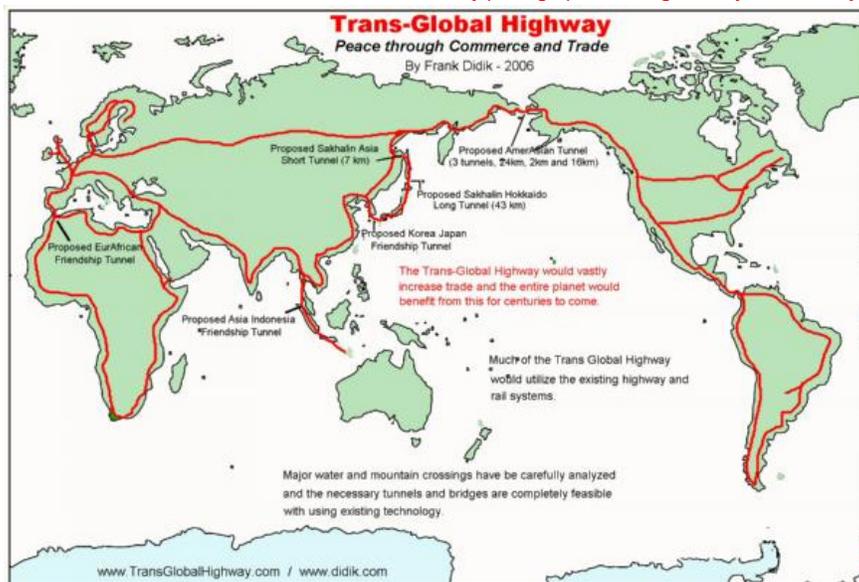


Proposal for a Trans Global Highway

by Frank Didik
2006

"I would like to go from New York City to London. By car. Before the end of my life, I would like to drive from New York City to Alaska and go through the AmerAsian Peace Tunnel across the Bering Strait, connecting the United States with Russia. From there, I plan to drive south along the trans Siberia highway and cross under the bay from Siberia to the Sakhalin Island (Russia), which is known for its natural beauty and enormous mineral and gas reserves. From Sakhalin, I will drive to Japan, via the Sakhalin-Hokkaido Friendship Tunnel and then to the main Japanese island of Honshu through the 33.5 mile / 50km long Seikan ocean tunnel (built in 1988), and on to Tokyo. From there I plan to go to southern Honshu and cross over the (existing) bridge to the southern Japanese island of Kyushu and from there, through the Korean-Japan Friendship Tunnel. Going through the open borders of the Korea's, I plan to than drive through China, India, Pakistan, Afghanistan, Iran, Iraq, Syria, Israel, Egypt and all of north Africa to Morocco, where I plan to drive through the EurAfrican Friendship Tunnel, ending in the southern tip of Spain, just south of Gibraltar. From there, I plan drive north to France and finally to England, via the 31.3 mile long "Chunnel", which has a special train to carry automobiles under the English Channel. I want to do this, in complete safety, through limited or open borders". I admit that in today's world, what I have just described seems utterly inconceivable; perhaps the unattainable dream of an idealist. On the other hand, consider that in 1939, the thought of a completely open Europe, without borders, would also have seemed totally impossible. In August, 1989, who would have dreamed that in just one month, the borders between "east" and "west" Germany would be gone forever? Yet what seemed impossible is reality today. The Trans Global Highway can and will eventually be constructed, in one form or the other. Frank X. Didik, New York City, May, 2006

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The road outlines are tentative and are designed to utilize the existing highway grid. Thus many more arteries than illustrated above, would be connected to the backbone of the Trans Global Highway. Not clearly shown in the map above is that North America and Asia are to be connected by the Bering Strait Tunnel

The Trans Global Highway would physically link by highways and by rail transport, all continents and major population centers, with the present exception of Australia, which, in the future, may be linked via very long suspended, pre-formed, suspended underwater tunnels from extending from the Philippine island chain.

From a human point of view, the advantages of the Trans World Highway are enormous. First, it would allow rapid transport of raw materials and finished goods from near and far. In addition, the Trans Global Highway would offer a conduit for gas, oil and water pipelines, as well as communication and electric power cables. It should be noted that fresh water is a major issue among arid areas, throughout the



The proposed AmerAsian Tunnel would link North America and Asia, across the Bering Strait, for the first time in an estimated 9 thousand years. It would create a highway, railroad, fresh water, oil and gas pipelines and communication crossings.



The construction and use of the AmerAsian Tunnel would greatly reduce the overall cost of transporting finished goods and raw materials to and from Europe, Asia, North and South America.



From an engineering perspective, the construction of the AmerAsian Tunnel is straight forward without any particularly complex issues involved. The Tunnel would comprise of 3 tunnels connecting Alaska and Russia going through the Little and Big Diomed Islands.



The Bering Strait is very shallow with a maximum depth at the proposed tunnel crossing of only 170 feet (52meters). The surface of the Bering Strait is frozen some of the time. The tunnel could be constructed in segments in factories and then sunk and assembled underwater. It could also be constructed using modern tunnel boring machines or TBM's.



world, including the Middle East, western United States, Africa and Central Asia. The Trans Global Highway combined with water pipelines from areas of abundance to arid areas, could benefit humankind even more. Perhaps there is a solution to the theoretical threat of global flooding from melting land ice at the poles, that some people fear.

The Trans Global Highway would undoubtedly increase global security through mutually dependent trade and commerce. As with almost all major public works projects, such as the Suez Canal, the Panama Canal, the Chunnel, the Alaska Pipeline and others, many people will argue that the tunnels, bridges and roads are not necessary. Some may present counter arguments stating that existing air and sea transport is just fine. Further, the cost may at first, may seem astronomical, but in retrospect, every one of these visionary projects has greatly helped mankind in commerce and progress. Ultimately, the Trans Global Highway will be constructed, in one form or the other, but we have an opportunity to start with, at least the ground work of planning, today. The primary obstacles, are not technical, and not even financial, even though the costs may seem high. The real obstacle to the construction of the Trans-Global Highway is political. Many bordering countries are presently at odds with one another, and may not be willing to allow a free moving highway to run through their territories, even with the potential of vast economic benefits.

From a technical point of view, the entire road and rail network is feasible, utilizing the engineering, materials and technology of today. At first glance, the development obstacles of the Bering Strait tunnel may seem insurmountable, but this is not the case. The Bering Strait Tunnel would consist of 3 tunnels connecting Alaska and Russia by going through two islands (the Little Diomede(USA) and Big Diomede (Russia)). The longest single tunnel would be 24 miles in length. Though the tunnel would be an under water suspended tunnel, it should be noted that the Bering Sea at this Strait has maximum known depth of only 170 feet. It is proposed that the tunnel start on the US side, from the town of Cape Prince of Wales, which has a population of 156 and about 80 buildings, including a large school, streets and general store, and end at the Russian settlement of Naukan or 2 km north at the Dezhnev settlement. It is further proposed that the tunnel pass though both Little and Big Diomede islands which can be used for ventilation shafts and possibly as a relief station. Both Little Diomede (USA) and Big Diomede (Russia) have been occupied for hundreds of years. Little Diomede has a Inalik native village with a population of about 200 and has a high school, store, Post Office, a community hall and many residences. The terrain of Cape Prince of Wales is very similar to the rolling grassy hills of Scotland and the gentle hill ends at a flat area at the Bering Strait with a very nice beach. The terrain of the Diomedes as well as the Russian Asiatic mainland is similar to the fiords of Norway, though the tops of the hills again are very similar to the rolling grassy hills of Scotland. Archeological findings, date back to over two thousand years. There are relatively flat areas along the coast of Russia, around the proposed exit of the tunnel, that would be ideally suited for a major highway and rail transport. In the winter time, the surface of the Bering Strait is frozen and it is possible to walk or even drive across the Strait, however, this is very dangerous, not to mention that crossing would be going across international borders. The tunnel would not be

Little and Big Diomed Islands showing path of proposed Bering Strait tunnels.



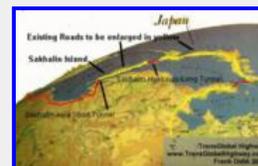
The TransGlobal Highway would incorporate the existing railroads and highway networks in each country. The illustrated path of the proposed TransGlobal Highway would also have numerous other tributary roads.



Existing roads may have to be strengthened and or widened and brought up to a single standard. The railroads of Russia are of a slightly wider gauge This was designed to provide a greater footprint so that the rails would not sink in the soft soil. Technologies exist for dual gauge train cars. (Kindly see photographs of dual gauge trains, below).



The world as a whole, would greatly benefit from the TransGlobal Highway. For example, Japan, in 2002, shipped 12 million metric tons of finished goods to Europe, primarily by ocean. Some of the goods went through the Suez Canal, while a portion of the goods also went around South Africa. The shipping time from Yokohama to the European port of Antwerp was in the order of 45 days. By rail, via the Trans Global Highway, this time could be reduced to 12 days.



It is proposed that two major tunnels be constructed to link Japan with Asia. These being the Korea-Japan Friendship Tunnel and the Hokkaido to Sakhalin Island-Asia Tunnel. These tunnels would thus quickly connect Japan and the rest of the world to quickly and effectively transport people and goods, at a minimal cost.



None of the major tunnels that would have to be constructed for the TransGlobal Highway would be particularly difficult to build. All of the tunnels would be going through relatively shallow water. The tunnels can be constructed in segments and than sunk and anchored to the bottom.



In some cases, could in fact be suspended from the ocean floor, deep enough not to be effected by adverse surface weather conditions. This system is not envisioned nor needed for the proposed tunnels, however this system could be employed if at such time, a tunnel was to be constructed to link Australia to the rest of the world, between the Cape of York Peninsula in Australia and Papua New Guinea or Darwin to Timor, via Melville Island. (See below for more details).



affected by the frozen Strait and tunnels under similar conditions have been constructed world wide.

State of Alaska Photo



Cape Prince of Wales (USA), looking towards Russia, in the summertime.

USGS Photo



Big Diomedes (Russia)

USGS Photo



Asiatic Russia, just past the Diomedes, in summer. The green is enhanced. In reality, the greenery is similar to Cape Prince of Wales, Alaska.

USGS Photo



Little Diomedes (USA) in the foreground.

It should be noted that presently, there are many tunnels around the world that are as long as the longest tunnel needed to complete the Trans-Global Highway. The "Chunnel" linking England with Europe is approximately 31.34 miles (50.45km) long, the ocean tunnel Seikan linking Hokkaido with Honshu in Japan is 33.46 miles (55.86km) long, while the new Swiss Gotthard tunnel through the Alps, currently under construction, will be 35.7 miles (59.60km) long. There are in fact, 5 tunnels over 30 miles in length, in existence today.

Path of the proposed AmerAsian / Bering Strait Tunnel



Bering Strait Tunnel
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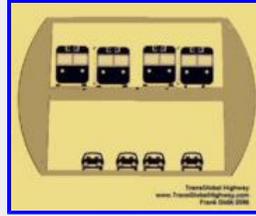
Click on any photograph to enlarge. Use your back key to return to this menu. (Please also view the more detailed maps, found on the column to the right)

The Bering Strait is named after Captain Vitus Bering of the Imperial Russian Navy, who was sent by Peter the Great, in 1725, to explore the ocean surrounding the eastern most reaches of Russia.

Japan could technically be connected with mainland Asia via five tunnels extending from the city of Fukuoka on Kyushu to the port city of Pusan in Korea via four islands. The maximum ocean depth in this area is 480 feet. It is also feasible to connect Japan to mainland Asia by constructing two tunnels extending north from Hokkaido to Sakhalin Island, which would be 25 miles (42km) long and a second tunnel from Sakhalin to the Siberian Russian mainland, which would only be 4.2 miles (7km) long. Recent estimates are that as much as 20 million tons of goods, manufactured in Japan could be shipped overland via the Russian railroad system, bypassing the current costly shipping costs, that include transit through the Suez Canal. There is a major financial



In a way, much of the TransGlobal Highway already exists in local roads and highways across the globe. The proposed TransGlobal highway would utilize the existing transportation network, extending, widening and perhaps strengthening it so that it forms a uniform global highway.



The proposed segmented, prefabricated tunnels could provide for both vehicle as well as rail transport, though with the potential complexity of ventilation, a Chunnel approach may have to be taken, whereby the vehicles are transported by electric powered railroad, through the tunnel. Equally important, the Trans Global Highway would offer a potential pathway for oil and gas pipelines, communication cables as well as water pipelines to transport fresh water from areas of abundance to arid areas.

The Trans-Global Highway would include:

1. Road transport
2. Railroads
3. Oil and gas pipelines
4. Electric and communication cables
5. Fresh water pipelines which could potentially minimize the effects of global warming.



A series of long, though not particularly difficult to construct tunnels is proposed to be built linking Indonesia and Australia with the rest of Asia, Europe and the world. This would be a huge advantage for global trade and travel. It should be noted that in every case when a major bridge or tunnel has been proposed, there are groups of people who have argued that existing ferries and boats or out of the way roads were good enough. The fact is that after such construction, everyone immediately agreed that the bridge or tunnel was needed. Such examples can be seen with the Chunnel, the Brooklyn Bridge, the Varazono Narrows bridge and many other examples.

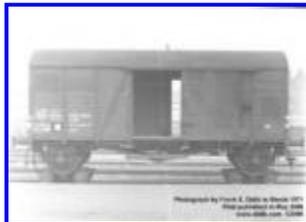


If a tunnel was to be constructed to link Australia to the rest of the world, between the Cape of York Peninsula in Australia and Papua New Guinea (147km / 88.2 miles) or Darwin to Timor, via Melville Island (400km / 240miles). These incredibly long tunnels are not being proposed at the present time, though it should be noted that the Swiss Gotthard tunnel through the Alps, which is at the final stages of completion, will be 35.7 miles / 59.60km long. Arguable, the Swiss tunnel, bored through solid rock, is more difficult to construct than the potential Australia-Papua New Guinea tunnel. Presently, a major seaport is proposed to be constructed on Timor so to link Timor with Darwin and the rest or Australia.

incentive to build the Hokkaido Sakhalin-Siberian tunnel. It should be noted that the Russian standard gauge railroad tracks have a slightly higher gauge than the global standard. Thus the rails on the Russian guage tracks are approximately 8" (20cm) farther apart than the rest of the standard gauge rails. This system was adapted to have a wider footprint, to minimize sinking in the soft summer soil in the tundra region (though some historians have also stated that this "non-standard" was adapted to prevent foreign armies from quickly using Russian tracks in the event of war. Prior to the 1905 Russo-Japan war, the Chinese railroads, which Russia built, also used this wider gauge After 1905, when the Japanese took over the Chinese rails, the Japanese rebuilt the rails to conform with the global standard, which Japan had adapted. Today, railroads employ various techniques to overcome this inconsistency including the addition of undercarriage hubs. One example of how conflicting gauges are dealt with is shown below in the photographs shot by the author in 1971. Perhaps a better, automated solution would be to use flat cars designed to use the global standard 40 foot (12 meters) and 20 foot (6 meter) shipping containers. These containers could be potentially loaded from one gauge flat car to another gauge flat car in literally seconds. The author was amazed by the speed in which container ships were loaded and unloaded. Similar special technology can be engineered to do the same with railroads. The Sakhalin Island has an advanced and extensive rail system. Further, the Sakhalin Island region is very wealthy, being one of the major oil producing regions of the world.

Example of how the Russian gauge railroad cars can be made to run on European gauge track.

These photographs were shot by the author in 1971 when he was just a child, while traveling in Wiebligen, western Germany, interested in model electric trains. Click on any photograph to enlarge. Use your back key to return to this menu.



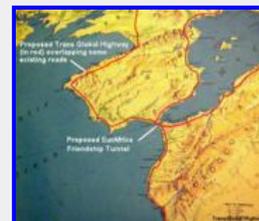
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Dealing with the snow

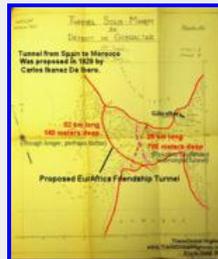
Much of the arctic region has limited snowfall and can be controlled and handled through conventional rail and road snow removal techniques. In certain areas of high snow fall and accumulation, it may be possible to construct steep roofed, prefabricated, inexpensive snow roofs along the length of the effected track or road.



Turkey, which is situated both in Asia and Europe, is presently linked to Europe via two bridges. A third bridge is Presently at the beginning phases of construction.

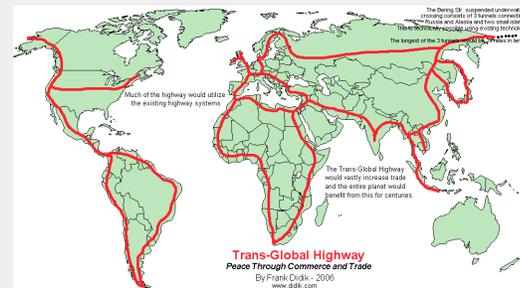


The concept of linking Spain with Africa, in the area of Gibraltar has been dreamed of and proposed, many times over the past thousand years. The proposed EurAfrica Tunnel is an absolute must and is technically very easy to accomplish. It would allow a vast amount of raw materials and finished products to be sent back and forth between Europe, Africa and the middle East.



This illustration is based on the 1929 proposal to link Spain with Africa, just south of Gibraltar. With some slight modifications, and a much wider (though not longer) tunnel, Europe and Africa can finally benefit quickly and easily from one another.

Click on any photograph to enlarge. Use your back key to return to this menu.



Closeups of Key Proposed Tunnels

Please click map to enlarge.



Closeup of the proposed path of the AmerAsian Friendship Tunnel.



The AmerAsian Friendship Tunnel would consist of 3 tunnels, with the longest being 23 km. The tunnel could be built in 10 years at an estimated cost of 5.5 Billion (thousand million) U.S. Dollars.



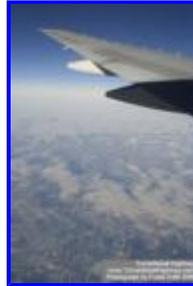
This is an old fashioned train snow plow found in Honesdale Pennsylvania.



Unlike this 100 year old train, modern railroad snow removal trains employ snow blowers that run at relatively high speeds.

The photographs below illustrate the terrain of norther Alaska and Canada, where photographed by the author, while flying in a commercial Airline from New York City to Japan, in February, 2003. This seemingly harsh terrain in fact is crisscrossed by roads and even small airports. The terrain in Alaska and Russia, around the Bering Strait is slightly less rugged. Existing paved roads exist in both Russia and Alaska within a few miles of the Strait. These roads can be widened to form part of the Trans Global Highway. In the summertime, much of this area is spectacularly green with tall grass. It may be possible to encapsulate the expanded and enlarged roads and rail links with a network of in-expensive overhead prefabricated protectors.

[Click on any photograph to enlarge. Use your back key to return to this menu.](#)



Closeup of the proposed path of the Sakhalin-Hokkaido Long Tunnel.



The Sakhalin-Hokkaido Long Tunnel would be 42km long and could be constructed in 9 years, at the cost of approximately 4.2 Billion (thousand million) U.S. Dollars



Closeup of the Sakhalin-Asia Short tunnel that would connect the Sakhalin Island with Siberia.



The proposed Sakhalin-Asia Short tunnel would be 7km (4.2 miles) long. It could be constructed in 4 years at an estimated cost of 350 million U.S. Dollars.



Expanded view of the region surrounding the The proposed Sakhalin-Asia Short tunnel



Proposed path of the Sakhalin-Hokkaido Long Tunnel and the existing Seikan ocean tunnel .



GLOBAL WARMING

A possible solution for Global Warming Issues and concerns.

Recently, there has been concern in the media that the earth is getting warmer and this has been referred to as "global warming". Some people have gone so far as to state that the Arctic and Antarctic ice caps are melting and that the coastal areas will be under water in the near future. Weather or not these dire predictions are correct, the fact is that the Trans-Global Highway could act as a pathway not only for rail roads and vehicular traffic, but also for oil, gas and water pipe lines. Fresh water could potentially be piped from the fresh water rich northern regions to the arid parts of the world. Overnight, issues regarding water usage could be solved. Presently, there are a number of areas in need of additional fresh water including the western states of the United States, the Middle East, central Africa and Central Asia. The Trans Global Highway, with fresh water pipelines running beside it, would be able to relieve the need for rationing water.

In regard to "Global Warming", it should be noted that historically, earth does seem to go through long warm-cool cycles. For example, 1100 years ago, southern Greenland still had trees, but these died out as Greenland became progressively colder between 900 and 1100AD. Today, it seems that we are indeed entering into a warmer period. It should also be noted that ice melting on water does not increase the height of the water, since it has already displaced this water. If ice is on the land and melts, it is possible that resulting water could theoretically flow into the oceans and perhaps raise the sea level by a modest amount.

TRANS-GLOBAL HIGHWAY REPORT ON CD-ROM: A complete, highly detailed report, is available on cd-rom that covers the entire proposed route and proposed solutions to all issues regarding the technical issues regarding the Trans-Global Highway. If you represent a government agency, think tank, academic institution, bank, environmental group or major corporation, kindly send an email explaining your potential interest in this project.

TRANS-GLOBAL HIGHWAY documentary designed for television, is being produced and will be available shortly.

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