Victor N. Razbegin

Eurasia-North America Multimodal Transport

The presentation prepared for the Schiller Institute conference by Victor Razbegin, deputy chairman of Russia's Council for the Study of Productive Forces (SOPS), was introduced by Helga Zepp-LaRouche, presiding, and Rachel Douglas of EIR, who delivered Dr. Razbegin's report in his absence.

Rachel Douglas: Good afternoon. I am honored to have the chance to give you the presentation of Victor Razbegin, which I received from him yesterday afternoon, when it became clear that he would not be able to be here.

Dr. Razbegin is an economist. He is the deputy chairman of the Council for the Study of Productive Forces (SOPS). He has been the public face of the Bering Strait project in Russia, appearing on national television on April 18 of this year, just a few days before the Megaprojects of the Russian East conference series was inaugurated on April 24 with a special conference on the Bering Strait.

During the run-up to our conference, and in the process of it's becoming clear that he couldn't come, Dr. Razbegin, and Academician Alexander Granberg, extended their greetings to the conference, their wishes for its success, and their happiness that serious numbers of people at serious levels in Europe, and from other parts of the world, are paying attention to this project, in particular.

Dr. Razbegin's Remarks

The project for a Bering Strait infrastructure crossing (**Figure 1**) goes back to the late 19th Century, when the first proposals were made for a railroad to the Bering Strait, through Yakutsk and along the coastline of the Sea of Okhotsk.

In 1902-05, the French explorer Loicq de Lobel proposed an intercontinental railroad across the Bering Strait, on a concession basis.

In October 1906, the Russian Government Commission on the Great Northern Route supported Lobel's plan, and called for expediting work on the project. In March 1907, however, the Russian government terminated the contract, having decided its terms were not favorable.

In April 1918, the Bolshevik leader V.I. Lenin, just a few months after taking power, addressed the All-Russian Executive Committee on the need to intensify railroad construction, including toward the Bering Strait. During the Soviet period, in the 1930s and the 1950s, an Arctic Railroad was planned, from Vorkuta in the northwest to Anadyr in the northeast, and 1,700 km of this railroad was built, from the western end.

In 1991, an international non-profit corporation called the Interhemispheric Bering Strait Tunnel and Railroad Group (IBSTRG)—also known as "Transcontinental"—was officially registered in Washington, D.C. Its founding members from the American side were the State of Alaska, the American Railroad Association, a native peoples association that owns land along the Bering Strait, and several large railroad, construction, and consulting companies, as well as firms that specialize in raw materials extraction and processing. The American president of the IBSTRG is George Koumal.

At the same time, a Russian section of the IBSTRG was registered, with myself, V.N. Razbegin, as president.

Between 1992 and 1996, the IBSTRG did preliminary studies for the project, the findings of which were submitted to the Russian and U.S. governments. In March of 1996, the U.S.-Russian Intergovernmental Commission (at that time it was the Gore-Chernomyrdin Commission) recommended support for the Project as "having great potential." The sum of $10 million was allocated in the U.S. Federal Budget for studies, but these funds were not disbursed. That same month, the government of the Russian Federation received a draft decision document, defining the need for a set of feasibility studies on the potential for a multimodal corridor. The Russian institutions that would be involved were the Railways Ministry, the

FIGURE 1
The Intercontinental Eurasia-America Transport Link

The dark line from Asia to North America shows the proposed link across the Bering Strait.

Ministry of Construction, the State Committee for the North, the Main Administration of the Chukotka Autonomous Region, and the CEOs of UES (the national power utility) and the Transstroy construction agency, as well as the Siberian Division of the Russian Academy of Sciences.

Prominent persons who have supported the Bering Strait project, and infrastructure development in Russia's northern and eastern regions in general, have done so with reference to the national interests of Russia, as well as the interests of other countries around the world.

President Vladimir Putin, in his May 2004 Message to the Russian Federation Federal Assembly, his annual State of the Federation message, said, "With consideration of Russia's size and the remote geographical location of some Russian territories from the political and economic centers of the country, I would say that development of transportation infrastructure is more than merely an economic task. Its solution has a direct effect not only upon the state of affairs in the economy, but upon the integrity of the country as a whole."

More recently, at the April 10, 2007 government conference where the Russian Railways strategy for the development of Russia's railroads until 2030 was preliminarily outlined, President Putin said, "We need to make the sparsely inhabited regions of the country, and promising industrial zones, accessible by transportation.... In effect, this will mean the development of these sparsely inhabited regions of the country."

First Deputy Prime Minister Dmitri Medvedev, addressing the Davos World Economic Forum in January of this year, said, "The Russian economy will ... fully take up our historical mandate as the energy and transportation center of Eurasia."

The famous Russian writer and thinker, Alexander Solzhenitsyn, has warned, "It is unimaginable that an overloaded planet will continue to quietly tolerate the neglect of and failure to develop the great expanses of Russia."

And, from the American side, there is the succinct question of former Governor of Alaska Walter Hickel: "Why war? Why not a big project?"

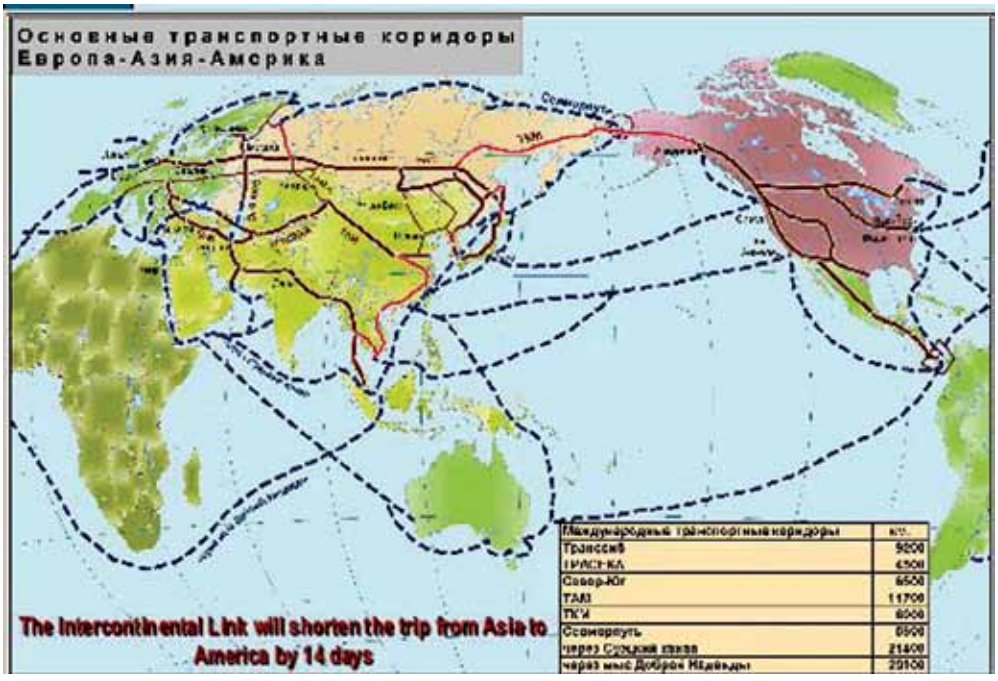
The need to create a combined multimodal transport corridor that would link four out of the six conti-

FIGURE 2

Planned Russian Railroad Development to 2030

This EIR *map of projected rail construction is based on a Russian Railways map titled "Prospective Topology of the Russian Federation's Rail Network Development until 2030," which was presented by a Russian Railways spokesman at the April 24, 2007 conference on the Bering Strait tunnel project. The SOPS organization, of which Victor Razbegin is deputy chairman, sponsored that Moscow event. Among the "railroads of strategic importance," planned for construction between 2015 and 2030, is the 3,500-km line from the Lena River near Yakutsk to the Bering Strait at Uelen. Its spur to the coastal town of Magadan is designated as one of the "railroads of social importance," which are connections to cities that would otherwise be isolated. The Yakutsk-Magadan rail segment is to be finished by 2015.*

FIGURE 3
The Global Transportation Network



The main international transportation corridors between Europe, Asia, and the Americas including sea lanes (dotted lines) and rail lines. The two main sea routes are through the Suez Canal between the Eastern Mediterranean Sea and the Red Sea, and around the Cape of Good Hope at the southern end of Africa. The Northern Sea Route along Russia's Arctic coast figures in Russian plans. The 9,200-km Trans-Siberian Railroad was built over 100 years ago as the first Eurasian Land-Bridge; it has a more northerly, late-20th-Century parallel branch in Russia's Far East, the Baikal-Amur Mainline (BAM). Currently under development are three more corridors: the European Union-initiated TRASECA lines into Central Asia; the North-South Corridor, a combined sea and rail route from India through Iran and into Russia; and the revived Silk Road, or second Eurasian Land-Bridge, which Russian rail experts call the Trans-Asian Mainline (TAM). The map shows the Intercontinental Link (Russian abbreviation TKM) across the Bering Strait, as projected construction.

nents of the globe is obvious to everyone today. Scientists have already succeeded in solving practically all of the technical tasks connected with laying this route. Upon examining the preliminary construction plan in detail, it becomes clear that the proposed route is neither longer, nor much more complex, than some other transport arteries that are already operational.

The permafrost and harsh conditions of the extreme North are not an obstacle for the builders, since Russia has vast experience in construction in similar climatic zones. Though laying a tunnel under the Bering Strait will require complex engineering solutions, it is also quite possible. World experience in recent decades demonstrates that such routes under straits can be successfully operated, even in countries with high levels of seismic activity.

In the very recent period, there have been a series of official actions by the Russian Government, to advance the project.

In March 2006, under a mandate from President Putin, a decision was taken to include a railroad from Yakutsk to Magadan, in Russia's transportation strategy for the period to 2020.

Then, in February of 2007, it was decided that planning for the Yakutsk-Uelen railroad, with the first segment going to Magadan, would begin this year. Construction would start in 2009, with the segment being finished by 2015, in conjunction with completion of the Ust-Srednekansk hydroelectric power plant and the first unit of the Southern Yakutsk hydroelectric complex—the Kankunsk hydroelectric plant. Then-Prime Minister Mikhail Fradkov took part in a meeting on this perspective, which was held in Yakutsk.

On Sept. 6, 2007, just a week and a half ago, the Russian government approved the "Strategy for Railroad Development in Russia to 2030." It includes the line from Yakutsk (right branch of the Lena River) to Uelen, coming out at the Bering Strait, as one of the priority projects of strategic significance, social importance, and for freight. (**Figure 2**)

The Intercontinental Link will be a multimodal corridor, including:

• A two-track, totally electrified, high-speed rail mainline Yakutsk-Zyryanka-Uelen-Fort Nelson (Canada), total length 6,000 km

• An electric power transmission line, with up to 1,500 KV direct current, and capacity of 12,000-15,000 MW

• Fiber optics telecommunications lines

• Oil and gas pipelines

The option of laying an oil and gas pipeline together with the transport line is under active consideration. So far, there has been some discussion of the feasibility of combining it with the route. If this comes to pass, it will become yet another important economic advantage of building the multimodal route. It will create the economic preconditions for developing promising offshore oil and gas deposits in the Sea of Okhotsk, as well as in the waters of the northern oceans.

TABLE 1
Freight Volumes Through a Bering Strait Tunnel

Commodity	Direction	Volume (Millions of Tons) 2005	2030
Oil	Russia-N. America	27.0	108.6
Refined Petroleum Products	N. America-Russia	9.1	18.2
Multimodal Freight	Russia, Asia, Europe-N. America (and the opposite direction)	16.3	45.3
Grain and Other Foodstuffs	U.S.A.-Russia, Asia	11.8	27.3
Coal	U.S.A.-Asia	4.6	13.7
Timber	Russia-U.S.A., U.S.A.-Asia	4.6	9.1
Machines and Metal Products	U.S.A.-Russia	7.3	18.2
Minerals, Chemicals, Fertilizers	Russia-U.S.A., U.S.A.-Russia, Asia	4.6	16.3
Other	U.S.A.-Russia	0.9	1.8
Total		**86.2**	**259.5**

Source: Hal Cooper and Anneli Avatare.

The Intercontinental Link Project is of global importance on several counts. It will unite continental transportation lines into a single global network, create an international transport corridor, and make it possible to organize large-scale freight transport between Eurasia and America. This will accelerate global economic integration, opening up new opportunities for sustained development of the world system. In particular, it will be possible to develop the northern regions of Russia, the U.S.A., and Canada, linking their enormous natural resources to world markets.

The project will have a positive impact on international political relations.

In the global transportation network, we can identify the main transportation corridors between Europe, Asia, and America, and how long they are (**Figure 3**):

Trans-Siberian Railroad:	9,200 km
TRASECA:	4,500 km
North-South corridor: (India—Iran—Russia)	6,500 km
Trans-Asia Mainline: (the revived Silk Road)	11,700 km
Intercontinental Link Project:	6,000 km
Northern Sea Route:	5,600 km
By sea—through Suez Canal:	21,500 km
By sea—around Cape of Good Hope:	29,100 km

The Intercontinental Link across the Bering Strait is the missing element in the global transportation network. This 6,000 km-rail line could potentially carry about 500 billion ton-kilometers annually, or 3% of world rail cargo flows.

What would this 3% of world rail cargo look like? We project an increase from a potential total of 238.5 million tons in 2005, to nearly 350 million tons in 2030. Some flows would be from Eurasia to North America, and some in the opposite direction.

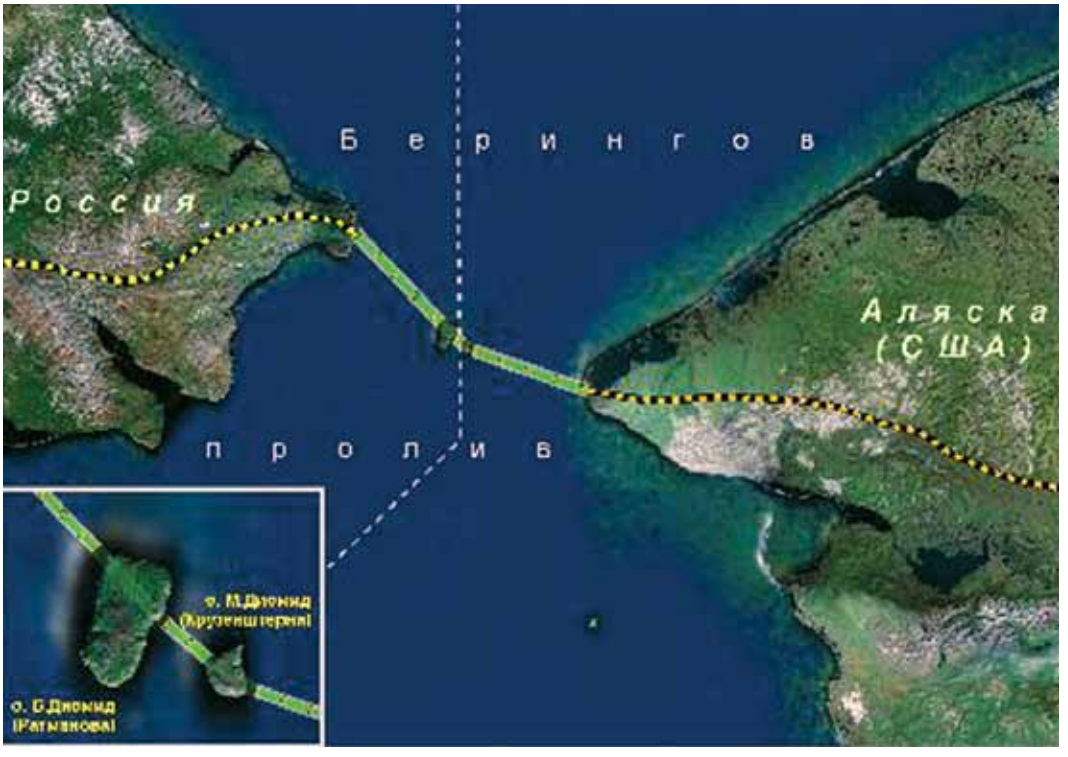
A portion of the traffic would be so-called "transit shipments," i.e., goods that are neither produced nor to be consumed in Russia, but are shipped across Russian territory. According even to the most conservative estimates, the volume of transit shipments will reach about 70-90 million tons annually. These are average figures, taken from calculations made by Russian and foreign economists, and they amount to just 15% of the estimated goods traffic. Even this level would generate around 10 billion rubles of revenue, even at low Russian railway tariffs.

Freight volumes through the tunnel, by commodity, were estimated in a study by the U.S. engineer Hal Cooper and his colleague, Anneli Avatare (**Table 1**).

The projected Bering Strait rail crossing will knit together the entire rail networks of Eurasia and North America. Projected tunnels between the Russian mainland and Russia's Sakhalin Island, and between Sakhalin and Japan's northern island, Hokkaido, will conntect Japan, as well..

The route of the tunnel across the Bering Strait

FIGURE 4
The Bering Strait From Space



The route of the tunnel across the Bering Strait is projected onto a satellite photo of the strait, where Russia is on the left and Alaska (U.S.A.) is on the right. In the middle of the strait (inset), straddling the International Dateline, are Russia's Big Diomede Island and, on the American side, Little Diomede Island.

(**Figure 4**) can be seen from space, with Big Diomede Island and Little Diomede Island visible in the middle.

The length of the rail lines for the Bering Strait project has been estimated for various route options.

Yakutsk-Uelen rail line (estimates by the Mosgiprotrans Company)

Northern option: Yakutsk-Zyryanka-Uelen:	3,850 km
Southern option: Yakutsk-Susuman-Markovo-Anadyr-Uelen:	4,020 km
Yakutsk-Magadan segment:	1,560 km
Wales-Fairbanks-Fort Nelson (Canada) rail line (estimates by Hal Cooper):	1,925 km
Tunnel under the Bering Strait (for different options):	98-113 km

The next most significant economic advantage of the project, after freight transport, is the creation of a Russia-America "power bridge." The multimodal transport corridor can provide the preconditions for uniting Eurasian and American power networks with the construction of an electric power transmission line with capacity of 12,000-15,000 MW. This will make it possible to exploit an intra-system power-saving effect, taking advantage of the "overflow" of unutilized power between different time zones and climatic belts. Economies from this integration of energy systems and electricity transmission will be the equivalent of commissioning several major new power plants. Such savings will reach $1.7 billion annually for Russia alone.

The multimodal route will open up access to the world's largest hydroelectric power potential, in Eastern Russia. In addition, it is planned to build a number of environment-friendly tidal power plants in the general region of the project, such as at Russia's Penzhinskaya Bay, and Cook Bay on the North American side. These large, tidal power plants, together with efficient hydroelectric power plants (**Figure 5**), can establish a Russia-America power bridge with a capacity of 10,000 megawatts, which, in turn, may allow the export of several tens of billions of kilowatts of electricity from Russia to the U.S.A. In the future, the energy networks of China and Japan can be hooked into the Russia-U.S.A. "power bridge."

FIGURE 5

The Intercontinental Link: Electric Power Generation and Transmission

The map shows planned and potential power plants and electric power transmission lines in the Bering Strait project region, from the Russian side. The power plants shown are hydroelectric dams on Siberia's great rivers, except for Penzhinskaya and Tugurskaya stations on the coast, which will utilize the tides.

Construction of power stations exploiting tidal potential:

Penzhinskaya:	10.5 GW
Tungurskaya:	5.3 GW
Cook Bay:	9.4 GW

With the construction of the power bridge, there will be increased benefits from development of the Southern Yakutia Hydroelectric Complex.

The capital investment required for the Intercontinental Link Project has been estimated by the IBSTRG as follows:

Billions of U.S. dollars:

Yakutsk-Uelen (Russia):	9.5-11.5
Wales (Alaska)-Fort Nelson (British Columbia):	2.5-3.5
Total for railroads:	12-15
Tunnel construction:	10-12
Electric power industry, including intercontinental transmission line:	23-25
Other (social infrastructure, fiberoptics lines, etc.):	10-15
Total:	**55-67**

These estimated costs may be compared with **projected revenues from various aspects of the project, also shown in billions of U.S. dollars:**

Development of natural resources and social development of the region:	25-30
Freight transshipment revenue:	8-10 annually
Electric power economies:	18-20 annually
Other effects:	10-15 annually
Time to recoup investment:	13-15 years
Internal Rate of Return (IRR):	at least 10%

The Intercontinental Link is important as a national project for Russia. It will give Russia a greater geopolitical presence in the Asia-Pacific Region and an improved position in world transportation services markets, as well as energy and industrial markets. It will be an important link in Russia's own transportation network, linking northeastern Russia to international transportation corridors, thus activating the potential of the country's transportation network.

Construction of the corridor will also be the precondition for the intensive economic development and population of northeastern Russia, providing year-round transportation access, reduced transportation

costs, and competitive advantages for key manufacturing. It can improve living standards, create new jobs, and reverse out-migration from the region.

Remember again what President Putin said last April: "We need to make the sparsely inhabited regions of the country, and promising industrial zones, accessible by transportation.... In effect, this will mean the development of these sparsely inhabited regions of the country."

At the same time, the Transcontinental Link is a project of worldwide importance. As I mentioned, it can account for 3% of world rail freight in 2005 prices, and produce a 0.3% annual increase in world GDP. The increase of goods circulation, internationally, could be stated as $300-350 billion annually.

The project will give the U.S.A., Canada, and the nations of South America direct access to China, Southeast Asia, Central and South Asia and beyond, for their products and technologies. At the same time, the Asia-Pacific Region will gain regular and mutually beneficial access to Siberia's resources.

The project can bring about a shift toward civilian industrial production, as against military. It will mean a demilitarization of world trade, serving as an incentive for economic integration.

First, however, the full impact of the project on the basic environment, as well as the availability of the needed resources, must be evaluated.

As a transnational project, the Intercontinental Link can improve international relations. It is a project that can change the world. It pulls together creative energies. Instead of putting up ABM systems, we can create a zone of international cooperation.

Transnational infrastructure projects are the only real alternative to confrontation, including military confrontation, between nation-states and peoples.

In conclusion, here are proposals for advancing the project.

1. At the close of the 20th Century, the non-profit IBSTRG drafted preliminary agreements on the stage-by-stage creation of an international joint-stock company to carry out the studies, design, and implementation of the Project. These can be used as the basis for developing proposals, in order to obtain the government financing that is needed for the project, backed up by special international agreements.

2. The April 24, 2007 conference in Moscow prepared an Appeal to the Heads of State of Russia, the U.S.A., and Canada, as well as other interested nations, to sign a joint intergovernmental agreement on a program of studies for the Project.

3. A decision to implement the Project could be adopted by the Presidents of Russia, the U.S.A., and Canada, as was done by the leaders of France and Great Britain for the Eurotunnel in the 1980s. For this, however, it will be necessary first to work up the Project design studies, survey work, and financial structuring, which will take approximately three years.

4. An international pre-feasibility study program for the Project was developed and agreed upon in principle in 1996. An updated version is in preparation. From $30 million to $50 million funding is needed.

5. The Project should be internationally financed in the framework of the intergovernmental agreement that would be signed, on principles of government-private partnership, with the most efficient approach being for management of the Project to be done by a private company, selected on a tender basis.

6. There will be important roles for the UN Development Program, the EBRD [European Bank for Reconstruction and Development], and the World Bank, as well as other major political and financial organizations.