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THE NICARAGUA CANAL:

SECURITY AND ECONOMIC BOOM OR BUST?

By

Jeffery T. Laubaugh, Lieutenant Commander, U.S. Navy

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Advisor: Dr. Kathleen Mahoney-Norris

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Abstract

Since the 1800s nations and entrepreneurs have sought a maritime route across Central America, connecting the Atlantic and Pacific Oceans, for trade purposes. Today, Nicaragua and their Chinese business partner, Hong Kong Nicaragua Canal Investment Company, intend to build a second maritime route across Central America—which will be a competitor to the Panama Canal. The canal is estimated to cost US$40 billion and it is unclear who will provide the funding. Lake Nicaragua, an environmental treasure and critical fresh water supply, will become a transit route for very large ships, with all their attendant risks. But the canal will bring desperately needed infrastructure improvements, jobs and income to Nicaragua.

As the region's maritime choke point, a terrorist attack on the current Panama Canal or a future Panama that is hostile to U.S. interests could wreak havoc on international trade and U.S. national security. The second route provided by a Nicaraguan Canal would be a stabilizing factor in the region. The potential rewards, such as economic prosperity for one of the poorest nations in the hemisphere, increased trade through the Americas and increased national security for the United States, may make the canal a risk worth supporting.

Today, Nicaraguan President Daniel Ortega intends to finish what Louis-Napoleon Bonaparte (Napoleon III) started in 1846 and build a canal across Central America to compete with the Panama Canal and thus secure his future with Nicaragua. Since the 1800s nations and entrepreneurs have sought a maritime route across Central America, connecting the Atlantic and Pacific Oceans, for trade purposes. Louis-Napoleon Bonaparte and his French government (along with the British government before Napoleon became President, then Emperor of France) tried three separate times in the early-to-mid 1800s to build a canal across Nicaragua. Throughout the 1800s the interest in building the canal spread to the United States and Japan. The Spanish-American War highlighted the need for a canal to U.S. leadership, as they realized after a United States warship, the USS Maine, exploded while in port Havana, Cuba in 1898. After this incident, USS Oregon was ordered to the Atlantic from her San Francisco homeport. The battleship's 14,000-mile trip around South America took 66 days, far too long for the needed military effect.[1] The U.S. government recognized first hand that in addition to trade benefits, a canal though Central America would serve U.S. strategic security interests as well. As this analysis will demonstrate, there is good reason to believe that another such canal might serve U.S. security interests today.

Though multiple valid routes for a canal existed across Central America, the U.S. interest focused primarily on a Nicaraguan route until 1902. The French had already begun a canal in Panama, and at the time either route seemed suitable, so the U.S. pursued what they believed to be the cheaper Nicaraguan option. The U.S. Congress was in the process of authorizing construction of a Nicaraguan Canal when they were presented with a French offer to sell the incomplete Panama Canal project for US$40 million. The deal was encouraged by the French company's two primary stock holders through what could be termed as propaganda, including

sending a card to each U.S. Senator with a stamp showing a threatening volcano near the Nicaraguan route (of note, volcanic activity will likely prove to be a threat to today's Nicaraguan canal plans, too). At the time, Panama was a province of Colombia, and Colombia did not want a U.S. influence in their territory, so they blocked the deal by rejecting the requisite treaty. In reply, President Theodore Roosevelt dispatched eight U.S. warships to the area to blockade the maritime approaches to Panama in support of American interests and Panamanian separatists. With little fighting, Panama declared independence from Colombia in 1903. In order to guarantee U.S. support for their new country, Panama granted the United States a 10-mile swath of land that would become the sovereign United States Canal Zone. The Panama Canal opened in January 1914, and a crucial new sea-line of communication between the Atlantic and Pacific Oceans came under the control of the Untied States.[2,3] The United States' complete control of the canal and Canal Zone lasted though 1999, when a treaty, championed by the Jimmy Carter administration, turned over control of the canal to Panama and the Hong Kong based, Chinese company that Panama chose to run the canal.

Today Nicaragua, led by Sandinista revolutionary, President Daniel Ortega and Wang Jing, a Chinese-national businessman, have signed a contract to construct a second, competing, canal across Central America. Although the Chinese government denies any involvement in the project, the new canal could constitute a risk to strategic sea power in the Americas with the Chinese having complete control of the primary alternative to the Panama Canal—where they operate the ports at each end. Yet despite concerns when the Panama Canal was handed over to the Panamanians and their Chinese business partners, the worst-case scenarios of Chinese militarization of the canal or interference with free trade have not materialized. This paper contends that construction of a second trans-oceanic canal in the Americas will serve to boost

trade and improve the national security interests of the United States by offering an alternative, yet similarly short route. Because of these benefits, and assuming the Chinese interest is indeed only commercial in nature, the United States should support Nicaragua's plans for the Nicaragua Canal. The remainder of this paper will examine the parameters of the planned canal and its economic, environmental, and strategic effects on Latin America and the United States.

The Nicaraguan Canal Project and Its Implications

Nicaragua's modern interests in trans-oceanic transport began with the Nicaragua Interoceanic Canal Company (CINN) in 2001. The privately funded venture wanted to develop a dry canal, either a high capacity railway or a highway connecting large ports on each coast. Dry canals, also known as land bridges, can be constructed quickly and at a significantly lower cost than a true canal that allows ships to make the journey while still loaded.[4] Yet, in 2012, the Nicaraguan government decided to move forward with an ambitious true canal project, and the government has made regular legislative and financial progress towards that goal. Their efforts culminated with the June 2013 Nicaraguan National Assembly vote to grant a Chinese company, Hong Kong Nicaragua Canal Investment Company (HKND), "an exclusive right to plan, design, construct and operate and manage the Nicaragua Canal and other potential projects, including port projects, free trade zones, an international airport and other infrastructure development projects, for up to 100 years."[5]

Wang Jing, a very wealthy 41-year old Chinese citizen with experience running large telecommunications companies, is the Chairman and Chief Executive Officer of HKND. Unfortunately, neither Mr. Wang, nor any of his staff, have any experience running a project of such massive proportions. Even with Nicaraguan government support and the backing of a wealthy investor, completing the Nicaraguan canal will be an extremely challenging endeavor.

Construction costs alone are estimated to be in excess of US$40 billion (in today's dollars, the Panama Canal would have cost around US$9 billion). Mr. Wang and HKND have so far have remained secretive about the investors willing to support such great costs. Mr. Wang has said the investors are in place and that he will announce them publicly in December 2014. He is adamant that the Chinese government is not involved in the project. This claim can be backed up to some extent by the fact that China and Nicaragua do not have diplomatic relations, due to Nicaragua's official recognition of the Republic of China (Taiwan).[6] This could explain China's non-interference with Panama Canal operations, as Panama also recognizes Taiwan.

Like any large-scale project, the Nicaragua canal has people, businesses, and outside governments taking stances supporting or opposing the canal. Most supporters, including the Nicaraguan government, base their stance on the positive economic impact the completed canal will have on the impoverished nation, where 42% of the population lives below the poverty line. In comparison, only 26% of Panamanians live below the poverty line, an improvement that can partially be attributed to the economic benefits of the Panama Canal.[7] HKND and the Nicaraguan government predict the canal would "increase the GDP by 11 percent annually and provide up to a million new jobs in the years following the canal's construction."[8] Sources say the business of the Panama Canal alone comprises 20% of Panama's gross domestic product; a similar boost to Nicaragua's economy could significantly improve the nation's finances. The infrastructure required to build the canal, transport material, and house the workers would drastically improve upon the little transportation infrastructure currently in place in Nicaragua, even if the canal were never completed. In fact, World Bank research has linked adequate infrastructure, something lacking in Nicaragua today, to positive macroeconomic growth. More importantly, the research showed that "infrastructure development can have a positive impact on

the income and welfare of the poor, over and above its impact on average income."[9] However, without drastic changes in Nicaraguan governance, the country is unlikely to truly capitalize on the canal's potential because of their lack of effective modern and transparent business practices. Such concern is validated though Nicaragua's ranking as number 27 out of 32 Latin American countries in the 2013 Transparency International Index, making it one of the most corrupt counties on the continent.[10]

Environmentalists and indigenous tribes have become some of the canal's most vocal critics. This is partially because the environment and the indigenous people that live off the lands stand to lose the most if the canal is constructed. All of the canal routes being considered rely on Lake Nicaragua as a natural route and as a water source for the gigantic locks required to move the ships across the landmass. Significantly, Lake Nicaragua is a primary source of drinking water for the region and many consider the lake itself and the surrounding forest to be an ecological treasure. The planned depth of the canal is 90 feet deep, to safely accommodate the large ships that the canal hopes to attract—yet Lake Nicaragua is only 50 feet deep on average. Dredging the required amount of material for the canal will cause water quality damage that will be difficult to quantify or mitigate. Additionally, because of topography, the Nicaraguan route will be much closer to sea level than Panama's canal. This alone will enable seawater to infiltrate much of the route, providing a potential conduit for local Pacific and Caribbean marine life to mix, causing a potentially disastrous habitat effect. These facts lead to a reasonable concern for the environmental effects that construction and operation of a canal could have on the regional ecosystem. As a result, environmentalists have filed multiple lawsuits in Nicaraguan courts to try and stop the canal, or at least require transparent environmental impact studies.[11] However, considering that the Sandinista-controlled courts allowed Daniel Ortega to

be reelected in violation of Nicaragua's Constitution, it is likely the cases will be dismissed in order to support Ortega's vision for Nicaragua prior to his upcoming 2016-election bid.

Five indigenous tribes—the Rama, Garifuna, Mayangna, Miskitu and Ulwa—call the potential canal routes home. Their concerns have not been publicly acknowledged and there is great potential that the canal will severely disrupt their lives. The flooding of the land that will likely be required by the project could cause entire indigenous villages to be forcibly relocated.[12] It is possible that HKND and the government have a reasonable plan for the protection of the indigenous people and for environmental protection, but very little other than vague promises by Mr. Wang have been publicly announced.

Strategic Impact for the United States

Commercial ports of call and natural barriers, such as straits and channels, primarily define present-day maritime routes. Since the days of sail, mariners have searched for ways to sail more economically between ports; our current existence in the Americas is because of the discovery of the "new world" by European explorers originally searching for a shorter route to India. The freedom to use these routes, known as sea-lines of communication, and particularly the places where the routes came close to land, became increasingly important over time to states to protect their vital national interests. Maritime choke points became places to control the movement of the ships and secure an advantage for one's country. Captain Alfred Thayer Mahan first "articulate[d] the nexus between naval power, maritime trade and political influence"[13] in his classic book, *The Influence of Sea Power Upon History, 1660-1873*. Later work by British First Sea Lord Fisher specifically identified choke points vital to Britain's colonial interests. Admiral Fisher included two man-made choke points in his analysis, the Panama Canal and the Suez Canal, along with the natural choke point at Cape Horn on the

southern tip of South America.[14] Choke points such as the Dardanelles became the scenes of battles for control in ancient times, and those battles continue today (typically non-violently) in places such as the Strait of Hormuz.

Naval theorist Julian Corbett wrote about the value of controlling choke points, proclaiming that "the object and end of naval warfare is the control of communications it must carry with it the right to forbid, if we can, the passage of both public and private property upon the sea."[15] In Corbett's day (early 1900s), warships gained control by capturing enemy ships on the high seas; today it is more easily gained by simply controlling a global choke point. According to Corbett's definition, effective command of the sea today can be executed through control of just a few choke points around the world. The Panama Canal, as the single trade route choke point between the Atlantic and Pacific, is one choke point that could severely disrupt global (and particularly American) commerce. Although sailing the Arctic route above Canada, or the Magellan Route circumnavigating South America is possible, it comes at significant expense in fuel and shipping time, all of which make the Panama Canal the prime choke point between the Atlantic and Pacific. Today's U.S. maritime strategy is very strong in its stance supporting vital sea-lines of communication.

> We will not permit conditions under which our maritime forces would be impeded from freedom of maneuver and freedom of access, nor will we permit an adversary to disrupt the global supply chain by attempting to block vital sea-lines of communication and commerce. We will be able to impose local sea control wherever necessary, ideally in concert with friends and allies, but by ourselves if we must.[16]

When the United States negotiated the Hay-Bunau-Varilla Treaty with Panama in 1903, the United States recognized the canal's strategic importance and required a 10-mile wide 'Canal Zone', which among other things, was used for military defense of the canal. At its peak during World War II, there were "almost 67,000 [military] personnel, manning nine airfields, 10 major ground bases and more than six hundred other sites"[17] defending the canal. This number fluctuated throughout the Cold War and diminished as improved defense technology and the threats changed, but until its last days as a U.S. Territory, the Canal Zone was well defended. The Panama Canal was, and remains, vital to U.S. national interests.

In today's budget environment, the U.S. Navy faces a future that shrinks the number of warships in the fleet. At the same time effective deterrence and flexible response with a decreased number of ships demands the ability to rapidly transition U.S. Navy ships between the Atlantic and Pacific Fleets. Today, the Panama Canal sits relatively undefended, although the treaty that returned the canal to Panama gives the United States the right to defend the canal if its neutrality is challenged—unilaterally if necessary.

Despite the ability of the United States to defend the canal, it remains vulnerable to attack or disruption. Although the United States demonstrated the ability to seize the canal in 1989's Operation Just Cause, a military response cannot prevent or mitigate an unanticipated kinetic strike on the canal, such as one carried out by a terrorist organization. Even with the ongoing expansion of the Panama Canal, estimated to be completed in 2015, it could be closed with just a few well-placed explosions or ship scuttlings. With roughly 14,000 vessels transiting the Panama Canal per year, this type of attack presents a reasonable and realistic concern. In fact, Egypt has closed the Suez Canal twice by scuttling vessels in the waterway. Because of ongoing conflict, the Suez Canal remained closed for eight years after the initial 1967 closure. Trade in

the Americas and U.S. security interests cannot afford a multiyear closure of the sole choke point in the Americas.

Political risk also impacts the world's sea-lines of communication, not just those in the Americas. As noted above, Admiral Fisher highlighted ten maritime choke points before World War I, and his list remains valid today. Of the ten, six are dominated by Islamic nations that often choose to act counter to Western capitalist interests.[18] As previously noted, Egypt willingly (and violently) closed the Suez Canal, their version of the Panama Canal, strictly over political disagreements. The Panama Canal sits in a landmass with historic political instability, and specifically within the national control of Panama, a country that was ruled by a military dictator as recently as 1989. Thus, while the current Panamanian government is friendly to U.S. interests and enjoys the economic benefits free trade through the canal provides, there is no guarantee that future governments will continue to support the capitalist use of Panama's resources and not squander them on their own political purposes.

In 1999 many people, including the U.S. Senate Majority Leader, questioned the security implications of Panama signing a 25 to 50 year contract with a Chinese shipping firm, Hutchinson Whampoa Limited (HWL), to manage the ports on either end of the Panama Canal during the U.S. canal hand over. There was specific concern over the assignment of pilots (local captains with expert knowledge of the canal that supervise individual ship transits) and rules allowing HWL to block passage of ships to meet its business needs. Further concern was voiced related to Chinese intelligence collection and HWL's ties to China's armed forces.[19] Today, 15 years later, none of these concerns have materialized.

Although the strategic threats discussed above would also apply to a Nicaraguan canal, the addition of a second, completely separate canal between the Caribbean Sea and the Pacific

Ocean will help mitigate the strategic impact of any threats. It is unlikely that a terrorist organization could plan and execute a near-simultaneous crippling attack on canals in two separate countries. Indications of an attack on one of them would immediately cause the other canal to take significant security precautions. It is also unlikely that political instability impacting canal operations would simultaneously take place in both Panama and Nicaragua before an international body (such as the United Nations or the Organization of American States) could intervene to protect international trade.

The one risk that a second canal through Nicaragua will not mitigate is an enforceable, treaty-based right for US warships to transit through that canal. Nicaragua's current administration is unlikely to sign a treaty granting such broad rights, and the United States should not expect a future government would either. Yet this single risk does not overwhelm the positive strategic benefits gained through US support for the canal. Strategically, the Nicaragua Canal would provide a stabilizing alternative to the current Panamanian choke point along this vital sea-line of communication.

Economic Impact

The concession for the construction of the canal calls for all the investment to come from HKND. The canal and all its supporting infrastructure will be paid for by outside investors, with no costs born by the Nicaraguans, other than the potential damage to their environment. Paul Oquist, Nicaragua's National Policy Secretary, predicts the "project taking the country out of poverty and underdevelopment."[20] Economically, Nicaragua will receive up to US$10 million per year from HKND for the first 10 years of the canal's operation. At year 11, the concession grants Nicaragua a 10% ownership stake in the canal, which grows at 1% per year until Nicaragua owns the canal outright at year 100. If HKND is able to build and operate the canal

with minimal environmental impact, the canal could be a very good deal for the Nicaraguan economy and people.

However, given the level of corruption in Nicaragua and the past history of Chinese overseas projects, it is likely that the real winners will be Daniel Ortega's Sandinista party and Chinese nationals, leaving the Nicaraguan people in a continuing poor state. The influx of money that will come from the canal once it is operational will enrich the government ruling Nicaragua at the time, allowing for those in power to run a well-funded political machine. There is no reason to believe that Daniel Ortega and his historically socialist Sandinista Party will not be in power when the canal becomes operational, thus setting up a well-funded, possibly oppressive, government much like Venezuela became after the nationalization of its oil industry.

The canal project promises to bring millions of jobs to Nicaragua, but Nicaragua's citizens are largely employed in agricultural jobs which do not translate well to the engineering and construction skills required for the canal project. Additionally, Chinese companies have a worldwide history of importing Chinese workers for their infrastructure projects. Although HKND has stated they will establish a training pipeline at a Nicaraguan University, it is unlikely to produce qualified graduates in sufficient numbers early enough to impact the labor participation in the canal project.

Regardless of the environmental protections put in place, the canal is likely to have a negative impact in the areas near the canal route.[21] The infrastructure required, along with the human pressure on areas previously unoccupied and air pollution from the needed machinery, are all difficult to mitigate. But when viewed from the macro level, the canal will likely improve the prospects of the Nicaraguan people and bring Nicaragua into the world spotlight. There is

potential for economic and environmental abuse along the way, but for a poor country with limited economic options, the gamble on a canal is likely one worth making.

Shipping Industry Impact

Since the 1980's, commercial ship size has been impacted by the size limitations of the Panama Canal. Global demand has required larger and larger ships to be constructed, but the ships gradually outgrew Panama's locks. Specific classes of ship, called PANAMAX, are built to fit in the Panama Canal's locks, but they are smaller, and thus less efficient (in terms of cargo moved, not necessarily fuel use) than ships used on other routes. The size restrictions also complicate worldwide routing for the larger ships. The ongoing expansion of the Panama Canal alleviates some of the size issues with its larger locks, but even the new locks will not accommodate the largest of today's ships. Without giving specifics, HKND plans to design locks to accommodate the largest of ships. They have been more specific with the planned canal depth of 90 feet, which is considerably deeper than any current shipping requires. This lends credence to the new locks supporting future growth in ship size.

The proposals for the Nicaraguan Canal call for the canal to have separate 'lanes' for eastbound and westbound traffic. The Panama Canal is largely two-way but is constrained at some points, causing delays while ships pass each other. The provisions for a constant flow of ships in both directions, plus the increased capacity offered by adding the Nicaraguan route, will considerably reduce the time burden placed on ships waiting for passage through the Panama Canal. Delays at the canal can add considerable expenses for shipping companies, thus negating the cost-benefit of using a shorter canal route versus an open ocean route. The new Nicaraguan Canal will help alleviate those delays and possibly lead to increased use of both the Panama and Nicaragua canals.

One of the primary drivers for increased traffic through the Panama Canal and the expansion of U.S. east coast ports has been Chinese manufacturing and export.[22] A Nicaraguan canal will offer a shorter route between China and the U.S. east coast, with decreased associated shipping costs if Nicaragua can set its tolls similar to Panama. Nicaragua will also offer a shorter route between the U.S. East and West coasts, increasing the cost competitiveness of shipborne cargo versus land movement across the United States. This could pull some cargo traffic away from U.S. rail transport companies that provide cargo service from west coast ports, but decrease overall costs to U.S. importers and consumers.

Despite the advantages provided by the new route of the Nicaraguan Canal, its construction is not without economic risk. Construction will be extremely expensive and funded primarily by private investors. The investors will want a return on their investment and the only way the canal can generate income is through the implementation of tolls. Because the improved Panama Canal will be operational before the Nicaraguan Canal is even built, Nicaragua will be competing against an established competitor which is also facing increased construction costs, and the cost-sensitive shipping industry will not support price gouging in tolls. As prices for canal transit rise, alternatives such as land bridges or alternate routes become attractive to businesses. Additionally, much of the market research supporting the demand for an additional canal is based upon the recent explosive growth in Chinese exports, a growth that is probably not sustainable over the long term. On the other hand, as China's economy evolves, there is potential for Chinese imports to increase, driving increased American (North, Central and South) and European export traffic to China.

Completion of the canal will also have effects across the Americas. Today's PANAMAX size restriction in the Panama Canal is a guiding factor for worldwide ship routing. Ships that

cannot fit in the Panama Canal's locks have three options for delivery to the Americas, two of which can completely avoid Latin America. The land bridge across the United States is well supported by mega-sized container ports on both U.S. coasts, linked by an intermodal transport system. Ships can also route though the Suez Canal, thus avoiding transiting the Americas altogether, or sail around South America via the Magellan Route.

One of the primary drivers of the U.S. intermodal route is the time-savings it provides. Shipments originating in Asia can move to the U.S. east coast in 18.3 days (12.3 on a ship, 6.0 on a U.S. train), compared to an average Panama Canal transit of 21.6 days. Because single-ship locks or one-way transit restrictions do not hamper the Suez Canal, an Asia to U.S. east coast trip via the Suez takes 21.1 days, despite the longer distance.[23] Once the Panama Canal expansion is complete, the additional throughput and ship size capacity will likely diminish the attractiveness of the Suez Route. The addition of a Nicaraguan canal with greater size capability and quicker transit will pull additional traffic away from the Suez to the Central American routes. The Nicaraguan canal will have an impact on the ships that transit the Magellan Route today as well. Many of those ships take the Magellan Route because of the size restrictions imposed by today's Panamanian locks. Because the larger ships are already passing through the area, South American ports, particularly those in Brazil, are able to benefit from the worldwide shipping routes that pass their coast. If these large ships use the new Nicaraguan Canal, the shipping capacity to South America will decrease, causing an increased cost for goods that are imported or exported in South America.

The global trade patterns that caused the interest in a new Nicaraguan Canal will also have an impact on the other possible transit routes in Latin America. Guatemala is planning a land bridge with a railway, pipeline, highway and new Pacific and Caribbean ports to compete

with Nicaragua and the expanded Panama Canal. If completed, Guatemala's project is estimated to cost US$12 billion, just 30% of Nicaragua's expected cost.[24] The reduced cost could lure business away from the expensive canal tolls. All three routes will be impacted by the expanded Panama Canal, but a Nicaraguan Canal has the potential to cause significant effects for Latin America, both good and bad.

Although a completed canal in Nicaragua will provide widespread benefits to the region, the tremendous cost and environmental risk may support the case for a less ambitious project. Even by U.S. standards, US$40 billion is a lot of money to invest in a single project. An efficient land bridge between the Caribbean and Pacific could be constructed for significantly less, yet still provide many of the benefits, both to Nicaragua and the worldwide shipping industry. In that case, Nicaragua would be in a prime position to compete with the Panama Canal by offering lower costs to move goods between the oceans, particularly if predictions come true that Panama will have to raise their tolls to pay for their canal expansion.

Conclusion: The United States Should Support the Nicaraguan Canal Plan

The United States should support this investment in Nicaragua's future. A new canal will increase stability in the region by enhancing Nicaragua's economy and infrastructure. The canal will bring Nicaragua to the world's stage and their Central American neighbors will benefit from the attention. But the larger benefit to the United States comes from the increased throughput of international trade and the national security benefits of a second Central American route between the Atlantic and Pacific Oceans. This is because the security and economic impacts of the Panama Canal closing, for any reason, would be significant and potentially long lasting. There is clear value in a second route. However, with the questions surrounding the canal's financing and business plan, it is not the time to risk American money on the project. U.S. support should

instead come through political encouragement, trade assurances, and security cooperation with Nicaragua.

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