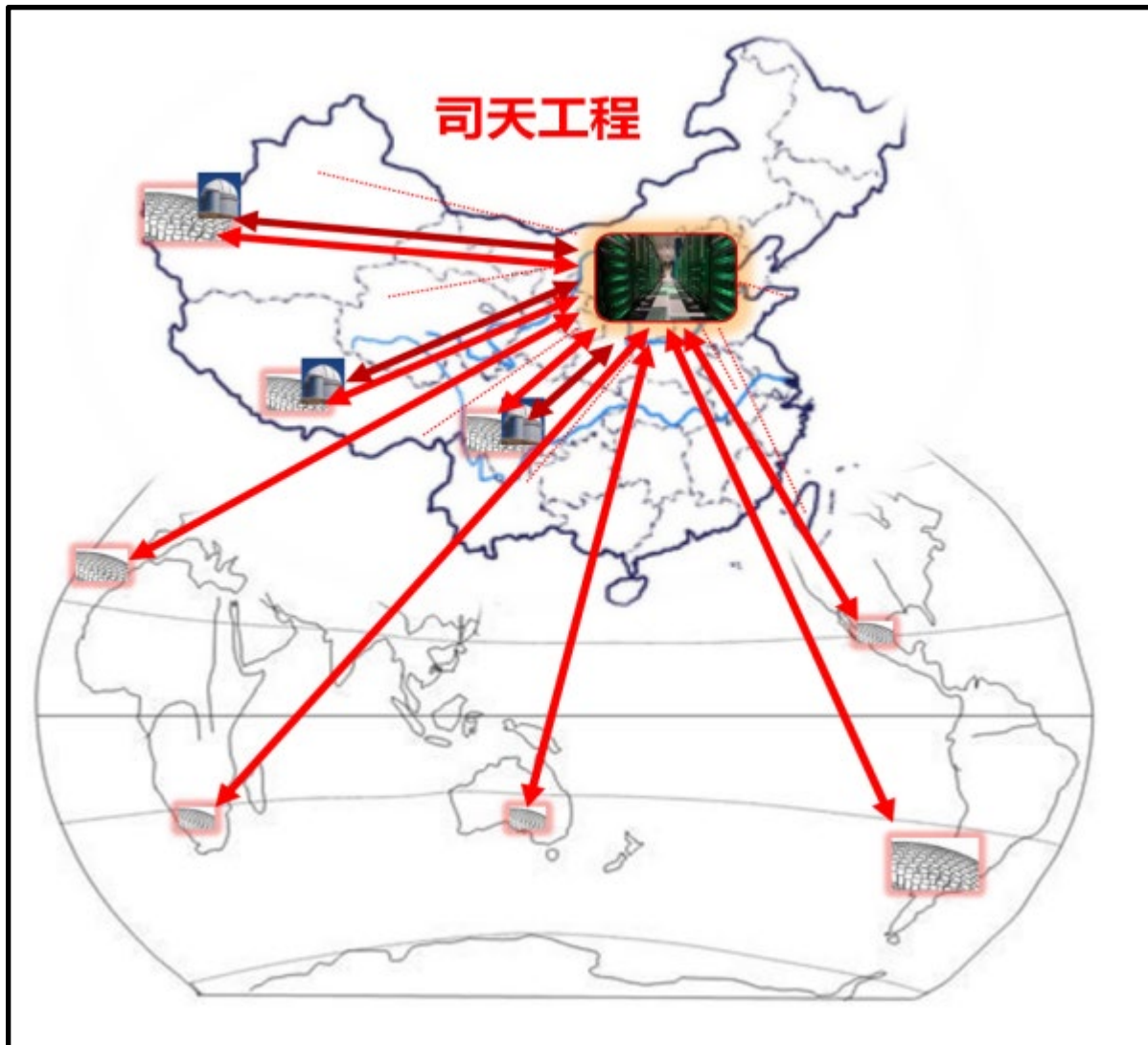
Moreover, regular visits by Chinese commercial shipping lines to Cuban ports increase Chinese visibility into maritime traffic. Havana’s deepening dependency on Chinese trade (China is now Cuba’s #1 or #2 trading partner) ensures Chinese firms have a major role in port operations and customs. This raises security concerns that Chinese entities could collect data on U.S.-bound cargo or even facilitate intelligence collection under commercial cover.

Strategic support points could also encompass airports. Chinese company Nuctech—which creates scanners at ports and airports—is expanding its business throughout the region, particularly in Cuba. At Havana’s José Martí International Airport and the Port of Havana, modern Nuctech

radiographic scanners inspect cargo containers and luggage.^{viii} Cuba was reportedly the first Caribbean nation to use some of Nuctech's newest scanning technology. While such equipment can help interdict drugs or contraband, it also can be a source of intelligence. Western security agencies have warned that Nuctech scanners could covertly transmit information about customs inspections back to Beijing.^{ix} In an era where tracking supply chains is strategic, knowing what goods pass through Cuba is valuable. The EU recently raided Nuctech's offices for security concerns;^x having their hardware in Cuba could similarly threaten U.S. interests if, for example, it were used to surveil diplomatic cargo of the U.S. Interests Section (the de facto U.S. embassy in Havana).

China's Sitian Space Program and Signals Intelligence Outpost

Space has similarly emerged as a strategic domain in China-LAC relations. In recent years, China has built space infrastructure in the region – most notably a satellite tracking station in Argentina's Neuquén province. According to Newsweek, China's space facilities in Latin America are part of the Sitian (司天) Project, a plan by the National Astronomical Observatory of China (NAOC) to create a global space monitoring system that will help “meet national strategic needs.”^{xi} The needs listed were “space fragment monitoring and cataloging; medium and high orbit satellite monitoring; and detection and early warning of near-Earth objects to prevent civilization disasters.”^{xii} A global map of the Sitian sites includes Mexico and Southern America (ostensibly Argentina and/or Chile).



A map from a 2022 NOAC presentation about the Sitian space program. Arrows point to Mexico and southern America (ostensibly Argentina and/or Chile).

The space domain is also critical for signals intelligence (SIGINT), and Cuba is a prime location for China to target the United States. Southern U.S. states host key military installations – including U.S. Southern Command in Miami, various Navy and Air Force bases, and NASA’s Kennedy Space Center. Having listening posts in Cuba puts these within China’s earshot. Indeed, Voice of America’s Chinese service reported that PLA intelligence values Cuba because it “places the U.S. East Coast under coverage, including Florida’s military and civilian space launches and several large Army and Navy bases.”^{xiii} Satellite imagery analysis from the Center for Strategic and International Studies indicates that China has built or upgraded at least four SIGINT sites in Cuba aimed at intercepting sensitive communications.^{xiv} Some Chinese scholars suggest that this is simply retaliation for what they see as U.S. meddling in the Indo-Pacific. In a 2024 Global Times article responding to the CSIS report, Fudan University professor Shen Yi

said: “If the US does not want to see China strengthen its intelligence operations near the US, then Washington should not do the same thing near China, or the US will have to gradually adapt to a new reality of other countries' countermeasures against it.”^{xv}

Enabling Digital Authoritarianism

In the past decade, Chinese strategic commentary has increasingly highlighted emerging security domains – notably cyberspace – in the context of Latin America. Beijing sees these high-tech arenas as critical to the future security architecture. Chinese officials have sought Cuban and other Latin American support at the U.N. for principles like cyber sovereignty and a global treaty on cybercrime. They frequently warn against the use of cyber tools to “undermine another nation’s stability”^{xvi} – a thinly veiled reference to U.S. intelligence operations and support for opposition groups via social media. This reflects China’s concern over “color revolution” risks in developing countries, and Latin American governments similarly wary of online destabilization—like Cuba—have shown interest in China’s approach.

Across Latin America, Huawei and ZTE have become the dominant suppliers of telecom gear, from 3G/4G cellular networks to fiber-optic cables. Cuba is no exception. The Cuban government’s telecom monopoly ETECSA relies almost entirely on Chinese technology. Huawei, ZTE, and TP-Link are the primary providers of Cuba’s internet and mobile infrastructure. As early as 2000, Cuba contracted Huawei to lay fiber-optic cables nationwide. Chinese tech now underpins everything from the Wi-Fi hotspots in Cuban parks to the routers in Cuban homes. A 2017 network analysis found traces of Chinese code in the login portals for Cuba’s public Wi-Fi, revealing how deeply embedded Chinese software is in Cuban systems. Moreover, the Cuban regime utilizes Huawei’s eSight network management software to filter and block internet content, essentially importing China’s Great Firewall tactics to the island. This Chinese-built digital ecosystem in Cuba grants Beijing extraordinary access and influence. It not only secures China a long-term telecommunications client, but also provides the PLA and Chinese intelligence potential backdoors into communications transiting Cuban networks. Notably, U.S. officials suspect that Chinese telecom technicians have assisted Cuban authorities in setting up systems for signals intelligence – monitoring both Cuban citizens and communications in the surrounding region. In short, Cuba’s telecom sector exemplifies China’s “Digital Silk Road” strategy: export critical tech infrastructure and gain a strategic listening post in return.

Hand in hand with telecom dominance, China exports surveillance tools and know-how to sympathetic regimes in LAC. In Cuba, the Chinese have helped build what can be termed a digital police state in miniature. The same Cuban internet that Chinese companies helped stand up can be shut down on demand – and indeed was, during Cuba’s historic July 11, 2021 protests. When thousands of Cubans took to the streets in rare anti-regime demonstrations, the government cut off internet and mobile service across the island. How could an already

connectivity-poor country so effectively “pull the plug”? The key was Chinese technology and expertise. As I wrote at the time, Beijing’s telecom companies played a “fundamental role” in enabling the Cuban regime to control and choke its communications network.^{xvii} Then-Senator Marco Rubio noted that Cuba’s blackout was achieved using “technology from China” specifically for controlling internet access.^{xviii} Research by the Open Observatory of Network Interference and others later confirmed this: Cuba’s networking equipment is Chinese, its traffic filtering tools are Chinese, and its entire internet architecture is configured in a way reminiscent of China’s own censorship regime.^{xix}

Recommendations for U.S. Policymakers

Confronting the challenge of Beijing’s investments in dual-use ports, space and SIGINT capabilities and digital authoritarian tools in Cuba will require a multifaceted strategy. The goal is to protect U.S. homeland security, help Cubans gain a freer and more secure digital future, and rally regional support – all without pushing Cuba entirely into China’s strategic embrace. Below are clear, actionable recommendations.

- 1) **Enhance Technical Countermeasures in Florida and Gulf States:** The Department of Homeland Security (DHS) and Department of Defense should deploy advanced counter-SIGINT and counter-surveillance technologies in the Southeast U.S. This could include encryption upgrades for all communications emanating from South Florida military installations (to thwart Chinese interception from Cuba) and spectrum monitoring to detect any unusual signals interference originating from Cuba. The U.S. Air Force and Space Force, for instance, could adjust flight telemetry and communication protocols for launches at Cape Canaveral – using directional antennas or frequency-hopping techniques to minimize interceptable leakage toward Cuba. Similarly, U.S. Navy exercises in the Gulf might use secured datalinks and practice emissions control when near Cuban waters. Essentially, we must “spy-proof” our sensitive activities in the Southeast. This also means hardening Guantanamo Bay base’s communications and monitoring any electronic probing from nearby Cuban territory.
- 2) **Deploy Aerial and Undersea Surveillance:** To better understand what China is doing in Cuba, the U.S. intelligence community should increase surveillance of the relevant sites. This could involve deploying high-altitude drones or aircraft to periodically overfly (from international airspace) areas like Bejucal and El Salao to collect signals and imagery – tracking changes in antenna arrays or unusual transmissions. Undersea, the U.S. Navy should monitor waters between Cuba and Florida for any Chinese deployment of sonar or oceanographic devices that could threaten U.S. submarines. We might also quietly work with allies who have satellite imagery capabilities to keep Cuban sites under watch.
- 3) **Expand Internet Access Initiatives for the Cuban People:** As recommended by experts, the U.S. can provide the Cuban public with greater connectivity independent of

state-controlled networks. This might involve supporting satellite internet services (like Starlink) for Cuba through third-party arrangements, or enabling mesh network devices to be smuggled in that create peer-to-peer communications even when Havana shuts down the web. Congress recently authorized funding for promoting internet freedom in closed societies; a portion should target Cuba specifically. By reducing the Cuban population's reliance on ETECSA (and thus Huawei-run systems), we diminish China's grip and give Cubans a taste of uncensored information.

- 4) **Promote Alternatives to Chinese Telecom in Latin America and Caribbean:** The U.S. should coordinate with allies (Japan, Europe, etc.) to offer competitively priced alternatives to Huawei/ZTE for countries upgrading telecom networks. While we can't change the Cuban regime's choices easily, we can ensure its Caribbean neighbors have options. This reduces regional Chinese telecom dominance and indirectly pressures Cuba if it becomes the sole Huawei-dependent network (Cuba might worry about isolation or vulnerabilities). The U.S. International Development Finance Corporation (DFC) could finance projects to roll out Nokia or Ericsson equipment in nearby nations, showing that non-Chinese 5G is viable in developing markets. Over time, if Cuba ever opens its market, those alternatives would be more attractive.
- 5) **Improve Regional Cyber Defense Collaboration:** Work with Western Hemisphere partners to create an early warning system for cyber threats emanating from Cuba or involving Chinese tech. For instance, if unusual traffic patterns suggest a Cuban network is being used as a launchpad for cyber intrusions (perhaps by Chinese hackers), having sensors in regional internet service providers could catch it. The U.S. Cyber Command and DHS could quietly assist willing nations (even possibly friendly telecoms in Latin America that connect to Cuba) to install monitoring that flags suspicious activity, without violating any sovereignty. Essentially, if China tries to use Cuba as a base for cyber operations against us or allies, we want to know and block it. Enhanced information sharing through the Organization of American States (OAS) cyber committee could include warnings about hardware like Nuctech or Hikvision which might harbor vulnerabilities.
- 6) **Scrutinize Undersea Cables and Infrastructure:** There is an initiative to build new undersea cables in the Caribbean.^{xx} The U.S. should support secure cable projects and oppose any that have Chinese contractors laying the cable near U.S. waters. If China proposes linking Cuba to other cables (for redundancy beyond ALBA-1), we should rally partners to prevent Chinese firms from getting those contracts. Also, consider agreements with the Bahamas to allow U.S. inspection of cable segments near Cuba for tampering. While technical, this kind of infrastructure security is paramount since cables carry bulk communications that China may seek to tap from Cuba.
- 7) **Coordinate with Allies (Canada, EU, Japan) on Cuba Strategy:** The United States should consult closely with Canada and European partners who have diplomatic relations with Cuba. Many of these countries are also wary of China's global surveillance

activities. A coordinated message from multiple nations to Cuba – expressing concern about the Chinese spy installations – would be harder for Havana to ignore than just U.S. protests. For instance, Canada and select EU states could quietly let Cuba know that Chinese military bases on the island would adversely affect their relations and investment prospects. Such behind-the-scenes diplomatic leveraging might give Cuba pause about becoming too dependent on Beijing.

- 8) **Leverage Latin American Partners to Engage Cuba:** Countries like Argentina, Brazil, and Mexico have closer ties with Cuba and might serve as intermediaries. The U.S. can share its concerns about the Chinese bases with these partners and encourage them to raise it in their bilateral talks with Cuba. For instance, Mexico (which values strategic autonomy) might tell Cuba that a Chinese signals base so close to the U.S. could increase tensions in the region – not desirable for anyone. If Cuba hears this not just from Washington, but from fellow Latin Americans, it might carry weight.
- 9) **Leverage U.S. Academic Institutions to Illuminate China’s Strategy in Latin America and the Caribbean:** Policymakers should invest in and partner with U.S. academic institutions to produce publicly accessible, data-driven research that exposes the breadth of China’s strategic activities in Latin America and the Caribbean (LAC). Universities and think tanks—especially those with regional and language expertise—are uniquely positioned to monitor and analyze China’s evolving presence in the Western Hemisphere. Their research can help fill critical intelligence gaps, shape interagency awareness, and support strategic communications to allies and the general public. One strong model is the Florida International University (FIU) Chinese Activities in Latin America Dashboard, an interactive geospatial platform that aggregates and visualizes all known Chinese investments, infrastructure projects, diplomatic exchanges, and military engagements in the LAC region.^{xxi} The dashboard provides near-real-time data and mapping of critical assets, including potential dual-use deepwater ports, Chinese-built telecom nodes, Confucius Institutes, and space-enabling infrastructure such as satellite ground stations and tracking facilities. It will soon leverage AI to add risk indicators—such as port locations near chokepoints or known Chinese state-owned enterprise involvement—that help flag projects with possible national security implications.

Conclusion

Cuba is not just an outpost of Chinese influence—it is a warning. China is strategically embedding itself in the Western Hemisphere not just through trade and investment but also through ports, space, and espionage. Havana offers Beijing a “strategic support point” from which it can enhance its maritime power projection and space/SIGINT capabilities to challenge the United States—strategically and economically.

This is part of a deliberate, long-term campaign by the Chinese Communist Party to erode U.S. influence globally. The same playbook being used in Cuba—state-backed investments, dual-use infrastructure, diplomatic denial, and strategic ambiguity—is unfolding across Latin America and the Caribbean.

The United States must respond with resolve and creativity. That means investing in regional partnerships, leveraging academic research to expose malign influence, and signaling clearly that America will defend its interests in this hemisphere. Strategic neglect of our region—our shared neighborhood—is no longer an option.

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