The Alaska-to-Alberta Railway

The Year We Walk through the Door to the World Land-Bridge, or the Lost Chance of 2020?

by Robert Hux and Marcia Merry Baker

Oct. 25—The perspective of a World Land-Bridge linking the United States and Russia across the Bering Strait crossed an important threshold towards realization on September 29, 2020, when President Donald Trump issued a Presidential Border Crossing permit for the Alaska-Alberta Railway Development Corporation (A2A Rail) to lay track across the border between Alaska and Canada. This is a crucial step for the construction of a rail line that can change the world.

The Alaska-Alberta rail link to the lower 48 states can help break the log jam towards the realization of the century-old idea of a contin-

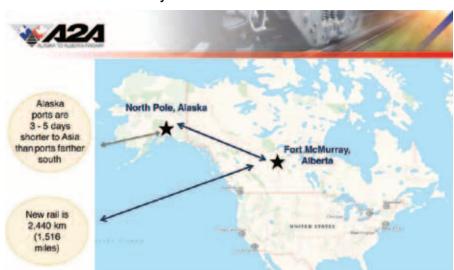
uous network of railroad development corridors extending from the far northwest of the North American continent down through Mexico and Central America, all the way to the southern tip of the South America continent, including the concept of connecting this line into Eurasia and Africa by crossing the Bering Strait, linking up Alaska and Chukotka, Russia. But these plans have always been thwarted, though the Alaska Railroad was first commissioned in 1914.

In recent decades, the perspective of international rail connectivity has been advanced in proposals for a worldwide Land-Bridge network of priority rail corridors for development, as laid out in reports calling for a "New Silk Road," commissioned by the late economist and statesman Lyndon LaRouche, and his wife Helga Zepp-LaRouche, founder and Chairwoman of the Schiller Institute.

In a more limited way, the main impetus for the new Alaska-Canada rail link has come from the desire to open a new transport corridor to northern Pacific Ocean ports for the export to Asia of United States and Canadian resources and products.

We will indicate some key aspects of the A2A Rail im-

Alberta to Alaska Railway



A2A

mediately below, including the tremendous benefits it will provide to both the United States and Canada. Then we can return to the World Land-Bridge and the economic principles that will guide its build-out and its potential.

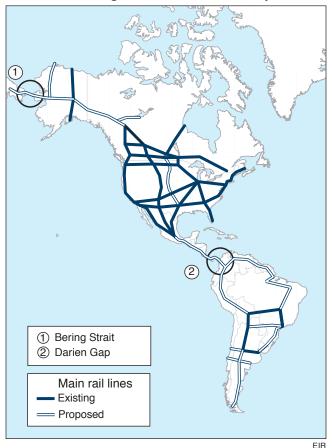
Alberta to Alaska Railway

Mead Treadwell, Vice Chair of A2A Rail and a former Lieutenant Governor of Alaska (2010-2014), told residents of Tok, Alaska at an internet-public meeting on September 28, 2020, that the revival of the idea of an Alaska-Canada Rail connection over the last decade was due to a huge "constraint on oil development and transportation in Alberta, and a number of other commodities that could not get to the west coast."

As reported in a <u>previous article</u>, the government of Alberta decided to pay for a study at the Van Horne Institute on the feasibility of building a railway for transporting bitumen, petroleum products, and minerals from northern Alberta (Fort McMurray) to the deepwater ports of Alaska.

According to Treadwell, when the <u>VHI study</u> was published in 2015, one of the people who read it was Sean McCoshen, an investor and financier who has built

World Land-Bridge in the Western Hemisphere.



infrastructure, including grain terminals, all over North America. McCoshen decided to invest in the project creating the Alberta Railway Development Corporation (A2A Rail), a U.S. company with offices in Calgary, Alberta, Anchorage, Alaska and Washington, D.C., which he owns and funds. John Falcetta, Vice President of

Freight Rail Canada for AECOM from 2011 to the present, was brought in as CEO and President of A2A Rail in the early phases.

As presently envisioned, the A2A Railway will be a heavy-haul, standard-gauge railway capable of dual-direction transport of many kinds of freight, including bulk commodities (such as bitumen, sulfur, potash, grains, minerals, etc.), as well as containerized goods, and passengers. The proposed 1,600-mile (2,570 kilometer) route connects the North American railroad system through northern Alberta, the Northwest

Territories, the Yukon, and Alaska, where it links up with the existing Alaska Railroad leading south to Alaska's deep-water ports.

By lowering the cost of transportation in northwest Canada and Alaska, while cutting trans-Pacific Ocean shipping times for Canadian and American products and resources by up to four days, the A2A Rail corridor promises to open up some of the most geographically isolated and sparsely populated regions on the planet. The railway will become an economic development corridor, bringing in consumer goods and fuel, creating jobs and improved standards of living, while laying the foundation for the growth of new cities in these remote northern regions. Construction of the A2A Rail corridor, according to the most optimistic estimates, is anticipated to be completed by 2025, with the railway becoming fully operational in 2026. Soft construction is ready to commence this year. However, there are many stages of work ahead for the project on both sides of the U.S.-Canada border.

With President Donald Trump issuing the Presidential Border Crossing Permit to A2A Rail, an important milestone has been reached.

For Much More than Petroleum

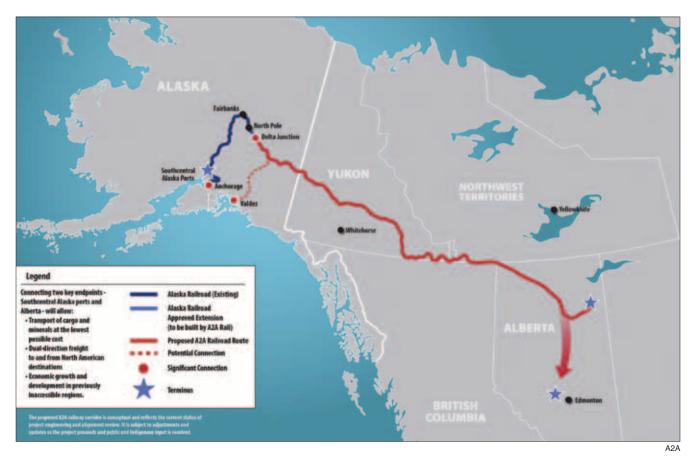
In June 2019, A2A Rail signed a Master Agreement of Cooperation with the Alaska Railroad Corporation (ARRC) to upgrade and extend the Alaska Railroad mainline from Seward to North Pole, and build from there the 1,600-mile (2570 km) connection to the Canadian railroads in northern Alberta that serve the lower 48 states. A2A Rail and ARRC are to cooperate in the process of getting the rights of way, doing the engineering design specifics, and getting financing.

A2A Rail proposes to move 1-1.5 million barrels per



A2A/Tim Stevens

The A2A Rail corridor will bring economic development to the region. It is anticipated to be completed by 2025.



The proposed 2,570 km route of the A2A will connect at Delta Junction, Alaska to an upgraded Alaska Railroad mainline leading south to Alaska's deep-water ports; and at Fort McMurray, Alberta, to existing Canadian railways that serve the lower 48 states.

day of bitumen in its solid, undiluted form all the way to Port MacKenzie for export, Treadwell says. The plan involves a USD 17 billion (CAD 22 billion) single-tracked railroad with sidings that would allow trains to travel in both directions from Fort McMurray to Delta Junction, and then continue on the single-tracked Alaska Railroad to Alaska's deep-water ports at Anchorage, Whittier, Seward, and Port MacKenzie. It would require switching yards, water and wastewater facilities, power lines, and fiber optic cable, in addition to the completion of the 32-mile (51 km) railroad linking Port MacKenzie to the Alaska Railroad near Houston, Alaska. The feasibility of building a 270-mile (435 km) rail link from Delta Junction to the Port of Valdez is also being studied.

The projected cost is in the range of USD 17 billion (CAD 22 billion), for a system A2A Rail describes as "dual-direction, 24-hour-a-day operation," equipped with the latest technologies for safety, including Positive Train Control, heat detectors for mechanical faults, and fiber optics for continuous communication and monitoring of the railway's integrity. For reduced fuel consumption and improved safety, the plan calls for the

average vertical gradient not to exceed 1%, and curvature not to exceed 5%. To date, Mr. McCoshen has spent over USD 100 million through the pre-feasibility, feasibility, and detailed engineering phases of the project.

In July 2020, A2A Rail commissioned the Omaha, Nebraska-based international engineering firm, HDR Engineering, Inc., to begin a detailed land surveying along the Alberta segment of the railway's proposed route. At the same time, A2A Rail and HDR have begun consultation with communities and First Nations along the proposed route. The first such internet-based public meetings on the proposed rail corridor were organized by A2A Rail with residents of Delta Junction and Tok, Alaska on September 9 and 28, 2020 respectively.

In his presentation to Tok residents, A2A Rail Vice Chairman Mead Treadwell indicated that when up to full capacity, the railway will run 8 to 10 unit trains carrying bulk commodities per day, each unit train consisting of two locomotives and 96 cars in the front, followed by three locomotives, 96 cars in the middle, and two locomotives in the back, giving a total unit train length of 11,700 feet (3,566 meters). A2A Rail will op-



Pixabay/Jim Black

A view of the Trans-Alaska Pipeline, which brings oil from Prudhoe Bay on the North Slope, south to the ice-free port of Valdez.

erate as a heavy-haul, standard-gauge railway capable of carrying a wide variety of cargo, including general cargo (boxes, crates, drums, etc.), bulk dry and liquid cargo (grain, potash, sulfur, bitumen, gravel, propane, oil, minerals, wine, vegetable oils, etc.), bulk cargo (machinery, bundled steel, lumber, etc.), refrigerated cargo (fruit, fish, meat, vegetables, dairy products, etc.), roll-on/roll-off cargo (cars, trucks, semi-trailer trucks, etc.), container cargo, and passenger cargo.

A2A Rail will also offer the U.S. Military options for moving cargo through Alaska, or to installations such as Eielson Air Force Base, Fort Wainwright, Fort Greely, Clear Air Force Station, and Joint Base Elmendorf-Richardson, Treadwell said.

Responding to a question from Delta Junction residents on the timeline for when the railway would be completed, A2A Rail Vice Chairman Treadwell indicated that they are eager to resolve any issues over exactly where the railway will go with everyone who will be affected, at the same time as they complete the engineering studies, which he expects can be done in the next two years.

Next Steps

The next step—meeting the requirements for an Environmental Impact Statement submission to the regulatory agencies in the United States and Canada and engagement with Indigenous Peoples, Agencies, and other interested parties—Treadwell expects to take another two years, in both cases. Treadwell estimates 3-4 years for permitting, and another 3-4 years for construction. "It could be 8 years from now when we are in operation,"

he said. As part of the permitting process, the railway must also secure approval from the Canadian Transportation Agency and the U.S. Surface Transportation Board.

Once all the initial steps in the process are completed and funding sources secured, construction on the USD 17 billion (CAD 22 billion) project will start by constructing rail from North Pole, Alaska. From there the railway will be extended southeast, passing through Delta Junction, continuing southeast through several small settlements to the Alaska-Yukon border. The new rail line enters Yukon to the north of Whitehorse, passing near the settlements of Pelly Crossing, Carmacks, Faro, Ross River and Watson Lake.

At this point, rather than crossing into British Columbia and on to Fort Nelson, as proposed in the 2015 Van Horne Institute study, the proposed route stays near the southern border of Yukon as it moves east, crossing into the Northwest Territories near Fort Liard. Continuing east to the northeast corner of British Columbia, the route heads southeast into Alberta through Fort Mackay to Fort McMurray, the present northern terminus of a CN Rail line connecting into the North American railroad system.

Using conventional economic metrics, A2A Rail estimates that the project will create over 28,000 jobs in the impacted states and provinces/territories (18,000 of them in Canada). The economic growth spurred by the project is expected to result in an approximate increase of USD 60 billion in cumulative GDP in Alaska, Alberta, Yukon, and Northwest Territories (NWT) by 2040. Average incomes in areas along the rail route are expected to increase by up to 40%.

Planetary Implications of the Bering Strait Connection

Seen from an intercontinental and planetary perspective, however, President Trump's green light to the Alaska-Alberta Railway has much greater implications involving moving ahead in the larger strategic economic sphere, with continuous rail connections from inland North America all the way into Eurasia. The concrete actions of many individuals who have moved this perspective of an Alaska-Canada rail link towards realization foreshadow the possibility of a new paradigm of friendship, diplomacy and mutually beneficial trade, the

possibility of a Bering Strait tunnel connection to Russia becoming very feasible. In turn, this opens up the vast World Land-Bridge span from Africa, through Eurasia, and all the way to South America, via North and Central America.

The importance and history of this perspective have been promoted for decades by Lyndon LaRouche and his wife Helga Zepp-LaRouche. In May 2007, LaRouche spoke of it in Moscow, when he was a featured guest at the Academy of Sciences. A month earlier, his paper, "The World's Political Map Changes: Mendeleyev Would Have Agreed," was delivered by an associate at a Moscow conference on "A

Transcontinental Eurasia-America Transport Link via the Bering Strait." LaRouche began the paper with these words: "The intention to create a trans-Siberian rail system, implicitly extended across the Bering Strait, to North America, dates implicitly from the visit of Dmitry Ivanovich Mendeleyev to the 1876 U.S. Centennial Exposition in Philadelphia. ..."

LaRouche's paper, and other reports from relevant



FORUM International

Former Alaska Governor Walter Hickel promotes the Bering Strait tunnel, at a Moscow conference on "A Transcontinental Eurasia-America Transport Link via the Bering Strait," April 25, 2007.



EIRNS/Rachel Douglas

Lyndon LaRouche submitted a paper to the April 2007 Moscow conference, "A Transcontinental Eurasia-America Transport Link via the Bering Strait." Shown, Lyndon LaRouche and Helga Zepp-LaRouche arriving in Moscow.

Moscow meetings that year, are included in a 2007 La-Rouche PAC pamphlet, "La-Rouche Trip to Moscow: A Strategy for War Avoidance."

Former Alaska Governor Walter Hickle spoke out strongly at a Moscow Megaprojects Conference in April in 2007, in favor of "big projects as the alternative to war," and in particular, of the Bering Strait tunnel and the benefits of Russia-U.S. collaboration. They "together will change the world."

Specific requirements for the rail grid needed to connect Canada and Alaska for the Bering Strait tunnel link to Eurasia were spelled out in several fora by the late Hal B.H. Cooper, Jr., P.E., advisor

to the Schiller Institute on the World Land-Bridge.¹ Cooper prepared a feasibility study for the Canadian Arctic Railway, a private company seeking to build the missing links. And he also studied what was necessary on the Russian side in Siberia. He presented this concept to the Alaska legislature, and in November 2002, he presented it in Novosibirsk at the Siberian State Transport University, on the occasion of the 70th anniversary conference on Railroad Transportation Developments in Siberia.

Cooper's artist's view of the new Alaska-Canada rail corridor in the Yukon is shown in **Figure 1**.

The Role of Energy-Flux Density

President Trump's launching of the Artemis program to return astronauts to the Moon by 2024 and to develop the lunar industries to support later human missions to Mars, all done in collaboration with international partners, as has been proposed, taken together with Trump's signing of the Presidential Border-Crossing Permit for A2A Rail, has even greater implications.

How will what we learn on the Moon change what we think about running things back here on Earth? Unlike on Earth, where 85% of the primary energy (not

^{1.} See Richard Freeman's <u>interview</u> with Hal Cooper in *EIR*, May 11, 2007, "Bering Strait Conference Marked 'Major Phase Shift'."

FIGURE 1 Proposed Alaska-Canada Rail Corridor



J. Craig Thorpe, 2002

Artist's concept, showing a proposed rail, highway, utilities, and pipeline corridor near Lake Kluane, Yukon. Commissioned by Cooper Consulting for the Canadian Arctic Railway Company, which proposes to provide the missing links to connect Canada and Alaska to the proposed Bering Strait tunnel.

just electricity) that we depend on comes from fossil fuels, there are no fossil fuels on the Moon, for as far as we know it never had a biosphere. Establishing human settlements on the Moon, including growing food there eventually, means we will be creating a biosphere. In the process, we will rediscover the indispensable role for the existence of our lunar inhabitants of a muchmaligned molecule: carbon dioxide. Perhaps as mankind ventures out to the Moon and farther reaches of the Solar System, the significance of a startling recent scientific discovery will be more generally recognized.

In a 2017 research paper, two scientists, Karl Zeller and Ned Nikolov, demonstrated that, based upon all the relevant NASA data, the surface temperatures of the moons and other planetary bodies in the Solar System can be accurately predicted based on only two factors: the amount of solar radiation and the atmospheric pressure at the moon or planetary body's surface. Their results strongly suggest that the so-called greenhouse gases have nothing to do with it!

Our lunar inhabitants cannot generate electricity from large amounts of water flowing downhill, nor depend on wind turbines or solar panels, particularly during the 14-day lunar night. But they will have access to uranium and thorium, which could generate electricity and hightemperature heat for processing lunar resources, and the possibility one day of using helium-3 extracted from the lunar regolith to generate vast amounts of energy in thermonuclear fusion reactors.

Armed with these new insights, what do we say to those Canadians, or Americans, who might not see the tremendous possibilities of the Alaska-Alberta Railway? You have to ask, what kind of world we will be living in 30 years from now, in 2050, when the world could have 10.0 billion people, with the vast majority living in Asia (5.55 billion) and Africa (2.61 billion)? What role will the people expected to be living in Canada (49 million), the United States (400 million) and Mexico (170 million) play in the future world economy?2

The A2A Rail project and the Bering Strait connection to the World Land-Bridge will pull the entirety of the populations of

Canada, the United States, Mexico, and the other nations of the Americas into a generation-long mission to bring about a technological upshift in the economy globally. By linking the network of rail development corridors spanning the Americas with Eurasia across the Bering Strait rail tunnel, we eliminate the huge delays due to slow, outmoded, and vastly overburdened marine shipping routes, and gain direct and rapid access to the regions of Eurasia and Africa which will be the key to the growth of the world economy. The very great volume of rail traffic expected through the Bering Strait Rail tunnel will require double-tracking and electrification of the rail lines, allowing locomotives capable of higher speeds, and there is also the possibility of eventually implementing magnetic levitation rail.

While fossil fuels will continue to be a core part of the world's primary energy consumption for at least a generation or more into the future, we will require a massive expansion in the use of energy sources of much higher energy-flux density, such as nuclear fission, and as soon as possible, thermonuclear fusion. Small modular nuclear reactors (SMRs), which are currently being developed in the United States, Russia, China, and other

^{2.} United Nations World Population Prospects 2019, Vol. 1, Table A10, "Total Population at Mid-Year by Region, Subregion and Area, Upper 95% Prediction Interval."

countries, including Canada, will be able to be produced serially on assembly lines in any economy which can assemble automobiles. They could provide the basis for running an electrified A2A rail line, in addition to providing power for the mines, industries, and growing towns and cities that will develop along the rail corridor.

One of the developers that may be closest to deploying an SMR is NuScale Power, whose 60 MWe integral pressurized-water SMR has received an approval from the U.S. Nuclear Regulatory Commission, as well as funding from the U.S. government to accelerate commercial development of the technology. In Canada, the premiers of Ontario, New Brunswick, Saskatchewan, and Alberta have signed a memorandum of understanding to collaborate in the development of SMRs. On the longer time span of a decade or so ahead, several of the SMR technologies undergoing pre-licensing vendor design review by Canada's nuclear regulator, the Canadian Nuclear Safety Commission, are expected to be deployed as first-of-a-kind units.

Escaping the Trap of Geopolitics

Finally, the White House green light for the A2A Rail joint Canada-United States infrastructure project has special significance beyond its obvious transportation merits. It signals the spirit of cooperative foreign relations in projects of mutual benefit, as opposed to the prevalent and worsening bent towards confrontation in foreign relations, and the lack of cooperation on great projects. Historically, a major example of collaboration between Canada and the United States on infrastructure is the St. Lawrence Seaway.

Another great example is the North American Water and Power Alliance (NAWAPA), which was proposed in the 1960s and enjoyed strong bi-national support, but was thwarted by anti-infrastructure financial interests, centered in Wall Street and the City of London. The NAWAPA project would have diverted about 10% of the runoff from river basins in the northwest of the continent often subject to excessive precipitation and flooding. The primary areas of water collection were to have been selected rivers in Alaska, Yukon, Northwest Territories, British Columbia, and northern Alberta. The project was to redirect the water south into the arid western parts of the United States and Mexico, as well as southeast into the drought-prone areas on the Canadian Prairies and the Great Lakes (as may be required periodically to maintain adequate water levels for maritime shipping).

The principle of cross-border, mutually beneficial projects was most recently put on the world agenda in

2013 with the announcement of the Belt and Road Initiative (BRI) by Chinese President Xi Jinping. To date, some 80 nations are collaborating in overland and maritime corridors and centers of development across Eurasia, Africa, and points in Central and South America.

In 2017, in the early months of Donald Trump's presidency, he supported friendship diplomacy with Chinese President Xi Jinping and Russian President Vladimir Putin, consistent with what could have materialized in infrastructure projects abroad and in North America, upshifting the economic platform for the world. For example, there were new pipeline and chemical manufacturing projects under discussion between the United States and China. Similarly, when Prime Minister Justin Trudeau was first elected in October 2015, there was a clear intent to build upon Canada's significant, positive ties historically with China, and there was a potential for Canada to cooperate with China on the BRI.

There were even clear indications in 2016 that the Trudeau government was intent on having Canada cooperate with Russia in establishing the "Arctic Bridge" shipping route between the deep-water Port of Churchill, Manitoba and Murmansk, Russia. For more on this, see the section titled, "Canada-Gateway to the Americas," in the previously cited report.

Instead, however, all such diplomacy and projects have been dropped. We have seen more than 30 months of attacks on the U.S. Presidency, in the form of accusations of Russian collusion, impeachment, and now racism. And at the same time, U.S. foreign policy, led at present by Secretary of State Mike Pompeo, has come to be guided by the British playbook of opposing cooperation, and instead playing nations against each other. U.S. policy denounces the BRI and related initiatives as Chinese "expansionism." U.S. military deployments are being increased accordingly—as we see in the Arctic.

It is precisely for these reasons that the founder and Chairwoman of the Schiller Institute, Helga Zepp-La-Rouche, has been insisting over the course of this year that we need an "international chorus" of nations, institutions, and prominent individuals who, despite how improbable such a development may seem, support the demand that it is of the highest urgency that Presidents Donald Trump, Vladimir Putin, and Xi Jinping hold a summit, or series of summits, in person or otherwise, to reach agreements on how to resolve the manifold crises presently threatening civilization. Therefore, as against the current very dangerous geopolitical trend, the singular White House approval for the A2A Rail project is welcome on all counts.