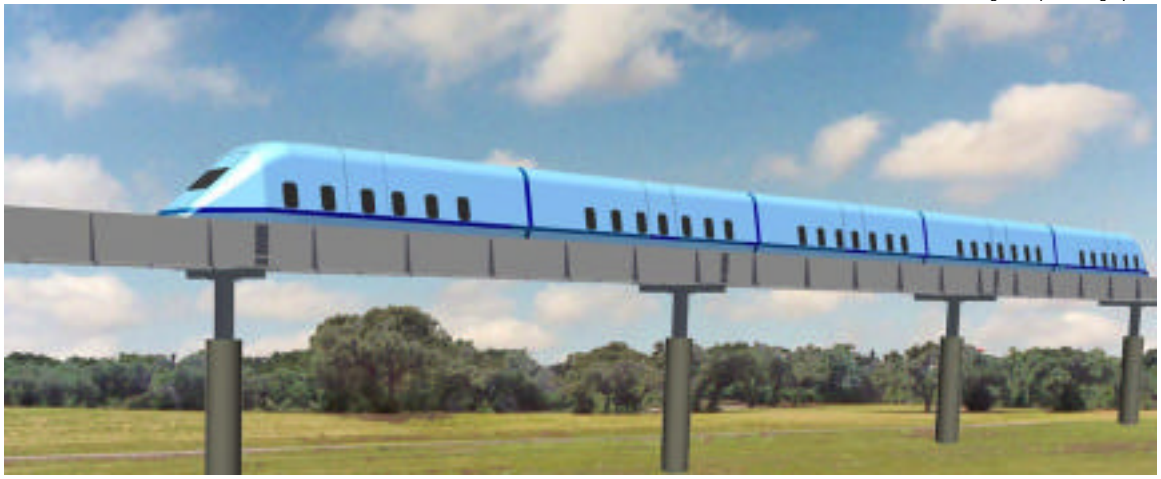
MEGARAIL BACKGROUND, AND NEAR-TERM & FUTURE PRODUCTS

September 2003

MegaRail photo & graphic



MegaRail high-speed inter-city *WhisperLiner*™ along Interstate highway - 125-mph travel

***MicroRail*™ Ultra-light Rail Transport (URT) 65-mph train for urban mass transit**

MEGARAIL®
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Company Background & Status Overview

MegaRail Transportation Systems, Inc. was chartered by the State of Texas in October 1997. After award of a broad coverage US patent 6,039,135 in March 2000, enterprise launch capital was raised by sale of stock to a small group of investors. A office was opened in July 2000. A small initial management staff consisting of President, Kirston Henderson, and Business and Marketing Manager, Steve Andrews, began operations from that office and other part time staff members were recruited to assist. Two other team companies; Micrin Technologies, and Clark Precision Machine were recruited as key parts of the MegaRail development team. (Morley Architects assisted in early efforts.)

Activities since July 2000 have consisted of (1) limited marketing of near-term, manually controlled MegaRail systems for urban mass transit and and for high-speed inter-city transport, (2) marketing a material handling version for industrial and mining applications and (3) continued development of the basic MegaRail system and three other related systems defined since July 2000. Both static and working scale models have been designed and built as well as a full-length section of full-sized guideway with a full-sized car for (1) passenger access and internal seating evaluations and (2) public display. Design of a full-scale operating prototype system with guideway and two cars is underway.

Initial marketing efforts included presentations to the Departments of Transportation in three states, transport conferences in Colorado and Tennessee and presentations to the Port of Houston, civic groups, cities and transportation consultants. Internet web sites are maintained at MegaRail.com, MicroRail.net, and CargoRail.net. MegaRail has also exhibited models and rail sections at a conference in Aspen, Colorado, and at an exposition in Austin, Texas. An initiative has also been directed to the State of Florida for a high-speed rail system required by a constitutional amendment.

A proposal is being prepared for a 33-mile long demo system to be funded by the US Government. MegaRail is working to sell systems for selected city and park uses. MegaRail has also supported design of a new power plant that would use MegaRail to haul coal from dockside to the plant. MegaRail is also working to sell systems for very high potential and near-term uses in several foreign counties, including support of a company working to sell manually controlled mass transport systems for a large city and a large resort in Mexico. **MegaRail was approved in 2002 by city officials for a manually controlled downtown mass transit train system in in a densely populated city in Asia. A business agreement was signed with the company that will build and operate the system. A firm, fixed-price proposal has been submitted and negotiations are currently in process for a contract for this system. A firm, fixed-price contract to supply the first 8.5-mile segment of this system is expected in the near future.**

A prototype program to design, build, and demonstrate a limited full-scale prototype system has been defined. Initial design work of this prototype is currently underway. A small-scale working prototype has been built and tested to validate the unique MegaRail vehicle steering and switching design. Design of a set of four small-scale, fully functional prototype cars has also been started. These cars will be used on an indoor racetrack for control testing and demonstrations to customers.

MegaRail will add capital to (1) fund a full-scale prototype and expanded marketing efforts and (2) cover start-up costs for a system contract. (A full-scale operating demonstration is probably required for sales to US states and cities because elected officials [and their consultants]want to see a system working before a purchase.) The added capital will cover base R&D and start-up costs that may be essential to and a first sale and production startup.

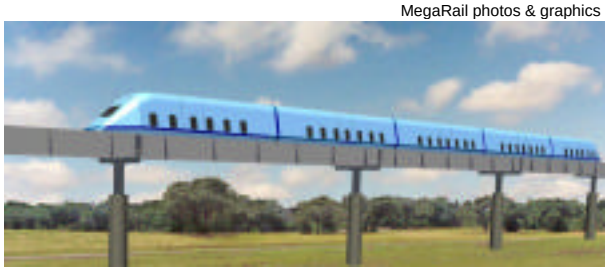
Now Available Products: Near-term Systems Overview

The long-range MegaRail Transportation Systems goal has always been a multi-mode system offering group transit, personal transit, standard personal car transport, dualmode electric cars, and automated hi-speed cargo transport in a single automated system. During 2003, it became apparent that immediate-sale, Phase I manually controlled train systems should be the first priority. Such systems can be produced now to meet urgent near-term needs at from approximately 15 to 20% of the cost and can begin service in from 30 to 50% of the time for current systems! With an orderly future growth path, Phase II will automate the train systems and a later Phase III will achieve automated, single-car operation. No discard or upgrading of guideways is necessary for subsequent phases. MegaRail can demonstrate that the unique grouping of off-the-shelf technologies used can be accomplished with little risk. Strong efforts are being made to sell systems as (1) low-cost high-speed rail systems over Interstate rights-of-way and (2) low-cost urban transit systems over city streets.

The following pictures illustrate some of the MegaRail and MicroRail manually controlled urban and high-speed inter-city train systems available for immediate installation in cities and between cities to solve current, urgent transportation problems.

MegaRail photos & graphics

65-mph ultra-light MicroRail mass transit train

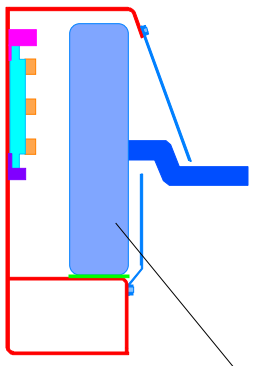


125-mph WhisperLiner™ train along Interstate

65-mph ultra-light MegaRail mass transit train

125-mph CargoLiner™ shares the guideway

U.S. Pat. 6,039,135 MegaRail graphics



Vehicle Wheels Run Inside Enclosed Rails

All MegaRail vehicle wheels operate inside enclosed rails with a rail structure formed from single sheets of stainless-steel using highly automated manufacturing processes for very low manufacturing cost. The enclosed rail design enables MegaRail to operate safely and at speeds up to 125-mph under any weather conditions, including ice and snow, a feat not possible with other transport systems.

MegaRail systems offer a significantly lower cost solution for both urban light rail needs and long-range hi-speed trains than any other approach. With non-stop speeds of up to 125-mph, MegaRail can offer shorter trip times than most current high-speed trains, but at a small fraction of the cost.

MEGARAIL®
21st Century Transport

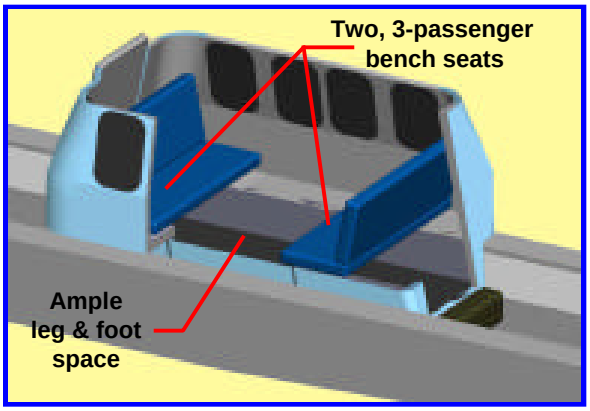
Now Available: Urban Ultra-light Rail Transport (URT)

MegaRail has two near-term & attractive alternatives to costly light rail systems. URT system cost is about 20% of the $30 to $60M ($45M typical) cost of light rail and the time to install is from 30 to 50% of the six to twelve years needed for light rail. MicroRail URT systems move up to 9,840 passengers per hour with the same 200-ft long train and station platform length as light rail that can carry only about 5,220. URT also provides seats for all passengers rather than requiring most passengers ride standing. The narrow 6-ft wide by 28-inch high, open-in-the-center MicroRail guideway is very attractive for cities with narrow streets. It can be placed over the curbs of downtown sidewalks with the support posts replacing existent street light poles. It creates minimal shadowing of the ground. The larger MegaRail URT system can carry 15,120 passengers per hour, but has a 50 rather 30-ft turn radius and a 9.5-ft wide by 36-inch guideway. Cost for both is similar. They are the only available systems meeting fire safety and ADA standards.

MicroRail URT trains use small, light-weight six-passenger cars. (200-ft trains use 14 cars and carry up to 82 passengers.) MegaRail URT trains use larger sixteen-passenger cars. (200-ft trains use 8 cars and carry up to 126 passengers.) In each case, longer trains and longer station platforms can be used for even greater capacity. All cars offer fast step-in and sit entry for short (30-second) station times. Emergency exits are provided at each end of each car. Fold-down ramps are provided in each end of trains to allow safe emergency escape of passengers to MegaRail-unique, between-the-rails emergency walkways.

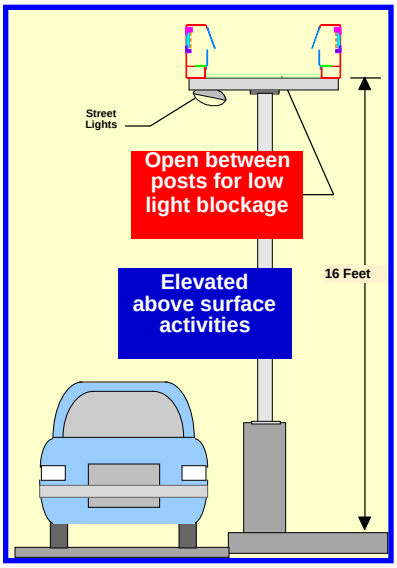
Most major U.S. and foreign cities want affordable mass transit systems. Other current choices such as light rail are far to costly to allow needed coverage. **MicroRail and MegaRail URT systems are the only affordable mass transit systems!**

MegaRail photos & graphics

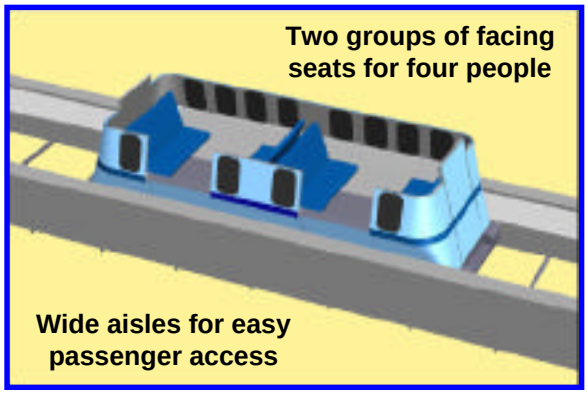


MicroRail URT cars seat six passengers facing center entry aisle

All cars feature fast step-in & sit access



MicroRail fits over walk edges



MegaRail URT cars seat 16 passengers facing two center entry aisles

MicroRail & MegaRail URT allows easy escape

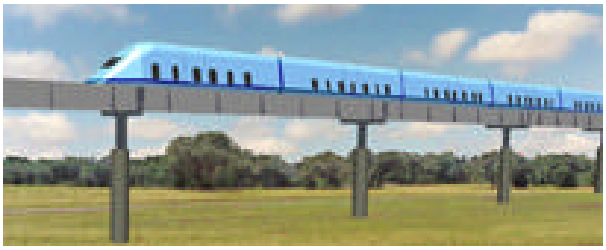
Now Available: Ultra-light High-speed Rail (UHSR)

MegaRail has a near-term & attractive alternate to very costly high-speed rail systems. UHSR system cost is about 16% of the typical $45M per mile cost for conventional high-speed rail and the time to install is much less than that the many years needed for other high-speed rail. The cost and schedule advantages make the UHSR system very attractive for customers who are having difficulty finding money to fund conventional or higher-performance but more costly (up to $75M per mile) maglev high-speed rail. Most U.S. states want the federal government to fund from 60 to 80% of high-speed rail projects. According to a recent Reuters news service article by Michael Conlon, "the White House has told states that they or private industry will have to fund the bulk of the cost for high-speed rail..." This situation makes the low-cost MegaRail UHSR system a much more attractive answer to the steadily increasing clamor both from the public and government officials for high-speed rail service and should increase sales potential.

MegaRail has expanded its near-term offerings to include high-speed ***WhisperLiner***™ passenger trains, combination ***CarLiner***™ trains that allow passengers to take along their automobiles and ***CargoLiner***™ trains that move priority cargo. All trains use ultra-light, low-cost cars and run at (125-mph) over the same elevated guideways for even lower cost. Fast car-based switching and small, low-cost trains make it economically practical to offer local and non-stop long-distance service for passengers and cargo.

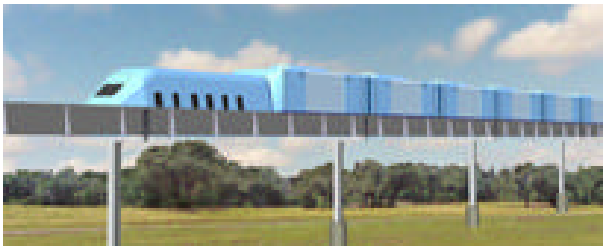
WhisperLiner train cars can carry from 10 to 13 passengers, depending upon luggage stowage capacity used. Passengers ride in spacious airliner-type seats that can be rotated to allow passengers traveling together to ride facing each other. Walk-through cabins with airliner-type restrooms in each car provide an uncrowded, pleasant atmosphere. 400-ft long trains using 400-ft platforms would allow a 13-car train to carry from 130 to 169 passengers. Typical ***CarLiners*** would carry 11 automobiles and up to 26 passengers. ***CarLiner*** passengers drive their cars directly into and out of special car carriers for fast loading and unloading and ride in their train's comfortable ***WhisperLiner*** coaches. Fold-down ramps are provided in each end of trains to allow safe emergency escape of passengers to MegaRail-unique, between-the-rails emergency walkways. ***CargoLiners*** transport cargo in ultra-light two ton capacity containers. Container cargo may be loaded and unloaded and the containers may be moved with standard forklifts.

MegaRail graphics

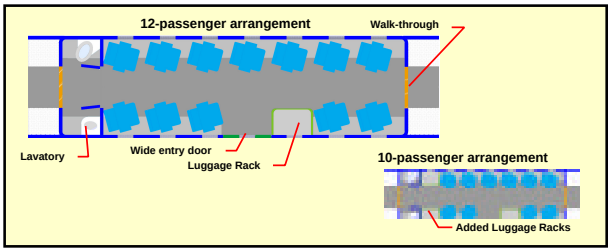


125-mph WhisperLiner train along Interstate

CargoLiner carry special closed containers



125-mph CarLiners share same guideway

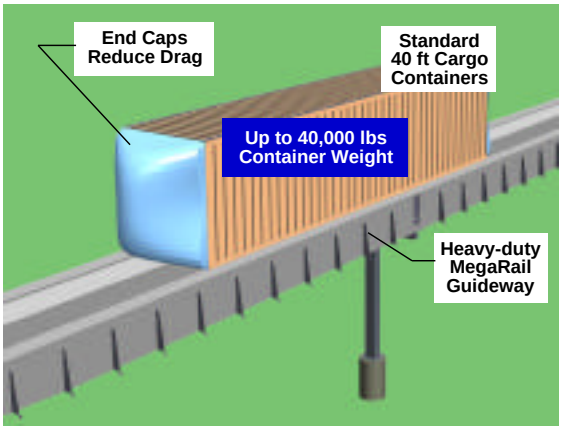


WhisperLiner has spacious interiors

Now Available: *CargoRail*™ Systems

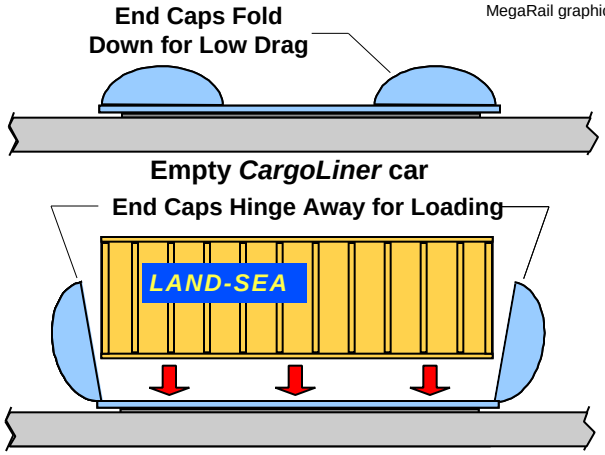
MegaRail Transportation Systems also expanded its product line from the original MegaRail system in response to customer needs and interest. After expression of interest by both local area and State of Texas transportation officials in providing means to remove large trucks from the highways, MegaRail determined that a ***CargoRail*** heavy cargo version of the system could be built to carry large standard cargo containers, large truck trailers, and large truck tractors. ***CargoRail*** is designed to be built either along existent highways or along railroad rights of way and can be installed directly over railroad tracks. This system has been proposed both to the Texas Department of Transportation and to the Houston Port Authority. MegaRail will offer this system to railroad companies as a means to increase capacity. ***CargoRail*** will operate initially manually controlled trains.

This system carries heavy cargo containers at speeds up to 75-mph without trucks or conventional rail cars and features rapid loading and unloading at freight terminals as illustrated below: Container loading, streamlining and latching is covered by U.S. Patent 6,615,740.



CargoRail **car with container on guideway**

MegaRail graphics



Cargo containers loaded onto car

Unlike railroads, ***CargoRail*** is able to climb the same types of grades as trucks, thus allowing much greater freedom in location of lines.

Low Installation & Visual Impacts:

The small MegaRail system open-center guideways have low installation and visual intrusion impacts. Land grading or drainage changes are not required. The open-center designs avoid the wide, deep shadows typical of other elevated systems. The patented enclosed rail design places the rubber tires inside the rails for very low noise levels.

MegaRail Photos

First full-scale, MicroRail guideway section

Looking upward at open center section of MicroRail guideway

Future Products: Phase II

Phase II will enable the near-term Urban URT and the high-speed inter-city UHSR trains to be automated for reduced operating cost (eliminate train crews) and more frequent train service. This important step will be taken after full testing and qualification of the necessary automated control software is completed. (Initial automated operation will retain the train crews to monitor operation and provide safety overrides.) Automated trains will use the same guideways without any throw-a-way or upgrades of either rolling stock or guideways. It is anticipated that this step will be possible within about three years.

Future Products: Phase III

Phase III will include development and qualification of additional rolling stock and station hardware and control software to allow fully automated single cars on the same guideway system. The Phase III development will allow MegaRail to offer a wide range of highly desirable services, again using the same guidway and without throw-a-way of equipment. Additional fully automated services include 24-hour, seven-day Personal Automated Transport (PAT) for both urban and high-speed intercity use, scheduled, fixed-route urban Group Automated Transport (GAT), automated individual cargo container ferry service for MicroRail, MegaRail and CargoRail lines, automated dualmode car ferry service for standard automobiles and finally, dualmode electric car service for MegaRail, MicroRail and the smaller NanoRail system.

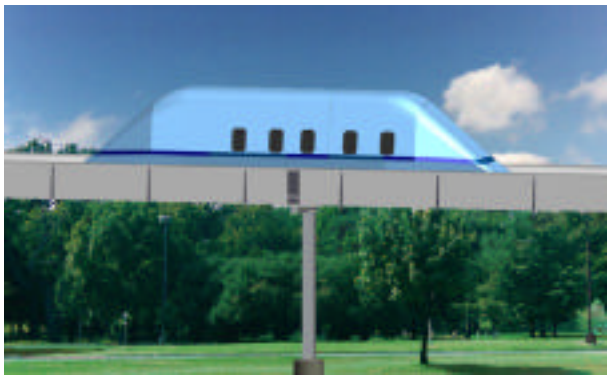
This phased approach allows MegaRail to enter the market and sell systems at an early date and offer a wide choice of systems to meet cost and schedule requirements. At the conclusion of Phase III, MegaRail will be able to offer a full range of transport products to meet virtually all ground transportation requirements. These products will include manually controlled trains, automated trains and individual automated vehicles. Individual vehicle services are illustrated below.

MegaRail photos & graphics

MicroRail **URT PAT car on guideway**

MegaRail **UHSR *PersonLiner*™ on guideway**

MegaRail **URT group transport car on guideway**

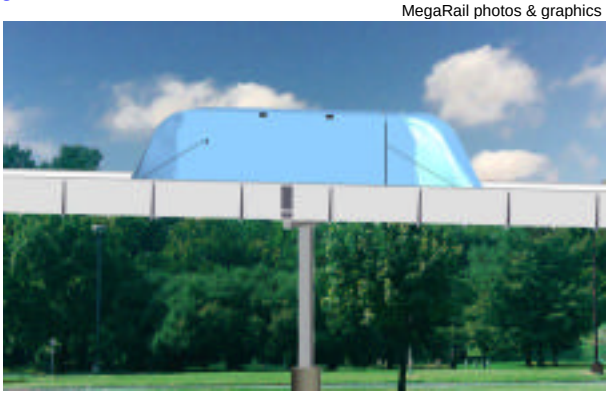


MegaRail **UHSR *MegaLiner*™ on guideway**

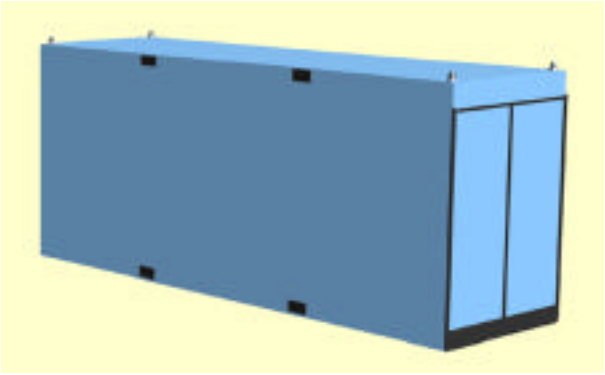
Future Products: Phase III, Continued

MegaRail photos & graphics

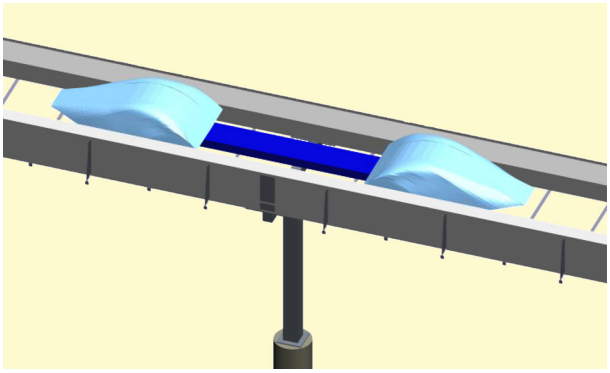
Automated *MicroRail* cargo cars carry up to 1,000 lbs of cargo on guideways at 65-mph



***MegaRail* cargo car on guideway moves containers at speeds up to 125-mph**



***MegaRail* standard containers move up to two tons of cargo - Forklift loadable & movable**



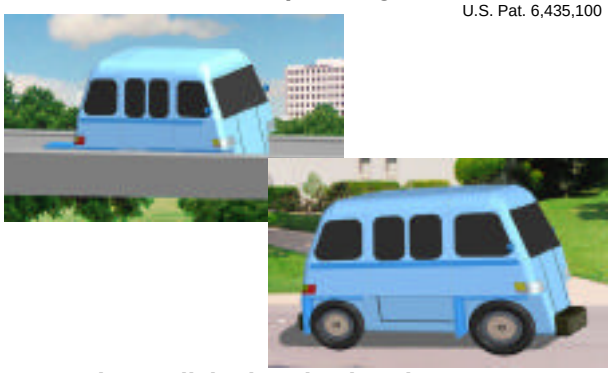
Empty *MegaRail* cargo carrier end caps fold down to reduce low drag

***MegaRail* car ferries carry standard cars with driver and passengers inside**

U.S. Pat. 6,435,100

***MegaRail* dualmode electric cars use both automated guideway & city streets**

U.S. Pat. 6,401,625



***MicroRail* dualmode electric cars use both automated guideway & local streets**

***MegaRail* dualmode car wheels shift out to allow wheels to operate inside rails**

New Product Development: *NanoRail*™

MegaRail continues to carefully evaluate the market for new product opportunities and is actively investigating new versions of the basic MegaRail system to meet a variety of newly identified customer requirements. MegaRail recently identified a possible market for a very small personal rapid transit (PRT) system that would be even smaller than the MicroRail system version. Such a system would be attractive for some office park and university campus installations where very small systems are desired.

A subsequent examination of the MicroRail system design resulted in definition of a smaller version. This NanoRail™ version can be built using the same basic MicroRail car design narrowed to provide a car with only two seats instead of four. The resulting down-sized elevated guideway is only 48-inches wide, uses narrowed rail tubes, and retains the key center escape walkway feature of MegaRail and MicroRail. The car uses side panels and side entry doors identical to the doors used in the MicroRail car. The NanoRail tires and motor sizes match the reduced weight of this smaller car.

New Product Development: *MagRail*™ U.S. Pat. 6,357,358

A very broad coverage US patent (6,357,358)(17 claims) awarded to Kirston Henderson in April 2002 for a passive, permanent magnet magnetic levitation (maglev) version of the MegaRail system will be licensed for development by MegaRail. This approach eliminates the complex and costly electromagnets and control systems that are used in the maglev systems previously demonstrated in Germany and Japan. The design also eliminates the extremely close tolerances in guideway structure and alignment necessary for the previous active systems.

A maglev system offers potential means to achieve high speeds, low noise levels, and absence of wear of wheels, track or bearings. Friction is reduced to that from aerodynamic drag, resulting in low energy cost for transport. The recently patented maglev approach also allows switching of individual cars from main lines to siding lines at stations without movement of any guideway sections. This feature makes it possible to dispatch individual, small cars on an on-call basis directly between point of departure and destination station without stops at intermediate stations along the route. Current heavy maglev train approaches do not allow individual car switching. Hence the trains must stop at stations along the line to pick up and discharge passengers, thereby reducing the effective speed of travel to much below the top speeds of the trains.

Other New Product Development:

MegaRail is also working toward development of another advanced levitated version of the basic MegaRail system. A patent is pending for this system and expected to be awarded and will be licensed to MegaRail. Preliminary design studies and testing of this advanced levitation system is underway to determine the technical feasibility of implementing a practical version of this system, including an advanced levitation technique based steering and switching system. This effort is highly developmental at this point. This advanced levitation version of the basic MegaRail systems offers the same potential advantages as maglev of eliminating wheels and all wear surfaces and enabling high speeds at very low noise levels, but at lower guideway and vehicle cost.

Although the basic technology of this advanced levitation approach has been widely used in a other applications, it has not previously been suitable for high-speed transport systems. A unique approach to application of this basic technology is expected to enable practical high-speed transport system use. Test results to date are encouraging and indicate that a practical system may be feasible.

MegaRail advantage summary:

MegaRail systems offer major advantages over competing products by virtue of unique and patented features:

The unique, enclosed rail design enables MegaRail to build ultra-light elevated guideways at a *small fraction* of the cost of guideways for other competing systems such as automated people-movers, monorails, and light rail systems. This unique design enables operation with very low noise levels under any weather conditions, plus a capability to climb steep grades. The small, modular guideway design enables placement over existent street and road right-of-way without effect on other uses. The guideway size and open-center design results in less shadowing than any other system. The unique (patent-pending) open-mesh wire escape walkways between the rails allow the systems to meet fire escape requirements not met by other elevated systems. Unlike competing systems, MegaRail and MicroRail are fully ADA compliant.

Now-available, manually controlled systems that can be placed in service on a very near-term basis can easily grow in the future to add fully automated train and individual automated vehicle services. **No discards or upgrades of any equipment is necessary to add the future automated features!**

Both the (patented) MegaRail maglev and the (patent pending) advanced levitation systems offer high potential to become the dominant future 200 to 300-mph inter-city passenger and priority cargo systems.

Systems are Low in Risk:

Although the systems are revolutionary in nature, they are solidly based on a unique (patented) combination of proven technologies. Except for the unique, weather-proof enclosed rail design of the guideway, all other elements are from automotive, other transit system, aircraft, and computer systems. (The rails are simple, easy to produce welded steel structures.) The only major new development area involves the failure-tolerant automated controls for future automated trains and single vehicles. In this case, risk is low because these controls will use aircraft proven techniques. Overall MegaRail system schedule risk in the control area is avoided by using manual train control for initial systems so that they operate in the exact same manner as light rail systems. Manual operation also helps to overcome public transit customer hesitation until these systems are intensively tested and demonstrated.

An experienced management and technical team with experience in aircraft automated controls and failure-tolerant design also lowers risk. A slow-paced development schedule allows adequate time for problem corrections.

Risk is also being reduced by prototype efforts by MegaRail. A 1/5th-scale switching and steering test working prototype has been built and tested to demonstrate crucial design elements. A four-car set of larger-scale, full function cars is in work. These cars will be used as a part of a small-scale control systems test bed for automated system demonstrations. A full-scale elevated MicroRail guide-way section displayed in Azle, TX provides a view of the system along a city street. A full-size MicroRail car is on display at the MegaRail offices. Design work is in process for full-scale prototype MicroRail demonstration guideway and cars.

The MegaRail Team:

The current full-time MegaRail staff includes the President, Kirston Henderson, Marketing and Business Manager, Steve Andrews and Lee Cenova, Manufacturing Engineering Manager. Charles Anderson is responsible for corporate strategies. Other experienced professionals assist on both full and part time basis. The company has recruited highly experienced key members of an additional full-time staff that will be added as necessary. Employees of the other team companies and other associated companies are also available as needed. Brief experience summaries for these key MegaRail core team members follow:

MegaRail Core Staff: Highly experienced design & business team

Mr. Henderson - 45 years engineering experience in aircraft and ground electronics and inventor of the MegaRail system. Experience includes all phases of design and testing and development management. **Mr. Anderson,** PE - 44 years in aircraft control system and aircraft design and management. Served as Vice-president of Engineering and President of General Dynamics, Fort Worth. **Mr. Andrews,** PE - 36 years of major program management and engineering experience with major aircraft companies and the U.S. Navy Civil Engineer Corps. Vice Chairman & Managing Director of a large investment company in Turkey. Port Design Manager in Saigon, Vietnam responsible for all port design. **Mr. Cenova** - Over 35 years industrial and mechanical engineering experience in a wide range of product development and production.

Team Companies: Key to MegaRail development and production

Micrin Technologies of Dallas, Texas, a rapidly expanding ISO-9001 electronic and power systems manufacturer for the communications industry, is responsible for detailed design and manufacture of all specialty electronics elements for MegaRail.

Clark Precision Machine of Azle, Texas, an experienced ISO-9000 tooling and mechanical item manufacturer, is responsible for manufacture of vehicles and production of guideway and station mechanical components. Clark produces aircraft tooling and structural items and aircraft simulator cockpits for major aircraft companies.

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