



RailRunner

Corporate Backgrounder



More and more today, freight moves around the world by container.

As the pace of global trade and the need for more specialized products continue to accelerate, it is the container that provides the logistic foundation.

At the same time, intermodal transport, marrying the efficiencies of water and rail to the flexibility of highway transport, has been growing rapidly. By allowing containers to be transported as much as possible by more efficient rail or ship, intermodal transportation reduces fuel consumption (with the associated reduction in pollution) and traffic congestion on roads and highways, while adding no impediment – in fact adding an important inducement – to economic growth. The volume of containers shipped by rail in the United States has increased from 8.6 million units in 2002 to 11.6 million in 2008, according to the Intermodal Association of North America.

Despite this growth, the benefits of this combination of containerized goods and intermodal traffic have not yet reached deep into the infrastructure of the North American economy, where the manufacturing and agricultural bases are primarily located. Moving containers from mode to mode – ship to rail to truck and back – traditionally has required huge amounts of trackside real estate and substantial capital investment in terminals built around massive cranes or a shift to non-standard, non-container intermodal vehicles. Thus, only large transportation hubs can serve as transfer points to provide the flexibility and cost savings that containerized intermodal transport provides.

RailRunner N.A., Inc. provides the advantages of standard container-based rail transport to a much wider market of manufacturers, farmers, shippers, wholesalers and retailers with its cost-effective technology, thus dramatically extending the reach of intermodal rail transport. The RailRunner technology provides cost-effective intermodal transportation for shorter length of haul – typically less than 1,000 miles -- and to smaller terminals, located closer to the source of production. With a minimal space requirement, a user can quickly load or unload containers in a RailRunner train without the need for expensive gantry cranes and their attendant staff. All that's required is the RailRunner Terminal Anywhere® System, some gravel or concrete grading on and adjacent to the track, some equipment to move bogies and chassis around the yard, and approximately 75 feet of maneuvering room for each unit or rail car. Central to the RailRunner system is a light-rail chassis that can be operated on both highway and rail. As a rail car, it not only takes advantage of the basic efficiency of steel wheel on steel rail, but also offers a far lower tare weight (the weight of the vehicle itself, aside from the cargo) and a much greater aerodynamic efficiency than alternative methods of transporting containers by rail.

By utilizing the RailRunner Terminal Anywhere System, a manufacturer, farmer or other shipper can tap into the containerized intermodal system with relative ease. Manufactured goods, specialized agriproducts, methanol co-product, etc., can actually be loaded into containers at the factory or farm, or hauled a short distance to an intermodal terminal using RailRunner technology. The container, mounted on a RailRunner chassis, can be transported by truck or locomotive and the product stays "identity preserved" as it remains in the same container, regardless of transport mode (highway, rail or ship), all the way to the customer's dock.

Since 2004, the RailRunner system has operated as needed on the Norfolk Southern Corporation's Ft. Wayne, IN, to Jacksonville, FL 1,000-mile route corridor.

Why now?

Intermodal shipping has been in use in various forms for a number of years. What brings RailRunner's system to the fore now is a confluence of major economic and social factors.

One critical factor is the much higher cost of fuel compared with 2003/2004 levels, which affects road transport significantly more than rail transport. As the cost of fuel rises, the efficiency of rail-based transit becomes more and more important. Estimates of the efficiency advantage of rail over road traffic vary from 3 to 1 to 8 to 1, with a general consensus of about 6 to 1. Whatever the specific numbers, the efficiency advantage of rail over road is substantial. According to the Association of American Railroads (AAR), if just 10% of the long distance freight moving by truck moved by rail instead, the estimated fuel savings would exceed a billion gallons per year. The long-term implications of this are enormous. RailRunner research shows that moving just one percent of the current truck freight in the 300 to 1,200 mile segment from road to rail could reduce annual fuel consumption by approximately 100 million gallons.

Another critical factor is the increasing interest in using "green technologies," that can reduce the amount of carbon emissions. The 2007 report from the Intergovernmental Panel on Climate Change concluded that it was 90 to 99 percent certain that the dominant factor in the trend toward global warming was predominantly carbon emissions from industry and transportation. By making it easier for shippers to use intermodal transport and by placing the access to rail transit closer to the source of production, RailRunner can help reduce the "carbon footprint," or creation of carbon-based emissions, for every ton of goods shipped. In the example above based on RailRunner research, the 100 million gallons of fuel saved by moving only one percent of the current truck freight to rail would translate into a reduction of approximately 2.2 billion pounds of CO₂ emissions per year.

Another important factor is the increasing traffic congestion on U.S. highways. The free movement of traffic that fostered the growth of highway transport has been choked by its own success. While the volume of highway traffic has surged by 200 percent in the last 20 years, the amount of highway road lanes has increased a mere one percent. Because a typical intermodal train can take 300 trucks off our highways, RailRunner technology can reduce time spent in gridlock traffic, savings drivers fuel costs and hours behind the wheel.

Additionally, the growth of the trucking industry has put a strain on the available labor pool. The driver shortage has been exacerbated even further by additional driver regulation in the Federal Motor Carrier Safety Administration's "Hours of Service" rules that took effect in 2003. The rules reduced the number of hours a trucker could drive between 10-hour breaks.

Fuel, traffic and labor issues are creating pressures in important vertical markets such as agriculture, waste disposal and other bulk shipments.

Of growing importance is "identity-preserved" agriculture. Food manufacturers are requiring more and more specific qualities in the agricultural materials they use to achieve greater consistency and particular characteristics in the consumer products they make. This has created demand for a transportation system that can preserve the identity of agricultural products from the farm all the way to the food manufacturer with an authentication of the particular characteristics required. Even bulk commodities such as grain, if planted from particular seed stock and grown in particular ways, can be a premium-value product for the farmer – if the identity is preserved.

In major metro problem areas waste disposal to remote landfills is becoming both more complex and expensive due to environmental regulations. RailRunner offers unique alternatives in moving containerized MSW and CDW to remote sites obviating expensive drays from existing intermodal terminals. In addition, RailRunner offers the possibility of new accessibility and flexibility to expand barge transportation on rivers and short-sea water routes.

These trends have created significant opportunities and increased benefits for intermodal traffic in general, but one other factor gives RailRunner a unique advantage: the explosive growth in container traffic. Worldwide freight traffic is shifting substantially to container. According to a recent report by Eyefortransport, worldwide container traffic is projected to grow from 104 million Twenty-Foot Equivalent Units (TEUs) in 2005 to 400-460 million TEUs by 2010 and 510-610 million TEUs in 2015.

The RailRunner Solution

The basic components of the RailRunner system are a tractor-trailer chassis designed to hold a standardized container, and specialized "bogies:" sets of railroad wheels that fit under the chassis, front and back, transforming it into a light rail vehicle – far lighter than a standard flatcar.

A RailRunner chassis with a container looks essentially like a standard trailer. Once on the chassis, the container can be hauled over the road just like a traditional trailer or it can be fitted with bogies to move by rail as far as is practical and economic.

To load the chassis and container for rail transport, one bogie is inserted under each end. The bogies each have two steerable axles and a pneumatic cushioning system. Once the bogie is in place and attached to the railroad's pressurized air system, the bogie's pneumatic system raises the chassis so that the road wheels are sufficiently above the rails. The bogie's pneumatic system also provides cushioning for the container and chassis en route.

The RailRunner design provides a uniquely efficient means of transporting the chassis and container on rail. In addition to the advantage of the light tare weight of the chassis and bogies – which means less fuel required – the cars are more closely spaced. This results in a more aerodynamically efficient profile, producing less air turbulence between the containers en route, and less aerodynamic drag on the train. The automated

steering of its articulated bogies reduces friction and thus wear and tear on the axles and the track. This automated steering, coupled with the bogies' air cushioning, also reduces the noise levels during rail transport, further enhancing RailRunner's benefits as a "green system."

At the end of the rail segment of the trip, the RailRunner chassis will typically be on a siding where gravel or concrete have been graded up to match the height of the rails, allowing tractors easy access to the chassis. The front bogie is removed and the tractor simply backs up to the RailRunner chassis and attaches to it like a standard trailer. The rear bogie, which couples one car to the next car, is then disconnected and the tractor-trailer drives off with chassis and container.

To reverse the process, a tractor hauling a RailRunner chassis and container can be loaded at the factory or farm, just like a regular tractor-trailer. For identity-preserved grain, the container may be sealed and authenticated with information about the specific product inside. The truck then drives off to a local RailRunner Terminal Anywhere facility and backs up on the graded surface at the rail siding, coupling the chassis onto the bogie. The truck then disengages and the chassis is now part of the RailRunner train. Whether loaded with cargo or dead-heading back to a transportation center, the previously road-bound chassis is now part of the rail system once again.

Thus, a company using the RailRunner technology can easily serve as a gathering point for cargo such as trash en route to a landfill or a gathering point for delivery to a double-stack train carrying cargo long distances – perhaps even across the continent.

By delivering the efficiencies of rail-based transport, coupled with the inherent flexibility of road-based transit to and from a very broad range of transfer points, RailRunner is able to provide a uniquely effective transport service to an extraordinarily broad range of markets.

Business Model

RailRunner designs, manufactures and markets proprietary equipment to independent companies who provide transportation and related services to customers. As needed, RailRunner itself will operate a transportation service using RailRunner proprietary equipment. But the company's principal avenue for growth is through selling the Terminal Anywhere System to independent transportation businesses.

These businesses may be entrepreneurs new to the transportation service business or organizations already offering transportation-related services. The organizations (known as RailRunner Service Operators, or RSOs) market the RailRunner-based service to local companies shipping or receiving goods. They can use RailRunner products to move the goods by a combination of truck and rail to a traditional intermodal hub or they can build a complete end-to-end shipping business, using RailRunner technology and the resources of the international container transport industry.

Management

RailRunner has a management team with deep experience in regulated rail transport, de-regulated intermodal transit and entrepreneurial companies.

Charles Foskett

President and Chief Executive Officer

An experienced entrepreneur in regulated and de-regulated industries. Founder of two companies in the public marketplace: Digilab, now a unit of Bio-Rad Laboratories and Natural MicroSystems, a public telecommunications company listed on NASDAQ with a revenue rate of \$160 million and a market capitalization which has surpassed \$2 billion.

Wolfgang Graaff

Chief Engineer, Global Strategy

Mr. Graaff spent more than 25 years in the rail car, trailer, and container manufacturing business in Germany before moving to the United States in 1998. Graaff GmbH grew from a USD 80 million to a USD 250 million company while he served as successively, general manager and CEO. He was vice president, operations and engineering, for Trailmobile Trailer LLC of Northbrook, IL, and CEO of Contrail International, Inc., a consulting firm located in Chicago.

John Grube

Vice President, Engineering

Mr. Grube has over 30 years' experience as a multi-discipline engineering professional with extensive experience in the railroad and transportation industries. He began his career with The Milwaukee Road railroad, serving an apprenticeship in the mechanical department before continuing his education at the University of Wisconsin. In the 1980's, he was one of the founders of Northern Rail Car, and was very active in R&D work for intermodal equipment, working closely with several manufacturers and operators on early designs for double-stack well cars, articulated equipment, and bi-modal equipment. Prior to joining RailRunner, Mr. Grube was a principal in a multi-discipline consulting business, providing services to clients in the manufacturing and transportation industries.

Matthew Whiten

Vice President, Corporate Controller and Compliance Officer

Mr. Whiten has broad expertise in consulting and auditing functions for large organizations, public and private. He holds a M.B.A. from Boston College and a B.B.A. in Management from Georgia Southern University.