CHINA HIGH-SPEED RAIL

Girdling the Globe With a Tramway of Iron

by William Jones

May 14—The just-concluded visit to Africa by Chinese Premier Li Keqiang, with its promise of the construction of new rail lines on the transportation-starved continent, underlines the grand development strategy elaborated by China, utilizing its growing expertise in rail construction, in particular, high-speed rail construction, in order to connect the world.

This had been the perspective of the leading political forces in our own nation more than 150 years ago. The creation of the Transcontinental Railroad, initiated by Abraham Lincoln, and completed shortly after his untimely death in 1865, had welded together the vast expanse of the American West in a single line of communication. This served as a model for similar rail projects in Europe and the Middle East.

The Trans-Siberian Railroad, begun in the 1880s and completed in 1913, and the Berlin-to-Baghdad Railway, sabotaged by the British in their attempt to undermine the Continental powers, followed in the wake of the U.S. Transcontinental. Brig. Gen. Joshua T. Owen, a veteran of the American Civil War, speaking at a dinner in Philadelphia in 1869, organized by American System economist Henry Carey in honor of Andrew Curtin, who had just been appointed U.S. envoy to Russia, urged the Tsar to begin construction on a Trans-Siberian railroad, effectively "girdling the globe with a tramway of iron."

In the 1870s, there were attempts to create a Trans-Hemispheric Railroad from Alaska to Patagonia, but these never reached fruition. The firing of German Chancellor Otto von Bismarck by the German Kaiser in 1890, and the subsequent rush to war in the European capitals, which began years prior to the Great War of 1914-18, put an end to that vision. It has now been taken up by the Chinese leadership, with particular emphasis on the latest developments in mass-transportation technology, high-speed rail and magnetically levitated (maglev) trains.

China Ready To Span the Bering Strait

This "railroad strategy" is fundamental to the program of the two Silk Roads announced last year by Chinese President Xi Jinping: the Silk Road Economic Belt, traversing Central Asia to Europe, and the Maritime Silk Road, stretching through Southeast Asia. Most recently, China has also expressed a keen interest in getting involved in the Russian project of building a tunnel under the Bering Strait, bringing Eurasia and North America together in one expansive rail network. The Bering Strait tunnel project, which has been promoted for decades by *EIR*,[1] was also the subject of a conference in Germany in 2007, organized by the Schiller Institute, where representatives from both Russia and the United States involved in the Bering Strait project, made presentations.[2]

1. See: Benjamin Deniston, "The Pacific Development Corridor: Maglev Across the Bering Strait," *EIR*, Sept. 13, 2013, and many other articles at www.larouchepub.com.

2. See: Schiller Institute Conference, "The Eurasian Land-Bridge Becomes a Reality!" Sept. 15-16, 2007, Kiedrich, Germany, at www.schillerinstitute.com.

The concept for China's worldwide Iron Silk Road is based on Lincoln's Transcontinental Railroad, and Russia's Trans-Siberian. The Bering Strait crossing, shown here in an artist's conception, will realize the centuries-old dream of linking Asia and North America.

Speaking to the *Beijing Times* on May 8, Academician Wang Mengshu, from the Chinese Academy of Engineering, indicated that the Bering Strait tunnel was also encompassed in China's high-speed rail plans. "Right now, we are already in discussions" on the Bering Strait, Wang said. "Russia has already been thinking about this for many years." Using high-speed rail technology, Wang said, a passenger could make the trip between China and North America in two days.

Wang is not just any commentator. A highly regarded professor of engineering since 1964, he has played a key role in, and made numerous contributions, to many of China's major construction projects, including rail, tunnel, and subway construction. He has also advised on the construction of China's South-to-North water-transfer project. Wang has long been the chief proponent of China becoming the leading producer of high-speed rail. In 2011, he was nominated as the Science Person of the Year, and is also a member of the National People's Congress.

In an interview last year, Wang told reporters that China now is clearly ahead in high-speed rail technology. "When people talk of watches, they think of Switzerland," Meng said. "When they think of small electronics, they think Japan. When they think of space, they think of America, and talking of machinery, they think of Germany. Now when they think of high-speed rail, China becomes the name brand."

A High-Speed Silk Road

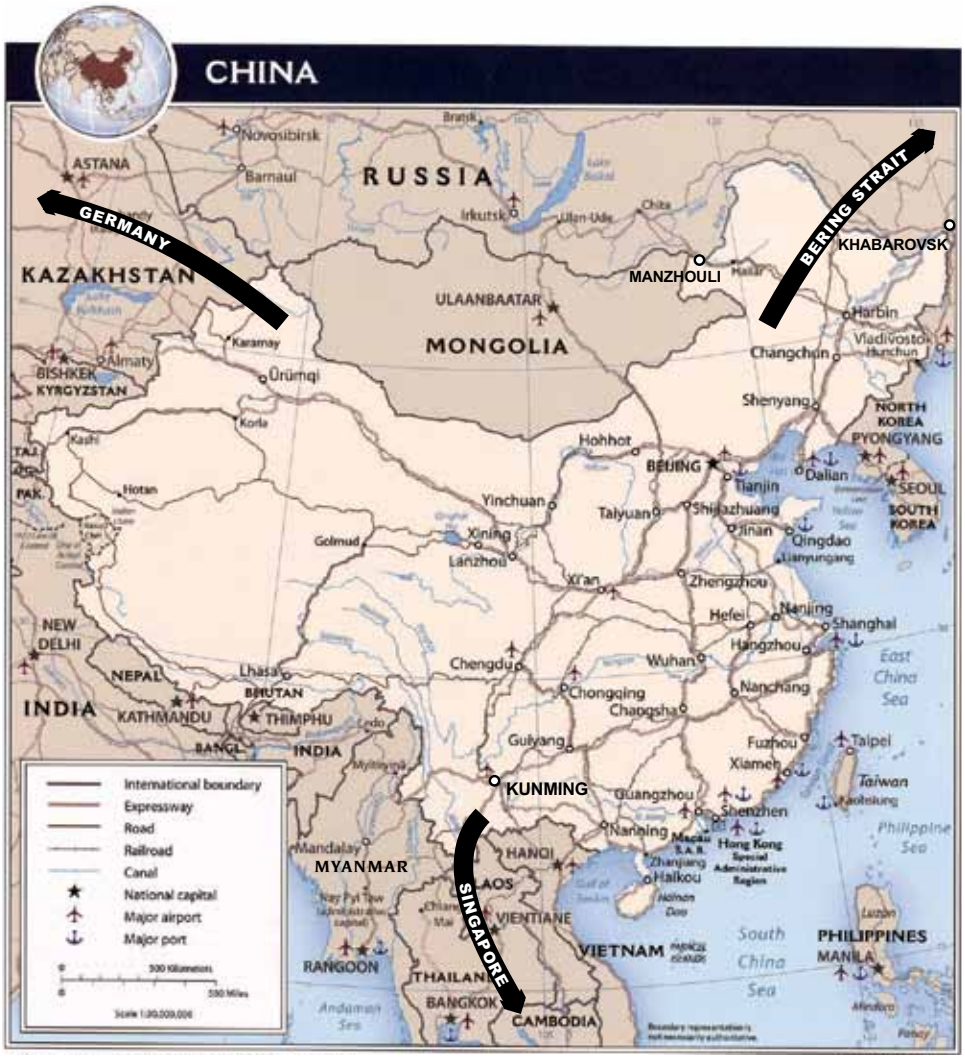
In the interview, Wang also announced China's "going out" strategy for high-speed rail. "High-speed rail will certainly have to "go out" Wang said: namely, with one high-speed line to the southwest, one to the northwest, and one to the northeast. A high-speed rail is also being proposed for the Central Asian Silk Road, and there are considerations for extending high-speed rail to Iran for both passenger and oil transport, Wang said.

In his more recent interview with *Beijing Times*, Wang explained the role of high-speed rail in the development of the Silk Road Economic Belt. He noted four primary directions for Chinese lines: 1) a Eurasian line with two branches, one going through Kazakhstan and another entering China at the border with Russia at Manzhouli, and proceeding east to Khabarovsk; 2) a Central Asian line, starting from Urumqi and proceeding through Kazakhstan, Uzbekistan, Turkmenistan, Iran, and Turkey, and, from there on to Germany; 3) a Pan-Asian line starting from Kunming and proceeding through Vietnam, Cambodia, Thailand, and Malaysia, and ending at Singapore; and 4) a line going to the northeast through China and into Siberia, linking up with the planned Bering Strait tunnel, which would connect Russia's Chukotka peninsula with Alaska.

There are still ongoing discussions with Russia regarding which gauge would be used for the lines traversing Russian territory; China wants to build their lines using the narrower international gauge rather than the broader Russian gauge.

Wang indicated in the *Beijing Times* interview that work is proceeding apace on the Chinese section of the first two lines, and that the overseas sections are still

FIGURE 1
China's 'Going-Out' Strategy for High-Speed Rail



The map indicates the key points on the projected four main lines of China's Silk Road Economic Belt: 1) a Eurasian line; 2) a Central Asian line; 3) a Pan-Asian line; and 4) a China-Siberia line linking up with the planned Bering Strait tunnel, to Alaska.

under discussion. Construction has already begun on the Pan-Asian line, on a railway tunnel from China to Myanmar. A Siberian line still has to be negotiated with Russia, but Wang thinks that China is prepared to help finance and build the tunnel under the Bering Strait, as well. Wang feels that resolving the issues involved in this construction would also provide the basis for the construction a tunnel between China's coastal Fujian province and Taiwan.

Wang went on to underline the importance of China becoming the leading producer of high-speed rail. First, he said, we can exchange our high-speed rail investment for the energy resources available in many of the transit countries. In the case of Myanmar, which is not an energy producer, the rail construction could be exchanged for its potash, Wang said. Secondly,"the project provides the outlet for Chinese engineers to play the key role in the surveying, design, and construction of the roads, and allows them to train personnel in the recipient countries. Even now there is a regular train which departs from Zhengzhou carrying exploration equipment and technical personnel destined for Central Europe and other regions on the rail line," Wang said.

A Hamiltonian Credit System

The project is not without its challenges, Wang admits. One involves its financing. Although China has extensive financial reserves, the size of the project far outstrips China's ability to finance it on its own. China's proposal for the establishment of an Asian Infrastructure Investment Bank might be a step in the right direction, but it would require that other nations put up their own capital as well.

More to the point, these types of infrastructure projects require a return to the notion of a Hamiltonian credit system rather than a monetary system. And this then raises the question of the urgent need for dealing with the out-of-control international financial system in which such "investment" is taking place. Helga Zepp-LaRouche, in her discussions with Chinese scholars on a visit to China last February, underlined that, if the projects associated with the Silk Road Economic Belt were to succeed, it were absolutely necessary to establish a

Hamiltonian state-generated credit system and to bankrupt the monetarist casino economy of Wall Street through the reestablishment of Glass-Steagall legislation.[3]

Secondly, Wang noted the need for the countries in the region to develop an expedited system for customs and border crossings. If lengthy border procedures remain a bottleneck delaying traffic, the very purpose of the high-speed rail system is defeated.

Returning to the "going out" strategy, Wang stated that China clearly possesses the capability and the technology. But the international situation is complicated, and the speed of travel is still relatively slow. Moving the project abroad requires negotiations, assurances that it will be beneficial for us and that it will also help to spur other industries." Thirdly, Wang indicated, there are still the major problems involved in traversing some of the difficult terrain encountered when bridging the Eurasian continent with high-speed rail.

But the directionality of the Chinese program is clear. In addition to the conventional high-speed rail, which China has effectively mastered, it is also proceeding to take the next step with the development of a commercial maglev traffic. Researchers at the Applied Superconductivity Laboratory of Southwest Jiaotong University are developing a maglev train prototype to run inside an evacuated tube which could potentially reach supersonic speeds up to 1,800 miles per hour. The limit to the speed of a maglev system is not the maglev technology itself, but the aerodynamic drag the vehicle encounters at high speeds. The Chinese evacuated-tube design lowers the atmospheric pressure inside to 10 times less than normal atmospheric pressure. The researchers successfully tested their vehicle in a 40-foot diameter closed circular loop.

Although high-speed rail and magnetically levitated trains were developed in the United States in the 1970s, with the first maglev line having been built in Germany, it has been left to China to move the ball forward. For this, they are to be lauded. And it should be a signal to the rest of the world that they must quickly abandon the rampant "green" ideology, which has taken root in the West since the assassination of President Kennedy, and return to those policies of scientific and technological progress which served us so well, and which now are the only hope for bringing mankind out of the economic misery in which the great mass of humanity now finds itself.

3. See: "Helga Zepp-LaRouche on Chinese TV: Silk Road Lady on the Potential for a 21st-Century Peace Order," *EIR*, April 25, 2014.

Finally, a Bering Strait Tunnel?

May 17—The inclusion of the Bering Strait Tunnel in an outline of China's plans for global rail development in the state-run *Beijing Times* on May 8 has again put that long-standing project on the international agenda. U.S. rail expert Hal Cooper, who has been a long-term advocate of the project, told Ria Novosti in the wake of that announcement that the Chinese action means that the project "will never be swept under the rug again."

The proposal for a rail link from Siberia to Alaska across the Bering Strait has been mooted since the time of Abraham Lincoln (see *EIR*, May 2, 2007), but the idea went through a renaissance beginning with the work of the Schiller Institute in the early 1990s, when Helga Zepp-LaRouche and Lyndon LaRouche embarked on their campaign for a World Land-Bridge of development corridors. Both LaRouches have conceived of the project both as a spur to global economic development and a means of war avoidance through cooperation among key nations such as the United States, Russia, and China, all of which are needed to realize such a project.

2007 Nodal Point

2007 was a breakthrough year for the project, featuring a number of high-profile conferences and decisions that spotlighted the tunnel project.

At an April 10 meeting on rail transport, chaired by President Vladimir Putin, Vladimir Yakunin, head of the state-owned company Russian Railways, laid out construction of the 3,500-km rail line from the right bank of the Lena River to the Bering Strait, as a significant task. That line would later be included as one of strategic importance for the future, in the Russian Railways Strategy for Rail Development in the Russian Federation to 2030, published in July 2007.

Russian proponents of the Bering Strait project conducted a publicity drive around an April 23 conference titled "Megaprojects of Russia's East: Intercontinental Eurasia-America Link via the Bering Strait." This was organized by the Council for the Study or Productive Forces (SOPS), a joint institution of the Russian Academy of Sciences and the Russian government's Eco-

nomics Ministry (MERT). Co-sponsors were the Economics Ministry itself, the Russian Ministry of Transport, Russian Railways, and several regional governments in Siberia and the Russian Far East.

On April 16, the late Academician Alexander Granberg, then head of the SOPS, explained in an interview how the project fit into the Russian leadership's vision of the development of transportation infrastructure as essential for uplifting Russia's huge outlying regions.

Then on April 18, at a pre-event press conference held by the SOPS project working group, SOPS Vice-Chairman Victor Razbegin, also of the MERT Industrial Research department, grabbed headlines in the Russian media with his huge map of the proposed $65 billion multi-modal Bering Strait tunnel from Russia to Alaska, with its associated long-distance rail and power lines.

At the conference itself, high-level Russian participants were joined by speakers from South Korea, Japan, and the United States.

In the opening session, two American contributions put forward the idea that great development projects are the path, leading away from war. These were the remarks by the late Governor of Alaska and U.S. Secretary of the Interior Walter Hickel, a strong backer of the Bering Strait tunnel project; and Lyndon LaRouche's article, "The World's Political Map Changes: Mendeleyev Would Have Agreed." The article by LaRouche, requested by conference organizers for publication in connection with the event, was read to the meeting.

Granberg told the conference that the next step would be design and feasibility studies for the 6,000-km rail-road-pipeline-power corridor from Yakutsk in Eastern Siberia to Fort Nelson, Canada, including a 100-km tunnel under the Bering Strait.

At the end of the conference, April 25, the participants issued an "Appeal from the participants of the international conference on an Intercontinental Eurasia-America Transport Link via the Bering Strait, to the heads of state and governments of Russia, the U.S.A., Canada, South Korea, Japan, China, and the EU member-states." Along with the Appeal, the participants at the April Moscow conference sent a draft Memorandum of Cooperation, proposing that those nations endorse the project and consider financing feasibility studies for the Bering Strait project at the June 6-8, 2007 G-8 summit in Heiligendamm, Germany. The studies, they said, could have been completed by 2010.

Global Support

While the issue was not known to have been taken up at the G-8 summit, high-profile organizing continued. Among the highlights was the Schiller Institute's Sept. 15 conference in Kiedrich, Germany, which in addition to the LaRouches, featured speakers from around the world, including an impressive delegation of Russian scholars and political leaders.

Among them were Prof. Stanislav Menshikov of the Russian Academy of Sciences; Razbegin; and Dr. Sergei Cherkasov and Academician Dmitri Rundqvist, both of the Vernadsky State Geological Museum; and Hal Cooper. The prospects for the Bering Strait rail tunnel as part of the global land-bridge were highlighted.

The Russians have also kept the project on the radar screen, although the global financial crisis and the geopolitics in the West have erected major barriers to it being able to go ahead. The Russians again attempted to place the project on the international agenda, at the November 2010 G20 summit in South Korea. Russian Federation Council member Aslambek Aslakhanov, formerly an advisor to President Putin, told Novosti of the critical role of this project for the industrial development of *the entire region*, by linking four continents.

Also in 2010, the Chinese interest in the project was demonstrated when the Grand Prize for innovation at the Shanghai World Expo-2010 went to the Bering Strait Tunnel project, submitted by Russia's SOPS. Razbegin was on hand to receive the award for this "intercontinental multimodal transport tunnel" design.

New Prospects

China's renewed public attention to the Bering Strait project has come virtually on the eve of Putin's May 20-21, 2014 visit to Beijing, where new levels of economic cooperation are expected to be discussed, and certain agreements, such as on natural gas, which have been under negotiation for some time, are expected to be consolidated.

Will these two leaders of the Eurasian world, who have been pursuing high-technology economic development, in stark contrast to the United States and Western Europe, take the occasion to publicly offer to the U.S., and others, cooperation on the Bering Strait mega-project? Given the utterly bankrupt condition of the trans-Atlantic system, the time for such a renewed offer is more than right.